

**DATA PACKAGE**  
**SEMI-VOLATILE ORGANICS**

**PROJECT NAME : CTO WE13**

**TETRA TECH NUS, INC.**  
**661 Andersen Drive**  
**Suite 200**  
**Pittsburgh, PA - 15220-2745**  
**Phone No: 412-921-7090**

**ORDER ID : Q1022**  
**ATTENTION : Ernie Wu**



**Laboratory Certification ID # 20012**



|                                             |     |
|---------------------------------------------|-----|
| 1) SEMI-VOLATILE DATA                       | 2   |
| 2) Signature Page                           | 4   |
| 3) Case Narrative                           | 5   |
| 4) Qualifier Page                           | 7   |
| 5) Conformance/Non Conformance              | 8   |
| 6) QA Checklist                             | 10  |
| 7) Chronicle                                | 11  |
| 8) Hit Summary                              | 12  |
| 9) QC Data Summary For SVOC-SIMGroup1       | 13  |
| 9.1) Deuterated Monitoring Compound Summary | 14  |
| 9.2) LCS/LCSD Summary                       | 15  |
| 9.3) Method Blank Summary                   | 17  |
| 9.4) GS/MS Tune Summary                     | 18  |
| 9.5) Internal Standard Area and RT Summary  | 20  |
| 10) Sample Data                             | 22  |
| 10.0.1) BP-VPB-190A-GW-838-840              | 23  |
| 11) Calibration Data Summary                | 34  |
| 11.1) Initial Calibration Data              | 3   |
| 11.1.1) BN010225                            | 35  |
| 11.2) Continued Calibration Data            | 223 |
| 11.2.1) BN035897.D                          | 223 |
| 11.2.2) BN035902.D                          | 249 |
| 12) QC Sample Data                          | 275 |
| 12.1) Tune Raw Data                         | 276 |
| 12.2) Method Blank Data                     | 284 |
| 12.3) LCS Data                              | 294 |
| 12.4) LCSD Data                             | 318 |
| 13) Manual Integration                      | 342 |
| 14) Analytical Runlogs                      | 344 |
| 15) Extraction Logs                         | 348 |
| 15.1) PB165971.pdf                          | 348 |
| 15.2) PB165971IC.pdf                        | 350 |
| 16) Standard Prep Logs                      | 351 |
| 17) Shipping Document                       | 423 |
| 17.1) Chain Of Custody                      | 424 |

Table Of Contents for Q1022

|                       |     |
|-----------------------|-----|
| 17.2) Lab Certificate | 425 |
| 17.3) Internal COC    | 426 |
| 18) Not Reviewed Data | 427 |

|    |
|----|
| 1  |
| 2  |
| 3  |
| 4  |
| 5  |
| 6  |
| 7  |
| 8  |
| 9  |
| 10 |
| 11 |
| 12 |
| 13 |
| 14 |
| 15 |
| 16 |
| 17 |
| 18 |

## Cover Page

**Order ID :** Q1022

**Project ID :** CTO WE13

**Client :** Tetra Tech NUS, Inc.

### Lab Sample Number

Q1022-01  
Q1022-02  
Q1022-03  
Q1022-04

### Client Sample Number

BP-VPB-190A-TB-20250103  
BP-VPB-190A-DUP-20250103  
BP-VPB-190A-GW-838-840  
BP-VPB-190A-GW-858-860

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : \_\_\_\_\_

**APPROVED**

*By Nimisha Pandya, QA/QC Supervisor at 12:33 pm, Jan 15, 2025*

Date: 1/9/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



## **CASE NARRATIVE**

**Tetra Tech NUS, Inc.**

**Project Name: CTO WE13**

**Project Manager: Ernie Wu**

**Chemtech Project # Q1022**

**Test Name: SVOC-SIMGroup1**

### **A. Number of Samples and Date of Receipt:**

4 Water samples were received on 01/06/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group1. This data package contains results for SVOC-SIMGroup1.

### **C. Analytical Techniques:**

The samples were analyzed on instrument BNA\_N using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGAThe analysis of SVOC-SIMGroup1 was based on method 8270-Modified and extraction was done based on method 3510.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for PB165971BL [2-Fluorobiphenyl - 117%, Nitrobenzene-d5 - 124%], PB165971BS [2-Fluorobiphenyl - 115%, Nitrobenzene-d5 - 116%], PB165971BSD [2-Fluorobiphenyl - 112% and Nitrobenzene-d5 - 118%], The failure surrogates not associated with the client parameters list, therefore no corrective action was taken.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .

The Tuning criteria met requirements.

### **E. Additional Comments:**

The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is)."

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

The not QT review data is reported in the Miscellaneous.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

**F. Manual Integration Comments:**

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

---

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature\_\_\_\_\_

**APPROVED**

*By Nimisha Pandya, QA/QC Supervisor at 12:33 pm, Jan 15, 2025*

## DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following “ Results Qualifiers” are used:

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value     | If the result is a value greater than or equal to the detection limit, report the value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>U</b>  | Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. “10 U”. This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.                                                                                                                                                                                                                                                                                      |
| <b>ND</b> | Indicates the analyte was analyzed for, but not detected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>J</b>  | Indicates an estimated value. This flag is used: <ul style="list-style-type: none"> <li>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)</li> <li>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.</li> </ul> |
| <b>B</b>  | Indicates the analyte was found in the blank as well as the sample report as “12 B”.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>E</b>  | Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>D</b>  | This flag identifies all compounds identified in an analysis at a secondary dilution factor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>P</b>  | This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a “P”.                                                                                                                                                                                                                                                                                                                                                                             |
| <b>N</b>  | This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.                                                                                                                                                                                                                                                                       |
| <b>A</b>  | This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Q</b>  | Indicates the LCS did not meet the control limits requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

**GC/MS SEMI-VOLATILE ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY**

CHEMTECH PROJECT NUMBER: Q1022

MATRIX: Water

METHOD: 8270-Modified/3510

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | NA | NO | YES |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|
| 1. | Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |    | ✓   |
| 2. | GC/MS Tuning Specifications. DFTPP Meet Criteria.<br>(NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP,<br>CLP AND NJ)                                                                                                                                                                                                                                                                                                                                                                                                                     |    |    | ✓   |
| 3. | GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for<br>8000 Series.                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |    | ✓   |
| 4. | GC/MS Calibration - Initial Calibration performed within 30 days before sample<br>analysis and continuing calibration performed within 24 hours of sample analysis for<br>600 series and 12 hours for 8000 series.                                                                                                                                                                                                                                                                                                                              |    |    | ✓   |
| 5. | GC/MS Calibration Requirements.<br><br>The Initial Calibration met the requirements .<br>The Continuous Calibration met the requirements .                                                                                                                                                                                                                                                                                                                                                                                                      |    |    | ✓   |
| 6. | Blank Contamination - If yes, list compounds and concentrations in each blank:                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    | ✓  |     |
| 7. | Surrogate Recoveries Meet Criteria<br><br>If not met, list those compounds and their recoveries which fall outside the acceptable<br>ranges.<br><br>The Surrogate recoveries met the acceptable criteria except for PB165971BL [2-<br>Fluorobiphenyl - 117%, Nitrobenzene-d5 - 124%], PB165971BS [2-Fluorobiphenyl -<br>115%, Nitrobenzene-d5 - 116%], PB165971BSD [2-Fluorobiphenyl - 112% and<br>Nitrobenzene-d5 - 118%], The failure surrogates not associated with the client<br>parameters list, therefore no corrective action was taken. |    | ✓  |     |
| 8. | Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria<br><br>If not met, list those compounds and their recoveries which fall outside the acceptable<br>range.<br><br>The Blank Spike met requirements for all samples .<br>The Blank Spike Duplicate met requirements for all samples .                                                                                                                                                                                                                                                 |    |    | ✓   |
| 9. | Internal Standard Area/Retention Time Shift Meet Criteria<br><br>Comments:                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |    | ✓   |

**GC/MS SEMI-VOLATILE ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY**  
**(CONTINUED)**

|     |                                                           | NA | NO | YES |
|-----|-----------------------------------------------------------|----|----|-----|
| 10. | Extraction Holding Time Met                               |    |    | ✓   |
|     | If not met, list number of days exceeded for each sample: |    |    |     |
| 11. | Analysis Holding Time Met                                 |    |    | ✓   |
|     | If not met, list number of days exceeded for each sample: |    |    |     |

ADDITIONAL COMMENTS:

The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is)."

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

The not QT review data is reported in the Miscellaneous.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is >20% for the Initial Calibration curve for SW-846 analysis.

QA REVIEW

**APPROVED**

By Nimisha Pandya, QA/QC Supervisor at 12:34 pm, Jan 15, 2025

## APPENDIX A

### QA REVIEW GENERAL DOCUMENTATION

Project #: Q1022

Completed

For thorough review, the report must have the following:

#### GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

#### COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

#### CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

#### ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: MOHAMMAD AHMED

Date: 01/09/2025

## LAB CHRONICLE

|                 |                      |                   |                       |
|-----------------|----------------------|-------------------|-----------------------|
| <b>OrderID:</b> | Q1022                | <b>OrderDate:</b> | 1/6/2025 3:27:00 PM   |
| <b>Client:</b>  | Tetra Tech NUS, Inc. | <b>Project:</b>   | CTO WE13              |
| <b>Contact:</b> | Ernie Wu             | <b>Location:</b>  | N41,VOA Ref. #3 Water |

| LabID    | ClientID                   | Matrix | Test           | Method        | Sample Date | Prep Date | Anal Date | Received |
|----------|----------------------------|--------|----------------|---------------|-------------|-----------|-----------|----------|
| Q1022-03 | BP-VPB-190A-GW-838<br>-840 | Water  | SVOC-SIMGroup1 | 8270-Modified | 01/03/25    | 01/07/25  | 01/07/25  | 01/06/25 |



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,  
Fax : 908 789 8922

**Hit Summary Sheet**  
**SW-846**

**SDG No.:** Q1022

**Client:** Tetra Tech NUS, Inc.

| Sample ID            | Client ID | Matrix | Parameter | Concentration | C    | MDL | LOD | RDL | Units |
|----------------------|-----------|--------|-----------|---------------|------|-----|-----|-----|-------|
| Client ID :          |           |        |           | 0.000         |      |     |     |     |       |
| Total Svoc :         |           |        |           |               | 0.00 |     |     |     |       |
| Total Concentration: |           |        |           |               | 0.00 |     |     |     |       |





# QC SUMMARY

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

### Surrogate Summary

SW-846

SDG No.: Q1022

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

| Lab Sample ID | Client ID              | Parameter               | Spike (PPM) | Result (PPM) | Recovery (%) | Qual | Limits (%) |      |
|---------------|------------------------|-------------------------|-------------|--------------|--------------|------|------------|------|
|               |                        |                         |             |              |              |      | Low        | High |
| PB165971BL    | PB165971BL             | 2-Methylnaphthalene-d10 | 0.4         | 0.46         | 115          |      | 30         | 150  |
|               |                        | Fluoranthene-d10        | 0.4         | 0.47         | 117          |      | 30         | 150  |
|               |                        | Nitrobenzene-d5         | 0.4         | 0.50         | 124          | *    | 55         | 111  |
|               |                        | 2-Fluorobiphenyl        | 0.4         | 0.47         | 117          | *    | 53         | 106  |
|               |                        | Terphenyl-d14           | 0.4         | 0.48         | 120          |      | 58         | 132  |
| PB165971BS    | PB165971BS             | 2-Methylnaphthalene-d10 | 0.4         | 0.45         | 113          |      | 30         | 150  |
|               |                        | Fluoranthene-d10        | 0.4         | 0.44         | 109          |      | 30         | 150  |
|               |                        | Nitrobenzene-d5         | 0.4         | 0.47         | 116          | *    | 55         | 111  |
|               |                        | 2-Fluorobiphenyl        | 0.4         | 0.46         | 115          | *    | 53         | 106  |
|               |                        | Terphenyl-d14           | 0.4         | 0.46         | 114          |      | 58         | 132  |
| PB165971BSD   | PB165971BSD            | 2-Methylnaphthalene-d10 | 0.4         | 0.47         | 116          |      | 30         | 150  |
|               |                        | Fluoranthene-d10        | 0.4         | 0.44         | 110          |      | 30         | 150  |
|               |                        | Nitrobenzene-d5         | 0.4         | 0.47         | 118          | *    | 55         | 111  |
|               |                        | 2-Fluorobiphenyl        | 0.4         | 0.45         | 112          | *    | 53         | 106  |
|               |                        | Terphenyl-d14           | 0.4         | 0.47         | 117          |      | 58         | 132  |
| Q1022-03      | BP-VPB-190A-GW-838-840 | 2-Methylnaphthalene-d10 | 0.4         | 0.34         | 85           |      | 30         | 150  |
|               |                        | Fluoranthene-d10        | 0.4         | 0.37         | 92           |      | 30         | 150  |
|               |                        | Nitrobenzene-d5         | 0.4         | 0.34         | 86           |      | 55         | 111  |
|               |                        | 2-Fluorobiphenyl        | 0.4         | 0.26         | 65           |      | 53         | 106  |
|               |                        | Terphenyl-d14           | 0.4         | 0.35         | 87           |      | 58         | 132  |

## Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1022

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035900.D

| Lab Sample ID | Parameter   | Spike | Result | Unit | Rec | RPD | Qual | RPD  | Low | Limits | RPD |
|---------------|-------------|-------|--------|------|-----|-----|------|------|-----|--------|-----|
|               |             |       |        |      |     |     |      | Qual |     | High   |     |
| PB165971BS    | 1,4-Dioxane | 0.4   | 0.42   | ug/L | 105 |     |      |      | 70  | 130    |     |

## Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1022

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035901.D

| Lab Sample ID | Parameter   | Spike | Result | Unit | Rec | RPD | Qual | RPD  | Low | Limits | RPD |
|---------------|-------------|-------|--------|------|-----|-----|------|------|-----|--------|-----|
|               |             |       |        |      |     |     |      | Qual |     | High   |     |
| PB165971BSD   | 1,4-Dioxane | 0.4   | 0.41   | ug/L | 103 | 2   |      |      | 70  | 130    | 20  |

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165971BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: Q1022

SAS No.: Q1022 SDG NO.: Q1022

Lab File ID: BN035898.D

Lab Sample ID: PB165971BL

Instrument ID: BNA\_N

Date Extracted: 01/07/2025

Matrix: (soil/water) Water

Date Analyzed: 01/07/2025

Level: (low/med) LOW

Time Analyzed: 16:08

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| EPA<br>SAMPLE NO.      | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED |
|------------------------|------------------|----------------|------------------|
| PB165971BS             | PB165971BS       | BN035900.D     | 01/07/2025       |
| BP-VPB-190A-GW-838-840 | Q1022-03         | BN035899.D     | 01/07/2025       |
| PB165971BSD            | PB165971BSD      | BN035901.D     | 01/07/2025       |

COMMENTS: \_\_\_\_\_



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,  
Fax : 908 789 8922

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: TETR06Lab Code: CHEMSAS No.: Q1022SDG NO.: Q1022Lab File ID: BN035870.DDFTPP Injection Date: 01/02/2025Instrument ID: BNA\_NDFTPP Injection Time: 10:49

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 51  | 10.0 - 80.0% of mass 198           | 39.9                 |
| 68  | Less than 2.0% of mass 69          | 0.0 ( 0.0 ) 1        |
| 69  | Mass 69 relative abundance         | 39                   |
| 70  | Less than 2.0% of mass 69          | 0.3 ( 0.7 ) 1        |
| 127 | 10.0 - 80.0% of mass 198           | 43.4                 |
| 197 | Less than 2.0% of mass 198         | 0.3                  |
| 198 | Base Peak, 100% relative abundance | 100                  |
| 199 | 5.0 to 9.0% of mass 198            | 6.2                  |
| 275 | 10.0 - 60.0% of mass 198           | 25.6                 |
| 365 | Greater than 1% of mass 198        | 3.3                  |
| 441 | Present, but less than mass 443    | 9.5                  |
| 442 | Greater than 50% of mass 198       | 100                  |
| 443 | 15.0 - 24.0% of mass 442           | 12.1 (19.3) 2        |

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| EPA<br>SAMPLE NO. | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|-------------------|------------------|----------------|------------------|------------------|
| SSTDICC0.1        | SSTDICC0.1       | BN035871.D     | 01/02/2025       | 11:28            |
| SSTDICC0.2        | SSTDICC0.2       | BN035872.D     | 01/02/2025       | 12:04            |
| SSTDICCC0.4       | SSTDICCC0.4      | BN035873.D     | 01/02/2025       | 12:40            |
| SSTDICC0.8        | SSTDICC0.8       | BN035874.D     | 01/02/2025       | 13:16            |
| SSTDICC1.6        | SSTDICC1.6       | BN035875.D     | 01/02/2025       | 13:52            |
| SSTDICC3.2        | SSTDICC3.2       | BN035876.D     | 01/02/2025       | 14:28            |
| SSTDICC5.0        | SSTDICC5.0       | BN035877.D     | 01/02/2025       | 15:04            |



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,  
Fax : 908 789 8922

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECHContract: TETR06Lab Code: CHEMSAS No.: Q1022SDG NO.: Q1022Lab File ID: BN035896.DDFTPP Injection Date: 01/07/2025Instrument ID: BNA\_NDFTPP Injection Time: 14:24

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 51  | 10.0 - 80.0% of mass 198           | 45.9                 |
| 68  | Less than 2.0% of mass 69          | 0.0 ( 0.0 ) 1        |
| 69  | Mass 69 relative abundance         | 43.4                 |
| 70  | Less than 2.0% of mass 69          | 0.3 ( 0.7 ) 1        |
| 127 | 10.0 - 80.0% of mass 198           | 44.4                 |
| 197 | Less than 2.0% of mass 198         | 0.2                  |
| 198 | Base Peak, 100% relative abundance | 100                  |
| 199 | 5.0 to 9.0% of mass 198            | 6.5                  |
| 275 | 10.0 - 60.0% of mass 198           | 26                   |
| 365 | Greater than 1% of mass 198        | 4.1                  |
| 441 | Present, but less than mass 443    | 9.5                  |
| 442 | Greater than 50% of mass 198       | 100                  |
| 443 | 15.0 - 24.0% of mass 442           | 11.3 (19.4) 2        |

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| EPA<br>SAMPLE NO.      | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED | TIME<br>ANALYZED |
|------------------------|------------------|----------------|------------------|------------------|
| SSTDCCC0.4             | SSTDCCC0.4       | BN035897.D     | 01/07/2025       | 15:03            |
| PB165971BL             | PB165971BL       | BN035898.D     | 01/07/2025       | 16:08            |
| BP-VPB-190A-GW-838-840 | Q1022-03         | BN035899.D     | 01/07/2025       | 16:44            |
| PB165971BS             | PB165971BS       | BN035900.D     | 01/07/2025       | 17:19            |
| PB165971BSD            | PB165971BSD      | BN035901.D     | 01/07/2025       | 17:55            |
| SSTDCCC0.4EC           | SSTDCCC0.4       | BN035902.D     | 01/07/2025       | 18:31            |

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1022 SAS No.: Q1022 SDG NO.: Q1022

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 01/07/2025

Lab File ID: BN035897.D Time Analyzed: 15:03

Instrument ID: BNA\_N GC Column: ZB-GR ID: 0.25 (mm)

|                           | IS1 (DCB)<br>AREA # | RT #  | IS2 (NPT)<br>AREA # | RT #   | IS3 (ANT)<br>AREA # | RT #   |
|---------------------------|---------------------|-------|---------------------|--------|---------------------|--------|
| 12 HOUR STD               | 1335                | 7.832 | 2523                | 10.62  | 1187                | 14.46  |
| UPPER LIMIT               | 2670                | 8.332 | 5046                | 11.122 | 2374                | 14.958 |
| LOWER LIMIT               | 667.5               | 7.332 | 1261.5              | 10.122 | 593.5               | 13.958 |
| EPA SAMPLE NO.            |                     |       |                     |        |                     |        |
| 01 PB165971BL             | 1101                | 7.83  | 2139                | 10.62  | 1003                | 14.46  |
| 02 BP-VPB-190A-GW-838-840 | 1117                | 7.83  | 2226                | 10.62  | 1401                | 14.46  |
| 03 PB165971BS             | 1718                | 7.83  | 3309                | 10.62  | 1504                | 14.46  |
| 04 PB165971BSD            | 1875                | 7.83  | 3596                | 10.62  | 1733                | 14.46  |

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

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 UPPER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.



8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1022 SAS No.: Q1022 SDG NO.: Q1022

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 01/07/2025

Lab File ID: BN035897.D Time Analyzed: 15:03

Instrument ID: BNA\_N GC Column: ZB-GR ID: 0.25 (mm)

|                           | IS4 (PHN)<br>AREA # | RT #   | IS5 (CRY)<br>AREA # | RT #   | IS6 (PRY)<br>AREA # | RT #   |
|---------------------------|---------------------|--------|---------------------|--------|---------------------|--------|
| 12 HOUR STD               | 2191                | 17.206 | 1780                | 21.384 | 2085                | 23.686 |
| UPPER LIMIT               | 4382                | 17.706 | 3560                | 21.884 | 4170                | 24.186 |
| LOWER LIMIT               | 1095.5              | 16.706 | 890                 | 20.884 | 1042.5              | 23.186 |
| EPA SAMPLE NO.            |                     |        |                     |        |                     |        |
| 01 PB165971BL             | 1872                | 17.20  | 1597                | 21.39  | 1804                | 23.69  |
| 02 BP-VPB-190A-GW-838-840 | 2790                | 17.20  | 2866                | 21.39  | 3458                | 23.69  |
| 03 PB165971BS             | 2603                | 17.20  | 2176                | 21.39  | 2465                | 23.68  |
| 04 PB165971BSD            | 3028                | 17.20  | 2486                | 21.38  | 2806                | 23.68  |

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

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 UPPER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.



# SAMPLE DATA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

## Report of Analysis

|                    |                        |                 |                |
|--------------------|------------------------|-----------------|----------------|
| Client:            | Tetra Tech NUS, Inc.   | Date Collected: | 01/03/25       |
| Project:           | CTO WE13               | Date Received:  | 01/06/25       |
| Client Sample ID:  | BP-VPB-190A-GW-838-840 | SDG No.:        | Q1022          |
| Lab Sample ID:     | Q1022-03               | Matrix:         | Water          |
| Analytical Method: | SW8270ESIM             | % Solid:        | 0              |
| Sample Wt/Vol:     | 760      Units:    mL  | Final Vol:      | 1000      uL   |
| Soil Aliquot Vol:  | uL                     | Test:           | SVOC-SIMGroup1 |
| Extraction Type :  | Decanted :    N        | Level :         | LOW            |
| Injection Volume : | GPC Factor :    1.0    | GPC Cleanup :   | N      PH :    |
| Prep Method :      |                        |                 |                |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BN035899.D        | 1         | 01/07/25 11:00 | 01/07/25 16:44 | PB165971      |

| CAS Number                | Parameter               | Conc. | Qualifier | MDL      | LOD  | LOQ / CRQL | Units    |
|---------------------------|-------------------------|-------|-----------|----------|------|------------|----------|
| <b>TARGETS</b>            |                         |       |           |          |      |            |          |
| 123-91-1                  | 1,4-Dioxane             | 0.26  | U         | 0.090    | 0.26 | 0.26       | ug/L     |
| <b>SURROGATES</b>         |                         |       |           |          |      |            |          |
| 7297-45-2                 | 2-Methylnaphthalene-d10 | 0.34  |           | 30 - 150 |      | 85%        | SPK: 0.4 |
| 93951-69-0                | Fluoranthene-d10        | 0.37  |           | 30 - 150 |      | 92%        | SPK: 0.4 |
| 4165-60-0                 | Nitrobenzene-d5         | 0.34  |           | 55 - 111 |      | 86%        | SPK: 0.4 |
| 321-60-8                  | 2-Fluorobiphenyl        | 0.26  |           | 53 - 106 |      | 65%        | SPK: 0.4 |
| 1718-51-0                 | Terphenyl-d14           | 0.35  |           | 58 - 132 |      | 87%        | SPK: 0.4 |
| <b>INTERNAL STANDARDS</b> |                         |       |           |          |      |            |          |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4  | 1120  | 7.832     |          |      |            |          |
| 1146-65-2                 | Naphthalene-d8          | 2230  | 10.622    |          |      |            |          |
| 15067-26-2                | Acenaphthene-d10        | 1400  | 14.463    |          |      |            |          |
| 1517-22-2                 | Phenanthrene-d10        | 2790  | 17.199    |          |      |            |          |
| 1719-03-5                 | Chrysene-d12            | 2870  | 21.385    |          |      |            |          |
| 1520-96-3                 | Perylene-d12            | 3460  | 23.686    |          |      |            |          |

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035899.D  
Acq On : 07 Jan 2025 16:44  
Operator : RC/JU  
Sample : Q1022-03  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
BP-VPB-190A-GW-838-840

Quant Time: Jan 07 17:10:00 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

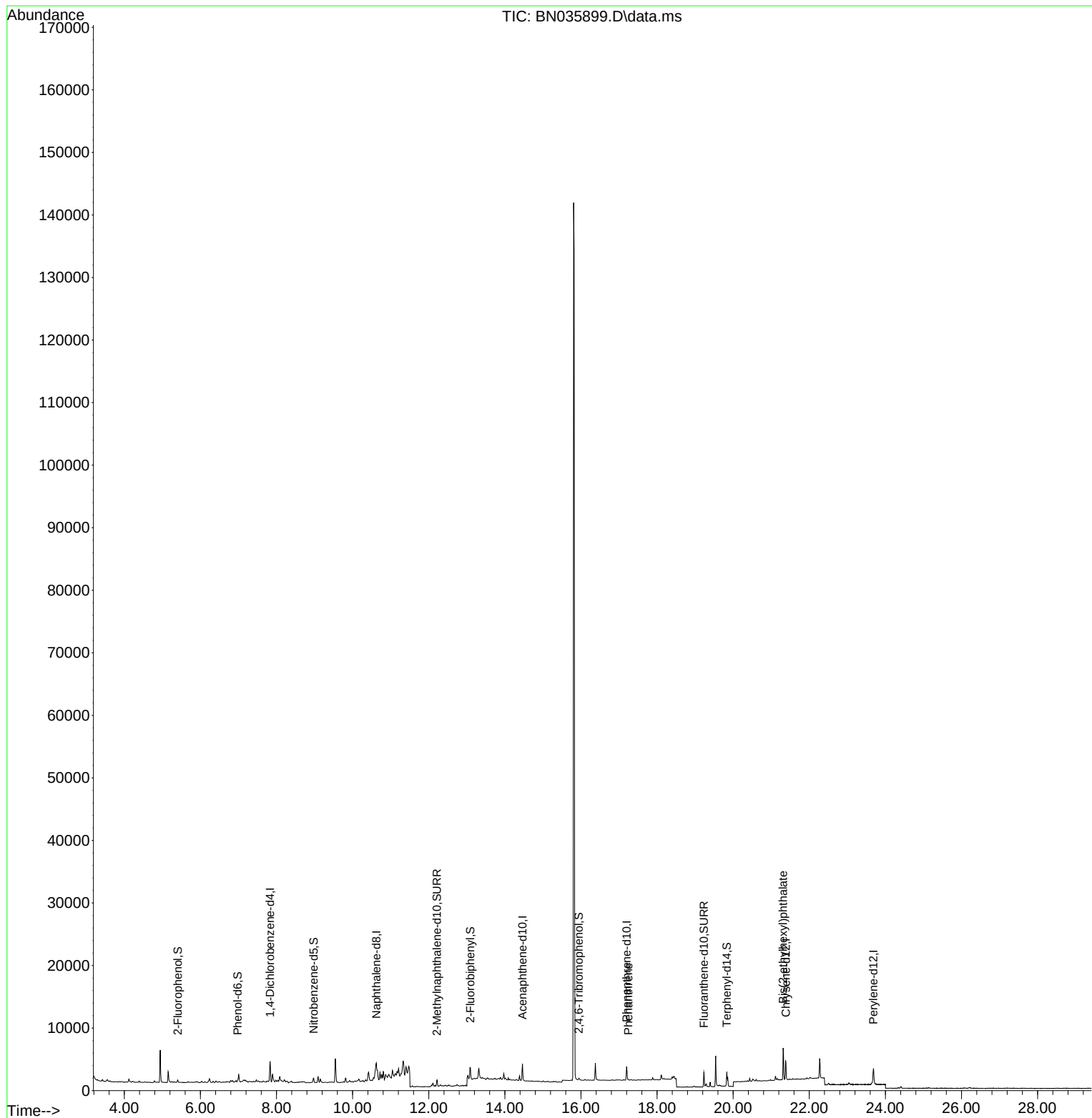
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.832  | 152  | 1117     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.622 | 136  | 2226     | 0.400 | ng    | # 0.00   |
| 13) Acenaphthene-d10          | 14.463 | 164  | 1401     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.199 | 188  | 2790     | 0.400 | ng    | #-0.01   |
| 29) Chrysene-d12              | 21.385 | 240  | 2866     | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 23.686 | 264  | 3458     | 0.400 | ng    | 0.00     |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.405  | 112  | 313      | 0.114 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.979  | 99   | 262      | 0.077 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.977  | 82   | 602      | 0.342 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.213 | 152  | 1010     | 0.339 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.945 | 330  | 158      | 0.235 | ng    | -0.01    |
| 15) 2-Fluorobiphenyl          | 13.094 | 172  | 1613     | 0.262 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.230 | 212  | 2540     | 0.367 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.834 | 244  | 1995     | 0.349 | ng    | 0.00     |
| Target Compounds              |        |      |          |       |       |          |
| 25) Phenanthrene              | 17.248 | 178  | 188      | 0.023 | ng    | # 89     |
| 34) Bis(2-ethylhexyl)phtha... | 21.313 | 149  | 5042     | 1.227 | ng    | 98       |

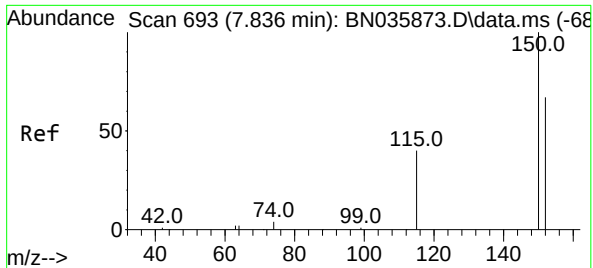
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035899.D  
Acq On : 07 Jan 2025 16:44  
Operator : RC/JU  
Sample : Q1022-03  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
BP-VPB-190A-GW-838-840

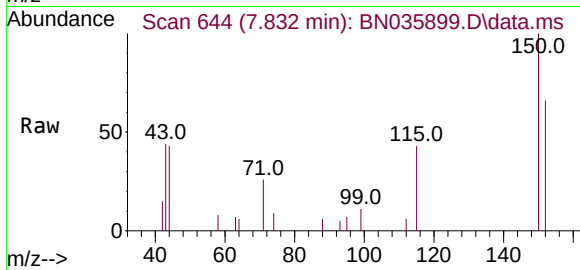
Quant Time: Jan 07 17:10:00 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration



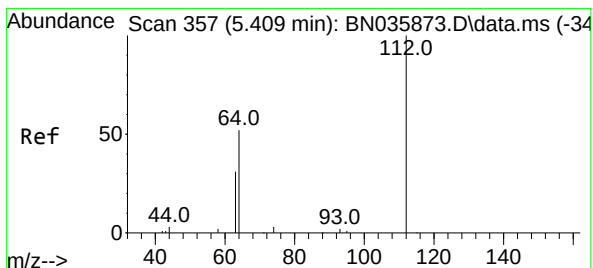
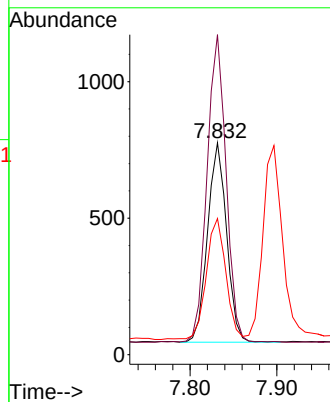
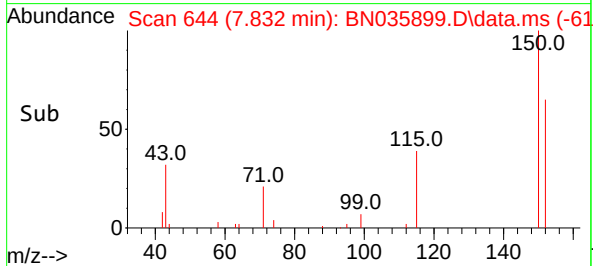


#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.832 min Scan# 64  
Delta R.T. -0.004 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

Instrument :  
BNA\_N  
ClientSampleId :  
BP-VPB-190A-GW-838-840

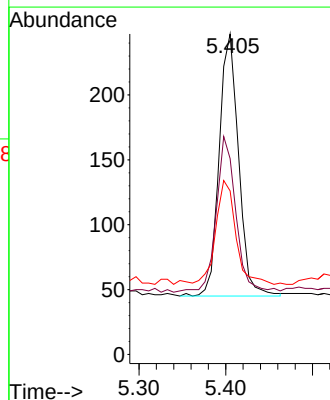
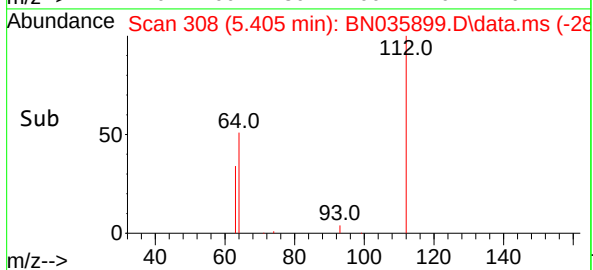
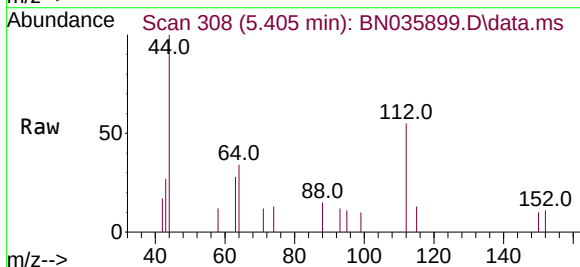


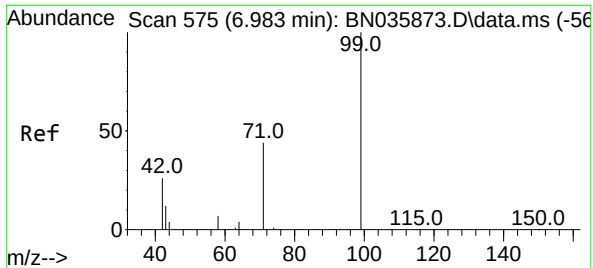
Tgt Ion:152 Resp: 1117  
Ion Ratio Lower Upper  
152 100  
150 151.0 117.8 176.6  
115 64.3 51.0 76.4



#4  
2-Fluorophenol  
Concen: 0.114 ng  
RT: 5.405 min Scan# 308  
Delta R.T. -0.004 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

Tgt Ion:112 Resp: 313  
Ion Ratio Lower Upper  
112 100  
64 60.4 48.2 72.2  
63 40.9 30.0 45.0

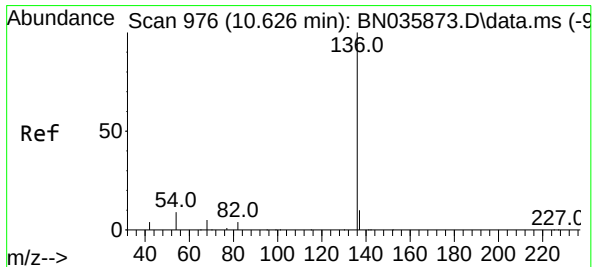
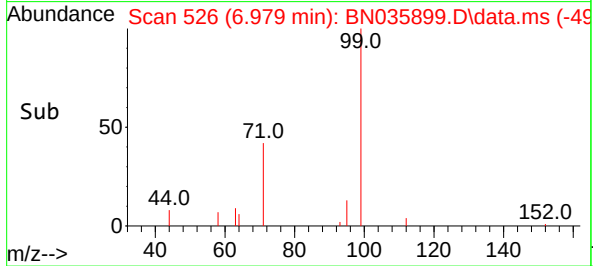
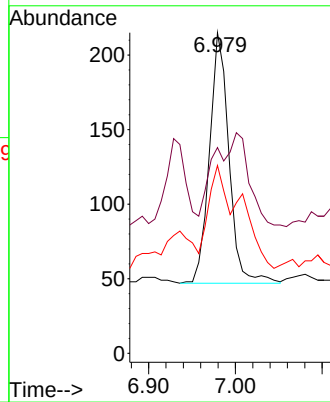
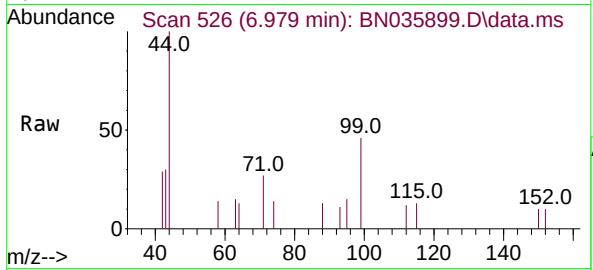




#5  
Phenol-d6  
Concen: 0.077 ng  
RT: 6.979 min Scan# 51  
Delta R.T. -0.004 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

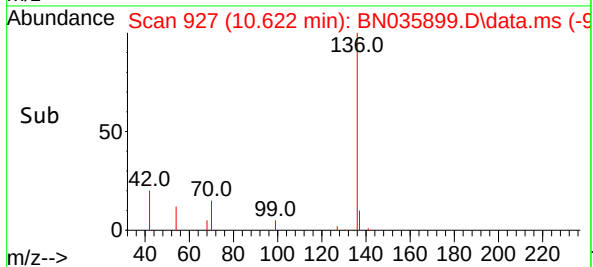
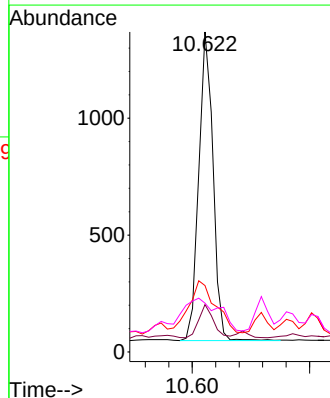
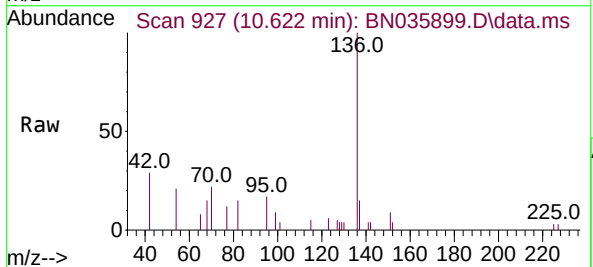
Instrument :  
BNA\_N  
ClientSampleId :  
BP-VPB-190A-GW-838-840

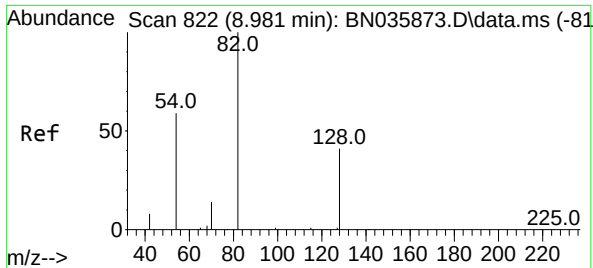
Tgt Ion: 99 Resp: 262  
Ion Ratio Lower Upper  
99 100  
42 0.0 23.5 35.3#  
71 30.9 35.5 53.3#



#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.622 min Scan# 927  
Delta R.T. -0.004 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

Tgt Ion: 136 Resp: 2226  
Ion Ratio Lower Upper  
136 100  
137 14.8 10.6 15.8  
54 20.7 9.8 14.6#  
68 15.3 6.6 10.0#

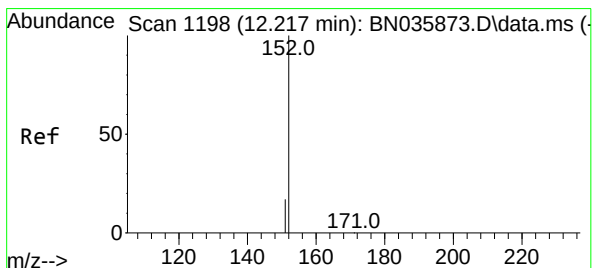
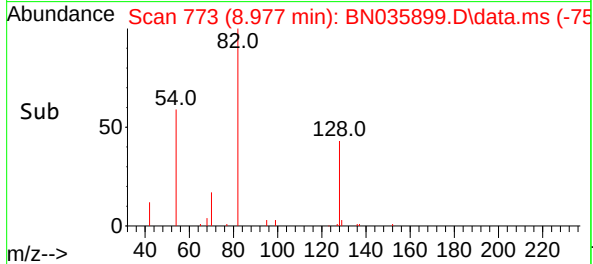
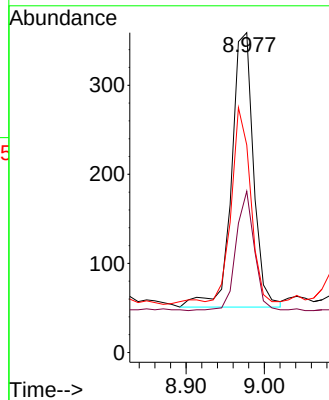
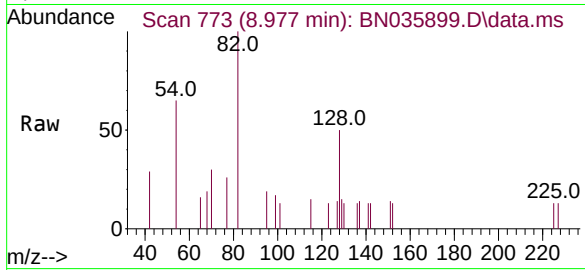




#8  
Nitrobenzene-d5  
Concen: 0.342 ng  
RT: 8.977 min Scan# 71  
Delta R.T. -0.004 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

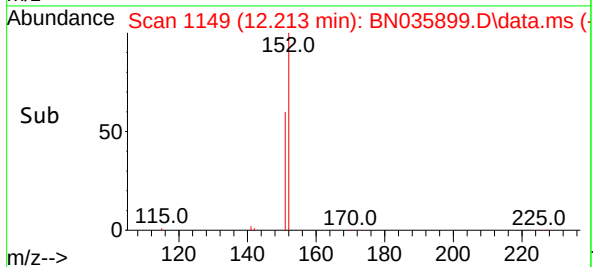
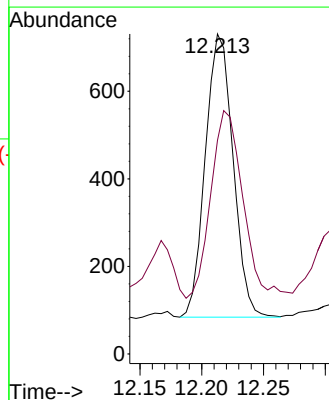
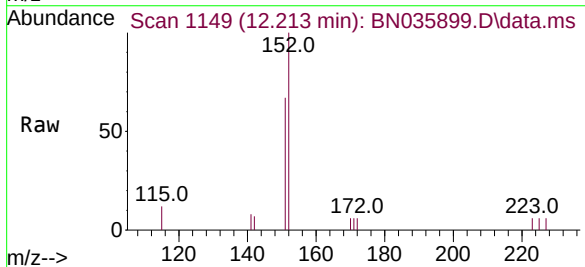
Instrument :  
BNA\_N  
ClientSampleId :  
BP-VPB-190A-GW-838-840

Tgt Ion: 82 Resp: 602  
Ion Ratio Lower Upper  
82 100  
128 50.4 36.9 55.3  
54 64.9 50.4 75.6

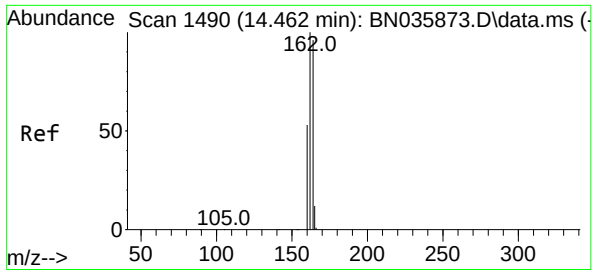


#11  
2-Methylnaphthalene-d10  
Concen: 0.339 ng  
RT: 12.213 min Scan# 1149  
Delta R.T. -0.004 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

Tgt Ion: 152 Resp: 1010  
Ion Ratio Lower Upper  
152 100  
151 76.7 17.0 25.6#



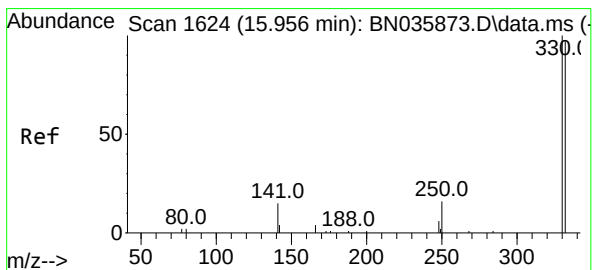
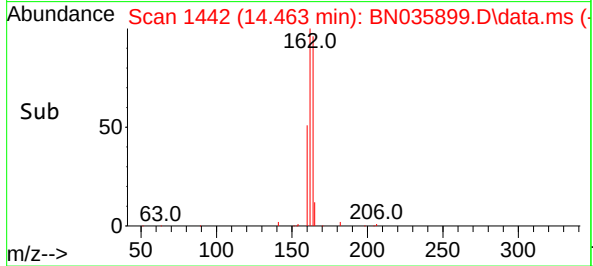
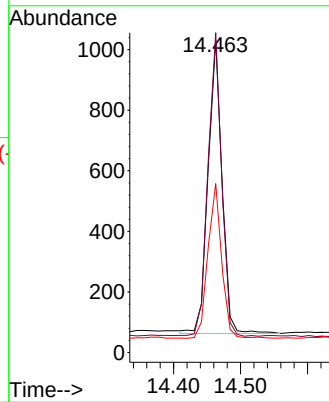
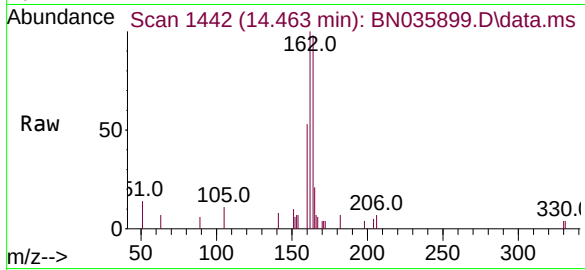




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.463 min Scan# 1490  
Delta R.T. 0.001 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

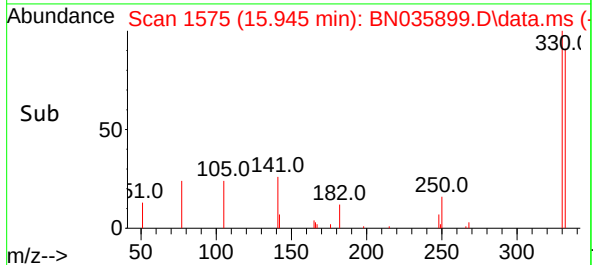
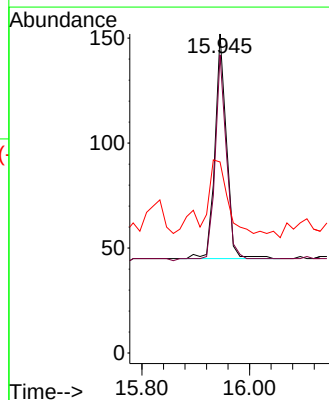
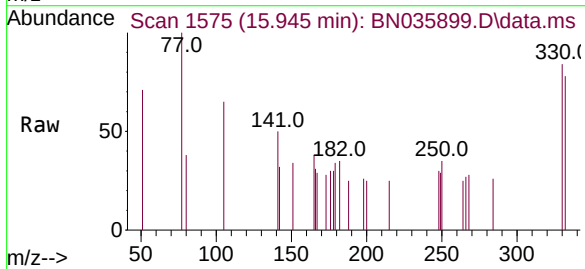
Instrument :  
BNA\_N  
ClientSampleId :  
BP-VPB-190A-GW-838-840

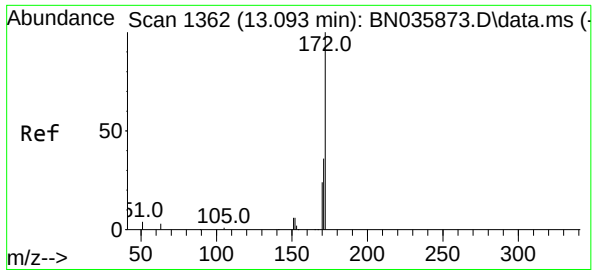
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 1401  |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 162      | 102.4 | 83.1  | 124.7 |
| 160      | 54.1  | 46.0  | 69.0  |



#14  
2,4,6-Tribromophenol  
Concen: 0.235 ng  
RT: 15.945 min Scan# 1575  
Delta R.T. -0.011 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 330   | Resp: | 158   |
| Ion      | Ratio | Lower | Upper |
| 330      | 100   |       |       |
| 332      | 93.0  | 77.2  | 115.8 |
| 141      | 62.0  | 31.6  | 47.4  |





#15

2-Fluorobiphenyl

Concen: 0.262 ng

RT: 13.094 min Scan# 11

Delta R.T. 0.001 min

Lab File: BN035899.D

Acq: 07 Jan 2025 16:44

Instrument :

BNA\_N

ClientSampleId :

BP-VPB-190A-GW-838-840

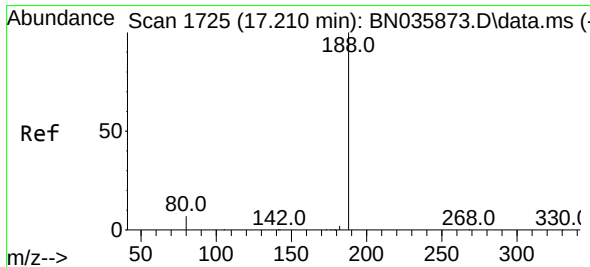
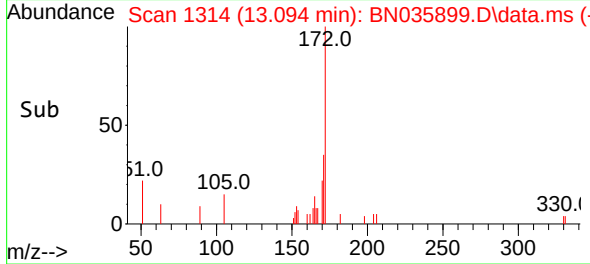
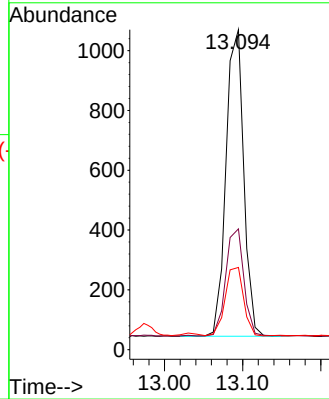
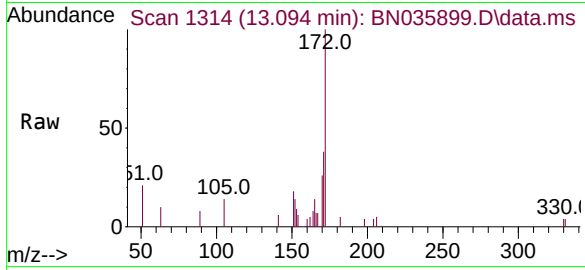
Tgt Ion:172 Resp: 1613

Ion Ratio Lower Upper

172 100

171 37.8 30.5 45.7

170 25.7 20.8 31.2



#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 17.199 min Scan# 1676

Delta R.T. -0.011 min

Lab File: BN035899.D

Acq: 07 Jan 2025 16:44

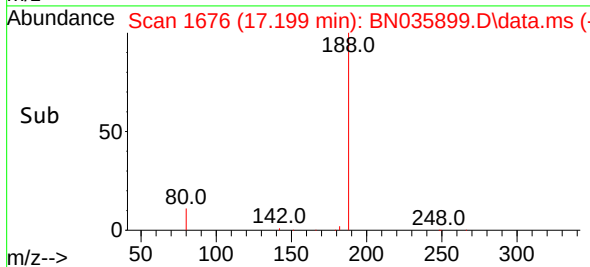
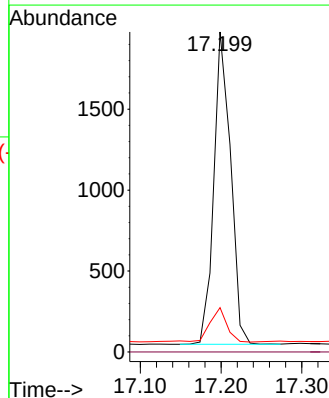
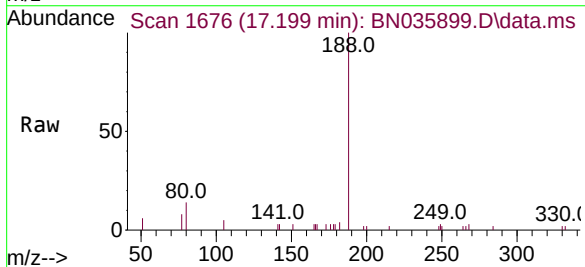
Tgt Ion:188 Resp: 2790

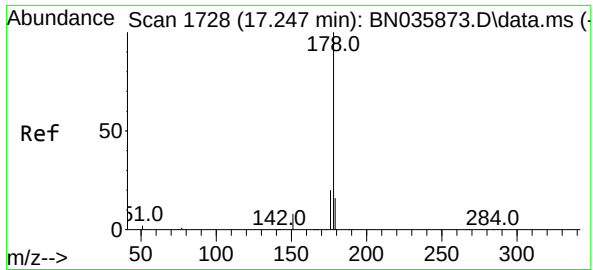
Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 13.9 7.3 10.9#

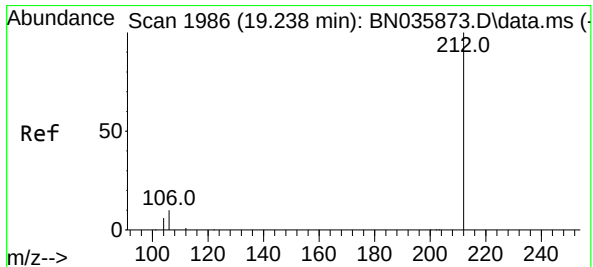
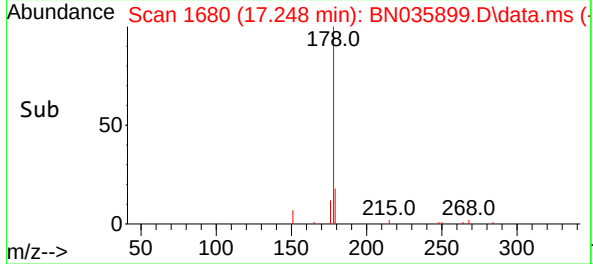
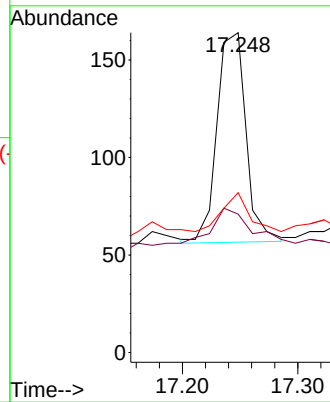
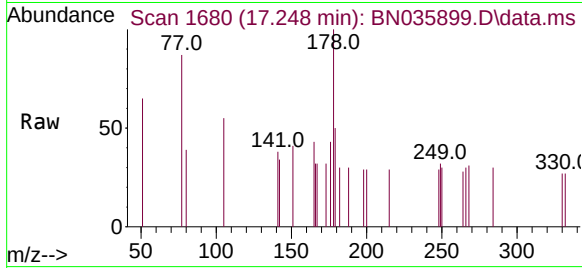




#25  
Phenanthrene  
Concen: 0.023 ng  
RT: 17.248 min Scan# 1728  
Delta R.T. 0.001 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

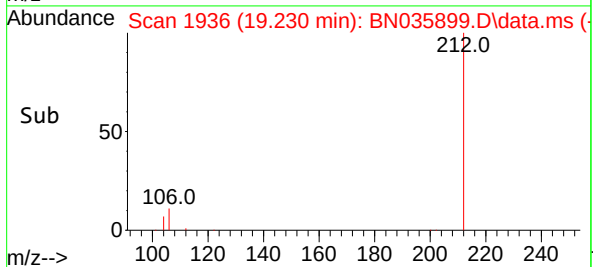
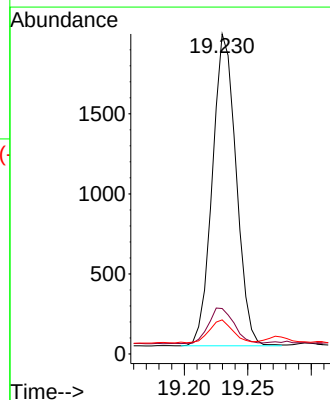
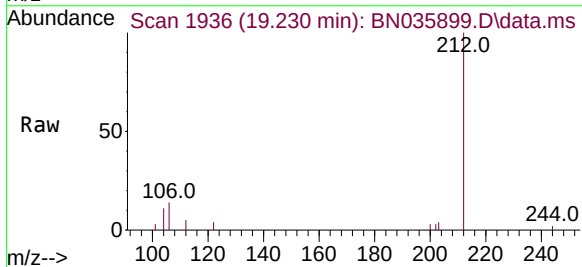
Instrument :  
BNA\_N  
ClientSampleId :  
BP-VPB-190A-GW-838-840

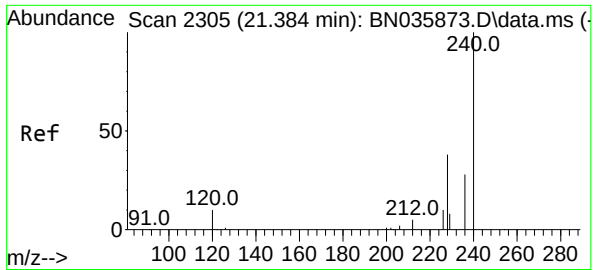
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 178   | Resp: | 188   |
| Ion      | Ratio | Lower | Upper |
| 178      | 100   |       |       |
| 176      | 27.1  | 15.9  | 23.9# |
| 179      | 18.1  | 12.9  | 19.3  |



#27  
Fluoranthene-d10  
Concen: 0.367 ng  
RT: 19.230 min Scan# 1936  
Delta R.T. -0.008 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 212   | Resp: | 2540  |
| Ion      | Ratio | Lower | Upper |
| 212      | 100   |       |       |
| 106      | 12.2  | 9.0   | 13.6  |
| 104      | 7.3   | 5.4   | 8.2   |

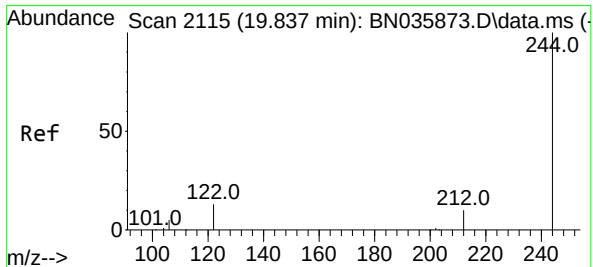
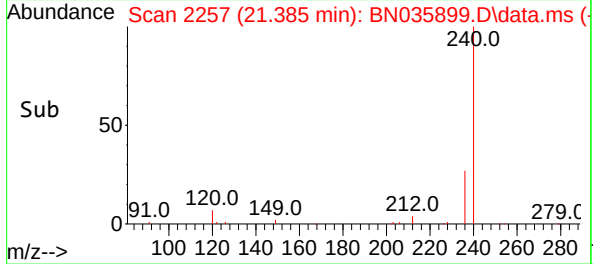
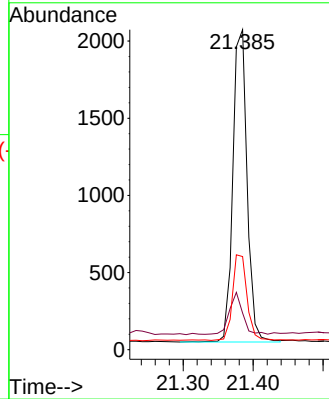
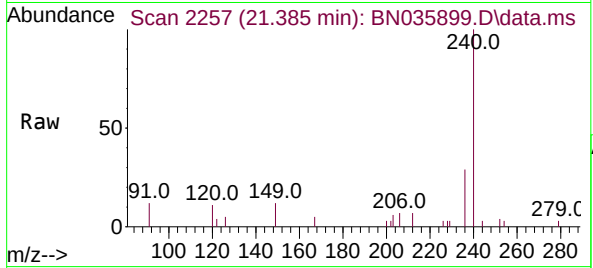




#29  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.385 min Scan# 21  
Delta R.T. 0.001 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

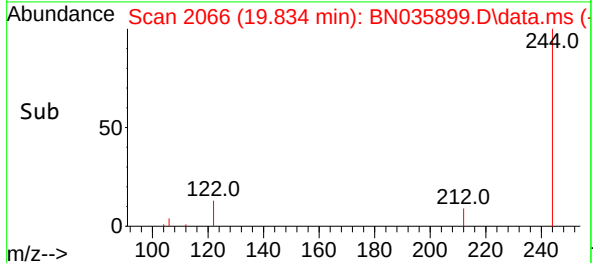
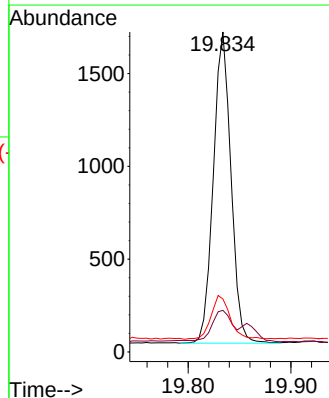
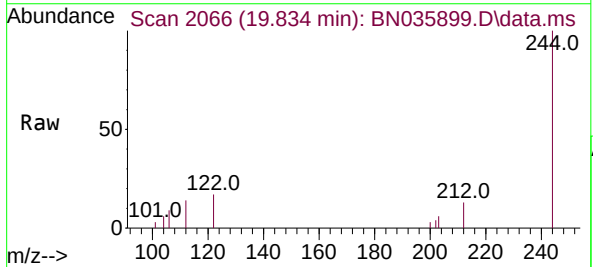
Instrument :  
BNA\_N  
ClientSampleId :  
BP-VPB-190A-GW-838-840

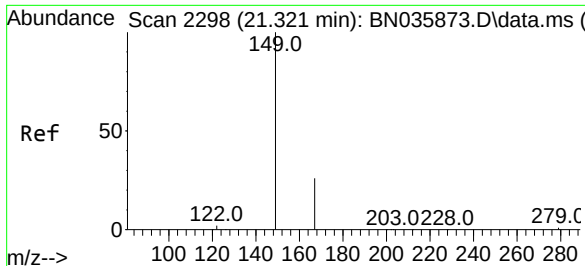
Tgt Ion:240 Resp: 2866  
Ion Ratio Lower Upper  
240 100  
120 11.5 11.1 16.7  
236 29.1 24.6 36.8



#31  
Terphenyl-d14  
Concen: 0.349 ng  
RT: 19.834 min Scan# 2066  
Delta R.T. -0.004 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

Tgt Ion:244 Resp: 1995  
Ion Ratio Lower Upper  
244 100  
212 13.0 10.1 15.1  
122 16.5 12.2 18.4

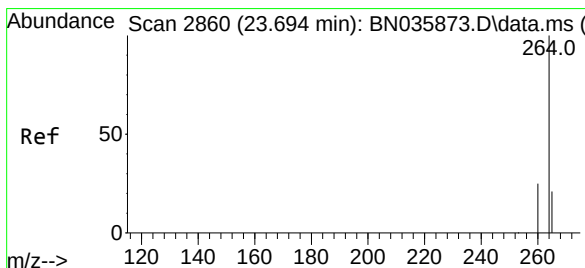
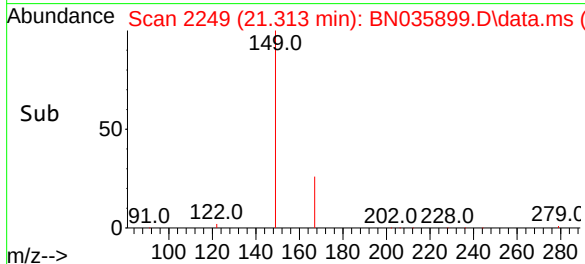
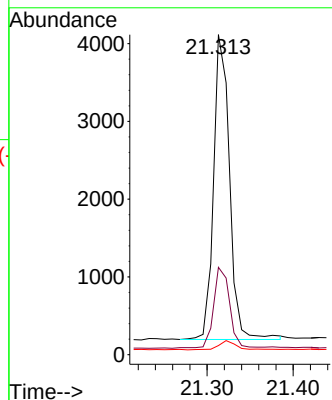
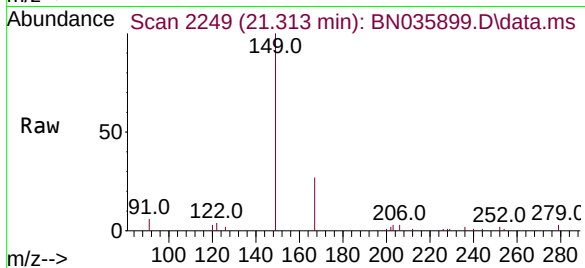




#34  
Bis(2-ethylhexyl)phthalate  
Concen: 1.227 ng  
RT: 21.313 min Scan# 21  
Delta R.T. -0.008 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

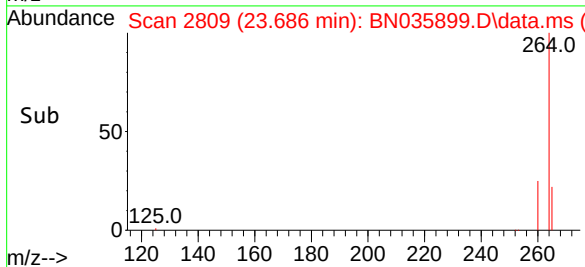
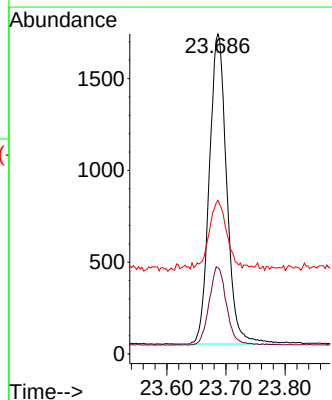
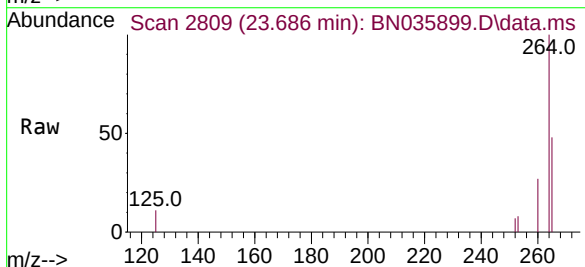
Instrument :  
BNA\_N  
ClientSampleId :  
BP-VPB-190A-GW-838-840

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 149     | 100   |       |       |
| 167     | 25.9  | 21.4  | 32.0  |
| 279     | 3.4   | 3.0   | 4.6   |



#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.686 min Scan# 2809  
Delta R.T. -0.008 min  
Lab File: BN035899.D  
Acq: 07 Jan 2025 16:44

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 26.9  | 21.7  | 32.5  |
| 265     | 48.0  | 33.9  | 50.9  |





# CALIBRATION SUMMARY

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

Method Path : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\  
 Method File : 8270-SIM-BN010225.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Thu Jan 02 15:39:17 2025  
 Response Via : Initial Calibration

## Calibration Files

0.1 =BN035871.D 0.2 =BN035872.D 0.4 =BN035873.D 0.8 =BN035874.D 1.6 =BN035875.D 3.2 =BN035876.D 5.0 =BN035877.D

|           | Compound              | 0.1            | 0.2   | 0.4   | 0.8   | 1.6   | 3.2   | 5.0   | Avg   | %RSD  |
|-----------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----     |                       |                |       |       |       |       |       |       |       |       |
| 1) I      | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2)        | 1,4-Dioxane           | 0.454          | 0.422 | 0.373 | 0.388 | 0.391 | 0.377 | 0.377 | 0.397 | 7.52  |
| 3)        | n-Nitrosodimet...     | 0.707          | 0.674 | 0.676 | 0.690 | 0.722 | 0.690 | 0.692 | 0.693 | 2.45  |
| 4) S      | 2-Fluorophenol        | 1.031          | 1.009 | 0.952 | 0.958 | 0.997 | 0.956 | 0.968 | 0.981 | 3.13  |
| 5) S      | Phenol-d6             | 1.351          | 1.255 | 1.180 | 1.197 | 1.215 | 1.163 | 1.170 | 1.219 | 5.44  |
| 6)        | bis(2-Chloroet...     | 1.001          | 0.946 | 0.936 | 0.913 | 0.938 | 0.886 | 0.879 | 0.929 | 4.43  |
|           |                       |                |       |       |       |       |       |       |       |       |
| 7) I      | Naphthalene-d8        | -----ISTD----- |       |       |       |       |       |       |       |       |
| 8) S      | Nitrobenzene-d5       | 0.346          | 0.307 | 0.296 | 0.302 | 0.319 | 0.317 | 0.330 | 0.317 | 5.48  |
| 9)        | Naphthalene           | 1.163          | 1.094 | 1.086 | 1.096 | 1.167 | 1.113 | 1.141 | 1.123 | 3.00  |
| 10)       | Hexachlorobuta...     | 0.368          | 0.354 | 0.353 | 0.363 | 0.382 | 0.362 | 0.369 | 0.365 | 2.74  |
| 11) SURR2 | Methylnaphth...       | 0.547          | 0.536 | 0.527 | 0.519 | 0.556 | 0.524 | 0.540 | 0.536 | 2.50  |
| 12)       | 2-Methylnaphth...     | 0.691          | 0.654 | 0.685 | 0.680 | 0.731 | 0.701 | 0.722 | 0.695 | 3.75  |
|           |                       |                |       |       |       |       |       |       |       |       |
| 13) I     | Acenaphthene-d10      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 14) S     | 2,4,6-Tribromo...     | 0.164          | 0.165 | 0.189 | 0.189 | 0.207 | 0.211 | 0.220 | 0.192 | 11.39 |
| 15) S     | 2-Fluorobiphenyl      | 1.776          | 1.675 | 1.708 | 1.765 | 1.823 | 1.779 | 1.762 | 1.755 | 2.79  |
| 16)       | Acenaphthylene        | 1.890          | 1.766 | 1.819 | 1.839 | 1.962 | 1.948 | 1.963 | 1.884 | 4.15  |
| 17)       | Acenaphthene          | 1.187          | 1.162 | 1.198 | 1.232 | 1.300 | 1.275 | 1.291 | 1.235 | 4.43  |
| 18)       | Fluorene              | 1.341          | 1.270 | 1.307 | 1.298 | 1.419 | 1.444 | 1.432 | 1.359 | 5.28  |
|           |                       |                |       |       |       |       |       |       |       |       |
| 19) I     | Phenanthrene-d10      | -----ISTD----- |       |       |       |       |       |       |       |       |
| 20)       | 4,6-Dinitro-2-...     | 0.058          | 0.066 | 0.067 | 0.069 | 0.076 | 0.076 | 0.074 | 0.069 | 9.51  |
| 21)       | 4-Bromophenyl-...     | 0.265          | 0.269 | 0.268 | 0.267 | 0.290 | 0.283 | 0.279 | 0.274 | 3.47  |
| 22)       | Hexachlorobenzene     | 0.393          | 0.369 | 0.356 | 0.362 | 0.394 | 0.373 | 0.371 | 0.374 | 3.93  |
| 23)       | Atrazine              | 0.169          | 0.191 | 0.176 | 0.171 | 0.198 | 0.190 | 0.193 | 0.184 | 6.36  |
| 24)       | Pentachlorophenol     | 0.141          | 0.101 | 0.118 | 0.122 | 0.143 | 0.148 | 0.153 | 0.132 | 14.40 |
| 25)       | Phenanthrene          | 1.131          | 1.132 | 1.142 | 1.144 | 1.228 | 1.193 | 1.200 | 1.167 | 3.36  |
| 26)       | Anthracene            | 0.996          | 0.998 | 1.008 | 1.033 | 1.137 | 1.132 | 1.130 | 1.062 | 6.34  |
| 27) SURR  | Fluoranthene-d10      | 0.988          | 0.952 | 0.978 | 0.959 | 1.028 | 1.010 | 1.035 | 0.993 | 3.28  |
| 28)       | Fluoranthene          | 1.268          | 1.253 | 1.330 | 1.312 | 1.441 | 1.446 | 1.475 | 1.361 | 6.71  |
|           |                       |                |       |       |       |       |       |       |       |       |
| 29) I     | Chrysene-d12          | -----ISTD----- |       |       |       |       |       |       |       |       |
| 30)       | Pyrene                | 1.606          | 1.620 | 1.571 | 1.612 | 1.711 | 1.621 | 1.627 | 1.624 | 2.63  |
| 31) S     | Terphenyl-d14         | 0.814          | 0.813 | 0.790 | 0.777 | 0.828 | 0.776 | 0.781 | 0.797 | 2.64  |
| 32)       | Benzo(a)anthra...     | 1.379          | 1.382 | 1.344 | 1.407 | 1.461 | 1.427 | 1.466 | 1.410 | 3.19  |
| 33)       | Chrysene              | 1.484          | 1.458 | 1.441 | 1.451 | 1.541 | 1.478 | 1.471 | 1.475 | 2.24  |
| 34)       | Bis(2-ethylhex...     | 0.691          | 0.583 | 0.582 | 0.541 | 0.569 | 0.519 | 0.530 | 0.574 | 10.05 |
|           |                       |                |       |       |       |       |       |       |       |       |
| 35) I     | Perylene-d12          | -----ISTD----- |       |       |       |       |       |       |       |       |

Method Path : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\

Method File : 8270-SIM-BN010225.M

|       |                   |       |       |       |       |       |       |       |       |      |
|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 36)   | Indeno(1,2,3-c... | 1.428 | 1.461 | 1.414 | 1.578 | 1.697 | 1.712 | 1.751 | 1.577 | 9.15 |
| 37)   | Benzo(b)fluora... | 1.337 | 1.304 | 1.294 | 1.351 | 1.466 | 1.420 | 1.447 | 1.374 | 5.06 |
| 38)   | Benzo(k)fluora... | 1.279 | 1.254 | 1.251 | 1.344 | 1.469 | 1.442 | 1.482 | 1.360 | 7.55 |
| 39) C | Benzo(a)pyrene    | 1.099 | 1.181 | 1.086 | 1.163 | 1.270 | 1.244 | 1.284 | 1.190 | 6.71 |
| 40)   | Dibenzo(a,h)an... | 1.145 | 1.152 | 1.106 | 1.251 | 1.363 | 1.365 | 1.402 | 1.255 | 9.75 |
| 41)   | Benzo(g,h,i)pe... | 1.335 | 1.316 | 1.245 | 1.407 | 1.490 | 1.501 | 1.530 | 1.403 | 7.72 |

-----  
(#) = Out of Range



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
 Data File : BN035871.D  
 Acq On : 02 Jan 2025 11:28  
 Operator : RC/JU  
 Sample : SSTDICC0.1  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.1

Quant Time: Jan 02 15:48:52 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

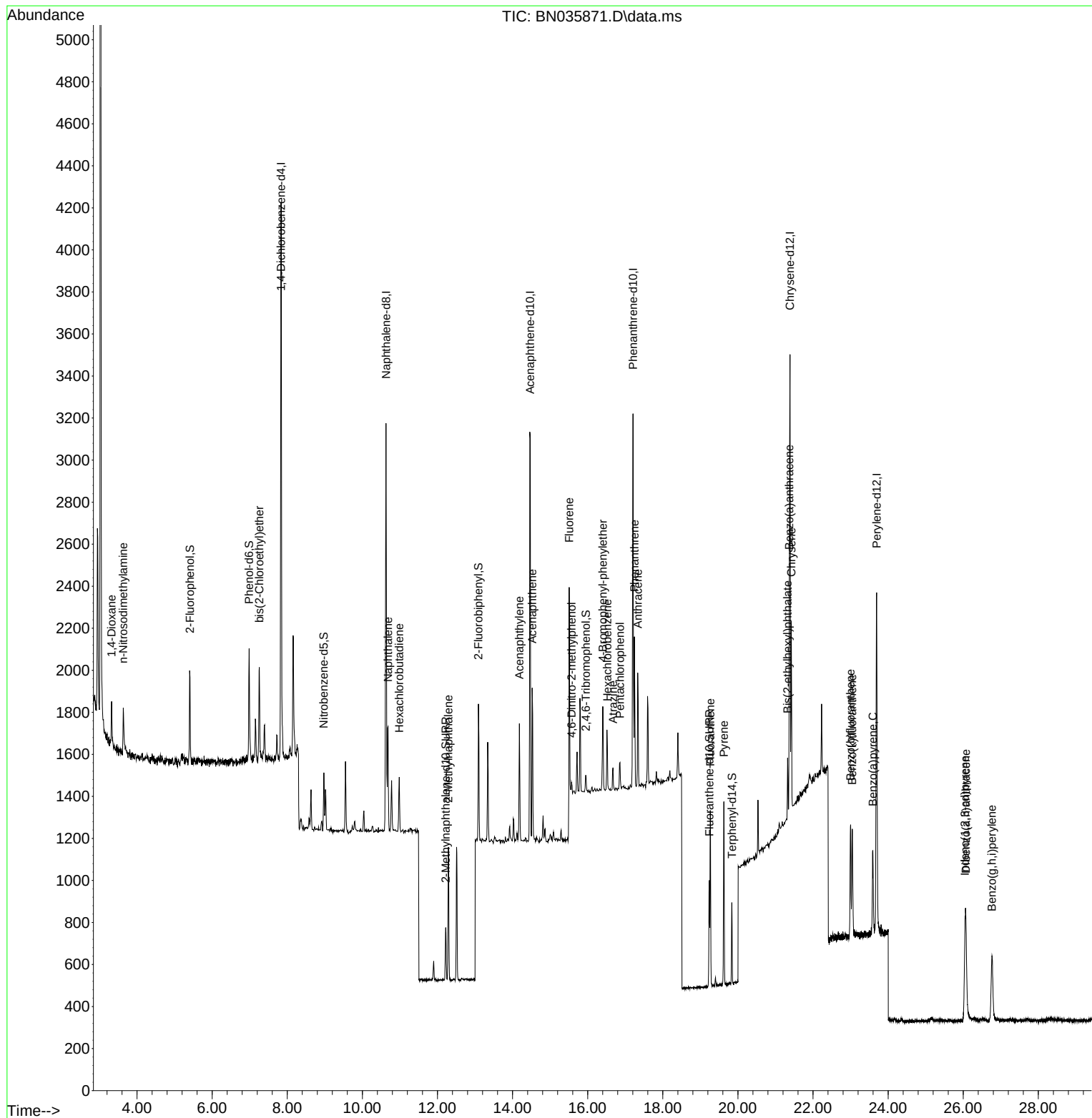
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.836  | 152  | 1199     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.629 | 136  | 2391     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.470 | 164  | 1196     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.208 | 188  | 2268     | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.386 | 240  | 1828     | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 23.694 | 264  | 2148     | 0.400 | ng    | # 0.00   |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.409  | 112  | 309      | 0.105 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.983  | 99   | 405      | 0.111 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.974  | 82   | 207      | 0.109 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.220 | 152  | 327      | 0.102 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.954 | 330  | 49       | 0.085 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 13.091 | 172  | 531      | 0.101 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.236 | 212  | 560      | 0.099 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.840 | 244  | 372      | 0.102 | ng    | 0.00     |
| Target Compounds              |        |      |          |       |       |          |
| 2) 1,4-Dioxane                | 3.322  | 88   | 136      | 0.114 | ng    | # 93     |
| 3) n-Nitrosodimethylamine     | 3.632  | 42   | 212      | 0.102 | ng    | # 84     |
| 6) bis(2-Chloroethyl)ether    | 7.258  | 93   | 300      | 0.108 | ng    | 95       |
| 9) Naphthalene                | 10.683 | 128  | 695      | 0.104 | ng    | # 81     |
| 10) Hexachlorobutadiene       | 10.981 | 225  | 220      | 0.101 | ng    | # 98     |
| 12) 2-Methylnaphthalene       | 12.291 | 142  | 413      | 0.099 | ng    | 96       |
| 16) Acenaphthylene            | 14.182 | 152  | 565      | 0.100 | ng    | 98       |
| 17) Acenaphthene              | 14.524 | 154  | 355      | 0.096 | ng    | 97       |
| 18) Fluorene                  | 15.507 | 166  | 401      | 0.099 | ng    | 96       |
| 20) 4,6-Dinitro-2-methylph... | 15.569 | 198  | 33       | 0.084 | ng    | # 33     |
| 21) 4-Bromophenyl-phenylether | 16.401 | 248  | 150      | 0.096 | ng    | 91       |
| 22) Hexachlorobenzene         | 16.525 | 284  | 223      | 0.105 | ng    | # 90     |
| 23) Atrazine                  | 16.674 | 200  | 96       | 0.092 | ng    | # 78     |
| 24) Pentachlorophenol         | 16.860 | 266  | 80       | 0.107 | ng    | 96       |
| 25) Phenanthrene              | 17.245 | 178  | 641      | 0.097 | ng    | 94       |
| 26) Anthracene                | 17.332 | 178  | 565      | 0.094 | ng    | 97       |
| 28) Fluoranthene              | 19.264 | 202  | 719      | 0.093 | ng    | 98       |
| 30) Pyrene                    | 19.626 | 202  | 734      | 0.099 | ng    | 98       |
| 32) Benzo(a)anthracene        | 21.368 | 228  | 630      | 0.098 | ng    | # 87     |
| 33) Chrysene                  | 21.422 | 228  | 678      | 0.101 | ng    | # 90     |
| 34) Bis(2-ethylhexyl)phtha... | 21.324 | 149  | 316      | 0.121 | ng    | 94       |
| 36) Indeno(1,2,3-cd)pyrene    | 26.047 | 276  | 767      | 0.091 | ng    | 96       |
| 37) Benzo(b)fluoranthene      | 23.001 | 252  | 718      | 0.097 | ng    | # 69     |
| 38) Benzo(k)fluoranthene      | 23.045 | 252  | 687      | 0.094 | ng    | # 68     |
| 39) Benzo(a)pyrene            | 23.591 | 252  | 590      | 0.092 | ng    | # 61     |
| 40) Dibenzo(a,h)anthracene    | 26.071 | 278  | 615      | 0.091 | ng    | # 65     |
| 41) Benzo(g,h,i)perylene      | 26.764 | 276  | 717      | 0.095 | ng    | # 71     |

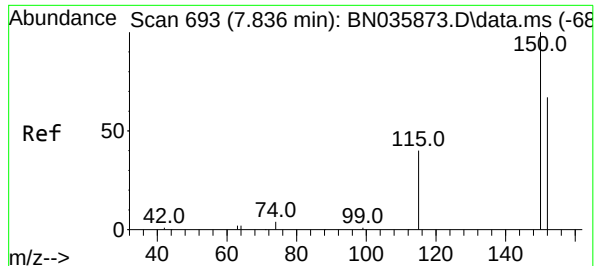
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
Data File : BN035871.D  
Acq On : 02 Jan 2025 11:28  
Operator : RC/JU  
Sample : SSTDICC0.1  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

Quant Time: Jan 02 15:48:52 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

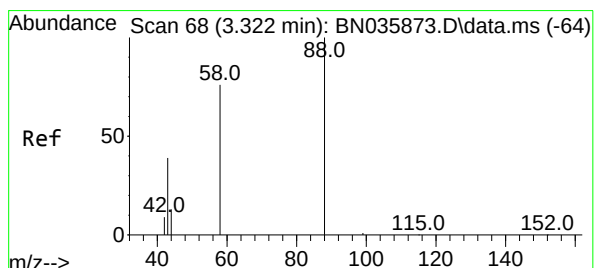
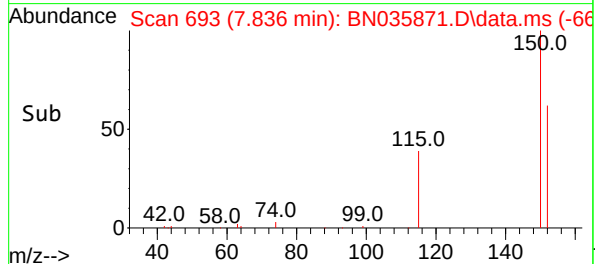
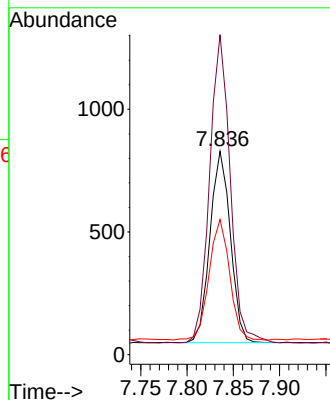
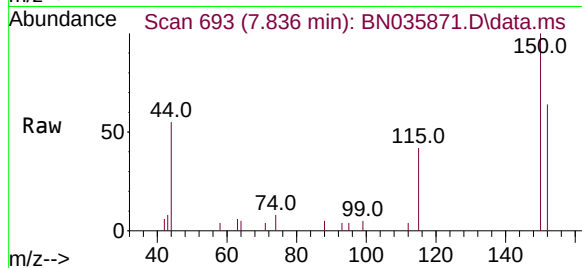




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.836 min Scan# 693  
Delta R.T. -0.000 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

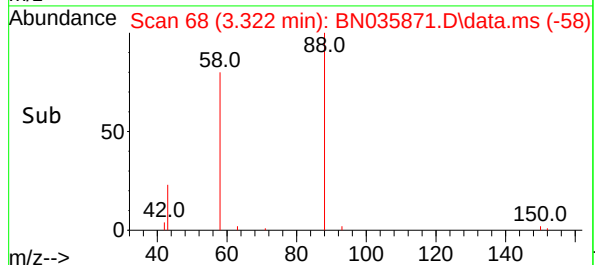
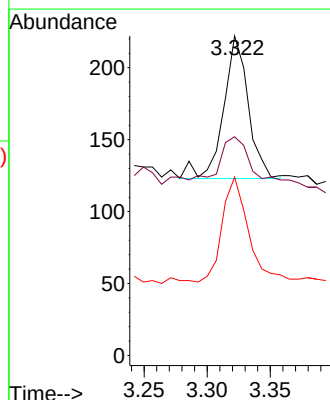
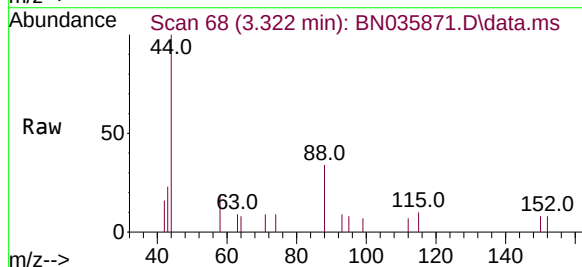
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

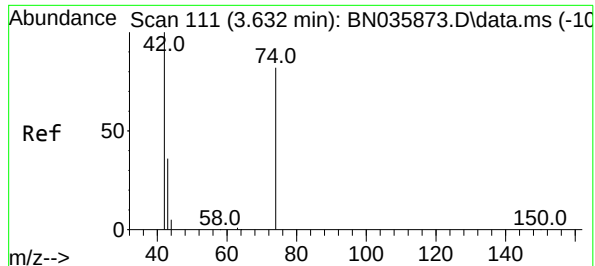
Tgt Ion: 152 Resp: 1199  
Ion Ratio Lower Upper  
152 100  
150 157.3 117.8 176.6  
115 66.5 51.0 76.4



#2  
1,4-Dioxane  
Concen: 0.114 ng  
RT: 3.322 min Scan# 68  
Delta R.T. 0.000 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

Tgt Ion: 88 Resp: 136  
Ion Ratio Lower Upper  
88 100  
43 29.4 32.7 49.1#  
58 77.2 63.0 94.4

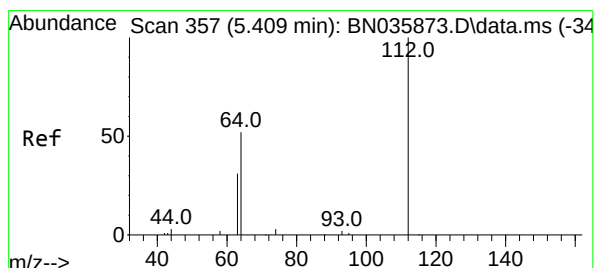
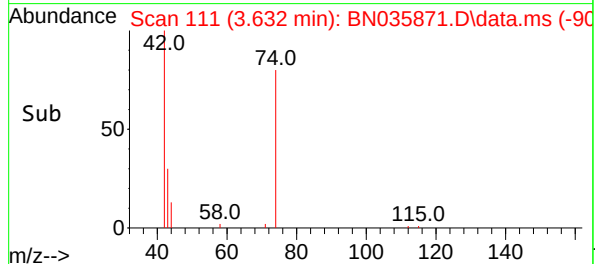
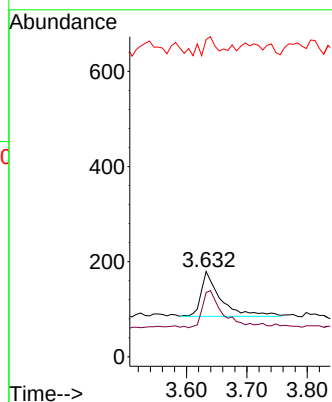
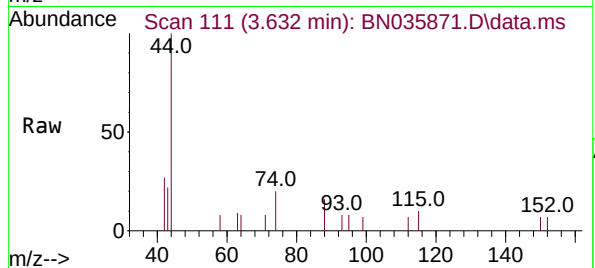




#3  
n-Nitrosodimethylamine  
Concen: 0.102 ng  
RT: 3.632 min Scan# 111  
Delta R.T. 0.000 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

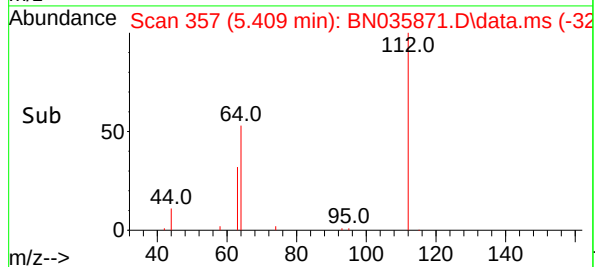
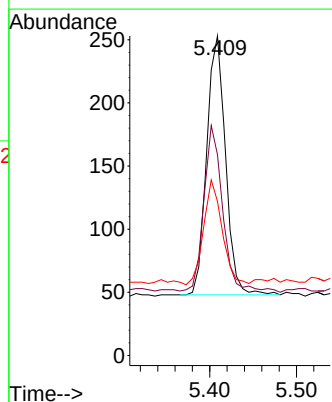
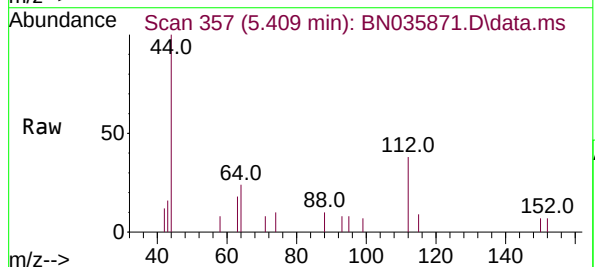
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

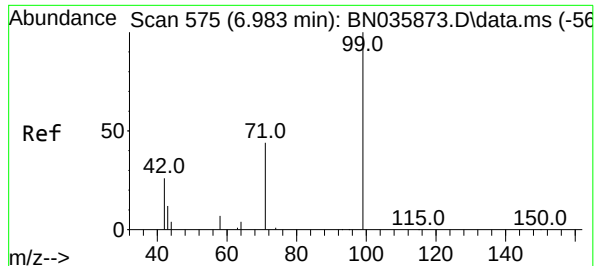
Tgt Ion: 42 Resp: 212  
Ion Ratio Lower Upper  
42 100  
74 88.7 62.2 93.2  
44 26.4 7.1 10.7#



#4  
2-Fluorophenol  
Concen: 0.105 ng  
RT: 5.409 min Scan# 357  
Delta R.T. 0.000 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

Tgt Ion: 112 Resp: 309  
Ion Ratio Lower Upper  
112 100  
64 65.0 48.2 72.2  
63 40.1 30.0 45.0

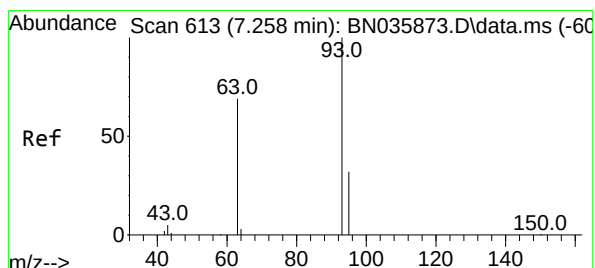
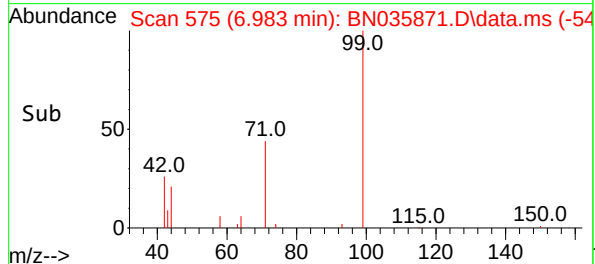
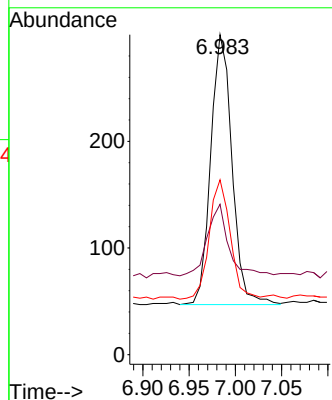
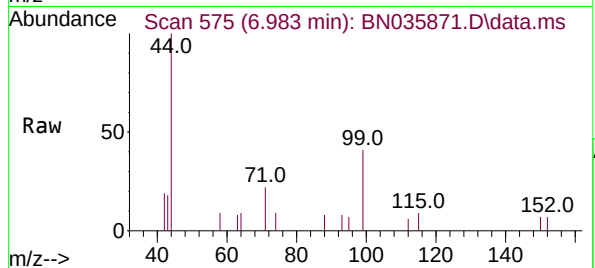




#5  
Phenol-d6  
Concen: 0.111 ng  
RT: 6.983 min Scan# 575  
Delta R.T. 0.000 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

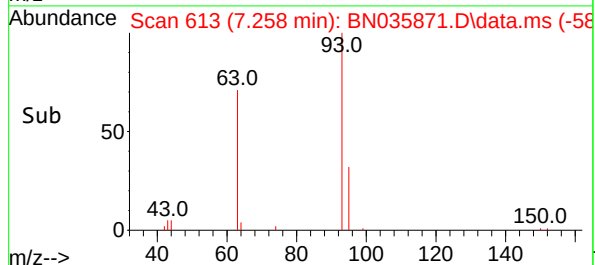
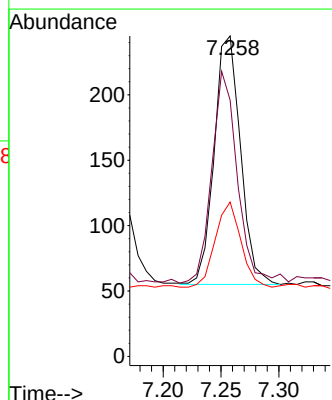
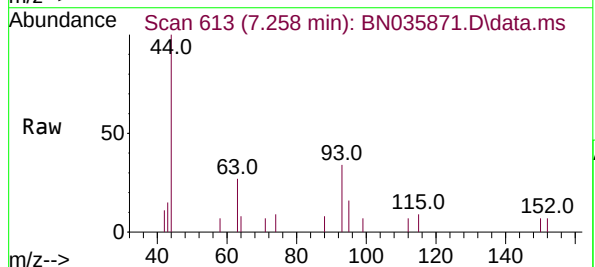
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

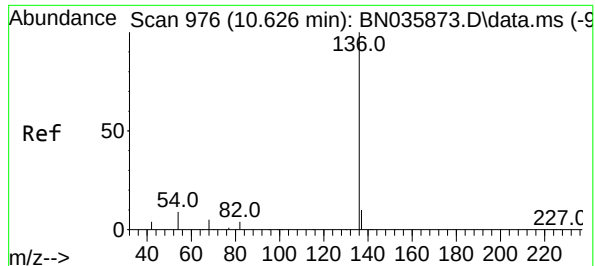
Tgt Ion: 99 Resp: 405  
Ion Ratio Lower Upper  
99 100  
42 26.9 23.5 35.3  
71 44.4 35.5 53.3



#6  
bis(2-Chloroethyl)ether  
Concen: 0.108 ng  
RT: 7.258 min Scan# 613  
Delta R.T. 0.000 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

Tgt Ion: 93 Resp: 300  
Ion Ratio Lower Upper  
93 100  
63 82.3 62.0 93.0  
95 33.3 25.5 38.3

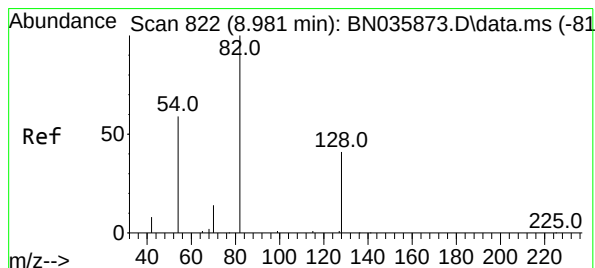
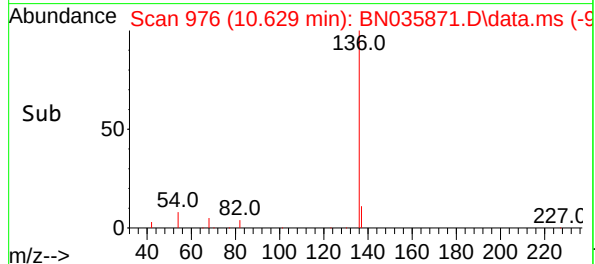
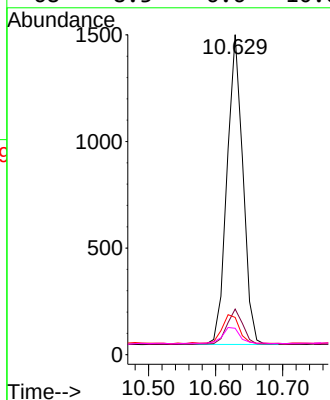
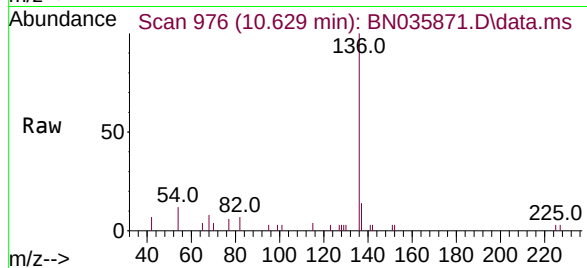




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.629 min Scan# 91  
Delta R.T. 0.004 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

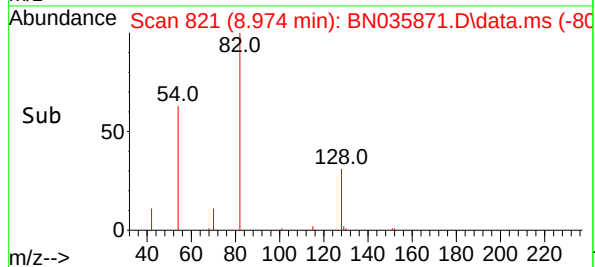
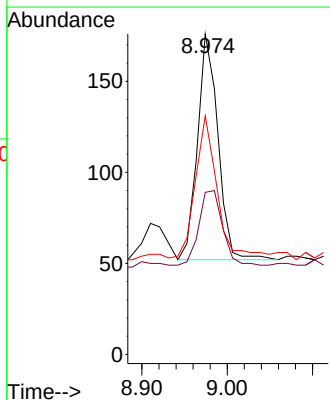
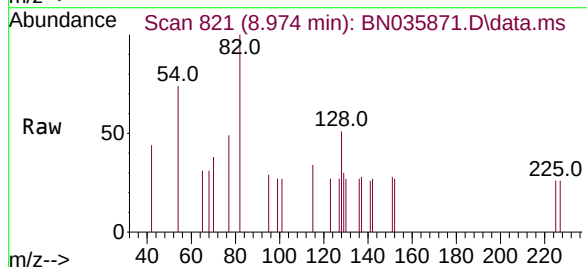
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

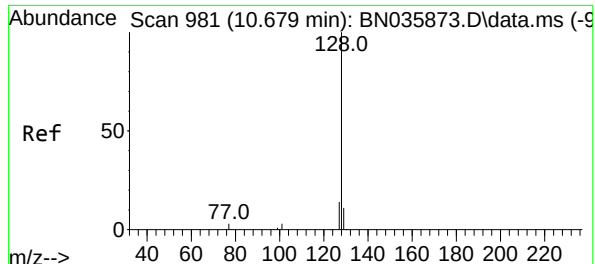
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 2391  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 14.3  | 10.6  | 15.8  |
| 54       | 11.7  | 9.8   | 14.6  |
| 68       | 8.3   | 6.6   | 10.0  |



#8  
Nitrobenzene-d5  
Concen: 0.109 ng  
RT: 8.974 min Scan# 821  
Delta R.T. -0.007 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 207   |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 50.6  | 36.9  | 55.3  |
| 54       | 74.4  | 50.4  | 75.6  |

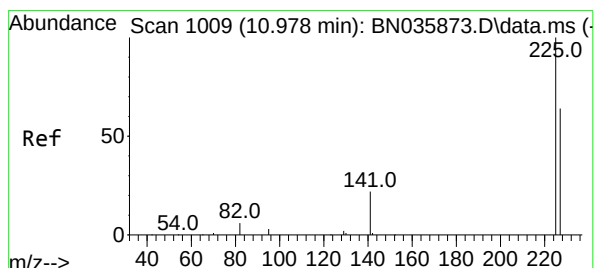
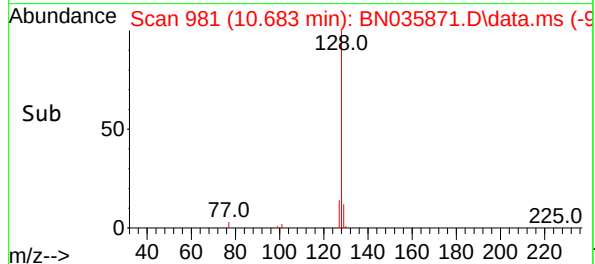
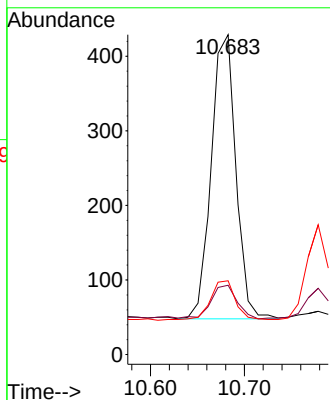
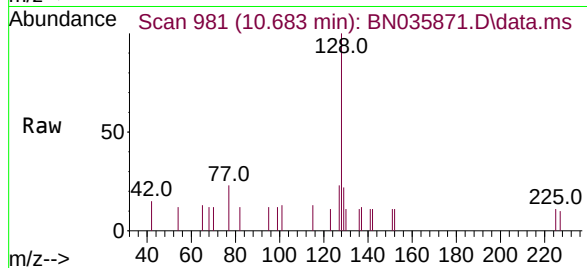




#9  
Naphthalene  
Concen: 0.104 ng  
RT: 10.683 min Scan# 981  
Delta R.T. 0.004 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

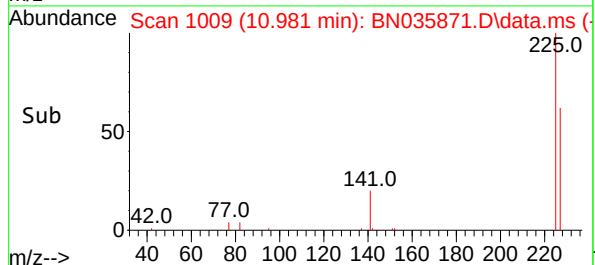
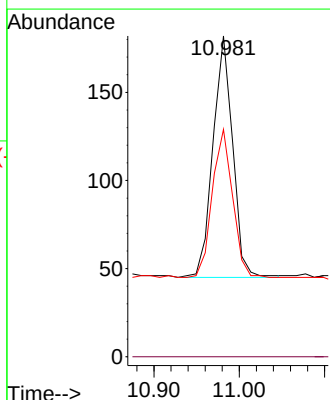
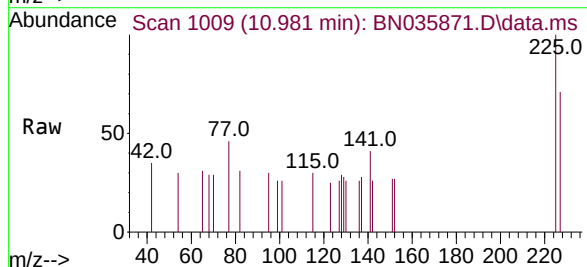
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

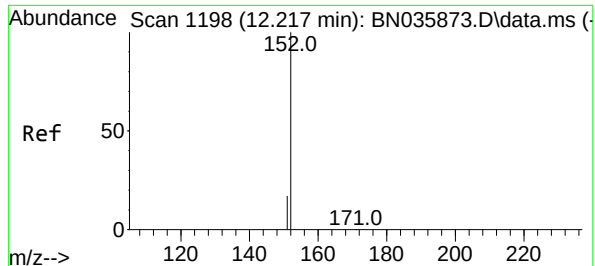
Tgt Ion:128 Resp: 695  
Ion Ratio Lower Upper  
128 100  
129 21.7 10.6 16.0#  
127 23.1 12.8 19.2#



#10  
Hexachlorobutadiene  
Concen: 0.101 ng  
RT: 10.981 min Scan# 1009  
Delta R.T. 0.004 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

Tgt Ion:225 Resp: 220  
Ion Ratio Lower Upper  
225 100  
223 0.0 0.0 0.0  
227 62.7 51.5 77.3

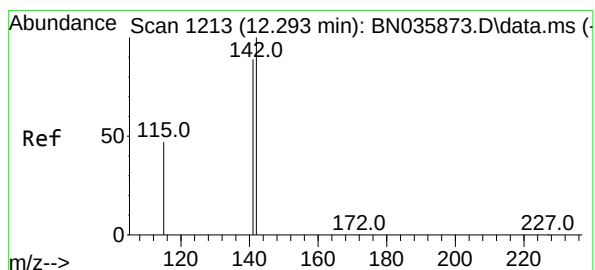
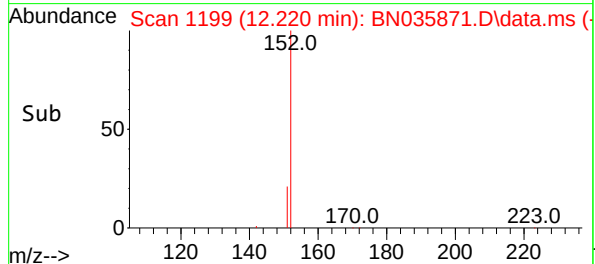
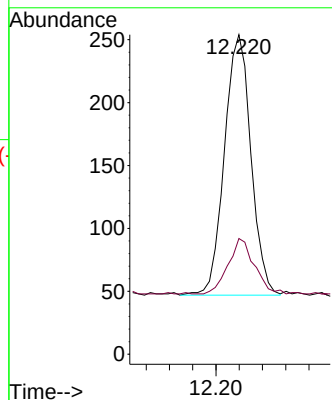
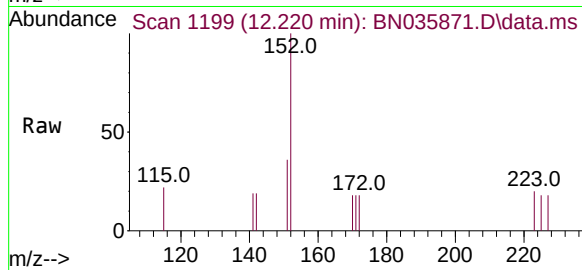




#11  
2-Methylnaphthalene-d10  
Concen: 0.102 ng  
RT: 12.220 min Scan# 1198  
Delta R.T. 0.003 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

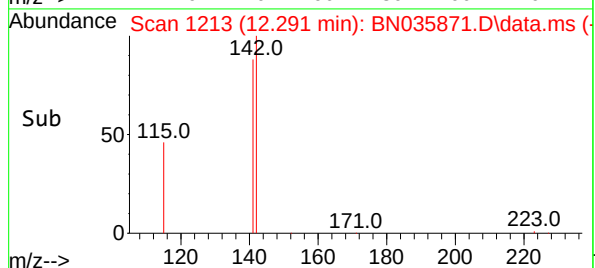
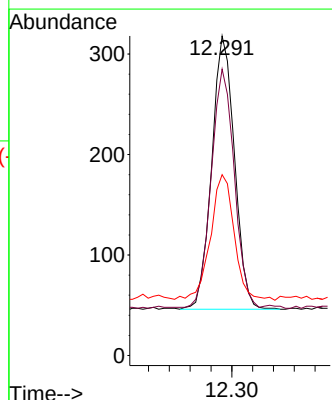
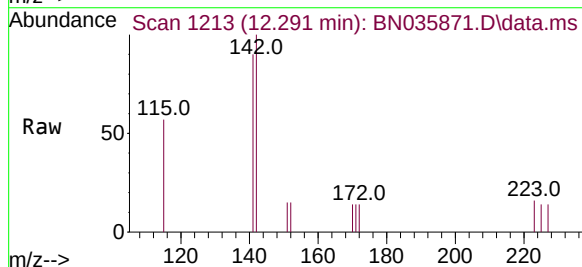
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

Tgt Ion:152 Resp: 327  
Ion Ratio Lower Upper  
152 100  
151 21.1 17.0 25.6

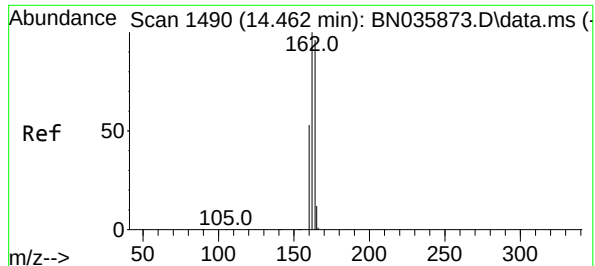


#12  
2-Methylnaphthalene  
Concen: 0.099 ng  
RT: 12.291 min Scan# 1213  
Delta R.T. -0.002 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

Tgt Ion:142 Resp: 413  
Ion Ratio Lower Upper  
142 100  
141 89.6 71.9 107.9  
115 56.6 39.6 59.4



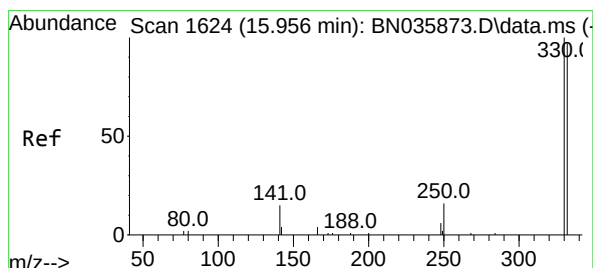
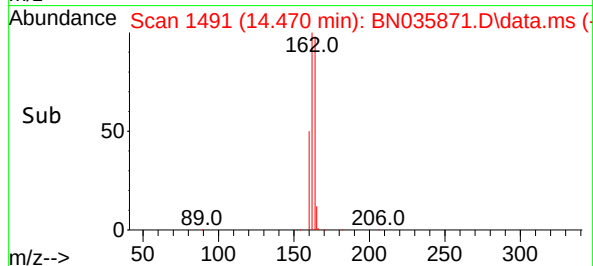
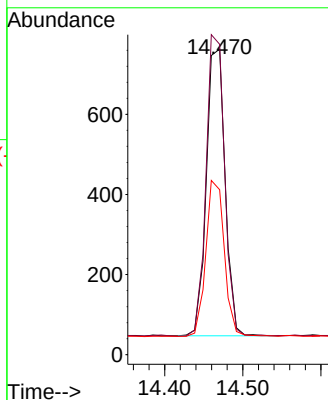
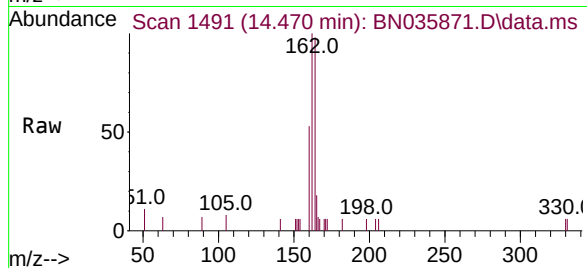




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.470 min Scan# 1490  
Delta R.T. 0.009 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

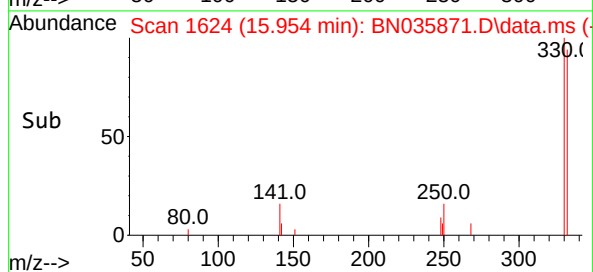
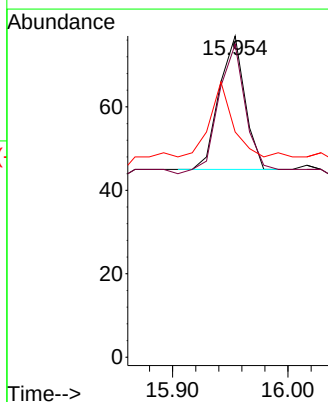
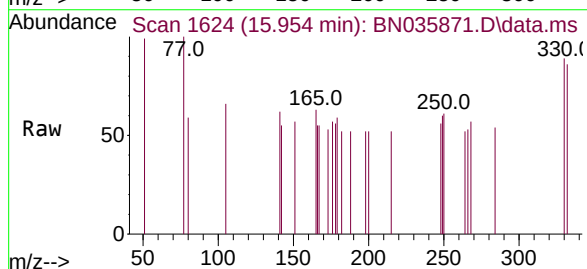
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

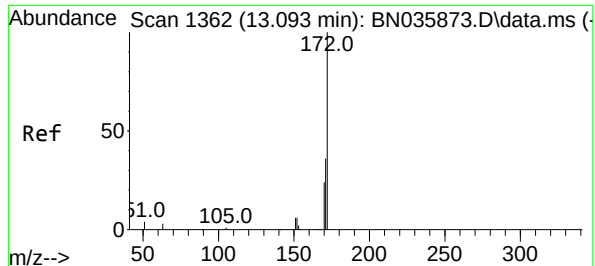
Tgt Ion:164 Resp: 1196  
Ion Ratio Lower Upper  
164 100  
162 101.6 83.1 124.7  
160 54.0 46.0 69.0



#14  
2,4,6-Tribromophenol  
Concen: 0.085 ng  
RT: 15.954 min Scan# 1624  
Delta R.T. -0.002 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

Tgt Ion:330 Resp: 49  
Ion Ratio Lower Upper  
330 100  
332 106.1 77.2 115.8  
141 71.4 31.6 47.4#





#15

2-Fluorobiphenyl

Concen: 0.101 ng

RT: 13.091 min Scan# 1362

Delta R.T. -0.002 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1

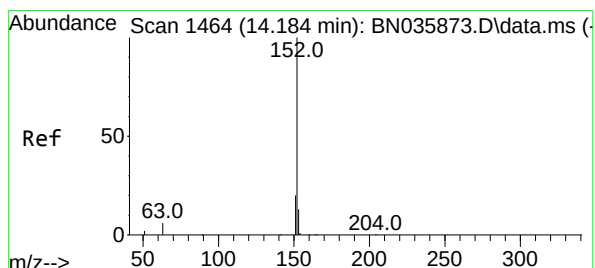
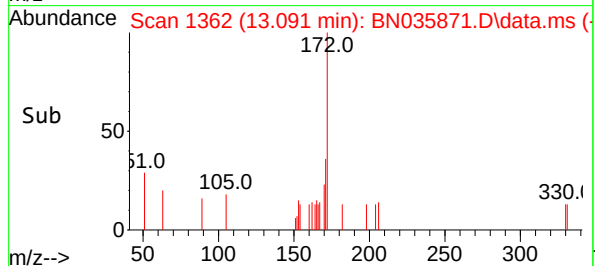
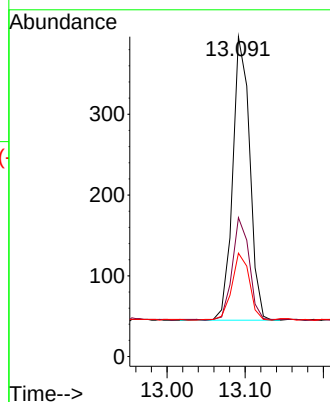
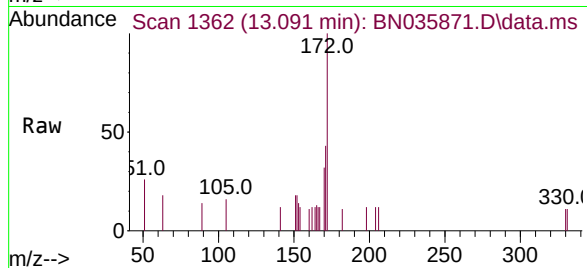
Tgt Ion:172 Resp: 531

Ion Ratio Lower Upper

172 100

171 43.4 30.5 45.7

170 32.3 20.8 31.2#



#16

Acenaphthylene

Concen: 0.100 ng

RT: 14.182 min Scan# 1464

Delta R.T. -0.002 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

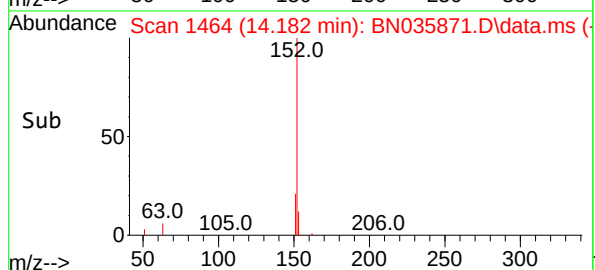
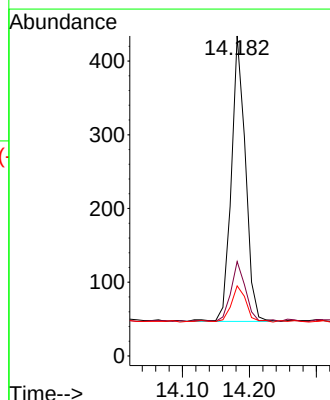
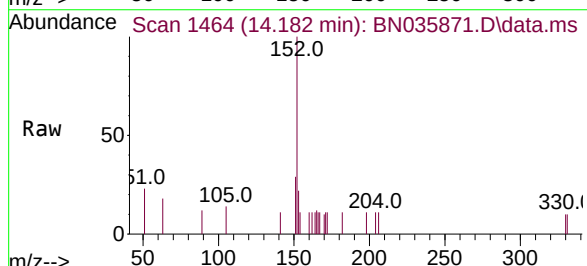
Tgt Ion:152 Resp: 565

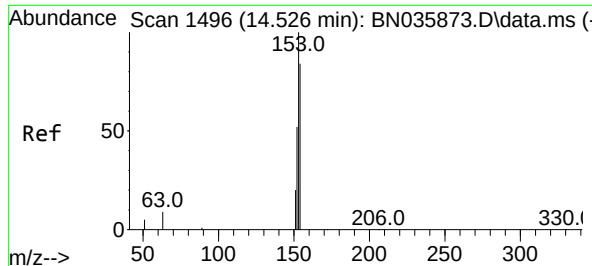
Ion Ratio Lower Upper

152 100

151 21.8 16.3 24.5

153 13.3 10.6 15.8

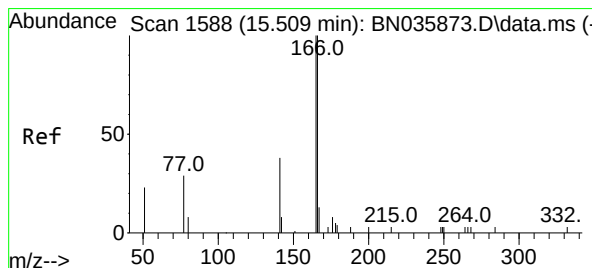
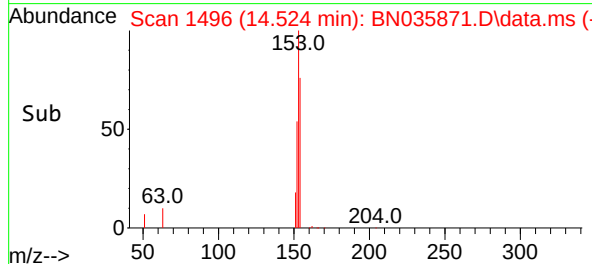
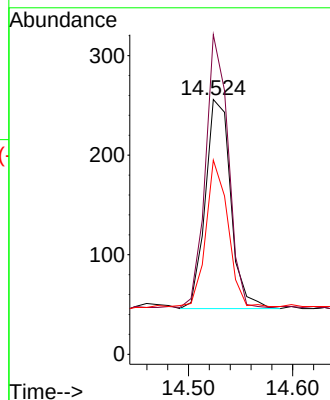
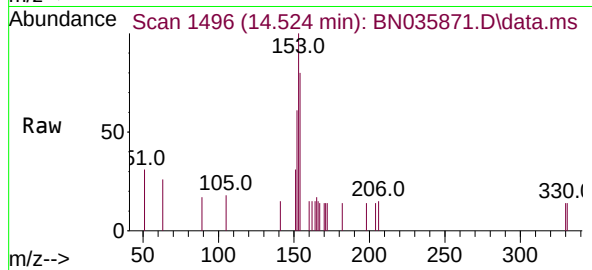




#17  
Acenaphthene  
Concen: 0.096 ng  
RT: 14.524 min Scan# 1496  
Delta R.T. -0.002 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

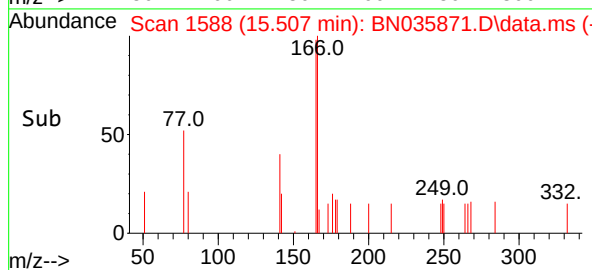
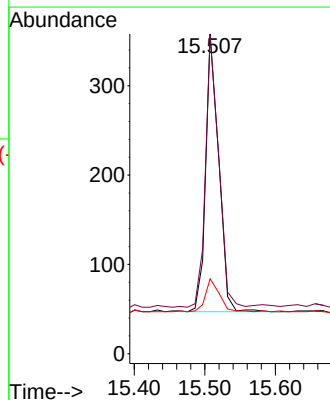
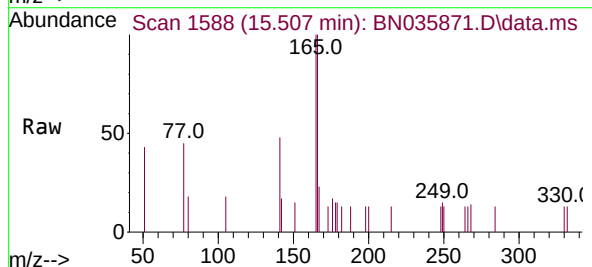
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

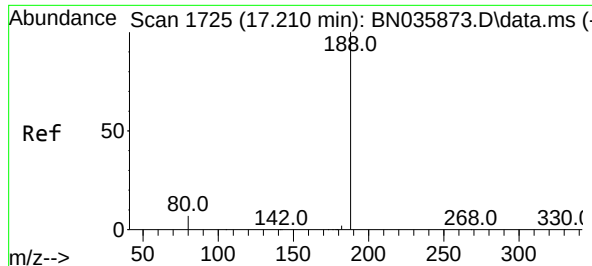
| Tgt Ion   | 154   | Resp: | 355   |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 154       | 100   |       |       |
| 153       | 116.6 | 90.5  | 135.7 |
| 152       | 62.8  | 48.6  | 73.0  |



#18  
Fluorene  
Concen: 0.099 ng  
RT: 15.507 min Scan# 1588  
Delta R.T. -0.002 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

| Tgt Ion   | 166   | Resp: | 401   |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 166       | 100   |       |       |
| 165       | 96.5  | 80.6  | 120.8 |
| 167       | 12.5  | 11.4  | 17.0  |





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 17.208 min Scan# 11

Delta R.T. -0.002 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

Instrument :

BNA\_N

ClientSampleId :

SSTDIC0.1

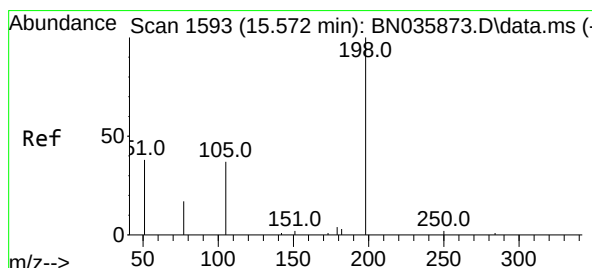
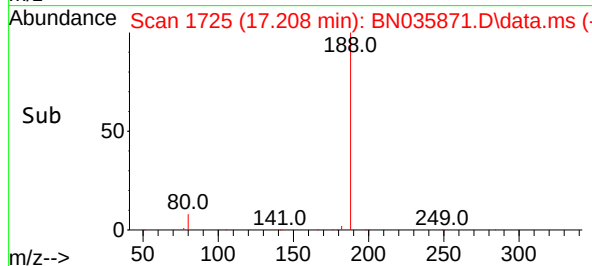
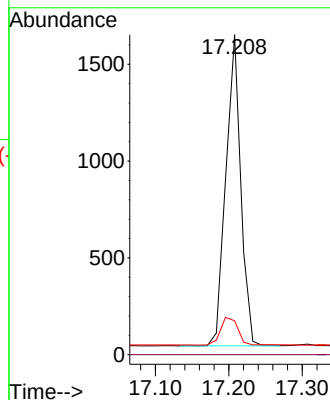
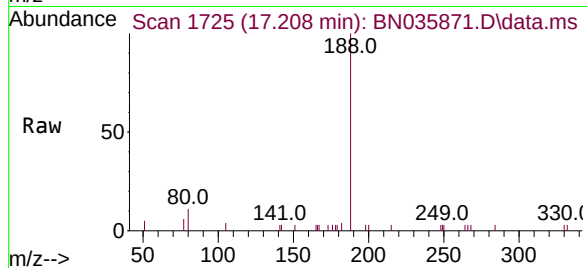
Tgt Ion:188 Resp: 2268

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 10.6 7.3 10.9



#20

4,6-Dinitro-2-methylphenol

Concen: 0.084 ng

RT: 15.569 min Scan# 1593

Delta R.T. -0.002 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

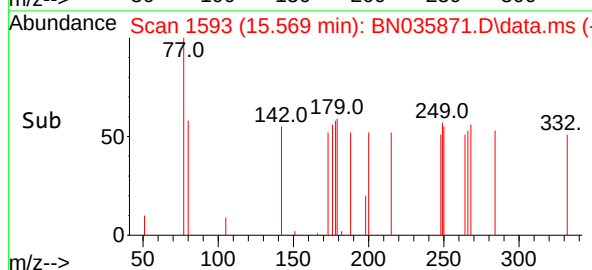
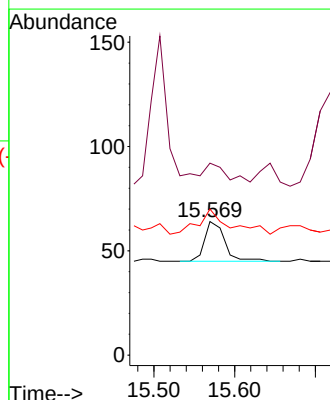
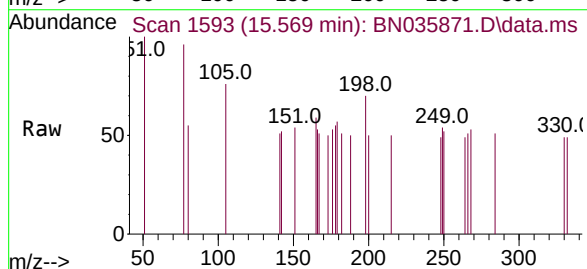
Tgt Ion:198 Resp: 33

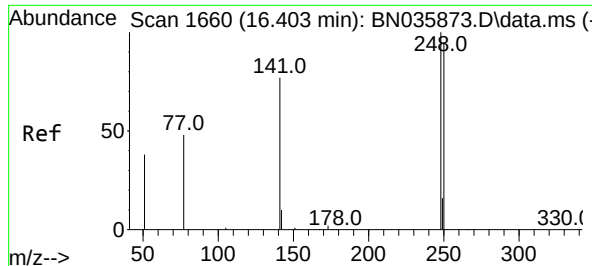
Ion Ratio Lower Upper

198 100

51 143.8 64.3 96.5#

105 109.4 50.0 75.0#

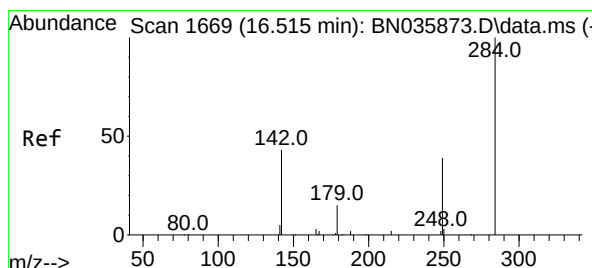
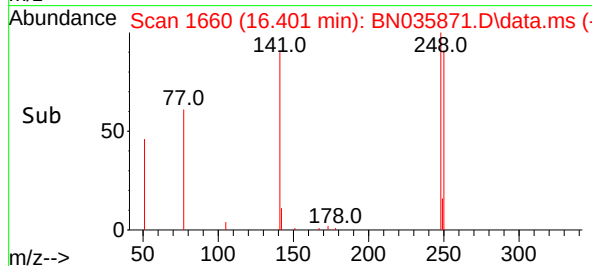
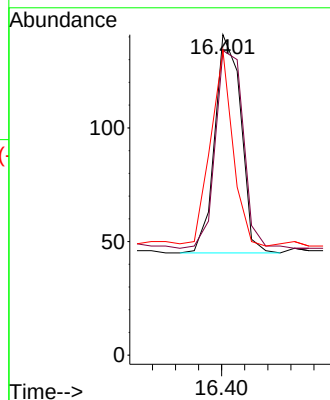
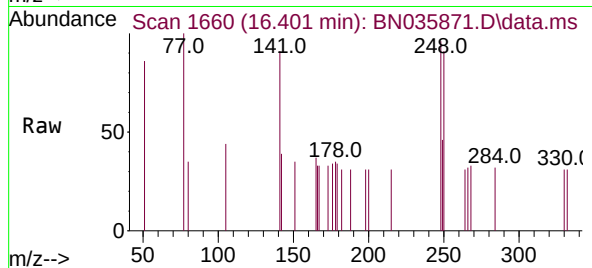




#21  
4-Bromophenyl-phenylether  
Concen: 0.096 ng  
RT: 16.401 min Scan# 1670  
Delta R.T. -0.002 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

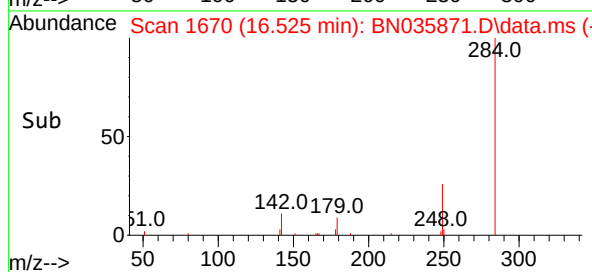
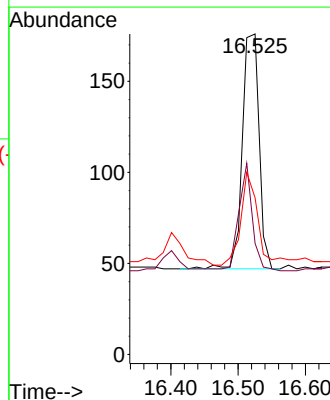
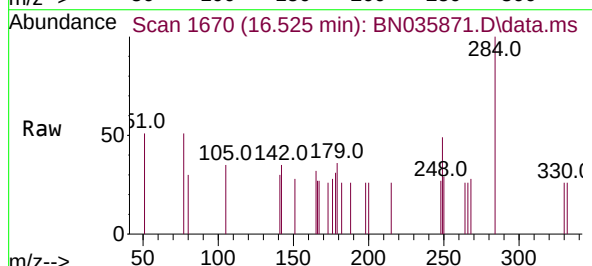
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDIC0.1

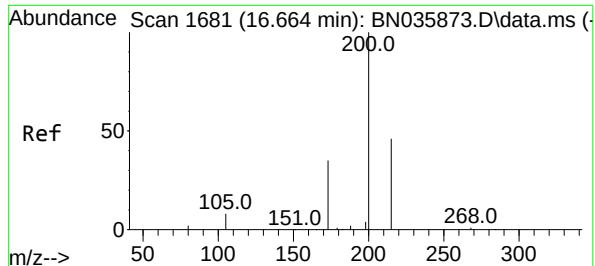
|             |       |             |
|-------------|-------|-------------|
| Tgt Ion:248 | Resp: | 150         |
| Ion         | Ratio | Lower Upper |
| 248         | 100   |             |
| 250         | 95.0  | 76.8 115.2  |
| 141         | 95.0  | 63.6 95.4   |



#22  
Hexachlorobenzene  
Concen: 0.105 ng  
RT: 16.525 min Scan# 1670  
Delta R.T. 0.010 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

|             |       |             |
|-------------|-------|-------------|
| Tgt Ion:284 | Resp: | 223         |
| Ion         | Ratio | Lower Upper |
| 284         | 100   |             |
| 142         | 38.1  | 31.4 47.0   |
| 249         | 45.7  | 27.8 41.8   |

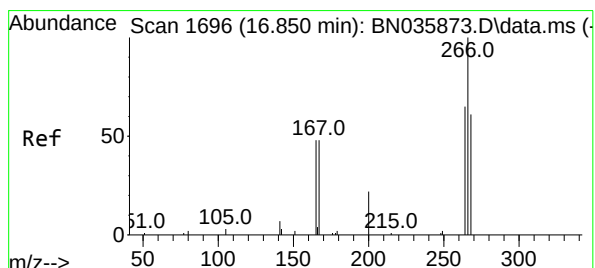
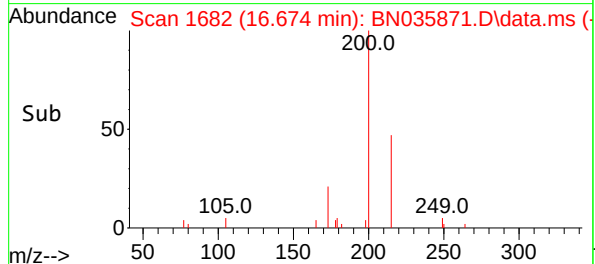
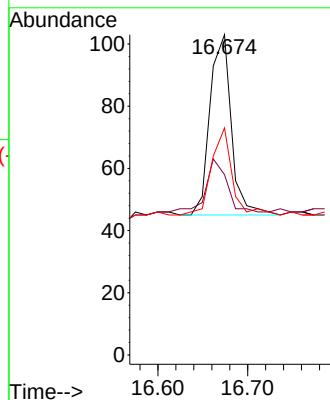
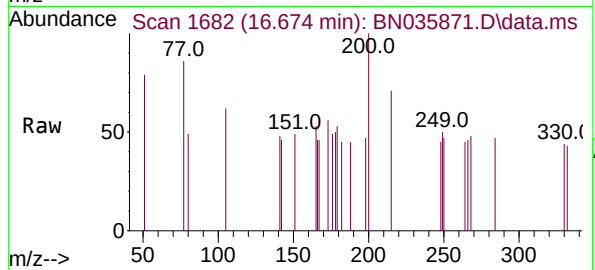




#23  
Atrazine  
Concen: 0.092 ng  
RT: 16.674 min Scan# 1681  
Delta R.T. 0.010 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

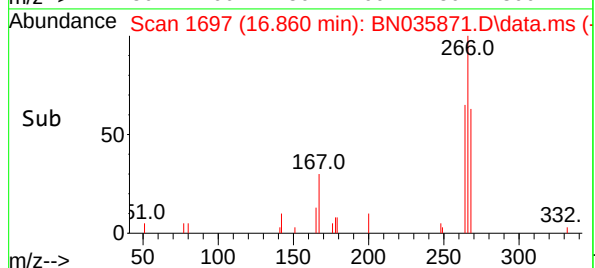
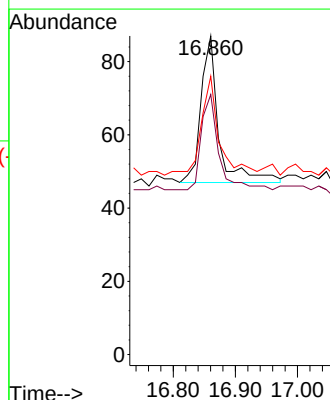
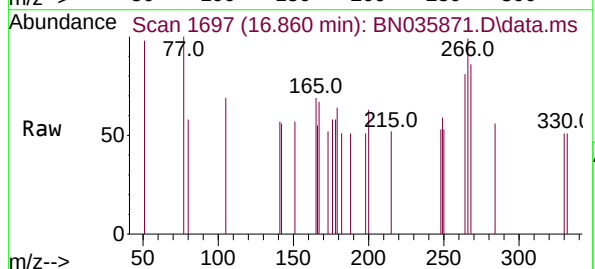
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

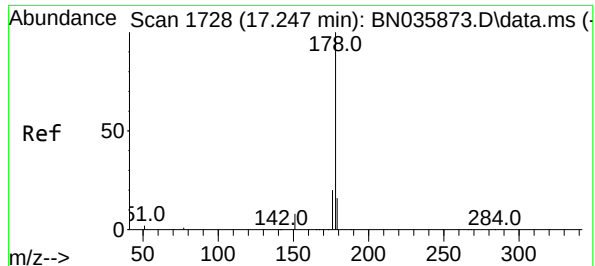
Tgt Ion:200 Resp: 96  
Ion Ratio Lower Upper  
200 100  
173 56.3 35.4 53.0#  
215 70.9 42.4 63.6#



#24  
Pentachlorophenol  
Concen: 0.107 ng  
RT: 16.860 min Scan# 1697  
Delta R.T. 0.010 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

Tgt Ion:266 Resp: 80  
Ion Ratio Lower Upper  
266 100  
264 63.7 49.9 74.9  
268 67.5 50.2 75.2

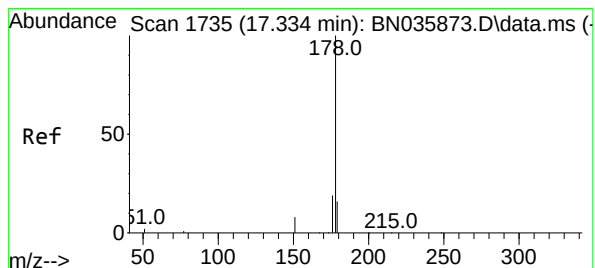
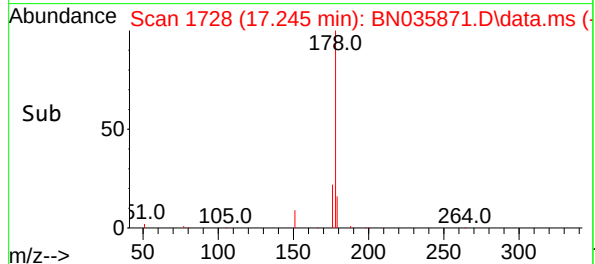
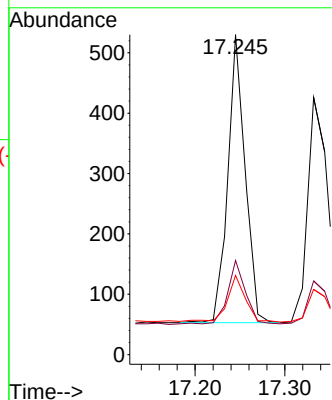
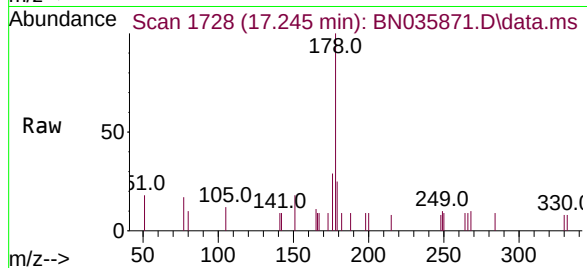




#25  
Phenanthrene  
Concen: 0.097 ng  
RT: 17.245 min Scan# 1728  
Delta R.T. -0.002 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

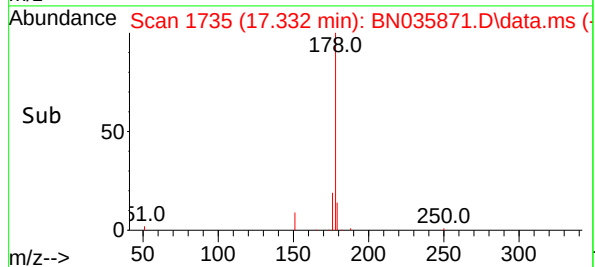
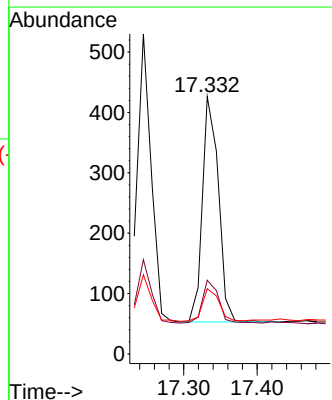
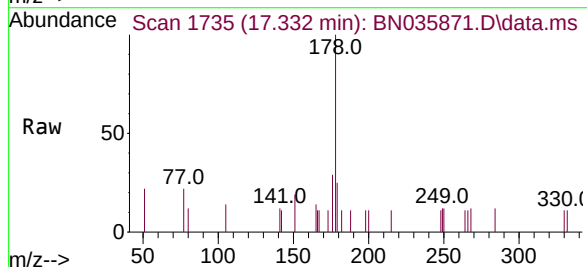
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

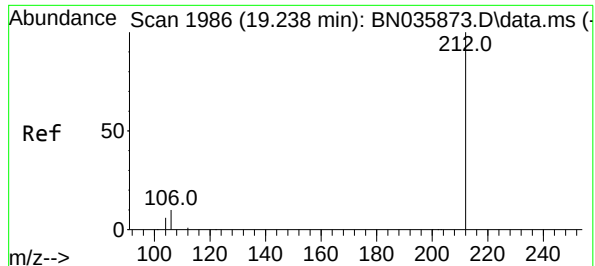
Tgt Ion:178 Resp: 641  
Ion Ratio Lower Upper  
178 100  
176 23.2 15.9 23.9  
179 17.8 12.9 19.3



#26  
Anthracene  
Concen: 0.094 ng  
RT: 17.332 min Scan# 1735  
Delta R.T. -0.002 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

Tgt Ion:178 Resp: 565  
Ion Ratio Lower Upper  
178 100  
176 20.4 15.0 22.6  
179 15.0 13.0 19.6





#27

Fluoranthene-d10

Concen: 0.099 ng

RT: 19.236 min Scan# 1986

Delta R.T. -0.002 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

Instrument :

BNA\_N

ClientSampleId :

SSTDIC0.1

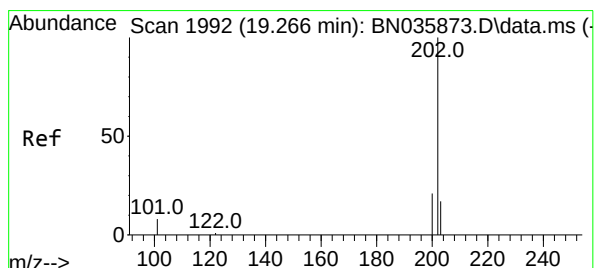
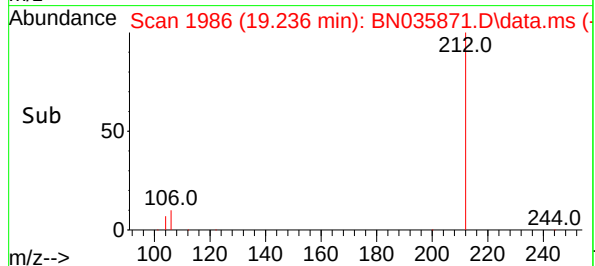
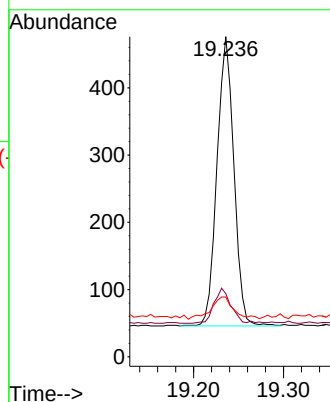
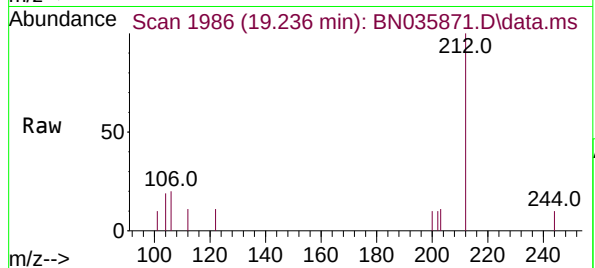
Tgt Ion:212 Resp: 560

Ion Ratio Lower Upper

212 100

106 11.8 9.0 13.6

104 10.4 5.4 8.2#



#28

Fluoranthene

Concen: 0.093 ng

RT: 19.264 min Scan# 1992

Delta R.T. -0.002 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

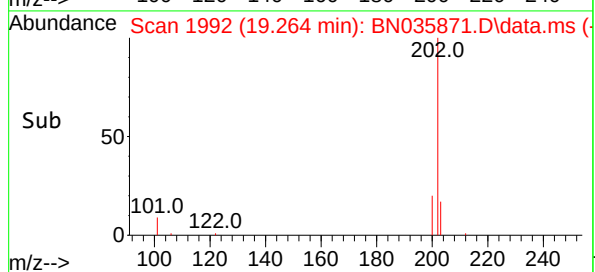
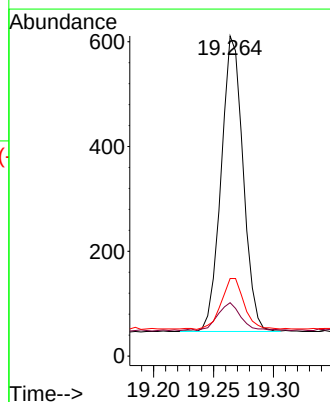
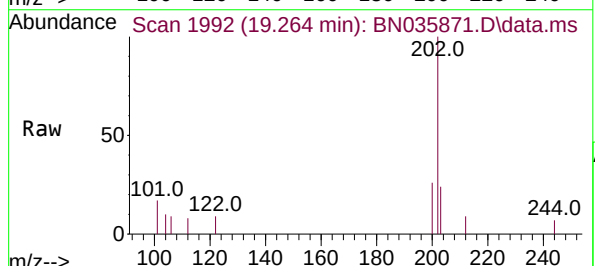
Tgt Ion:202 Resp: 719

Ion Ratio Lower Upper

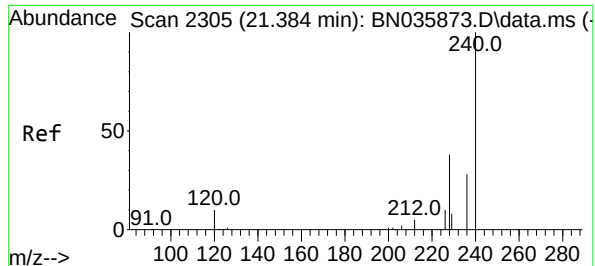
202 100

101 10.0 7.2 10.8

203 18.1 13.9 20.9







#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.386 min Scan# 21

Delta R.T. 0.003 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1

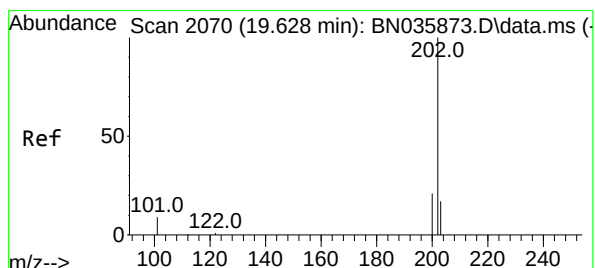
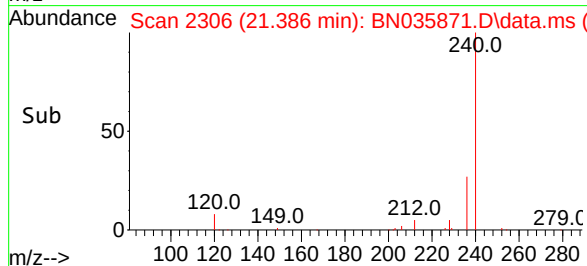
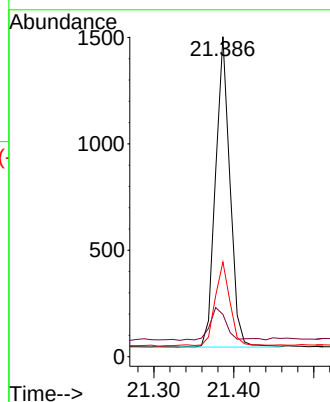
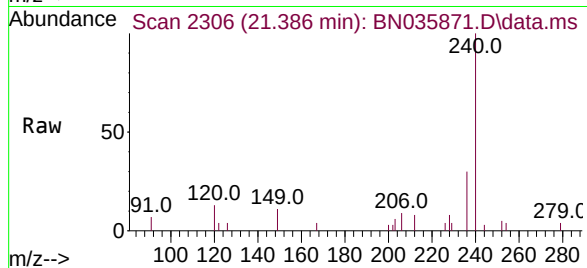
Tgt Ion:240 Resp: 1828

Ion Ratio Lower Upper

240 100

120 13.2 11.1 16.7

236 29.6 24.6 36.8



#30

Pyrene

Concen: 0.099 ng

RT: 19.626 min Scan# 2070

Delta R.T. -0.002 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

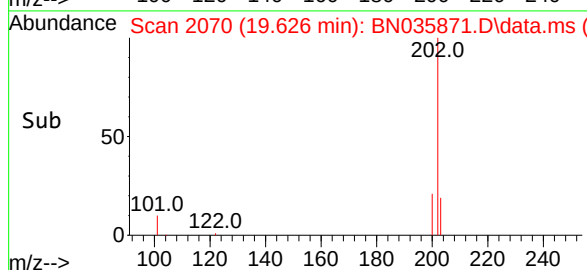
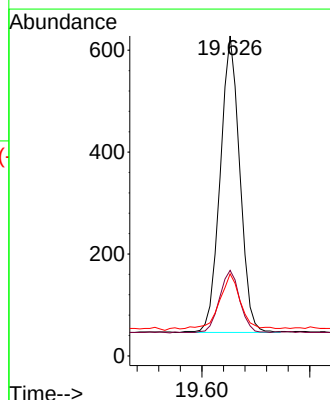
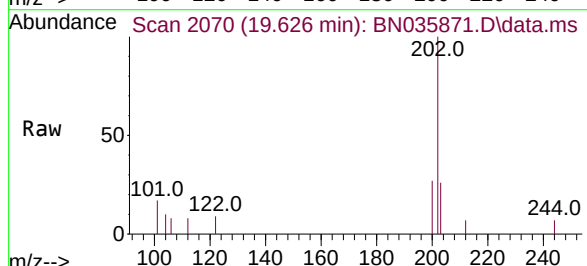
Tgt Ion:202 Resp: 734

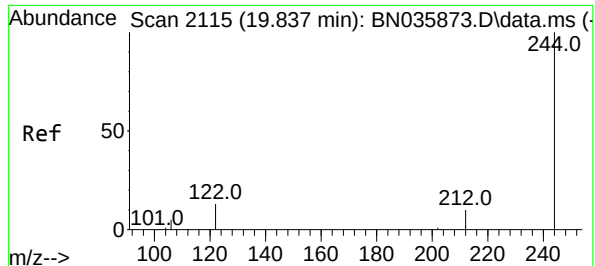
Ion Ratio Lower Upper

202 100

200 21.4 17.0 25.6

203 20.2 14.6 22.0

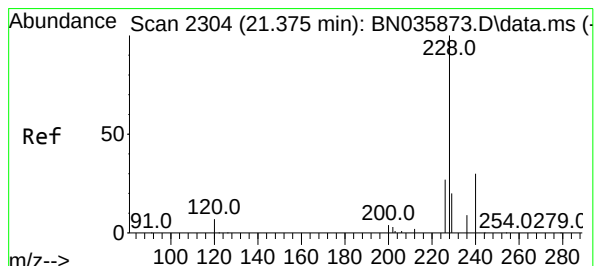
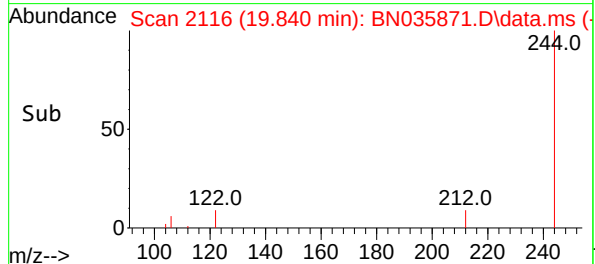
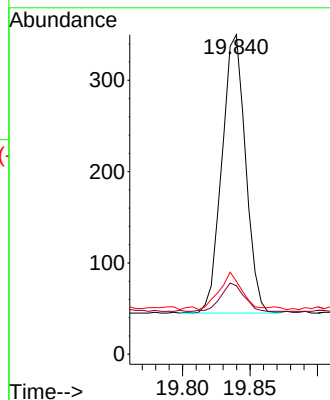
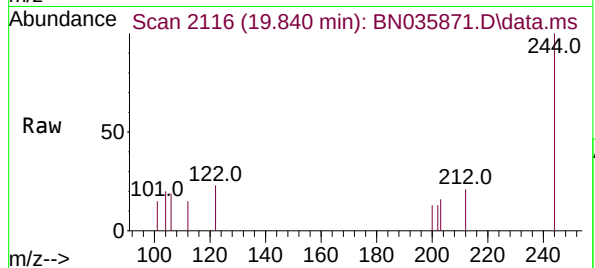




#31  
Terphenyl-d14  
Concen: 0.102 ng  
RT: 19.840 min Scan# 2115  
Delta R.T. 0.003 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

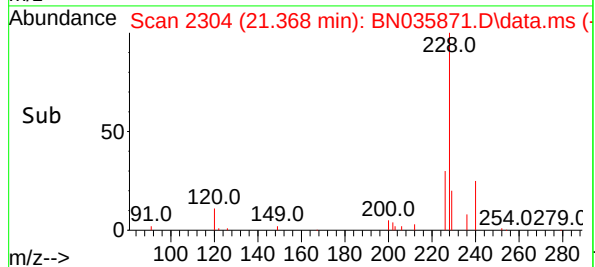
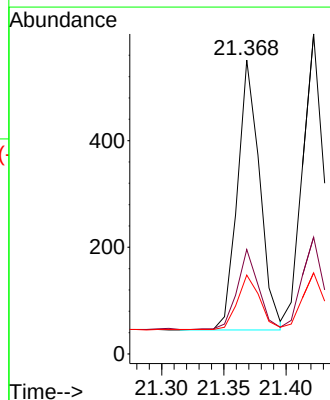
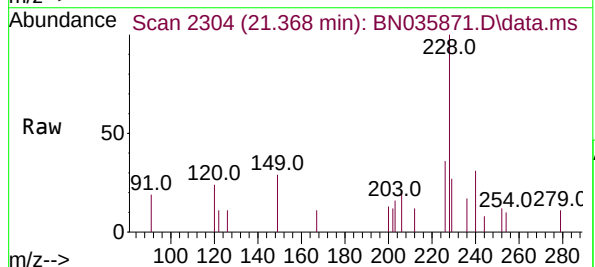
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.1

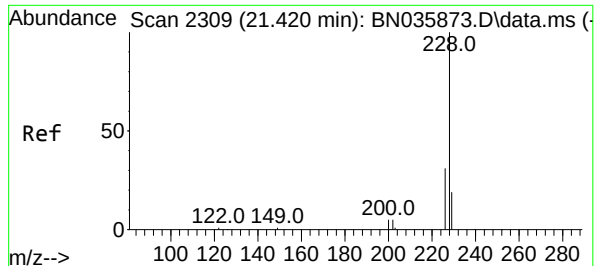
Tgt Ion:244 Resp: 372  
Ion Ratio Lower Upper  
244 100  
212 21.4 10.1 15.1#  
122 22.9 12.2 18.4#



#32  
Benzo(a)anthracene  
Concen: 0.098 ng  
RT: 21.368 min Scan# 2304  
Delta R.T. -0.006 min  
Lab File: BN035871.D  
Acq: 02 Jan 2025 11:28

Tgt Ion:228 Resp: 630  
Ion Ratio Lower Upper  
228 100  
226 35.6 22.7 34.1#  
229 26.9 17.1 25.7#





#33

Chrysene

Concen: 0.101 ng

RT: 21.422 min Scan# 21

Delta R.T. 0.003 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1

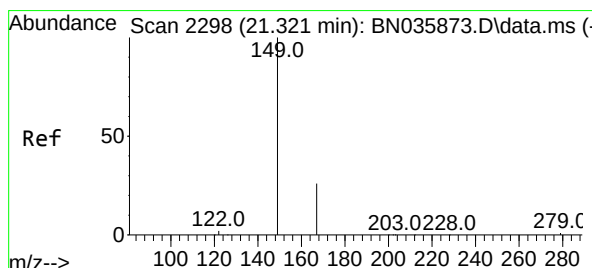
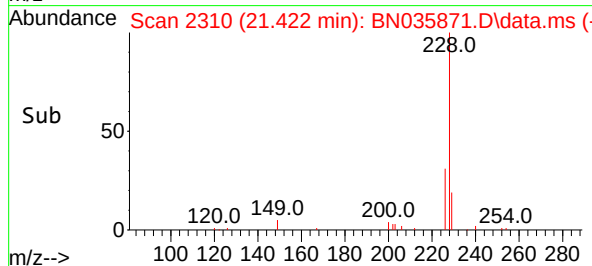
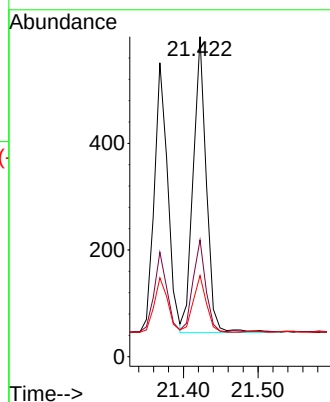
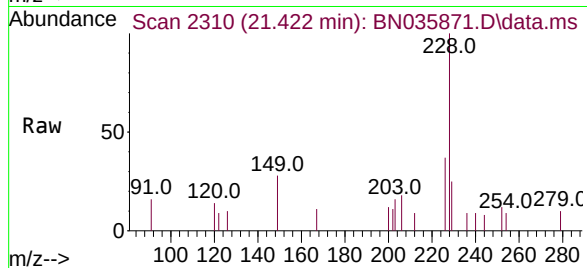
Tgt Ion:228 Resp: 678

Ion Ratio Lower Upper

228 100

226 36.5 25.2 37.8

229 25.3 16.0 24.0#



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.121 ng

RT: 21.324 min Scan# 2299

Delta R.T. 0.003 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

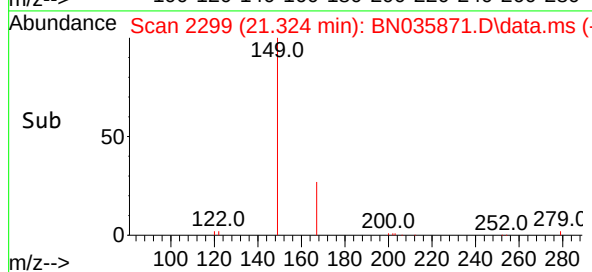
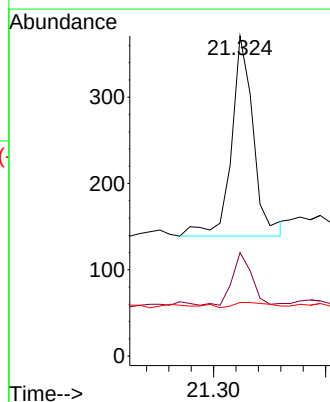
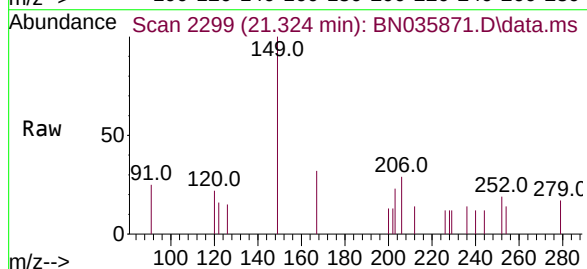
Tgt Ion:149 Resp: 316

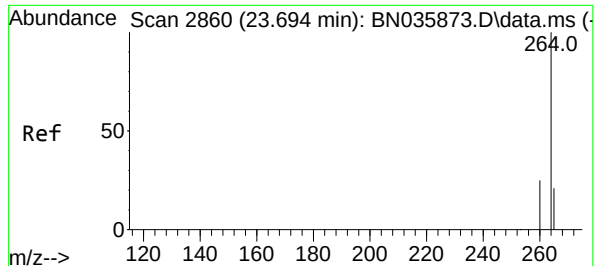
Ion Ratio Lower Upper

149 100

167 23.4 21.4 32.0

279 4.1 3.0 4.6





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.694 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

Instrument :

BNA\_N

ClientSampleId :

SSTDIC0.1

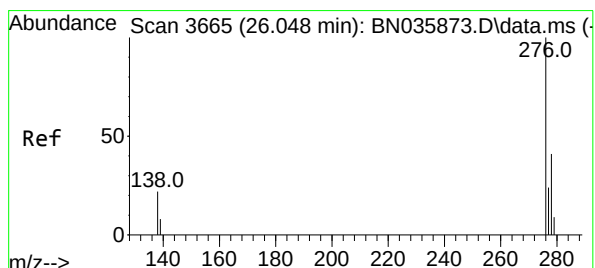
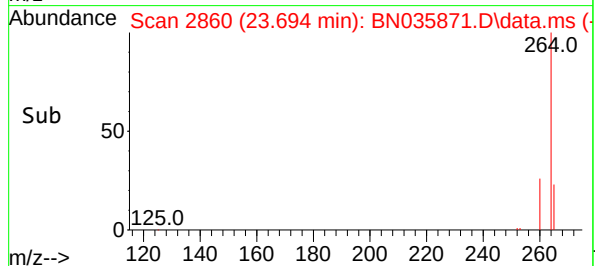
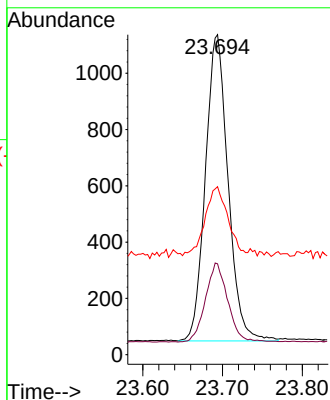
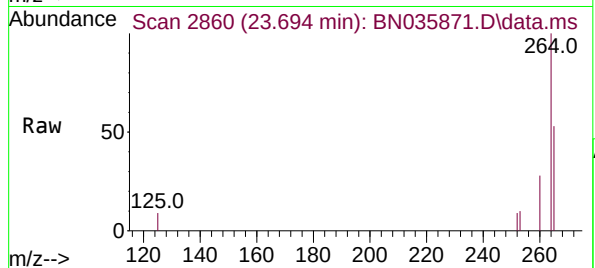
Tgt Ion:264 Resp: 2148

Ion Ratio Lower Upper

264 100

260 28.4 21.7 32.5

265 52.5 33.9 50.9#



#36

Indeno(1,2,3-cd)pyrene

Concen: 0.091 ng

RT: 26.047 min Scan# 3665

Delta R.T. -0.000 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

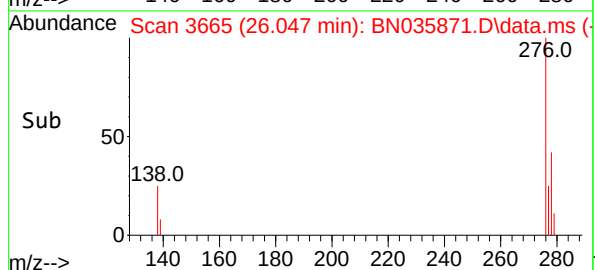
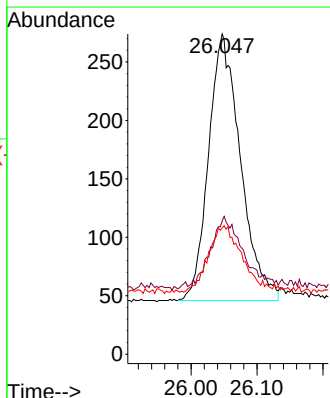
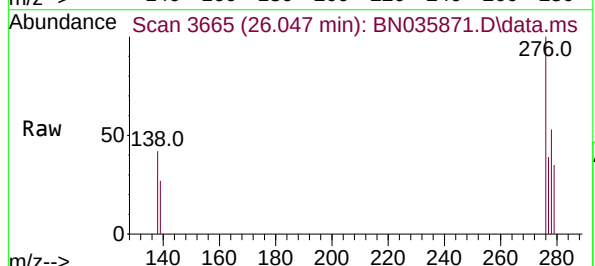
Tgt Ion:276 Resp: 767

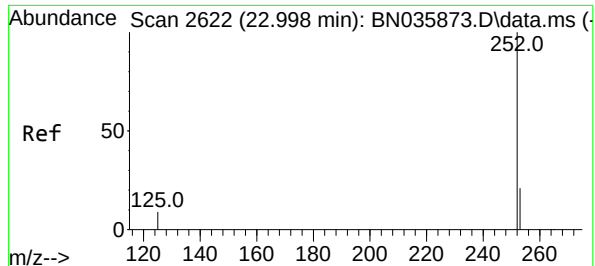
Ion Ratio Lower Upper

276 100

138 26.9 18.9 28.3

277 25.4 19.5 29.3





#37

Benzo(b)fluoranthene

Concen: 0.097 ng

RT: 23.001 min Scan# 2623

Delta R.T. 0.003 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

Instrument :

BNA\_N

ClientSampleId :

SSTDIC0.1

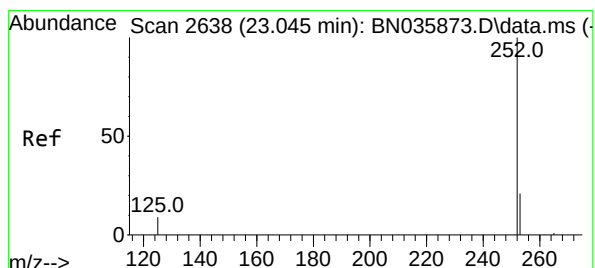
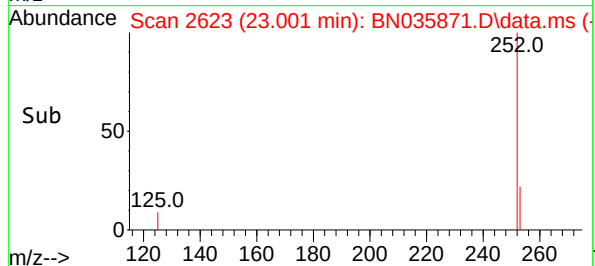
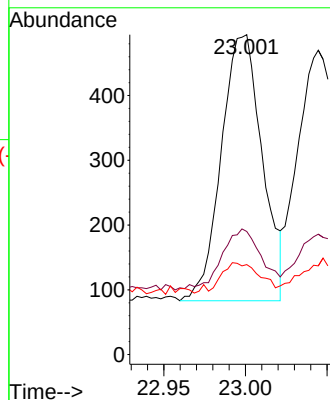
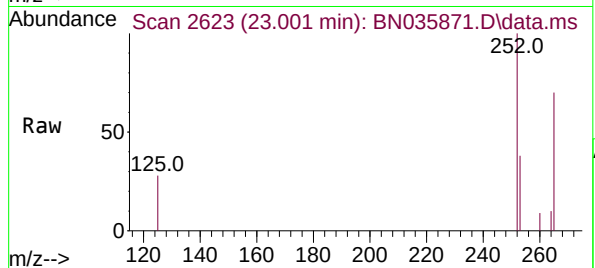
Tgt Ion:252 Resp: 718

Ion Ratio Lower Upper

252 100

253 38.5 20.1 30.1#

125 28.1 9.9 14.9#



#38

Benzo(k)fluoranthene

Concen: 0.094 ng

RT: 23.045 min Scan# 2638

Delta R.T. -0.000 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

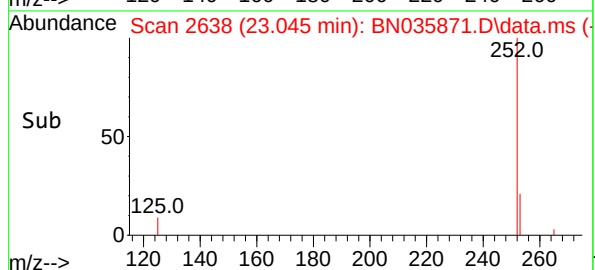
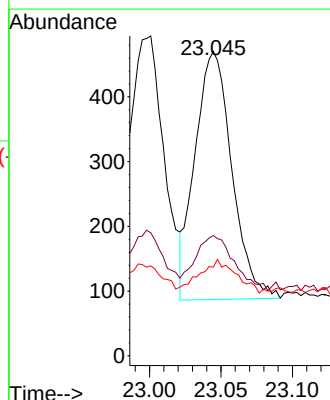
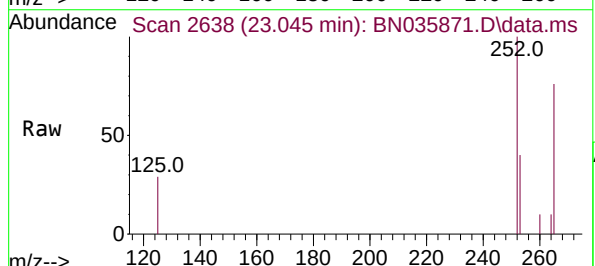
Tgt Ion:252 Resp: 687

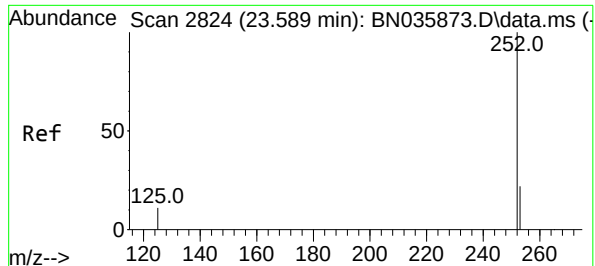
Ion Ratio Lower Upper

252 100

253 39.6 20.5 30.7#

125 29.1 10.6 16.0#





#39

Benzo(a)pyrene

Concen: 0.092 ng

RT: 23.591 min Scan# 21

Delta R.T. 0.003 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

Instrument :

BNA\_N

ClientSampleId :

SSTDIC0.1

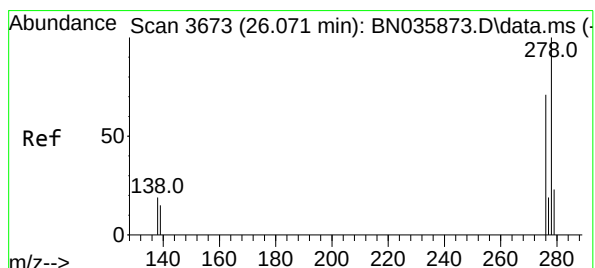
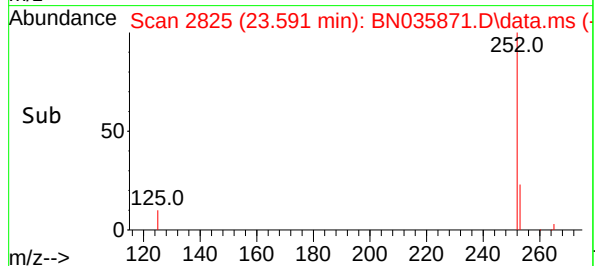
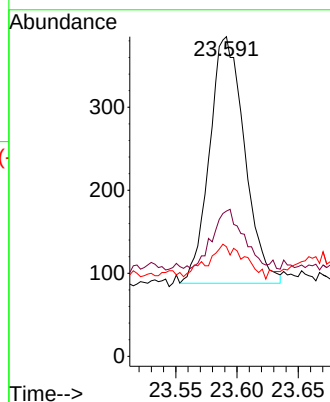
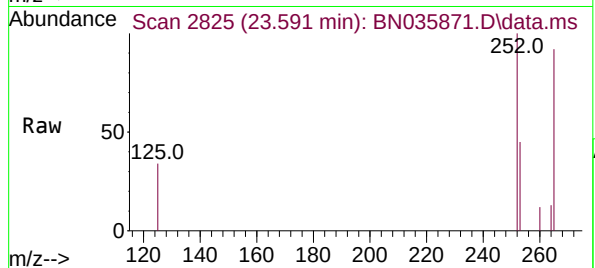
Tgt Ion:252 Resp: 590

Ion Ratio Lower Upper

252 100

253 45.5 21.5 32.3#

125 34.3 12.6 19.0#



#40

Dibenzo(a,h)anthracene

Concen: 0.091 ng

RT: 26.071 min Scan# 3673

Delta R.T. -0.000 min

Lab File: BN035871.D

Acq: 02 Jan 2025 11:28

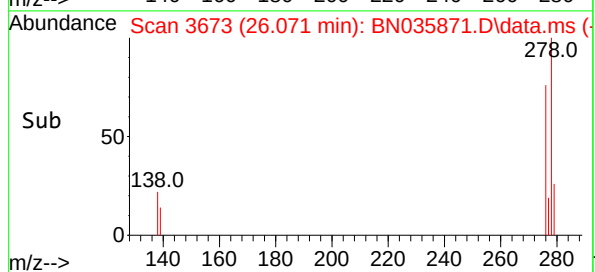
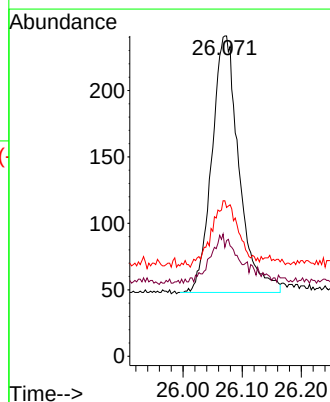
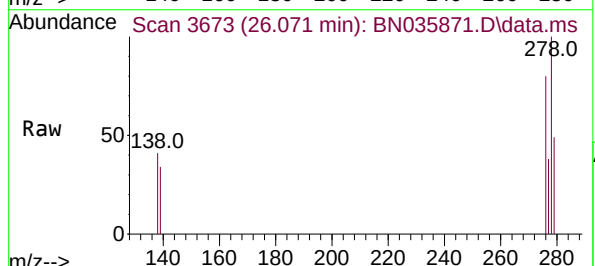
Tgt Ion:278 Resp: 615

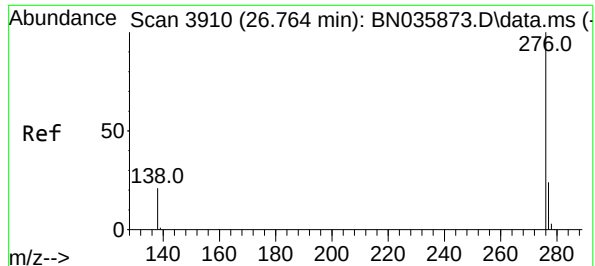
Ion Ratio Lower Upper

278 100

139 34.0 15.9 23.9#

279 48.5 23.0 34.4#





#41

Benzo(g,h,i)perylene

Concen: 0.095 ng

RT: 26.764 min Scan# 3910

Delta R.T. -0.000 min

Lab File: BN035871.D

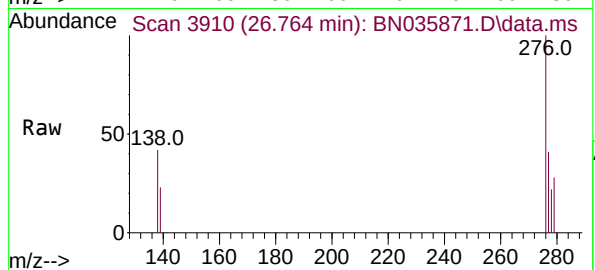
Acq: 02 Jan 2025 11:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.1



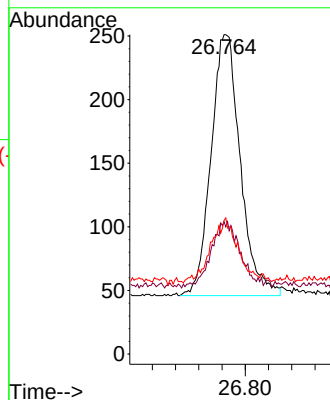
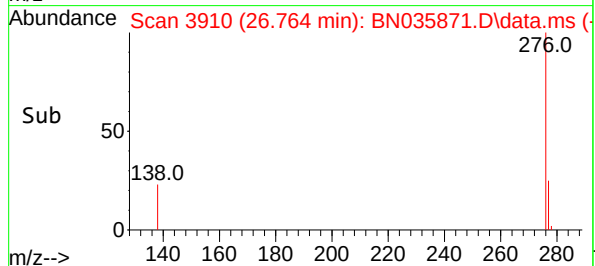
Tgt Ion:276 Resp: 717

Ion Ratio Lower Upper

276 100

277 41.4 22.8 34.2#

138 41.8 20.1 30.1#



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
 Data File : BN035872.D  
 Acq On : 02 Jan 2025 12:04  
 Operator : RC/JU  
 Sample : SSTDICC0.2  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2

Quant Time: Jan 02 15:49:19 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.835  | 152  | 1152     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.629 | 136  | 2364     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.470 | 164  | 1186     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.208 | 188  | 2216     | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.386 | 240  | 1774     | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 23.694 | 264  | 1987     | 0.400 | ng    | # 0.00   |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.409  | 112  | 581      | 0.206 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.983  | 99   | 723      | 0.206 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.974  | 82   | 363      | 0.194 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.220 | 152  | 634      | 0.200 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.954 | 330  | 98       | 0.172 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 13.091 | 172  | 993      | 0.191 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.236 | 212  | 1055     | 0.192 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.840 | 244  | 721      | 0.204 | ng    | 0.00     |
| Target Compounds              |        |      |          |       |       |          |
| 2) 1,4-Dioxane                | 3.322  | 88   | 243      | 0.212 | ng    | 95       |
| 3) n-Nitrosodimethylamine     | 3.632  | 42   | 388      | 0.194 | ng    | # 86     |
| 6) bis(2-Chloroethyl)ether    | 7.258  | 93   | 545      | 0.204 | ng    | 94       |
| 9) Naphthalene                | 10.682 | 128  | 1293     | 0.195 | ng    | # 93     |
| 10) Hexachlorobutadiene       | 10.981 | 225  | 418      | 0.194 | ng    | # 98     |
| 12) 2-Methylnaphthalene       | 12.291 | 142  | 773      | 0.188 | ng    | 97       |
| 16) Acenaphthylene            | 14.182 | 152  | 1047     | 0.187 | ng    | 98       |
| 17) Acenaphthene              | 14.524 | 154  | 689      | 0.188 | ng    | 99       |
| 18) Fluorene                  | 15.507 | 166  | 753      | 0.187 | ng    | 98       |
| 20) 4,6-Dinitro-2-methylph... | 15.582 | 198  | 73       | 0.190 | ng    | # 79     |
| 21) 4-Bromophenyl-phenylether | 16.401 | 248  | 298      | 0.196 | ng    | # 89     |
| 22) Hexachlorobenzene         | 16.525 | 284  | 409      | 0.197 | ng    | 99       |
| 23) Atrazine                  | 16.674 | 200  | 212      | 0.208 | ng    | 94       |
| 24) Pentachlorophenol         | 16.860 | 266  | 112      | 0.153 | ng    | 90       |
| 25) Phenanthrene              | 17.245 | 178  | 1254     | 0.194 | ng    | 99       |
| 26) Anthracene                | 17.344 | 178  | 1106     | 0.188 | ng    | 99       |
| 28) Fluoranthene              | 19.268 | 202  | 1388     | 0.184 | ng    | 99       |
| 30) Pyrene                    | 19.626 | 202  | 1437     | 0.200 | ng    | 99       |
| 32) Benzo(a)anthracene        | 21.368 | 228  | 1226     | 0.196 | ng    | 97       |
| 33) Chrysene                  | 21.422 | 228  | 1293     | 0.198 | ng    | 95       |
| 34) Bis(2-ethylhexyl)phtha... | 21.323 | 149  | 517      | 0.203 | ng    | 97       |
| 36) Indeno(1,2,3-cd)pyrene    | 26.050 | 276  | 1452     | 0.185 | ng    | 97       |
| 37) Benzo(b)fluoranthene      | 22.998 | 252  | 1296     | 0.190 | ng    | # 87     |
| 38) Benzo(k)fluoranthene      | 23.042 | 252  | 1246     | 0.184 | ng    | # 87     |
| 39) Benzo(a)pyrene            | 23.591 | 252  | 1173     | 0.199 | ng    | # 85     |
| 40) Dibenzo(a,h)anthracene    | 26.070 | 278  | 1145     | 0.184 | ng    | # 83     |
| 41) Benzo(g,h,i)perylene      | 26.766 | 276  | 1307     | 0.188 | ng    | # 87     |

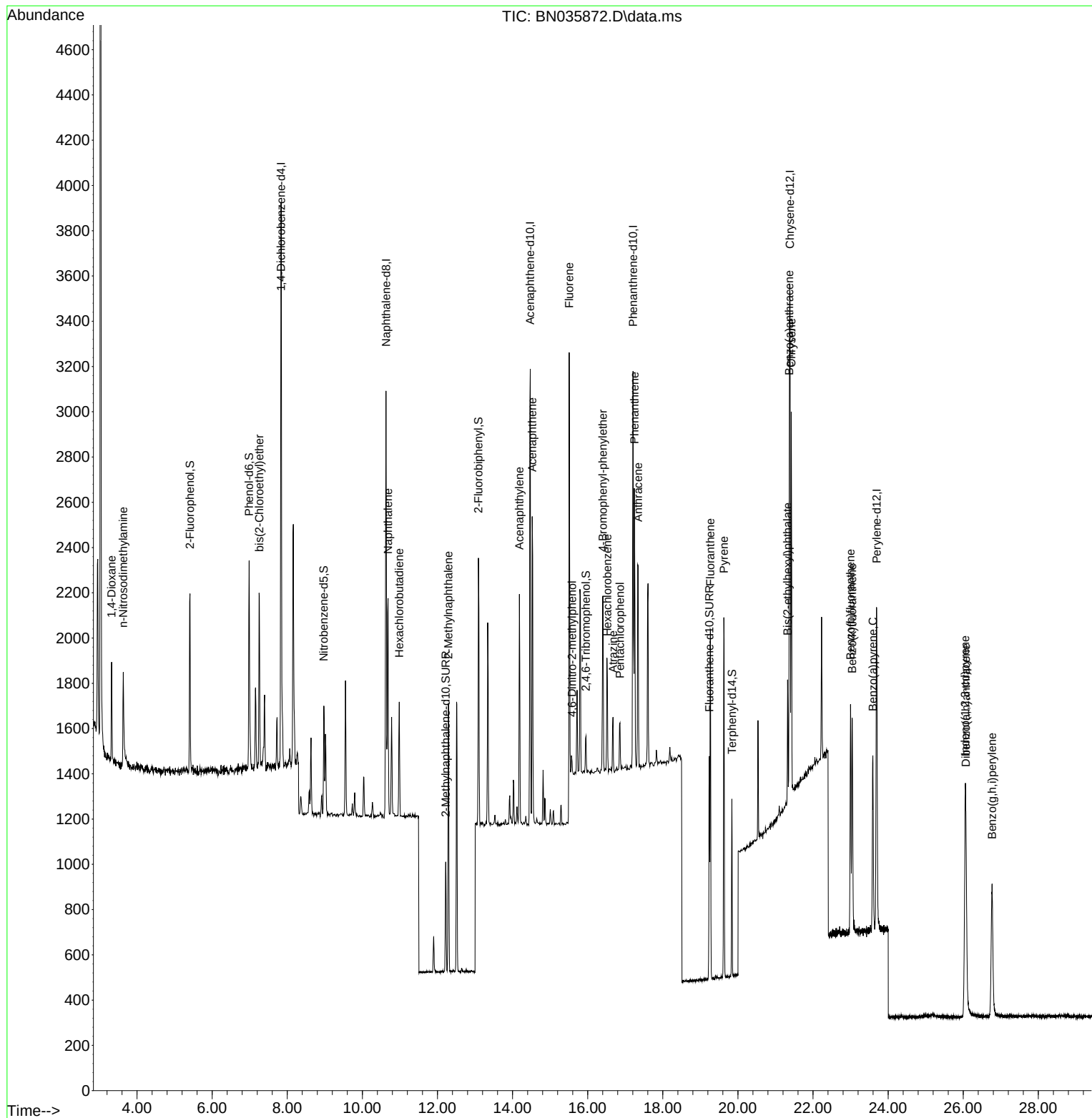
(#) = qualifier out of range (m) = manual integration (+) = signals summed

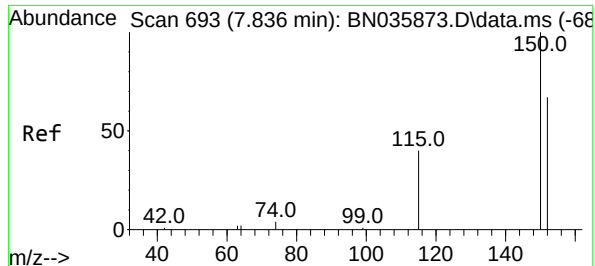


Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
Data File : BN035872.D  
Acq On : 02 Jan 2025 12:04  
Operator : RC/JU  
Sample : SSTDICC0.2  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

Quant Time: Jan 02 15:49:19 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

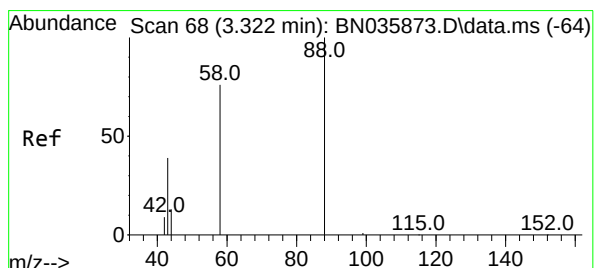
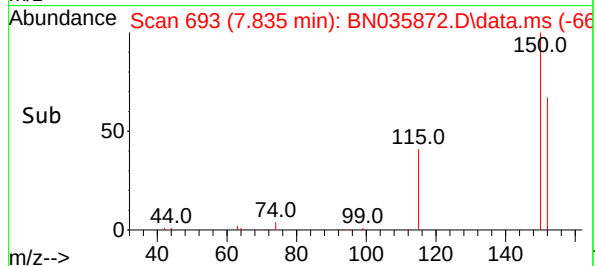
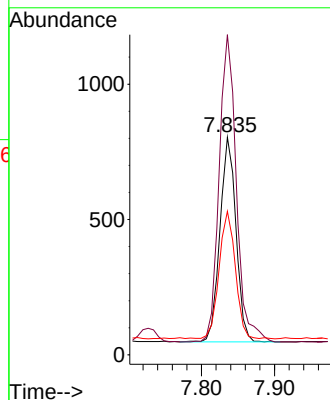
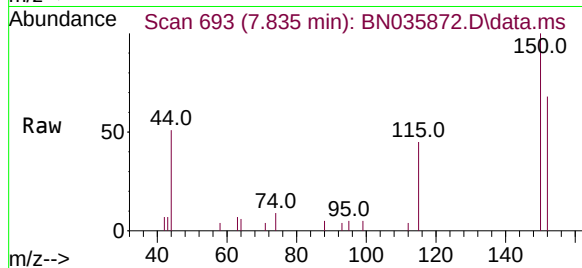




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.835 min Scan# 693  
Delta R.T. -0.001 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

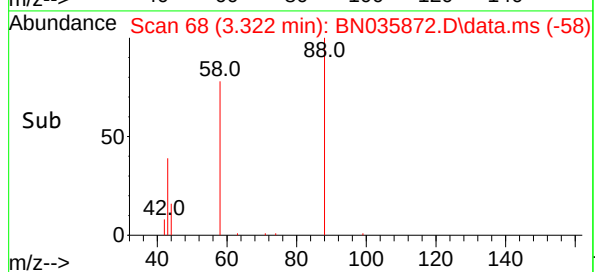
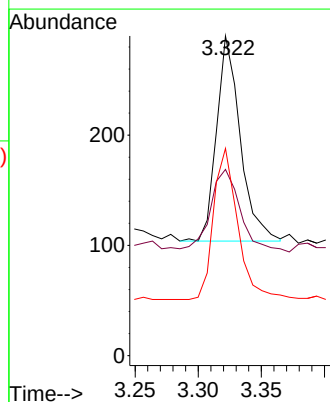
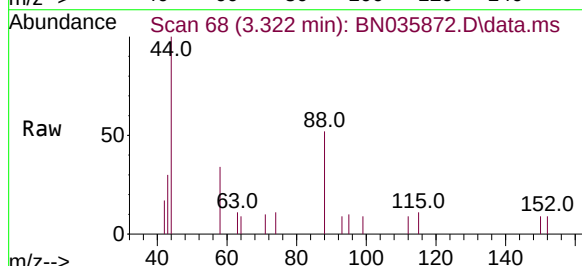
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

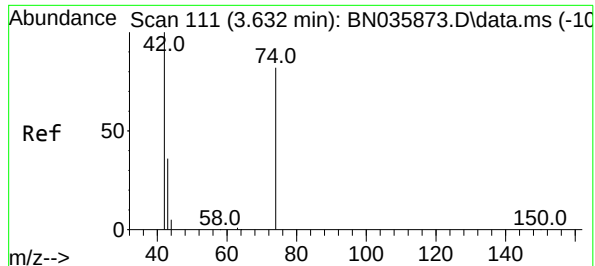
Tgt Ion:152 Resp: 1152  
Ion Ratio Lower Upper  
152 100  
150 147.1 117.8 176.6  
115 65.9 51.0 76.4



#2  
1,4-Dioxane  
Concen: 0.212 ng  
RT: 3.322 min Scan# 68  
Delta R.T. -0.000 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

Tgt Ion: 88 Resp: 243  
Ion Ratio Lower Upper  
88 100  
43 45.7 32.7 49.1  
58 74.9 63.0 94.4

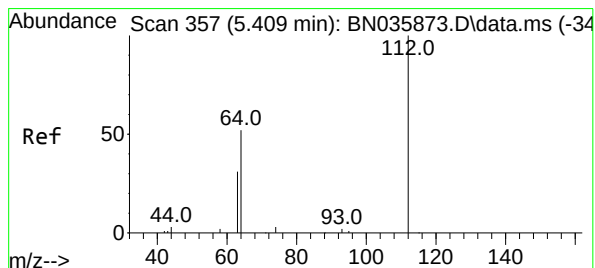
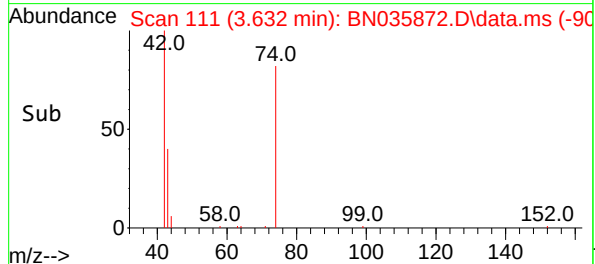
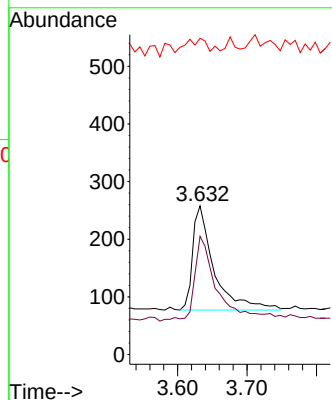
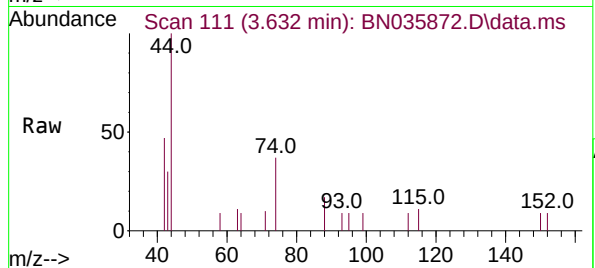




#3  
n-Nitrosodimethylamine  
Concen: 0.194 ng  
RT: 3.632 min Scan# 111  
Delta R.T. -0.000 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

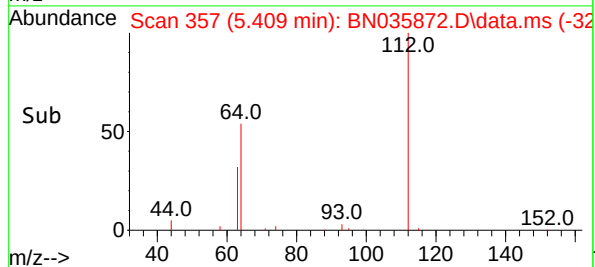
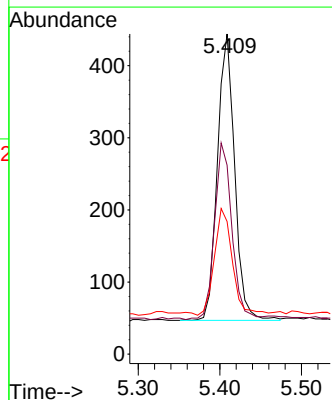
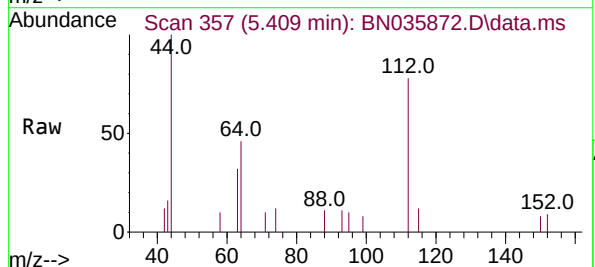
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

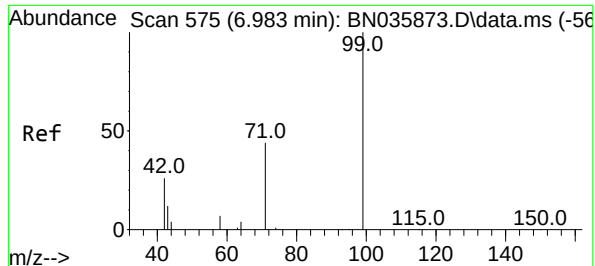
Tgt Ion: 42 Resp: 388  
Ion Ratio Lower Upper  
42 100  
74 88.7 62.2 93.2  
44 17.3 7.1 10.7#



#4  
2-Fluorophenol  
Concen: 0.206 ng  
RT: 5.409 min Scan# 357  
Delta R.T. -0.000 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

Tgt Ion: 112 Resp: 581  
Ion Ratio Lower Upper  
112 100  
64 62.5 48.2 72.2  
63 39.1 30.0 45.0

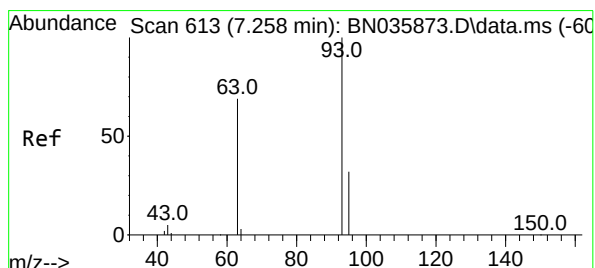
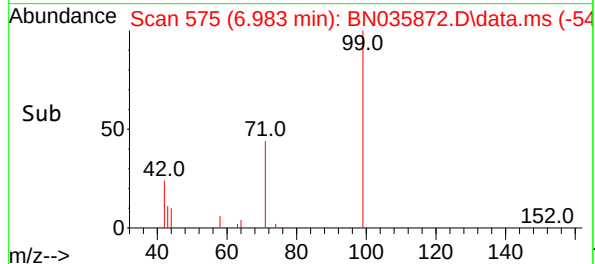
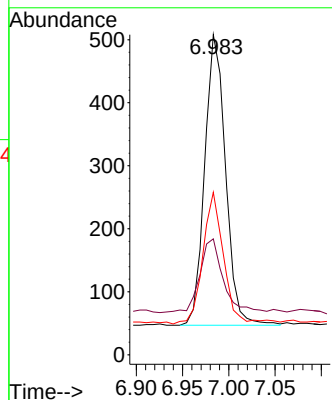
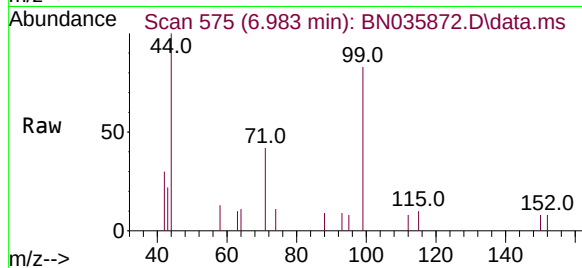




#5  
Phenol-d6  
Concen: 0.206 ng  
RT: 6.983 min Scan# 575  
Delta R.T. -0.000 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

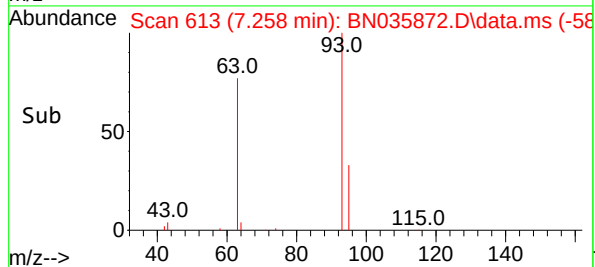
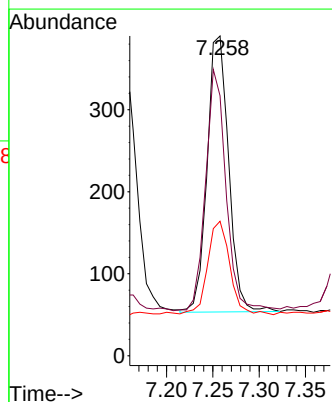
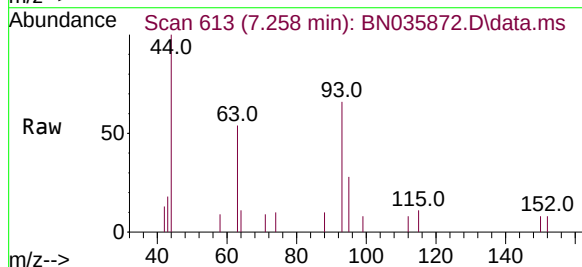
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

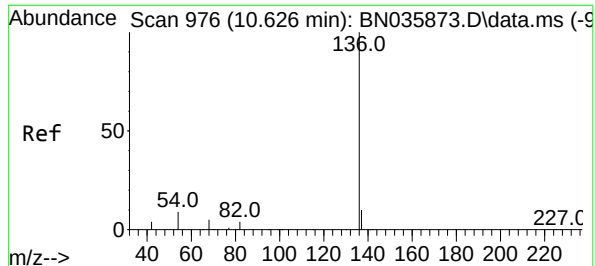
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 99    | Resp: | 723   |
| Ion      | Ratio | Lower | Upper |
| 99       | 100   |       |       |
| 42       | 28.2  | 23.5  | 35.3  |
| 71       | 44.5  | 35.5  | 53.3  |



#6  
bis(2-Chloroethyl)ether  
Concen: 0.204 ng  
RT: 7.258 min Scan# 613  
Delta R.T. -0.000 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 93    | Resp: | 545   |
| Ion      | Ratio | Lower | Upper |
| 93       | 100   |       |       |
| 63       | 83.3  | 62.0  | 93.0  |
| 95       | 35.0  | 25.5  | 38.3  |

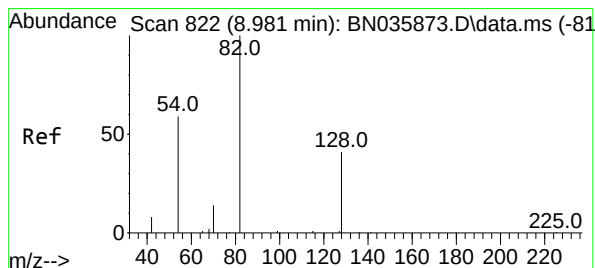
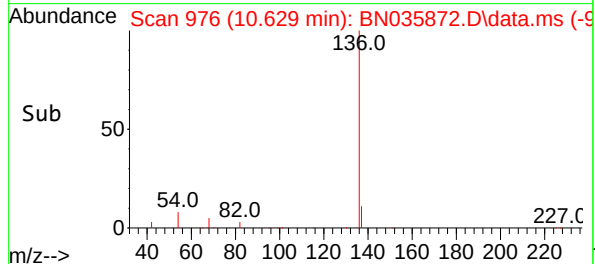
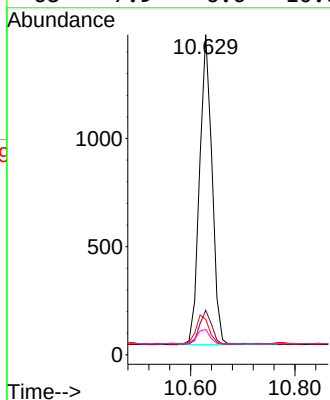
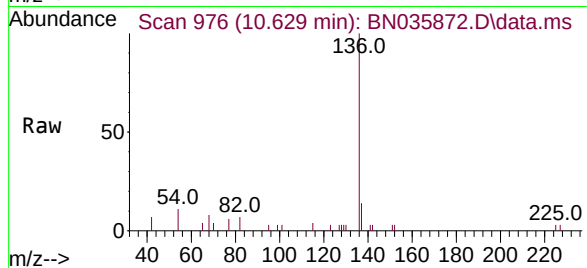




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.629 min Scan# 91  
Delta R.T. 0.003 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

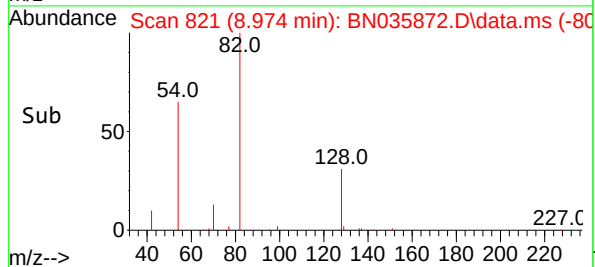
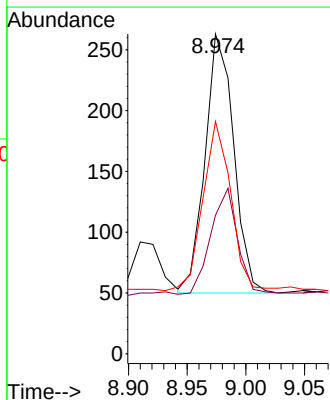
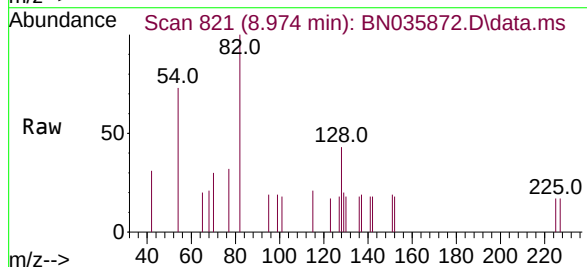
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

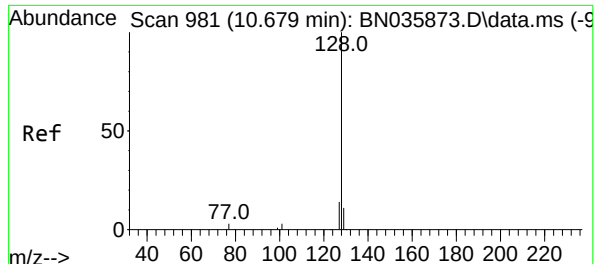
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 2364  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 13.9  | 10.6  | 15.8  |
| 54       | 11.1  | 9.8   | 14.6  |
| 68       | 7.9   | 6.6   | 10.0  |



#8  
Nitrobenzene-d5  
Concen: 0.194 ng  
RT: 8.974 min Scan# 821  
Delta R.T. -0.007 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 363   |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 43.3  | 36.9  | 55.3  |
| 54       | 72.6  | 50.4  | 75.6  |

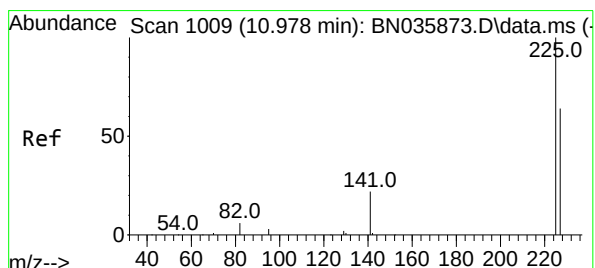
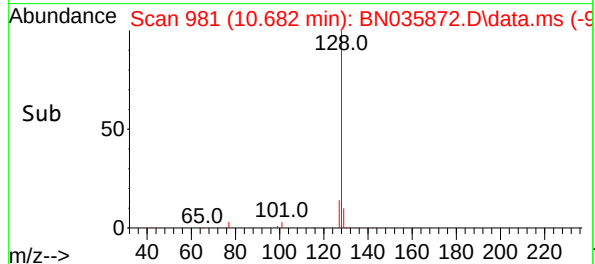
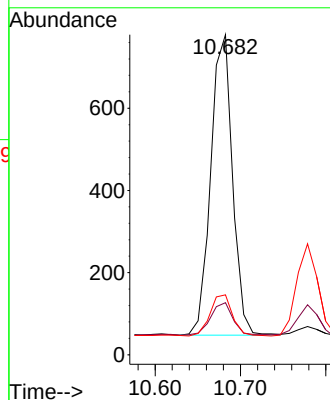
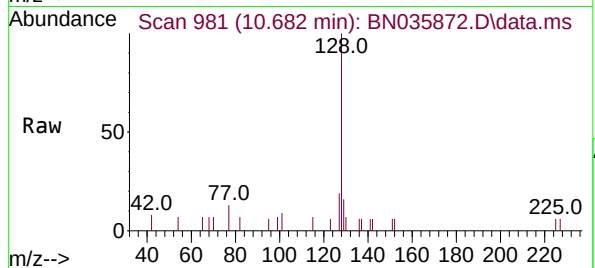




#9  
Naphthalene  
Concen: 0.195 ng  
RT: 10.682 min Scan# 981  
Delta R.T. 0.003 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

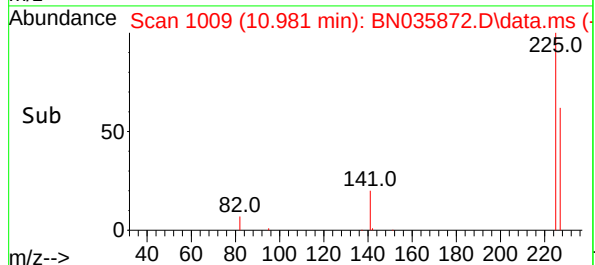
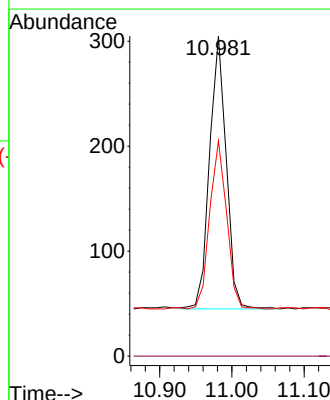
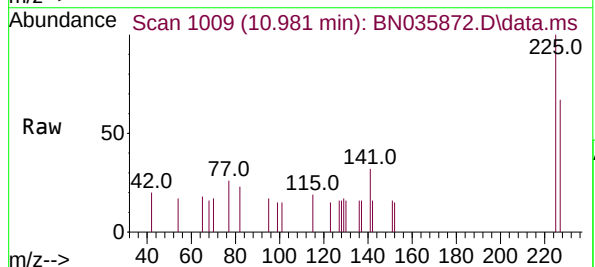
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

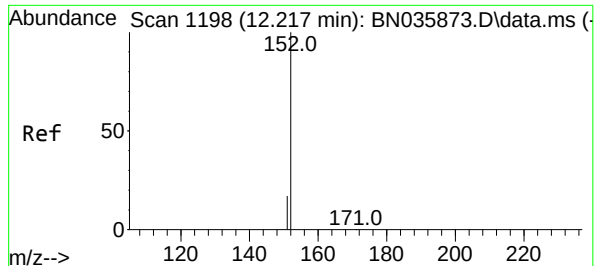
Tgt Ion:128 Resp: 1293  
Ion Ratio Lower Upper  
128 100  
129 16.3 10.6 16.0#  
127 18.7 12.8 19.2



#10  
Hexachlorobutadiene  
Concen: 0.194 ng  
RT: 10.981 min Scan# 1009  
Delta R.T. 0.003 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

Tgt Ion:225 Resp: 418  
Ion Ratio Lower Upper  
225 100  
223 0.0 0.0 0.0  
227 62.9 51.5 77.3

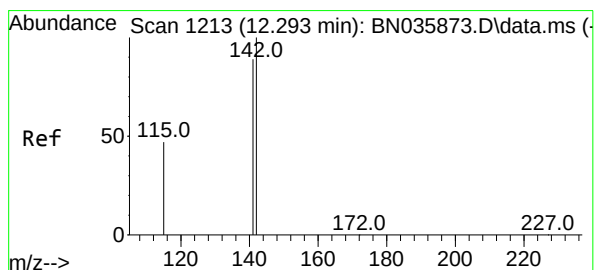
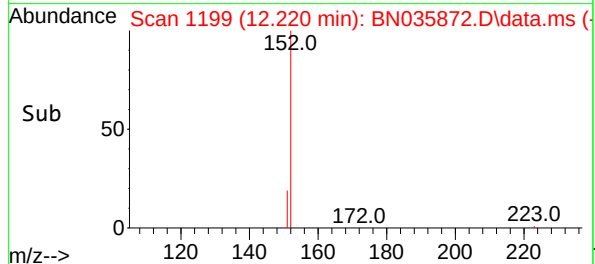
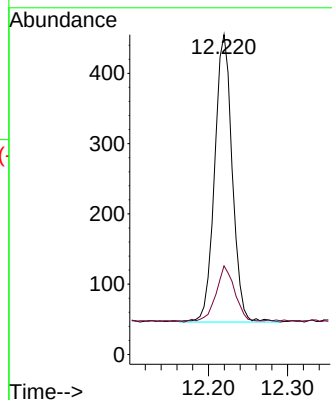
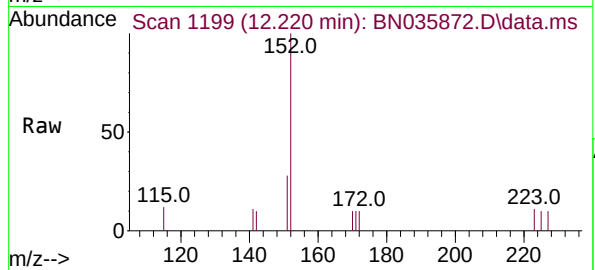




#11  
2-Methylnaphthalene-d10  
Concen: 0.200 ng  
RT: 12.220 min Scan# 1199  
Delta R.T. 0.003 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

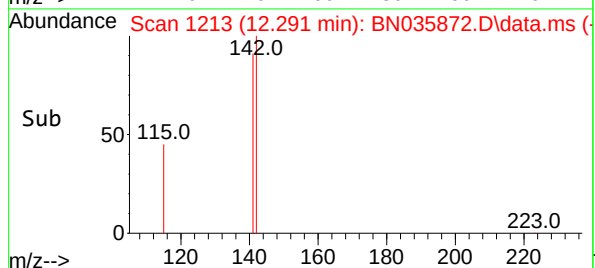
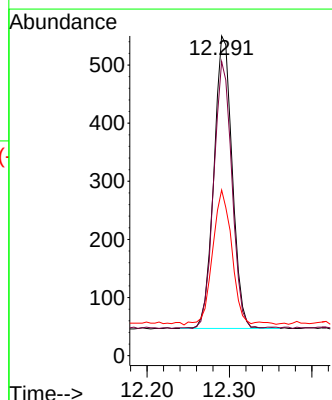
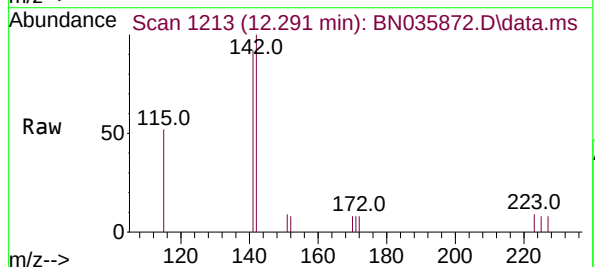
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDIC0.2

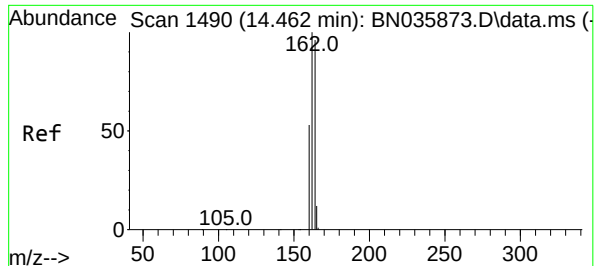
Tgt Ion:152 Resp: 634  
Ion Ratio Lower Upper  
152 100  
151 21.5 17.0 25.6



#12  
2-Methylnaphthalene  
Concen: 0.188 ng  
RT: 12.291 min Scan# 1213  
Delta R.T. -0.002 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

Tgt Ion:142 Resp: 773  
Ion Ratio Lower Upper  
142 100  
141 92.0 71.9 107.9  
115 51.8 39.6 59.4

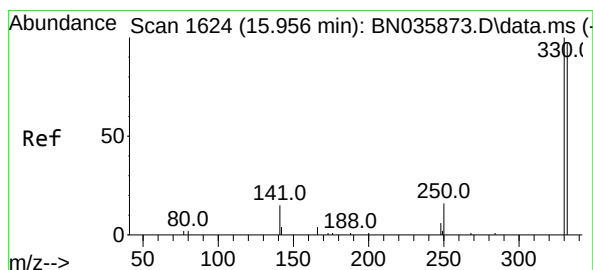
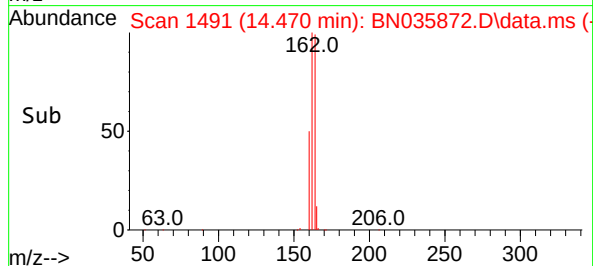
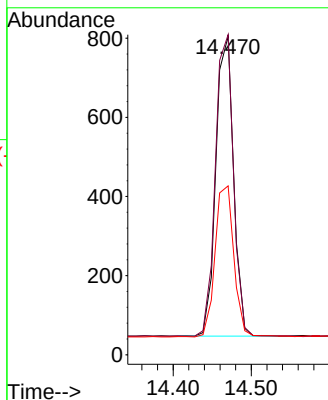
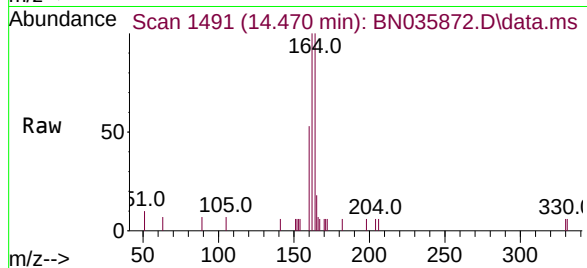




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.470 min Scan# 1490  
Delta R.T. 0.008 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

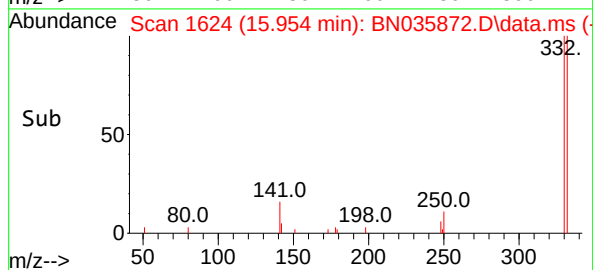
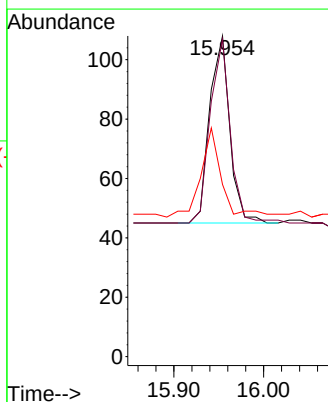
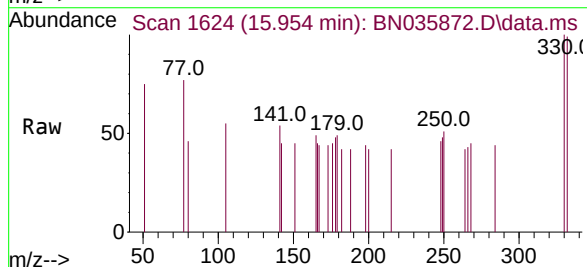
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

Tgt Ion:164 Resp: 1186  
Ion Ratio Lower Upper  
164 100  
162 100.5 83.1 124.7  
160 53.0 46.0 69.0

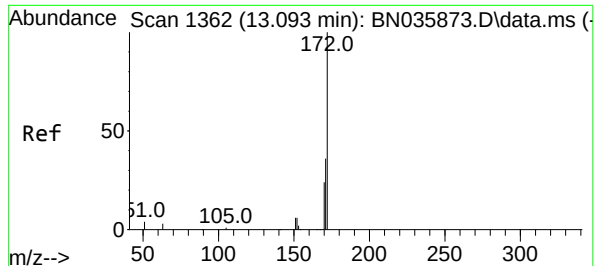


#14  
2,4,6-Tribromophenol  
Concen: 0.172 ng  
RT: 15.954 min Scan# 1624  
Delta R.T. -0.002 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

Tgt Ion:330 Resp: 98  
Ion Ratio Lower Upper  
330 100  
332 99.0 77.2 115.8  
141 49.0 31.6 47.4#







#15

2-Fluorobiphenyl

Concen: 0.191 ng

RT: 13.091 min Scan# 1362

Delta R.T. -0.002 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

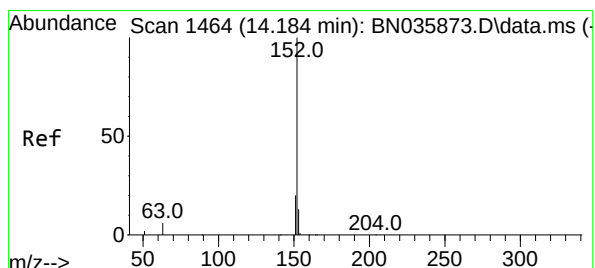
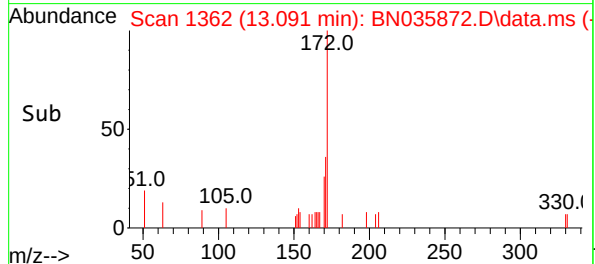
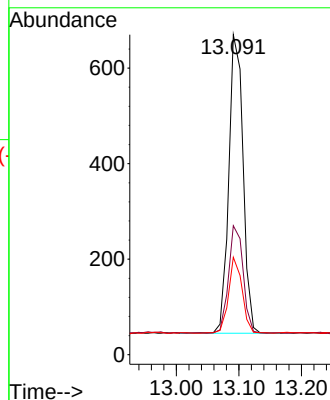
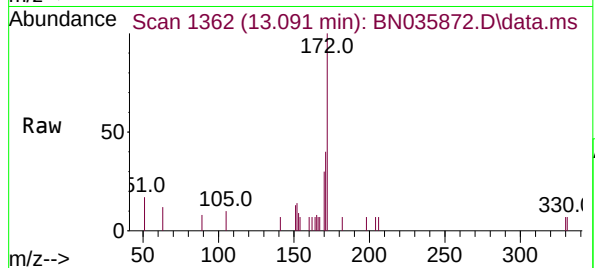
Tgt Ion:172 Resp: 993

Ion Ratio Lower Upper

172 100

171 40.3 30.5 45.7

170 30.4 20.8 31.2



#16

Acenaphthylene

Concen: 0.187 ng

RT: 14.182 min Scan# 1464

Delta R.T. -0.002 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

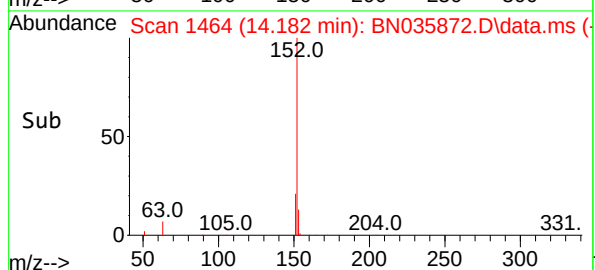
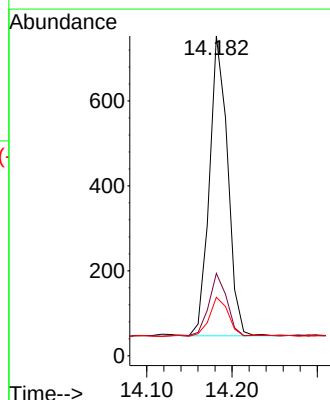
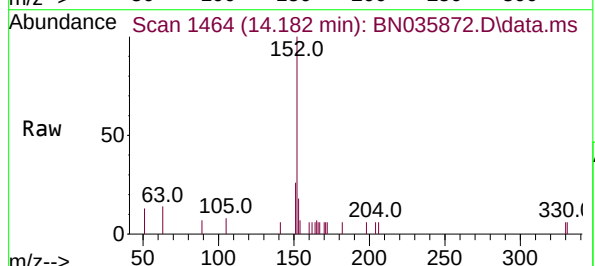
Tgt Ion:152 Resp: 1047

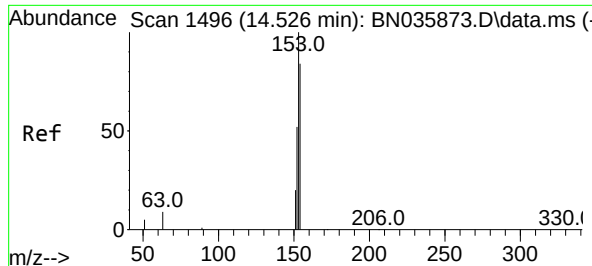
Ion Ratio Lower Upper

152 100

151 21.3 16.3 24.5

153 13.7 10.6 15.8

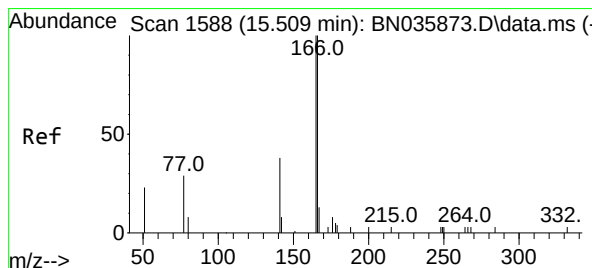
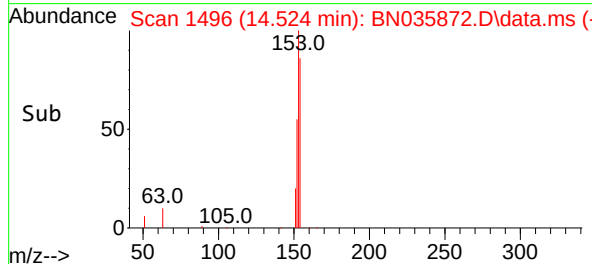
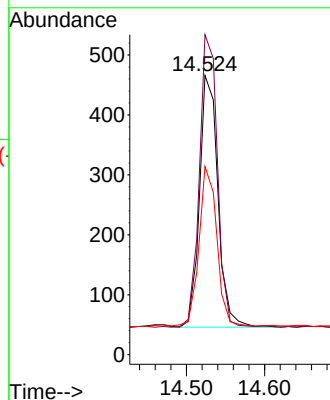
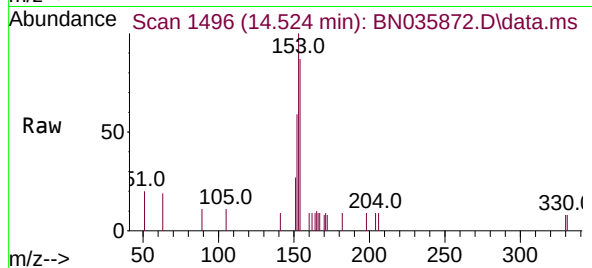




#17  
Acenaphthene  
Concen: 0.188 ng  
RT: 14.524 min Scan# 1496  
Delta R.T. -0.002 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

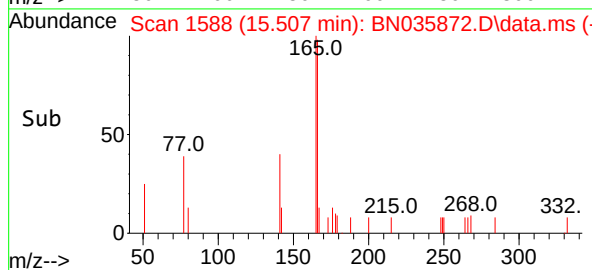
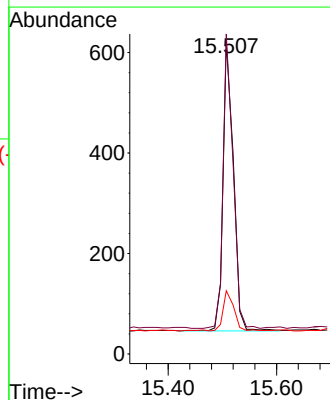
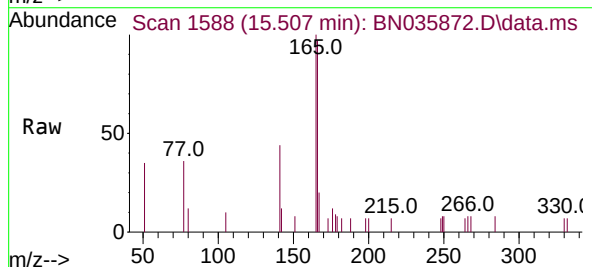
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

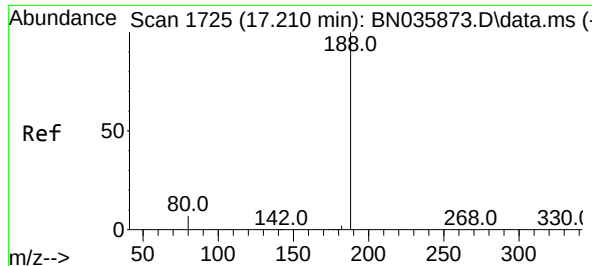
| Tgt Ion   | 154   | Resp  | 689   |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 154       | 100   |       |       |
| 153       | 113.8 | 90.5  | 135.7 |
| 152       | 62.1  | 48.6  | 73.0  |



#18  
Fluorene  
Concen: 0.187 ng  
RT: 15.507 min Scan# 1588  
Delta R.T. -0.002 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

| Tgt Ion   | 166   | Resp  | 753   |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 166       | 100   |       |       |
| 165       | 98.4  | 80.6  | 120.8 |
| 167       | 14.9  | 11.4  | 17.0  |





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 17.208 min Scan# 1

Delta R.T. -0.002 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

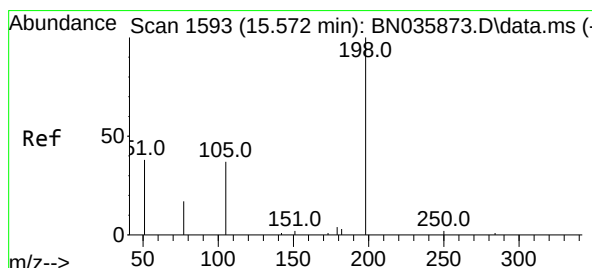
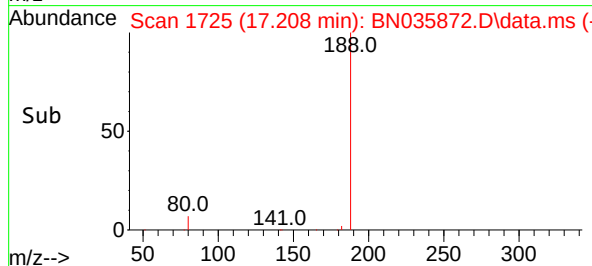
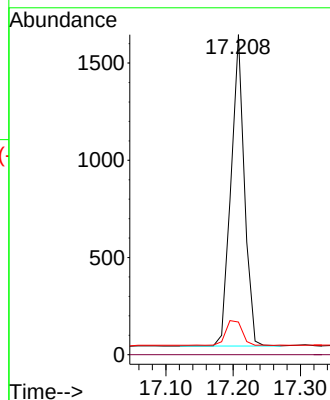
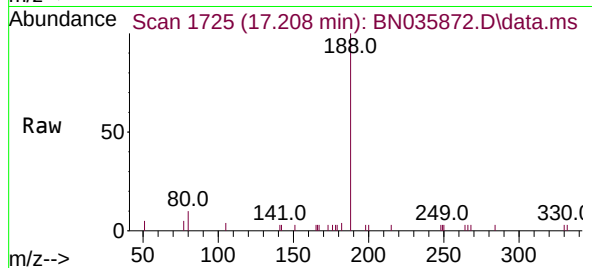
Tgt Ion:188 Resp: 2216

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 10.2 7.3 10.9



#20

4,6-Dinitro-2-methylphenol

Concen: 0.190 ng

RT: 15.582 min Scan# 1594

Delta R.T. 0.010 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

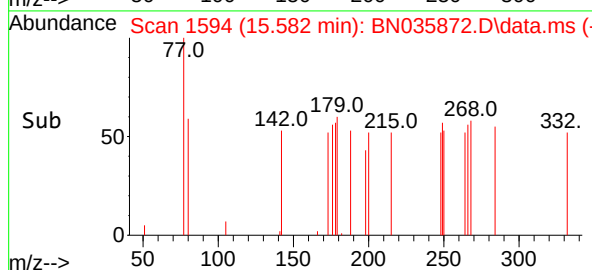
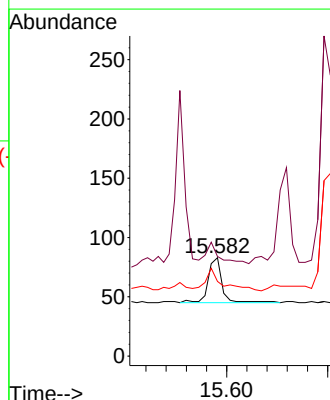
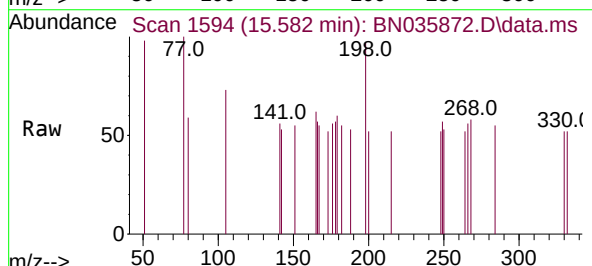
Tgt Ion:198 Resp: 73

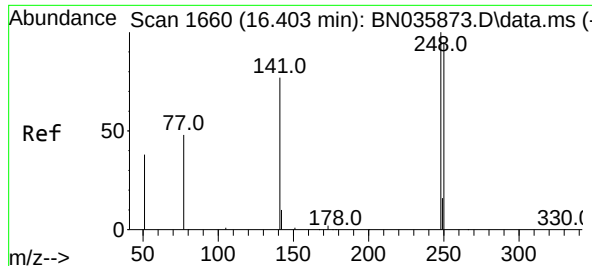
Ion Ratio Lower Upper

198 100

51 101.2 64.3 96.5#

105 75.9 50.0 75.0#

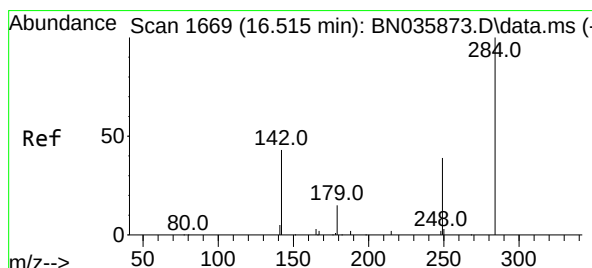
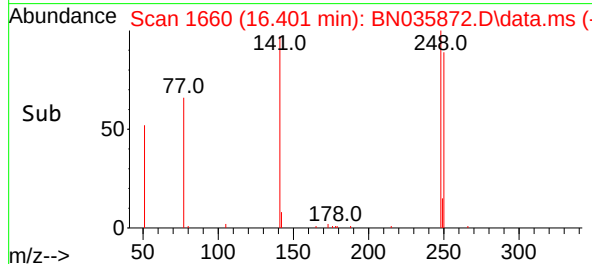
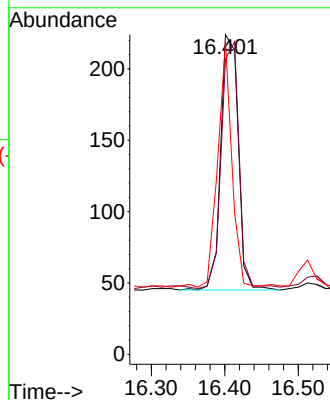
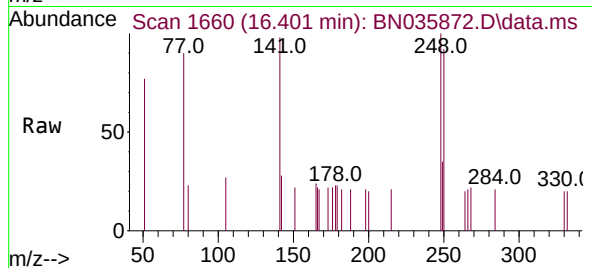




#21  
4-Bromophenyl-phenylether  
Concen: 0.196 ng  
RT: 16.401 min Scan# 1670  
Delta R.T. -0.002 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

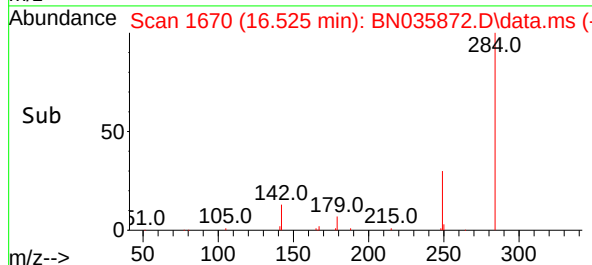
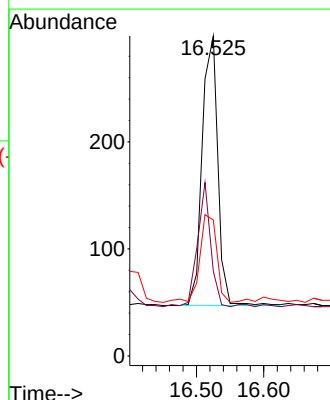
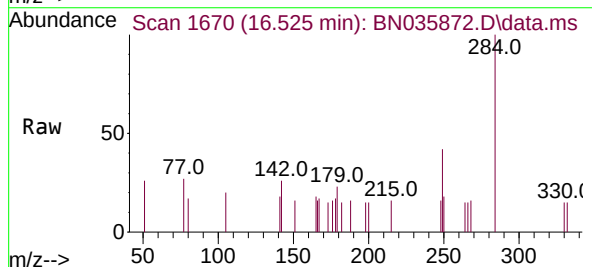
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

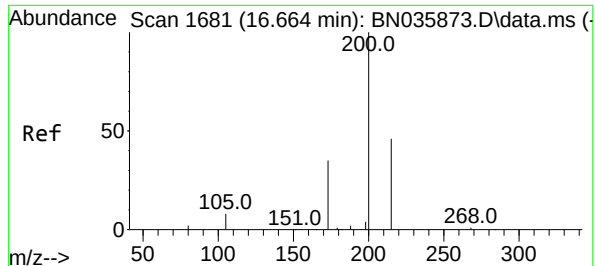
Tgt Ion:248 Resp: 298  
Ion Ratio Lower Upper  
248 100  
250 92.4 76.8 115.2  
141 97.8 63.6 95.4#



#22  
Hexachlorobenzene  
Concen: 0.197 ng  
RT: 16.525 min Scan# 1670  
Delta R.T. 0.010 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

Tgt Ion:284 Resp: 409  
Ion Ratio Lower Upper  
284 100  
142 38.6 31.4 47.0  
249 35.2 27.8 41.8

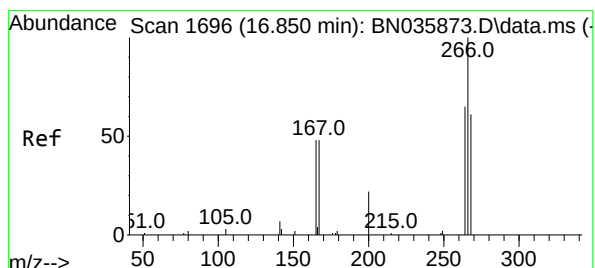
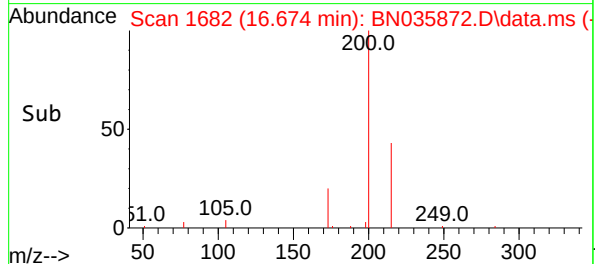
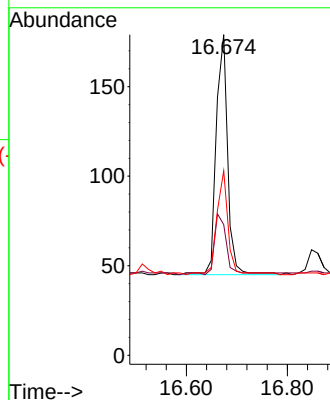
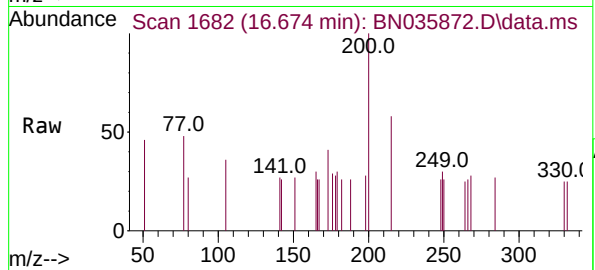




#23  
Atrazine  
Concen: 0.208 ng  
RT: 16.674 min Scan# 1682  
Delta R.T. 0.010 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

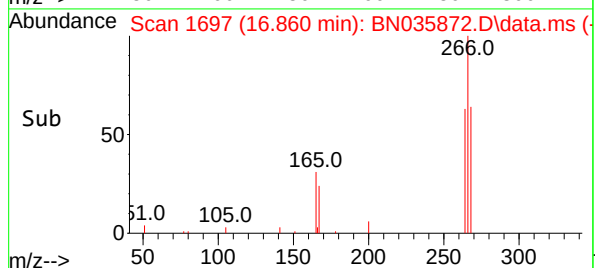
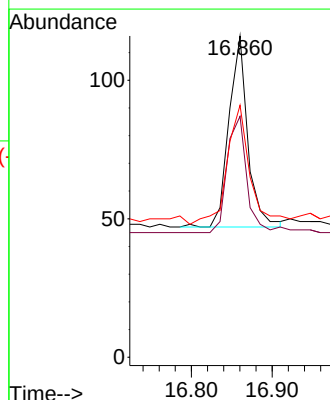
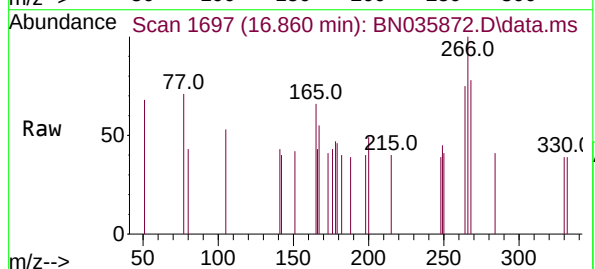
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

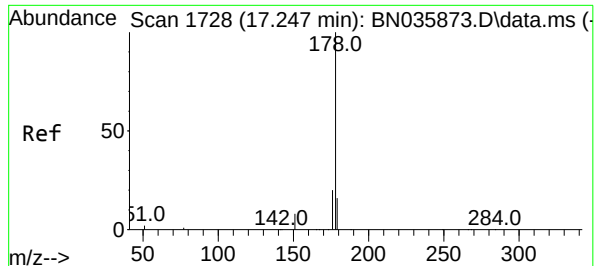
Tgt Ion:200 Resp: 212  
Ion Ratio Lower Upper  
200 100  
173 40.8 35.4 53.0  
215 57.5 42.4 63.6



#24  
Pentachlorophenol  
Concen: 0.153 ng  
RT: 16.860 min Scan# 1697  
Delta R.T. 0.010 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

Tgt Ion:266 Resp: 112  
Ion Ratio Lower Upper  
266 100  
264 65.2 49.9 74.9  
268 75.0 50.2 75.2

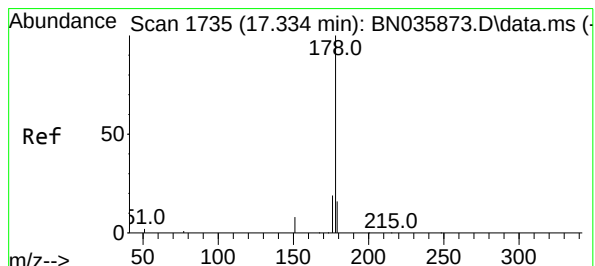
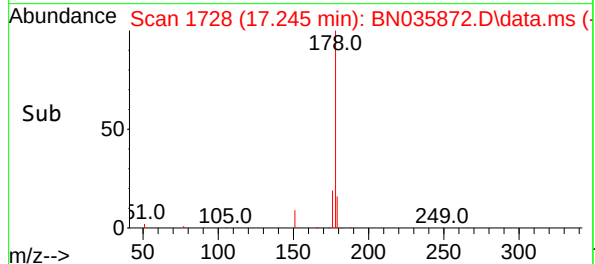
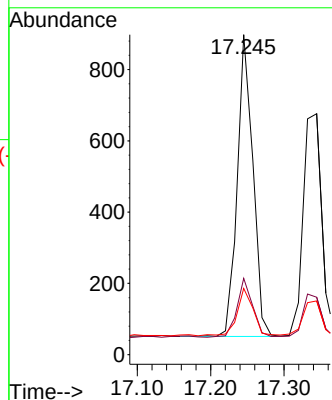
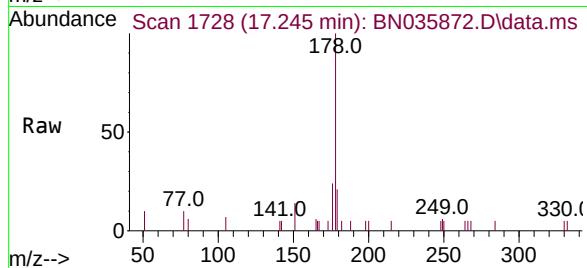




#25  
Phenanthrene  
Concen: 0.194 ng  
RT: 17.245 min Scan# 1728  
Delta R.T. -0.002 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

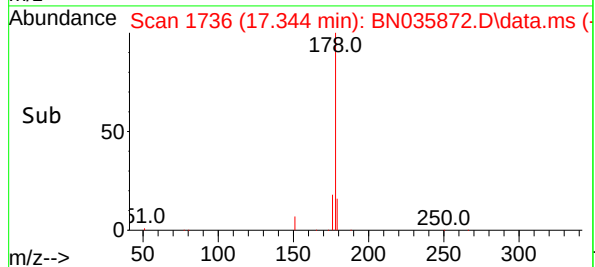
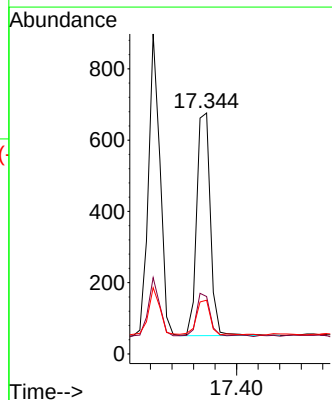
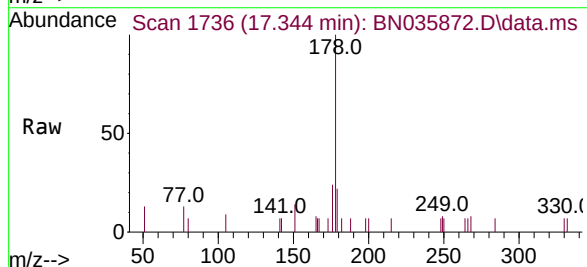
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

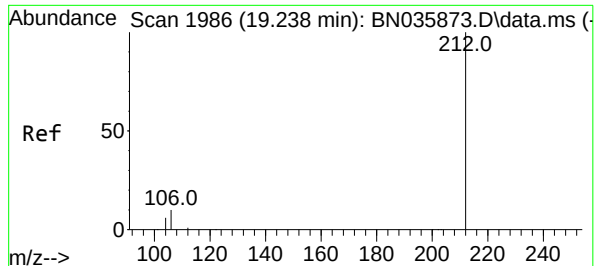
Tgt Ion:178 Resp: 1254  
Ion Ratio Lower Upper  
178 100  
176 19.5 15.9 23.9  
179 16.0 12.9 19.3



#26  
Anthracene  
Concen: 0.188 ng  
RT: 17.344 min Scan# 1736  
Delta R.T. 0.010 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

Tgt Ion:178 Resp: 1106  
Ion Ratio Lower Upper  
178 100  
176 19.0 15.0 22.6  
179 15.5 13.0 19.6





#27

Fluoranthene-d10

Concen: 0.192 ng

RT: 19.236 min Scan# 1986

Delta R.T. -0.002 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

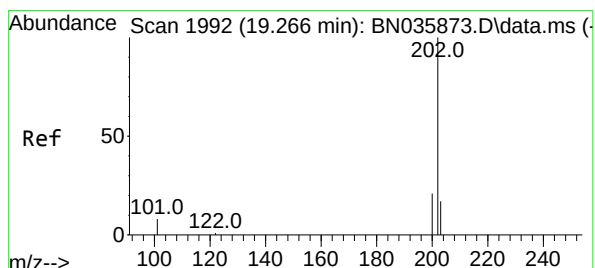
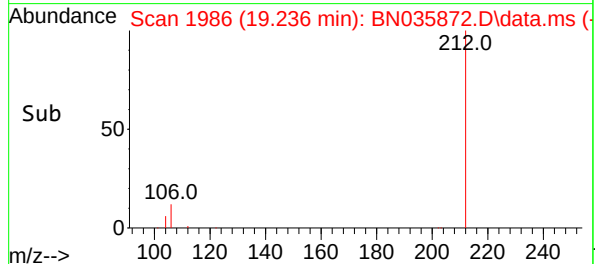
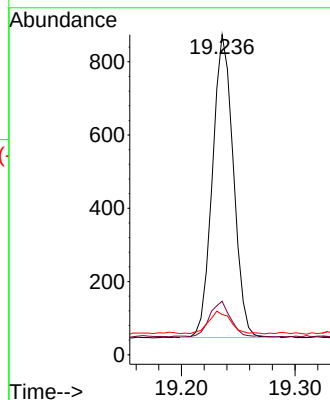
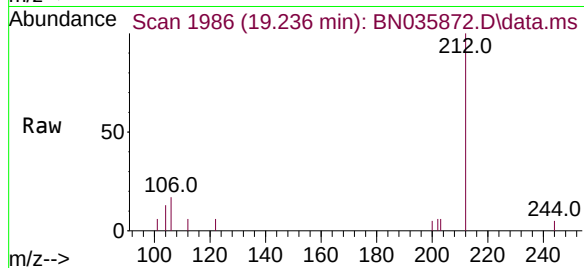
Tgt Ion:212 Resp: 1055

Ion Ratio Lower Upper

212 100

106 11.9 9.0 13.6

104 8.0 5.4 8.2



#28

Fluoranthene

Concen: 0.184 ng

RT: 19.268 min Scan# 1993

Delta R.T. 0.002 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

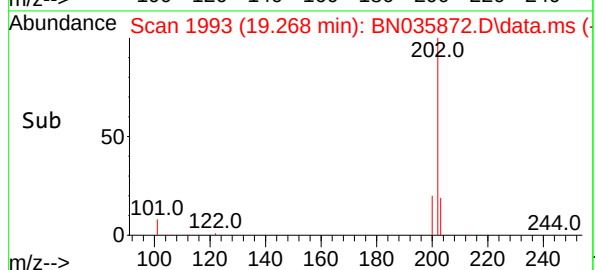
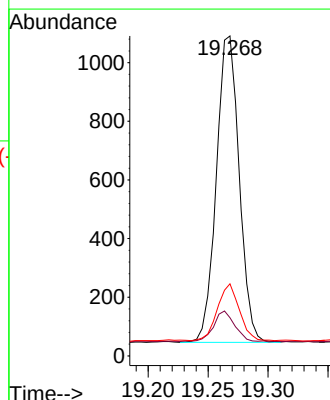
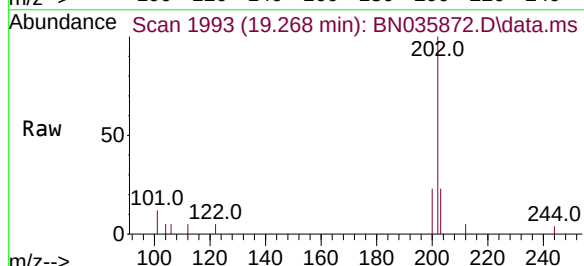
Tgt Ion:202 Resp: 1388

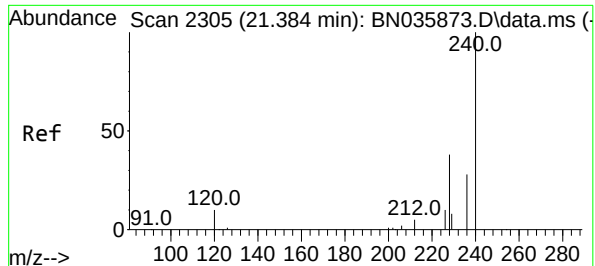
Ion Ratio Lower Upper

202 100

101 9.1 7.2 10.8

203 17.7 13.9 20.9





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.386 min Scan# 21

Delta R.T. 0.002 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

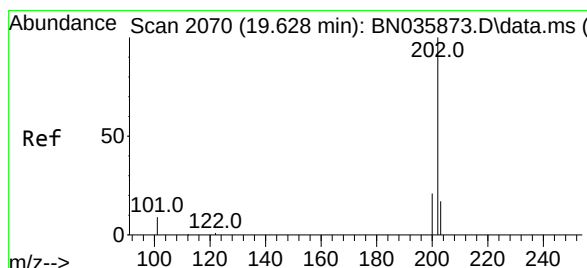
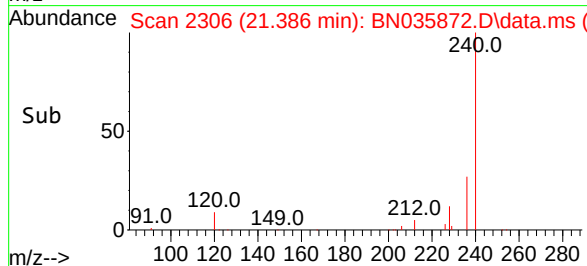
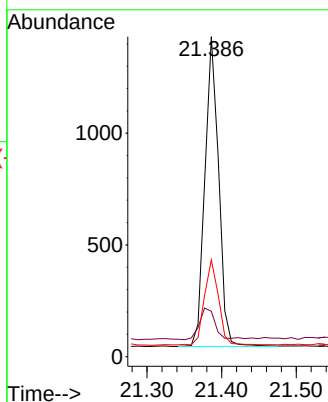
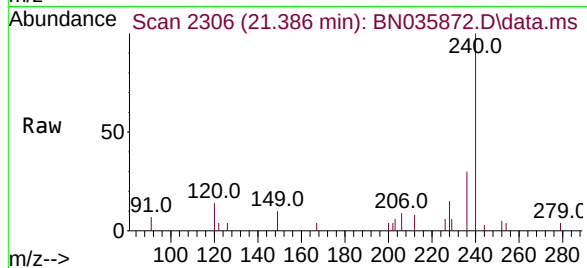
Tgt Ion:240 Resp: 1774

Ion Ratio Lower Upper

240 100

120 14.2 11.1 16.7

236 30.2 24.6 36.8



#30

Pyrene

Concen: 0.200 ng

RT: 19.626 min Scan# 2070

Delta R.T. -0.002 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

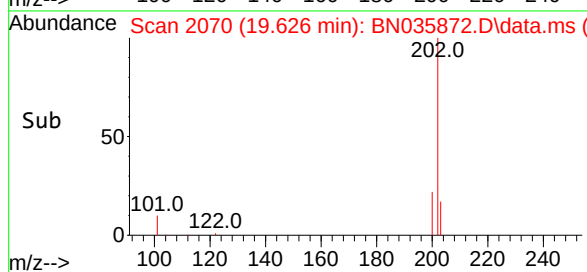
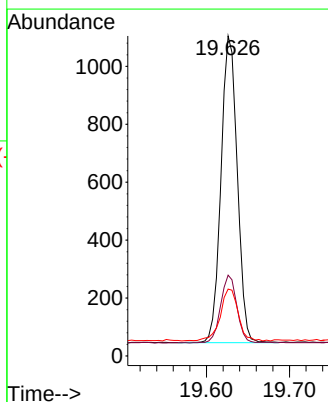
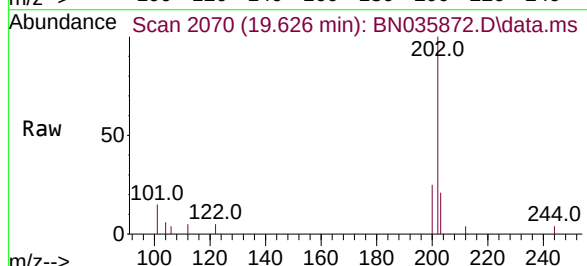
Tgt Ion:202 Resp: 1437

Ion Ratio Lower Upper

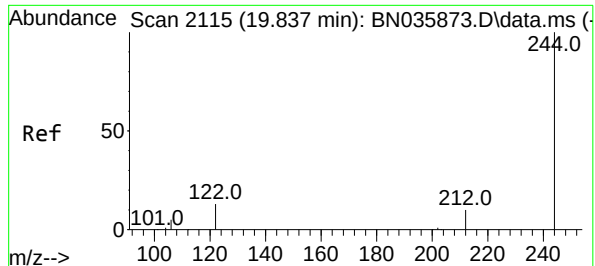
202 100

200 22.0 17.0 25.6

203 18.6 14.6 22.0



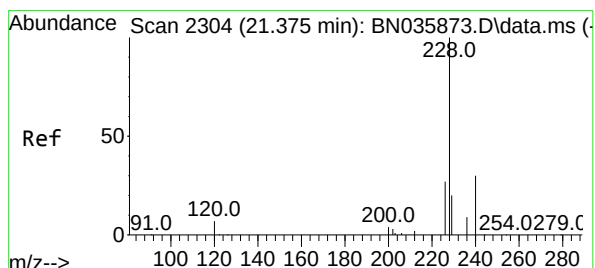
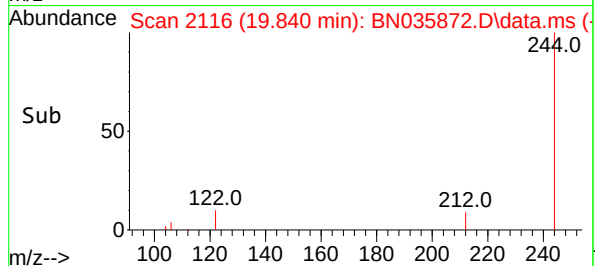
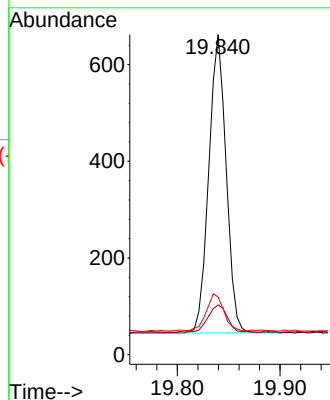
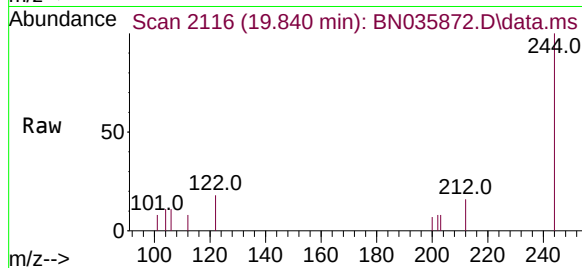




#31  
Terphenyl-d14  
Concen: 0.204 ng  
RT: 19.840 min Scan# 2115  
Delta R.T. 0.002 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

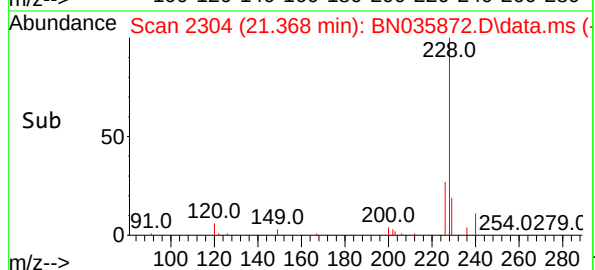
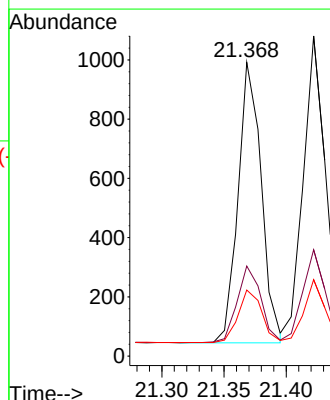
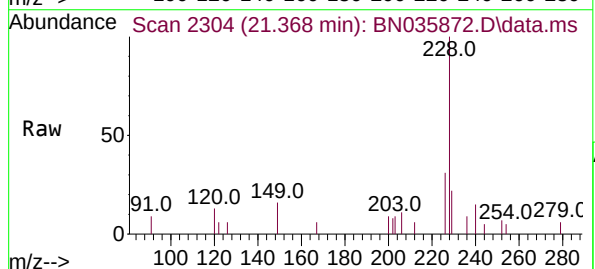
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2

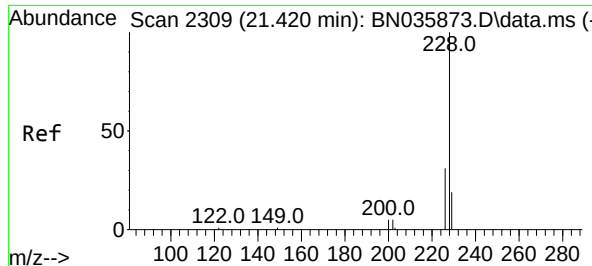
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 15.6  | 10.1  | 15.1# |
| 122     | 18.0  | 12.2  | 18.4  |



#32  
Benzo(a)anthracene  
Concen: 0.196 ng  
RT: 21.368 min Scan# 2304  
Delta R.T. -0.007 min  
Lab File: BN035872.D  
Acq: 02 Jan 2025 12:04

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 30.6  | 22.7  | 34.1  |
| 229     | 22.5  | 17.1  | 25.7  |





#33

Chrysene

Concen: 0.198 ng

RT: 21.422 min Scan# 21

Delta R.T. 0.002 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

Instrument :

BNA\_N

ClientSampleId :

SSTDIC0.2

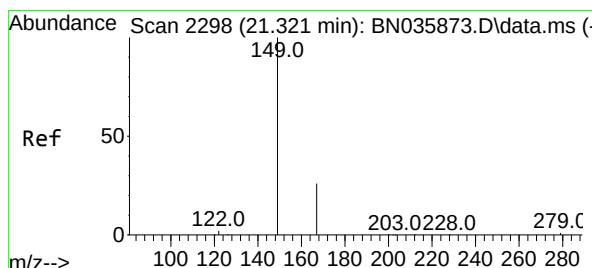
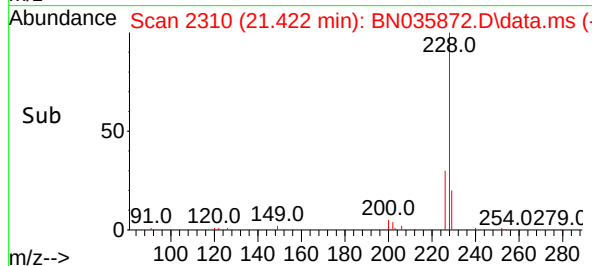
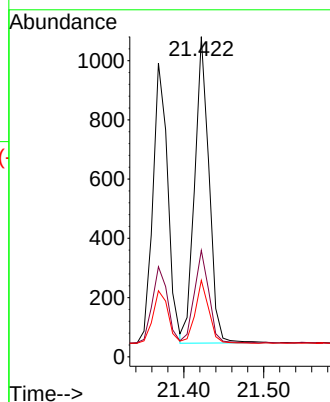
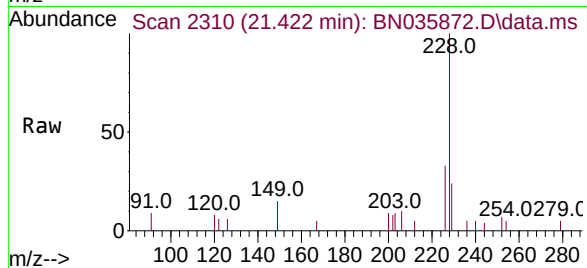
Tgt Ion:228 Resp: 1293

Ion Ratio Lower Upper

228 100

226 33.2 25.2 37.8

229 23.9 16.0 24.0



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.203 ng

RT: 21.323 min Scan# 2299

Delta R.T. 0.002 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

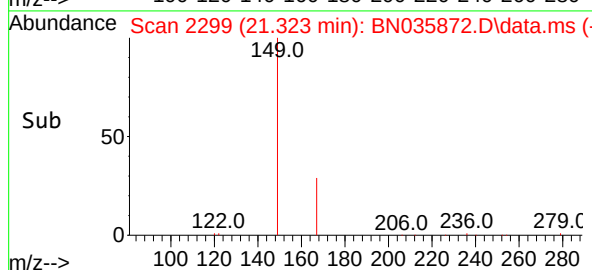
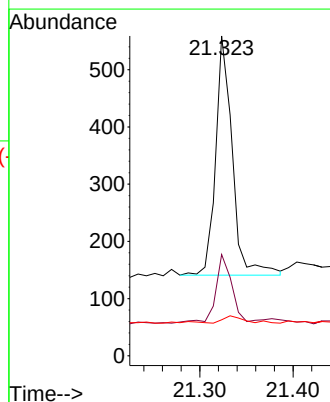
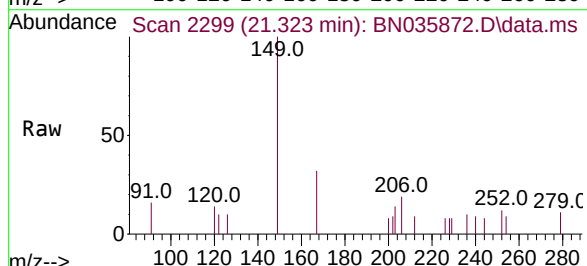
Tgt Ion:149 Resp: 517

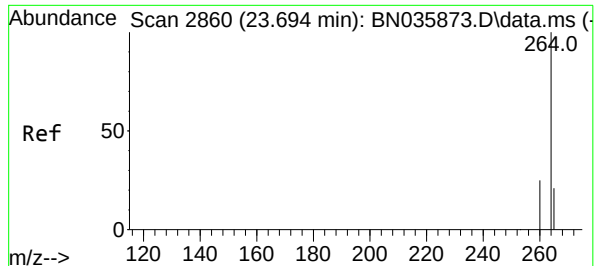
Ion Ratio Lower Upper

149 100

167 28.2 21.4 32.0

279 3.9 3.0 4.6





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.694 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

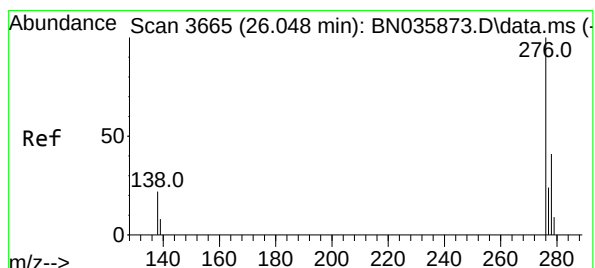
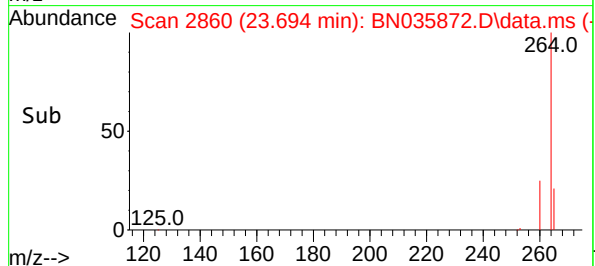
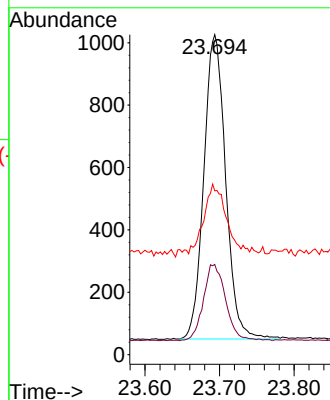
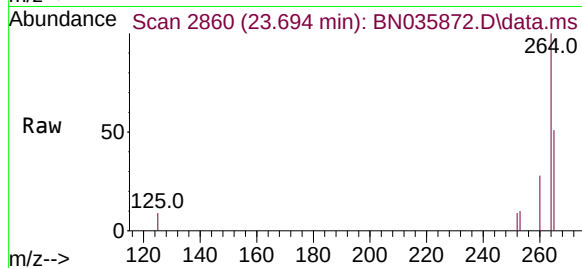
Tgt Ion:264 Resp: 1987

Ion Ratio Lower Upper

264 100

260 28.2 21.7 32.5

265 51.2 33.9 50.9#



#36

Indeno(1,2,3-cd)pyrene

Concen: 0.185 ng

RT: 26.050 min Scan# 3666

Delta R.T. 0.002 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

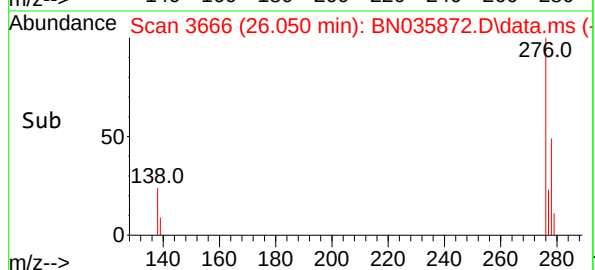
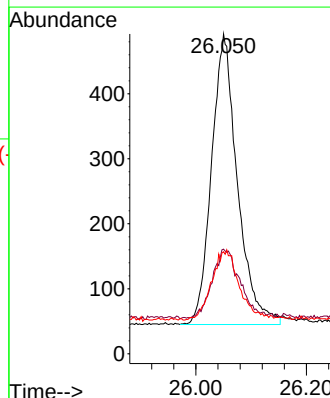
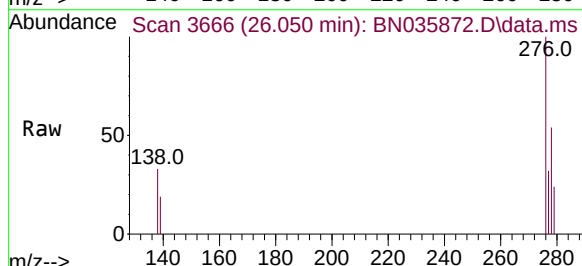
Tgt Ion:276 Resp: 1452

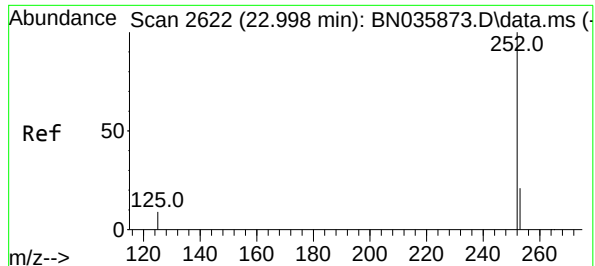
Ion Ratio Lower Upper

276 100

138 24.9 18.9 28.3

277 25.6 19.5 29.3





#37

Benzo(b)fluoranthene

Concen: 0.190 ng

RT: 22.998 min Scan# 2622

Delta R.T. -0.000 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

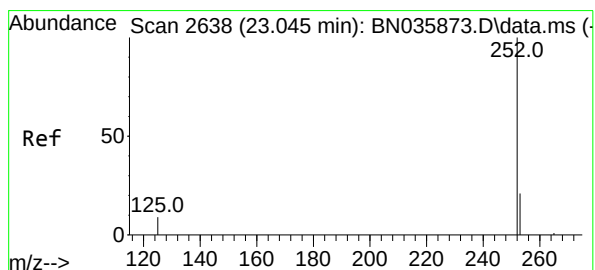
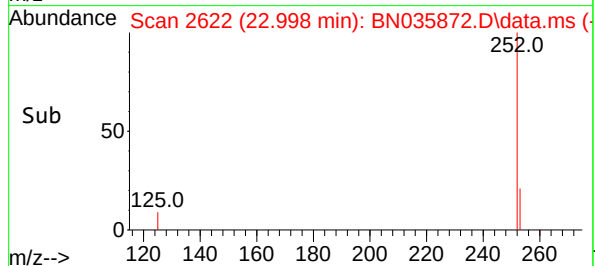
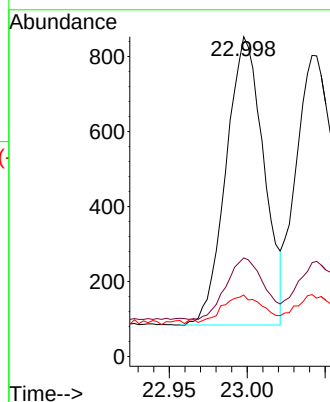
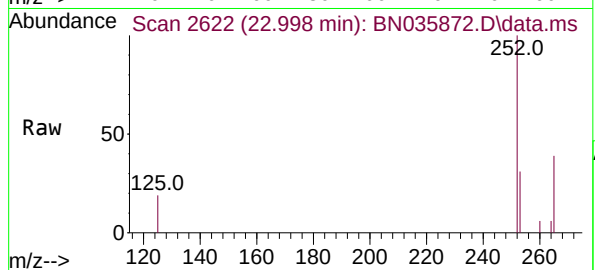
Tgt Ion:252 Resp: 1296

Ion Ratio Lower Upper

252 100

253 30.8 20.1 30.1#

125 19.2 9.9 14.9#



#38

Benzo(k)fluoranthene

Concen: 0.184 ng

RT: 23.042 min Scan# 2637

Delta R.T. -0.003 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

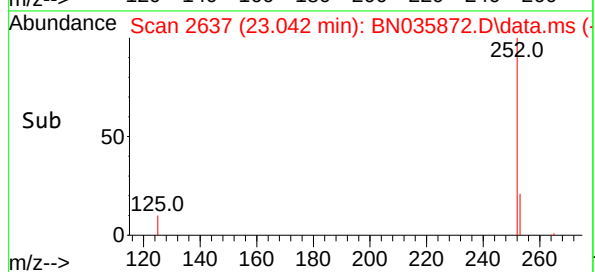
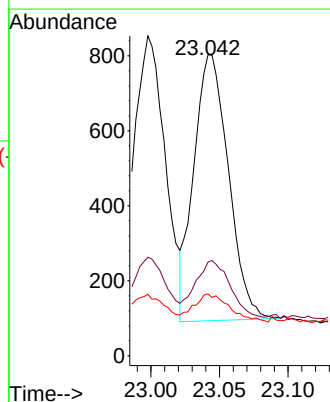
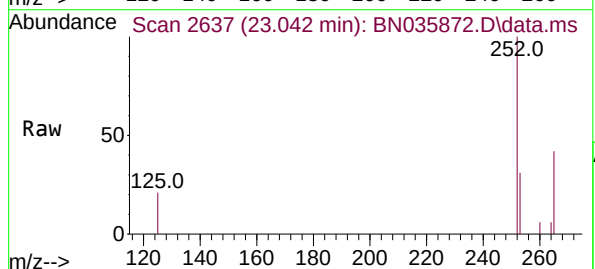
Tgt Ion:252 Resp: 1246

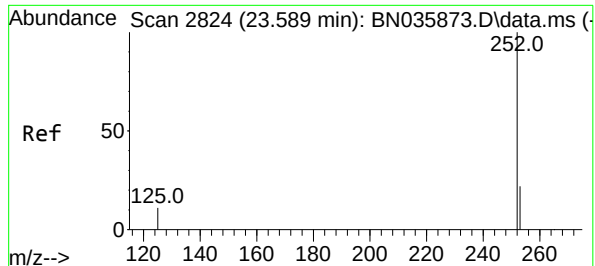
Ion Ratio Lower Upper

252 100

253 31.1 20.5 30.7#

125 20.5 10.6 16.0#





#39

Benzo(a)pyrene

Concen: 0.199 ng

RT: 23.591 min Scan# 21

Delta R.T. 0.002 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2

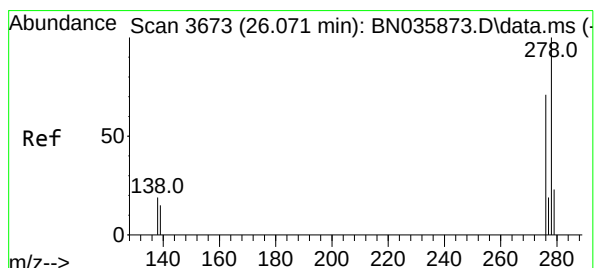
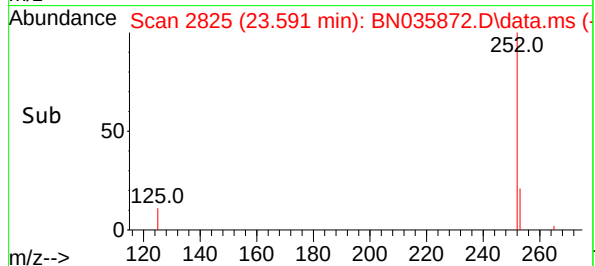
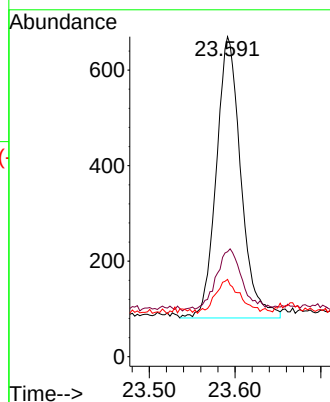
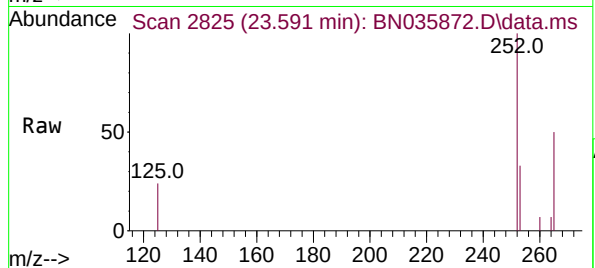
Tgt Ion:252 Resp: 1173

Ion Ratio Lower Upper

252 100

253 32.8 21.5 32.3#

125 24.2 12.6 19.0#



#40

Dibenzo(a,h)anthracene

Concen: 0.184 ng

RT: 26.070 min Scan# 3673

Delta R.T. -0.000 min

Lab File: BN035872.D

Acq: 02 Jan 2025 12:04

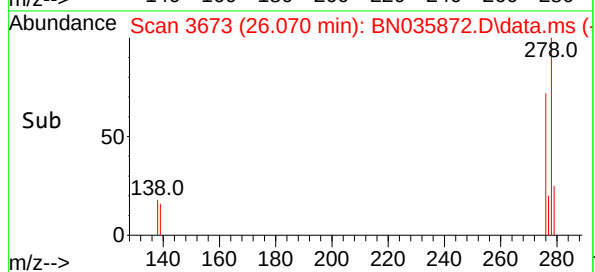
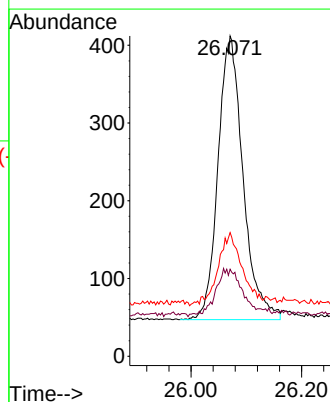
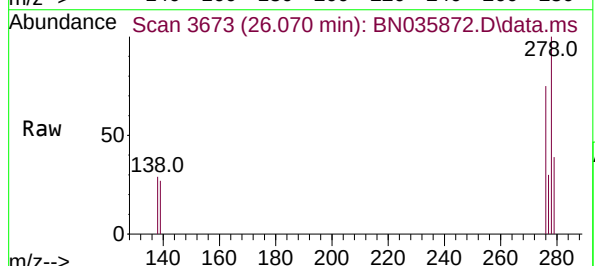
Tgt Ion:278 Resp: 1145

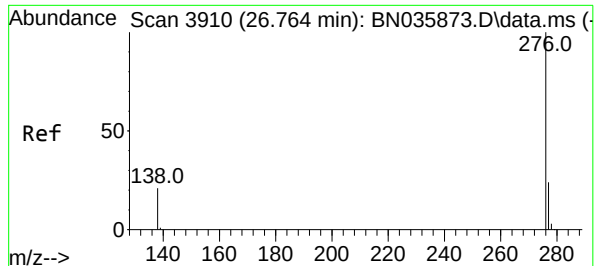
Ion Ratio Lower Upper

278 100

139 27.2 15.9 23.9#

279 38.6 23.0 34.4#





#41

Benzo(g,h,i)perylene

Concen: 0.188 ng

RT: 26.766 min Scan# 3910

Delta R.T. 0.002 min

Lab File: BN035872.D

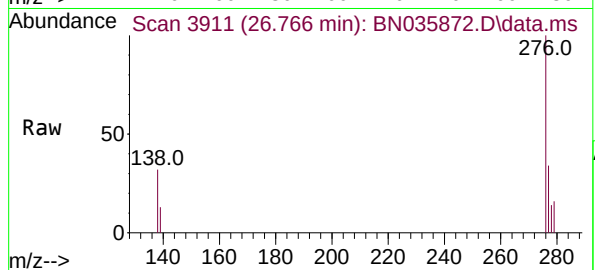
Acq: 02 Jan 2025 12:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.2



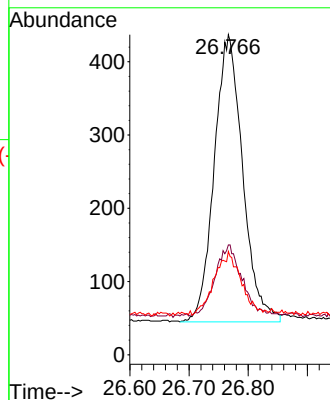
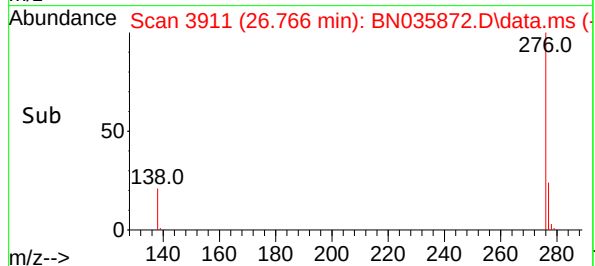
Tgt Ion:276 Resp: 1307

Ion Ratio Lower Upper

276 100

277 34.3 22.8 34.2#

138 32.3 20.1 30.1#



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
 Data File : BN035873.D  
 Acq On : 02 Jan 2025 12:40  
 Operator : RC/JU  
 Sample : SSTDICCC0.4  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICCC0.4

Quant Time: Jan 02 15:49:48 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

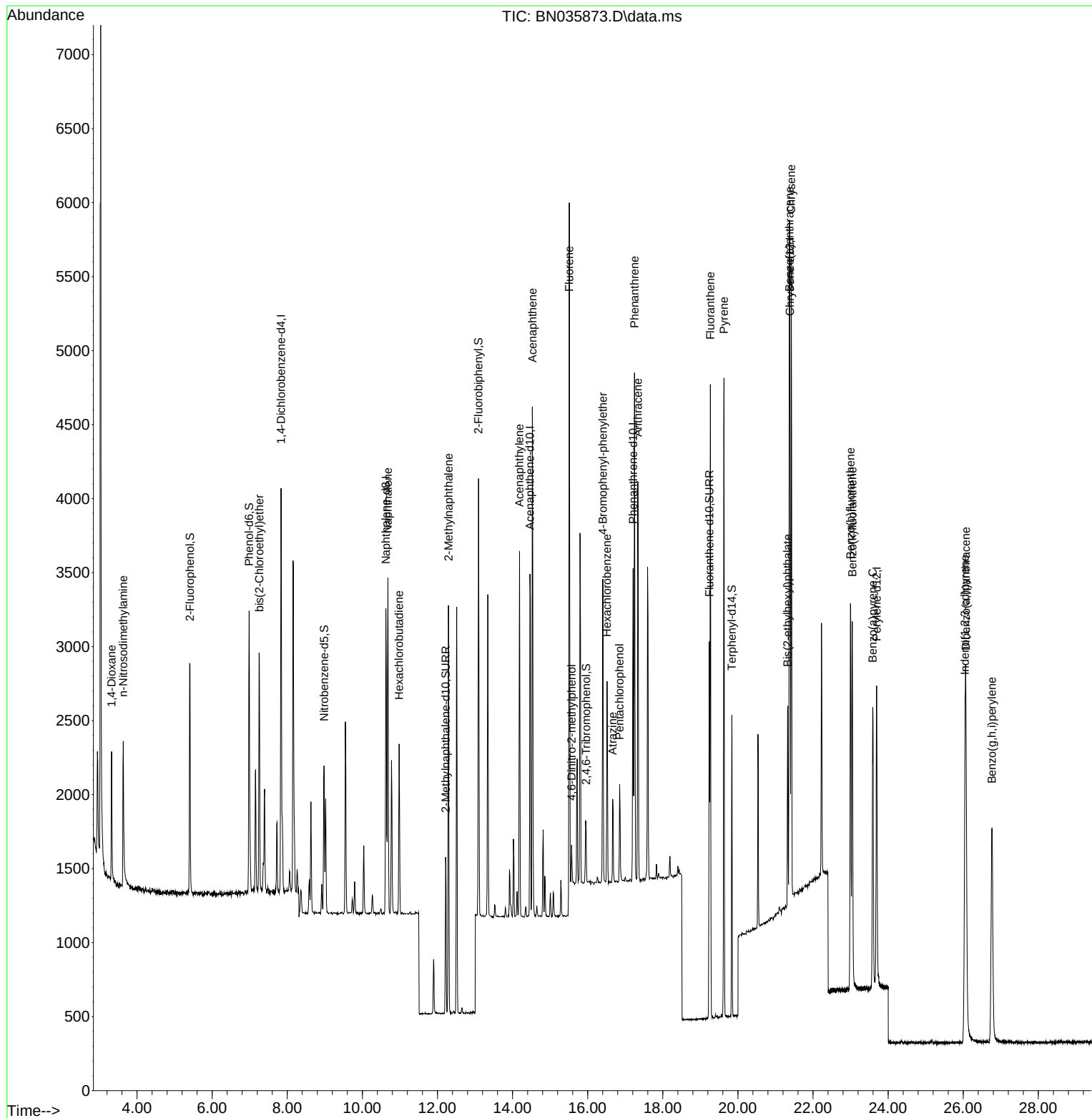
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.836  | 152  | 1261     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.626 | 136  | 2582     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.462 | 164  | 1358     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.210 | 188  | 2769     | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.384 | 240  | 2381     | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 23.694 | 264  | 2623     | 0.400 | ng    | 0.00     |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.409  | 112  | 1200     | 0.388 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.983  | 99   | 1488     | 0.387 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.981  | 82   | 764      | 0.374 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.217 | 152  | 1360     | 0.393 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.956 | 330  | 256      | 0.393 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 13.093 | 172  | 2320     | 0.389 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.238 | 212  | 2707     | 0.394 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.837 | 244  | 1882     | 0.397 | ng    | 0.00     |
| Target Compounds              |        |      |          |       |       |          |
|                               |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.322  | 88   | 470      | 0.375 | ng    | 100      |
| 3) n-Nitrosodimethylamine     | 3.632  | 42   | 853      | 0.390 | ng    | 100      |
| 6) bis(2-Chloroethyl)ether    | 7.258  | 93   | 1180     | 0.403 | ng    | 100      |
| 9) Naphthalene                | 10.679 | 128  | 2805     | 0.387 | ng    | 100      |
| 10) Hexachlorobutadiene       | 10.978 | 225  | 912      | 0.388 | ng    | # 100    |
| 12) 2-Methylnaphthalene       | 12.293 | 142  | 1768     | 0.394 | ng    | 100      |
| 16) Acenaphthylene            | 14.184 | 152  | 2470     | 0.386 | ng    | 100      |
| 17) Acenaphthene              | 14.526 | 154  | 1627     | 0.388 | ng    | 100      |
| 18) Fluorene                  | 15.509 | 166  | 1775     | 0.385 | ng    | 100      |
| 20) 4,6-Dinitro-2-methylph... | 15.572 | 198  | 185      | 0.385 | ng    | 100      |
| 21) 4-Bromophenyl-phenylether | 16.403 | 248  | 743      | 0.391 | ng    | 100      |
| 22) Hexachlorobenzene         | 16.515 | 284  | 986      | 0.381 | ng    | 100      |
| 23) Atrazine                  | 16.664 | 200  | 486      | 0.382 | ng    | 100      |
| 24) Pentachlorophenol         | 16.850 | 266  | 327      | 0.357 | ng    | 100      |
| 25) Phenanthrene              | 17.247 | 178  | 3161     | 0.391 | ng    | 100      |
| 26) Anthracene                | 17.334 | 178  | 2792     | 0.380 | ng    | 100      |
| 28) Fluoranthene              | 19.266 | 202  | 3684     | 0.391 | ng    | 100      |
| 30) Pyrene                    | 19.628 | 202  | 3740     | 0.387 | ng    | 100      |
| 32) Benzo(a)anthracene        | 21.375 | 228  | 3201     | 0.381 | ng    | 100      |
| 33) Chrysene                  | 21.420 | 228  | 3430     | 0.391 | ng    | 100      |
| 34) Bis(2-ethylhexyl)phtha... | 21.321 | 149  | 1386     | 0.406 | ng    | 100      |
| 36) Indeno(1,2,3-cd)pyrene    | 26.048 | 276  | 3709     | 0.359 | ng    | 100      |
| 37) Benzo(b)fluoranthene      | 22.998 | 252  | 3395     | 0.377 | ng    | 100      |
| 38) Benzo(k)fluoranthene      | 23.045 | 252  | 3282     | 0.368 | ng    | 100      |
| 39) Benzo(a)pyrene            | 23.589 | 252  | 2848     | 0.365 | ng    | 100      |
| 40) Dibenzo(a,h)anthracene    | 26.071 | 278  | 2902     | 0.353 | ng    | 100      |
| 41) Benzo(g,h,i)perylene      | 26.764 | 276  | 3265     | 0.355 | ng    | 100      |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

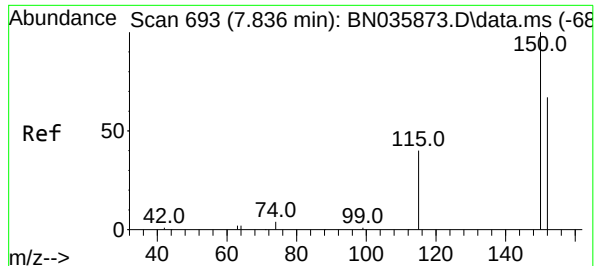
Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
 Data File : BN035873.D  
 Acq On : 02 Jan 2025 12:40  
 Operator : RC/JU  
 Sample : SSTDICCC0.4  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICCC0.4

Quant Time: Jan 02 15:49:48 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration



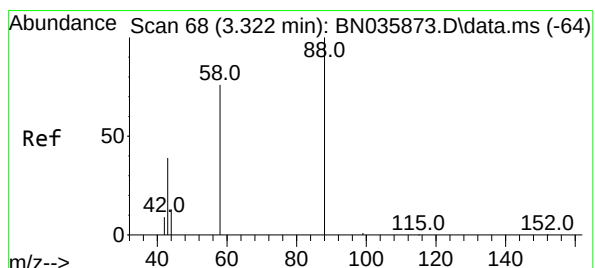
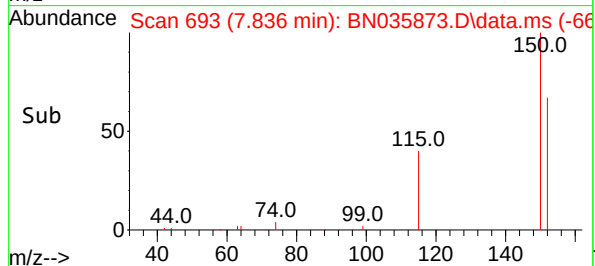
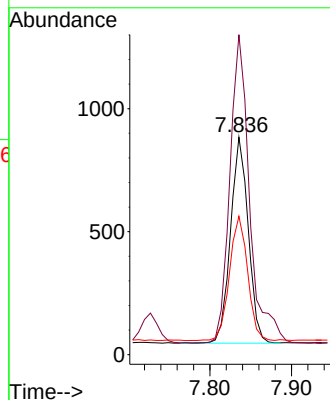
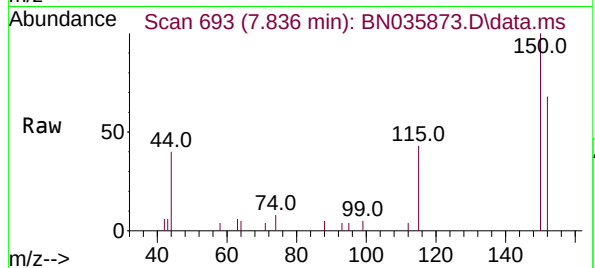




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.836 min Scan# 693  
Delta R.T. -0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

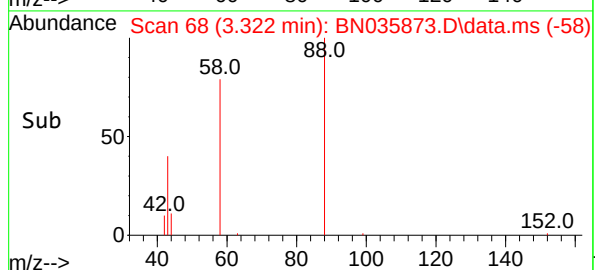
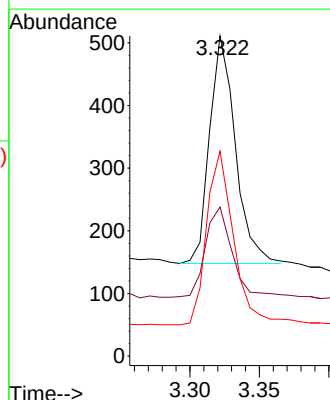
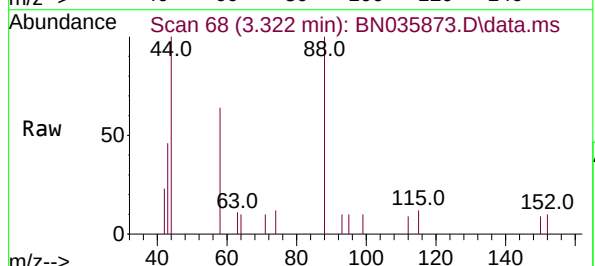
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

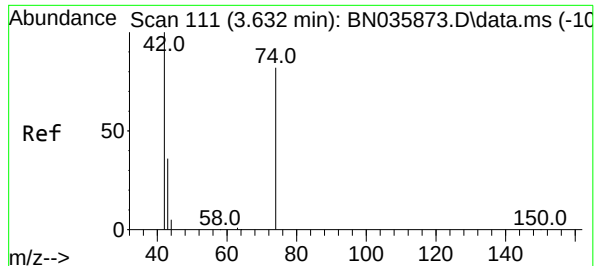
Tgt Ion: 152 Resp: 1261  
Ion Ratio Lower Upper  
152 100  
150 147.2 117.8 176.6  
115 63.7 51.0 76.4



#2  
1,4-Dioxane  
Concen: 0.375 ng  
RT: 3.322 min Scan# 68  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

Tgt Ion: 88 Resp: 470  
Ion Ratio Lower Upper  
88 100  
43 40.9 32.7 49.1  
58 78.7 63.0 94.4

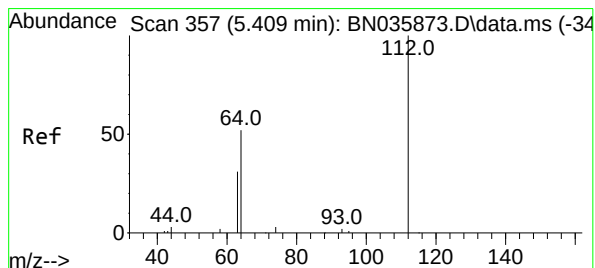
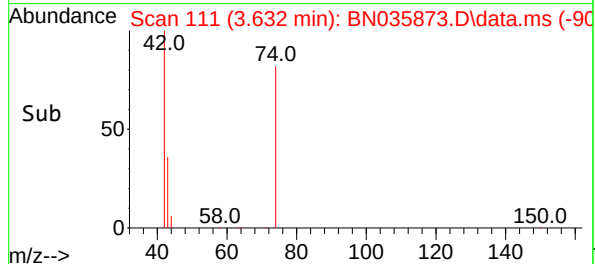
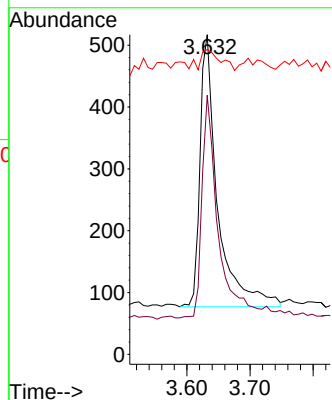
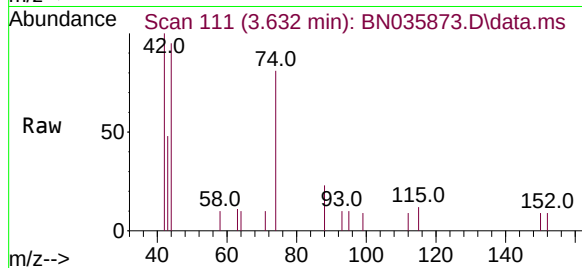




#3  
n-Nitrosodimethylamine  
Concen: 0.390 ng  
RT: 3.632 min Scan# 111  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

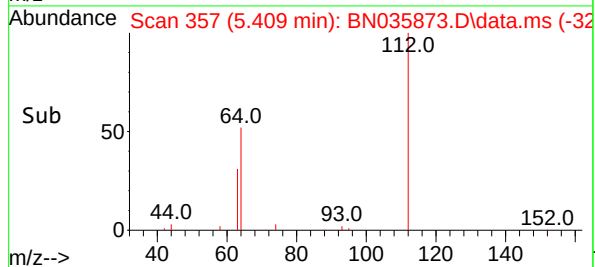
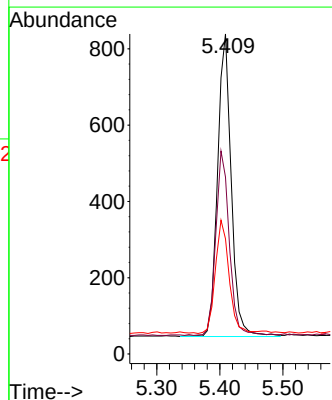
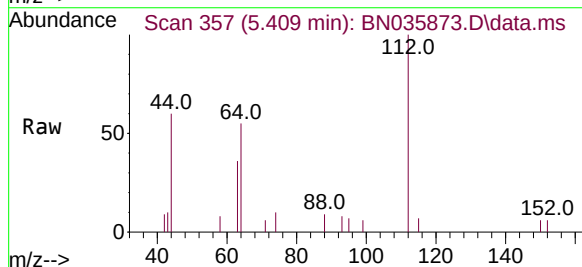
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

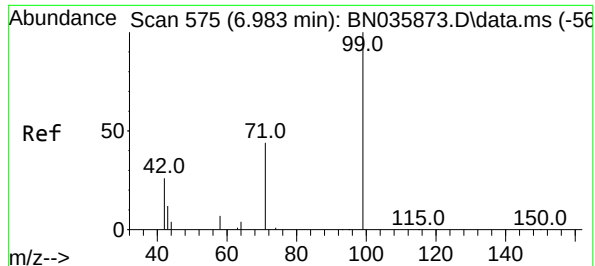
Tgt Ion: 42 Resp: 853  
Ion Ratio Lower Upper  
42 100  
74 77.7 62.2 93.2  
44 8.9 7.1 10.7



#4  
2-Fluorophenol  
Concen: 0.388 ng  
RT: 5.409 min Scan# 357  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

Tgt Ion: 112 Resp: 1200  
Ion Ratio Lower Upper  
112 100  
64 60.2 48.2 72.2  
63 37.5 30.0 45.0

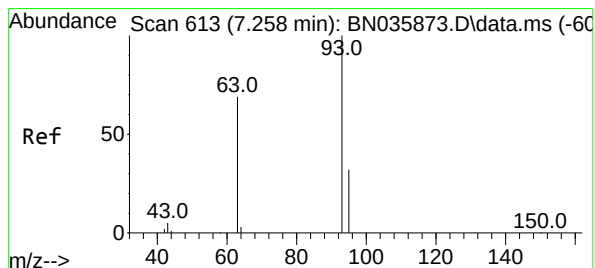
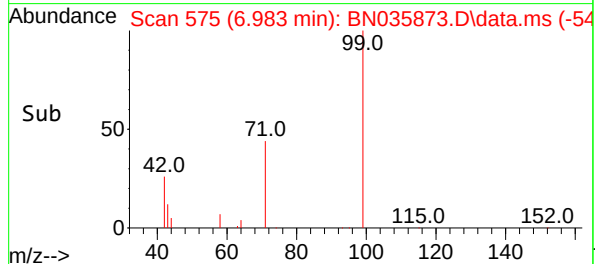
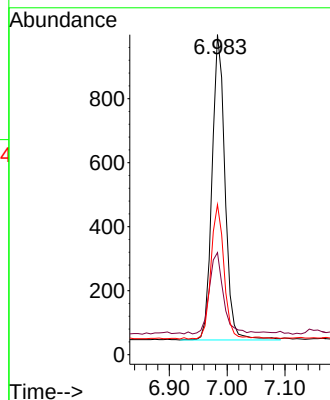
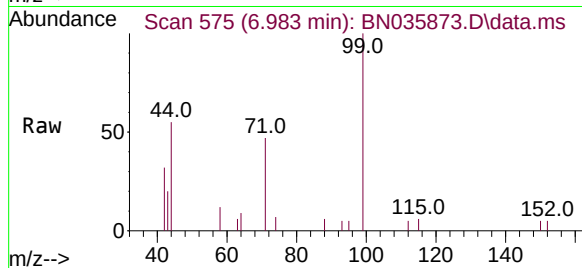




#5  
Phenol-d6  
Concen: 0.387 ng  
RT: 6.983 min Scan# 575  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

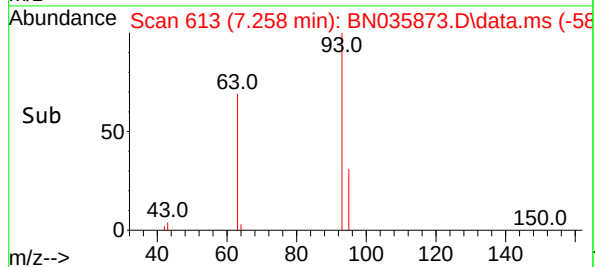
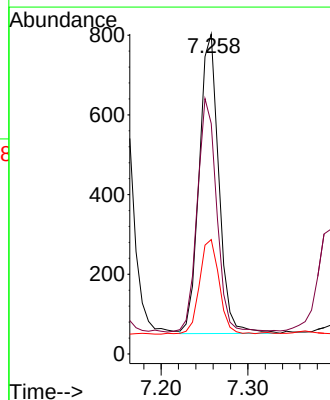
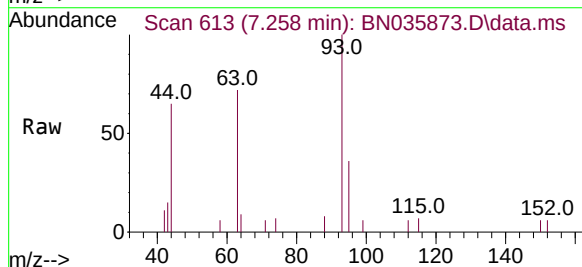
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

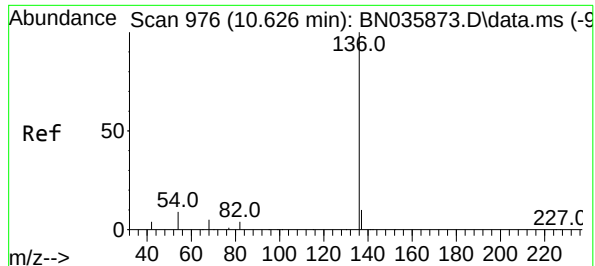
Tgt Ion: 99 Resp: 1488  
Ion Ratio Lower Upper  
99 100  
42 29.4 23.5 35.3  
71 44.4 35.5 53.3



#6  
bis(2-Chloroethyl)ether  
Concen: 0.403 ng  
RT: 7.258 min Scan# 613  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

Tgt Ion: 93 Resp: 1180  
Ion Ratio Lower Upper  
93 100  
63 77.5 62.0 93.0  
95 31.9 25.5 38.3

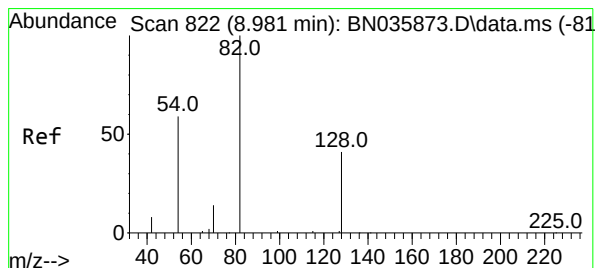
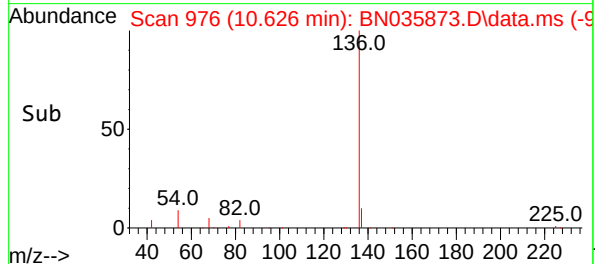
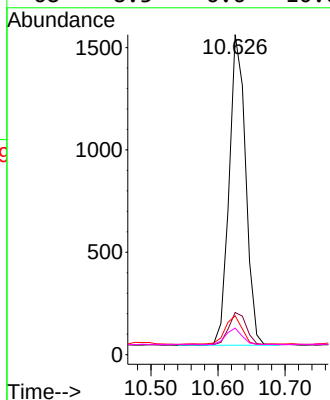
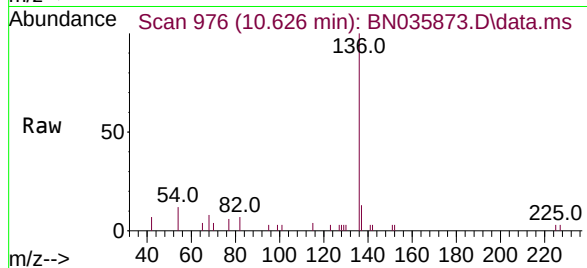




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.626 min Scan# 91  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

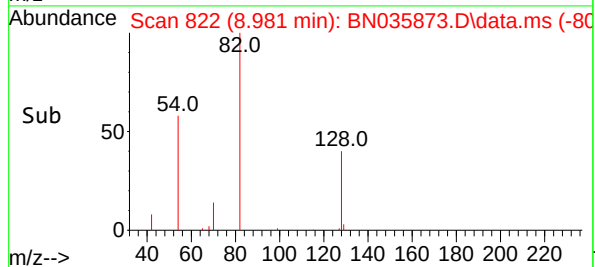
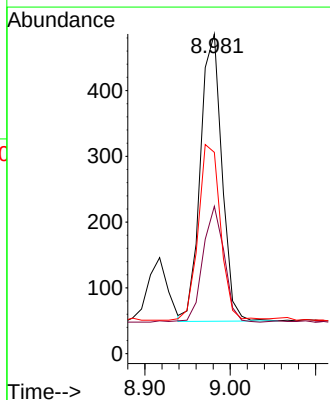
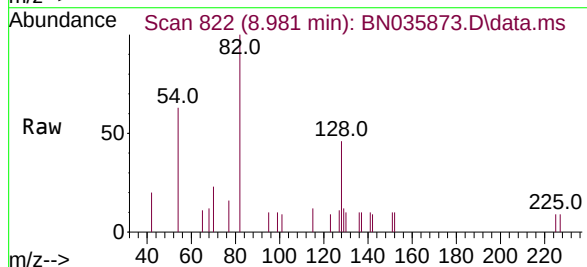
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

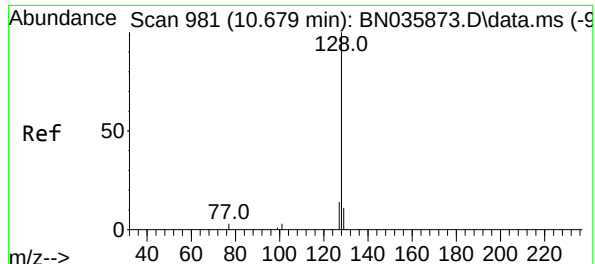
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 2582  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 13.2  | 10.6  | 15.8  |
| 54       | 12.2  | 9.8   | 14.6  |
| 68       | 8.3   | 6.6   | 10.0  |



#8  
Nitrobenzene-d5  
Concen: 0.374 ng  
RT: 8.981 min Scan# 822  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 764   |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 46.1  | 36.9  | 55.3  |
| 54       | 63.0  | 50.4  | 75.6  |

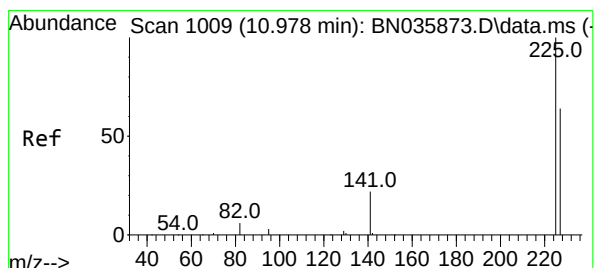
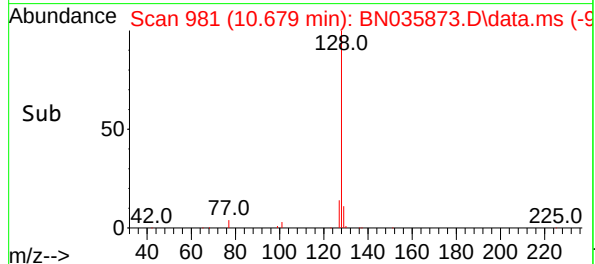
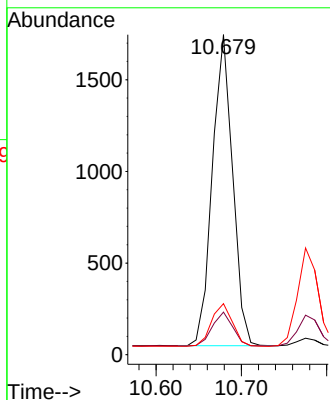
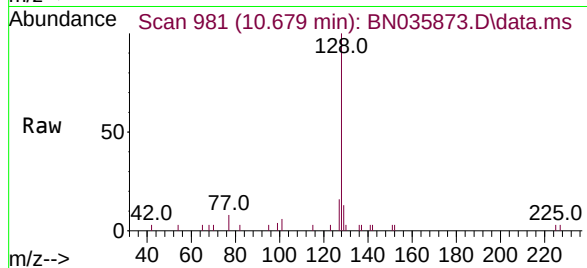




#9  
Naphthalene  
Concen: 0.387 ng  
RT: 10.679 min Scan# 981  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

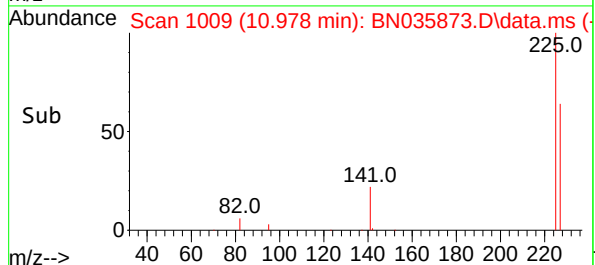
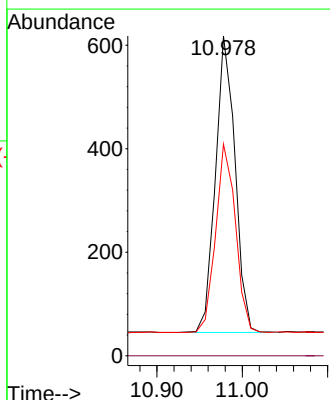
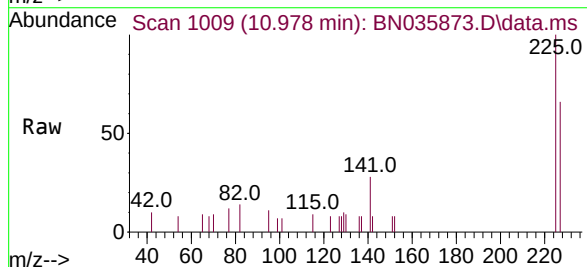
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

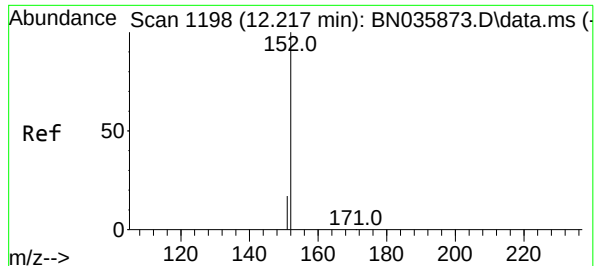
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 128   | Resp: | 2805  |
| Ion      | Ratio | Lower | Upper |
| 128      | 100   |       |       |
| 129      | 13.3  | 10.6  | 16.0  |
| 127      | 16.0  | 12.8  | 19.2  |



#10  
Hexachlorobutadiene  
Concen: 0.388 ng  
RT: 10.978 min Scan# 1009  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 225   | Resp: | 912   |
| Ion      | Ratio | Lower | Upper |
| 225      | 100   |       |       |
| 223      | 0.0   | 0.0   | 0.0   |
| 227      | 64.4  | 51.5  | 77.3  |

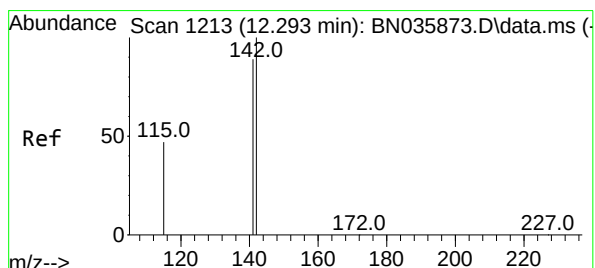
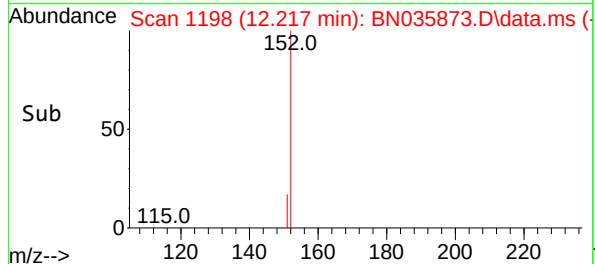
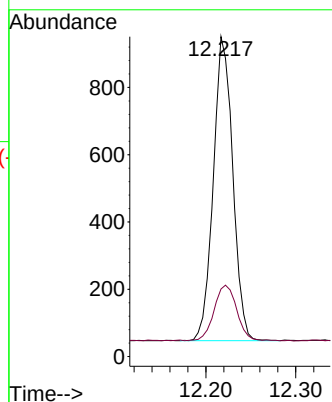
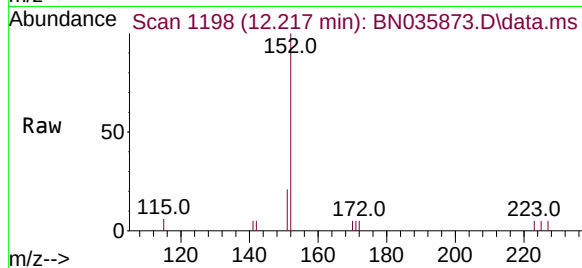




#11  
2-Methylnaphthalene-d10  
Concen: 0.393 ng  
RT: 12.217 min Scan# 1198  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

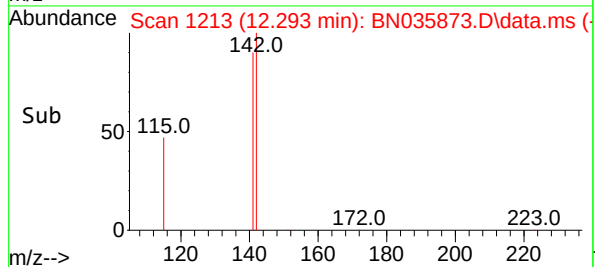
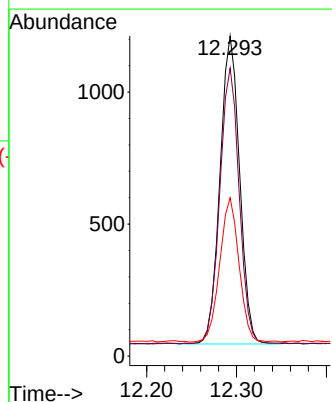
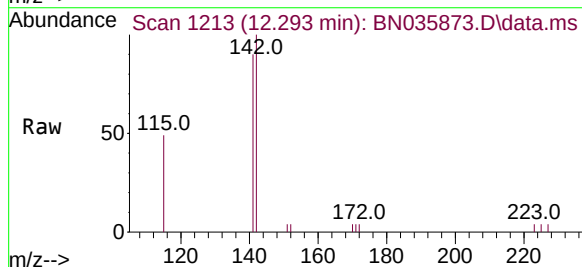
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

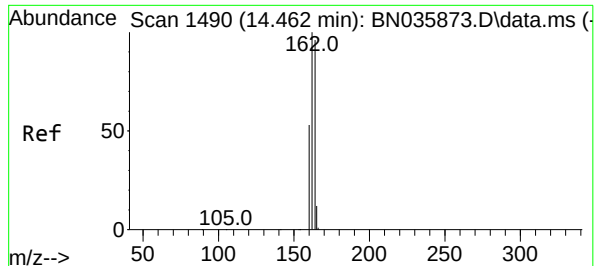
Tgt Ion:152 Resp: 1360  
Ion Ratio Lower Upper  
152 100  
151 21.3 17.0 25.6



#12  
2-Methylnaphthalene  
Concen: 0.394 ng  
RT: 12.293 min Scan# 1213  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

Tgt Ion:142 Resp: 1768  
Ion Ratio Lower Upper  
142 100  
141 89.9 71.9 107.9  
115 49.5 39.6 59.4

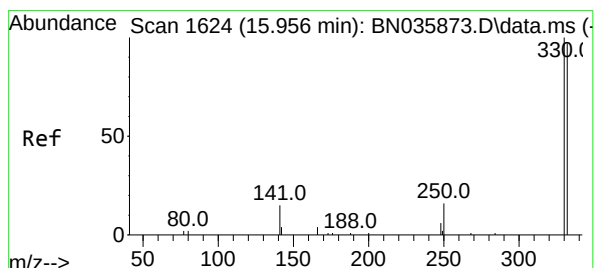
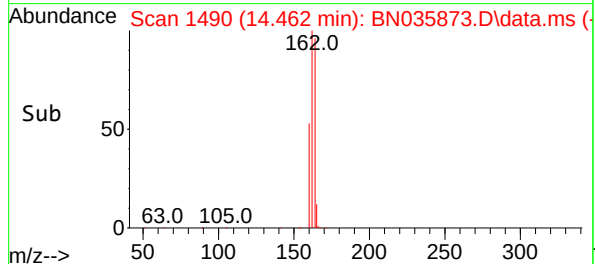
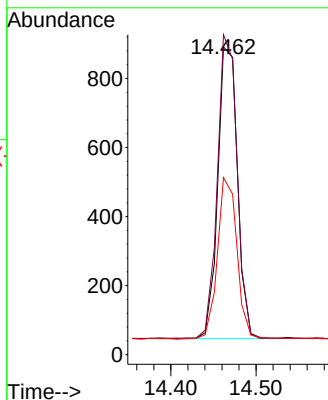
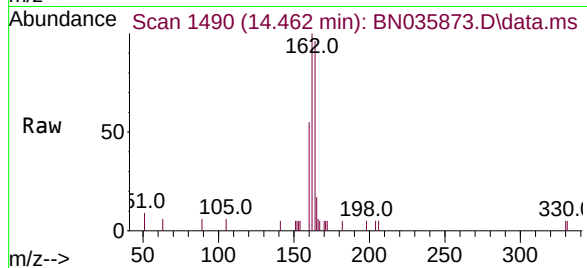




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.462 min Scan# 1490  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

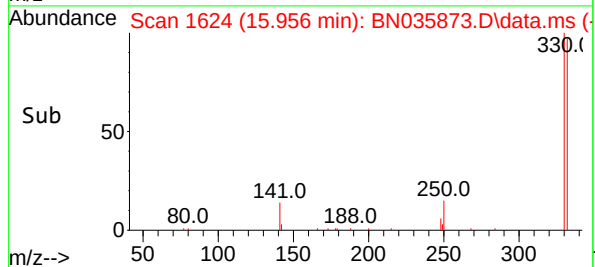
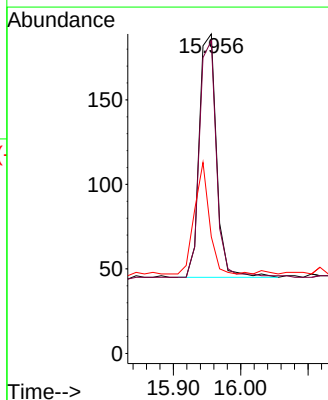
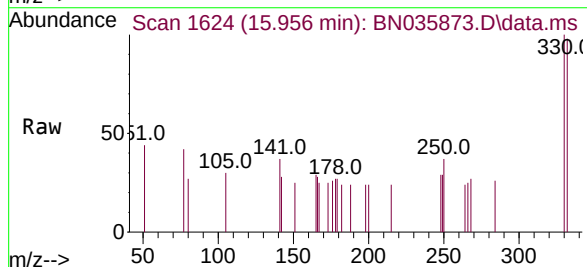
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

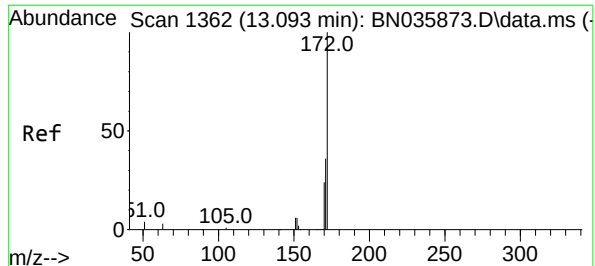
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 162     | 103.9 | 83.1  | 124.7 |
| 160     | 57.5  | 46.0  | 69.0  |



#14  
2,4,6-Tribromophenol  
Concen: 0.393 ng  
RT: 15.956 min Scan# 1624  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 96.5  | 77.2  | 115.8 |
| 141     | 39.5  | 31.6  | 47.4  |





#15

2-Fluorobiphenyl

Concen: 0.389 ng

RT: 13.093 min Scan# 1362

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

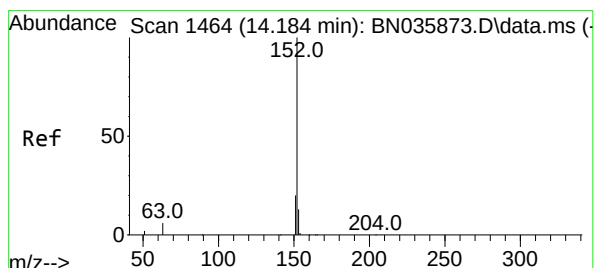
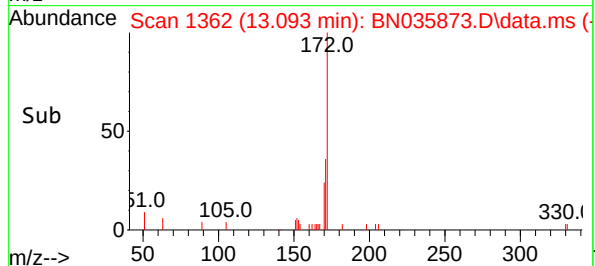
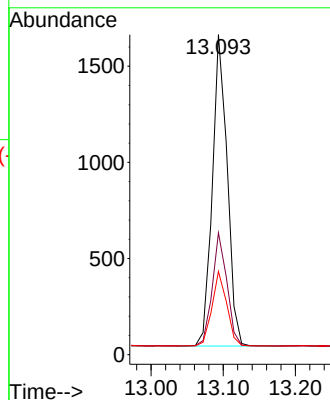
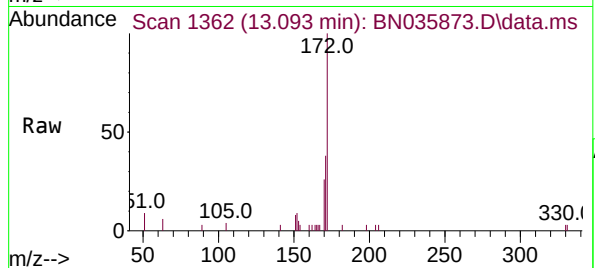
Tgt Ion:172 Resp: 2320

Ion Ratio Lower Upper

172 100

171 38.1 30.5 45.7

170 26.0 20.8 31.2



#16

Acenaphthylene

Concen: 0.386 ng

RT: 14.184 min Scan# 1464

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

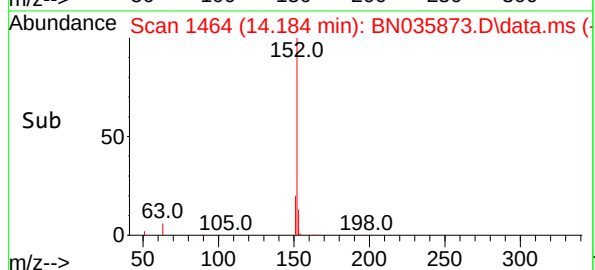
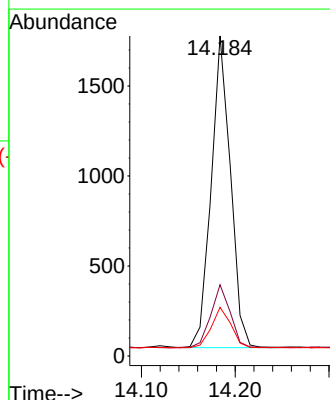
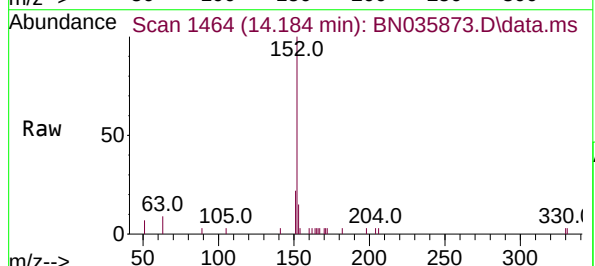
Tgt Ion:152 Resp: 2470

Ion Ratio Lower Upper

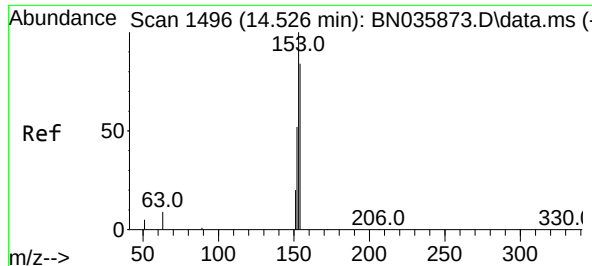
152 100

151 20.4 16.3 24.5

153 13.2 10.6 15.8



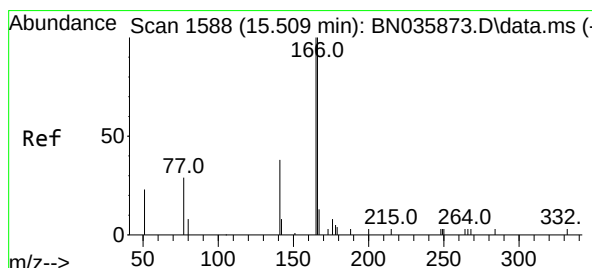
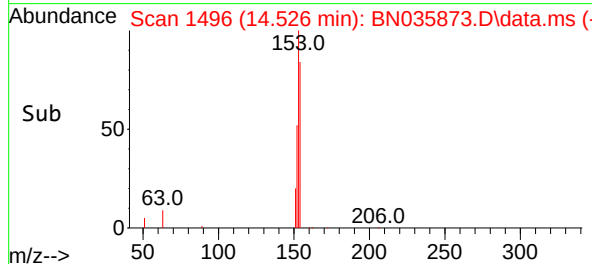
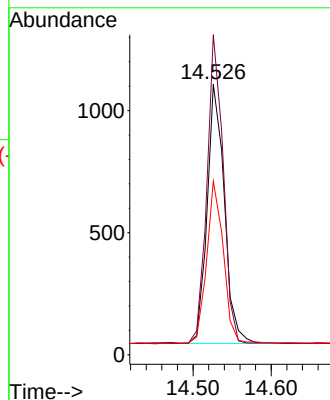
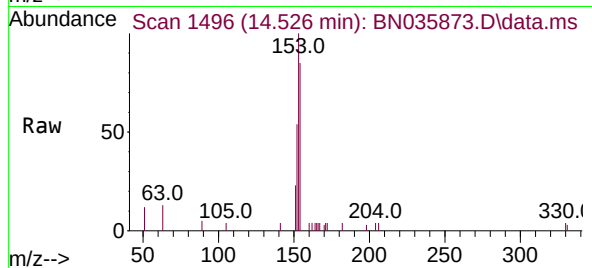




#17  
Acenaphthene  
Concen: 0.388 ng  
RT: 14.526 min Scan# 1496  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

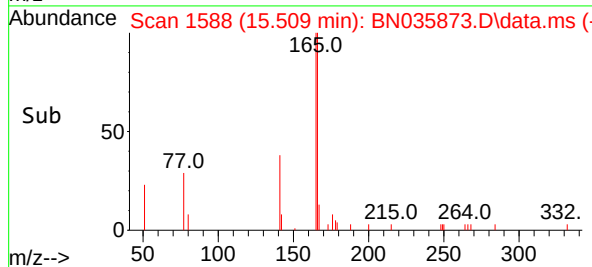
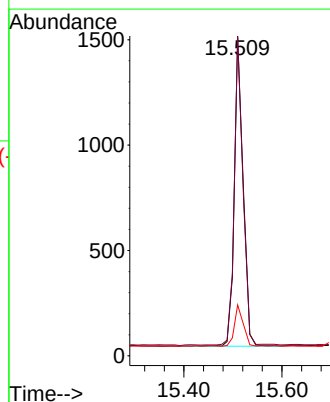
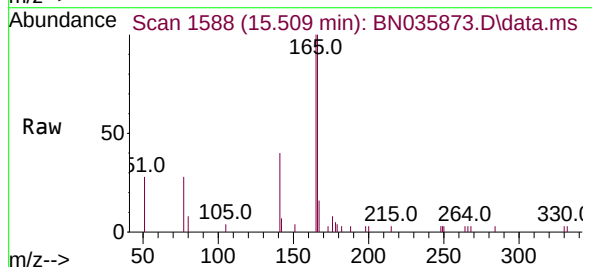
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

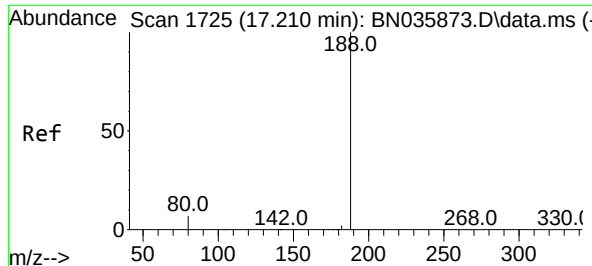
Tgt Ion:154 Resp: 1627  
Ion Ratio Lower Upper  
154 100  
153 113.1 90.5 135.7  
152 60.8 48.6 73.0



#18  
Fluorene  
Concen: 0.385 ng  
RT: 15.509 min Scan# 1588  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

Tgt Ion:166 Resp: 1775  
Ion Ratio Lower Upper  
166 100  
165 100.7 80.6 120.8  
167 14.2 11.4 17.0





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 17.210 min Scan# 11

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

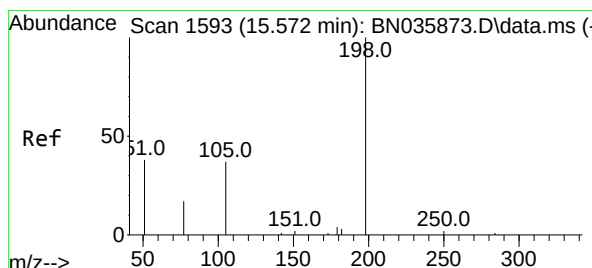
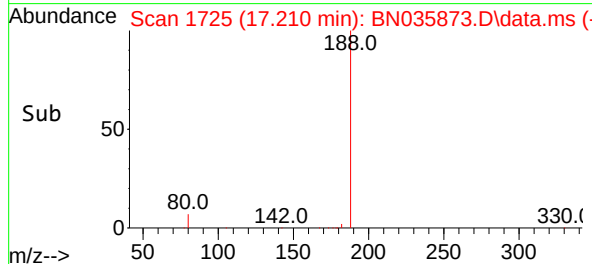
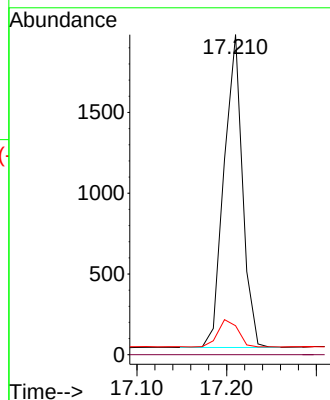
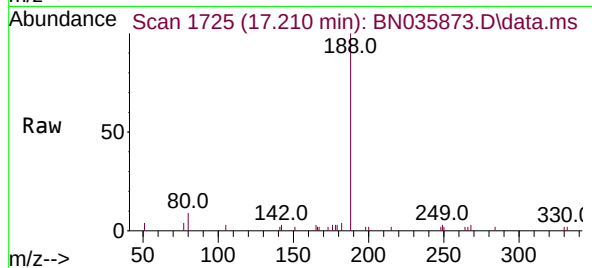
Tgt Ion:188 Resp: 2769

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 9.1 7.3 10.9



#20

4,6-Dinitro-2-methylphenol

Concen: 0.385 ng

RT: 15.572 min Scan# 1593

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

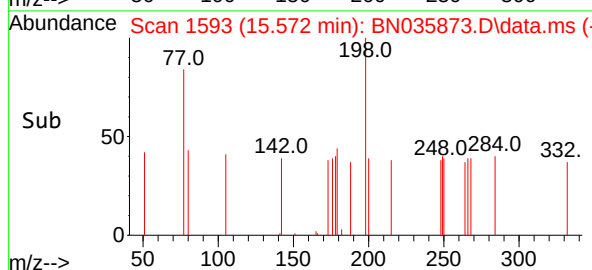
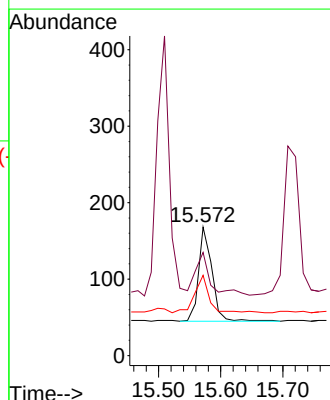
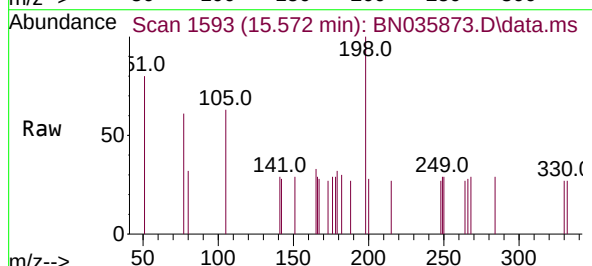
Tgt Ion:198 Resp: 185

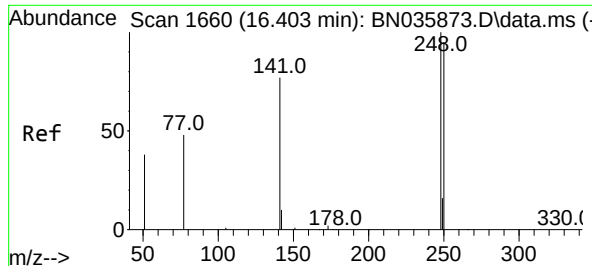
Ion Ratio Lower Upper

198 100

51 80.4 64.3 96.5

105 62.5 50.0 75.0

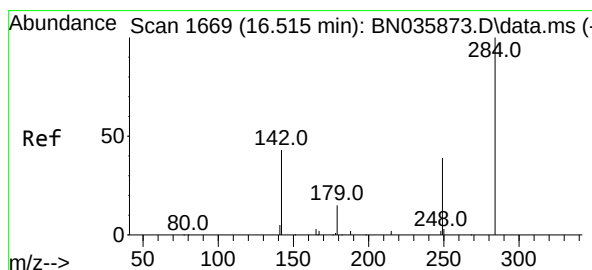
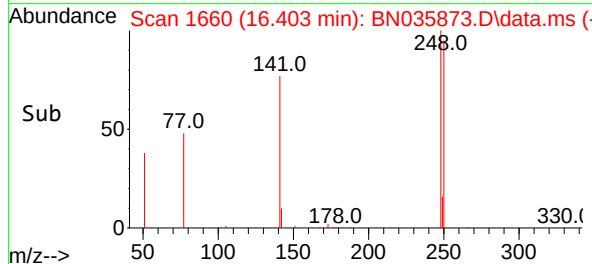
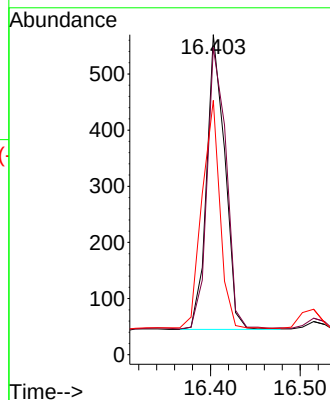
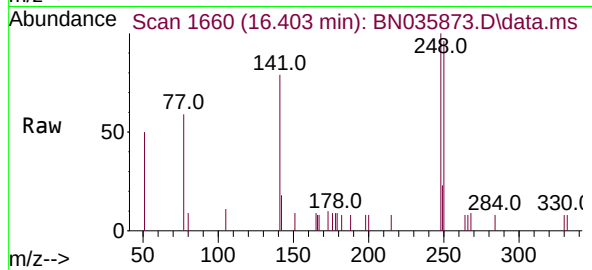




#21  
4-Bromophenyl-phenylether  
Concen: 0.391 ng  
RT: 16.403 min Scan# 1660  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

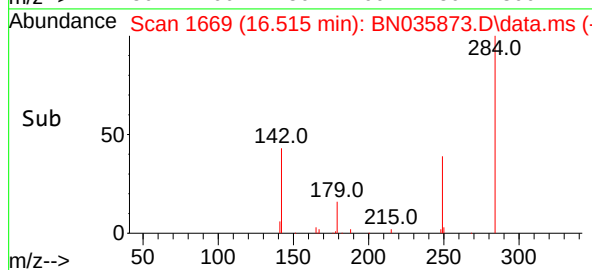
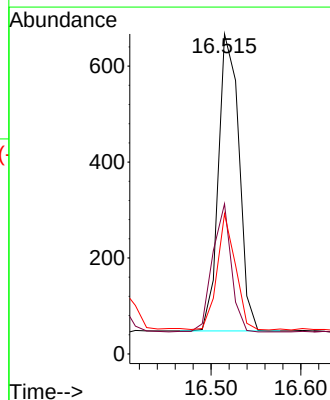
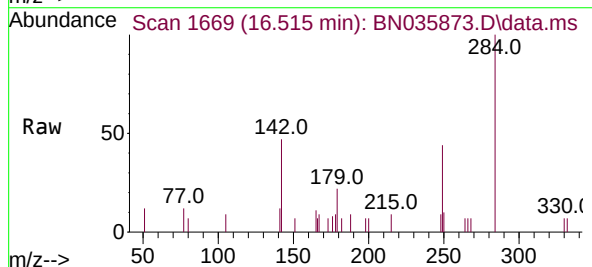
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

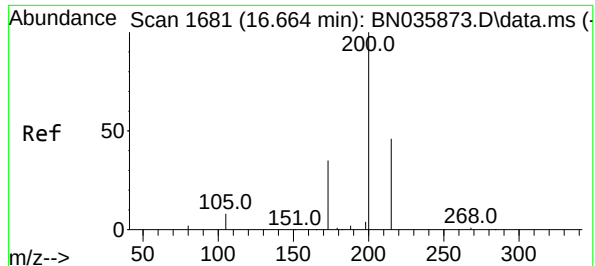
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 248   | Resp: | 743   |
| Ion      | Ratio | Lower | Upper |
| 248      | 100   |       |       |
| 250      | 96.0  | 76.8  | 115.2 |
| 141      | 79.5  | 63.6  | 95.4  |



#22  
Hexachlorobenzene  
Concen: 0.381 ng  
RT: 16.515 min Scan# 1669  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 284   | Resp: | 986   |
| Ion      | Ratio | Lower | Upper |
| 284      | 100   |       |       |
| 142      | 39.2  | 31.4  | 47.0  |
| 249      | 34.8  | 27.8  | 41.8  |





#23

Atrazine

Concen: 0.382 ng

RT: 16.664 min Scan# 1681

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

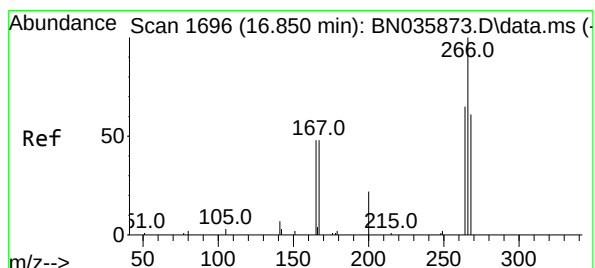
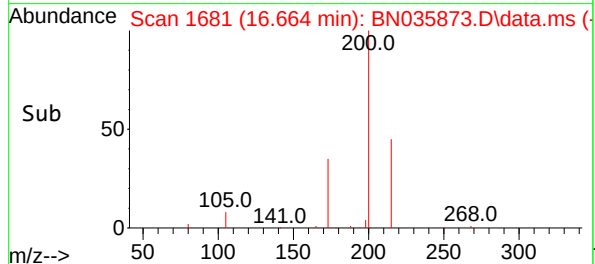
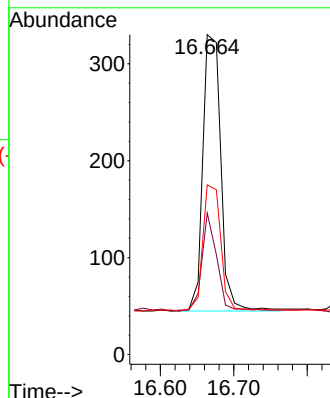
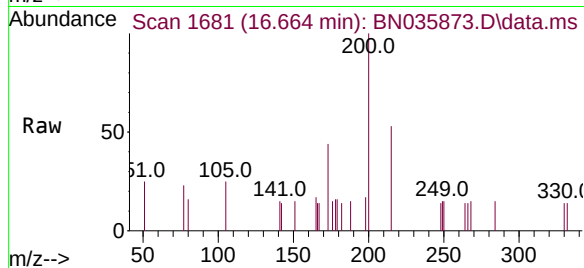
Tgt Ion:200 Resp: 486

Ion Ratio Lower Upper

200 100

173 44.2 35.4 53.0

215 53.0 42.4 63.6



#24

Pentachlorophenol

Concen: 0.357 ng

RT: 16.850 min Scan# 1696

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

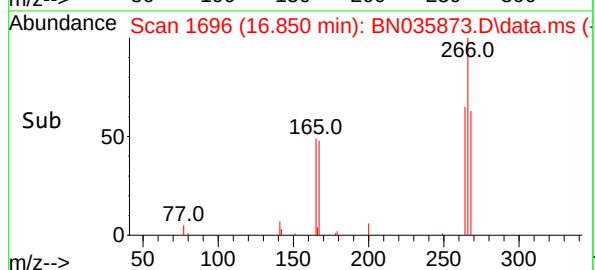
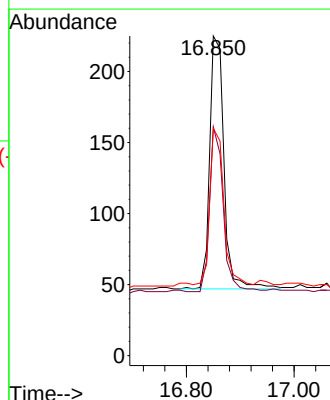
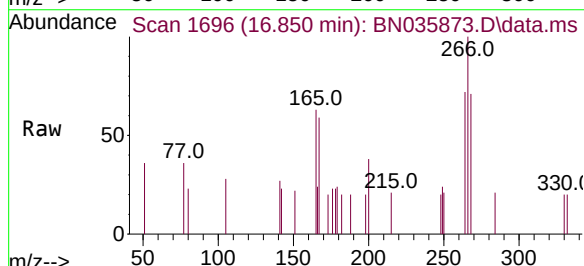
Tgt Ion:266 Resp: 327

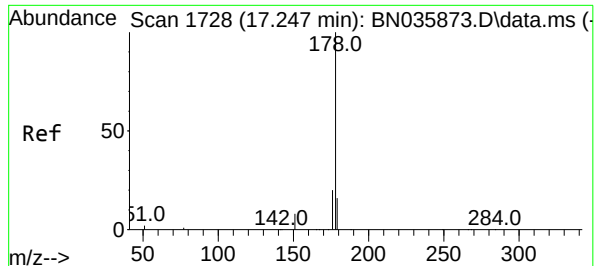
Ion Ratio Lower Upper

266 100

264 62.4 49.9 74.9

268 62.7 50.2 75.2





#25

Phenanthrene

Concen: 0.391 ng

RT: 17.247 min Scan# 1728

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

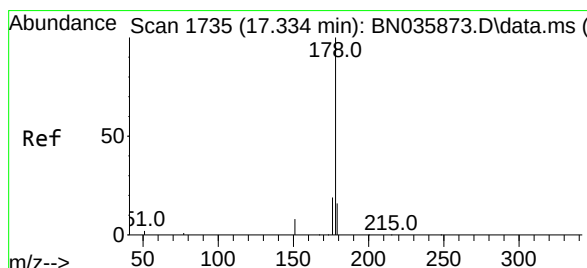
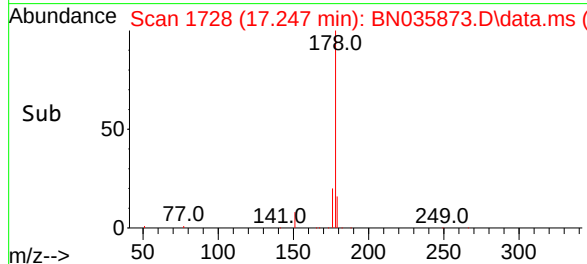
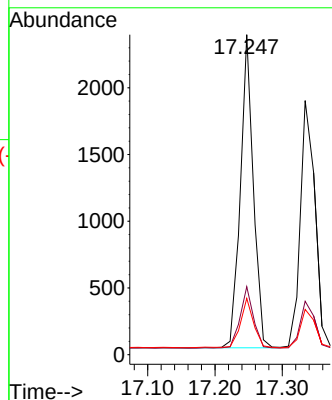
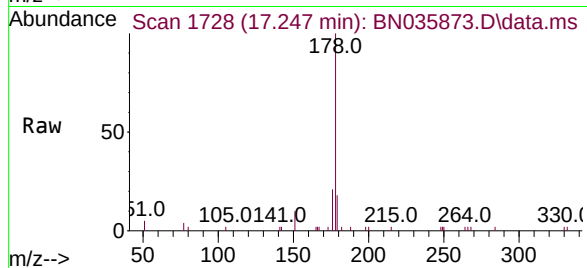
Tgt Ion:178 Resp: 3161

Ion Ratio Lower Upper

178 100

176 19.9 15.9 23.9

179 16.1 12.9 19.3



#26

Anthracene

Concen: 0.380 ng

RT: 17.334 min Scan# 1735

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

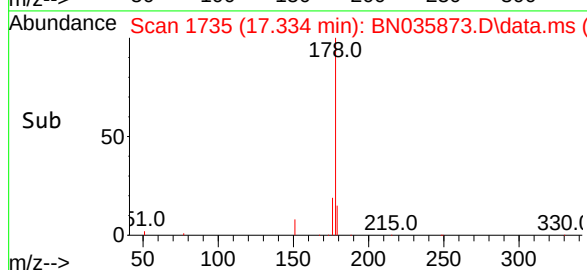
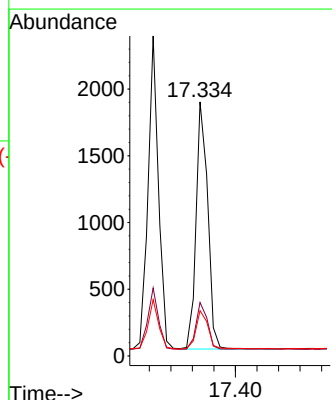
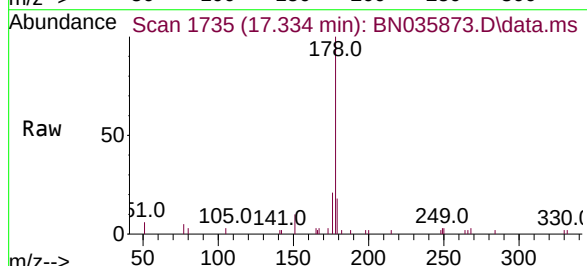
Tgt Ion:178 Resp: 2792

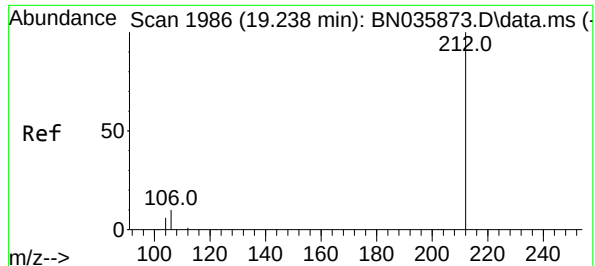
Ion Ratio Lower Upper

178 100

176 18.8 15.0 22.6

179 16.3 13.0 19.6





#27

Fluoranthene-d10

Concen: 0.394 ng

RT: 19.238 min Scan# 1986

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

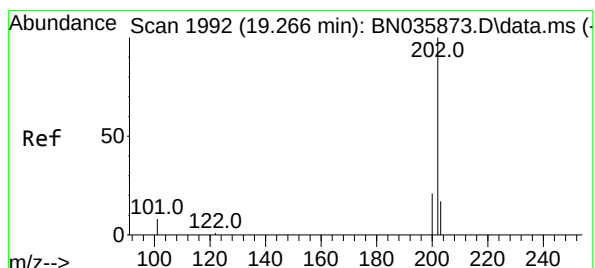
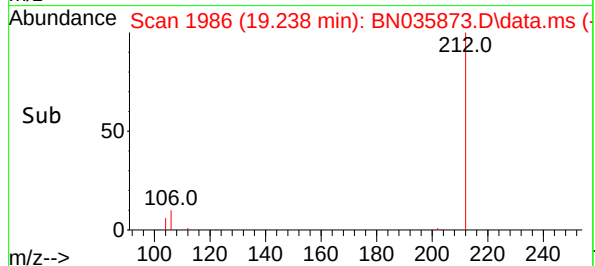
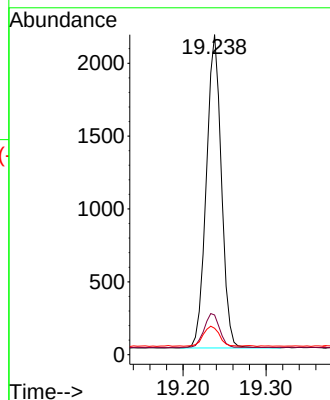
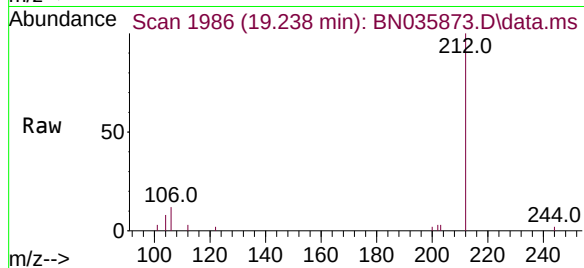
Tgt Ion:212 Resp: 2707

Ion Ratio Lower Upper

212 100

106 11.3 9.0 13.6

104 6.8 5.4 8.2



#28

Fluoranthene

Concen: 0.391 ng

RT: 19.266 min Scan# 1992

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

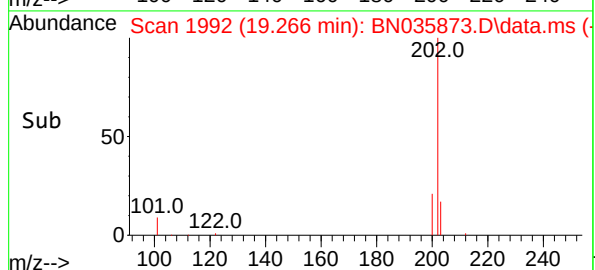
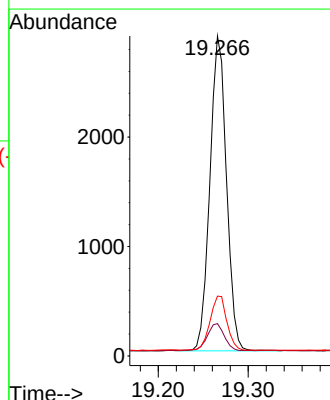
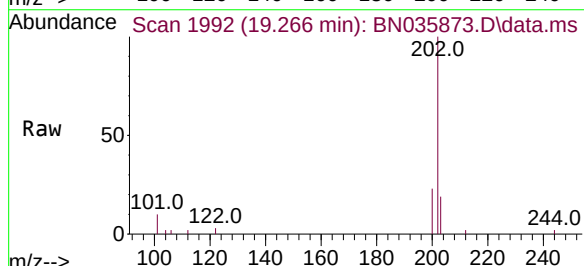
Tgt Ion:202 Resp: 3684

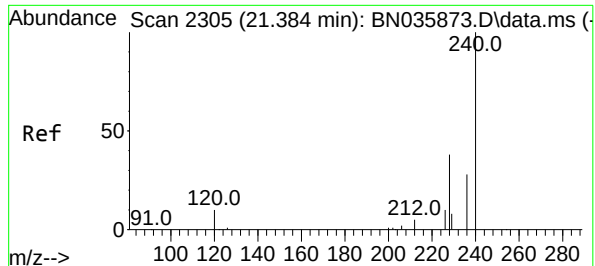
Ion Ratio Lower Upper

202 100

101 9.0 7.2 10.8

203 17.4 13.9 20.9





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.384 min Scan# 21

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

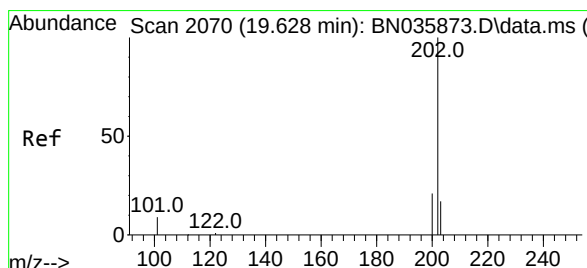
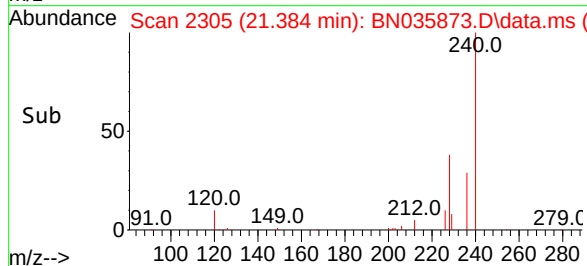
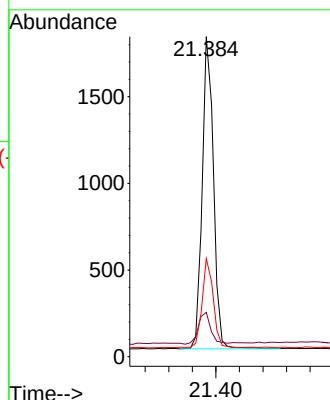
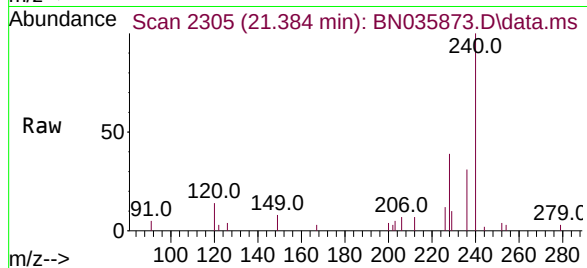
Tgt Ion:240 Resp: 2381

Ion Ratio Lower Upper

240 100

120 13.9 11.1 16.7

236 30.7 24.6 36.8



#30

Pyrene

Concen: 0.387 ng

RT: 19.628 min Scan# 2070

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

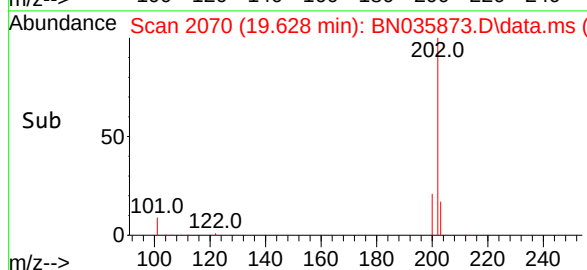
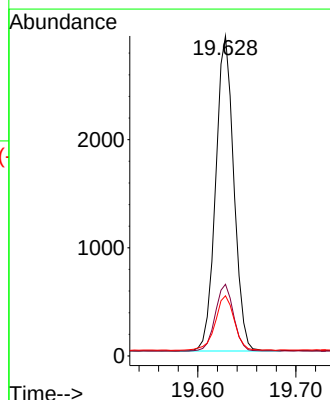
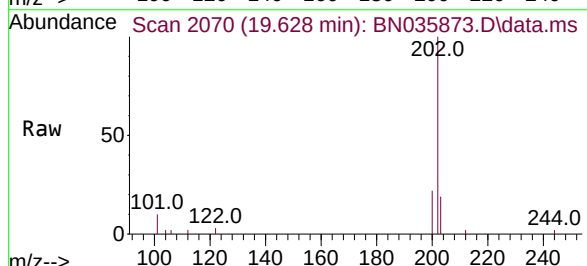
Tgt Ion:202 Resp: 3740

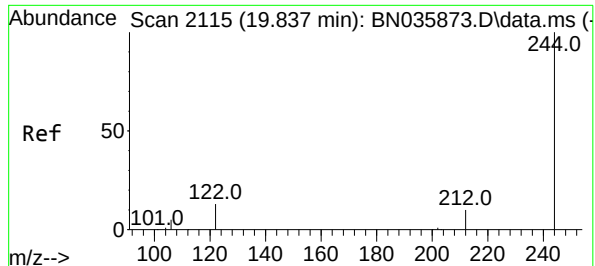
Ion Ratio Lower Upper

202 100

200 21.3 17.0 25.6

203 18.3 14.6 22.0

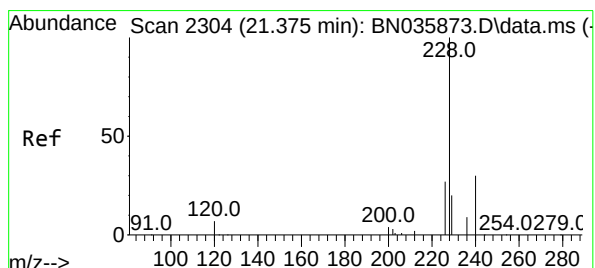
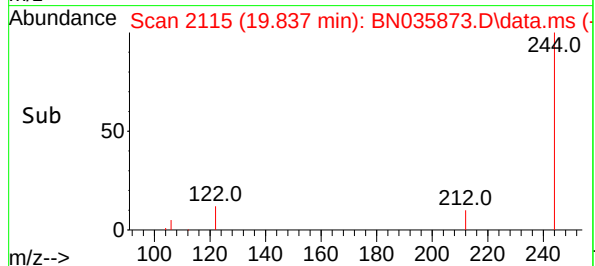
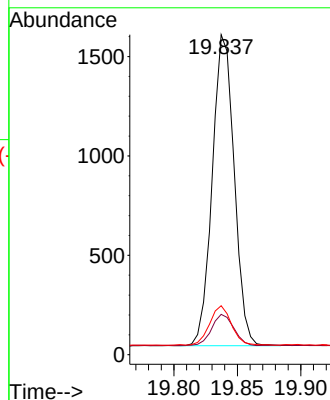
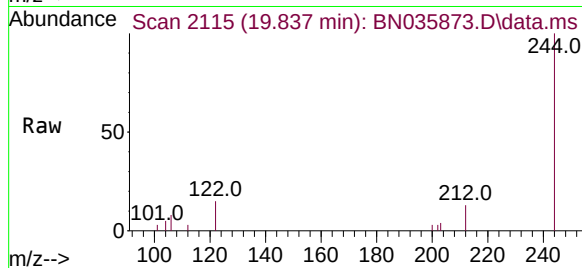




#31  
Terphenyl-d14  
Concen: 0.397 ng  
RT: 19.837 min Scan# 2115  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

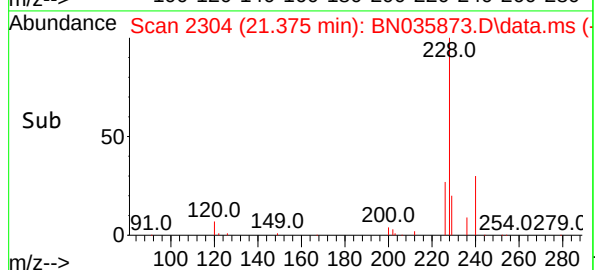
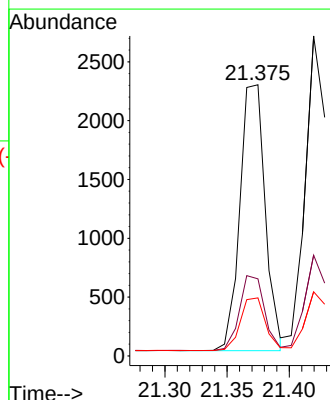
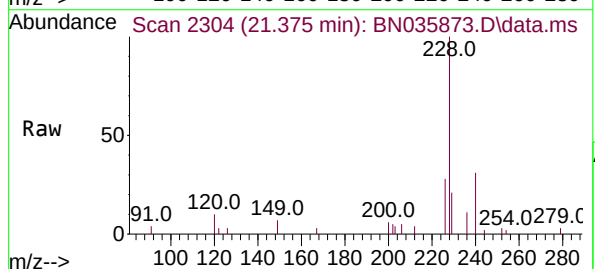
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICCC0.4

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 12.6  | 10.1  | 15.1  |
| 122     | 15.3  | 12.2  | 18.4  |

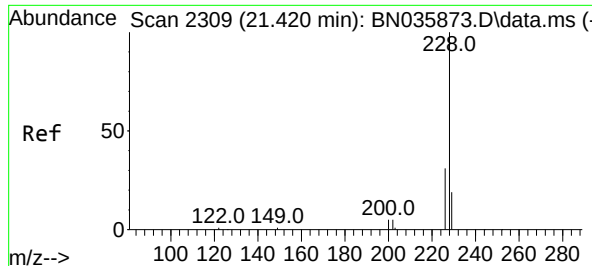


#32  
Benzo(a)anthracene  
Concen: 0.381 ng  
RT: 21.375 min Scan# 2304  
Delta R.T. 0.000 min  
Lab File: BN035873.D  
Acq: 02 Jan 2025 12:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 28.4  | 22.7  | 34.1  |
| 229     | 21.4  | 17.1  | 25.7  |







#33

Chrysene

Concen: 0.391 ng

RT: 21.420 min Scan# 21

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

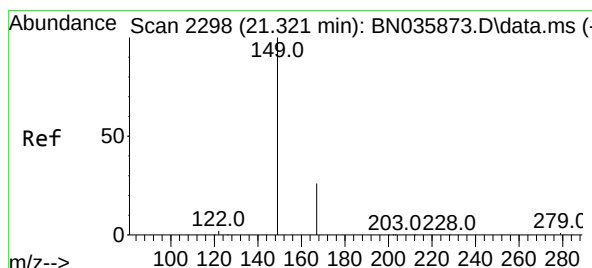
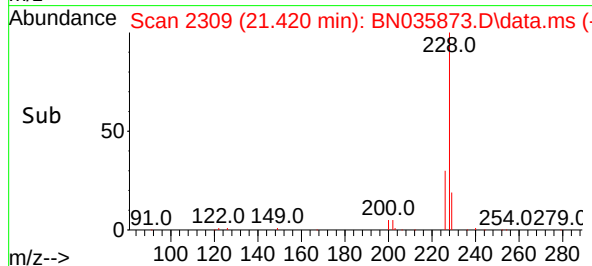
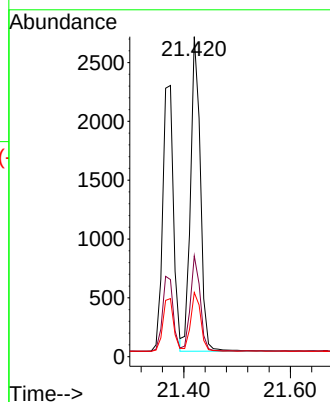
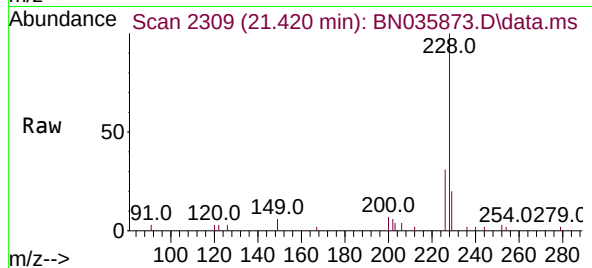
Tgt Ion:228 Resp: 3430

Ion Ratio Lower Upper

228 100

226 31.5 25.2 37.8

229 20.0 16.0 24.0



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.406 ng

RT: 21.321 min Scan# 2298

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

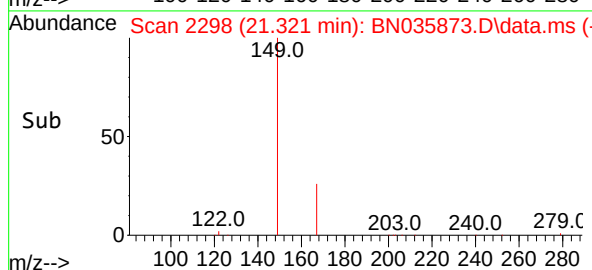
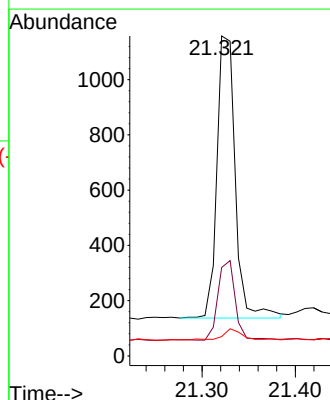
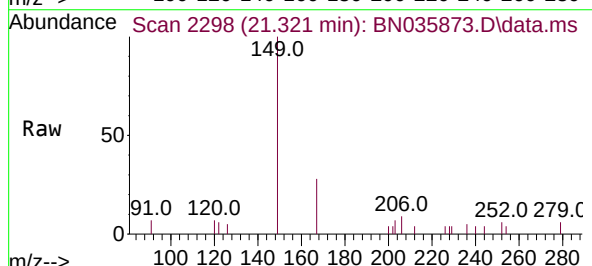
Tgt Ion:149 Resp: 1386

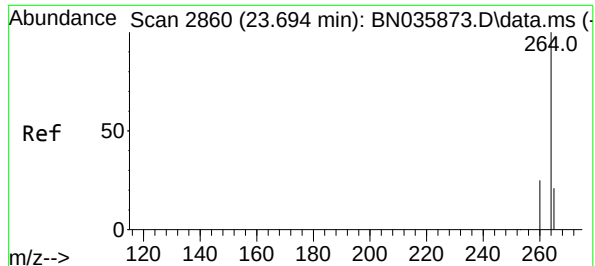
Ion Ratio Lower Upper

149 100

167 26.7 21.4 32.0

279 3.8 3.0 4.6





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.694 min Scan# 2860

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

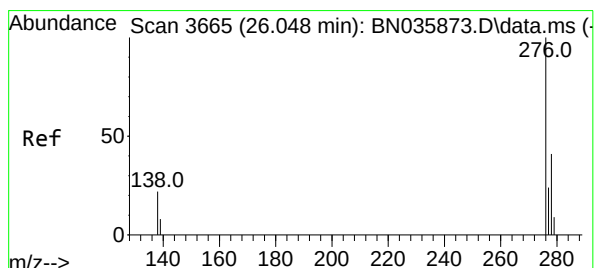
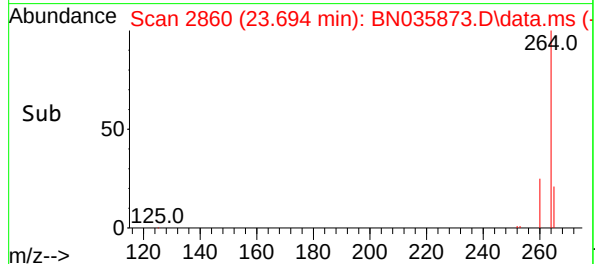
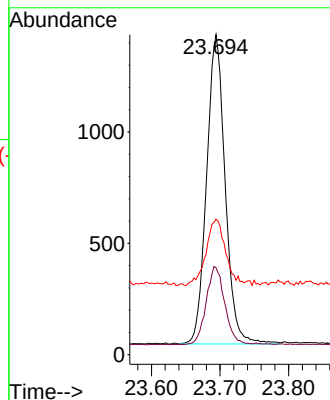
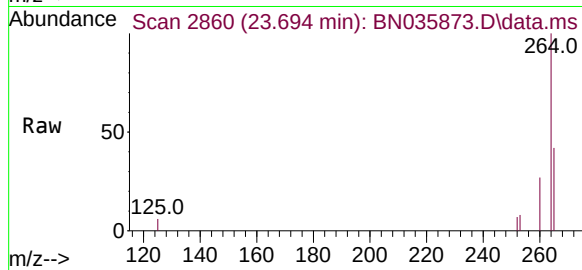
Tgt Ion:264 Resp: 2623

Ion Ratio Lower Upper

264 100

260 27.1 21.7 32.5

265 42.4 33.9 50.9



#36

Indeno(1,2,3-cd)pyrene

Concen: 0.359 ng

RT: 26.048 min Scan# 3665

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

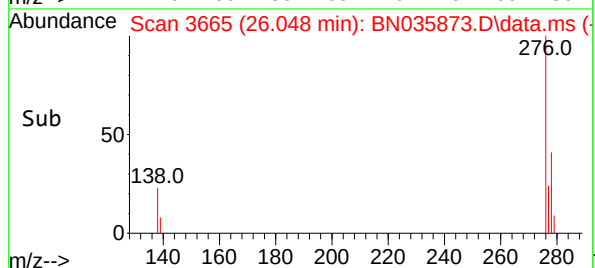
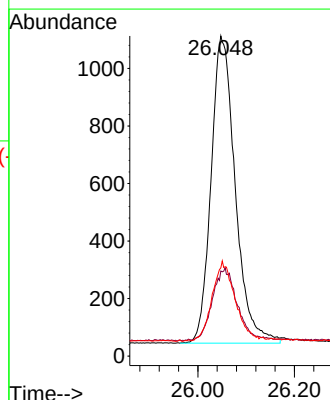
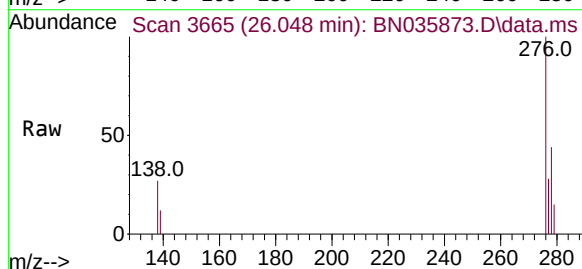
Tgt Ion:276 Resp: 3709

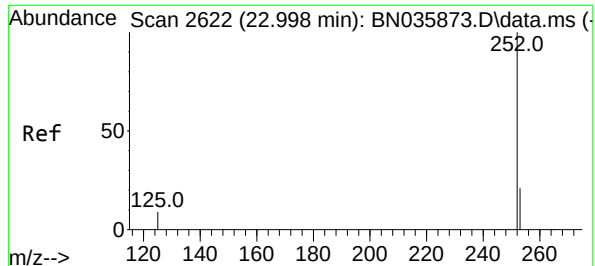
Ion Ratio Lower Upper

276 100

138 23.6 18.9 28.3

277 24.4 19.5 29.3





#37

Benzo(b)fluoranthene

Concen: 0.377 ng

RT: 22.998 min Scan# 2622

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

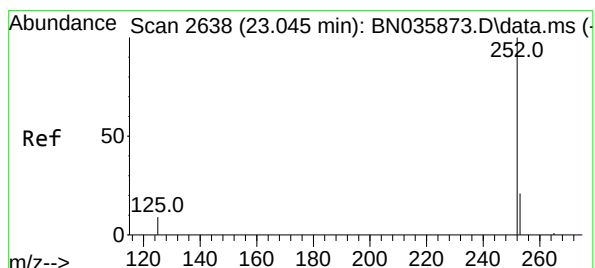
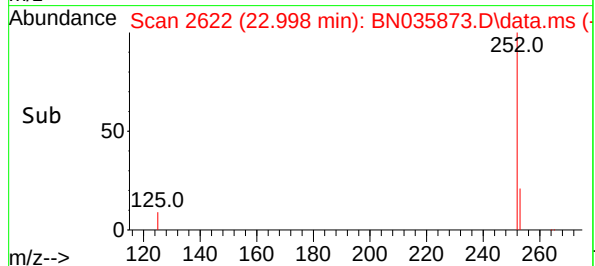
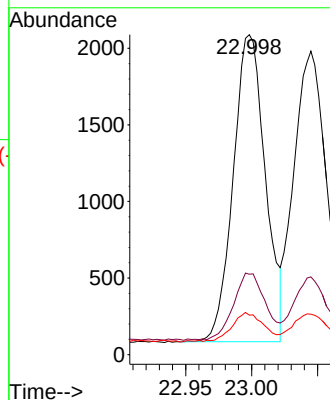
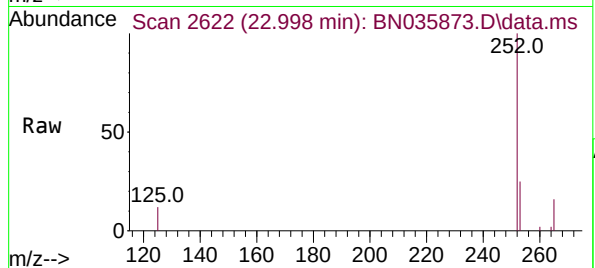
Tgt Ion:252 Resp: 3395

Ion Ratio Lower Upper

252 100

253 25.1 20.1 30.1

125 12.4 9.9 14.9



#38

Benzo(k)fluoranthene

Concen: 0.368 ng

RT: 23.045 min Scan# 2638

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

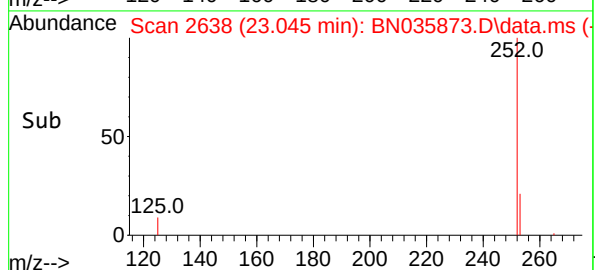
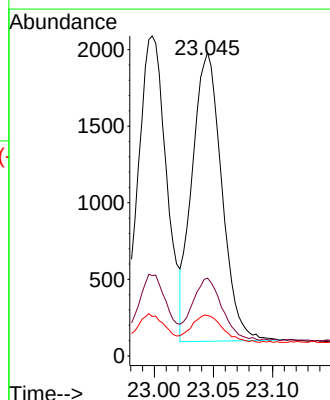
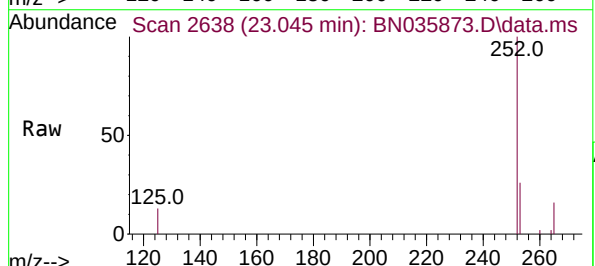
Tgt Ion:252 Resp: 3282

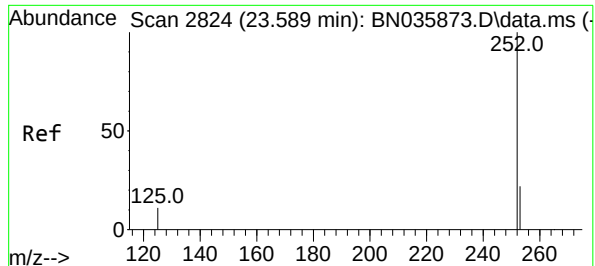
Ion Ratio Lower Upper

252 100

253 25.6 20.5 30.7

125 13.3 10.6 16.0





#39

Benzo(a)pyrene

Concen: 0.365 ng

RT: 23.589 min Scan# 2824

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4

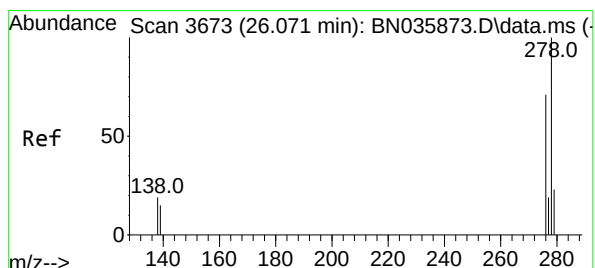
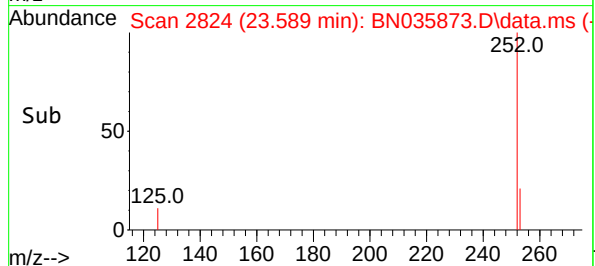
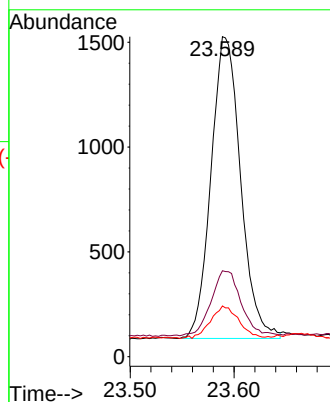
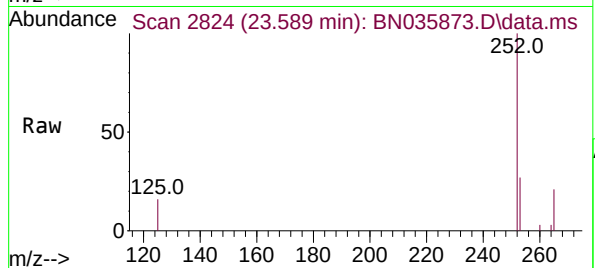
Tgt Ion:252 Resp: 2848

Ion Ratio Lower Upper

252 100

253 26.9 21.5 32.3

125 15.8 12.6 19.0



#40

Dibenzo(a,h)anthracene

Concen: 0.353 ng

RT: 26.071 min Scan# 3673

Delta R.T. 0.000 min

Lab File: BN035873.D

Acq: 02 Jan 2025 12:40

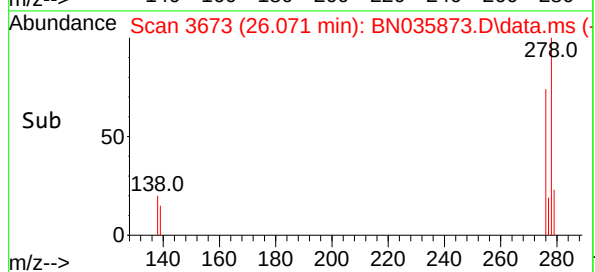
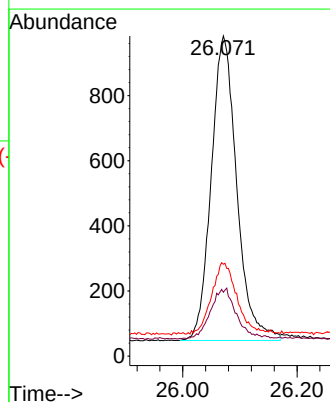
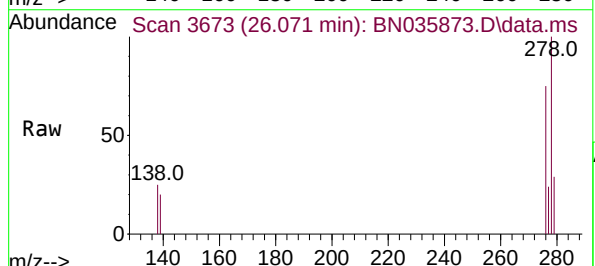
Tgt Ion:278 Resp: 2902

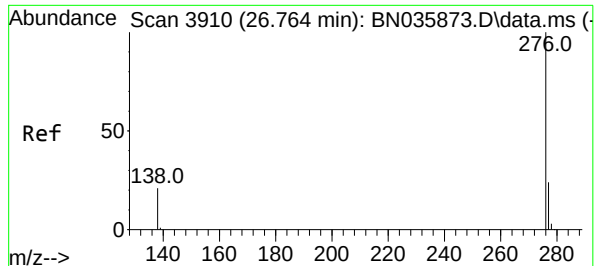
Ion Ratio Lower Upper

278 100

139 19.9 15.9 23.9

279 28.7 23.0 34.4





#41

Benzo(g,h,i)perylene

Concen: 0.355 ng

RT: 26.764 min Scan# 3910

Delta R.T. 0.000 min

Lab File: BN035873.D

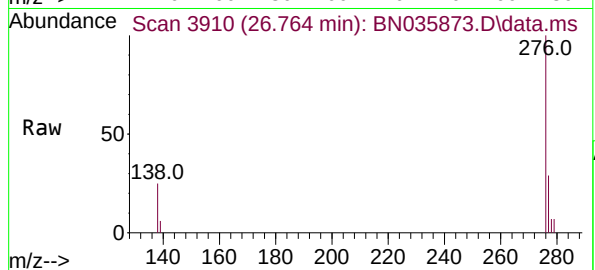
Acq: 02 Jan 2025 12:40

Instrument :

BNA\_N

ClientSampleId :

SSTDICCC0.4



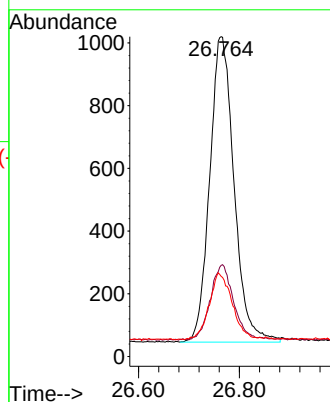
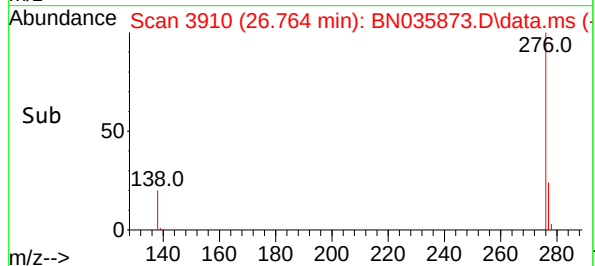
Tgt Ion:276 Resp: 3265

Ion Ratio Lower Upper

276 100

277 28.5 22.8 34.2

138 25.1 20.1 30.1



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
 Data File : BN035874.D  
 Acq On : 02 Jan 2025 13:16  
 Operator : RC/JU  
 Sample : SSTDICC0.8  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.8

Quant Time: Jan 02 15:50:14 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

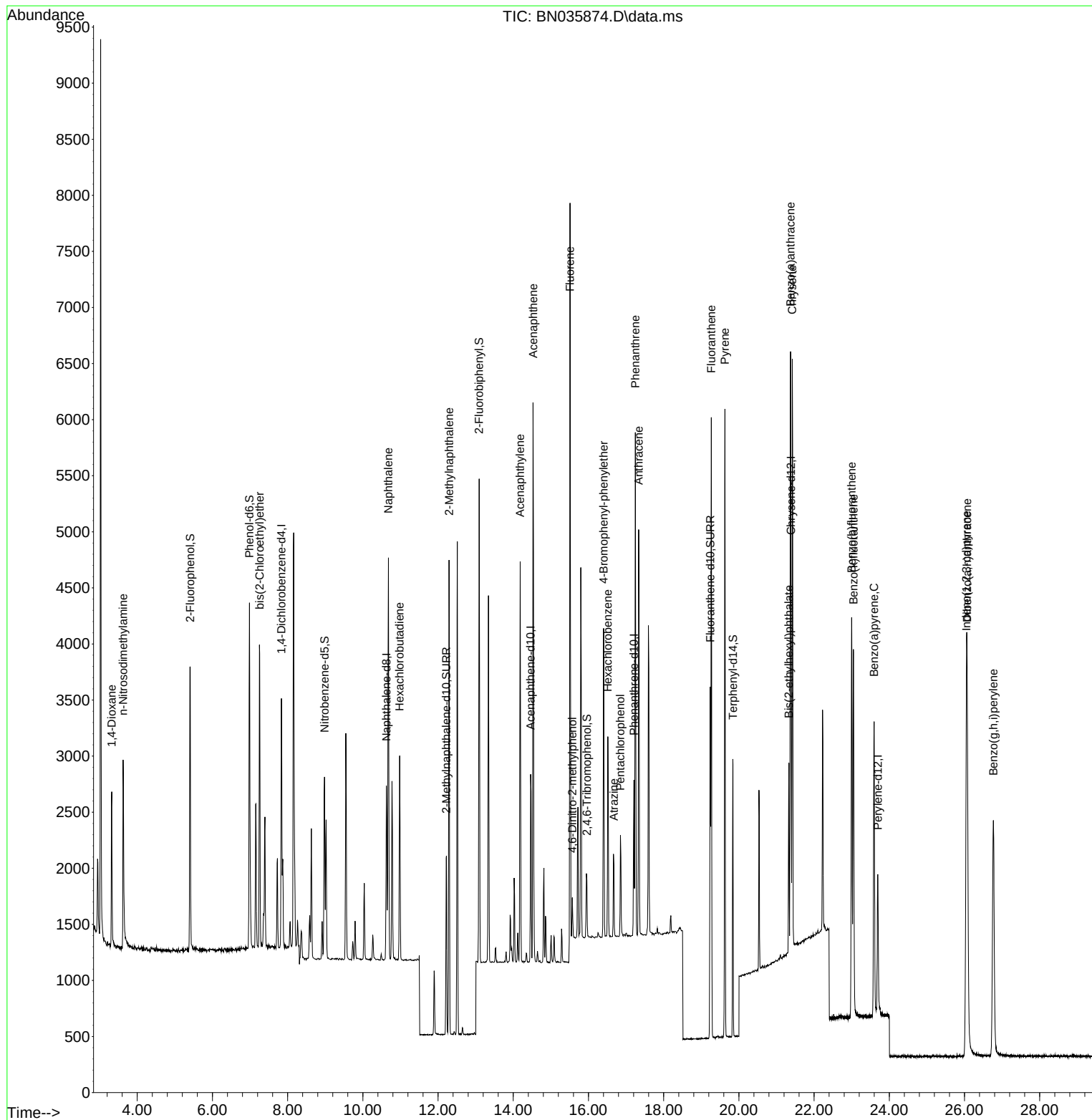
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min)  |
|-------------------------------|--------|------|----------|-------|-------|-----------|
| Internal Standards            |        |      |          |       |       |           |
| 1) 1,4-Dichlorobenzene-d4     | 7.835  | 152  | 1005     | 0.400 | ng    | 0.00      |
| 7) Naphthalene-d8             | 10.626 | 136  | 2000     | 0.400 | ng    | 0.00      |
| 13) Acenaphthene-d10          | 14.462 | 164  | 985      | 0.400 | ng    | 0.00      |
| 19) Phenanthrene-d10          | 17.210 | 188  | 1825     | 0.400 | ng    | 0.00      |
| 29) Chrysene-d12              | 21.384 | 240  | 1508     | 0.400 | ng    | # 0.00    |
| 35) Perylene-d12              | 23.694 | 264  | 1682     | 0.400 | ng    | # 0.00    |
| System Monitoring Compounds   |        |      |          |       |       |           |
| 4) 2-Fluorophenol             | 5.409  | 112  | 1925     | 0.781 | ng    | 0.00      |
| 5) Phenol-d6                  | 6.983  | 99   | 2406     | 0.786 | ng    | 0.00      |
| 8) Nitrobenzene-d5            | 8.981  | 82   | 1207     | 0.762 | ng    | 0.00      |
| 11) 2-Methylnaphthalene-d10   | 12.217 | 152  | 2075     | 0.775 | ng    | 0.00      |
| 14) 2,4,6-Tribromophenol      | 15.956 | 330  | 373      | 0.789 | ng    | 0.00      |
| 15) 2-Fluorobiphenyl          | 13.093 | 172  | 3477     | 0.804 | ng    | 0.00      |
| 27) Fluoranthene-d10          | 19.238 | 212  | 3502     | 0.773 | ng    | 0.00      |
| 31) Terphenyl-d14             | 19.842 | 244  | 2344     | 0.780 | ng    | 0.00      |
| Target Compounds              |        |      |          |       |       |           |
| 2) 1,4-Dioxane                | 3.322  | 88   | 779      | 0.780 | ng    | Qvalue 99 |
| 3) n-Nitrosodimethylamine     | 3.625  | 42   | 1387     | 0.796 | ng    | 98        |
| 6) bis(2-Chloroethyl)ether    | 7.258  | 93   | 1835     | 0.787 | ng    | 99        |
| 9) Naphthalene                | 10.679 | 128  | 4384     | 0.781 | ng    | 98        |
| 10) Hexachlorobutadiene       | 10.978 | 225  | 1454     | 0.798 | ng    | # 99      |
| 12) 2-Methylnaphthalene       | 12.293 | 142  | 2720     | 0.783 | ng    | 99        |
| 16) Acenaphthylene            | 14.184 | 152  | 3623     | 0.781 | ng    | 99        |
| 17) Acenaphthene              | 14.526 | 154  | 2427     | 0.798 | ng    | 97        |
| 18) Fluorene                  | 15.509 | 166  | 2558     | 0.764 | ng    | 99        |
| 20) 4,6-Dinitro-2-methylph... | 15.571 | 198  | 251      | 0.792 | ng    | 85        |
| 21) 4-Bromophenyl-phenylether | 16.403 | 248  | 973      | 0.778 | ng    | 97        |
| 22) Hexachlorobenzene         | 16.515 | 284  | 1320     | 0.774 | ng    | 99        |
| 23) Atrazine                  | 16.676 | 200  | 624      | 0.743 | ng    | # 87      |
| 24) Pentachlorophenol         | 16.850 | 266  | 444      | 0.735 | ng    | 97        |
| 25) Phenanthrene              | 17.247 | 178  | 4177     | 0.784 | ng    | 99        |
| 26) Anthracene                | 17.334 | 178  | 3772     | 0.778 | ng    | 98        |
| 28) Fluoranthene              | 19.266 | 202  | 4790     | 0.772 | ng    | 100       |
| 30) Pyrene                    | 19.628 | 202  | 4863     | 0.794 | ng    | 100       |
| 32) Benzo(a)anthracene        | 21.375 | 228  | 4245     | 0.799 | ng    | 99        |
| 33) Chrysene                  | 21.419 | 228  | 4376     | 0.787 | ng    | 99        |
| 34) Bis(2-ethylhexyl)phtha... | 21.330 | 149  | 1633     | 0.755 | ng    | 99        |
| 36) Indeno(1,2,3-cd)pyrene    | 26.050 | 276  | 5308     | 0.800 | ng    | 99        |
| 37) Benzo(b)fluoranthene      | 22.998 | 252  | 4545     | 0.787 | ng    | 99        |
| 38) Benzo(k)fluoranthene      | 23.045 | 252  | 4521     | 0.790 | ng    | 97        |
| 39) Benzo(a)pyrene            | 23.595 | 252  | 3913     | 0.782 | ng    | 96        |
| 40) Dibenzo(a,h)anthracene    | 26.071 | 278  | 4209     | 0.798 | ng    | 98        |
| 41) Benzo(g,h,i)perylene      | 26.767 | 276  | 4732     | 0.802 | ng    | 96        |

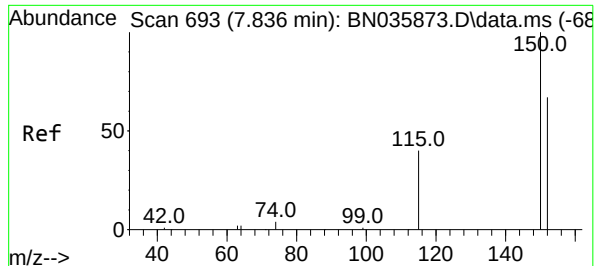
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
Data File : BN035874.D  
Acq On : 02 Jan 2025 13:16  
Operator : RC/JU  
Sample : SSTDICC0.8  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

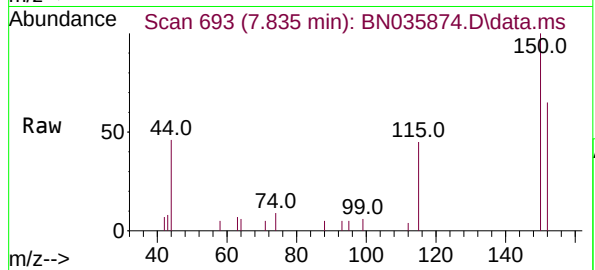
Quant Time: Jan 02 15:50:14 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration



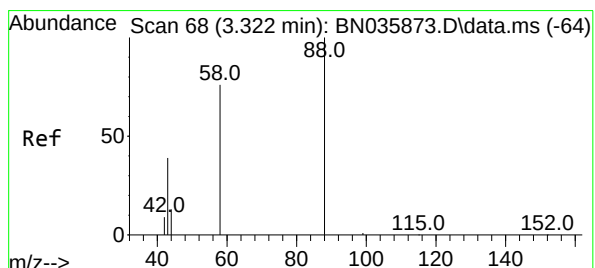
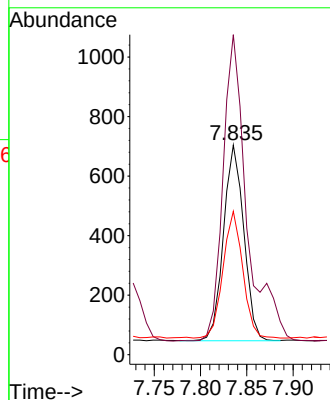
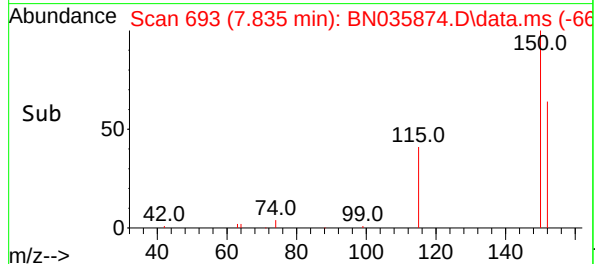


#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.835 min Scan# 69  
Delta R.T. -0.001 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

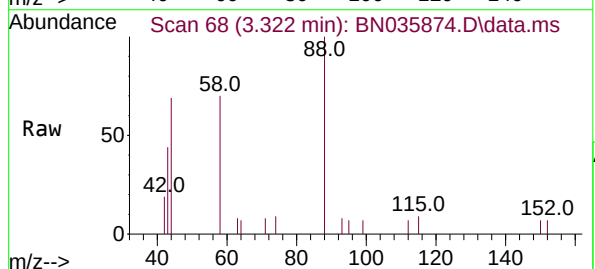
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8



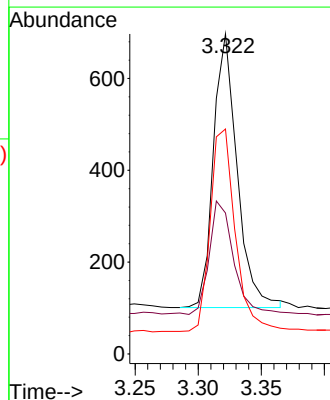
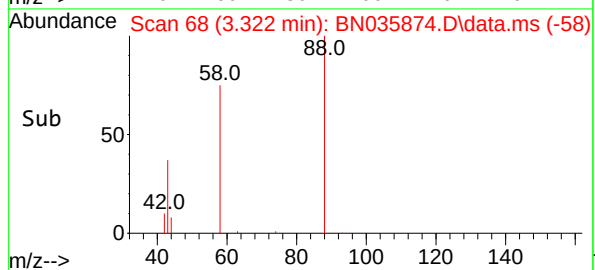
Tgt Ion: 152 Resp: 1005  
Ion Ratio Lower Upper  
152 100  
150 152.7 117.8 176.6  
115 68.5 51.0 76.4



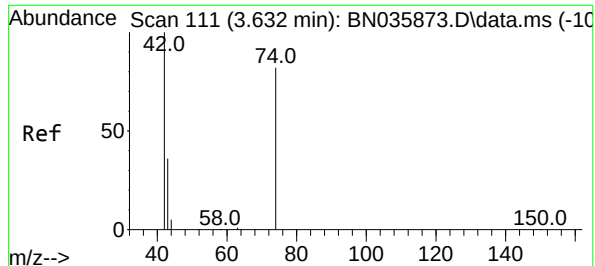
#2  
1,4-Dioxane  
Concen: 0.780 ng  
RT: 3.322 min Scan# 68  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16



Tgt Ion: 88 Resp: 779  
Ion Ratio Lower Upper  
88 100  
43 41.3 32.7 49.1  
58 78.2 63.0 94.4







#3

n-Nitrosodimethylamine

Concen: 0.796 ng

RT: 3.625 min Scan# 111

Delta R.T. -0.007 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

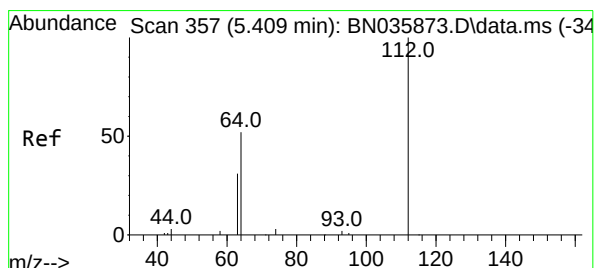
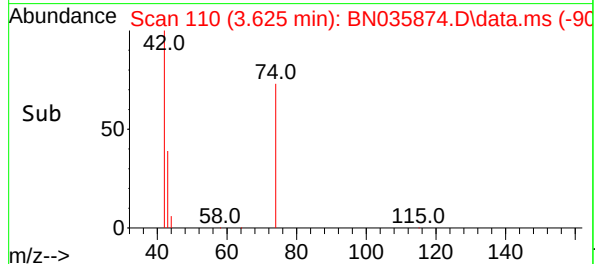
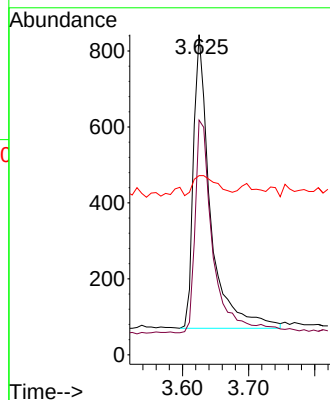
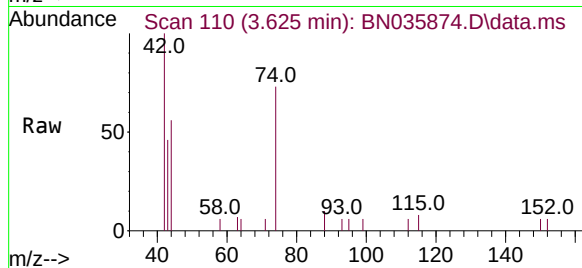
Tgt Ion: 42 Resp: 1387

Ion Ratio Lower Upper

42 100

74 76.2 62.2 93.2

44 9.6 7.1 10.7



#4

2-Fluorophenol

Concen: 0.781 ng

RT: 5.409 min Scan# 357

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

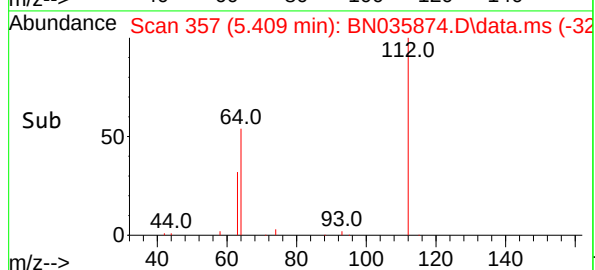
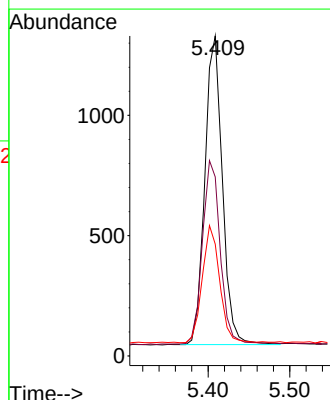
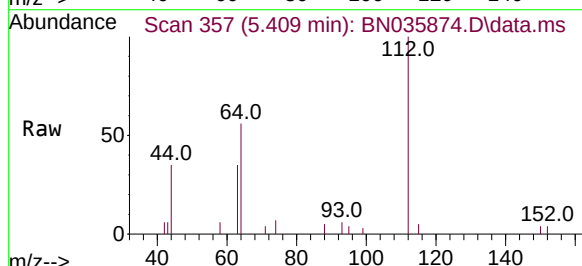
Tgt Ion: 112 Resp: 1925

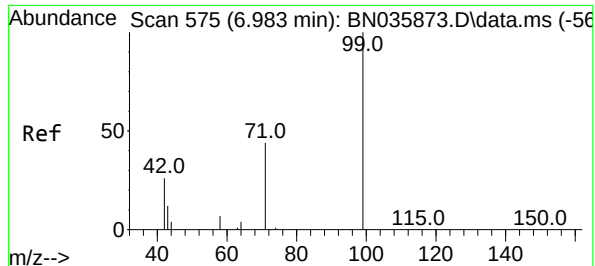
Ion Ratio Lower Upper

112 100

64 61.5 48.2 72.2

63 37.6 30.0 45.0





#5

Phenol-d6

Concen: 0.786 ng

RT: 6.983 min Scan# 51

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

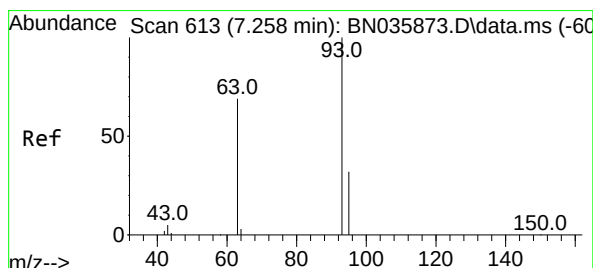
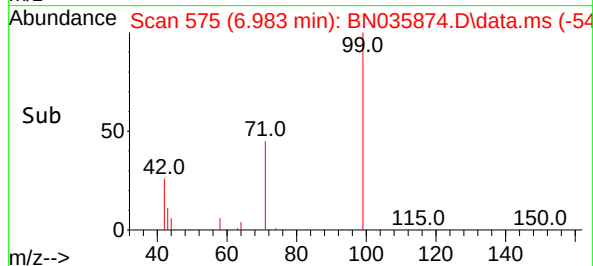
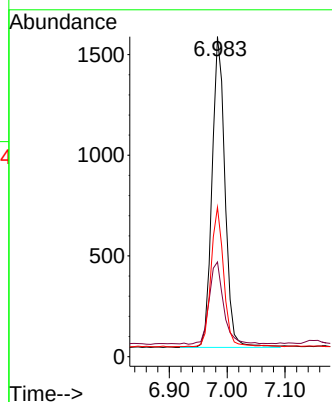
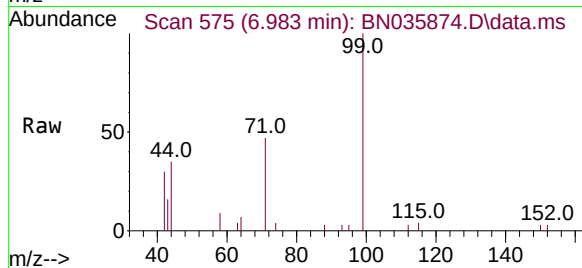
Tgt Ion: 99 Resp: 2406

Ion Ratio Lower Upper

99 100

42 29.4 23.5 35.3

71 44.2 35.5 53.3



#6

bis(2-Chloroethyl)ether

Concen: 0.787 ng

RT: 7.258 min Scan# 613

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

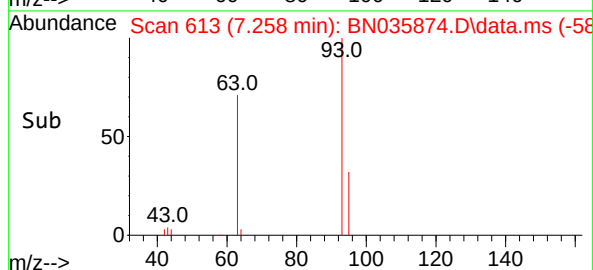
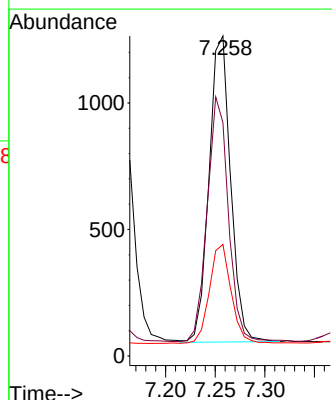
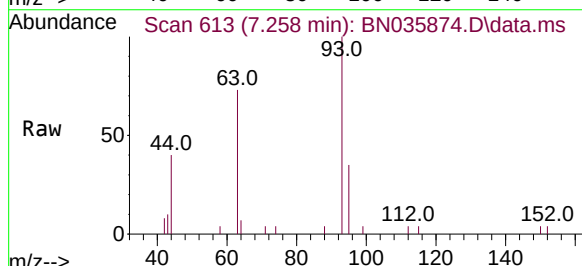
Tgt Ion: 93 Resp: 1835

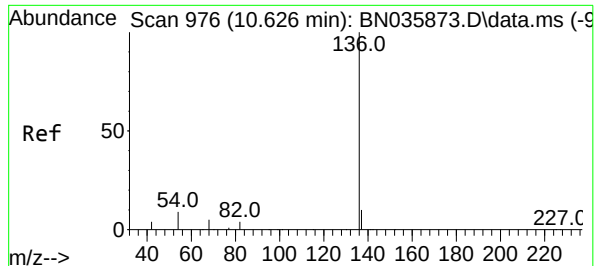
Ion Ratio Lower Upper

93 100

63 78.4 62.0 93.0

95 33.1 25.5 38.3

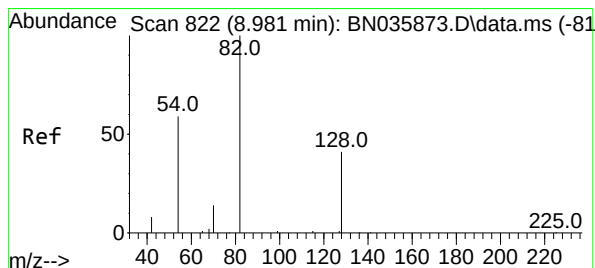
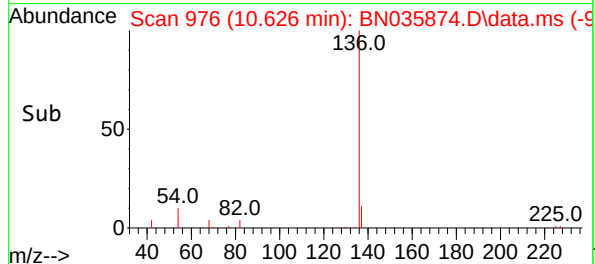
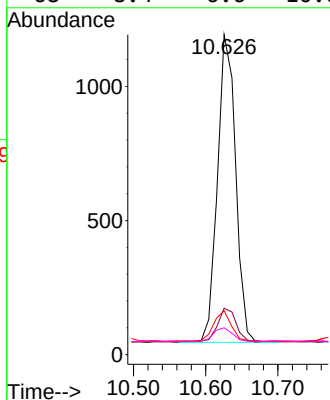
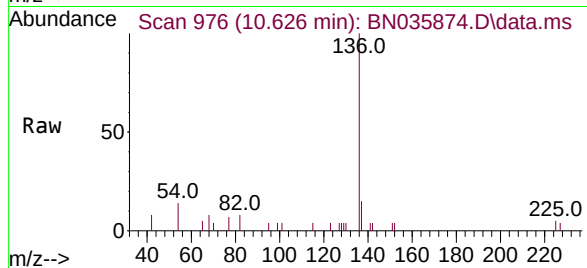




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.626 min Scan# 91  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

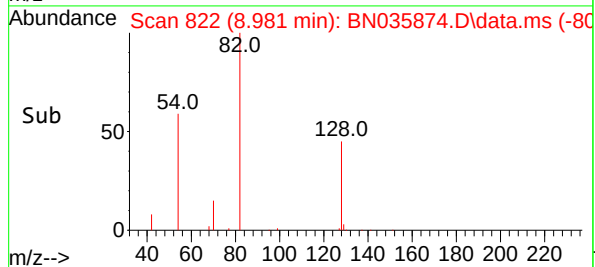
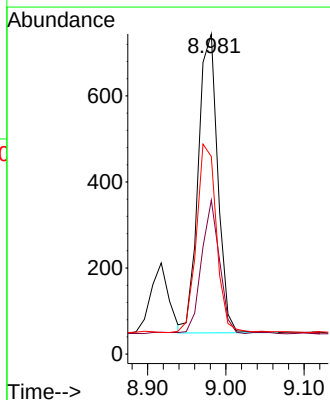
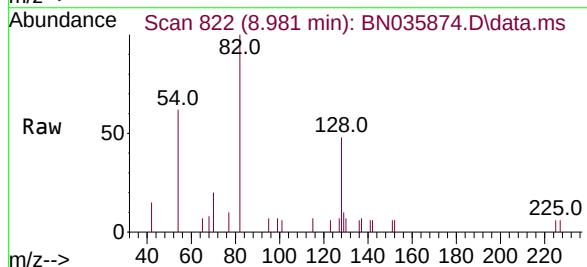
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

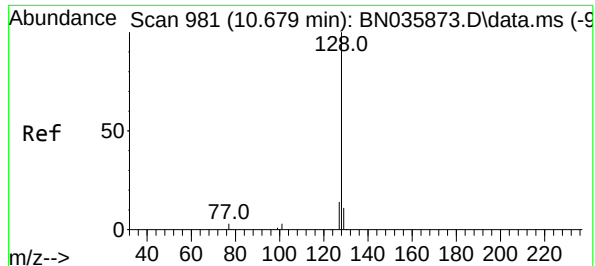
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 2000  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 14.5  | 10.6  | 15.8  |
| 54       | 13.7  | 9.8   | 14.6  |
| 68       | 8.4   | 6.6   | 10.0  |



#8  
Nitrobenzene-d5  
Concen: 0.762 ng  
RT: 8.981 min Scan# 822  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 1207  |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 48.1  | 36.9  | 55.3  |
| 54       | 61.7  | 50.4  | 75.6  |





#9

Naphthalene

Concen: 0.781 ng

RT: 10.679 min Scan# 981

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

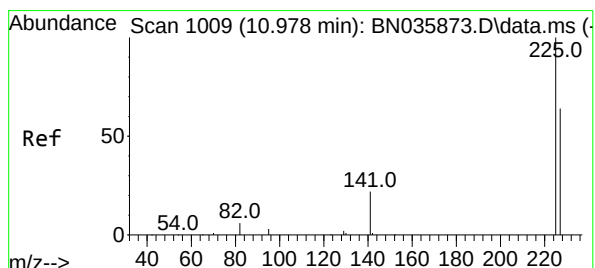
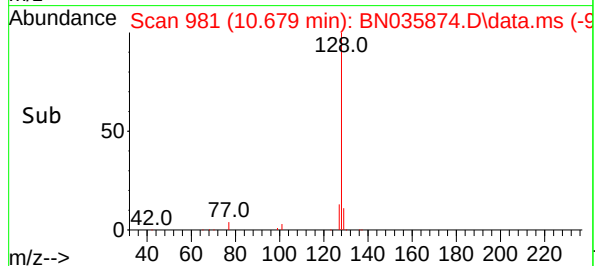
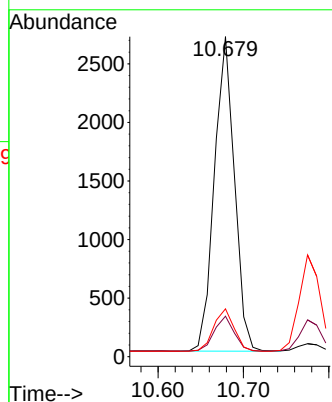
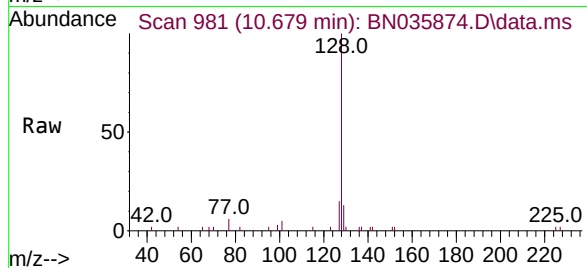
Tgt Ion:128 Resp: 4384

Ion Ratio Lower Upper

128 100

129 12.6 10.6 16.0

127 14.9 12.8 19.2



#10

Hexachlorobutadiene

Concen: 0.798 ng

RT: 10.978 min Scan# 1009

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

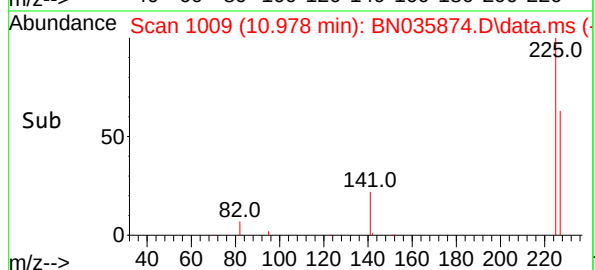
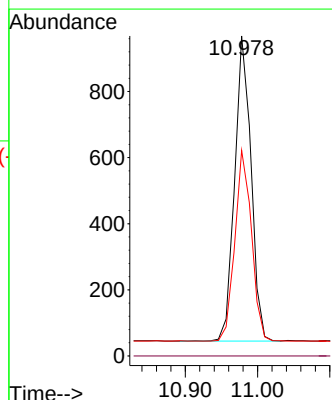
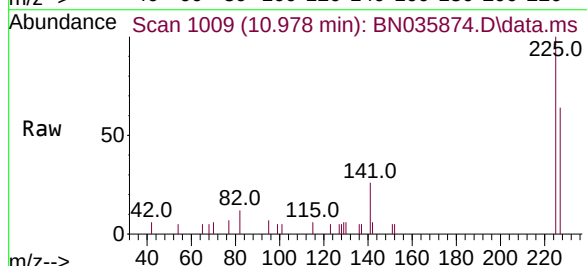
Tgt Ion:225 Resp: 1454

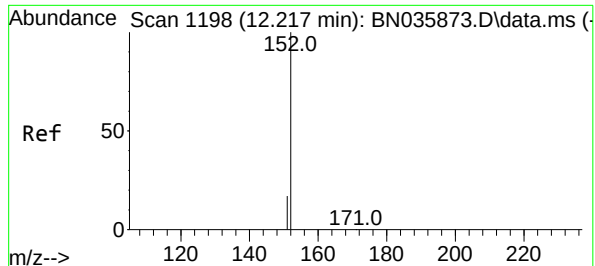
Ion Ratio Lower Upper

225 100

223 0.0 0.0 0.0

227 63.5 51.5 77.3

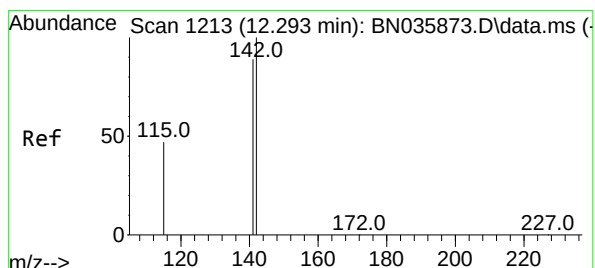
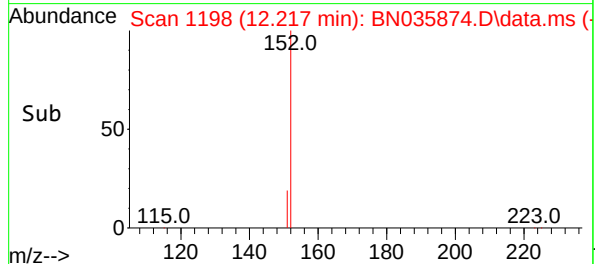
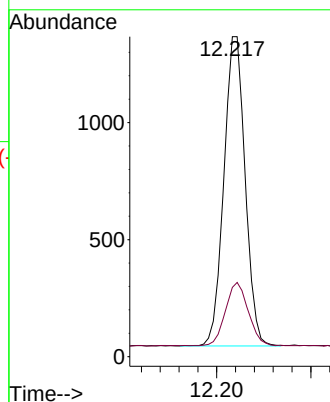
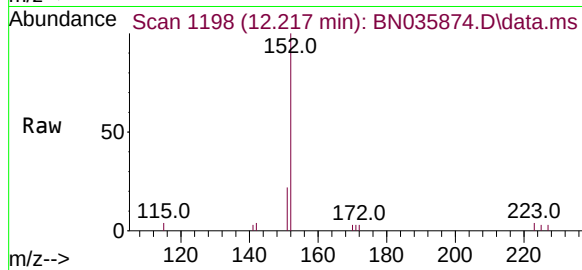




#11  
2-Methylnaphthalene-d10  
Concen: 0.775 ng  
RT: 12.217 min Scan# 1198  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

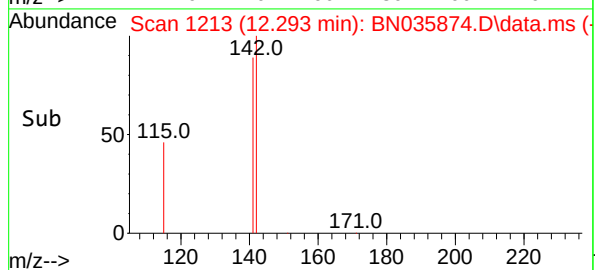
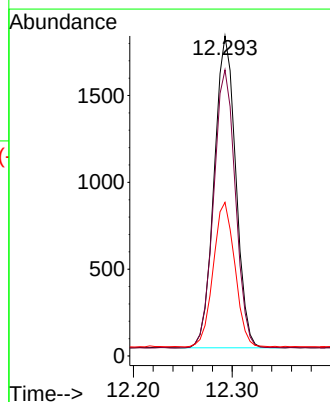
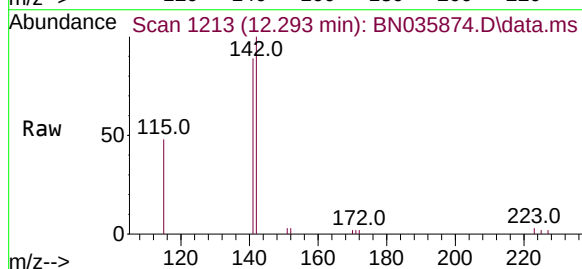
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDIC0.8

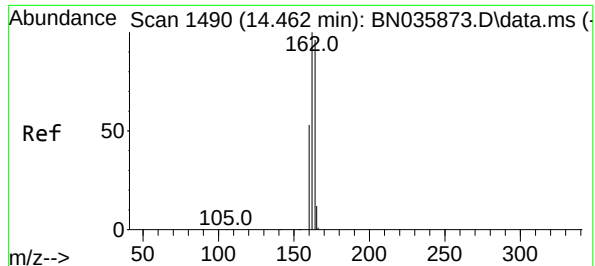
Tgt Ion:152 Resp: 2075  
Ion Ratio Lower Upper  
152 100  
151 21.8 17.0 25.6



#12  
2-Methylnaphthalene  
Concen: 0.783 ng  
RT: 12.293 min Scan# 1213  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

Tgt Ion:142 Resp: 2720  
Ion Ratio Lower Upper  
142 100  
141 89.4 71.9 107.9  
115 48.0 39.6 59.4





#13

Acenaphthene-d10

Concen: 0.400 ng

RT: 14.462 min Scan# 1490

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

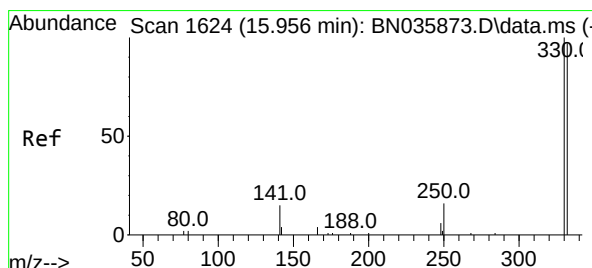
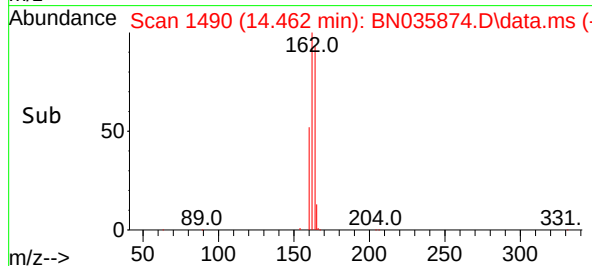
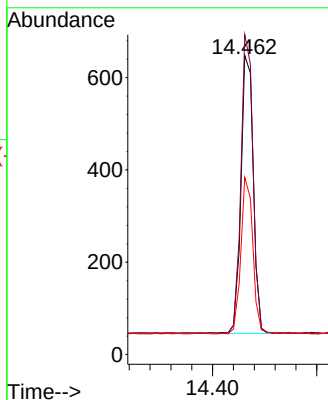
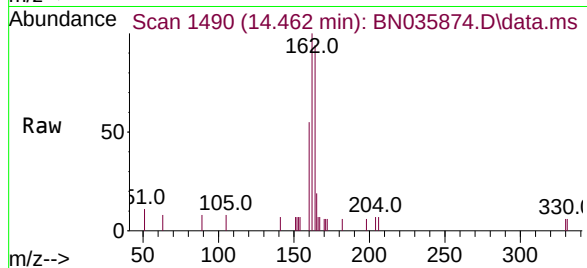
Tgt Ion:164 Resp: 985

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
|-----|-------|-------|-------|

|     |     |  |  |
|-----|-----|--|--|
| 164 | 100 |  |  |
|-----|-----|--|--|

|     |       |      |       |
|-----|-------|------|-------|
| 162 | 106.9 | 83.1 | 124.7 |
|-----|-------|------|-------|

|     |      |      |      |
|-----|------|------|------|
| 160 | 59.3 | 46.0 | 69.0 |
|-----|------|------|------|



#14

2,4,6-Tribromophenol

Concen: 0.789 ng

RT: 15.956 min Scan# 1624

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

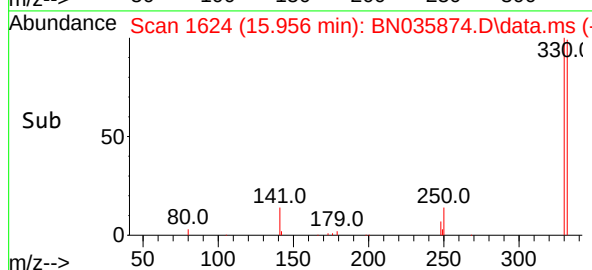
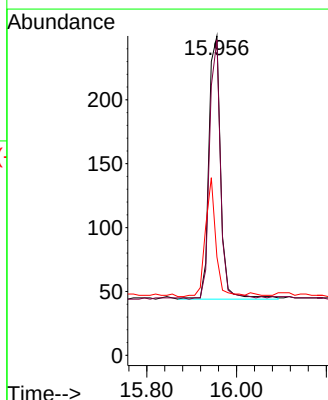
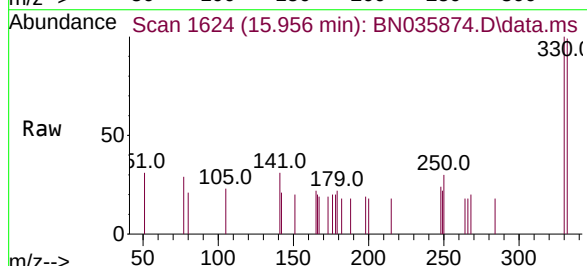
Tgt Ion:330 Resp: 373

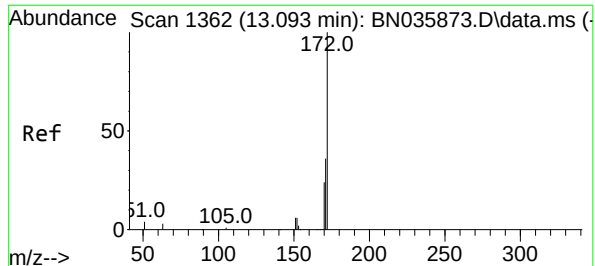
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
|-----|-------|-------|-------|

|     |     |  |  |
|-----|-----|--|--|
| 330 | 100 |  |  |
|-----|-----|--|--|

|     |      |      |       |
|-----|------|------|-------|
| 332 | 92.2 | 77.2 | 115.8 |
|-----|------|------|-------|

|     |      |      |      |
|-----|------|------|------|
| 141 | 40.2 | 31.6 | 47.4 |
|-----|------|------|------|





#15

2-Fluorobiphenyl

Concen: 0.804 ng

RT: 13.093 min Scan# 1362

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

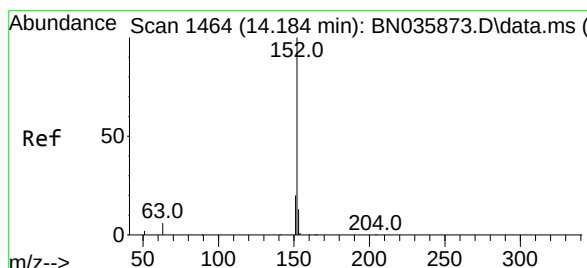
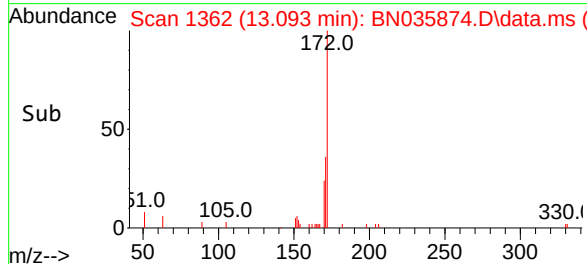
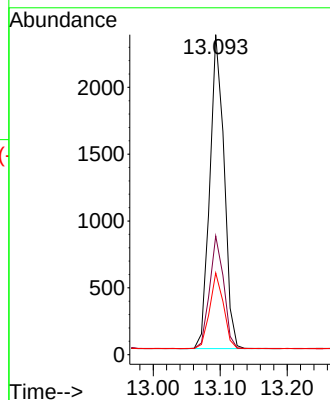
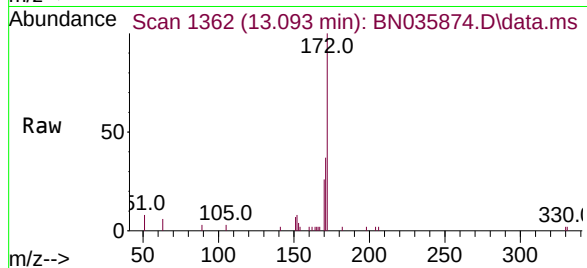
Tgt Ion:172 Resp: 3477

Ion Ratio Lower Upper

172 100

171 37.1 30.5 45.7

170 25.5 20.8 31.2



#16

Acenaphthylene

Concen: 0.781 ng

RT: 14.184 min Scan# 1464

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

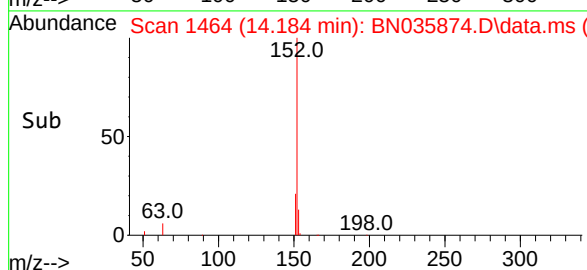
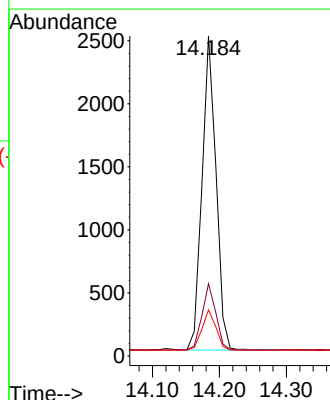
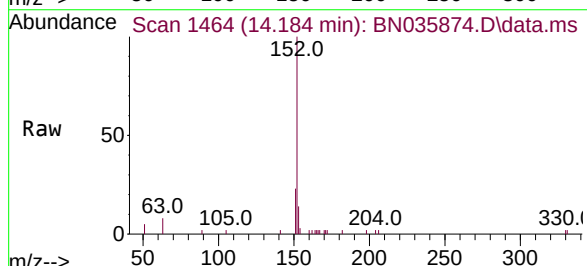
Tgt Ion:152 Resp: 3623

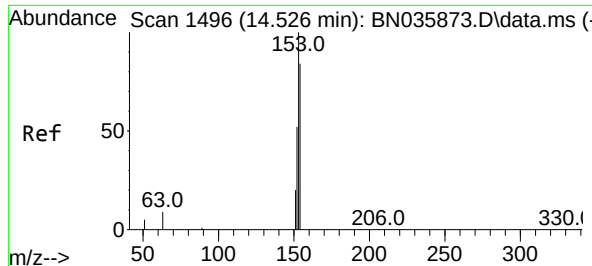
Ion Ratio Lower Upper

152 100

151 20.8 16.3 24.5

153 12.8 10.6 15.8

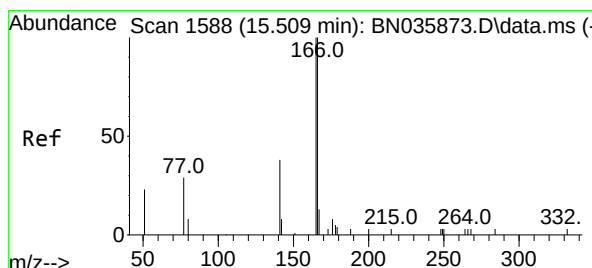
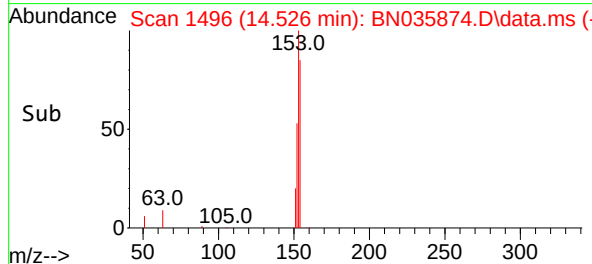
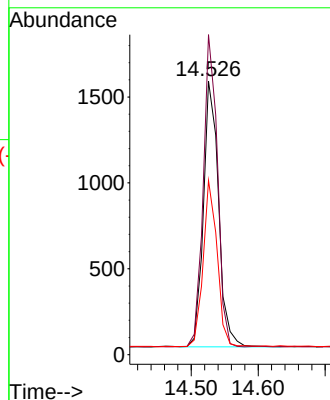
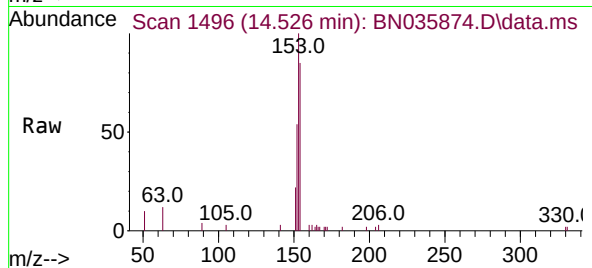




#17  
Acenaphthene  
Concen: 0.798 ng  
RT: 14.526 min Scan# 1496  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

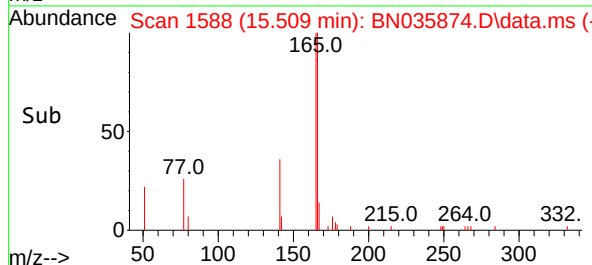
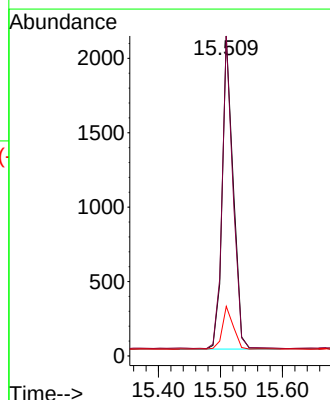
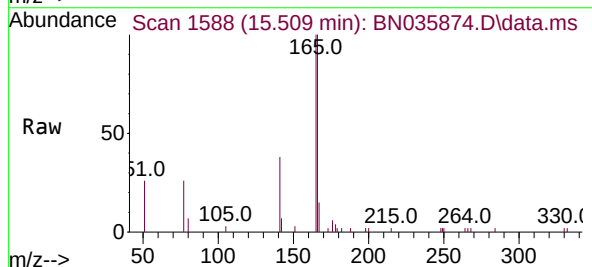
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

| Tgt Ion   | 154   | Resp: | 2427  |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 154       | 100   |       |       |
| 153       | 109.9 | 90.5  | 135.7 |
| 152       | 57.7  | 48.6  | 73.0  |

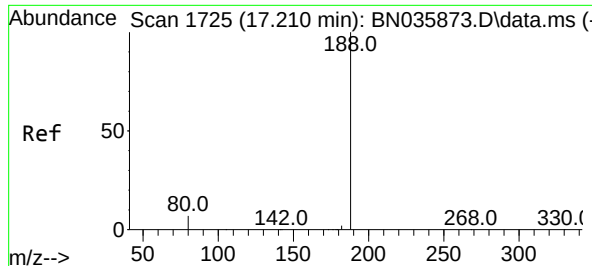


#18  
Fluorene  
Concen: 0.764 ng  
RT: 15.509 min Scan# 1588  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

| Tgt Ion   | 166   | Resp: | 2558  |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 166       | 100   |       |       |
| 165       | 100.2 | 80.6  | 120.8 |
| 167       | 13.4  | 11.4  | 17.0  |







#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 17.210 min Scan# 1

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

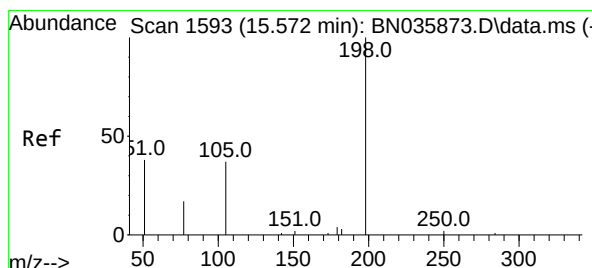
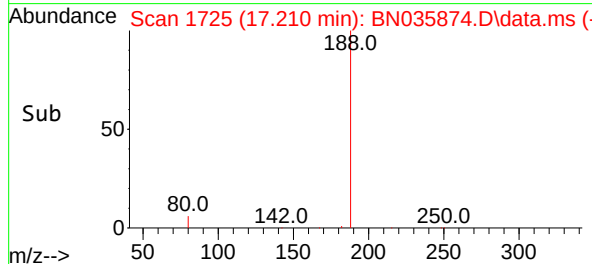
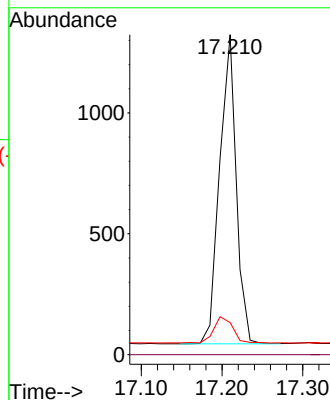
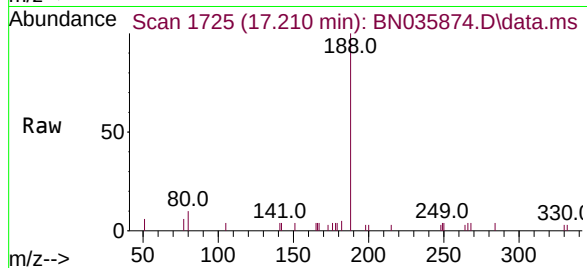
Tgt Ion:188 Resp: 1825

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 10.0 7.3 10.9



#20

4,6-Dinitro-2-methylphenol

Concen: 0.792 ng

RT: 15.571 min Scan# 1593

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

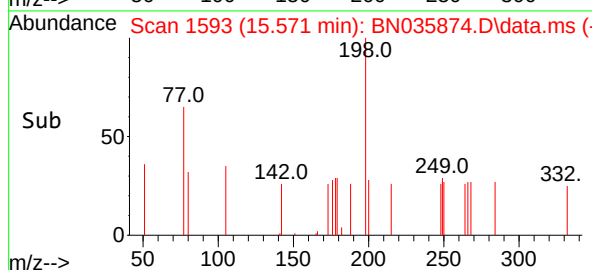
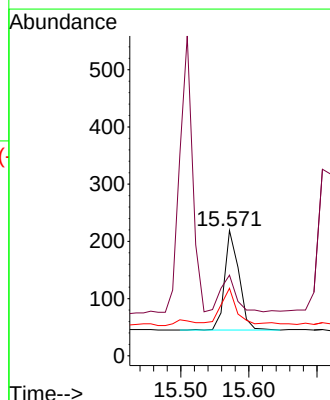
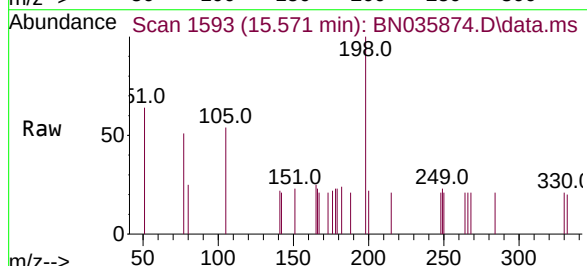
Tgt Ion:198 Resp: 251

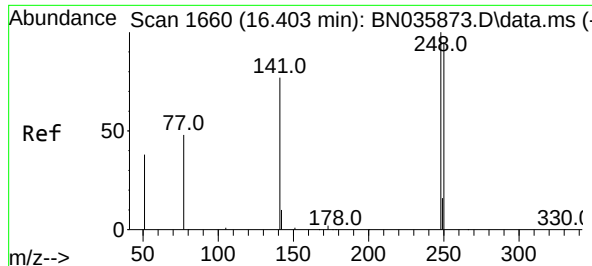
Ion Ratio Lower Upper

198 100

51 64.4 64.3 96.5

105 53.9 50.0 75.0

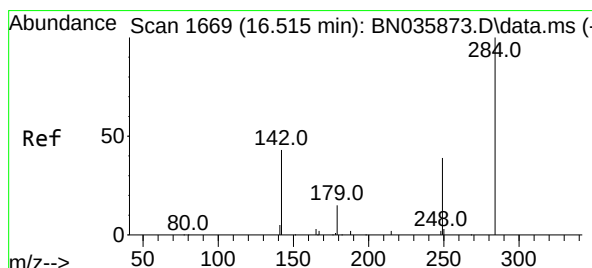
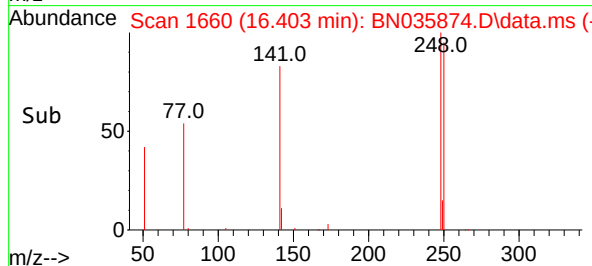
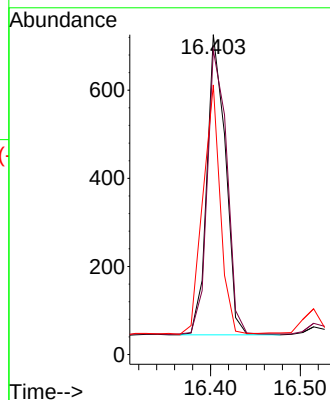
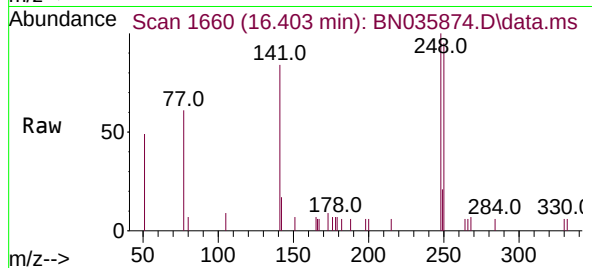




#21  
4-Bromophenyl-phenylether  
Concen: 0.778 ng  
RT: 16.403 min Scan# 1660  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

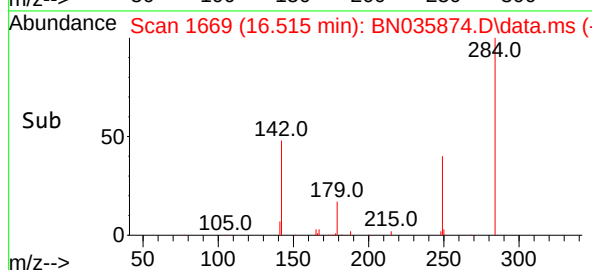
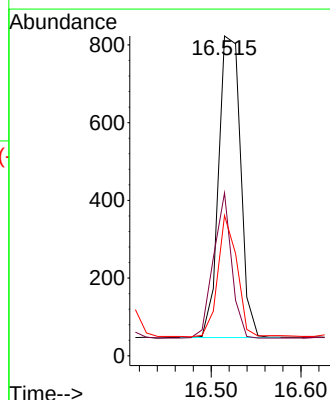
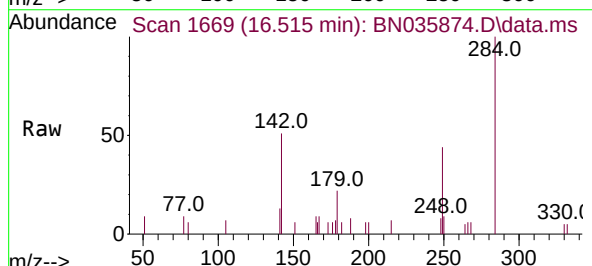
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

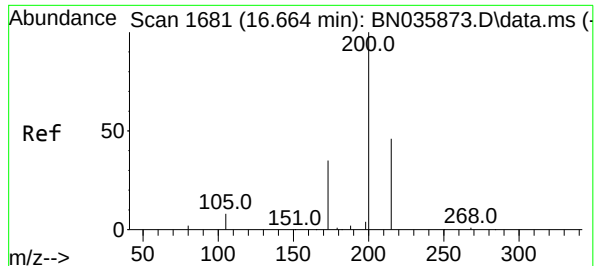
Tgt Ion:248 Resp: 973  
Ion Ratio Lower Upper  
248 100  
250 95.2 76.8 115.2  
141 84.3 63.6 95.4



#22  
Hexachlorobenzene  
Concen: 0.774 ng  
RT: 16.515 min Scan# 1669  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

Tgt Ion:284 Resp: 1320  
Ion Ratio Lower Upper  
284 100  
142 39.6 31.4 47.0  
249 35.0 27.8 41.8

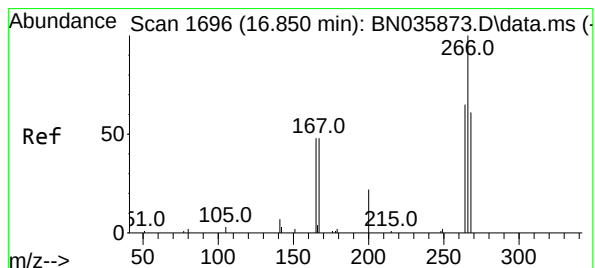
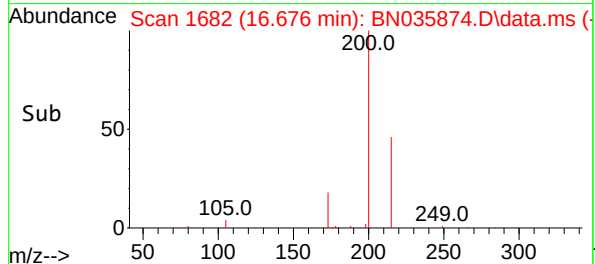
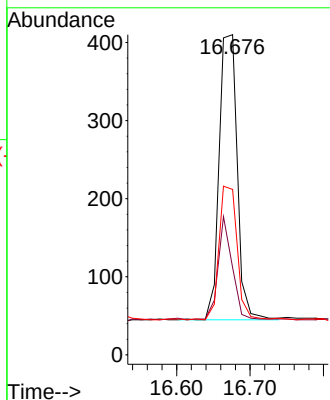
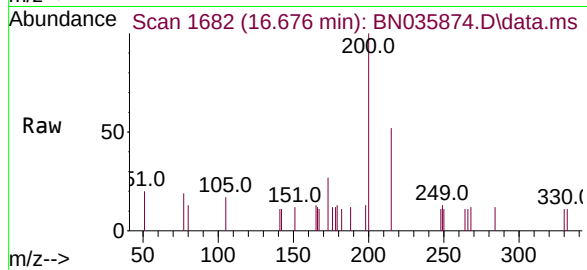




#23  
Atrazine  
Concen: 0.743 ng  
RT: 16.676 min Scan# 1682  
Delta R.T. 0.012 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

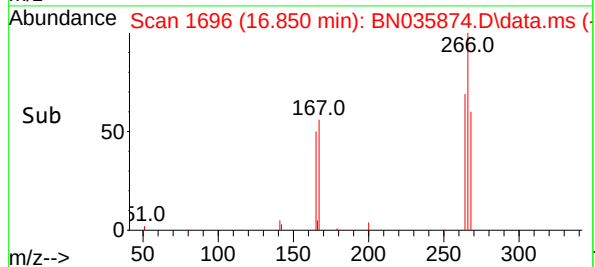
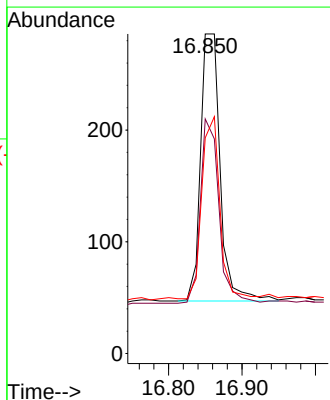
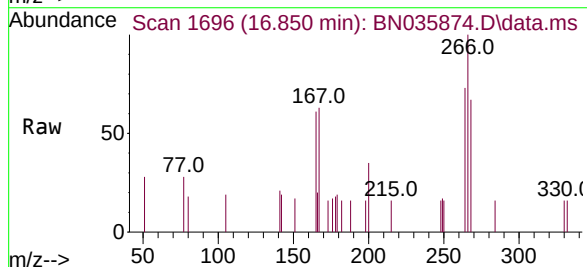
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

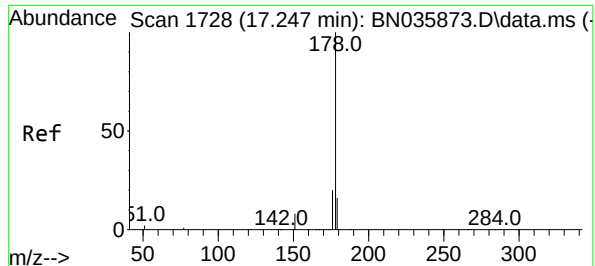
Tgt Ion: 200 Resp: 624  
Ion Ratio Lower Upper  
200 100  
173 27.3 35.4 53.0#  
215 51.7 42.4 63.6



#24  
Pentachlorophenol  
Concen: 0.735 ng  
RT: 16.850 min Scan# 1696  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

Tgt Ion: 266 Resp: 444  
Ion Ratio Lower Upper  
266 100  
264 64.6 49.9 74.9  
268 64.6 50.2 75.2

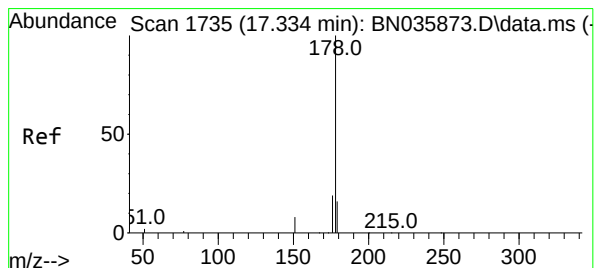
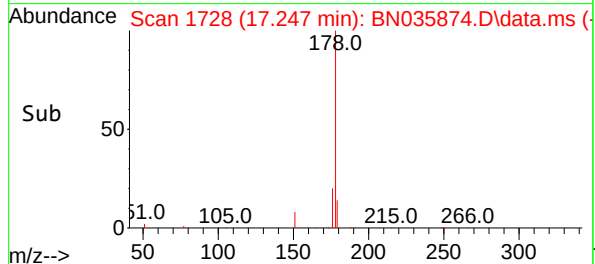
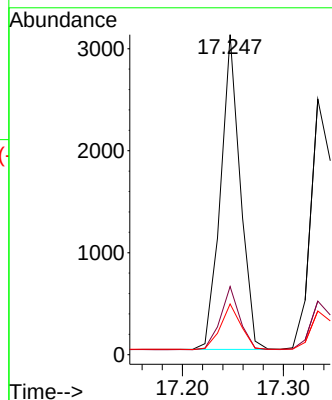
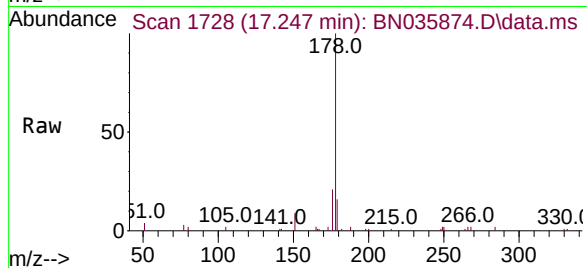




#25  
Phenanthrene  
Concen: 0.784 ng  
RT: 17.247 min Scan# 1728  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

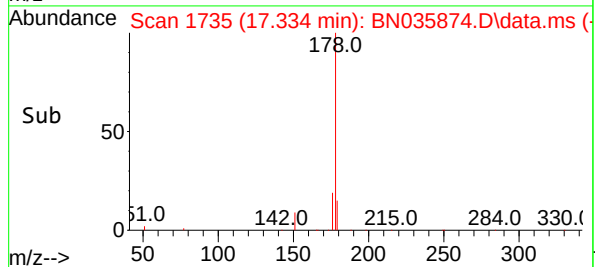
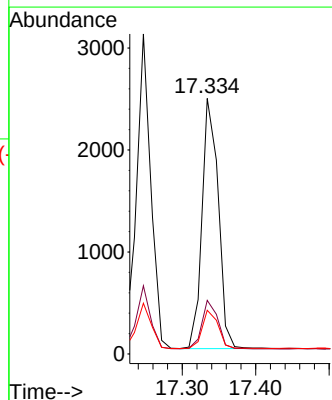
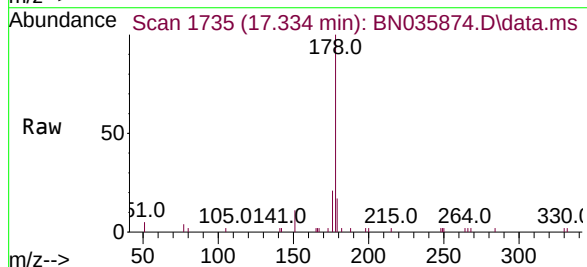
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

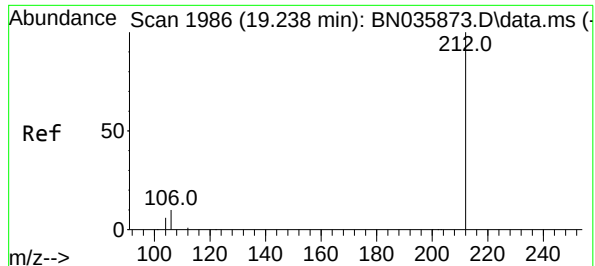
Tgt Ion:178 Resp: 4177  
Ion Ratio Lower Upper  
178 100  
176 19.9 15.9 23.9  
179 14.8 12.9 19.3



#26  
Anthracene  
Concen: 0.778 ng  
RT: 17.334 min Scan# 1735  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

Tgt Ion:178 Resp: 3772  
Ion Ratio Lower Upper  
178 100  
176 19.2 15.0 22.6  
179 15.3 13.0 19.6





#27

Fluoranthene-d10

Concen: 0.773 ng

RT: 19.238 min Scan# 1986

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

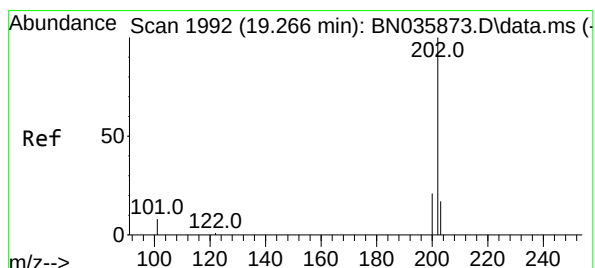
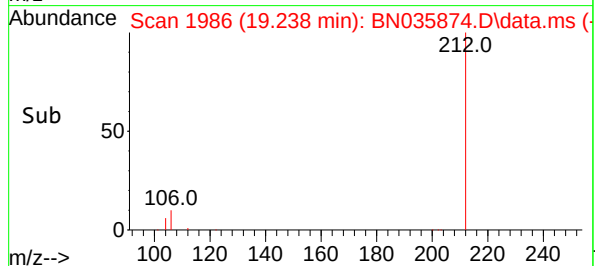
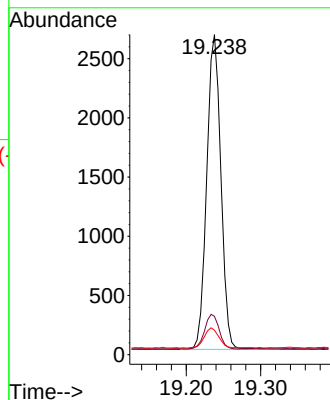
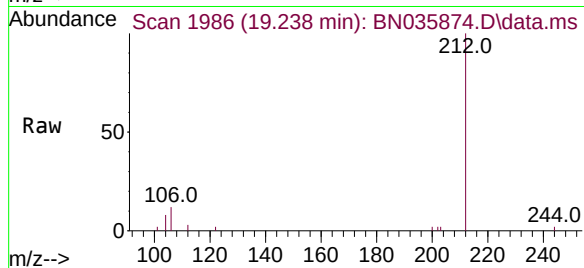
Tgt Ion:212 Resp: 3502

Ion Ratio Lower Upper

212 100

106 11.3 9.0 13.6

104 6.8 5.4 8.2



#28

Fluoranthene

Concen: 0.772 ng

RT: 19.266 min Scan# 1992

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

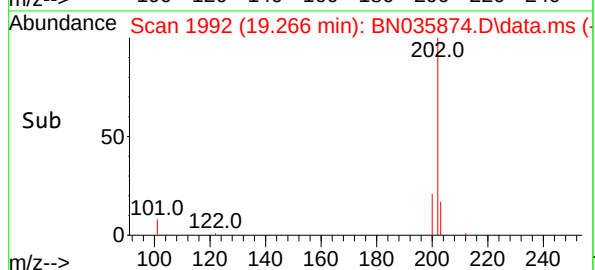
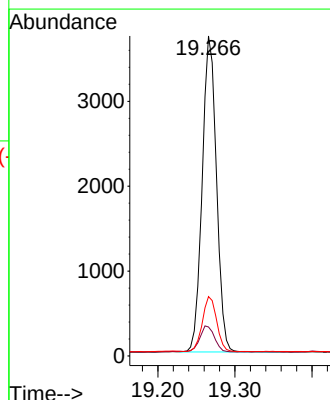
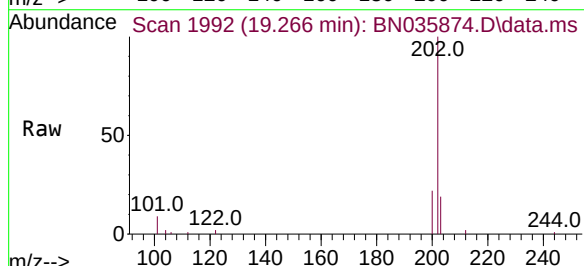
Tgt Ion:202 Resp: 4790

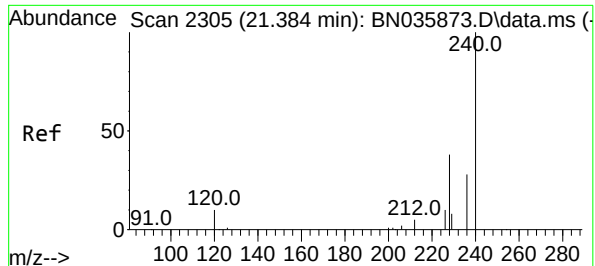
Ion Ratio Lower Upper

202 100

101 8.8 7.2 10.8

203 17.4 13.9 20.9





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.384 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDIC0.8

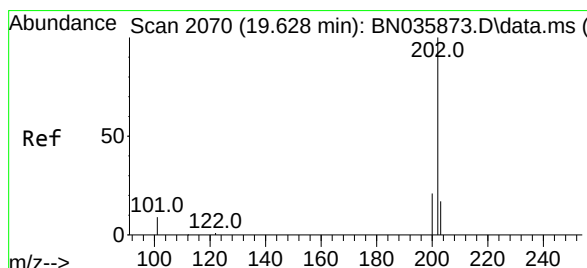
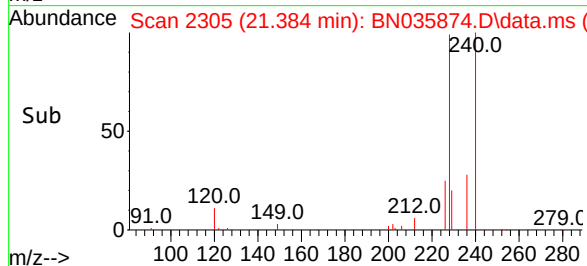
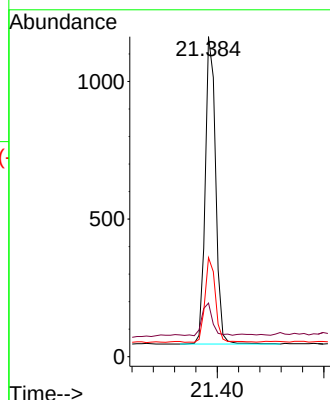
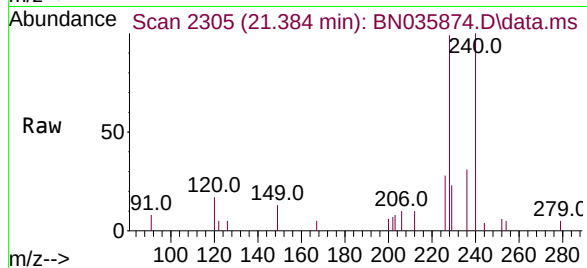
Tgt Ion:240 Resp: 1508

Ion Ratio Lower Upper

240 100

120 16.8 11.1 16.7#

236 31.0 24.6 36.8



#30

Pyrene

Concen: 0.794 ng

RT: 19.628 min Scan# 2070

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

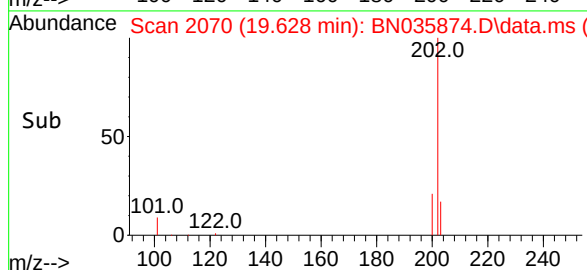
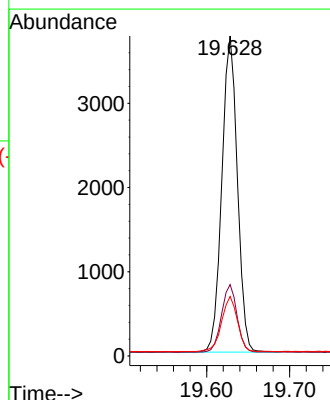
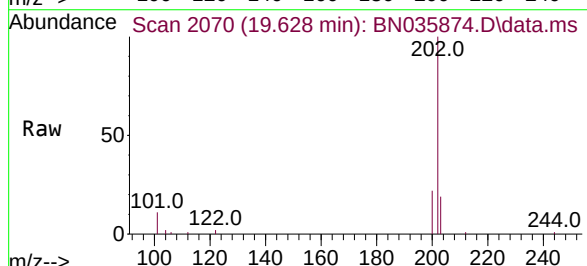
Tgt Ion:202 Resp: 4863

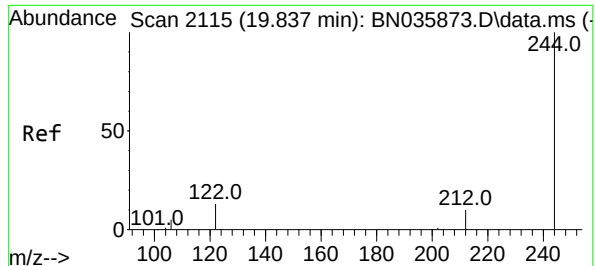
Ion Ratio Lower Upper

202 100

200 21.3 17.0 25.6

203 17.9 14.6 22.0

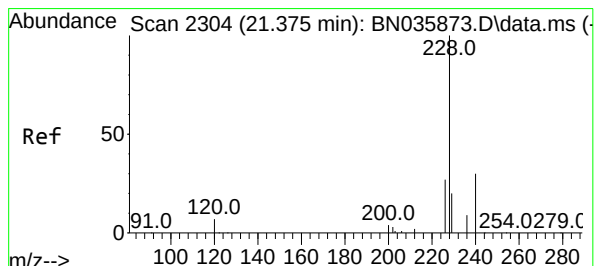
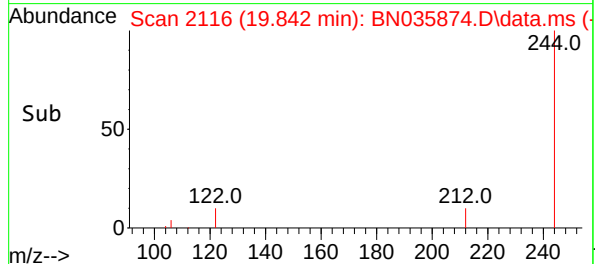
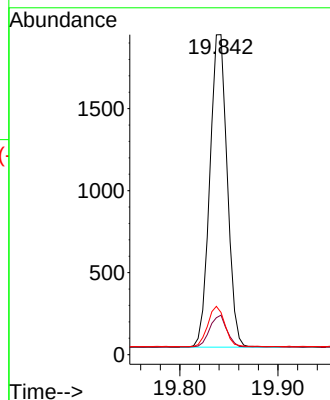
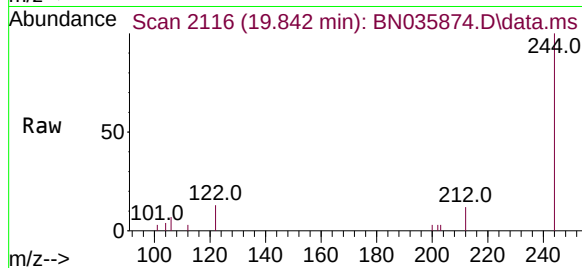




#31  
Terphenyl-d14  
Concen: 0.780 ng  
RT: 19.842 min Scan# 2116  
Delta R.T. 0.005 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

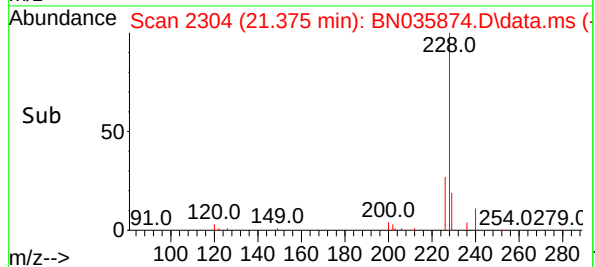
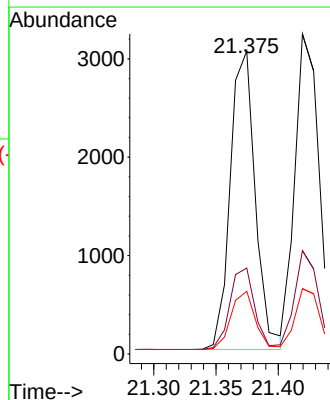
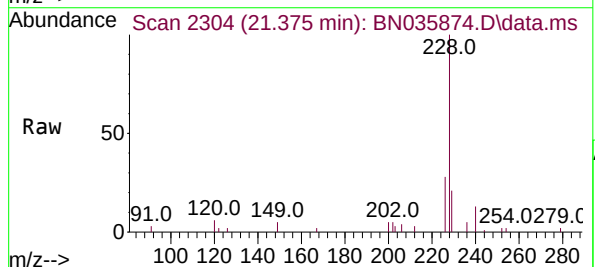
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8

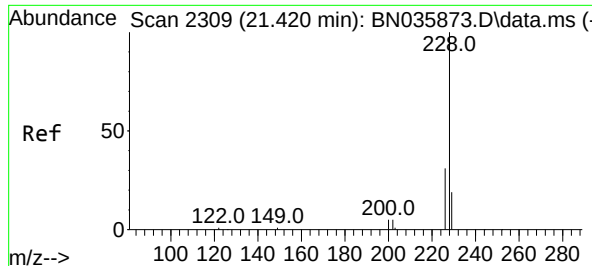
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 12.4  | 10.1  | 15.1  |
| 122     | 13.2  | 12.2  | 18.4  |



#32  
Benzo(a)anthracene  
Concen: 0.799 ng  
RT: 21.375 min Scan# 2304  
Delta R.T. -0.000 min  
Lab File: BN035874.D  
Acq: 02 Jan 2025 13:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 28.4  | 22.7  | 34.1  |
| 229     | 20.7  | 17.1  | 25.7  |





#33

Chrysene

Concen: 0.787 ng

RT: 21.419 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDIC0.8

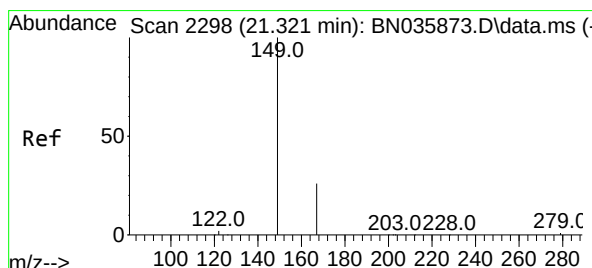
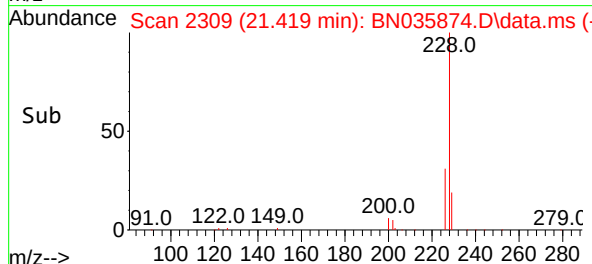
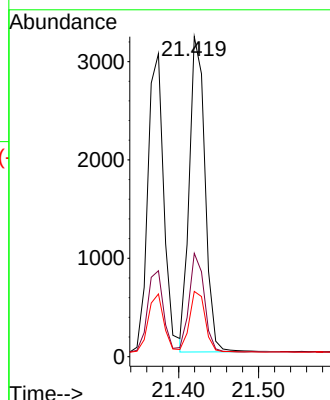
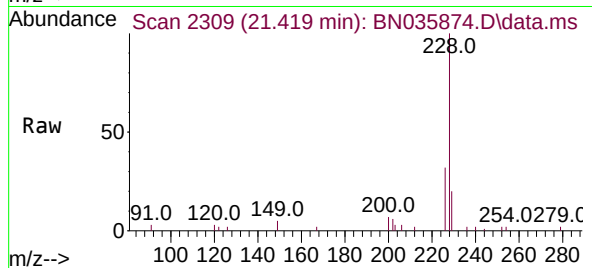
Tgt Ion:228 Resp: 4376

Ion Ratio Lower Upper

228 100

226 32.3 25.2 37.8

229 20.4 16.0 24.0



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.755 ng

RT: 21.330 min Scan# 2299

Delta R.T. 0.009 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

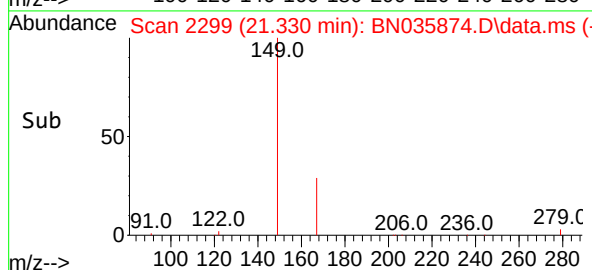
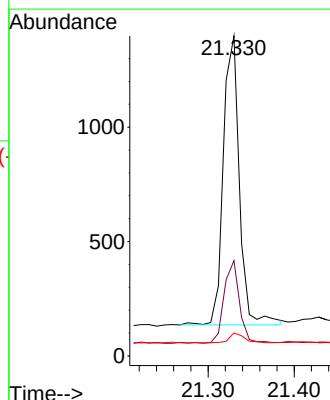
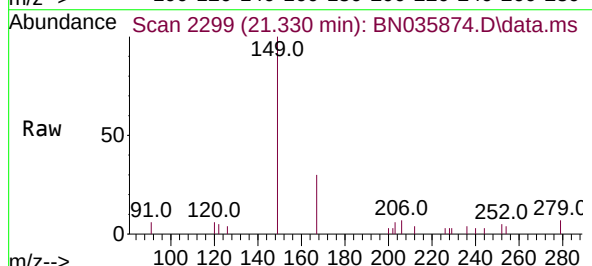
Tgt Ion:149 Resp: 1633

Ion Ratio Lower Upper

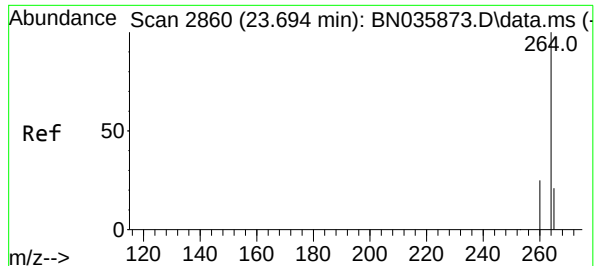
149 100

167 26.9 21.4 32.0

279 3.6 3.0 4.6







#35

Perylene-d12

Concen: 0.400 ng

RT: 23.694 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDIC0.8

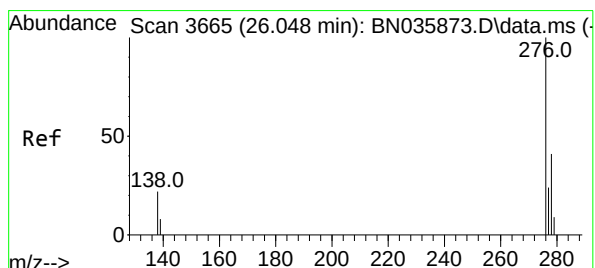
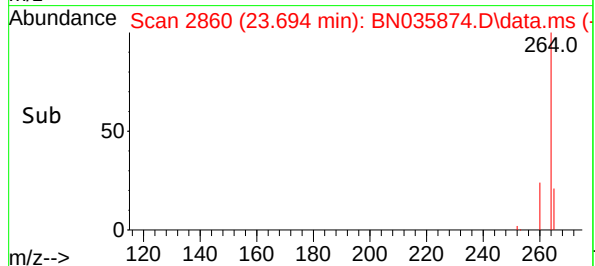
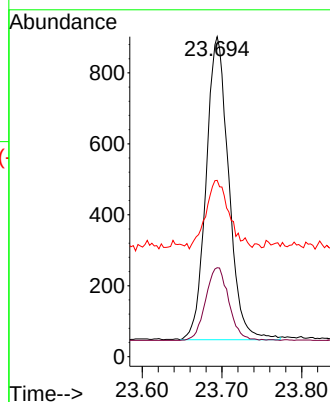
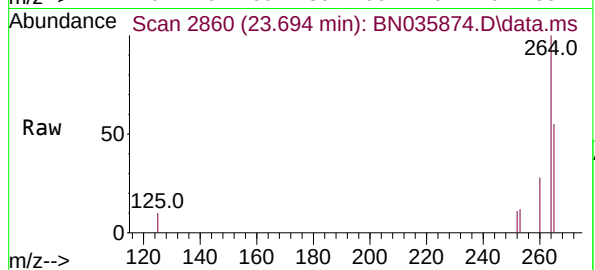
Tgt Ion:264 Resp: 1682

Ion Ratio Lower Upper

264 100

260 27.8 21.7 32.5

265 55.1 33.9 50.9#



#36

Indeno(1,2,3-cd)pyrene

Concen: 0.800 ng

RT: 26.050 min Scan# 3666

Delta R.T. 0.003 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

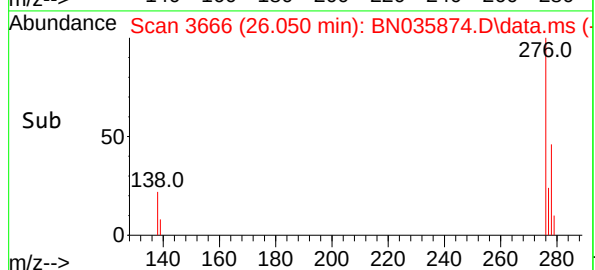
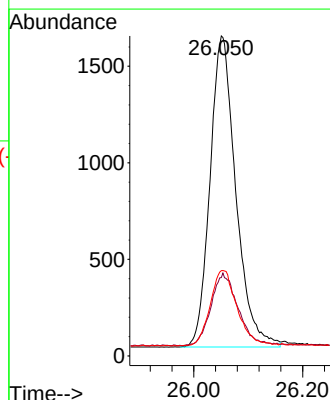
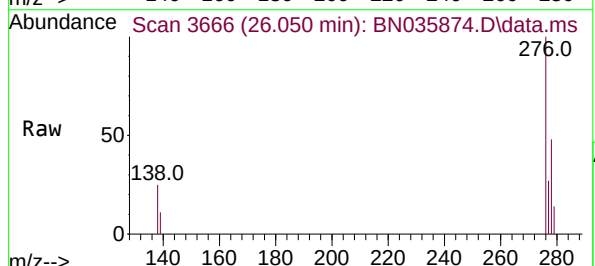
Tgt Ion:276 Resp: 5308

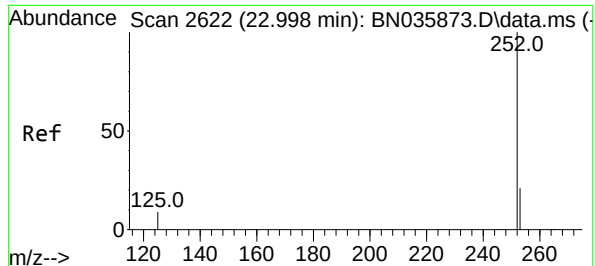
Ion Ratio Lower Upper

276 100

138 23.9 18.9 28.3

277 25.2 19.5 29.3





#37

Benzo(b)fluoranthene

Concen: 0.787 ng

RT: 22.998 min Scan# 2622

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8

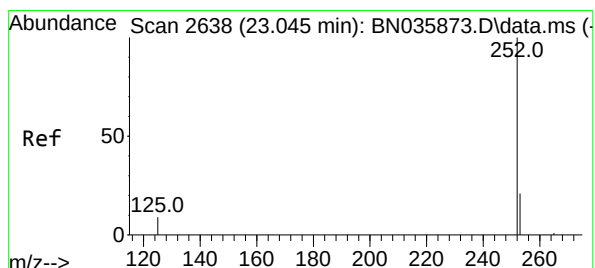
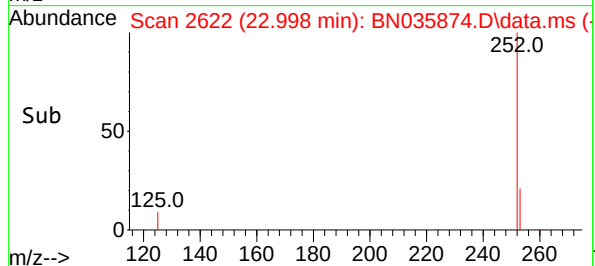
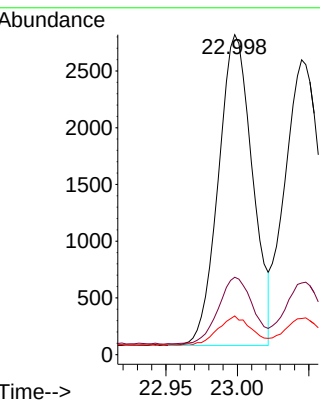
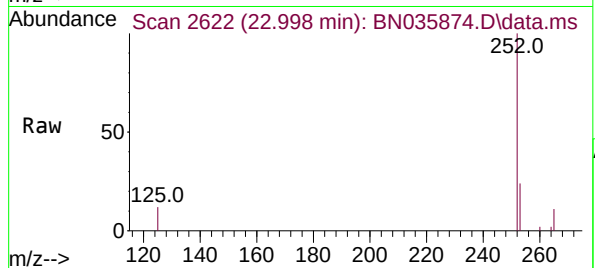
Tgt Ion:252 Resp: 4545

Ion Ratio Lower Upper

252 100

253 24.2 20.1 30.1

125 12.1 9.9 14.9



#38

Benzo(k)fluoranthene

Concen: 0.790 ng

RT: 23.045 min Scan# 2638

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

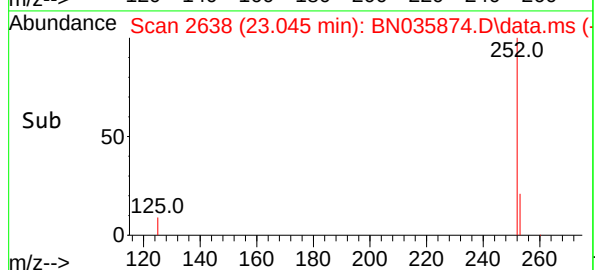
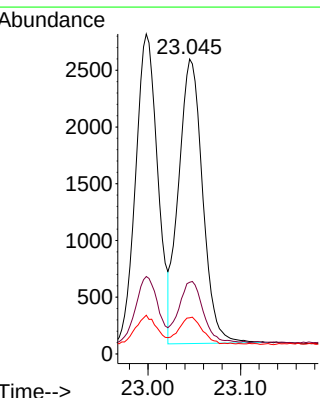
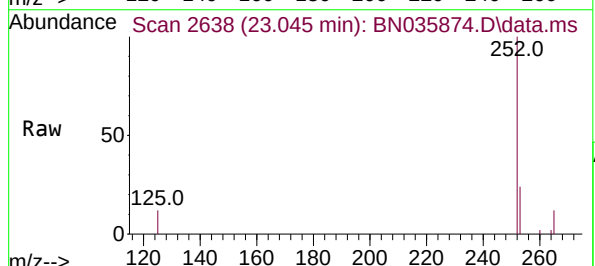
Tgt Ion:252 Resp: 4521

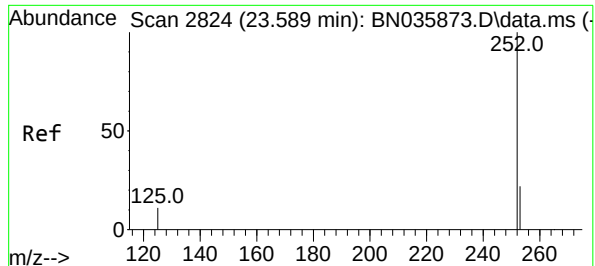
Ion Ratio Lower Upper

252 100

253 24.3 20.5 30.7

125 12.3 10.6 16.0





#39

Benzo(a)pyrene

Concen: 0.782 ng

RT: 23.595 min Scan# 2826

Delta R.T. 0.006 min

Lab File: BN035874.D

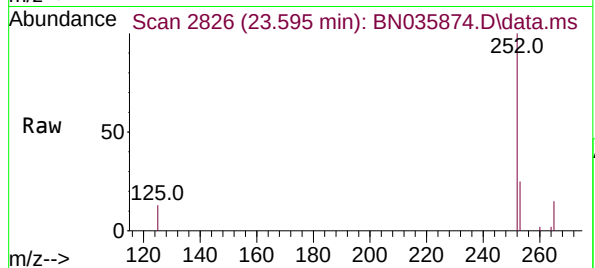
Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8



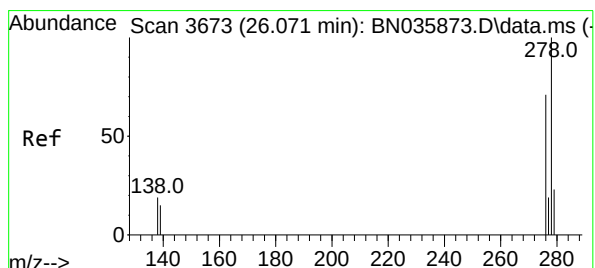
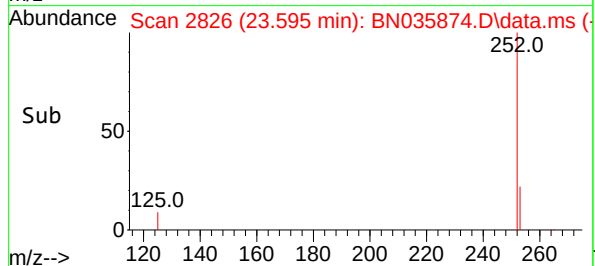
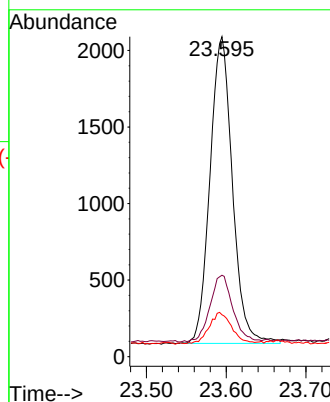
Tgt Ion:252 Resp: 3913

Ion Ratio Lower Upper

252 100

253 25.5 21.5 32.3

125 13.1 12.6 19.0



#40

Dibenzo(a,h)anthracene

Concen: 0.798 ng

RT: 26.071 min Scan# 3673

Delta R.T. -0.000 min

Lab File: BN035874.D

Acq: 02 Jan 2025 13:16

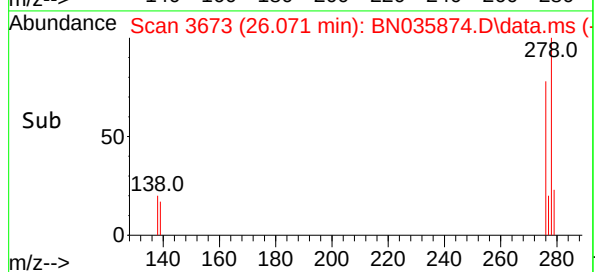
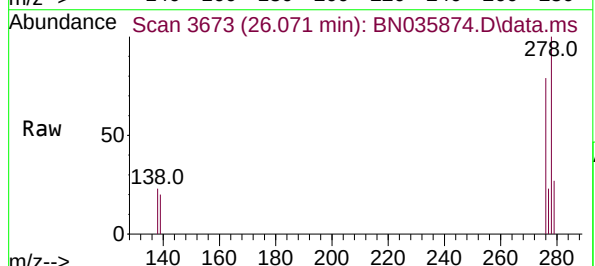
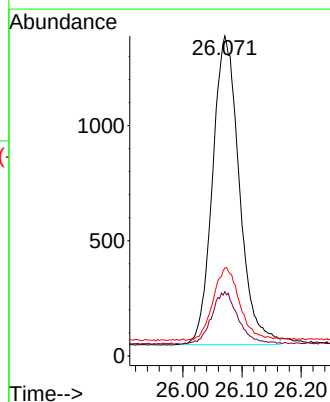
Tgt Ion:278 Resp: 4209

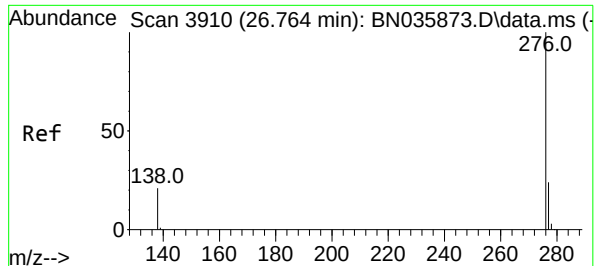
Ion Ratio Lower Upper

278 100

139 20.1 15.9 23.9

279 27.4 23.0 34.4





#41

Benzo(g,h,i)perylene

Concen: 0.802 ng

RT: 26.767 min Scan# 3911

Delta R.T. 0.003 min

Lab File: BN035874.D

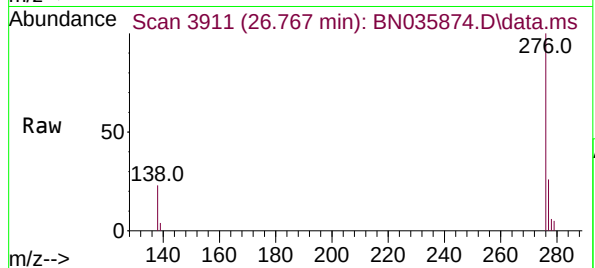
Acq: 02 Jan 2025 13:16

Instrument :

BNA\_N

ClientSampleId :

SSTDICC0.8



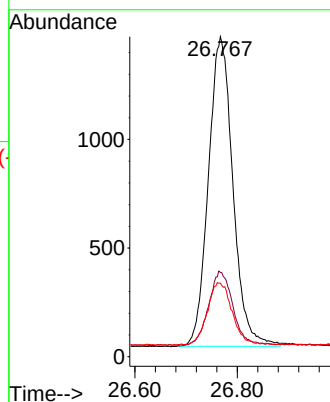
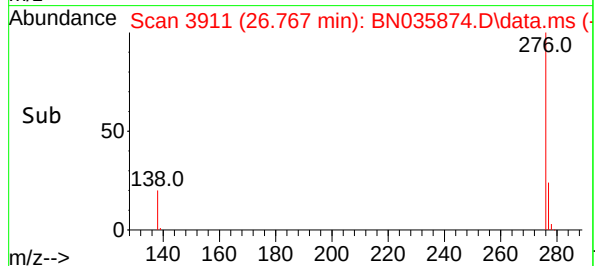
Tgt Ion:276 Resp: 4732

Ion Ratio Lower Upper

276 100

277 26.3 22.8 34.2

138 23.0 20.1 30.1



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
 Data File : BN035875.D  
 Acq On : 02 Jan 2025 13:52  
 Operator : RC/JU  
 Sample : SSTDICC1.6  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

Quant Time: Jan 02 15:50:39 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

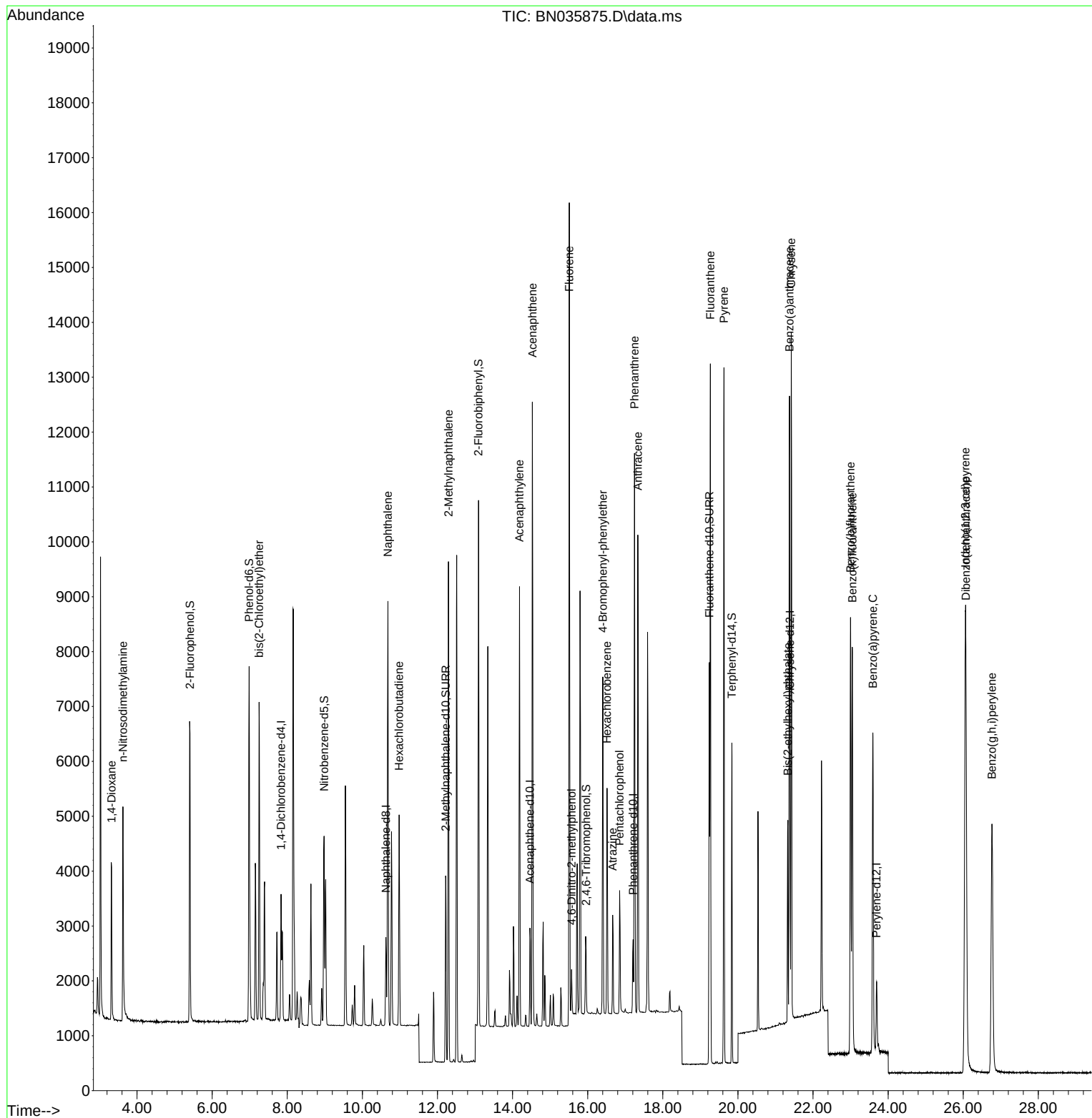
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.835  | 152  | 1039     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.625 | 136  | 2002     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.462 | 164  | 1024     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.210 | 188  | 1916     | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.384 | 240  | 1622     | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 23.691 | 264  | 1727     | 0.400 | ng    | # 0.00   |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.409  | 112  | 4142     | 1.625 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.983  | 99   | 5048     | 1.595 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.981  | 82   | 2556     | 1.612 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.217 | 152  | 4454     | 1.662 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.956 | 330  | 847      | 1.723 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 13.093 | 172  | 7465     | 1.661 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.238 | 212  | 7879     | 1.657 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.837 | 244  | 5373     | 1.662 | ng    | 0.00     |
| Target Compounds              |        |      |          |       |       |          |
| 2) 1,4-Dioxane                | 3.321  | 88   | 1627     | 1.577 | ng    | 97       |
| 3) n-Nitrosodimethylamine     | 3.625  | 42   | 3002     | 1.667 | ng    | # 97     |
| 6) bis(2-Chloroethyl)ether    | 7.250  | 93   | 3900     | 1.617 | ng    | 100      |
| 9) Naphthalene                | 10.679 | 128  | 9344     | 1.663 | ng    | 96       |
| 10) Hexachlorobutadiene       | 10.978 | 225  | 3062     | 1.678 | ng    | # 99     |
| 12) 2-Methylnaphthalene       | 12.293 | 142  | 5850     | 1.682 | ng    | 99       |
| 16) Acenaphthylene            | 14.184 | 152  | 8035     | 1.666 | ng    | 100      |
| 17) Acenaphthene              | 14.526 | 154  | 5325     | 1.684 | ng    | 97       |
| 18) Fluorene                  | 15.509 | 166  | 5812     | 1.671 | ng    | 97       |
| 20) 4,6-Dinitro-2-methylph... | 15.571 | 198  | 585      | 1.758 | ng    | # 72     |
| 21) 4-Bromophenyl-phenylether | 16.403 | 248  | 2219     | 1.689 | ng    | 98       |
| 22) Hexachlorobenzene         | 16.515 | 284  | 3022     | 1.687 | ng    | 98       |
| 23) Atrazine                  | 16.664 | 200  | 1516     | 1.720 | ng    | # 87     |
| 24) Pentachlorophenol         | 16.850 | 266  | 1099     | 1.733 | ng    | 99       |
| 25) Phenanthrene              | 17.247 | 178  | 9410     | 1.683 | ng    | 99       |
| 26) Anthracene                | 17.334 | 178  | 8714     | 1.713 | ng    | 99       |
| 28) Fluoranthene              | 19.266 | 202  | 11040    | 1.694 | ng    | 99       |
| 30) Pyrene                    | 19.628 | 202  | 11104    | 1.686 | ng    | 99       |
| 32) Benzo(a)anthracene        | 21.375 | 228  | 9482     | 1.659 | ng    | 98       |
| 33) Chrysene                  | 21.419 | 228  | 10000    | 1.672 | ng    | 99       |
| 34) Bis(2-ethylhexyl)phtha... | 21.330 | 149  | 3691     | 1.586 | ng    | 98       |
| 36) Indeno(1,2,3-cd)pyrene    | 26.056 | 276  | 11724    | 1.721 | ng    | 99       |
| 37) Benzo(b)fluoranthene      | 22.998 | 252  | 10128    | 1.707 | ng    | 95       |
| 38) Benzo(k)fluoranthene      | 23.045 | 252  | 10151    | 1.728 | ng    | # 94     |
| 39) Benzo(a)pyrene            | 23.592 | 252  | 8775     | 1.709 | ng    | # 92     |
| 40) Dibenzo(a,h)anthracene    | 26.071 | 278  | 9415     | 1.738 | ng    | 94       |
| 41) Benzo(g,h,i)perylene      | 26.764 | 276  | 10294    | 1.699 | ng    | 93       |

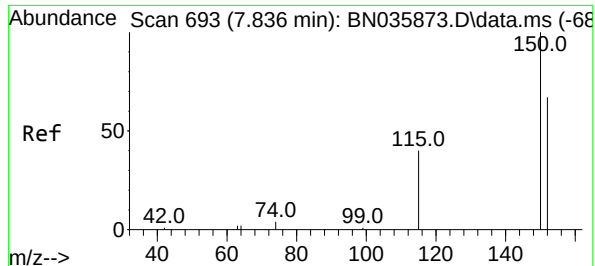
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
Data File : BN035875.D  
Acq On : 02 Jan 2025 13:52  
Operator : RC/JU  
Sample : SSTDICC1.6  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

Quant Time: Jan 02 15:50:39 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

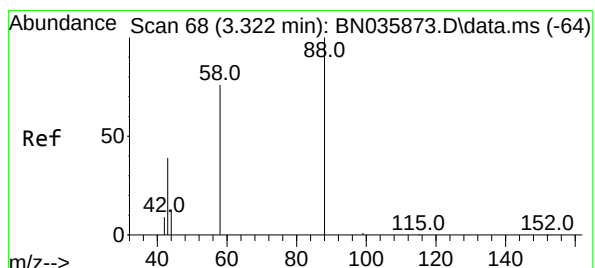
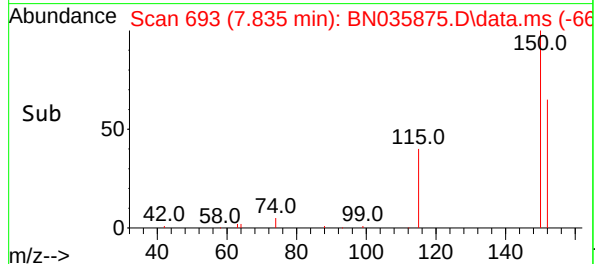
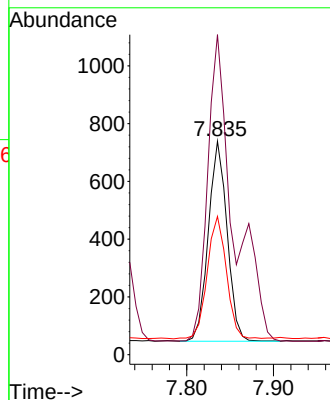
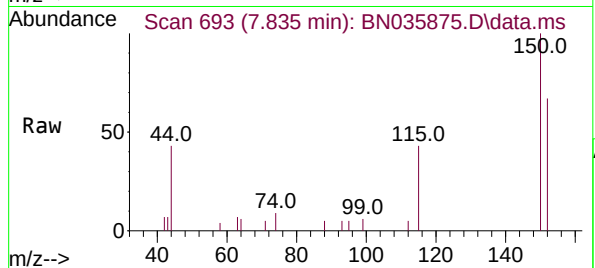




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.835 min Scan# 69  
Delta R.T. -0.001 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

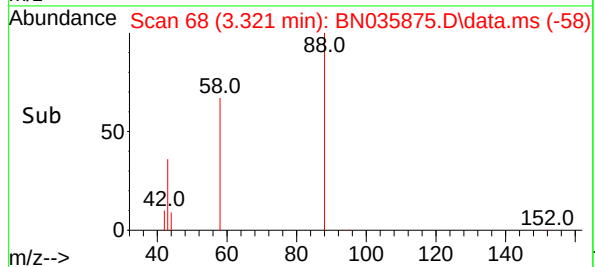
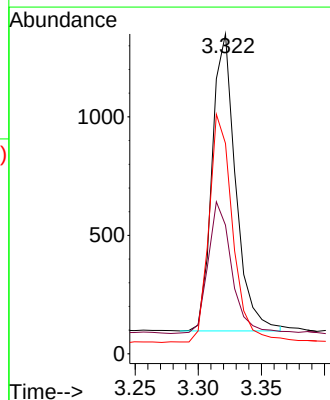
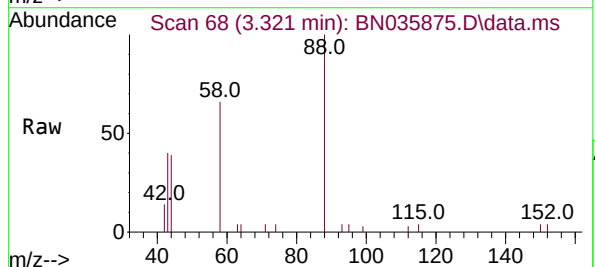
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

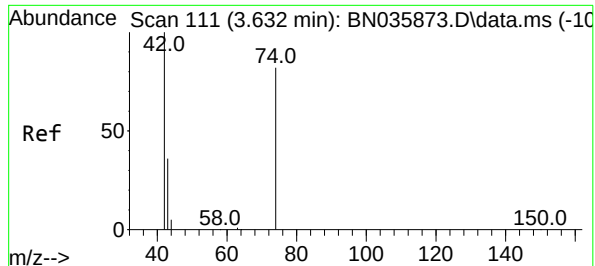
Tgt Ion:152 Resp: 1039  
Ion Ratio Lower Upper  
152 100  
150 149.9 117.8 176.6  
115 64.8 51.0 76.4



#2  
1,4-Dioxane  
Concen: 1.577 ng  
RT: 3.321 min Scan# 68  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

Tgt Ion: 88 Resp: 1627  
Ion Ratio Lower Upper  
88 100  
43 44.4 32.7 49.1  
58 77.4 63.0 94.4

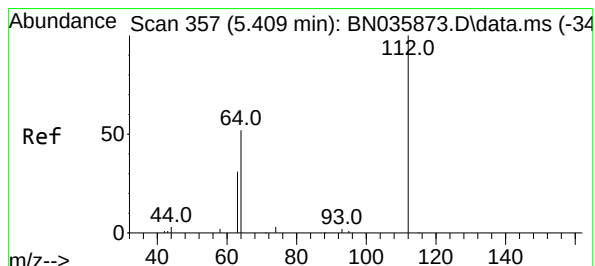
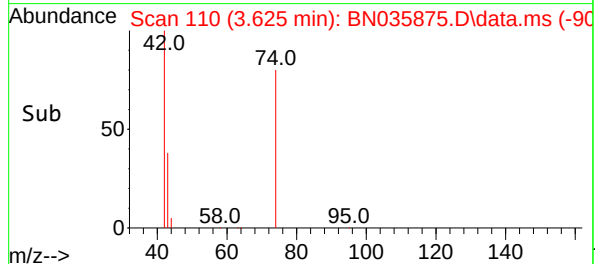
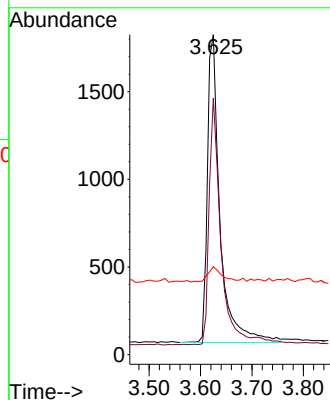
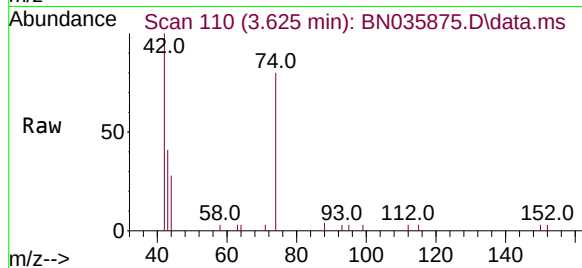




#3  
n-Nitrosodimethylamine  
Concen: 1.667 ng  
RT: 3.625 min Scan# 111  
Delta R.T. -0.007 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

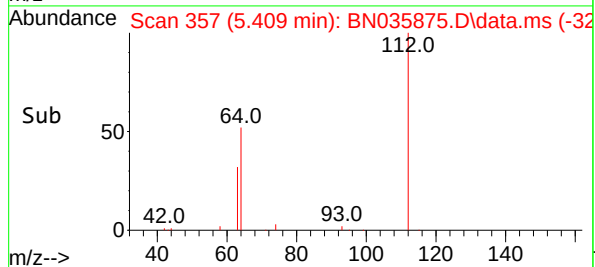
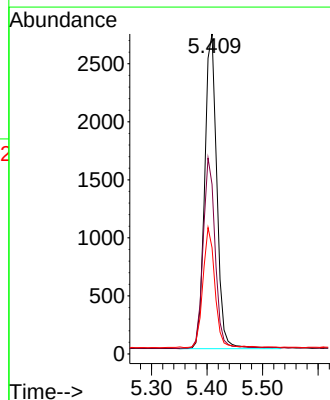
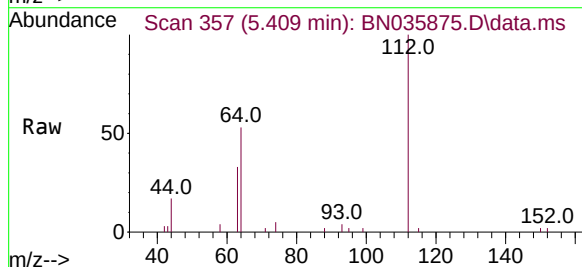
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

Tgt Ion: 42 Resp: 3002  
Ion Ratio Lower Upper  
42 100  
74 75.3 62.2 93.2  
44 5.5 7.1 10.7#

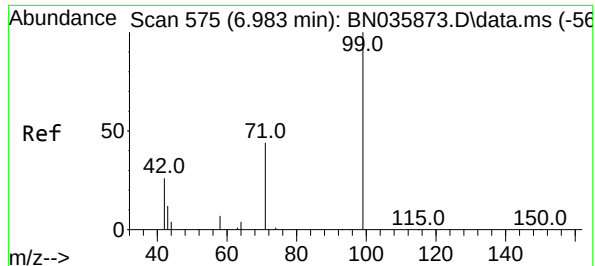


#4  
2-Fluorophenol  
Concen: 1.625 ng  
RT: 5.409 min Scan# 357  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

Tgt Ion: 112 Resp: 4142  
Ion Ratio Lower Upper  
112 100  
64 60.1 48.2 72.2  
63 37.0 30.0 45.0



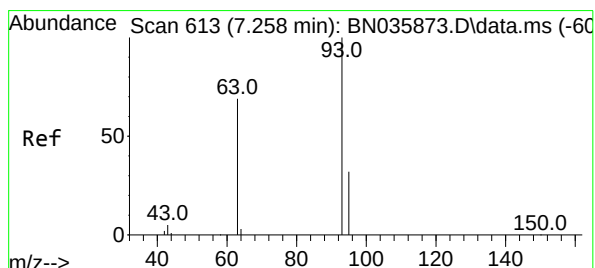
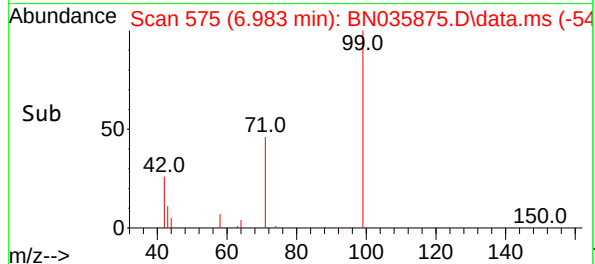
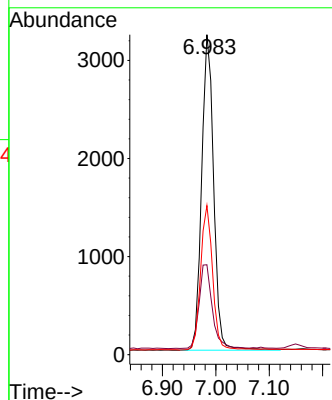
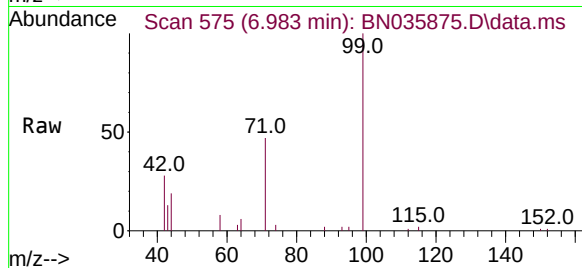




#5  
Phenol-d6  
Concen: 1.595 ng  
RT: 6.983 min Scan# 575  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

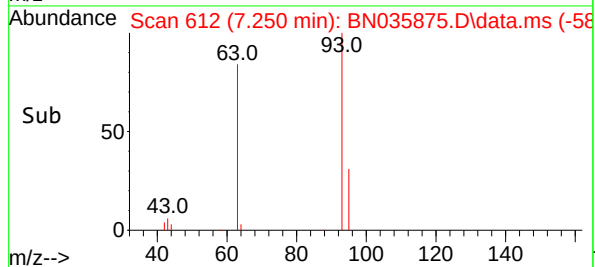
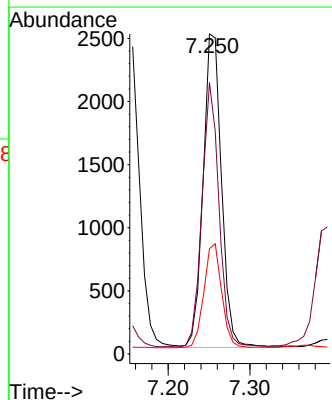
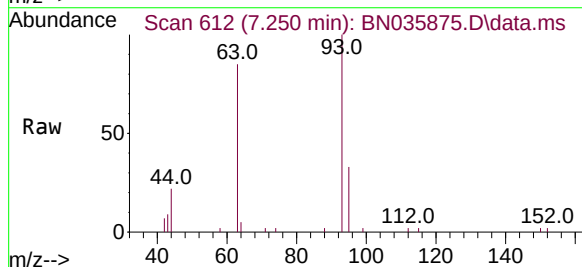
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

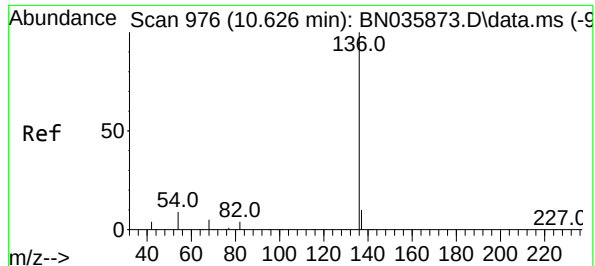
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 99    | Resp: | 5048  |
| Ion      | Ratio | Lower | Upper |
| 99       | 100   |       |       |
| 42       | 29.5  | 23.5  | 35.3  |
| 71       | 45.9  | 35.5  | 53.3  |



#6  
bis(2-Chloroethyl)ether  
Concen: 1.617 ng  
RT: 7.250 min Scan# 612  
Delta R.T. -0.007 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 93    | Resp: | 3900  |
| Ion      | Ratio | Lower | Upper |
| 93       | 100   |       |       |
| 63       | 77.8  | 62.0  | 93.0  |
| 95       | 32.1  | 25.5  | 38.3  |

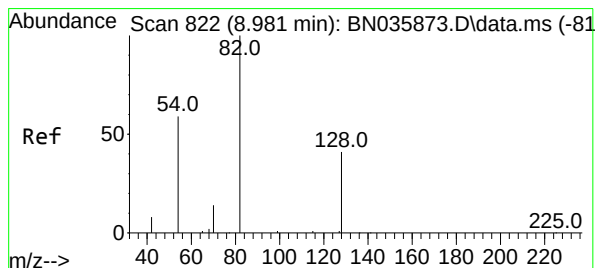
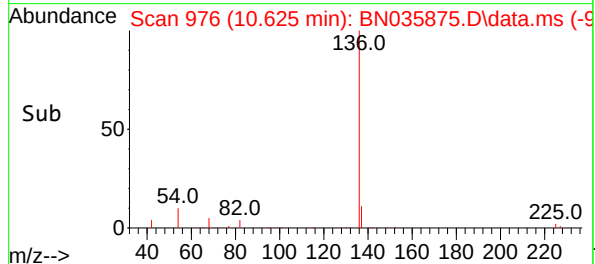
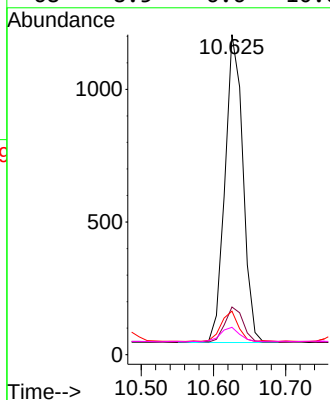
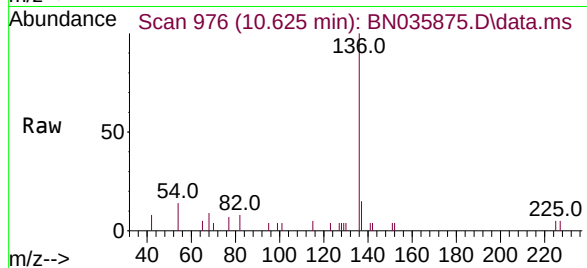




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.625 min Scan# 91  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

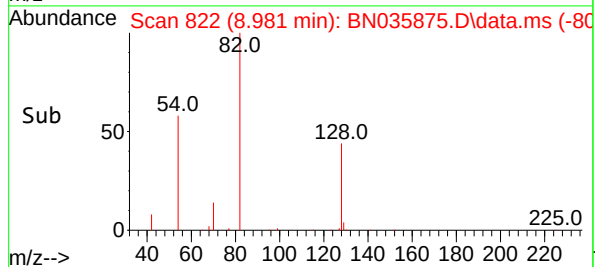
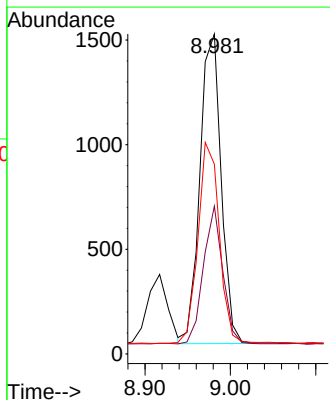
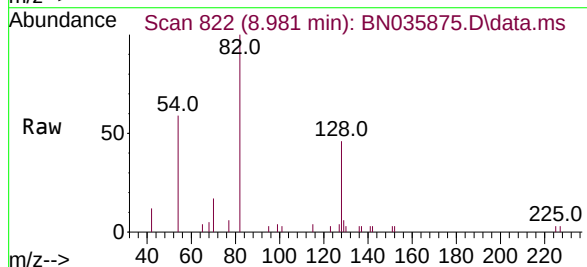
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

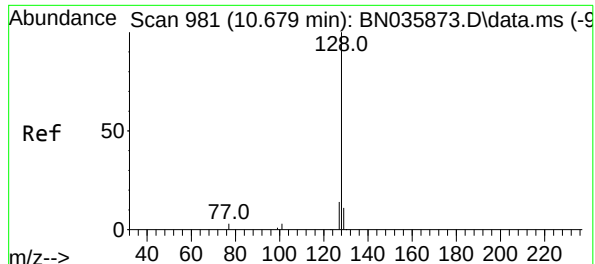
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 2002  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 14.9  | 10.6  | 15.8  |
| 54       | 13.6  | 9.8   | 14.6  |
| 68       | 8.5   | 6.6   | 10.0  |



#8  
Nitrobenzene-d5  
Concen: 1.612 ng  
RT: 8.981 min Scan# 822  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 2556  |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 46.2  | 36.9  | 55.3  |
| 54       | 59.3  | 50.4  | 75.6  |





#9

Naphthalene

Concen: 1.663 ng

RT: 10.679 min Scan# 981

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

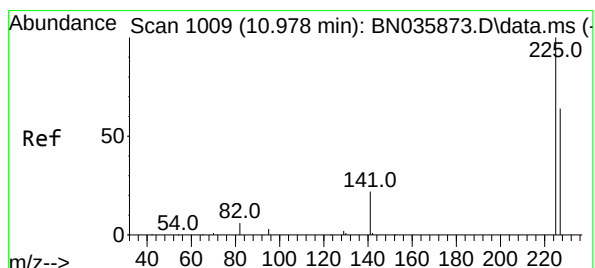
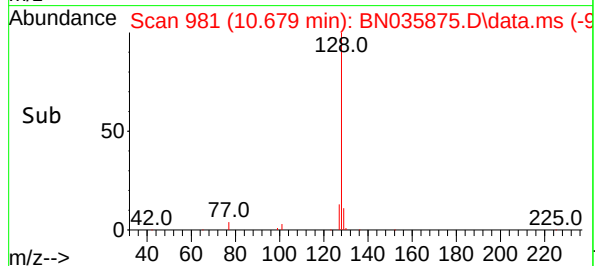
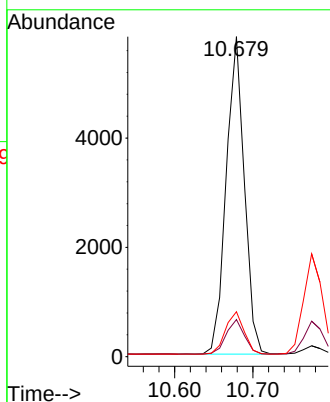
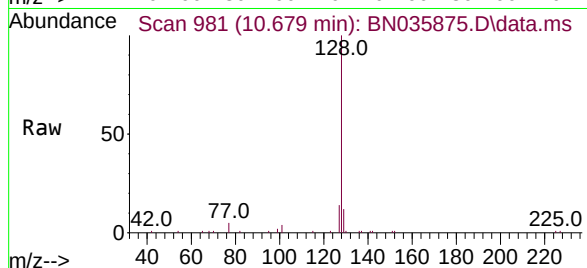
Tgt Ion:128 Resp: 9344

Ion Ratio Lower Upper

128 100

129 11.6 10.6 16.0

127 14.1 12.8 19.2



#10

Hexachlorobutadiene

Concen: 1.678 ng

RT: 10.978 min Scan# 1009

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

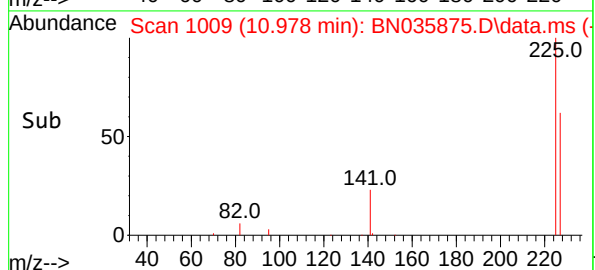
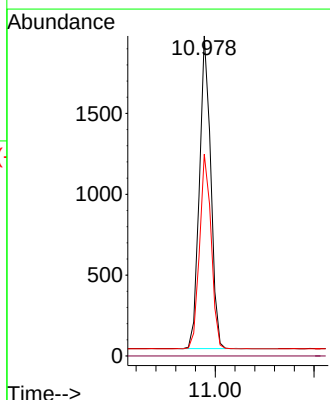
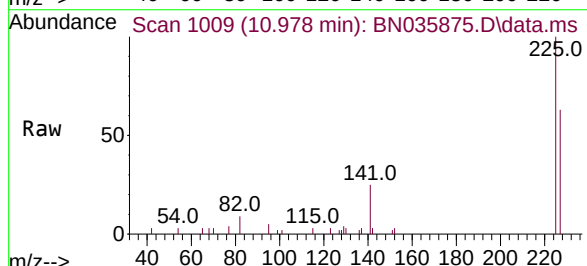
Tgt Ion:225 Resp: 3062

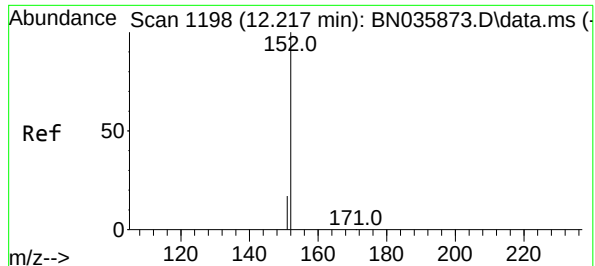
Ion Ratio Lower Upper

225 100

223 0.0 0.0 0.0

227 63.7 51.5 77.3

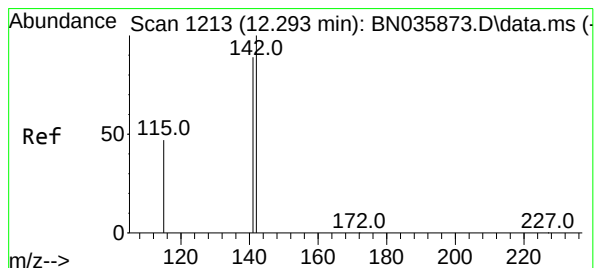
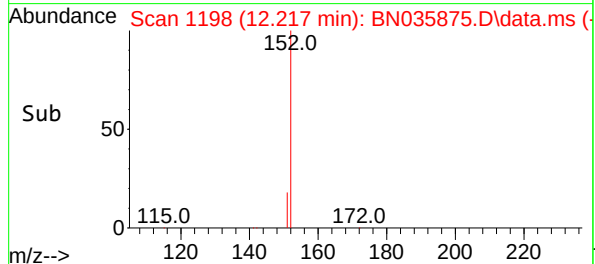
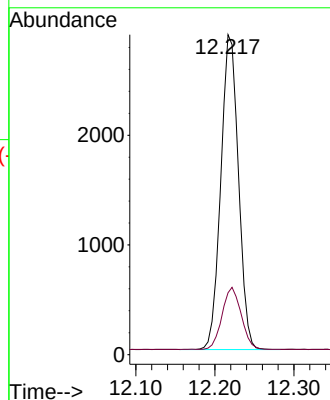
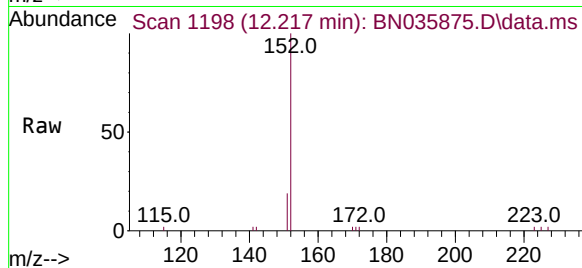




#11  
2-Methylnaphthalene-d10  
Concen: 1.662 ng  
RT: 12.217 min Scan# 1198  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

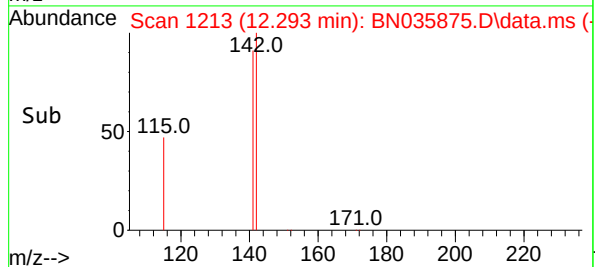
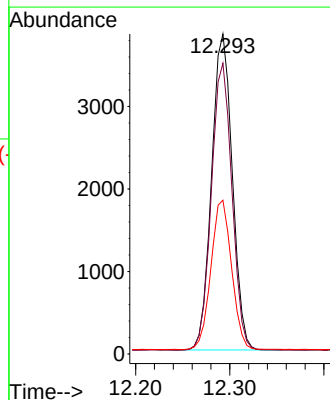
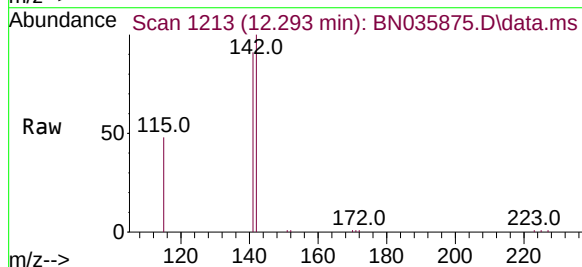
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

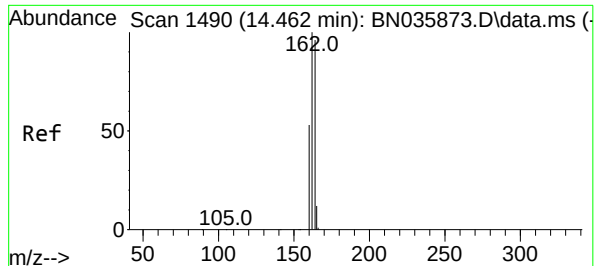
Tgt Ion:152 Resp: 4454  
Ion Ratio Lower Upper  
152 100  
151 21.4 17.0 25.6



#12  
2-Methylnaphthalene  
Concen: 1.682 ng  
RT: 12.293 min Scan# 1213  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

Tgt Ion:142 Resp: 5850  
Ion Ratio Lower Upper  
142 100  
141 90.9 71.9 107.9  
115 48.1 39.6 59.4

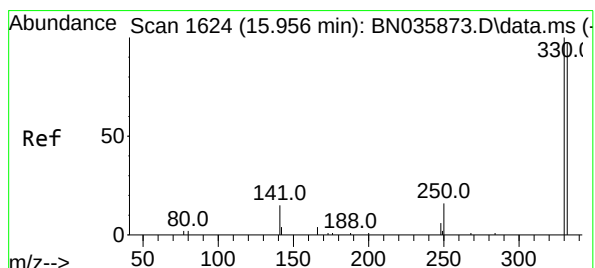
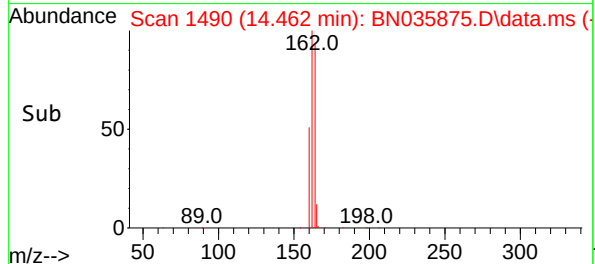
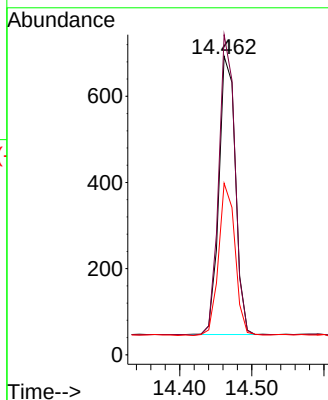
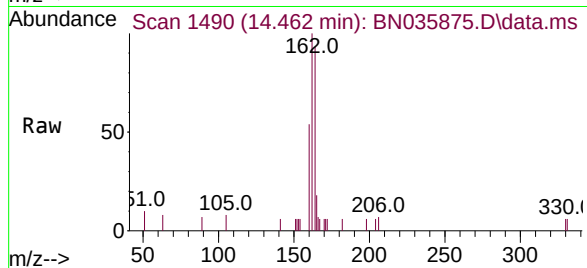




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.462 min Scan# 1490  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

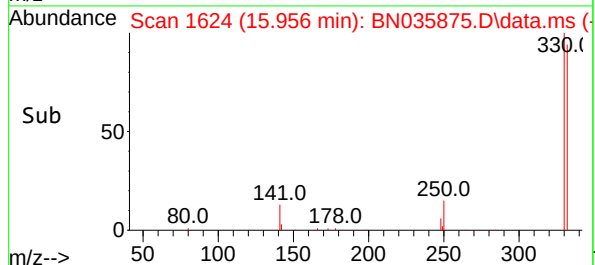
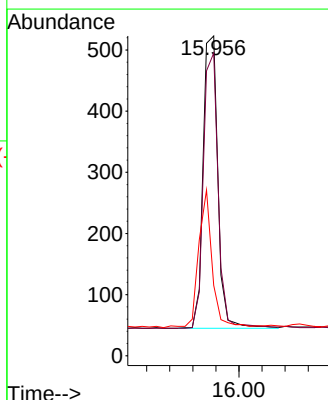
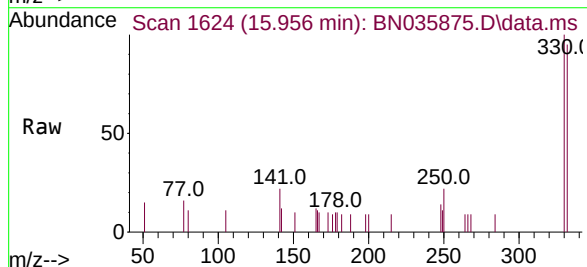
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

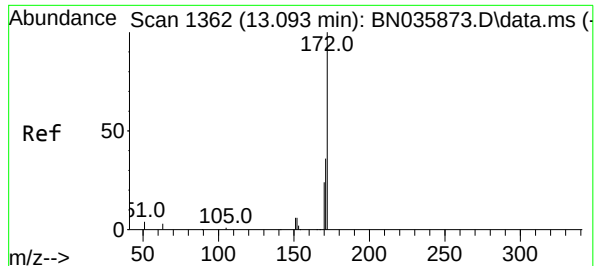
Tgt Ion:164 Resp: 1024  
Ion Ratio Lower Upper  
164 100  
162 107.2 83.1 124.7  
160 57.4 46.0 69.0



#14  
2,4,6-Tribromophenol  
Concen: 1.723 ng  
RT: 15.956 min Scan# 1624  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

Tgt Ion:330 Resp: 847  
Ion Ratio Lower Upper  
330 100  
332 94.3 77.2 115.8  
141 43.6 31.6 47.4





#15

2-Fluorobiphenyl

Concen: 1.661 ng

RT: 13.093 min Scan# 1362

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

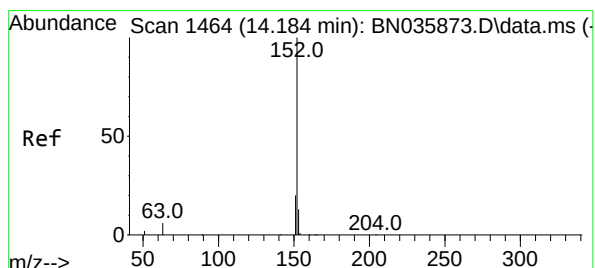
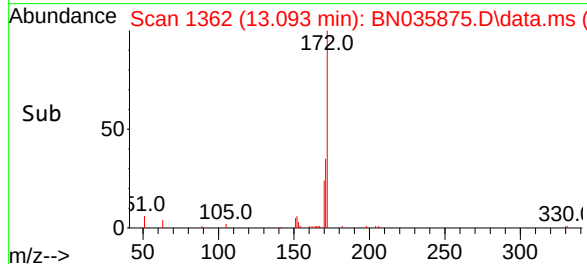
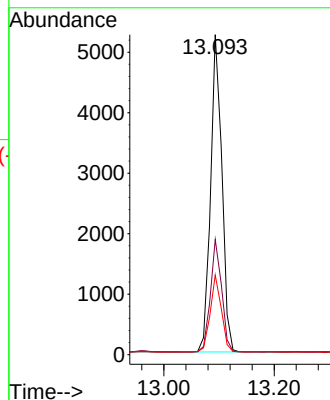
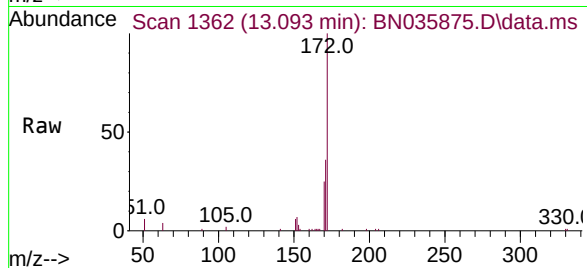
Tgt Ion:172 Resp: 7465

Ion Ratio Lower Upper

172 100

171 36.0 30.5 45.7

170 24.9 20.8 31.2



#16

Acenaphthylene

Concen: 1.666 ng

RT: 14.184 min Scan# 1464

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

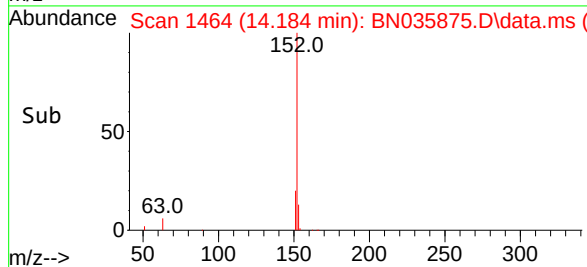
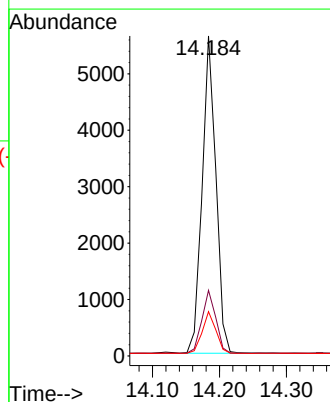
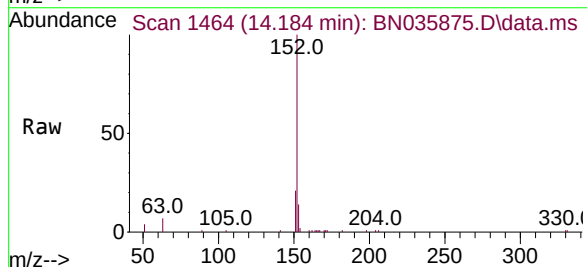
Tgt Ion:152 Resp: 8035

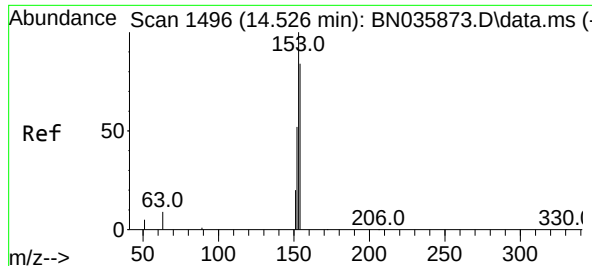
Ion Ratio Lower Upper

152 100

151 20.2 16.3 24.5

153 13.1 10.6 15.8





#17

Acenaphthene

Concen: 1.684 ng

RT: 14.526 min Scan# 1496

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

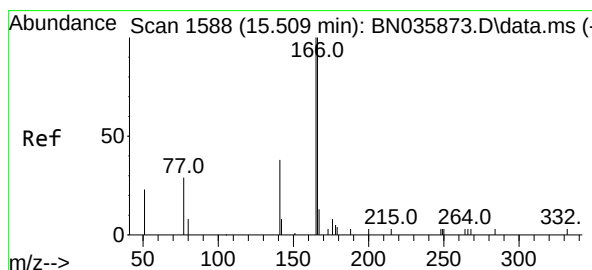
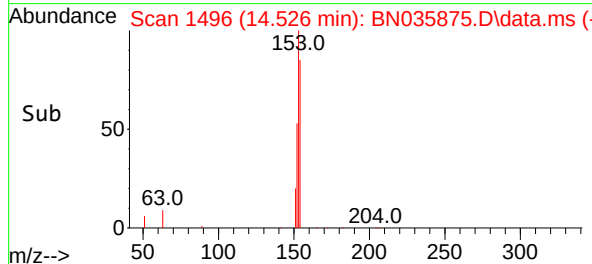
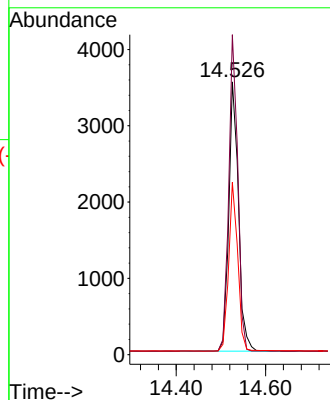
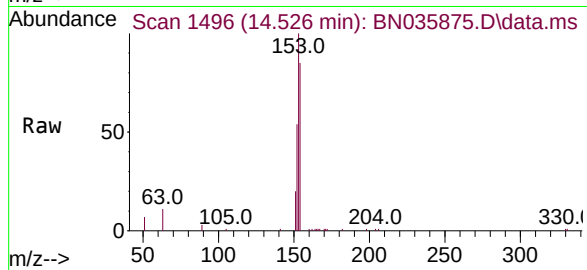
Tgt Ion:154 Resp: 5325

Ion Ratio Lower Upper

154 100

153 109.7 90.5 135.7

152 59.1 48.6 73.0



#18

Fluorene

Concen: 1.671 ng

RT: 15.509 min Scan# 1588

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

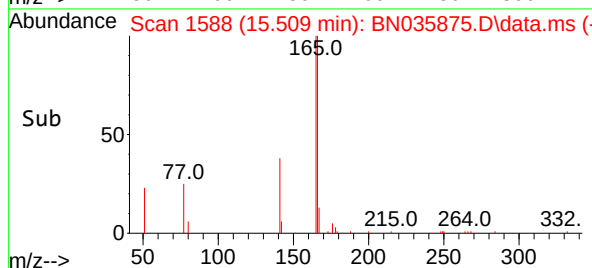
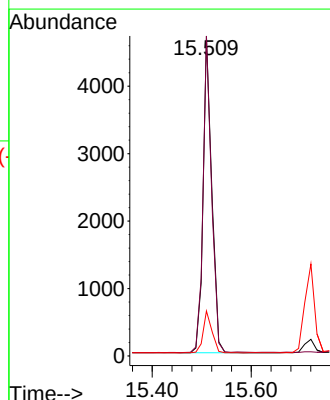
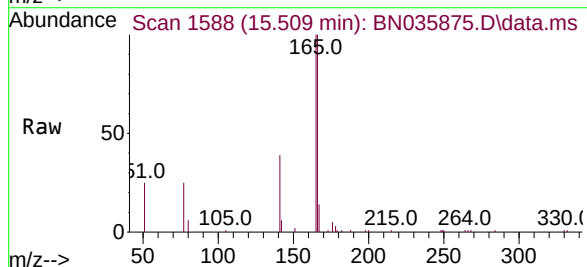
Tgt Ion:166 Resp: 5812

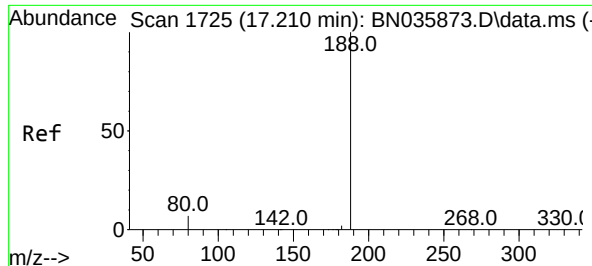
Ion Ratio Lower Upper

166 100

165 98.0 80.6 120.8

167 13.1 11.4 17.0





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 17.210 min Scan# 1

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

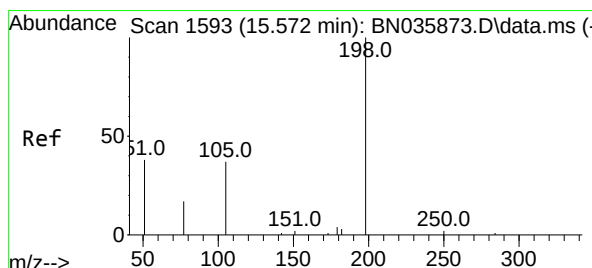
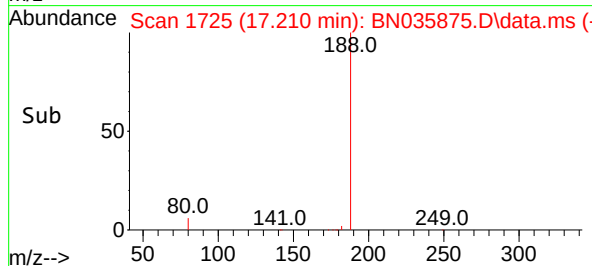
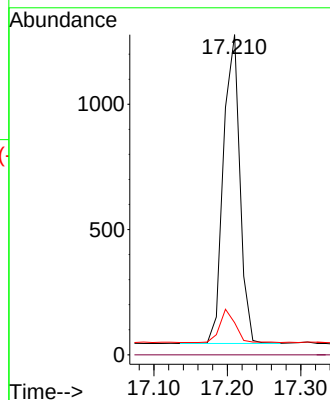
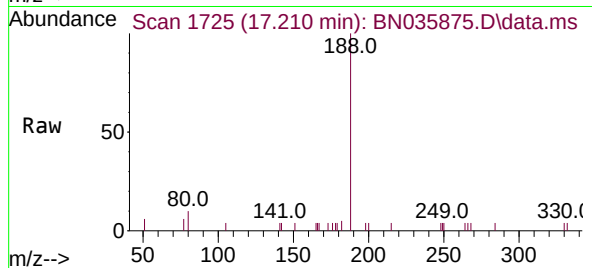
Tgt Ion:188 Resp: 1916

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 10.0 7.3 10.9



#20

4,6-Dinitro-2-methylphenol

Concen: 1.758 ng

RT: 15.571 min Scan# 1593

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

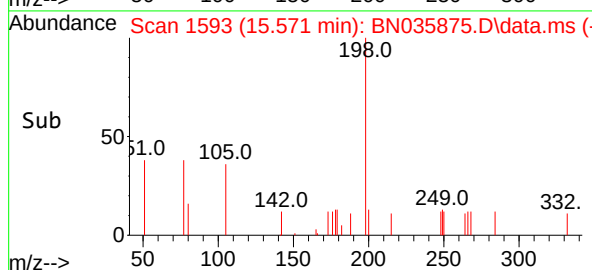
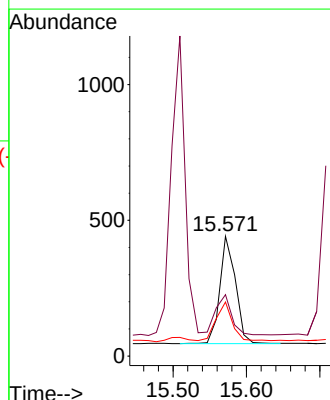
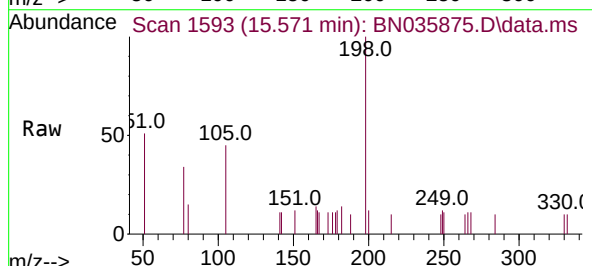
Tgt Ion:198 Resp: 585

Ion Ratio Lower Upper

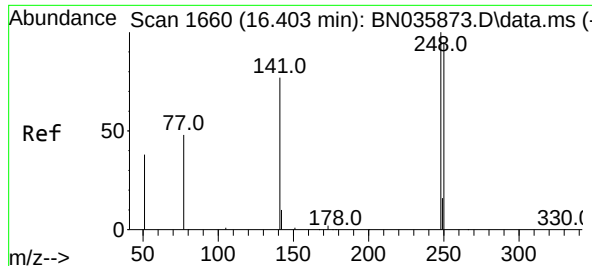
198 100

51 51.2 64.3 96.5#

105 45.1 50.0 75.0#



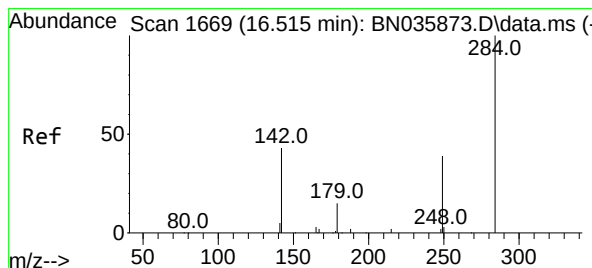
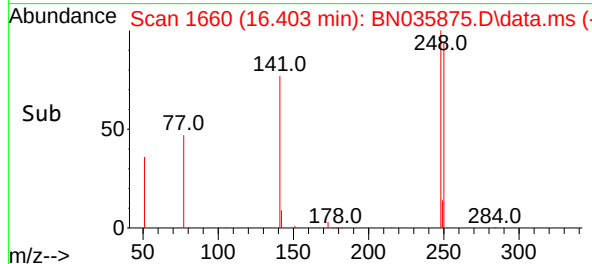
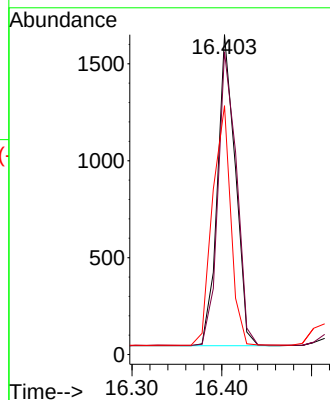
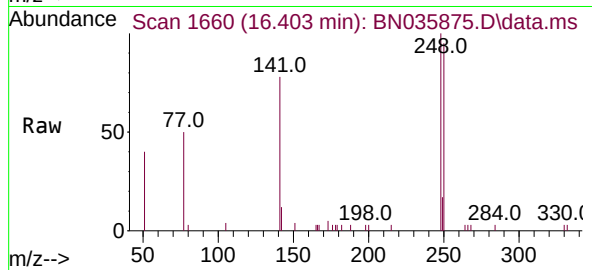




#21  
4-Bromophenyl-phenylether  
Concen: 1.689 ng  
RT: 16.403 min Scan# 1660  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

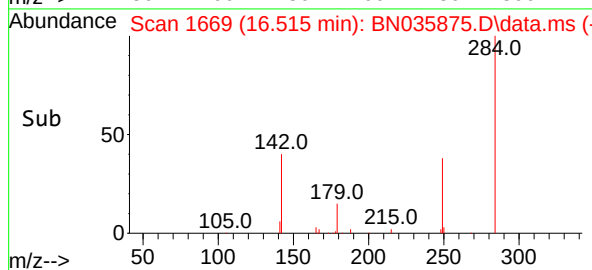
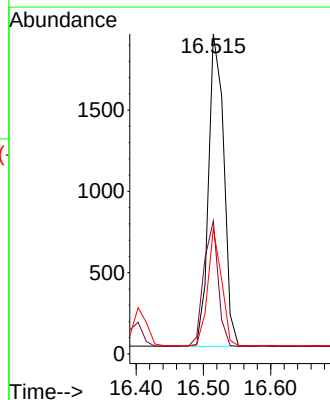
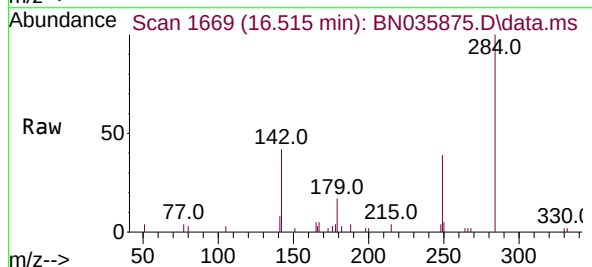
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

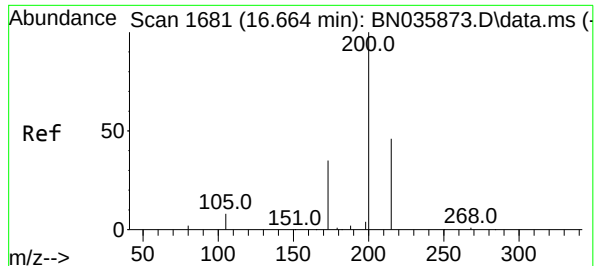
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 248     | 100   |       |       |
| 250     | 94.7  | 76.8  | 115.2 |
| 141     | 77.8  | 63.6  | 95.4  |



#22  
Hexachlorobenzene  
Concen: 1.687 ng  
RT: 16.515 min Scan# 1669  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 284     | 100   |       |       |
| 142     | 38.1  | 31.4  | 47.0  |
| 249     | 33.9  | 27.8  | 41.8  |

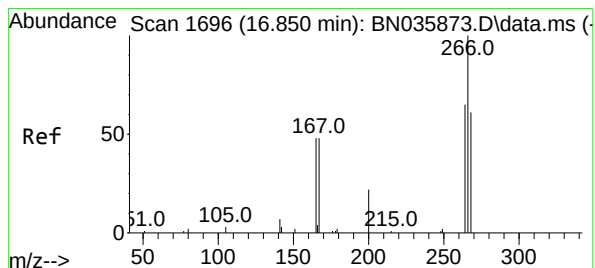
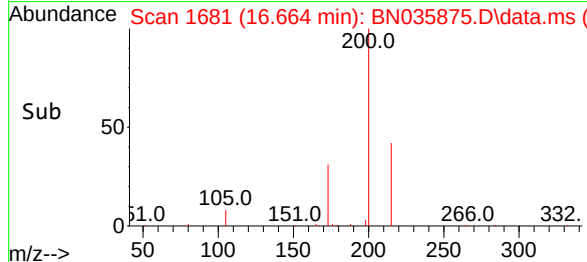
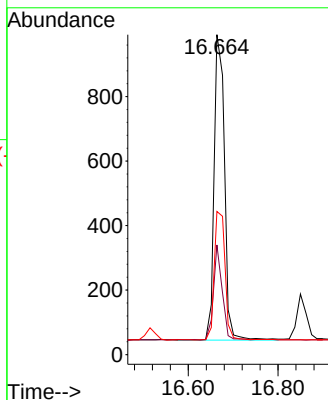
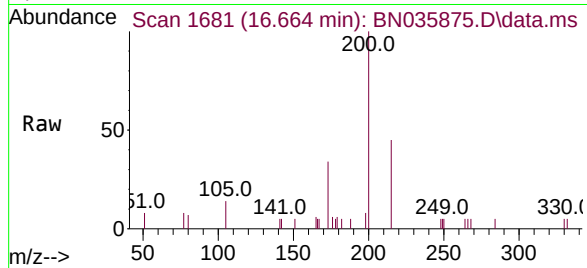




#23  
Atrazine  
Concen: 1.720 ng  
RT: 16.664 min Scan# 1681  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

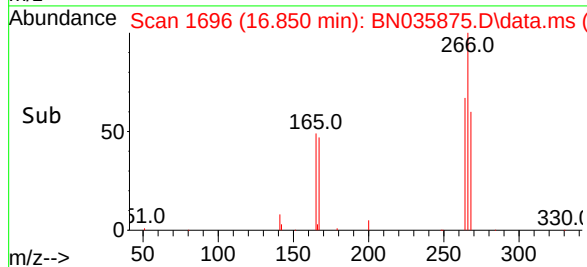
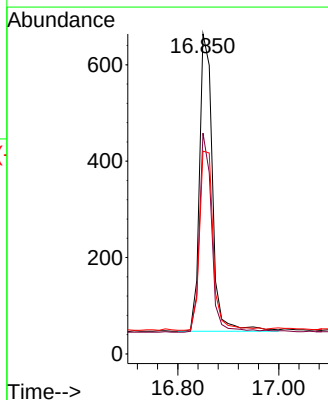
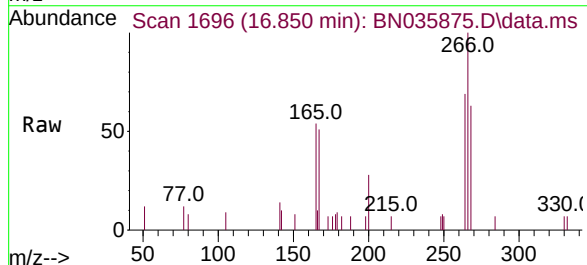
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

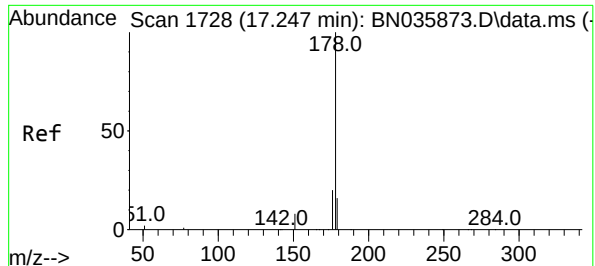
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 200     | 100   |       |       |
| 173     | 34.3  | 35.4  | 53.0# |
| 215     | 44.8  | 42.4  | 63.6  |



#24  
Pentachlorophenol  
Concen: 1.733 ng  
RT: 16.850 min Scan# 1696  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 266     | 100   |       |       |
| 264     | 63.3  | 49.9  | 74.9  |
| 268     | 64.0  | 50.2  | 75.2  |

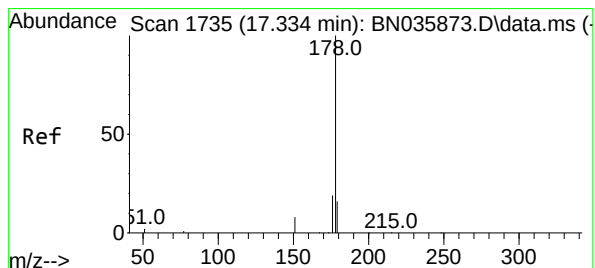
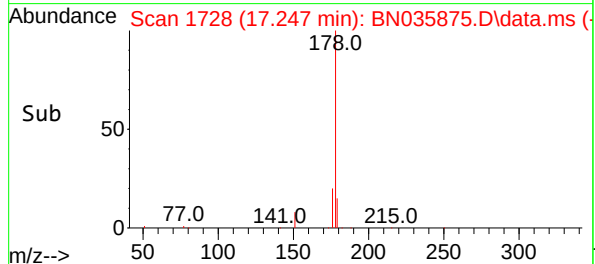
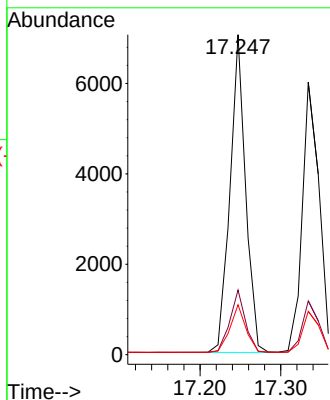
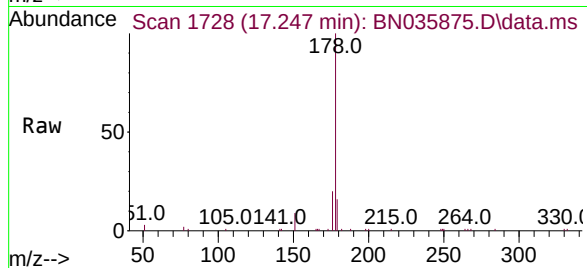




#25  
Phenanthrene  
Concen: 1.683 ng  
RT: 17.247 min Scan# 1728  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

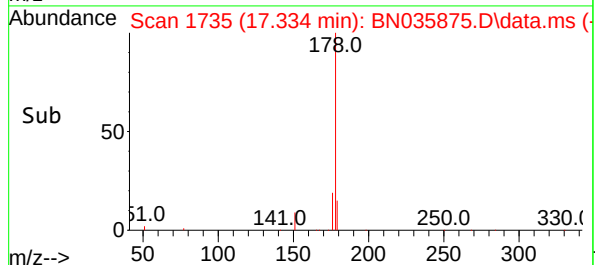
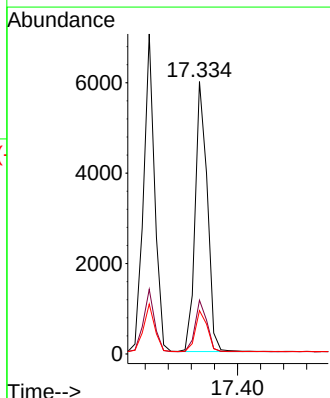
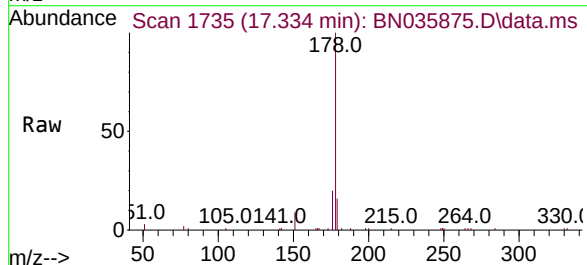
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

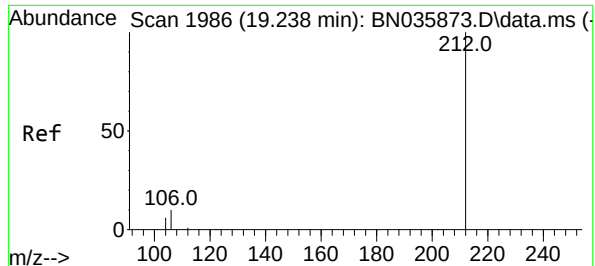
Tgt Ion:178 Resp: 9410  
Ion Ratio Lower Upper  
178 100  
176 19.5 15.9 23.9  
179 15.2 12.9 19.3



#26  
Anthracene  
Concen: 1.713 ng  
RT: 17.334 min Scan# 1735  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

Tgt Ion:178 Resp: 8714  
Ion Ratio Lower Upper  
178 100  
176 18.8 15.0 22.6  
179 15.3 13.0 19.6





#27

Fluoranthene-d10

Concen: 1.657 ng

RT: 19.238 min Scan# 1986

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

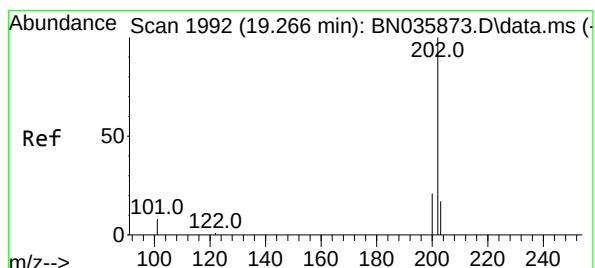
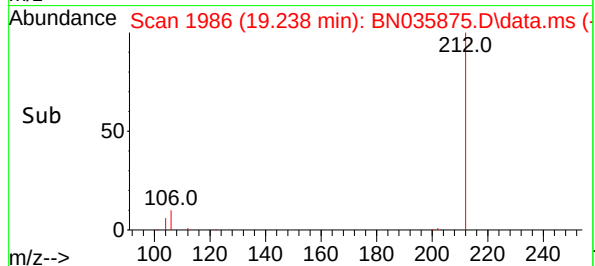
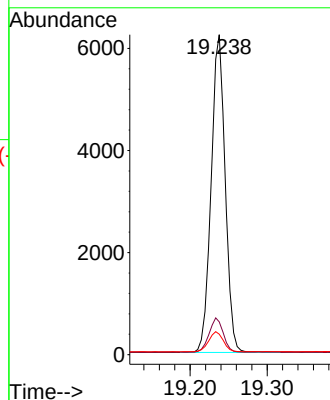
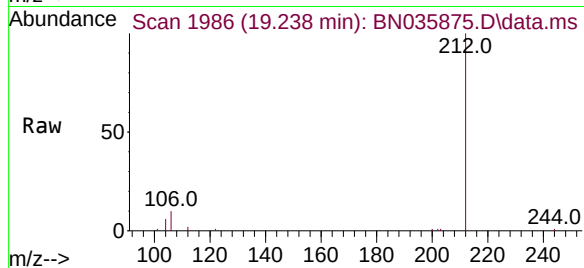
Tgt Ion:212 Resp: 7879

Ion Ratio Lower Upper

212 100

106 10.8 9.0 13.6

104 6.6 5.4 8.2



#28

Fluoranthene

Concen: 1.694 ng

RT: 19.266 min Scan# 1992

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

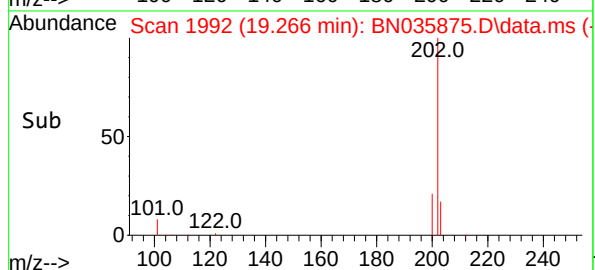
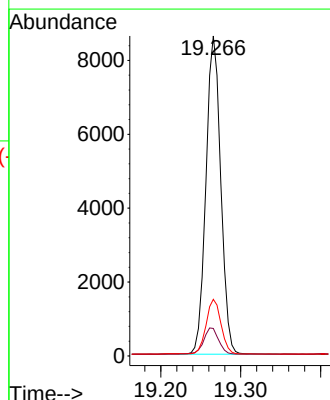
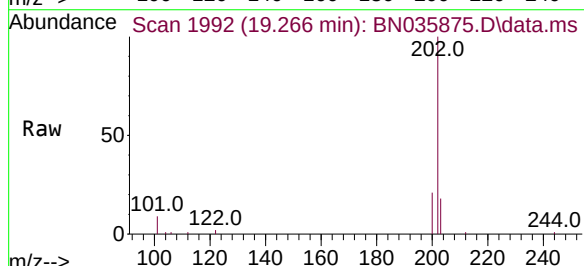
Tgt Ion:202 Resp: 11040

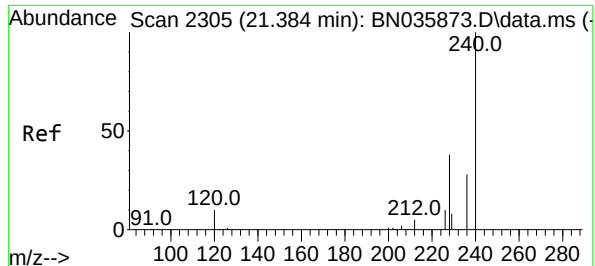
Ion Ratio Lower Upper

202 100

101 8.5 7.2 10.8

203 17.3 13.9 20.9





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.384 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

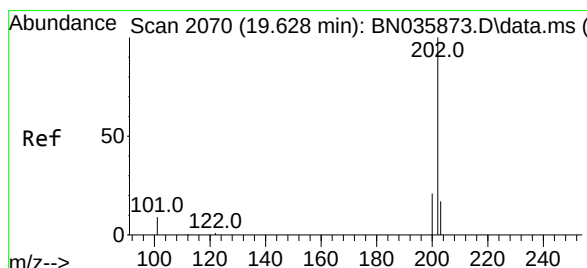
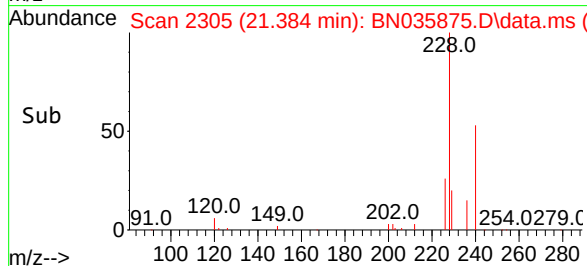
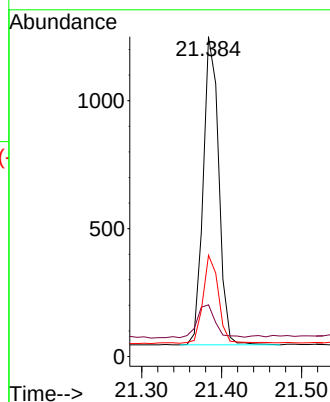
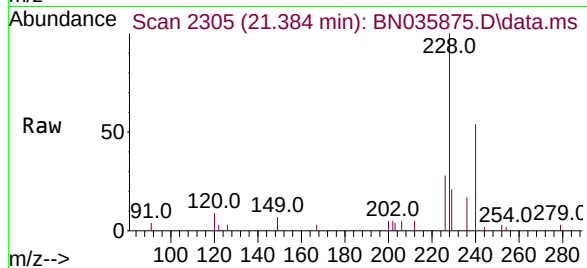
Tgt Ion:240 Resp: 1622

Ion Ratio Lower Upper

240 100

120 16.2 11.1 16.7

236 31.7 24.6 36.8



#30

Pyrene

Concen: 1.686 ng

RT: 19.628 min Scan# 2070

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

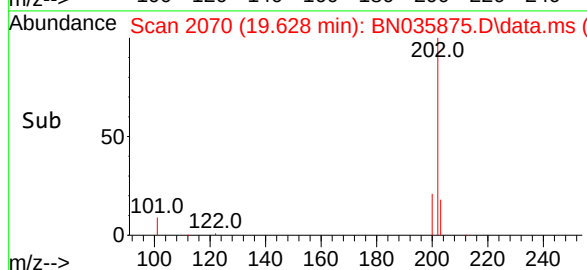
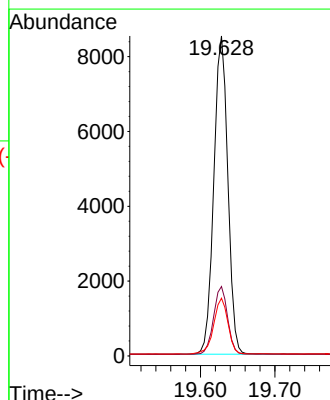
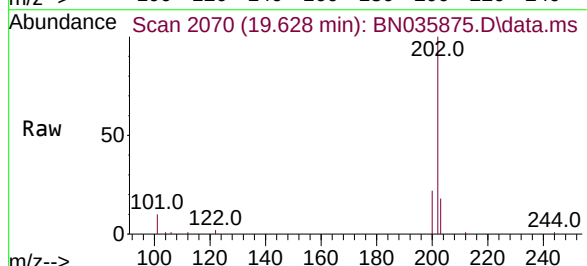
Tgt Ion:202 Resp: 11104

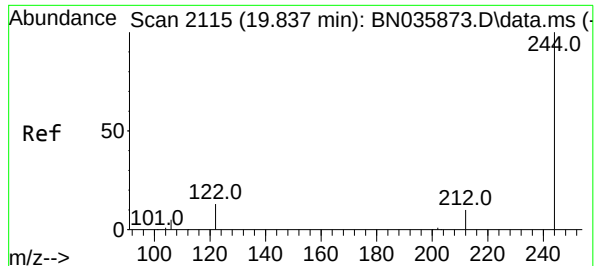
Ion Ratio Lower Upper

202 100

200 21.3 17.0 25.6

203 17.8 14.6 22.0

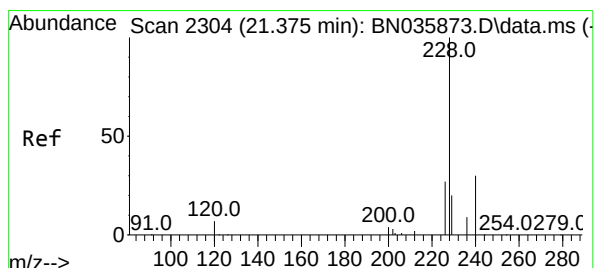
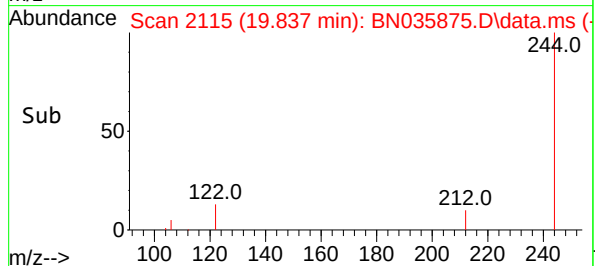
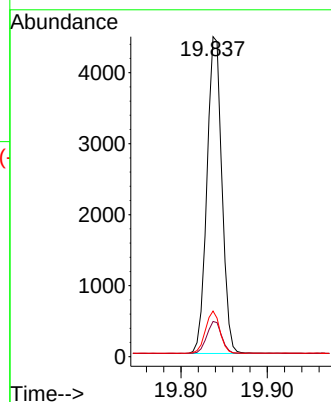
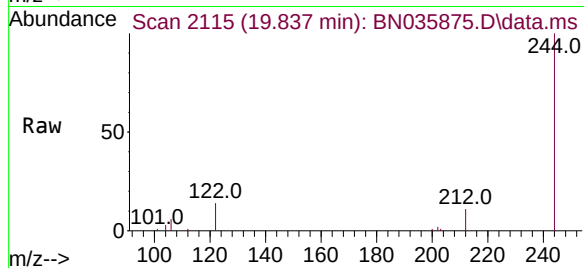




#31  
Terphenyl-d14  
Concen: 1.662 ng  
RT: 19.837 min Scan# 2115  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

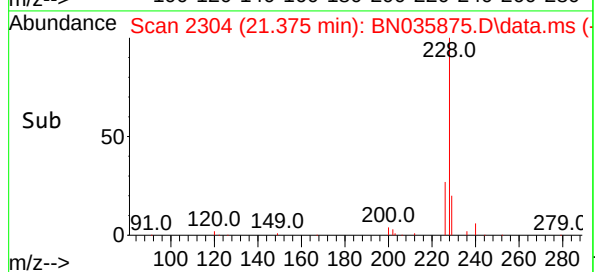
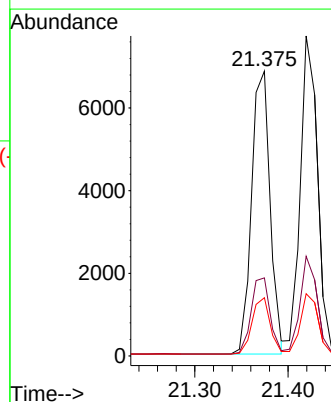
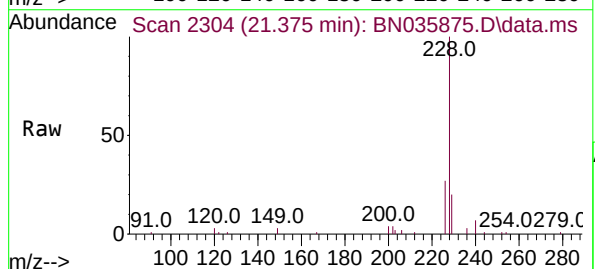
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6

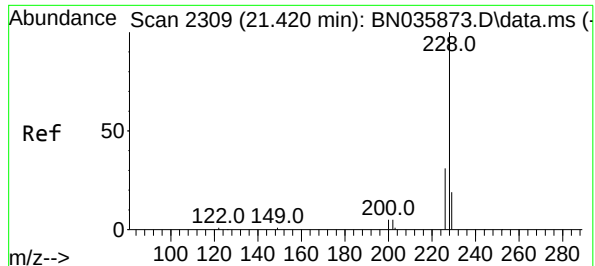
Tgt Ion:244 Resp: 5373  
Ion Ratio Lower Upper  
244 100  
212 11.0 10.1 15.1  
122 14.3 12.2 18.4



#32  
Benzo(a)anthracene  
Concen: 1.659 ng  
RT: 21.375 min Scan# 2304  
Delta R.T. -0.000 min  
Lab File: BN035875.D  
Acq: 02 Jan 2025 13:52

Tgt Ion:228 Resp: 9482  
Ion Ratio Lower Upper  
228 100  
226 27.4 22.7 34.1  
229 20.4 17.1 25.7





#33

Chrysene

Concen: 1.672 ng

RT: 21.419 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

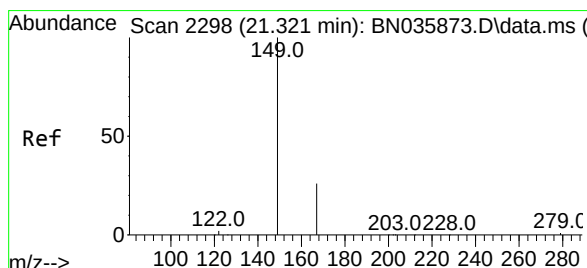
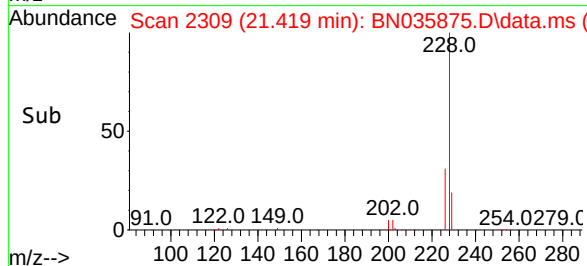
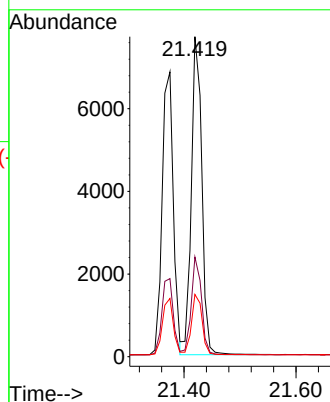
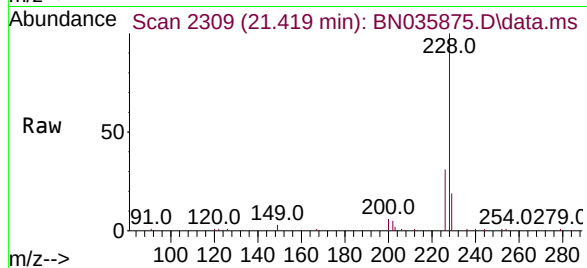
Tgt Ion:228 Resp: 10000

Ion Ratio Lower Upper

228 100

226 31.1 25.2 37.8

229 19.5 16.0 24.0



#34

Bis(2-ethylhexyl)phthalate

Concen: 1.586 ng

RT: 21.330 min Scan# 2299

Delta R.T. 0.009 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

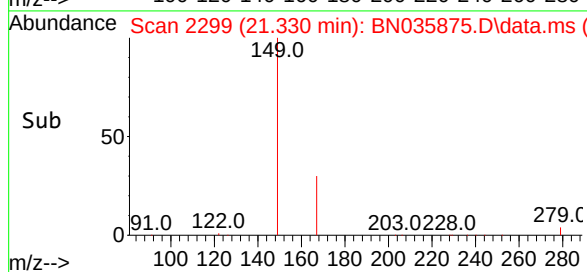
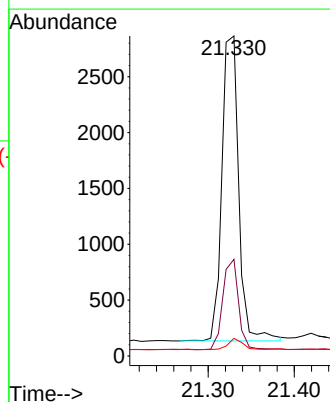
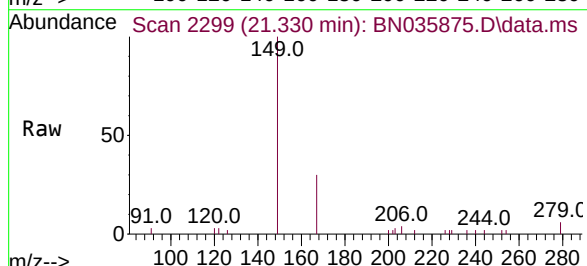
Tgt Ion:149 Resp: 3691

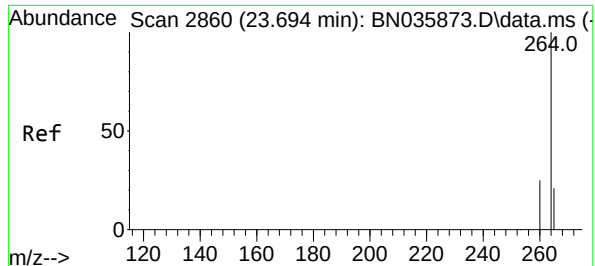
Ion Ratio Lower Upper

149 100

167 27.8 21.4 32.0

279 3.2 3.0 4.6





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.691 min Scan# 21

Delta R.T. -0.003 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

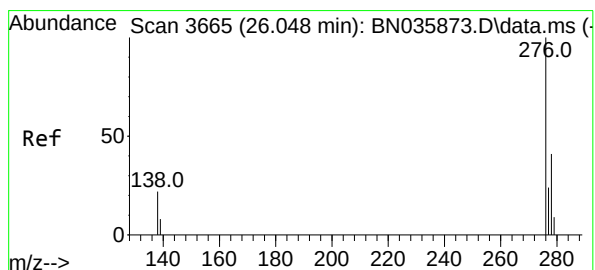
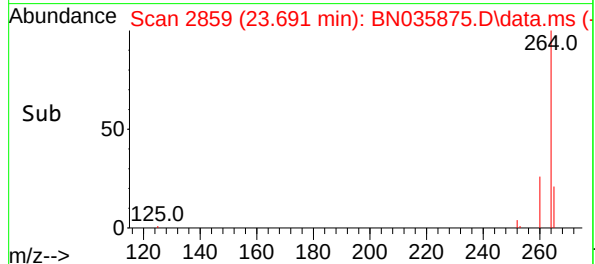
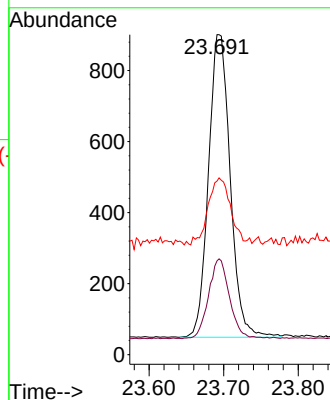
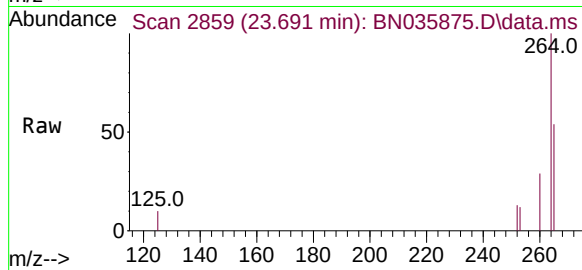
Tgt Ion:264 Resp: 1727

Ion Ratio Lower Upper

264 100

260 29.3 21.7 32.5

265 54.3 33.9 50.9#



#36

Indeno(1,2,3-cd)pyrene

Concen: 1.721 ng

RT: 26.056 min Scan# 3668

Delta R.T. 0.009 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

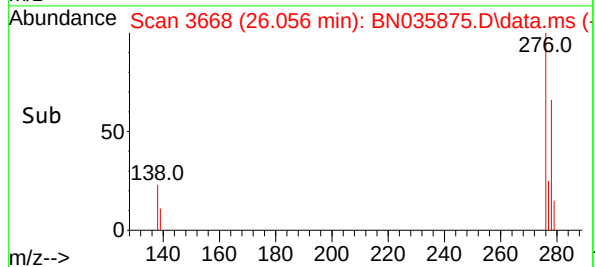
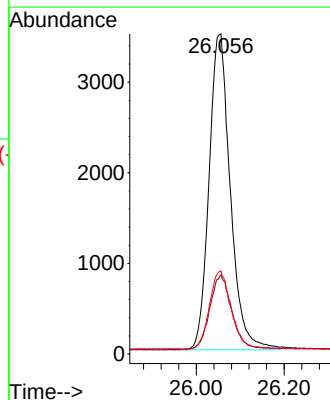
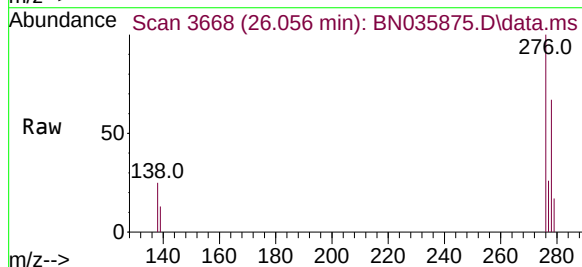
Tgt Ion:276 Resp: 11724

Ion Ratio Lower Upper

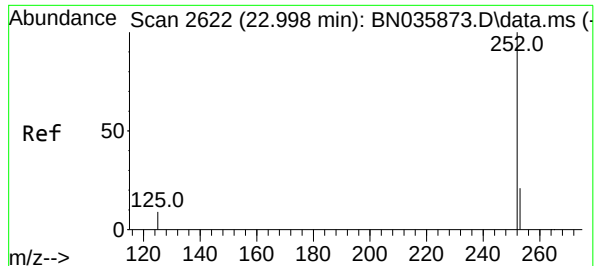
276 100

138 24.1 18.9 28.3

277 24.9 19.5 29.3







#37

Benzo(b)fluoranthene

Concen: 1.707 ng

RT: 22.998 min Scan# 2622

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

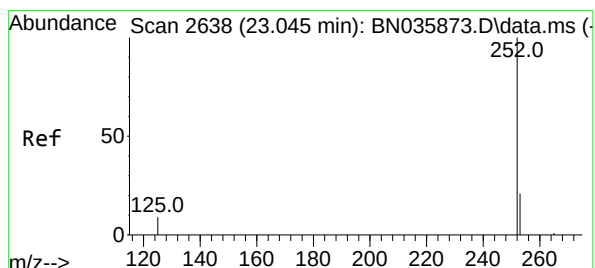
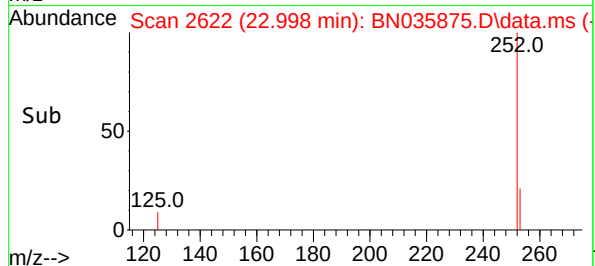
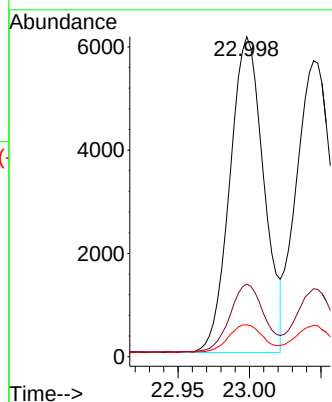
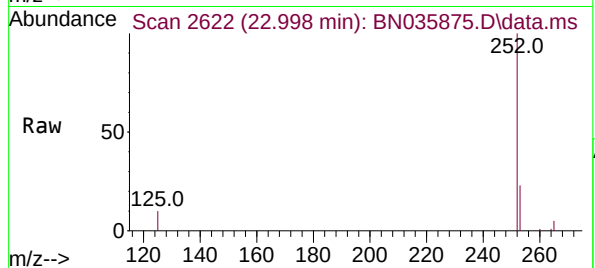
Tgt Ion:252 Resp: 10128

Ion Ratio Lower Upper

252 100

253 22.7 20.1 30.1

125 10.0 9.9 14.9



#38

Benzo(k)fluoranthene

Concen: 1.728 ng

RT: 23.045 min Scan# 2638

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

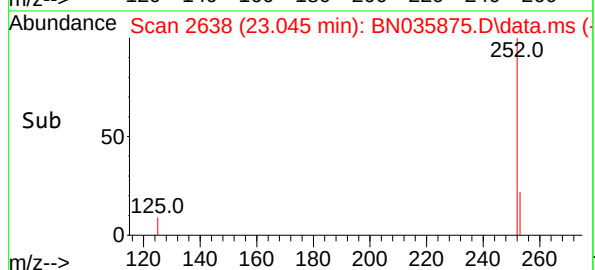
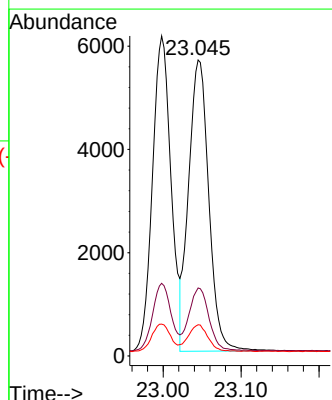
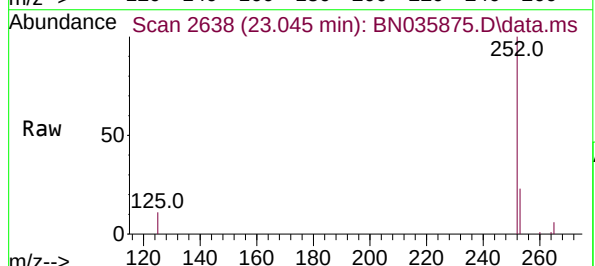
Tgt Ion:252 Resp: 10151

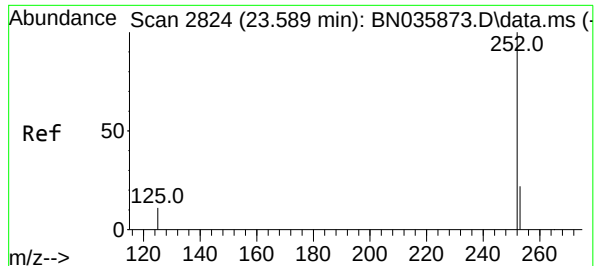
Ion Ratio Lower Upper

252 100

253 23.0 20.5 30.7

125 10.6 10.6 16.0#





#39

Benzo(a)pyrene

Concen: 1.709 ng

RT: 23.592 min Scan# 21

Delta R.T. 0.003 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6

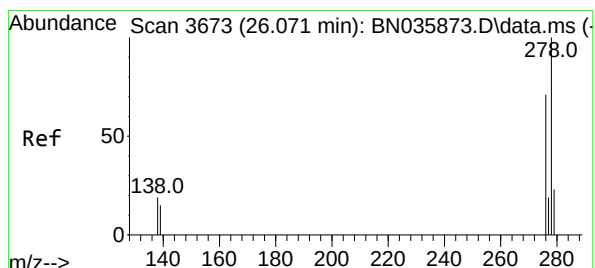
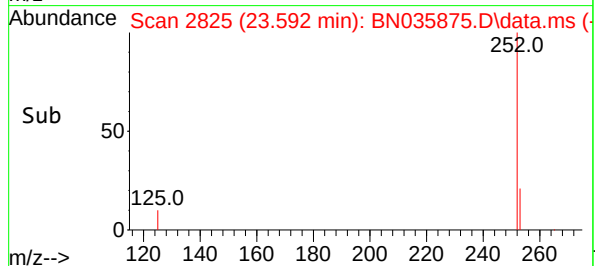
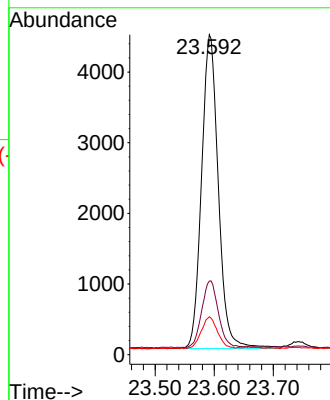
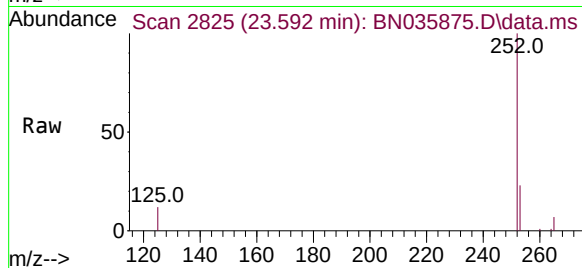
Tgt Ion:252 Resp: 8775

Ion Ratio Lower Upper

252 100

253 23.0 21.5 32.3

125 11.9 12.6 19.0#



#40

Dibenzo(a,h)anthracene

Concen: 1.738 ng

RT: 26.071 min Scan# 3673

Delta R.T. -0.000 min

Lab File: BN035875.D

Acq: 02 Jan 2025 13:52

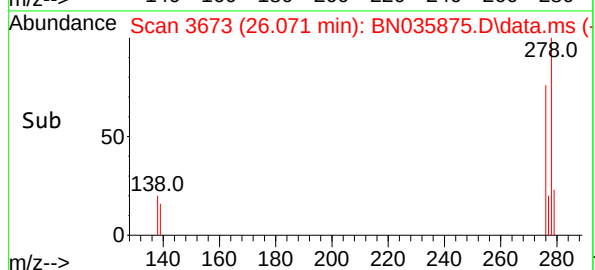
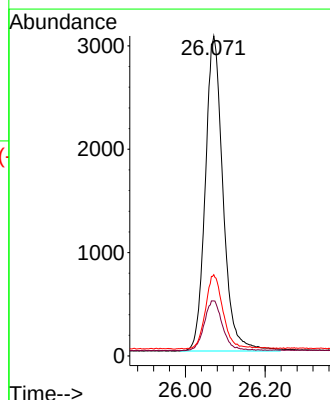
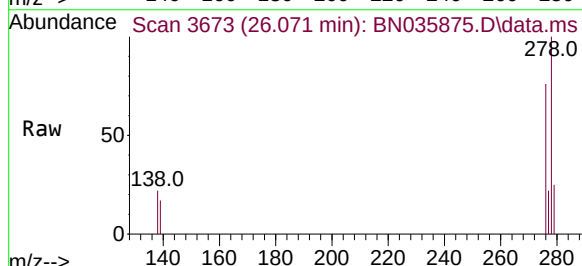
Tgt Ion:278 Resp: 9415

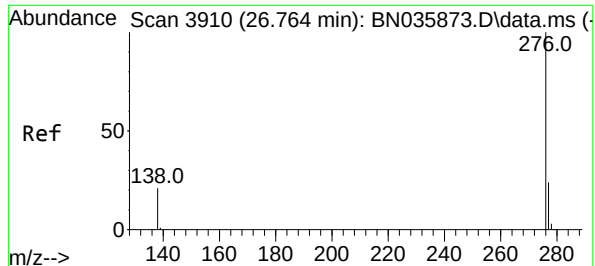
Ion Ratio Lower Upper

278 100

139 17.2 15.9 23.9

279 25.4 23.0 34.4





#41

Benzo(g,h,i)perylene

Concen: 1.699 ng

RT: 26.764 min Scan# 3910

Delta R.T. -0.000 min

Lab File: BN035875.D

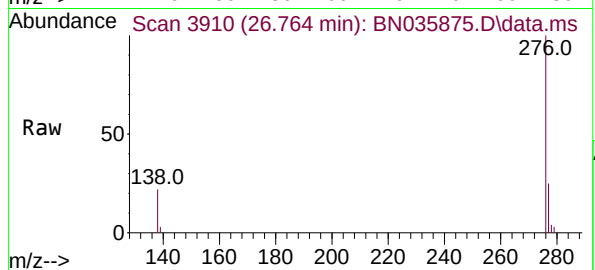
Acq: 02 Jan 2025 13:52

Instrument :

BNA\_N

ClientSampleId :

SSTDICC1.6



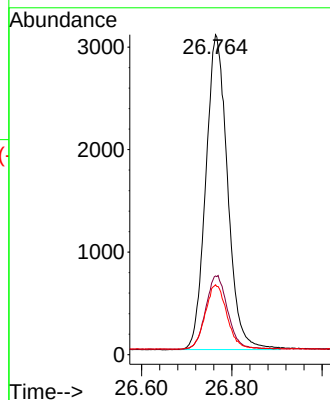
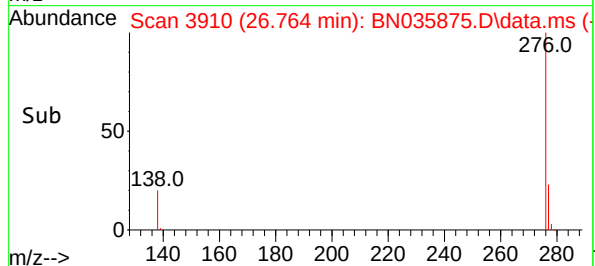
Tgt Ion:276 Resp: 10294

Ion Ratio Lower Upper

276 100

277 24.6 22.8 34.2

138 21.8 20.1 30.1



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
 Data File : BN035876.D  
 Acq On : 02 Jan 2025 14:28  
 Operator : RC/JU  
 Sample : SSTDICC3.2  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

Quant Time: Jan 02 15:51:07 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

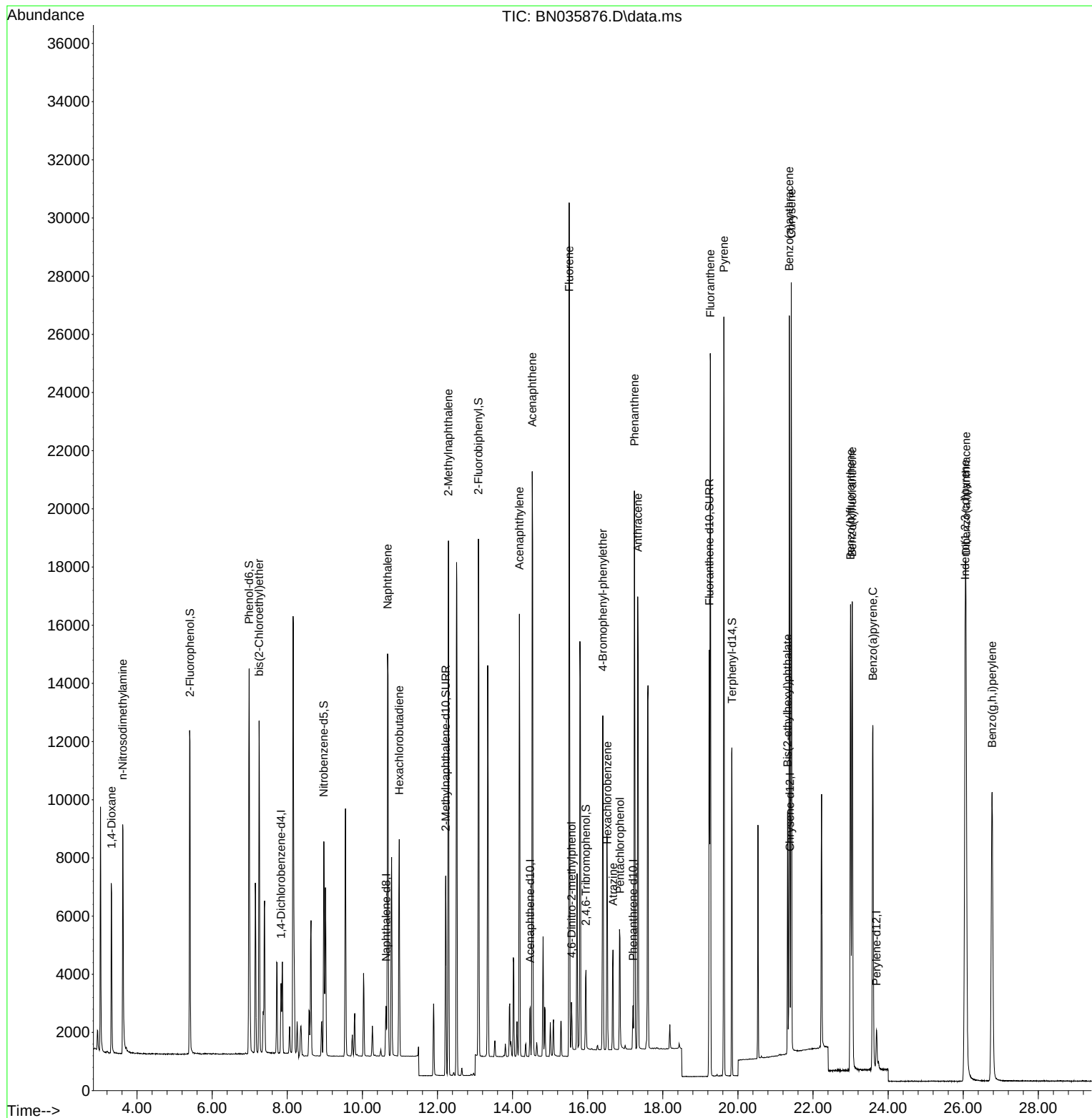
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.836  | 152  | 1084     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.629 | 136  | 2065     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.470 | 164  | 1017     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.208 | 188  | 1903     | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.386 | 240  | 1710     | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 23.691 | 264  | 1808     | 0.400 | ng    | # 0.00   |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.409  | 112  | 8292     | 3.118 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.983  | 99   | 10087    | 3.054 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.974  | 82   | 5234     | 3.201 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.220 | 152  | 8654     | 3.130 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.954 | 330  | 1714     | 3.510 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 13.091 | 172  | 14471    | 3.243 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.236 | 212  | 15378    | 3.255 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.840 | 244  | 10611    | 3.114 | ng    | 0.00     |
| Target Compounds              |        |      |          |       |       |          |
| 2) 1,4-Dioxane                | 3.322  | 88   | 3270     | 3.037 | ng    | 97       |
| 3) n-Nitrosodimethylamine     | 3.618  | 42   | 5985     | 3.186 | ng    | # 95     |
| 6) bis(2-Chloroethyl)ether    | 7.251  | 93   | 7684     | 3.054 | ng    | 100      |
| 9) Naphthalene                | 10.672 | 128  | 18395    | 3.173 | ng    | 95       |
| 10) Hexachlorobutadiene       | 10.981 | 225  | 5988     | 3.182 | ng    | # 99     |
| 12) 2-Methylnaphthalene       | 12.291 | 142  | 11578    | 3.228 | ng    | 99       |
| 16) Acenaphthylene            | 14.182 | 152  | 15847    | 3.309 | ng    | 100      |
| 17) Acenaphthene              | 14.524 | 154  | 10376    | 3.304 | ng    | 97       |
| 18) Fluorene                  | 15.507 | 166  | 11752    | 3.402 | ng    | 98       |
| 20) 4,6-Dinitro-2-methylph... | 15.569 | 198  | 1163     | 3.519 | ng    | # 74     |
| 21) 4-Bromophenyl-phenylether | 16.401 | 248  | 4303     | 3.298 | ng    | 91       |
| 22) Hexachlorobenzene         | 16.525 | 284  | 5671     | 3.188 | ng    | 99       |
| 23) Atrazine                  | 16.674 | 200  | 2888     | 3.299 | ng    | # 78     |
| 24) Pentachlorophenol         | 16.860 | 266  | 2256     | 3.582 | ng    | 99       |
| 25) Phenanthrene              | 17.245 | 178  | 18166    | 3.272 | ng    | 99       |
| 26) Anthracene                | 17.332 | 178  | 17227    | 3.409 | ng    | 98       |
| 28) Fluoranthene              | 19.268 | 202  | 22007    | 3.400 | ng    | 99       |
| 30) Pyrene                    | 19.626 | 202  | 22172    | 3.193 | ng    | 99       |
| 32) Benzo(a)anthracene        | 21.368 | 228  | 19527    | 3.240 | ng    | 98       |
| 33) Chrysene                  | 21.422 | 228  | 20218    | 3.207 | ng    | 98       |
| 34) Bis(2-ethylhexyl)phtha... | 21.324 | 149  | 7099     | 2.894 | ng    | # 98     |
| 36) Indeno(1,2,3-cd)pyrene    | 26.050 | 276  | 24767    | 3.474 | ng    | 99       |
| 37) Benzo(b)fluoranthene      | 22.998 | 252  | 20532    | 3.305 | ng    | # 93     |
| 38) Benzo(k)fluoranthene      | 23.045 | 252  | 20853    | 3.392 | ng    | # 92     |
| 39) Benzo(a)pyrene            | 23.591 | 252  | 17995    | 3.347 | ng    | # 90     |
| 40) Dibenzo(a,h)anthracene    | 26.073 | 278  | 19738    | 3.480 | ng    | 92       |
| 41) Benzo(g,h,i)perylene      | 26.766 | 276  | 21709    | 3.423 | ng    | 92       |

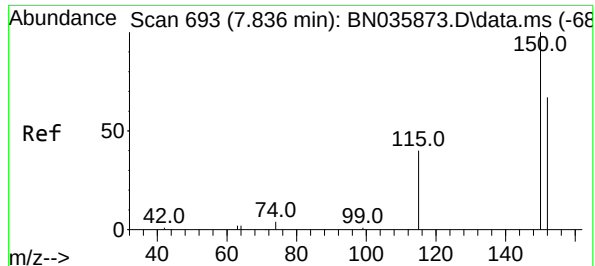
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
Data File : BN035876.D  
Acq On : 02 Jan 2025 14:28  
Operator : RC/JU  
Sample : SSTDICC3.2  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

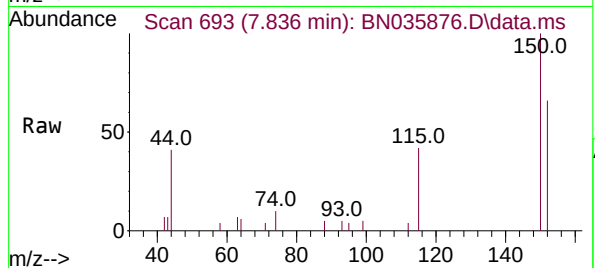
Quant Time: Jan 02 15:51:07 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration



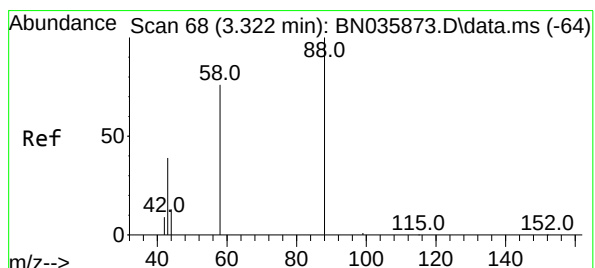
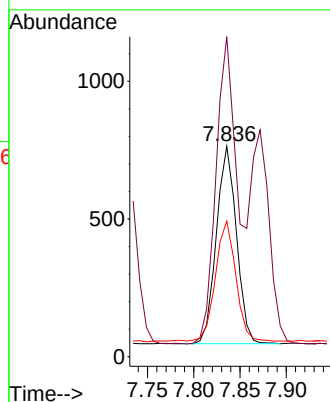
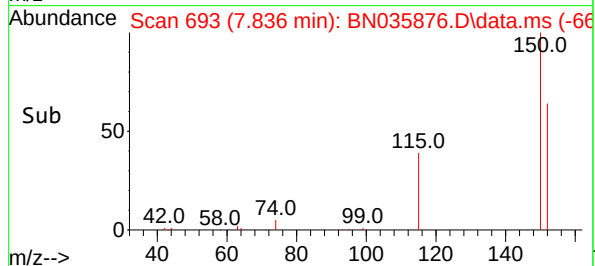


#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.836 min Scan# 69  
Delta R.T. -0.000 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

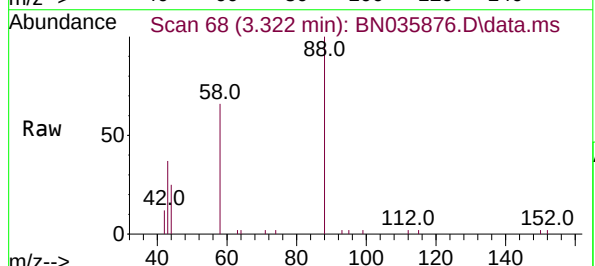
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2



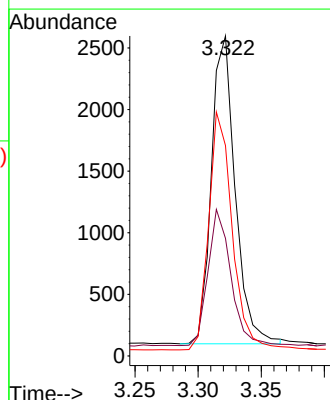
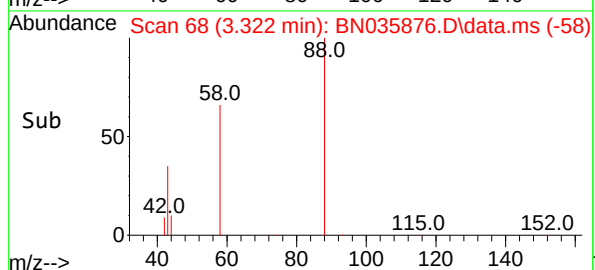
Tgt Ion: 152 Resp: 1084  
Ion Ratio Lower Upper  
152 100  
150 152.1 117.8 176.6  
115 64.4 51.0 76.4

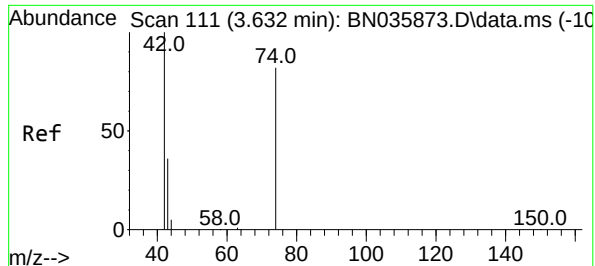


#2  
1,4-Dioxane  
Concen: 3.037 ng  
RT: 3.322 min Scan# 68  
Delta R.T. 0.000 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28



Tgt Ion: 88 Resp: 3270  
Ion Ratio Lower Upper  
88 100  
43 42.6 32.7 49.1  
58 76.5 63.0 94.4

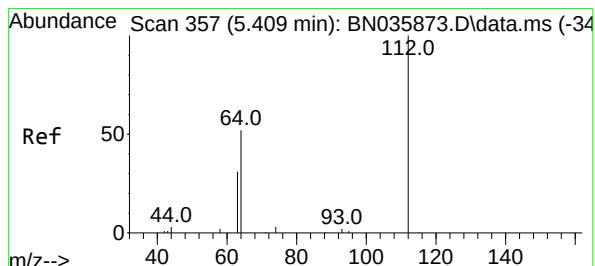
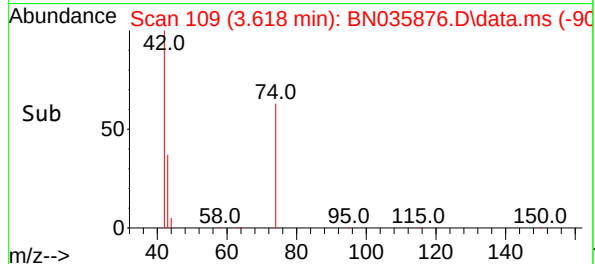
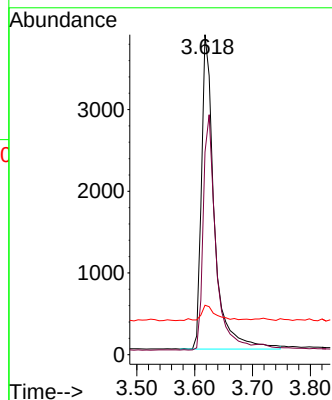
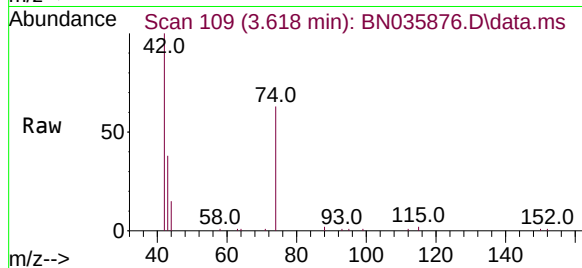




#3  
n-Nitrosodimethylamine  
Concen: 3.186 ng  
RT: 3.618 min Scan# 109  
Delta R.T. -0.014 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

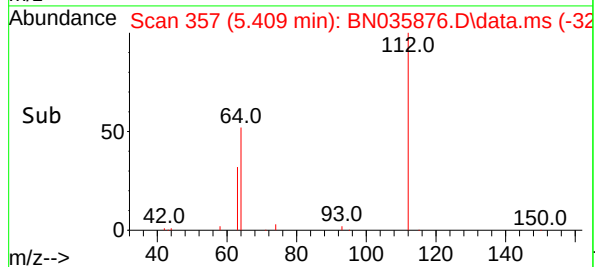
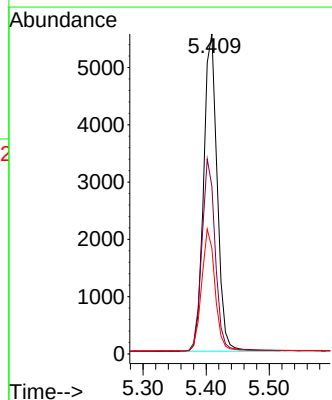
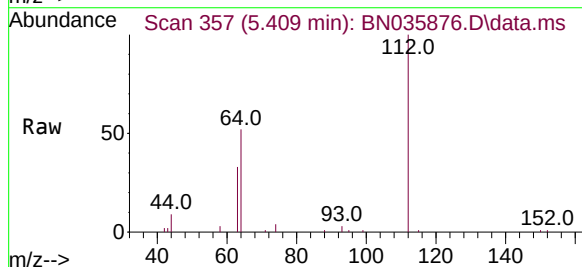
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

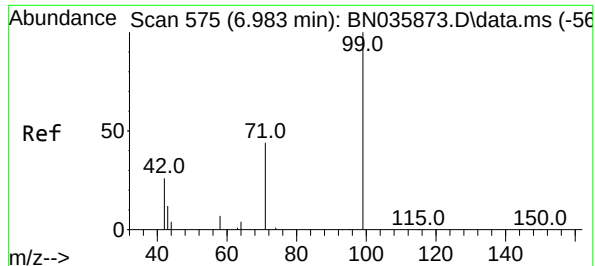
Tgt Ion: 42 Resp: 5985  
Ion Ratio Lower Upper  
42 100  
74 73.7 62.2 93.2  
44 5.7 7.1 10.7#



#4  
2-Fluorophenol  
Concen: 3.118 ng  
RT: 5.409 min Scan# 357  
Delta R.T. 0.000 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

Tgt Ion: 112 Resp: 8292  
Ion Ratio Lower Upper  
112 100  
64 60.1 48.2 72.2  
63 38.0 30.0 45.0

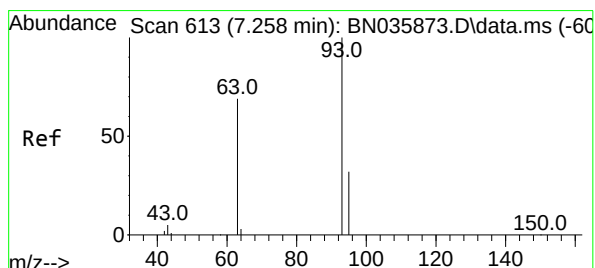
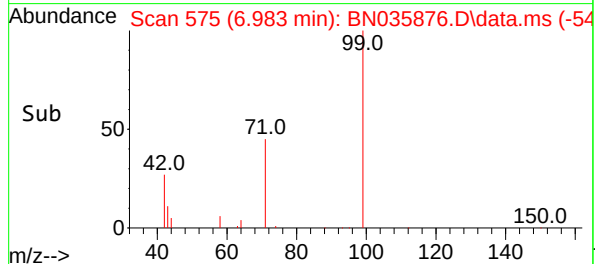
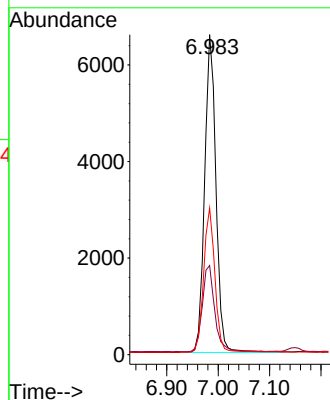
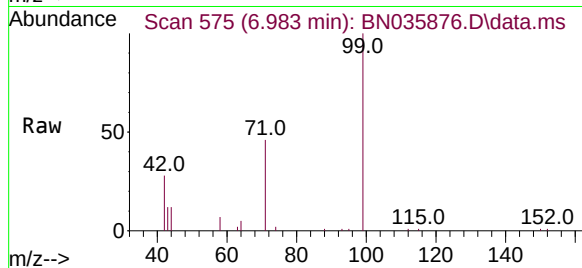




#5  
Phenol-d6  
Concen: 3.054 ng  
RT: 6.983 min Scan# 575  
Delta R.T. 0.000 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

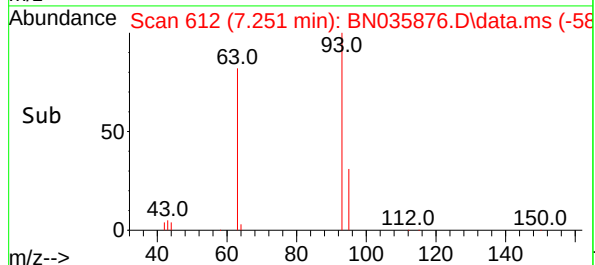
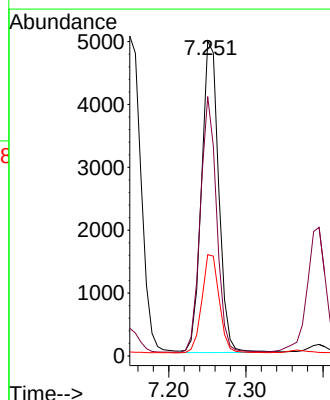
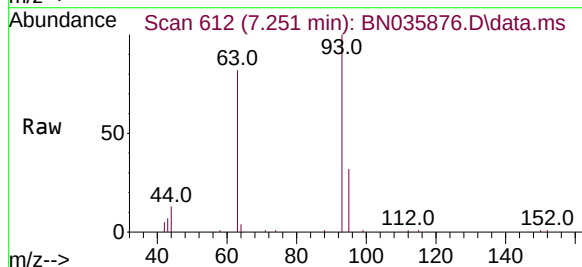
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

Tgt Ion: 99 Resp: 10087  
Ion Ratio Lower Upper  
99 100  
42 30.1 23.5 35.3  
71 45.6 35.5 53.3

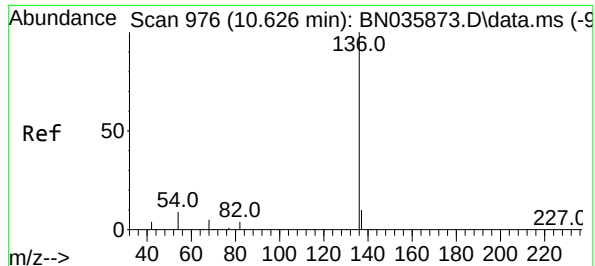


#6  
bis(2-Chloroethyl)ether  
Concen: 3.054 ng  
RT: 7.251 min Scan# 612  
Delta R.T. -0.007 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

Tgt Ion: 93 Resp: 7684  
Ion Ratio Lower Upper  
93 100  
63 77.6 62.0 93.0  
95 31.9 25.5 38.3



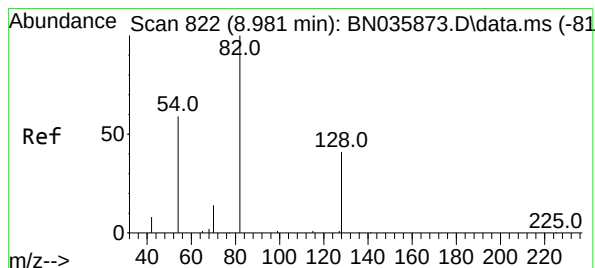
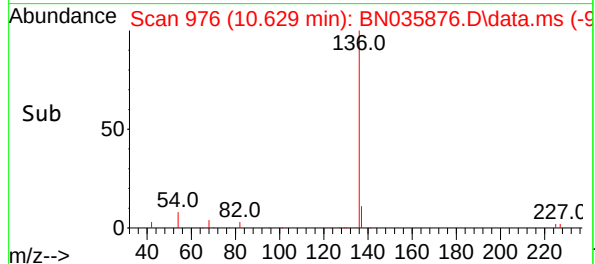
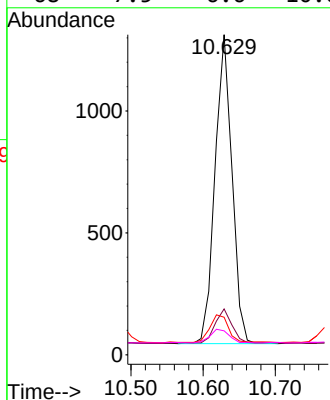
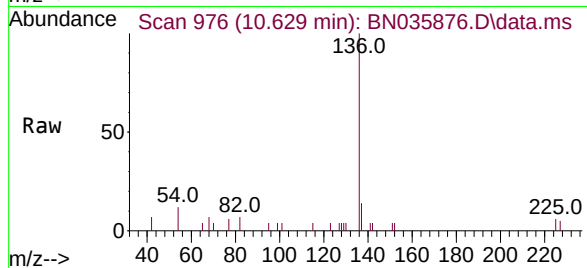




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.629 min Scan# 91  
Delta R.T. 0.003 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

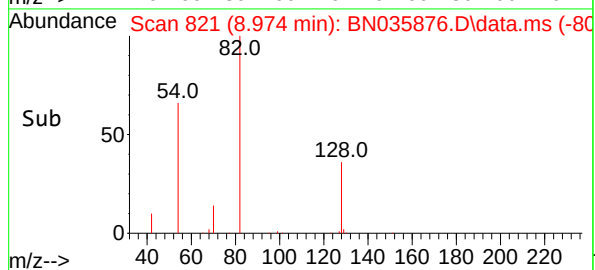
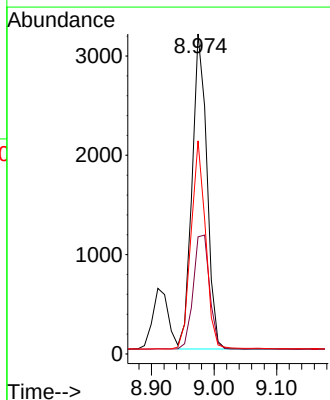
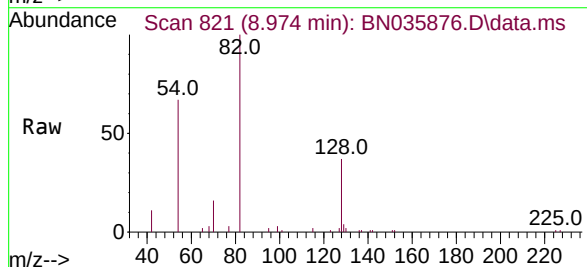
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

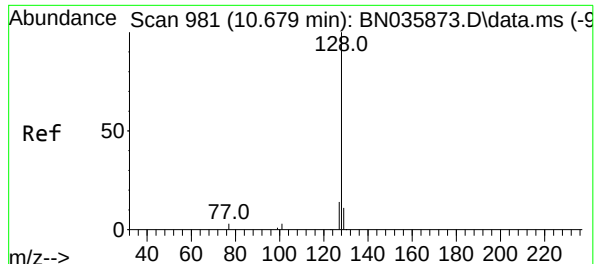
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 2065  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 14.3  | 10.6  | 15.8  |
| 54       | 11.7  | 9.8   | 14.6  |
| 68       | 7.5   | 6.6   | 10.0  |



#8  
Nitrobenzene-d5  
Concen: 3.201 ng  
RT: 8.974 min Scan# 821  
Delta R.T. -0.007 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 5234  |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 36.6  | 36.9  | 55.3# |
| 54       | 66.6  | 50.4  | 75.6  |

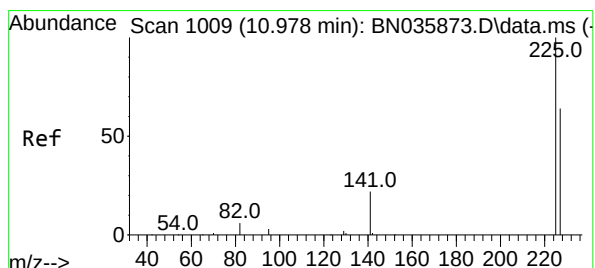
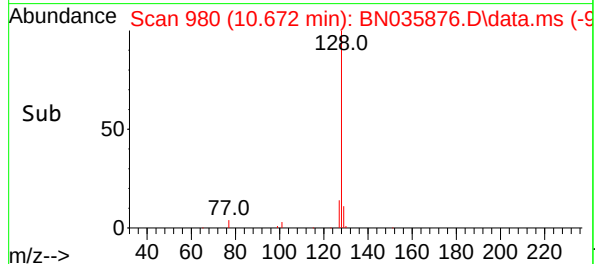
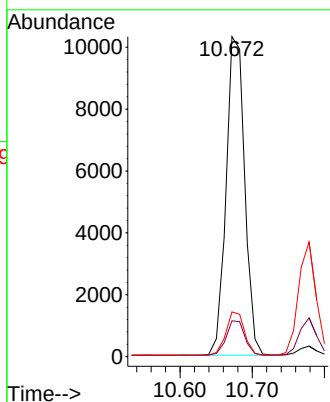
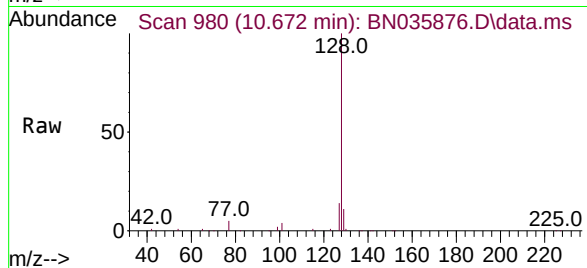




#9  
Naphthalene  
Concen: 3.173 ng  
RT: 10.672 min Scan# 981  
Delta R.T. -0.007 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

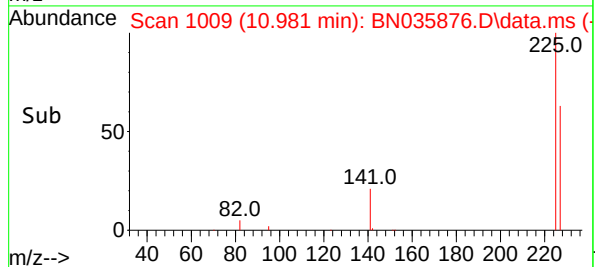
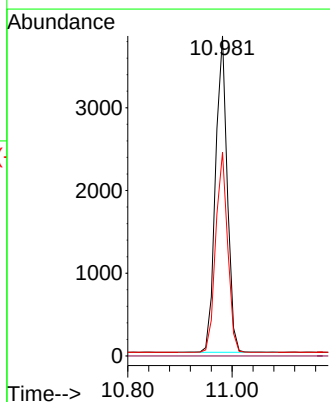
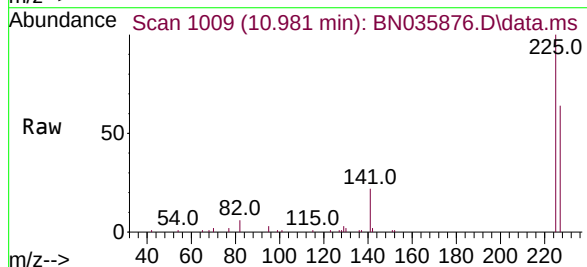
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

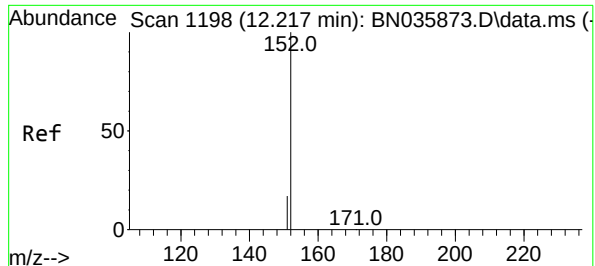
Tgt Ion:128 Resp: 18395  
Ion Ratio Lower Upper  
128 100  
129 11.2 10.6 16.0  
127 14.0 12.8 19.2



#10  
Hexachlorobutadiene  
Concen: 3.182 ng  
RT: 10.981 min Scan# 1009  
Delta R.T. 0.003 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

Tgt Ion:225 Resp: 5988  
Ion Ratio Lower Upper  
225 100  
223 0.0 0.0 0.0  
227 64.0 51.5 77.3

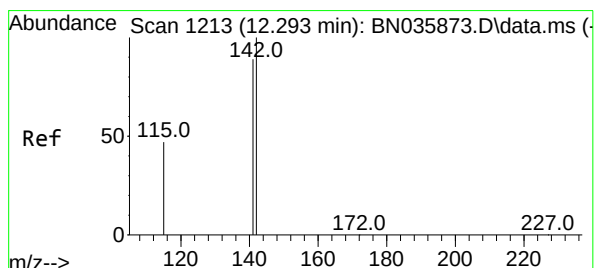
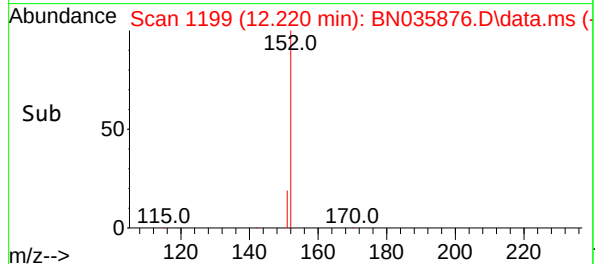
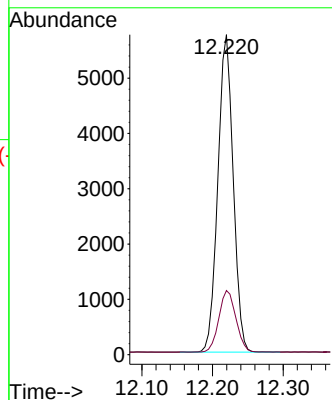
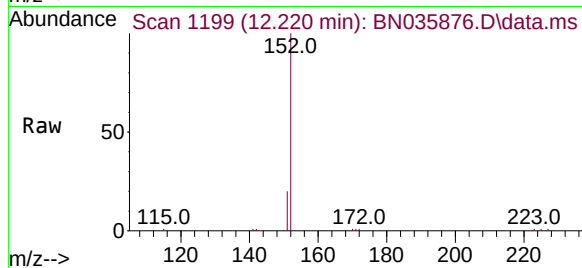




#11  
2-Methylnaphthalene-d10  
Concen: 3.130 ng  
RT: 12.220 min Scan# 1198  
Delta R.T. 0.003 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

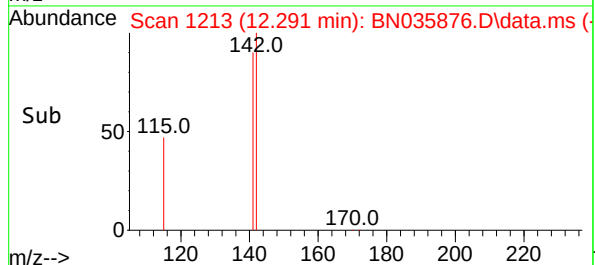
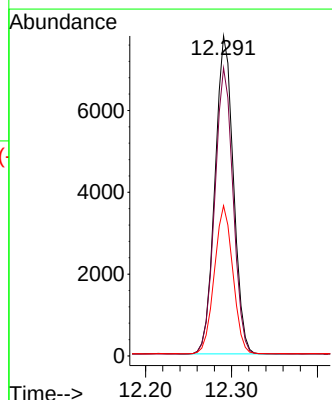
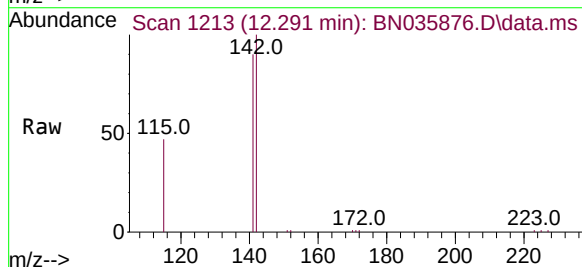
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

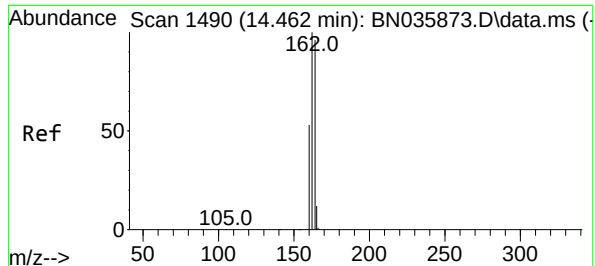
Tgt Ion:152 Resp: 8654  
Ion Ratio Lower Upper  
152 100  
151 21.5 17.0 25.6



#12  
2-Methylnaphthalene  
Concen: 3.228 ng  
RT: 12.291 min Scan# 1213  
Delta R.T. -0.002 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

Tgt Ion:142 Resp: 11578  
Ion Ratio Lower Upper  
142 100  
141 90.0 71.9 107.9  
115 47.0 39.6 59.4

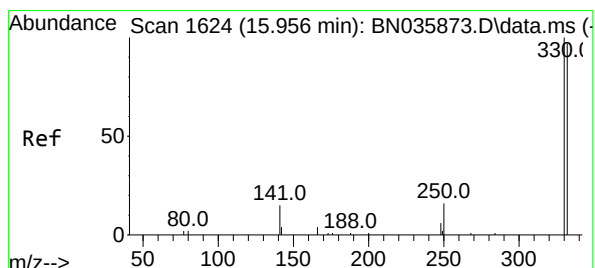
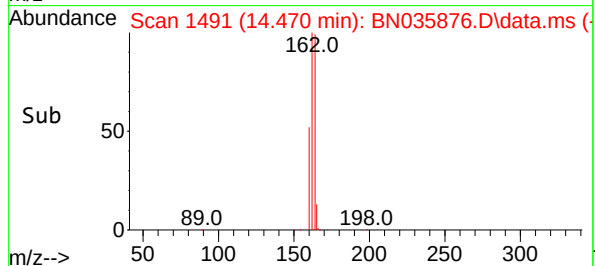
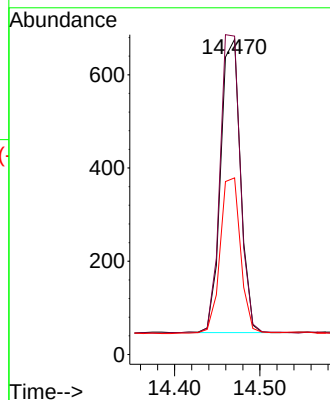
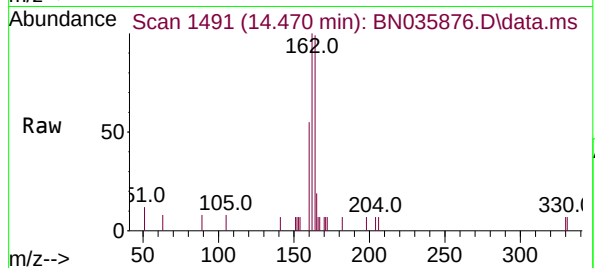




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.470 min Scan# 1490  
Delta R.T. 0.009 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

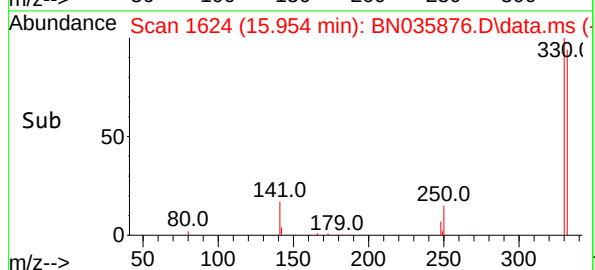
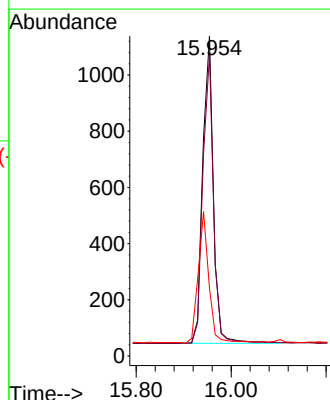
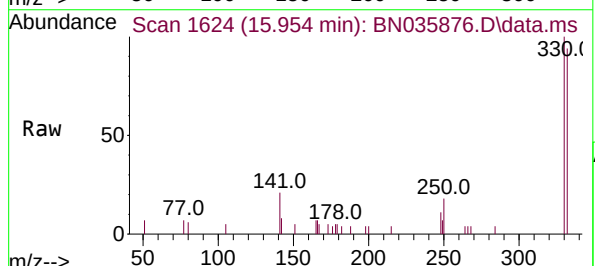
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

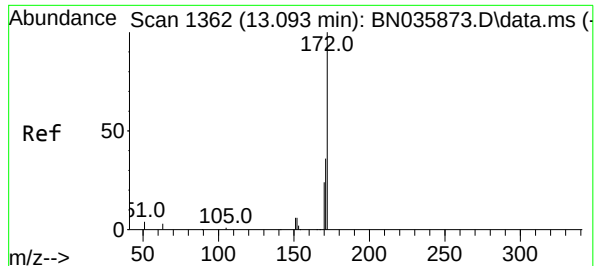
Tgt Ion:164 Resp: 1017  
Ion Ratio Lower Upper  
164 100  
162 101.0 83.1 124.7  
160 56.1 46.0 69.0



#14  
2,4,6-Tribromophenol  
Concen: 3.510 ng  
RT: 15.954 min Scan# 1624  
Delta R.T. -0.002 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

Tgt Ion:330 Resp: 1714  
Ion Ratio Lower Upper  
330 100  
332 93.9 77.2 115.8  
141 41.7 31.6 47.4





#15

2-Fluorobiphenyl

Concen: 3.243 ng

RT: 13.091 min Scan# 11

Delta R.T. -0.002 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2

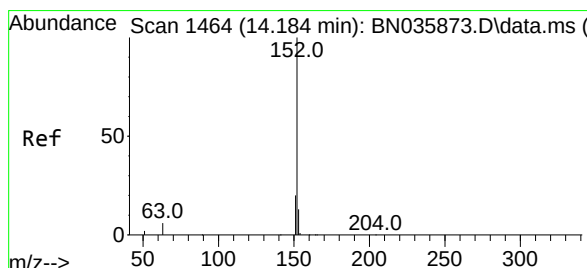
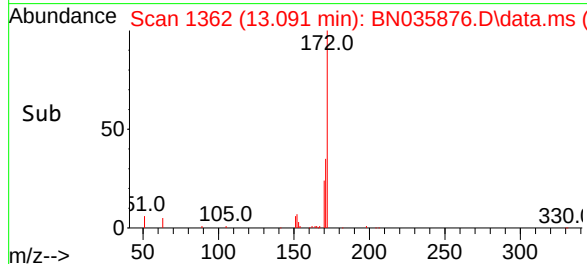
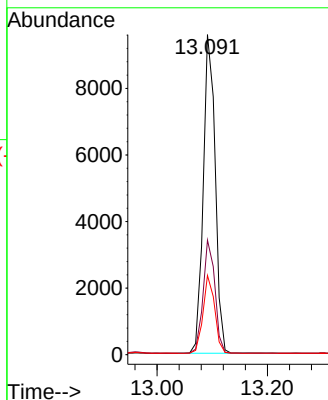
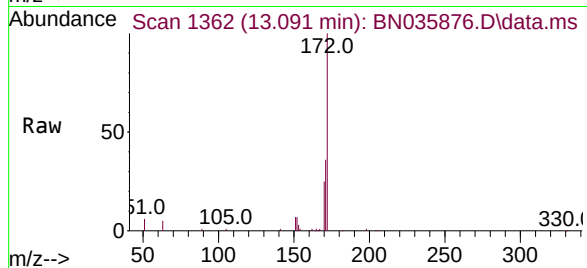
Tgt Ion:172 Resp: 14471

Ion Ratio Lower Upper

172 100

171 35.8 30.5 45.7

170 24.7 20.8 31.2



#16

Acenaphthylene

Concen: 3.309 ng

RT: 14.182 min Scan# 1464

Delta R.T. -0.002 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

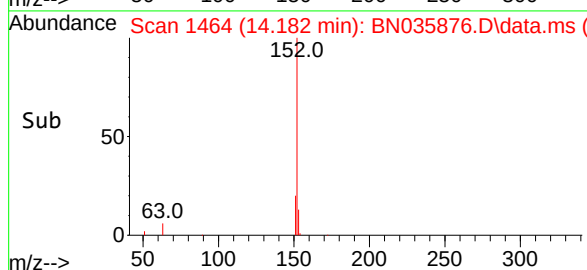
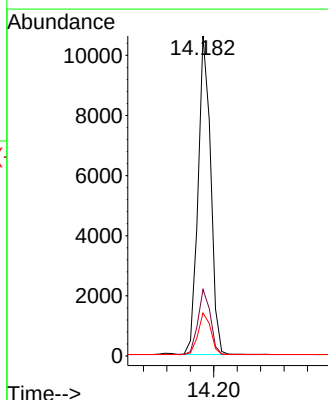
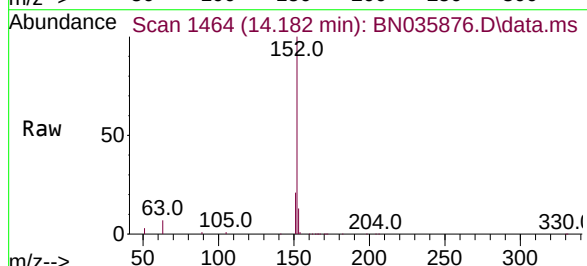
Tgt Ion:152 Resp: 15847

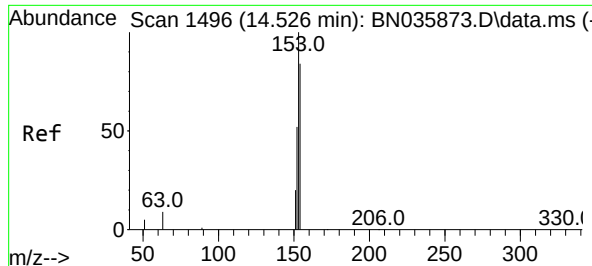
Ion Ratio Lower Upper

152 100

151 20.3 16.3 24.5

153 13.1 10.6 15.8

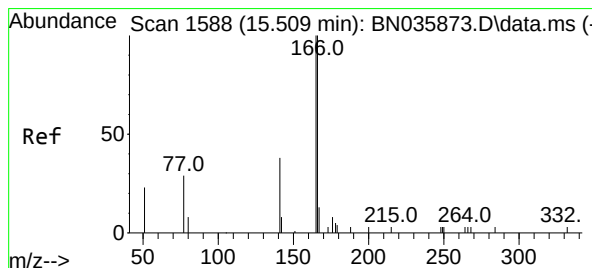
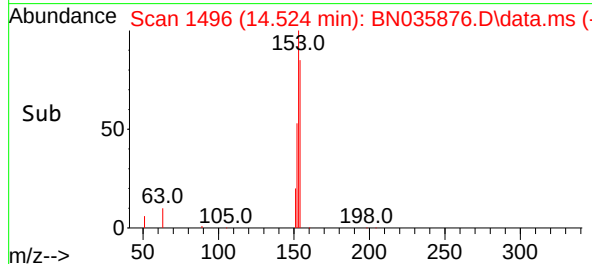
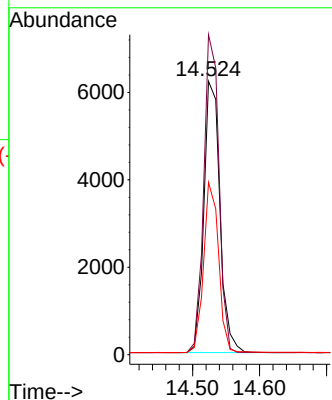
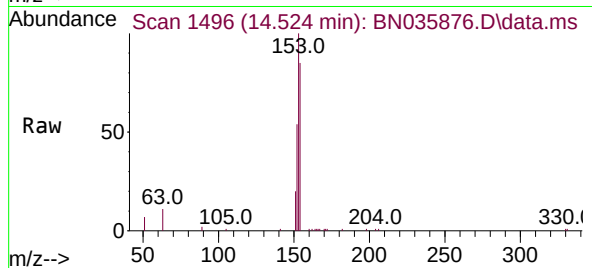




#17  
Acenaphthene  
Concen: 3.304 ng  
RT: 14.524 min Scan# 1496  
Delta R.T. -0.002 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

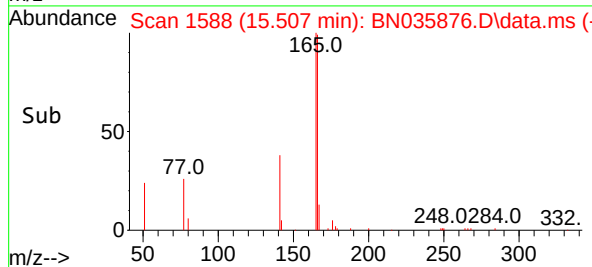
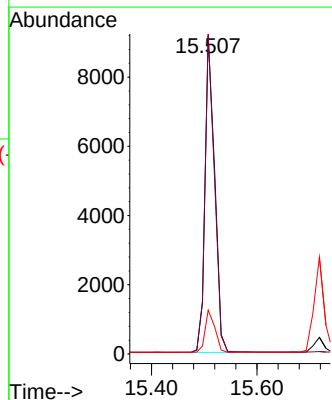
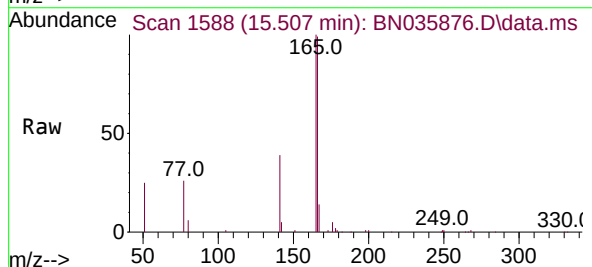
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

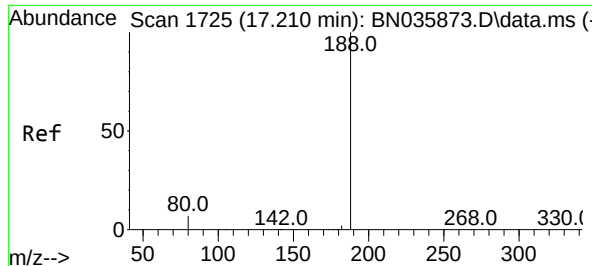
Tgt Ion:154 Resp: 10376  
Ion Ratio Lower Upper  
154 100  
153 110.5 90.5 135.7  
152 58.7 48.6 73.0



#18  
Fluorene  
Concen: 3.402 ng  
RT: 15.507 min Scan# 1588  
Delta R.T. -0.002 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

Tgt Ion:166 Resp: 11752  
Ion Ratio Lower Upper  
166 100  
165 99.1 80.6 120.8  
167 12.9 11.4 17.0





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 17.208 min Scan# 11

Delta R.T. -0.002 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2

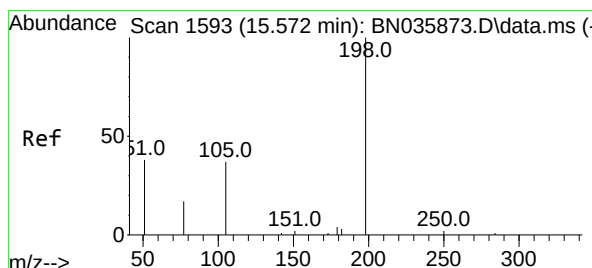
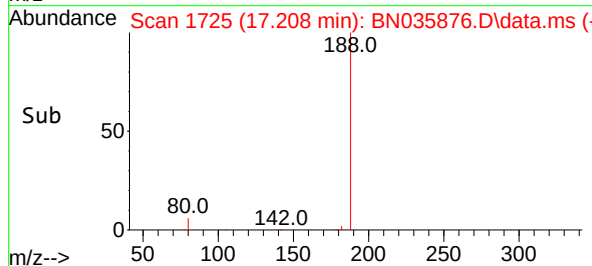
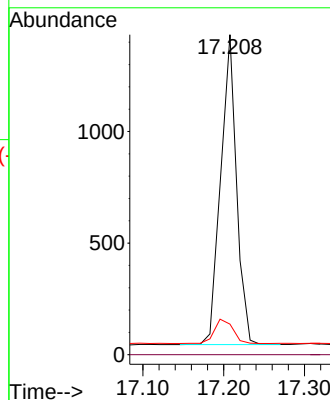
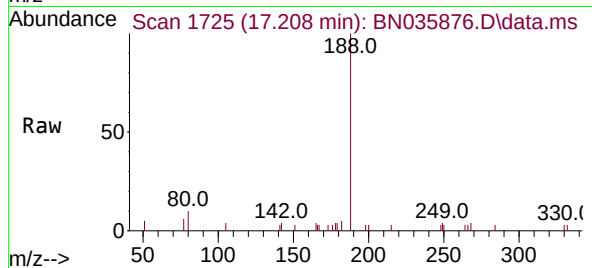
Tgt Ion:188 Resp: 1903

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 9.6 7.3 10.9



#20

4,6-Dinitro-2-methylphenol

Concen: 3.519 ng

RT: 15.569 min Scan# 1593

Delta R.T. -0.002 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

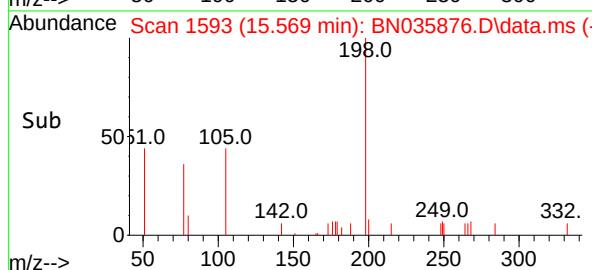
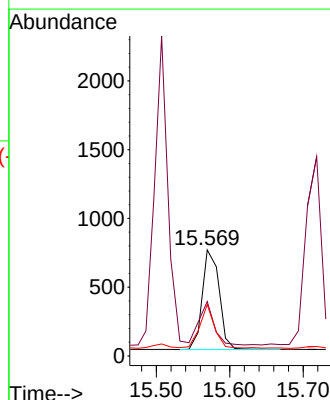
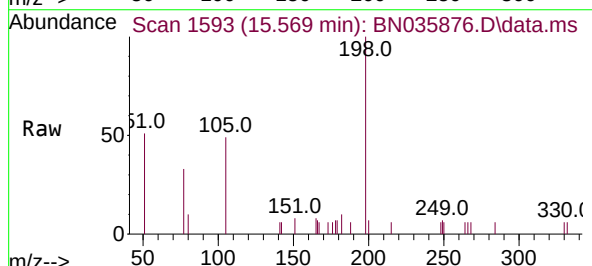
Tgt Ion:198 Resp: 1163

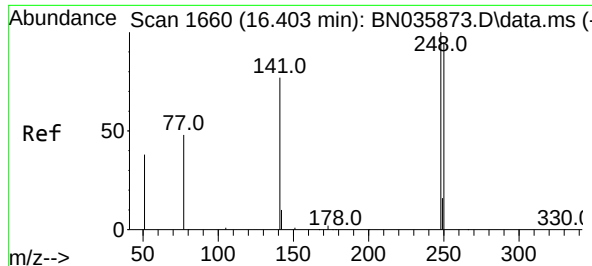
Ion Ratio Lower Upper

198 100

51 51.4 64.3 96.5#

105 48.6 50.0 75.0#

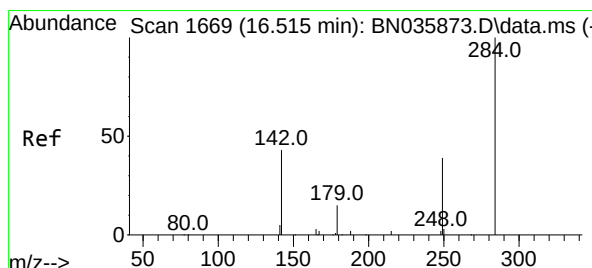
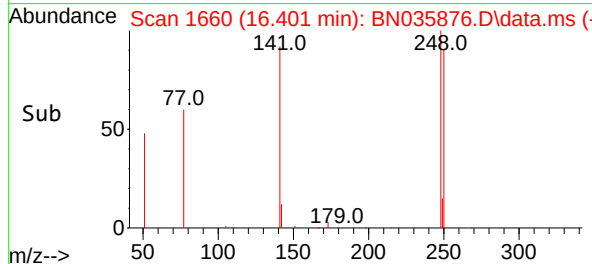
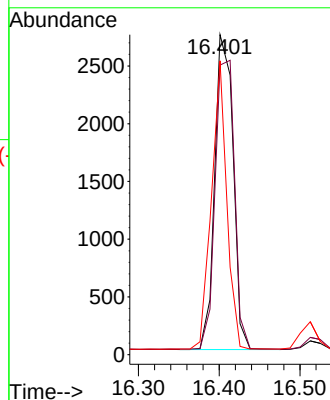
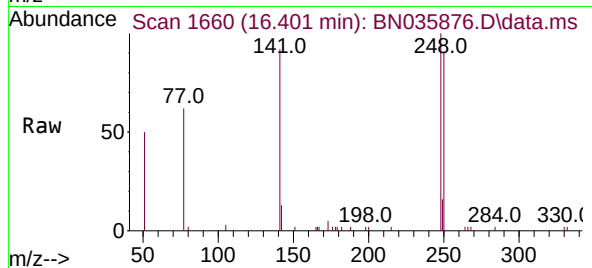




#21  
4-Bromophenyl-phenylether  
Concen: 3.298 ng  
RT: 16.401 min Scan# 1670  
Delta R.T. -0.002 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

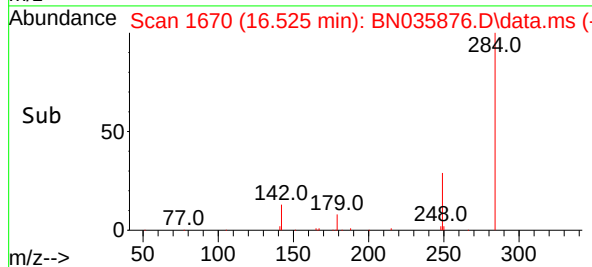
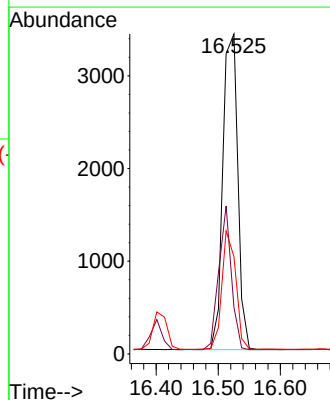
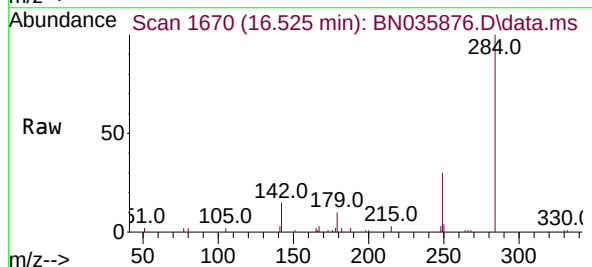
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 248     | 100   |       |       |
| 250     | 90.5  | 76.8  | 115.2 |
| 141     | 91.8  | 63.6  | 95.4  |

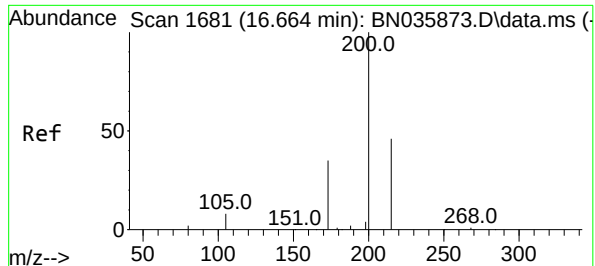


#22  
Hexachlorobenzene  
Concen: 3.188 ng  
RT: 16.525 min Scan# 1670  
Delta R.T. 0.010 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 284     | 100   |       |       |
| 142     | 38.4  | 31.4  | 47.0  |
| 249     | 34.7  | 27.8  | 41.8  |



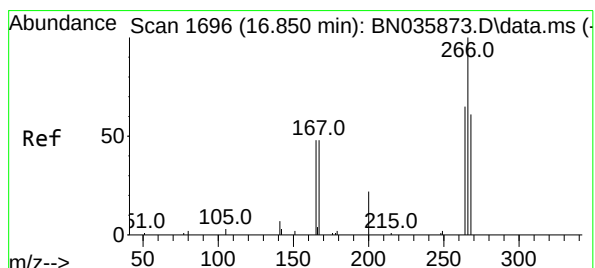
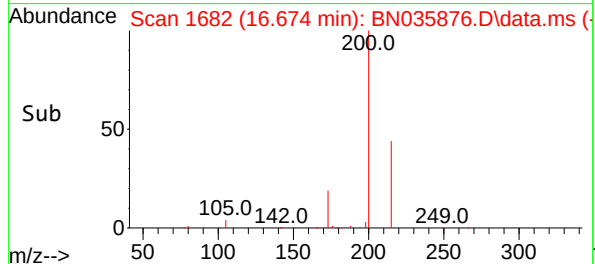
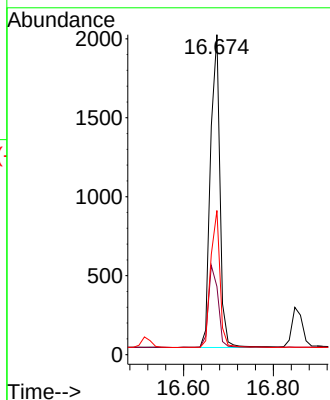
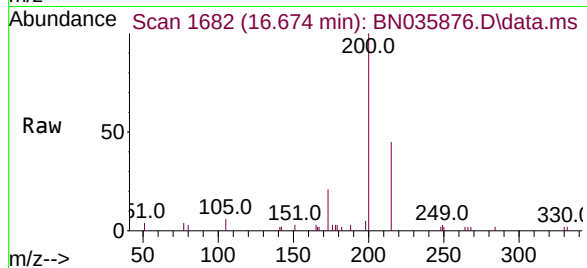




#23  
Atrazine  
Concen: 3.299 ng  
RT: 16.674 min Scan# 1682  
Delta R.T. 0.010 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

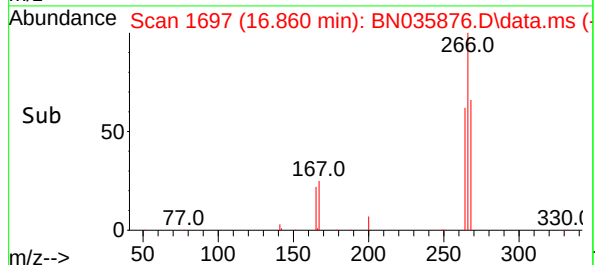
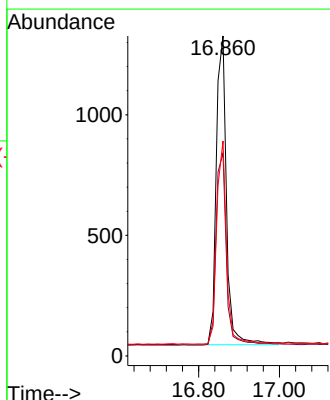
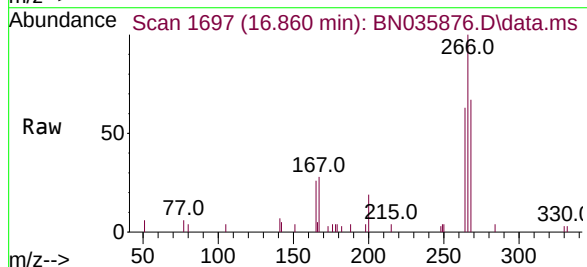
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

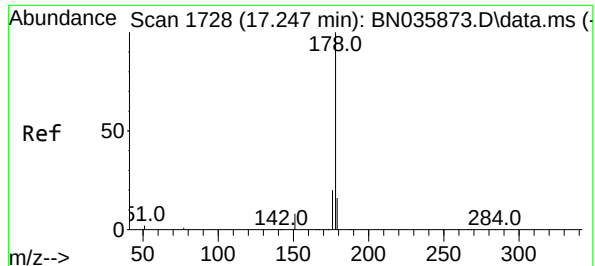
Tgt Ion:200 Resp: 2888  
Ion Ratio Lower Upper  
200 100  
173 21.3 35.4 53.0#  
215 45.1 42.4 63.6



#24  
Pentachlorophenol  
Concen: 3.582 ng  
RT: 16.860 min Scan# 1697  
Delta R.T. 0.010 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

Tgt Ion:266 Resp: 2256  
Ion Ratio Lower Upper  
266 100  
264 62.5 49.9 74.9  
268 63.4 50.2 75.2

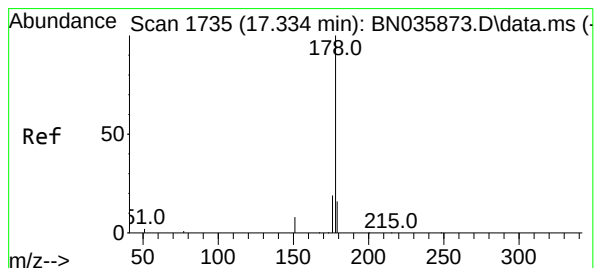
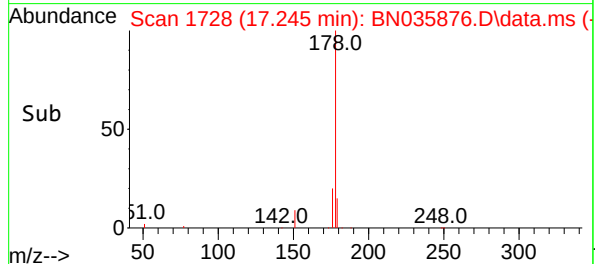
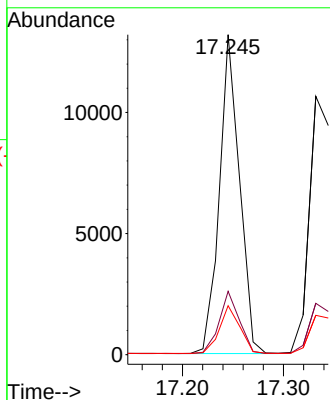
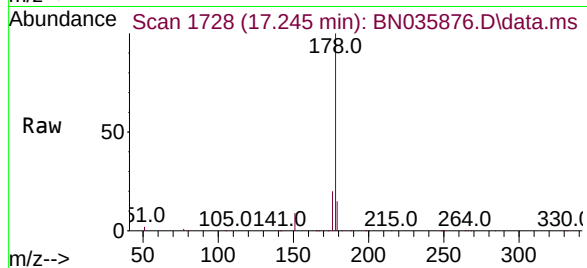




#25  
Phenanthrene  
Concen: 3.272 ng  
RT: 17.245 min Scan# 1728  
Delta R.T. -0.002 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

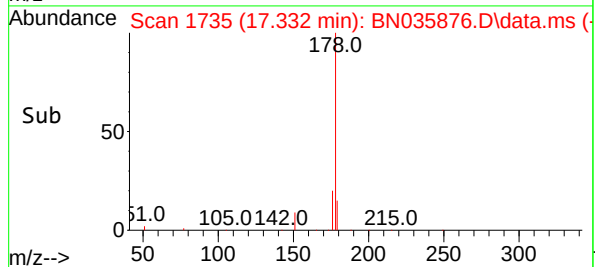
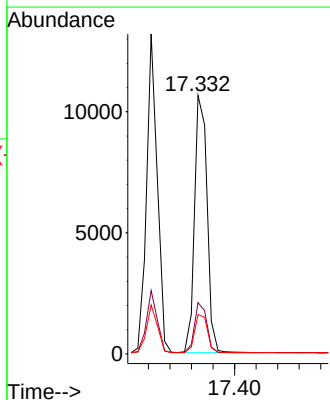
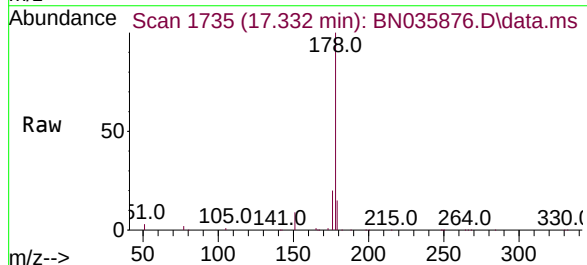
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

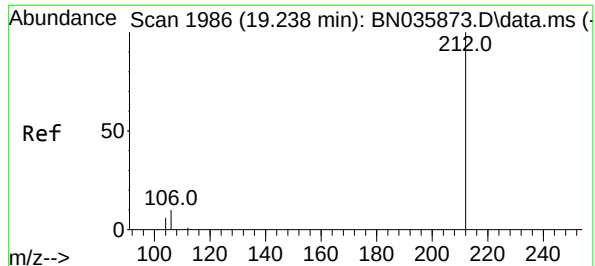
Tgt Ion:178 Resp: 18166  
Ion Ratio Lower Upper  
178 100  
176 19.6 15.9 23.9  
179 15.3 12.9 19.3



#26  
Anthracene  
Concen: 3.409 ng  
RT: 17.332 min Scan# 1735  
Delta R.T. -0.002 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

Tgt Ion:178 Resp: 17227  
Ion Ratio Lower Upper  
178 100  
176 19.0 15.0 22.6  
179 15.2 13.0 19.6





#27

Fluoranthene-d10

Concen: 3.255 ng

RT: 19.236 min Scan# 1986

Delta R.T. -0.002 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2

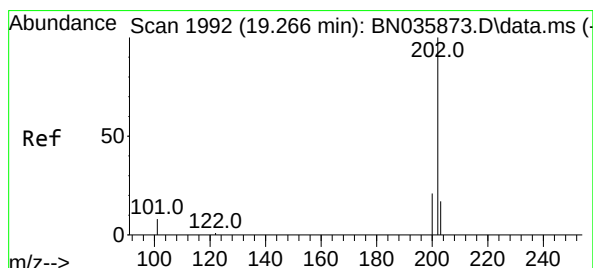
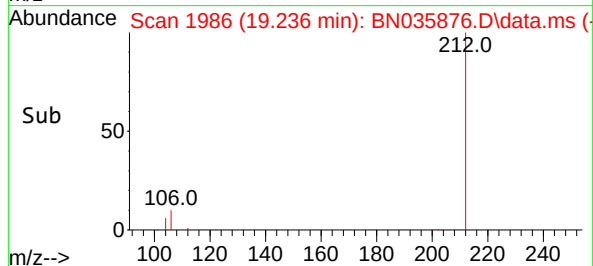
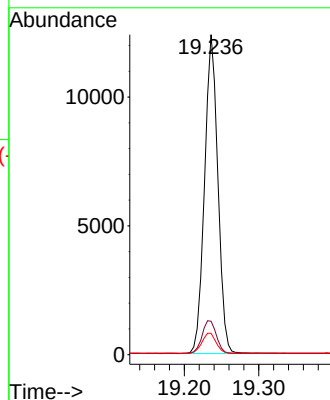
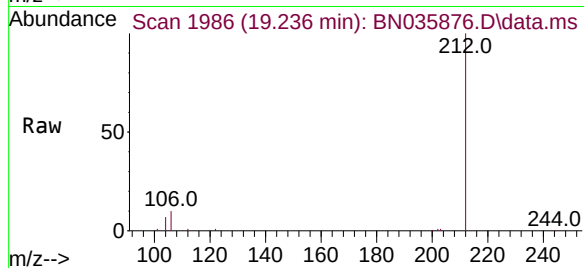
Tgt Ion:212 Resp: 15378

Ion Ratio Lower Upper

212 100

106 11.0 9.0 13.6

104 6.7 5.4 8.2



#28

Fluoranthene

Concen: 3.400 ng

RT: 19.268 min Scan# 1993

Delta R.T. 0.003 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

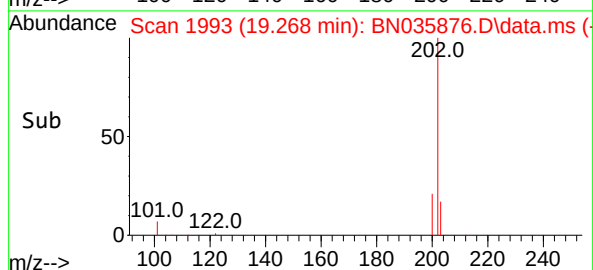
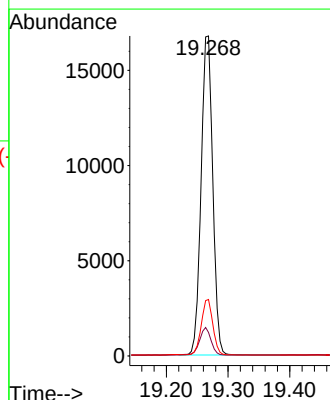
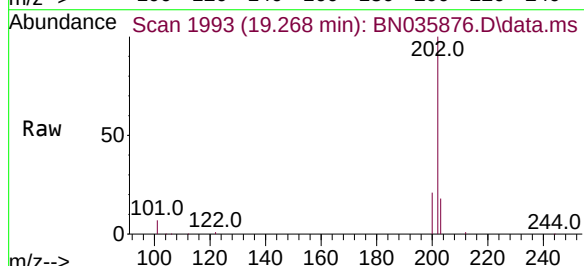
Tgt Ion:202 Resp: 22007

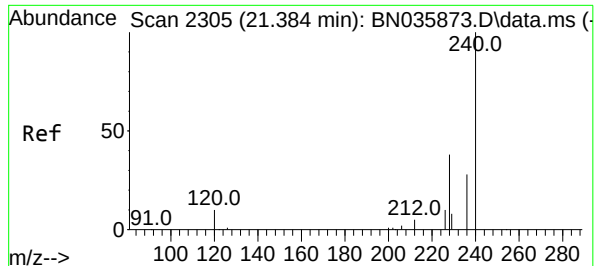
Ion Ratio Lower Upper

202 100

101 8.5 7.2 10.8

203 17.3 13.9 20.9





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.386 min Scan# 21

Delta R.T. 0.003 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2

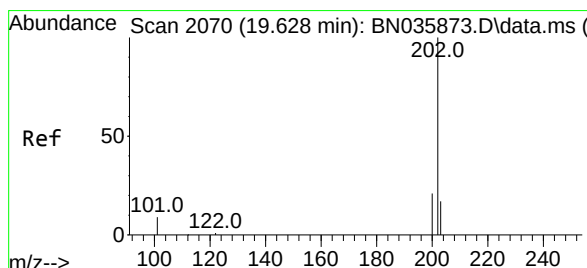
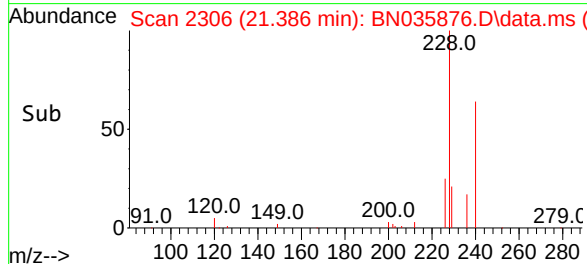
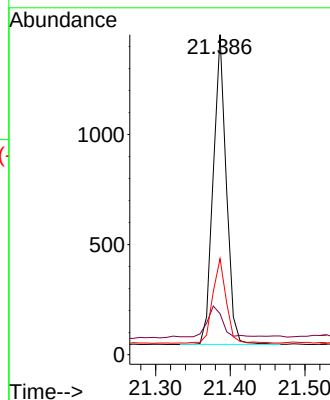
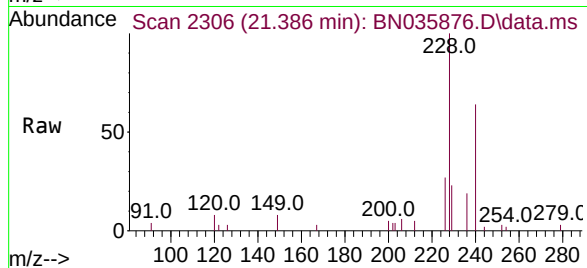
Tgt Ion:240 Resp: 1710

Ion Ratio Lower Upper

240 100

120 12.8 11.1 16.7

236 30.0 24.6 36.8



#30

Pyrene

Concen: 3.193 ng

RT: 19.626 min Scan# 2070

Delta R.T. -0.002 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

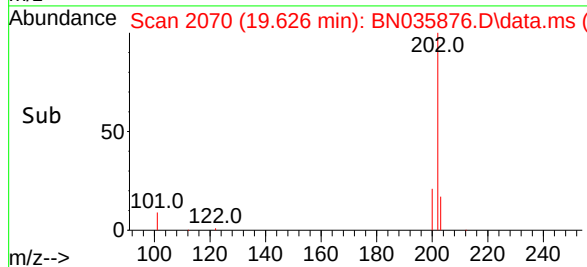
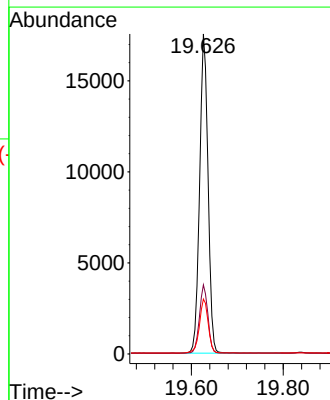
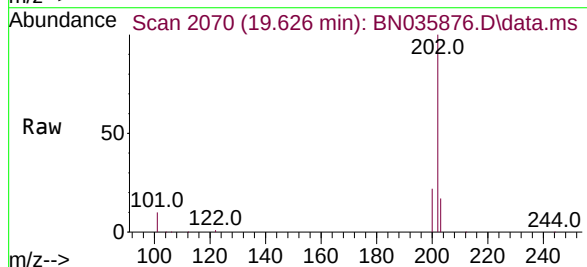
Tgt Ion:202 Resp: 22172

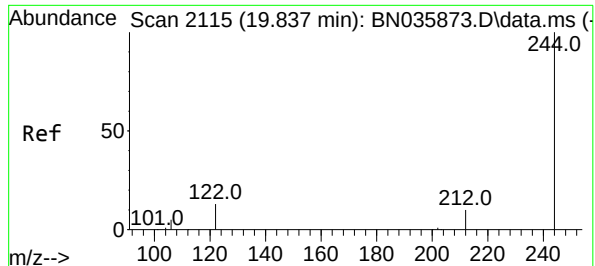
Ion Ratio Lower Upper

202 100

200 21.4 17.0 25.6

203 17.6 14.6 22.0

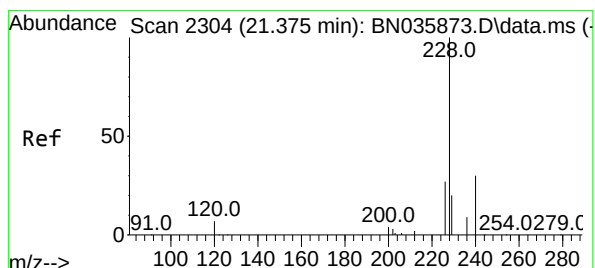
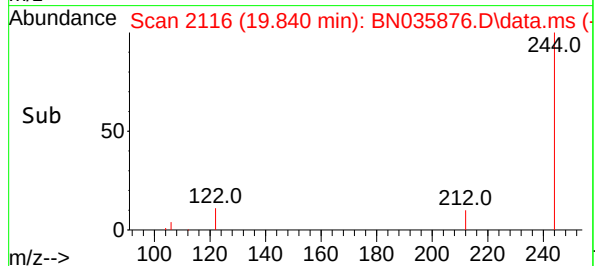
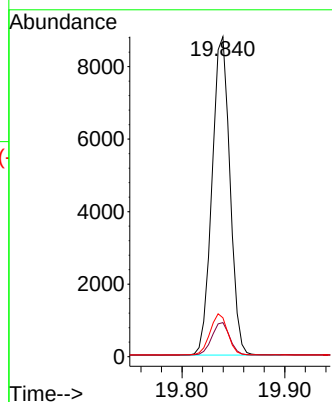
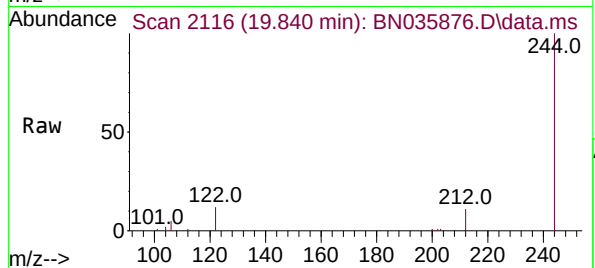




#31  
Terphenyl-d14  
Concen: 3.114 ng  
RT: 19.840 min Scan# 2115  
Delta R.T. 0.003 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

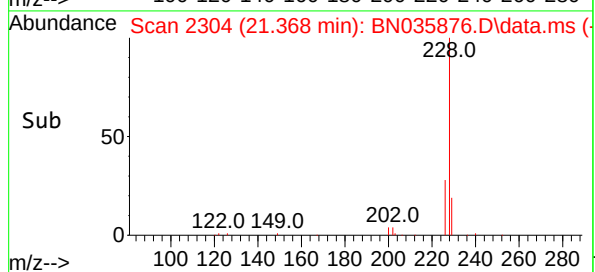
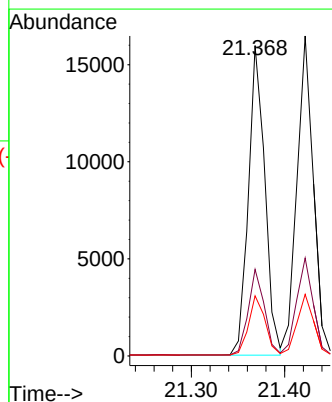
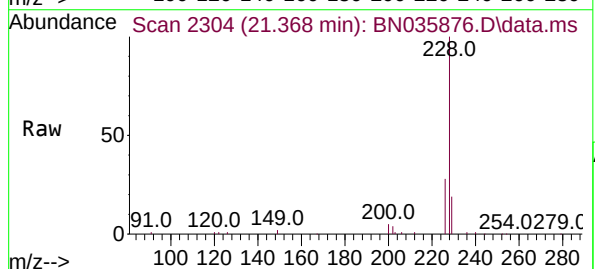
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

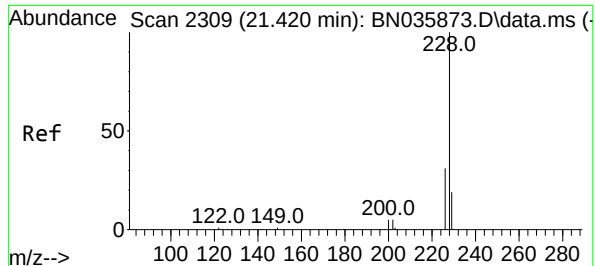
Tgt Ion:244 Resp: 10611  
Ion Ratio Lower Upper  
244 100  
212 10.7 10.1 15.1  
122 12.1 12.2 18.4#



#32  
Benzo(a)anthracene  
Concen: 3.240 ng  
RT: 21.368 min Scan# 2304  
Delta R.T. -0.006 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

Tgt Ion:228 Resp: 19527  
Ion Ratio Lower Upper  
228 100  
226 27.9 22.7 34.1  
229 19.4 17.1 25.7

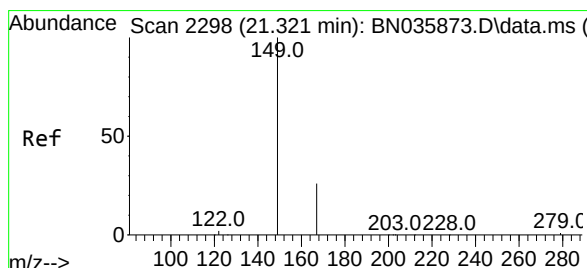
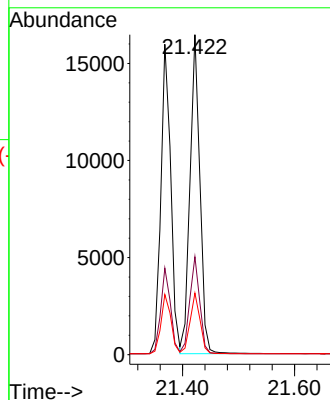
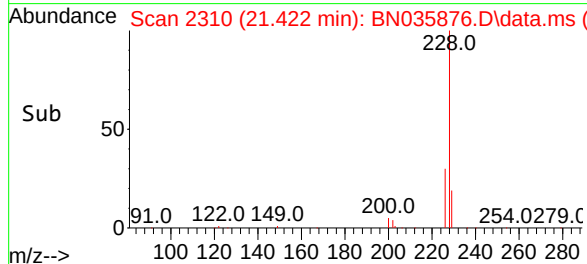
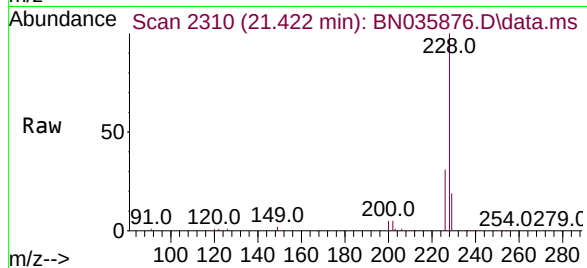




#33  
Chrysene  
Concen: 3.207 ng  
RT: 21.422 min Scan# 211  
Delta R.T. 0.003 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

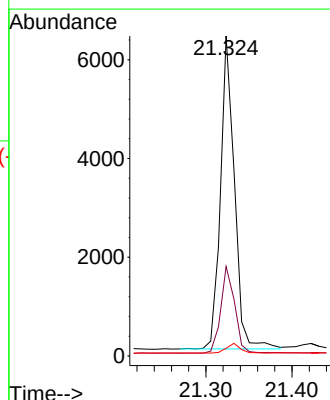
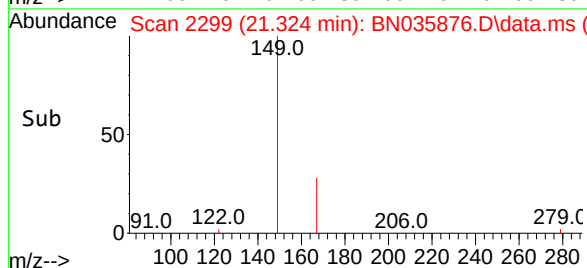
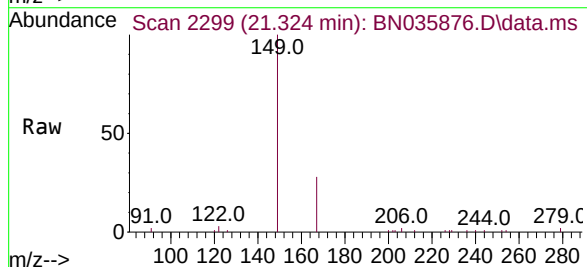
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC3.2

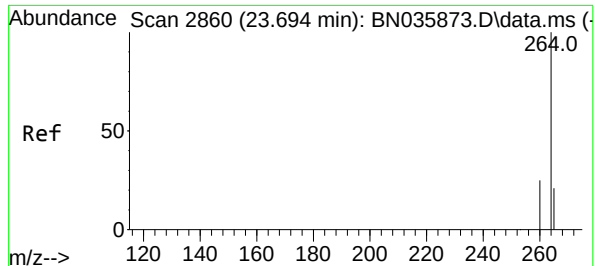
Tgt Ion:228 Resp: 20218  
Ion Ratio Lower Upper  
228 100  
226 30.6 25.2 37.8  
229 19.3 16.0 24.0



#34  
Bis(2-ethylhexyl)phthalate  
Concen: 2.894 ng  
RT: 21.324 min Scan# 2299  
Delta R.T. 0.003 min  
Lab File: BN035876.D  
Acq: 02 Jan 2025 14:28

Tgt Ion:149 Resp: 7099  
Ion Ratio Lower Upper  
149 100  
167 27.8 21.4 32.0  
279 2.9 3.0 4.6#





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.691 min Scan# 21

Delta R.T. -0.003 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2

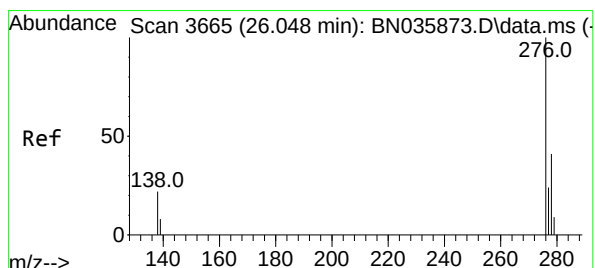
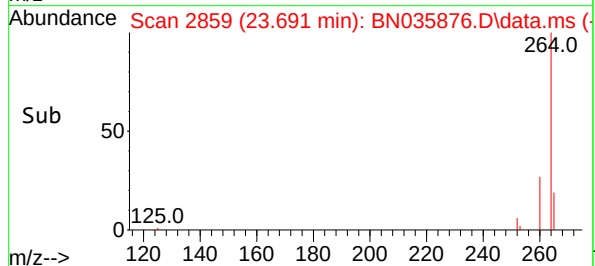
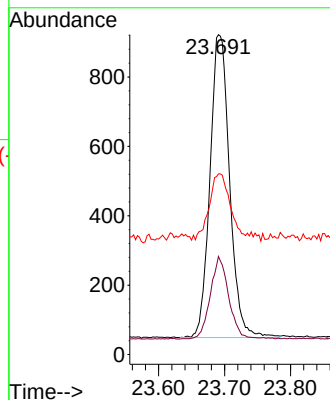
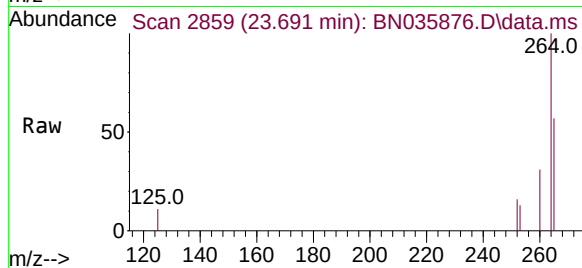
Tgt Ion:264 Resp: 1808

Ion Ratio Lower Upper

264 100

260 30.7 21.7 32.5

265 56.5 33.9 50.9#



#36

Indeno(1,2,3-cd)pyrene

Concen: 3.474 ng

RT: 26.050 min Scan# 3666

Delta R.T. 0.003 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

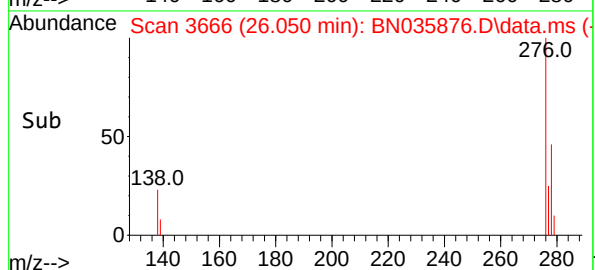
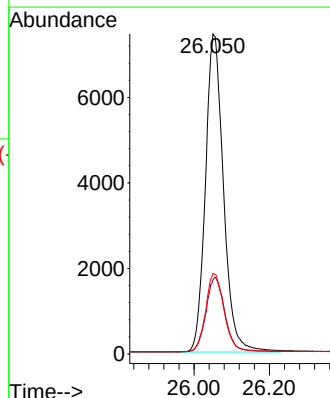
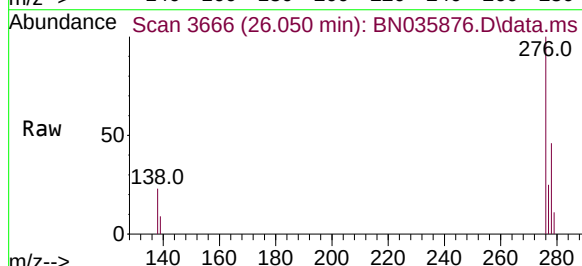
Tgt Ion:276 Resp: 24767

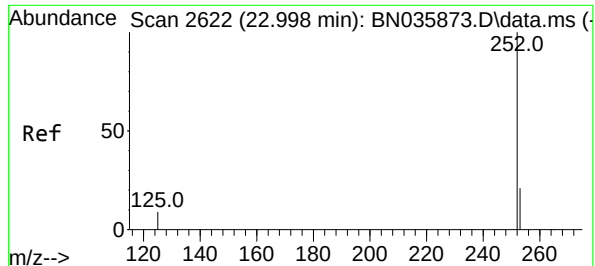
Ion Ratio Lower Upper

276 100

138 24.1 18.9 28.3

277 25.1 19.5 29.3





#37

Benzo(b)fluoranthene

Concen: 3.305 ng

RT: 22.998 min Scan# 2622

Delta R.T. -0.000 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2

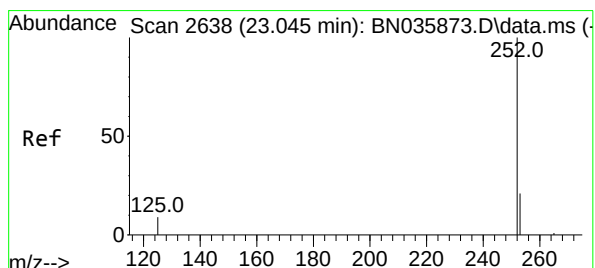
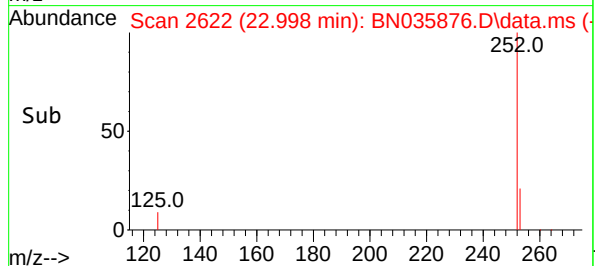
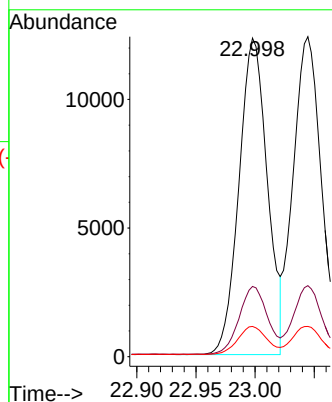
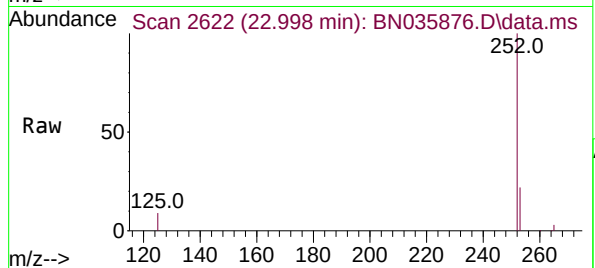
Tgt Ion:252 Resp: 20532

Ion Ratio Lower Upper

252 100

253 22.0 20.1 30.1

125 9.5 9.9 14.9#



#38

Benzo(k)fluoranthene

Concen: 3.392 ng

RT: 23.045 min Scan# 2638

Delta R.T. -0.000 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

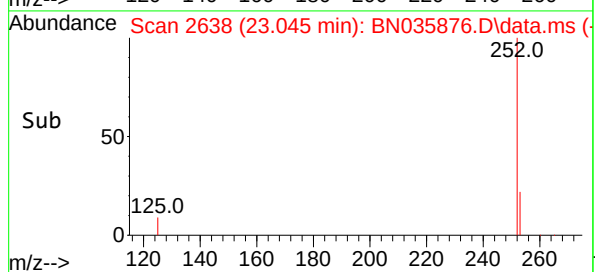
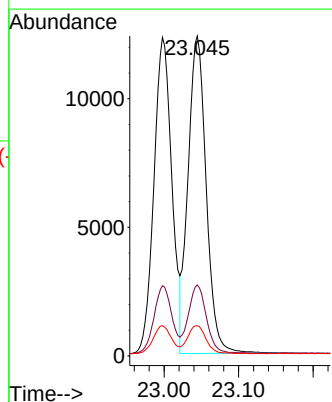
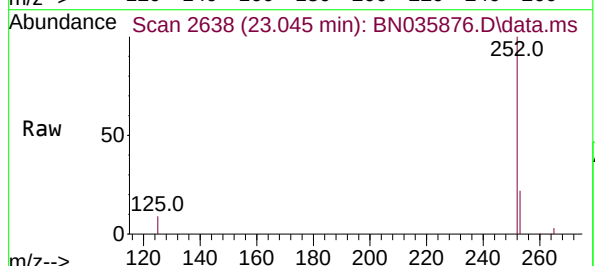
Tgt Ion:252 Resp: 20853

Ion Ratio Lower Upper

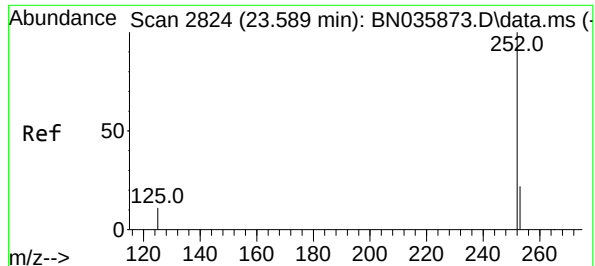
252 100

253 22.2 20.5 30.7

125 9.5 10.6 16.0#







#39

Benzo(a)pyrene

Concen: 3.347 ng

RT: 23.591 min Scan# 21

Delta R.T. 0.003 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2

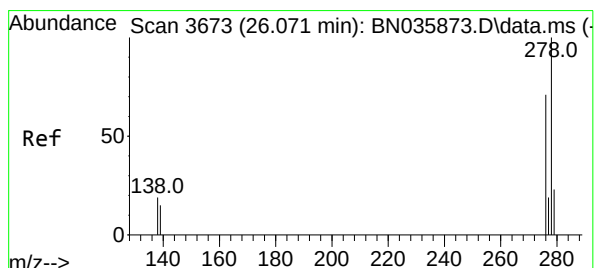
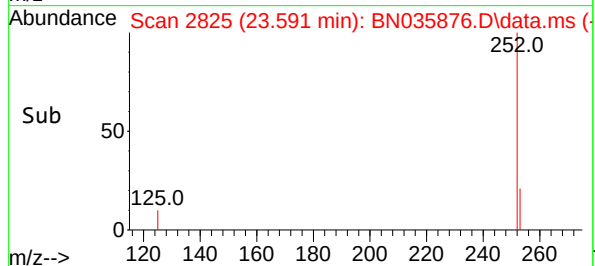
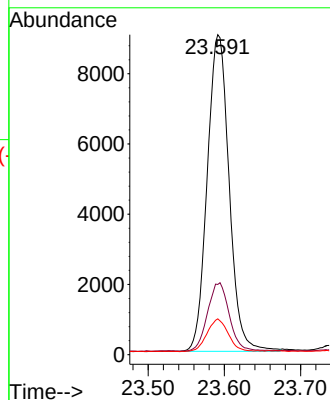
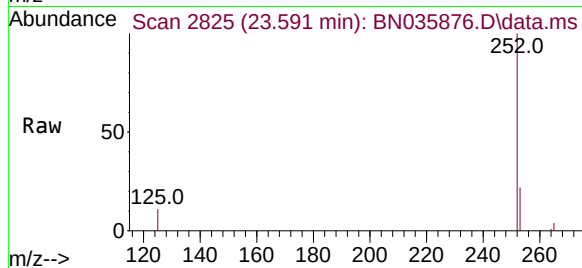
Tgt Ion:252 Resp: 17995

Ion Ratio Lower Upper

252 100

253 22.0 21.5 32.3

125 11.2 12.6 19.0#



#40

Dibenzo(a,h)anthracene

Concen: 3.480 ng

RT: 26.073 min Scan# 3674

Delta R.T. 0.003 min

Lab File: BN035876.D

Acq: 02 Jan 2025 14:28

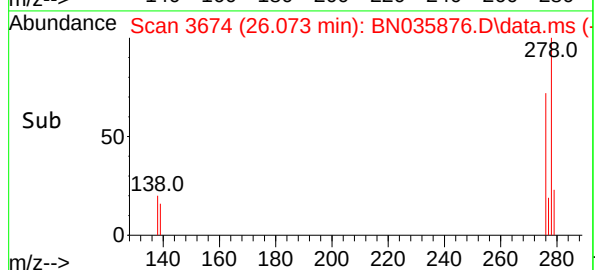
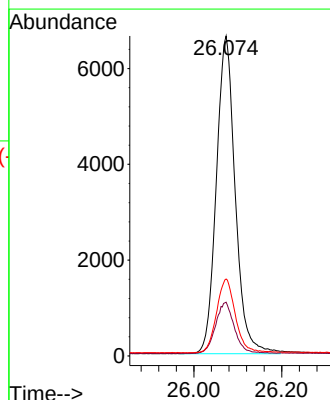
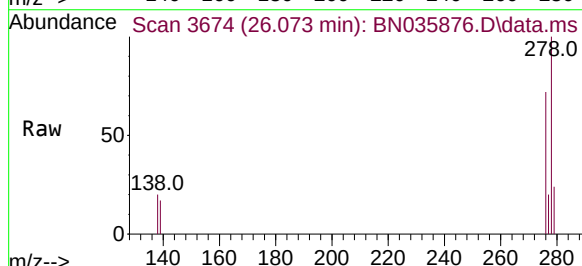
Tgt Ion:278 Resp: 19738

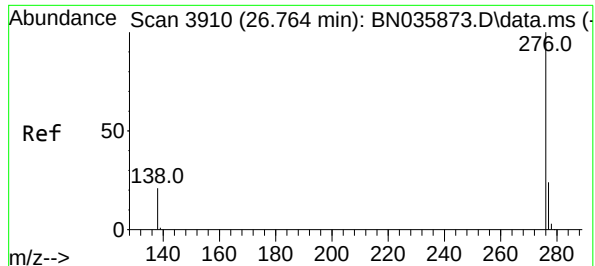
Ion Ratio Lower Upper

278 100

139 16.8 15.9 23.9

279 24.0 23.0 34.4





#41

Benzo(g,h,i)perylene

Concen: 3.423 ng

RT: 26.766 min Scan# 3910

Delta R.T. 0.003 min

Lab File: BN035876.D

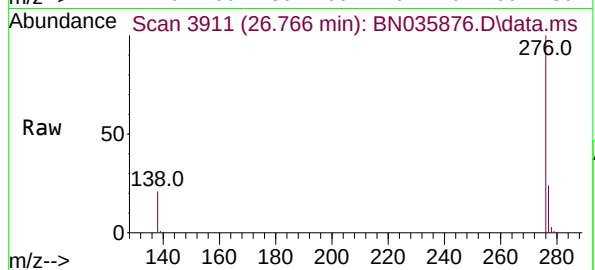
Acq: 02 Jan 2025 14:28

Instrument :

BNA\_N

ClientSampleId :

SSTDICC3.2



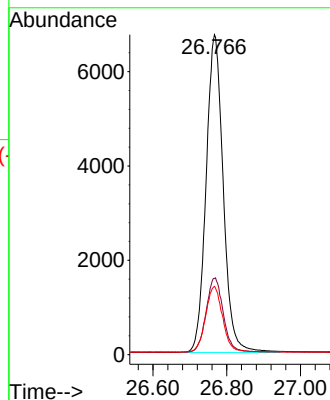
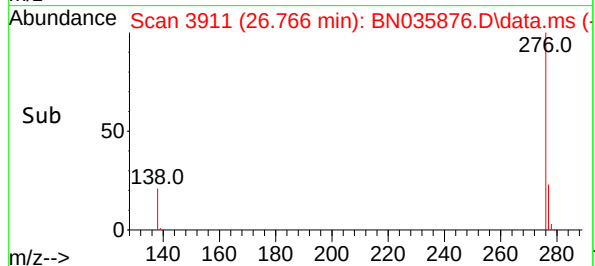
Tgt Ion:276 Resp: 21709

Ion Ratio Lower Upper

276 100

277 23.9 22.8 34.2

138 21.3 20.1 30.1



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
 Data File : BN035877.D  
 Acq On : 02 Jan 2025 15:04  
 Operator : RC/JU  
 Sample : SSTDICC5.0  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC5.0

Quant Time: Jan 02 15:51:34 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

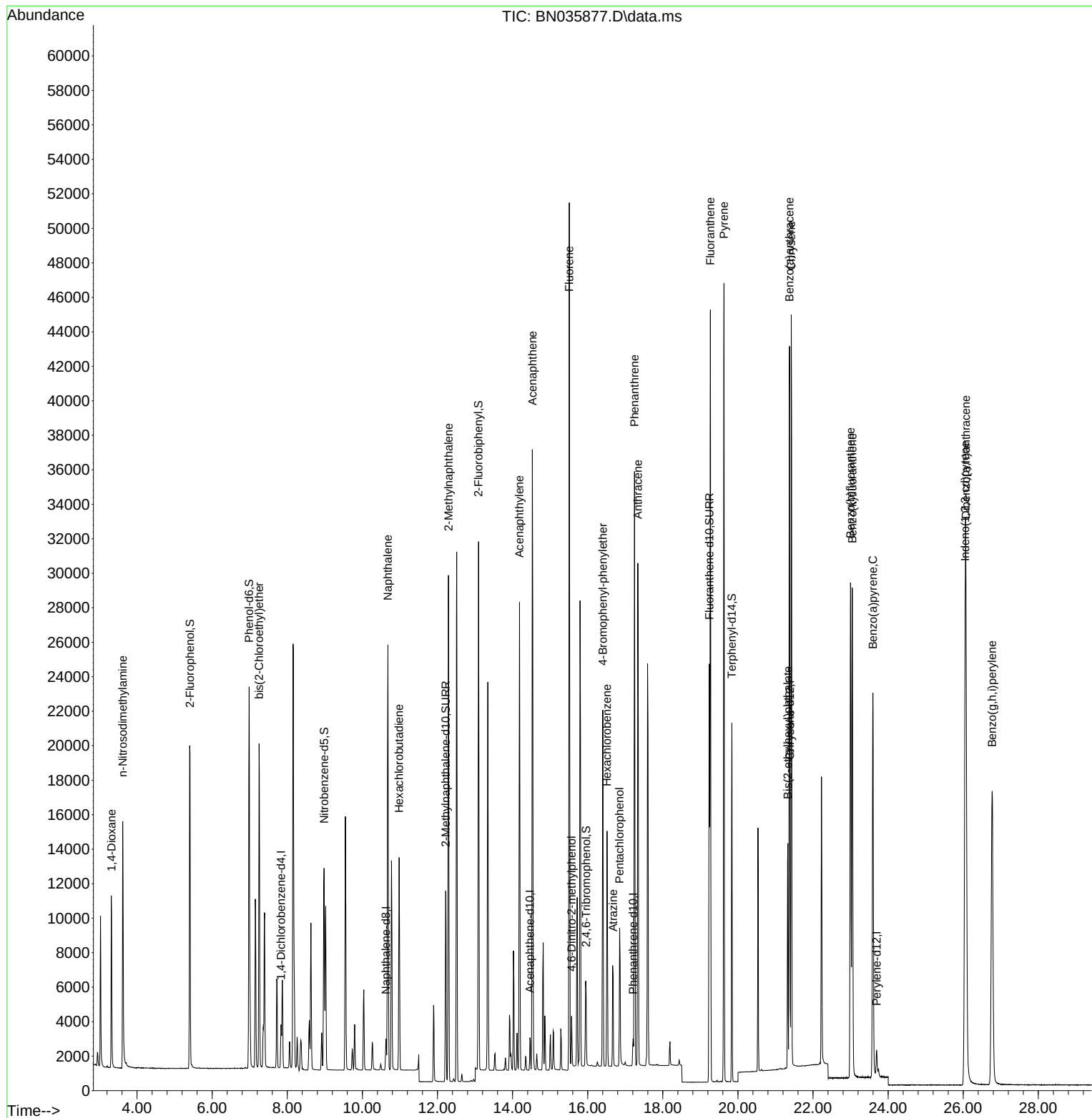
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.835  | 152  | 1152     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.626 | 136  | 2131     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.462 | 164  | 1092     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.210 | 188  | 2104     | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.384 | 240  | 1949     | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 23.694 | 264  | 2023     | 0.400 | ng    | # 0.00   |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.409  | 112  | 13943    | 4.933 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.983  | 99   | 16841    | 4.798 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.981  | 82   | 8790     | 5.209 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.217 | 152  | 14382    | 5.041 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.956 | 330  | 3002     | 5.726 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 13.093 | 172  | 24046    | 5.018 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.238 | 212  | 27229    | 5.214 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.837 | 244  | 19033    | 4.901 | ng    | 0.00     |
| Target Compounds              |        |      |          |       |       |          |
| 2) 1,4-Dioxane                | 3.322  | 88   | 5423     | 4.740 | ng    | 98       |
| 3) n-Nitrosodimethylamine     | 3.618  | 42   | 9967     | 4.993 | ng    | # 97     |
| 6) bis(2-Chloroethyl)ether    | 7.250  | 93   | 12664    | 4.736 | ng    | 99       |
| 9) Naphthalene                | 10.679 | 128  | 30381    | 5.079 | ng    | 95       |
| 10) Hexachlorobutadiene       | 10.978 | 225  | 9822     | 5.057 | ng    | # 99     |
| 12) 2-Methylnaphthalene       | 12.293 | 142  | 19239    | 5.198 | ng    | 98       |
| 16) Acenaphthylene            | 14.184 | 152  | 26794    | 5.210 | ng    | 100      |
| 17) Acenaphthene              | 14.526 | 154  | 17619    | 5.226 | ng    | 96       |
| 18) Fluorene                  | 15.509 | 166  | 19548    | 5.269 | ng    | 99       |
| 20) 4,6-Dinitro-2-methylph... | 15.571 | 198  | 1944     | 5.320 | ng    | # 66     |
| 21) 4-Bromophenyl-phenylether | 16.403 | 248  | 7340     | 5.088 | ng    | 97       |
| 22) Hexachlorobenzene         | 16.515 | 284  | 9749     | 4.956 | ng    | 99       |
| 23) Atrazine                  | 16.676 | 200  | 5084     | 5.253 | ng    | # 77     |
| 24) Pentachlorophenol         | 16.850 | 266  | 4029     | 5.786 | ng    | 98       |
| 25) Phenanthrene              | 17.247 | 178  | 31568    | 5.142 | ng    | 99       |
| 26) Anthracene                | 17.334 | 178  | 29722    | 5.320 | ng    | 98       |
| 28) Fluoranthene              | 19.266 | 202  | 38787    | 5.420 | ng    | 99       |
| 30) Pyrene                    | 19.628 | 202  | 39641    | 5.009 | ng    | 99       |
| 32) Benzo(a)anthracene        | 21.375 | 228  | 35712    | 5.199 | ng    | 97       |
| 33) Chrysene                  | 21.419 | 228  | 35830    | 4.987 | ng    | 99       |
| 34) Bis(2-ethylhexyl)phtha... | 21.330 | 149  | 12924    | 4.623 | ng    | # 99     |
| 36) Indeno(1,2,3-cd)pyrene    | 26.050 | 276  | 44269    | 5.549 | ng    | 98       |
| 37) Benzo(b)fluoranthene      | 22.998 | 252  | 36590    | 5.265 | ng    | # 93     |
| 38) Benzo(k)fluoranthene      | 23.045 | 252  | 37476    | 5.447 | ng    | # 92     |
| 39) Benzo(a)pyrene            | 23.592 | 252  | 32476    | 5.398 | ng    | # 89     |
| 40) Dibenzo(a,h)anthracene    | 26.071 | 278  | 35448    | 5.585 | ng    | 92       |
| 41) Benzo(g,h,i)perylene      | 26.770 | 276  | 38678    | 5.450 | ng    | 92       |

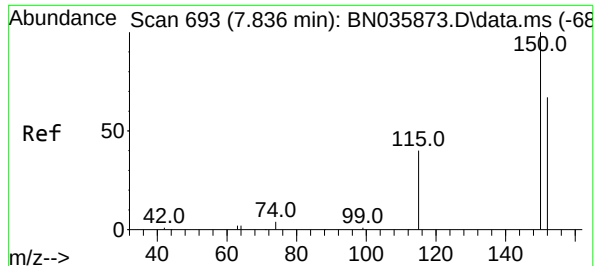
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
Data File : BN035877.D  
Acq On : 02 Jan 2025 15:04  
Operator : RC/JU  
Sample : SSTDICC5.0  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

Quant Time: Jan 02 15:51:34 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

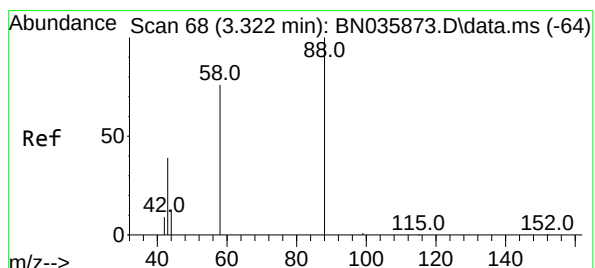
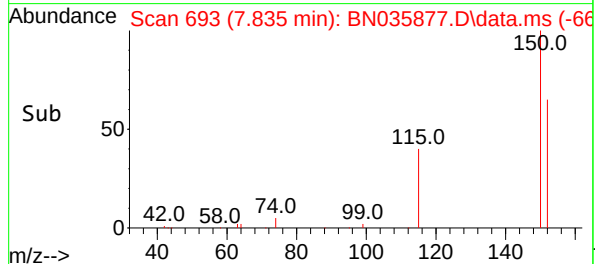
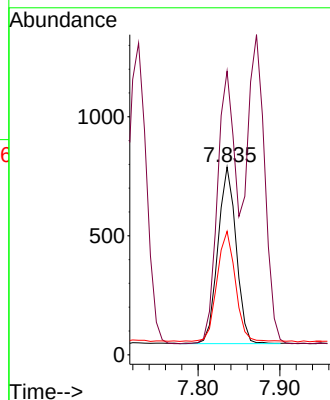
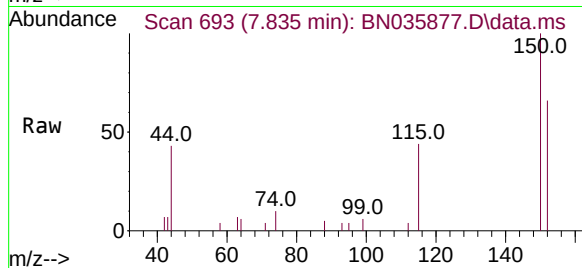




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.835 min Scan# 69  
Delta R.T. -0.001 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

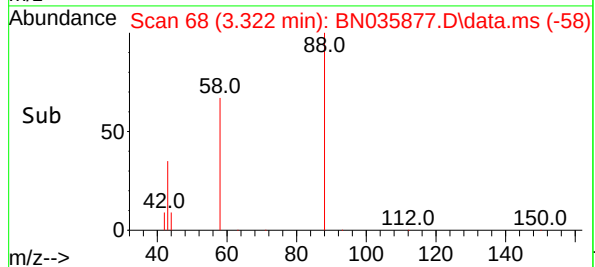
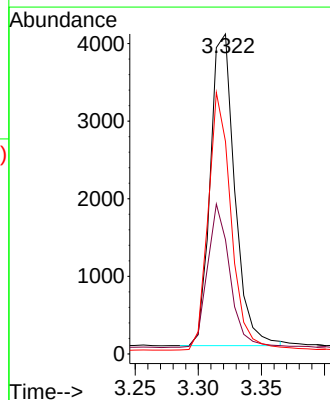
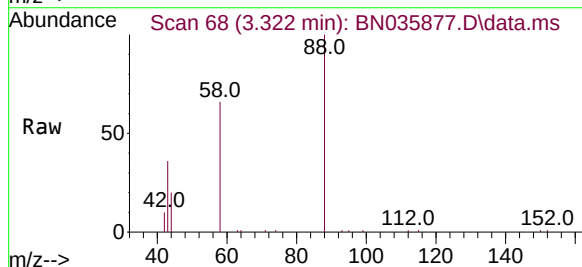
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

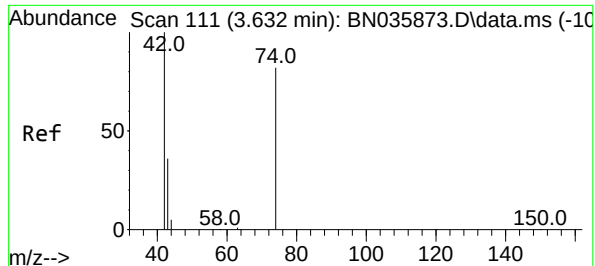
Tgt Ion:152 Resp: 1152  
Ion Ratio Lower Upper  
152 100  
150 151.1 117.8 176.6  
115 65.8 51.0 76.4



#2  
1,4-Dioxane  
Concen: 4.740 ng  
RT: 3.322 min Scan# 68  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

Tgt Ion: 88 Resp: 5423  
Ion Ratio Lower Upper  
88 100  
43 42.6 32.7 49.1  
58 77.3 63.0 94.4

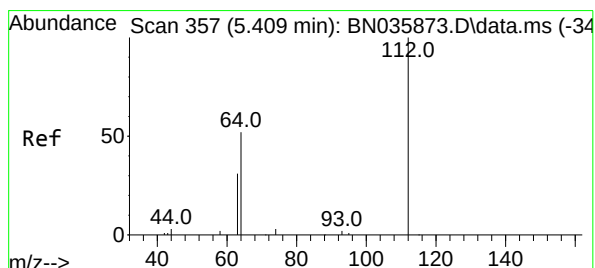
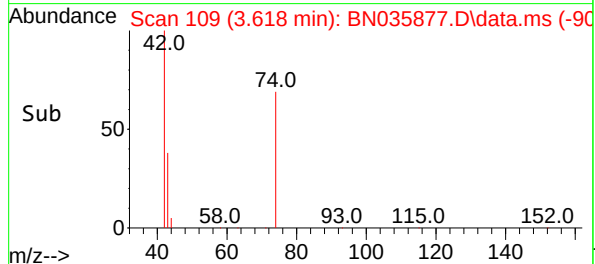
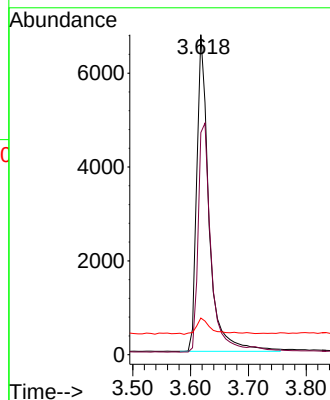
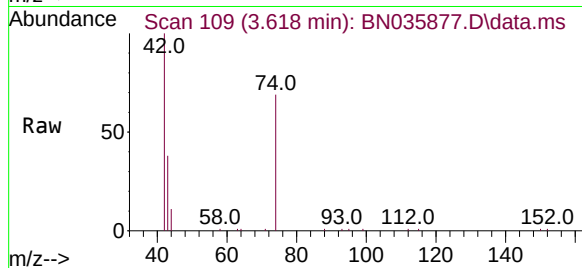




#3  
n-Nitrosodimethylamine  
Concen: 4.993 ng  
RT: 3.618 min Scan# 109  
Delta R.T. -0.015 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

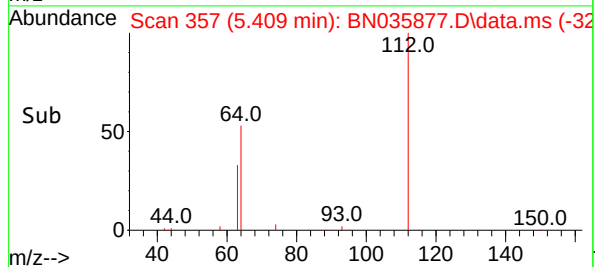
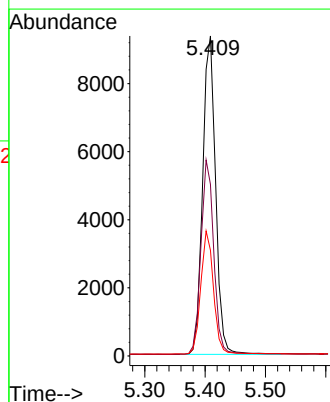
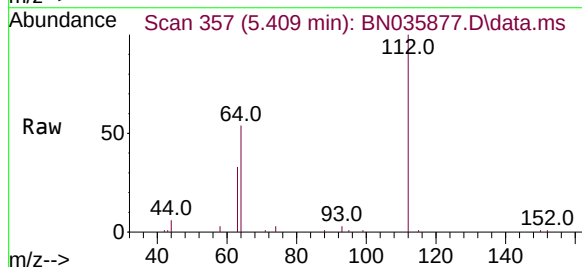
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

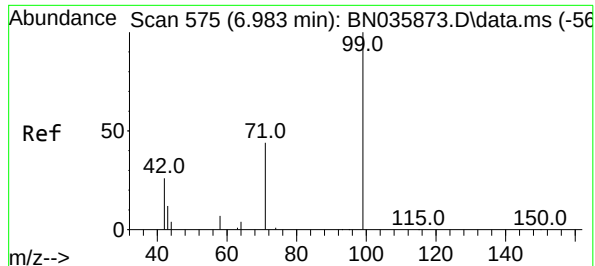
Tgt Ion: 42 Resp: 9967  
Ion Ratio Lower Upper  
42 100  
74 75.3 62.2 93.2  
44 5.7 7.1 10.7#



#4  
2-Fluorophenol  
Concen: 4.933 ng  
RT: 5.409 min Scan# 357  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

Tgt Ion: 112 Resp: 13943  
Ion Ratio Lower Upper  
112 100  
64 61.0 48.2 72.2  
63 38.4 30.0 45.0

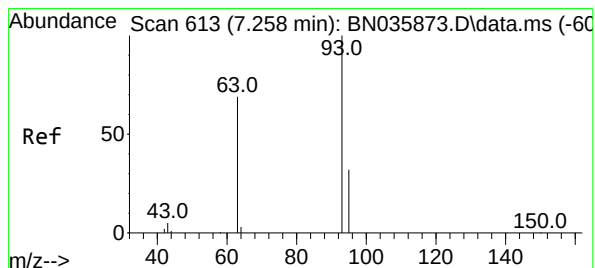
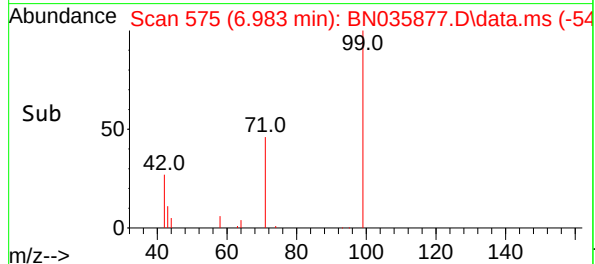
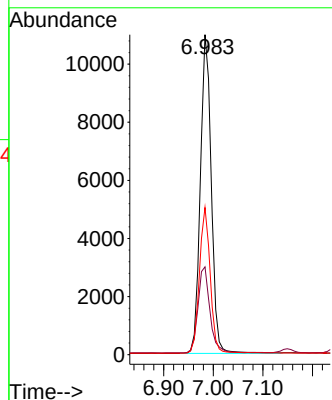
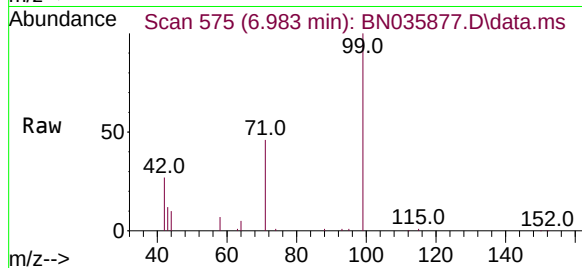




#5  
Phenol-d6  
Concen: 4.798 ng  
RT: 6.983 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

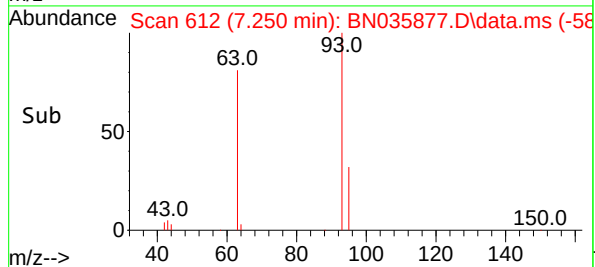
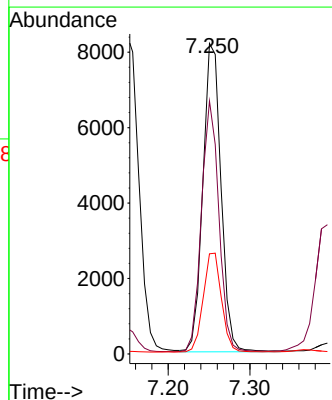
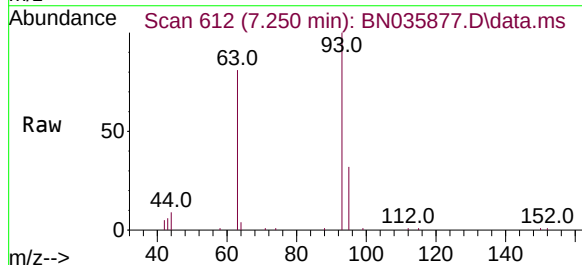
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

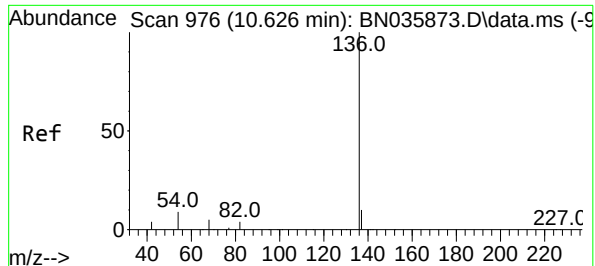
Tgt Ion: 99 Resp: 16841  
Ion Ratio Lower Upper  
99 100  
42 29.5 23.5 35.3  
71 45.5 35.5 53.3



#6  
bis(2-Chloroethyl)ether  
Concen: 4.736 ng  
RT: 7.250 min Scan# 612  
Delta R.T. -0.007 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

Tgt Ion: 93 Resp: 12664  
Ion Ratio Lower Upper  
93 100  
63 78.3 62.0 93.0  
95 32.4 25.5 38.3

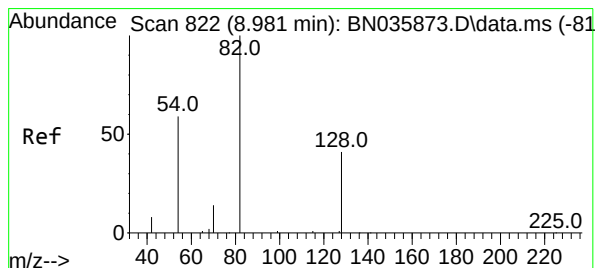
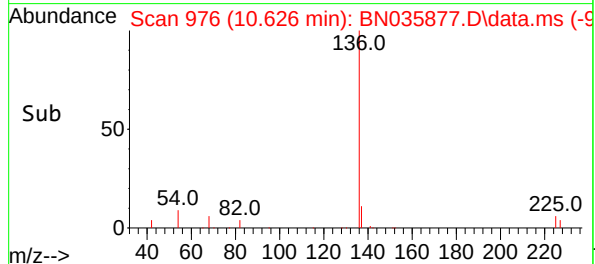
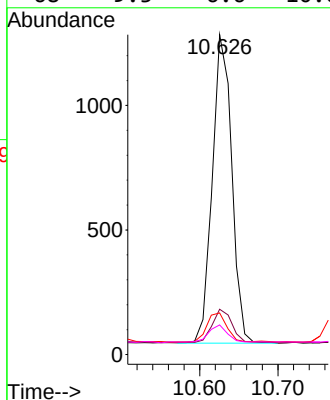
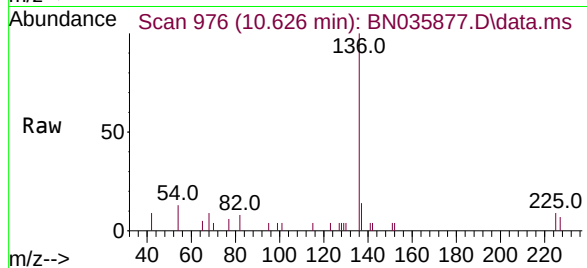




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.626 min Scan# 91  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

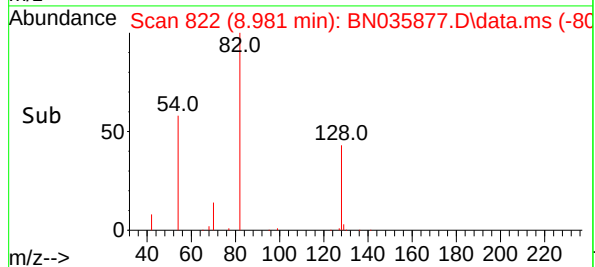
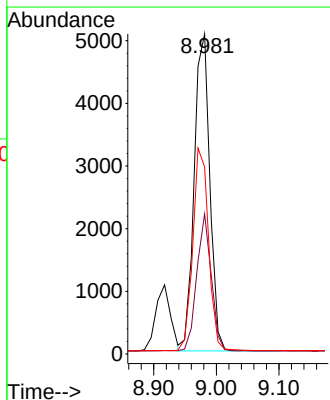
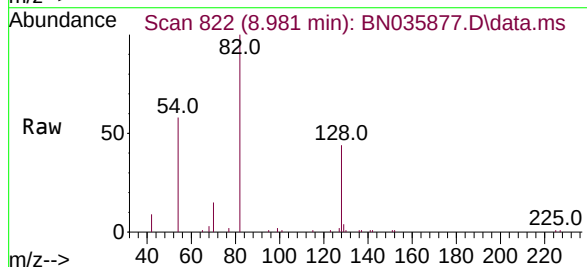
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 2131  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 14.2  | 10.6  | 15.8  |
| 54       | 13.0  | 9.8   | 14.6  |
| 68       | 9.3   | 6.6   | 10.0  |

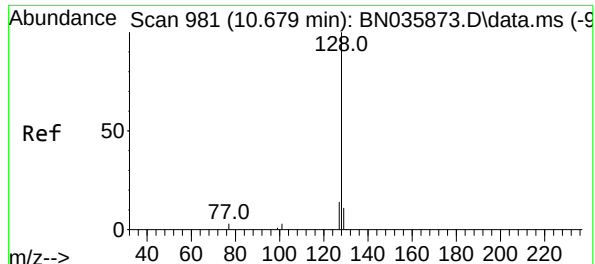


#8  
Nitrobenzene-d5  
Concen: 5.209 ng  
RT: 8.981 min Scan# 822  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 8790  |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 43.7  | 36.9  | 55.3  |
| 54       | 58.5  | 50.4  | 75.6  |







#9

Naphthalene

Concen: 5.079 ng

RT: 10.679 min Scan# 981

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

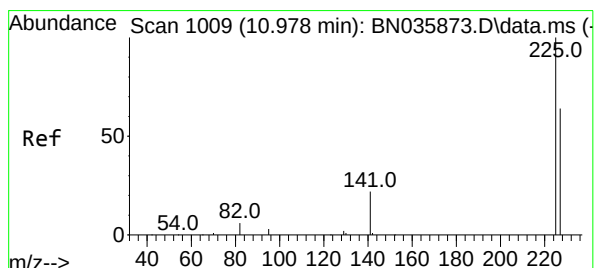
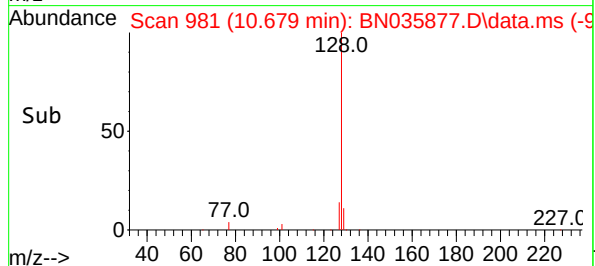
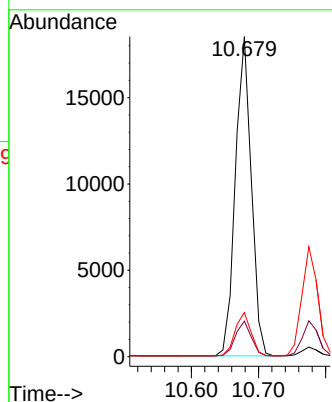
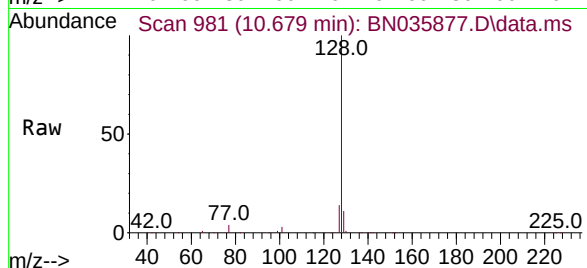
Tgt Ion:128 Resp: 30381

Ion Ratio Lower Upper

128 100

129 11.1 10.6 16.0

127 13.8 12.8 19.2



#10

Hexachlorobutadiene

Concen: 5.057 ng

RT: 10.978 min Scan# 1009

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

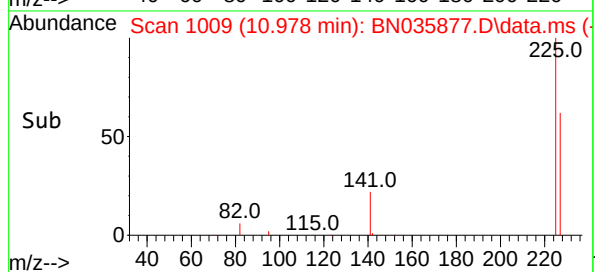
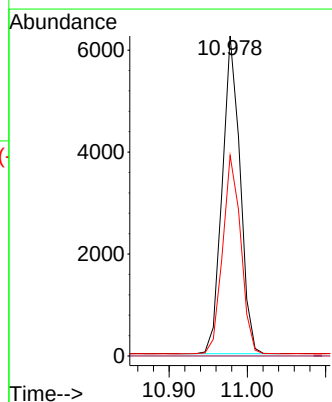
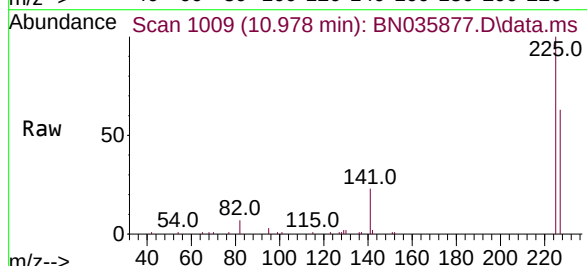
Tgt Ion:225 Resp: 9822

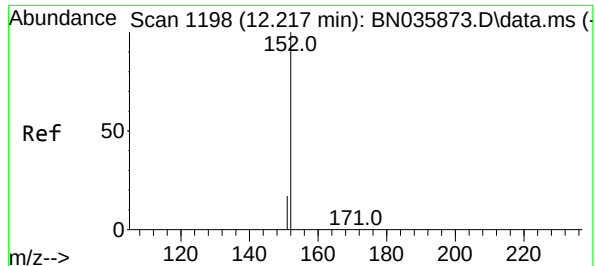
Ion Ratio Lower Upper

225 100

223 0.0 0.0 0.0

227 63.3 51.5 77.3

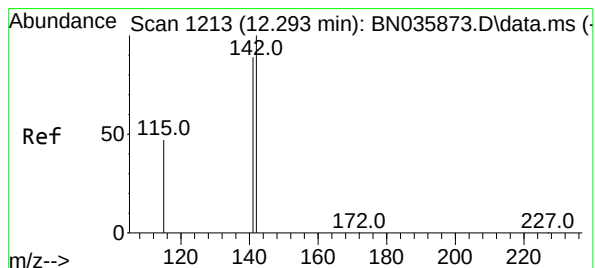
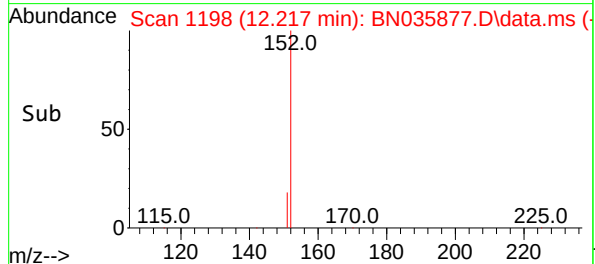
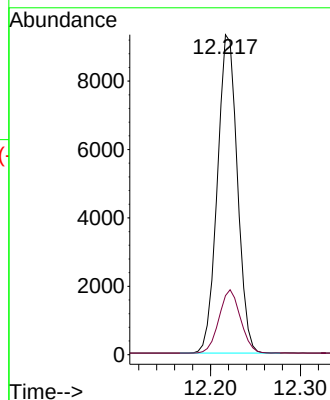
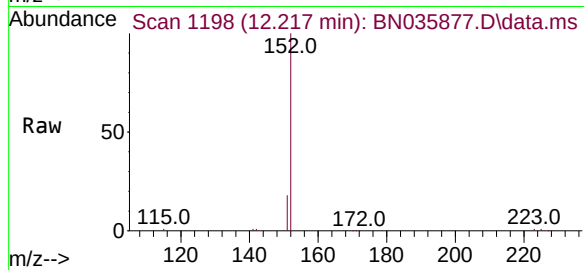




#11  
2-Methylnaphthalene-d10  
Concen: 5.041 ng  
RT: 12.217 min Scan# 1198  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

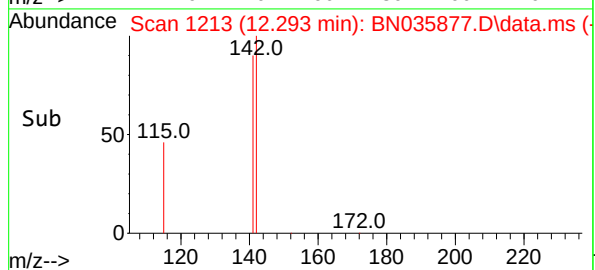
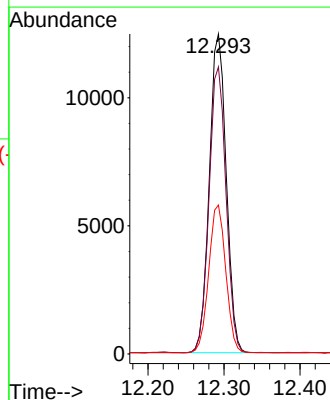
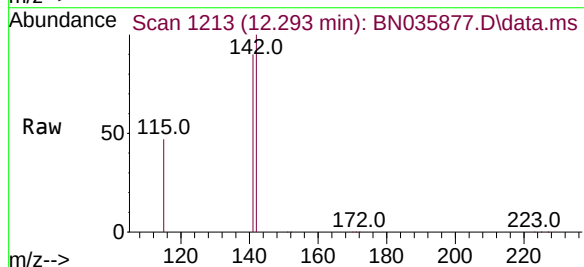
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

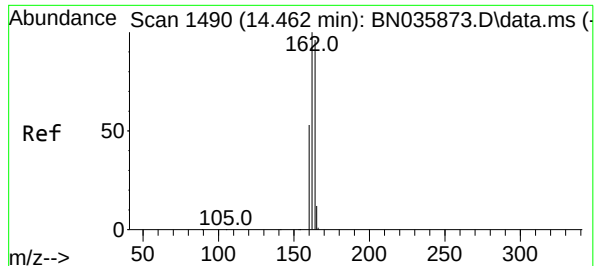
Tgt Ion:152 Resp: 14382  
Ion Ratio Lower Upper  
152 100  
151 21.3 17.0 25.6



#12  
2-Methylnaphthalene  
Concen: 5.198 ng  
RT: 12.293 min Scan# 1213  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

Tgt Ion:142 Resp: 19239  
Ion Ratio Lower Upper  
142 100  
141 89.7 71.9 107.9  
115 46.5 39.6 59.4

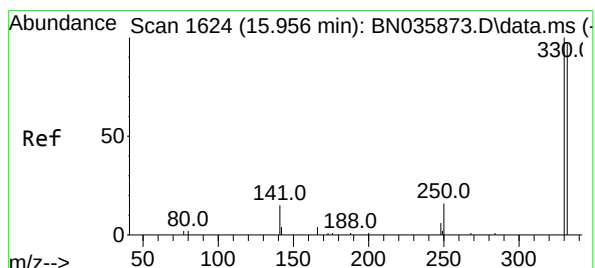
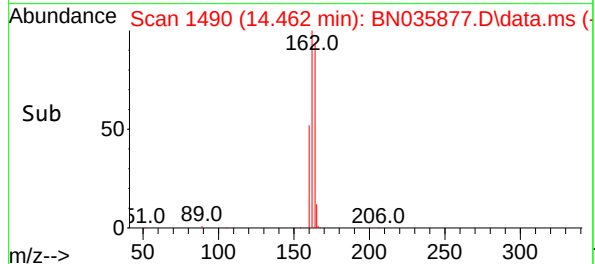
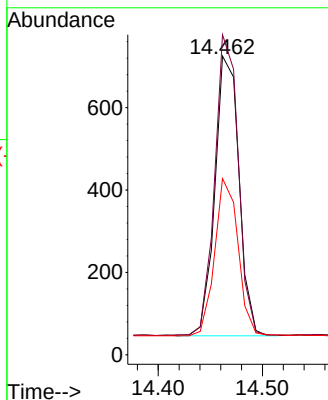
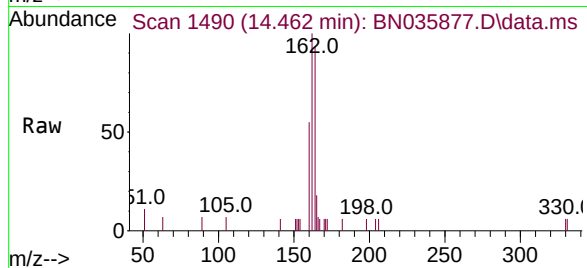




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.462 min Scan# 1490  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

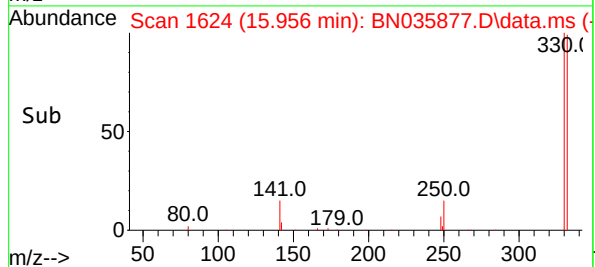
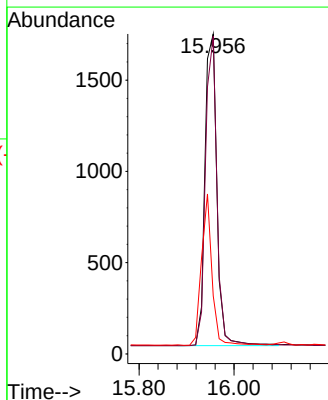
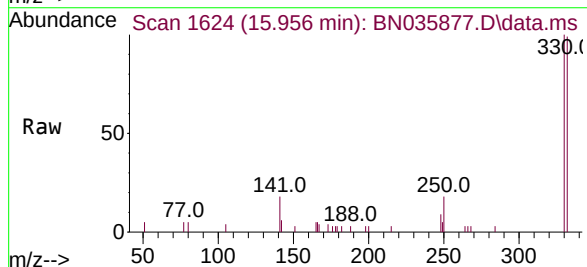
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

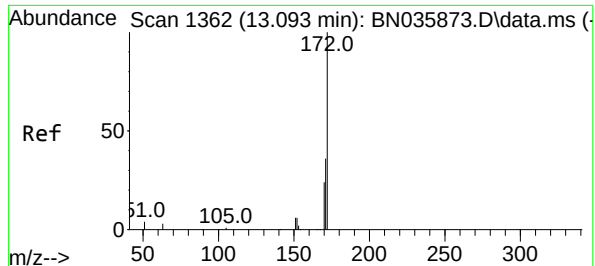
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 162     | 107.2 | 83.1  | 124.7 |
| 160     | 59.0  | 46.0  | 69.0  |



#14  
2,4,6-Tribromophenol  
Concen: 5.726 ng  
RT: 15.956 min Scan# 1624  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 95.6  | 77.2  | 115.8 |
| 141     | 42.7  | 31.6  | 47.4  |





#15

2-Fluorobiphenyl

Concen: 5.018 ng

RT: 13.093 min Scan# 1362

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

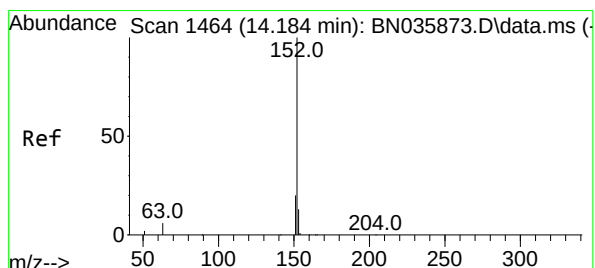
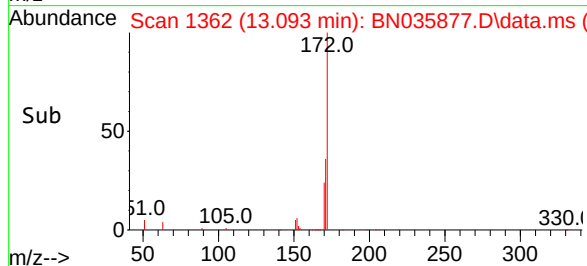
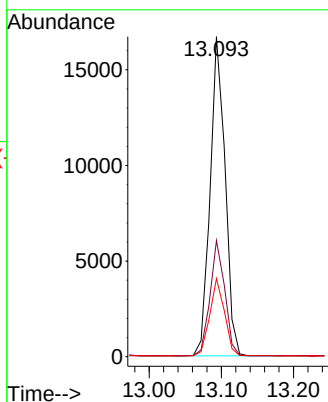
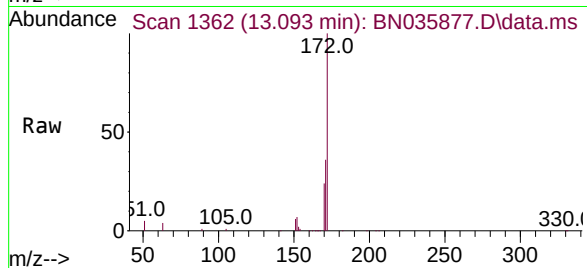
Tgt Ion:172 Resp: 24046

Ion Ratio Lower Upper

172 100

171 36.3 30.5 45.7

170 24.4 20.8 31.2



#16

Acenaphthylene

Concen: 5.210 ng

RT: 14.184 min Scan# 1464

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

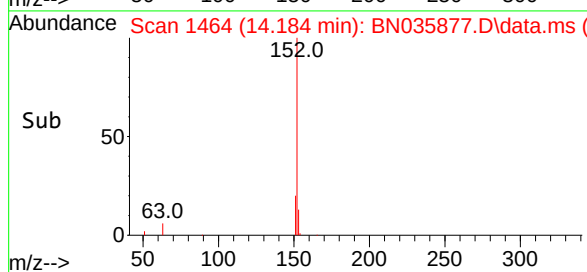
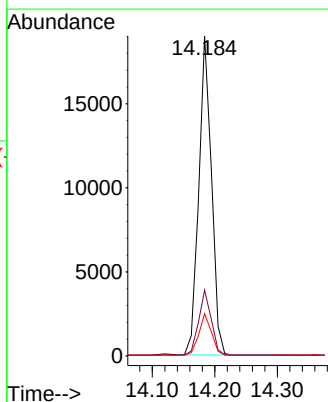
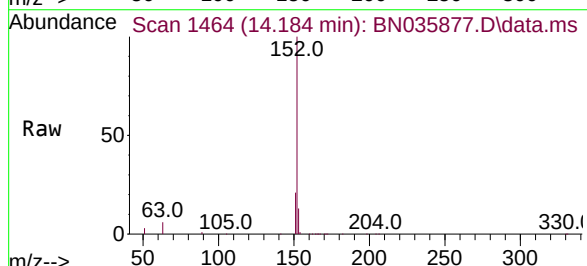
Tgt Ion:152 Resp: 26794

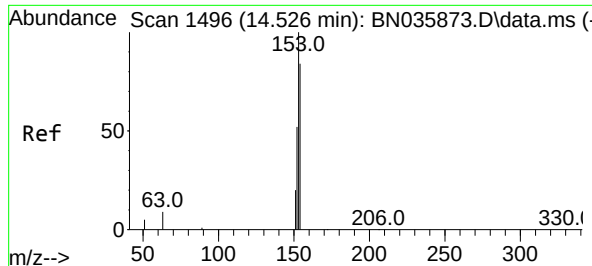
Ion Ratio Lower Upper

152 100

151 20.3 16.3 24.5

153 12.9 10.6 15.8

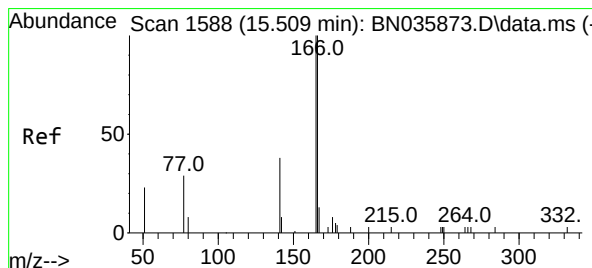
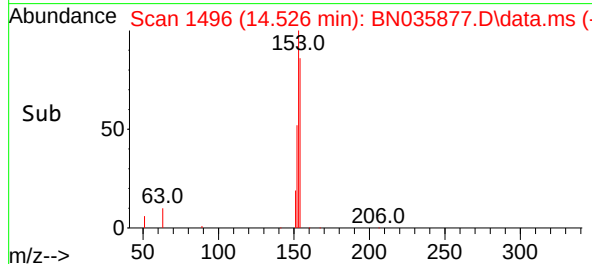
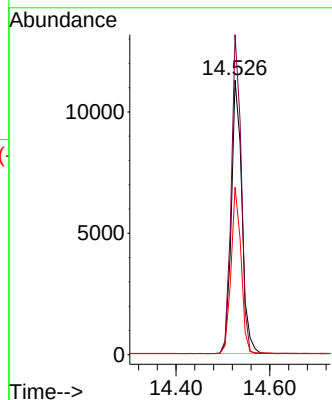
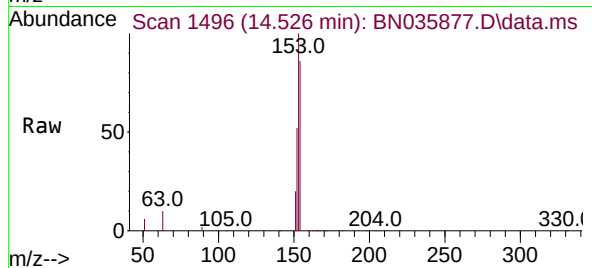




#17  
Acenaphthene  
Concen: 5.226 ng  
RT: 14.526 min Scan# 1496  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

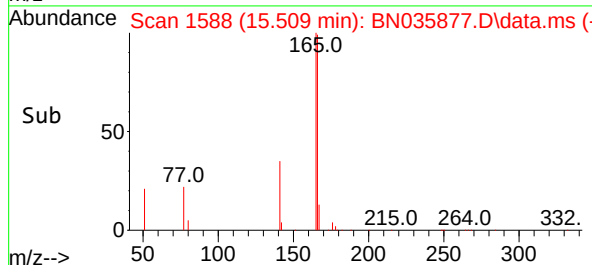
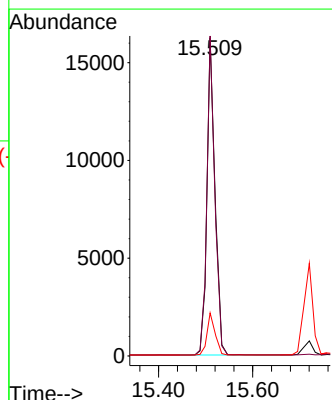
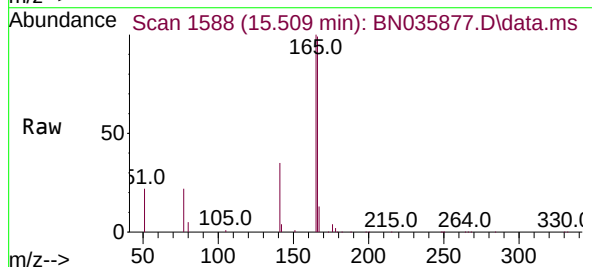
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

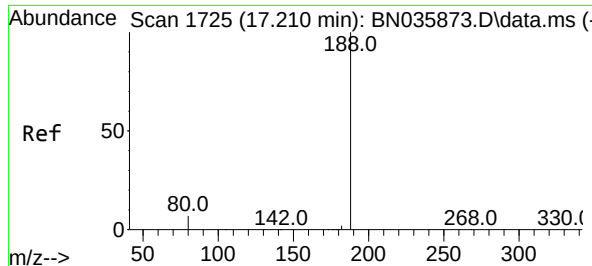
Tgt Ion:154 Resp: 17619  
Ion Ratio Lower Upper  
154 100  
153 109.7 90.5 135.7  
152 57.3 48.6 73.0



#18  
Fluorene  
Concen: 5.269 ng  
RT: 15.509 min Scan# 1588  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

Tgt Ion:166 Resp: 19548  
Ion Ratio Lower Upper  
166 100  
165 99.6 80.6 120.8  
167 12.9 11.4 17.0





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 17.210 min Scan# 1

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

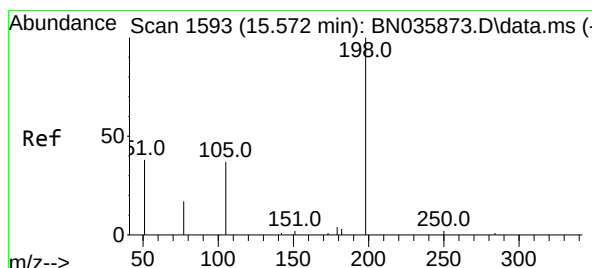
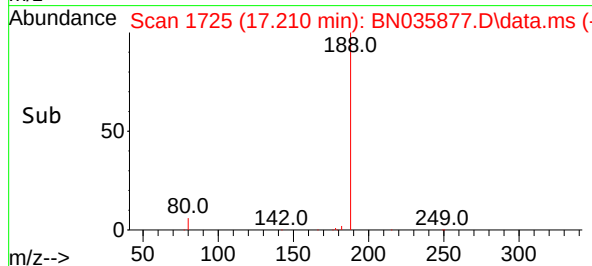
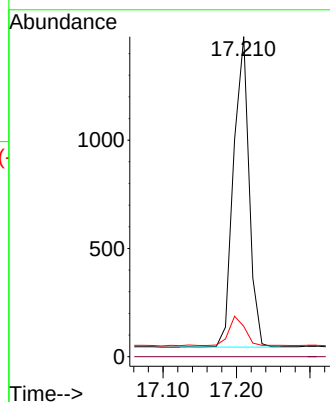
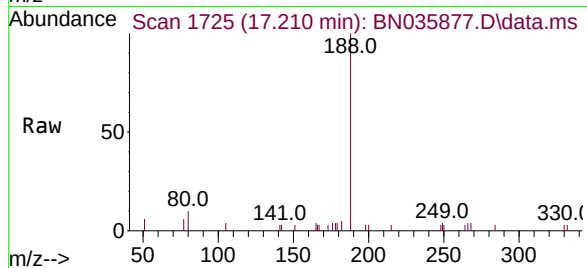
Tgt Ion:188 Resp: 2104

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 9.5 7.3 10.9



#20

4,6-Dinitro-2-methylphenol

Concen: 5.320 ng

RT: 15.571 min Scan# 1593

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

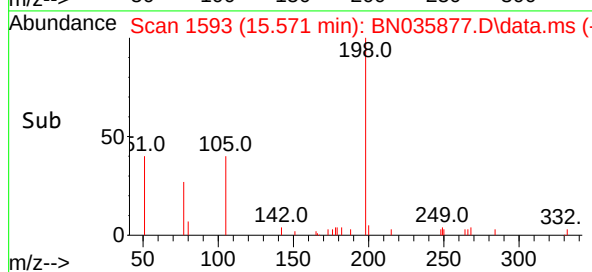
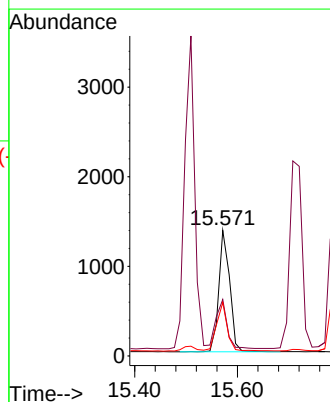
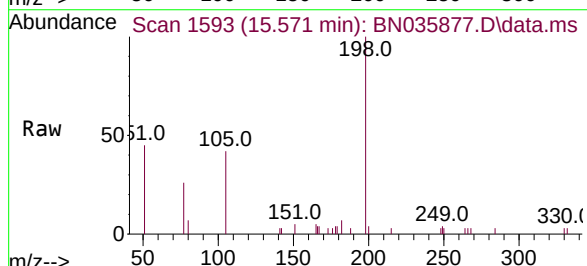
Tgt Ion:198 Resp: 1944

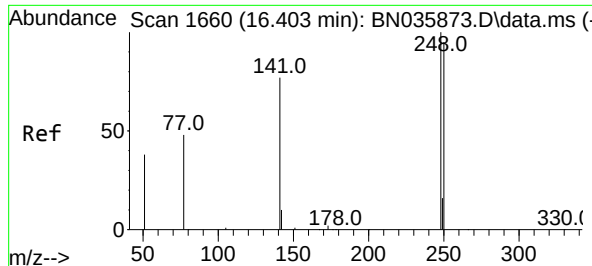
Ion Ratio Lower Upper

198 100

51 44.9 64.3 96.5#

105 42.5 50.0 75.0#





#21

4-Bromophenyl-phenylether

Concen: 5.088 ng

RT: 16.403 min Scan# 1660

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

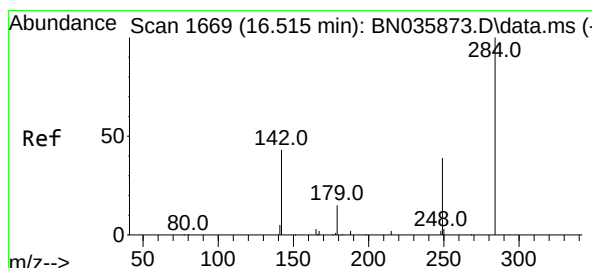
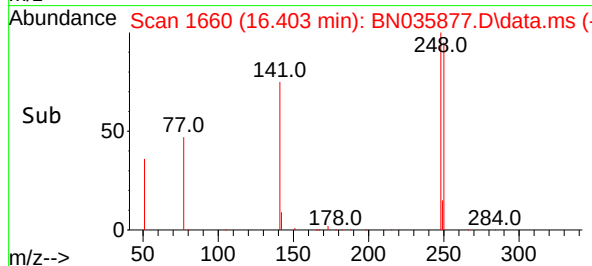
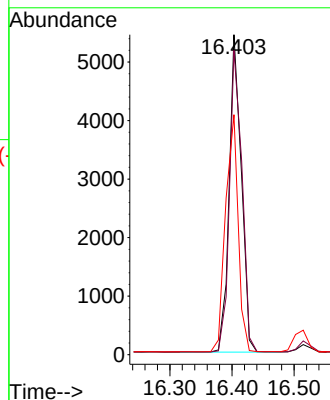
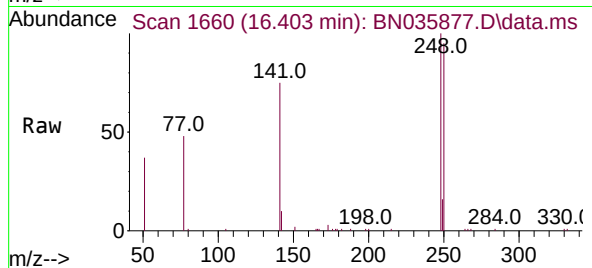
Tgt Ion:248 Resp: 7340

Ion Ratio Lower Upper

248 100

250 95.1 76.8 115.2

141 75.0 63.6 95.4



#22

Hexachlorobenzene

Concen: 4.956 ng

RT: 16.515 min Scan# 1669

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

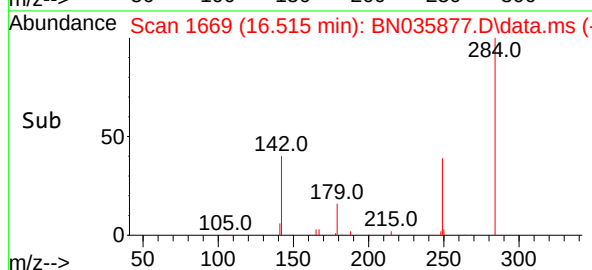
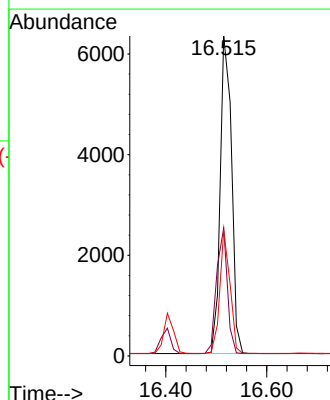
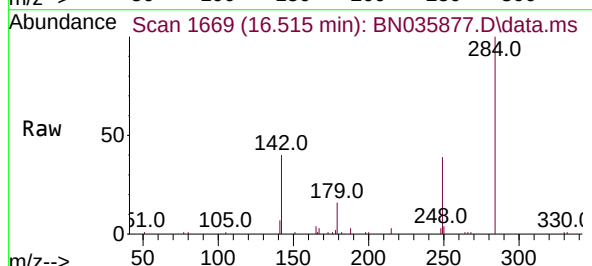
Tgt Ion:284 Resp: 9749

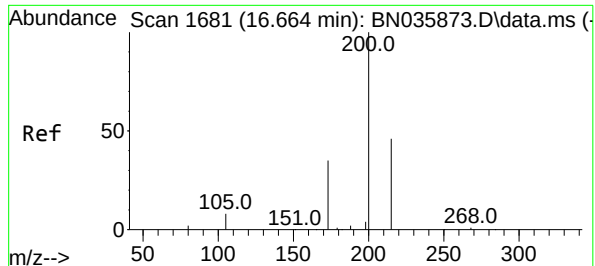
Ion Ratio Lower Upper

284 100

142 37.8 31.4 47.0

249 34.7 27.8 41.8

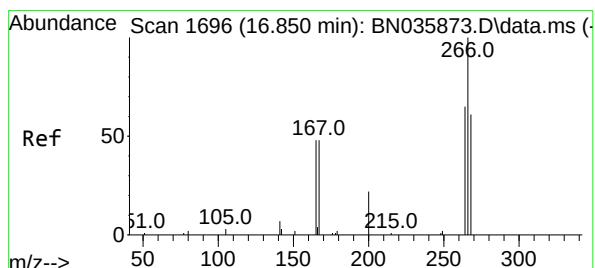
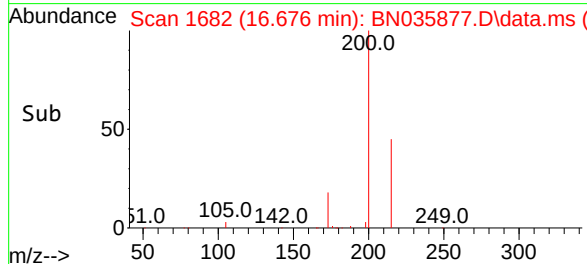
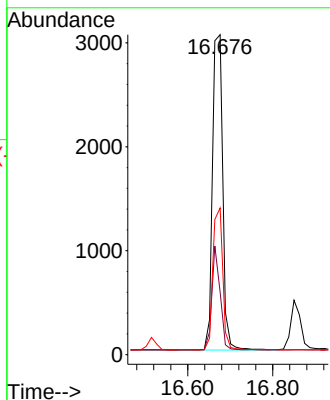
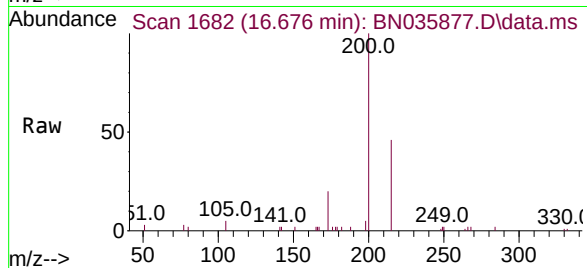




#23  
Atrazine  
Concen: 5.253 ng  
RT: 16.676 min Scan# 1682  
Delta R.T. 0.012 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

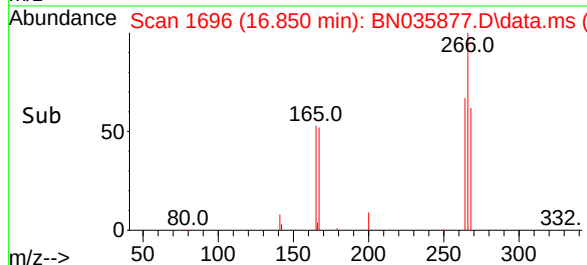
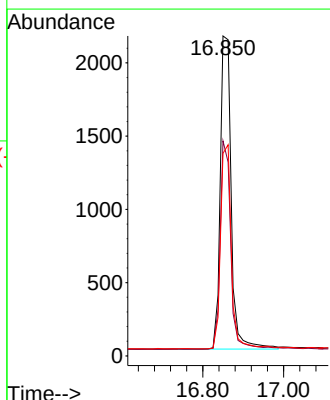
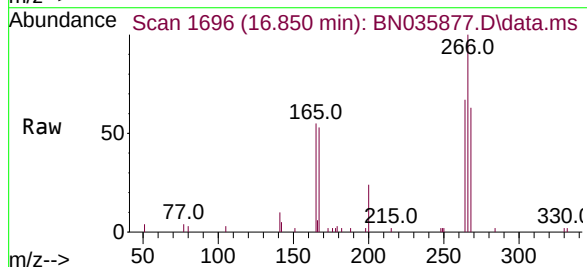
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

Tgt Ion:200 Resp: 5084  
Ion Ratio Lower Upper  
200 100  
173 19.6 35.4 53.0#  
215 45.8 42.4 63.6

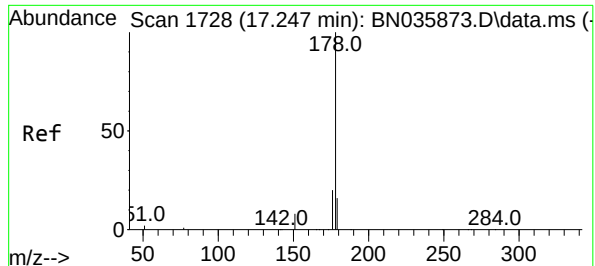


#24  
Pentachlorophenol  
Concen: 5.786 ng  
RT: 16.850 min Scan# 1696  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

Tgt Ion:266 Resp: 4029  
Ion Ratio Lower Upper  
266 100  
264 63.7 49.9 74.9  
268 63.9 50.2 75.2



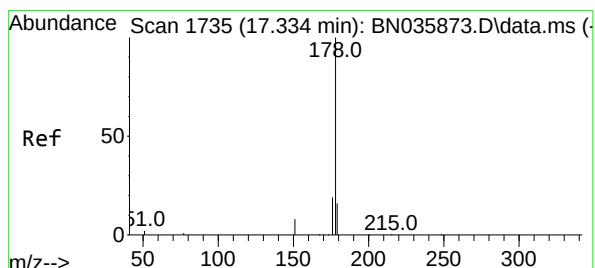
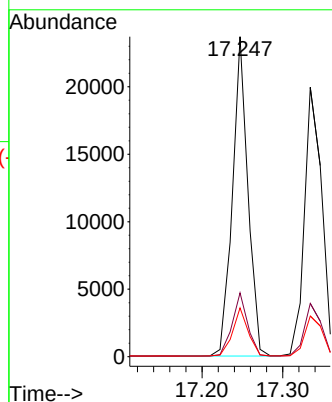
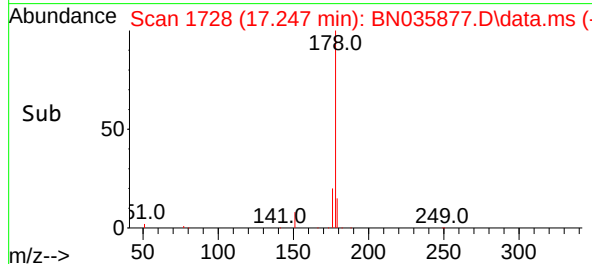
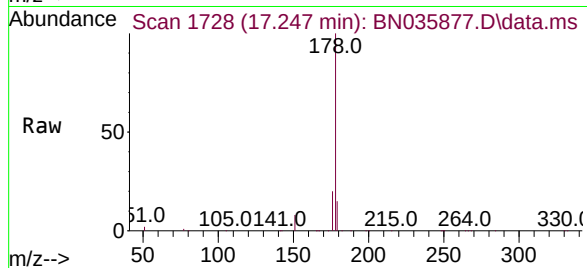




#25  
Phenanthrene  
Concen: 5.142 ng  
RT: 17.247 min Scan# 1728  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

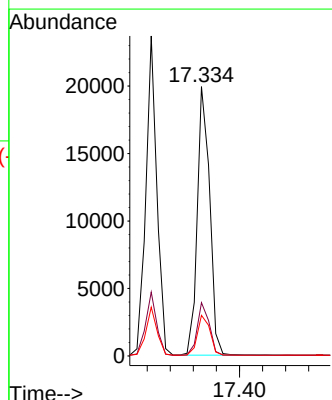
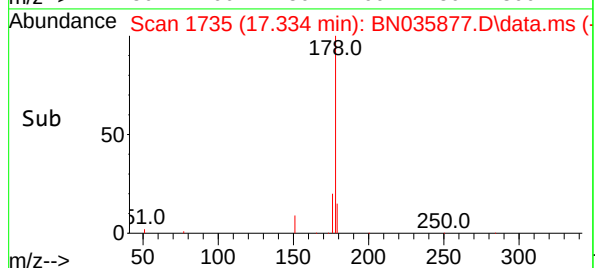
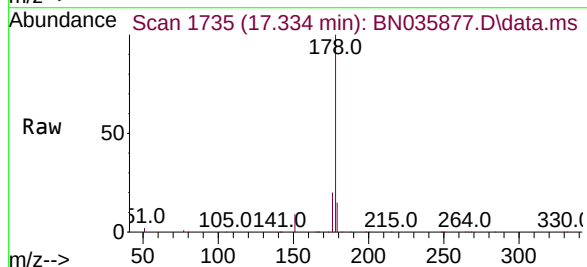
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

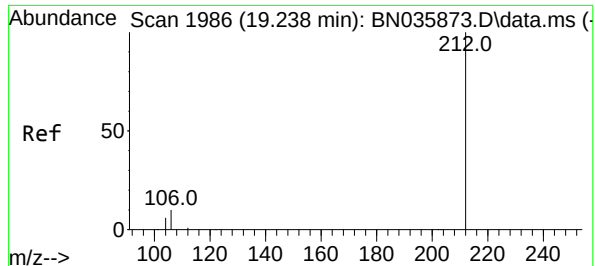
Tgt Ion:178 Resp: 31568  
Ion Ratio Lower Upper  
178 100  
176 19.8 15.9 23.9  
179 15.0 12.9 19.3



#26  
Anthracene  
Concen: 5.320 ng  
RT: 17.334 min Scan# 1735  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

Tgt Ion:178 Resp: 29722  
Ion Ratio Lower Upper  
178 100  
176 19.2 15.0 22.6  
179 15.2 13.0 19.6

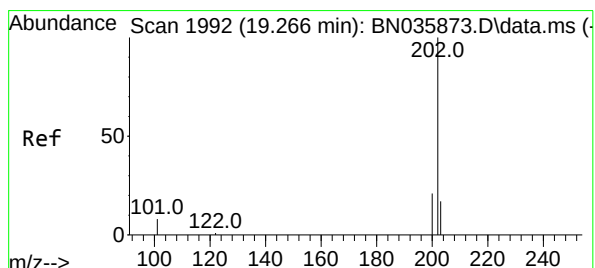
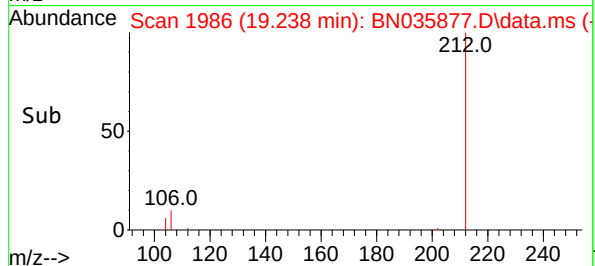
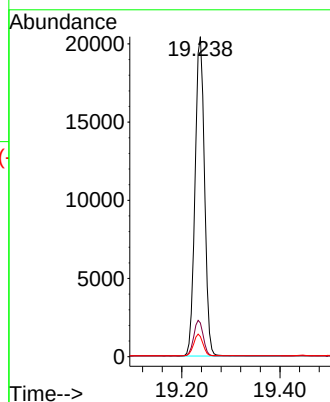
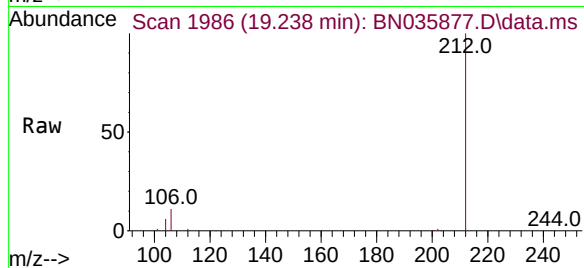




#27  
Fluoranthene-d10  
Concen: 5.214 ng  
RT: 19.238 min Scan# 1986  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

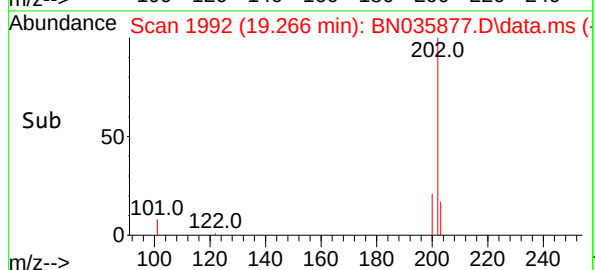
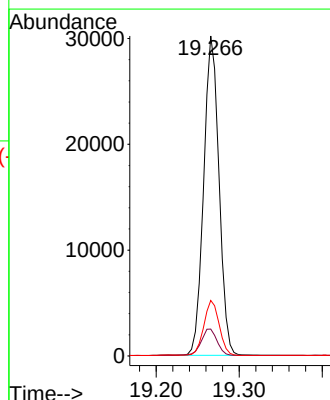
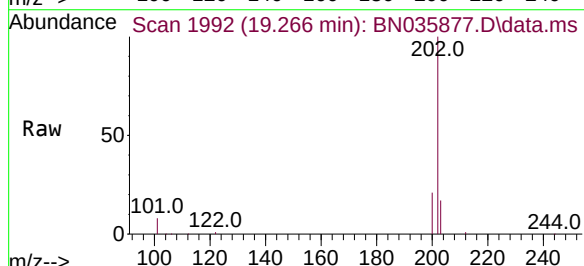
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

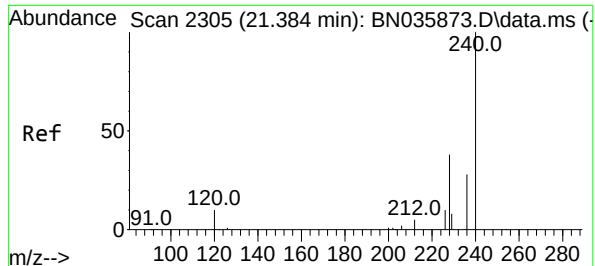
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 212     | 100   |       |       |
| 106     | 11.2  | 9.0   | 13.6  |
| 104     | 6.7   | 5.4   | 8.2   |



#28  
Fluoranthene  
Concen: 5.420 ng  
RT: 19.266 min Scan# 1992  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 8.7   | 7.2   | 10.8  |
| 203     | 17.2  | 13.9  | 20.9  |





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.384 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

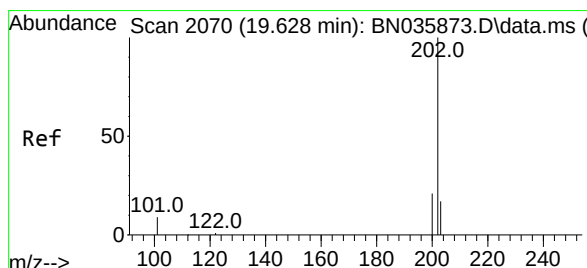
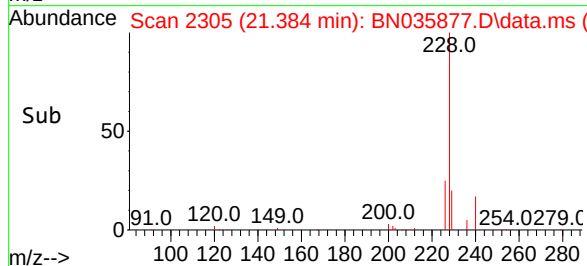
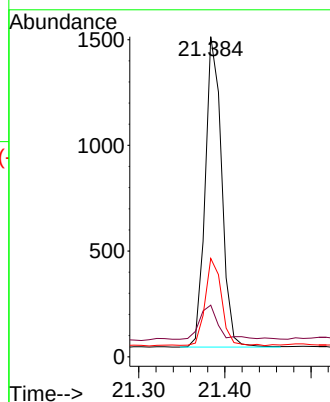
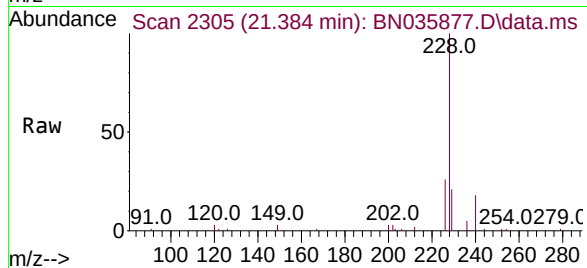
Tgt Ion:240 Resp: 1949

Ion Ratio Lower Upper

240 100

120 16.1 11.1 16.7

236 30.7 24.6 36.8



#30

Pyrene

Concen: 5.009 ng

RT: 19.628 min Scan# 2070

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

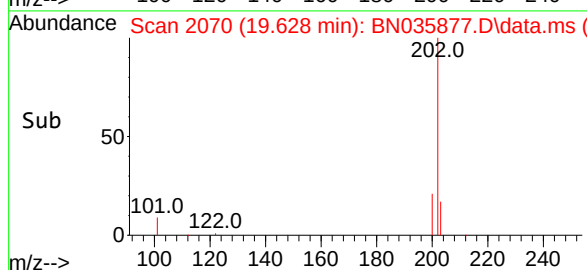
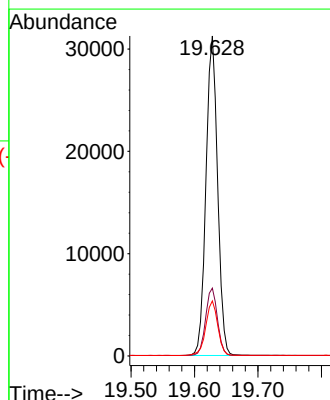
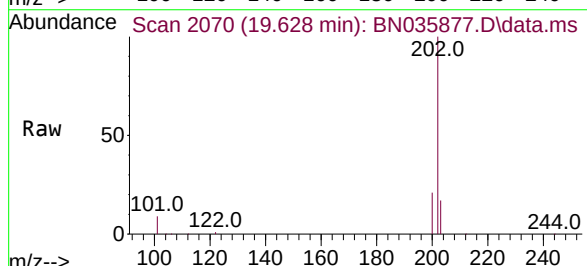
Tgt Ion:202 Resp: 39641

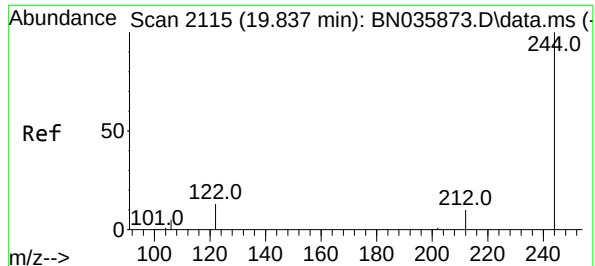
Ion Ratio Lower Upper

202 100

200 21.4 17.0 25.6

203 17.6 14.6 22.0

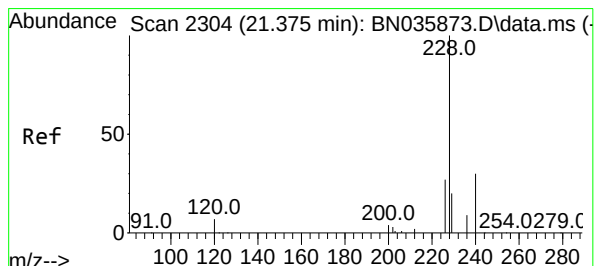
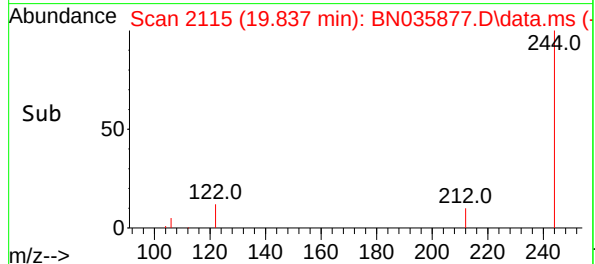
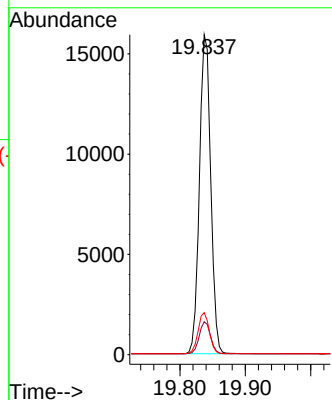
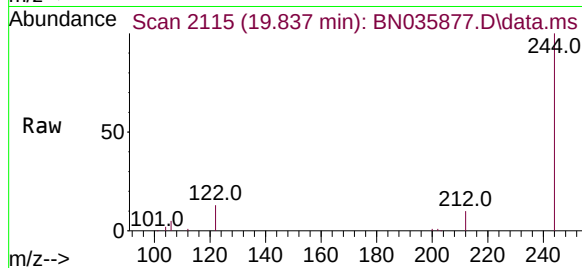




#31  
Terphenyl-d14  
Concen: 4.901 ng  
RT: 19.837 min Scan# 2115  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

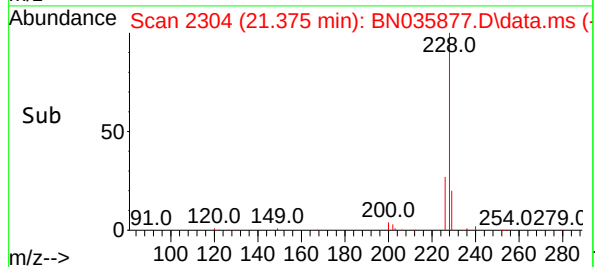
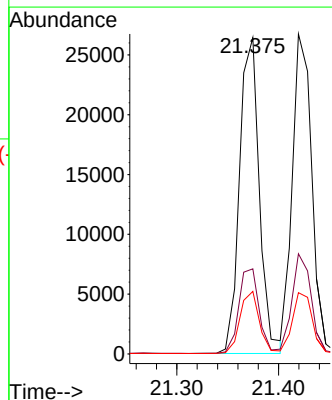
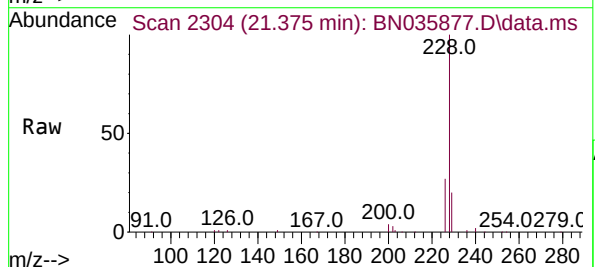
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC5.0

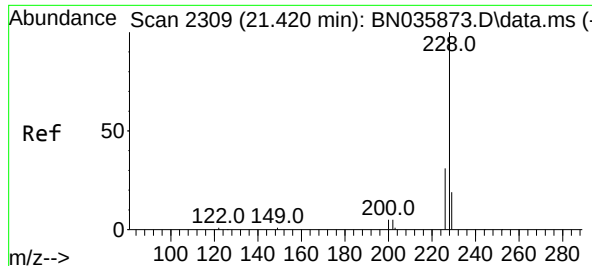
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 10.3  | 10.1  | 15.1  |
| 122     | 13.1  | 12.2  | 18.4  |



#32  
Benzo(a)anthracene  
Concen: 5.199 ng  
RT: 21.375 min Scan# 2304  
Delta R.T. -0.000 min  
Lab File: BN035877.D  
Acq: 02 Jan 2025 15:04

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 26.9  | 22.7  | 34.1  |
| 229     | 19.8  | 17.1  | 25.7  |





#33

Chrysene

Concen: 4.987 ng

RT: 21.419 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

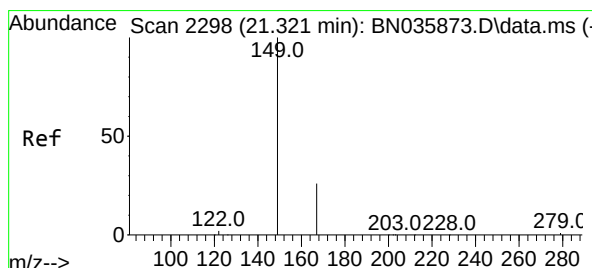
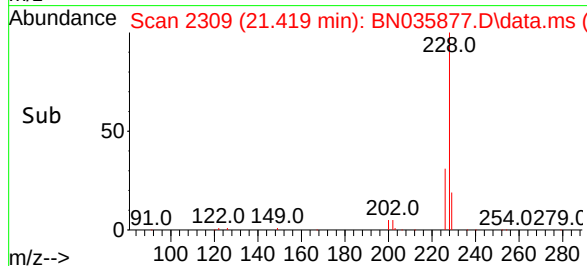
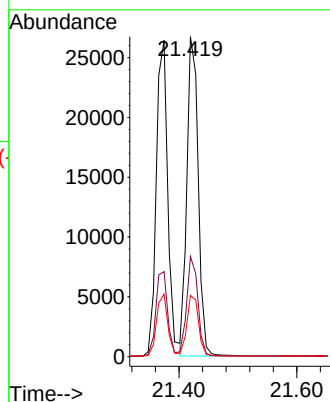
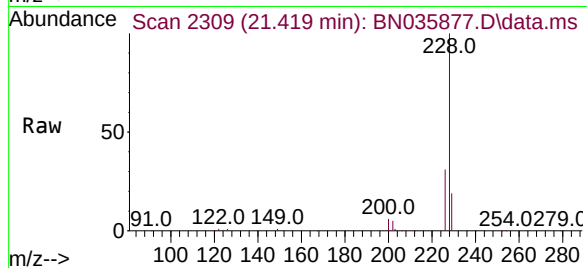
Tgt Ion:228 Resp: 35830

Ion Ratio Lower Upper

228 100

226 31.3 25.2 37.8

229 19.2 16.0 24.0



#34

Bis(2-ethylhexyl)phthalate

Concen: 4.623 ng

RT: 21.330 min Scan# 2299

Delta R.T. 0.009 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

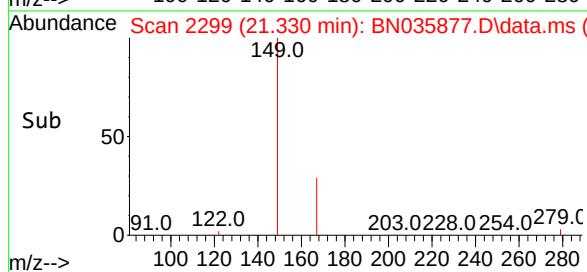
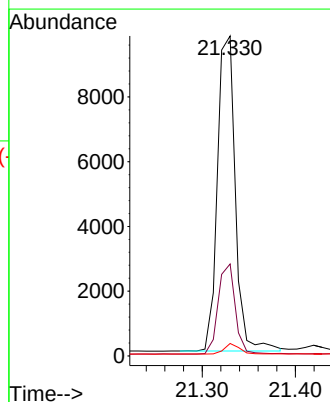
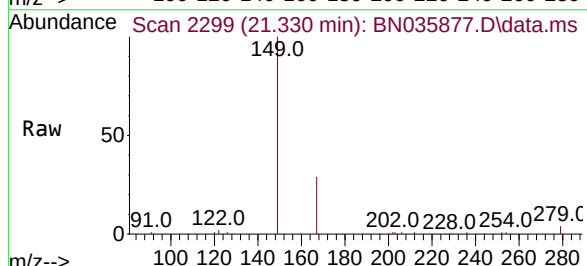
Tgt Ion:149 Resp: 12924

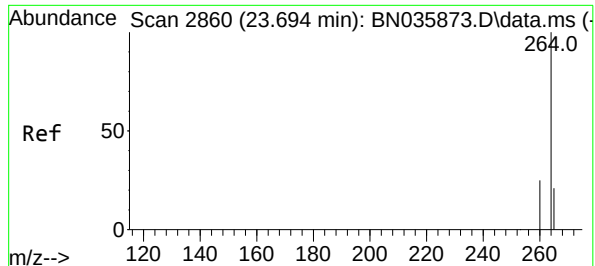
Ion Ratio Lower Upper

149 100

167 27.2 21.4 32.0

279 2.8 3.0 4.6#





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.694 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

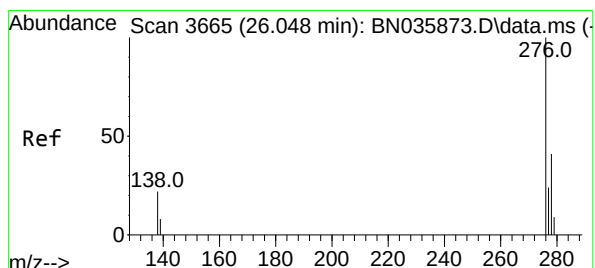
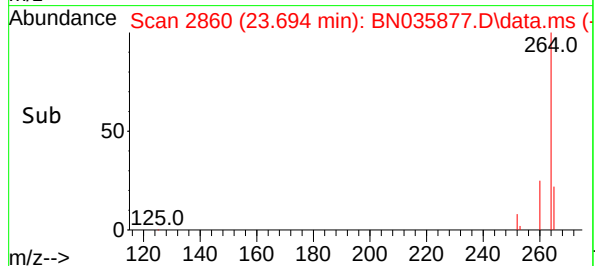
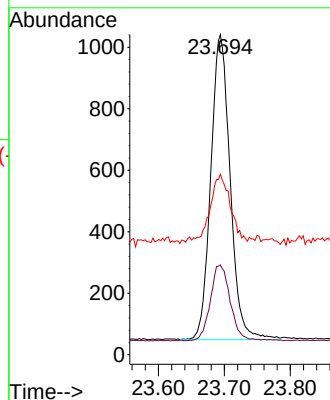
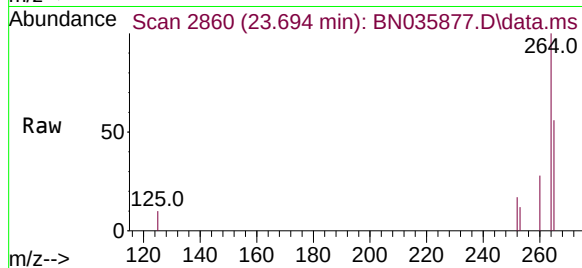
Tgt Ion:264 Resp: 2023

Ion Ratio Lower Upper

264 100

260 28.0 21.7 32.5

265 56.4 33.9 50.9#



#36

Indeno(1,2,3-cd)pyrene

Concen: 5.549 ng

RT: 26.050 min Scan# 3666

Delta R.T. 0.003 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

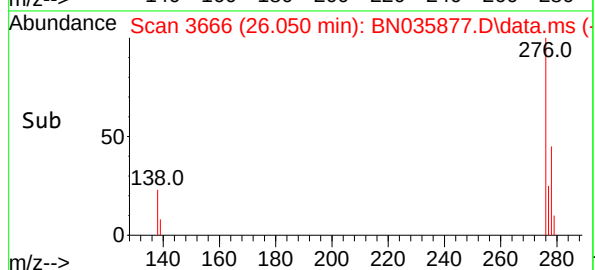
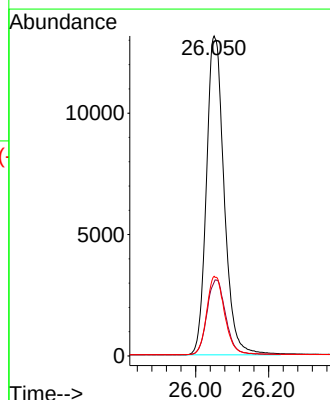
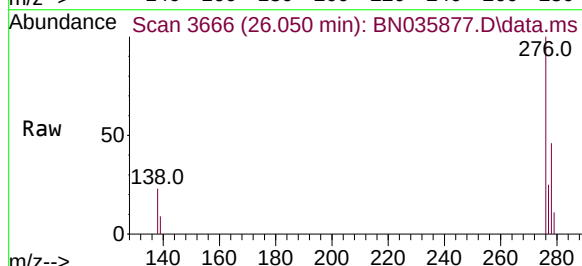
Tgt Ion:276 Resp: 44269

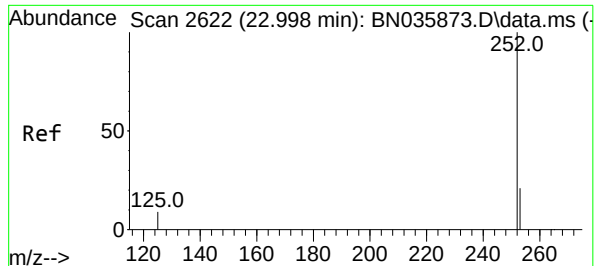
Ion Ratio Lower Upper

276 100

138 24.6 18.9 28.3

277 24.9 19.5 29.3





#37

Benzo(b)fluoranthene

Concen: 5.265 ng

RT: 22.998 min Scan# 2622

Delta R.T. -0.000 min

Lab File: BN035877.D

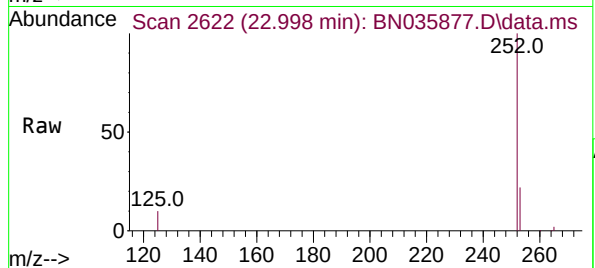
Acq: 02 Jan 2025 15:04

Instrument :

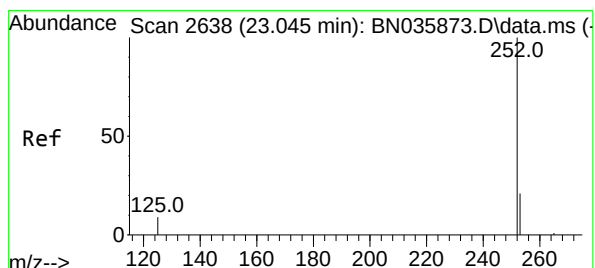
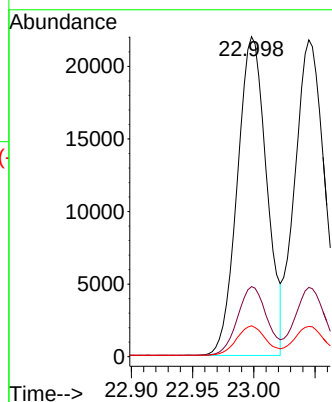
BNA\_N

ClientSampleId :

SSTDICC5.0



|             |       |             |
|-------------|-------|-------------|
| Tgt Ion:252 | Resp: | 36590       |
| Ion         | Ratio | Lower Upper |
| 252         | 100   |             |
| 253         | 21.9  | 20.1 30.1   |
| 125         | 9.7   | 9.9 14.9    |



#38

Benzo(k)fluoranthene

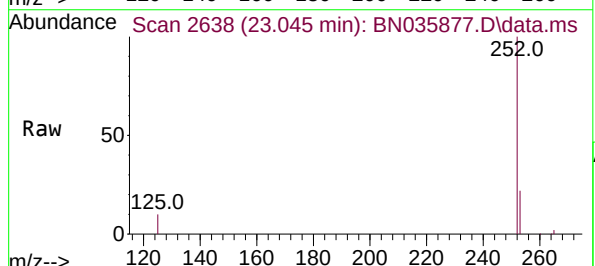
Concen: 5.447 ng

RT: 23.045 min Scan# 2638

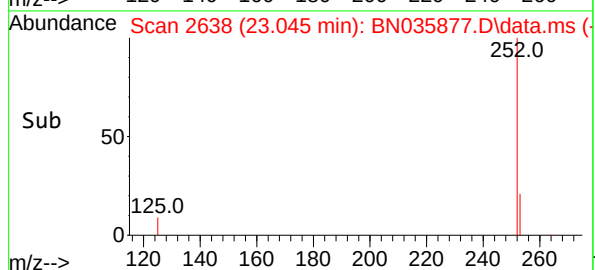
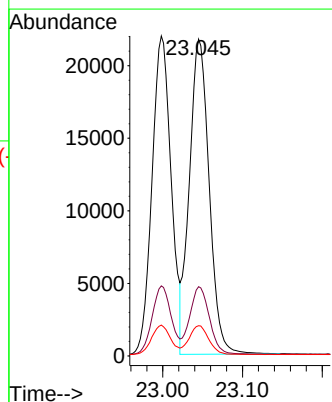
Delta R.T. -0.000 min

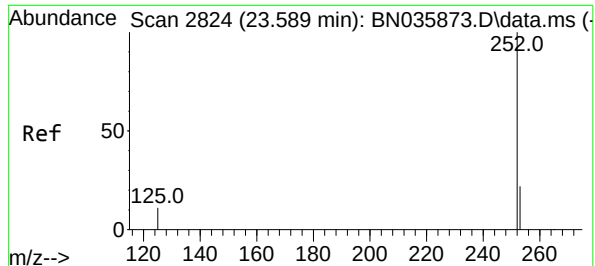
Lab File: BN035877.D

Acq: 02 Jan 2025 15:04



|             |       |             |
|-------------|-------|-------------|
| Tgt Ion:252 | Resp: | 37476       |
| Ion         | Ratio | Lower Upper |
| 252         | 100   |             |
| 253         | 21.9  | 20.5 30.7   |
| 125         | 9.5   | 10.6 16.0   |





#39

Benzo(a)pyrene

Concen: 5.398 ng

RT: 23.592 min Scan# 21

Delta R.T. 0.003 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0

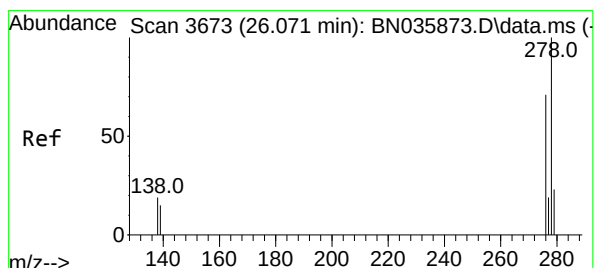
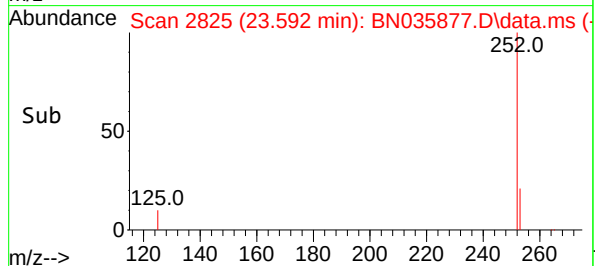
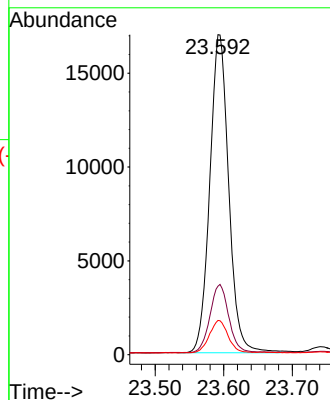
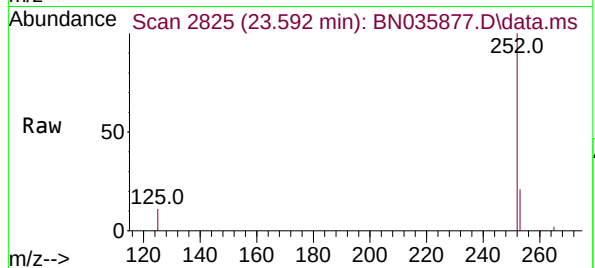
Tgt Ion:252 Resp: 32476

Ion Ratio Lower Upper

252 100

253 21.4 21.5 32.3#

125 10.7 12.6 19.0#



#40

Dibenzo(a,h)anthracene

Concen: 5.585 ng

RT: 26.071 min Scan# 3673

Delta R.T. -0.000 min

Lab File: BN035877.D

Acq: 02 Jan 2025 15:04

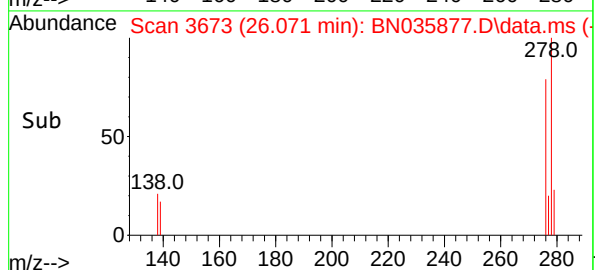
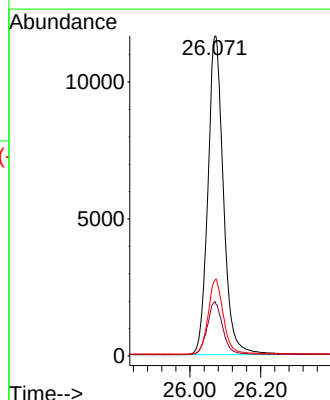
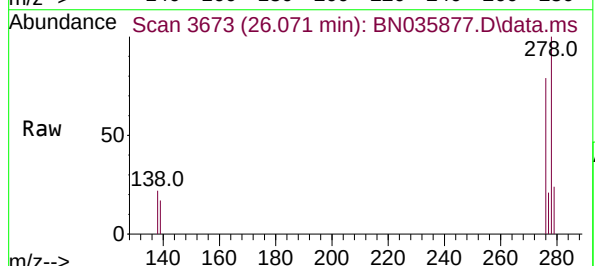
Tgt Ion:278 Resp: 35448

Ion Ratio Lower Upper

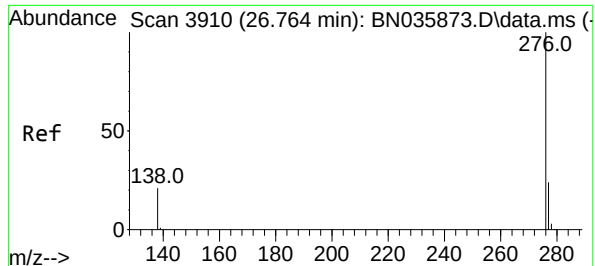
278 100

139 17.0 15.9 23.9

279 23.7 23.0 34.4







#41

Benzo(g,h,i)perylene

Concen: 5.450 ng

RT: 26.770 min Scan# 3910

Delta R.T. 0.006 min

Lab File: BN035877.D

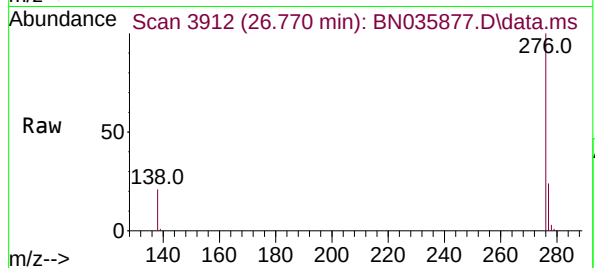
Acq: 02 Jan 2025 15:04

Instrument :

BNA\_N

ClientSampleId :

SSTDICC5.0



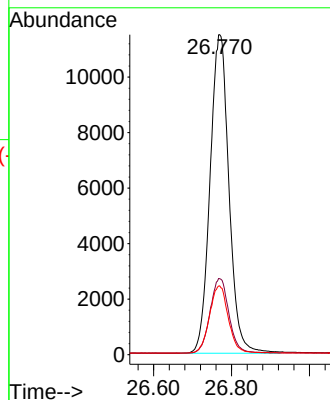
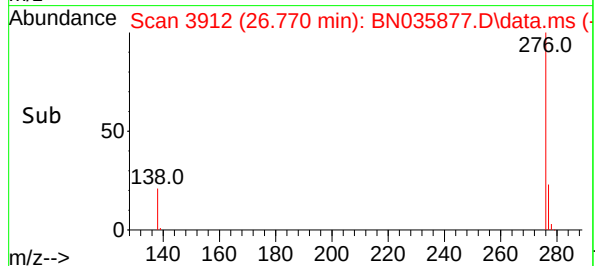
Tgt Ion:276 Resp: 38678

Ion Ratio Lower Upper

276 100

277 23.7 22.8 34.2

138 21.5 20.1 30.1



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
 Data File : BN035878.D  
 Acq On : 02 Jan 2025 15:51  
 Operator : RC/JU  
 Sample : SSTDICV0.4  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN010225

Quant Time: Jan 02 16:21:10 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

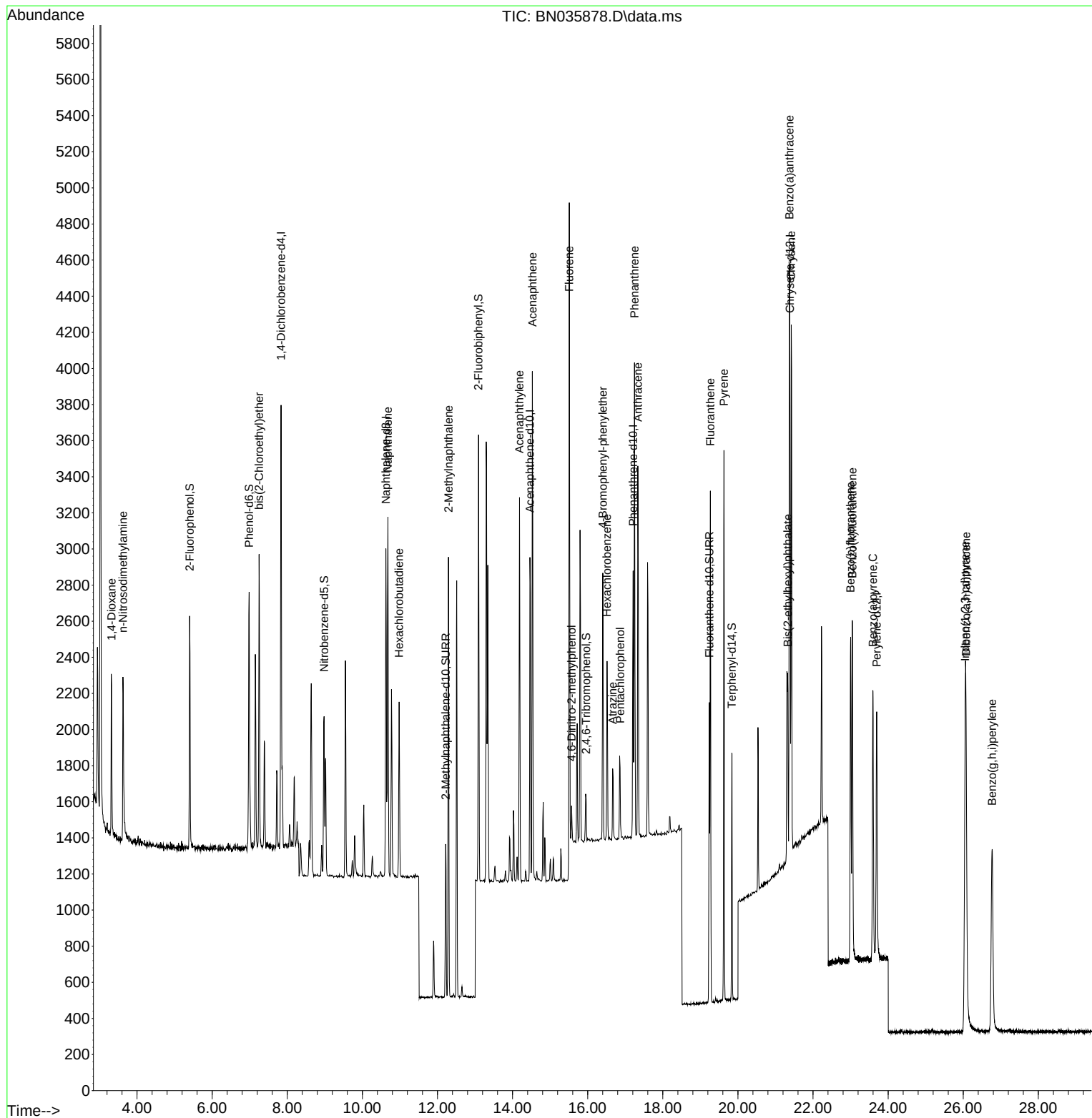
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.835  | 152  | 1111     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.625 | 136  | 2204     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.462 | 164  | 1019     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.210 | 188  | 1951     | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.384 | 240  | 1648     | 0.400 | ng    | # 0.00   |
| 35) Perylene-d12              | 23.697 | 264  | 1887     | 0.400 | ng    | # 0.00   |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.401  | 112  | 933      | 0.342 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.983  | 99   | 1123     | 0.332 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.981  | 82   | 694      | 0.398 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.217 | 152  | 1148     | 0.389 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.956 | 330  | 171      | 0.350 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 13.093 | 172  | 1929     | 0.431 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.238 | 212  | 1850     | 0.382 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.837 | 244  | 1291     | 0.393 | ng    | 0.00     |
| Target Compounds              |        |      |          |       |       |          |
| 2) 1,4-Dioxane                | 3.321  | 88   | 520      | 0.471 | ng    | 97       |
| 3) n-Nitrosodimethylamine     | 3.625  | 42   | 806      | 0.419 | ng    | # 97     |
| 6) bis(2-Chloroethyl)ether    | 7.250  | 93   | 1074     | 0.416 | ng    | 97       |
| 9) Naphthalene                | 10.679 | 128  | 2466     | 0.399 | ng    | 99       |
| 10) Hexachlorobutadiene       | 10.978 | 225  | 778      | 0.387 | ng    | # 98     |
| 12) 2-Methylnaphthalene       | 12.293 | 142  | 1561     | 0.408 | ng    | 98       |
| 16) Acenaphthylene            | 14.184 | 152  | 2167     | 0.452 | ng    | 100      |
| 17) Acenaphthene              | 14.526 | 154  | 1341     | 0.426 | ng    | 98       |
| 18) Fluorene                  | 15.509 | 166  | 1412     | 0.408 | ng    | 96       |
| 20) 4,6-Dinitro-2-methylph... | 15.571 | 198  | 139      | 0.410 | ng    | 97       |
| 21) 4-Bromophenyl-phenylether | 16.403 | 248  | 532      | 0.398 | ng    | 98       |
| 22) Hexachlorobenzene         | 16.515 | 284  | 743      | 0.407 | ng    | 99       |
| 23) Atrazine                  | 16.664 | 200  | 346      | 0.386 | ng    | 97       |
| 24) Pentachlorophenol         | 16.862 | 266  | 253      | 0.392 | ng    | 95       |
| 25) Phenanthrene              | 17.247 | 178  | 2381     | 0.418 | ng    | 99       |
| 26) Anthracene                | 17.334 | 178  | 2196     | 0.424 | ng    | 98       |
| 28) Fluoranthene              | 19.266 | 202  | 2530     | 0.381 | ng    | 99       |
| 30) Pyrene                    | 19.628 | 202  | 2613     | 0.391 | ng    | 99       |
| 32) Benzo(a)anthracene        | 21.375 | 228  | 2353     | 0.405 | ng    | 100      |
| 33) Chrysene                  | 21.419 | 228  | 2440     | 0.402 | ng    | 97       |
| 34) Bis(2-ethylhexyl)phtha... | 21.330 | 149  | 930      | 0.393 | ng    | 100      |
| 36) Indeno(1,2,3-cd)pyrene    | 26.050 | 276  | 2972     | 0.399 | ng    | 98       |
| 37) Benzo(b)fluoranthene      | 23.001 | 252  | 2413     | 0.372 | ng    | # 94     |
| 38) Benzo(k)fluoranthene      | 23.048 | 252  | 2442     | 0.381 | ng    | 96       |
| 39) Benzo(a)pyrene            | 23.594 | 252  | 2250     | 0.401 | ng    | 97       |
| 40) Dibenzo(a,h)anthracene    | 26.074 | 278  | 2353     | 0.397 | ng    | 98       |
| 41) Benzo(g,h,i)perylene      | 26.767 | 276  | 2378     | 0.359 | ng    | 98       |

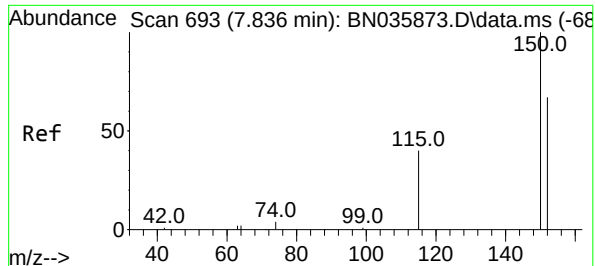
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
Data File : BN035878.D  
Acq On : 02 Jan 2025 15:51  
Operator : RC/JU  
Sample : SSTDICV0.4  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN010225

Quant Time: Jan 02 16:21:10 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

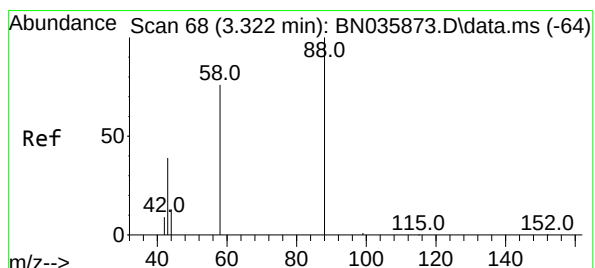
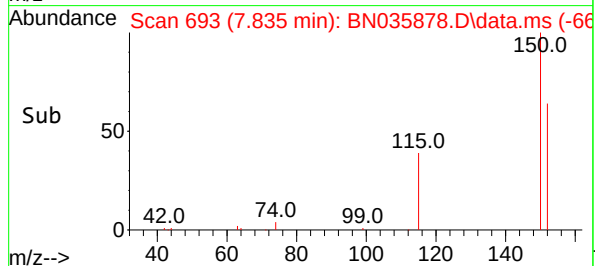
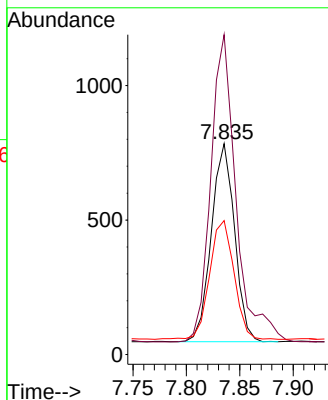
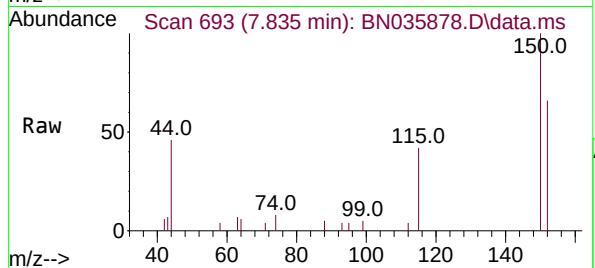




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.835 min Scan# 693  
Delta R.T. -0.001 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

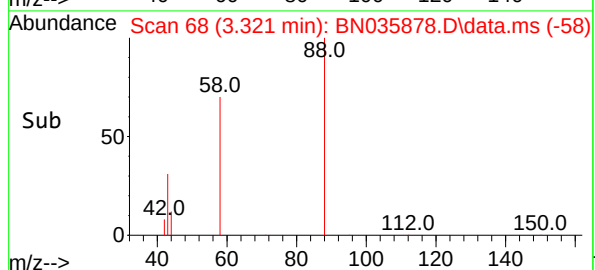
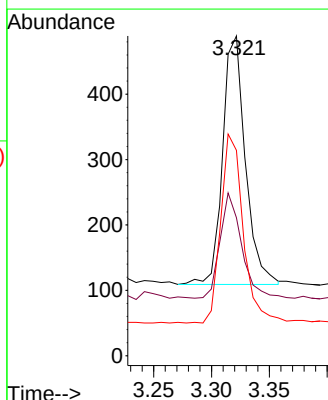
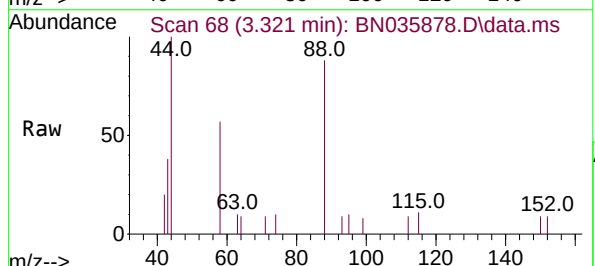
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN010225

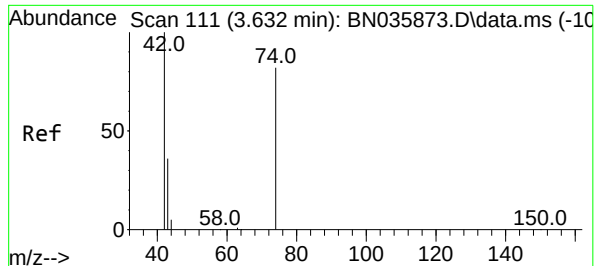
Tgt Ion: 152 Resp: 1111  
Ion Ratio Lower Upper  
152 100  
150 151.7 117.8 176.6  
115 63.5 51.0 76.4



#2  
1,4-Dioxane  
Concen: 0.471 ng  
RT: 3.321 min Scan# 68  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

Tgt Ion: 88 Resp: 520  
Ion Ratio Lower Upper  
88 100  
43 40.0 32.7 49.1  
58 75.0 63.0 94.4

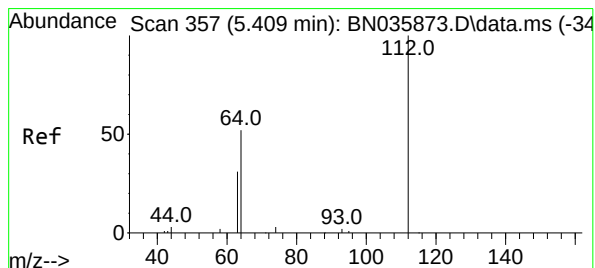
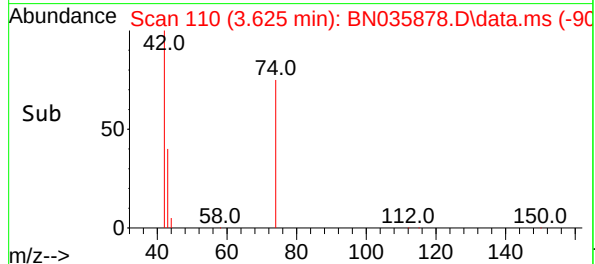
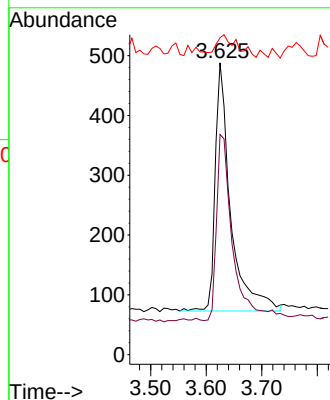
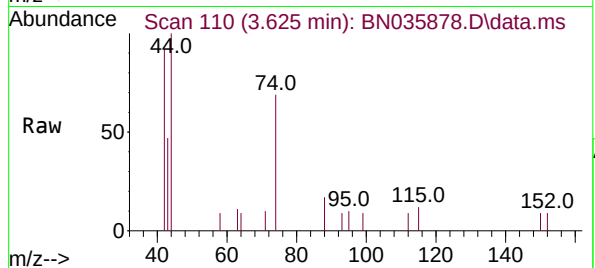




#3  
n-Nitrosodimethylamine  
Concen: 0.419 ng  
RT: 3.625 min Scan# 111  
Delta R.T. -0.007 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

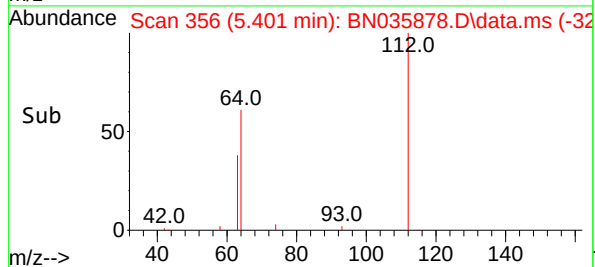
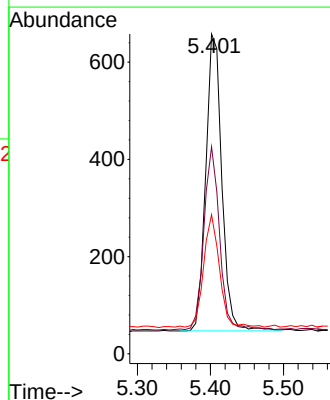
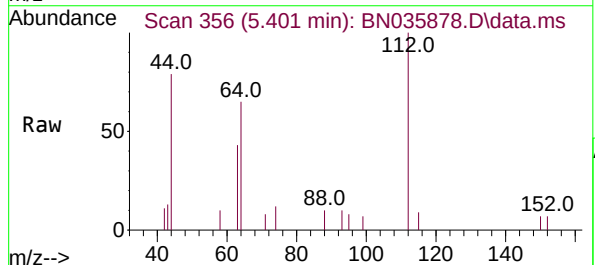
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN010225

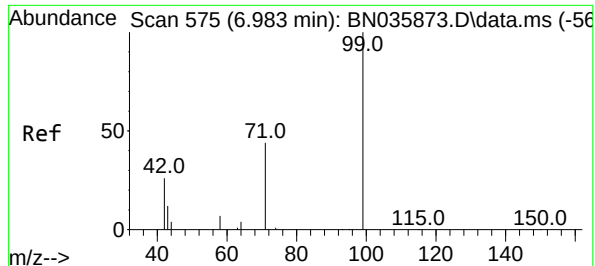
Tgt Ion: 42 Resp: 806  
Ion Ratio Lower Upper  
42 100  
74 79.4 62.2 93.2  
44 12.0 7.1 10.7#



#4  
2-Fluorophenol  
Concen: 0.342 ng  
RT: 5.401 min Scan# 356  
Delta R.T. -0.007 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

Tgt Ion: 112 Resp: 933  
Ion Ratio Lower Upper  
112 100  
64 60.5 48.2 72.2  
63 36.9 30.0 45.0

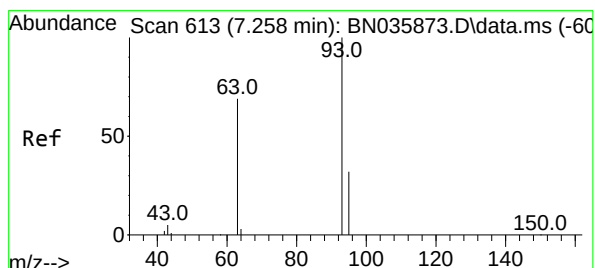
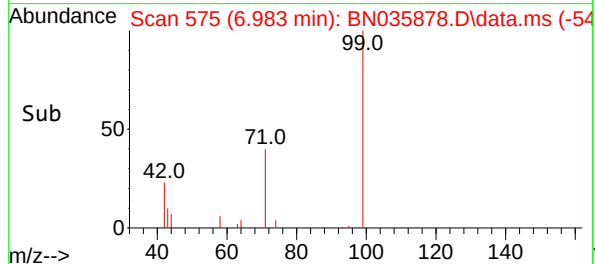
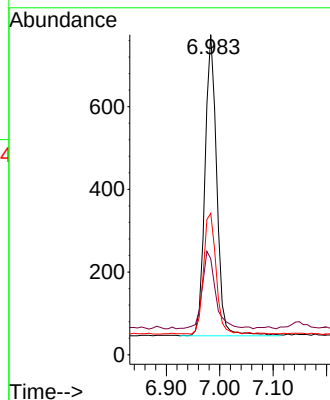
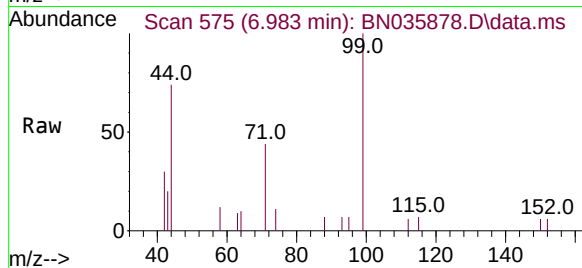




#5  
Phenol-d6  
Concen: 0.332 ng  
RT: 6.983 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

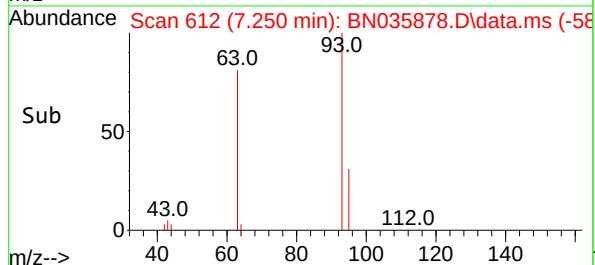
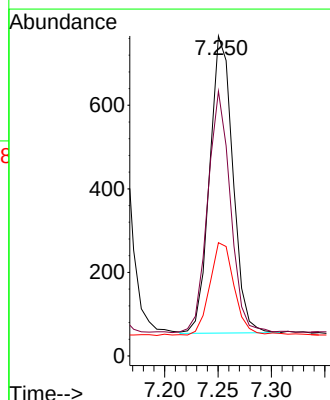
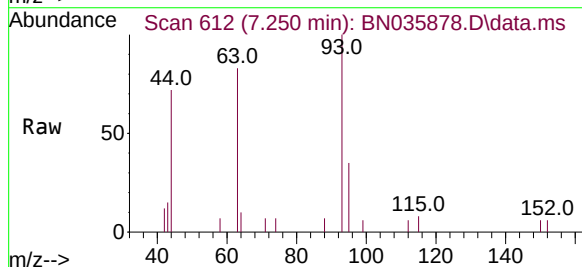
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN010225

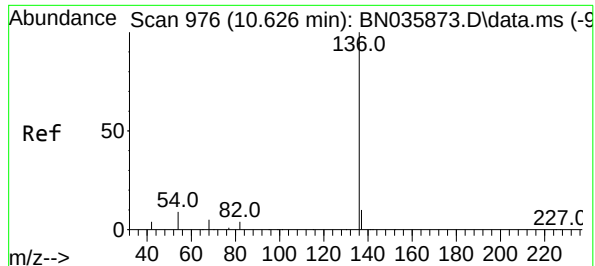
Tgt Ion: 99 Resp: 1123  
Ion Ratio Lower Upper  
99 100  
42 29.0 23.5 35.3  
71 42.0 35.5 53.3



#6  
bis(2-Chloroethyl)ether  
Concen: 0.416 ng  
RT: 7.250 min Scan# 612  
Delta R.T. -0.007 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

Tgt Ion: 93 Resp: 1074  
Ion Ratio Lower Upper  
93 100  
63 80.4 62.0 93.0  
95 33.2 25.5 38.3

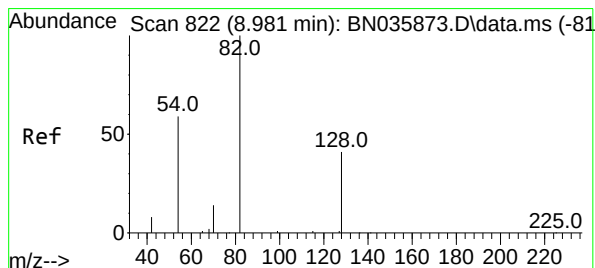
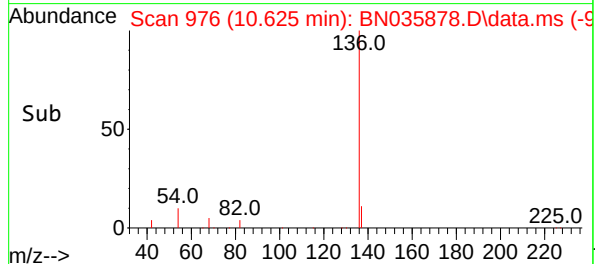
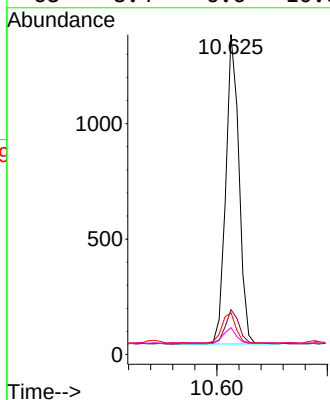
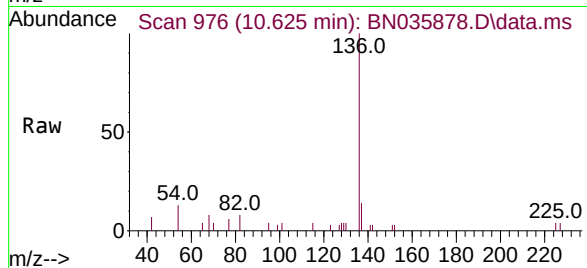




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.625 min Scan# 91  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

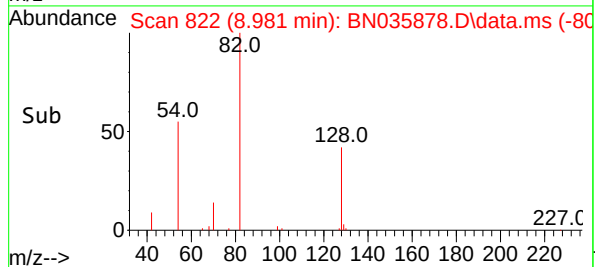
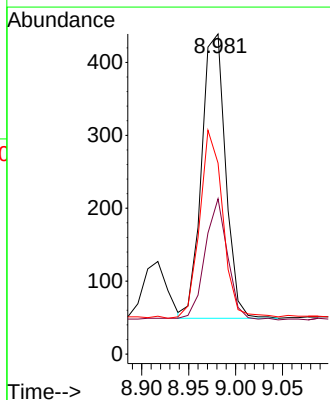
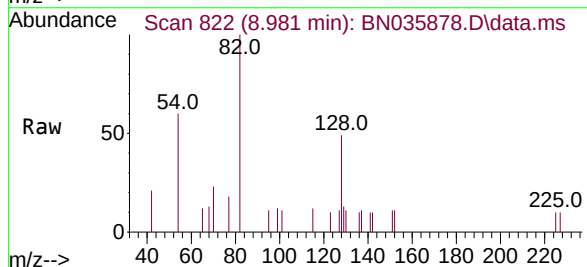
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN010225

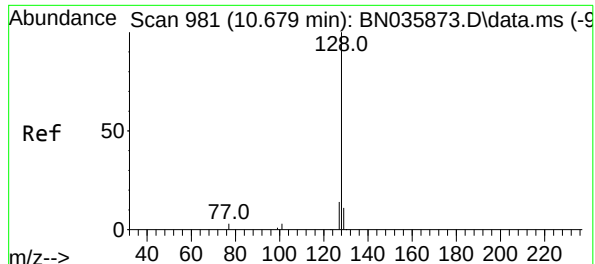
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 2204  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 14.0  | 10.6  | 15.8  |
| 54       | 13.1  | 9.8   | 14.6  |
| 68       | 8.4   | 6.6   | 10.0  |



#8  
Nitrobenzene-d5  
Concen: 0.398 ng  
RT: 8.981 min Scan# 822  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 694   |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 48.5  | 36.9  | 55.3  |
| 54       | 59.7  | 50.4  | 75.6  |

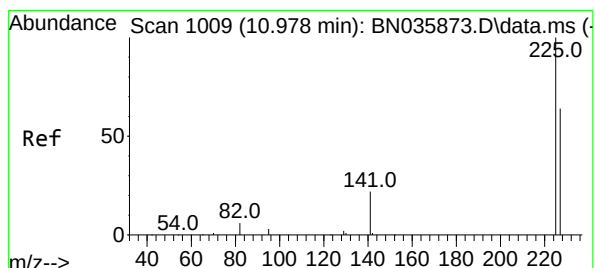
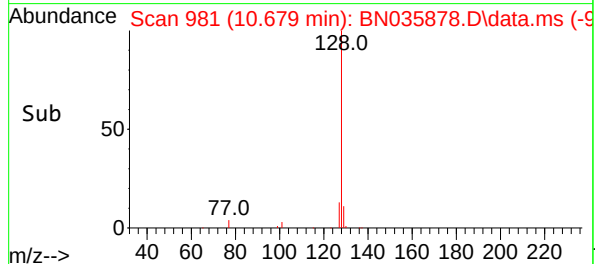
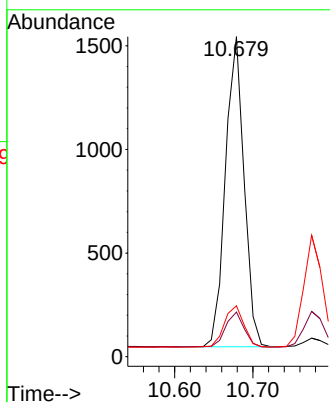
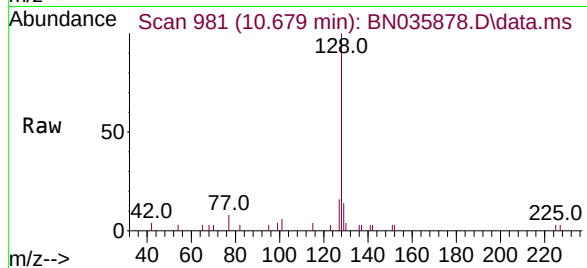




#9  
Naphthalene  
Concen: 0.399 ng  
RT: 10.679 min Scan# 981  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

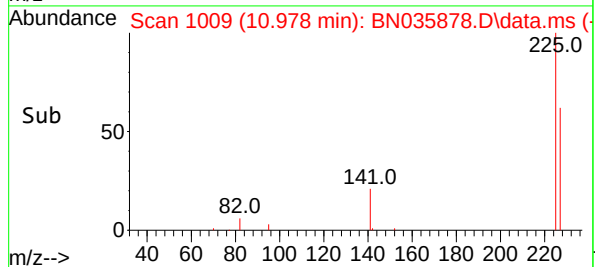
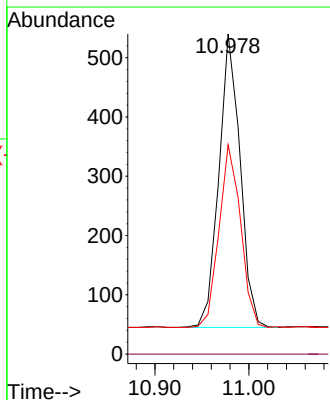
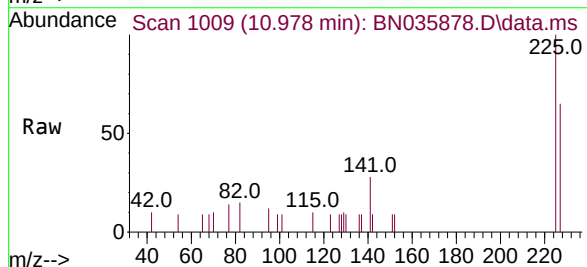
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN010225

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 128   | Resp: | 2466  |
| Ion      | Ratio | Lower | Upper |
| 128      | 100   |       |       |
| 129      | 14.0  | 10.6  | 16.0  |
| 127      | 15.9  | 12.8  | 19.2  |

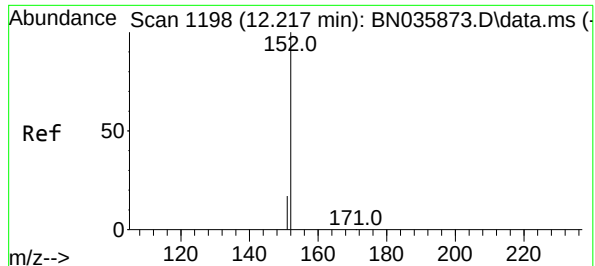


#10  
Hexachlorobutadiene  
Concen: 0.387 ng  
RT: 10.978 min Scan# 1009  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 225   | Resp: | 778   |
| Ion      | Ratio | Lower | Upper |
| 225      | 100   |       |       |
| 223      | 0.0   | 0.0   | 0.0   |
| 227      | 63.1  | 51.5  | 77.3  |



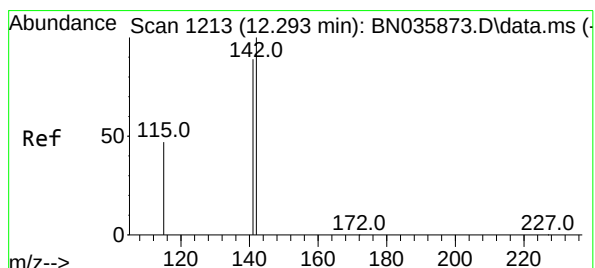
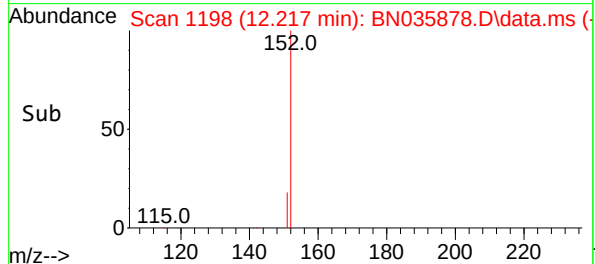
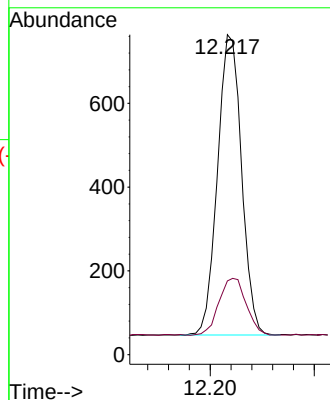
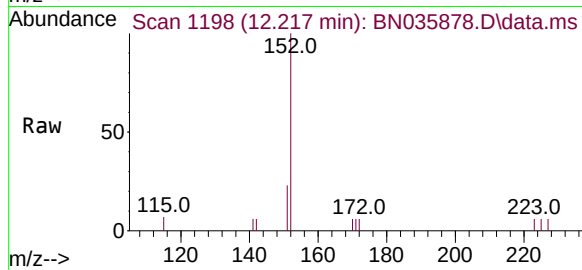




#11  
2-Methylnaphthalene-d10  
Concen: 0.389 ng  
RT: 12.217 min Scan# 1198  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

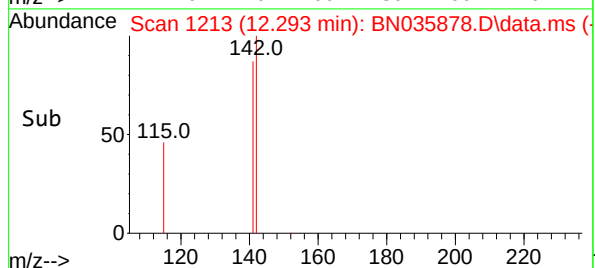
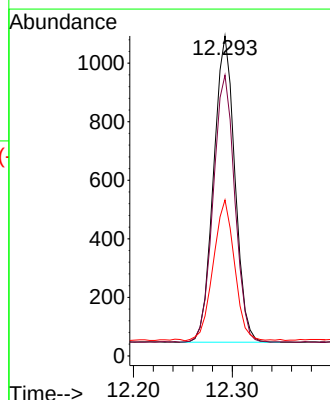
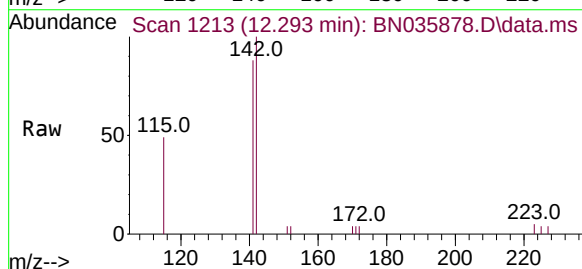
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN010225

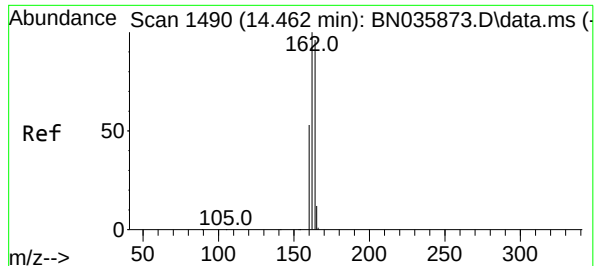
Tgt Ion:152 Resp: 1148  
Ion Ratio Lower Upper  
152 100  
151 21.7 17.0 25.6



#12  
2-Methylnaphthalene  
Concen: 0.408 ng  
RT: 12.293 min Scan# 1213  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

Tgt Ion:142 Resp: 1561  
Ion Ratio Lower Upper  
142 100  
141 87.7 71.9 107.9  
115 48.8 39.6 59.4





#13

Acenaphthene-d10

Concen: 0.400 ng

RT: 14.462 min Scan# 1490

Delta R.T. -0.000 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN010225

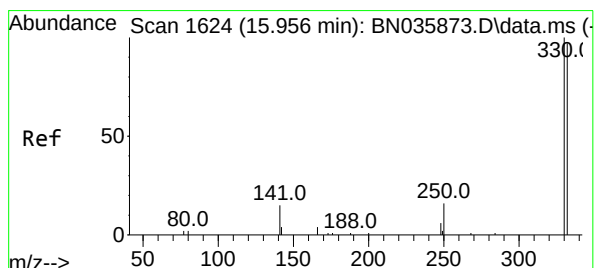
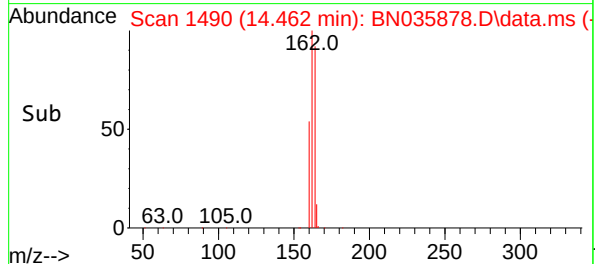
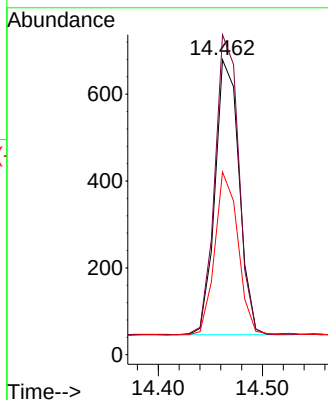
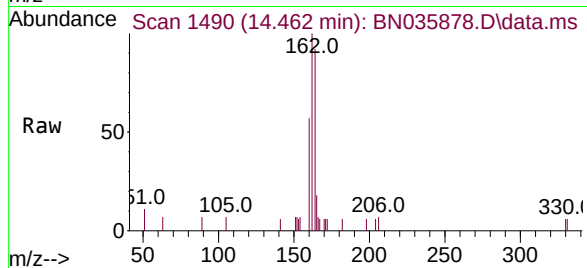
Tgt Ion:164 Resp: 1019

Ion Ratio Lower Upper

164 100

162 108.5 83.1 124.7

160 62.0 46.0 69.0



#14

2,4,6-Tribromophenol

Concen: 0.350 ng

RT: 15.956 min Scan# 1624

Delta R.T. -0.000 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

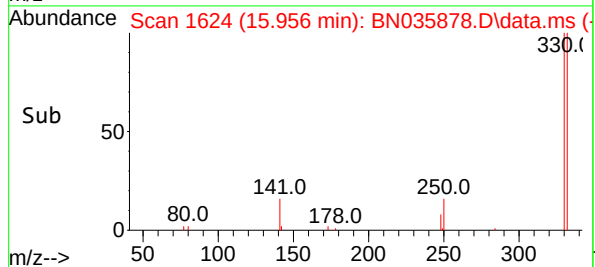
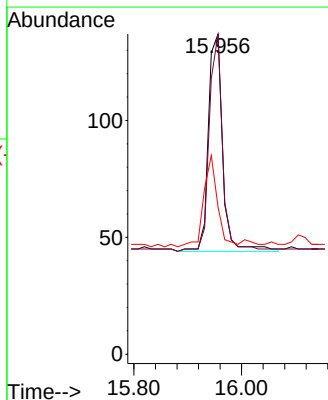
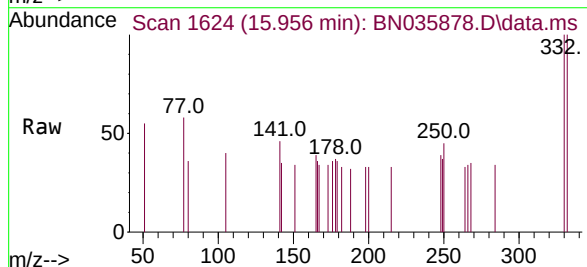
Tgt Ion:330 Resp: 171

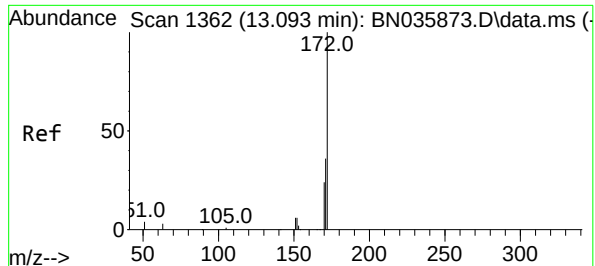
Ion Ratio Lower Upper

330 100

332 93.0 77.2 115.8

141 40.4 31.6 47.4





#15

2-Fluorobiphenyl

Concen: 0.431 ng

RT: 13.093 min Scan# 1362

Delta R.T. -0.000 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN010225

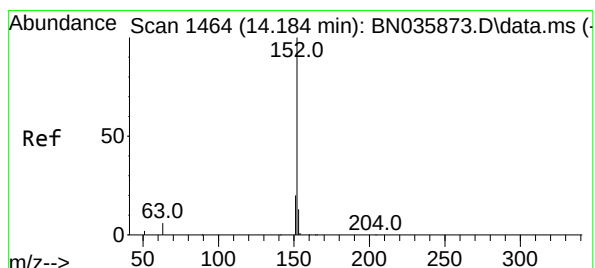
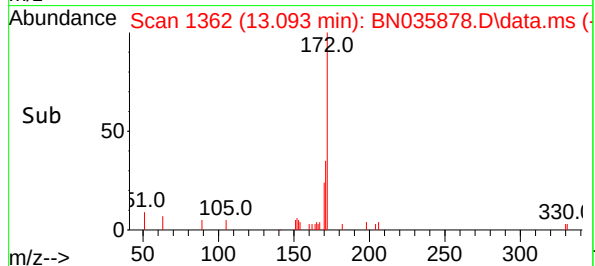
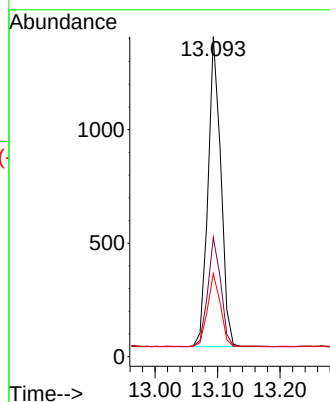
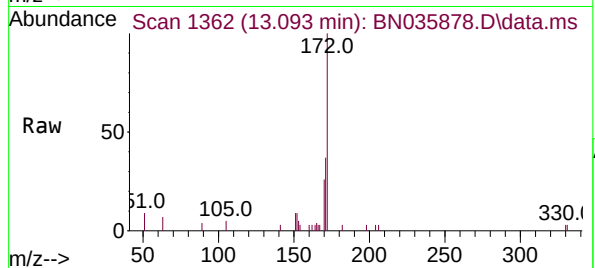
Tgt Ion:172 Resp: 1929

Ion Ratio Lower Upper

172 100

171 37.3 30.5 45.7

170 26.0 20.8 31.2



#16

Acenaphthylene

Concen: 0.452 ng

RT: 14.184 min Scan# 1464

Delta R.T. -0.000 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

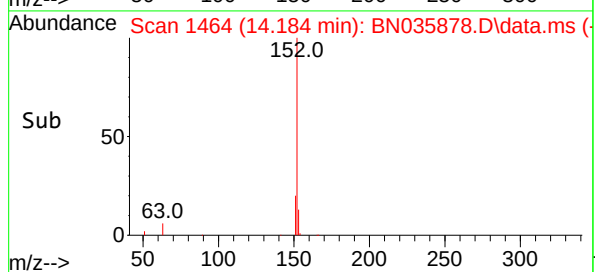
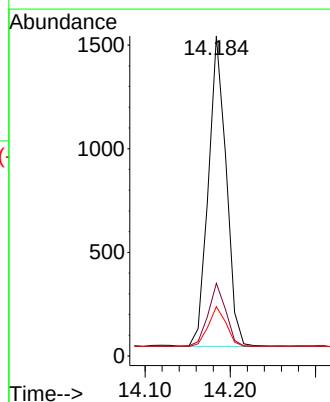
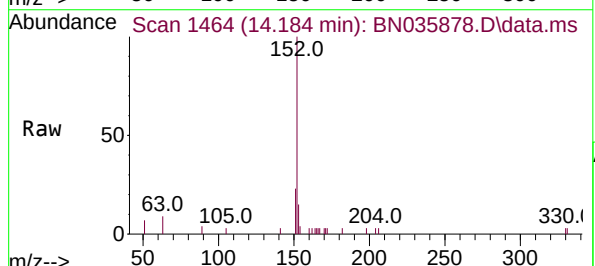
Tgt Ion:152 Resp: 2167

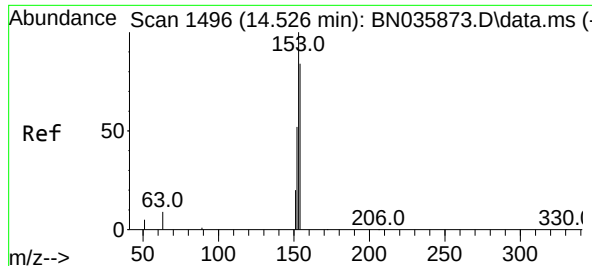
Ion Ratio Lower Upper

152 100

151 20.2 16.3 24.5

153 13.0 10.6 15.8

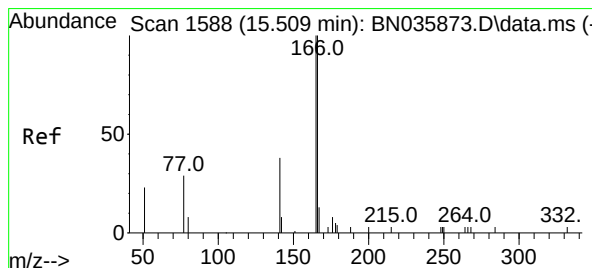
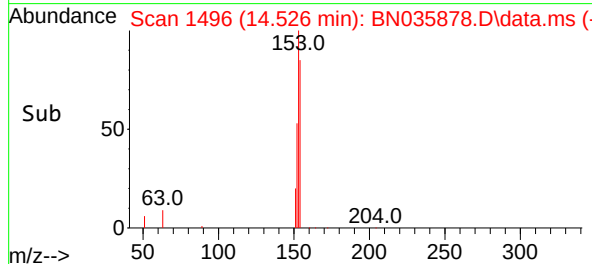
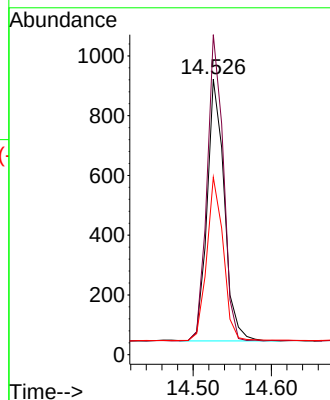
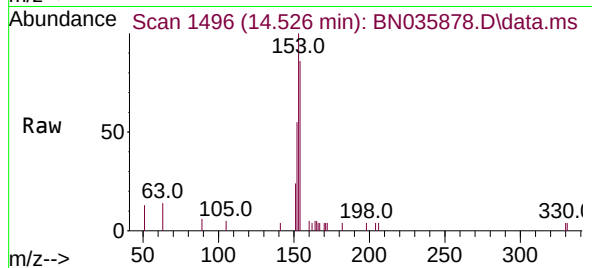




#17  
Acenaphthene  
Concen: 0.426 ng  
RT: 14.526 min Scan# 1496  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

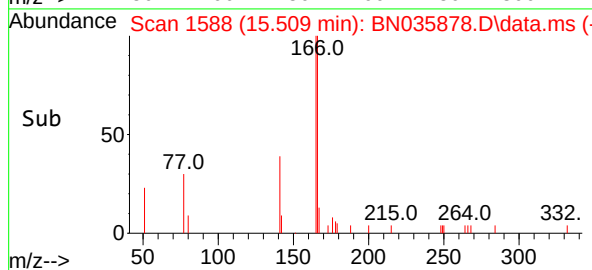
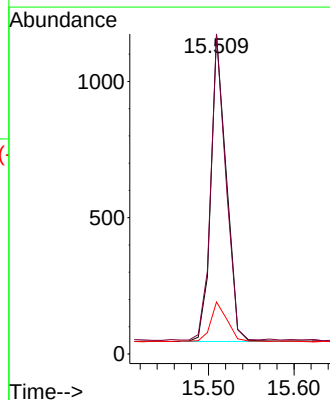
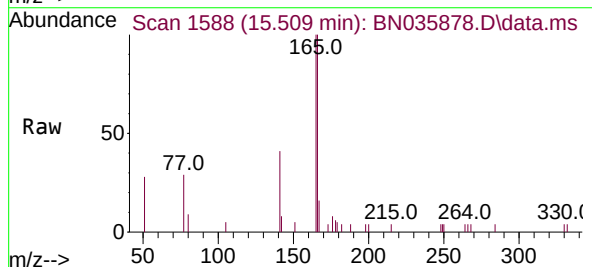
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN010225

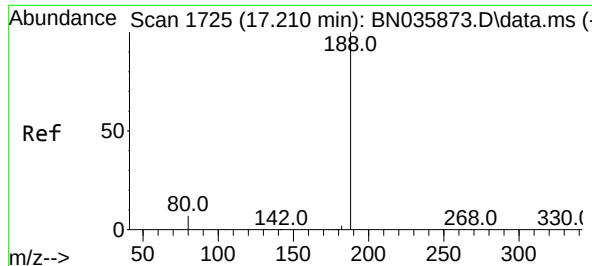
| Tgt Ion   | 154   | Resp  | 1341  |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 154       | 100   |       |       |
| 153       | 110.5 | 90.5  | 135.7 |
| 152       | 60.5  | 48.6  | 73.0  |



#18  
Fluorene  
Concen: 0.408 ng  
RT: 15.509 min Scan# 1588  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

| Tgt Ion   | 166   | Resp  | 1412  |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 166       | 100   |       |       |
| 165       | 96.0  | 80.6  | 120.8 |
| 167       | 14.0  | 11.4  | 17.0  |





#19

Phenanthrene-d10

Concen: 0.400 ng

RT: 17.210 min Scan# 1

Delta R.T. -0.000 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN010225

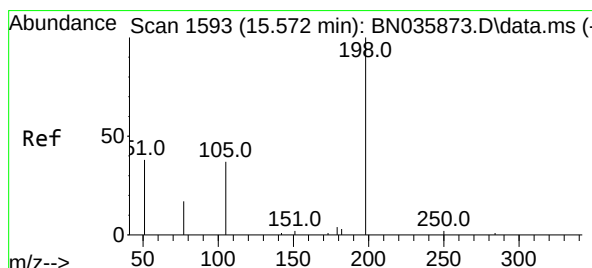
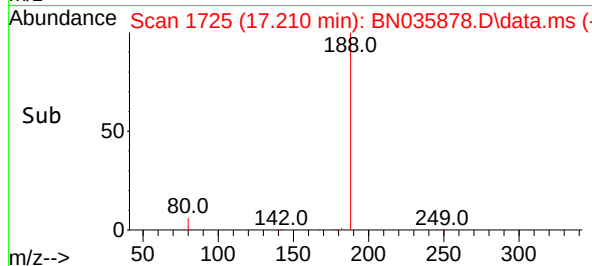
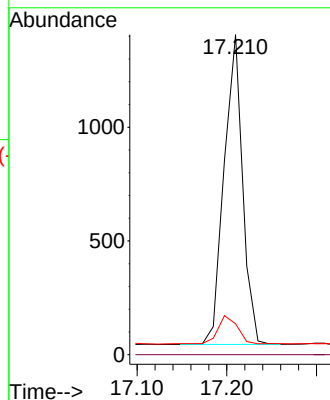
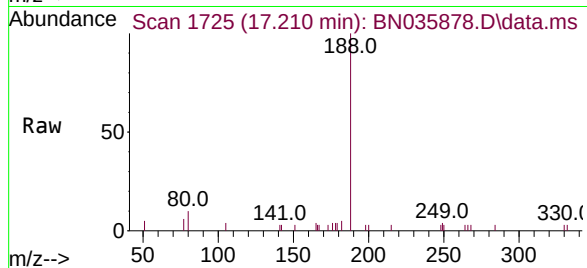
Tgt Ion:188 Resp: 1951

Ion Ratio Lower Upper

188 100

94 0.0 0.0 0.0

80 9.7 7.3 10.9



#20

4,6-Dinitro-2-methylphenol

Concen: 0.410 ng

RT: 15.571 min Scan# 1593

Delta R.T. -0.000 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

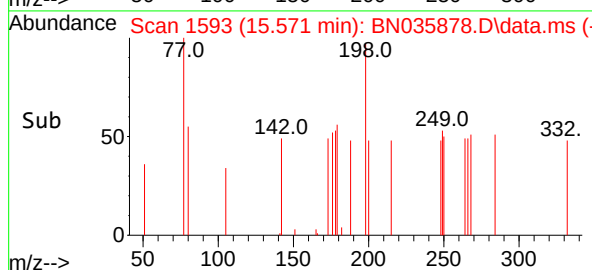
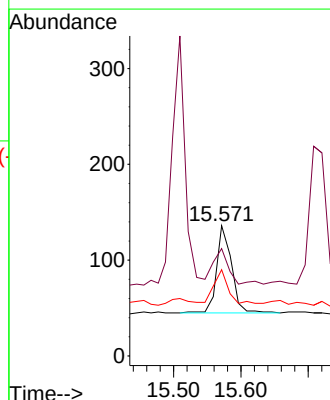
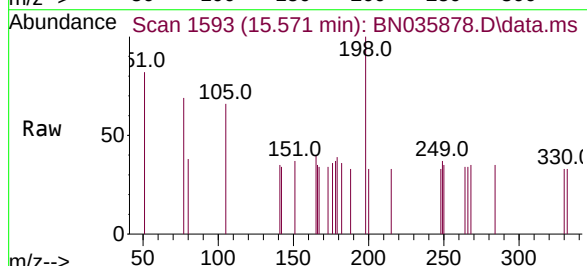
Tgt Ion:198 Resp: 139

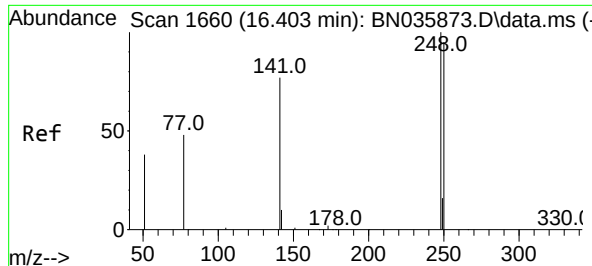
Ion Ratio Lower Upper

198 100

51 82.4 64.3 96.5

105 66.2 50.0 75.0

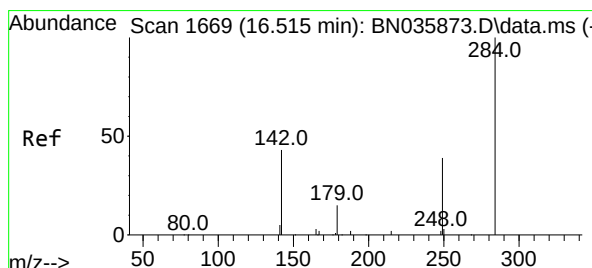
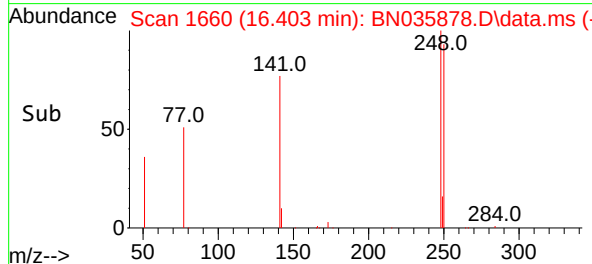
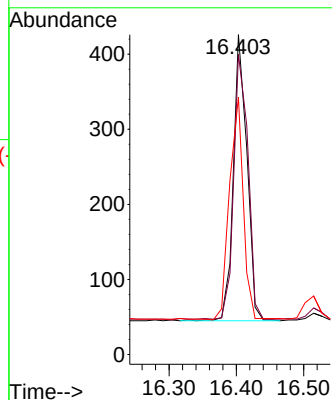
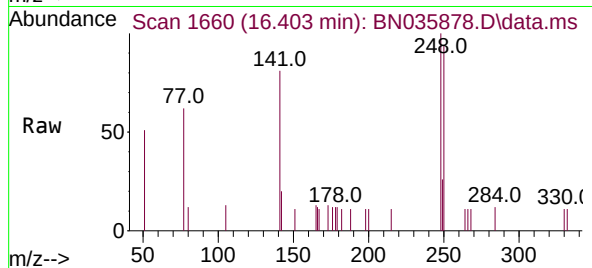




#21  
4-Bromophenyl-phenylether  
Concen: 0.398 ng  
RT: 16.403 min Scan# 1660  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

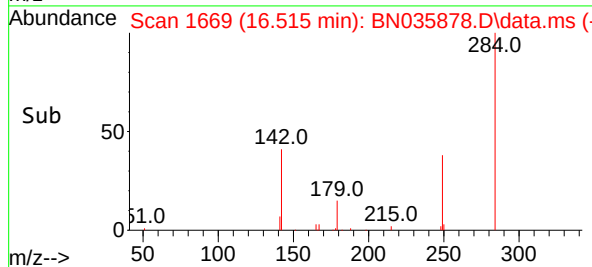
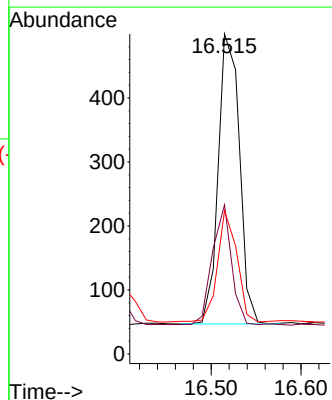
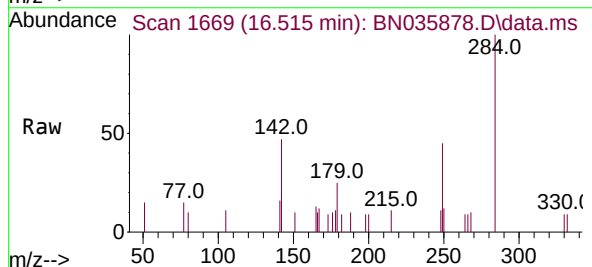
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN010225

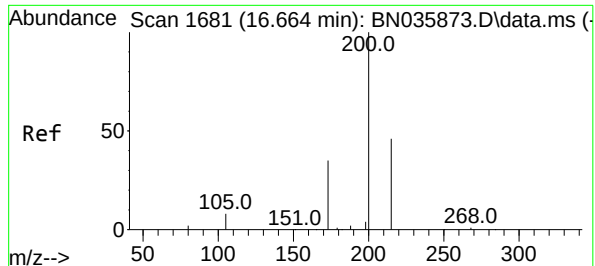
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 248     | 100   |       |       |
| 250     | 93.9  | 76.8  | 115.2 |
| 141     | 80.5  | 63.6  | 95.4  |



#22  
Hexachlorobenzene  
Concen: 0.407 ng  
RT: 16.515 min Scan# 1669  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 284     | 100   |       |       |
| 142     | 38.1  | 31.4  | 47.0  |
| 249     | 35.3  | 27.8  | 41.8  |





#23

Atrazine

Concen: 0.386 ng

RT: 16.664 min Scan# 1681

Delta R.T. -0.000 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN010225

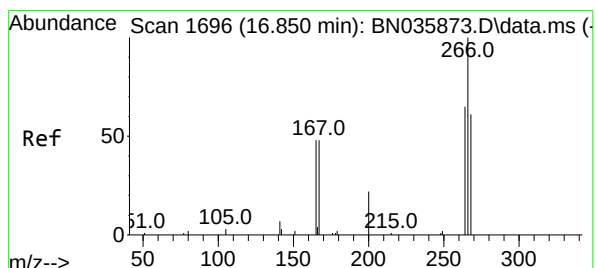
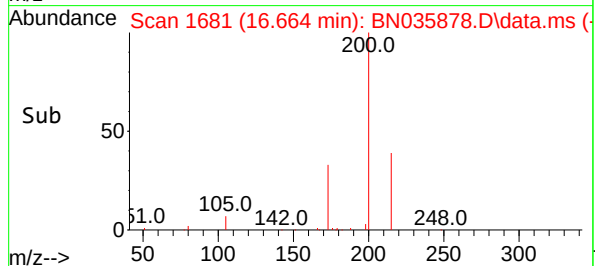
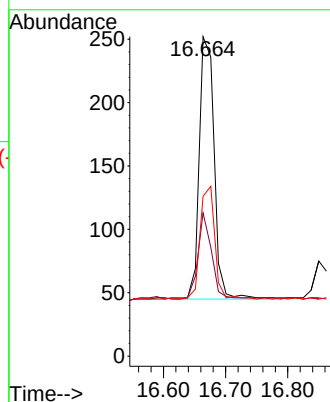
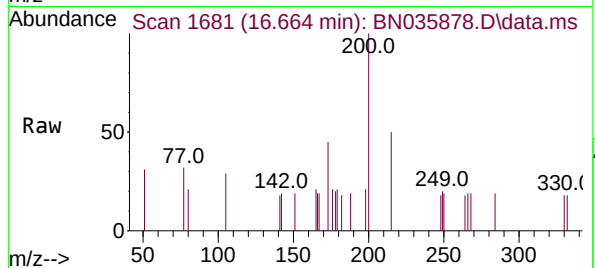
Tgt Ion:200 Resp: 346

Ion Ratio Lower Upper

200 100

173 44.8 35.4 53.0

215 50.0 42.4 63.6



#24

Pentachlorophenol

Concen: 0.392 ng

RT: 16.862 min Scan# 1697

Delta R.T. 0.012 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

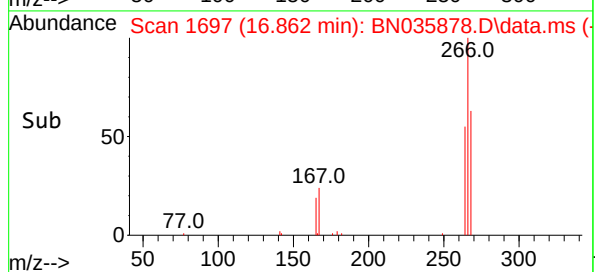
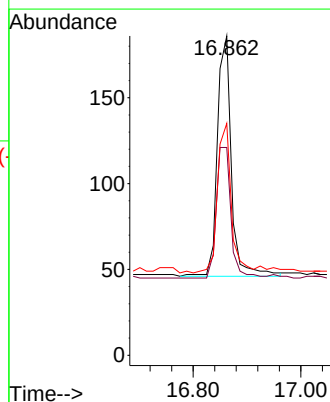
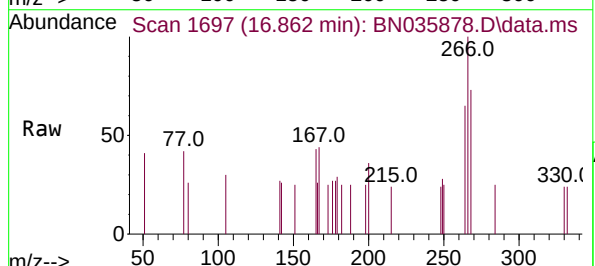
Tgt Ion:266 Resp: 253

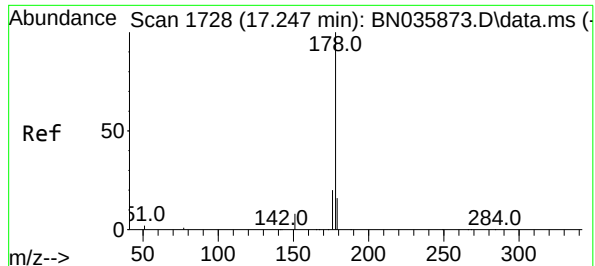
Ion Ratio Lower Upper

266 100

264 56.1 49.9 74.9

268 60.9 50.2 75.2

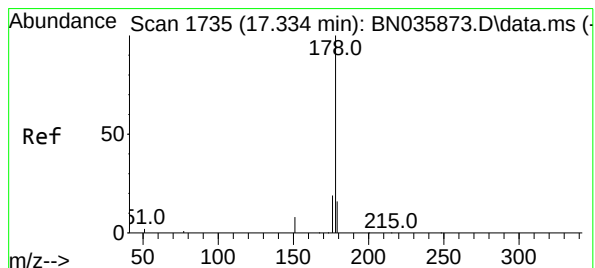
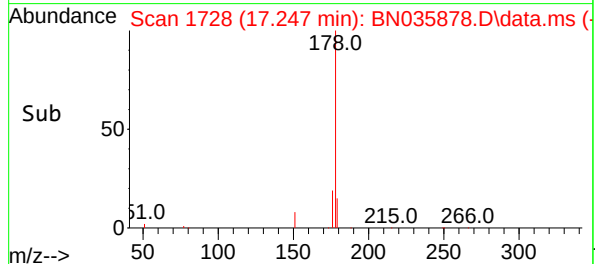
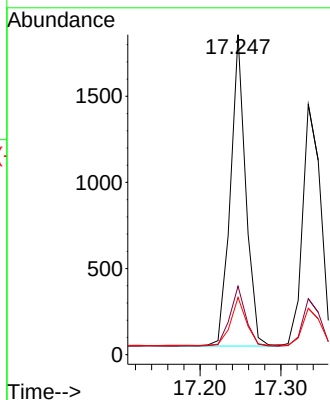
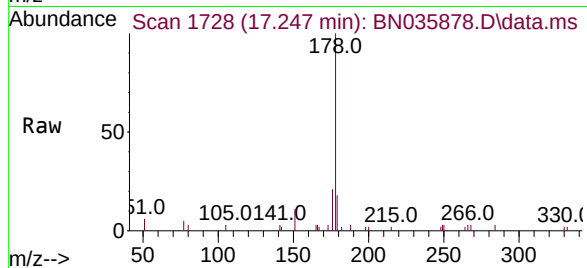




#25  
Phenanthrene  
Concen: 0.418 ng  
RT: 17.247 min Scan# 1728  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

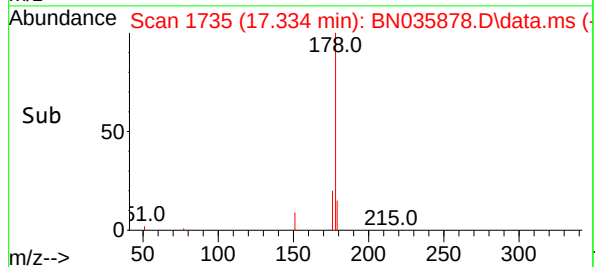
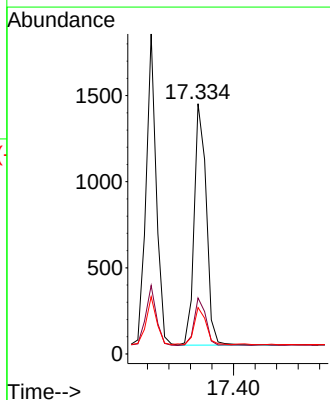
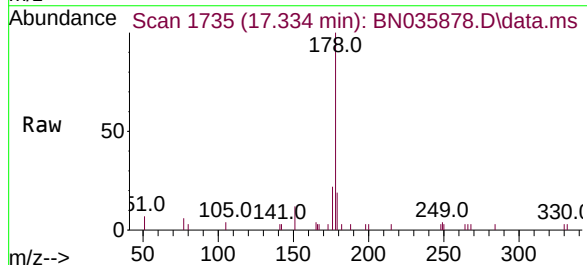
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN010225

Tgt Ion:178 Resp: 2381  
Ion Ratio Lower Upper  
178 100  
176 20.2 15.9 23.9  
179 15.5 12.9 19.3

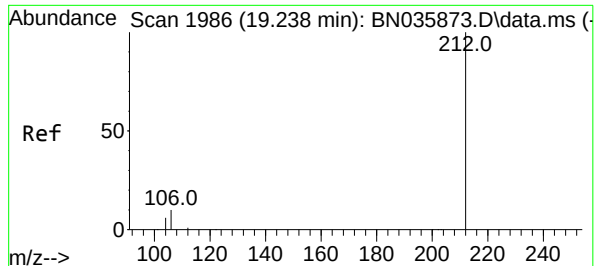


#26  
Anthracene  
Concen: 0.424 ng  
RT: 17.334 min Scan# 1735  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

Tgt Ion:178 Resp: 2196  
Ion Ratio Lower Upper  
178 100  
176 19.4 15.0 22.6  
179 15.2 13.0 19.6







#27

Fluoranthene-d10

Concen: 0.382 ng

RT: 19.238 min Scan# 1986

Delta R.T. -0.000 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN010225

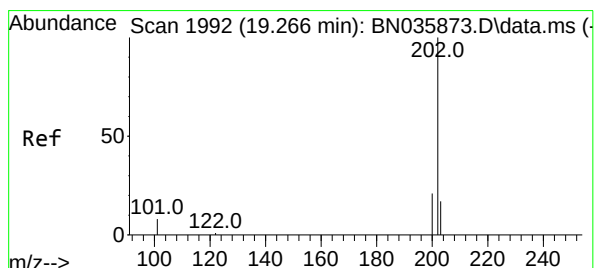
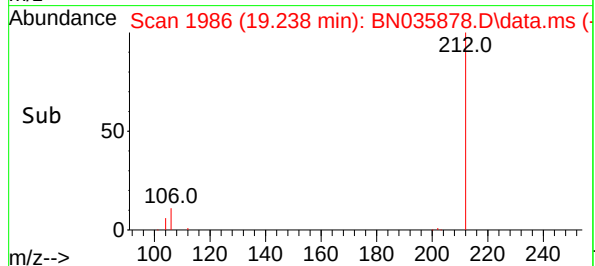
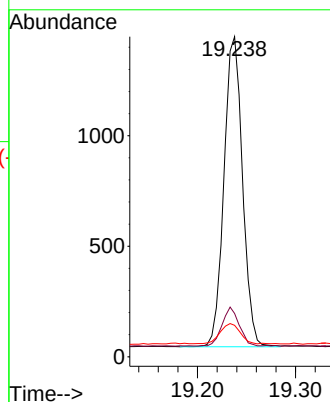
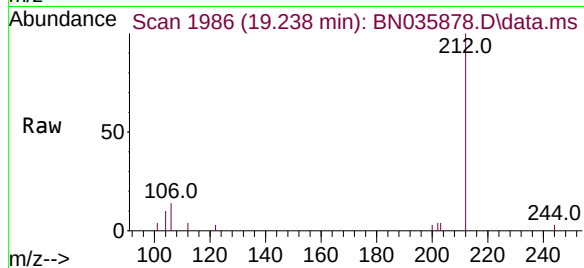
Tgt Ion:212 Resp: 1850

Ion Ratio Lower Upper

212 100

106 11.5 9.0 13.6

104 7.1 5.4 8.2



#28

Fluoranthene

Concen: 0.381 ng

RT: 19.266 min Scan# 1992

Delta R.T. -0.000 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

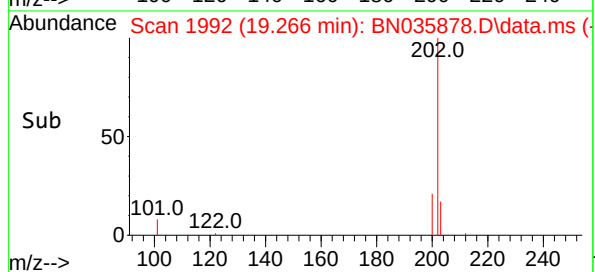
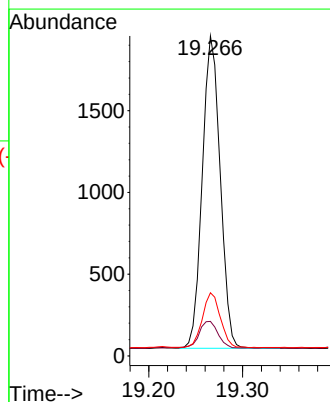
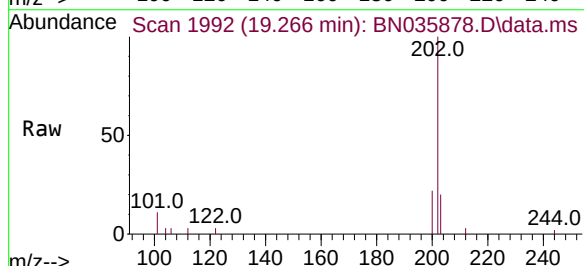
Tgt Ion:202 Resp: 2530

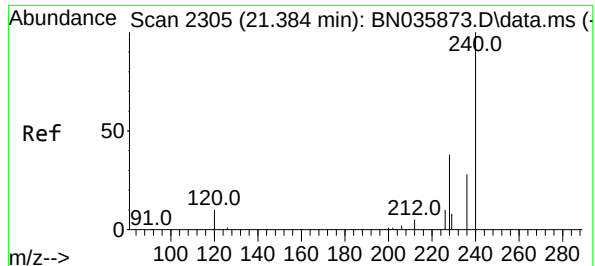
Ion Ratio Lower Upper

202 100

101 9.2 7.2 10.8

203 17.6 13.9 20.9





#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.384 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN010225

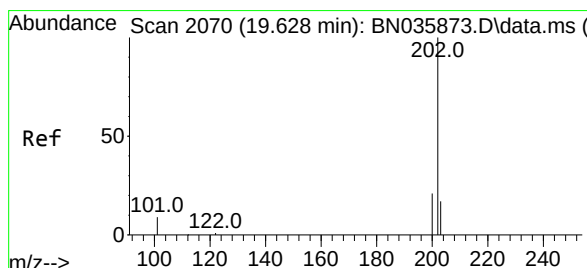
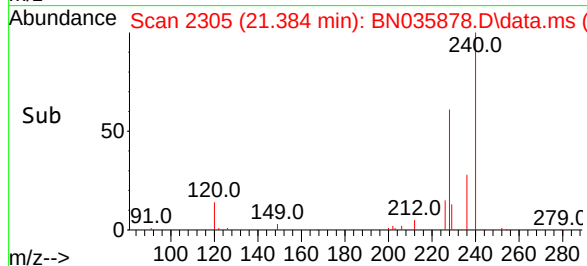
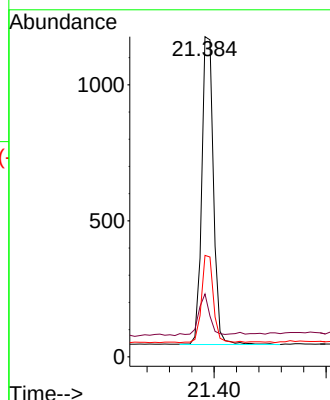
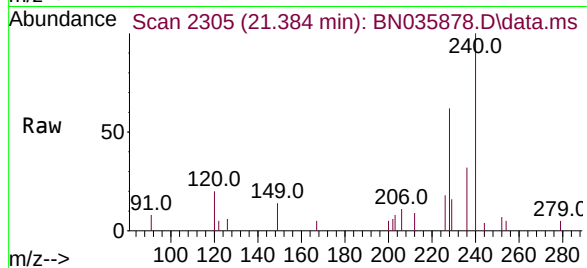
Tgt Ion:240 Resp: 1648

Ion Ratio Lower Upper

240 100

120 19.6 11.1 16.7#

236 31.7 24.6 36.8



#30

Pyrene

Concen: 0.391 ng

RT: 19.628 min Scan# 2070

Delta R.T. -0.000 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

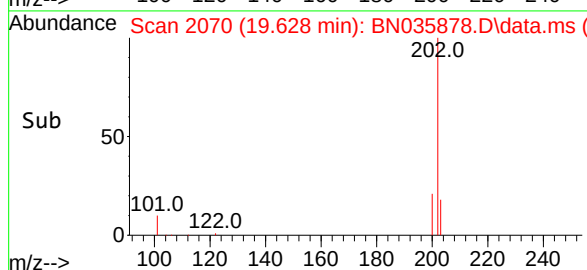
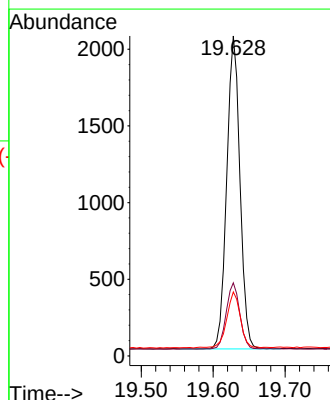
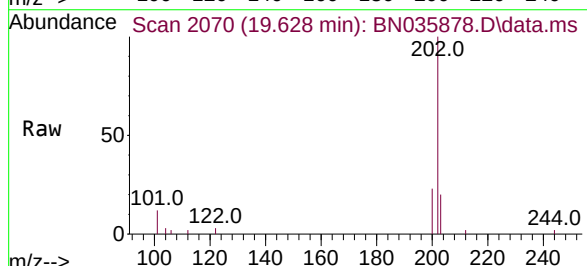
Tgt Ion:202 Resp: 2613

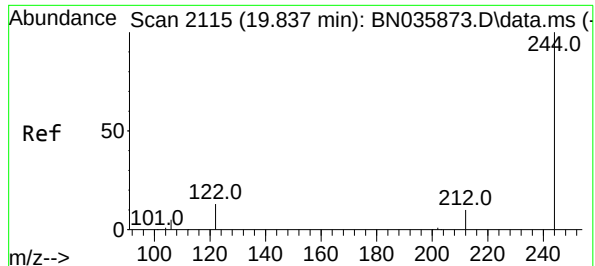
Ion Ratio Lower Upper

202 100

200 21.6 17.0 25.6

203 18.5 14.6 22.0

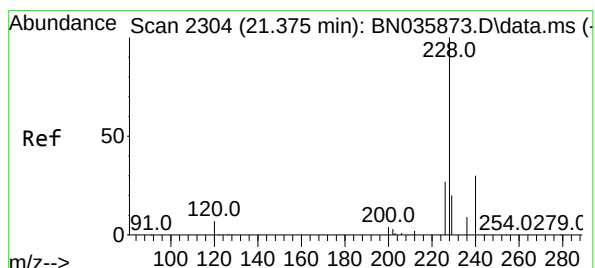
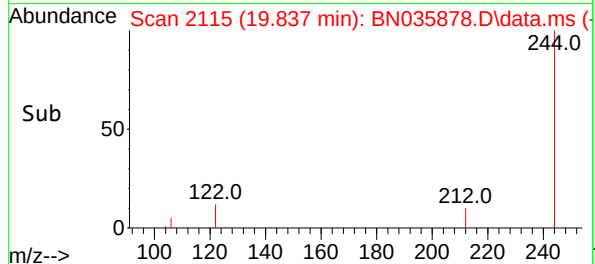
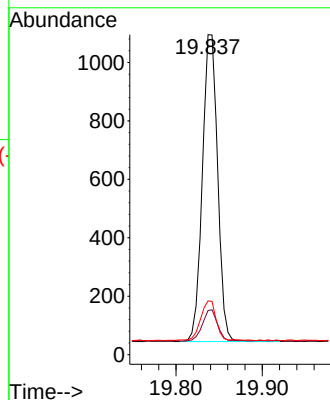
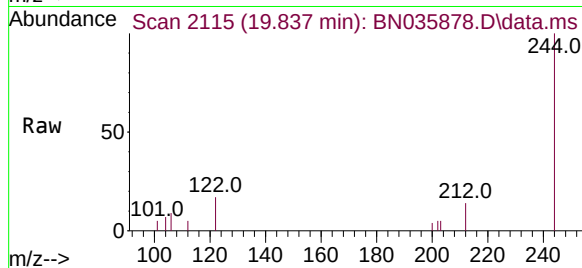




#31  
Terphenyl-d14  
Concen: 0.393 ng  
RT: 19.837 min Scan# 2115  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

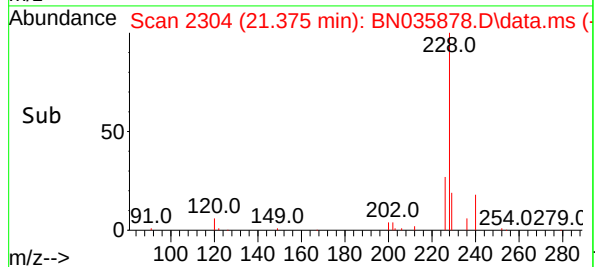
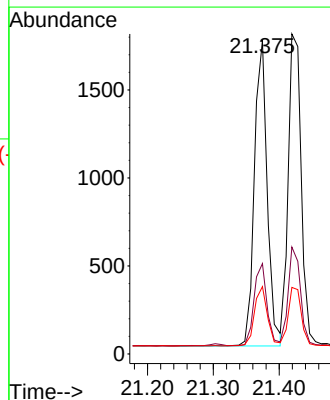
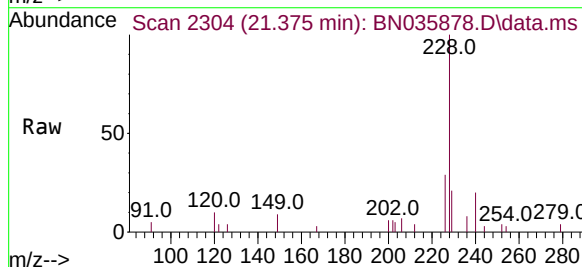
Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN010225

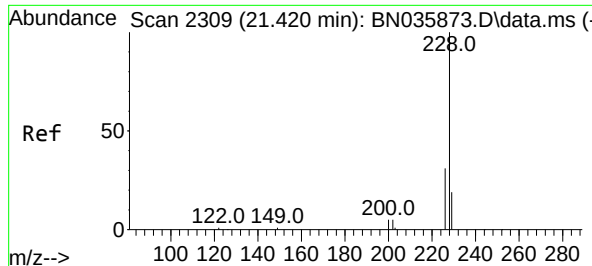
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 13.8  | 10.1  | 15.1  |
| 122     | 16.8  | 12.2  | 18.4  |



#32  
Benzo(a)anthracene  
Concen: 0.405 ng  
RT: 21.375 min Scan# 2304  
Delta R.T. -0.000 min  
Lab File: BN035878.D  
Acq: 02 Jan 2025 15:51

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 28.8  | 22.7  | 34.1  |
| 229     | 21.4  | 17.1  | 25.7  |





#33

Chrysene

Concen: 0.402 ng

RT: 21.419 min Scan# 21

Delta R.T. -0.000 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN010225

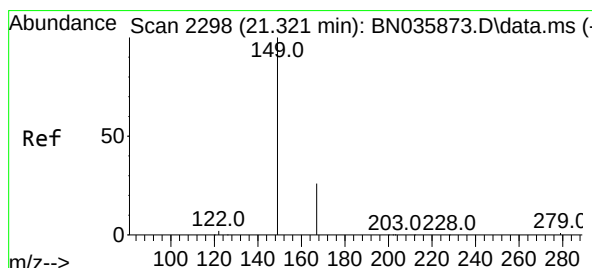
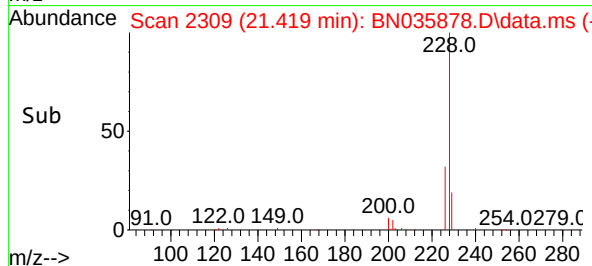
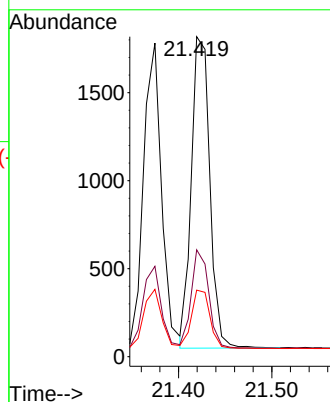
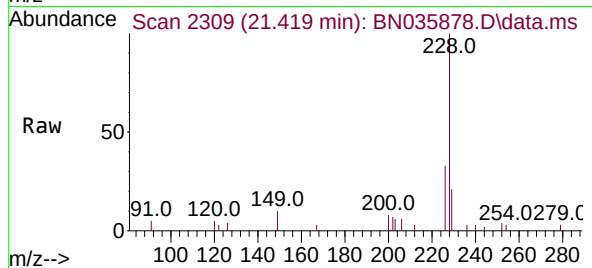
Tgt Ion:228 Resp: 2440

Ion Ratio Lower Upper

228 100

226 33.4 25.2 37.8

229 20.8 16.0 24.0



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.393 ng

RT: 21.330 min Scan# 2299

Delta R.T. 0.009 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

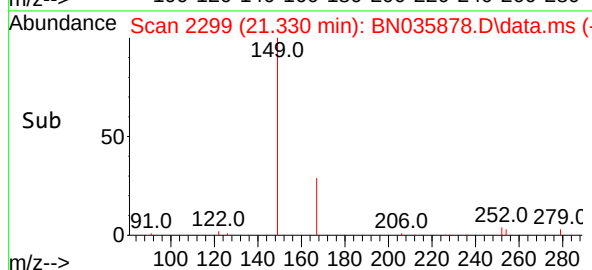
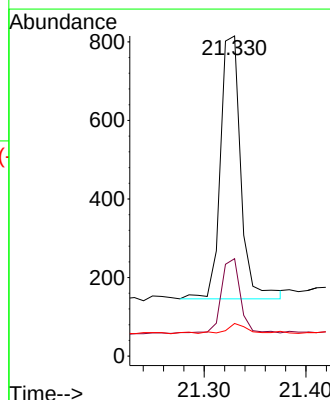
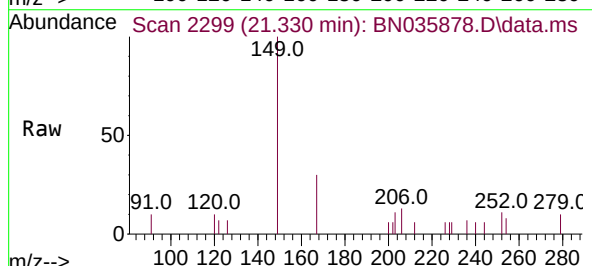
Tgt Ion:149 Resp: 930

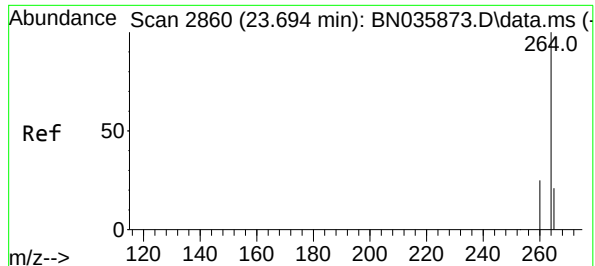
Ion Ratio Lower Upper

149 100

167 26.9 21.4 32.0

279 3.4 3.0 4.6





#35

Perylene-d12

Concen: 0.400 ng

RT: 23.697 min Scan# 21

Delta R.T. 0.003 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN010225

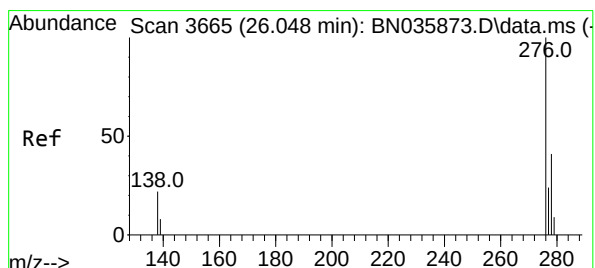
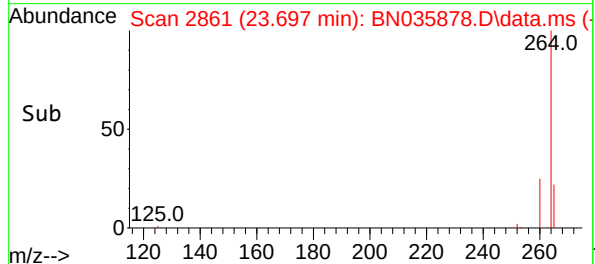
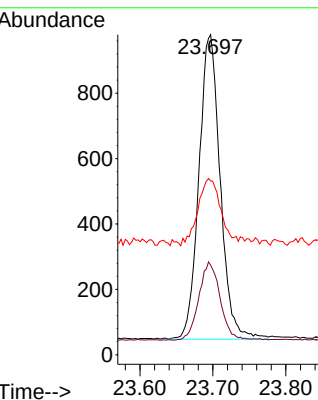
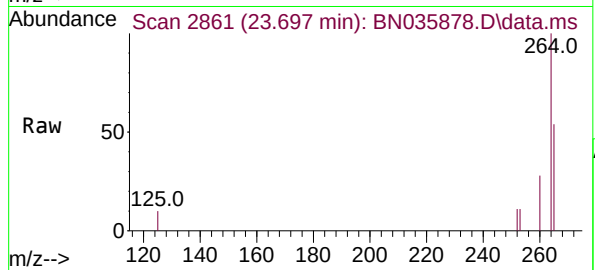
Tgt Ion:264 Resp: 1887

Ion Ratio Lower Upper

264 100

260 28.0 21.7 32.5

265 54.3 33.9 50.9#



#36

Indeno(1,2,3-cd)pyrene

Concen: 0.399 ng

RT: 26.050 min Scan# 3666

Delta R.T. 0.003 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

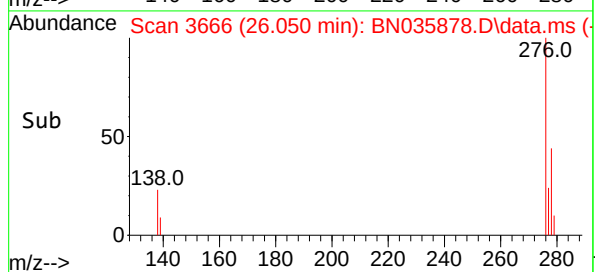
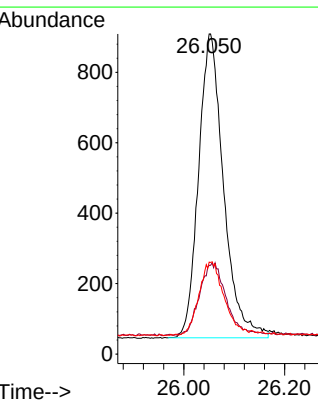
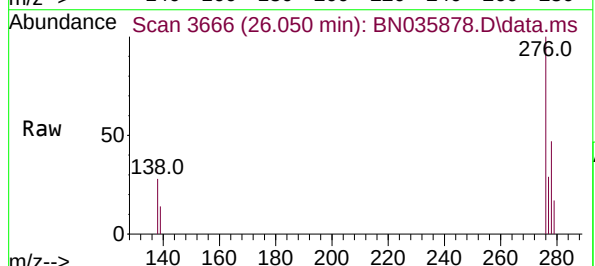
Tgt Ion:276 Resp: 2972

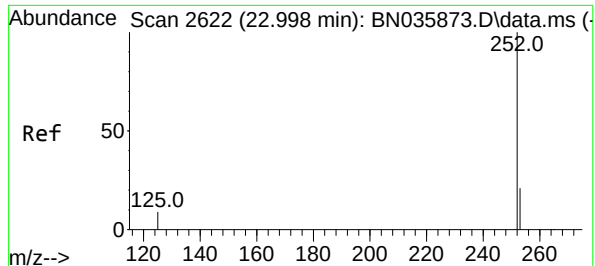
Ion Ratio Lower Upper

276 100

138 25.6 18.9 28.3

277 24.0 19.5 29.3





#37

Benzo(b)fluoranthene

Concen: 0.372 ng

RT: 23.001 min Scan# 2623

Delta R.T. 0.003 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN010225

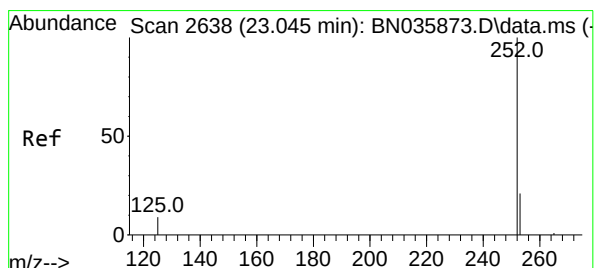
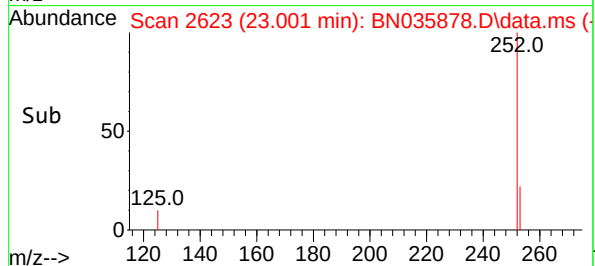
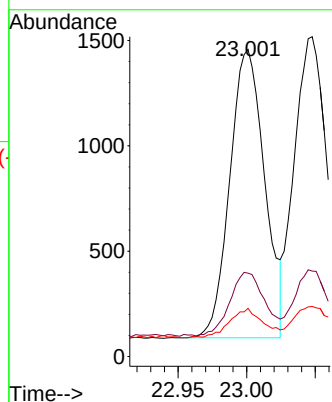
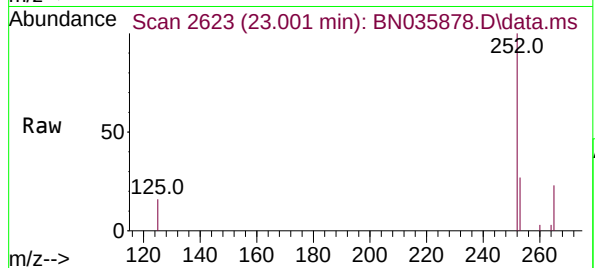
Tgt Ion:252 Resp: 2413

Ion Ratio Lower Upper

252 100

253 27.2 20.1 30.1

125 15.7 9.9 14.9#



#38

Benzo(k)fluoranthene

Concen: 0.381 ng

RT: 23.048 min Scan# 2639

Delta R.T. 0.003 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

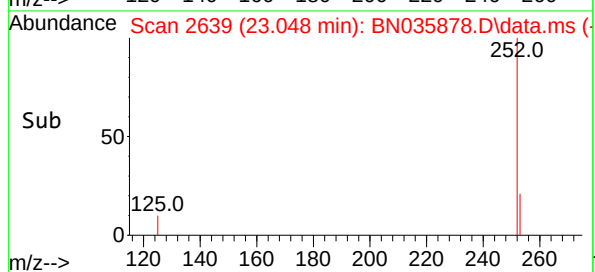
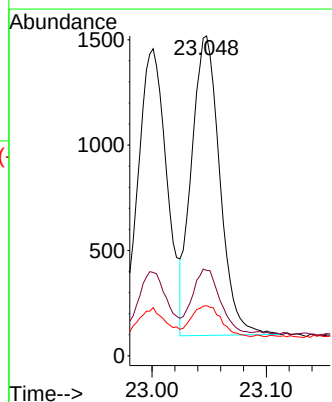
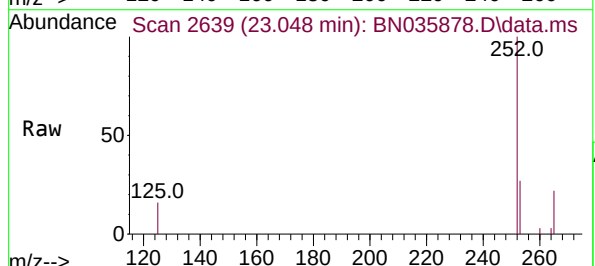
Tgt Ion:252 Resp: 2442

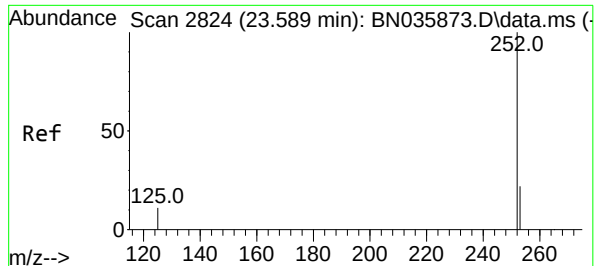
Ion Ratio Lower Upper

252 100

253 26.7 20.5 30.7

125 15.7 10.6 16.0





#39

Benzo(a)pyrene

Concen: 0.401 ng

RT: 23.594 min Scan# 21

Delta R.T. 0.006 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN010225

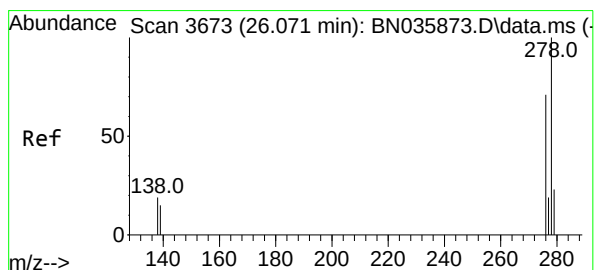
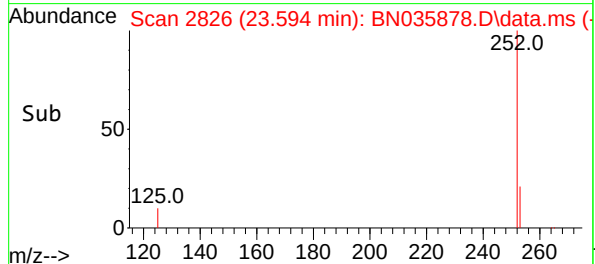
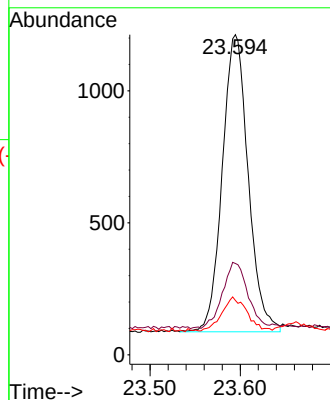
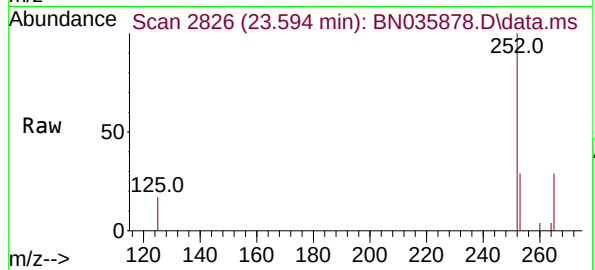
Tgt Ion:252 Resp: 2250

Ion Ratio Lower Upper

252 100

253 28.5 21.5 32.3

125 17.0 12.6 19.0



#40

Dibenzo(a,h)anthracene

Concen: 0.397 ng

RT: 26.074 min Scan# 3674

Delta R.T. 0.003 min

Lab File: BN035878.D

Acq: 02 Jan 2025 15:51

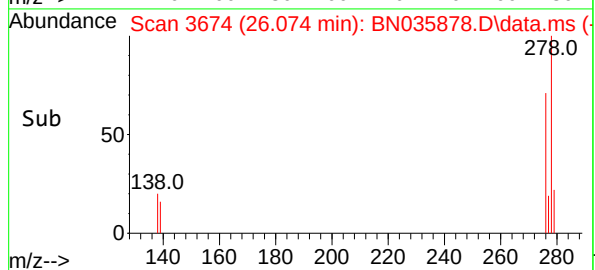
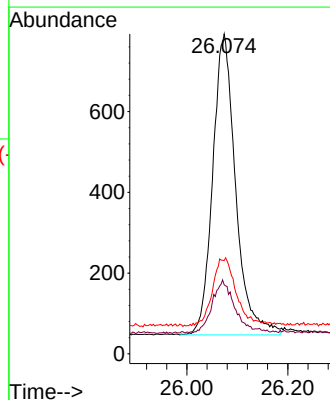
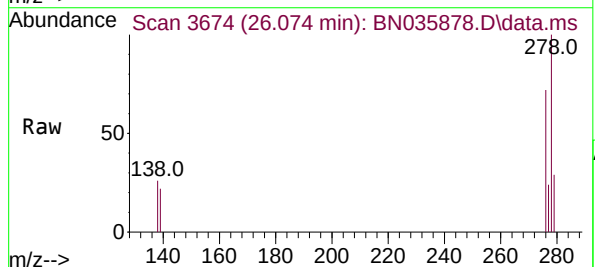
Tgt Ion:278 Resp: 2353

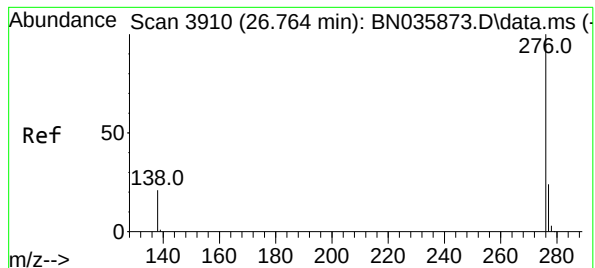
Ion Ratio Lower Upper

278 100

139 21.6 15.9 23.9

279 29.2 23.0 34.4





#41

Benzo(g,h,i)perylene

Concen: 0.359 ng

RT: 26.767 min Scan# 3911

Delta R.T. 0.003 min

Lab File: BN035878.D

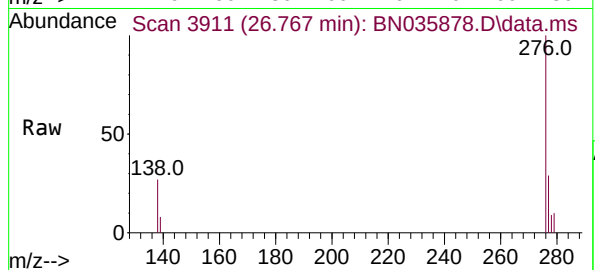
Acq: 02 Jan 2025 15:51

Instrument :

BNA\_N

ClientSampleId :

ICVBN010225



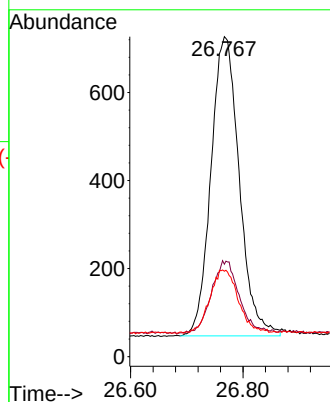
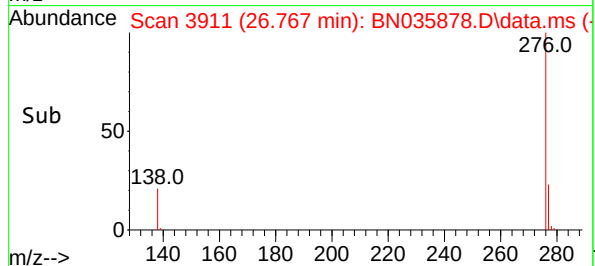
Tgt Ion:276 Resp: 2378

Ion Ratio Lower Upper

276 100

277 28.9 22.8 34.2

138 26.7 20.1 30.1





Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
 Data File : BN035878.D  
 Acq On : 02 Jan 2025 15:51  
 Operator : RC/JU  
 Sample : SSTDICV0.4  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN010225

Quant Time: Jan 02 16:21:10 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 150%

|         | Compound                   | AvgRF | CCRF  | %Dev  | Area% | Dev(min) |
|---------|----------------------------|-------|-------|-------|-------|----------|
| 1 I     | 1,4-Dichlorobenzene-d4     | 1.000 | 1.000 | 0.0   | 88    | 0.00     |
| 2       | 1,4-Dioxane                | 0.397 | 0.468 | -17.9 | 111   | 0.00     |
| 3       | n-Nitrosodimethylamine     | 0.693 | 0.725 | -4.6  | 94    | 0.00     |
| 4 S     | 2-Fluorophenol             | 0.981 | 0.840 | 14.4  | 78    | 0.00     |
| 5 S     | Phenol-d6                  | 1.219 | 1.011 | 17.1  | 75    | 0.00     |
| 6       | bis(2-Chloroethyl)ether    | 0.929 | 0.967 | -4.1  | 91    | 0.00     |
| 7 I     | Naphthalene-d8             | 1.000 | 1.000 | 0.0   | 85    | 0.00     |
| 8 S     | Nitrobenzene-d5            | 0.317 | 0.315 | 0.6   | 91    | 0.00     |
| 9       | Naphthalene                | 1.123 | 1.119 | 0.4   | 88    | 0.00     |
| 10      | Hexachlorobutadiene        | 0.365 | 0.353 | 3.3   | 85    | 0.00     |
| 11 SURR | 2-Methylnaphthalene-d10    | 0.536 | 0.521 | 2.8   | 84    | 0.00     |
| 12      | 2-Methylnaphthalene        | 0.695 | 0.708 | -1.9  | 88    | 0.00     |
| 13 I    | Acenaphthene-d10           | 1.000 | 1.000 | 0.0   | 75    | 0.00     |
| 14 S    | 2,4,6-Tribromophenol       | 0.192 | 0.168 | 12.5  | 67    | 0.00     |
| 15 S    | 2-Fluorobiphenyl           | 1.755 | 1.893 | -7.9  | 83    | 0.00     |
| 16      | Acenaphthylene             | 1.884 | 2.127 | -12.9 | 88    | 0.00     |
| 17      | Acenaphthene               | 1.235 | 1.316 | -6.6  | 82    | 0.00     |
| 18      | Fluorene                   | 1.359 | 1.386 | -2.0  | 80    | 0.00     |
| 19 I    | Phenanthrene-d10           | 1.000 | 1.000 | 0.0   | 70    | 0.00     |
| 20      | 4,6-Dinitro-2-methylphenol | 0.069 | 0.071 | -2.9  | 75    | 0.00     |
| 21      | 4-Bromophenyl-phenylether  | 0.274 | 0.273 | 0.4   | 72    | 0.00     |
| 22      | Hexachlorobenzene          | 0.374 | 0.381 | -1.9  | 75    | 0.00     |
| 23      | Atrazine                   | 0.184 | 0.177 | 3.8   | 71    | 0.00     |
| 24      | Pentachlorophenol          | 0.132 | 0.130 | 1.5   | 77    | 0.01     |
| 25      | Phenanthrene               | 1.167 | 1.220 | -4.5  | 75    | 0.00     |
| 26      | Anthracene                 | 1.062 | 1.126 | -6.0  | 79    | 0.00     |
| 27 SURR | Fluoranthene-d10           | 0.993 | 0.948 | 4.5   | 68    | 0.00     |
| 28      | Fluoranthene               | 1.361 | 1.297 | 4.7   | 69    | 0.00     |
| 29 I    | Chrysene-d12               | 1.000 | 1.000 | 0.0   | 69    | 0.00     |
| 30      | Pyrene                     | 1.624 | 1.586 | 2.3   | 70    | 0.00     |
| 31 S    | Terphenyl-d14              | 0.797 | 0.783 | 1.8   | 69    | 0.00     |
| 32      | Benzo(a)anthracene         | 1.410 | 1.428 | -1.3  | 74    | 0.00     |
| 33      | Chrysene                   | 1.475 | 1.481 | -0.4  | 71    | 0.00     |
| 34      | Bis(2-ethylhexyl)phthalate | 0.574 | 0.564 | 1.7   | 67    | 0.00     |
| 35 I    | Perylene-d12               | 1.000 | 1.000 | 0.0   | 72    | 0.00     |
| 36      | Indeno(1,2,3-cd)pyrene     | 1.577 | 1.575 | 0.1   | 80    | 0.00     |
| 37      | Benzo(b)fluoranthene       | 1.374 | 1.279 | 6.9   | 71    | 0.00     |
| 38      | Benzo(k)fluoranthene       | 1.360 | 1.294 | 4.9   | 74    | 0.00     |
| 39 C    | Benzo(a)pyrene             | 1.190 | 1.192 | -0.2  | 79    | 0.00     |
| 40      | Dibenzo(a,h)anthracene     | 1.255 | 1.247 | 0.6   | 81    | 0.00     |
| 41      | Benzo(g,h,i)perylene       | 1.403 | 1.260 | 10.2  | 73    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
Data File : BN035878.D  
Acq On : 02 Jan 2025 15:51  
Operator : RC/JU  
Sample : SSTDICV0.4  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN010225

Quant Time: Jan 02 16:21:10 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 25% Max. Rel. Area : 150%

|         | Compound                   | Amount | Calc. | %Dev  | Area% | Dev(min) |
|---------|----------------------------|--------|-------|-------|-------|----------|
| 1 I     | 1,4-Dichlorobenzene-d4     | 0.400  | 0.400 | 0.0   | 88    | 0.00     |
| 2       | 1,4-Dioxane                | 0.400  | 0.471 | -17.7 | 111   | 0.00     |
| 3       | n-Nitrosodimethylamine     | 0.400  | 0.419 | -4.7  | 94    | 0.00     |
| 4 S     | 2-Fluorophenol             | 0.400  | 0.342 | 14.5  | 78    | 0.00     |
| 5 S     | Phenol-d6                  | 0.400  | 0.332 | 17.0  | 75    | 0.00     |
| 6       | bis(2-Chloroethyl)ether    | 0.400  | 0.416 | -4.0  | 91    | 0.00     |
| 7 I     | Naphthalene-d8             | 0.400  | 0.400 | 0.0   | 85    | 0.00     |
| 8 S     | Nitrobenzene-d5            | 0.400  | 0.398 | 0.5   | 91    | 0.00     |
| 9       | Naphthalene                | 0.400  | 0.399 | 0.3   | 88    | 0.00     |
| 10      | Hexachlorobutadiene        | 0.400  | 0.387 | 3.3   | 85    | 0.00     |
| 11 SURR | 2-Methylnaphthalene-d10    | 0.400  | 0.389 | 2.8   | 84    | 0.00     |
| 12      | 2-Methylnaphthalene        | 0.400  | 0.408 | -2.0  | 88    | 0.00     |
| 13 I    | Acenaphthene-d10           | 0.400  | 0.400 | 0.0   | 75    | 0.00     |
| 14 S    | 2,4,6-Tribromophenol       | 0.400  | 0.350 | 12.5  | 67    | 0.00     |
| 15 S    | 2-Fluorobiphenyl           | 0.400  | 0.431 | -7.7  | 83    | 0.00     |
| 16      | Acenaphthylene             | 0.400  | 0.452 | -13.0 | 88    | 0.00     |
| 17      | Acenaphthene               | 0.400  | 0.426 | -6.5  | 82    | 0.00     |
| 18      | Fluorene                   | 0.400  | 0.408 | -2.0  | 80    | 0.00     |
| 19 I    | Phenanthrene-d10           | 0.400  | 0.400 | 0.0   | 70    | 0.00     |
| 20      | 4,6-Dinitro-2-methylphenol | 0.400  | 0.410 | -2.5  | 75    | 0.00     |
| 21      | 4-Bromophenyl-phenylether  | 0.400  | 0.398 | 0.5   | 72    | 0.00     |
| 22      | Hexachlorobenzene          | 0.400  | 0.407 | -1.7  | 75    | 0.00     |
| 23      | Atrazine                   | 0.400  | 0.386 | 3.5   | 71    | 0.00     |
| 24      | Pentachlorophenol          | 0.400  | 0.392 | 2.0   | 77    | 0.01     |
| 25      | Phenanthrene               | 0.400  | 0.418 | -4.5  | 75    | 0.00     |
| 26      | Anthracene                 | 0.400  | 0.424 | -6.0  | 79    | 0.00     |
| 27 SURR | Fluoranthene-d10           | 0.400  | 0.382 | 4.5   | 68    | 0.00     |
| 28      | Fluoranthene               | 0.400  | 0.381 | 4.8   | 69    | 0.00     |
| 29 I    | Chrysene-d12               | 0.400  | 0.400 | 0.0   | 69    | 0.00     |
| 30      | Pyrene                     | 0.400  | 0.391 | 2.3   | 70    | 0.00     |
| 31 S    | Terphenyl-d14              | 0.400  | 0.393 | 1.8   | 69    | 0.00     |
| 32      | Benzo(a)anthracene         | 0.400  | 0.405 | -1.3  | 74    | 0.00     |
| 33      | Chrysene                   | 0.400  | 0.402 | -0.5  | 71    | 0.00     |
| 34      | Bis(2-ethylhexyl)phthalate | 0.400  | 0.393 | 1.8   | 67    | 0.00     |
| 35 I    | Perylene-d12               | 0.400  | 0.400 | 0.0   | 72    | 0.00     |
| 36      | Indeno(1,2,3-cd)pyrene     | 0.400  | 0.399 | 0.3   | 80    | 0.00     |
| 37      | Benzo(b)fluoranthene       | 0.400  | 0.372 | 7.0   | 71    | 0.00     |
| 38      | Benzo(k)fluoranthene       | 0.400  | 0.381 | 4.8   | 74    | 0.00     |
| 39 C    | Benzo(a)pyrene             | 0.400  | 0.401 | -0.3  | 79    | 0.00     |
| 40      | Dibenzo(a,h)anthracene     | 0.400  | 0.397 | 0.8   | 81    | 0.00     |
| 41      | Benzo(g,h,i)perylene       | 0.400  | 0.359 | 10.3  | 73    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,  
Fax : 908 789 8922

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1022 SAS No.: Q1022 SDG No.: Q1022

Instrument ID: BNA\_N Calibration Date/Time: 01/07/2025 15:03

Lab File ID: BN035897.D Init. Calib. Date(s): 01/02/2025 01/02/2025

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 11:28 15:04

GC Column: ZB-GR ID: 0.25 (mm)

| COMPOUND                | RRF   | RRF0.4 | MIN<br>RRF | %D   | MAX%D |
|-------------------------|-------|--------|------------|------|-------|
| 2-Methylnaphthalene-d10 | 0.536 | 0.500  |            | -6.7 | 20.0  |
| Fluoranthene-d10        | 0.993 | 0.931  |            | -6.2 | 20.0  |
| 2-Fluorophenol          | 0.981 | 0.971  |            | -1.0 | 20.0  |
| Phenol-d6               | 1.219 | 1.172  |            | -3.9 | 20.0  |
| Nitrobenzene-d5         | 0.317 | 0.342  |            | 7.9  | 20.0  |
| 2-Fluorobiphenyl        | 1.755 | 1.747  |            | -0.5 | 20.0  |
| 2,4,6-Tribromophenol    | 0.192 | 0.201  |            | 4.7  | 20.0  |
| Terphenyl-d14           | 0.797 | 0.739  |            | -7.3 | 20.0  |
| 1,4-Dioxane             | 0.397 | 0.449  |            | 13.1 | 20.0  |

All other compounds must meet a minimum RRF of 0.010.

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
 Data File : BN035897.D  
 Acq On : 07 Jan 2025 15:03  
 Operator : RC/JU  
 Sample : SSTDCCC0.4  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4

Quant Time: Jan 07 16:25:33 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

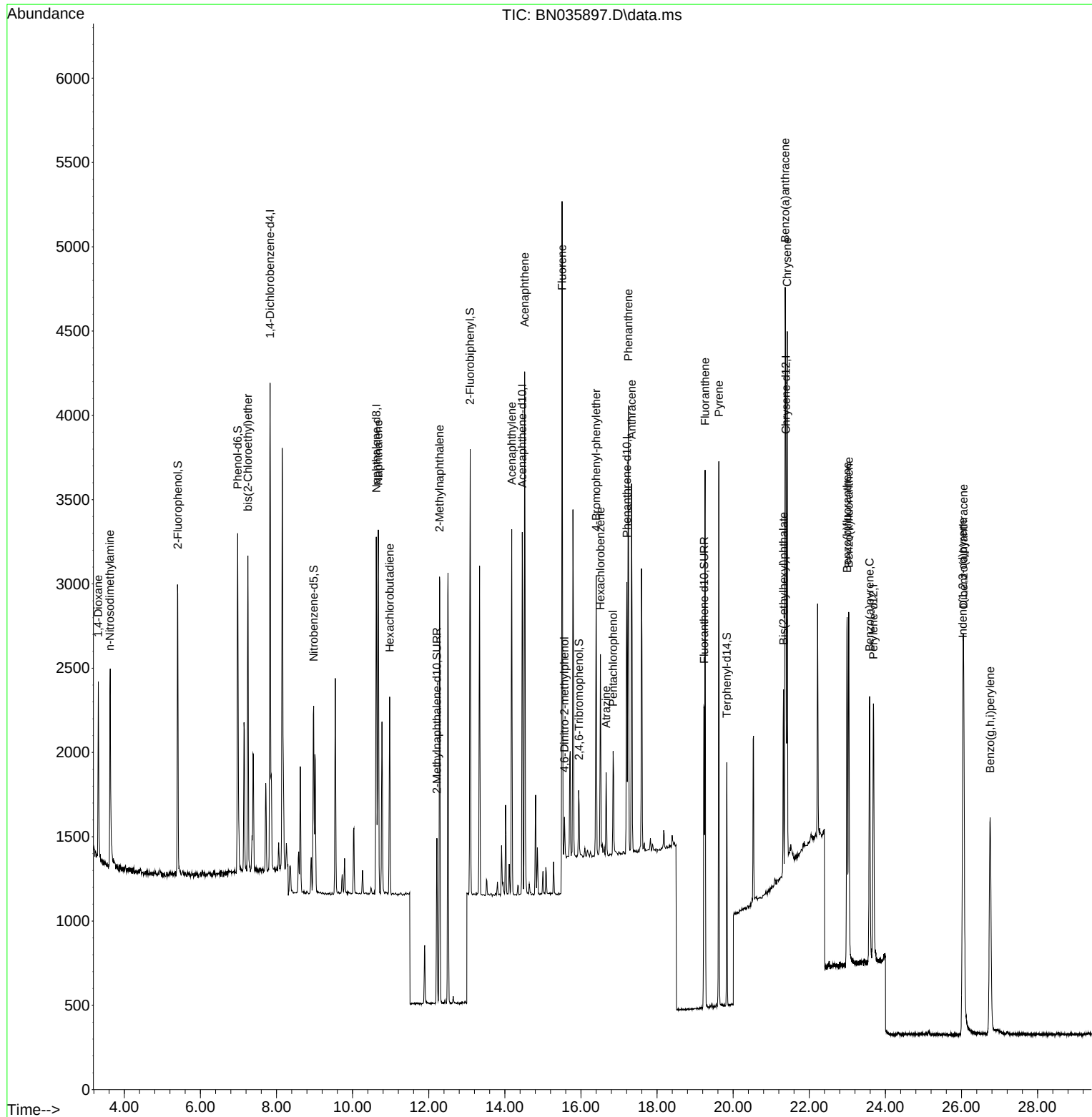
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.832  | 152  | 1335     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.622 | 136  | 2523     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.458 | 164  | 1187     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.206 | 188  | 2191     | 0.400 | ng    | 0.00     |
| 29) Chrysene-d12              | 21.384 | 240  | 1780     | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 23.686 | 264  | 2085     | 0.400 | ng    | # 0.00   |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.405  | 112  | 1296     | 0.396 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.979  | 99   | 1565     | 0.385 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.977  | 82   | 863      | 0.432 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.213 | 152  | 1261     | 0.373 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.952 | 330  | 239      | 0.419 | ng    | 0.00     |
| 15) 2-Fluorobiphenyl          | 13.089 | 172  | 2074     | 0.398 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.234 | 212  | 2040     | 0.375 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.833 | 244  | 1315     | 0.371 | ng    | 0.00     |
| Target Compounds              |        |      |          |       |       |          |
| 2) 1,4-Dioxane                | 3.318  | 88   | 599      | 0.452 | ng    | 95       |
| 3) n-Nitrosodimethylamine     | 3.621  | 42   | 991      | 0.428 | ng    | # 98     |
| 6) bis(2-Chloroethyl)ether    | 7.247  | 93   | 1250     | 0.403 | ng    | 98       |
| 9) Naphthalene                | 10.675 | 128  | 2785     | 0.393 | ng    | 99       |
| 10) Hexachlorobutadiene       | 10.974 | 225  | 920      | 0.400 | ng    | # 97     |
| 12) 2-Methylnaphthalene       | 12.284 | 142  | 1655     | 0.378 | ng    | 98       |
| 16) Acenaphthylene            | 14.180 | 152  | 2183     | 0.391 | ng    | 99       |
| 17) Acenaphthene              | 14.522 | 154  | 1453     | 0.396 | ng    | 97       |
| 18) Fluorene                  | 15.506 | 166  | 1494     | 0.370 | ng    | 98       |
| 20) 4,6-Dinitro-2-methylph... | 15.568 | 198  | 188      | 0.494 | ng    | 87       |
| 21) 4-Bromophenyl-phenylether | 16.399 | 248  | 599      | 0.399 | ng    | 94       |
| 22) Hexachlorobenzene         | 16.511 | 284  | 803      | 0.392 | ng    | 99       |
| 23) Atrazine                  | 16.660 | 200  | 369      | 0.366 | ng    | 96       |
| 24) Pentachlorophenol         | 16.846 | 266  | 306      | 0.422 | ng    | 92       |
| 25) Phenanthrene              | 17.243 | 178  | 2499     | 0.391 | ng    | 100      |
| 26) Anthracene                | 17.330 | 178  | 2239     | 0.385 | ng    | 99       |
| 28) Fluoranthene              | 19.262 | 202  | 2751     | 0.369 | ng    | 100      |
| 30) Pyrene                    | 19.624 | 202  | 2831     | 0.392 | ng    | 100      |
| 32) Benzo(a)anthracene        | 21.367 | 228  | 2501     | 0.399 | ng    | 99       |
| 33) Chrysene                  | 21.420 | 228  | 2624     | 0.400 | ng    | 99       |
| 34) Bis(2-ethylhexyl)phtha... | 21.322 | 149  | 1070     | 0.419 | ng    | 99       |
| 36) Indeno(1,2,3-cd)pyrene    | 26.037 | 276  | 3216     | 0.391 | ng    | 99       |
| 37) Benzo(b)fluoranthene      | 22.993 | 252  | 2728     | 0.381 | ng    | 97       |
| 38) Benzo(k)fluoranthene      | 23.037 | 252  | 2749     | 0.388 | ng    | 98       |
| 39) Benzo(a)pyrene            | 23.587 | 252  | 2355     | 0.380 | ng    | 98       |
| 40) Dibenzo(a,h)anthracene    | 26.054 | 278  | 2536     | 0.388 | ng    | 98       |
| 41) Benzo(g,h,i)perylene      | 26.753 | 276  | 2870     | 0.392 | ng    | 99       |

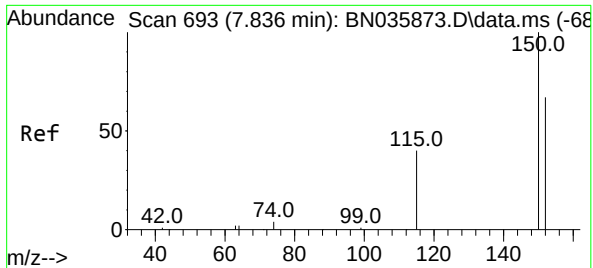
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035897.D  
Acq On : 07 Jan 2025 15:03  
Operator : RC/JU  
Sample : SSTDCCC0.4  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

Quant Time: Jan 07 16:25:33 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

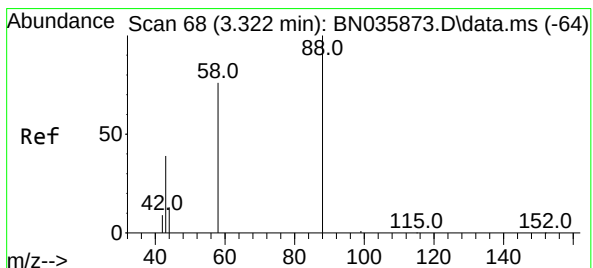
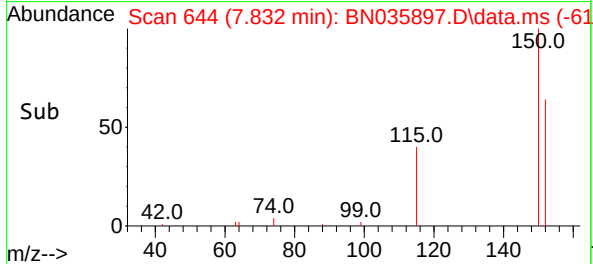
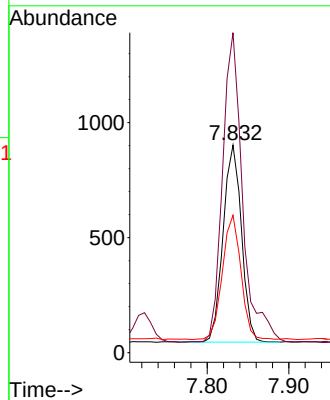
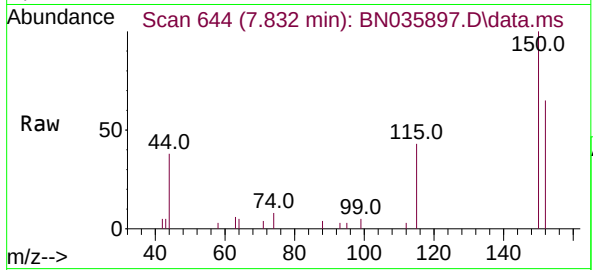




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.832 min Scan# 64  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

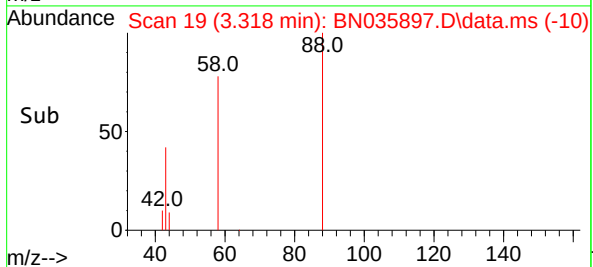
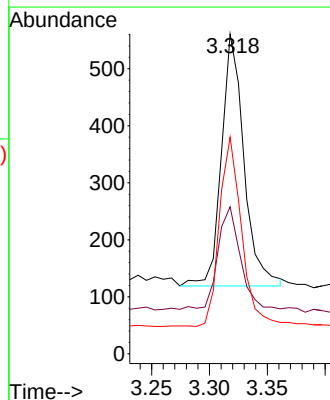
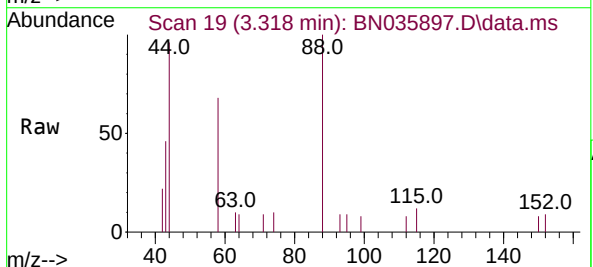
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

Tgt Ion:152 Resp: 1335  
Ion Ratio Lower Upper  
152 100  
150 154.2 117.8 176.6  
115 66.2 51.0 76.4

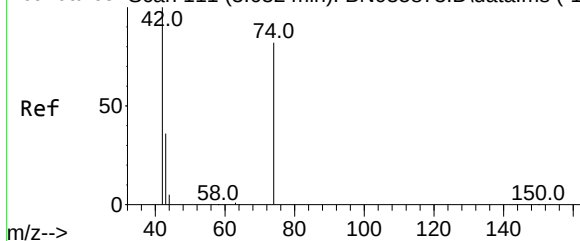


#2  
1,4-Dioxane  
Concen: 0.452 ng  
RT: 3.318 min Scan# 19  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

Tgt Ion: 88 Resp: 599  
Ion Ratio Lower Upper  
88 100  
43 40.4 32.7 49.1  
58 72.8 63.0 94.4



Abundance Scan 111 (3.632 min): BN035873.D\data.ms (-10



#3

n-Nitrosodimethylamine

Concen: 0.428 ng

RT: 3.621 min Scan# 61

Delta R.T. -0.011 min

Lab File: BN035897.D

Acq: 07 Jan 2025 15:03

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4

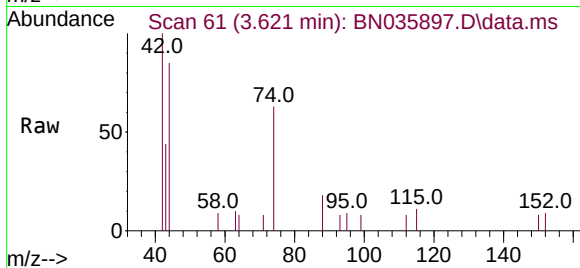
Tgt Ion: 42 Resp: 991

Ion Ratio Lower Upper

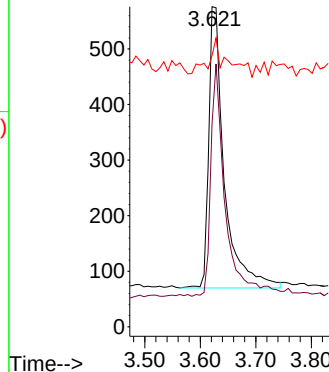
42 100

74 76.7 62.2 93.2

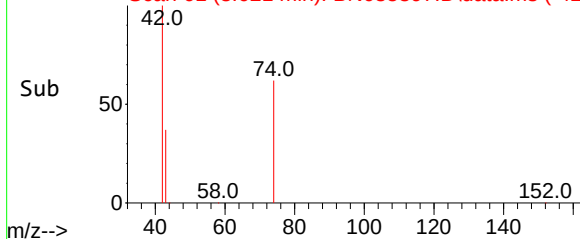
44 11.3 7.1 10.7#



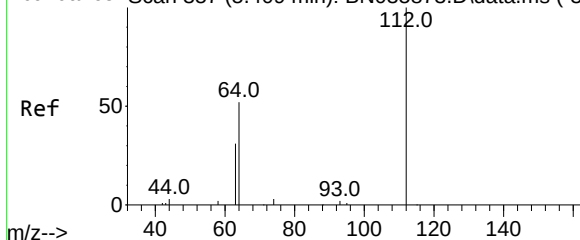
Abundance



Abundance Scan 61 (3.621 min): BN035897.D\data.ms (-42)



Abundance Scan 357 (5.409 min): BN035873.D\data.ms (-34



#4

2-Fluorophenol

Concen: 0.396 ng

RT: 5.405 min Scan# 308

Delta R.T. -0.004 min

Lab File: BN035897.D

Acq: 07 Jan 2025 15:03

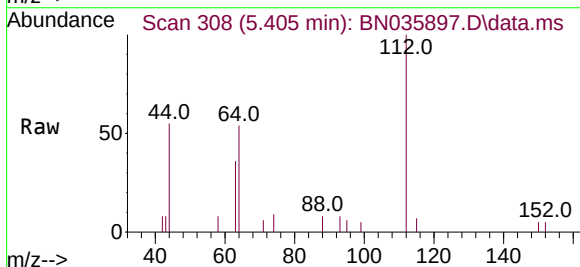
Tgt Ion: 112 Resp: 1296

Ion Ratio Lower Upper

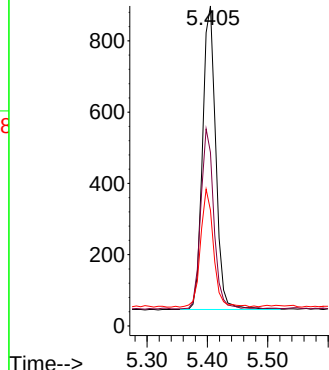
112 100

64 58.5 48.2 72.2

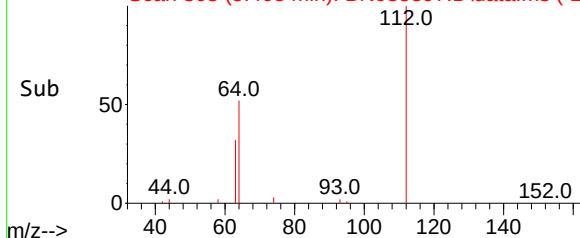
63 38.0 30.0 45.0

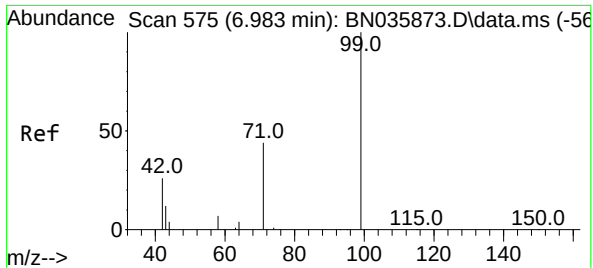


Abundance



Abundance Scan 308 (5.405 min): BN035897.D\data.ms (-28

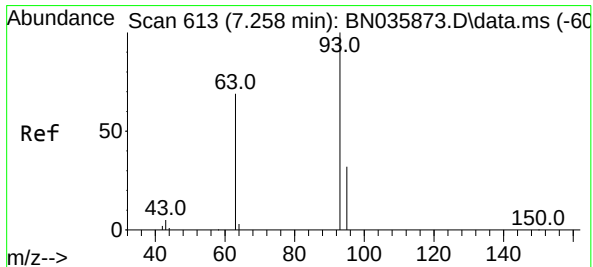
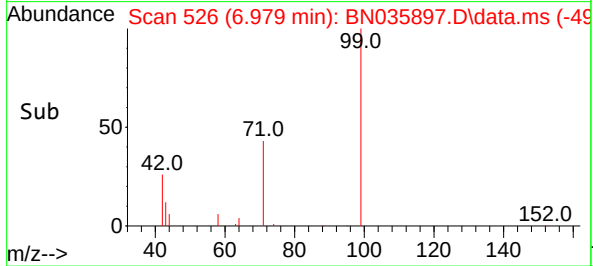
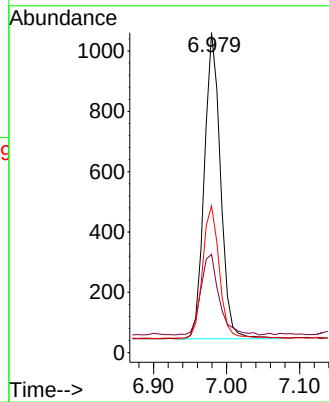
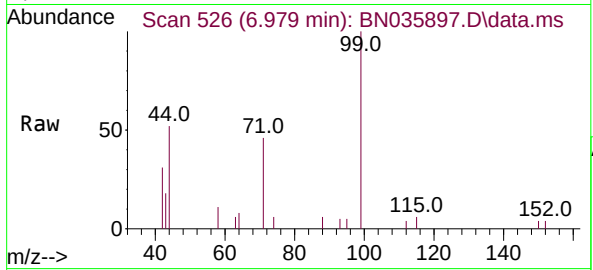




#5  
Phenol-d6  
Concen: 0.385 ng  
RT: 6.979 min Scan# 51  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

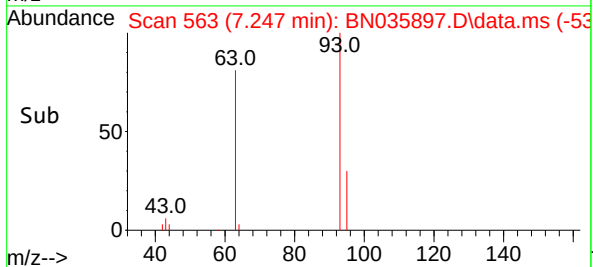
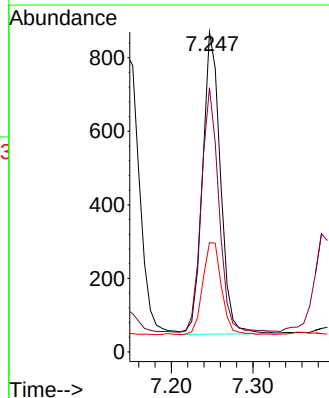
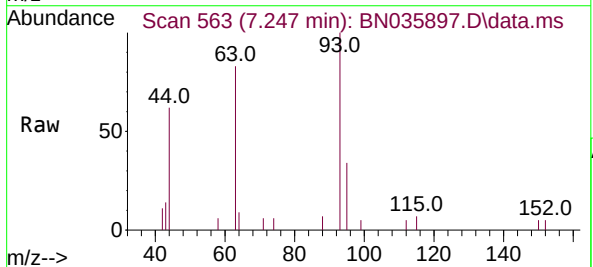
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 99    | Resp: | 1565  |
| Ion      | Ratio | Lower | Upper |
| 99       | 100   |       |       |
| 42       | 29.5  | 23.5  | 35.3  |
| 71       | 45.0  | 35.5  | 53.3  |

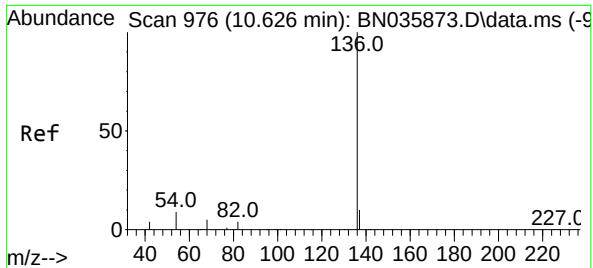


#6  
bis(2-Chloroethyl)ether  
Concen: 0.403 ng  
RT: 7.247 min Scan# 563  
Delta R.T. -0.011 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 93    | Resp: | 1250  |
| Ion      | Ratio | Lower | Upper |
| 93       | 100   |       |       |
| 63       | 79.4  | 62.0  | 93.0  |
| 95       | 32.1  | 25.5  | 38.3  |



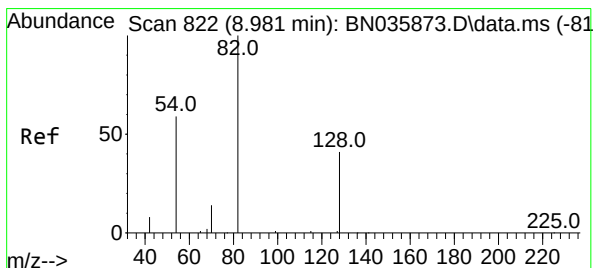
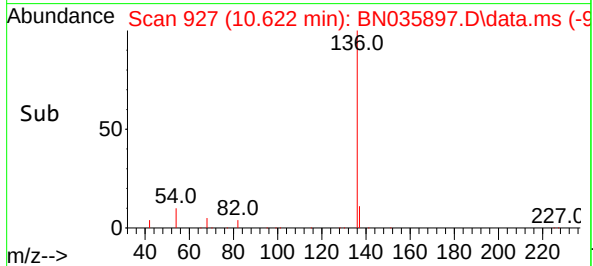
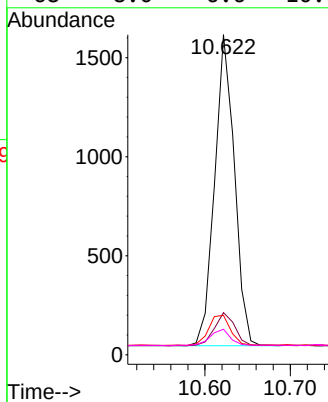
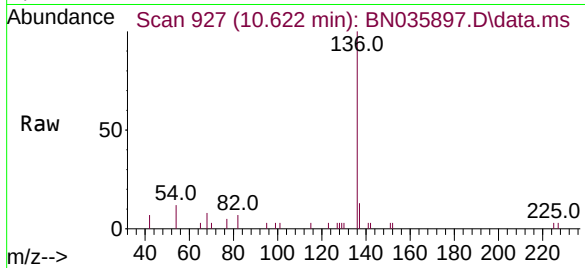




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.622 min Scan# 91  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

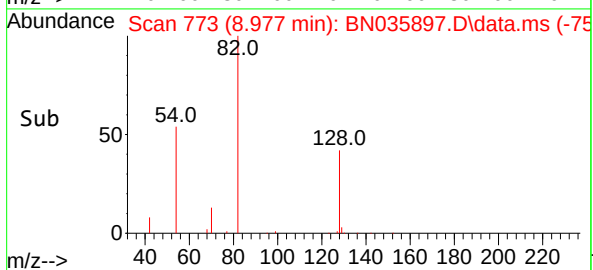
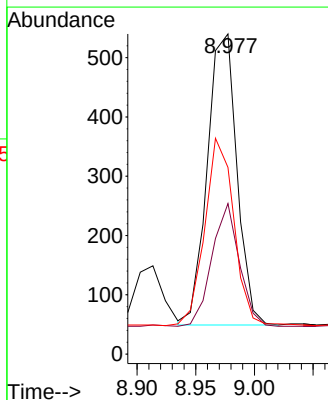
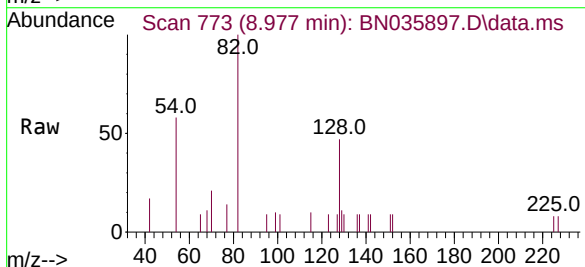
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

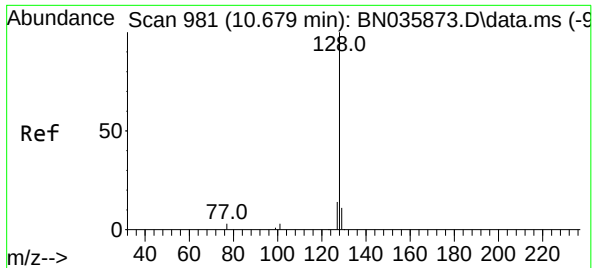
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 2523  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 13.2  | 10.6  | 15.8  |
| 54       | 12.3  | 9.8   | 14.6  |
| 68       | 8.0   | 6.6   | 10.0  |



#8  
Nitrobenzene-d5  
Concen: 0.432 ng  
RT: 8.977 min Scan# 773  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 863   |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 47.0  | 36.9  | 55.3  |
| 54       | 58.3  | 50.4  | 75.6  |

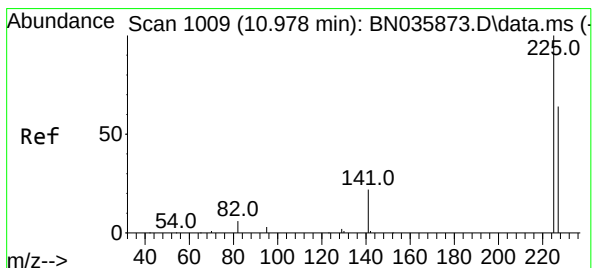
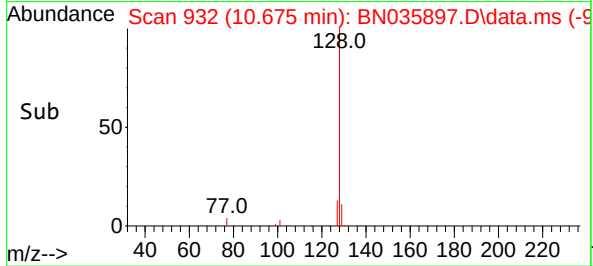
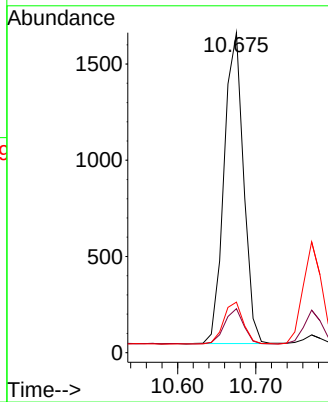
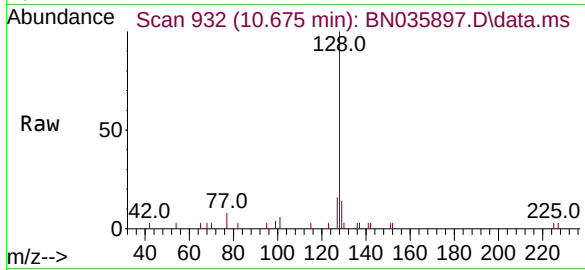




#9  
Naphthalene  
Concen: 0.393 ng  
RT: 10.675 min Scan# 91  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

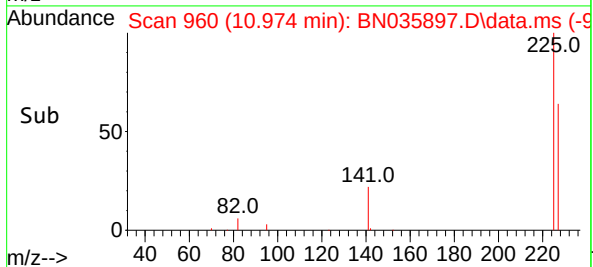
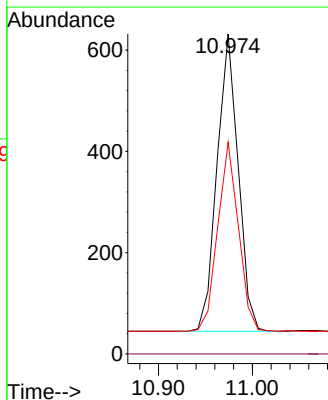
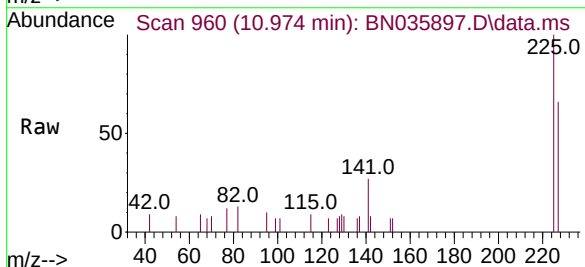
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

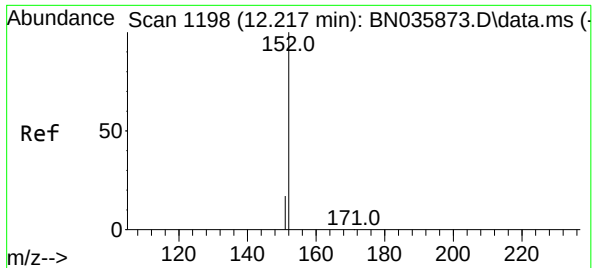
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 128   | Resp: | 2785 |
| Ion Ratio | Lower | Upper |      |
| 128       | 100   |       |      |
| 129       | 13.8  | 10.6  | 16.0 |
| 127       | 15.8  | 12.8  | 19.2 |



#10  
Hexachlorobutadiene  
Concen: 0.400 ng  
RT: 10.974 min Scan# 960  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 225   | Resp: | 920  |
| Ion Ratio | Lower | Upper |      |
| 225       | 100   |       |      |
| 223       | 0.0   | 0.0   | 0.0  |
| 227       | 62.3  | 51.5  | 77.3 |

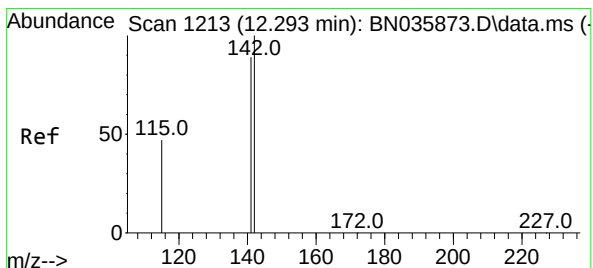
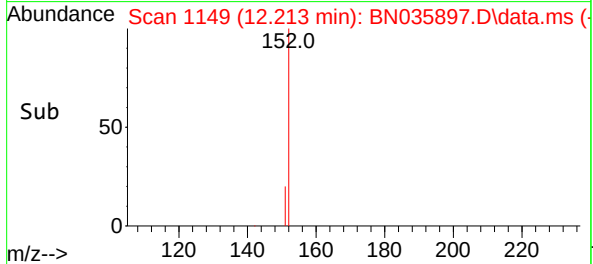
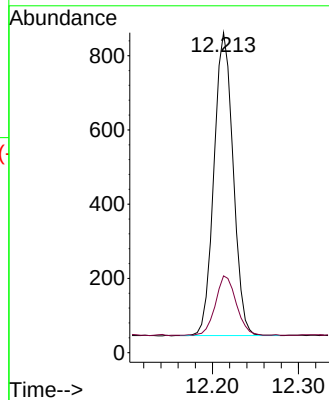
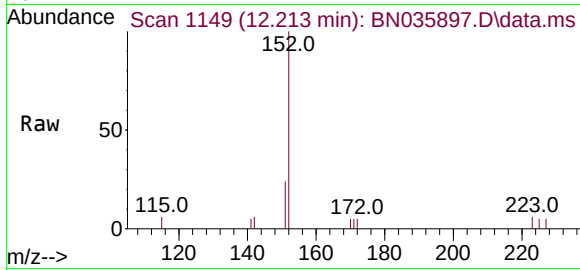




#11  
2-Methylnaphthalene-d10  
Concen: 0.373 ng  
RT: 12.213 min Scan# 1163  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

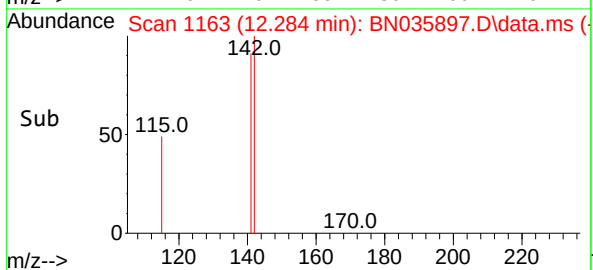
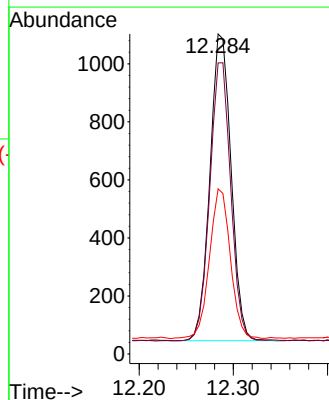
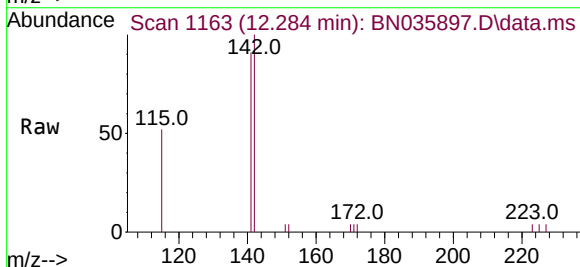
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

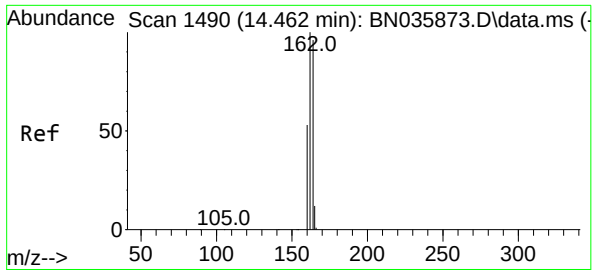
Tgt Ion:152 Resp: 1261  
Ion Ratio Lower Upper  
152 100  
151 21.2 17.0 25.6



#12  
2-Methylnaphthalene  
Concen: 0.378 ng  
RT: 12.284 min Scan# 1163  
Delta R.T. -0.009 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

Tgt Ion:142 Resp: 1655  
Ion Ratio Lower Upper  
142 100  
141 90.9 71.9 107.9  
115 51.6 39.6 59.4

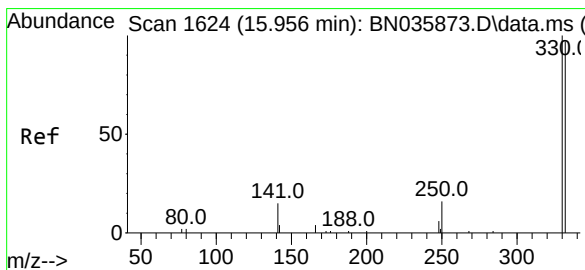
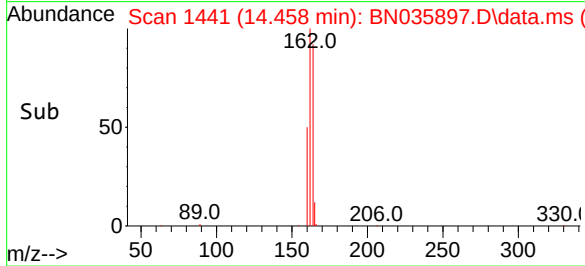
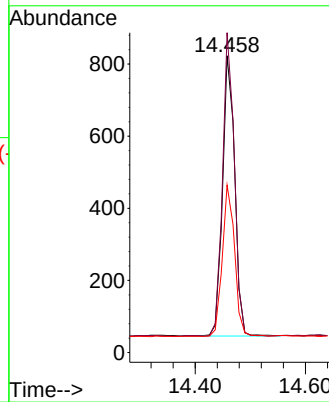
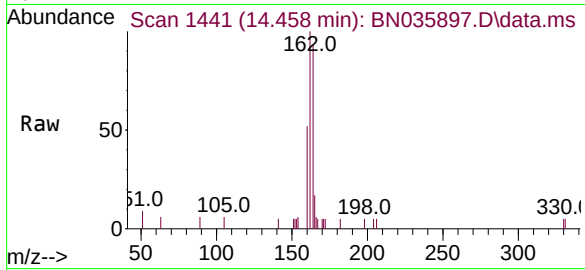




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.458 min Scan# 14  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

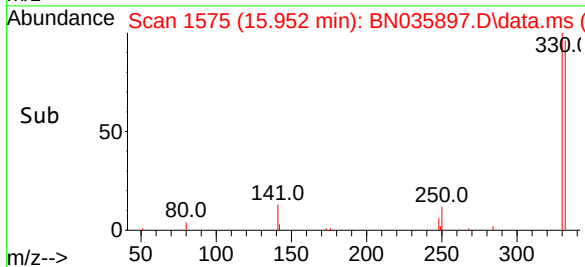
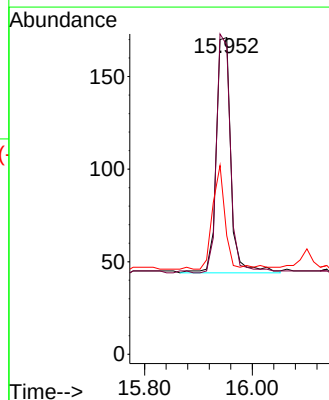
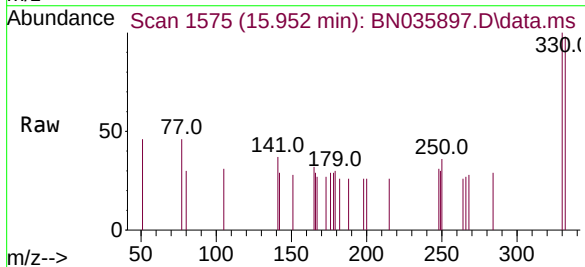
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

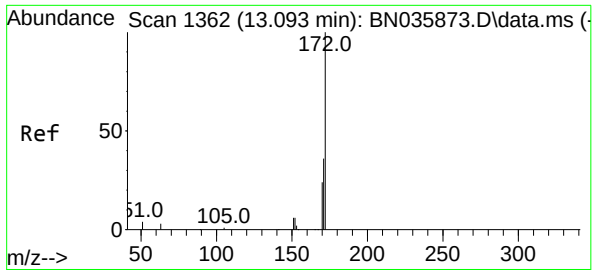
Tgt Ion:164 Resp: 1187  
Ion Ratio Lower Upper  
164 100  
162 107.8 83.1 124.7  
160 56.4 46.0 69.0



#14  
2,4,6-Tribromophenol  
Concen: 0.419 ng  
RT: 15.952 min Scan# 1575  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

Tgt Ion:330 Resp: 239  
Ion Ratio Lower Upper  
330 100  
332 97.1 77.2 115.8  
141 37.2 31.6 47.4

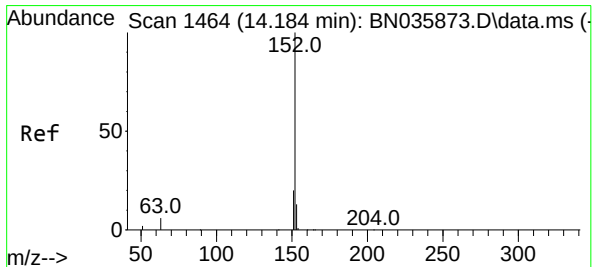
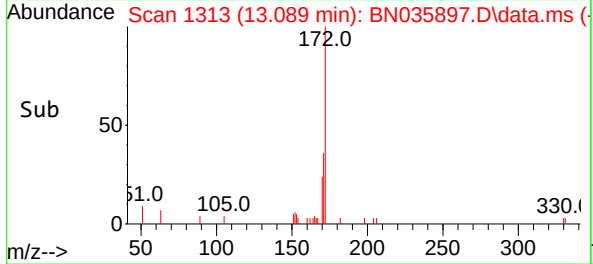
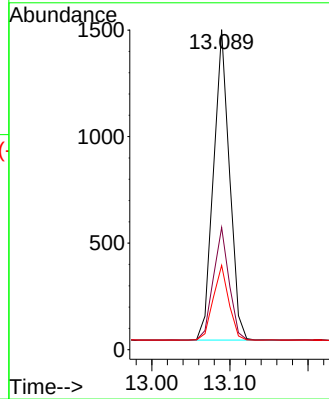
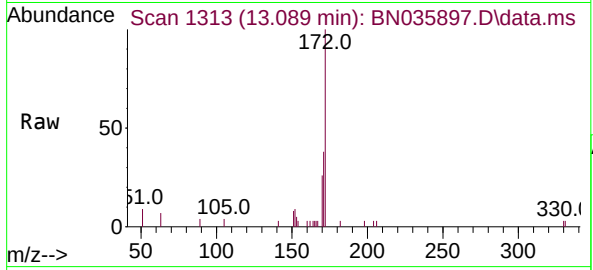




#15  
2-Fluorobiphenyl  
Concen: 0.398 ng  
RT: 13.089 min Scan# 1413  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

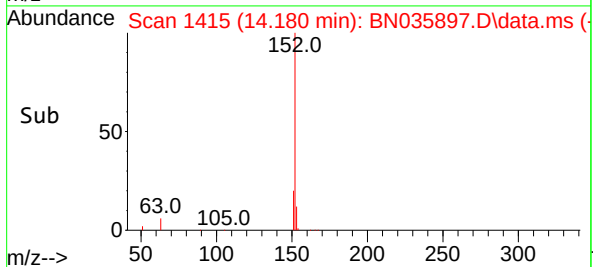
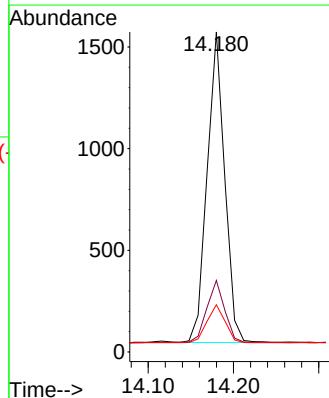
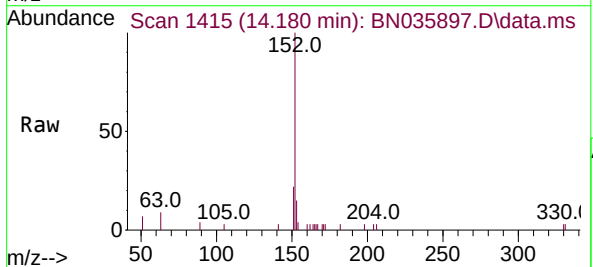
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

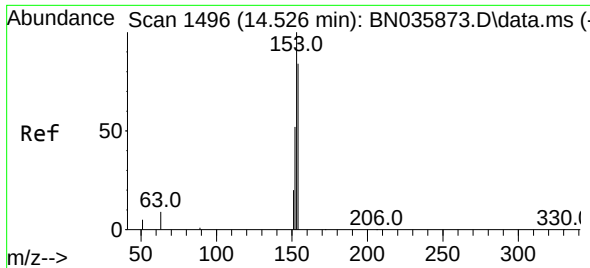
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 172   | Resp: | 2074  |
| Ion      | Ratio | Lower | Upper |
| 172      | 100   |       |       |
| 171      | 38.2  | 30.5  | 45.7  |
| 170      | 26.4  | 20.8  | 31.2  |



#16  
Acenaphthylene  
Concen: 0.391 ng  
RT: 14.180 min Scan# 1415  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 152   | Resp: | 2183  |
| Ion      | Ratio | Lower | Upper |
| 152      | 100   |       |       |
| 151      | 20.7  | 16.3  | 24.5  |
| 153      | 12.6  | 10.6  | 15.8  |

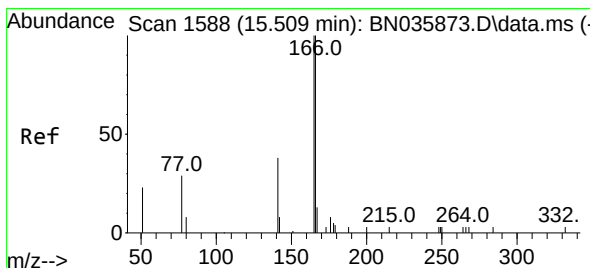
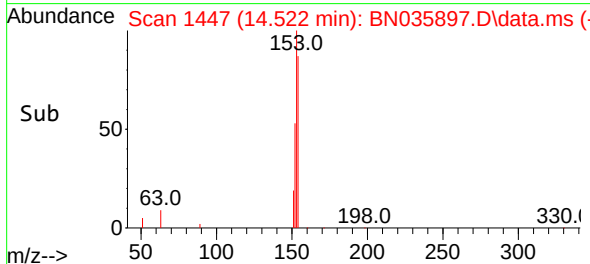
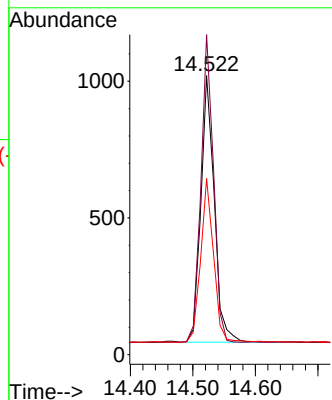
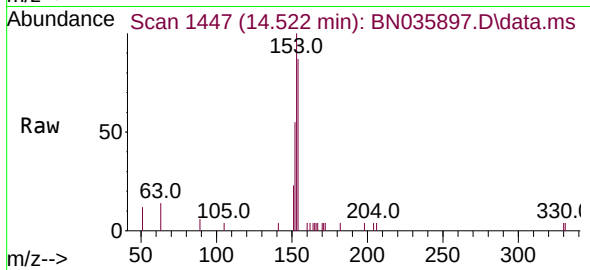




#17  
Acenaphthene  
Concen: 0.396 ng  
RT: 14.522 min Scan# 1496  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

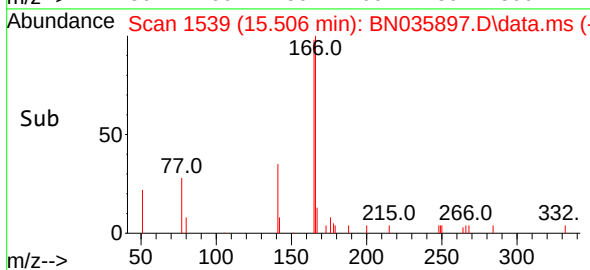
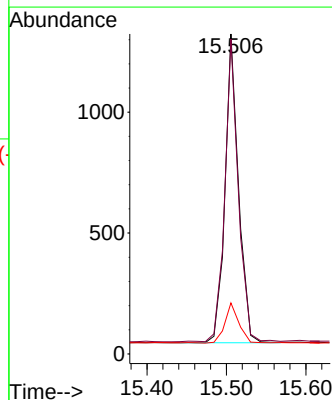
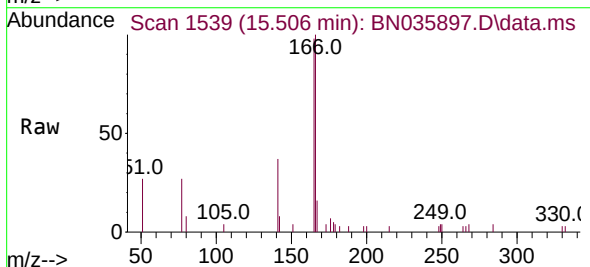
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

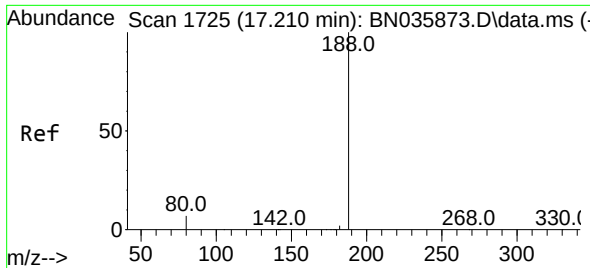
Tgt Ion:154 Resp: 1453  
Ion Ratio Lower Upper  
154 100  
153 108.6 90.5 135.7  
152 59.2 48.6 73.0



#18  
Fluorene  
Concen: 0.370 ng  
RT: 15.506 min Scan# 1539  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

Tgt Ion:166 Resp: 1494  
Ion Ratio Lower Upper  
166 100  
165 98.2 80.6 120.8  
167 14.3 11.4 17.0

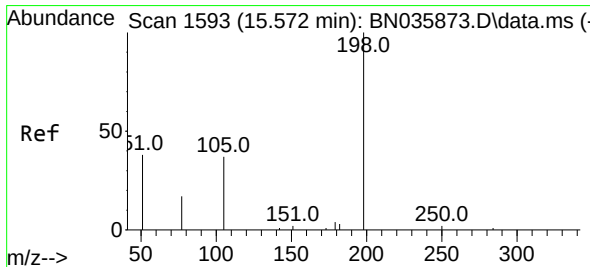
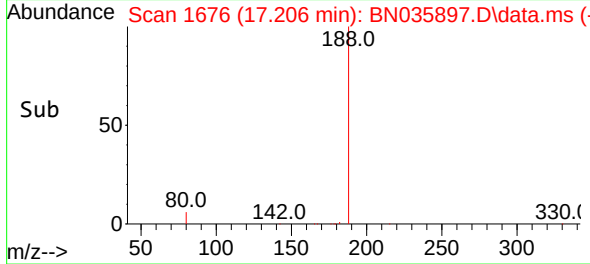
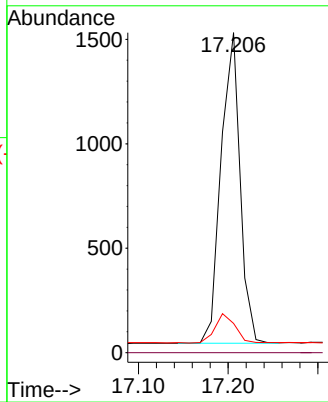
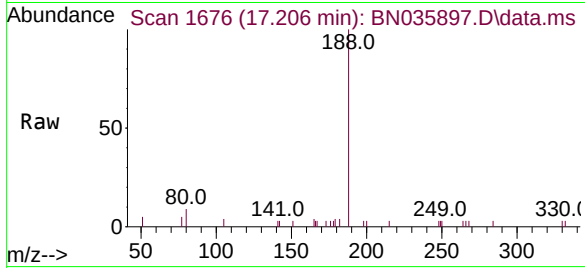




#19  
Phenanthrene-d10  
Concen: 0.400 ng  
RT: 17.206 min Scan# 1  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

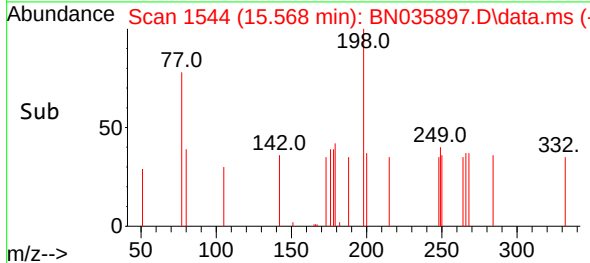
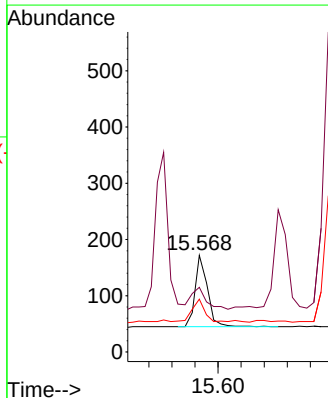
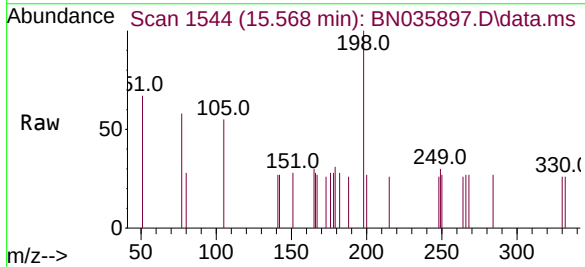
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

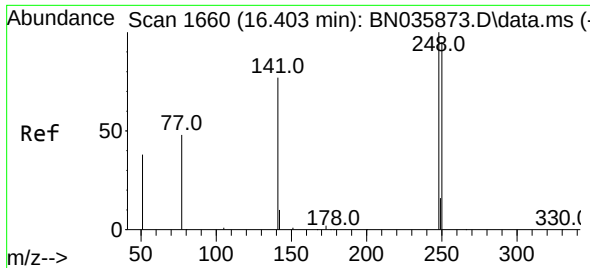
|             |       |       |
|-------------|-------|-------|
| Tgt Ion:188 | Resp: | 2191  |
| Ion Ratio   | Lower | Upper |
| 188         | 100   |       |
| 94          | 0.0   | 0.0   |
| 80          | 9.1   | 7.3   |



#20  
4,6-Dinitro-2-methylphenol  
Concen: 0.494 ng  
RT: 15.568 min Scan# 1544  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

|             |       |       |
|-------------|-------|-------|
| Tgt Ion:198 | Resp: | 188   |
| Ion Ratio   | Lower | Upper |
| 198         | 100   |       |
| 51          | 66.9  | 64.3  |
| 105         | 54.7  | 50.0  |

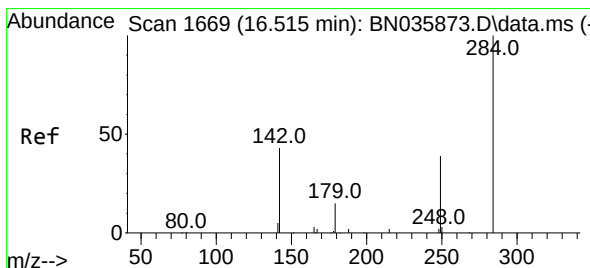
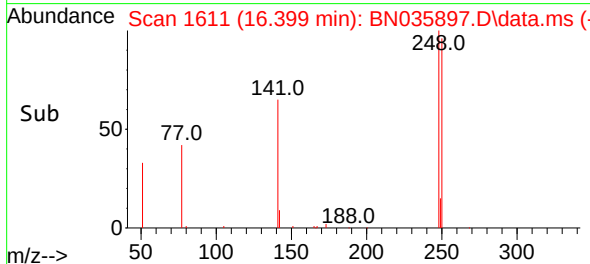
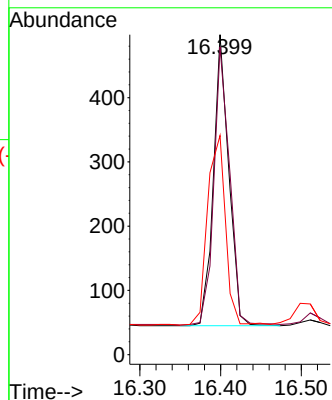
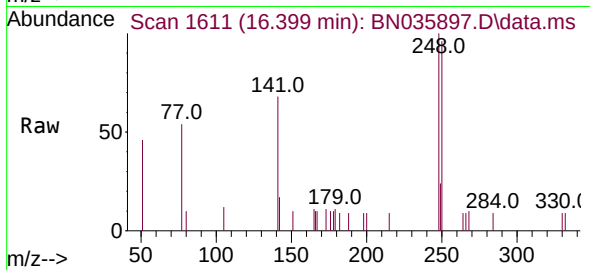




#21  
4-Bromophenyl-phenylether  
Concen: 0.399 ng  
RT: 16.399 min Scan# 1620  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

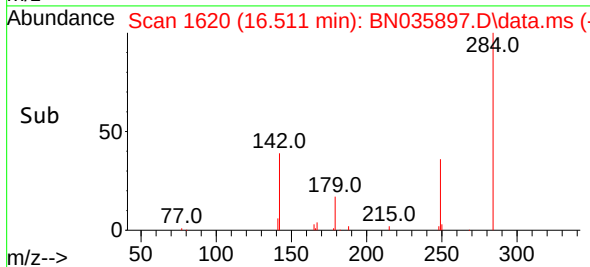
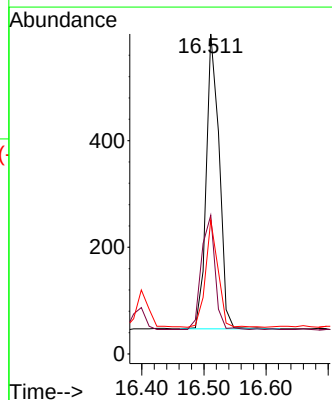
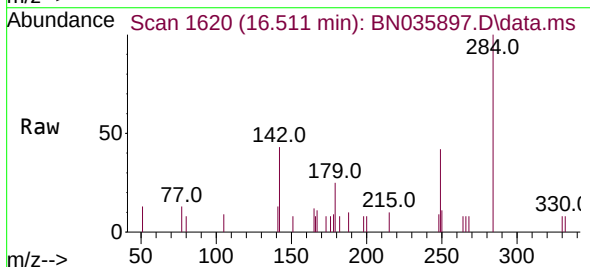
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 248     | 100   |       |       |
| 250     | 96.2  | 76.8  | 115.2 |
| 141     | 68.5  | 63.6  | 95.4  |

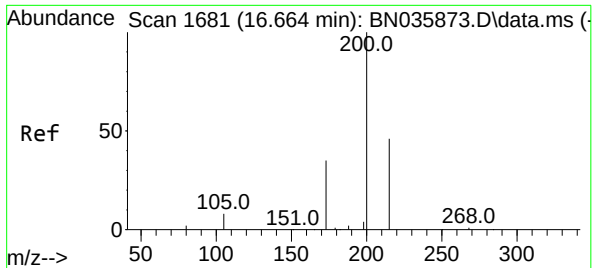


#22  
Hexachlorobenzene  
Concen: 0.392 ng  
RT: 16.511 min Scan# 1620  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 284     | 100   |       |       |
| 142     | 40.5  | 31.4  | 47.0  |
| 249     | 35.1  | 27.8  | 41.8  |



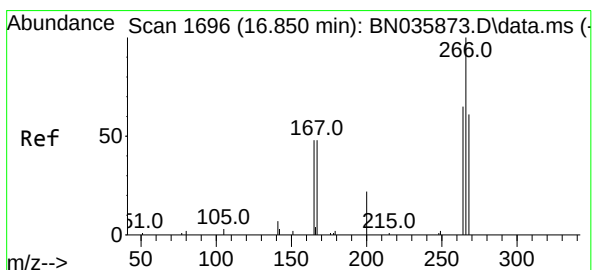
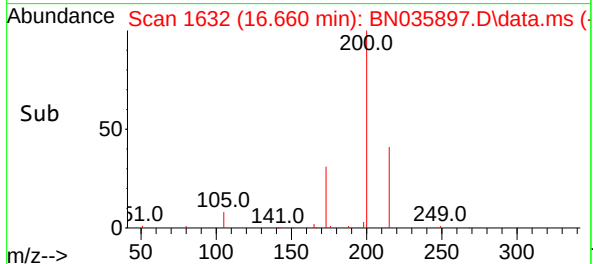
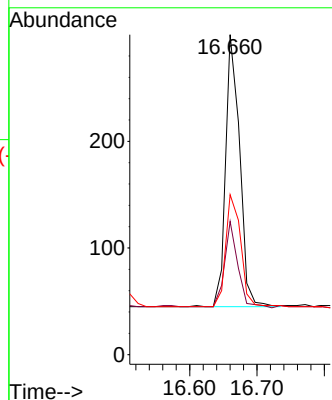
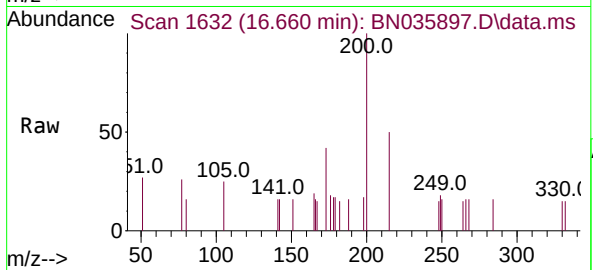




#23  
Atrazine  
Concen: 0.366 ng  
RT: 16.660 min Scan# 1647  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

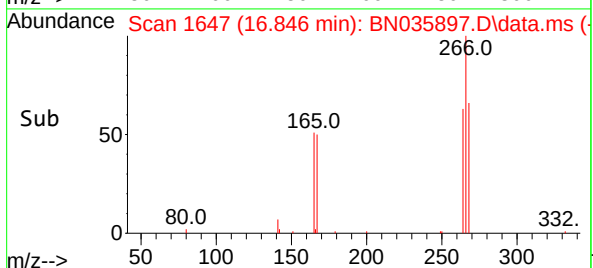
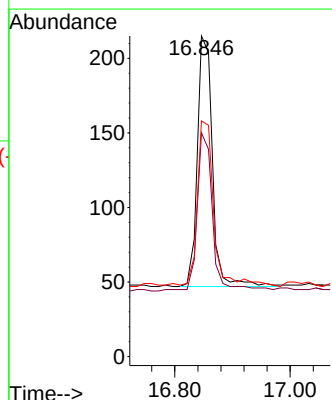
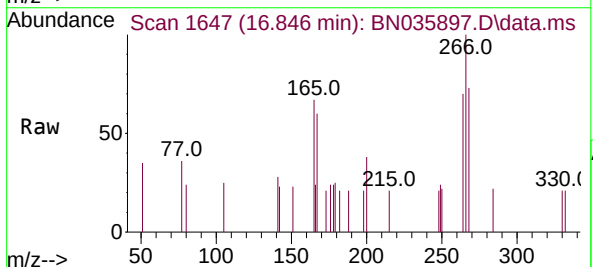
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

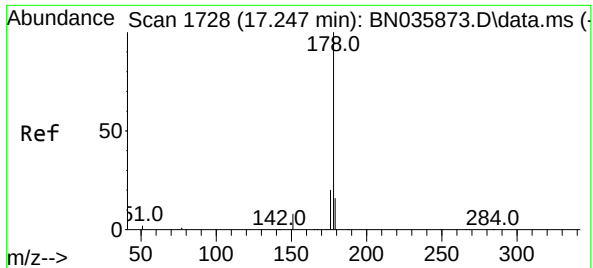
Tgt Ion:200 Resp: 369  
Ion Ratio Lower Upper  
200 100  
173 41.7 35.4 53.0  
215 50.0 42.4 63.6



#24  
Pentachlorophenol  
Concen: 0.422 ng  
RT: 16.846 min Scan# 1647  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

Tgt Ion:266 Resp: 306  
Ion Ratio Lower Upper  
266 100  
264 64.4 49.9 74.9  
268 72.9 50.2 75.2

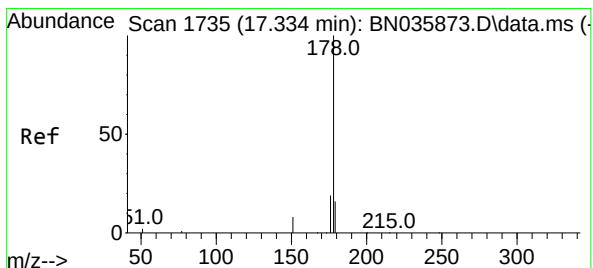
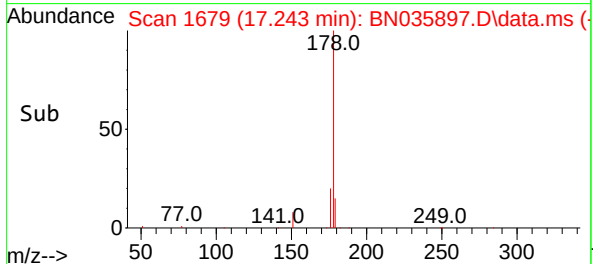
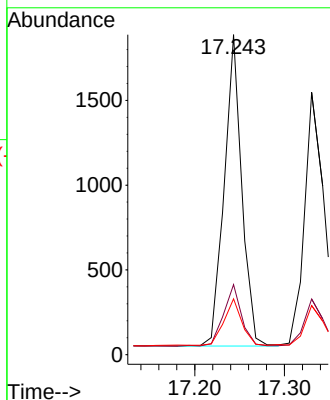
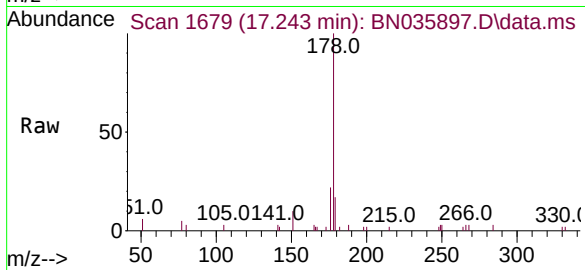




#25  
Phenanthrene  
Concen: 0.391 ng  
RT: 17.243 min Scan# 1686  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

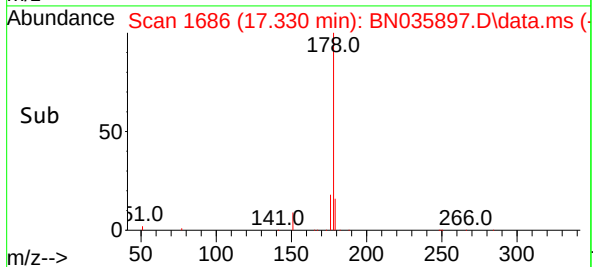
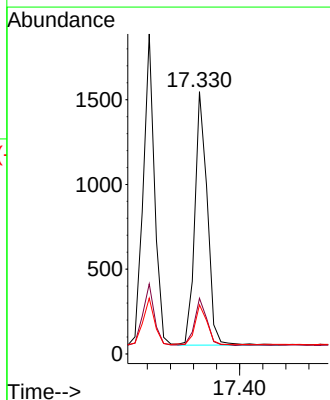
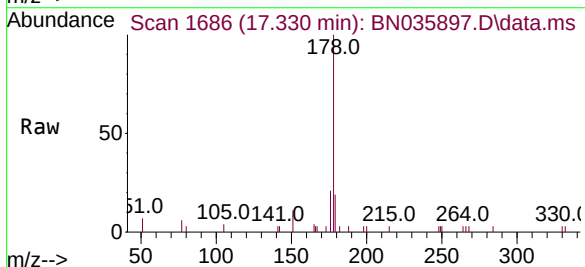
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

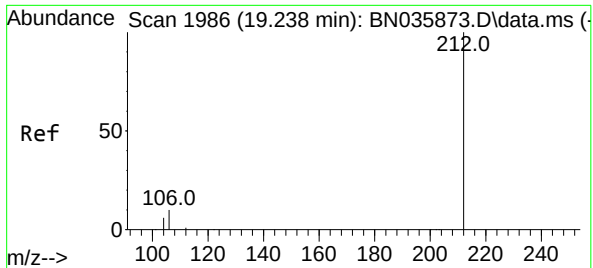
| Tgt Ion   | 178  | 176  | 179  |
|-----------|------|------|------|
| Resp:     | 2499 |      |      |
| Ion Ratio | 100  | 20.0 | 16.0 |
| Lower     |      | 15.9 | 12.9 |
| Upper     |      | 23.9 | 19.3 |



#26  
Anthracene  
Concen: 0.385 ng  
RT: 17.330 min Scan# 1686  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

| Tgt Ion   | 178  | 176  | 179  |
|-----------|------|------|------|
| Resp:     | 2239 |      |      |
| Ion Ratio | 100  | 18.5 | 15.7 |
| Lower     |      | 15.0 | 13.0 |
| Upper     |      | 22.6 | 19.6 |





#27

Fluoranthene-d10

Concen: 0.375 ng

RT: 19.234 min Scan# 1943

Delta R.T. -0.004 min

Lab File: BN035897.D

Acq: 07 Jan 2025 15:03

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4

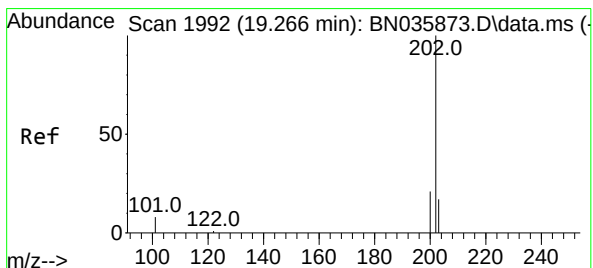
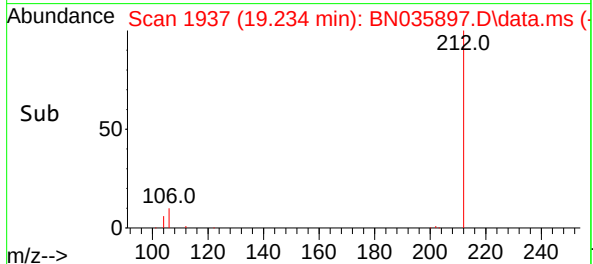
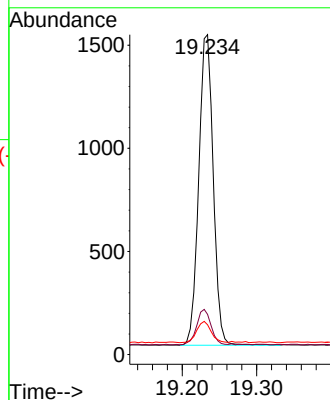
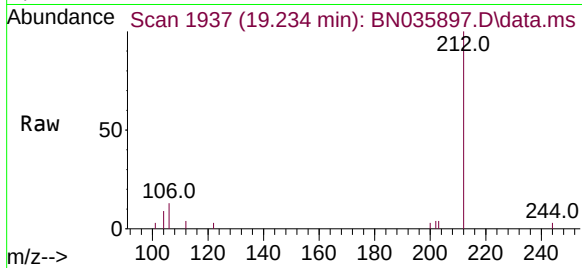
Tgt Ion:212 Resp: 2040

Ion Ratio Lower Upper

212 100

106 11.1 9.0 13.6

104 6.7 5.4 8.2



#28

Fluoranthene

Concen: 0.369 ng

RT: 19.262 min Scan# 1943

Delta R.T. -0.004 min

Lab File: BN035897.D

Acq: 07 Jan 2025 15:03

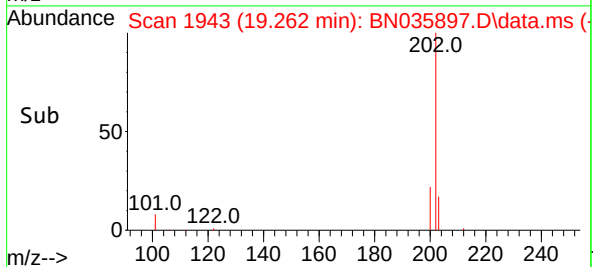
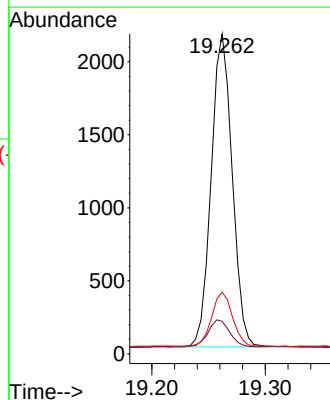
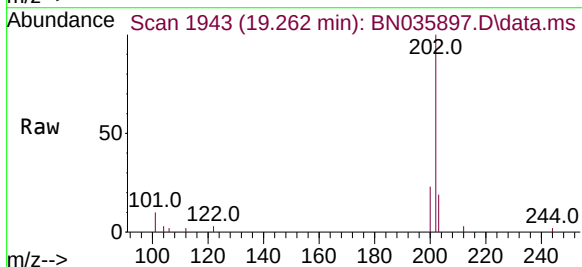
Tgt Ion:202 Resp: 2751

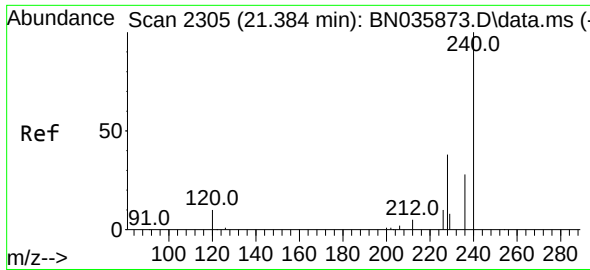
Ion Ratio Lower Upper

202 100

101 9.0 7.2 10.8

203 17.1 13.9 20.9

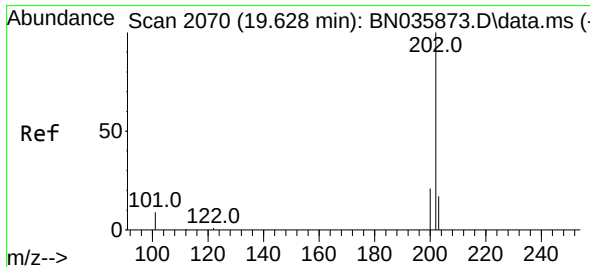
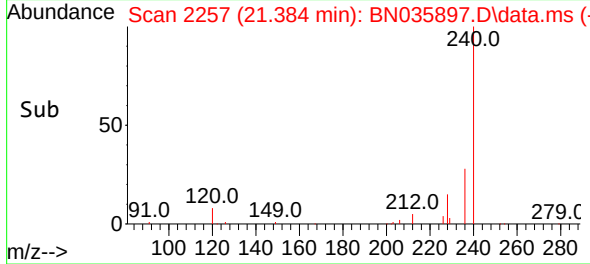
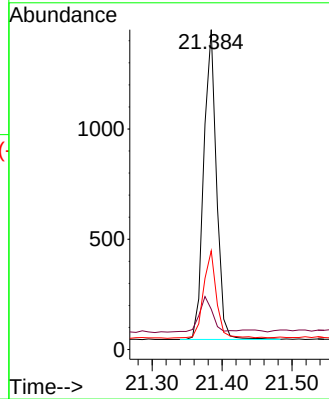
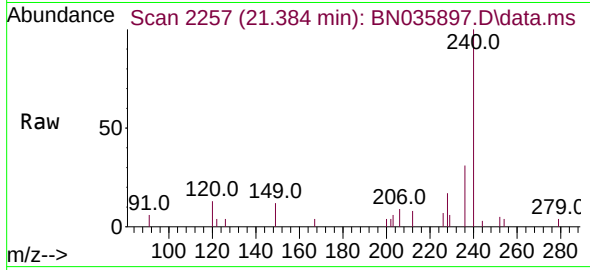




#29  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.384 min Scan# 21  
Delta R.T. 0.001 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

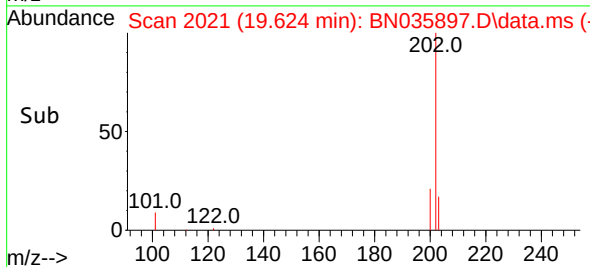
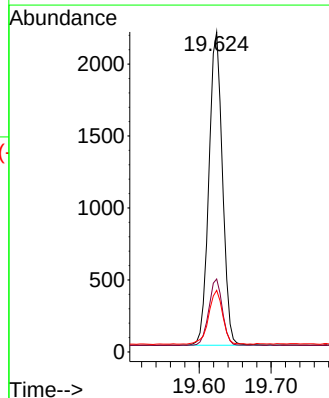
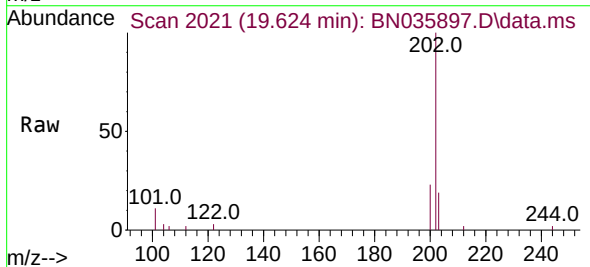
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

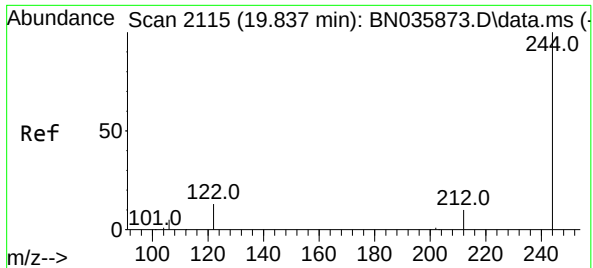
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 240     | 100   |       |       |
| 120     | 12.6  | 11.1  | 16.7  |
| 236     | 30.9  | 24.6  | 36.8  |



#30  
Pyrene  
Concen: 0.392 ng  
RT: 19.624 min Scan# 2021  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 200     | 21.4  | 17.0  | 25.6  |
| 203     | 17.9  | 14.6  | 22.0  |

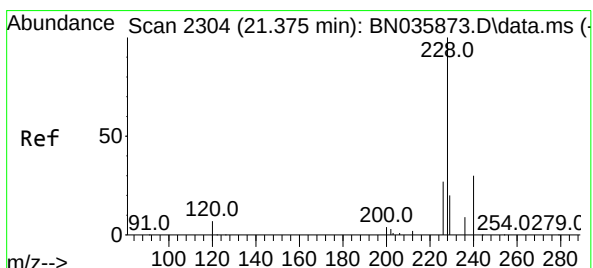
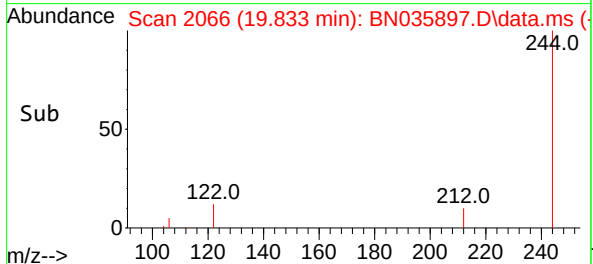
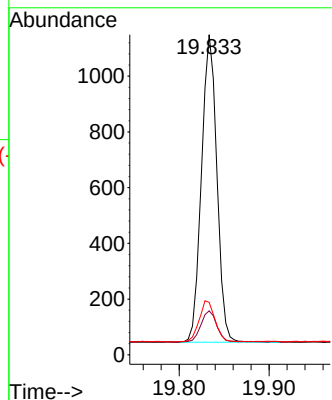
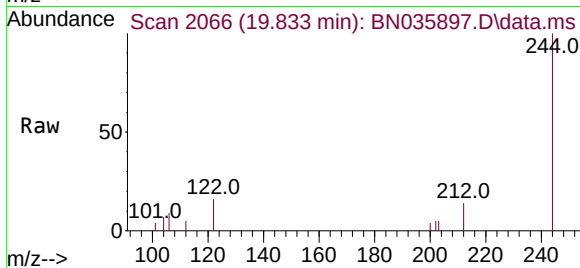




#31  
Terphenyl-d14  
Concen: 0.371 ng  
RT: 19.833 min Scan# 2066  
Delta R.T. -0.004 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

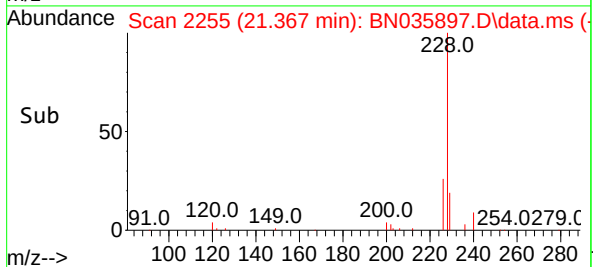
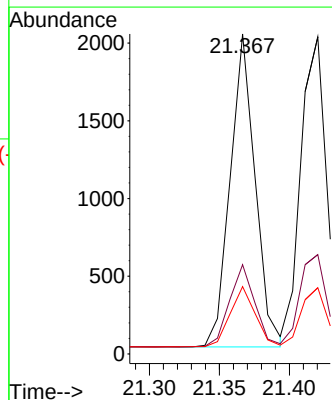
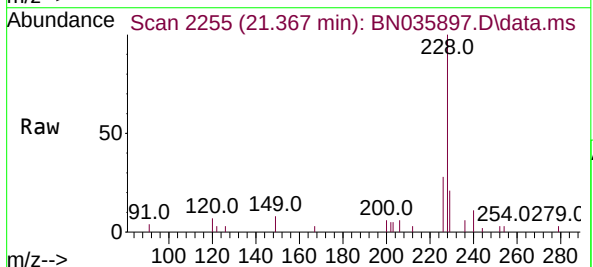
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

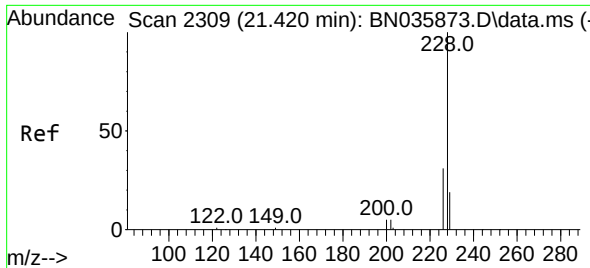
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 13.8  | 10.1  | 15.1  |
| 122     | 16.4  | 12.2  | 18.4  |



#32  
Benzo(a)anthracene  
Concen: 0.399 ng  
RT: 21.367 min Scan# 2255  
Delta R.T. -0.008 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.9  | 22.7  | 34.1  |
| 229     | 21.0  | 17.1  | 25.7  |

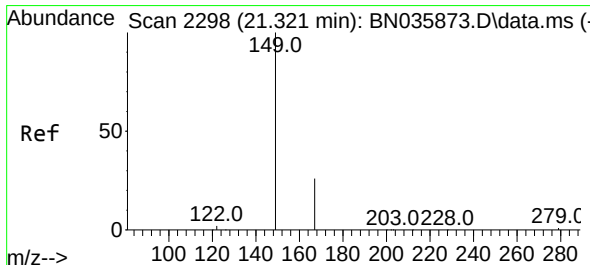
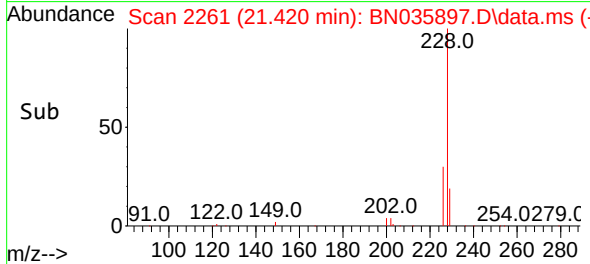
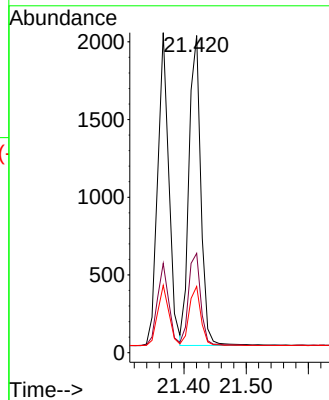
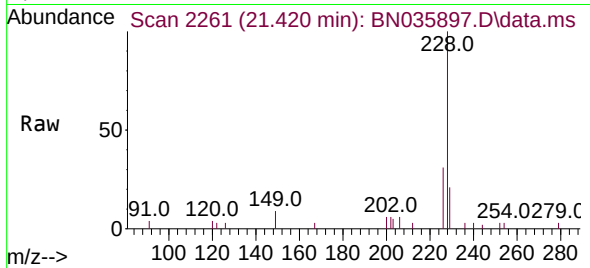




#33  
Chrysene  
Concen: 0.400 ng  
RT: 21.420 min Scan# 21  
Delta R.T. 0.001 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

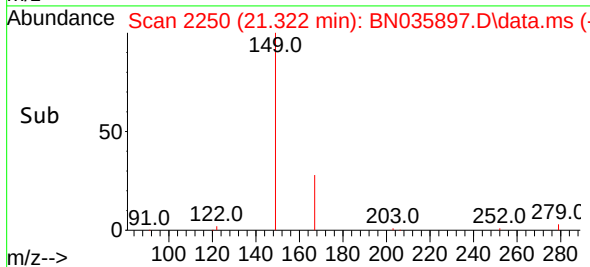
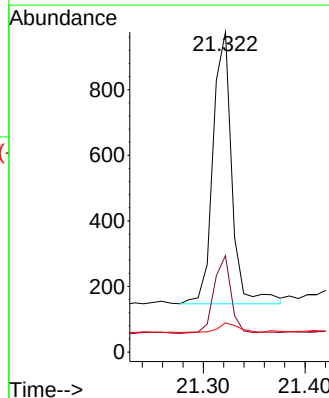
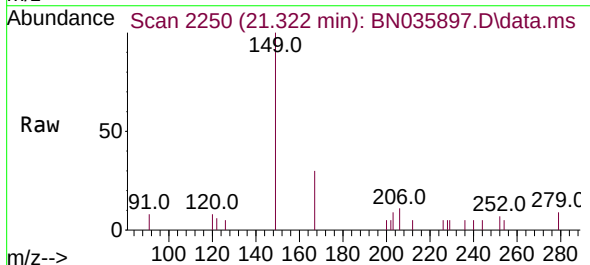
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

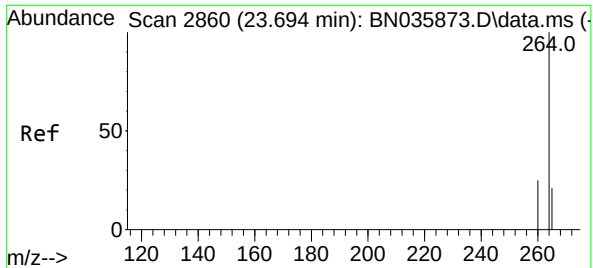
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 228   | Resp: | 2624  |
| Ion      | Ratio | Lower | Upper |
| 228      | 100   |       |       |
| 226      | 31.3  | 25.2  | 37.8  |
| 229      | 20.9  | 16.0  | 24.0  |



#34  
Bis(2-ethylhexyl)phthalate  
Concen: 0.419 ng  
RT: 21.322 min Scan# 2250  
Delta R.T. 0.001 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 149   | Resp: | 1070  |
| Ion      | Ratio | Lower | Upper |
| 149      | 100   |       |       |
| 167      | 25.9  | 21.4  | 32.0  |
| 279      | 3.7   | 3.0   | 4.6   |

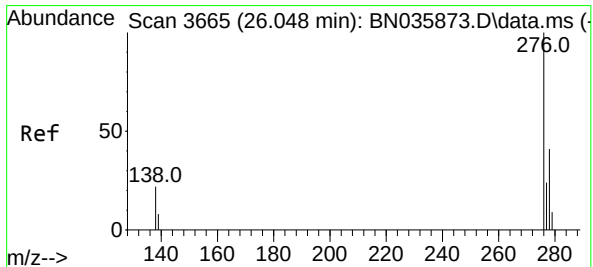
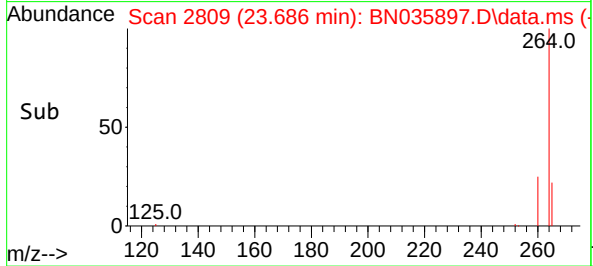
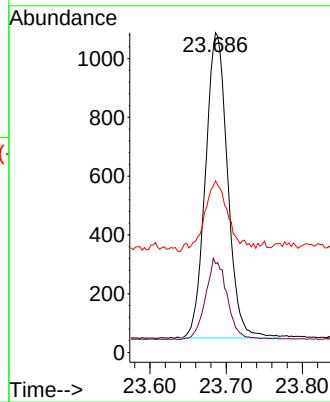
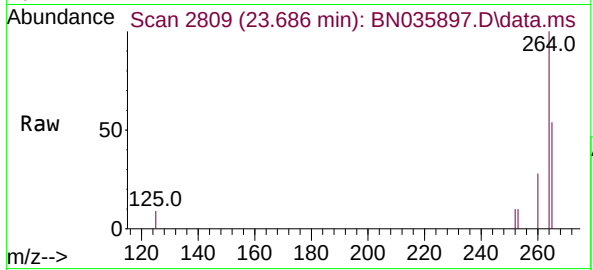




#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.686 min Scan# 21  
Delta R.T. -0.008 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

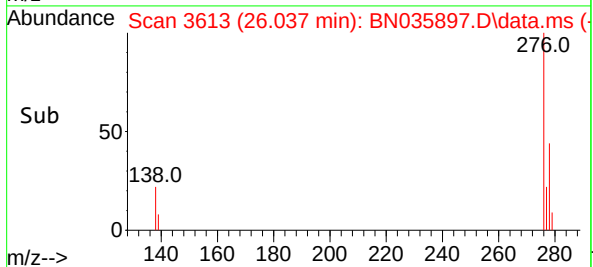
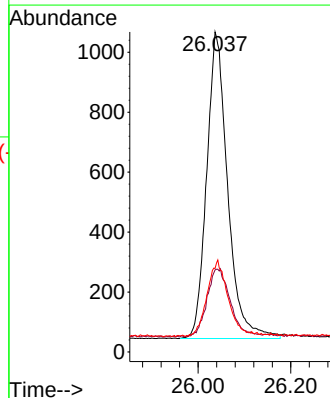
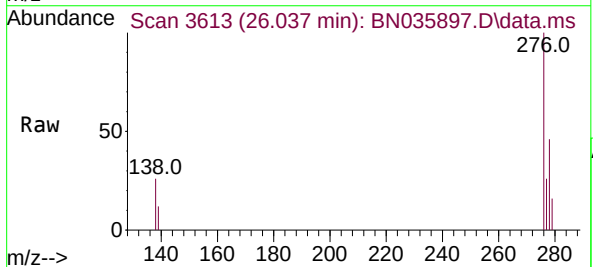
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

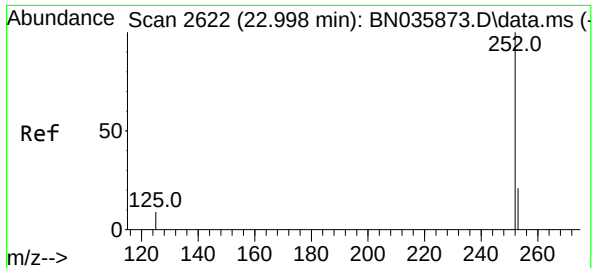
Tgt Ion: 264 Resp: 2085  
Ion Ratio Lower Upper  
264 100  
260 27.8 21.7 32.5  
265 53.7 33.9 50.9#



#36  
Indeno(1,2,3-cd)pyrene  
Concen: 0.391 ng  
RT: 26.037 min Scan# 3613  
Delta R.T. -0.011 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

Tgt Ion: 276 Resp: 3216  
Ion Ratio Lower Upper  
276 100  
138 24.0 18.9 28.3  
277 24.8 19.5 29.3

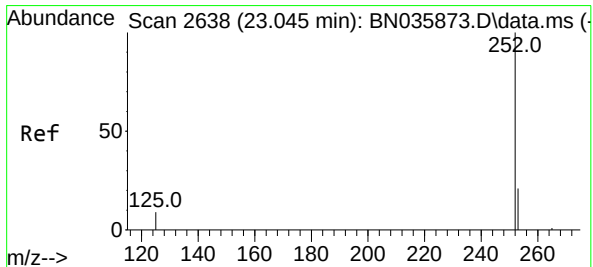
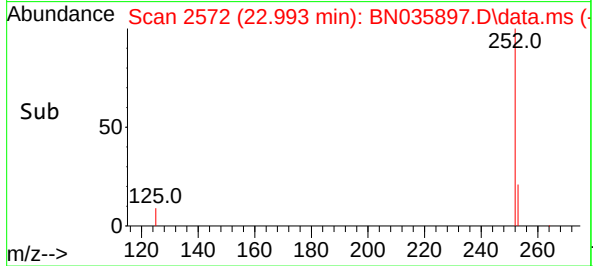
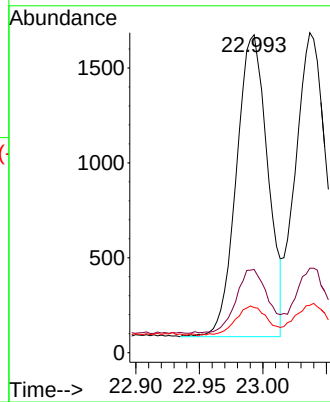
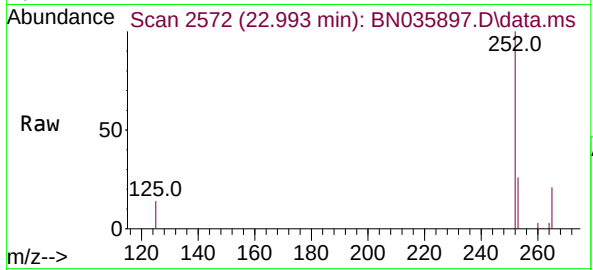




#37  
Benzo(b)fluoranthene  
Concen: 0.381 ng  
RT: 22.993 min Scan# 21  
Delta R.T. -0.005 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

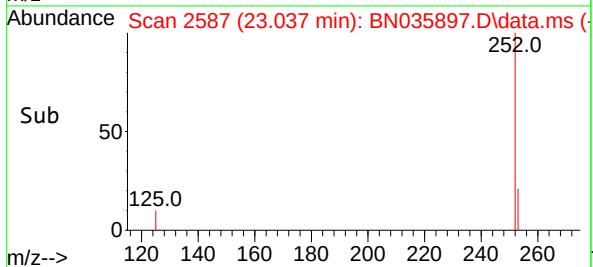
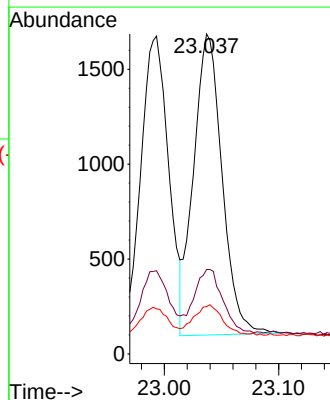
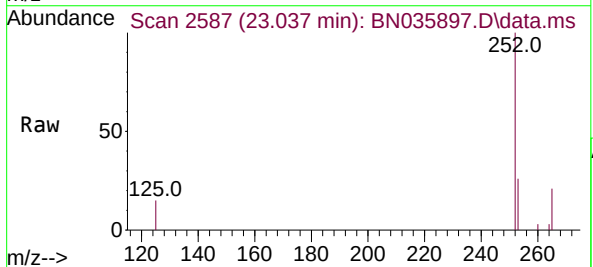
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4

Tgt Ion:252 Resp: 2728  
Ion Ratio Lower Upper  
252 100  
253 26.1 20.1 30.1  
125 14.1 9.9 14.9

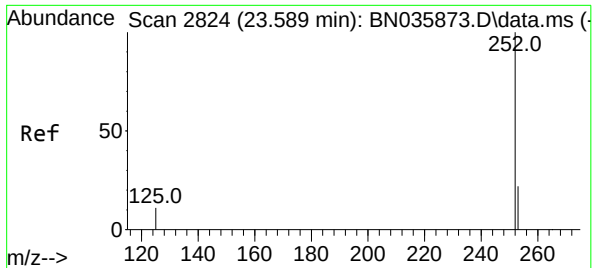


#38  
Benzo(k)fluoranthene  
Concen: 0.388 ng  
RT: 23.037 min Scan# 2587  
Delta R.T. -0.008 min  
Lab File: BN035897.D  
Acq: 07 Jan 2025 15:03

Tgt Ion:252 Resp: 2749  
Ion Ratio Lower Upper  
252 100  
253 26.4 20.5 30.7  
125 14.8 10.6 16.0







#39

Benzo(a)pyrene

Concen: 0.380 ng

RT: 23.587 min Scan# 21

Delta R.T. -0.002 min

Lab File: BN035897.D

Acq: 07 Jan 2025 15:03

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4

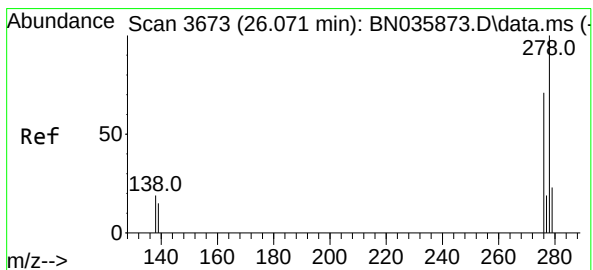
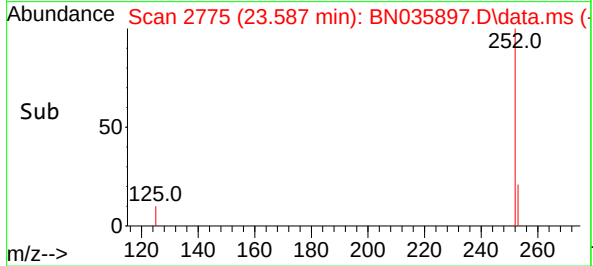
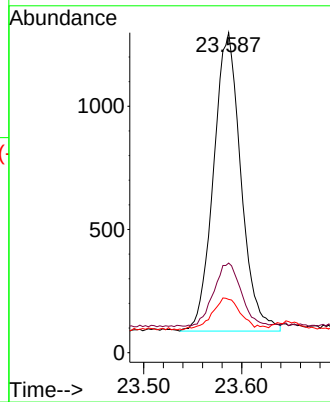
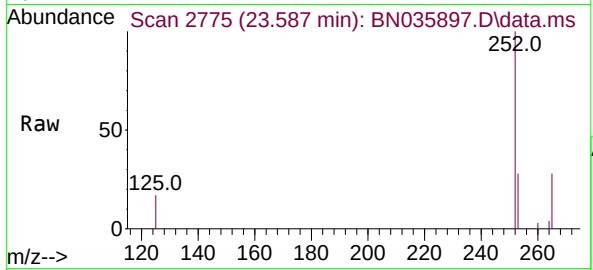
Tgt Ion:252 Resp: 2355

Ion Ratio Lower Upper

252 100

253 28.0 21.5 32.3

125 16.6 12.6 19.0



#40

Dibenzo(a,h)anthracene

Concen: 0.388 ng

RT: 26.054 min Scan# 3619

Delta R.T. -0.017 min

Lab File: BN035897.D

Acq: 07 Jan 2025 15:03

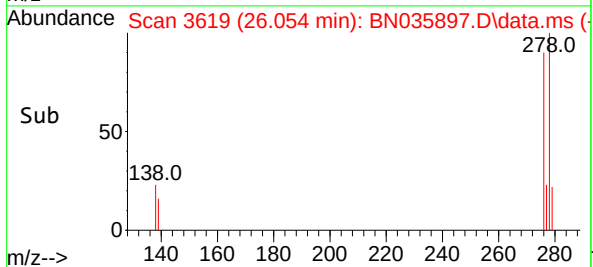
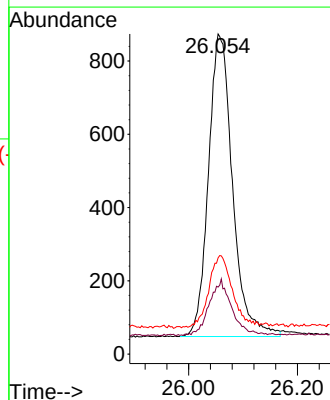
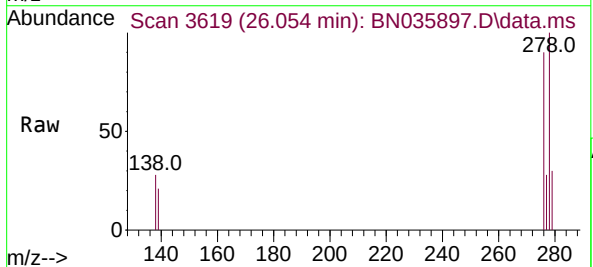
Tgt Ion:278 Resp: 2536

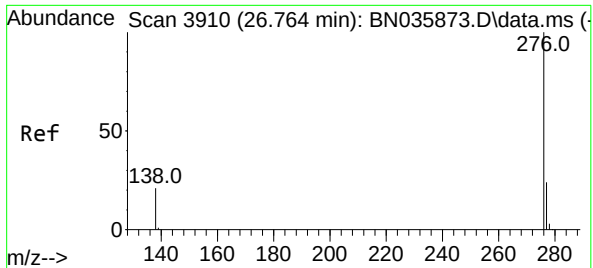
Ion Ratio Lower Upper

278 100

139 20.9 15.9 23.9

279 30.1 23.0 34.4





#41

Benzo(g,h,i)perylene

Concen: 0.392 ng

RT: 26.753 min Scan# 31

Delta R.T. -0.011 min

Lab File: BN035897.D

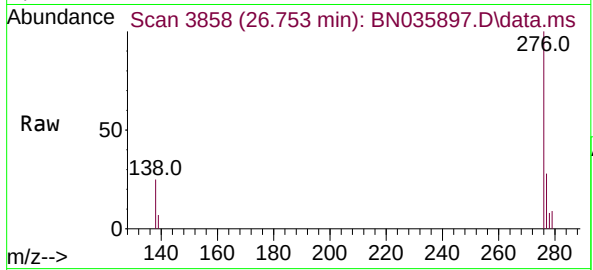
Acq: 07 Jan 2025 15:03

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4



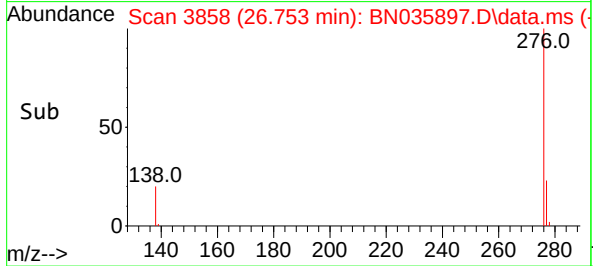
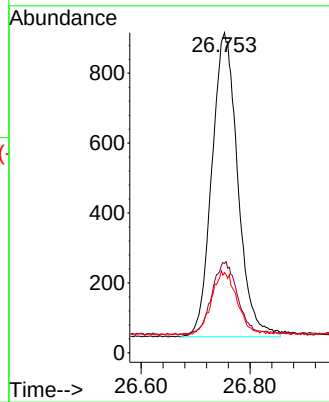
Tgt Ion:276 Resp: 2870

Ion Ratio Lower Upper

276 100

277 27.9 22.8 34.2

138 25.1 20.1 30.1



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035897.D  
Acq On : 07 Jan 2025 15:03  
Operator : RC/JU  
Sample : SSTDCCC0.4  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
BNA\_N  
LabSampleId :  
SSTDCCC0.4

Quant Time: Jan 07 16:25:33 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 25% Max. Rel. Area : 150%

|         | Compound                   | AvgRF | CCRF  | %Dev  | Area% | Dev(min) |
|---------|----------------------------|-------|-------|-------|-------|----------|
| 1 I     | 1,4-Dichlorobenzene-d4     | 1.000 | 1.000 | 0.0   | 106   | 0.00     |
| 2       | 1,4-Dioxane                | 0.397 | 0.449 | -13.1 | 127   | 0.00     |
| 3       | n-Nitrosodimethylamine     | 0.693 | 0.742 | -7.1  | 116   | -0.01    |
| 4 S     | 2-Fluorophenol             | 0.981 | 0.971 | 1.0   | 108   | 0.00     |
| 5 S     | Phenol-d6                  | 1.219 | 1.172 | 3.9   | 105   | 0.00     |
| 6       | bis(2-Chloroethyl)ether    | 0.929 | 0.936 | -0.8  | 106   | -0.01    |
| 7 I     | Naphthalene-d8             | 1.000 | 1.000 | 0.0   | 98    | 0.00     |
| 8 S     | Nitrobenzene-d5            | 0.317 | 0.342 | -7.9  | 113   | 0.00     |
| 9       | Naphthalene                | 1.123 | 1.104 | 1.7   | 99    | 0.00     |
| 10      | Hexachlorobutadiene        | 0.365 | 0.365 | 0.0   | 101   | 0.00     |
| 11 SURR | 2-Methylnaphthalene-d10    | 0.536 | 0.500 | 6.7   | 93    | 0.00     |
| 12      | 2-Methylnaphthalene        | 0.695 | 0.656 | 5.6   | 94    | 0.00     |
| 13 I    | Acenaphthene-d10           | 1.000 | 1.000 | 0.0   | 87    | 0.00     |
| 14 S    | 2,4,6-Tribromophenol       | 0.192 | 0.201 | -4.7  | 93    | 0.00     |
| 15 S    | 2-Fluorobiphenyl           | 1.755 | 1.747 | 0.5   | 89    | 0.00     |
| 16      | Acenaphthylene             | 1.884 | 1.839 | 2.4   | 88    | 0.00     |
| 17      | Acenaphthene               | 1.235 | 1.224 | 0.9   | 89    | 0.00     |
| 18      | Fluorene                   | 1.359 | 1.259 | 7.4   | 84    | 0.00     |
| 19 I    | Phenanthrene-d10           | 1.000 | 1.000 | 0.0   | 79    | 0.00     |
| 20      | 4,6-Dinitro-2-methylphenol | 0.069 | 0.086 | -24.6 | 102   | 0.00     |
| 21      | 4-Bromophenyl-phenylether  | 0.274 | 0.273 | 0.4   | 81    | 0.00     |
| 22      | Hexachlorobenzene          | 0.374 | 0.366 | 2.1   | 81    | 0.00     |
| 23      | Atrazine                   | 0.184 | 0.168 | 8.7   | 76    | 0.00     |
| 24      | Pentachlorophenol          | 0.132 | 0.140 | -6.1  | 94    | 0.00     |
| 25      | Phenanthrene               | 1.167 | 1.141 | 2.2   | 79    | 0.00     |
| 26      | Anthracene                 | 1.062 | 1.022 | 3.8   | 80    | 0.00     |
| 27 SURR | Fluoranthene-d10           | 0.993 | 0.931 | 6.2   | 75    | 0.00     |
| 28      | Fluoranthene               | 1.361 | 1.256 | 7.7   | 75    | 0.00     |
| 29 I    | Chrysene-d12               | 1.000 | 1.000 | 0.0   | 75    | 0.00     |
| 30      | Pyrene                     | 1.624 | 1.590 | 2.1   | 76    | 0.00     |
| 31 S    | Terphenyl-d14              | 0.797 | 0.739 | 7.3   | 70    | 0.00     |
| 32      | Benzo(a)anthracene         | 1.410 | 1.405 | 0.4   | 78    | 0.00     |
| 33      | Chrysene                   | 1.475 | 1.474 | 0.1   | 77    | 0.00     |
| 34      | Bis(2-ethylhexyl)phthalate | 0.574 | 0.601 | -4.7  | 77    | 0.00     |
| 35 I    | Perylene-d12               | 1.000 | 1.000 | 0.0   | 79    | 0.00     |
| 36      | Indeno(1,2,3-cd)pyrene     | 1.577 | 1.542 | 2.2   | 87    | -0.01    |
| 37      | Benzo(b)fluoranthene       | 1.374 | 1.308 | 4.8   | 80    | 0.00     |
| 38      | Benzo(k)fluoranthene       | 1.360 | 1.318 | 3.1   | 84    | 0.00     |
| 39 C    | Benzo(a)pyrene             | 1.190 | 1.129 | 5.1   | 83    | 0.00     |
| 40      | Dibenzo(a,h)anthracene     | 1.255 | 1.216 | 3.1   | 87    | -0.02    |
| 41      | Benzo(g,h,i)perylene       | 1.403 | 1.376 | 1.9   | 88    | -0.01    |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035897.D  
Acq On : 07 Jan 2025 15:03  
Operator : RC/JU  
Sample : SSTDCCC0.4  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
BNA\_N  
LabSampleId :  
SSTDCCC0.4

Quant Time: Jan 07 16:25:33 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 25% Max. Rel. Area : 150%

|         | Compound                   | Amount | Calc. | %Dev  | Area% | Dev(min) |
|---------|----------------------------|--------|-------|-------|-------|----------|
| 1 I     | 1,4-Dichlorobenzene-d4     | 0.400  | 0.400 | 0.0   | 106   | 0.00     |
| 2       | 1,4-Dioxane                | 0.400  | 0.452 | -13.0 | 127   | 0.00     |
| 3       | n-Nitrosodimethylamine     | 0.400  | 0.428 | -7.0  | 116   | -0.01    |
| 4 S     | 2-Fluorophenol             | 0.400  | 0.396 | 1.0   | 108   | 0.00     |
| 5 S     | Phenol-d6                  | 0.400  | 0.385 | 3.8   | 105   | 0.00     |
| 6       | bis(2-Chloroethyl)ether    | 0.400  | 0.403 | -0.8  | 106   | -0.01    |
| 7 I     | Naphthalene-d8             | 0.400  | 0.400 | 0.0   | 98    | 0.00     |
| 8 S     | Nitrobenzene-d5            | 0.400  | 0.432 | -8.0  | 113   | 0.00     |
| 9       | Naphthalene                | 0.400  | 0.393 | 1.8   | 99    | 0.00     |
| 10      | Hexachlorobutadiene        | 0.400  | 0.400 | 0.0   | 101   | 0.00     |
| 11 SURR | 2-Methylnaphthalene-d10    | 0.400  | 0.373 | 6.8   | 93    | 0.00     |
| 12      | 2-Methylnaphthalene        | 0.400  | 0.378 | 5.5   | 94    | 0.00     |
| 13 I    | Acenaphthene-d10           | 0.400  | 0.400 | 0.0   | 87    | 0.00     |
| 14 S    | 2,4,6-Tribromophenol       | 0.400  | 0.419 | -4.7  | 93    | 0.00     |
| 15 S    | 2-Fluorobiphenyl           | 0.400  | 0.398 | 0.5   | 89    | 0.00     |
| 16      | Acenaphthylene             | 0.400  | 0.391 | 2.3   | 88    | 0.00     |
| 17      | Acenaphthene               | 0.400  | 0.396 | 1.0   | 89    | 0.00     |
| 18      | Fluorene                   | 0.400  | 0.370 | 7.5   | 84    | 0.00     |
| 19 I    | Phenanthrene-d10           | 0.400  | 0.400 | 0.0   | 79    | 0.00     |
| 20      | 4,6-Dinitro-2-methylphenol | 0.400  | 0.494 | -23.5 | 102   | 0.00     |
| 21      | 4-Bromophenyl-phenylether  | 0.400  | 0.399 | 0.3   | 81    | 0.00     |
| 22      | Hexachlorobenzene          | 0.400  | 0.392 | 2.0   | 81    | 0.00     |
| 23      | Atrazine                   | 0.400  | 0.366 | 8.5   | 76    | 0.00     |
| 24      | Pentachlorophenol          | 0.400  | 0.422 | -5.5  | 94    | 0.00     |
| 25      | Phenanthrene               | 0.400  | 0.391 | 2.3   | 79    | 0.00     |
| 26      | Anthracene                 | 0.400  | 0.385 | 3.8   | 80    | 0.00     |
| 27 SURR | Fluoranthene-d10           | 0.400  | 0.375 | 6.3   | 75    | 0.00     |
| 28      | Fluoranthene               | 0.400  | 0.369 | 7.8   | 75    | 0.00     |
| 29 I    | Chrysene-d12               | 0.400  | 0.400 | 0.0   | 75    | 0.00     |
| 30      | Pyrene                     | 0.400  | 0.392 | 2.0   | 76    | 0.00     |
| 31 S    | Terphenyl-d14              | 0.400  | 0.371 | 7.3   | 70    | 0.00     |
| 32      | Benzo(a)anthracene         | 0.400  | 0.399 | 0.3   | 78    | 0.00     |
| 33      | Chrysene                   | 0.400  | 0.400 | 0.0   | 77    | 0.00     |
| 34      | Bis(2-ethylhexyl)phthalate | 0.400  | 0.419 | -4.7  | 77    | 0.00     |
| 35 I    | Perylene-d12               | 0.400  | 0.400 | 0.0   | 79    | 0.00     |
| 36      | Indeno(1,2,3-cd)pyrene     | 0.400  | 0.391 | 2.3   | 87    | -0.01    |
| 37      | Benzo(b)fluoranthene       | 0.400  | 0.381 | 4.8   | 80    | 0.00     |
| 38      | Benzo(k)fluoranthene       | 0.400  | 0.388 | 3.0   | 84    | 0.00     |
| 39 C    | Benzo(a)pyrene             | 0.400  | 0.380 | 5.0   | 83    | 0.00     |
| 40      | Dibenzo(a,h)anthracene     | 0.400  | 0.388 | 3.0   | 87    | -0.02    |
| 41      | Benzo(g,h,i)perylene       | 0.400  | 0.392 | 2.0   | 88    | -0.01    |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,  
Fax : 908 789 8922

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1022 SAS No.: Q1022 SDG No.: Q1022

Instrument ID: BNA\_N Calibration Date/Time: 01/07/2025 18:31

Lab File ID: BN035902.D Init. Calib. Date(s): 01/02/2025 01/02/2025

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 11:28 15:04

GC Column: ZB-GR ID: 0.25 (mm)

| COMPOUND                | RRF   | RRF0.4 | MIN<br>RRF | %D   | MAX%D |
|-------------------------|-------|--------|------------|------|-------|
| 2-Methylnaphthalene-d10 | 0.536 | 0.501  |            | -6.5 | 50.0  |
| Fluoranthene-d10        | 0.993 | 0.919  |            | -7.5 | 50.0  |
| 2-Fluorophenol          | 0.981 | 0.948  |            | -3.4 | 50.0  |
| Phenol-d6               | 1.219 | 1.168  |            | -4.2 | 50.0  |
| Nitrobenzene-d5         | 0.317 | 0.335  |            | 5.7  | 50.0  |
| 2-Fluorobiphenyl        | 1.755 | 1.789  |            | 1.9  | 50.0  |
| 2,4,6-Tribromophenol    | 0.192 | 0.200  |            | 4.2  | 50.0  |
| Terphenyl-d14           | 0.797 | 0.755  |            | -5.3 | 50.0  |
| 1,4-Dioxane             | 0.397 | 0.400  |            | 0.8  | 50.0  |

All other compounds must meet a minimum RRF of 0.010.

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
 Data File : BN035902.D  
 Acq On : 07 Jan 2025 18:31  
 Operator : RC/JU  
 Sample : SSTDCCC0.4  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4EC

Manual Integrations  
 APPROVED

Reviewed By :Jagrut Upadhyay 01/08/2025  
 Supervised By :mohammad ahmed 01/09/2025

Quant Time: Jan 07 22:16:50 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min)  |
|-------------------------------|--------|------|----------|-------|-------|-----------|
| Internal Standards            |        |      |          |       |       |           |
| 1) 1,4-Dichlorobenzene-d4     | 7.832  | 152  | 1452     | 0.400 | ng    | 0.00      |
| 7) Naphthalene-d8             | 10.622 | 136  | 2753     | 0.400 | ng    | 0.00      |
| 13) Acenaphthene-d10          | 14.463 | 164  | 1274     | 0.400 | ng    | 0.00      |
| 19) Phenanthrene-d10          | 17.199 | 188  | 2352     | 0.400 | ng    | #-0.01    |
| 29) Chrysene-d12              | 21.385 | 240  | 1851     | 0.400 | ng    | 0.00      |
| 35) Perylene-d12              | 23.683 | 264  | 2159     | 0.400 | ng    | #-0.01    |
| System Monitoring Compounds   |        |      |          |       |       |           |
| 4) 2-Fluorophenol             | 5.405  | 112  | 1376     | 0.386 | ng    | 0.00      |
| 5) Phenol-d6                  | 6.979  | 99   | 1696     | 0.383 | ng    | 0.00      |
| 8) Nitrobenzene-d5            | 8.977  | 82   | 921      | 0.423 | ng    | 0.00      |
| 11) 2-Methylnaphthalene-d10   | 12.213 | 152  | 1378     | 0.374 | ng    | 0.00      |
| 14) 2,4,6-Tribromophenol      | 15.945 | 330  | 255      | 0.417 | ng    | -0.01     |
| 15) 2-Fluorobiphenyl          | 13.094 | 172  | 2279     | 0.408 | ng    | 0.00      |
| 27) Fluoranthene-d10          | 19.230 | 212  | 2161     | 0.370 | ng    | 0.00      |
| 31) Terphenyl-d14             | 19.834 | 244  | 1398     | 0.379 | ng    | 0.00      |
| Target Compounds              |        |      |          |       |       |           |
| 2) 1,4-Dioxane                | 3.318  | 88   | 581      | 0.403 | ng    | Qvalue 95 |
| 3) n-Nitrosodimethylamine     | 3.628  | 42   | 1008     | 0.401 | ng    | 100       |
| 6) bis(2-Chloroethyl)ether    | 7.247  | 93   | 1358     | 0.403 | ng    | 97        |
| 9) Naphthalene                | 10.675 | 128  | 3077     | 0.398 | ng    | 98        |
| 10) Hexachlorobutadiene       | 10.974 | 225  | 1008     | 0.402 | ng    | # 99      |
| 12) 2-Methylnaphthalene       | 12.289 | 142  | 1821     | 0.381 | ng    | 98        |
| 16) Acenaphthylene            | 14.174 | 152  | 2402     | 0.400 | ng    | 99        |
| 17) Acenaphthene              | 14.527 | 154  | 1586     | 0.403 | ng    | 97        |
| 18) Fluorene                  | 15.511 | 166  | 1613     | 0.373 | ng    | 98        |
| 20) 4,6-Dinitro-2-methylph... | 15.573 | 198  | 194      | 0.475 | ng    | 86        |
| 21) 4-Bromophenyl-phenylether | 16.404 | 248  | 650      | 0.403 | ng    | # 78      |
| 22) Hexachlorobenzene         | 16.516 | 284  | 900      | 0.409 | ng    | 98        |
| 23) Atrazine                  | 16.665 | 200  | 410      | 0.379 | ng    | # 93      |
| 24) Pentachlorophenol         | 16.851 | 266  | 327      | 0.420 | ng    | 98        |
| 25) Phenanthrene              | 17.248 | 178  | 2714     | 0.395 | ng    | 99        |
| 26) Anthracene                | 17.335 | 178  | 2419     | 0.387 | ng    | 98        |
| 28) Fluoranthene              | 19.262 | 202  | 2953     | 0.369 | ng    | 99        |
| 30) Pyrene                    | 19.620 | 202  | 3018     | 0.402 | ng    | 99        |
| 32) Benzo(a)anthracene        | 21.367 | 228  | 2584     | 0.396 | ng    | 99        |
| 33) Chrysene                  | 21.421 | 228  | 2729     | 0.400 | ng    | 98        |
| 34) Bis(2-ethylhexyl)phtha... | 21.313 | 149  | 1090     | 0.411 | ng    | 100       |
| 36) Indeno(1,2,3-cd)pyrene    | 26.040 | 276  | 3218     | 0.378 | ng    | 98        |
| 37) Benzo(b)fluoranthene      | 22.991 | 252  | 2788     | 0.376 | ng    | # 96      |
| 38) Benzo(k)fluoranthene      | 23.037 | 252  | 2848m    | 0.388 | ng    |           |
| 39) Benzo(a)pyrene            | 23.587 | 252  | 2395     | 0.373 | ng    | 95        |
| 40) Dibenzo(a,h)anthracene    | 26.058 | 278  | 2545     | 0.376 | ng    | 96        |
| 41) Benzo(g,h,i)perylene      | 26.750 | 276  | 2881     | 0.380 | ng    | 99        |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035902.D  
Acq On : 07 Jan 2025 18:31  
Operator : RC/JU  
Sample : SSTDCCC0.4  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

## Instrument :

BNA\_N

## ClientSampleId :

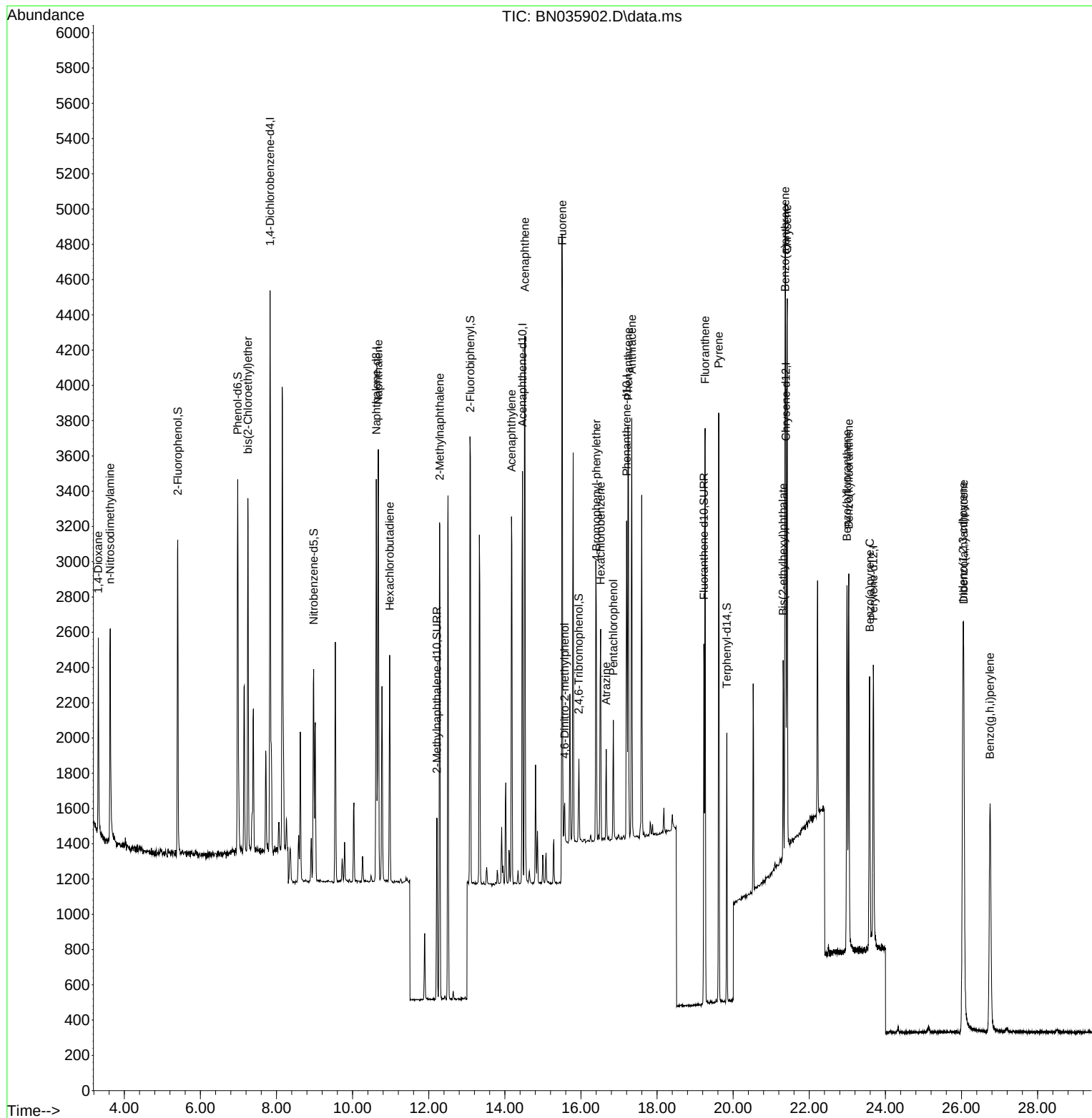
SSTDCCC0.4EC

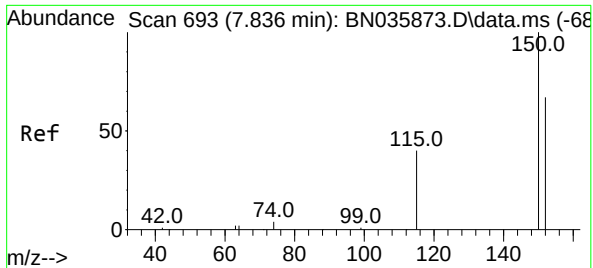
## Manual Integrations

## APPROVED

Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025

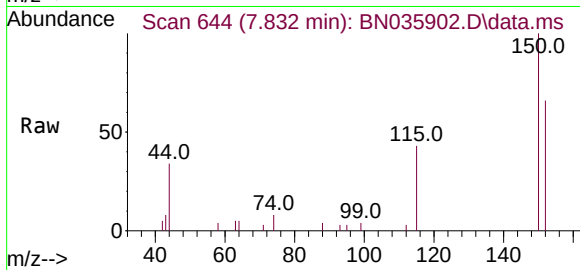
Quant Time: Jan 07 22:16:50 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration





#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.832 min Scan# 64  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

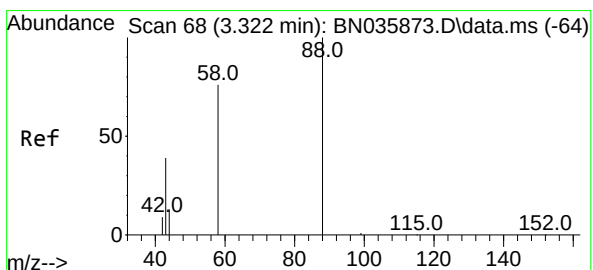
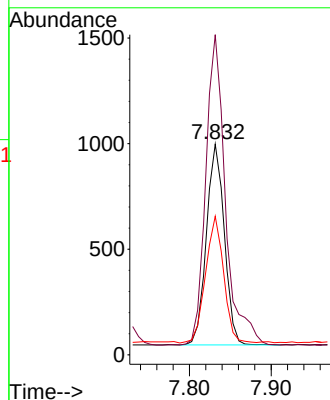
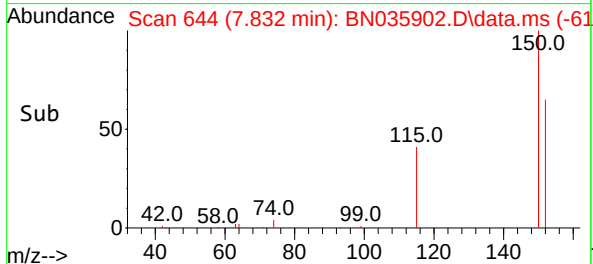
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC



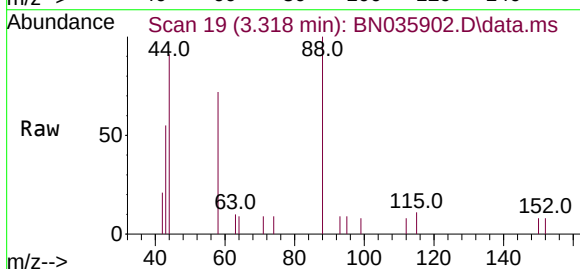
Tgt Ion: 152 Resp: 145  
Ion Ratio Lower Upper  
152 100  
150 151.9 117.8 176.6  
115 65.7 51.0 76.4

Manual Integrations  
APPROVED

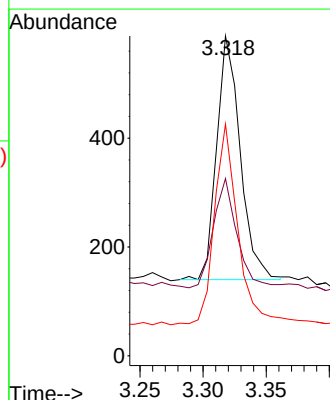
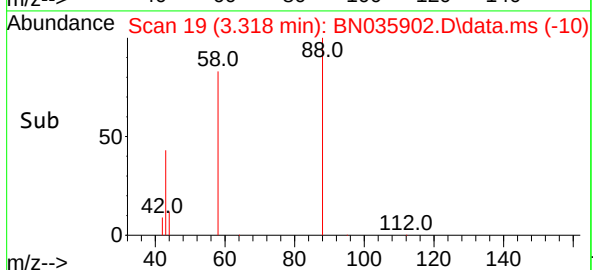
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#2  
1,4-Dioxane  
Concen: 0.403 ng  
RT: 3.318 min Scan# 19  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

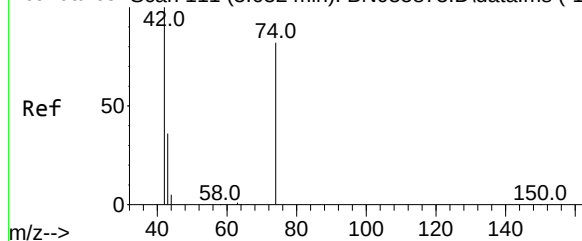


Tgt Ion: 88 Resp: 581  
Ion Ratio Lower Upper  
88 100  
43 44.8 32.7 49.1  
58 81.9 63.0 94.4





Abundance Scan 111 (3.632 min): BN035873.D\data.ms (-10



#3

n-Nitrosodimethylamine

Concen: 0.401 ng

RT: 3.628 min Scan# 61

Delta R.T. -0.004 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4EC

Tgt Ion: 42 Resp: 1000

Ion Ratio Lower Upper

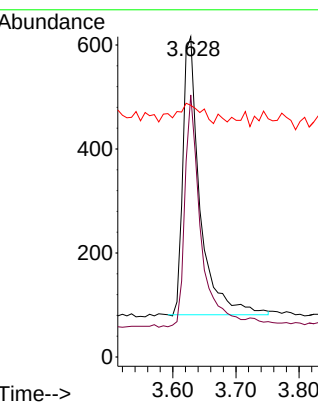
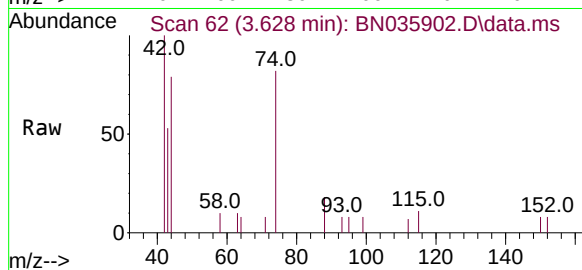
42 100

74 77.4 62.2 93.2

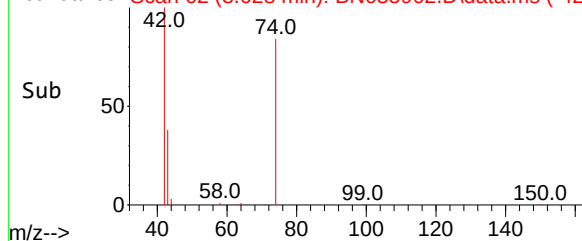
44 8.8 7.1 10.7

Manual Integrations

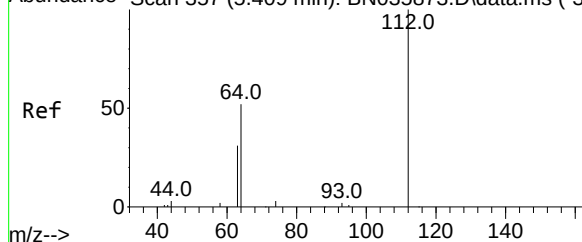
APPROVED

Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025

Abundance Scan 62 (3.628 min): BN035902.D\data.ms (-42)



Abundance Scan 357 (5.409 min): BN035873.D\data.ms (-34



#4

2-Fluorophenol

Concen: 0.386 ng

RT: 5.405 min Scan# 308

Delta R.T. -0.004 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

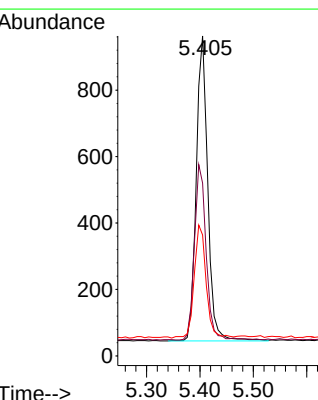
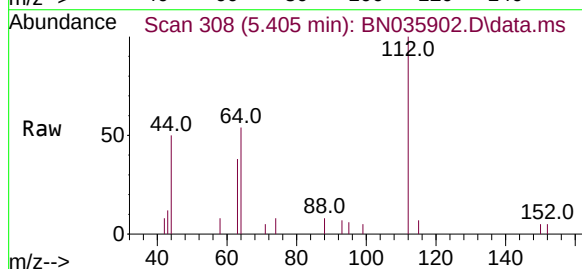
Tgt Ion:112 Resp: 1376

Ion Ratio Lower Upper

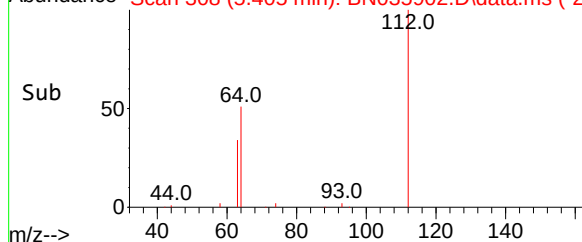
112 100

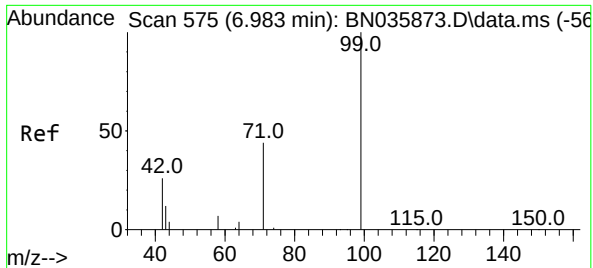
64 58.0 48.2 72.2

63 38.3 30.0 45.0



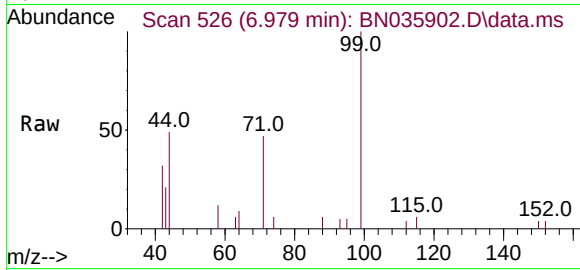
Abundance Scan 308 (5.405 min): BN035902.D\data.ms (-28





#5  
Phenol-d6  
Concen: 0.383 ng  
RT: 6.979 min Scan# 51  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

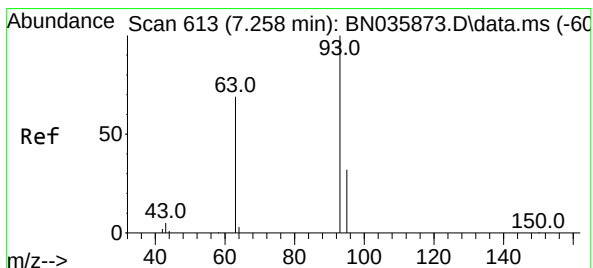
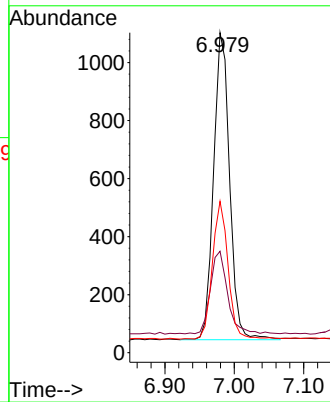
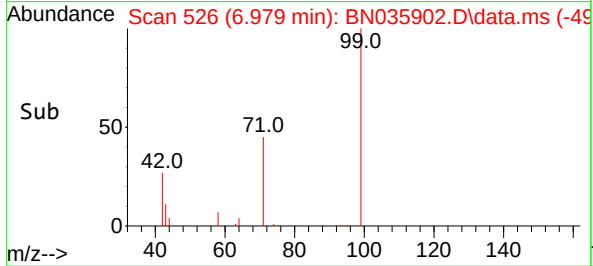
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC



Tgt Ion: 99 Resp: 1690  
Ion Ratio Lower Upper  
99 100  
42 29.1 23.5 35.3  
71 44.1 35.5 53.3

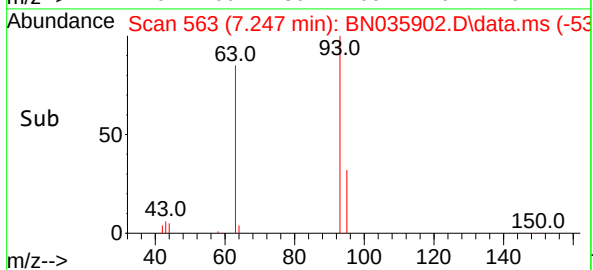
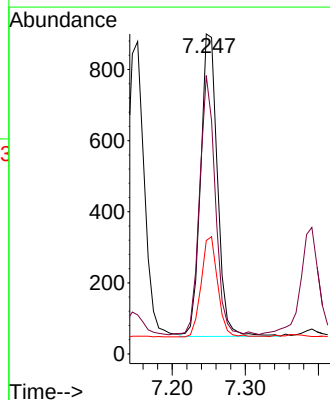
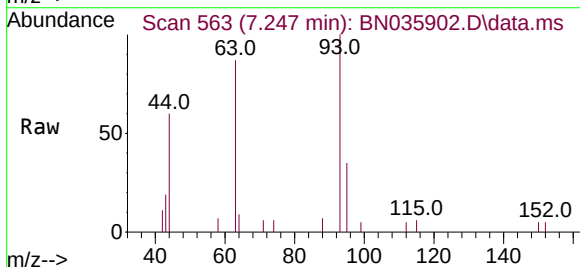
Manual Integrations  
APPROVED

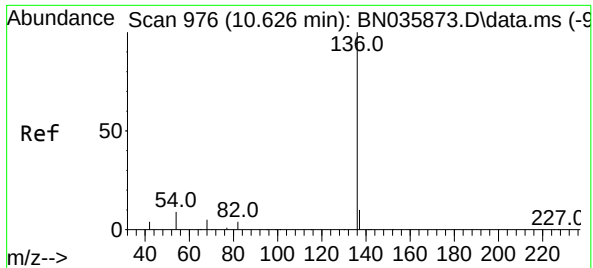
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#6  
bis(2-Chloroethyl)ether  
Concen: 0.403 ng  
RT: 7.247 min Scan# 563  
Delta R.T. -0.011 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

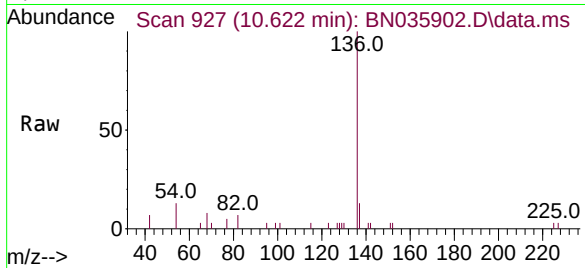
Tgt Ion: 93 Resp: 1358  
Ion Ratio Lower Upper  
93 100  
63 80.2 62.0 93.0  
95 32.6 25.5 38.3





#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.622 min Scan# 91  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

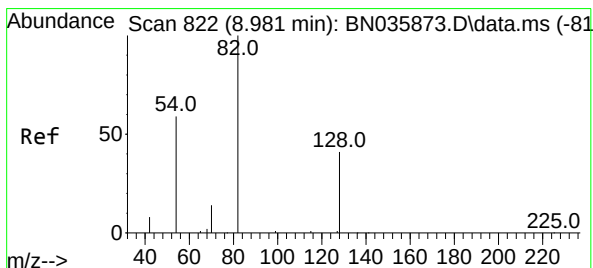
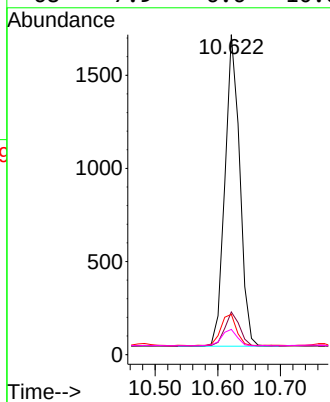
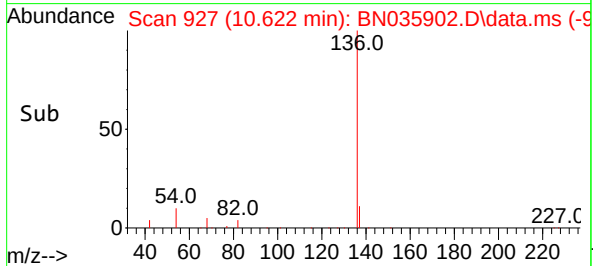
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC



Tgt Ion: 136 Resp: 275  
Ion Ratio Lower Upper  
136 100  
137 13.3 10.6 15.8  
54 12.6 9.8 14.6  
68 7.9 6.6 10.0

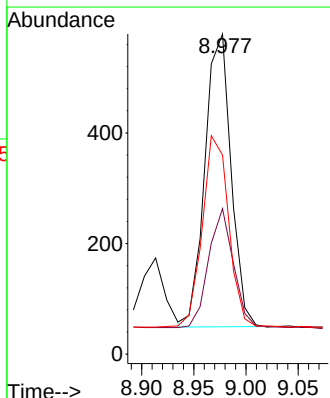
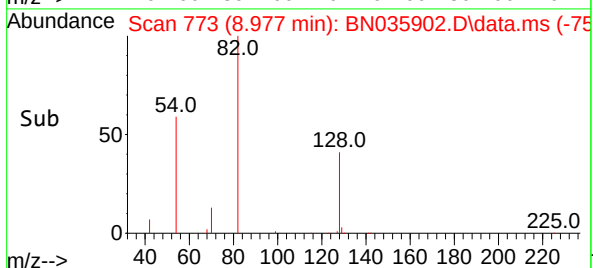
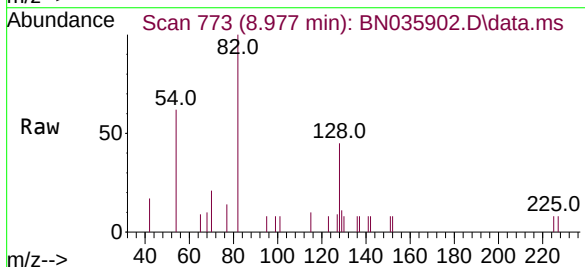
Manual Integrations  
APPROVED

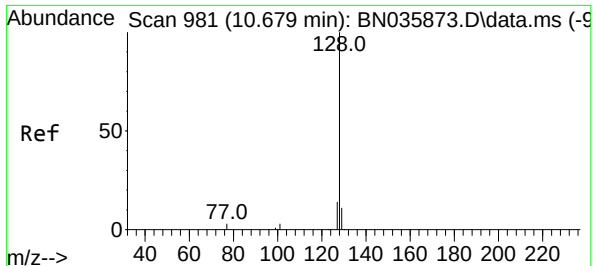
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#8  
Nitrobenzene-d5  
Concen: 0.423 ng  
RT: 8.977 min Scan# 773  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion: 82 Resp: 921  
Ion Ratio Lower Upper  
82 100  
128 45.4 36.9 55.3  
54 62.2 50.4 75.6





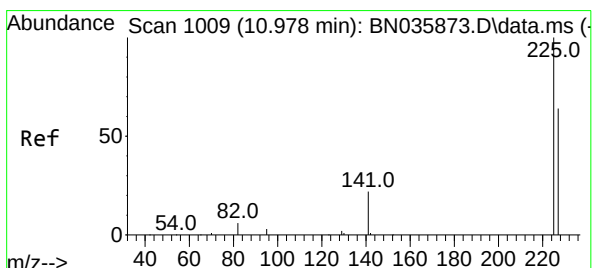
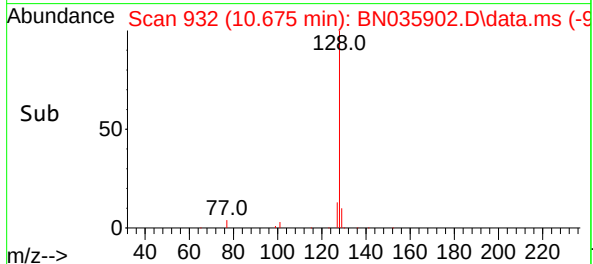
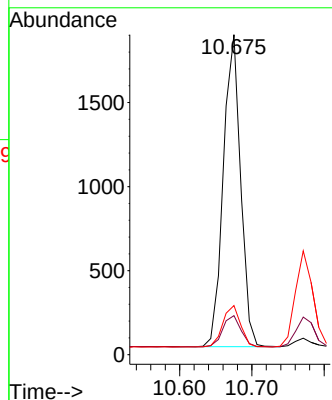
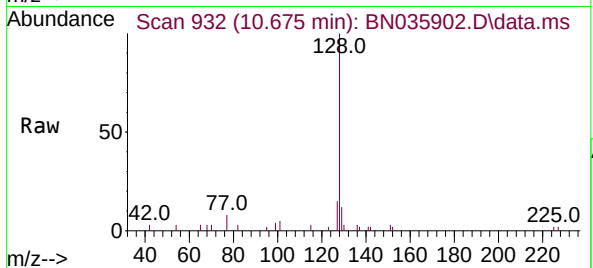
#9  
Naphthalene  
Concen: 0.398 ng  
RT: 10.675 min Scan# 91  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

Tgt Ion:128 Resp: 307  
Ion Ratio Lower Upper  
128 100  
129 12.2 10.6 16.0  
127 15.3 12.8 19.2

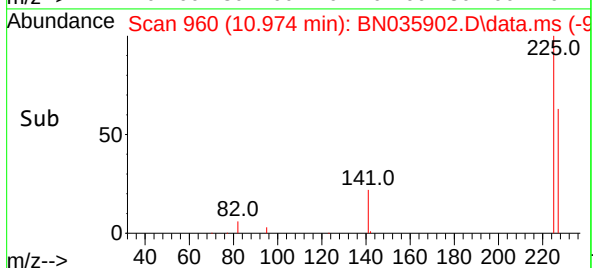
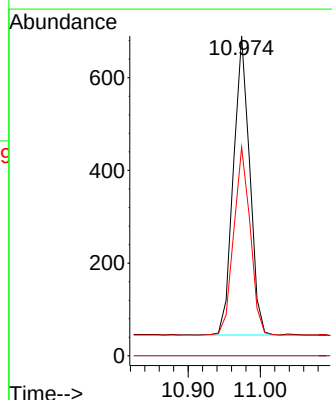
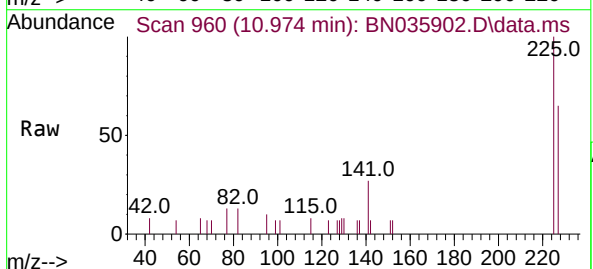
Manual Integrations  
APPROVED

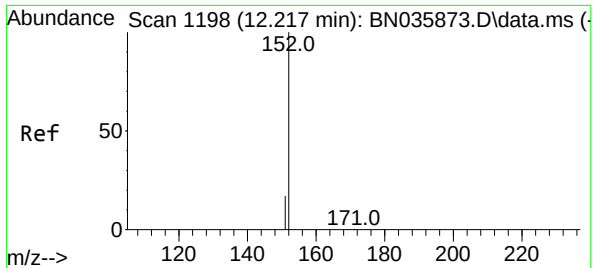
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#10  
Hexachlorobutadiene  
Concen: 0.402 ng  
RT: 10.974 min Scan# 960  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:225 Resp: 1008  
Ion Ratio Lower Upper  
225 100  
223 0.0 0.0 0.0  
227 63.5 51.5 77.3





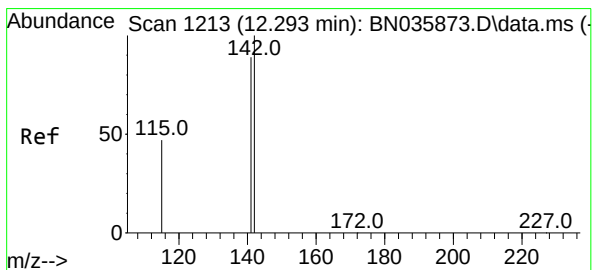
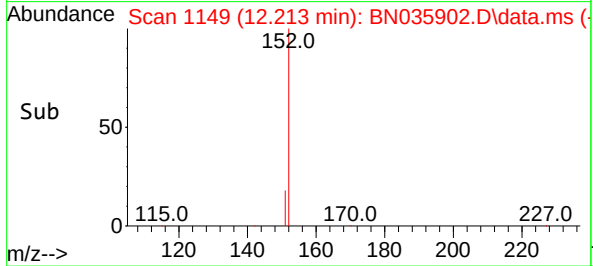
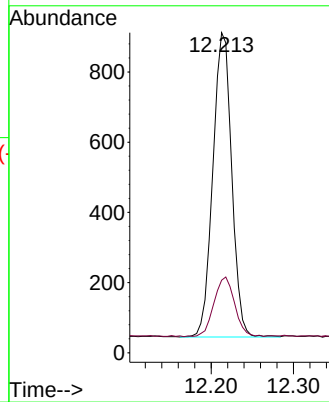
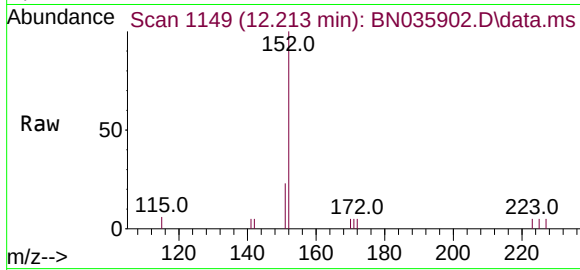
#11  
2-Methylnaphthalene-d10  
Concen: 0.374 ng  
RT: 12.213 min Scan# 1198  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

Tgt Ion:152 Resp: 1378  
Ion Ratio Lower Upper  
152 100  
151 21.6 17.0 25.6

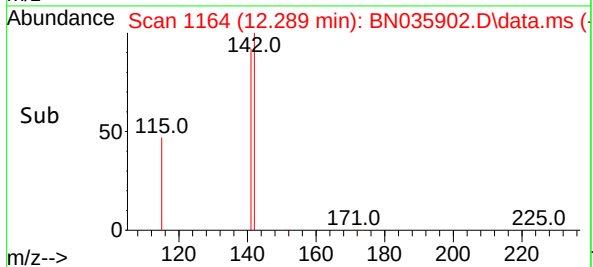
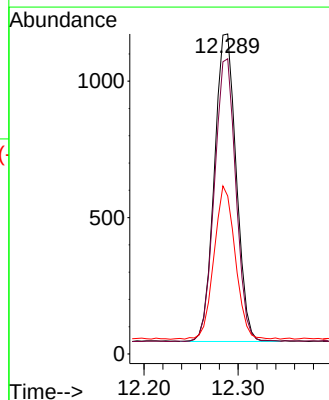
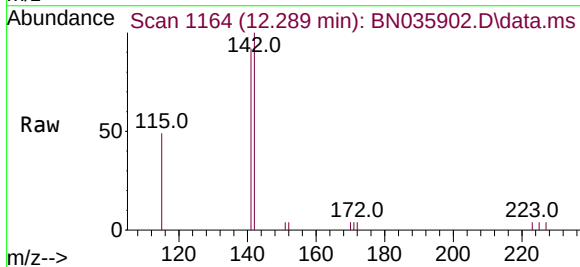
Manual Integrations  
APPROVED

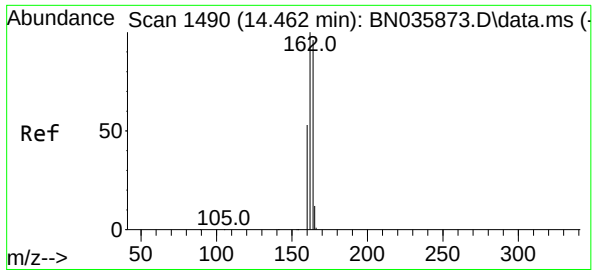
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#12  
2-Methylnaphthalene  
Concen: 0.381 ng  
RT: 12.289 min Scan# 1164  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

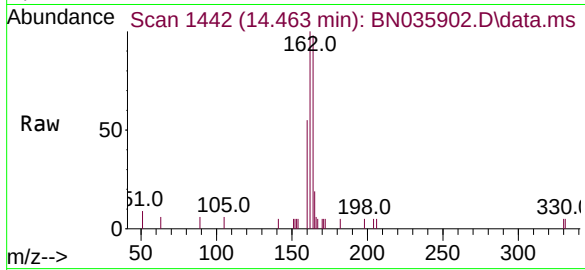
Tgt Ion:142 Resp: 1821  
Ion Ratio Lower Upper  
142 100  
141 92.2 71.9 107.9  
115 49.4 39.6 59.4





#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.463 min Scan# 14  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

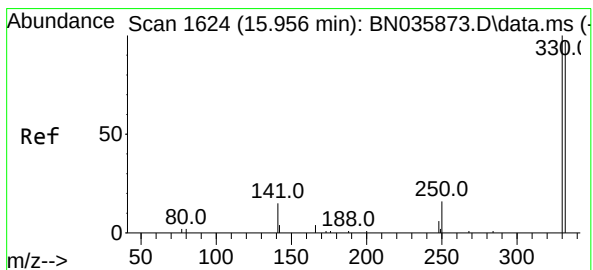
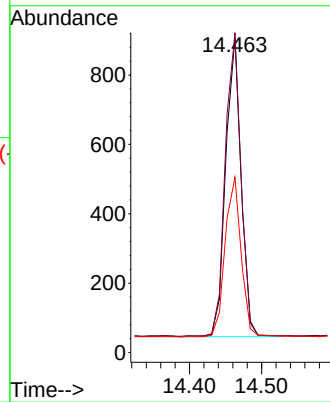
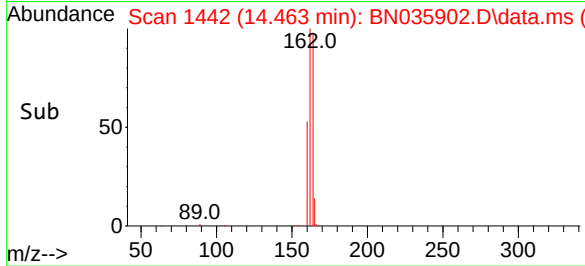
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC



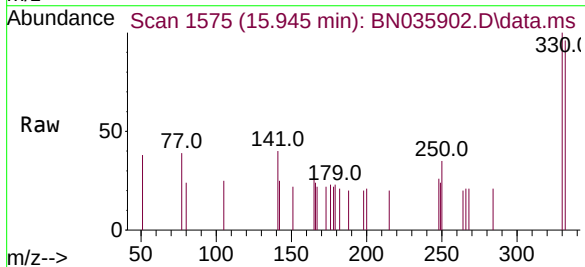
Tgt Ion:164 Resp: 1274  
Ion Ratio Lower Upper  
164 100  
162 101.5 83.1 124.7  
160 55.6 46.0 69.0

Manual Integrations  
APPROVED

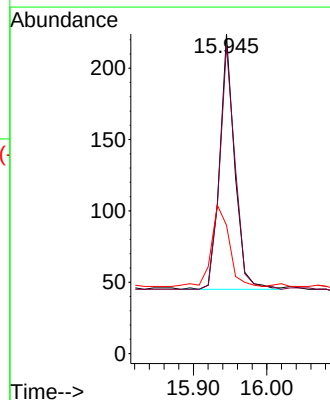
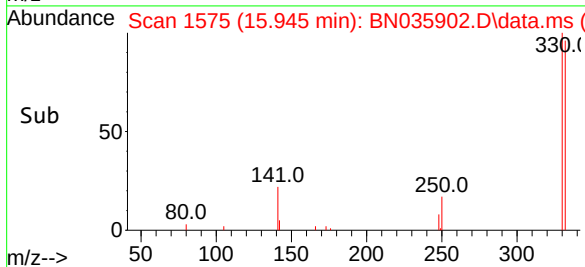
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025

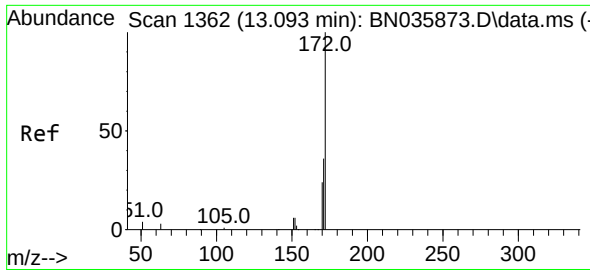


#14  
2,4,6-Tribromophenol  
Concen: 0.417 ng  
RT: 15.945 min Scan# 1575  
Delta R.T. -0.011 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31



Tgt Ion:330 Resp: 255  
Ion Ratio Lower Upper  
330 100  
332 98.0 77.2 115.8  
141 37.6 31.6 47.4





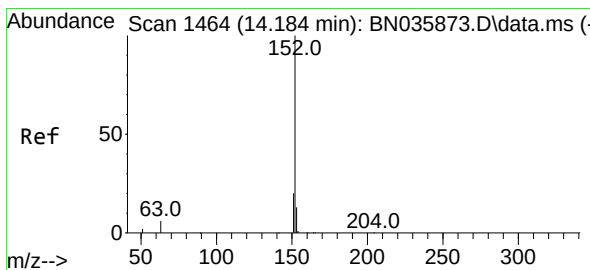
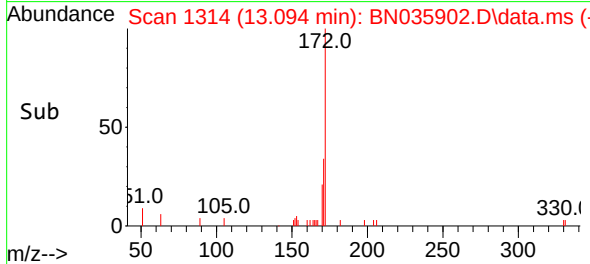
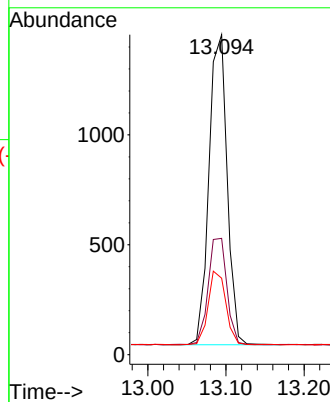
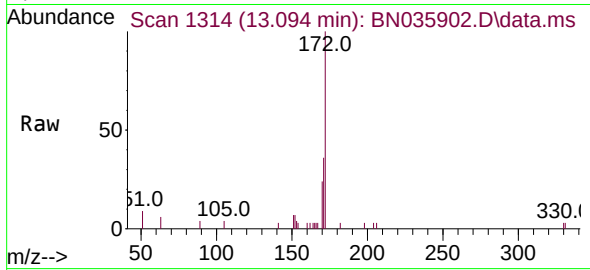
#15  
2-Fluorobiphenyl  
Concen: 0.408 ng  
RT: 13.094 min Scan# 1415  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

Tgt Ion:172 Resp: 2279  
Ion Ratio Lower Upper  
172 100  
171 36.3 30.5 45.7  
170 23.9 20.8 31.2

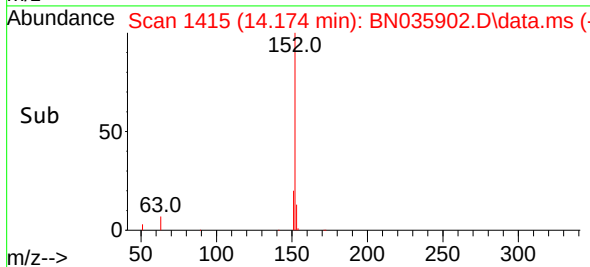
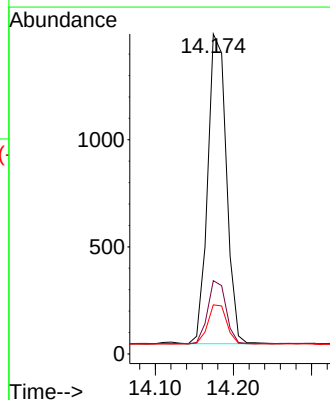
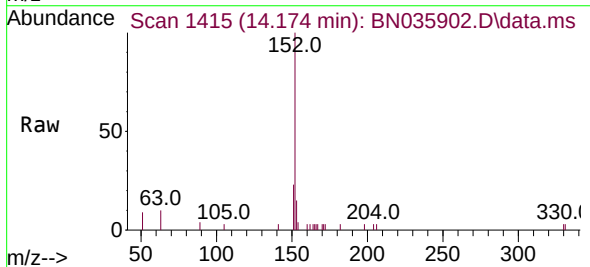
Manual Integrations  
**APPROVED**

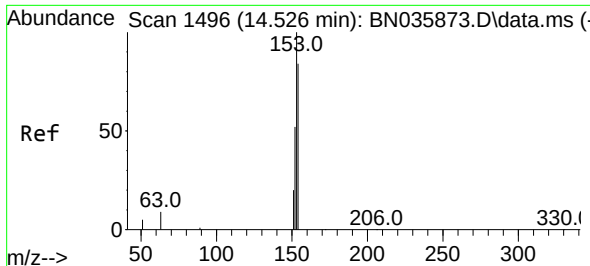
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#16  
Acenaphthylene  
Concen: 0.400 ng  
RT: 14.174 min Scan# 1415  
Delta R.T. -0.010 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

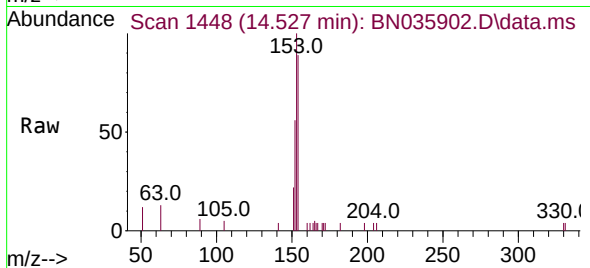
Tgt Ion:152 Resp: 2402  
Ion Ratio Lower Upper  
152 100  
151 19.9 16.3 24.5  
153 13.1 10.6 15.8





#17  
Acenaphthene  
Concen: 0.403 ng  
RT: 14.527 min Scan# 1496  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

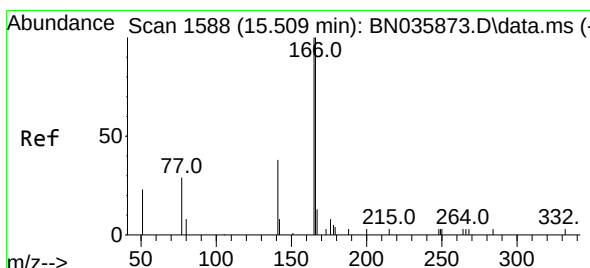
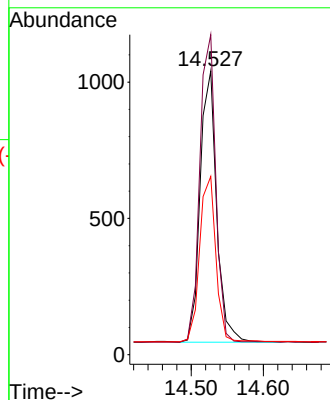
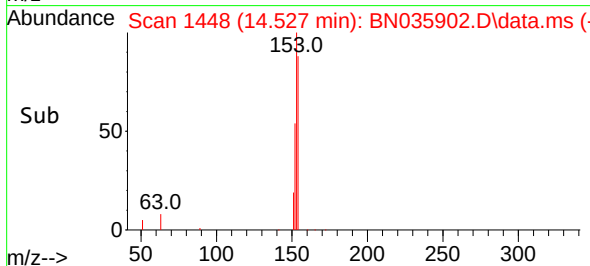
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC



Tgt Ion:154 Resp: 1580  
Ion Ratio Lower Upper  
154 100  
153 109.1 90.5 135.7  
152 59.6 48.6 73.0

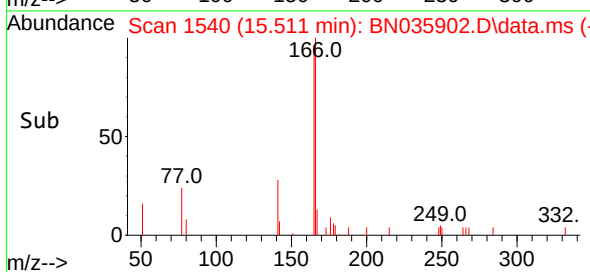
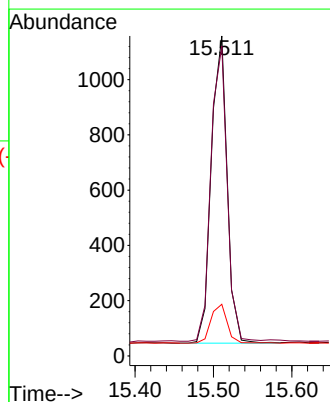
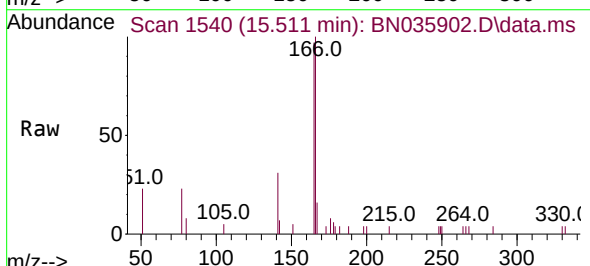
Manual Integrations  
APPROVED

Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025

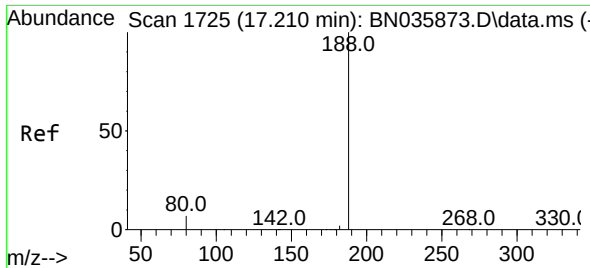


#18  
Fluorene  
Concen: 0.373 ng  
RT: 15.511 min Scan# 1540  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:166 Resp: 1613  
Ion Ratio Lower Upper  
166 100  
165 102.2 80.6 120.8  
167 13.1 11.4 17.0







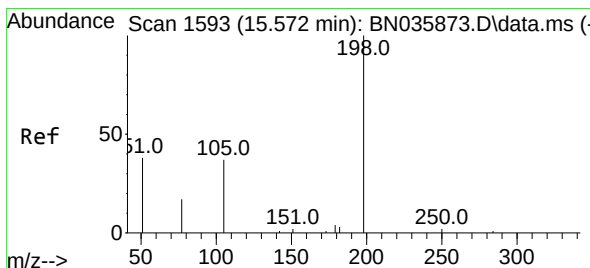
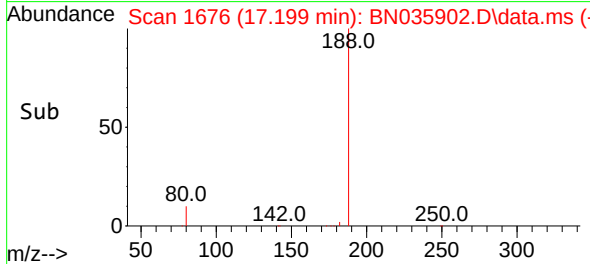
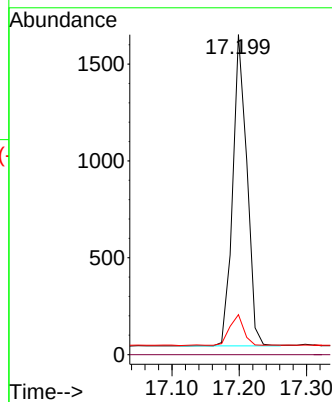
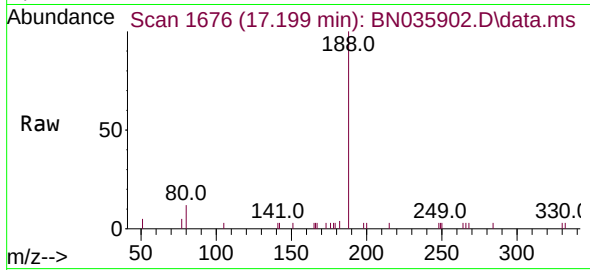
#19  
Phenanthrene-d10  
Concen: 0.400 ng  
RT: 17.199 min Scan# 11  
Delta R.T. -0.011 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

Tgt Ion:188 Resp: 235  
Ion Ratio Lower Upper  
188 100  
94 0.0 0.0 0.0  
80 12.5 7.3 10.9

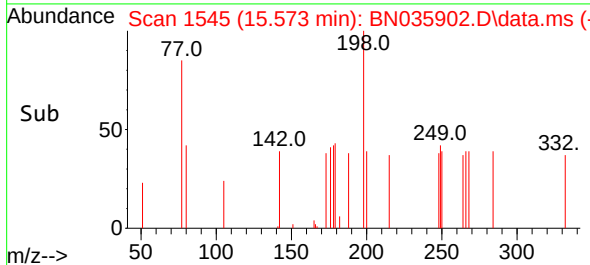
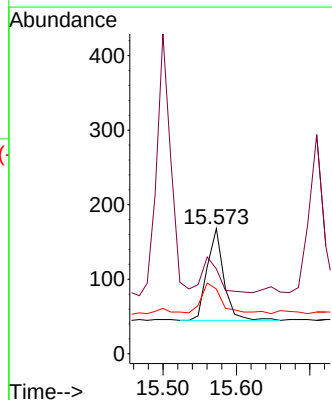
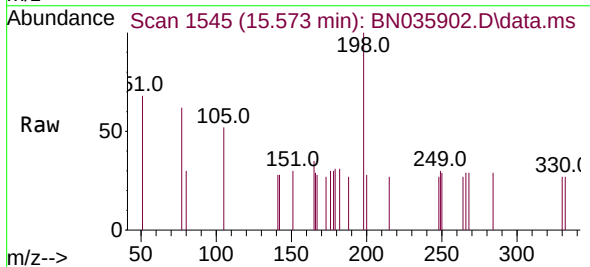
Manual Integrations  
APPROVED

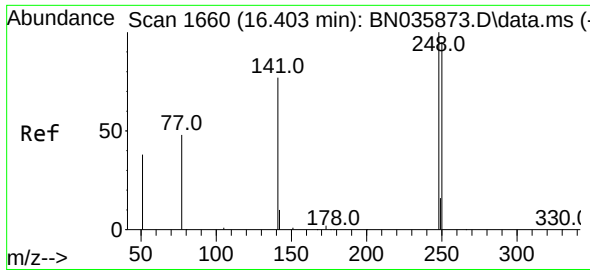
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#20  
4,6-Dinitro-2-methylphenol  
Concen: 0.475 ng  
RT: 15.573 min Scan# 1545  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:198 Resp: 194  
Ion Ratio Lower Upper  
198 100  
51 67.9 64.3 96.5  
105 51.8 50.0 75.0





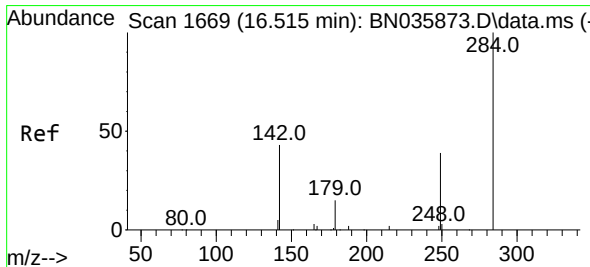
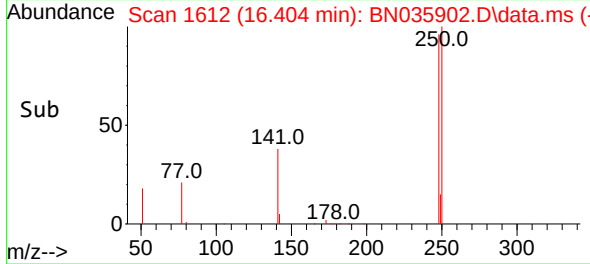
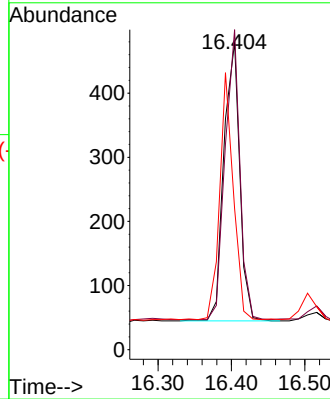
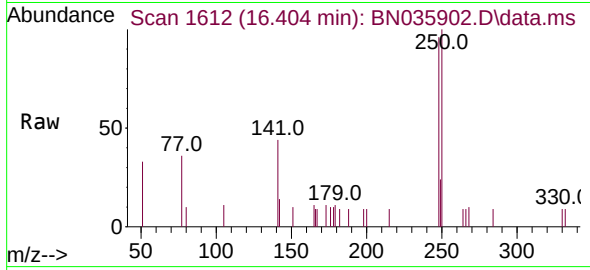
#21  
4-Bromophenyl-phenylether  
Concen: 0.403 ng  
RT: 16.404 min Scan# 1612  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

Tgt Ion:248 Resp: 650  
Ion Ratio Lower Upper  
248 100  
250 104.2 76.8 115.2  
141 45.9 63.6 95.4

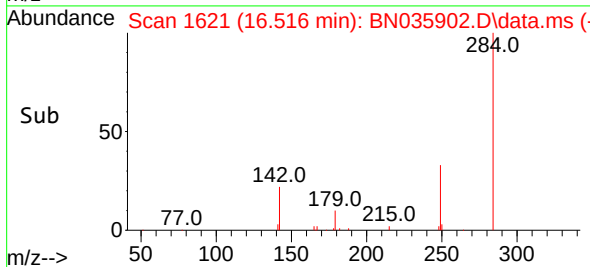
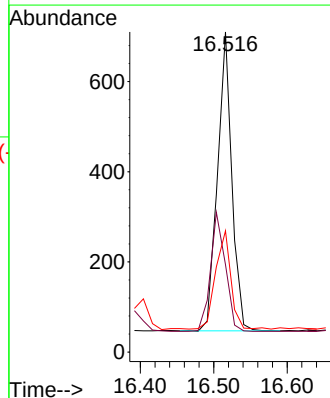
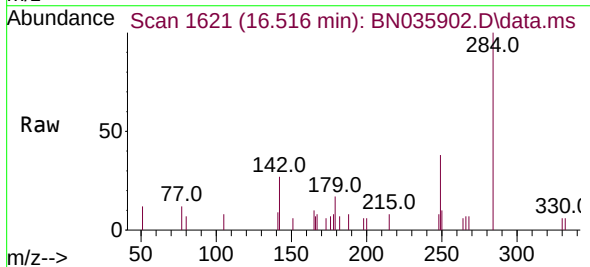
Manual Integrations  
APPROVED

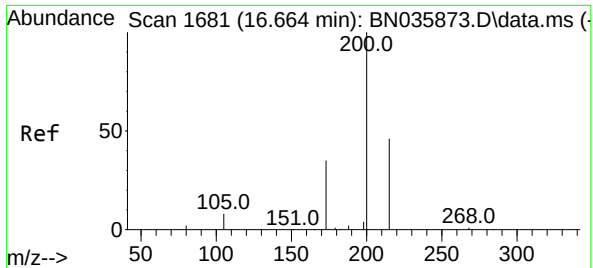
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#22  
Hexachlorobenzene  
Concen: 0.409 ng  
RT: 16.516 min Scan# 1621  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

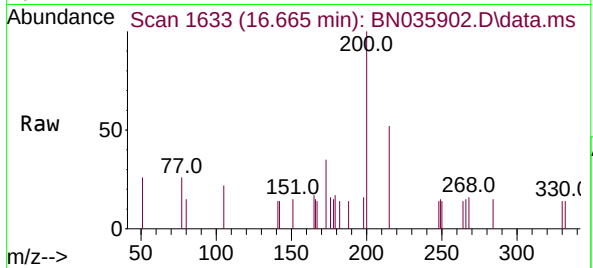
Tgt Ion:284 Resp: 900  
Ion Ratio Lower Upper  
284 100  
142 41.2 31.4 47.0  
249 34.0 27.8 41.8





#23  
Atrazine  
Concen: 0.379 ng  
RT: 16.665 min Scan# 1647  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

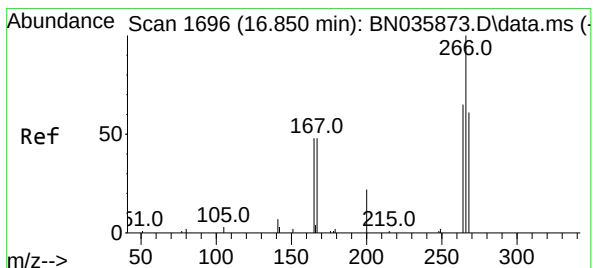
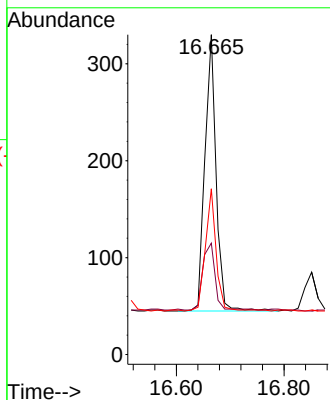
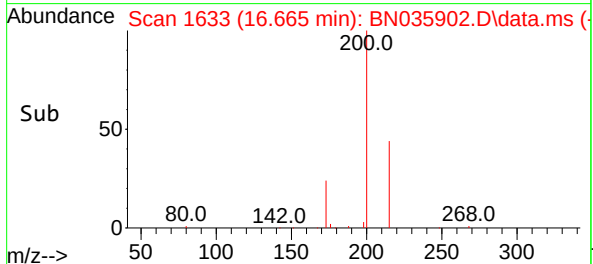
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC



Tgt Ion:200 Resp: 410  
Ion Ratio Lower Upper  
200 100  
173 34.8 35.4 53.0  
215 51.8 42.4 63.6

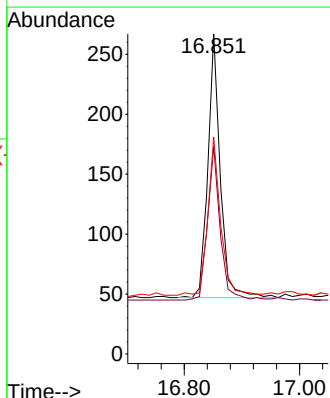
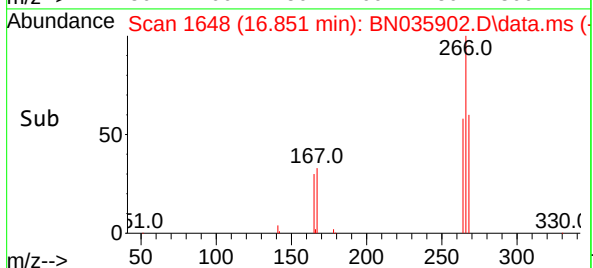
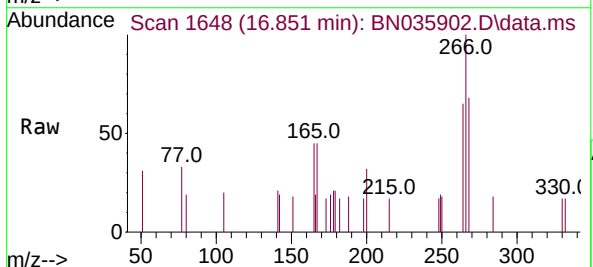
Manual Integrations  
APPROVED

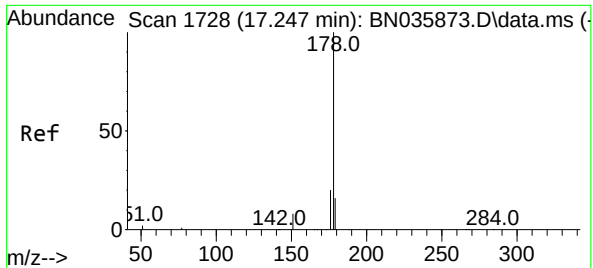
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#24  
Pentachlorophenol  
Concen: 0.420 ng  
RT: 16.851 min Scan# 1648  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:266 Resp: 327  
Ion Ratio Lower Upper  
266 100  
264 59.3 49.9 74.9  
268 62.1 50.2 75.2





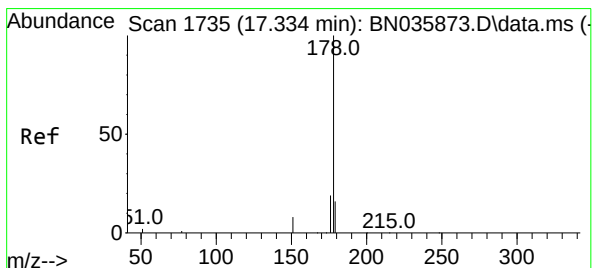
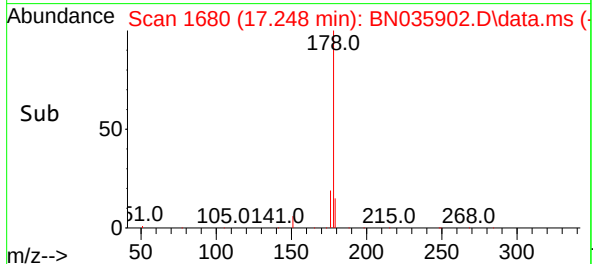
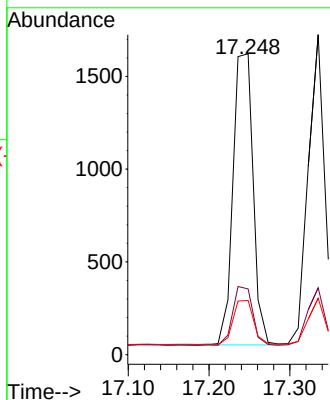
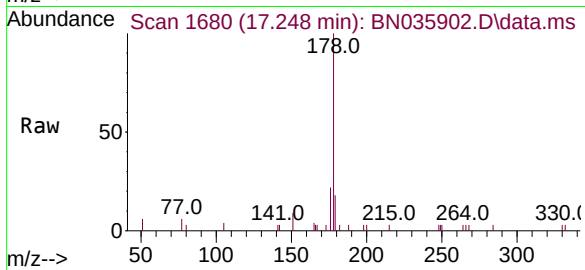
#25  
Phenanthrene  
Concen: 0.395 ng  
RT: 17.248 min Scan# 1680  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

Tgt Ion:178 Resp: 2714  
Ion Ratio Lower Upper  
178 100  
176 20.0 15.9 23.9  
179 15.3 12.9 19.3

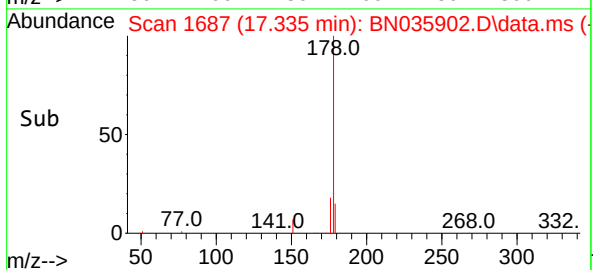
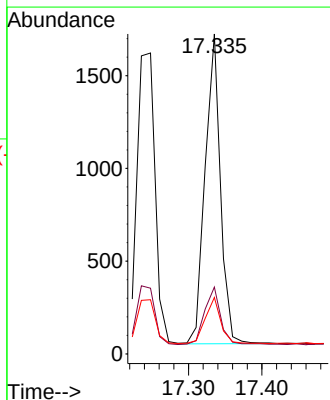
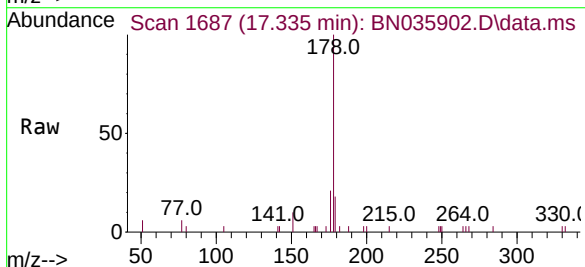
Manual Integrations  
APPROVED

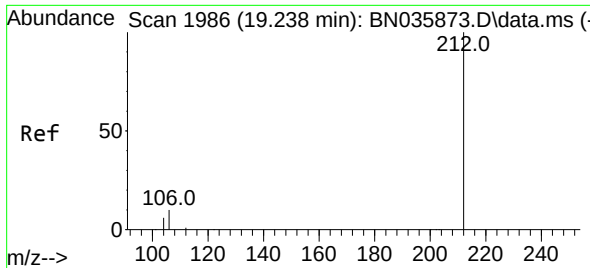
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#26  
Anthracene  
Concen: 0.387 ng  
RT: 17.335 min Scan# 1687  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:178 Resp: 2419  
Ion Ratio Lower Upper  
178 100  
176 19.6 15.0 22.6  
179 15.1 13.0 19.6





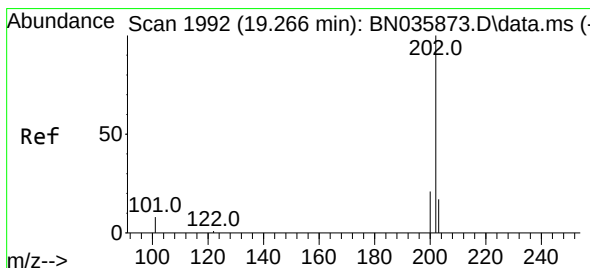
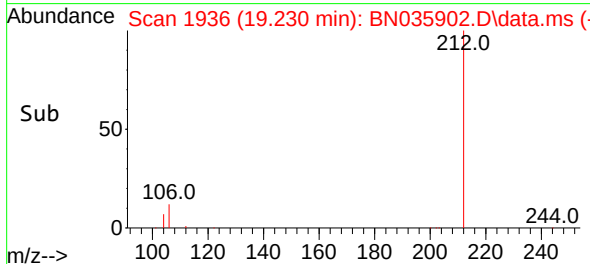
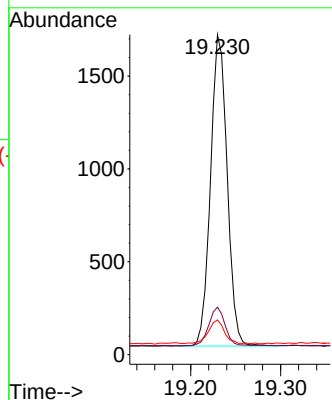
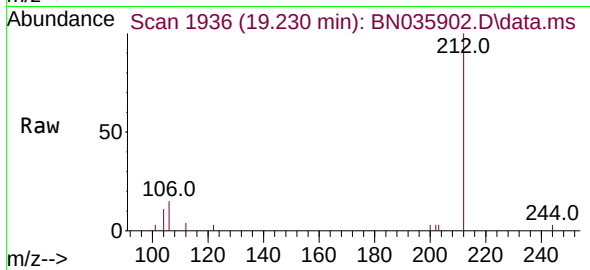
#27  
Fluoranthene-d10  
Concen: 0.370 ng  
RT: 19.230 min Scan# 1943  
Delta R.T. -0.008 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

Tgt Ion:212 Resp: 216  
Ion Ratio Lower Upper  
212 100  
106 12.1 9.0 13.6  
104 7.3 5.4 8.2

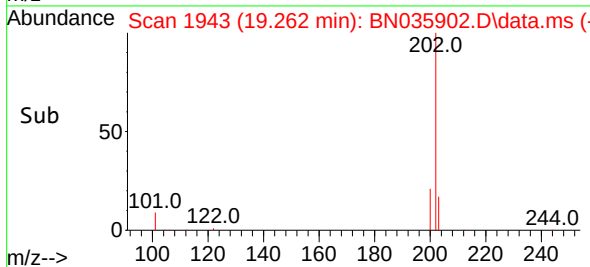
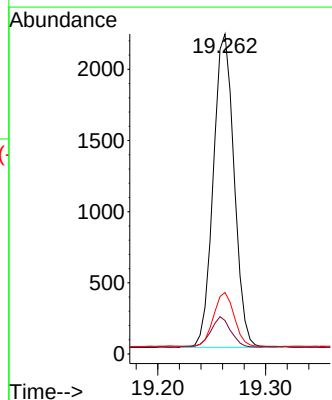
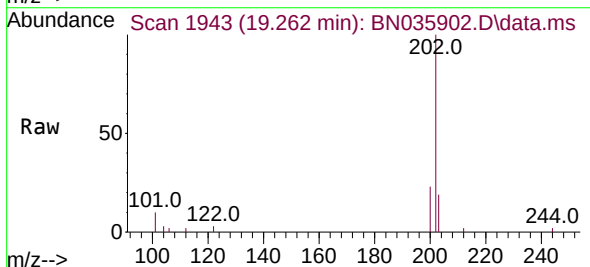
Manual Integrations  
APPROVED

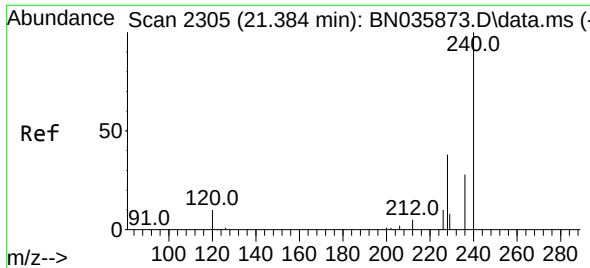
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#28  
Fluoranthene  
Concen: 0.369 ng  
RT: 19.262 min Scan# 1943  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

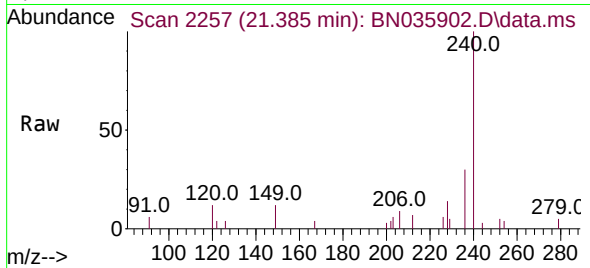
Tgt Ion:202 Resp: 2953  
Ion Ratio Lower Upper  
202 100  
101 9.4 7.2 10.8  
203 17.2 13.9 20.9





#29  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.385 min Scan# 21  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

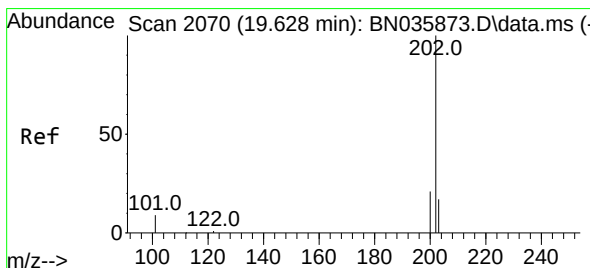
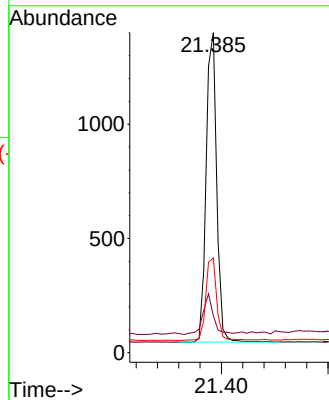
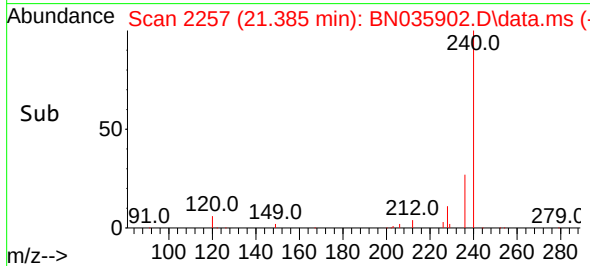
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC



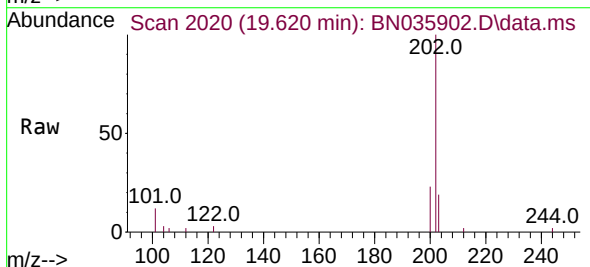
Tgt Ion:240 Resp: 185  
Ion Ratio Lower Upper  
240 100  
120 11.6 11.1 16.7  
236 29.6 24.6 36.8

Manual Integrations  
APPROVED

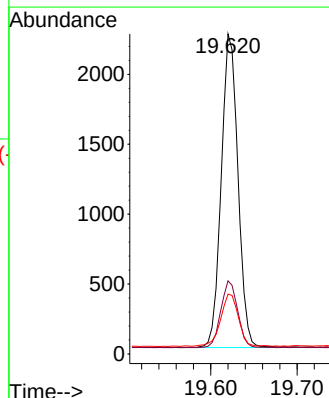
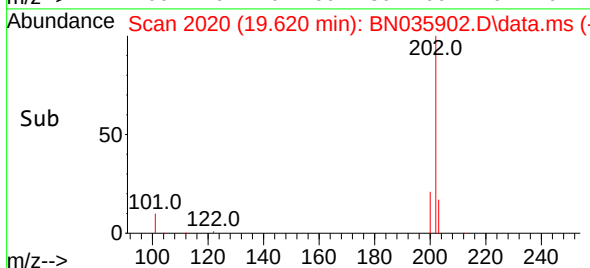
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025

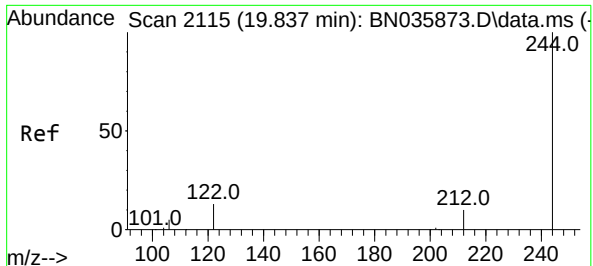


#30  
Pyrene  
Concen: 0.402 ng  
RT: 19.620 min Scan# 2020  
Delta R.T. -0.008 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31



Tgt Ion:202 Resp: 3018  
Ion Ratio Lower Upper  
202 100  
200 21.5 17.0 25.6  
203 18.0 14.6 22.0





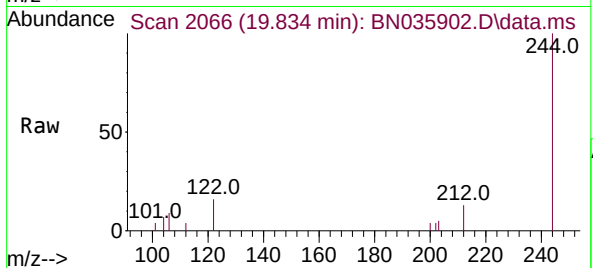
#31  
Terphenyl-d14  
Concen: 0.379 ng  
RT: 19.834 min Scan# 2066  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Instrument :

BNA\_N

ClientSampleId :

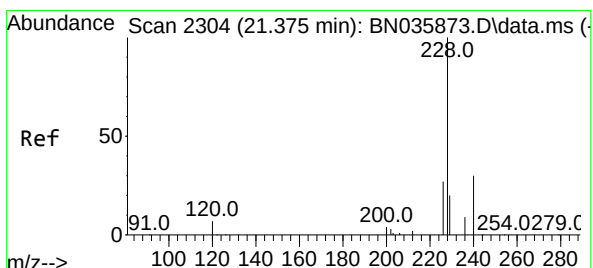
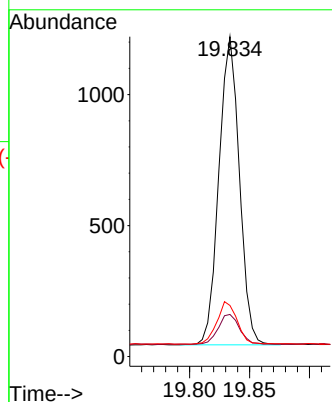
SSTDCCC0.4EC



Tgt Ion:244 Resp: 1398  
Ion Ratio Lower Upper  
244 100  
212 13.2 10.1 15.1  
122 16.0 12.2 18.4

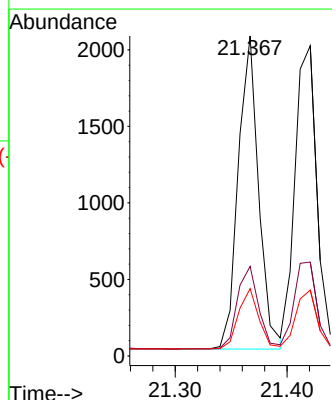
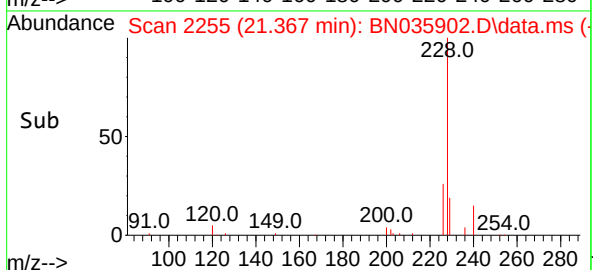
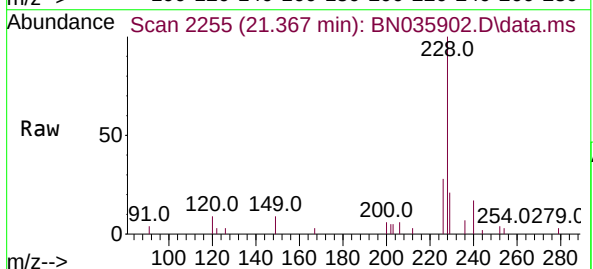
Manual Integrations  
APPROVED

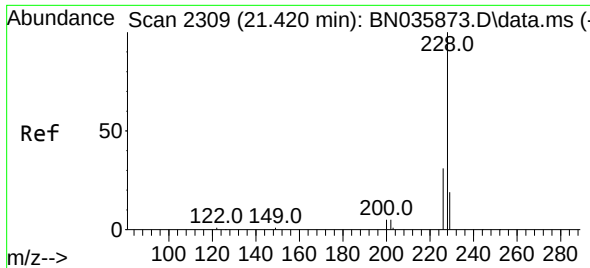
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#32  
Benzo(a)anthracene  
Concen: 0.396 ng  
RT: 21.367 min Scan# 2255  
Delta R.T. -0.008 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

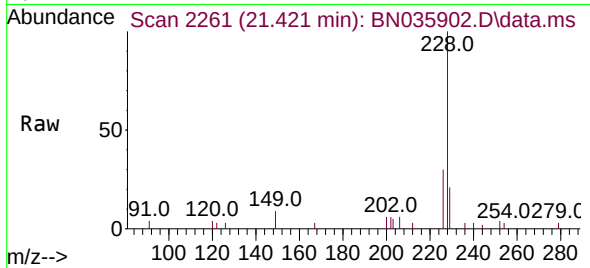
Tgt Ion:228 Resp: 2584  
Ion Ratio Lower Upper  
228 100  
226 28.0 22.7 34.1  
229 21.0 17.1 25.7





#33  
Chrysene  
Concen: 0.400 ng  
RT: 21.421 min Scan# 2149  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

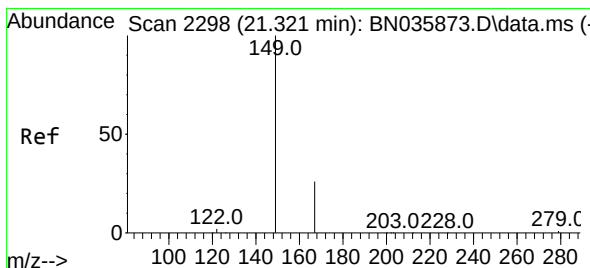
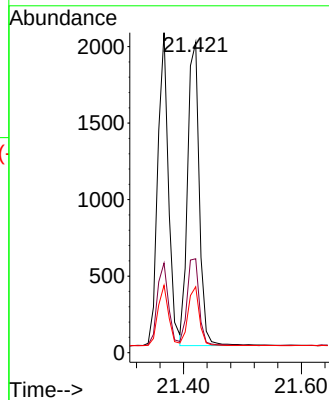
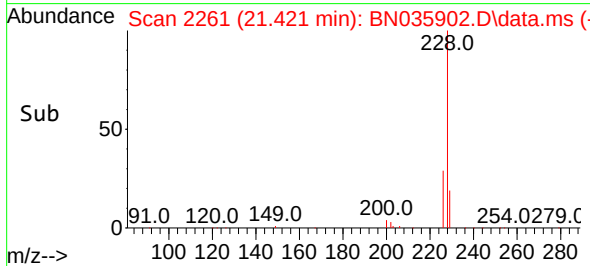
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC



Tgt Ion:228 Resp: 2729  
Ion Ratio Lower Upper  
228 100  
226 30.3 25.2 37.8  
229 21.3 16.0 24.0

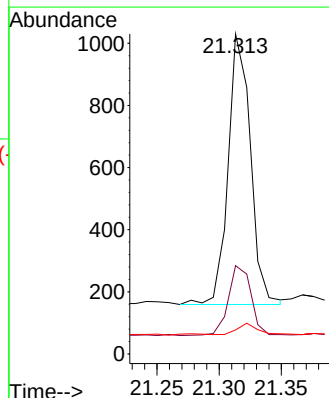
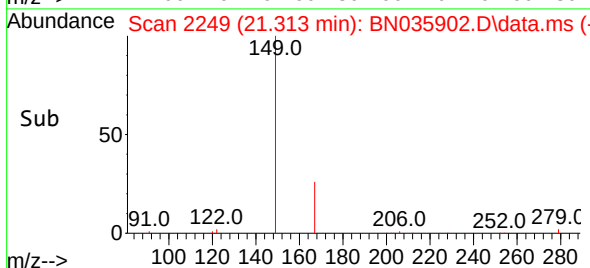
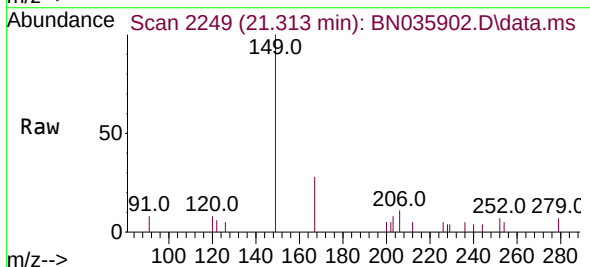
Manual Integrations  
APPROVED

Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025

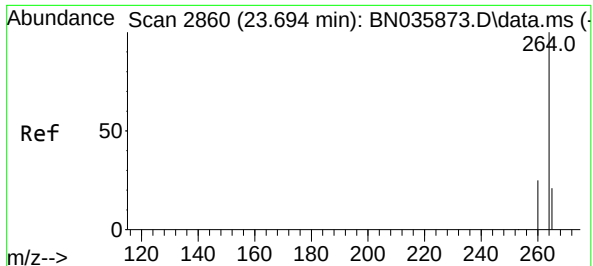


#34  
Bis(2-ethylhexyl)phthalate  
Concen: 0.411 ng  
RT: 21.313 min Scan# 2249  
Delta R.T. -0.008 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:149 Resp: 1090  
Ion Ratio Lower Upper  
149 100  
167 26.5 21.4 32.0  
279 3.9 3.0 4.6

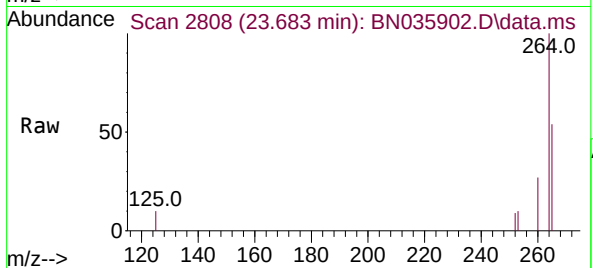






#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.683 min Scan# 2159  
Delta R.T. -0.011 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

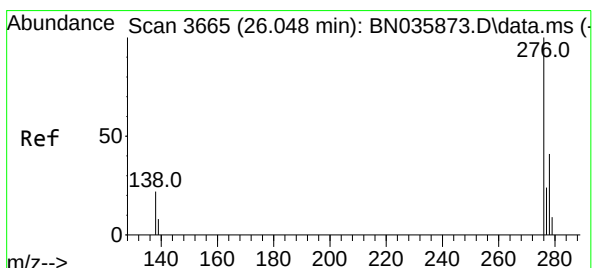
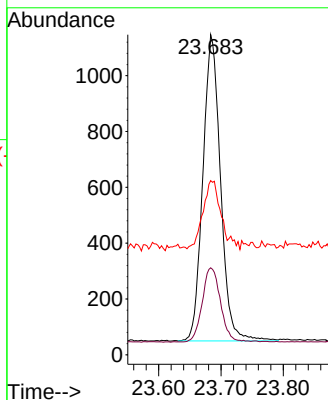
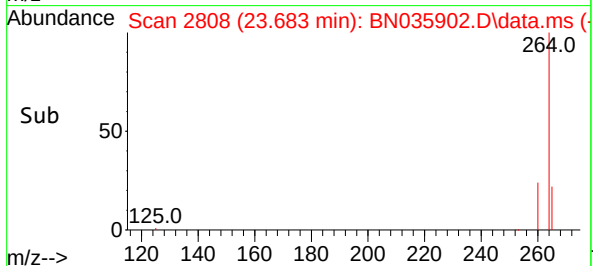
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC



Tgt Ion:264 Resp: 2159  
Ion Ratio Lower Upper  
264 100  
260 27.2 21.7 32.5  
265 54.4 33.9 50.9

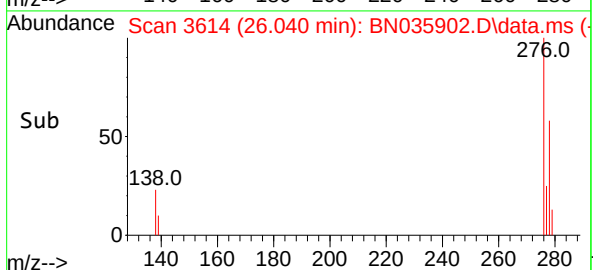
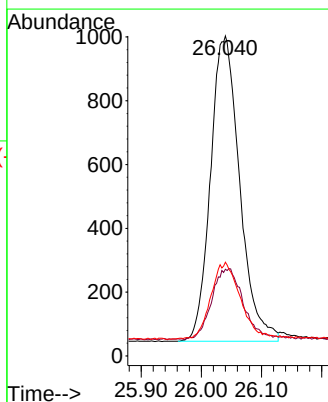
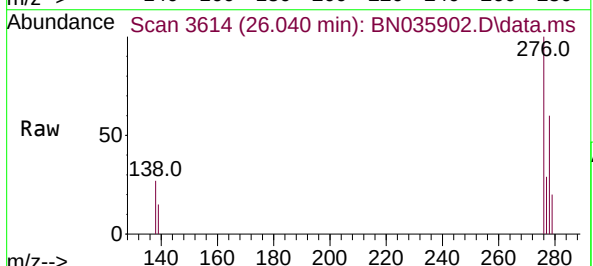
Manual Integrations  
APPROVED

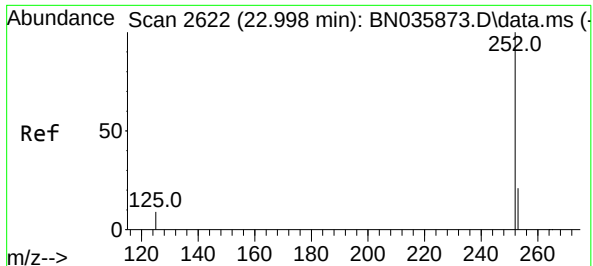
Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



#36  
Indeno(1,2,3-cd)pyrene  
Concen: 0.378 ng  
RT: 26.040 min Scan# 3614  
Delta R.T. -0.008 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:276 Resp: 3218  
Ion Ratio Lower Upper  
276 100  
138 25.1 18.9 28.3  
277 24.4 19.5 29.3





#37

Benzo(b)fluoranthene

Concen: 0.376 ng

RT: 22.991 min Scan# 21

Delta R.T. -0.008 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4EC

Tgt Ion:252 Resp: 278

Ion Ratio Lower Upper

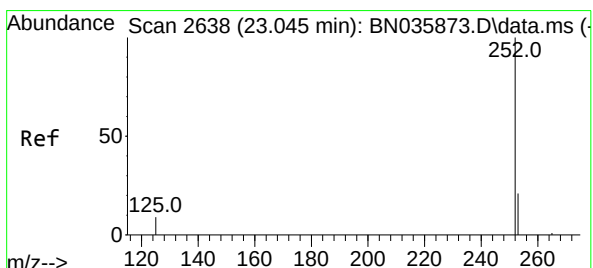
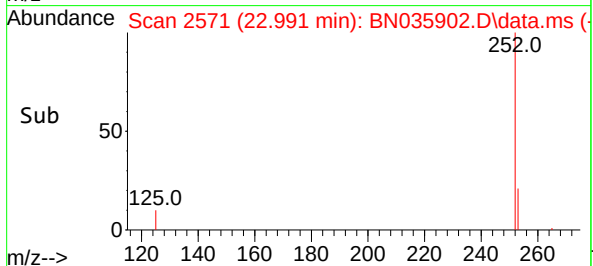
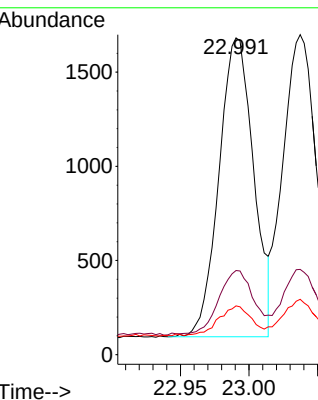
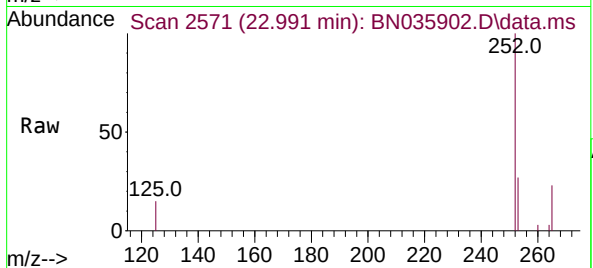
252 100

253 26.6 20.1 30.1

125 15.4 9.9 14.9

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025

#38

Benzo(k)fluoranthene

Concen: 0.388 ng m

RT: 23.037 min Scan# 2587

Delta R.T. -0.008 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

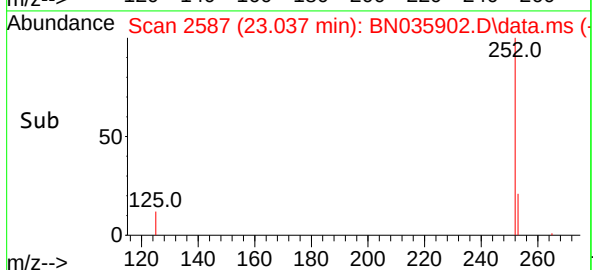
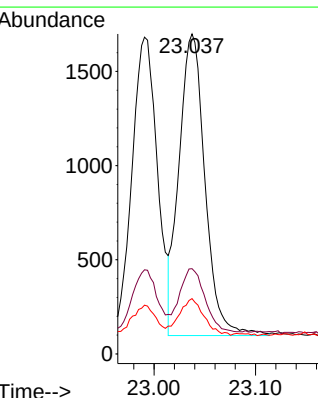
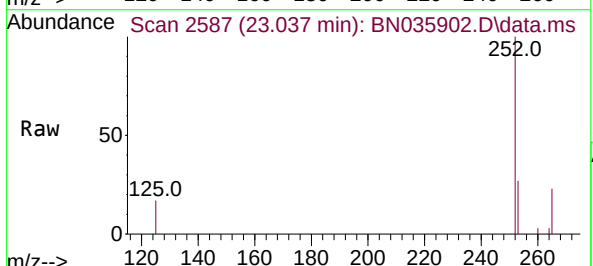
Tgt Ion:252 Resp: 2848

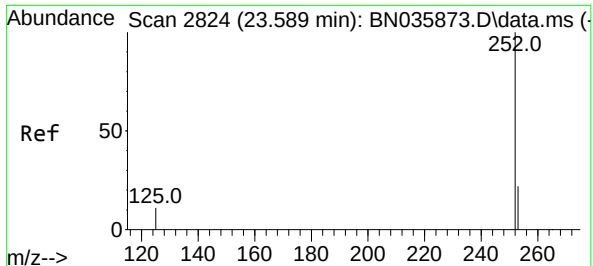
Ion Ratio Lower Upper

252 100

253 26.7 20.5 30.7

125 17.3 10.6 16.0





#39

Benzo(a)pyrene

Concen: 0.373 ng

RT: 23.587 min Scan# 21

Delta R.T. -0.002 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

Instrument :

BNA\_N

ClientSampleId :

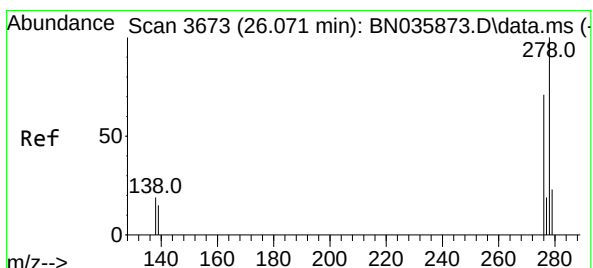
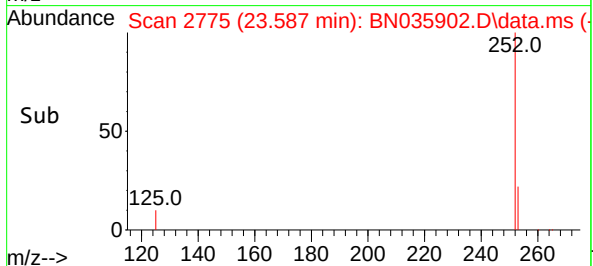
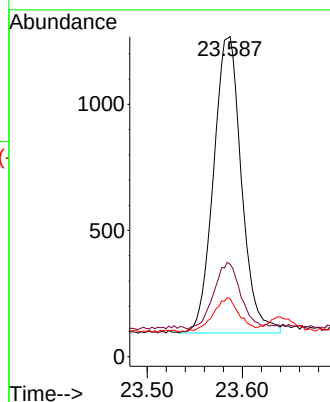
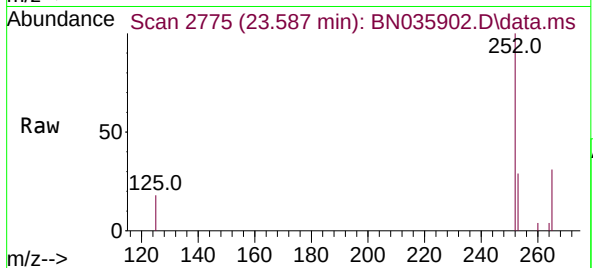
SSTDCCC0.4EC

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 252   | Resp: | 239  |
| Ion Ratio | Lower | Upper |      |
| 252       | 100   |       |      |
| 253       | 28.9  | 21.5  | 32.3 |
| 125       | 18.2  | 12.6  | 19.0 |

Manual Integrations

APPROVED

Reviewed By :Jagrut Upadhyay 01/08/2025  
 Supervised By :mohammad ahmed 01/09/2025



#40

Dibenzo(a,h)anthracene

Concen: 0.376 ng

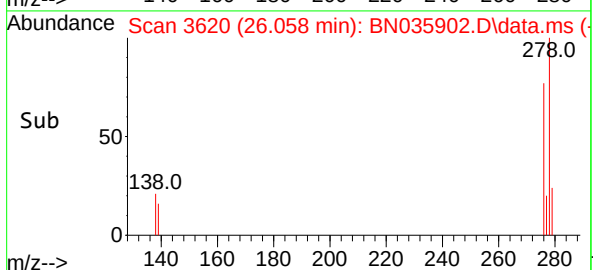
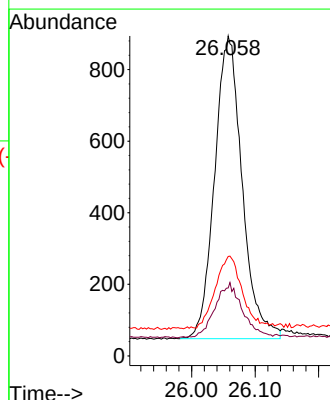
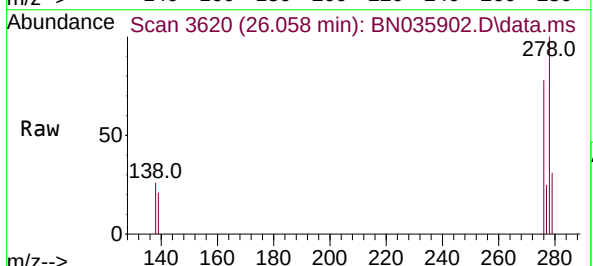
RT: 26.058 min Scan# 3620

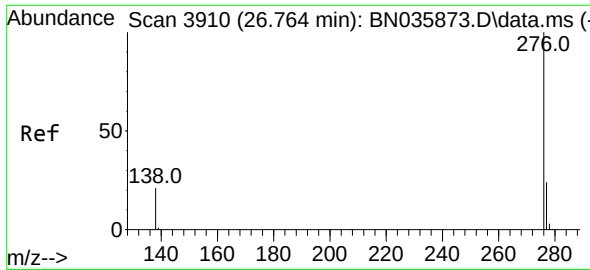
Delta R.T. -0.013 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

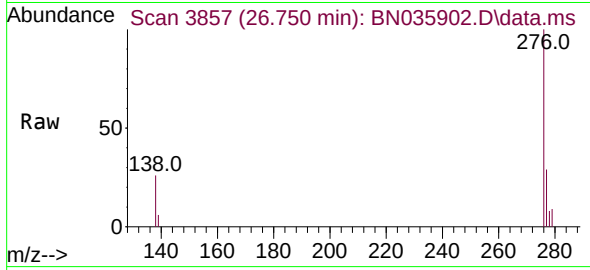
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 278   | Resp: | 2545 |
| Ion Ratio | Lower | Upper |      |
| 278       | 100   |       |      |
| 139       | 21.3  | 15.9  | 23.9 |
| 279       | 31.1  | 23.0  | 34.4 |





#41  
Benzo(g,h,i)perylene  
Concen: 0.380 ng  
RT: 26.750 min Scan# 3857  
Delta R.T. -0.013 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

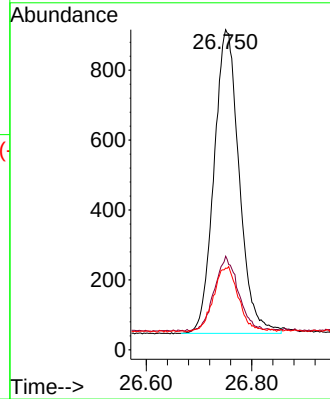
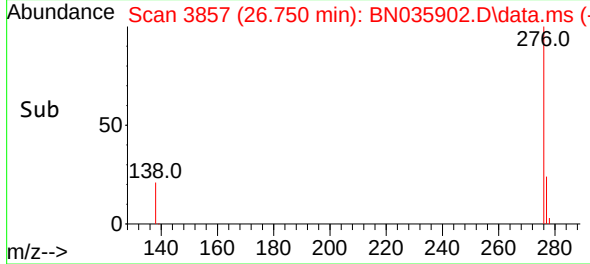
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC



Tgt Ion: 276 Resp: 288  
Ion Ratio Lower Upper  
276 100  
277 29.3 22.8 34.2  
138 25.5 20.1 30.1

Manual Integrations  
**APPROVED**

Reviewed By :Jagrut Upadhyay 01/08/2025  
Supervised By :mohammad ahmed 01/09/2025



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035902.D  
Acq On : 07 Jan 2025 18:31  
Operator : RC/JU  
Sample : SSTDCCC0.4  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_N  
LabSampleId :  
SSTDCCC0.4

Quant Time: Jan 07 22:16:50 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 25% Max. Rel. Area : 150%

|         | Compound                   | AvgRF | CCRF  | %Dev  | Area% | Dev(min) |
|---------|----------------------------|-------|-------|-------|-------|----------|
| 1 I     | 1,4-Dichlorobenzene-d4     | 1.000 | 1.000 | 0.0   | 115   | 0.00     |
| 2       | 1,4-Dioxane                | 0.397 | 0.400 | -0.8  | 124   | 0.00     |
| 3       | n-Nitrosodimethylamine     | 0.693 | 0.694 | -0.1  | 118   | 0.00     |
| 4 S     | 2-Fluorophenol             | 0.981 | 0.948 | 3.4   | 115   | 0.00     |
| 5 S     | Phenol-d6                  | 1.219 | 1.168 | 4.2   | 114   | 0.00     |
| 6       | bis(2-Chloroethyl)ether    | 0.929 | 0.935 | -0.6  | 115   | -0.01    |
| 7 I     | Naphthalene-d8             | 1.000 | 1.000 | 0.0   | 107   | 0.00     |
| 8 S     | Nitrobenzene-d5            | 0.317 | 0.335 | -5.7  | 121   | 0.00     |
| 9       | Naphthalene                | 1.123 | 1.118 | 0.4   | 110   | 0.00     |
| 10      | Hexachlorobutadiene        | 0.365 | 0.366 | -0.3  | 111   | 0.00     |
| 11 SURR | 2-Methylnaphthalene-d10    | 0.536 | 0.501 | 6.5   | 101   | 0.00     |
| 12      | 2-Methylnaphthalene        | 0.695 | 0.661 | 4.9   | 103   | 0.00     |
| 13 I    | Acenaphthene-d10           | 1.000 | 1.000 | 0.0   | 94    | 0.00     |
| 14 S    | 2,4,6-Tribromophenol       | 0.192 | 0.200 | -4.2  | 100   | -0.01    |
| 15 S    | 2-Fluorobiphenyl           | 1.755 | 1.789 | -1.9  | 98    | 0.00     |
| 16      | Acenaphthylene             | 1.884 | 1.885 | -0.1  | 97    | 0.00     |
| 17      | Acenaphthene               | 1.235 | 1.245 | -0.8  | 97    | 0.00     |
| 18      | Fluorene                   | 1.359 | 1.266 | 6.8   | 91    | 0.00     |
| 19 I    | Phenanthrene-d10           | 1.000 | 1.000 | 0.0   | 85    | -0.01    |
| 20      | 4,6-Dinitro-2-methylphenol | 0.069 | 0.082 | -18.8 | 105   | 0.00     |
| 21      | 4-Bromophenyl-phenylether  | 0.274 | 0.276 | -0.7  | 87    | 0.00     |
| 22      | Hexachlorobenzene          | 0.374 | 0.383 | -2.4  | 91    | 0.00     |
| 23      | Atrazine                   | 0.184 | 0.174 | 5.4   | 84    | 0.00     |
| 24      | Pentachlorophenol          | 0.132 | 0.139 | -5.3  | 100   | 0.00     |
| 25      | Phenanthrene               | 1.167 | 1.154 | 1.1   | 86    | 0.00     |
| 26      | Anthracene                 | 1.062 | 1.028 | 3.2   | 87    | 0.00     |
| 27 SURR | Fluoranthene-d10           | 0.993 | 0.919 | 7.5   | 80    | 0.00     |
| 28      | Fluoranthene               | 1.361 | 1.256 | 7.7   | 80    | 0.00     |
| 29 I    | Chrysene-d12               | 1.000 | 1.000 | 0.0   | 78    | 0.00     |
| 30      | Pyrene                     | 1.624 | 1.630 | -0.4  | 81    | 0.00     |
| 31 S    | Terphenyl-d14              | 0.797 | 0.755 | 5.3   | 74    | 0.00     |
| 32      | Benzo(a)anthracene         | 1.410 | 1.396 | 1.0   | 81    | 0.00     |
| 33      | Chrysene                   | 1.475 | 1.474 | 0.1   | 80    | 0.00     |
| 34      | Bis(2-ethylhexyl)phthalate | 0.574 | 0.589 | -2.6  | 79    | 0.00     |
| 35 I    | Perylene-d12               | 1.000 | 1.000 | 0.0   | 82    | -0.01    |
| 36      | Indeno(1,2,3-cd)pyrene     | 1.577 | 1.491 | 5.5   | 87    | 0.00     |
| 37      | Benzo(b)fluoranthene       | 1.374 | 1.291 | 6.0   | 82    | 0.00     |
| 38      | Benzo(k)fluoranthene       | 1.360 | 1.319 | 3.0   | 87    | 0.00     |
| 39 C    | Benzo(a)pyrene             | 1.190 | 1.109 | 6.8   | 84    | 0.00     |
| 40      | Dibenzo(a,h)anthracene     | 1.255 | 1.179 | 6.1   | 88    | -0.01    |
| 41      | Benzo(g,h,i)perylene       | 1.403 | 1.334 | 4.9   | 88    | -0.01    |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035902.D  
Acq On : 07 Jan 2025 18:31  
Operator : RC/JU  
Sample : SSTDCCC0.4  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_N  
LabSampleId :  
SSTDCCC0.4

Quant Time: Jan 07 22:16:50 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 25% Max. Rel. Area : 150%

|         | Compound                   | Amount | Calc. | %Dev  | Area% | Dev(min) |
|---------|----------------------------|--------|-------|-------|-------|----------|
| 1 I     | 1,4-Dichlorobenzene-d4     | 0.400  | 0.400 | 0.0   | 115   | 0.00     |
| 2       | 1,4-Dioxane                | 0.400  | 0.403 | -0.8  | 124   | 0.00     |
| 3       | n-Nitrosodimethylamine     | 0.400  | 0.401 | -0.3  | 118   | 0.00     |
| 4 S     | 2-Fluorophenol             | 0.400  | 0.386 | 3.5   | 115   | 0.00     |
| 5 S     | Phenol-d6                  | 0.400  | 0.383 | 4.3   | 114   | 0.00     |
| 6       | bis(2-Chloroethyl)ether    | 0.400  | 0.403 | -0.8  | 115   | -0.01    |
| 7 I     | Naphthalene-d8             | 0.400  | 0.400 | 0.0   | 107   | 0.00     |
| 8 S     | Nitrobenzene-d5            | 0.400  | 0.423 | -5.7  | 121   | 0.00     |
| 9       | Naphthalene                | 0.400  | 0.398 | 0.5   | 110   | 0.00     |
| 10      | Hexachlorobutadiene        | 0.400  | 0.402 | -0.5  | 111   | 0.00     |
| 11 SURR | 2-Methylnaphthalene-d10    | 0.400  | 0.374 | 6.5   | 101   | 0.00     |
| 12      | 2-Methylnaphthalene        | 0.400  | 0.381 | 4.8   | 103   | 0.00     |
| 13 I    | Acenaphthene-d10           | 0.400  | 0.400 | 0.0   | 94    | 0.00     |
| 14 S    | 2,4,6-Tribromophenol       | 0.400  | 0.417 | -4.2  | 100   | -0.01    |
| 15 S    | 2-Fluorobiphenyl           | 0.400  | 0.408 | -2.0  | 98    | 0.00     |
| 16      | Acenaphthylene             | 0.400  | 0.400 | 0.0   | 97    | 0.00     |
| 17      | Acenaphthene               | 0.400  | 0.403 | -0.8  | 97    | 0.00     |
| 18      | Fluorene                   | 0.400  | 0.373 | 6.8   | 91    | 0.00     |
| 19 I    | Phenanthrene-d10           | 0.400  | 0.400 | 0.0   | 85    | -0.01    |
| 20      | 4,6-Dinitro-2-methylphenol | 0.400  | 0.475 | -18.7 | 105   | 0.00     |
| 21      | 4-Bromophenyl-phenylether  | 0.400  | 0.403 | -0.8  | 87    | 0.00     |
| 22      | Hexachlorobenzene          | 0.400  | 0.409 | -2.2  | 91    | 0.00     |
| 23      | Atrazine                   | 0.400  | 0.379 | 5.3   | 84    | 0.00     |
| 24      | Pentachlorophenol          | 0.400  | 0.420 | -5.0  | 100   | 0.00     |
| 25      | Phenanthrene               | 0.400  | 0.395 | 1.3   | 86    | 0.00     |
| 26      | Anthracene                 | 0.400  | 0.387 | 3.3   | 87    | 0.00     |
| 27 SURR | Fluoranthene-d10           | 0.400  | 0.370 | 7.5   | 80    | 0.00     |
| 28      | Fluoranthene               | 0.400  | 0.369 | 7.8   | 80    | 0.00     |
| 29 I    | Chrysene-d12               | 0.400  | 0.400 | 0.0   | 78    | 0.00     |
| 30      | Pyrene                     | 0.400  | 0.402 | -0.5  | 81    | 0.00     |
| 31 S    | Terphenyl-d14              | 0.400  | 0.379 | 5.3   | 74    | 0.00     |
| 32      | Benzo(a)anthracene         | 0.400  | 0.396 | 1.0   | 81    | 0.00     |
| 33      | Chrysene                   | 0.400  | 0.400 | 0.0   | 80    | 0.00     |
| 34      | Bis(2-ethylhexyl)phthalate | 0.400  | 0.411 | -2.7  | 79    | 0.00     |
| 35 I    | Perylene-d12               | 0.400  | 0.400 | 0.0   | 82    | -0.01    |
| 36      | Indeno(1,2,3-cd)pyrene     | 0.400  | 0.378 | 5.5   | 87    | 0.00     |
| 37      | Benzo(b)fluoranthene       | 0.400  | 0.376 | 6.0   | 82    | 0.00     |
| 38      | Benzo(k)fluoranthene       | 0.400  | 0.388 | 3.0   | 87    | 0.00     |
| 39 C    | Benzo(a)pyrene             | 0.400  | 0.373 | 6.8   | 84    | 0.00     |
| 40      | Dibenzo(a,h)anthracene     | 0.400  | 0.376 | 6.0   | 88    | -0.01    |
| 41      | Benzo(g,h,i)perylene       | 0.400  | 0.380 | 5.0   | 88    | -0.01    |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0



# QC SAMPLE DATA

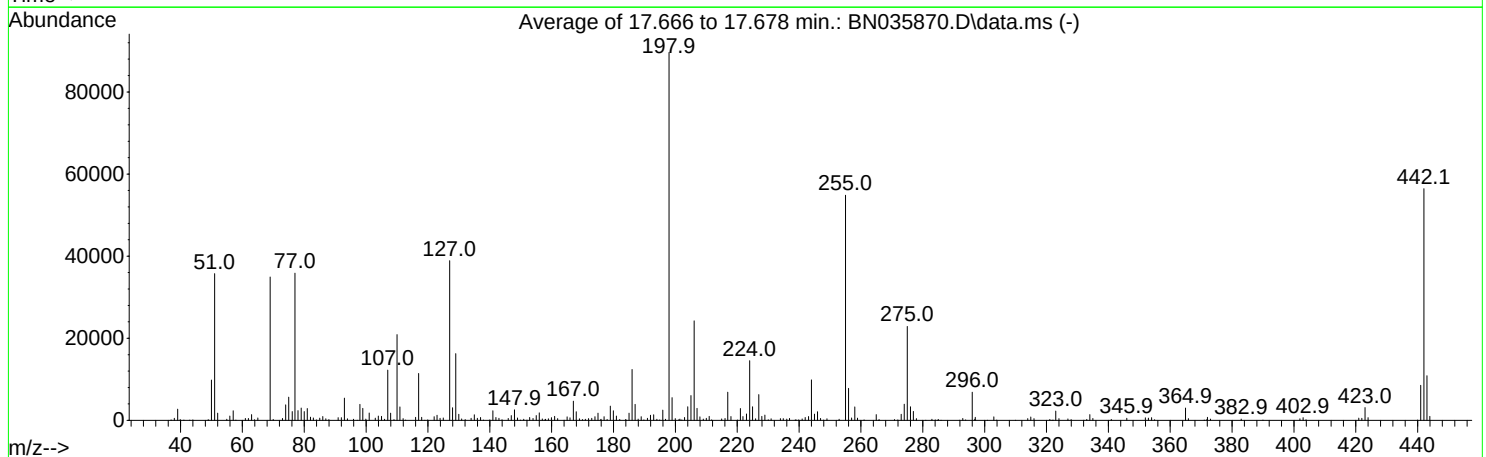
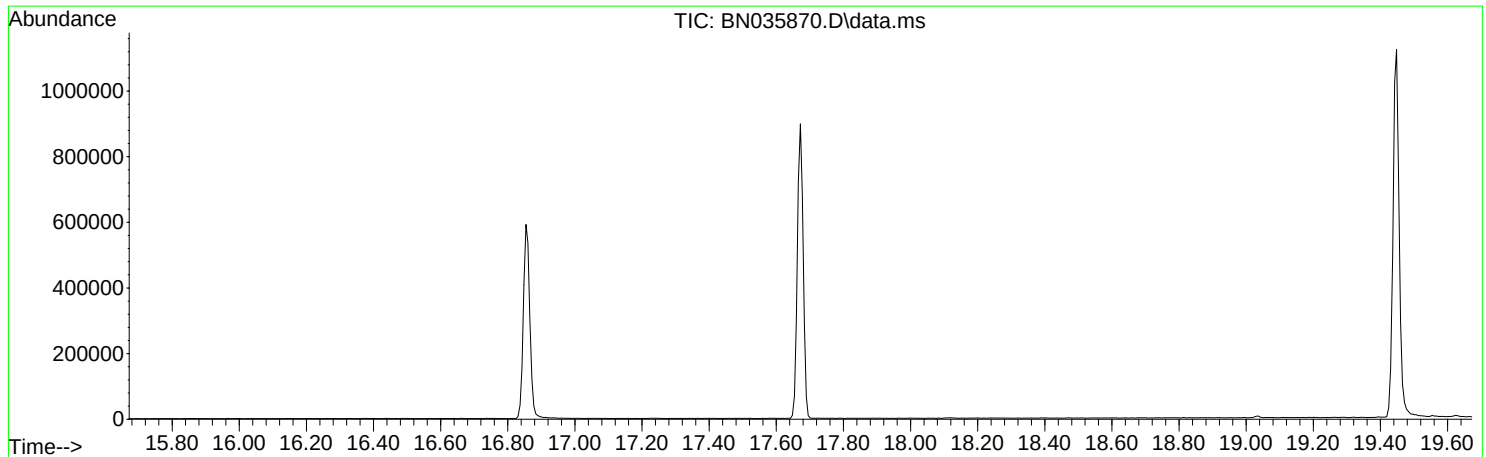
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
Data File : BN035870.D  
Acq On : 02 Jan 2025 10:49  
Operator : RC/JU  
Sample : DFTPP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
Last Update : Thu Jan 02 15:39:17 2025



AutoFind: Scans 2521, 2522, 2523; Background Corrected with Scan 2515

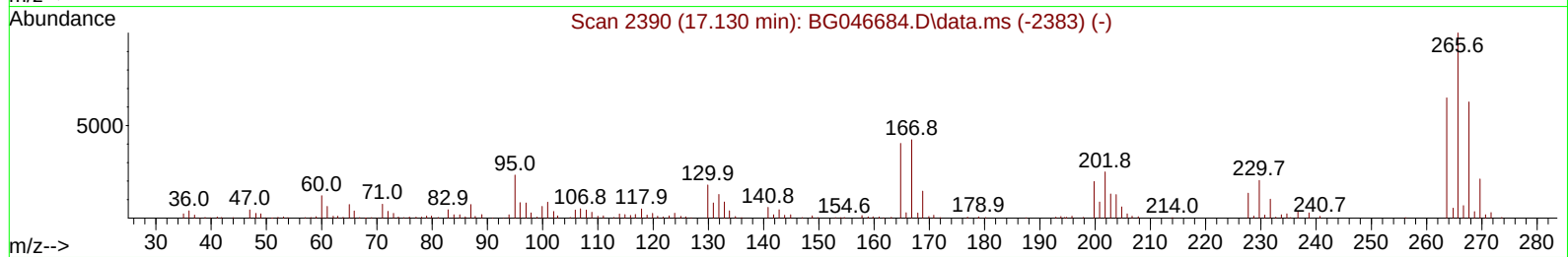
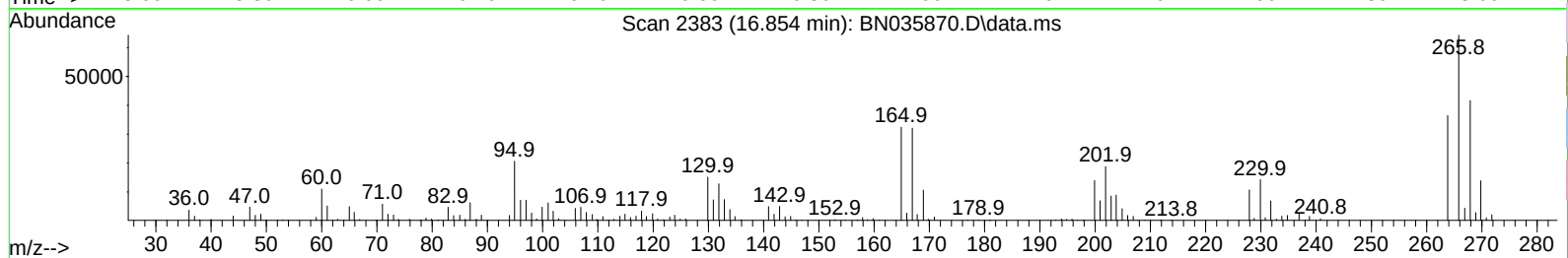
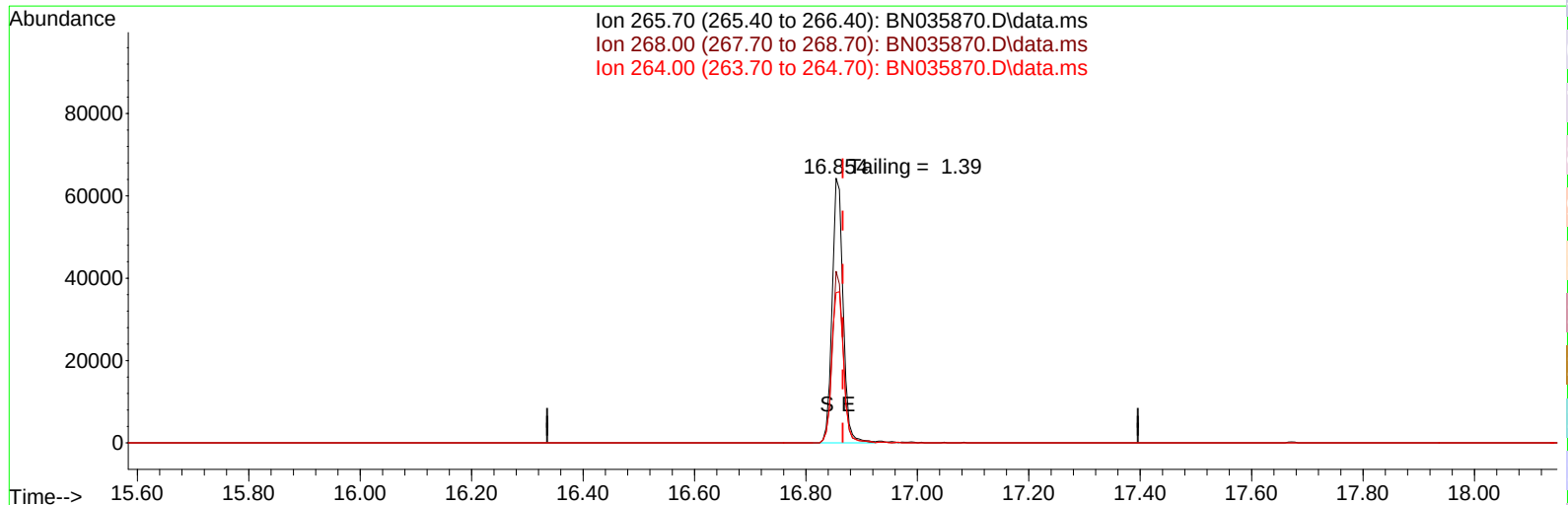
| Target<br>Mass | Rel. to<br>Mass | Lower<br>Limit% | Upper<br>Limit% | Rel.<br>Abn% | Raw<br>Abn | Result<br>Pass/Fail |
|----------------|-----------------|-----------------|-----------------|--------------|------------|---------------------|
| 51             | 198             | 10              | 80              | 39.9         | 35733      | PASS                |
| 68             | 69              | 0.00            | 2               | 0.0          | 0          | PASS                |
| 69             | 198             | 0.00            | 100             | 39.0         | 34920      | PASS                |
| 70             | 69              | 0.00            | 2               | 0.7          | 232        | PASS                |
| 127            | 198             | 10              | 80              | 43.4         | 38907      | PASS                |
| 197            | 198             | 0.00            | 2               | 0.3          | 256        | PASS                |
| 198            | 198             | 100             | 100             | 100.0        | 89616      | PASS                |
| 199            | 198             | 5               | 9               | 6.2          | 5523       | PASS                |
| 275            | 198             | 10              | 60              | 25.6         | 22899      | PASS                |
| 365            | 198             | 1               | 100             | 3.3          | 2996       | PASS                |
| 441            | 198             | 0.01            | 100             | 9.5          | 8544       | PASS                |
| 442            | 442             | 50              | 100             | 100.0        | 56448      | PASS                |
| 443            | 442             | 15              | 24              | 19.3         | 10868      | PASS                |



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
Data File : BN035870.D  
Acq On : 02 Jan 2025 10:49  
Operator : RC/JU  
Sample : DFTPP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

Quant Time: Jan 02 12:15:33 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270E-Tune.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Dec 25 04:23:53 2024  
Response via : Initial Calibration



TIC: BN035870.D\data.ms

**(70) Pentachlorophenol (C)**

16.854min (-0.012) 32111.49 ng

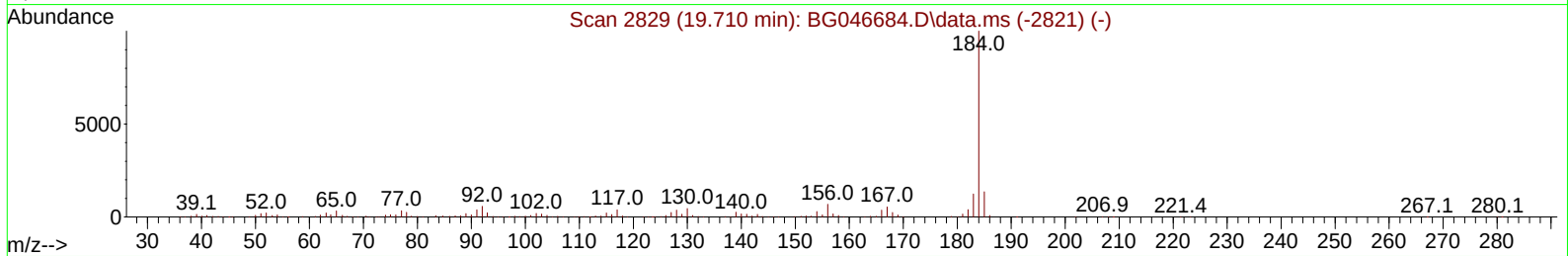
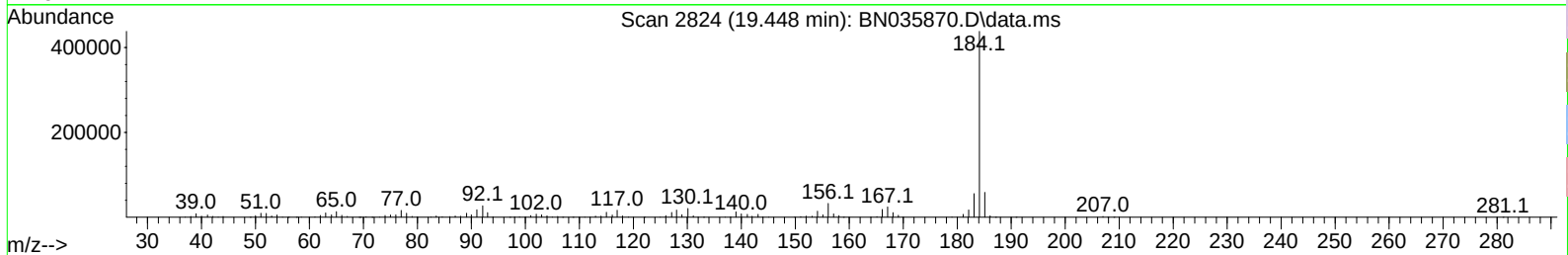
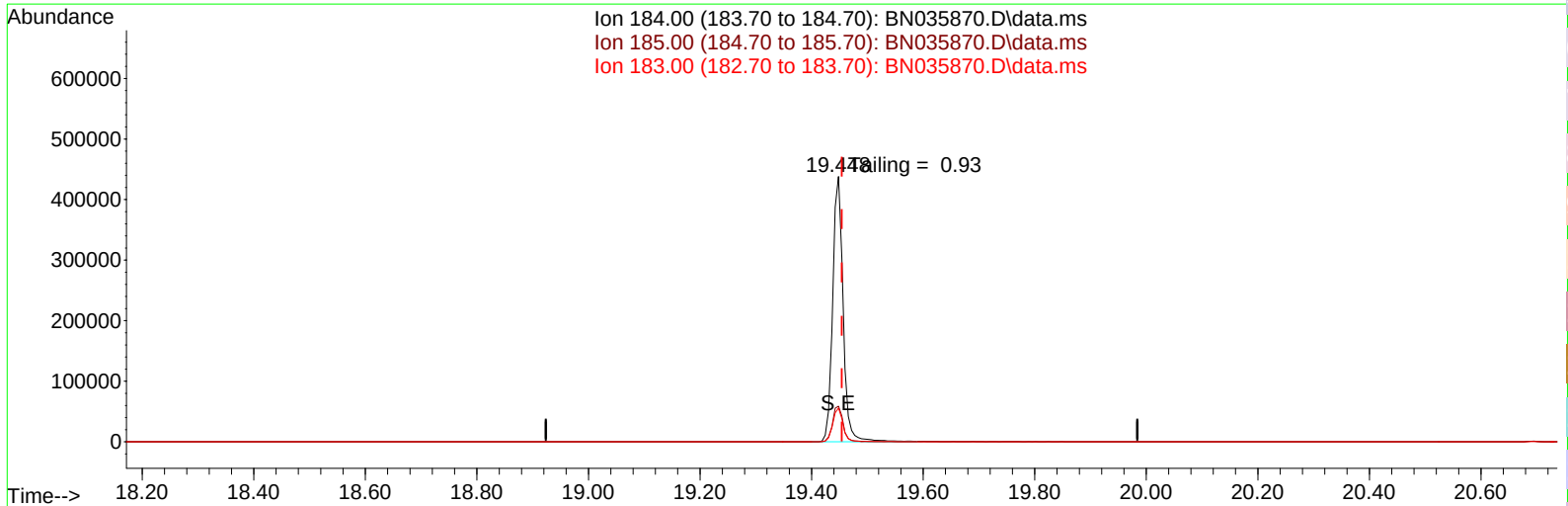
response 87193

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 265.70 | 100.00 | 100.00 |
| 268.00 | 62.20  | 64.79  |
| 264.00 | 61.60  | 56.74  |
| 0.00   | 0.00   | 0.00   |

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010225\  
Data File : BN035870.D  
Acq On : 02 Jan 2025 10:49  
Operator : RC/JU  
Sample : DFTPP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

Quant Time: Jan 02 12:15:33 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270E-Tune.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Dec 25 04:23:53 2024  
Response via : Initial Calibration



TIC: BN035870.D\data.ms

**(77) Benzidine**

19.448min (-0.006) 0.00 ng

response 567773

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 184.00 | 100.00 | 100.00 |
| 185.00 | 15.50  | 13.41  |
| 183.00 | 13.20  | 12.73  |
| 0.00   | 0.00   | 0.00   |

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

DDT Breakdown

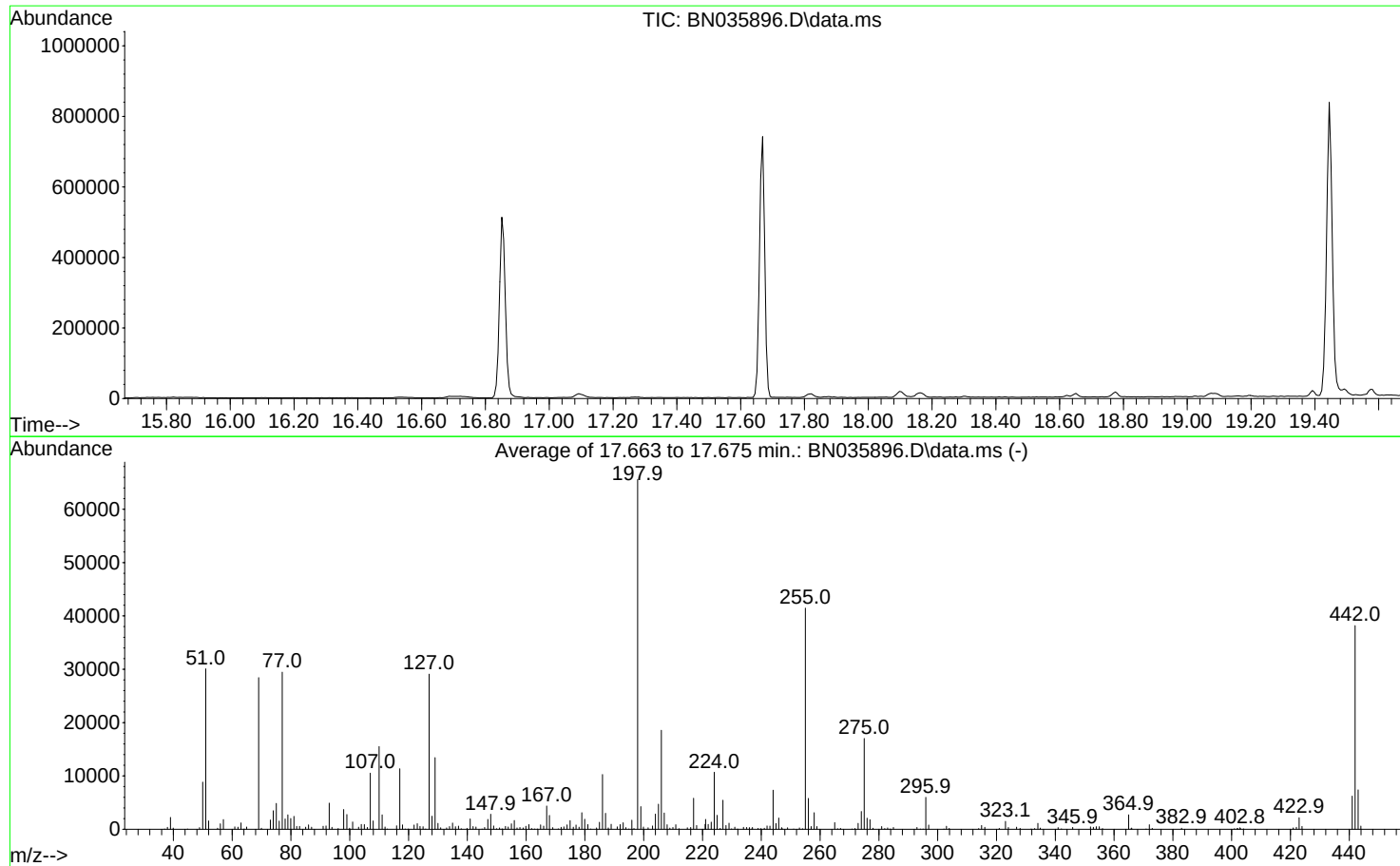
| Date          | Instrument Name  | DFTPP Data File    |
|---------------|------------------|--------------------|
| 1/2/2025      | BNA_N            | <u>BN035870.D</u>  |
|               |                  |                    |
|               |                  |                    |
| Compound Name | Response         | Retention Time     |
|               |                  |                    |
| DDT           | 243994           | 20.695             |
| DDD           | 3023             | 20.307             |
| DDE           | 79               | 19.748             |
|               |                  |                    |
|               |                  |                    |
| SUM(DDD+DDE)  | SUM(DDT+DDD+DDE) | % Breakdown Of DDT |
|               |                  |                    |
| 3102          | 247096           | 1.26               |
|               |                  |                    |

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035896.D  
Acq On : 07 Jan 2025 14:24  
Operator : RC/JU  
Sample : DFTPP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
Last Update : Thu Jan 02 15:39:17 2025



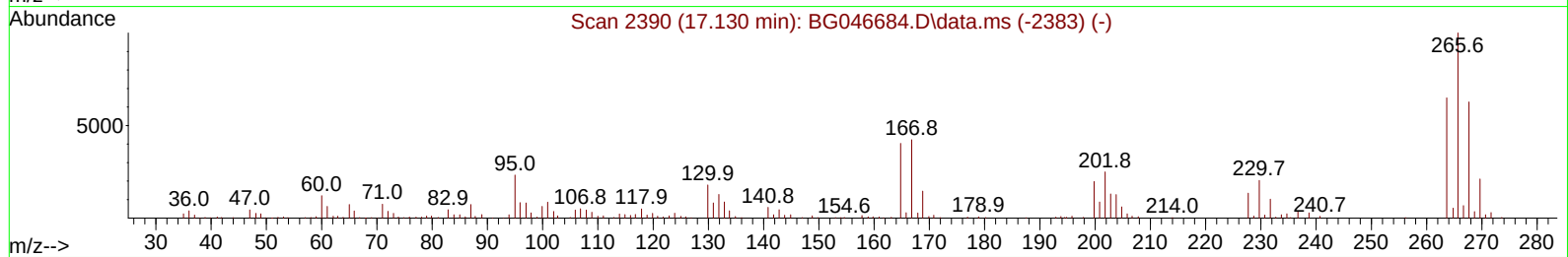
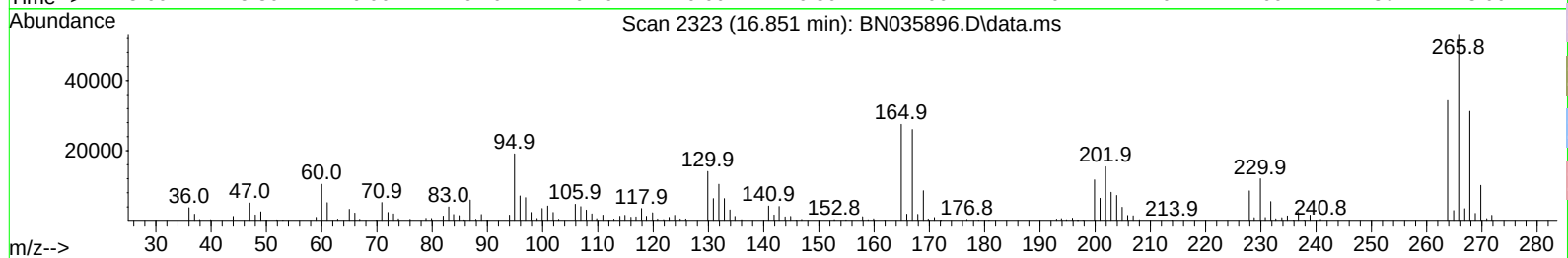
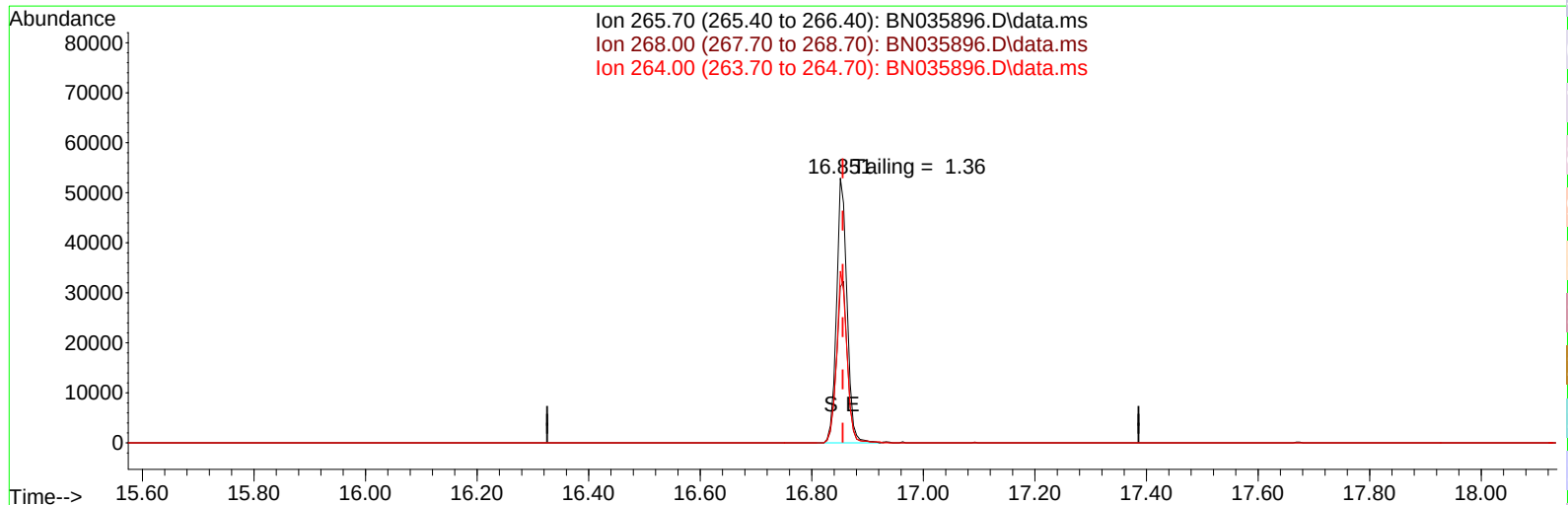
AutoFind: Scans 2461, 2462, 2463; Background Corrected with Scan 2455

| Target<br>Mass | Rel. to<br>Mass | Lower<br>Limit% | Upper<br>Limit% | Rel.<br>Abn% | Raw<br>Abn | Result<br>Pass/Fail |
|----------------|-----------------|-----------------|-----------------|--------------|------------|---------------------|
| 51             | 198             | 10              | 80              | 45.9         | 30080      | PASS                |
| 68             | 69              | 0.00            | 2               | 0.0          | 0          | PASS                |
| 69             | 198             | 0.00            | 100             | 43.4         | 28445      | PASS                |
| 70             | 69              | 0.00            | 2               | 0.7          | 197        | PASS                |
| 127            | 198             | 10              | 80              | 44.4         | 29099      | PASS                |
| 197            | 198             | 0.00            | 2               | 0.2          | 155        | PASS                |
| 198            | 198             | 100             | 100             | 100.0        | 65563      | PASS                |
| 199            | 198             | 5               | 9               | 6.5          | 4240       | PASS                |
| 275            | 198             | 10              | 60              | 26.0         | 17034      | PASS                |
| 365            | 198             | 1               | 100             | 4.1          | 2710       | PASS                |
| 441            | 198             | 0.01            | 100             | 9.5          | 6208       | PASS                |
| 442            | 442             | 50              | 100             | 100.0        | 38176      | PASS                |
| 443            | 442             | 15              | 24              | 19.4         | 7393       | PASS                |

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035896.D  
Acq On : 07 Jan 2025 14:24  
Operator : RC/JU  
Sample : DFTPP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

Quant Time: Jan 07 18:12:40 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270E-Tune.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Dec 25 04:23:53 2024  
Response via : Initial Calibration



TIC: BN035896.D\data.ms

**(70) Pentachlorophenol (C)**

16.851min (-0.005) 25946.00 ng m

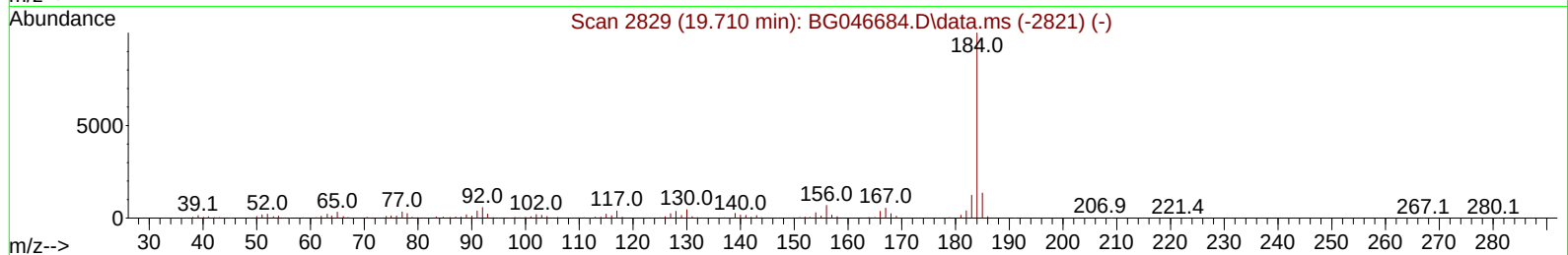
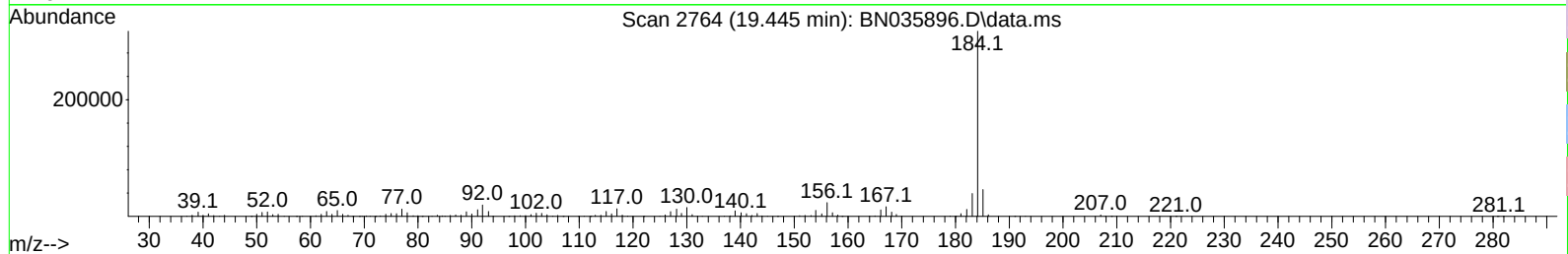
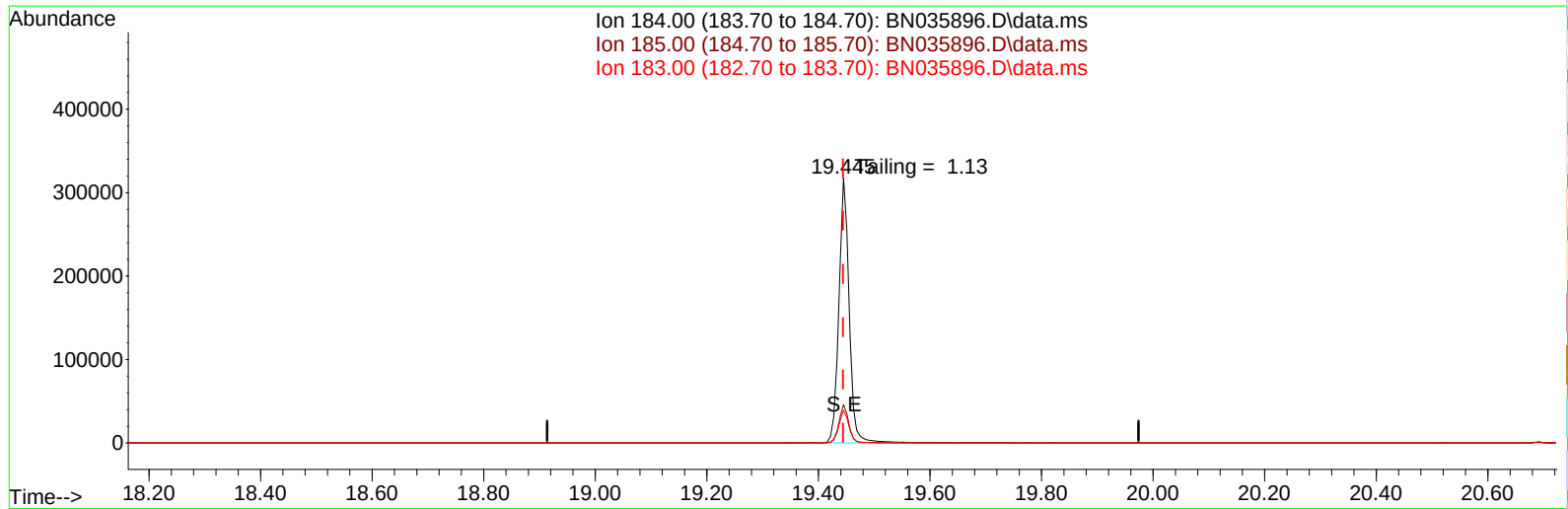
response 69230

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 265.70 | 100.00 | 100.00 |
| 268.00 | 62.20  | 58.99  |
| 264.00 | 61.60  | 64.81  |
| 0.00   | 0.00   | 0.00   |

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035896.D  
Acq On : 07 Jan 2025 14:24  
Operator : RC/JU  
Sample : DFTPP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

Quant Time: Jan 07 18:12:40 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270E-Tune.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Wed Dec 25 04:23:53 2024  
Response via : Initial Calibration



TIC: BN035896.D\data.ms

**(77) Benzidine**

19.445min (+ 0.001) 0.00 ng

response 408901

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 184.00 | 100.00 | 100.00 |
| 185.00 | 15.50  | 14.53  |
| 183.00 | 13.20  | 12.37  |
| 0.00   | 0.00   | 0.00   |

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

DDT Breakdown

| Date          | Instrument Name  | DFTPP Data File    |
|---------------|------------------|--------------------|
| 1/7/2025      | BNA_N            | <u>BN035896.D</u>  |
|               |                  |                    |
|               |                  |                    |
| Compound Name | Response         | Retention Time     |
|               |                  |                    |
| DDT           | 189369           | 20.692             |
| DDD           | 3147             | 20.304             |
| DDE           | 77               | 19.745             |
|               |                  |                    |
|               |                  |                    |
| SUM(DDD+DDE)  | SUM(DDT+DDD+DDE) | % Breakdown Of DDT |
|               |                  |                    |
| 3224          | 192593           | 1.67               |
|               |                  |                    |

## Report of Analysis

|                    |                      |                 |                |
|--------------------|----------------------|-----------------|----------------|
| Client:            | Tetra Tech NUS, Inc. | Date Collected: |                |
| Project:           | CTO WE13             | Date Received:  |                |
| Client Sample ID:  | PB165971BL           | SDG No.:        | Q1022          |
| Lab Sample ID:     | PB165971BL           | Matrix:         | Water          |
| Analytical Method: | SW8270ESIM           | % Solid:        | 0              |
| Sample Wt/Vol:     | 1000 Units: mL       | Final Vol:      | 1000 uL        |
| Soil Aliquot Vol:  | uL                   | Test:           | SVOC-SIMGroup1 |
| Extraction Type :  | Decanted : N         | Level :         | LOW            |
| Injection Volume : | GPC Factor : 1.0     | GPC Cleanup :   | N PH :         |
| Prep Method :      |                      |                 |                |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BN035898.D        | 1         | 01/07/25 11:00 | 01/07/25 16:08 | PB165971      |

| CAS Number                | Parameter               | Conc. | Qualifier | MDL      | LOD  | LOQ / CRQL | Units    |
|---------------------------|-------------------------|-------|-----------|----------|------|------------|----------|
| <b>TARGETS</b>            |                         |       |           |          |      |            |          |
| 123-91-1                  | 1,4-Dioxane             | 0.20  | U         | 0.070    | 0.20 | 0.20       | ug/L     |
| <b>SURROGATES</b>         |                         |       |           |          |      |            |          |
| 7297-45-2                 | 2-Methylnaphthalene-d10 | 0.46  |           | 30 - 150 |      | 115%       | SPK: 0.4 |
| 93951-69-0                | Fluoranthene-d10        | 0.47  |           | 30 - 150 |      | 117%       | SPK: 0.4 |
| 4165-60-0                 | Nitrobenzene-d5         | 0.50  | *         | 55 - 111 |      | 124%       | SPK: 0.4 |
| 321-60-8                  | 2-Fluorobiphenyl        | 0.47  | *         | 53 - 106 |      | 117%       | SPK: 0.4 |
| 1718-51-0                 | Terphenyl-d14           | 0.48  |           | 58 - 132 |      | 120%       | SPK: 0.4 |
| <b>INTERNAL STANDARDS</b> |                         |       |           |          |      |            |          |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4  | 1100  | 7.831     |          |      |            |          |
| 1146-65-2                 | Naphthalene-d8          | 2140  | 10.622    |          |      |            |          |
| 15067-26-2                | Acenaphthene-d10        | 1000  | 14.463    |          |      |            |          |
| 1517-22-2                 | Phenanthrene-d10        | 1870  | 17.199    |          |      |            |          |
| 1719-03-5                 | Chrysene-d12            | 1600  | 21.385    |          |      |            |          |
| 1520-96-3                 | Perylene-d12            | 1800  | 23.692    |          |      |            |          |

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035898.D  
Acq On : 07 Jan 2025 16:08  
Operator : RC/JU  
Sample : PB165971BL  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BL

Quant Time: Jan 07 16:39:28 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

| Compound                    | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards          |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4   | 7.831  | 152  | 1101     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8           | 10.622 | 136  | 2139     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10        | 14.463 | 164  | 1003     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10        | 17.199 | 188  | 1872     | 0.400 | ng    | #-0.01   |
| 29) Chrysene-d12            | 21.385 | 240  | 1597     | 0.400 | ng    | 0.00     |
| 35) Perylene-d12            | 23.692 | 264  | 1804     | 0.400 | ng    | # 0.00   |
| System Monitoring Compounds |        |      |          |       |       |          |
| 4) 2-Fluorophenol           | 5.398  | 112  | 1018     | 0.377 | ng    | -0.01    |
| 5) Phenol-d6                | 6.979  | 99   | 1202     | 0.358 | ng    | 0.00     |
| 8) Nitrobenzene-d5          | 8.977  | 82   | 839      | 0.495 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10 | 12.213 | 152  | 1323     | 0.462 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol    | 15.945 | 330  | 166      | 0.345 | ng    | -0.01    |
| 15) 2-Fluorobiphenyl        | 13.094 | 172  | 2055     | 0.467 | ng    | 0.00     |
| 27) Fluoranthene-d10        | 19.234 | 212  | 2177     | 0.468 | ng    | 0.00     |
| 31) Terphenyl-d14           | 19.838 | 244  | 1533     | 0.482 | ng    | 0.00     |

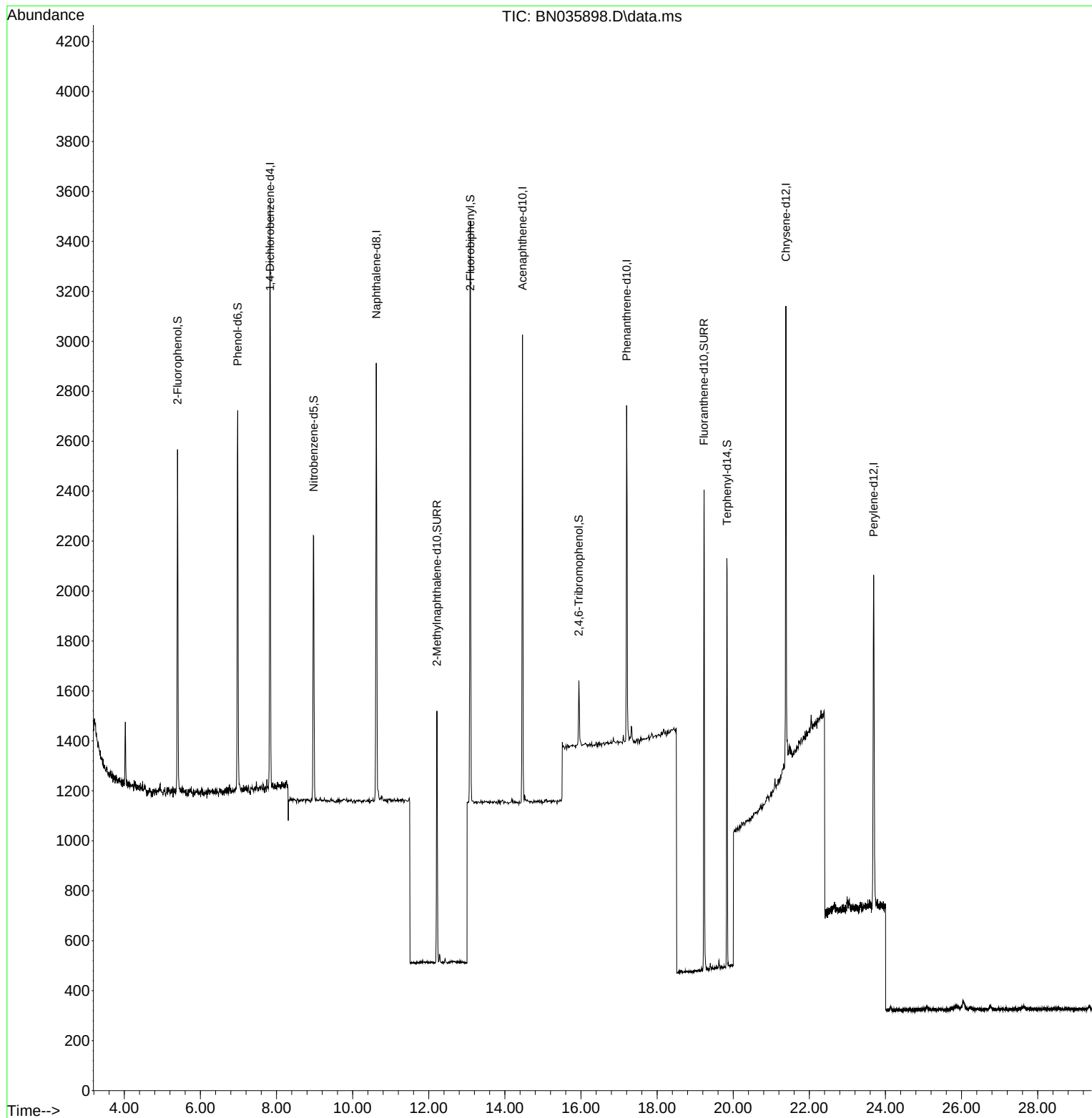
| Target Compounds | Qvalue |
|------------------|--------|
|------------------|--------|

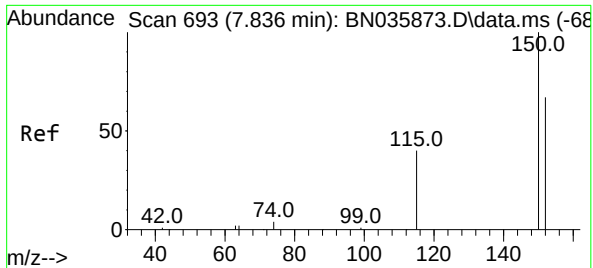
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035898.D  
Acq On : 07 Jan 2025 16:08  
Operator : RC/JU  
Sample : PB165971BL  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BL

Quant Time: Jan 07 16:39:28 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

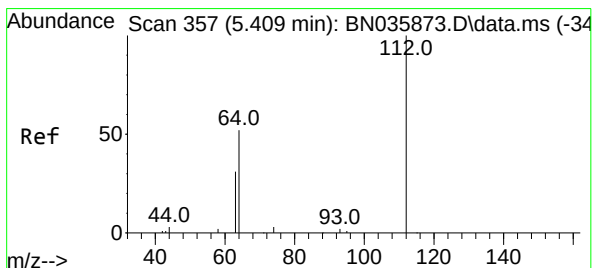
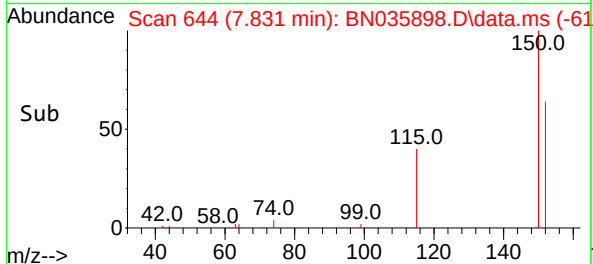
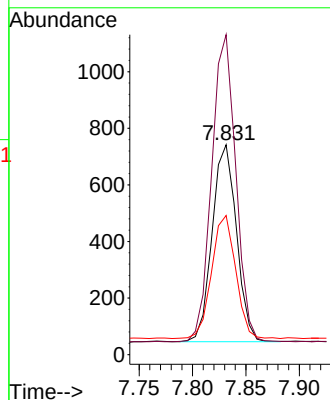
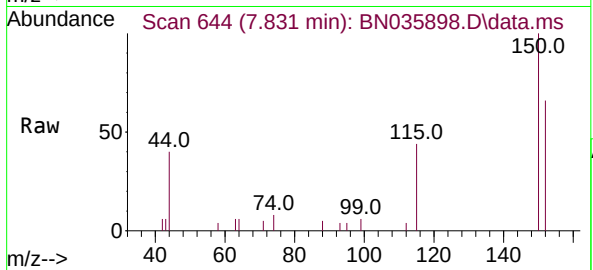




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.831 min Scan# 64  
Delta R.T. -0.005 min  
Lab File: BN035898.D  
Acq: 07 Jan 2025 16:08

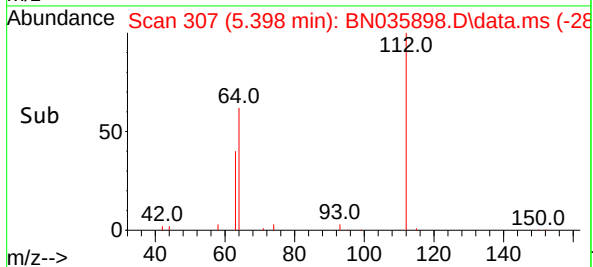
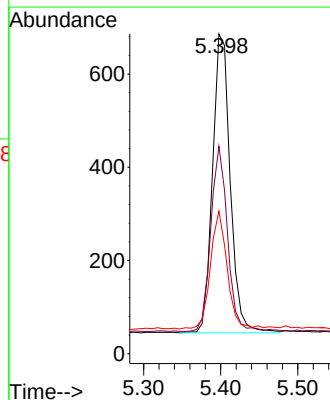
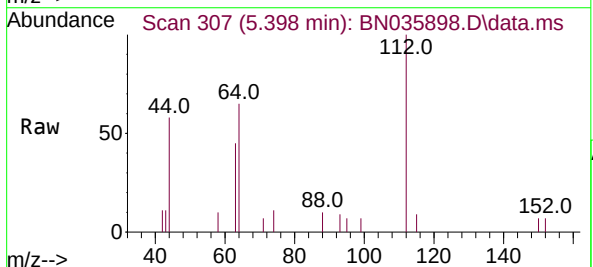
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BL

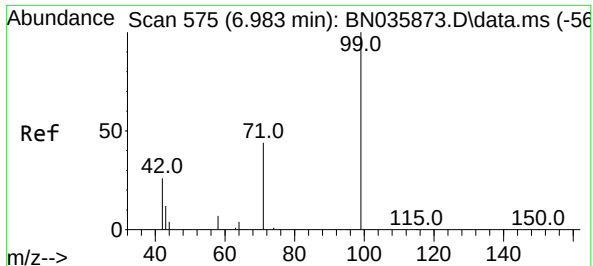
Tgt Ion:152 Resp: 1101  
Ion Ratio Lower Upper  
152 100  
150 152.4 117.8 176.6  
115 66.3 51.0 76.4



#4  
2-Fluorophenol  
Concen: 0.377 ng  
RT: 5.398 min Scan# 307  
Delta R.T. -0.011 min  
Lab File: BN035898.D  
Acq: 07 Jan 2025 16:08

Tgt Ion:112 Resp: 1018  
Ion Ratio Lower Upper  
112 100  
64 58.4 48.2 72.2  
63 38.0 30.0 45.0

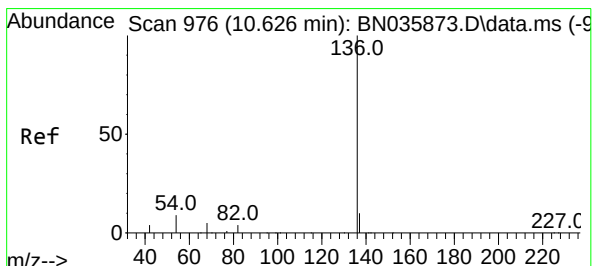
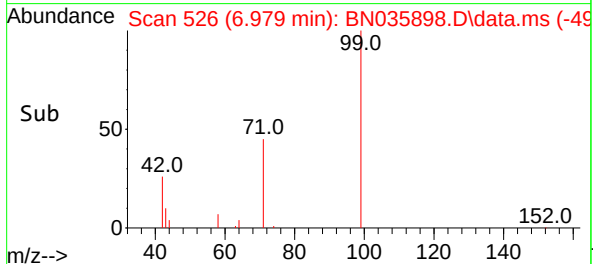
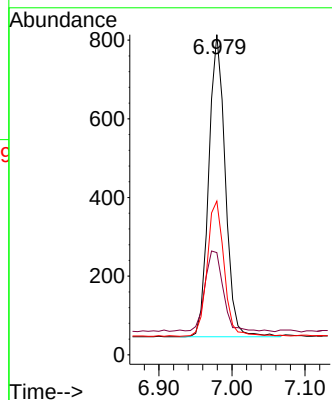
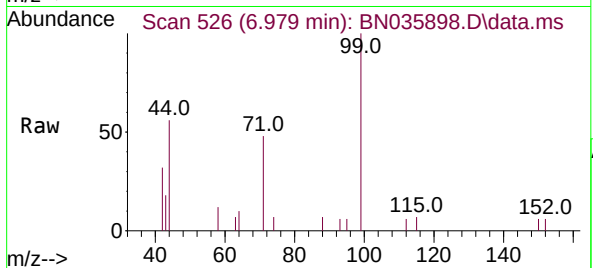




#5  
Phenol-d6  
Concen: 0.358 ng  
RT: 6.979 min Scan# 51  
Delta R.T. -0.004 min  
Lab File: BN035898.D  
Acq: 07 Jan 2025 16:08

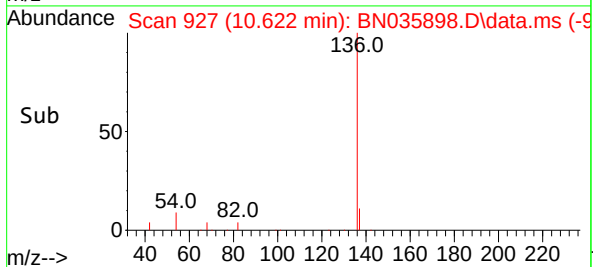
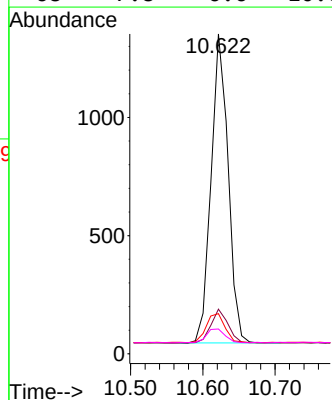
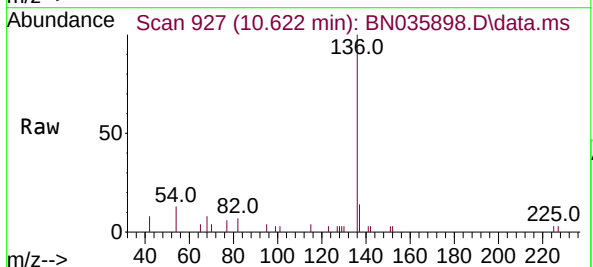
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BL

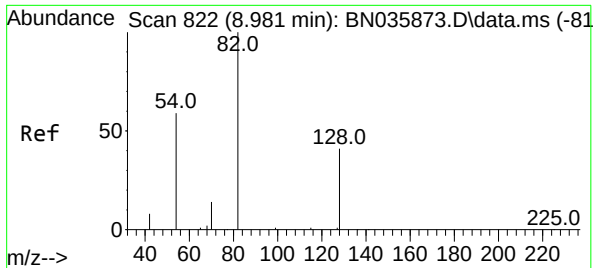
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 99    | Resp: | 1202  |
| Ion      | Ratio | Lower | Upper |
| 99       | 100   |       |       |
| 42       | 30.0  | 23.5  | 35.3  |
| 71       | 46.5  | 35.5  | 53.3  |



#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.622 min Scan# 927  
Delta R.T. -0.004 min  
Lab File: BN035898.D  
Acq: 07 Jan 2025 16:08

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 2139  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 14.0  | 10.6  | 15.8  |
| 54       | 12.6  | 9.8   | 14.6  |
| 68       | 7.8   | 6.6   | 10.0  |

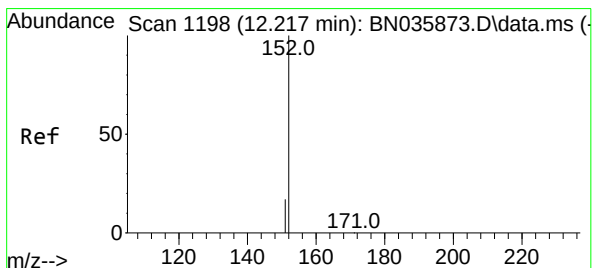
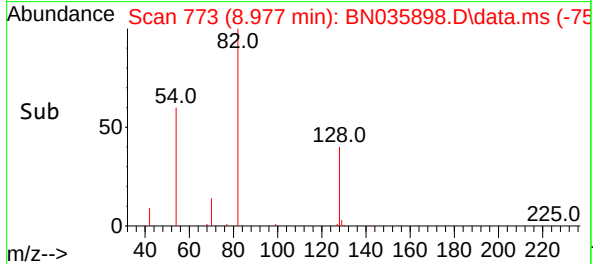
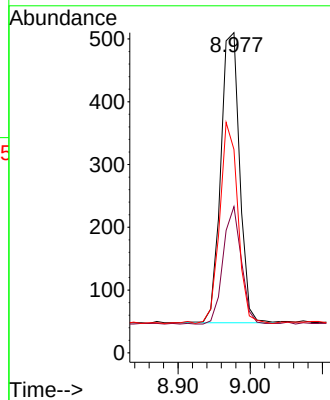
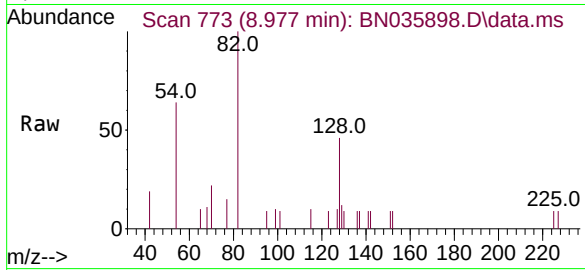




#8  
Nitrobenzene-d5  
Concen: 0.495 ng  
RT: 8.977 min Scan# 71  
Delta R.T. -0.004 min  
Lab File: BN035898.D  
Acq: 07 Jan 2025 16:08

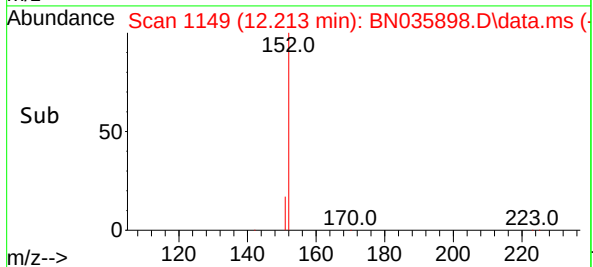
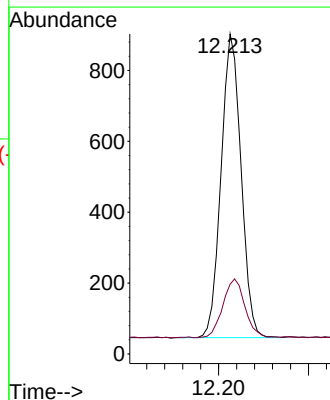
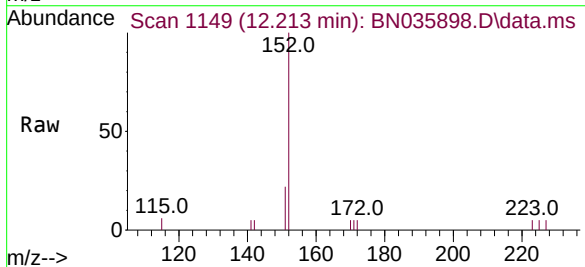
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BL

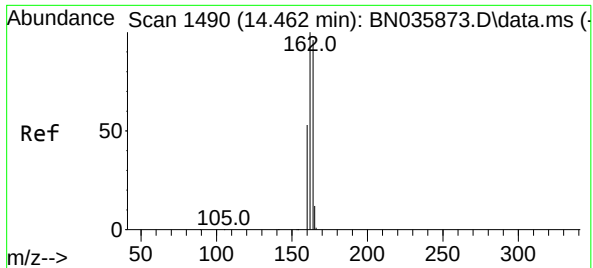
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 839   |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 45.7  | 36.9  | 55.3  |
| 54       | 63.5  | 50.4  | 75.6  |



#11  
2-Methylnaphthalene-d10  
Concen: 0.462 ng  
RT: 12.213 min Scan# 1149  
Delta R.T. -0.004 min  
Lab File: BN035898.D  
Acq: 07 Jan 2025 16:08

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 152   | Resp: | 1323  |
| Ion      | Ratio | Lower | Upper |
| 152      | 100   |       |       |
| 151      | 21.5  | 17.0  | 25.6  |

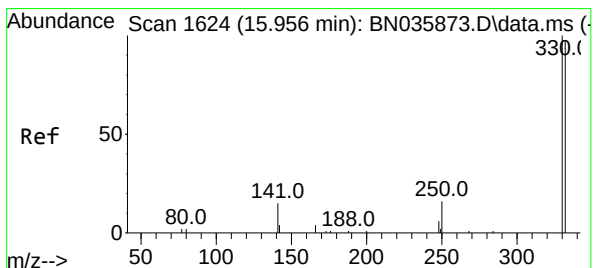
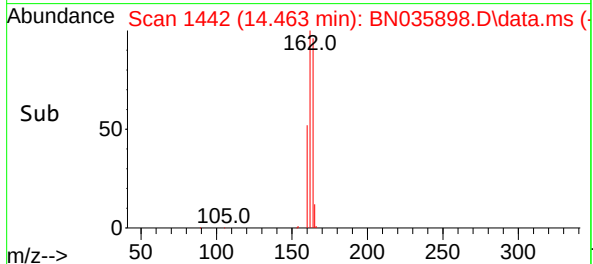
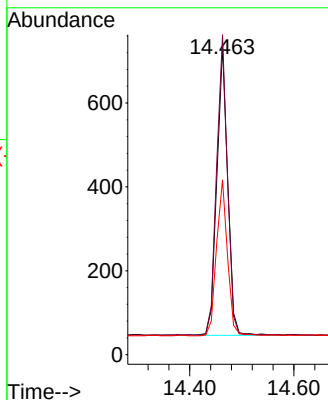
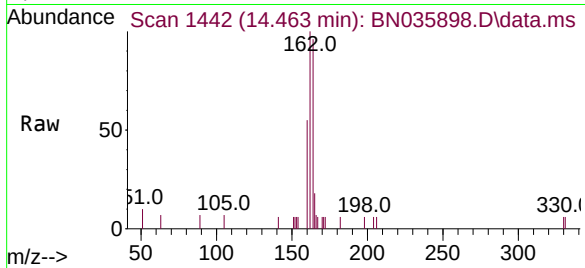




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.463 min Scan# 14  
Delta R.T. 0.001 min  
Lab File: BN035898.D  
Acq: 07 Jan 2025 16:08

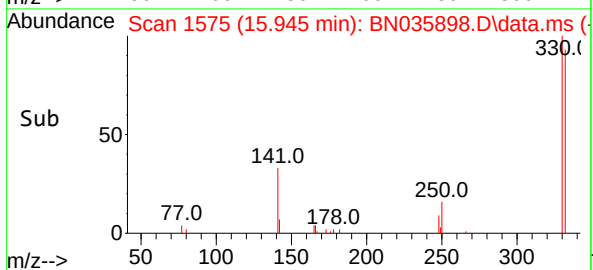
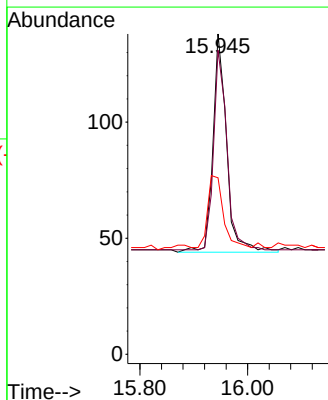
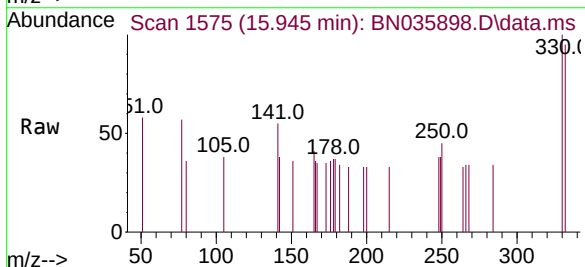
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BL

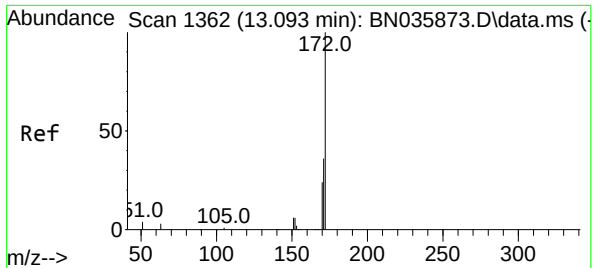
| Tgt Ion | 164   | Resp: | 1003  |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 164     | 100   |       |       |
| 162     | 103.8 | 83.1  | 124.7 |
| 160     | 56.7  | 46.0  | 69.0  |



#14  
2,4,6-Tribromophenol  
Concen: 0.345 ng  
RT: 15.945 min Scan# 1575  
Delta R.T. -0.011 min  
Lab File: BN035898.D  
Acq: 07 Jan 2025 16:08

| Tgt Ion | 330   | Resp: | 166   |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 330     | 100   |       |       |
| 332     | 88.6  | 77.2  | 115.8 |
| 141     | 38.6  | 31.6  | 47.4  |

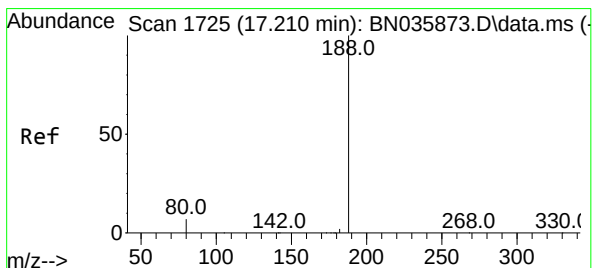
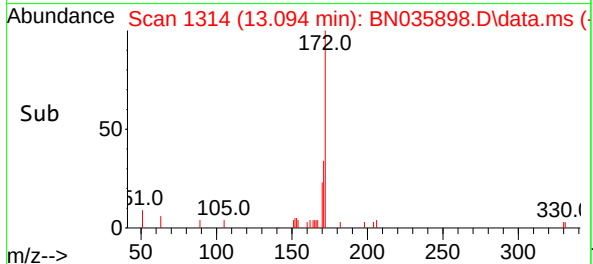
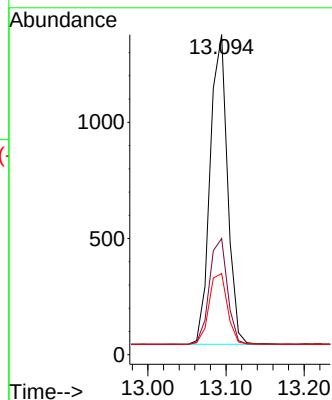
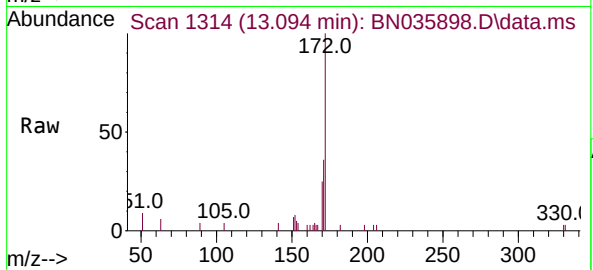




#15  
2-Fluorobiphenyl  
Concen: 0.467 ng  
RT: 13.094 min Scan# 11  
Delta R.T. 0.001 min  
Lab File: BN035898.D  
Acq: 07 Jan 2025 16:08

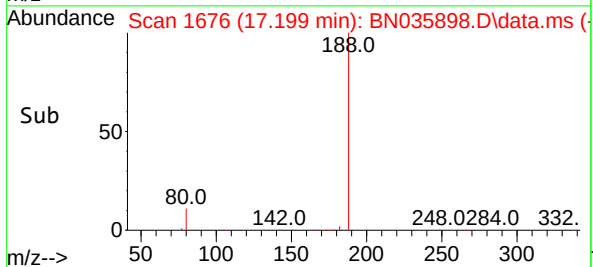
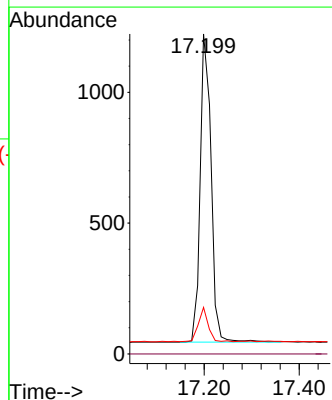
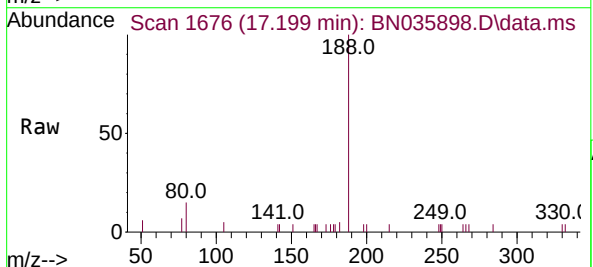
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BL

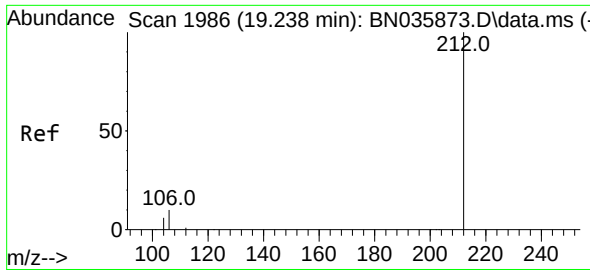
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 172     | 100   |       |       |
| 171     | 36.3  | 30.5  | 45.7  |
| 170     | 25.3  | 20.8  | 31.2  |



#19  
Phenanthrene-d10  
Concen: 0.400 ng  
RT: 17.199 min Scan# 1676  
Delta R.T. -0.011 min  
Lab File: BN035898.D  
Acq: 07 Jan 2025 16:08

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 188     | 100   |       |       |
| 94      | 0.0   | 0.0   | 0.0   |
| 80      | 14.6  | 7.3   | 10.9  |





#27

Fluoranthene-d10

Concen: 0.468 ng

RT: 19.234 min Scan# 19

Delta R.T. -0.004 min

Lab File: BN035898.D

Acq: 07 Jan 2025 16:08

Instrument :

BNA\_N

ClientSampleId :

PB165971BL

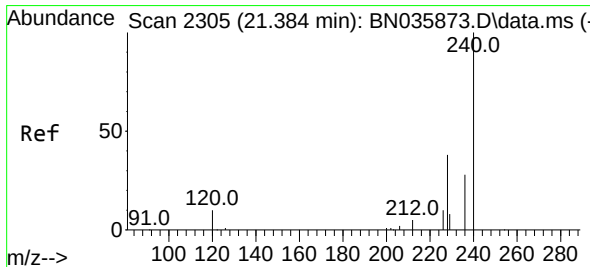
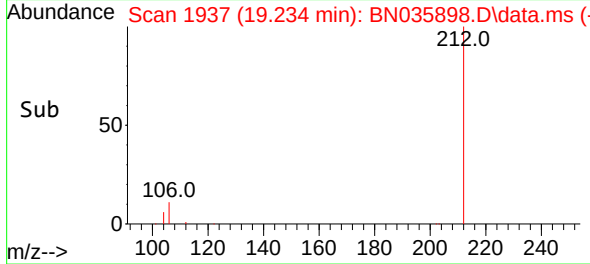
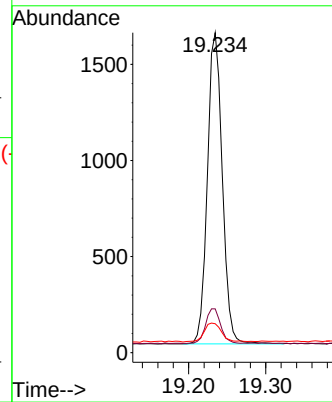
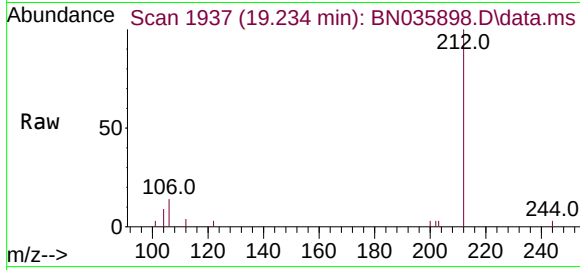
Tgt Ion:212 Resp: 2177

Ion Ratio Lower Upper

212 100

106 11.3 9.0 13.6

104 7.2 5.4 8.2



#29

Chrysene-d12

Concen: 0.400 ng

RT: 21.385 min Scan# 2257

Delta R.T. 0.001 min

Lab File: BN035898.D

Acq: 07 Jan 2025 16:08

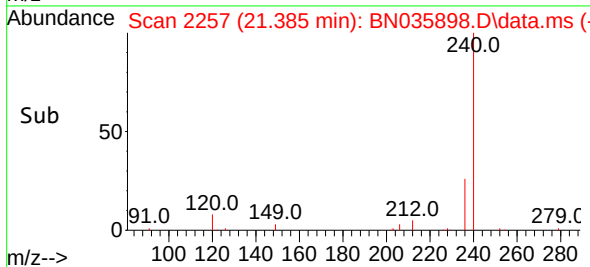
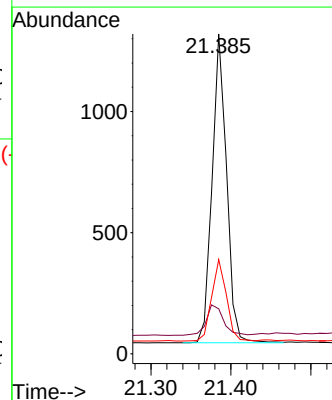
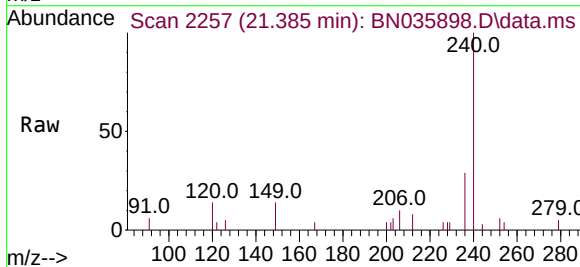
Tgt Ion:240 Resp: 1597

Ion Ratio Lower Upper

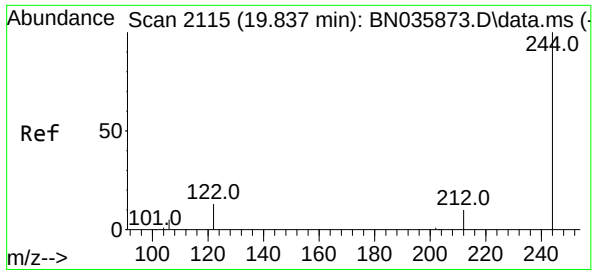
240 100

120 14.1 11.1 16.7

236 29.5 24.6 36.8



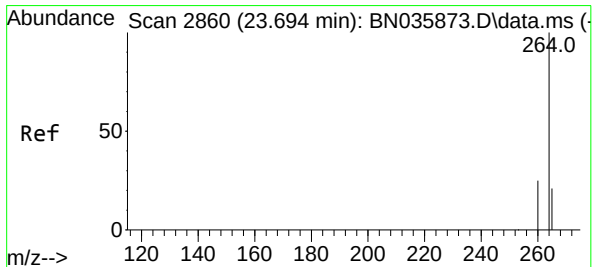
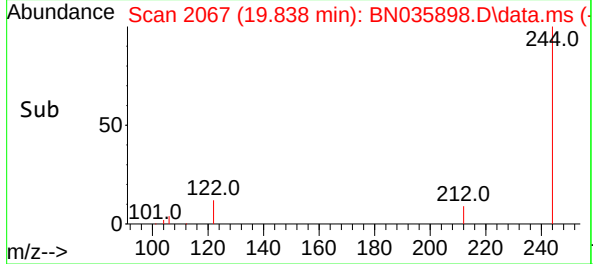
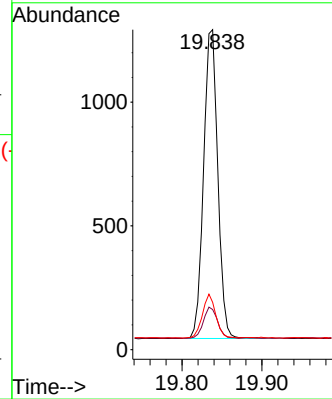
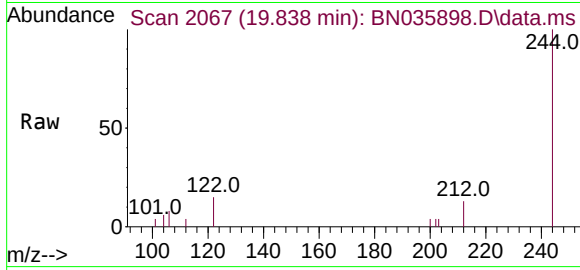




#31  
Terphenyl-d14  
Concen: 0.482 ng  
RT: 19.838 min Scan# 2067  
Delta R.T. 0.001 min  
Lab File: BN035898.D  
Acq: 07 Jan 2025 16:08

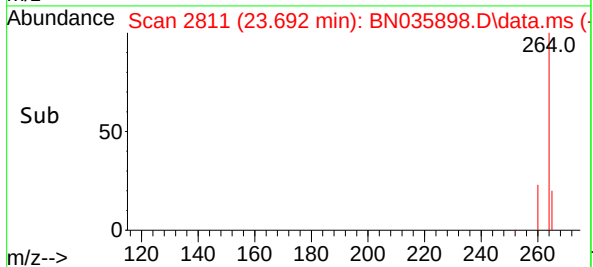
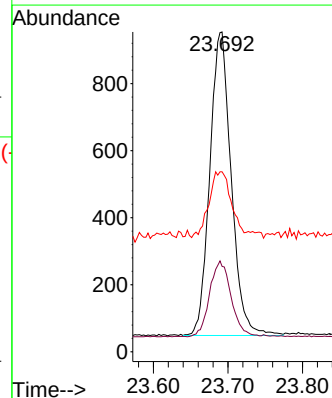
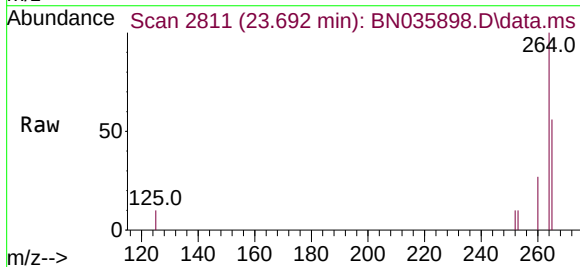
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BL

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 12.5  | 10.1  | 15.1  |
| 122     | 14.8  | 12.2  | 18.4  |



#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.692 min Scan# 2811  
Delta R.T. -0.002 min  
Lab File: BN035898.D  
Acq: 07 Jan 2025 16:08

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 264     | 100   |       |       |
| 260     | 26.7  | 21.7  | 32.5  |
| 265     | 56.3  | 33.9  | 50.9  |



## Report of Analysis

|                    |                        |                 |                |
|--------------------|------------------------|-----------------|----------------|
| Client:            | Tetra Tech NUS, Inc.   | Date Collected: |                |
| Project:           | CTO WE13               | Date Received:  |                |
| Client Sample ID:  | PB165971BS             | SDG No.:        | Q1022          |
| Lab Sample ID:     | PB165971BS             | Matrix:         | Water          |
| Analytical Method: | SW8270ESIM             | % Solid:        | 0              |
| Sample Wt/Vol:     | 1000      Units:    mL | Final Vol:      | 1000      uL   |
| Soil Aliquot Vol:  | uL                     | Test:           | SVOC-SIMGroup1 |
| Extraction Type :  | Decanted :    N        | Level :         | LOW            |
| Injection Volume : | GPC Factor :    1.0    | GPC Cleanup :   | N      PH :    |
| Prep Method :      |                        |                 |                |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BN035900.D        | 1         | 01/07/25 11:00 | 01/07/25 17:19 | PB165971      |

| CAS Number                | Parameter               | Conc. | Qualifier | MDL      | LOD  | LOQ / CRQL | Units    |
|---------------------------|-------------------------|-------|-----------|----------|------|------------|----------|
| <b>TARGETS</b>            |                         |       |           |          |      |            |          |
| 123-91-1                  | 1,4-Dioxane             | 0.42  |           | 0.070    | 0.20 | 0.20       | ug/L     |
| <b>SURROGATES</b>         |                         |       |           |          |      |            |          |
| 7297-45-2                 | 2-Methylnaphthalene-d10 | 0.45  |           | 30 - 150 |      | 113%       | SPK: 0.4 |
| 93951-69-0                | Fluoranthene-d10        | 0.44  |           | 30 - 150 |      | 109%       | SPK: 0.4 |
| 4165-60-0                 | Nitrobenzene-d5         | 0.47  | *         | 55 - 111 |      | 116%       | SPK: 0.4 |
| 321-60-8                  | 2-Fluorobiphenyl        | 0.46  | *         | 53 - 106 |      | 115%       | SPK: 0.4 |
| 1718-51-0                 | Terphenyl-d14           | 0.46  |           | 58 - 132 |      | 114%       | SPK: 0.4 |
| <b>INTERNAL STANDARDS</b> |                         |       |           |          |      |            |          |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4  | 1720  | 7.832     |          |      |            |          |
| 1146-65-2                 | Naphthalene-d8          | 3310  | 10.622    |          |      |            |          |
| 15067-26-2                | Acenaphthene-d10        | 1500  | 14.463    |          |      |            |          |
| 1517-22-2                 | Phenanthrene-d10        | 2600  | 17.199    |          |      |            |          |
| 1719-03-5                 | Chrysene-d12            | 2180  | 21.385    |          |      |            |          |
| 1520-96-3                 | Perylene-d12            | 2470  | 23.683    |          |      |            |          |

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
 Data File : BN035900.D  
 Acq On : 07 Jan 2025 17:19  
 Operator : RC/JU  
 Sample : PB165971BS  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB165971BS

Quant Time: Jan 07 17:46:08 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

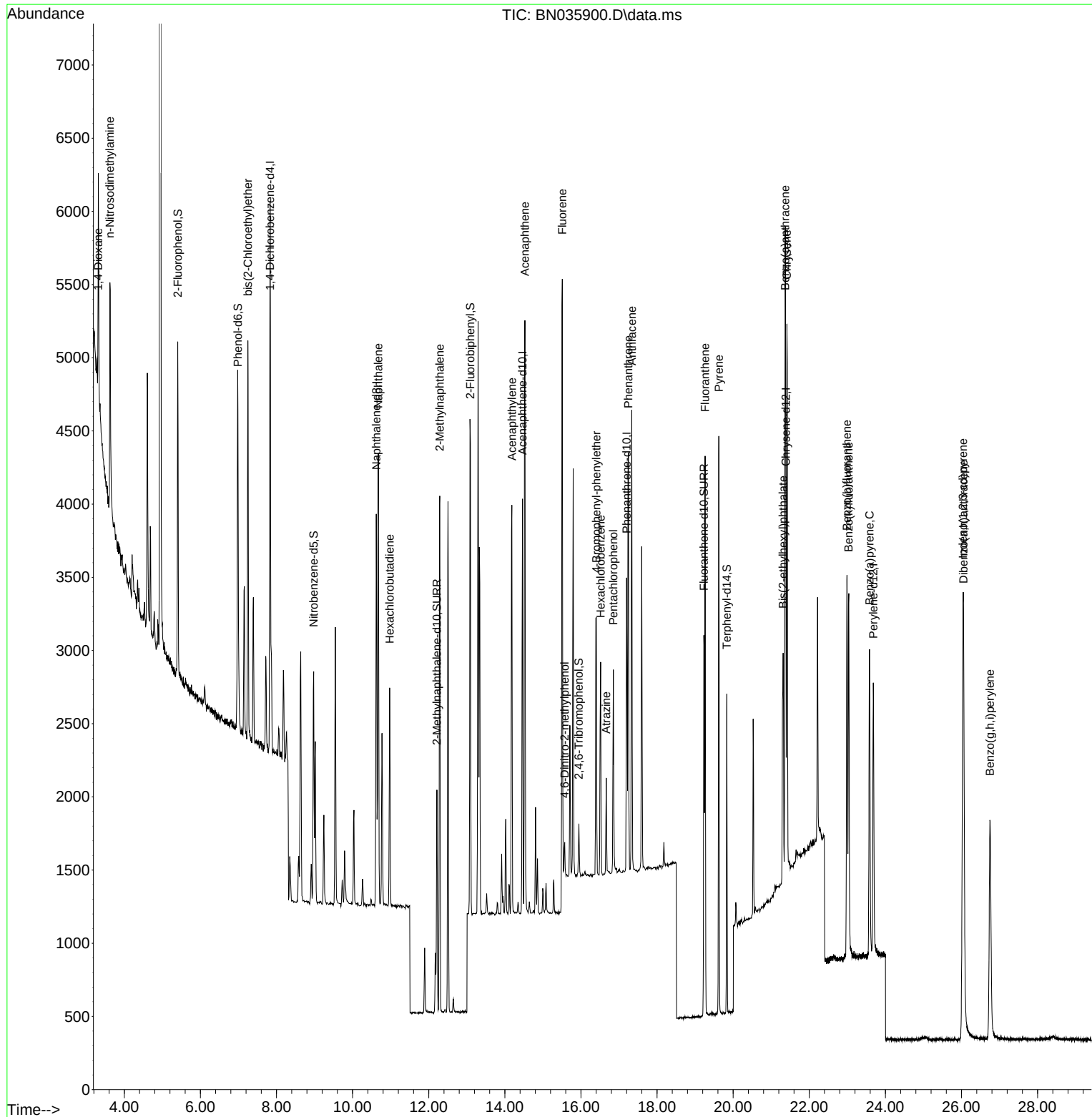
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.832  | 152  | 1718     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.622 | 136  | 3309     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.463 | 164  | 1504     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.199 | 188  | 2603     | 0.400 | ng    | #-0.01   |
| 29) Chrysene-d12              | 21.385 | 240  | 2176     | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 23.683 | 264  | 2465     | 0.400 | ng    | #-0.01   |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.405  | 112  | 1585     | 0.376 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.987  | 99   | 1901     | 0.363 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.977  | 82   | 1219     | 0.465 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.213 | 152  | 2002     | 0.452 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.945 | 330  | 200      | 0.277 | ng    | -0.01    |
| 15) 2-Fluorobiphenyl          | 13.094 | 172  | 3028     | 0.459 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.230 | 212  | 2818     | 0.436 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.834 | 244  | 1974     | 0.455 | ng    | 0.00     |
| Target Compounds              |        |      |          |       |       |          |
| 2) 1,4-Dioxane                | 3.318  | 88   | 714      | 0.418 | ng    | # 78     |
| 3) n-Nitrosodimethylamine     | 3.621  | 42   | 1286     | 0.432 | ng    | 98       |
| 6) bis(2-Chloroethyl)ether    | 7.247  | 93   | 1848     | 0.463 | ng    | 97       |
| 9) Naphthalene                | 10.675 | 128  | 3892     | 0.419 | ng    | 98       |
| 10) Hexachlorobutadiene       | 10.974 | 225  | 1205     | 0.400 | ng    | # 99     |
| 12) 2-Methylnaphthalene       | 12.289 | 142  | 2359     | 0.410 | ng    | 98       |
| 16) Acenaphthylene            | 14.185 | 152  | 3210     | 0.453 | ng    | 99       |
| 17) Acenaphthene              | 14.527 | 154  | 2037     | 0.439 | ng    | 98       |
| 18) Fluorene                  | 15.511 | 166  | 1959     | 0.383 | ng    | 99       |
| 20) 4,6-Dinitro-2-methylph... | 15.573 | 198  | 187      | 0.414 | ng    | 90       |
| 21) 4-Bromophenyl-phenylether | 16.404 | 248  | 779      | 0.437 | ng    | # 82     |
| 22) Hexachlorobenzene         | 16.516 | 284  | 1069     | 0.439 | ng    | 98       |
| 23) Atrazine                  | 16.665 | 200  | 489      | 0.408 | ng    | # 92     |
| 24) Pentachlorophenol         | 16.851 | 266  | 669      | 0.777 | ng    | 98       |
| 25) Phenanthrene              | 17.248 | 178  | 3336     | 0.439 | ng    | 99       |
| 26) Anthracene                | 17.335 | 178  | 3103     | 0.449 | ng    | 98       |
| 28) Fluoranthene              | 19.262 | 202  | 3387     | 0.383 | ng    | 99       |
| 30) Pyrene                    | 19.625 | 202  | 3510     | 0.397 | ng    | 99       |
| 32) Benzo(a)anthracene        | 21.367 | 228  | 3182     | 0.415 | ng    | 99       |
| 33) Chrysene                  | 21.412 | 228  | 3238     | 0.404 | ng    | 96       |
| 34) Bis(2-ethylhexyl)phtha... | 21.313 | 149  | 1323     | 0.424 | ng    | 100      |
| 36) Indeno(1,2,3-cd)pyrene    | 26.040 | 276  | 4163     | 0.428 | ng    | 97       |
| 37) Benzo(b)fluoranthene      | 22.991 | 252  | 3413     | 0.403 | ng    | # 95     |
| 38) Benzo(k)fluoranthene      | 23.034 | 252  | 3434     | 0.410 | ng    | 96       |
| 39) Benzo(a)pyrene            | 23.584 | 252  | 3232     | 0.441 | ng    | 98       |
| 40) Dibenzo(a,h)anthracene    | 26.055 | 278  | 3234     | 0.418 | ng    | 97       |
| 41) Benzo(g,h,i)perylene      | 26.747 | 276  | 3403     | 0.394 | ng    | 97       |

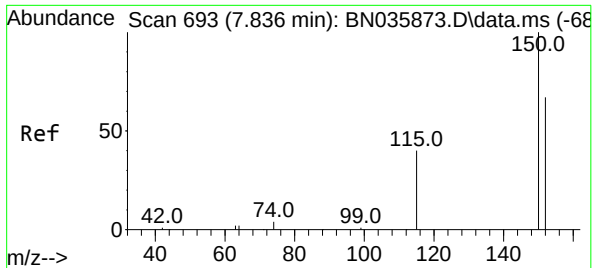
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035900.D  
Acq On : 07 Jan 2025 17:19  
Operator : RC/JU  
Sample : PB165971BS  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

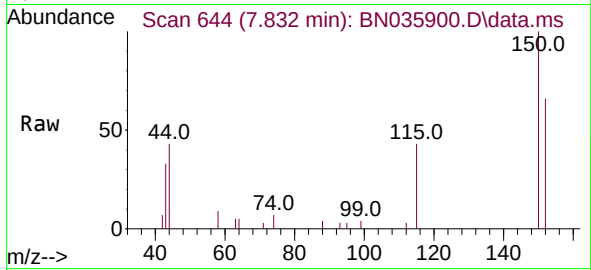
Quant Time: Jan 07 17:46:08 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration



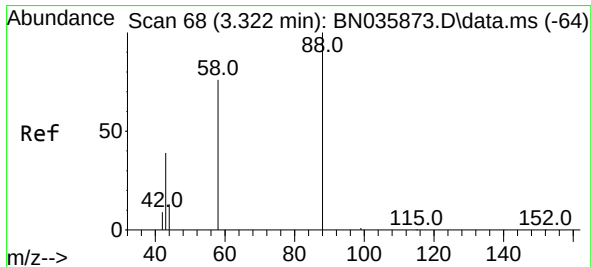
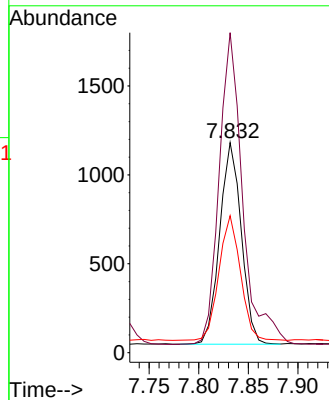
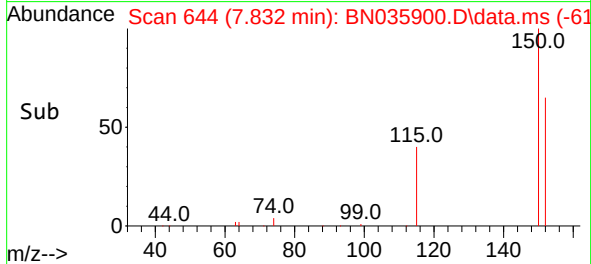


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 7.832 min Scan# 64  
 Delta R.T. -0.004 min  
 Lab File: BN035900.D  
 Acq: 07 Jan 2025 17:19

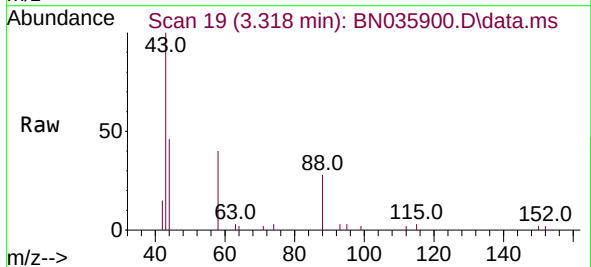
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB165971BS



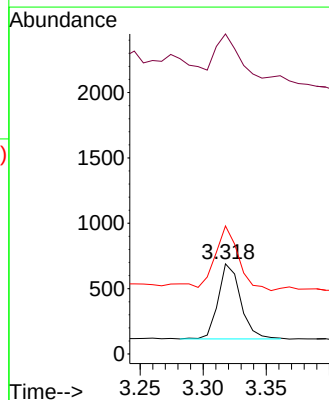
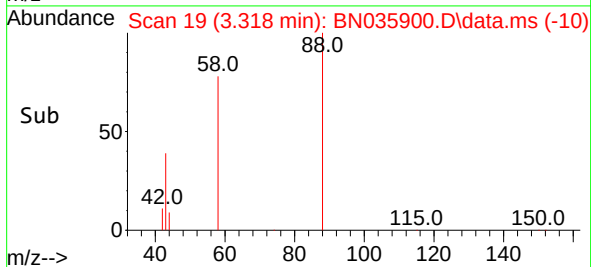
Tgt Ion:152 Resp: 1718  
 Ion Ratio Lower Upper  
 152 100  
 150 152.3 117.8 176.6  
 115 65.1 51.0 76.4



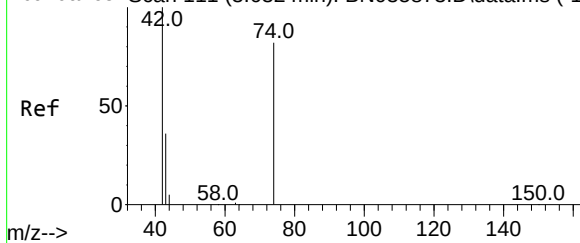
#2  
 1,4-Dioxane  
 Concen: 0.418 ng  
 RT: 3.318 min Scan# 19  
 Delta R.T. -0.004 min  
 Lab File: BN035900.D  
 Acq: 07 Jan 2025 17:19



Tgt Ion: 88 Resp: 714  
 Ion Ratio Lower Upper  
 88 100  
 43 53.4 32.7 49.1#  
 58 99.0 63.0 94.4#



Abundance Scan 111 (3.632 min): BN035873.D\data.ms (-10



#3

n-Nitrosodimethylamine

Concen: 0.432 ng

RT: 3.621 min Scan# 61

Delta R.T. -0.011 min

Lab File: BN035900.D

Acq: 07 Jan 2025 17:19

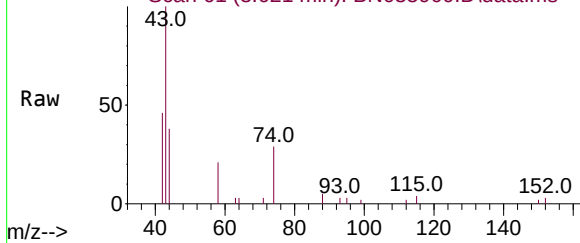
Instrument :

BNA\_N

ClientSampleId :

PB165971BS

Abundance Scan 61 (3.621 min): BN035900.D\data.ms



Tgt Ion: 42 Resp: 1286

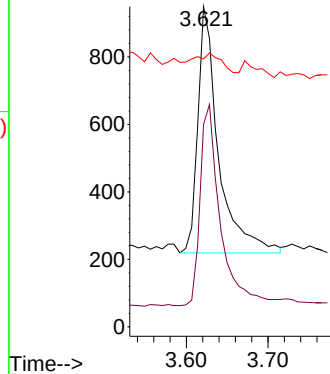
Ion Ratio Lower Upper

42 100

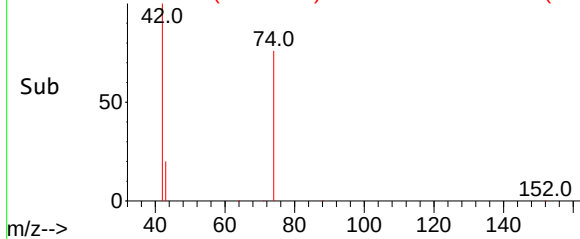
74 79.6 62.2 93.2

44 9.7 7.1 10.7

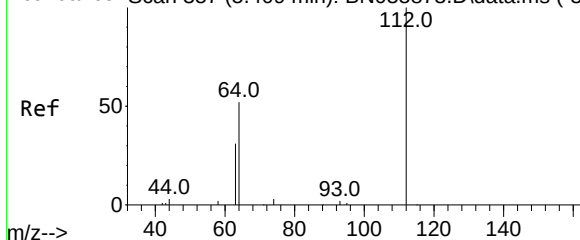
Abundance



Abundance Scan 61 (3.621 min): BN035900.D\data.ms (-42)



Abundance Scan 357 (5.409 min): BN035873.D\data.ms (-34



#4

2-Fluorophenol

Concen: 0.376 ng

RT: 5.405 min Scan# 308

Delta R.T. -0.004 min

Lab File: BN035900.D

Acq: 07 Jan 2025 17:19

Tgt Ion: 112 Resp: 1585

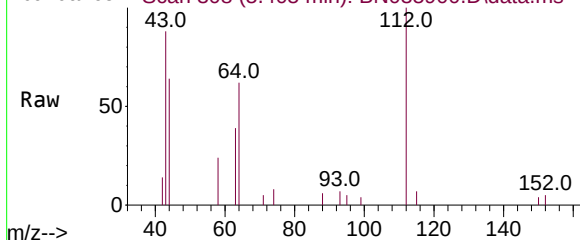
Ion Ratio Lower Upper

112 100

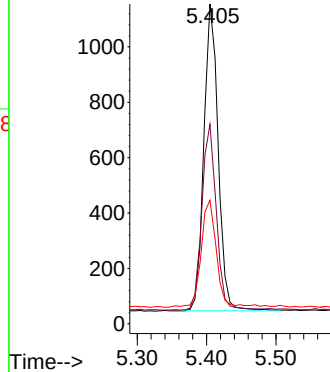
64 60.9 48.2 72.2

63 37.0 30.0 45.0

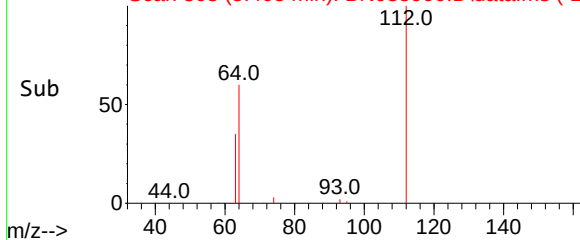
Abundance Scan 308 (5.405 min): BN035900.D\data.ms

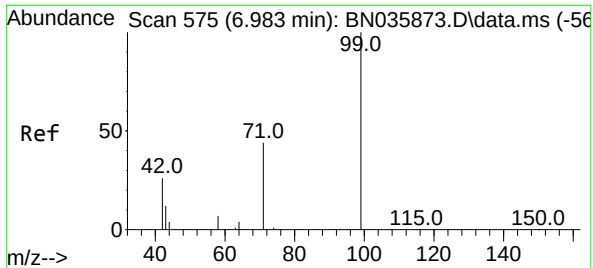


Abundance



Abundance Scan 308 (5.405 min): BN035900.D\data.ms (-28

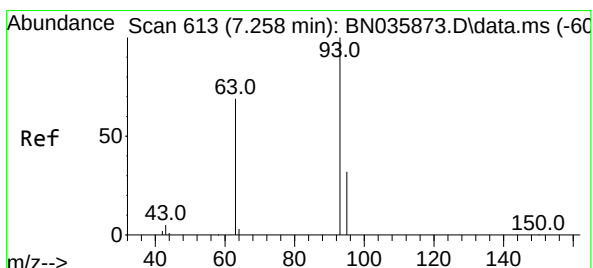
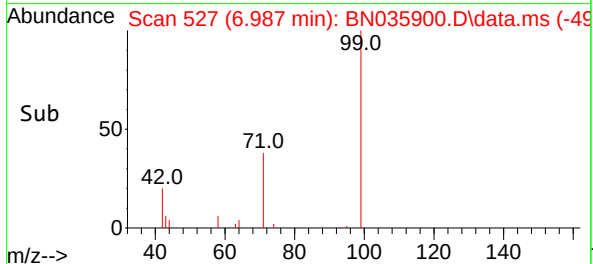
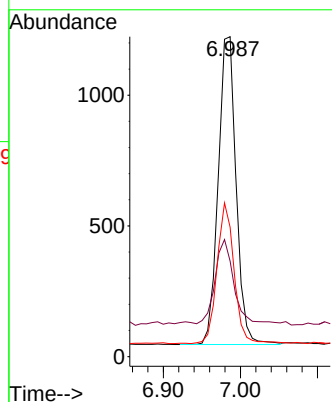
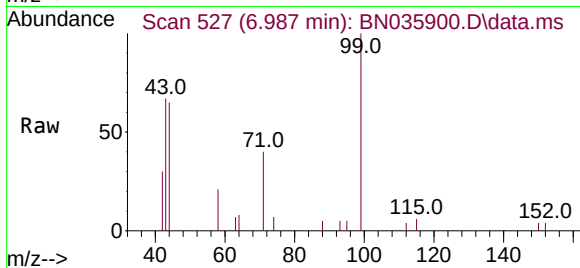




#5  
Phenol-d6  
Concen: 0.363 ng  
RT: 6.987 min Scan# 51  
Delta R.T. 0.003 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

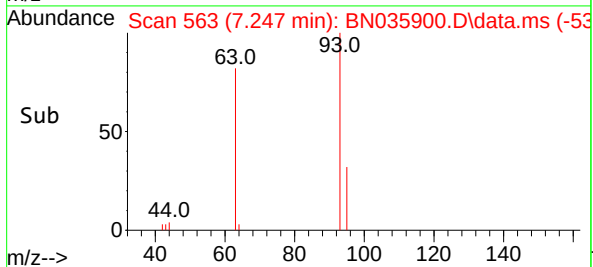
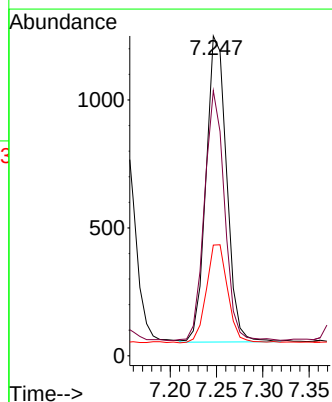
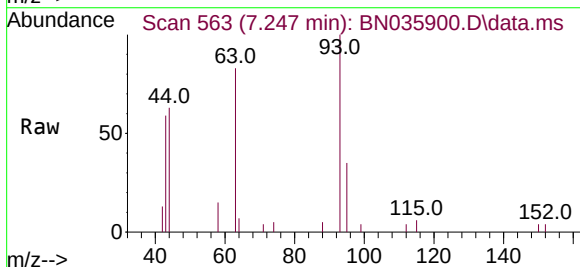
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

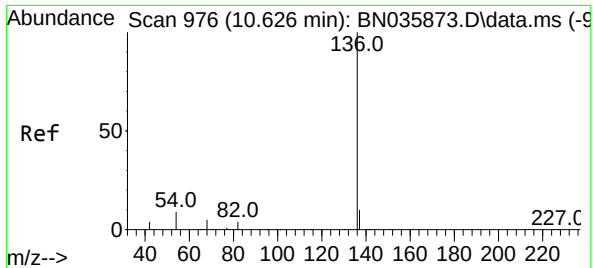
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 99      | 100   |       |       |
| 42      | 29.8  | 23.5  | 35.3  |
| 71      | 43.8  | 35.5  | 53.3  |



#6  
bis(2-Chloroethyl)ether  
Concen: 0.463 ng  
RT: 7.247 min Scan# 563  
Delta R.T. -0.011 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 93      | 100   |       |       |
| 63      | 79.7  | 62.0  | 93.0  |
| 95      | 33.5  | 25.5  | 38.3  |

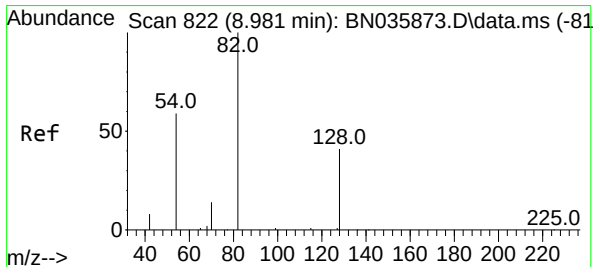
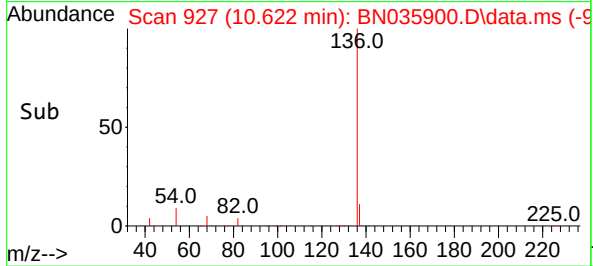
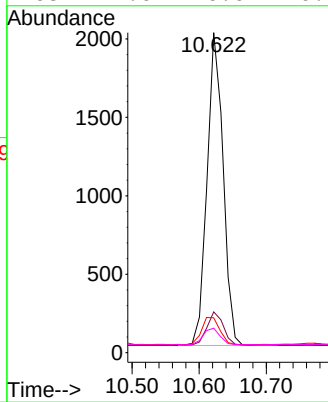
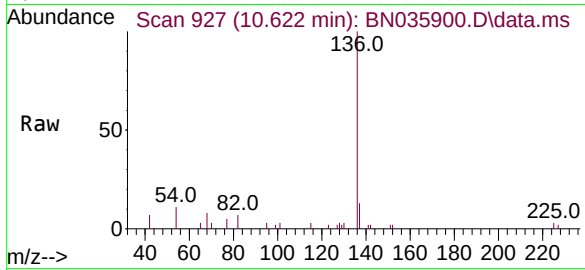




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.622 min Scan# 91  
Delta R.T. -0.004 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

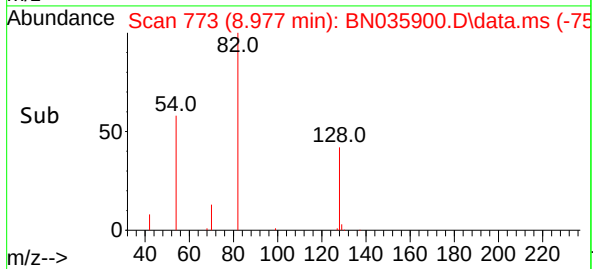
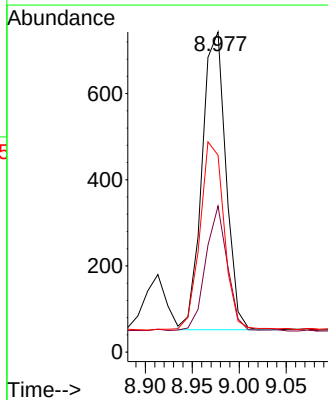
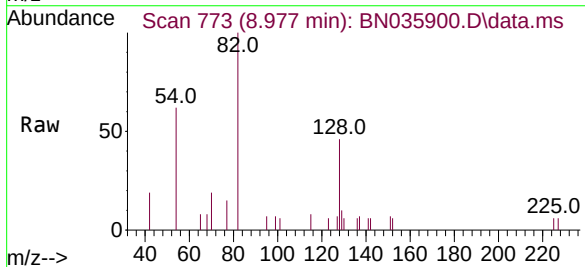
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 3309  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 12.7  | 10.6  | 15.8  |
| 54       | 10.9  | 9.8   | 14.6  |
| 68       | 7.6   | 6.6   | 10.0  |

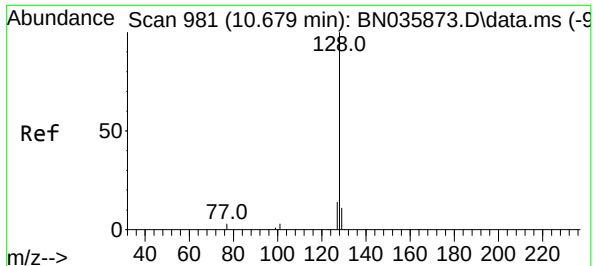


#8  
Nitrobenzene-d5  
Concen: 0.465 ng  
RT: 8.977 min Scan# 773  
Delta R.T. -0.004 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 1219  |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 45.6  | 36.9  | 55.3  |
| 54       | 61.5  | 50.4  | 75.6  |



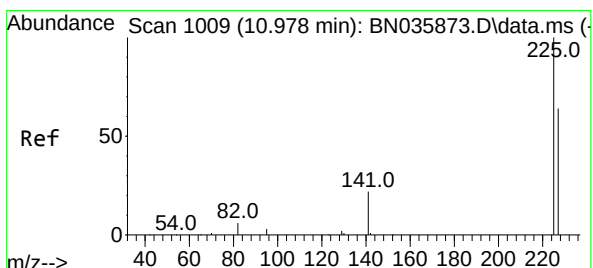
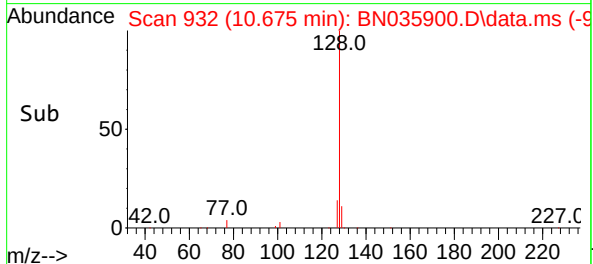
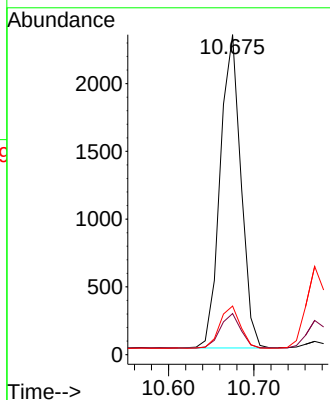
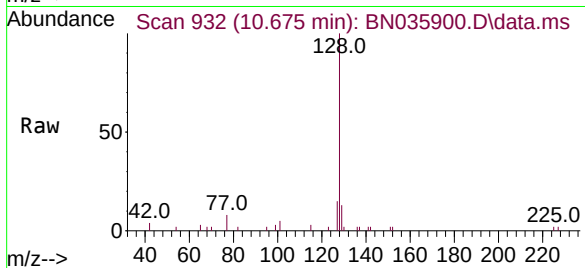




#9  
Naphthalene  
Concen: 0.419 ng  
RT: 10.675 min Scan# 91  
Delta R.T. -0.004 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

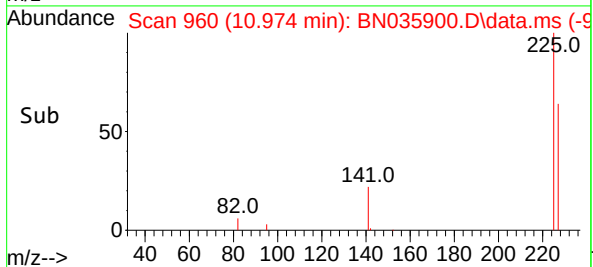
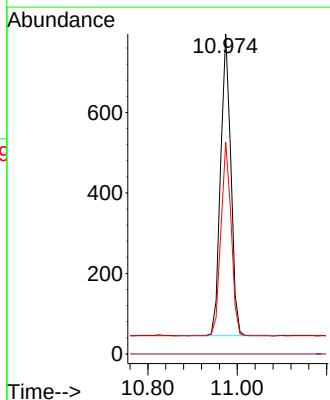
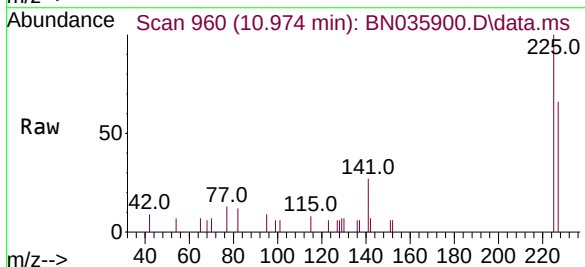
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

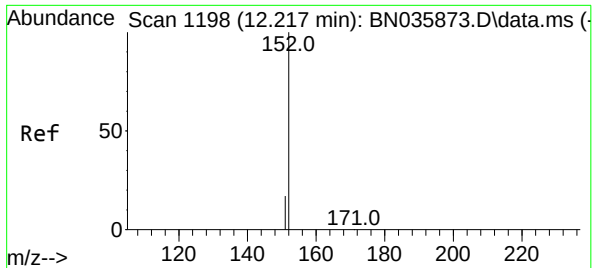
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 128   | Resp: | 3892  |
| Ion      | Ratio | Lower | Upper |
| 128      | 100   |       |       |
| 129      | 12.8  | 10.6  | 16.0  |
| 127      | 15.2  | 12.8  | 19.2  |



#10  
Hexachlorobutadiene  
Concen: 0.400 ng  
RT: 10.974 min Scan# 960  
Delta R.T. -0.004 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 225   | Resp: | 1205  |
| Ion      | Ratio | Lower | Upper |
| 225      | 100   |       |       |
| 223      | 0.0   | 0.0   | 0.0   |
| 227      | 63.4  | 51.5  | 77.3  |

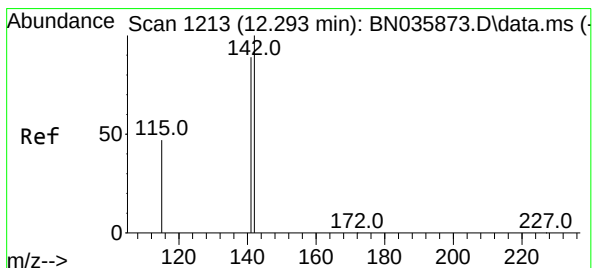
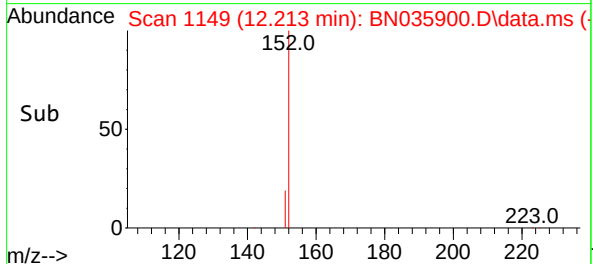
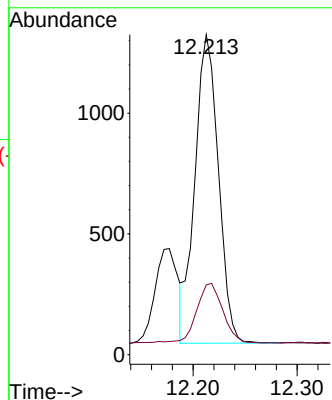
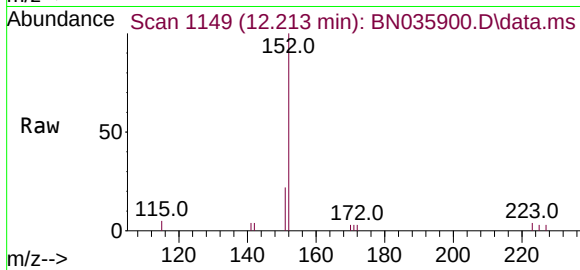




#11  
2-Methylnaphthalene-d10  
Concen: 0.452 ng  
RT: 12.213 min Scan# 1198  
Delta R.T. -0.004 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

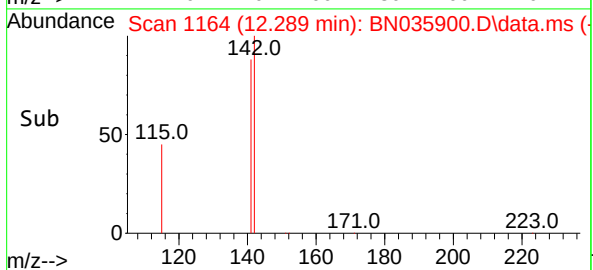
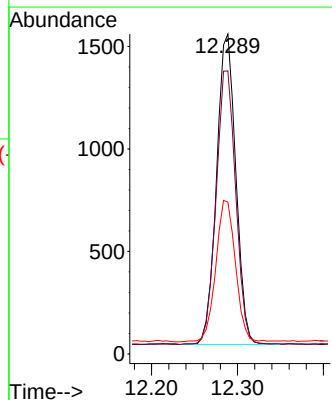
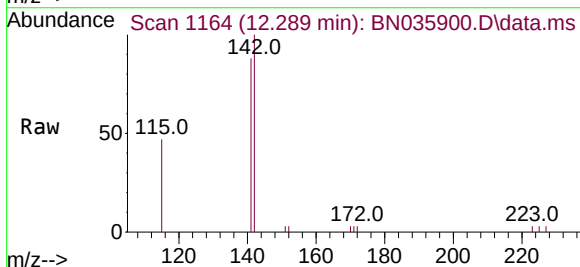
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

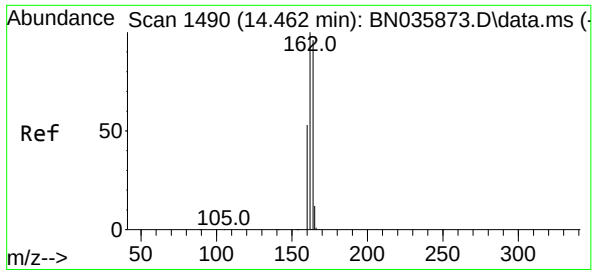
Tgt Ion:152 Resp: 2002  
Ion Ratio Lower Upper  
152 100  
151 21.8 17.0 25.6



#12  
2-Methylnaphthalene  
Concen: 0.410 ng  
RT: 12.289 min Scan# 1164  
Delta R.T. -0.004 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

Tgt Ion:142 Resp: 2359  
Ion Ratio Lower Upper  
142 100  
141 88.5 71.9 107.9  
115 47.5 39.6 59.4





#13

Acenaphthene-d10

Concen: 0.400 ng

RT: 14.463 min Scan# 14

Delta R.T. 0.001 min

Lab File: BN035900.D

Acq: 07 Jan 2025 17:19

Instrument :

BNA\_N

ClientSampleId :

PB165971BS

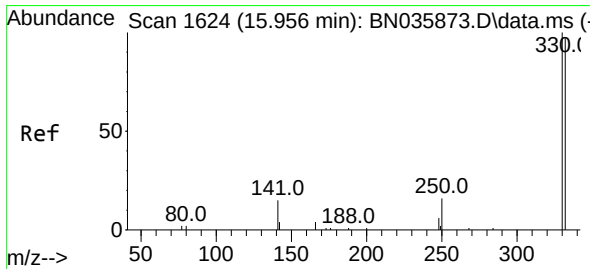
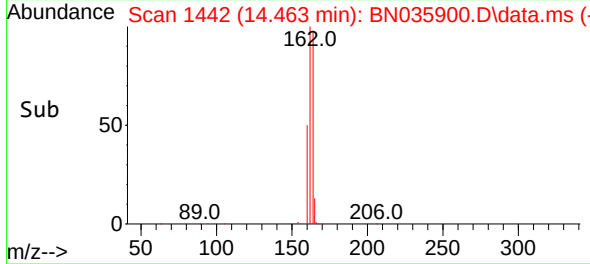
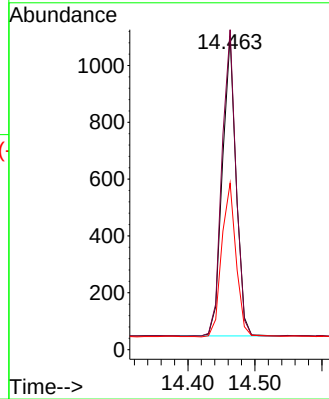
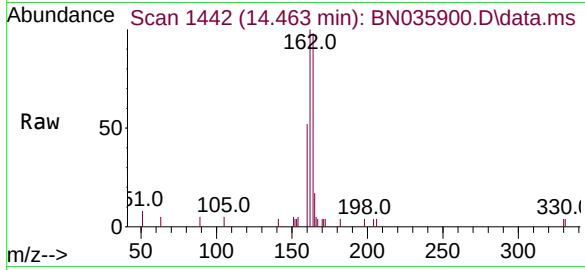
Tgt Ion:164 Resp: 1504

Ion Ratio Lower Upper

164 100

162 102.0 83.1 124.7

160 53.1 46.0 69.0



#14

2,4,6-Tribromophenol

Concen: 0.277 ng

RT: 15.945 min Scan# 1575

Delta R.T. -0.011 min

Lab File: BN035900.D

Acq: 07 Jan 2025 17:19

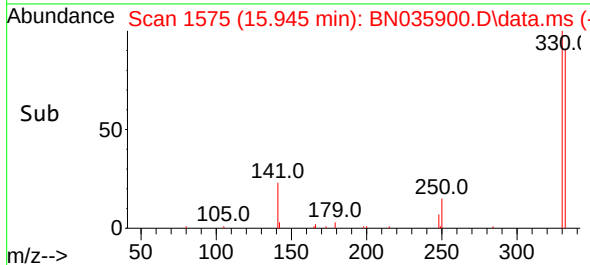
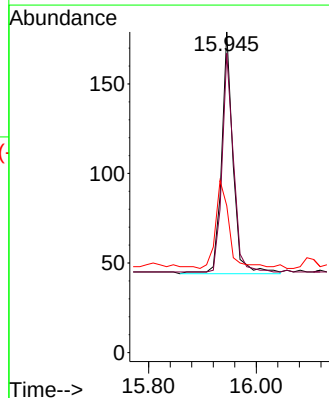
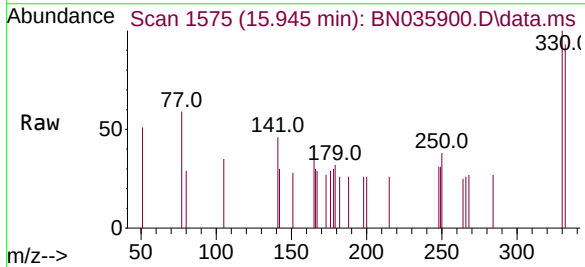
Tgt Ion:330 Resp: 200

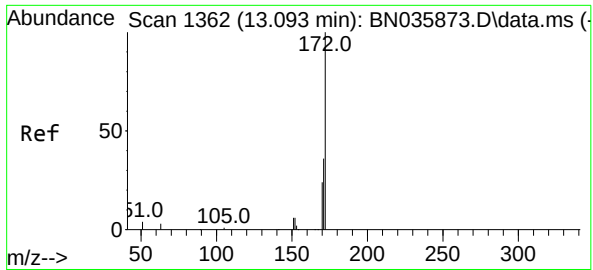
Ion Ratio Lower Upper

330 100

332 89.0 77.2 115.8

141 43.5 31.6 47.4

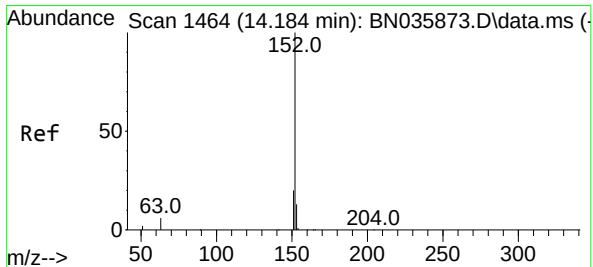
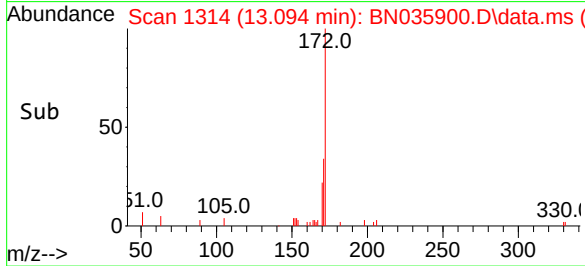
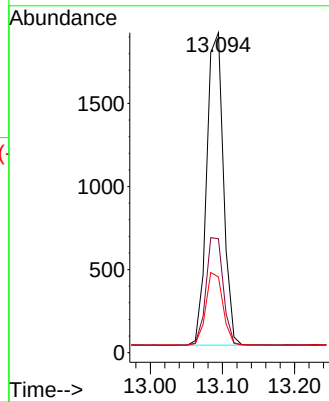
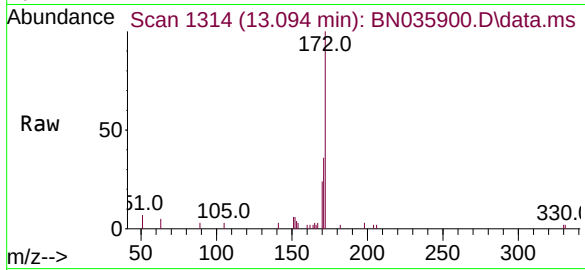




#15  
2-Fluorobiphenyl  
Concen: 0.459 ng  
RT: 13.094 min Scan# 11  
Delta R.T. 0.001 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

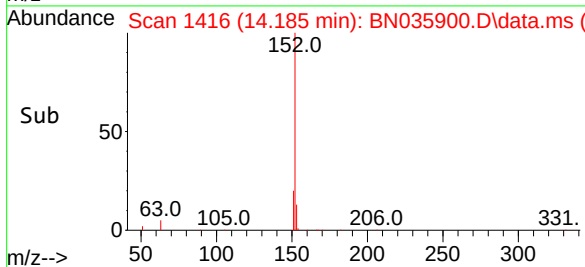
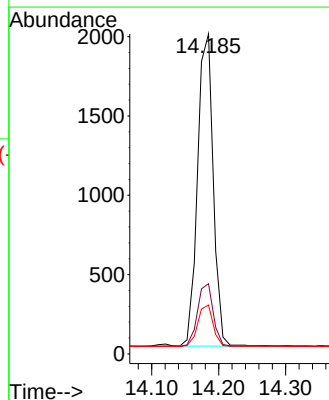
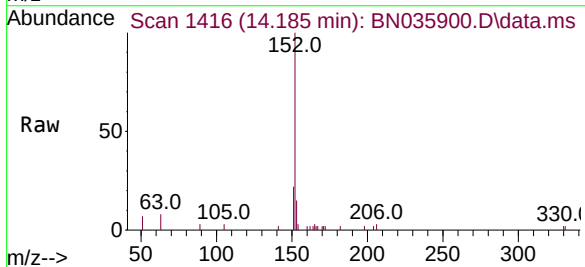
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

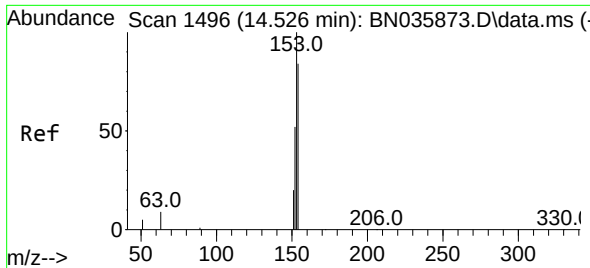
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 172   | Resp: | 3028 |
| Ion Ratio | Lower | Upper |      |
| 172       | 100   |       |      |
| 171       | 35.6  | 30.5  | 45.7 |
| 170       | 23.6  | 20.8  | 31.2 |



#16  
Acenaphthylene  
Concen: 0.453 ng  
RT: 14.185 min Scan# 1416  
Delta R.T. 0.001 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 152   | Resp: | 3210 |
| Ion Ratio | Lower | Upper |      |
| 152       | 100   |       |      |
| 151       | 19.9  | 16.3  | 24.5 |
| 153       | 13.1  | 10.6  | 15.8 |

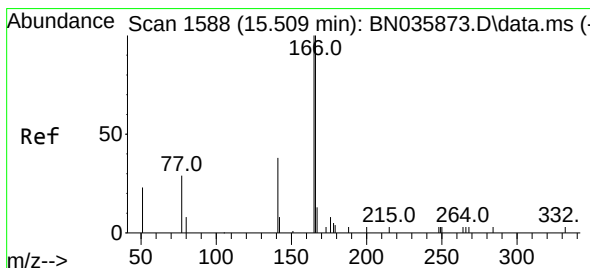
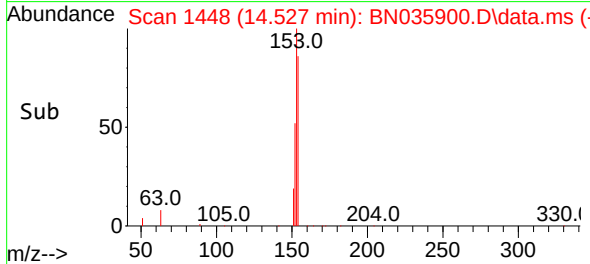
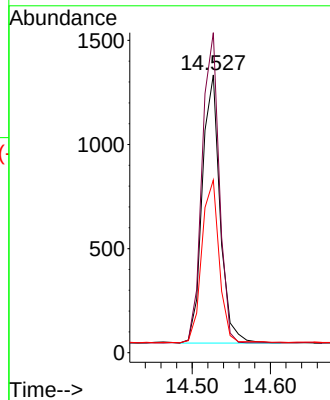
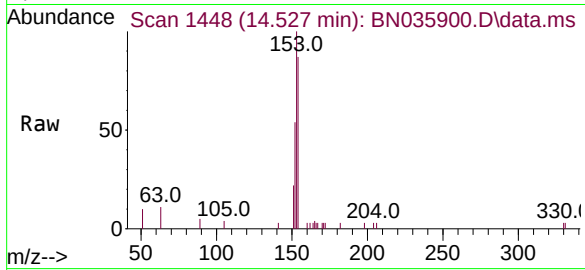




#17  
Acenaphthene  
Concen: 0.439 ng  
RT: 14.527 min Scan# 1496  
Delta R.T. 0.001 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

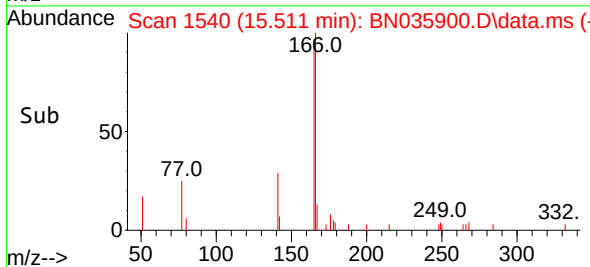
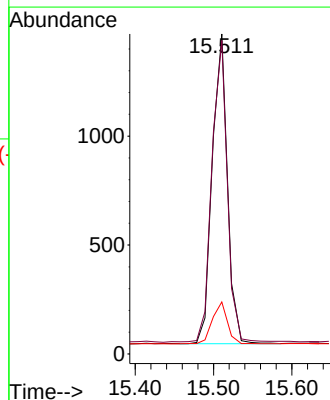
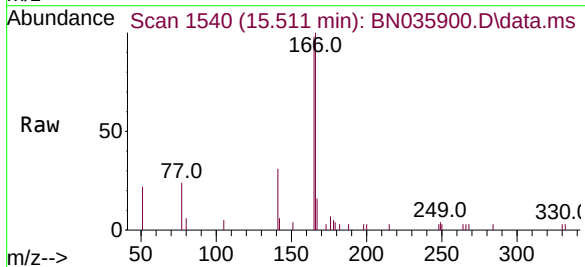
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

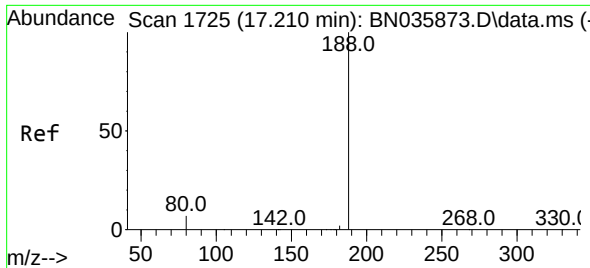
Tgt Ion:154 Resp: 2037  
Ion Ratio Lower Upper  
154 100  
153 111.1 90.5 135.7  
152 59.1 48.6 73.0



#18  
Fluorene  
Concen: 0.383 ng  
RT: 15.511 min Scan# 1540  
Delta R.T. 0.001 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

Tgt Ion:166 Resp: 1959  
Ion Ratio Lower Upper  
166 100  
165 99.5 80.6 120.8  
167 13.5 11.4 17.0

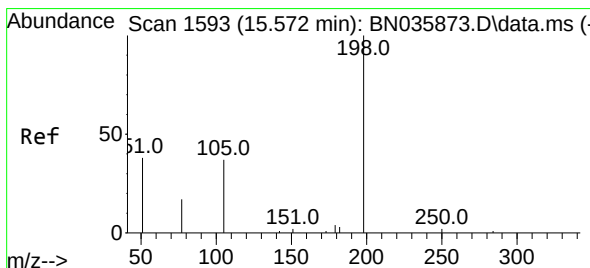
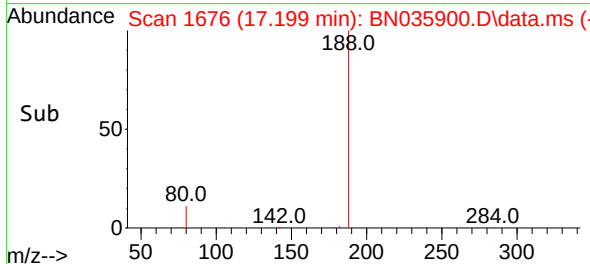
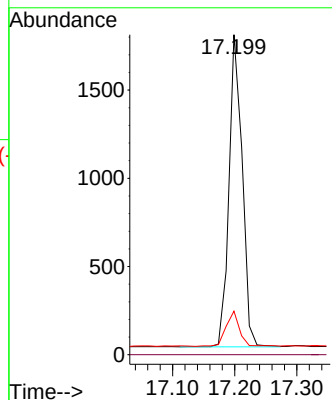
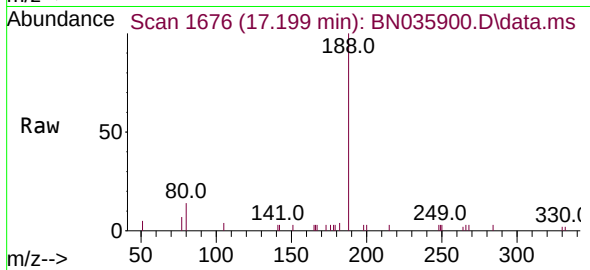




#19  
Phenanthrene-d10  
Concen: 0.400 ng  
RT: 17.199 min Scan# 11  
Delta R.T. -0.011 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

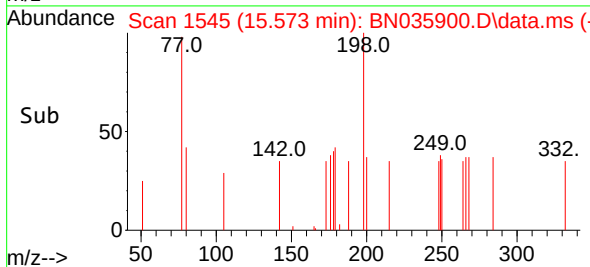
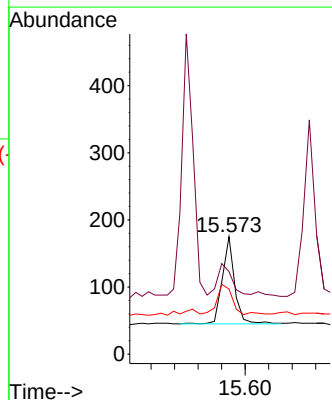
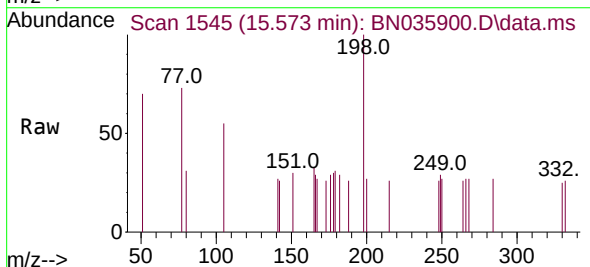
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

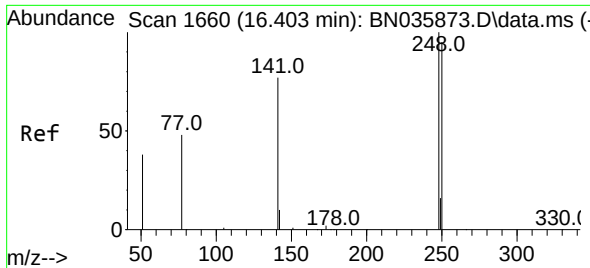
| Tgt Ion   | 188   | Resp  | 2603  |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 188       | 100   |       |       |
| 94        | 0.0   | 0.0   | 0.0   |
| 80        | 13.6  | 7.3   | 10.9# |



#20  
4,6-Dinitro-2-methylphenol  
Concen: 0.414 ng  
RT: 15.573 min Scan# 1545  
Delta R.T. 0.001 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

| Tgt Ion   | 198   | Resp  | 187  |
|-----------|-------|-------|------|
| Ion Ratio | Lower | Upper |      |
| 198       | 100   |       |      |
| 51        | 70.3  | 64.3  | 96.5 |
| 105       | 55.4  | 50.0  | 75.0 |

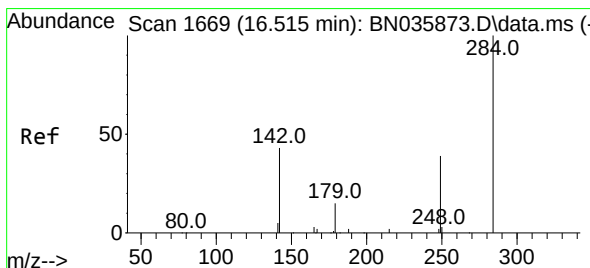
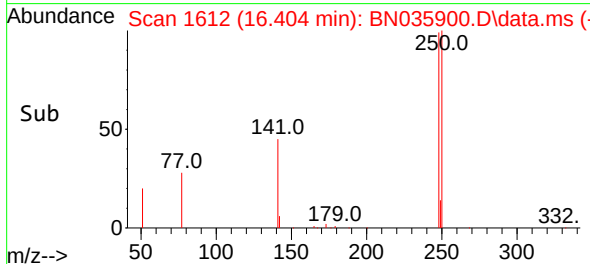
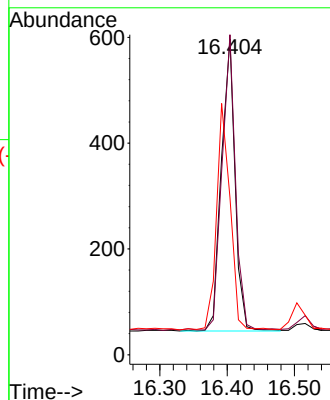
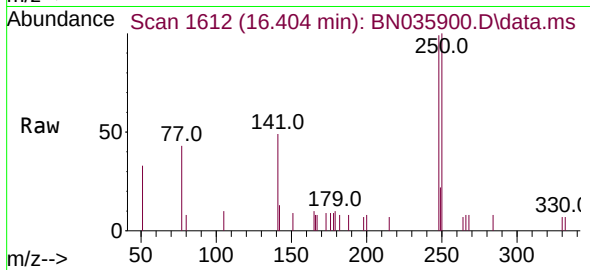




#21  
4-Bromophenyl-phenylether  
Concen: 0.437 ng  
RT: 16.404 min Scan# 1612  
Delta R.T. 0.001 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

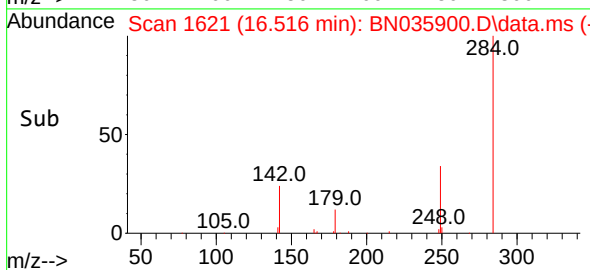
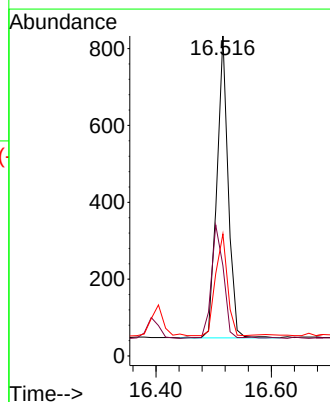
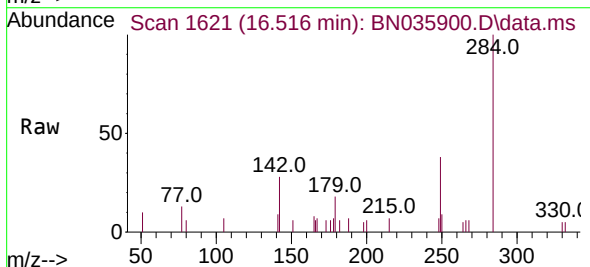
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

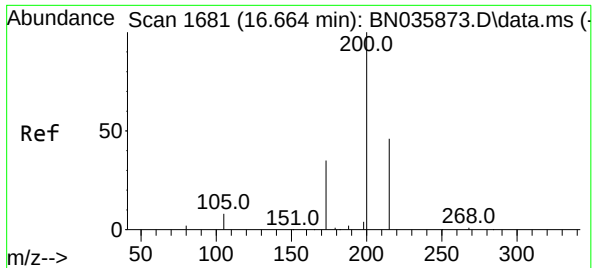
Tgt Ion:248 Resp: 779  
Ion Ratio Lower Upper  
248 100  
250 101.3 76.8 115.2  
141 49.7 63.6 95.4#



#22  
Hexachlorobenzene  
Concen: 0.439 ng  
RT: 16.516 min Scan# 1621  
Delta R.T. 0.001 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

Tgt Ion:284 Resp: 1069  
Ion Ratio Lower Upper  
284 100  
142 40.6 31.4 47.0  
249 35.3 27.8 41.8

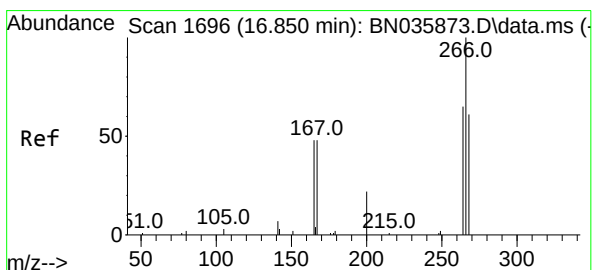
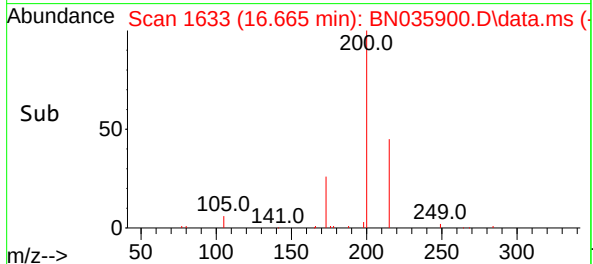
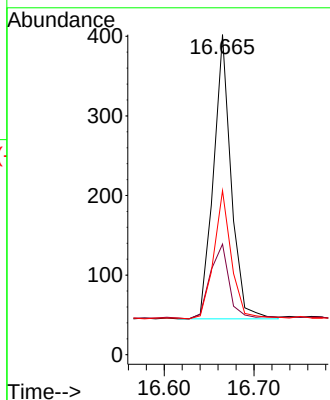
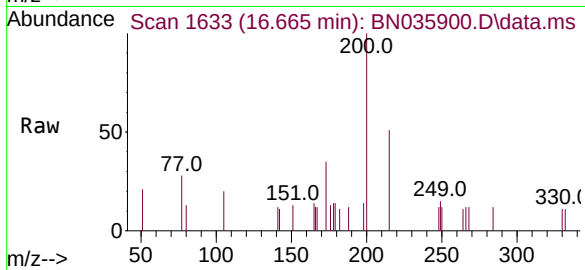




#23  
Atrazine  
Concen: 0.408 ng  
RT: 16.665 min Scan# 1648  
Delta R.T. 0.001 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

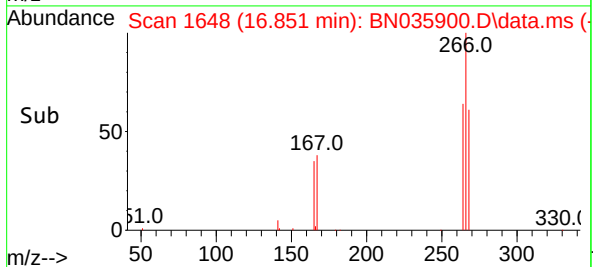
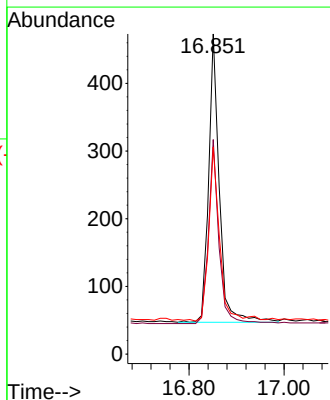
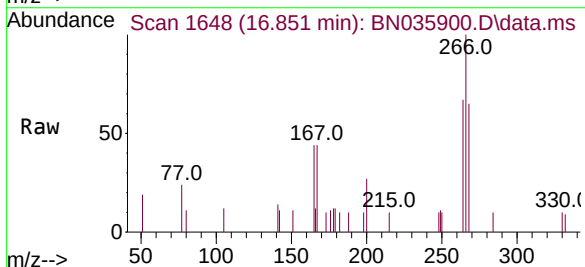
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

Tgt Ion:200 Resp: 489  
Ion Ratio Lower Upper  
200 100  
173 34.6 35.4 53.0#  
215 51.2 42.4 63.6

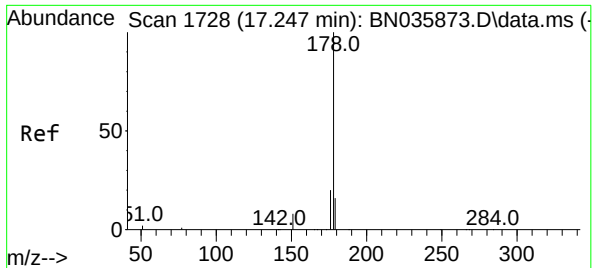


#24  
Pentachlorophenol  
Concen: 0.777 ng  
RT: 16.851 min Scan# 1648  
Delta R.T. 0.001 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

Tgt Ion:266 Resp: 669  
Ion Ratio Lower Upper  
266 100  
264 62.0 49.9 74.9  
268 59.9 50.2 75.2



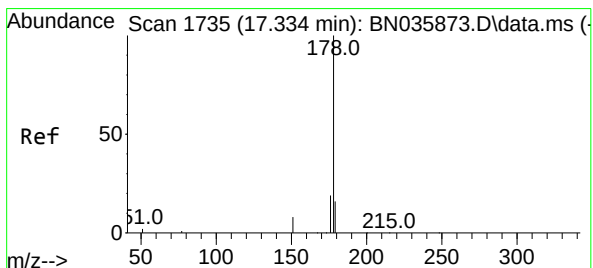
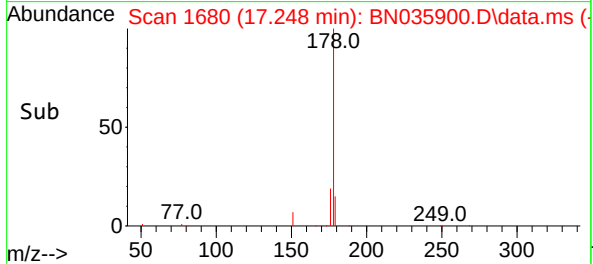
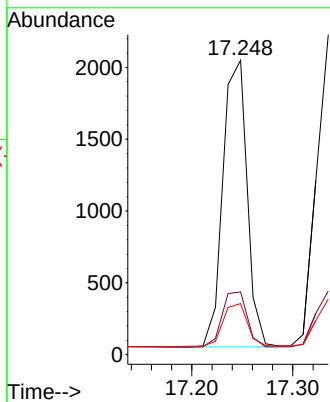
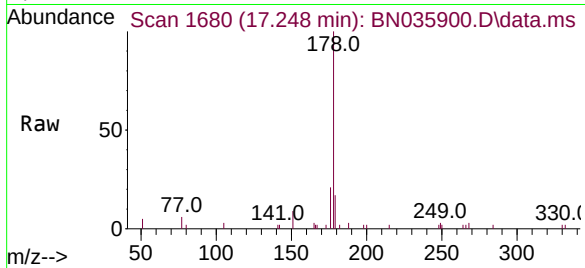




#25  
Phenanthrene  
Concen: 0.439 ng  
RT: 17.248 min Scan# 1680  
Delta R.T. 0.001 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

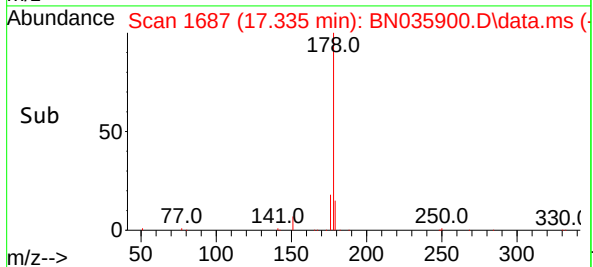
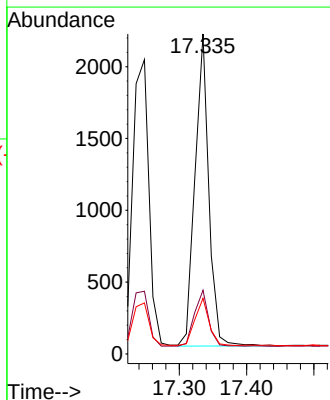
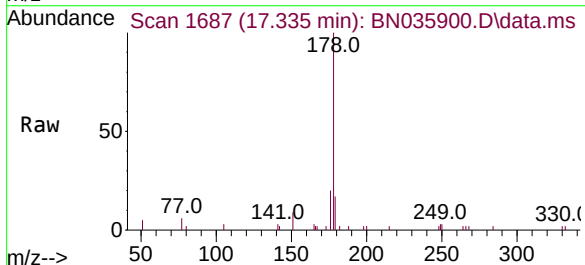
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

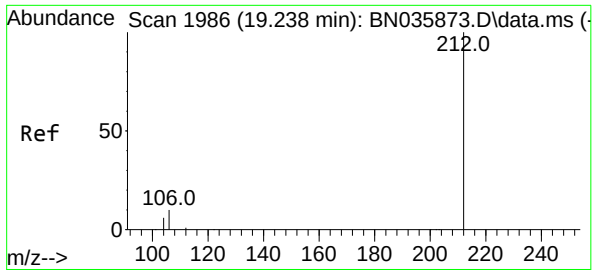
Tgt Ion:178 Resp: 3336  
Ion Ratio Lower Upper  
178 100  
176 20.0 15.9 23.9  
179 15.3 12.9 19.3



#26  
Anthracene  
Concen: 0.449 ng  
RT: 17.335 min Scan# 1687  
Delta R.T. 0.001 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

Tgt Ion:178 Resp: 3103  
Ion Ratio Lower Upper  
178 100  
176 18.3 15.0 22.6  
179 15.4 13.0 19.6





#27

Fluoranthene-d10

Concen: 0.436 ng

RT: 19.230 min Scan# 1943

Delta R.T. -0.008 min

Lab File: BN035900.D

Acq: 07 Jan 2025 17:19

Instrument :

BNA\_N

ClientSampleId :

PB165971BS

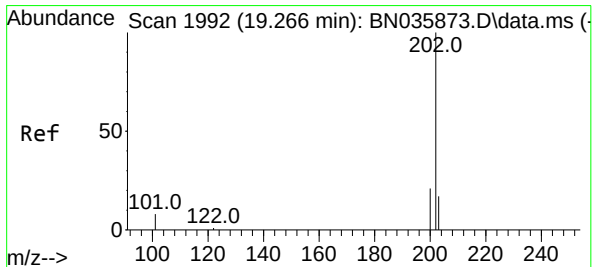
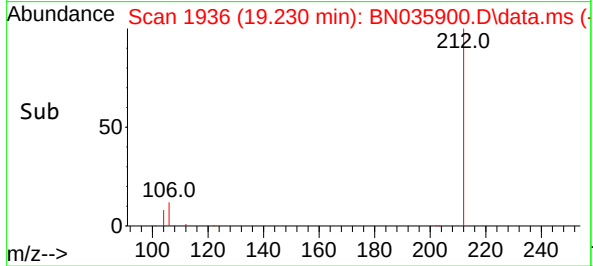
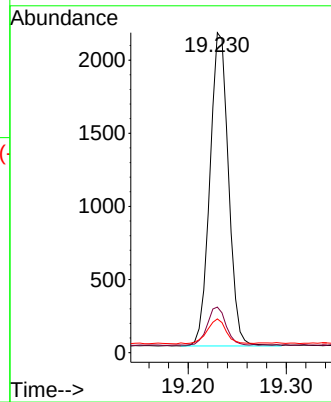
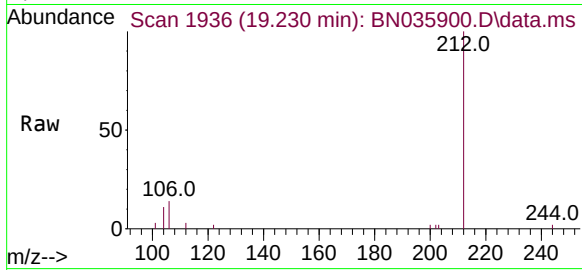
Tgt Ion:212 Resp: 2818

Ion Ratio Lower Upper

212 100

106 12.3 9.0 13.6

104 8.2 5.4 8.2#



#28

Fluoranthene

Concen: 0.383 ng

RT: 19.262 min Scan# 1943

Delta R.T. -0.004 min

Lab File: BN035900.D

Acq: 07 Jan 2025 17:19

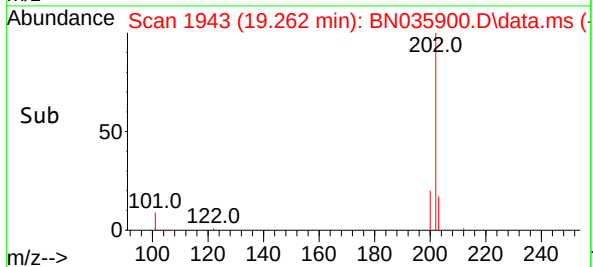
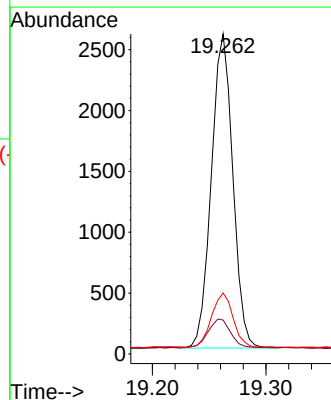
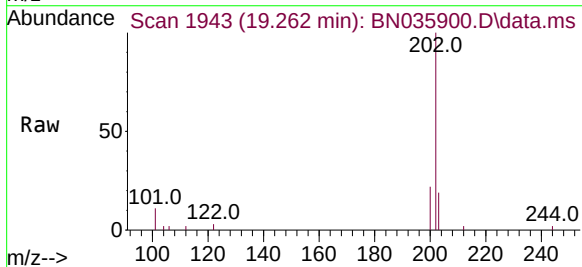
Tgt Ion:202 Resp: 3387

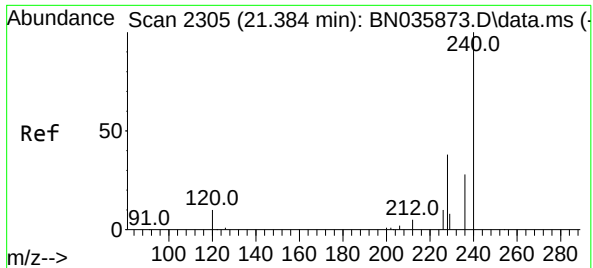
Ion Ratio Lower Upper

202 100

101 10.1 7.2 10.8

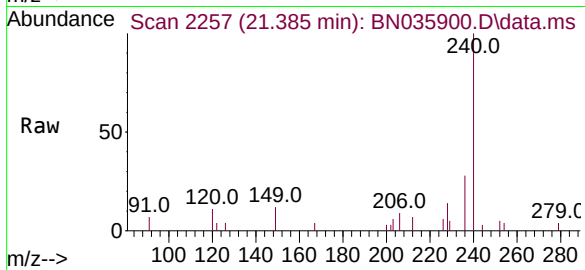
203 17.5 13.9 20.9



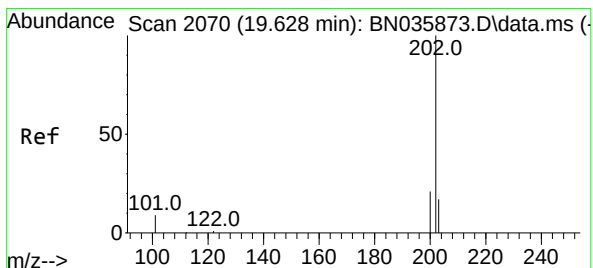
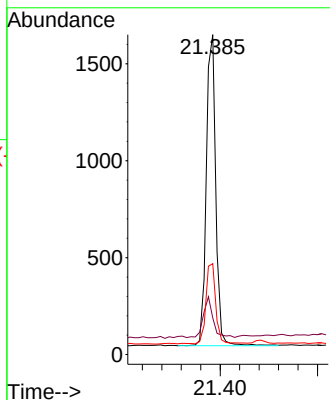
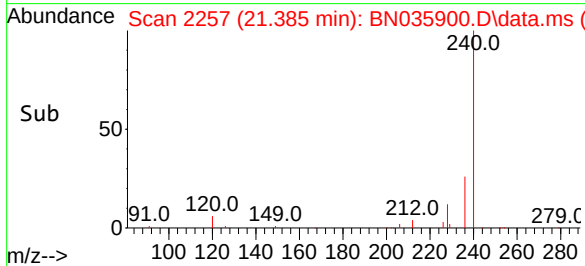


#29  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.385 min Scan# 21  
Delta R.T. 0.001 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

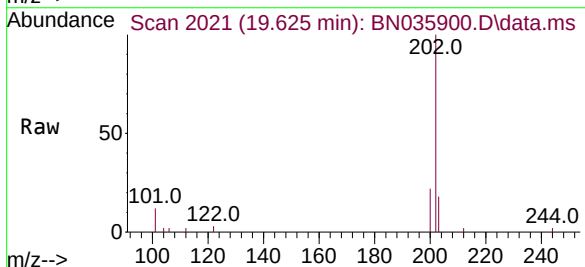
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS



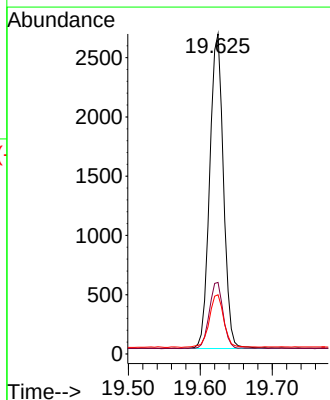
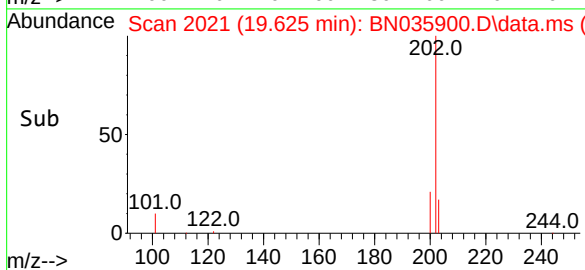
Tgt Ion:240 Resp: 2176  
Ion Ratio Lower Upper  
240 100  
120 11.5 11.1 16.7  
236 28.4 24.6 36.8

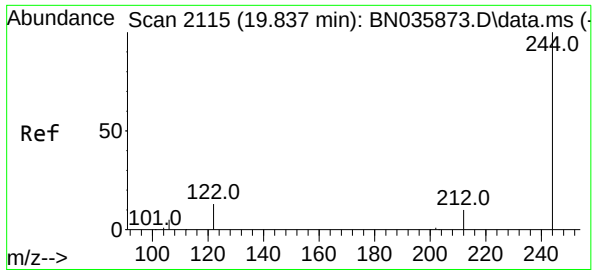


#30  
Pyrene  
Concen: 0.397 ng  
RT: 19.625 min Scan# 2021  
Delta R.T. -0.004 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19



Tgt Ion:202 Resp: 3510  
Ion Ratio Lower Upper  
202 100  
200 21.2 17.0 25.6  
203 17.7 14.6 22.0

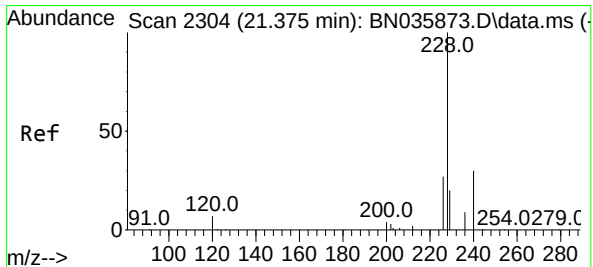
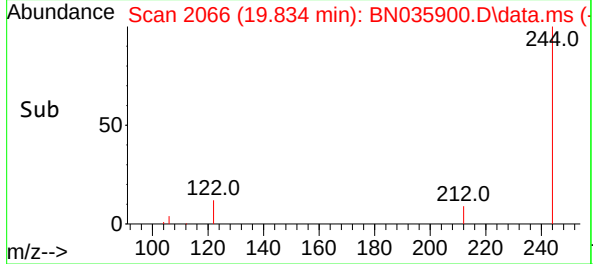
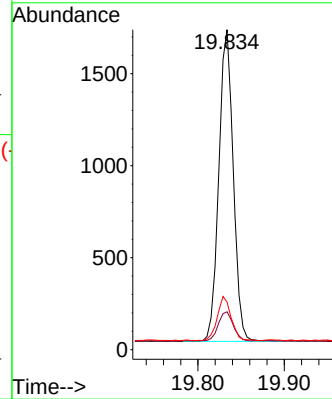
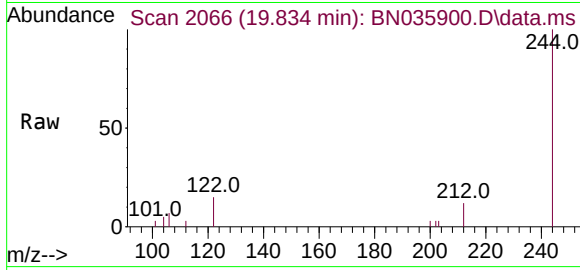




#31  
Terphenyl-d14  
Concen: 0.455 ng  
RT: 19.834 min Scan# 20  
Delta R.T. -0.004 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

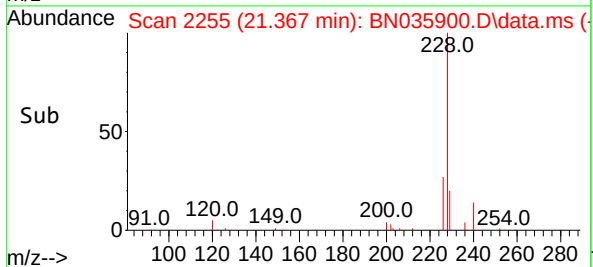
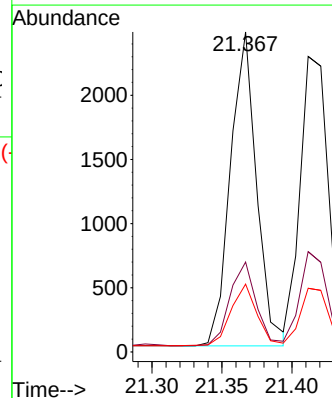
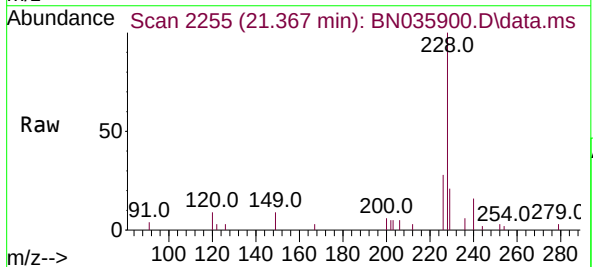
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

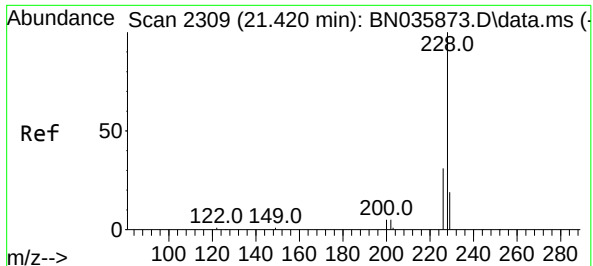
|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:244 | Resp: | 1974      |
| Ion Ratio   | Lower | Upper     |
| 244         | 100   |           |
| 212         | 11.8  | 10.1 15.1 |
| 122         | 14.9  | 12.2 18.4 |



#32  
Benzo(a)anthracene  
Concen: 0.415 ng  
RT: 21.367 min Scan# 2255  
Delta R.T. -0.008 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:228 | Resp: | 3182      |
| Ion Ratio   | Lower | Upper     |
| 228         | 100   |           |
| 226         | 28.1  | 22.7 34.1 |
| 229         | 21.2  | 17.1 25.7 |





#33

Chrysene

Concen: 0.404 ng

RT: 21.412 min Scan# 21

Delta R.T. -0.008 min

Lab File: BN035900.D

Acq: 07 Jan 2025 17:19

Instrument :

BNA\_N

ClientSampleId :

PB165971BS

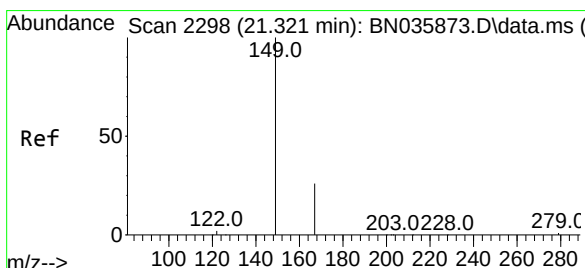
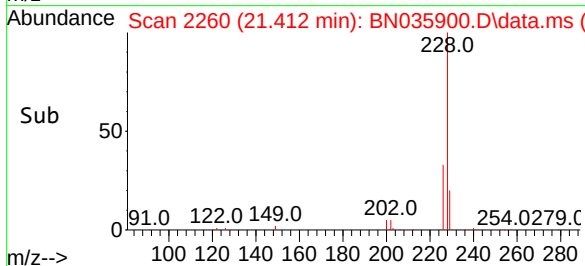
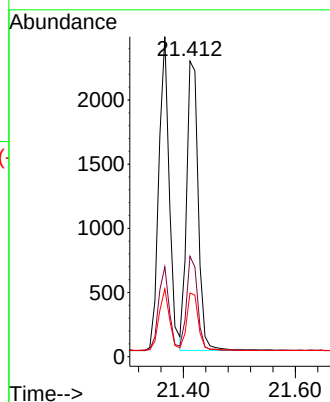
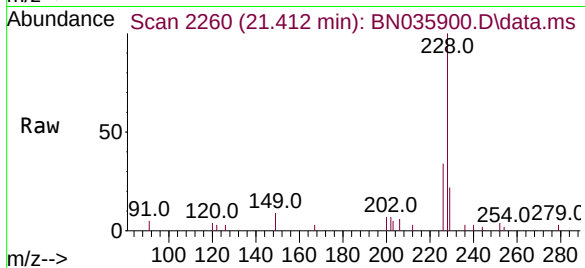
Tgt Ion:228 Resp: 3238

Ion Ratio Lower Upper

228 100

226 33.9 25.2 37.8

229 21.5 16.0 24.0



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.424 ng

RT: 21.313 min Scan# 2249

Delta R.T. -0.008 min

Lab File: BN035900.D

Acq: 07 Jan 2025 17:19

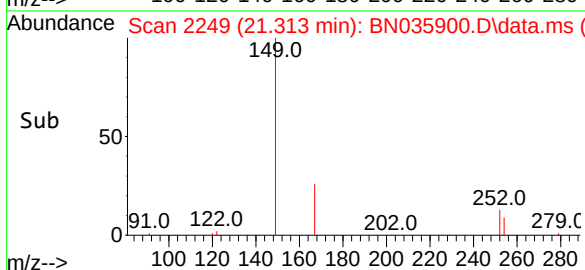
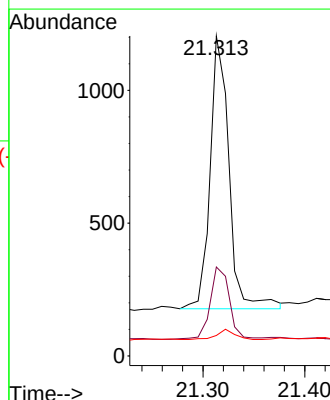
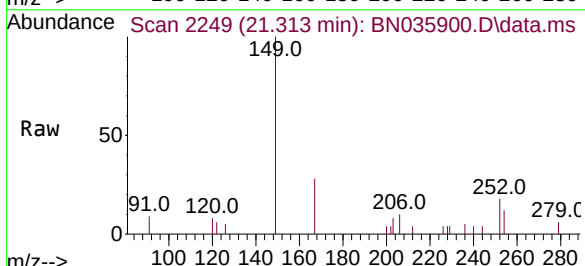
Tgt Ion:149 Resp: 1323

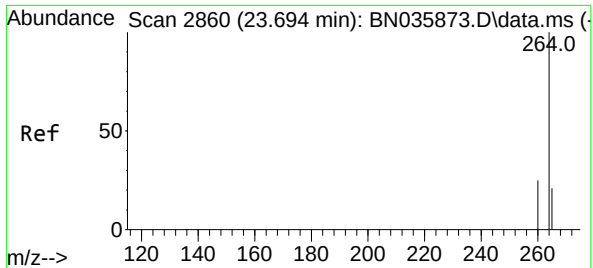
Ion Ratio Lower Upper

149 100

167 26.9 21.4 32.0

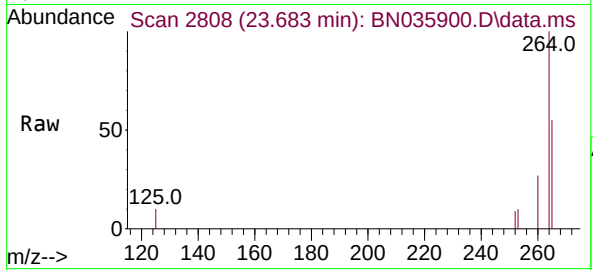
279 3.5 3.0 4.6



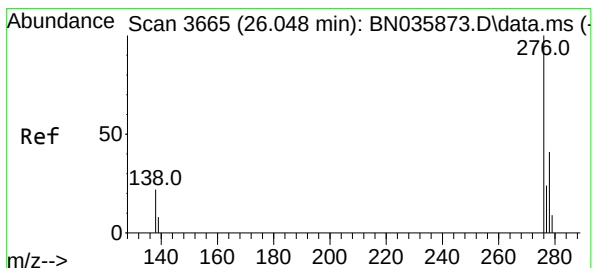
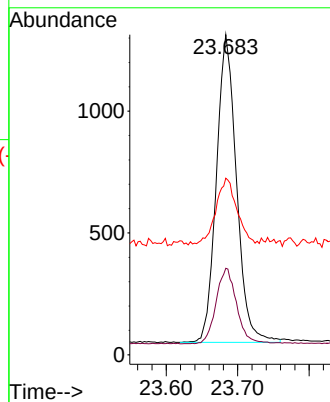
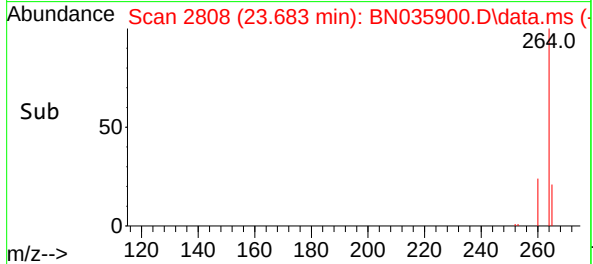


#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.683 min Scan# 21  
Delta R.T. -0.011 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

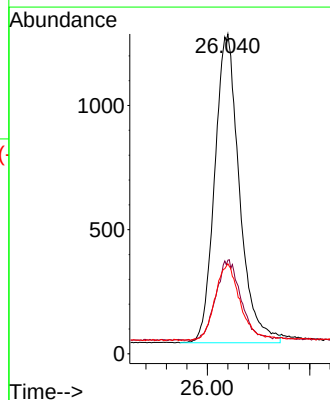
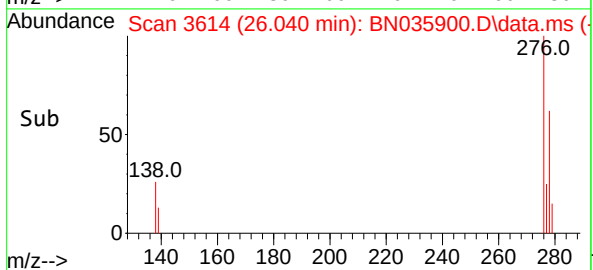
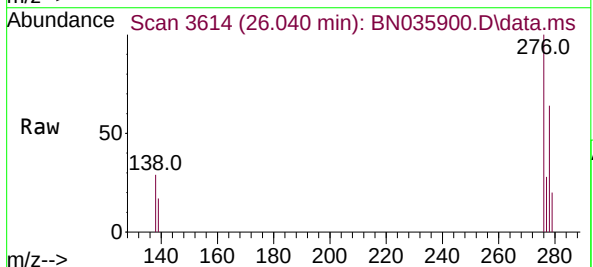


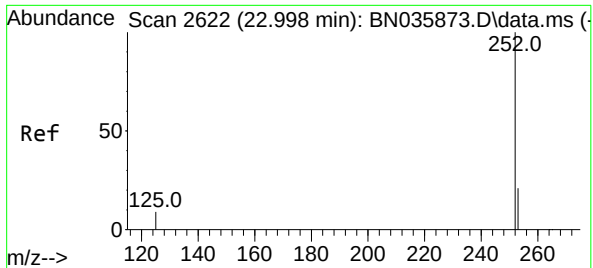
Tgt Ion:264 Resp: 2465  
Ion Ratio Lower Upper  
264 100  
260 27.0 21.7 32.5  
265 55.2 33.9 50.9#



#36  
Indeno(1,2,3-cd)pyrene  
Concen: 0.428 ng  
RT: 26.040 min Scan# 3614  
Delta R.T. -0.008 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

Tgt Ion:276 Resp: 4163  
Ion Ratio Lower Upper  
276 100  
138 26.8 18.9 28.3  
277 24.7 19.5 29.3

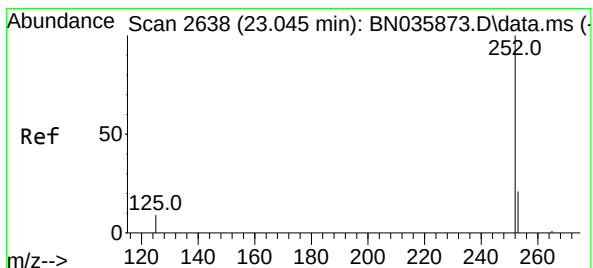
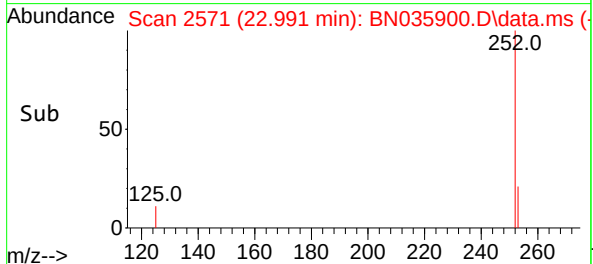
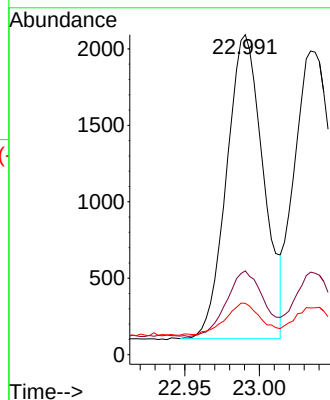
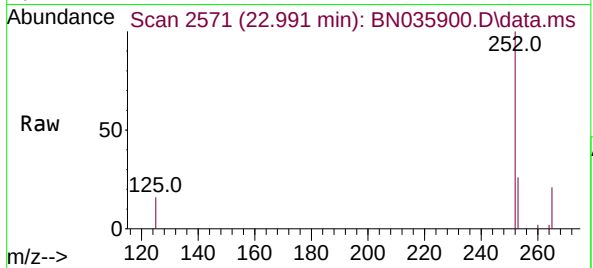




#37  
Benzo(b)fluoranthene  
Concen: 0.403 ng  
RT: 22.991 min Scan# 21  
Delta R.T. -0.008 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

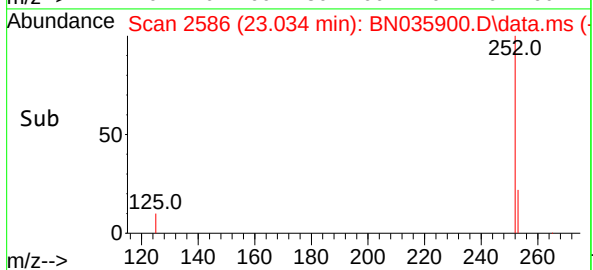
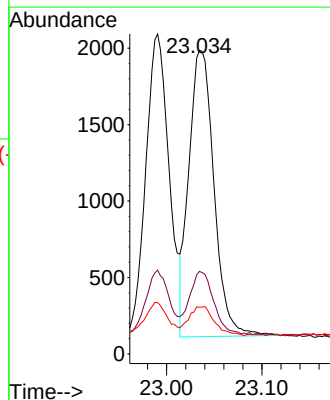
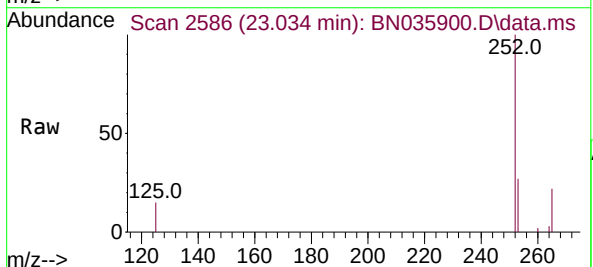
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BS

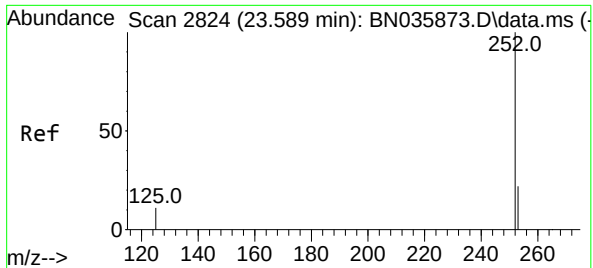
Tgt Ion:252 Resp: 3413  
Ion Ratio Lower Upper  
252 100  
253 26.2 20.1 30.1  
125 16.1 9.9 14.9#



#38  
Benzo(k)fluoranthene  
Concen: 0.410 ng  
RT: 23.034 min Scan# 2586  
Delta R.T. -0.011 min  
Lab File: BN035900.D  
Acq: 07 Jan 2025 17:19

Tgt Ion:252 Resp: 3434  
Ion Ratio Lower Upper  
252 100  
253 27.2 20.5 30.7  
125 15.4 10.6 16.0





#39

Benzo(a)pyrene

Concen: 0.441 ng

RT: 23.584 min Scan# 21

Delta R.T. -0.005 min

Lab File: BN035900.D

Acq: 07 Jan 2025 17:19

Instrument :

BNA\_N

ClientSampleId :

PB165971BS

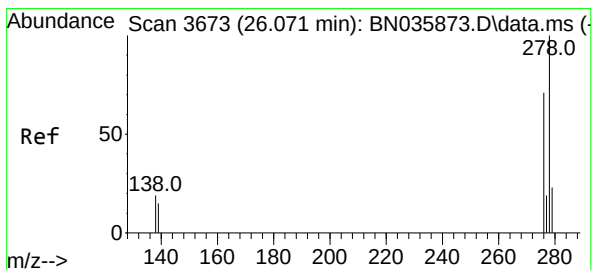
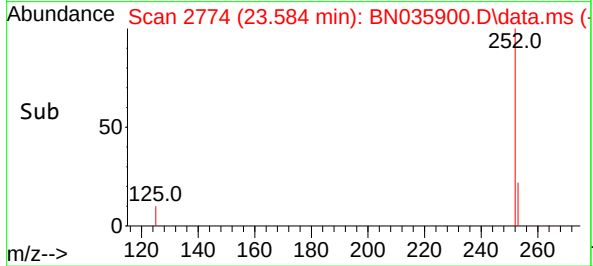
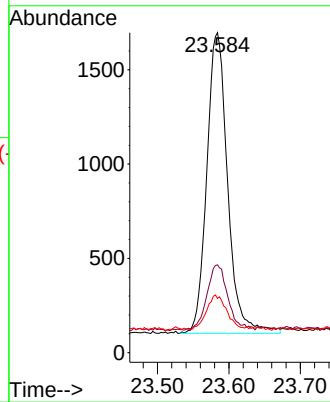
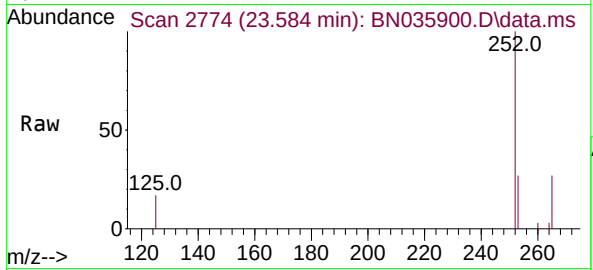
Tgt Ion:252 Resp: 3232

Ion Ratio Lower Upper

252 100

253 27.5 21.5 32.3

125 17.0 12.6 19.0



#40

Dibenzo(a,h)anthracene

Concen: 0.418 ng

RT: 26.055 min Scan# 3619

Delta R.T. -0.016 min

Lab File: BN035900.D

Acq: 07 Jan 2025 17:19

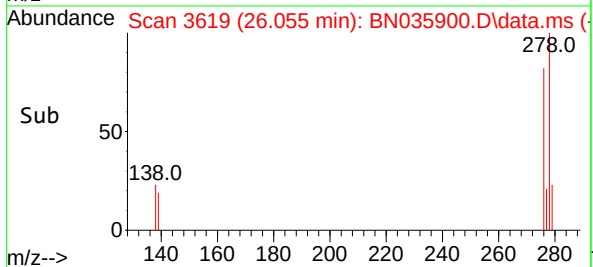
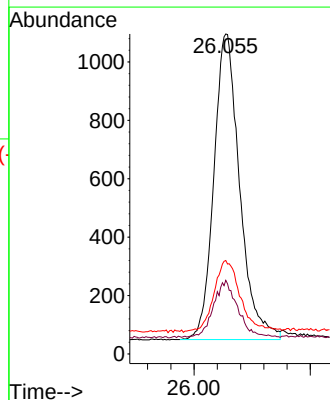
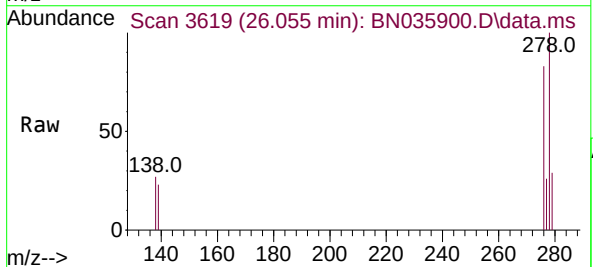
Tgt Ion:278 Resp: 3234

Ion Ratio Lower Upper

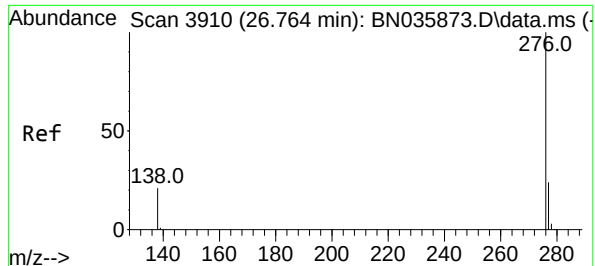
278 100

139 23.0 15.9 23.9

279 29.2 23.0 34.4







#41

Benzo(g,h,i)perylene

Concen: 0.394 ng

RT: 26.747 min Scan# 31

Delta R.T. -0.016 min

Lab File: BN035900.D

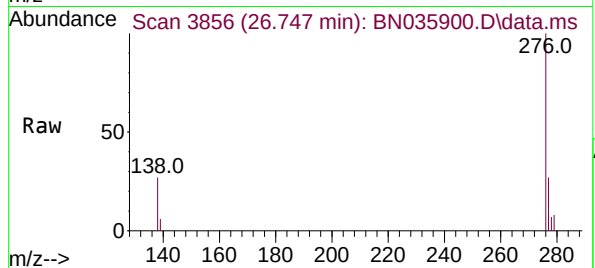
Acq: 07 Jan 2025 17:19

Instrument :

BNA\_N

ClientSampleId :

PB165971BS



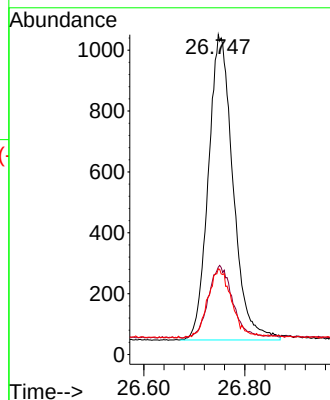
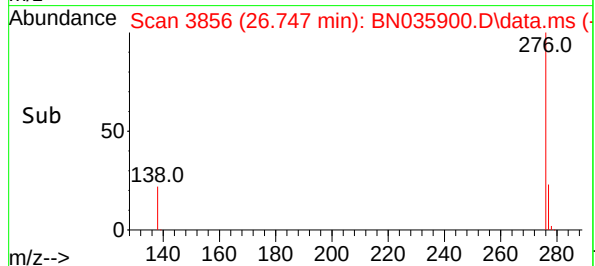
Tgt Ion:276 Resp: 3403

Ion Ratio Lower Upper

276 100

277 27.3 22.8 34.2

138 26.8 20.1 30.1



## Report of Analysis

|                    |                      |                 |                |
|--------------------|----------------------|-----------------|----------------|
| Client:            | Tetra Tech NUS, Inc. | Date Collected: |                |
| Project:           | CTO WE13             | Date Received:  |                |
| Client Sample ID:  | PB165971BSD          | SDG No.:        | Q1022          |
| Lab Sample ID:     | PB165971BSD          | Matrix:         | Water          |
| Analytical Method: | SW8270ESIM           | % Solid:        | 0              |
| Sample Wt/Vol:     | 1000 Units: mL       | Final Vol:      | 1000 uL        |
| Soil Aliquot Vol:  | uL                   | Test:           | SVOC-SIMGroup1 |
| Extraction Type :  | Decanted : N         | Level :         | LOW            |
| Injection Volume : | GPC Factor : 1.0     | GPC Cleanup :   | N PH :         |
| Prep Method :      |                      |                 |                |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BN035901.D        | 1         | 01/07/25 11:00 | 01/07/25 17:55 | PB165971      |

| CAS Number                | Parameter               | Conc. | Qualifier | MDL      | LOD  | LOQ / CRQL | Units    |
|---------------------------|-------------------------|-------|-----------|----------|------|------------|----------|
| <b>TARGETS</b>            |                         |       |           |          |      |            |          |
| 123-91-1                  | 1,4-Dioxane             | 0.41  |           | 0.070    | 0.20 | 0.20       | ug/L     |
| <b>SURROGATES</b>         |                         |       |           |          |      |            |          |
| 7297-45-2                 | 2-Methylnaphthalene-d10 | 0.47  |           | 30 - 150 |      | 116%       | SPK: 0.4 |
| 93951-69-0                | Fluoranthene-d10        | 0.44  |           | 30 - 150 |      | 110%       | SPK: 0.4 |
| 4165-60-0                 | Nitrobenzene-d5         | 0.47  | *         | 55 - 111 |      | 118%       | SPK: 0.4 |
| 321-60-8                  | 2-Fluorobiphenyl        | 0.45  | *         | 53 - 106 |      | 112%       | SPK: 0.4 |
| 1718-51-0                 | Terphenyl-d14           | 0.47  |           | 58 - 132 |      | 117%       | SPK: 0.4 |
| <b>INTERNAL STANDARDS</b> |                         |       |           |          |      |            |          |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4  | 1880  | 7.832     |          |      |            |          |
| 1146-65-2                 | Naphthalene-d8          | 3600  | 10.622    |          |      |            |          |
| 15067-26-2                | Acenaphthene-d10        | 1730  | 14.463    |          |      |            |          |
| 1517-22-2                 | Phenanthrene-d10        | 3030  | 17.199    |          |      |            |          |
| 1719-03-5                 | Chrysene-d12            | 2490  | 21.376    |          |      |            |          |
| 1520-96-3                 | Perylene-d12            | 2810  | 23.684    |          |      |            |          |

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
 Data File : BN035901.D  
 Acq On : 07 Jan 2025 17:55  
 Operator : RC/JU  
 Sample : PB165971BSD  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB165971BSD

Quant Time: Jan 07 22:16:25 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

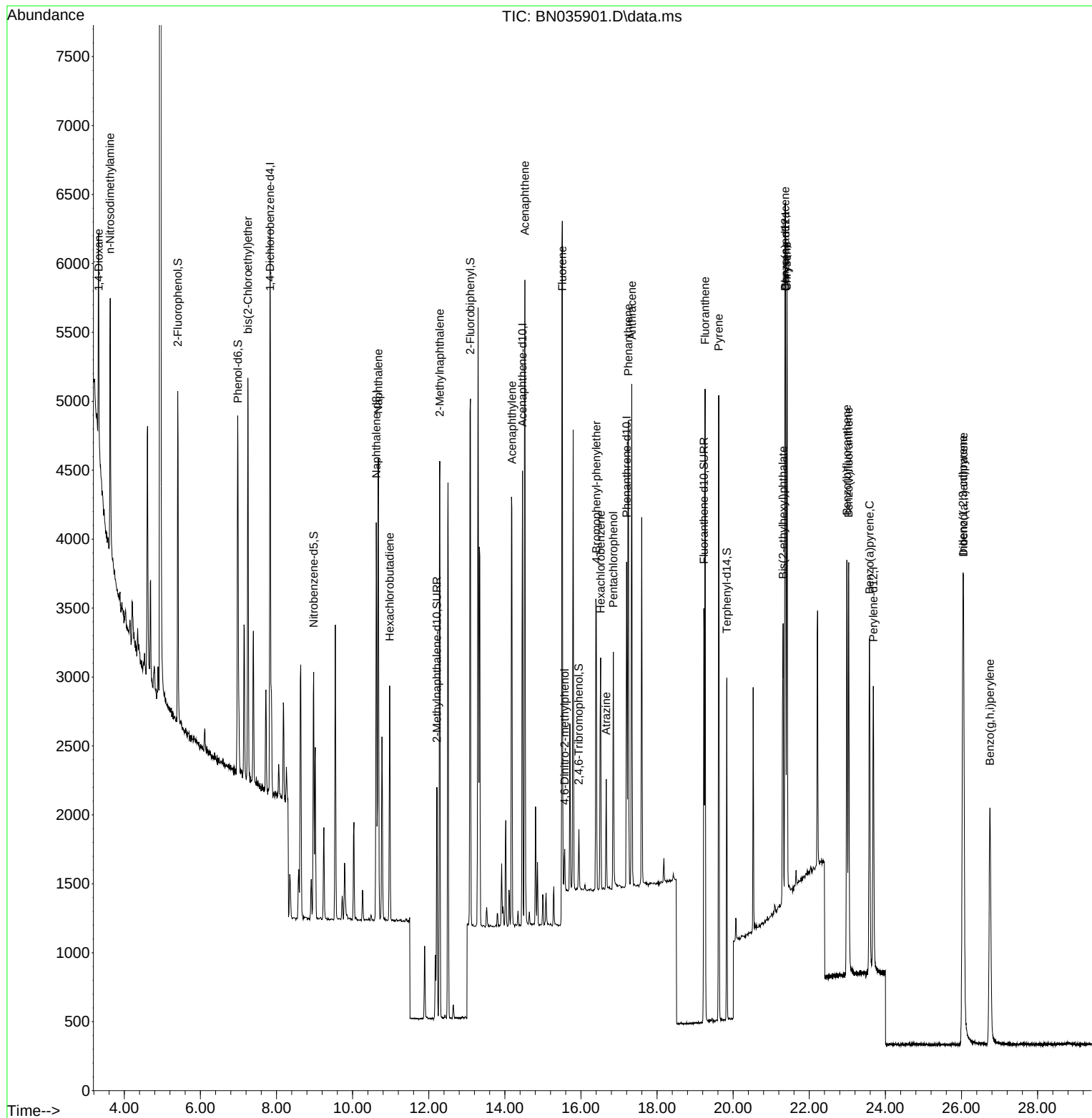
| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.832  | 152  | 1875     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.622 | 136  | 3596     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.463 | 164  | 1733     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.199 | 188  | 3028     | 0.400 | ng    | #-0.01   |
| 29) Chrysene-d12              | 21.376 | 240  | 2486     | 0.400 | ng    | # 0.00   |
| 35) Perylene-d12              | 23.684 | 264  | 2806     | 0.400 | ng    | -0.01    |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.405  | 112  | 1730     | 0.376 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.987  | 99   | 2031     | 0.356 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.978  | 82   | 1348     | 0.473 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.213 | 152  | 2242     | 0.466 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.945 | 330  | 232      | 0.279 | ng    | -0.01    |
| 15) 2-Fluorobiphenyl          | 13.095 | 172  | 3415     | 0.449 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.230 | 212  | 3297     | 0.439 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.834 | 244  | 2319     | 0.468 | ng    | 0.00     |
| Target Compounds              |        |      |          |       |       |          |
| 2) 1,4-Dioxane                | 3.325  | 88   | 764      | 0.410 | ng    | # 81     |
| 3) n-Nitrosodimethylamine     | 3.628  | 42   | 1419     | 0.437 | ng    | # 96     |
| 6) bis(2-Chloroethyl)ether    | 7.247  | 93   | 1969     | 0.452 | ng    | 97       |
| 9) Naphthalene                | 10.675 | 128  | 4264     | 0.422 | ng    | 98       |
| 10) Hexachlorobutadiene       | 10.974 | 225  | 1352     | 0.413 | ng    | # 98     |
| 12) 2-Methylnaphthalene       | 12.289 | 142  | 2656     | 0.425 | ng    | 99       |
| 16) Acenaphthylene            | 14.185 | 152  | 3647     | 0.447 | ng    | 99       |
| 17) Acenaphthene              | 14.527 | 154  | 2338     | 0.437 | ng    | 98       |
| 18) Fluorene                  | 15.511 | 166  | 2382     | 0.405 | ng    | 97       |
| 20) 4,6-Dinitro-2-methylph... | 15.573 | 198  | 249      | 0.473 | ng    | # 80     |
| 21) 4-Bromophenyl-phenylether | 16.404 | 248  | 932      | 0.449 | ng    | # 81     |
| 22) Hexachlorobenzene         | 16.516 | 284  | 1277     | 0.451 | ng    | 99       |
| 23) Atrazine                  | 16.665 | 200  | 589      | 0.423 | ng    | # 90     |
| 24) Pentachlorophenol         | 16.851 | 266  | 801      | 0.799 | ng    | 97       |
| 25) Phenanthrene              | 17.248 | 178  | 3951     | 0.447 | ng    | 99       |
| 26) Anthracene                | 17.335 | 178  | 3595     | 0.447 | ng    | 98       |
| 28) Fluoranthene              | 19.262 | 202  | 4014     | 0.390 | ng    | 99       |
| 30) Pyrene                    | 19.620 | 202  | 4104     | 0.407 | ng    | 99       |
| 32) Benzo(a)anthracene        | 21.367 | 228  | 3686     | 0.421 | ng    | 99       |
| 33) Chrysene                  | 21.412 | 228  | 3818     | 0.417 | ng    | 99       |
| 34) Bis(2-ethylhexyl)phtha... | 21.313 | 149  | 1455     | 0.408 | ng    | 98       |
| 36) Indeno(1,2,3-cd)pyrene    | 26.037 | 276  | 4882     | 0.441 | ng    | 98       |
| 37) Benzo(b)fluoranthene      | 22.988 | 252  | 3872     | 0.402 | ng    | 98       |
| 38) Benzo(k)fluoranthene      | 23.035 | 252  | 4029     | 0.422 | ng    | 99       |
| 39) Benzo(a)pyrene            | 23.581 | 252  | 3670     | 0.440 | ng    | 100      |
| 40) Dibenzo(a,h)anthracene    | 26.055 | 278  | 3785     | 0.430 | ng    | 99       |
| 41) Benzo(g,h,i)perylene      | 26.750 | 276  | 3870     | 0.393 | ng    | 97       |

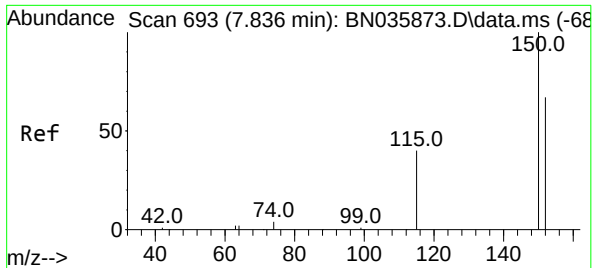
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035901.D  
Acq On : 07 Jan 2025 17:55  
Operator : RC/JU  
Sample : PB165971BSD  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

Quant Time: Jan 07 22:16:25 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

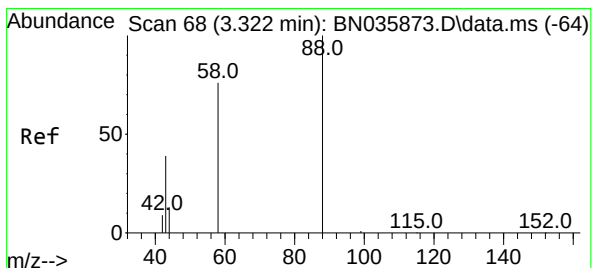
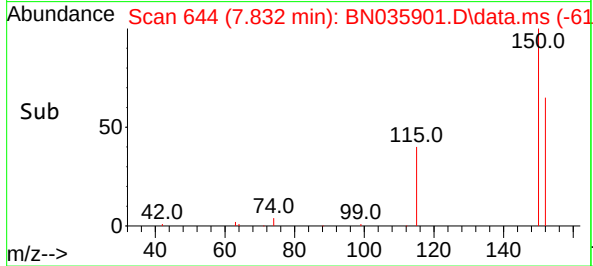
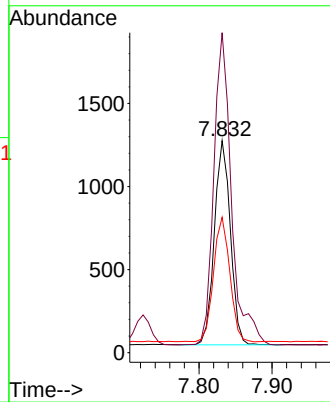
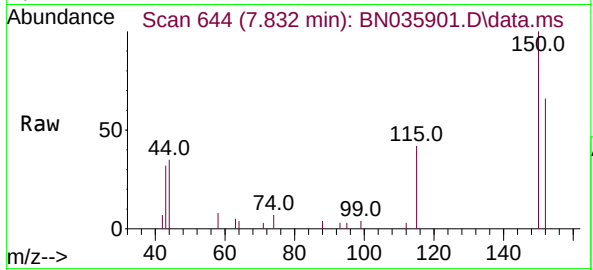




#1  
1,4-Dichlorobenzene-d4  
Concen: 0.400 ng  
RT: 7.832 min Scan# 64  
Delta R.T. -0.004 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

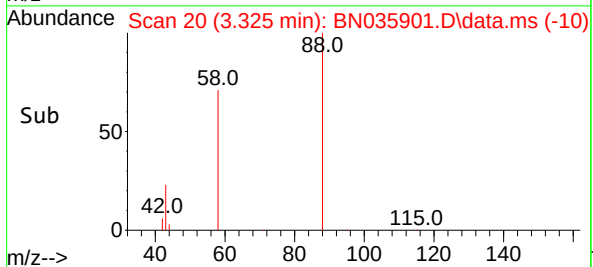
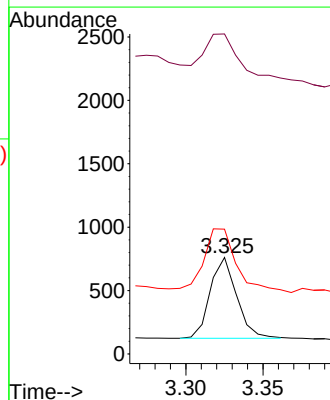
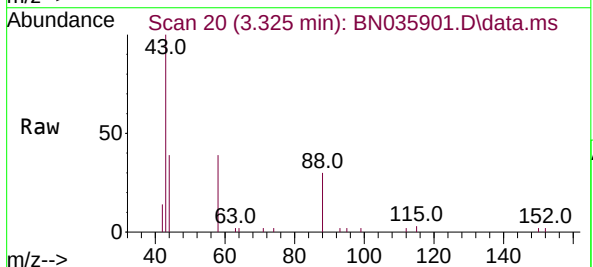
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

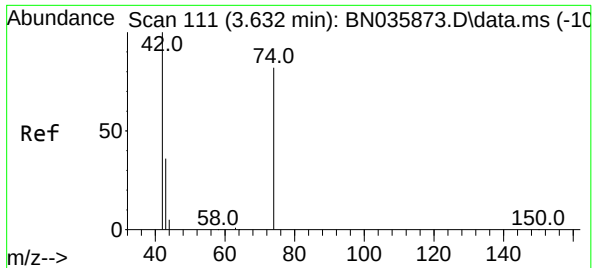
Tgt Ion:152 Resp: 1875  
Ion Ratio Lower Upper  
152 100  
150 150.9 117.8 176.6  
115 63.9 51.0 76.4



#2  
1,4-Dioxane  
Concen: 0.410 ng  
RT: 3.325 min Scan# 20  
Delta R.T. 0.003 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

Tgt Ion: 88 Resp: 764  
Ion Ratio Lower Upper  
88 100  
43 65.6 32.7 49.1#  
58 85.9 63.0 94.4

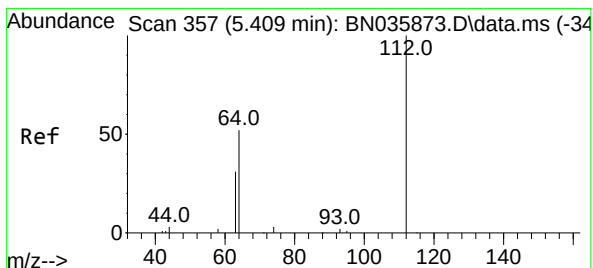
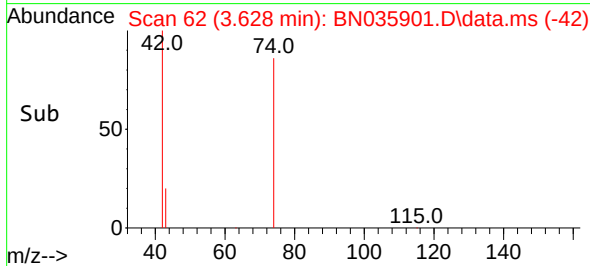
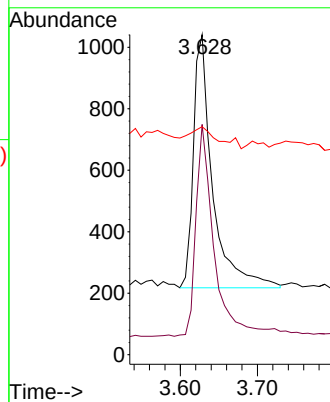
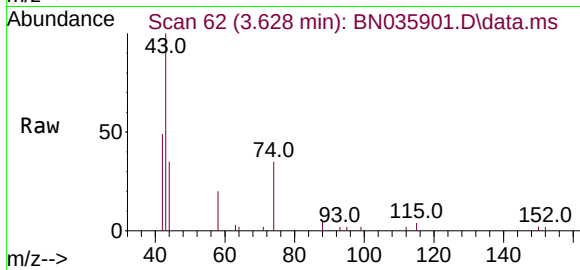




#3  
n-Nitrosodimethylamine  
Concen: 0.437 ng  
RT: 3.628 min Scan# 61  
Delta R.T. -0.004 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

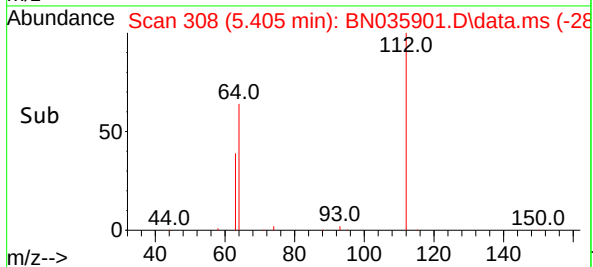
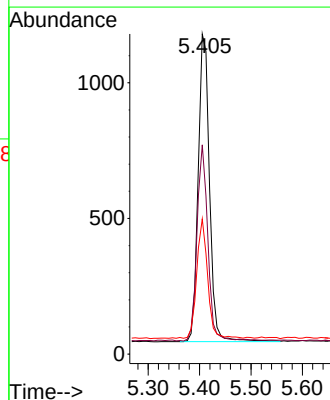
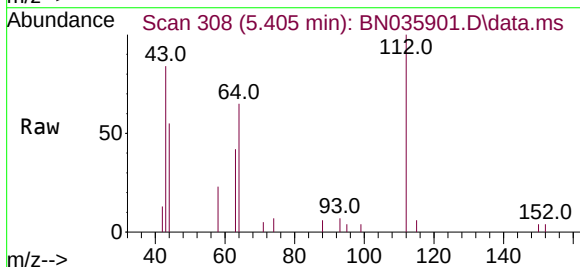
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

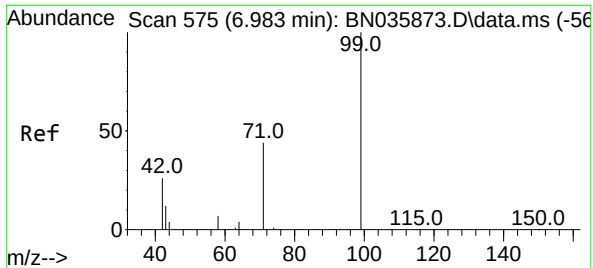
Tgt Ion: 42 Resp: 1419  
Ion Ratio Lower Upper  
42 100  
74 80.4 62.2 93.2  
44 13.0 7.1 10.7#



#4  
2-Fluorophenol  
Concen: 0.376 ng  
RT: 5.405 min Scan# 308  
Delta R.T. -0.004 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

Tgt Ion: 112 Resp: 1730  
Ion Ratio Lower Upper  
112 100  
64 60.6 48.2 72.2  
63 37.3 30.0 45.0

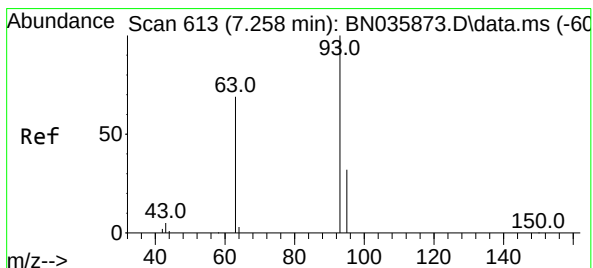
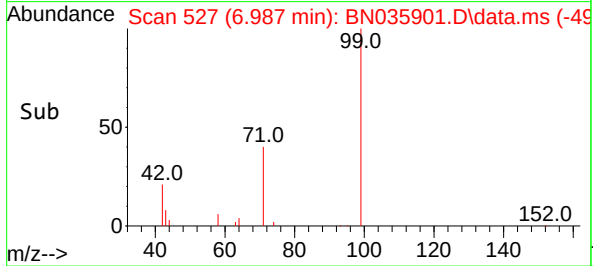
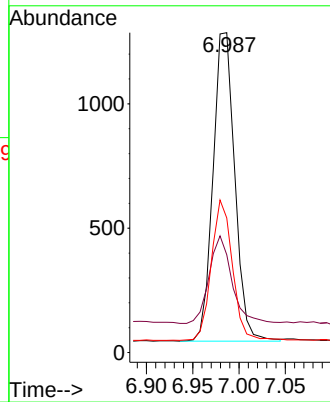
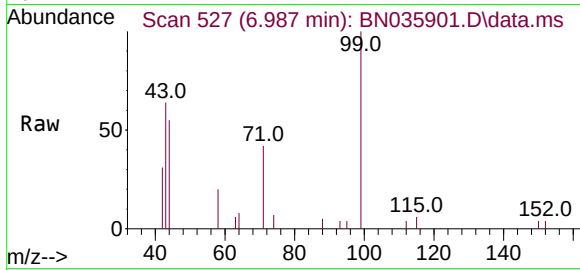




#5  
Phenol-d6  
Concen: 0.356 ng  
RT: 6.987 min Scan# 51  
Delta R.T. 0.003 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

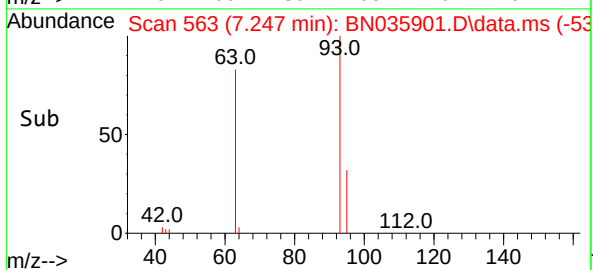
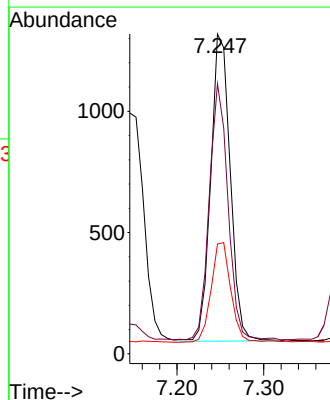
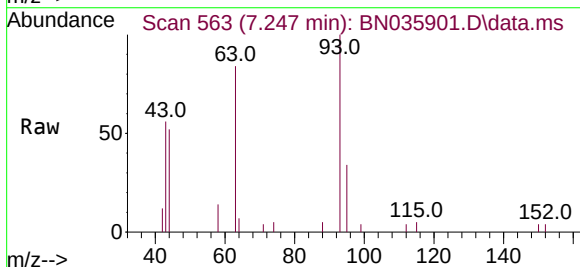
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

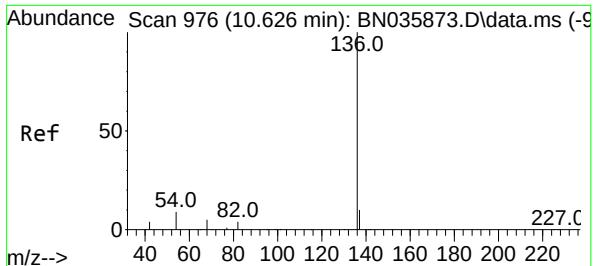
Tgt Ion: 99 Resp: 2031  
Ion Ratio Lower Upper  
99 100  
42 29.8 23.5 35.3  
71 44.2 35.5 53.3



#6  
bis(2-Chloroethyl)ether  
Concen: 0.452 ng  
RT: 7.247 min Scan# 563  
Delta R.T. -0.011 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

Tgt Ion: 93 Resp: 1969  
Ion Ratio Lower Upper  
93 100  
63 80.0 62.0 93.0  
95 33.2 25.5 38.3

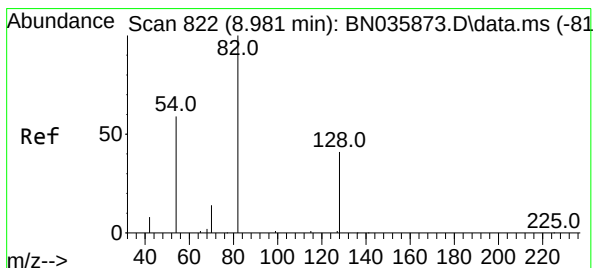
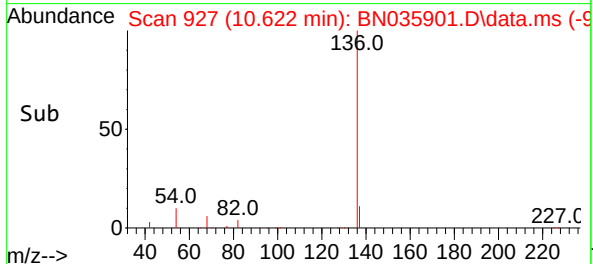
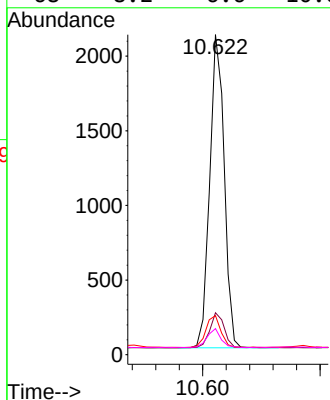
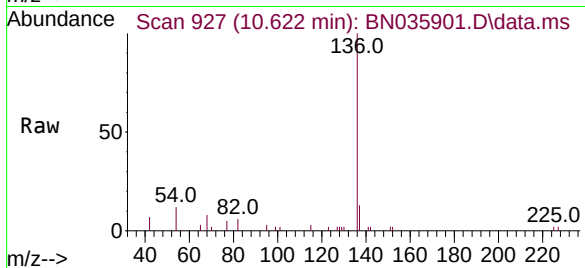




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.622 min Scan# 91  
Delta R.T. -0.004 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

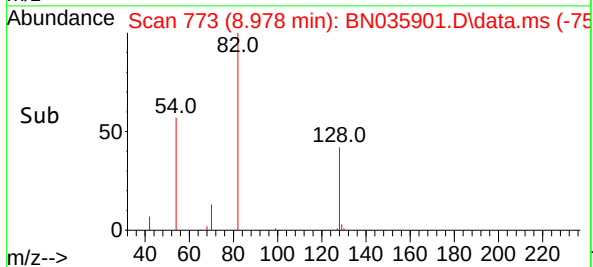
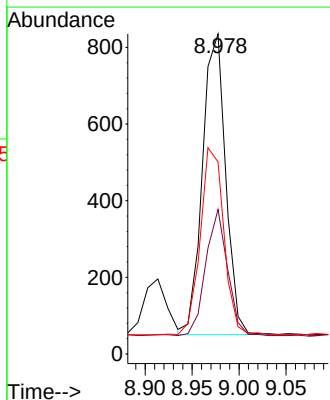
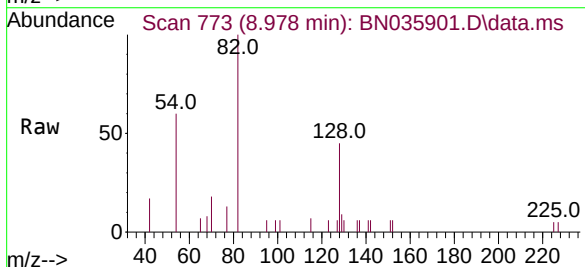
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 3596  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 13.1  | 10.6  | 15.8  |
| 54       | 12.2  | 9.8   | 14.6  |
| 68       | 8.2   | 6.6   | 10.0  |

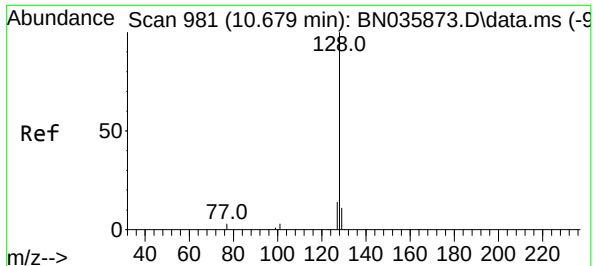


#8  
Nitrobenzene-d5  
Concen: 0.473 ng  
RT: 8.978 min Scan# 773  
Delta R.T. -0.004 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 1348  |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 45.1  | 36.9  | 55.3  |
| 54       | 60.0  | 50.4  | 75.6  |



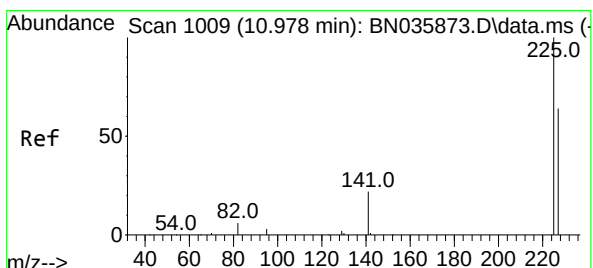
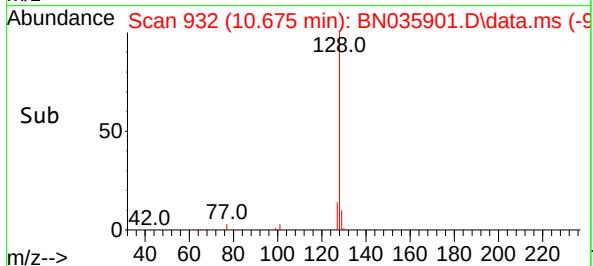
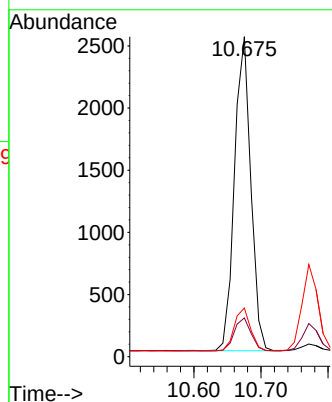
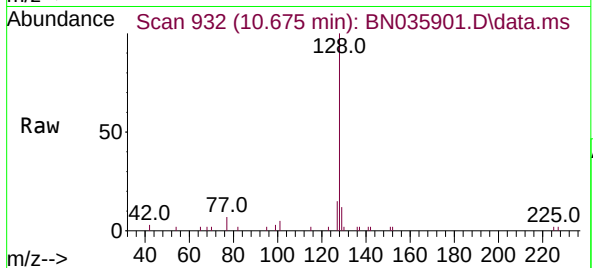




#9  
Naphthalene  
Concen: 0.422 ng  
RT: 10.675 min Scan# 91  
Delta R.T. -0.004 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

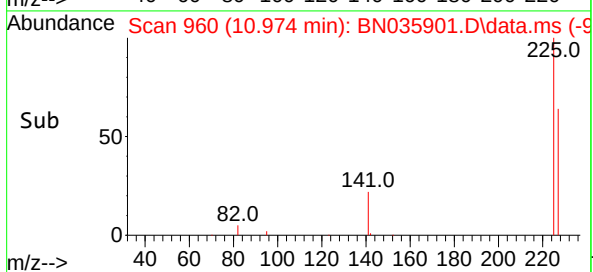
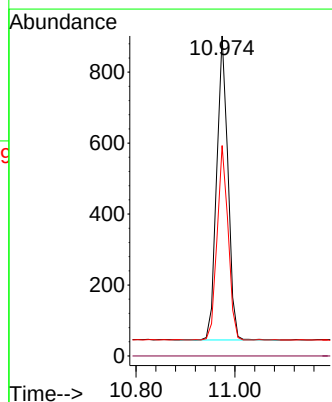
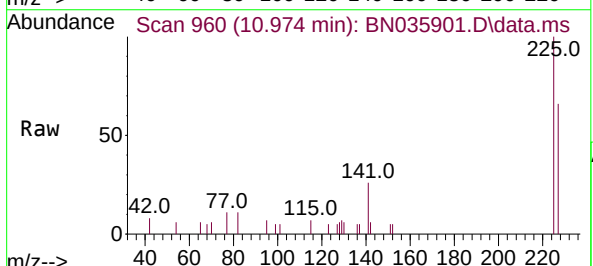
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

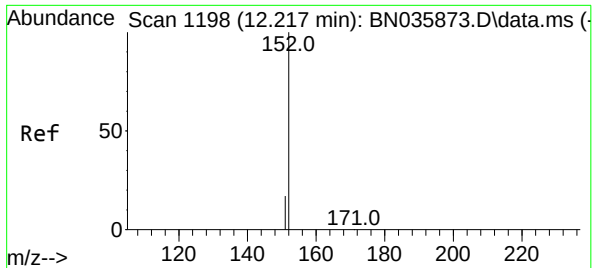
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 129     | 12.1  | 10.6  | 16.0  |
| 127     | 15.2  | 12.8  | 19.2  |



#10  
Hexachlorobutadiene  
Concen: 0.413 ng  
RT: 10.974 min Scan# 960  
Delta R.T. -0.004 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 0.0   | 0.0   | 0.0   |
| 227     | 62.5  | 51.5  | 77.3  |

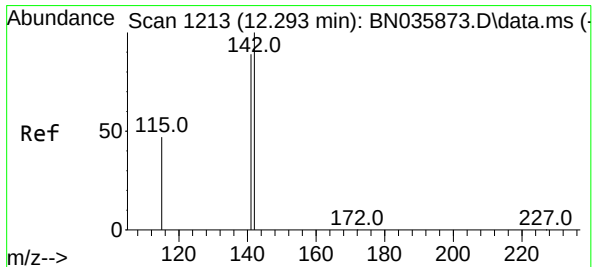
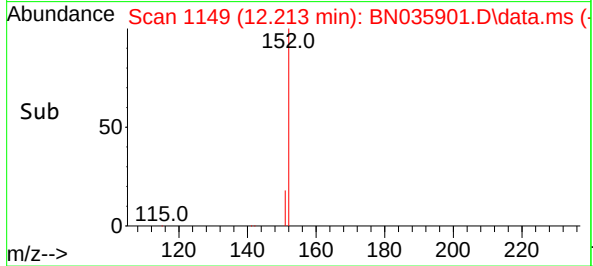
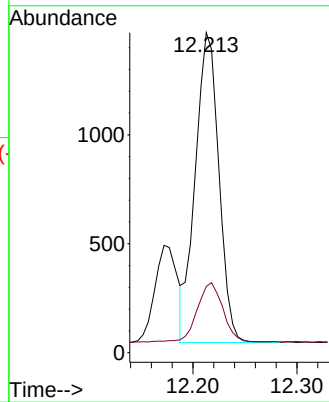
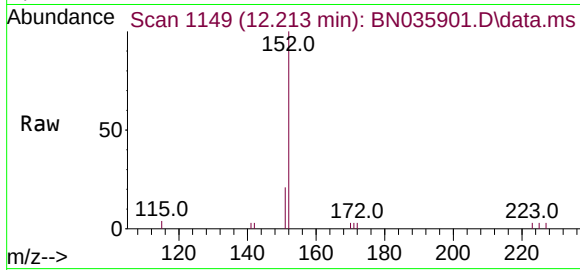




#11  
2-Methylnaphthalene-d10  
Concen: 0.466 ng  
RT: 12.213 min Scan# 1119  
Delta R.T. -0.004 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

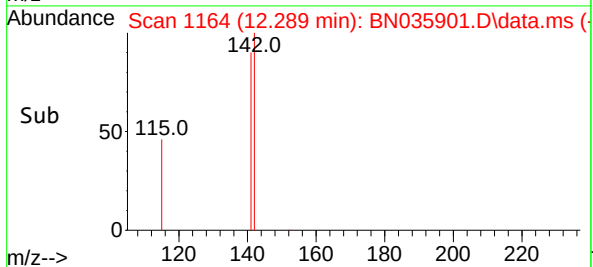
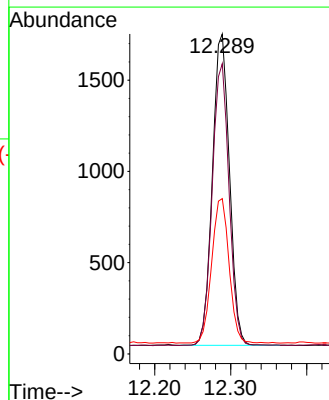
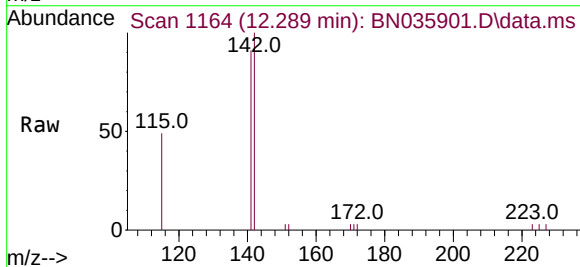
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

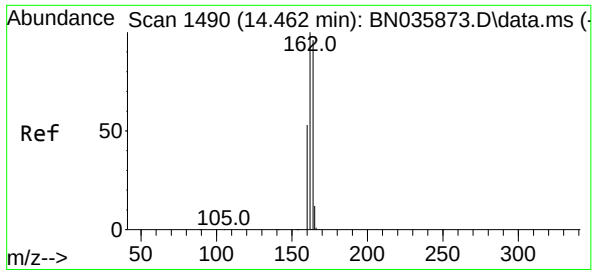
Tgt Ion:152 Resp: 2242  
Ion Ratio Lower Upper  
152 100  
151 21.1 17.0 25.6



#12  
2-Methylnaphthalene  
Concen: 0.425 ng  
RT: 12.289 min Scan# 1164  
Delta R.T. -0.004 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

Tgt Ion:142 Resp: 2656  
Ion Ratio Lower Upper  
142 100  
141 90.7 71.9 107.9  
115 48.5 39.6 59.4

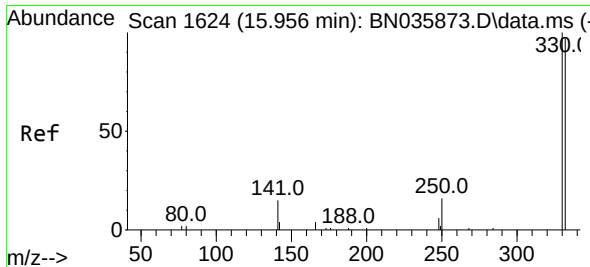
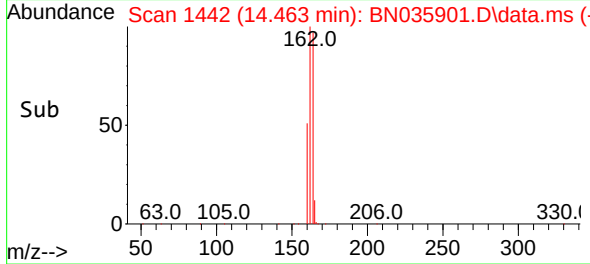
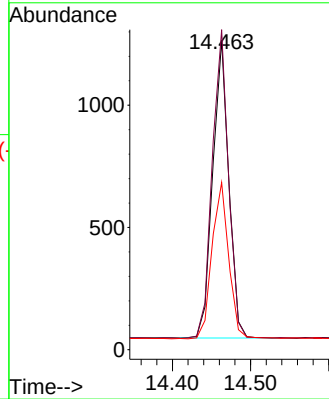
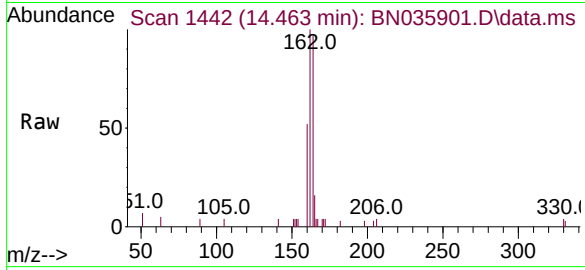




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.463 min Scan# 14  
Delta R.T. 0.001 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

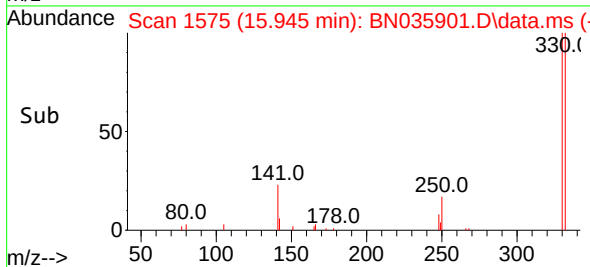
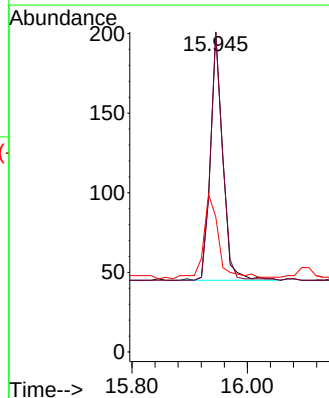
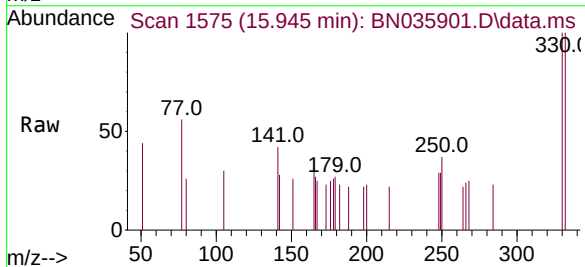
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

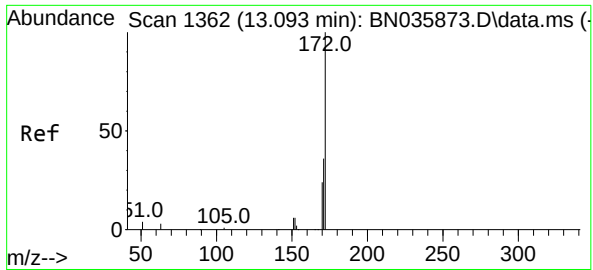
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 162     | 103.4 | 83.1  | 124.7 |
| 160     | 54.0  | 46.0  | 69.0  |



#14  
2,4,6-Tribromophenol  
Concen: 0.279 ng  
RT: 15.945 min Scan# 1575  
Delta R.T. -0.011 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 330     | 100   |       |       |
| 332     | 97.8  | 77.2  | 115.8 |
| 141     | 42.2  | 31.6  | 47.4  |

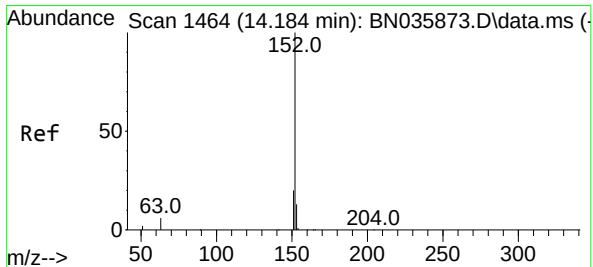
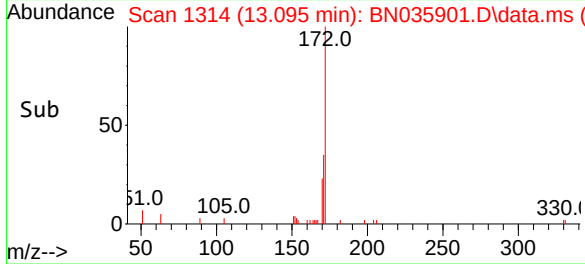
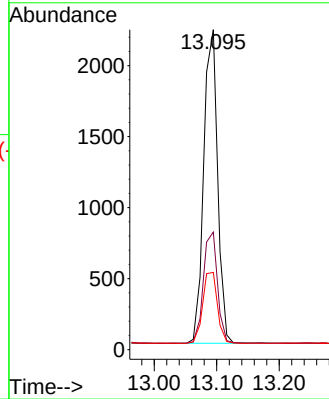
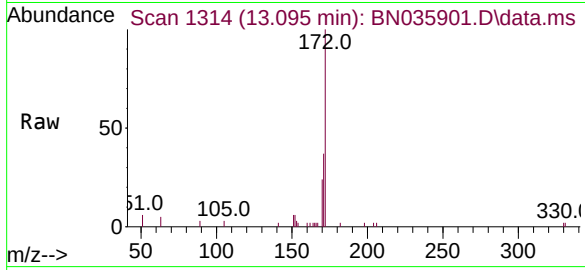




#15  
2-Fluorobiphenyl  
Concen: 0.449 ng  
RT: 13.095 min Scan# 1415  
Delta R.T. 0.001 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

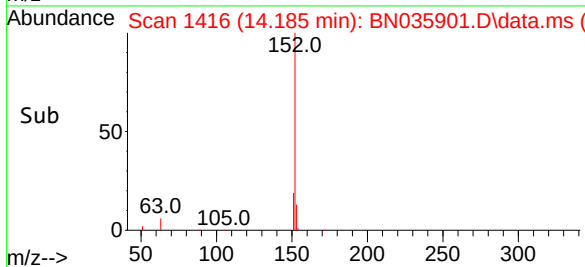
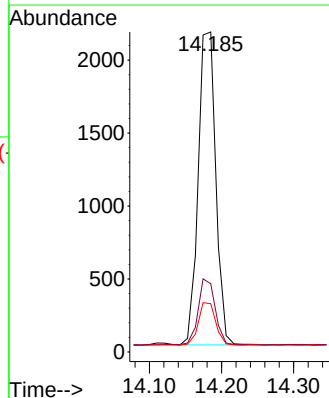
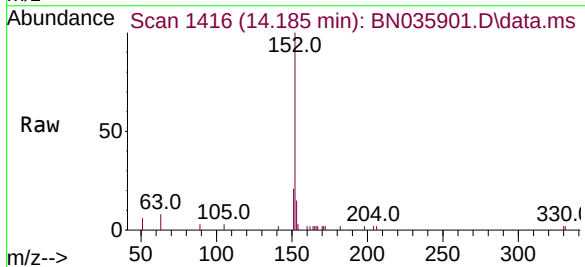
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

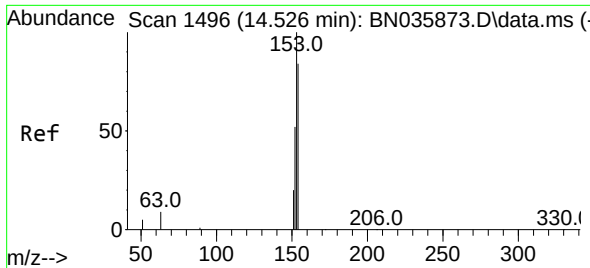
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 172   | Resp: | 3415 |
| Ion Ratio | Lower | Upper |      |
| 172       | 100   |       |      |
| 171       | 36.8  | 30.5  | 45.7 |
| 170       | 24.1  | 20.8  | 31.2 |



#16  
Acenaphthylene  
Concen: 0.447 ng  
RT: 14.185 min Scan# 1416  
Delta R.T. 0.001 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 152   | Resp: | 3647 |
| Ion Ratio | Lower | Upper |      |
| 152       | 100   |       |      |
| 151       | 20.6  | 16.3  | 24.5 |
| 153       | 13.5  | 10.6  | 15.8 |

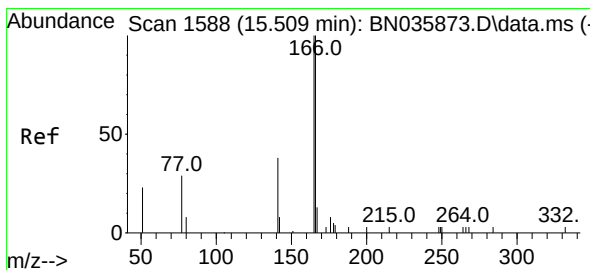
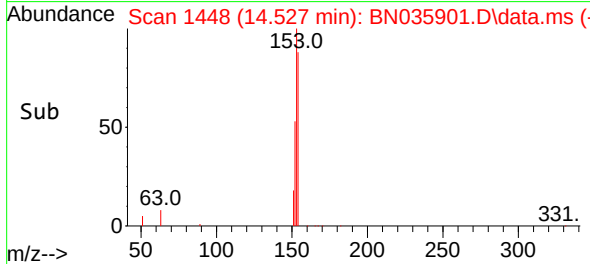
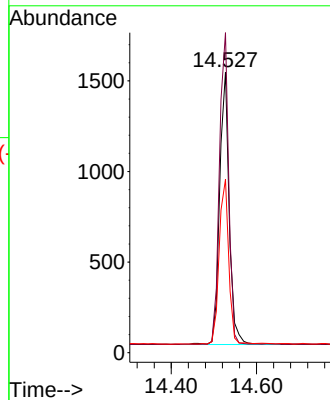
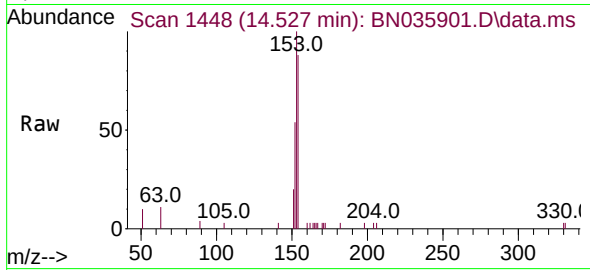




#17  
Acenaphthene  
Concen: 0.437 ng  
RT: 14.527 min Scan# 14  
Delta R.T. 0.001 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

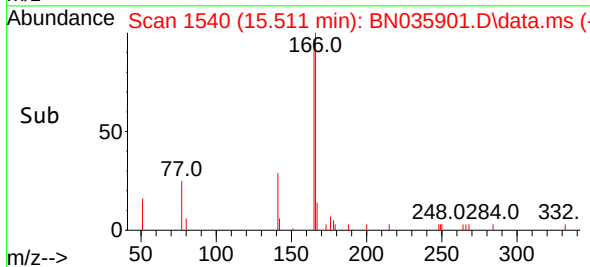
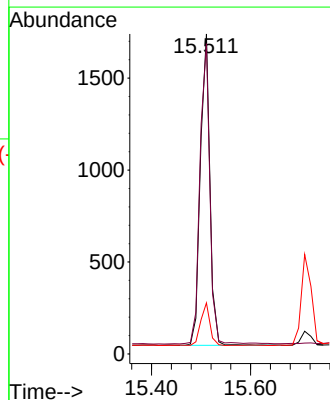
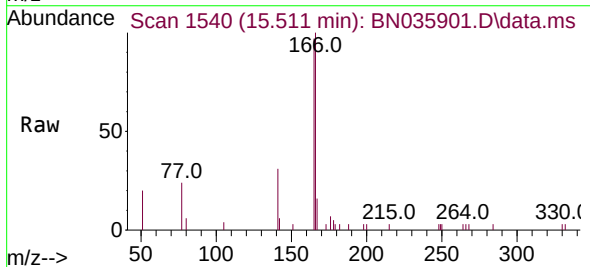
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

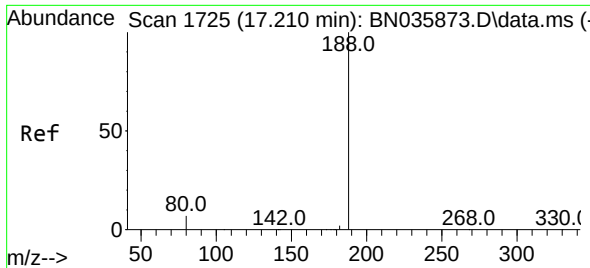
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 154     | 100   |       |       |
| 153     | 111.0 | 90.5  | 135.7 |
| 152     | 60.0  | 48.6  | 73.0  |



#18  
Fluorene  
Concen: 0.405 ng  
RT: 15.511 min Scan# 1540  
Delta R.T. 0.001 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 98.1  | 80.6  | 120.8 |
| 167     | 12.7  | 11.4  | 17.0  |

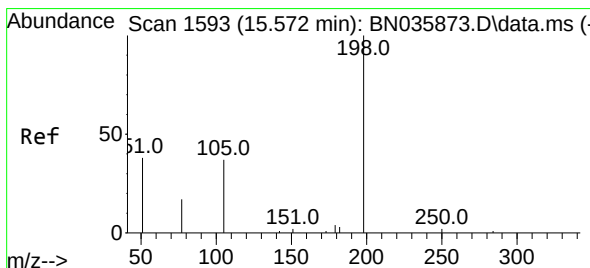
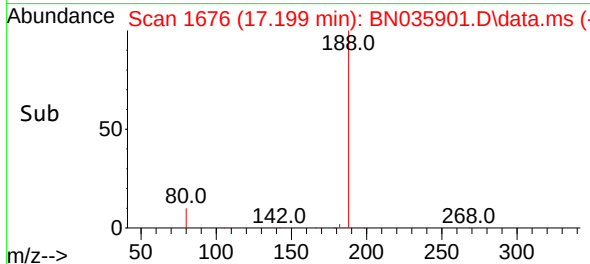
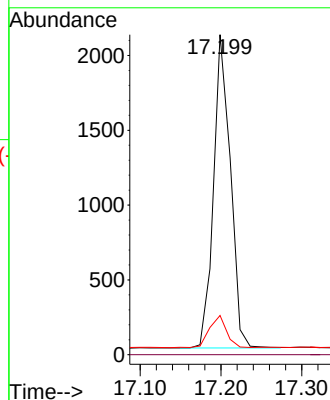
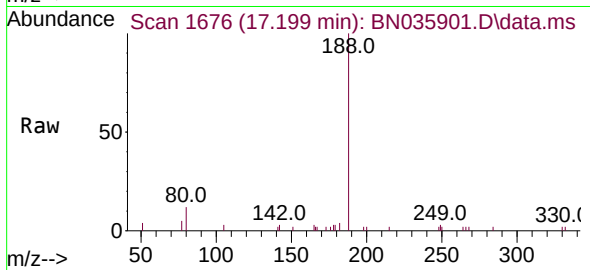




#19  
Phenanthrene-d10  
Concen: 0.400 ng  
RT: 17.199 min Scan# 11  
Delta R.T. -0.011 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

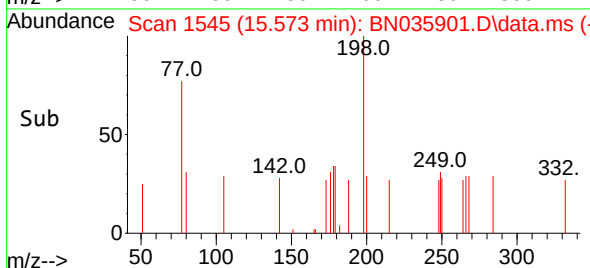
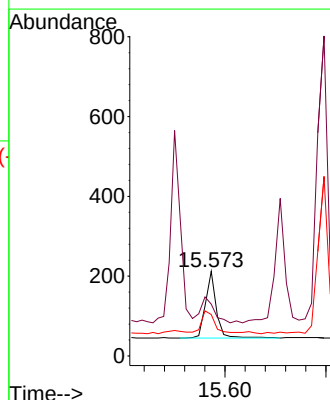
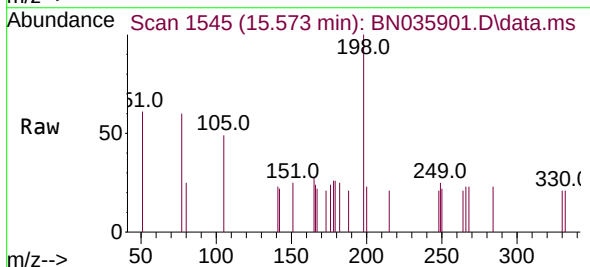
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

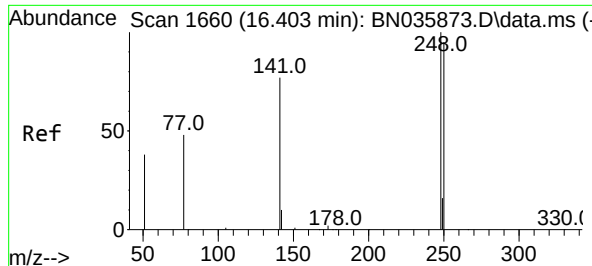
| Tgt Ion | 188  | 94  | 80   |
|---------|------|-----|------|
| Ratio   | 100  | 0.0 | 12.2 |
| Lower   |      | 0.0 | 7.3  |
| Upper   |      | 0.0 | 10.9 |
| Resp:   | 3028 |     |      |



#20  
4,6-Dinitro-2-methylphenol  
Concen: 0.473 ng  
RT: 15.573 min Scan# 1545  
Delta R.T. 0.001 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

| Tgt Ion | 198 | 51   | 105  |
|---------|-----|------|------|
| Ratio   | 100 | 61.3 | 49.1 |
| Lower   |     | 64.3 | 50.0 |
| Upper   |     | 96.5 | 75.0 |
| Resp:   | 249 |      |      |

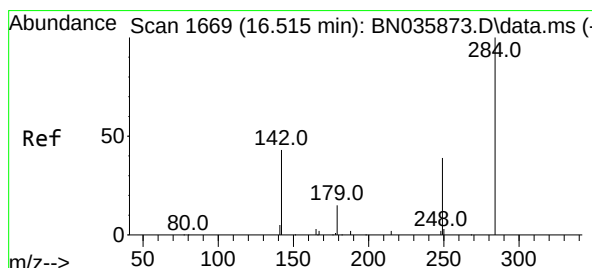
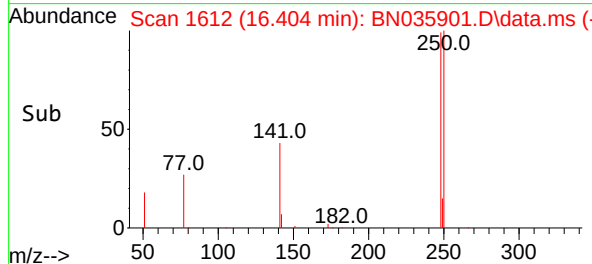
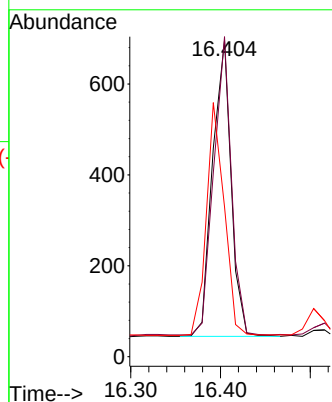
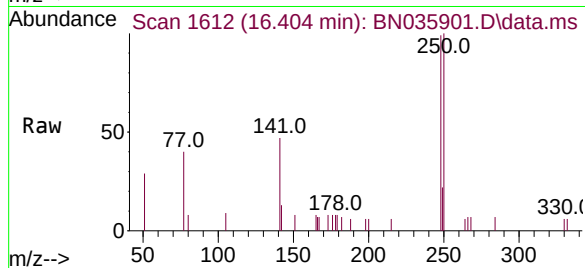




#21  
4-Bromophenyl-phenylether  
Concen: 0.449 ng  
RT: 16.404 min Scan# 1612  
Delta R.T. 0.001 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

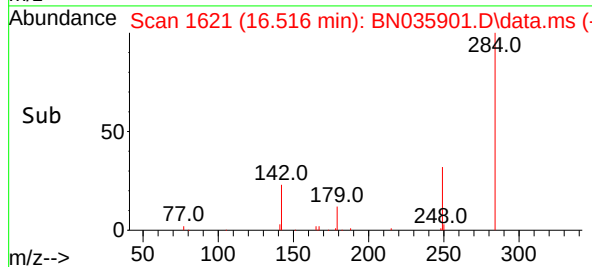
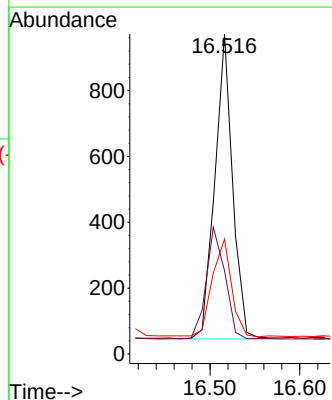
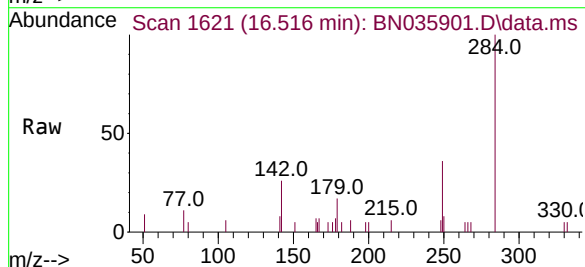
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

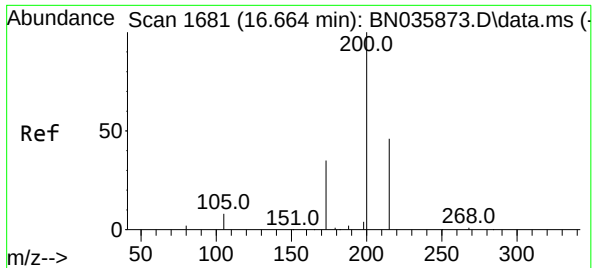
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 248     | 100   |       |       |
| 250     | 101.1 | 76.8  | 115.2 |
| 141     | 47.4  | 63.6  | 95.4  |



#22  
Hexachlorobenzene  
Concen: 0.451 ng  
RT: 16.516 min Scan# 1621  
Delta R.T. 0.001 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 284     | 100   |       |       |
| 142     | 38.4  | 31.4  | 47.0  |
| 249     | 35.0  | 27.8  | 41.8  |

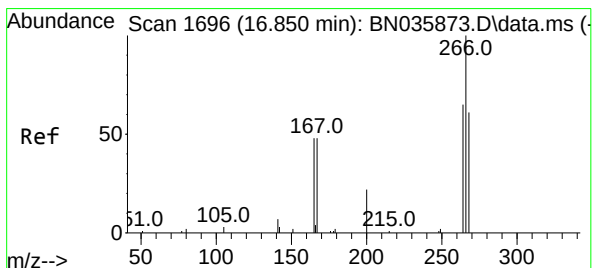
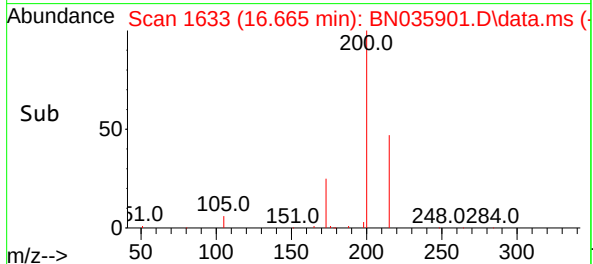
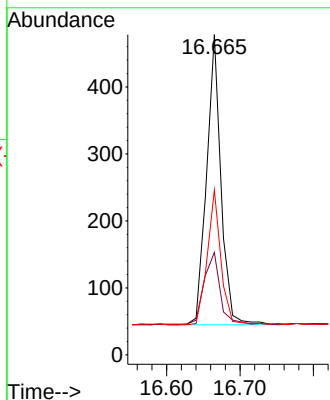
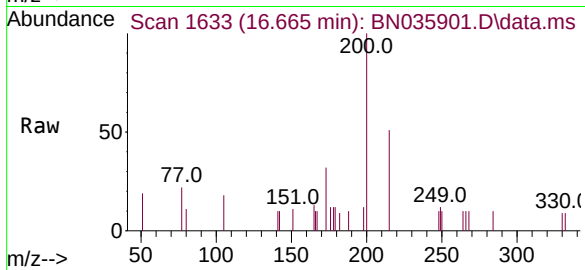




#23  
Atrazine  
Concen: 0.423 ng  
RT: 16.665 min Scan# 1633  
Delta R.T. 0.001 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

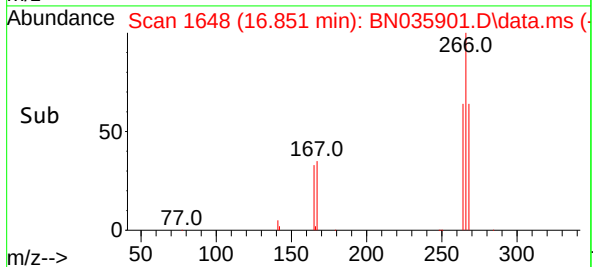
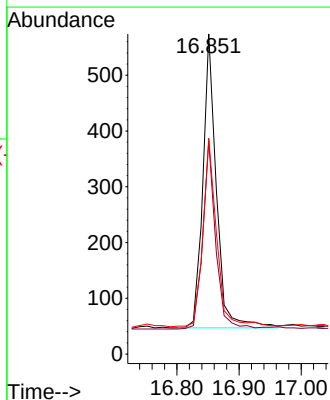
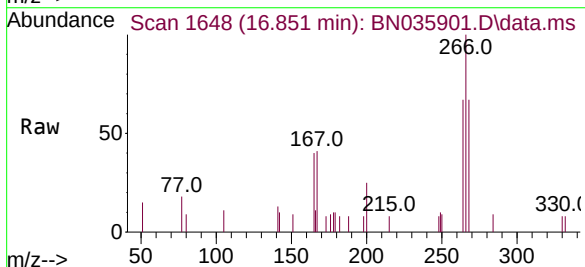
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 200     | 100   |       |       |
| 173     | 32.0  | 35.4  | 53.0  |
| 215     | 51.5  | 42.4  | 63.6  |

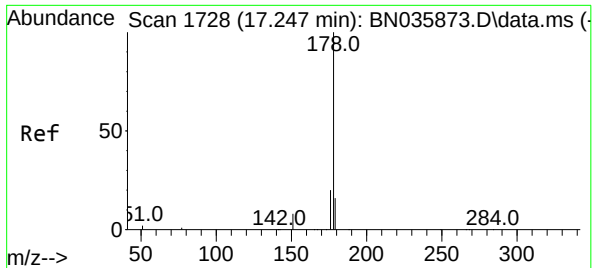


#24  
Pentachlorophenol  
Concen: 0.799 ng  
RT: 16.851 min Scan# 1648  
Delta R.T. 0.001 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 266     | 100   |       |       |
| 264     | 60.3  | 49.9  | 74.9  |
| 268     | 65.3  | 50.2  | 75.2  |



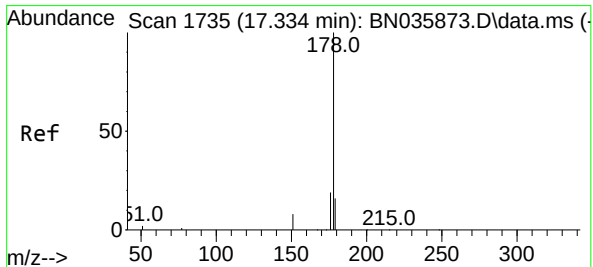
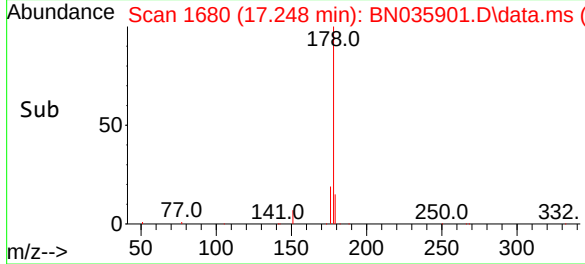
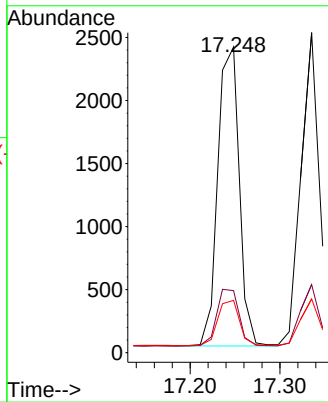
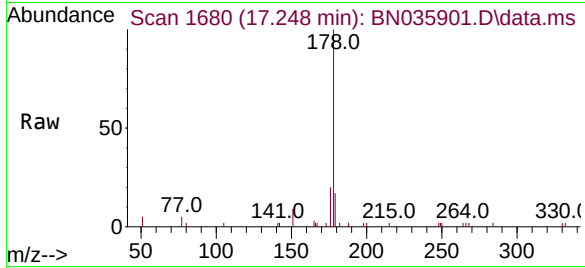




#25  
Phenanthrene  
Concen: 0.447 ng  
RT: 17.248 min Scan# 1680  
Delta R.T. 0.001 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

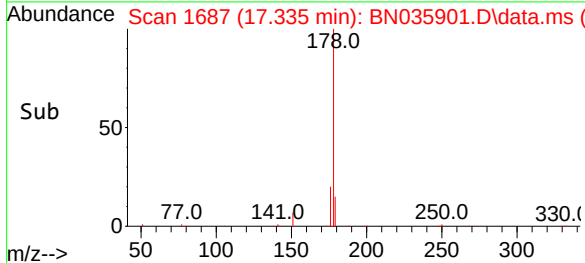
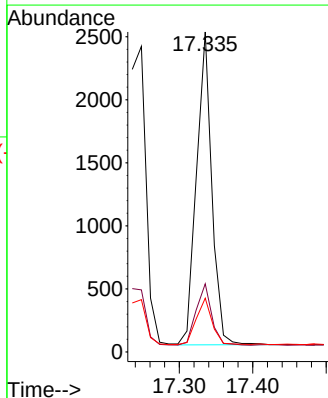
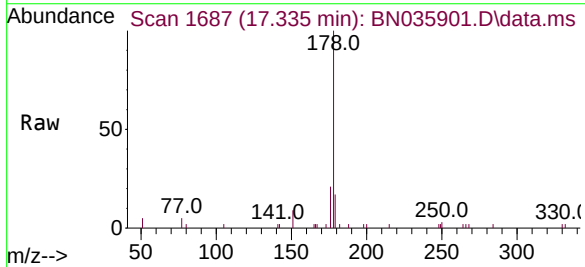
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

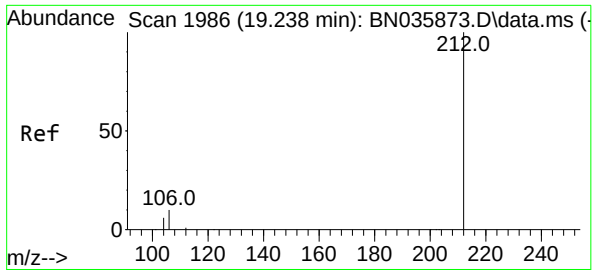
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 19.6  | 15.9  | 23.9  |
| 179     | 15.3  | 12.9  | 19.3  |



#26  
Anthracene  
Concen: 0.447 ng  
RT: 17.335 min Scan# 1687  
Delta R.T. 0.001 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 176     | 19.9  | 15.0  | 22.6  |
| 179     | 15.5  | 13.0  | 19.6  |

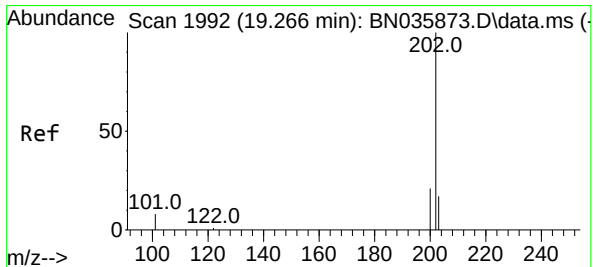
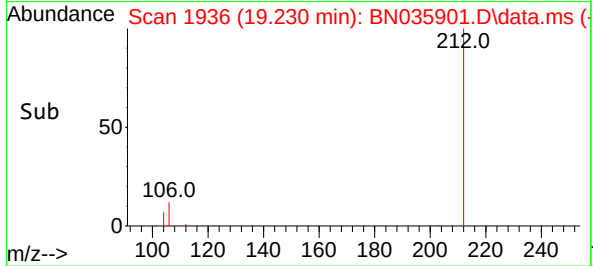
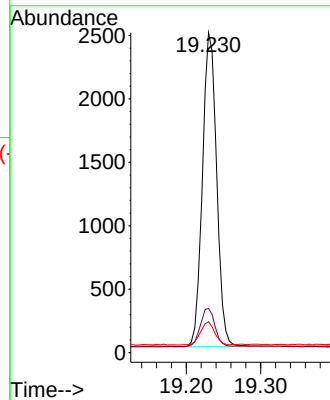
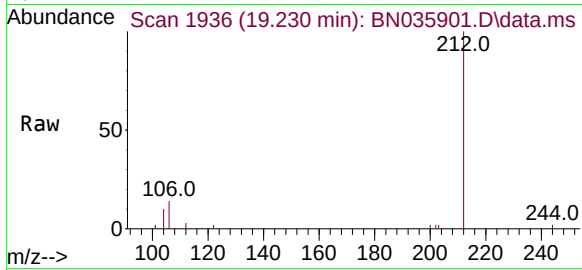




#27  
Fluoranthene-d10  
Concen: 0.439 ng  
RT: 19.230 min Scan# 1943  
Delta R.T. -0.008 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

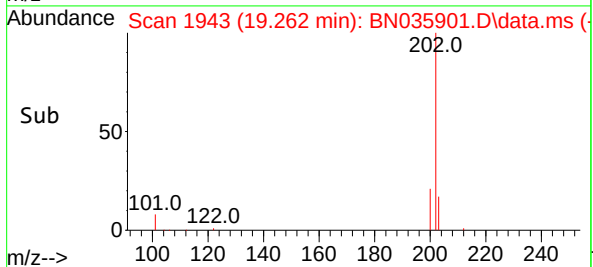
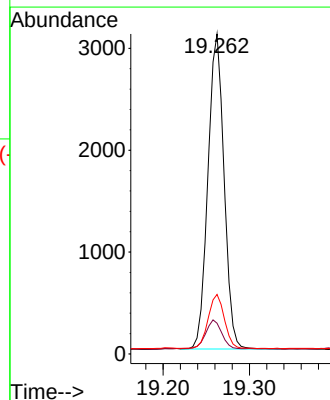
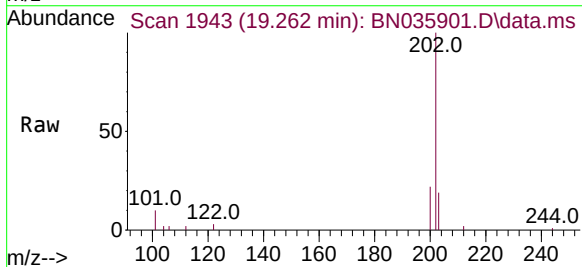
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

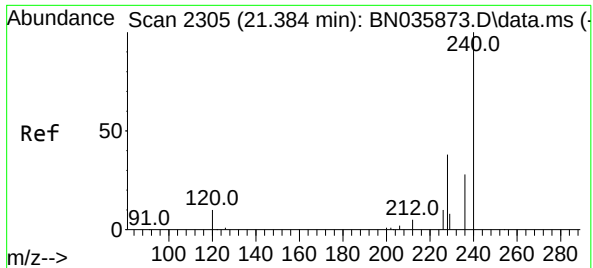
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 212     | 100   |       |       |
| 106     | 12.6  | 9.0   | 13.6  |
| 104     | 7.5   | 5.4   | 8.2   |



#28  
Fluoranthene  
Concen: 0.390 ng  
RT: 19.262 min Scan# 1943  
Delta R.T. -0.003 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 9.6   | 7.2   | 10.8  |
| 203     | 17.3  | 13.9  | 20.9  |

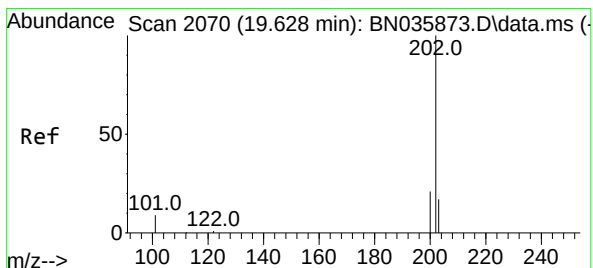
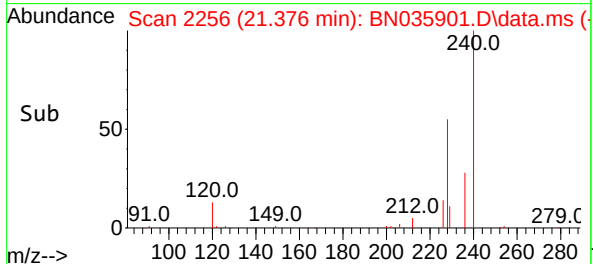
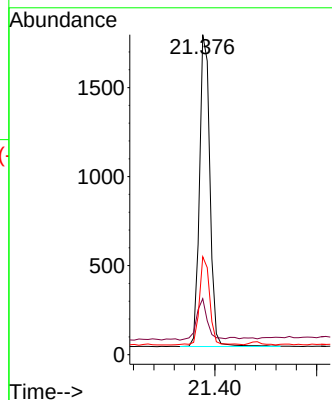
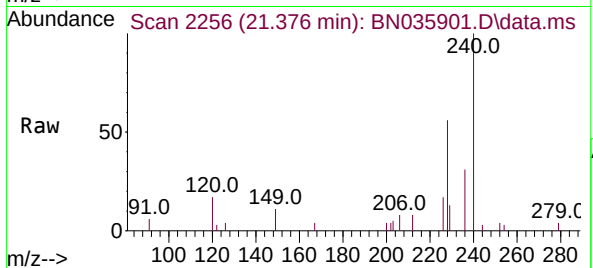




#29  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.376 min Scan# 21  
Delta R.T. -0.008 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

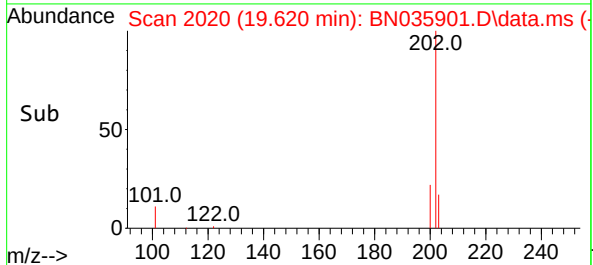
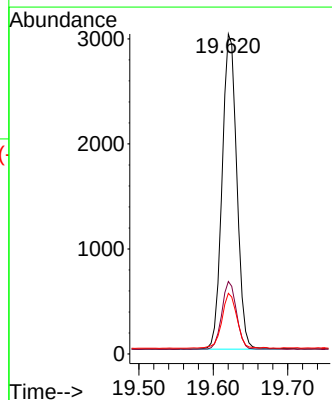
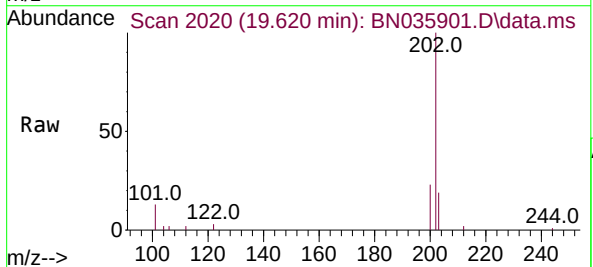
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

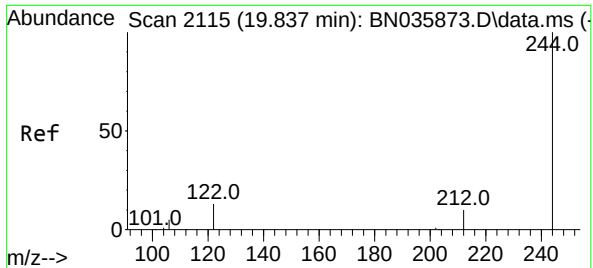
Tgt Ion:240 Resp: 2486  
Ion Ratio Lower Upper  
240 100  
120 17.5 11.1 16.7#  
236 30.6 24.6 36.8



#30  
Pyrene  
Concen: 0.407 ng  
RT: 19.620 min Scan# 2020  
Delta R.T. -0.008 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

Tgt Ion:202 Resp: 4104  
Ion Ratio Lower Upper  
202 100  
200 21.4 17.0 25.6  
203 17.7 14.6 22.0

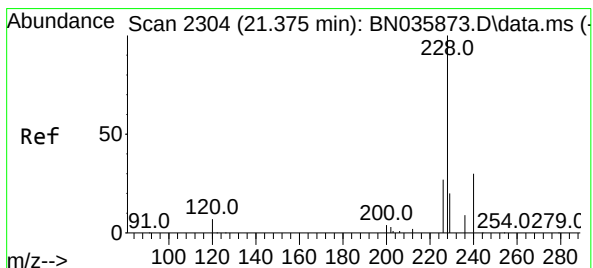
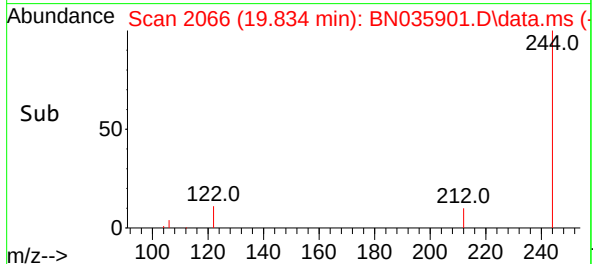
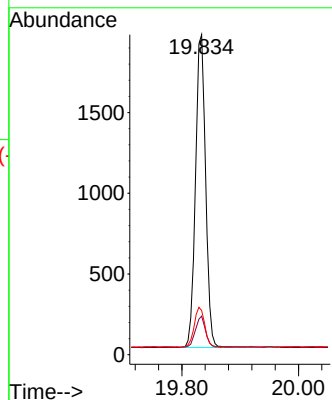
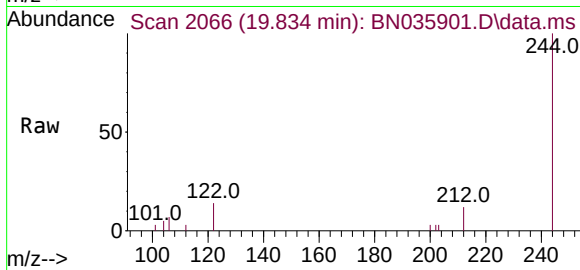




#31  
Terphenyl-d14  
Concen: 0.468 ng  
RT: 19.834 min Scan# 2066  
Delta R.T. -0.003 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

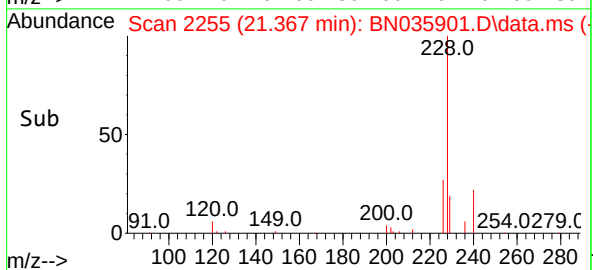
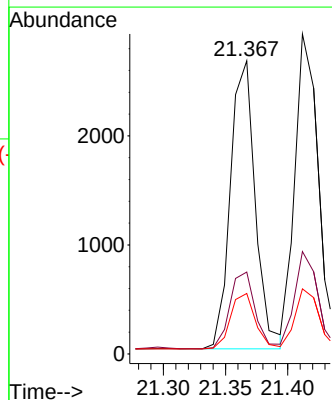
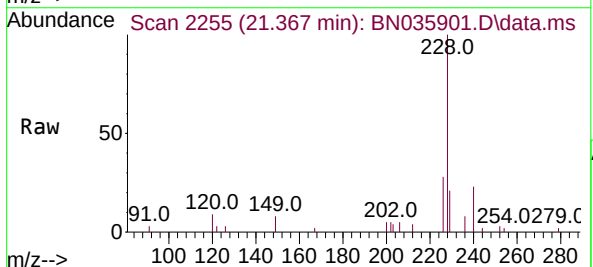
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

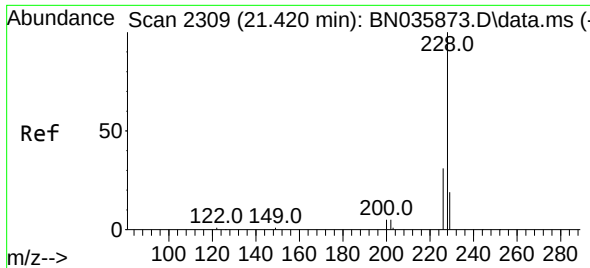
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 244     | 100   |       |       |
| 212     | 12.1  | 10.1  | 15.1  |
| 122     | 13.8  | 12.2  | 18.4  |



#32  
Benzo(a)anthracene  
Concen: 0.421 ng  
RT: 21.367 min Scan# 2255  
Delta R.T. -0.008 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 27.9  | 22.7  | 34.1  |
| 229     | 20.6  | 17.1  | 25.7  |

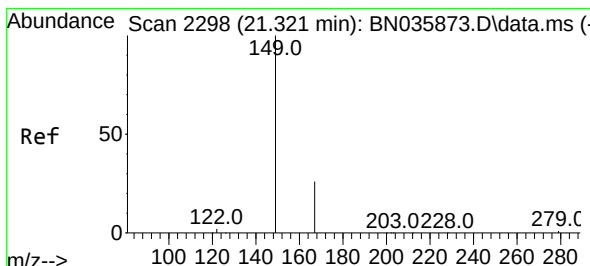
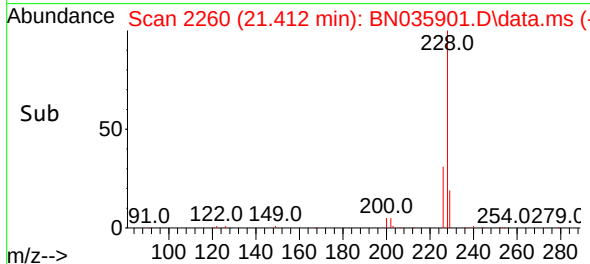
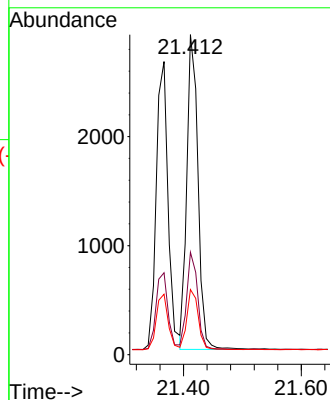
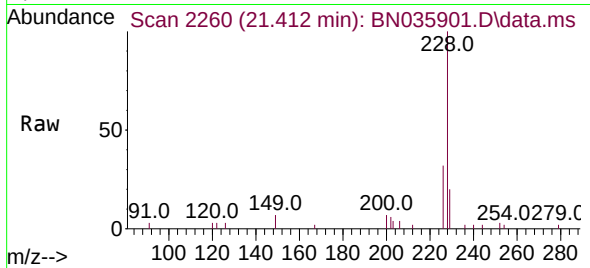




#33  
Chrysene  
Concen: 0.417 ng  
RT: 21.412 min Scan# 21  
Delta R.T. -0.008 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

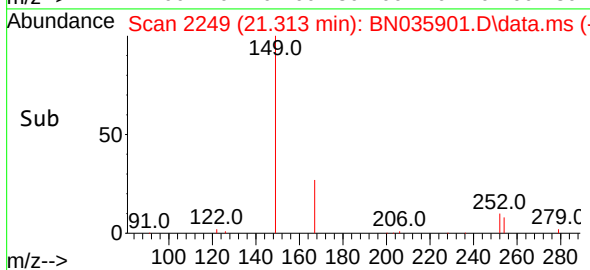
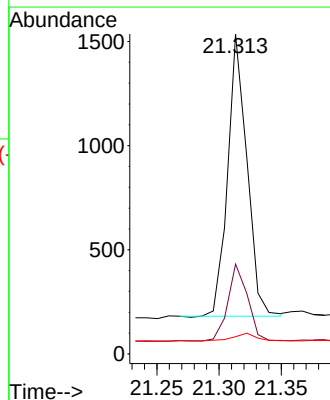
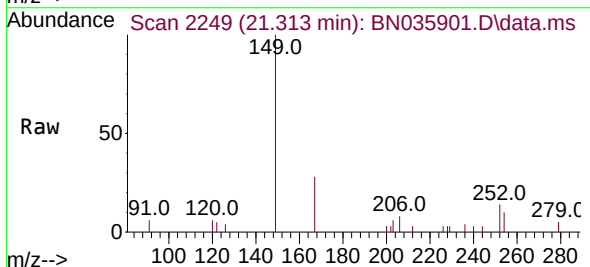
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

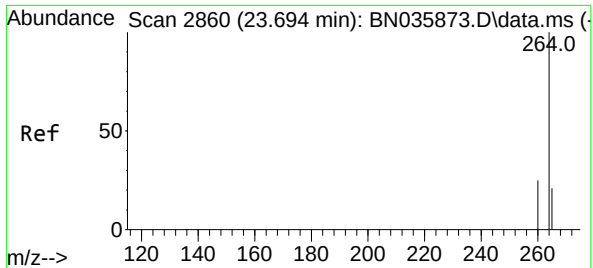
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 228     | 100   |       |       |
| 226     | 32.0  | 25.2  | 37.8  |
| 229     | 20.4  | 16.0  | 24.0  |



#34  
Bis(2-ethylhexyl)phthalate  
Concen: 0.408 ng  
RT: 21.313 min Scan# 2249  
Delta R.T. -0.008 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 149     | 100   |       |       |
| 167     | 28.0  | 21.4  | 32.0  |
| 279     | 3.8   | 3.0   | 4.6   |

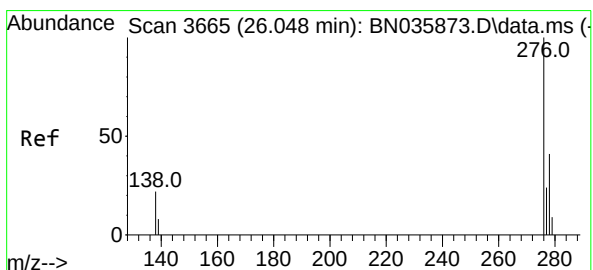
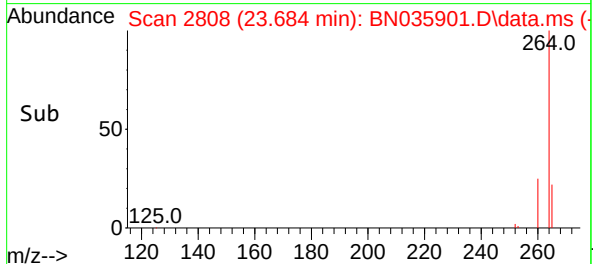
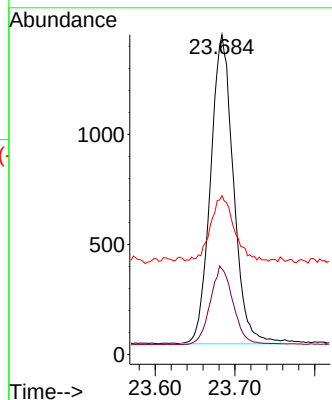
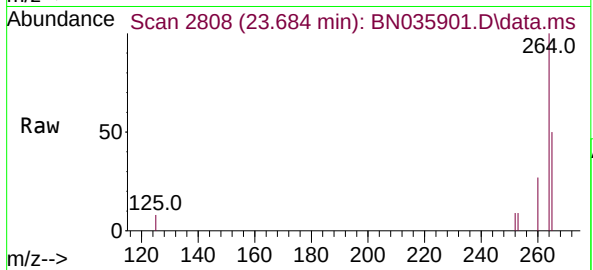




#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.684 min Scan# 21  
Delta R.T. -0.010 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

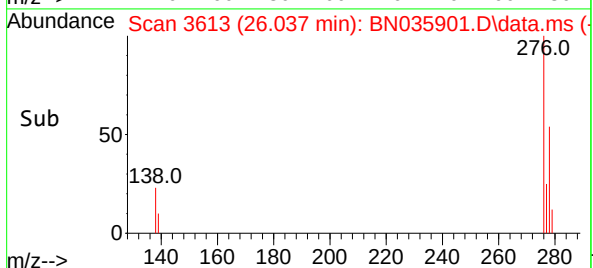
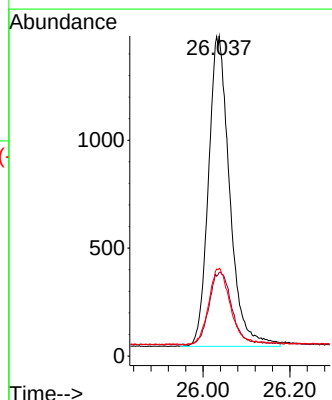
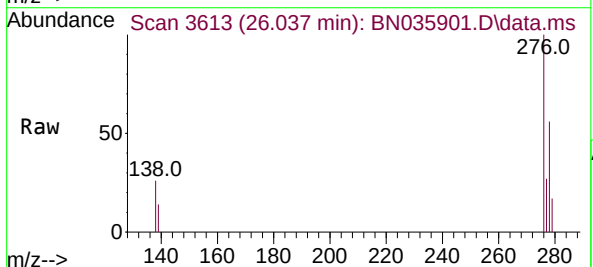
Instrument :  
BNA\_N  
ClientSampleId :  
PB165971BSD

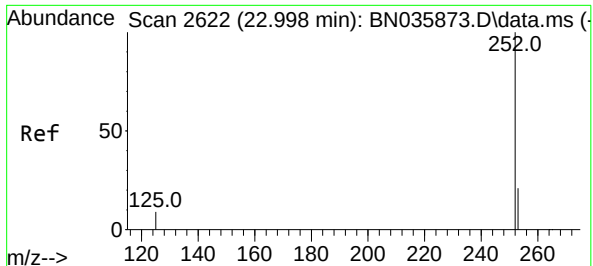
Tgt Ion:264 Resp: 2806  
Ion Ratio Lower Upper  
264 100  
260 26.8 21.7 32.5  
265 49.7 33.9 50.9



#36  
Indeno(1,2,3-cd)pyrene  
Concen: 0.441 ng  
RT: 26.037 min Scan# 3613  
Delta R.T. -0.010 min  
Lab File: BN035901.D  
Acq: 07 Jan 2025 17:55

Tgt Ion:276 Resp: 4882  
Ion Ratio Lower Upper  
276 100  
138 24.4 18.9 28.3  
277 25.4 19.5 29.3





#37

Benzo(b)fluoranthene

Concen: 0.402 ng

RT: 22.988 min Scan# 21

Delta R.T. -0.010 min

Lab File: BN035901.D

Acq: 07 Jan 2025 17:55

Instrument :

BNA\_N

ClientSampleId :

PB165971BSD

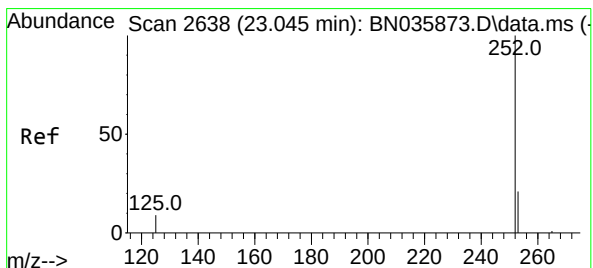
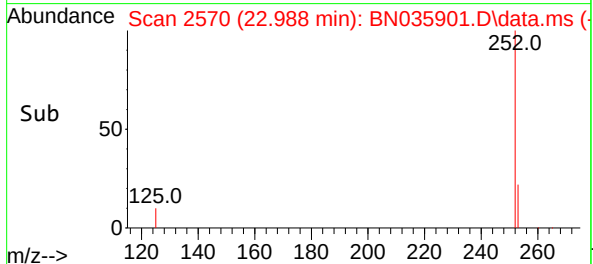
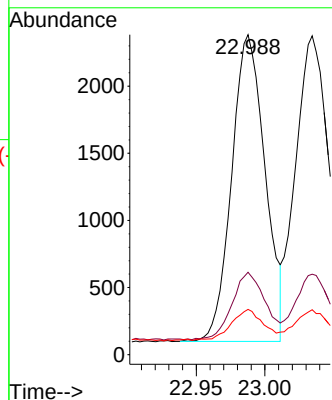
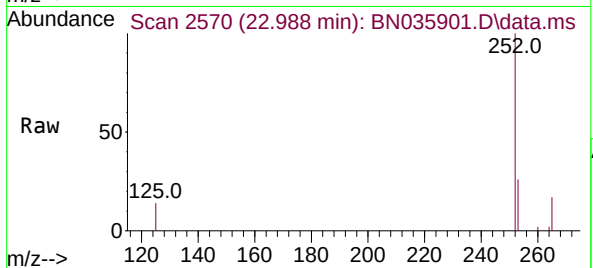
Tgt Ion:252 Resp: 3872

Ion Ratio Lower Upper

252 100

253 25.8 20.1 30.1

125 14.1 9.9 14.9



#38

Benzo(k)fluoranthene

Concen: 0.422 ng

RT: 23.035 min Scan# 2586

Delta R.T. -0.010 min

Lab File: BN035901.D

Acq: 07 Jan 2025 17:55

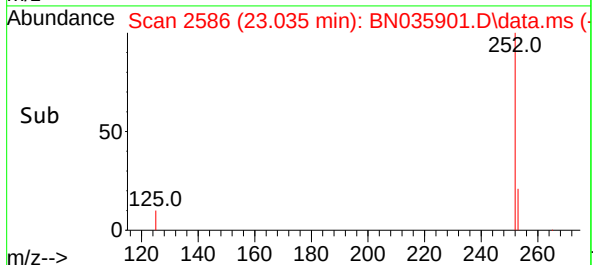
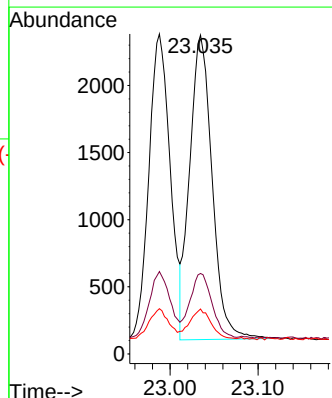
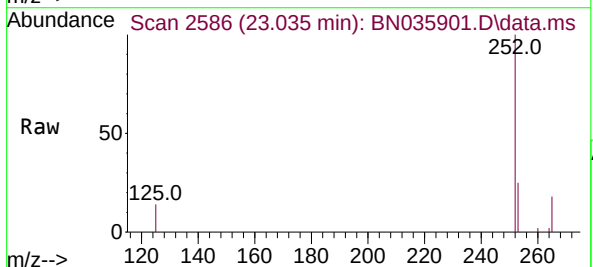
Tgt Ion:252 Resp: 4029

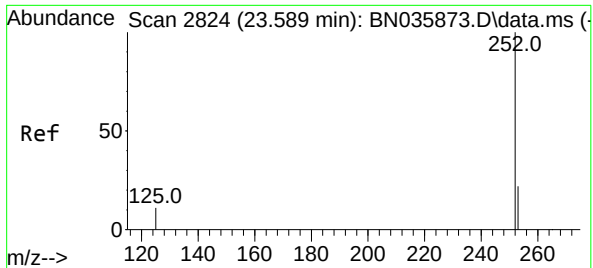
Ion Ratio Lower Upper

252 100

253 25.2 20.5 30.7

125 14.1 10.6 16.0





#39

Benzo(a)pyrene

Concen: 0.440 ng

RT: 23.581 min Scan# 21

Delta R.T. -0.008 min

Lab File: BN035901.D

Acq: 07 Jan 2025 17:55

Instrument :

BNA\_N

ClientSampleId :

PB165971BSD

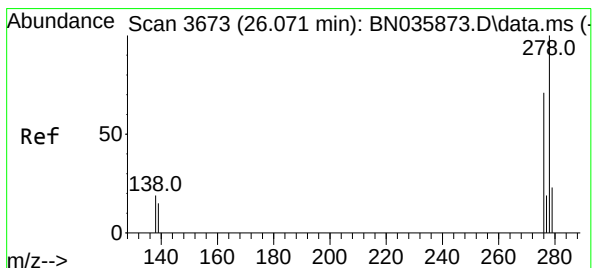
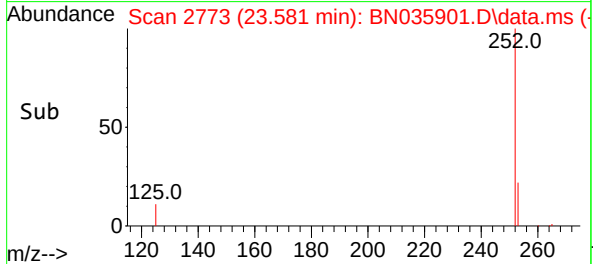
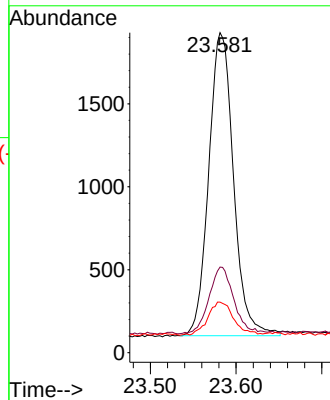
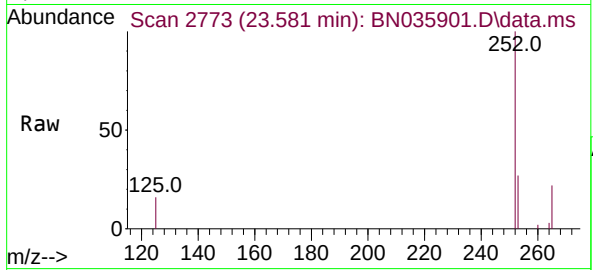
Tgt Ion:252 Resp: 3670

Ion Ratio Lower Upper

252 100

253 26.7 21.5 32.3

125 15.8 12.6 19.0



#40

Dibenzo(a,h)anthracene

Concen: 0.430 ng

RT: 26.055 min Scan# 3619

Delta R.T. -0.016 min

Lab File: BN035901.D

Acq: 07 Jan 2025 17:55

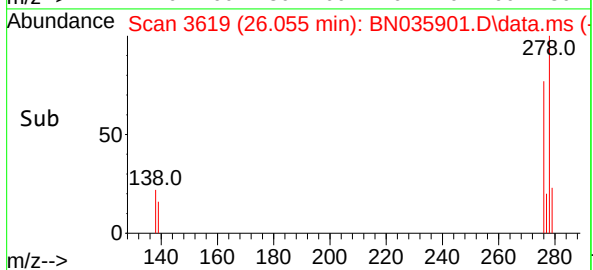
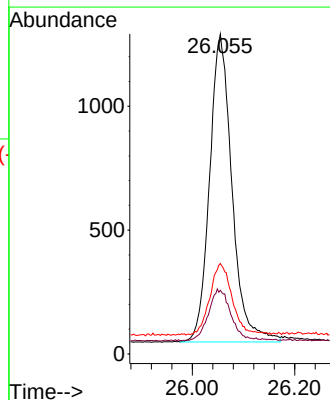
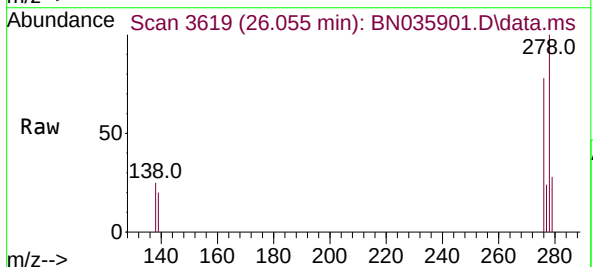
Tgt Ion:278 Resp: 3785

Ion Ratio Lower Upper

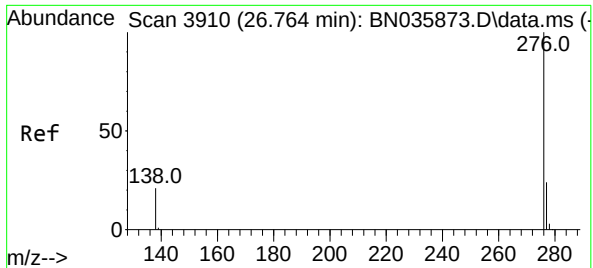
278 100

139 19.9 15.9 23.9

279 28.3 23.0 34.4







#41

Benzo(g,h,i)perylene

Concen: 0.393 ng

RT: 26.750 min Scan# 3857

Delta R.T. -0.013 min

Lab File: BN035901.D

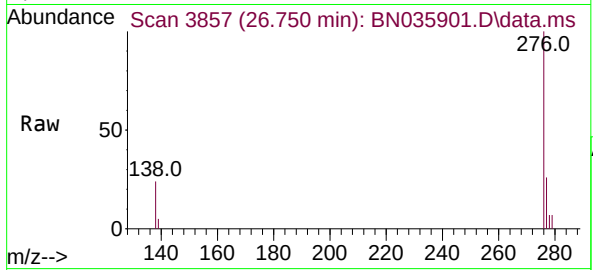
Acq: 07 Jan 2025 17:55

Instrument :

BNA\_N

ClientSampleId :

PB165971BSD



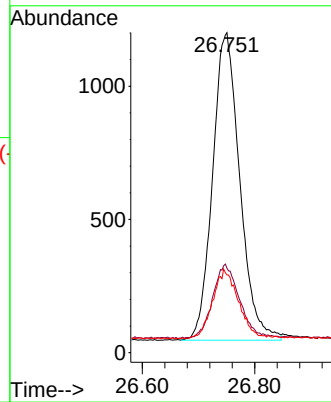
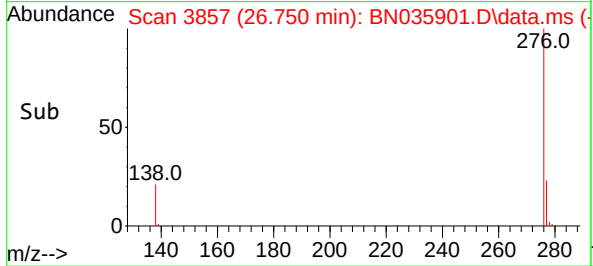
Tgt Ion:276 Resp: 3870

Ion Ratio Lower Upper

276 100

277 26.4 22.8 34.2

138 24.3 20.1 30.1





Manual Integration Report

|           |          |            |       |
|-----------|----------|------------|-------|
| Sequence: | BN010225 | Instrument | BNA_n |
|-----------|----------|------------|-------|

|           |         |           |           |           |               |               |        |
|-----------|---------|-----------|-----------|-----------|---------------|---------------|--------|
| Sample ID | File ID | Parameter | Review By | Review On | Supervised By | Supervised On | Reason |
|-----------|---------|-----------|-----------|-----------|---------------|---------------|--------|

## Manual Integration Report

|           |          |            |       |
|-----------|----------|------------|-------|
| Sequence: | BN010725 | Instrument | BNA_n |
|-----------|----------|------------|-------|

| Sample ID  | File ID    | Parameter            | Review By | Review On            | Supervised By | Supervised On       | Reason                      |
|------------|------------|----------------------|-----------|----------------------|---------------|---------------------|-----------------------------|
| SSTDCCC0.4 | BN035902.D | Benzo(k)fluoranthene | Jagrut    | 1/8/2025 10:24:51 AM | mohammad      | 1/9/2025 2:03:41 AM | Peak Integrated by Software |

Instrument ID: BNA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # BN010225**

|                          |                                                  |                   |                                               |
|--------------------------|--------------------------------------------------|-------------------|-----------------------------------------------|
| Review By                | Jagrut                                           | Review On         | 1/3/2025 3:37:20 PM                           |
| Supervise By             | mohammad                                         | Supervise On      | 1/6/2025 8:20:47 AM                           |
| SubDirectory             | BN010225                                         | HP Acquire Method | BNA_N, 8270_SiM HP Processing Method bn010225 |
| <b>STD. NAME</b>         | <b>STD REF.#</b>                                 |                   |                                               |
| Tune/Reschk              | SP6573                                           |                   |                                               |
| Initial Calibration Stds | SP6663,SP6662,SP6661,SP6660,SP6659,SP6658,SP6657 |                   |                                               |
| CCC                      | SP6661                                           |                   |                                               |
| Internal Standard/PEM    | SP6682,1ul/100ul sample                          |                   |                                               |
| ICV/I.BLK                | SP6684                                           |                   |                                               |
| Surrogate Standard       |                                                  |                   |                                               |
| MS/MSD Standard          |                                                  |                   |                                               |
| LCS Standard             |                                                  |                   |                                               |

| Sr# | SampleId    | Data File Name | Date-Time         | Operator | Status |
|-----|-------------|----------------|-------------------|----------|--------|
| 1   | DFTPP       | BN035870.D     | 02 Jan 2025 10:49 | RC/JU    | Ok     |
| 2   | SSTDICC0.1  | BN035871.D     | 02 Jan 2025 11:28 | RC/JU    | Ok     |
| 3   | SSTDICC0.2  | BN035872.D     | 02 Jan 2025 12:04 | RC/JU    | Ok     |
| 4   | SSTDICCC0.4 | BN035873.D     | 02 Jan 2025 12:40 | RC/JU    | Ok     |
| 5   | SSTDICC0.8  | BN035874.D     | 02 Jan 2025 13:16 | RC/JU    | Ok     |
| 6   | SSTDICC1.6  | BN035875.D     | 02 Jan 2025 13:52 | RC/JU    | Ok     |
| 7   | SSTDICC3.2  | BN035876.D     | 02 Jan 2025 14:28 | RC/JU    | Ok     |
| 8   | SSTDICC5.0  | BN035877.D     | 02 Jan 2025 15:04 | RC/JU    | Ok     |
| 9   | SSTDICV0.4  | BN035878.D     | 02 Jan 2025 15:51 | RC/JU    | Ok     |
| 10  | PB165828BL  | BN035879.D     | 02 Jan 2025 16:41 | RC/JU    | Not Ok |

M : Manual Integration

Instrument ID: BNA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # BN010725**

|                          |                                                  |                   |                                               |
|--------------------------|--------------------------------------------------|-------------------|-----------------------------------------------|
| Review By                | Jagrut                                           | Review On         | 1/8/2025 10:25:02 AM                          |
| Supervise By             | mohammad                                         | Supervise On      | 1/9/2025 2:03:41 AM                           |
| SubDirectory             | BN010725                                         | HP Acquire Method | BNA_N, 8270_SiM HP Processing Method bn010225 |
| <b>STD. NAME</b>         | <b>STD REF.#</b>                                 |                   |                                               |
| Tune/Reschk              | SP6701                                           |                   |                                               |
| Initial Calibration Stds | SP6663,SP6662,SP6661,SP6660,SP6659,SP6658,SP6657 |                   |                                               |
| CCC                      | SP6661                                           |                   |                                               |
| Internal Standard/PEM    | SP6682,1ul/100ul sample                          |                   |                                               |
| ICV/I.BLK                | SP6684                                           |                   |                                               |
| Surrogate Standard       |                                                  |                   |                                               |
| MS/MSD Standard          |                                                  |                   |                                               |
| LCS Standard             |                                                  |                   |                                               |

| Sr# | SampleId    | Data File Name | Date-Time         | Operator | Status |
|-----|-------------|----------------|-------------------|----------|--------|
| 1   | DFTPP       | BN035896.D     | 07 Jan 2025 14:24 | RC/JU    | Ok     |
| 2   | SSTDCCC0.4  | BN035897.D     | 07 Jan 2025 15:03 | RC/JU    | Ok     |
| 3   | PB165971BL  | BN035898.D     | 07 Jan 2025 16:08 | RC/JU    | Ok     |
| 4   | Q1022-03    | BN035899.D     | 07 Jan 2025 16:44 | RC/JU    | Ok     |
| 5   | PB165971BS  | BN035900.D     | 07 Jan 2025 17:19 | RC/JU    | Ok     |
| 6   | PB165971BSD | BN035901.D     | 07 Jan 2025 17:55 | RC/JU    | Ok     |
| 7   | SSTDCCC0.4  | BN035902.D     | 07 Jan 2025 18:31 | RC/JU    | Ok,M   |

M : Manual Integration

Instrument ID: BNA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # BN010225**

|              |          |                   |                                           |
|--------------|----------|-------------------|-------------------------------------------|
| Review By    | Jagrut   | Review On         | 1/3/2025 3:37:20 PM                       |
| Supervise By | mohammad | Supervise On      | 1/6/2025 8:20:47 AM                       |
| SubDirectory | BN010225 | HP Acquire Method | BNA_N, 8270_HP Processing Method bn010225 |

| STD. NAME                | STD REF.#                                        |
|--------------------------|--------------------------------------------------|
| Tune/Reschk              | SP6573                                           |
| Initial Calibration Stds | SP6663,SP6662,SP6661,SP6660,SP6659,SP6658,SP6657 |
| CCC                      | SP6661                                           |
| Internal Standard/PEM    | SP6682,1ul/100ul sample                          |
| ICV/I.BLK                | SP6684                                           |
| Surrogate Standard       |                                                  |
| MS/MSD Standard          |                                                  |
| LCS Standard             |                                                  |

| Sr# | SampleID    | ClientID    | Data File Name | Date-Time         | Comment                          | Operator | Status |
|-----|-------------|-------------|----------------|-------------------|----------------------------------|----------|--------|
| 1   | DFTPP       | DFTPP       | BN035870.D     | 02 Jan 2025 10:49 |                                  | RC/JU    | Ok     |
| 2   | SSTDICC0.1  | SSTDICC0.1  | BN035871.D     | 02 Jan 2025 11:28 |                                  | RC/JU    | Ok     |
| 3   | SSTDICC0.2  | SSTDICC0.2  | BN035872.D     | 02 Jan 2025 12:04 |                                  | RC/JU    | Ok     |
| 4   | SSTDICCC0.4 | SSTDICCC0.4 | BN035873.D     | 02 Jan 2025 12:40 | The Calibration is Good For DOD  | RC/JU    | Ok     |
| 5   | SSTDICC0.8  | SSTDICC0.8  | BN035874.D     | 02 Jan 2025 13:16 |                                  | RC/JU    | Ok     |
| 6   | SSTDICC1.6  | SSTDICC1.6  | BN035875.D     | 02 Jan 2025 13:52 |                                  | RC/JU    | Ok     |
| 7   | SSTDICC3.2  | SSTDICC3.2  | BN035876.D     | 02 Jan 2025 14:28 |                                  | RC/JU    | Ok     |
| 8   | SSTDICC5.0  | SSTDICC5.0  | BN035877.D     | 02 Jan 2025 15:04 |                                  | RC/JU    | Ok     |
| 9   | SSTDICV0.4  | ICVBN010225 | BN035878.D     | 02 Jan 2025 15:51 |                                  | RC/JU    | Ok     |
| 10  | PB165828BL  | PB165828BL  | BN035879.D     | 02 Jan 2025 16:41 | Analyzed for Contamination check | RC/JU    | Not Ok |

M : Manual Integration

Instrument ID: BNA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # BN010725**

|              |          |                   |                                           |
|--------------|----------|-------------------|-------------------------------------------|
| Review By    | Jagrut   | Review On         | 1/8/2025 10:25:02 AM                      |
| Supervise By | mohammad | Supervise On      | 1/9/2025 2:03:41 AM                       |
| SubDirectory | BN010725 | HP Acquire Method | BNA_N, 8270_HP Processing Method bn010225 |

| STD. NAME                | STD REF.#                                        |
|--------------------------|--------------------------------------------------|
| Tune/Reschk              | SP6701                                           |
| Initial Calibration Stds | SP6663,SP6662,SP6661,SP6660,SP6659,SP6658,SP6657 |
| CCC                      | SP6661                                           |
| Internal Standard/PEM    | SP6682,1ul/100ul sample                          |
| ICV/I.BLK                | SP6684                                           |
| Surrogate Standard       |                                                  |
| MS/MSD Standard          |                                                  |
| LCS Standard             |                                                  |

| Sr# | SampleID    | ClientID           | Data File Name | Date-Time         | Comment | Operator | Status |
|-----|-------------|--------------------|----------------|-------------------|---------|----------|--------|
| 1   | DFTPP       | DFTPP              | BN035896.D     | 07 Jan 2025 14:24 |         | RC/JU    | Ok     |
| 2   | SSTDCCC0.4  | SSTDCCC0.4         | BN035897.D     | 07 Jan 2025 15:03 |         | RC/JU    | Ok     |
| 3   | PB165971BL  | PB165971BL         | BN035898.D     | 07 Jan 2025 16:08 |         | RC/JU    | Ok     |
| 4   | Q1022-03    | BP-VPB-190A-GW-838 | BN035899.D     | 07 Jan 2025 16:44 |         | RC/JU    | Ok     |
| 5   | PB165971BS  | PB165971BS         | BN035900.D     | 07 Jan 2025 17:19 |         | RC/JU    | Ok     |
| 6   | PB165971BSD | PB165971BSD        | BN035901.D     | 07 Jan 2025 17:55 |         | RC/JU    | Ok     |
| 7   | SSTDCCC0.4  | SSTDCCC0.4EC       | BN035902.D     | 07 Jan 2025 18:31 |         | RC/JU    | Ok,M   |

M : Manual Integration

**SOP ID:** M3510C,3580A-Extraction SVOC-20

**Clean Up SOP #:** N/A

**Matrix :** Water

**Weigh By:** N/A

**Balance check:** N/A

**Balance ID:** N/A

**pH Strip Lot#:** E3574

**Extraction By:** RP

**Filter By:** RP

**pH Meter ID:** N/A

**Hood ID:** 4,5,6,7

**Extraction Start Date :** 01/07/2025

**Extraction Start Time :** 11:00

**Extraction End Date :** 01/07/2025

**Extraction End Time :** 15:55

**Concentration By:** EH

**Supervisor By :** rajesh

**Extraction Method:** ☒ Separatory Funnel ☐ Continuous Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☐ Soxhlet

| Standard Name | MLS USED | Concentration ug/mL | STD REF. # FROM LOG |
|---------------|----------|---------------------|---------------------|
| Spike Sol 1   | 1.0ML    | 0.4 PPM             | SP6616              |
| Surrogate     | 1.0ML    | 0.4 PPM             | SP6666              |
| N/A           | N/A      | N/A                 | N/A                 |
| N/A           | N/A      | N/A                 | N/A                 |
| N/A           | N/A      | N/A                 | N/A                 |

| Chemical Used      | ML/SAMPLE USED | Lot Number |
|--------------------|----------------|------------|
| Methylene Chloride | N/A            | E3848      |
| Baked Na2SO4       | N/A            | EP2577     |
| 10N NaoH           | N/A            | EP2559     |
| H2SO4 1:1          | N/A            | EP2565     |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |
| N/A                | N/A            | N/A        |

**Extraction Conformance/Non-Conformance Comments:**

1.5 ML Vial lot# 2210673. pH Adjusted <2 with 1:1 H2SO4 & >11 with 10 N NaOH.

**KD Bath ID:** Water bath -01,02

**KD Bath Temperature:** 60 °C

**Envap ID:** NEVAP-02

**Envap Temperature:** 40 °C

| Date / Time | Prepped Sample Relinquished By/Location | Received By/Location |
|-------------|-----------------------------------------|----------------------|
| 01/07/25    | RP (EAT 245)                            | AC/SVOC              |
| 16:00       | Preparation Group                       | Analysis Group       |



Analytical Method: M3510C,3580A-Extraction SVOC-20

Concentration Date: 01/07/2025

| Sample ID       | Client Sample ID           | Test               | g / (mL) | PH | Surr/Spike By: |            | Final Vol.<br>(mL) | JarID | Comments | Prep<br>Pos |
|-----------------|----------------------------|--------------------|----------|----|----------------|------------|--------------------|-------|----------|-------------|
|                 |                            |                    |          |    | AddedBy        | VerifiedBy |                    |       |          |             |
| PB165971BL      | SBLK971                    | SVOC-SIMGrou<br>p1 | 1000     | 6  | rajesh         | RUPESH     | 1                  |       |          | SEP-01      |
| PB165971BS      | SLCS971                    | SVOC-SIMGrou<br>p1 | 1000     | 6  | rajesh         | RUPESH     | 1                  |       |          | 2           |
| PB165971BS<br>D | SLCSD971                   | SVOC-SIMGrou<br>p1 | 1000     | 6  | rajesh         | RUPESH     | 1                  |       |          | 3           |
| Q1022-03        | BP-VPB-190A-GW-838-84<br>0 | SVOC-SIMGrou<br>p1 | 760      | 6  | rajesh         | RUPESH     | 1                  | C     | Muddy    | 4           |

\* Extracts relinquished on the same date as received.

2  
1/7/25

Q1022-SVOC-SIMGroup1  
11:00

WORKLIST(Hardcopy Internal Chain)

WorkList Name : q1022

WorkList ID : 186790

Department : Extraction

Date : 01-07-2025 10:59:15

| Sample   | Customer Sample        | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method        |
|----------|------------------------|--------|----------------|--------------|----------|-----------------------------|--------------|---------------|
| Q1022-03 | BP-VPB-190A-GW-838-840 | Water  | SVOC-SIMGroup1 | Cool 4 deg C | TETR06   | N41                         | 01/03/2025   | 8270-Modified |

Date/Time 01/07/25 10:59  
Raw Sample Received by: Rr (Sar 10:59)  
Raw Sample Relinquished by: AP 5m

Date/Time 01/07/25 11:15  
Raw Sample Received by: AP 5m  
Raw Sample Relinquished by: Rr (Sar 10:59)

## Prep Standard - Chemical Standard Summary

**Order ID :** Q1022  
**Test :** SVOC-SIMGroup1  
**Prepbatch ID :** PB165971,  
**Sequence ID/Qc Batch ID:** BN010725,

**Standard ID :**  
EP2559,EP2565,EP2577,SP6616,SP6629,SP6656,SP6657,SP6658,SP6659,SP6660,SP6661,SP6662,SP6663,SP666  
6,SP6682,SP6683,SP6684,SP6701,

**Chemical ID :**  
1ul/100ul  
sample,E3551,E3657,E3788,E3791,E3817,E3818,E3828,E3848,M5173,S10103,S10247,S 11011,S11074,S11097,S114  
94,S11792,S11831,S12077,S12079,S12105,S12113,S12126,S12142,S12189,S12207,S12208,S12314,S12328,S12453  
,S12469,S12517,W3112,

## Extractions STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                      | <u>PipetteID</u> | <u>Supervised By</u>              |
|------------------|----------------------------|------------------------|------------------|------------------------|--------------------|-------------------------------------|------------------|-----------------------------------|
| 1874             | 10 N SODIUM HYDROXIDE SOLN | <a href="#">EP2559</a> | 11/14/2024       | 05/14/2025             | Rajesh Parikh      | Extraction_SC<br>ALE_2<br>(EX-SC-2) | None             | RUPESHKUMAR<br>SHAH<br>11/14/2024 |

**FROM** 1000.00000ml of W3112 + 400.00000gram of E3657 = Final Quantity: 1000.000 ml

| <u>Recipe ID</u> | <u>NAME</u>    | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>              |
|------------------|----------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|-----------------------------------|
| 314              | 1.1 H2SO4 SOLN | <a href="#">EP2565</a> | 11/20/2024       | 05/20/2025             | Rajesh Parikh      | None           | None             | RUPESHKUMAR<br>SHAH<br>11/20/2024 |

**FROM** 1000.00000ml of M5173 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml

## Extractions STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>          | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                      | <u>PipetteID</u> | <u>Supervised By</u>              |
|------------------|----------------------|------------------------|------------------|------------------------|--------------------|-------------------------------------|------------------|-----------------------------------|
| 3923             | Baked Sodium Sulfate | <a href="#">EP2577</a> | 01/06/2025       | 07/01/2025             | Rajesh Parikh      | Extraction_SC<br>ALE_2<br>(EX-SC-2) | None             | RUPESHKUMAR<br>SHAH<br>01/06/2025 |

**FROM** 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

| <u>Recipe ID</u> | <u>NAME</u>            | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>         |
|------------------|------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|------------------------------|
| 3492             | 8270-SIM-Spike 0.4 PPM | <a href="#">SP6616</a> | 09/06/2024       | 02/12/2025             | Rahul Chavli       | None           | None             | mohammad ahmed<br>09/11/2024 |

**FROM** 0.00160ml of S11011 + 0.02000ml of S11792 + 0.04000ml of S12105 + 0.04000ml of S12126 + 0.04000ml of S12453 +  
99.85840ml of E3788 = Final Quantity: 100.000 ml

## SVOC STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>               | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|---------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3493             | Internal Standard 0.4 PPM | <a href="#">SP6629</a> | 09/12/2024       | 03/04/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                           |                        |                  |                        |                    |                |                  | 10/14/2024           |

**FROM** 0.10000ml of S12314 + 4.90000ml of E3791 = Final Quantity: 5.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                            | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|----------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3339             | 8270 sim calibration stock 10ppm (CPI) | <a href="#">SP6656</a> | 10/24/2024       | 02/08/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                        |                        |                  |                        |                    |                |                  | 11/28/2024           |

**FROM** 0.03350ml of S10103 + 0.05000ml of S11494 + 0.05000ml of S12079 + 0.12500ml of S11831 + 0.12500ml of S12113 + 0.20000ml of S12077 + 0.25000ml of S11097 + 24.16650ml of E3817 = Final Quantity: 25.000 ml

## SVOC STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                            | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|----------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3361             | 8270-SIM MDL-5PPM CALIBRATION SOLUTION | <a href="#">SP6657</a> | 10/24/2024       | 02/08/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                        |                        |                  |                        |                    |                |                  | 11/28/2024           |

**FROM** 0.50000ml of E3817 + 0.01000ml of SP6629 + 0.50000ml of SP6656 = Final Quantity: 1.010 ml

| <u>Recipe ID</u> | <u>NAME</u>                              | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3341             | 8270-SIM MDL-3.2PPM CALIBRATION SOLUTION | <a href="#">SP6658</a> | 10/24/2024       | 02/08/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                          |                        |                  |                        |                    |                |                  | 11/28/2024           |

**FROM** 0.68000ml of E3817 + 0.01000ml of SP6629 + 0.32000ml of SP6656 = Final Quantity: 1.010 ml

## SVOC STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                              | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3344             | 8270-SIM MDL-1.6PPM CALIBRATION SOLUTION | <a href="#">SP6659</a> | 10/24/2024       | 02/08/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                          |                        |                  |                        |                    |                |                  | 11/28/2024           |

**FROM** 0.84000ml of E3817 + 0.01000ml of SP6629 + 0.16000ml of SP6656 = Final Quantity: 1.010 ml

| <u>Recipe ID</u> | <u>NAME</u>                              | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3342             | 8270-SIM MDL-0.8PPM CALIBRATION SOLUTION | <a href="#">SP6660</a> | 10/24/2024       | 02/08/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                          |                        |                  |                        |                    |                |                  | 11/28/2024           |

**FROM** 0.92000ml of E3817 + 0.01000ml of SP6629 + 0.08000ml of SP6656 = Final Quantity: 1.010 ml



## SVOC STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                              | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3343             | 8270-SIM MDL-0.4PPM CALIBRATION SOLUTION | <a href="#">SP6661</a> | 10/24/2024       | 02/08/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                          |                        |                  |                        |                    |                |                  | 11/28/2024           |

**FROM** 0.96000ml of E3817 + 0.01000ml of SP6629 + 0.04000ml of SP6656 = Final Quantity: 1.010 ml

| <u>Recipe ID</u> | <u>NAME</u>                              | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3345             | 8270-SIM MDL-0.2PPM CALIBRATION SOLUTION | <a href="#">SP6662</a> | 10/24/2024       | 02/08/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                          |                        |                  |                        |                    |                |                  | 11/28/2024           |

**FROM** 0.50000ml of E3817 + 0.01000ml of SP6629 + 0.50000ml of SP6661 = Final Quantity: 1.010 ml

## SVOC STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                              | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3346             | 8270-SIM MDL-0.1PPM CALIBRATION SOLUTION | <a href="#">SP6663</a> | 10/24/2024       | 02/08/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                          |                        |                  |                        |                    |                |                  | 11/28/2024           |

**FROM** 0.75000ml of E3817 + 0.01000ml of SP6629 + 0.25000ml of SP6661 = Final Quantity: 1.010 ml

| <u>Recipe ID</u> | <u>NAME</u>                | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|----------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3491             | 8270-SIM-Surrogate 0.4 PPM | <a href="#">SP6666</a> | 10/29/2024       | 04/10/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                            |                        |                  |                        |                    |                |                  | 11/28/2024           |

**FROM** 0.00800ml of S12189 + 0.01600ml of S12207 + 0.04000ml of S11831 + 199.93600ml of E3818 = Final Quantity: 200.000 ml

## SVOC STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>               | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|---------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3493             | Internal Standard 0.4 PPM | <a href="#">SP6682</a> | 11/15/2024       | 05/09/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                           |                        |                  |                        |                    |                |                  | 12/03/2024           |

**FROM** 0.10000ml of S12328 + 4.90000ml of E3828 = Final Quantity: 5.000 ml

| <u>Recipe ID</u> | <u>NAME</u>                                       | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|---------------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3355             | 8270-SIM MDL-3.2PPM<br>CALIBRATION STOCK SOL- 2ND | <a href="#">SP6683</a> | 11/15/2024       | 04/10/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |
|                  |                                                   |                        |                  |                        |                    |                |                  | 12/03/2024           |

**FROM** SOURCE  
0.00630ml of S12189 + 0.01280ml of S12208 + 0.03200ml of S11074 + 0.03200ml of S11831 + 0.06400ml of S12142 +  
0.06400ml of S12469 + 0.06400ml of S12517 + 19.72490ml of E3828 = Final Quantity: 20.000 ml

## SVOC STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>                                    | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|------------------------------------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3356             | 8270-SIM MDL-0.4PPM<br>CALIBRATION SOL ICV-2ND | <a href="#">SP6684</a> | 11/15/2024       | 04/10/2025             | Jagrut Upadhyay    | None           | None             | Yogesh Patel         |

SOURCE

**FROM** 0.87500ml of E3828 + 0.01000ml of SP6682 + 0.12500ml of SP6683 = Final Quantity: 1.010 ml

| <u>Recipe ID</u> | <u>NAME</u>          | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|----------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3895             | 50 ug/ml DFTTP 8270E | <a href="#">SP6701</a> | 12/30/2024       | 01/15/2025             | Rahul Chavli       | None           | None             | mohammad ahmed       |

01/02/2025

**FROM** 0.35000ml of S10247 + 6.65000ml of E3848 = Final Quantity: 7.000 ml

## CHEMICAL RECEIPT LOG BOOK

| Supplier                    | ItemCode / ItemName                                    | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|--------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1 | 313201 | 07/01/2025      | 01/03/2024 / Rajesh     | 07/20/2023 / Rajesh         | E3551          |

| Supplier                    | ItemCode / ItemName                                  | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | PC19510-5 / Sodium Hydroxide Pellets 2.5 Kg, Pk of 4 | 23B1556310 | 12/31/2025      | 12/04/2023 / Rajesh     | 12/01/2023 / Rajesh         | E3657          |

| Supplier         | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|--------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9254-03 / Acetone, Ultra Resi (cs/4x4L) | 23H1462005 | 04/23/2025      | 08/13/2024 / Rajesh     | 08/13/2024 / Rajesh         | E3788          |

| Supplier         | ItemCode / ItemName                                         | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L) | 24G2362009 | 03/09/2025      | 09/09/2024 / Rajesh     | 09/03/2024 / Rajesh         | E3791          |

| Supplier         | ItemCode / ItemName                                         | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L) | 24H2762011 | 04/09/2025      | 10/09/2024 / Rajesh     | 10/09/2024 / Rajesh         | E3817          |

| Supplier         | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|--------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9254-03 / Acetone, Ultra Resi (cs/4x4L) | 24H1462005 | 04/23/2025      | 10/23/2024 / Rajesh     | 10/09/2024 / Rajesh         | E3818          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier         | ItemCode / ItemName                                         | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L) | 24G0862003 | 05/09/2025      | 11/09/2024 / Rajesh     | 11/04/2024 / Rajesh         | E3828          |

| Supplier         | ItemCode / ItemName                                         | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L) | 24K1762005 | 06/18/2025      | 12/18/2024 / Rajesh     | 12/09/2024 / Rajesh         | E3848          |

| Supplier         | ItemCode / ItemName                                     | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|---------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L) | 0000281827 | 06/02/2025      | 06/01/2022 /            | 04/05/2022 / william        | M5173          |

| Supplier          | ItemCode / ItemName                                       | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|-----------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | Z-112090-04 / CLP Acid Surrogate Solution, 7500 mg/L, 1ml | 440246 | 02/08/2025      | 08/08/2024 / Jagrut     | 12/09/2021 / Christian      | S10103         |

| Supplier | ItemCode / ItemName                                    | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|--------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31615 / SV Mixture, GC/MS Tuning Mixture, CH2Cl2, 1mL, | A0182667 | 01/15/2025      | 07/15/2024 / Rahul      | 03/18/2022 / Christian      | S10247         |

| Supplier | ItemCode / ItemName                                         | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555872 / Custom Standard, pentachlorophenol Std [CS 5328-5] | A0193449 | 02/20/2025      | 08/20/2024 / yogesh     | 01/13/2023 / Christian      | S11011         |

## CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName                                           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|---------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride | A0187043 | 05/15/2025      | 11/15/2024 / Jagrut     | 02/06/2023 / Christian      | S11074         |

| Supplier          | ItemCode / ItemName                                                  | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|----------------------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | z-110381-01 / 8270 Calibration Solution, 76-1, 500 & 1,000 mg/L, 1ml | 495831 | 02/08/2025      | 08/08/2024 / Jagrut     | 02/07/2023 / Christian      | S11097         |

| Supplier          | ItemCode / ItemName                                               | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|-------------------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | Z-110094-02 / CLP Base/Neutral Surrogate Solution, 5000 mg/L, 1ml | 506889 | 02/08/2025      | 08/08/2024 / Jagrut     | 08/11/2023 / Yogesh         | S11494         |

| Supplier | ItemCode / ItemName                                           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|---------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride | A0196453 | 02/21/2025      | 08/21/2024 / Jagrut     | 11/21/2023 / Rahul          | S11792         |

| Supplier | ItemCode / ItemName                                         | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 33913 / SOM01.0 SIM Analysis Standard (Surrogate), 2000 PPM | A0201976 | 04/11/2025      | 10/11/2024 / Jagrut     | 11/21/2023 / rahul          | S11831         |

| Supplier          | ItemCode / ItemName                                                                  | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|--------------------------------------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | Z-110816-01 / Custom 8270 Mix, 4-79, 1000 mg/L, 1 mL, (Maximum Expiration: 180 Days) | 414127 | 02/08/2025      | 08/08/2024 / Jagrut     | 01/31/2024 / Rahul          | S12077         |

## CHEMICAL RECEIPT LOG BOOK

| Supplier          | ItemCode / ItemName                                                                  | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|--------------------------------------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | Z-110816-01 / Custom 8270 Mix, 4-79, 1000 mg/L, 1 mL, (Maximum Expiration: 180 Days) | 414127 | 04/24/2025      | 10/24/2024 / Jagrut     | 01/31/2024 / Rahul          | S12079         |

| Supplier | ItemCode / ItemName                                                                                  | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|------------------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555224 / Custom 8270 Plus Std #2 [2nd lot at \$85 per ampul if requested - contact ARM with Request] | A0207706 | 02/12/2025      | 08/12/2024 / Rahul      | 02/05/2024 / Rahul          | S12105         |

[CS 4978-2]

| Supplier          | ItemCode / ItemName                                | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-------------------|----------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| CPI International | z-010223-01 / 1,4-Dioxane Solution, 2,000mg/L, 1ml | 454157 | 02/09/2025      | 08/09/2024 / Jagrut     | 03/08/2024 / Rahul          | S12113         |

| Supplier | ItemCode / ItemName                                                                                                                    | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH <sub>2</sub> Cl <sub>2</sub> [New Solvent 100% CH <sub>2</sub> Cl <sub>2</sub> ] | A0203726 | 02/12/2025      | 08/12/2024 / Rahul      | 03/15/2024 / Rahul          | S12126         |

| Supplier | ItemCode / ItemName                                                                                                                    | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH <sub>2</sub> Cl <sub>2</sub> [New Solvent 100% CH <sub>2</sub> Cl <sub>2</sub> ] | A0203726 | 04/30/2025      | 11/14/2024 / anahy      | 03/15/2024 / Rahul          | S12142         |

| Supplier | ItemCode / ItemName                                      | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31087 / Acid Surrogate 10,000ug/ml, methanol, 5ml/ ampul | A0206206 | 04/10/2025      | 10/10/2024 / anahy      | 03/15/2024 / Rahul          | S12189         |



## CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName                                                              | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31086 / Base Neutral Surrogate<br>5000ug/ml,CH <sub>2</sub> Cl <sub>2</sub> ,5ml | A0206381 | 04/10/2025      | 10/10/2024 / anahy      | 03/15/2024 / Rahul          | S12207         |

| Supplier | ItemCode / ItemName                                                              | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31086 / Base Neutral Surrogate<br>5000ug/ml,CH <sub>2</sub> Cl <sub>2</sub> ,5ml | A0206381 | 05/15/2025      | 11/15/2024 / Jagrut     | 03/15/2024 / Rahul          | S12208         |

| Supplier | ItemCode / ItemName                                                                           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-----------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31206 / SV Mix, CLP method, Internal Std,<br>2000ug/mL, CH <sub>2</sub> Cl <sub>2</sub> , 1mL | A0206540 | 03/04/2025      | 09/04/2024 / anahy      | 05/30/2024 / Rahul          | S12314         |

| Supplier | ItemCode / ItemName                                                                           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-----------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 31206 / SV Mix, CLP method, Internal Std,<br>2000ug/mL, CH <sub>2</sub> Cl <sub>2</sub> , 1mL | A0206540 | 05/13/2025      | 11/13/2024 / anahy      | 05/30/2024 / Rahul          | S12328         |

| Supplier | ItemCode / ItemName                                                                                   | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555223 / Custom 8270 Plus Std #1 [2nd lot at \$100 per ampul if requested - contact ARM with Request] | A0214021 | 02/12/2025      | 08/12/2024 / Rahul      | 07/23/2024 / RAHUL          | S12453         |

[CS 4978-1]

| Supplier | ItemCode / ItemName                                                                                   | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555223 / Custom 8270 Plus Std #1 [2nd lot at \$100 per ampul if requested - contact ARM with Request] | A0214021 | 05/14/2025      | 11/14/2024 / anahy      | 07/23/2024 / RAHUL          | S12469         |

[CS 4978-1]

### CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName                                                                                           | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|---------------------------------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555224 / Custom 8270<br>Plus Std #2 [2nd lot at \$85<br>per ampul if requested -<br>contact ARM with Request] | A0214017 | 05/14/2025      | 11/14/2024 /<br>anahy   | 07/23/2024 /<br>RAHUL       | S12517         |

[CS 4978-2]

| Supplier         | ItemCode / ItemName | Lot #               | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|---------------------|---------------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | DIW / DI Water      | Daily Lab-Certified | 07/03/2029      | 07/03/2024 /<br>lwona   | 07/03/2024 /<br>lwona       | W3112          |



5580 Skylane Blvd  
Santa Rosa, CA 95403

(707)525-5788  
(800)878-7654 Toll Free  
(707)545-7901 Fax

Manufacturer's Quality System  
Audited & Registered  
by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

## Certificate of Analysis

Rev 0

Page 1 of 1

**Catalog No.:** Z-112090 **Lot No.:** 440246 **Storage:**  $\leq -10^{\circ}\text{C}$  **Solvent:** Methylene Chloride **Exp. Date:** 2/16/2026 **Description:** CLP Acid Surrogate Solution, 7,500 mg/L, 1 mL  
-04

| Compound                      | CAS No.    | Purity (%) | Compound Lot No. | Concentration, mg/L |
|-------------------------------|------------|------------|------------------|---------------------|
| 2-chlorophenol-d <sub>4</sub> | 93951-73-6 | 99.3       | 248.12.7P        | 7487 $\pm$ 17.2     |
| 2-fluorophenol                | 367-12-4   | 99.8       | 10.7.3.3P        | 7513 $\pm$ 17.26    |
| phenol-d <sub>6</sub>         | 13127-88-3 | 99.9       | 949.120.8P       | 7481 $\pm$ 17.19    |
| 2,4,6-tribromophenol          | 118-79-6   | 99.8       | 12.1.6P          | 7469 $\pm$ 17.17    |

Received on

02/25/21

by  
CG

S9236  
to

S9240

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.

Certified By: \_\_\_\_\_

Erica Castiglione  
Chemist



5580 Skylane Blvd  
Santa Rosa, CA 95403

(707)525-5788  
(800)878-7654 Toll Free  
(707)545-7901 Fax

Receivalon  
02/07/23 by CG

Sheet 511096  
to  
511099

Manufacturer's Quality System  
Audited & Registered  
by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

## Certificate of Analysis

Rev 0

Page 1 of 4

| Catalog No.: | Lot No.: | Storage: | Solvent:           | Exp. Date: | Description:                                                   |
|--------------|----------|----------|--------------------|------------|----------------------------------------------------------------|
| Z-110381-01  | 495831   | ≤ -10 °C | Methylene Chloride | 10/30/2027 | Method 8270 Calibration Solution, 76-1, 500 & 1,000 mg/L, 1 mL |

| Compound                          | CAS No.  | Purity (%) | Compound Lot No. | Concentration, mg/L |
|-----------------------------------|----------|------------|------------------|---------------------|
| acenaphthene                      | 83-32-9  | 99.9       | 13.1.5P          | 1003 ± 17.27        |
| acenaphthylene                    | 208-96-8 | 97.6       | 14.290.1P        | 999.8 ± 17.22       |
| aniline                           | 62-53-3  | 99.9       | 64.7.1P          | 995 ± 17.13         |
| anthracene                        | 120-12-7 | 99.5       | 15.7.1P          | 1001 ± 17.24        |
| azobenzene                        | 103-33-3 | 98.1       | 252.7.2P         | 999.1 ± 17.21       |
| benzo[a]anthracene                | 56-55-3  | 100        | 16.7.3P          | 1001 ± 17.24        |
| benzo[b]fluoranthene              | 205-99-2 | 99.8       | 17.421.3P        | 1001 ± 19.91        |
| benzo[k]fluoranthene              | 207-08-9 | 98.9       | 18.421.4P        | 1001 ± 17.92        |
| benzo[ghi]perylene                | 191-24-2 | 93         | 19.286.4P        | 999.6 ± 19.88       |
| benzo[a]pyrene                    | 50-32-8  | 97         | 20.286.2P        | 999.1 ± 26.35       |
| benzyl alcohol                    | 100-51-6 | 99.9       | 65.18.1P         | 1001 ± 17.24        |
| bis(2-chloroethoxy)methane        | 111-91-1 | 99.1       | 31.3.15P         | 999.7 ± 17.89       |
| bis(2-chloroethyl)ether           | 111-44-4 | 99.8       | 32.7.1P          | 1001 ± 17.23        |
| bis(2-chloro-1-methylethyl) ether | 108-60-1 | 99.5       | 34.3.13P         | 999.5 ± 17.89       |
| bis(2-ethylhexyl)adipate          | 103-23-1 | 99.5       | 874.7.1P         | 999.5 ± 17.21       |
| bis(2-ethylhexyl)phthalate        | 117-81-7 | 99.4       | 33.29.1P         | 998.8 ± 19.86       |
| 4-bromophenyl phenyl ether        | 101-55-3 | 99.4       | 35.7.1P          | 999.1 ± 17.2        |
| butyl benzyl phthalate            | 85-68-7  | 98.4       | 36.1.6P          | 984.7 ± 19.58       |
| carbazole                         | 86-74-8  | 99.4       | 239.7.2P         | 1000 ± 17.22        |

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

*Brianna Smith*

Certified By: \_\_\_\_\_

Brianna Smith  
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.

# Certificate of Analysis

Page 4 of 4

Catalog No.: Z-110381-01

Lot No.: 495831

Expiration Date: 10/30/2027

| Compound               | CAS No.  | Purity (%) | Compound Lot No. | Concentration, mg/L |
|------------------------|----------|------------|------------------|---------------------|
| 1,2,4-trichlorobenzene | 120-82-1 | 99.6       | 54.29.1P         | 1000 ± 17.22        |
| 2,4,5-trichlorophenol  | 95-95-4  | 96.5       | 121.7.1.1P       | 1000 ± 17.22        |
| 2,4,6-trichlorophenol  | 88-06-2  | 99.6       | 113.7.1P         | 1002 ± 17.25        |

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By:



Briana Smith  
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Received on  
03/10/22  
by  
CG  
S10242  
to  
S10247

**Catalog No. :** 31615 **Lot No.:** A0182667  
**Description :** GC/MS Tuning Mixture  
GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** March 31, 2025 **Storage:** 10°C or colder  
**Handling:** Contains carcinogen/reproductive toxin. **Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound                                                                             | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2)                       |                                       |
|---------------|--------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------|---------------------------------------|
| 1             | Pentachlorophenol<br>CAS # 87-86-5 (Lot 211229RSR)<br>Purity 99%                     | 1,003.6 µg/mL               | +/- 5.8897 µg/mL<br>+/- 45.7132 µg/mL<br>+/- 66.0037 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2             | DFTPP (Decafluorotriphenylphosphine)<br>CAS # 5074-71-5 (Lot Q117-147)<br>Purity 95% | 1,006.6 µg/mL               | +/- 5.9074 µg/mL<br>+/- 45.8508 µg/mL<br>+/- 66.2023 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3             | Benzidine<br>CAS # 92-87-5 (Lot 211228JLM)<br>Purity 99%                             | 1,008.4 µg/mL               | +/- 5.9179 µg/mL<br>+/- 45.9318 µg/mL<br>+/- 66.3193 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4             | 4,4'-DDT<br>CAS # 50-29-3 (Lot 210916JLM)<br>Purity 99%                              | 1,007.6 µg/mL               | +/- 5.9132 µg/mL<br>+/- 45.8954 µg/mL<br>+/- 66.2667 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:**

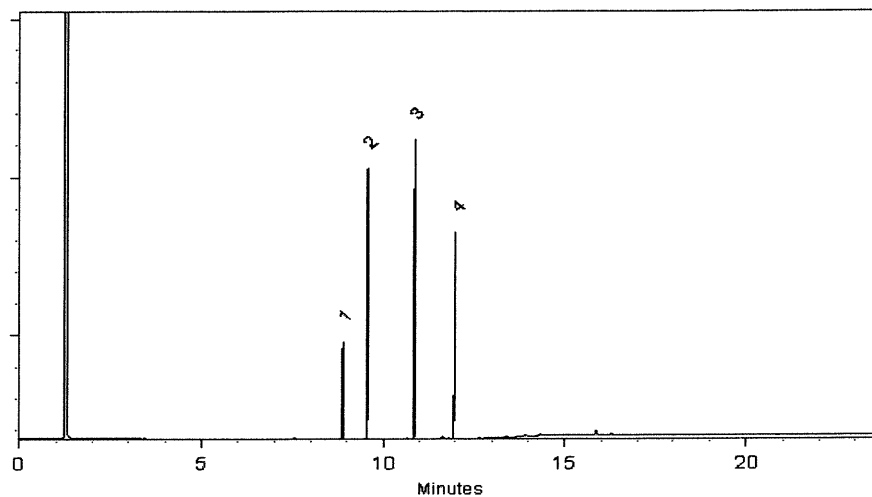
250°C

**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.

Morgan Craighead - Mix Technician

Date Mixed: 08-Mar-2022

Balance: B345965662

Marlene Cowan - Operations Tech I

Date Passed: 10-Mar-2022

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



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Received on  
02/08/23

b1

CG

S 11071

to

S 11075

Catalog No. : 31853 Lot No.: A0187043  
Description : 1,4-dioxane  
1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : July 31, 2027 Storage: 0°C or colder  
Ship: Ambient

### CERTIFIED VALUES

| Elution Order | Compound                                                      | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2)                                                        |
|---------------|---------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------|
| 1             | 1,4-Dioxane<br>CAS # 123-91-1<br>Purity 99%<br>(Lot SHBN5929) | 2,019.0 µg/mL               | +/- 11.8486 µg/mL Gravimetric<br>+/- 43.2570 µg/mL Unstressed<br>+/- 44.5129 µg/mL Stressed |

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



**Column:**

105m x 0.53mm x 3.0µm  
Rtx-502.2 (cat.#10910)

**Carrier Gas:**

hydrogen-constant pressure 11.0 psi.

**Temp. Program:**

40°C (hold 2 min.) to 240°C  
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**

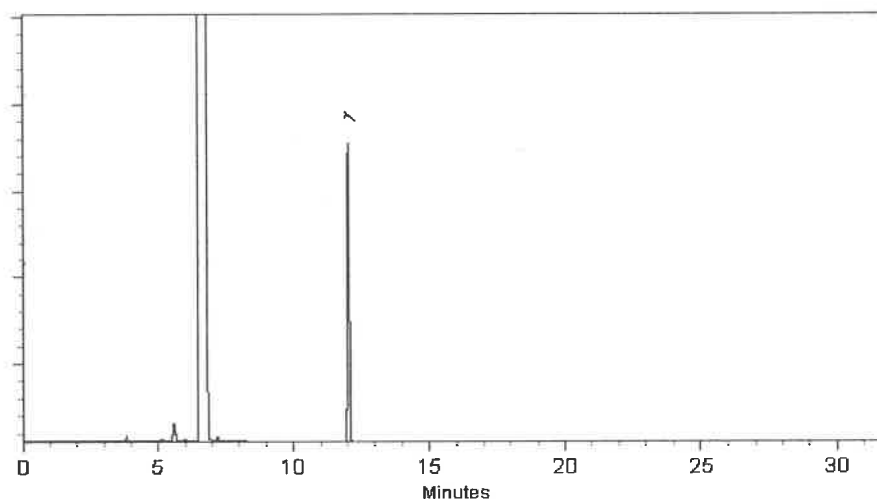
200°C

**Det. Temp:**

250°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.

Brittany Federinko - Operations Tech I

Date Mixed: 07-Jul-2022

Balance: 1128360905

Marlina Cowan - Operations Tech II ARM QC

Date Passed: 12-Jul-2022

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



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

gravimetric



## 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. :** 555872 **Lot No.:** A0193449  
**Description :** Custom Pentachlorophenol Standard  
Custom Pentachlorophenol Standard 25,000µg/mL, Methanol,  
1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2026 **Storage:** 10°C or colder  
**Ship:** Ambient

Received on  
01/13/23  
by  
CG  
S11011  
+0  
S11015

## CERTIFIED VALUES

| Component # | Compound          | CAS #   | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|-------------|-------------------|---------|----------|--------|-----------------------------|----------------------------------------|
| 1           | Pentachlorophenol | 87-86-5 | RP221012 | 99%    | 25,050.0 µg/mL              | +/- 778.6378                           |

**Solvent:** Methanol  
**CAS #** 67-56-1  
**Purity** 99%

*Russ Bookhamer*

Russ Bookhamer - Operations Technician I

**Date Mixed:** 11-Jan-2023

**Balance:** B442140311

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.



**PRODUCTOS  
QUÍMICOS  
MONTERREY, S.A. DE C.V.**

MIRADOR 201, COL. MIRADOR  
MONTERREY, N.L. MEXICO  
CP 64070  
TEL +52 81 13 52 57 57  
www.pqm.com.mx

## CERTIFICATE OF ANALYSIS

|                        |                                   |               |                                 |
|------------------------|-----------------------------------|---------------|---------------------------------|
| PRODUCT :              | SODIUM SULFATE CRYSTALS ANHYDROUS |               |                                 |
| QUALITY :              | ACS (CODE RMB3375)                | FORMULA :     | Na <sub>2</sub> SO <sub>4</sub> |
| SPECIFICATION NUMBER : | 6399                              | RELEASE DATE: | ABR/21/2023                     |
| LOT NUMBER :           | 313201                            |               |                                 |

| TEST                                     | SPECIFICATIONS | LOT VALUES  |
|------------------------------------------|----------------|-------------|
| Assay (Na <sub>2</sub> SO <sub>4</sub> ) | Min. 99.0%     | 99.7 %      |
| pH of a 5% solution at 25°C              | 5.2 - 9.2      | 6.1         |
| Insoluble matter                         | Max. 0.01%     | 0.005 %     |
| Loss on ignition                         | Max. 0.5%      | 0.1 %       |
| Chloride (Cl)                            | Max. 0.001%    | <0.001 %    |
| Nitrogen compounds (as N)                | Max. 5 ppm     | <5 ppm      |
| Phosphate (PO <sub>4</sub> )             | Max. 0.001%    | <0.001 %    |
| Heavy metals (as Pb)                     | Max. 5 ppm     | <5 ppm      |
| Iron (Fe)                                | Max. 0.001%    | <0.001 %    |
| Calcium (Ca)                             | Max. 0.01%     | 0.002 %     |
| Magnesium (Mg)                           | Max. 0.005%    | 0.001 %     |
| Potassium (K)                            | Max. 0.008%    | 0.003 %     |
| Extraction-concentration suitability     | Passes test    | Passes test |
| Appearance                               | Passes test    | Passes test |
| Identification                           | Passes test    | Passes test |
| Solubility and foreign matter            | Passes test    | Passes test |
| Retained on US Standard No. 10 sieve     | Max. 1%        | 0.1 %       |
| Retained on US Standard No. 60 sieve     | Min. 94%       | 97.3 %      |
| Through US Standard No. 60 sieve         | Max. 5%        | 2.5 %       |
| Through US Standard No. 100 sieve        | Max. 10%       | 0.1 %       |

### COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

Recd. by R3 on 7/24/23 E 3551

RC-02-01, Ed. 3



# Certificate of Analysis

## Sodium Hydroxide (Pellets)

**Material:** 0583  
**Grade:** ACS GRADE  
**Batch Number:** 23B1556310

**Chemical Formula:** NaOH  
**Molecular Weight:** 40  
**CAS #:** 1310-73-2  
**Appearance:**

**Manufacture Date:** 12/14/2022  
**Expiration Date:** 12/31/2025

**Storage:** Room Temperature

Pellets

| TEST               | SPECIFICATION          | ANALYSIS            | DISPOSITION |
|--------------------|------------------------|---------------------|-------------|
| Calcium            | $\leq 0.005 \%$        | $< 0.005 \%$        | PASS        |
| Chloride           | $\leq 0.005 \%$        | 0.002 %             | PASS        |
| Heavy Metals       | $\leq 0.002 \%$        | $< 0.002 \%$        | PASS        |
| Iron               | $\leq 0.001 \%$        | $< 0.001 \%$        | PASS        |
| Magnesium          | $\leq 0.002 \%$        | $< 0.002 \%$        | PASS        |
| Mercury            | $\leq 0.1 \text{ ppm}$ | $< 0.1 \text{ ppm}$ | PASS        |
| Nickel             | $\leq 0.001 \%$        | $< 0.001 \%$        | PASS        |
| Nitrogen Compounds | $\leq 0.001 \%$        | $< 0.001 \%$        | PASS        |
| Phosphate          | $\leq 0.001 \%$        | $< 0.001 \%$        | PASS        |
| Potassium          | $\leq 0.02 \%$         | $< 0.02 \%$         | PASS        |
| Purity             | $\geq 97.0 \%$         | 99.2 %              | PASS        |
| Sodium Carbonate   | $\leq 1.0 \%$          | 0.5 %               | PASS        |
| Sulfate            | $\leq 0.003 \%$        | $< 0.003 \%$        | PASS        |

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

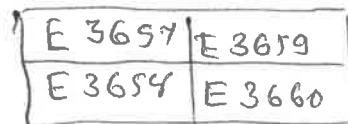
This document has been electronically produced and is valid without a signature.

Leona Edwardson, Quality Control Sr. Manager - Solon  
VWR Chemicals, LLC.  
28600 Fountain Parkway, Solon OH 44139 USA

### Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.



Acetone

BAKER RESI-ANALYZED® Reagent  
For Organic Residue Analysis

Avantor™



Material No.: 9254-03  
Batch No.: 23H1462005  
Manufactured Date: 2023-07-26  
Expiration Date: 2026-07-25  
Revision No.: 0

## Certificate of Analysis

| Test                                                                    | Specification | Result      |
|-------------------------------------------------------------------------|---------------|-------------|
| Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected for water) | ≥ 99.4 %      | 99.7 %      |
| Color (APHA)                                                            | ≤ 10          | 5           |
| Residue after Evaporation                                               | ≤ 1.0 ppm     | 0.3 ppm     |
| Substances Reducing Permanganate                                        | Passes Test   | Passes Test |
| Titration Acid (μeq/g)                                                  | ≤ 0.3         | 0.1         |
| Titration Base (μeq/g)                                                  | ≤ 0.6         | < 0.1       |
| Water (H <sub>2</sub> O)                                                | ≤ 0.5 %       | 0.3 %       |
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)    | ≤ 5           | < 1         |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)    | ≤ 10          | 1           |

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd by RP on 8/13/24

E 3788

Ken Koehnlein  
Sr. Manager, Quality Assurance



Methylene Chloride  
ULTRA RESI-ANALYZED  
For Organic Residue Analysis  
(dichloromethane)

Avantor™

Material No.: 9266-A4  
Batch No.: 24G2362009  
Manufactured Date: 2024-06-10  
Expiration Date: 2025-09-09  
Revision No.: 0

## Certificate of Analysis

| Test                                                                                             | Specification  | Result   |
|--------------------------------------------------------------------------------------------------|----------------|----------|
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)                             | $\leq 5$       | 2        |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)                             | $\leq 10$      | 1        |
| Assay (CH <sub>2</sub> Cl <sub>2</sub> ) (by GC, exclusive of preservative, corrected for water) | $\geq 99.8 \%$ | 100.0 %  |
| Color (APHA)                                                                                     | $\leq 10$      | 5        |
| Residue after Evaporation                                                                        | $\leq 1.0$ ppm | 0.3 ppm  |
| Titration Acid ( $\mu$ eq/g)                                                                     | $\leq 0.3$     | < 0.1    |
| Chloride (Cl)                                                                                    | $\leq 10$ ppm  | < 5 ppm  |
| Water (by KF, coulometric)                                                                       | $\leq 0.02 \%$ | < 0.01 % |

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC  
Manufacturer source batch: MG24F10024

E 3791



Jamie Croak  
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087, U.S.A. Phone 610.386.1700  
Page 1 of 1

Methylene Chloride  
ULTRA RESI-ANALYZED  
For Organic Residue Analysis  
(dichloromethane)



Material No.: 9266-A4  
Batch No.: 24H2762011  
Manufactured Date: 2024-06-05  
Expiration Date: 2025-09-04  
Revision No.: 0

## Certificate of Analysis

| Test                                                                                       | Specification  | Result     |
|--------------------------------------------------------------------------------------------|----------------|------------|
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)                       | $\leq 5$       | 2          |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)                       | $\leq 10$      | 5          |
| Assay ( $\text{CH}_2\text{Cl}_2$ ) (by GC, exclusive of preservative, corrected for water) | $\geq 99.8\%$  | 100.0 %    |
| Color (APHA)                                                                               | $\leq 10$      | 5          |
| Residue after Evaporation                                                                  | $\leq 1.0$ ppm | 0.3 ppm    |
| Titration Acid ( $\mu\text{eq/g}$ )                                                        | $\leq 0.3$     | $< 0.1$    |
| Chloride (Cl)                                                                              | $\leq 10$ ppm  | $< 5$ ppm  |
| Water (by KF, coulometric)                                                                 | $\leq 0.02\%$  | $< 0.01\%$ |

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States  
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3817

Jamie Croak  
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700



Acetone  
BAKER RESI-ANALYZED® Reagent  
For Organic Residue Analysis

avantors



Material No.: 9254-03  
Batch No.: 24H1462005  
Manufactured Date: 2024-05-24  
Expiration Date: 2027-05-24  
Revision No.: 0

## Certificate of Analysis

| Test                                                                   | Specification | Result      |
|------------------------------------------------------------------------|---------------|-------------|
| Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected forwater) | >= 99.4 %     | 99.8 %      |
| Color (APHA)                                                           | <= 10         | 5           |
| Residue after Evaporation                                              | <= 1.0 ppm    | 0.2 ppm     |
| Substances Reducing Permanganate                                       | Passes Test   | Passes Test |
| Titration Acid (µeq/g)                                                 | <= 0.3        | 0.2         |
| Titration Base (µeq/g)                                                 | <= 0.6        | <0.1        |
| Water (H <sub>2</sub> O)                                               | <= 0.5 %      | 0.2 %       |
| FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)    | <= 5          | <1          |
| ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)    | <= 10         | 1           |

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States  
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd by RP on 10/9/24

E 3818

*J. Croak*

Jamie Croak  
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA, 19087, U.S.A. Phone 610.386.1700

Methylene Chloride  
ULTRA RESI-ANALYZED  
For Organic Residue Analysis  
(dichloromethane)

avantor™



Material No.: 9266-A4

Batch No.: 24J0862003

Manufactured Date: 2024-09-12

Expiration Date: 2025-12-12

Revision No.: 0

## Certificate of Analysis

| Test                                                                                       | Specification  | Result     |
|--------------------------------------------------------------------------------------------|----------------|------------|
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)                       | $\leq 5$       | 2          |
| ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)                        | $\leq 10$      | 1          |
| Assay ( $\text{CH}_2\text{Cl}_2$ ) (by GC, exclusive of preservative, corrected for water) | $\geq 99.8\%$  | 100.0 %    |
| Color (APHA)                                                                               | $\leq 10$      | 5          |
| Residue after Evaporation                                                                  | $\leq 1.0$ ppm | 0.2 ppm    |
| Titration Acid ( $\mu\text{eq/g}$ )                                                        | $\leq 0.3$     | $< 0.1$    |
| Chloride (Cl)                                                                              | $\leq 10$ ppm  | $< 5$ ppm  |
| Water (by KF, coulometric)                                                                 | $\leq 0.02\%$  | $< 0.01\%$ |

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

E 3828

Jamie Croak  
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Methylene Chloride  
ULTRA RESI-ANALYZED  
For Organic Residue Analysis  
(dichloromethane)



Material No.: 9266-A4  
Batch No.: 24K1762005  
Manufactured Date: 2024-10-08  
Expiration Date: 2026-01-07  
Revision No.: 0

Certificate of Analysis

| Test                                                                                             | Specification | Result  |
|--------------------------------------------------------------------------------------------------|---------------|---------|
| FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)                              | <= 5          | 1       |
| ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)                              | <= 10         | 2       |
| Assay (CH <sub>2</sub> Cl <sub>2</sub> ) (by GC, exclusive of preservative, corrected for water) | >= 99.8 %     | 100.0 % |
| Color (APHA)                                                                                     | <= 10         | 5       |
| Residue after Evaporation                                                                        | <= 1.0 ppm    | 0.5 ppm |
| Titration Acid (µeq/g)                                                                           | <= 0.3        | 0.0     |
| Chloride (Cl)                                                                                    | <= 10 ppm     | <5 ppm  |
| Water (by KF, coulometric)                                                                       | <= 0.02 %     | 0.01 %  |

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States  
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3848

  
Jamie Croak  
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700  
Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA, 19087, U.S.A. Phone 610.386.1700

Hydrochloric Acid, 36.5–38.0%  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis



Material No.: 9530-33  
Batch No.: 0000281827  
Manufactured Date: 2021/03/30  
Retest Date: 2026/03/29  
Revision No: 1

## Certificate of Analysis

| Test                                      | Specification | Result  |
|-------------------------------------------|---------------|---------|
| ACS – Assay (as HCl) (by acid–base titrn) | 36.5 – 38.0 % | 37.6    |
| ACS – Color (APHA)                        | <= 10         | 5       |
| ACS – Residue after Ignition              | <= 3 ppm      | 1       |
| ACS – Specific Gravity at 60°/60°F        | 1.185 – 1.192 | 1.189   |
| ACS – Bromide (Br)                        | <= 0.005 %    | < 0.005 |
| ACS – Extractable Organic Substances      | <= 5 ppm      | < 1     |
| ACS – Free Chlorine (as Cl <sub>2</sub> ) | <= 0.5 ppm    | < 0.5   |
| Phosphate (PO <sub>4</sub> )              | <= 0.05 ppm   | < 0.03  |
| Sulfate (SO <sub>4</sub> )                | <= 0.5 ppm    | < 0.3   |
| Sulfite (SO <sub>3</sub> )                | <= 0.8 ppm    | 0.3     |
| Ammonium (NH <sub>4</sub> )               | <= 3 ppm      | < 1     |
| Trace Impurities – Arsenic (As)           | <= 0.010 ppm  | < 0.003 |
| Trace Impurities – Aluminum (Al)          | <= 10.0 ppb   | 0.5     |
| Arsenic and Antimony (as As)              | <= 5 ppb      | < 3     |
| Trace Impurities – Barium (Ba)            | <= 1.0 ppb    | < 0.2   |
| Trace Impurities – Beryllium (Be)         | <= 1.0 ppb    | < 0.2   |
| Trace Impurities – Bismuth (Bi)           | <= 10.0 ppb   | < 1.0   |
| Trace Impurities – Boron (B)              | <= 20.0 ppb   | < 5.0   |
| Trace Impurities – Cadmium (Cd)           | <= 1.0 ppb    | < 0.3   |
| Trace Impurities – Calcium (Ca)           | <= 50.0 ppb   | 15.0    |
| Trace Impurities – Chromium (Cr)          | <= 1.0 ppb    | < 0.4   |
| Trace Impurities – Cobalt (Co)            | <= 1.0 ppb    | < 0.3   |
| Trace Impurities – Copper (Cu)            | <= 1.0 ppb    | < 0.1   |
| Trace Impurities – Gallium (Ga)           | <= 1.0 ppb    | < 0.2   |

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700  
Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

| Test                                                   | Specification | Result |
|--------------------------------------------------------|---------------|--------|
| Trace Impurities – Germanium (Ge)                      | <= 3.0 ppb    | < 2.0  |
| Trace Impurities – Gold (Au)                           | <= 4.0 ppb    | 3.0    |
| Heavy Metals (as Pb)                                   | <= 100 ppb    | < 50   |
| Trace Impurities – Iron (Fe)                           | <= 15.0 ppb   | 1.0    |
| Trace Impurities – Lead (Pb)                           | <= 1.0 ppb    | < 0.5  |
| Trace Impurities – Lithium (Li)                        | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Magnesium (Mg)                      | <= 10.0 ppb   | < 0.4  |
| Trace Impurities – Manganese (Mn)                      | <= 1.0 ppb    | < 0.4  |
| Trace Impurities – Mercury (Hg)                        | <= 0.5 ppb    | 0.2    |
| Trace Impurities – Molybdenum (Mo)                     | <= 10.0 ppb   | < 5.0  |
| Trace Impurities – Nickel (Ni)                         | <= 4.0 ppb    | < 0.3  |
| Trace Impurities – Niobium (Nb)                        | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Potassium (K)                       | <= 9.0 ppb    | < 2.0  |
| Trace Impurities – Selenium (Se), For Information Only | ppb           | 1.0    |
| Trace Impurities – Silicon (Si)                        | <= 100.0 ppb  | 18.0   |
| Trace Impurities – Silver (Ag)                         | <= 1.0 ppb    | < 0.3  |
| Trace Impurities – Sodium (Na)                         | <= 100.0 ppb  | < 5.0  |
| Trace Impurities – Strontium (Sr)                      | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Tantalum (Ta)                       | <= 1.0 ppb    | < 0.9  |
| Trace Impurities – Thallium (Tl)                       | <= 5.0 ppb    | < 2.0  |
| Trace Impurities – Tin (Sn)                            | <= 5.0 ppb    | < 0.8  |
| Trace Impurities – Titanium (Ti)                       | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Vanadium (V)                        | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Zinc (Zn)                           | <= 5.0 ppb    | 0.4    |
| Trace Impurities – Zirconium (Zr)                      | <= 1.0 ppb    | < 0.1  |

For Laboratory, Research or Manufacturing Use

Product Information (not specifications):

Appearance (clear, fuming liquid)

Meets ACS Specifications

Country of Origin: US

Packaging Site: Phillipsburg Mfg Ctr & DC

  
Jamie Ethier  
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700  
Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700



5580 Skylane Blvd  
Santa Rosa, CA 95403  
(707)525-5788  
(800)878-7654 Toll Free  
(707)545-7901 Fax

Manufacturer's Quality System  
Audited & Registered  
by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

## Certificate of Analysis

Page 1 of 1

| Catalog No.: Lot No.:              | Storage: | Solvent:           | Exp. Date: | Rev              | Description:                                          |
|------------------------------------|----------|--------------------|------------|------------------|-------------------------------------------------------|
| Z-110094-02 506889                 | ≤ -10 °C | Methylene Chloride | 7/25/2028  | 0                | CLP Base/Neutral Surrogate Solution, 5,000 mg/L, 1 ml |
| Compound                           |          | CAS No.            | Purity (%) | Compound Lot No. | Concentration, mg/L                                   |
| 1,2-dichlorobenzene-d <sub>4</sub> |          | 2199-69-1          | 99.7       | 247.29.3P        | 5035 ± 28.02                                          |
| 2-fluorobiphenyl                   |          | 321-60-8           | 99.69      | 8.286.1.1P       | 4999 ± 103.66                                         |
| nitrobenzene-d5                    |          | 4165-60-0          | 99.67      | 7.9.3P           | 4988 ± 27.32                                          |
| p-terphenyl-d14                    |          | 1718-51-0          | 99.3       | 9.120.8P         | 5005 ± 27.85                                          |

511494 } Y.P.  
↓ 08/11/2023  
511498

\*Not a certified value

Certified By: \_\_\_\_\_  
Clint Tipton  
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
Concentration (correct for purity) and uncertainty (95% confidence) values  
listed are determined gravimetrically.





110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic plus



### 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. :** 31853 **Lot No.:** A0196453  
**Description :** 1,4-dioxane  
1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** March 31, 2028 **Storage:** 0°C or colder  
**Ship:** Ambient

511749  
↓  
511794 } RC / 11/30/23

### CERTIFIED VALUES

| Elution Order | Compound    | CAS #    | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|-------------|----------|----------|--------|-----------------------------|----------------------------------------|
| 1             | 1,4-Dioxane | 123-91-1 | SHBN3770 | 99%    | 2,013.0 µg/mL               | +/- 25.0521                            |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

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



## Quality Confirmation Test

**Column:**

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

**Carrier Gas:**

hydrogen-constant flow 1.8 mL/min.

**Temp. Program:**

80°C (hold 0.1 min.) to 330°C  
@ 9.6°C/min. (hold 2.86 min.)

**Inj. Temp:**

250°C

**Det. Temp:**

340°C

**Det. Type:**

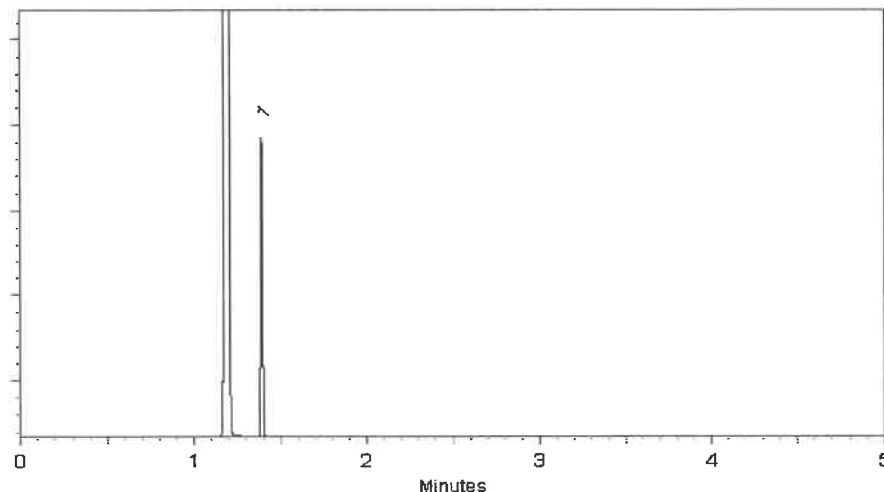
FID

**Split Vent:**

100 mL/min.

**Inj. Vol**

1µl



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.

*Sam Moodler*  
Sam Moodler - Operations Tech I

Date Mixed: 30-Mar-2023

Balance Serial # B707717271

*Jennifer Pollino*  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 31-Mar-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

|    |
|----|
| 1  |
| 2  |
| 3  |
| 4  |
| 5  |
| 6  |
| 7  |
| 8  |
| 9  |
| 10 |
| 11 |
| 12 |
| 13 |
| 14 |
| 15 |
| 16 |
| 17 |
| 18 |



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic plus



### 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.:** A0201976  
**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 :** August 31, 2029 **Storage:** 10°C or colder  
**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

S11828  
↓  
S11832 } RC/  
11/30/23

### CERTIFIED VALUES

| Elution Order | Compound                | CAS #      | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|-------------------------|------------|----------|--------|-----------------------------|----------------------------------------|
| 1             | 2-Methylnaphthalene-d10 | 7297-45-2  | EF-135   | 98%    | 2,015.9 µg/mL               | +/- 90.8098                            |
| 2             | Fluoranthene-d10        | 93951-69-0 | PR-32557 | 99%    | 2,020.0 µg/mL               | +/- 90.9963                            |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

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

## Quality Confirmation Test

**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:**

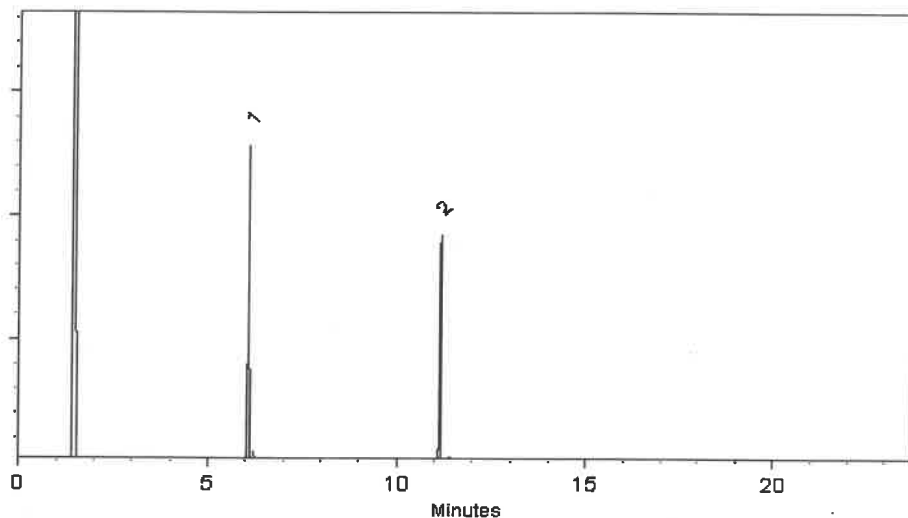
FID

**Split Vent:**

10 ml/min.

**Inj. Vol**

1µl

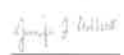


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Dakota Parson - Operations Technician I

Date Mixed: 13-Sep-2023

Balance Serial # B442140311

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 28-Sep-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.



5580 Skylane Blvd  
Santa Rosa, CA 95403

(707)525-5788  
(800)878-7654 Toll Free  
(707)545-7901 Fax

Manufacturer's Quality System  
Audited & Registered  
by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

## Certificate of Analysis

Rev 0

Page 1 of 1

|                     |                 |                 |                    |                   |                                           |
|---------------------|-----------------|-----------------|--------------------|-------------------|-------------------------------------------|
| <b>Catalog No.:</b> | <b>Lot No.:</b> | <b>Storage:</b> | <b>Solvent:</b>    | <b>Exp. Date:</b> | <b>Description:</b>                       |
| Z-110816-01         | 414127          | ≤ -10 °C        | Methylene Chloride | 6/21/2025         | Custom 8270 Mix, 4-79,<br>1000 mg/L, 1 mL |

| Compound    | CAS No.   | Purity (%) | Compound Lot No. | Concentration, mg/L |
|-------------|-----------|------------|------------------|---------------------|
| atrazine    | 1912-24-9 | 99.5       | 337.7.3P         | 997 ± 5.81          |
| benzidine   | 92-87-5   | 99.9       | 124.18.6.2P      | 991.8 ± 5.77        |
| caprolactam | 105-60-2  | 99.9       | 271.1.6P         | 999 ± 5.82          |

S12075 } RC  
↓  
S12079 } 02/01/24

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By: \_\_\_\_\_

Shane Overcash  
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.



5580 Skylane Blvd  
Santa Rosa, CA 95403

(707)525-5788  
(800)878-7654 Toll Free  
(707)545-7901 Fax

Manufacturer's Quality System  
Audited & Registered  
by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

## Certificate of Analysis

Rev 0

Page 1 of 1

|                     |                 |                 |                    |                   |                                           |
|---------------------|-----------------|-----------------|--------------------|-------------------|-------------------------------------------|
| <b>Catalog No.:</b> | <b>Lot No.:</b> | <b>Storage:</b> | <b>Solvent:</b>    | <b>Exp. Date:</b> | <b>Description:</b>                       |
| Z-110816-01         | 414127          | ≤ -10 °C        | Methylene Chloride | 6/21/2025         | Custom 8270 Mix, 4-79,<br>1000 mg/L, 1 mL |

| Compound    | CAS No.   | Purity (%) | Compound Lot No. | Concentration, mg/L |
|-------------|-----------|------------|------------------|---------------------|
| atrazine    | 1912-24-9 | 99.5       | 337.7.3P         | 997 ± 5.81          |
| benzidine   | 92-87-5   | 99.9       | 124.18.6.2P      | 991.8 ± 5.77        |
| caprolactam | 105-60-2  | 99.9       | 271.1.6P         | 999 ± 5.82          |

S12075 } RC  
↓  
S12079 } 02/01/24

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By: \_\_\_\_\_

Shane Overcash  
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.





110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

gravimetric



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. :** 555224 **Lot No.:** A0207706

**Description :** Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

**Expiration Date :** February 28, 2026 **Storage:** 10°C or colder

**Ship:** Ambient

512082 } RC/  
↓  
512111 } 02/22/24

## CERTIFIED VALUES

| Component # | Compound                   | CAS #    | Lot #        | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|-------------|----------------------------|----------|--------------|--------|-----------------------------|----------------------------------------|
| 1           | 1,2,4,5-Tetrachlorobenzene | 95-94-3  | MKCT9480     | 99%    | 1,001.0 µg/mL               | +/- 29.424320                          |
| 2           | Acetophenone               | 98-86-2  | STBH8205     | 99%    | 1,004.0 µg/mL               | +/- 29.512504                          |
| 3           | Benzaldehyde               | 100-52-7 | RD231129RSRA | 99%    | 1,005.0 µg/mL               | +/- 29.541899                          |
| 4           | Benzoic acid               | 65-85-0  | MKCR2694     | 99%    | 1,003.0 µg/mL               | +/- 29.483110                          |
| 5           | Biphenyl                   | 92-52-4  | MKCL6515     | 99%    | 1,006.0 µg/mL               | +/- 29.571294                          |

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

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

John Friedline - Operations Technician I

Date Mixed: 12-Feb-2024

Balance: B345965662



5580 Skylane Blvd  
Santa Rosa, CA 95403

(707)525-5788  
(800)878-7654 Toll Free  
(707)545-7901 Fax

Manufacturer's Quality System  
Audited & Registered  
by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

## Certificate of Analysis

Rev 0

Page 1 of 1

|                     |                 |                 |                 |                   |                                          |
|---------------------|-----------------|-----------------|-----------------|-------------------|------------------------------------------|
| <b>Catalog No.:</b> | <b>Lot No.:</b> | <b>Storage:</b> | <b>Solvent:</b> | <b>Exp. Date:</b> | <b>Description:</b>                      |
| Z-020223-01         | 454157          | ≤ -10 °C        | P/T Methanol    | 6/10/2026         | 1,4-Dioxane Solution, 2000 mg/L,<br>1 mL |

| <u>Compound</u> | <u>CAS No.</u> | <u>Purity (%)</u> | <u>Compound Lot No.</u> | <u>Concentration, mg/L</u> |
|-----------------|----------------|-------------------|-------------------------|----------------------------|
| 1,4-dioxane     | 123-91-1       | 100               | 223.1.3P                | 1997 ± 57.08               |

512112 } RC/  
↓  
912116 } 03/08/24

\*Not a certified value

Certified By: \_\_\_\_\_

Melissa Workoff  
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
Concentration (correct for purity) and uncertainty (95% confidence) values  
listed are determined gravimetrically.



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic plus



### 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. :** 31850 **Lot No.:** A0203726

**Description :** 8270 MegaMix®  
8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

**Expiration Date :** April 30, 2025 **Storage:** 0°C or colder

**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

512117 } RC/  
↓ 03/18/24  
512146 }

### CERTIFIED VALUES

| Elution Order | Compound                     | CAS #    | Lot #       | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|------------------------------|----------|-------------|--------|-----------------------------|----------------------------------------|
| 1             | Pyridine                     | 110-86-1 | SHBP6240    | 99%    | 1,001.6 µg/mL               | +/- 36.4412                            |
| 2             | N-Nitrosodimethylamine       | 62-75-9  | 230209JLM   | 99%    | 1,005.9 µg/mL               | +/- 36.5968                            |
| 3             | Phenol                       | 108-95-2 | MKCK1120    | 99%    | 1,003.3 µg/mL               | +/- 36.5038                            |
| 4             | Aniline                      | 62-53-3  | X22F726     | 99%    | 1,005.8 µg/mL               | +/- 36.5928                            |
| 5             | Bis(2-chloroethyl)ether      | 111-44-4 | SHBL6942    | 99%    | 1,008.1 µg/mL               | +/- 36.6776                            |
| 6             | 2-Chlorophenol               | 95-57-8  | STBJ3909    | 99%    | 1,001.8 µg/mL               | +/- 36.4492                            |
| 7             | 1,3-Dichlorobenzene          | 541-73-1 | BCCD5315    | 99%    | 1,002.3 µg/mL               | +/- 36.4654                            |
| 8             | 1,4-Dichlorobenzene          | 106-46-7 | MKBS7929V   | 99%    | 1,003.7 µg/mL               | +/- 36.5159                            |
| 9             | Benzyl alcohol               | 100-51-6 | SHBK5469    | 99%    | 1,008.7 µg/mL               | +/- 36.6979                            |
| 10            | 1,2-Dichlorobenzene          | 95-50-1  | SHBN3835    | 99%    | 1,000.3 µg/mL               | +/- 36.3926                            |
| 11            | 2-Methylphenol (o-cresol)    | 95-48-7  | SHBN7598    | 99%    | 1,003.5 µg/mL               | +/- 36.5099                            |
| 12            | 2,2'-oxybis(1-chloropropane) | 108-60-1 | 29-MAR-45-5 | 99%    | 1,007.3 µg/mL               | +/- 36.6493                            |
| 13            | 3-Methylphenol (m-cresol)    | 108-39-4 | STBJ0710    | 99%    | 504.3 µg/mL                 | +/- 18.3500                            |
| 14            | 4-Methylphenol (p-cresol)    | 106-44-5 | SHBN3411    | 99%    | 503.6 µg/mL                 | +/- 18.3237                            |
| 15            | N-Nitroso-di-n-propylamine   | 621-64-7 | N63MG       | 99%    | 1,008.3 µg/mL               | +/- 36.6857                            |
| 16            | Hexachloroethane             | 67-72-1  | QTORH       | 99%    | 1,007.5 µg/mL               | +/- 36.6554                            |
| 17            | Nitrobenzene                 | 98-95-3  | 10224044    | 99%    | 1,008.6 µg/mL               | +/- 36.6938                            |

|    |                                               |           |             |     |         |       |             |    |
|----|-----------------------------------------------|-----------|-------------|-----|---------|-------|-------------|----|
| 18 | Isophorone                                    | 78-59-1   | MKCC9506    | 99% | 1,005.9 | µg/mL | +/- 36.5988 | 1  |
| 19 | 2-Nitrophenol                                 | 88-75-5   | RP230710    | 99% | 1,003.2 | µg/mL | +/- 36.4998 | 2  |
| 20 | 2,4-Dimethylphenol                            | 105-67-9  | XW5GK       | 99% | 1,003.8 | µg/mL | +/- 36.5200 | 3  |
| 21 | Bis(2-chloroethoxy)methane                    | 111-91-1  | 13670200    | 99% | 1,002.1 | µg/mL | +/- 36.4573 | 4  |
| 22 | 2,4-Dichlorophenol                            | 120-83-2  | BCBZ6787    | 99% | 1,003.7 | µg/mL | +/- 36.5180 | 5  |
| 23 | 1,2,4-Trichlorobenzene                        | 120-82-1  | SHBP5900    | 99% | 1,007.6 | µg/mL | +/- 36.6574 | 6  |
| 24 | Naphthalene                                   | 91-20-3   | STBL1057    | 99% | 1,008.3 | µg/mL | +/- 36.6837 | 7  |
| 25 | 4-Chloroaniline                               | 106-47-8  | BCCJ3217    | 99% | 1,001.3 | µg/mL | +/- 36.4290 | 8  |
| 26 | Hexachlorobutadiene                           | 87-68-3   | RP230823RSR | 98% | 1,008.3 | µg/mL | +/- 36.6829 | 9  |
| 27 | 4-Chloro-3-methylphenol                       | 59-50-7   | BCCD4461    | 99% | 1,003.1 | µg/mL | +/- 36.4937 | 10 |
| 28 | 2-Methylnaphthalene                           | 91-57-6   | STBK0259    | 96% | 1,001.9 | µg/mL | +/- 36.4505 | 11 |
| 29 | 1-Methylnaphthalene                           | 90-12-0   | 5234.00-8   | 98% | 1,000.0 | µg/mL | +/- 36.3838 | 12 |
| 30 | Hexachlorocyclopentadiene                     | 77-47-4   | 099063I14L  | 98% | 1,008.5 | µg/mL | +/- 36.6909 | 13 |
| 31 | 2,4,6-Trichlorophenol                         | 88-06-2   | STBJ5914    | 99% | 1,004.4 | µg/mL | +/- 36.5442 | 14 |
| 32 | 2,4,5-Trichlorophenol                         | 95-95-4   | FHN01       | 98% | 1,001.9 | µg/mL | +/- 36.4512 | 15 |
| 33 | 2-Chloronaphthalene                           | 91-58-7   | RPN7O       | 99% | 1,001.1 | µg/mL | +/- 36.4230 | 16 |
| 34 | 2-Nitroaniline                                | 88-74-4   | RP230531    | 99% | 1,002.9 | µg/mL | +/- 36.4876 | 17 |
| 35 | 1,4-Dinitrobenzene                            | 100-25-4  | RP230816    | 99% | 1,005.7 | µg/mL | +/- 36.5887 | 18 |
| 36 | Acenaphthylene                                | 208-96-8  | p06V        | 98% | 1,009.5 | µg/mL | +/- 36.7265 |    |
| 37 | 1,3-Dinitrobenzene                            | 99-65-0   | 1-DXX-24-1  | 99% | 1,004.4 | µg/mL | +/- 36.5422 |    |
| 38 | Dimethylphthalate                             | 131-11-3  | 358221L17K  | 99% | 1,005.9 | µg/mL | +/- 36.5968 |    |
| 39 | 2,6-Dinitrotoluene                            | 606-20-2  | BCCG1833    | 99% | 1,003.2 | µg/mL | +/- 36.4998 |    |
| 40 | 1,2-Dinitrobenzene                            | 528-29-0  | RP230428    | 99% | 1,002.2 | µg/mL | +/- 36.4634 |    |
| 41 | Acenaphthene                                  | 83-32-9   | MKCR7169    | 99% | 1,009.3 | µg/mL | +/- 36.7221 |    |
| 42 | 3-Nitroaniline                                | 99-09-2   | RP230822RSR | 99% | 1,003.9 | µg/mL | +/- 36.5240 |    |
| 43 | 2,4-Dinitrophenol                             | 51-28-5   | DR230417RSR | 99% | 1,002.0 | µg/mL | +/- 36.4553 |    |
| 44 | Dibenzofuran                                  | 132-64-9  | MKCD9952    | 99% | 1,006.7 | µg/mL | +/- 36.6251 |    |
| 45 | 2,4-Dinitrotoluene                            | 121-14-2  | MKAA0690V   | 99% | 1,003.8 | µg/mL | +/- 36.5220 |    |
| 46 | 4-Nitrophenol                                 | 100-02-7  | RP230627    | 99% | 1,002.3 | µg/mL | +/- 36.4674 |    |
| 47 | 2,3,4,6-Tetrachlorophenol                     | 58-90-2   | PR-30126    | 99% | 1,008.7 | µg/mL | +/- 36.6979 |    |
| 48 | 2,3,5,6-Tetrachlorophenol                     | 935-95-5  | RP230919    | 99% | 1,006.3 | µg/mL | +/- 36.6130 |    |
| 49 | Fluorene                                      | 86-73-7   | 10241100    | 99% | 1,008.3 | µg/mL | +/- 36.6857 |    |
| 50 | 4-Chlorophenyl phenyl ether                   | 7005-72-3 | MKCT7248    | 99% | 1,003.8 | µg/mL | +/- 36.5220 |    |
| 51 | Diethylphthalate                              | 84-66-2   | MKCD2547    | 99% | 1,008.6 | µg/mL | +/- 36.6958 |    |
| 52 | 4-Nitroaniline                                | 100-01-6  | RP230111    | 99% | 1,001.1 | µg/mL | +/- 36.4230 |    |
| 53 | 4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) | 534-52-1  | 230718JLM   | 99% | 1,002.0 | µg/mL | +/- 36.4553 |    |

|    |                            |          |               |     |         |       |             |
|----|----------------------------|----------|---------------|-----|---------|-------|-------------|
| 54 | Diphenylamine              | 122-39-4 | MKCH1042      | 99% | 1,002.3 | µg/mL | +/- 36.4674 |
| 55 | Azobenzene                 | 103-33-3 | BCKK0887      | 99% | 1,005.8 | µg/mL | +/- 36.5928 |
| 56 | 4-Bromophenyl phenyl ether | 101-55-3 | STBH6361      | 99% | 1,003.0 | µg/mL | +/- 36.4917 |
| 57 | Hexachlorobenzene          | 118-74-1 | 14821700      | 99% | 1,007.5 | µg/mL | +/- 36.6554 |
| 58 | Pentachlorophenol          | 87-86-5  | RP230530RSR   | 99% | 1,008.8 | µg/mL | +/- 36.7019 |
| 59 | Phenanthrene               | 85-01-8  | MKCQ8876      | 99% | 1,008.4 | µg/mL | +/- 36.6877 |
| 60 | Anthracene                 | 120-12-7 | MKCR0570      | 99% | 1,009.0 | µg/mL | +/- 36.7100 |
| 61 | Carbazole                  | 86-74-8  | 14351100      | 99% | 1,000.9 | µg/mL | +/- 36.4149 |
| 62 | Di-n-butylphthalate        | 84-74-2  | MKCN4337      | 99% | 1,007.6 | µg/mL | +/- 36.6595 |
| 63 | Fluoranthene               | 206-44-0 | MKCQ4728      | 99% | 1,009.6 | µg/mL | +/- 36.7302 |
| 64 | Pyrene                     | 129-00-0 | BCCG8479      | 98% | 1,007.2 | µg/mL | +/- 36.6453 |
| 65 | Benzyl butyl phthalate     | 85-68-7  | X12I018       | 99% | 1,002.1 | µg/mL | +/- 36.4573 |
| 66 | Bis(2-ethylhexyl)adipate   | 103-23-1 | MKCM1988      | 99% | 1,005.2 | µg/mL | +/- 36.5705 |
| 67 | Benz(a)anthracene          | 56-55-3  | I220012022BAA | 99% | 1,002.2 | µg/mL | +/- 36.4614 |
| 68 | Chrysene                   | 218-01-9 | RP230601      | 99% | 1,008.3 | µg/mL | +/- 36.6837 |
| 69 | Bis(2-ethylhexyl)phthalate | 117-81-7 | MKCQ3468      | 99% | 1,001.8 | µg/mL | +/- 36.4472 |
| 70 | Di-n-octyl phthalate       | 117-84-0 | 14382700      | 99% | 1,006.0 | µg/mL | +/- 36.6008 |
| 71 | Benzo(b)fluoranthene       | 205-99-2 | 012013B       | 99% | 1,002.8 | µg/mL | +/- 36.4836 |
| 72 | Benzo(k)fluoranthene       | 207-08-9 | 012022K       | 99% | 1,003.0 | µg/mL | +/- 36.4917 |
| 73 | Benzo(a)pyrene             | 50-32-8  | P54915-0703   | 99% | 1,002.3 | µg/mL | +/- 36.4674 |
| 74 | Indeno(1,2,3-cd)pyrene     | 193-39-5 | 12-JKL-118-9  | 97% | 1,009.4 | µg/mL | +/- 36.7243 |
| 75 | Dibenz(a,h)anthracene      | 53-70-3  | 2-ASA-59-1    | 99% | 1,007.6 | µg/mL | +/- 36.6595 |
| 76 | Benzo(g,h,i)perylene       | 191-24-2 | RP231003RSR   | 99% | 1,002.9 | µg/mL | +/- 36.4876 |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

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

|    |
|----|
| 1  |
| 2  |
| 3  |
| 4  |
| 5  |
| 6  |
| 7  |
| 8  |
| 9  |
| 10 |
| 11 |
| 12 |
| 13 |
| 14 |
| 15 |
| 16 |
| 17 |
| 18 |



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic plus



### 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. :** 31850 **Lot No.:** A0203726

**Description :** 8270 MegaMix®  
8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

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

**Expiration Date :** April 30, 2025 **Storage:** 0°C or colder

**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

512117 } RC/  
↓ 03/18/24  
512146

### CERTIFIED VALUES

| Elution Order | Compound                     | CAS #    | Lot #       | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|------------------------------|----------|-------------|--------|-----------------------------|----------------------------------------|
| 1             | Pyridine                     | 110-86-1 | SHBP6240    | 99%    | 1,001.6 µg/mL               | +/- 36.4412                            |
| 2             | N-Nitrosodimethylamine       | 62-75-9  | 230209JLM   | 99%    | 1,005.9 µg/mL               | +/- 36.5968                            |
| 3             | Phenol                       | 108-95-2 | MKCK1120    | 99%    | 1,003.3 µg/mL               | +/- 36.5038                            |
| 4             | Aniline                      | 62-53-3  | X22F726     | 99%    | 1,005.8 µg/mL               | +/- 36.5928                            |
| 5             | Bis(2-chloroethyl)ether      | 111-44-4 | SHBL6942    | 99%    | 1,008.1 µg/mL               | +/- 36.6776                            |
| 6             | 2-Chlorophenol               | 95-57-8  | STBJ3909    | 99%    | 1,001.8 µg/mL               | +/- 36.4492                            |
| 7             | 1,3-Dichlorobenzene          | 541-73-1 | BCCD5315    | 99%    | 1,002.3 µg/mL               | +/- 36.4654                            |
| 8             | 1,4-Dichlorobenzene          | 106-46-7 | MKBS7929V   | 99%    | 1,003.7 µg/mL               | +/- 36.5159                            |
| 9             | Benzyl alcohol               | 100-51-6 | SHBK5469    | 99%    | 1,008.7 µg/mL               | +/- 36.6979                            |
| 10            | 1,2-Dichlorobenzene          | 95-50-1  | SHBN3835    | 99%    | 1,000.3 µg/mL               | +/- 36.3926                            |
| 11            | 2-Methylphenol (o-cresol)    | 95-48-7  | SHBN7598    | 99%    | 1,003.5 µg/mL               | +/- 36.5099                            |
| 12            | 2,2'-oxybis(1-chloropropane) | 108-60-1 | 29-MAR-45-5 | 99%    | 1,007.3 µg/mL               | +/- 36.6493                            |
| 13            | 3-Methylphenol (m-cresol)    | 108-39-4 | STBJ0710    | 99%    | 504.3 µg/mL                 | +/- 18.3500                            |
| 14            | 4-Methylphenol (p-cresol)    | 106-44-5 | SHBN3411    | 99%    | 503.6 µg/mL                 | +/- 18.3237                            |
| 15            | N-Nitroso-di-n-propylamine   | 621-64-7 | N63MG       | 99%    | 1,008.3 µg/mL               | +/- 36.6857                            |
| 16            | Hexachloroethane             | 67-72-1  | QTORH       | 99%    | 1,007.5 µg/mL               | +/- 36.6554                            |
| 17            | Nitrobenzene                 | 98-95-3  | 10224044    | 99%    | 1,008.6 µg/mL               | +/- 36.6938                            |



|    |                                               |           |             |     |         |       |             |    |
|----|-----------------------------------------------|-----------|-------------|-----|---------|-------|-------------|----|
| 18 | Isophorone                                    | 78-59-1   | MKCC9506    | 99% | 1,005.9 | µg/mL | +/- 36.5988 | 1  |
| 19 | 2-Nitrophenol                                 | 88-75-5   | RP230710    | 99% | 1,003.2 | µg/mL | +/- 36.4998 | 2  |
| 20 | 2,4-Dimethylphenol                            | 105-67-9  | XW5GK       | 99% | 1,003.8 | µg/mL | +/- 36.5200 | 3  |
| 21 | Bis(2-chloroethoxy)methane                    | 111-91-1  | 13670200    | 99% | 1,002.1 | µg/mL | +/- 36.4573 | 4  |
| 22 | 2,4-Dichlorophenol                            | 120-83-2  | BCBZ6787    | 99% | 1,003.7 | µg/mL | +/- 36.5180 | 5  |
| 23 | 1,2,4-Trichlorobenzene                        | 120-82-1  | SHBP5900    | 99% | 1,007.6 | µg/mL | +/- 36.6574 | 6  |
| 24 | Naphthalene                                   | 91-20-3   | STBL1057    | 99% | 1,008.3 | µg/mL | +/- 36.6837 | 7  |
| 25 | 4-Chloroaniline                               | 106-47-8  | BCCJ3217    | 99% | 1,001.3 | µg/mL | +/- 36.4290 | 8  |
| 26 | Hexachlorobutadiene                           | 87-68-3   | RP230823RSR | 98% | 1,008.3 | µg/mL | +/- 36.6829 | 9  |
| 27 | 4-Chloro-3-methylphenol                       | 59-50-7   | BCCD4461    | 99% | 1,003.1 | µg/mL | +/- 36.4937 | 10 |
| 28 | 2-Methylnaphthalene                           | 91-57-6   | STBK0259    | 96% | 1,001.9 | µg/mL | +/- 36.4505 | 11 |
| 29 | 1-Methylnaphthalene                           | 90-12-0   | 5234.00-8   | 98% | 1,000.0 | µg/mL | +/- 36.3838 | 12 |
| 30 | Hexachlorocyclopentadiene                     | 77-47-4   | 099063I14L  | 98% | 1,008.5 | µg/mL | +/- 36.6909 | 13 |
| 31 | 2,4,6-Trichlorophenol                         | 88-06-2   | STBJ5914    | 99% | 1,004.4 | µg/mL | +/- 36.5442 | 14 |
| 32 | 2,4,5-Trichlorophenol                         | 95-95-4   | FHN01       | 98% | 1,001.9 | µg/mL | +/- 36.4512 | 15 |
| 33 | 2-Chloronaphthalene                           | 91-58-7   | RPN7O       | 99% | 1,001.1 | µg/mL | +/- 36.4230 | 16 |
| 34 | 2-Nitroaniline                                | 88-74-4   | RP230531    | 99% | 1,002.9 | µg/mL | +/- 36.4876 | 17 |
| 35 | 1,4-Dinitrobenzene                            | 100-25-4  | RP230816    | 99% | 1,005.7 | µg/mL | +/- 36.5887 | 18 |
| 36 | Acenaphthylene                                | 208-96-8  | p06V        | 98% | 1,009.5 | µg/mL | +/- 36.7265 |    |
| 37 | 1,3-Dinitrobenzene                            | 99-65-0   | 1-DXX-24-1  | 99% | 1,004.4 | µg/mL | +/- 36.5422 |    |
| 38 | Dimethylphthalate                             | 131-11-3  | 358221L17K  | 99% | 1,005.9 | µg/mL | +/- 36.5968 |    |
| 39 | 2,6-Dinitrotoluene                            | 606-20-2  | BCCG1833    | 99% | 1,003.2 | µg/mL | +/- 36.4998 |    |
| 40 | 1,2-Dinitrobenzene                            | 528-29-0  | RP230428    | 99% | 1,002.2 | µg/mL | +/- 36.4634 |    |
| 41 | Acenaphthene                                  | 83-32-9   | MKCR7169    | 99% | 1,009.3 | µg/mL | +/- 36.7221 |    |
| 42 | 3-Nitroaniline                                | 99-09-2   | RP230822RSR | 99% | 1,003.9 | µg/mL | +/- 36.5240 |    |
| 43 | 2,4-Dinitrophenol                             | 51-28-5   | DR230417RSR | 99% | 1,002.0 | µg/mL | +/- 36.4553 |    |
| 44 | Dibenzofuran                                  | 132-64-9  | MKCD9952    | 99% | 1,006.7 | µg/mL | +/- 36.6251 |    |
| 45 | 2,4-Dinitrotoluene                            | 121-14-2  | MKAA0690V   | 99% | 1,003.8 | µg/mL | +/- 36.5220 |    |
| 46 | 4-Nitrophenol                                 | 100-02-7  | RP230627    | 99% | 1,002.3 | µg/mL | +/- 36.4674 |    |
| 47 | 2,3,4,6-Tetrachlorophenol                     | 58-90-2   | PR-30126    | 99% | 1,008.7 | µg/mL | +/- 36.6979 |    |
| 48 | 2,3,5,6-Tetrachlorophenol                     | 935-95-5  | RP230919    | 99% | 1,006.3 | µg/mL | +/- 36.6130 |    |
| 49 | Fluorene                                      | 86-73-7   | 10241100    | 99% | 1,008.3 | µg/mL | +/- 36.6857 |    |
| 50 | 4-Chlorophenyl phenyl ether                   | 7005-72-3 | MKCT7248    | 99% | 1,003.8 | µg/mL | +/- 36.5220 |    |
| 51 | Diethylphthalate                              | 84-66-2   | MKCD2547    | 99% | 1,008.6 | µg/mL | +/- 36.6958 |    |
| 52 | 4-Nitroaniline                                | 100-01-6  | RP230111    | 99% | 1,001.1 | µg/mL | +/- 36.4230 |    |
| 53 | 4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) | 534-52-1  | 230718JLM   | 99% | 1,002.0 | µg/mL | +/- 36.4553 |    |



|    |                            |          |               |     |         |       |             |
|----|----------------------------|----------|---------------|-----|---------|-------|-------------|
| 54 | Diphenylamine              | 122-39-4 | MKCH1042      | 99% | 1,002.3 | µg/mL | +/- 36.4674 |
| 55 | Azobenzene                 | 103-33-3 | BCKK0887      | 99% | 1,005.8 | µg/mL | +/- 36.5928 |
| 56 | 4-Bromophenyl phenyl ether | 101-55-3 | STBH6361      | 99% | 1,003.0 | µg/mL | +/- 36.4917 |
| 57 | Hexachlorobenzene          | 118-74-1 | 14821700      | 99% | 1,007.5 | µg/mL | +/- 36.6554 |
| 58 | Pentachlorophenol          | 87-86-5  | RP230530RSR   | 99% | 1,008.8 | µg/mL | +/- 36.7019 |
| 59 | Phenanthrene               | 85-01-8  | MKCQ8876      | 99% | 1,008.4 | µg/mL | +/- 36.6877 |
| 60 | Anthracene                 | 120-12-7 | MKCR0570      | 99% | 1,009.0 | µg/mL | +/- 36.7100 |
| 61 | Carbazole                  | 86-74-8  | 14351100      | 99% | 1,000.9 | µg/mL | +/- 36.4149 |
| 62 | Di-n-butylphthalate        | 84-74-2  | MKCN4337      | 99% | 1,007.6 | µg/mL | +/- 36.6595 |
| 63 | Fluoranthene               | 206-44-0 | MKCQ4728      | 99% | 1,009.6 | µg/mL | +/- 36.7302 |
| 64 | Pyrene                     | 129-00-0 | BCCG8479      | 98% | 1,007.2 | µg/mL | +/- 36.6453 |
| 65 | Benzyl butyl phthalate     | 85-68-7  | X12I018       | 99% | 1,002.1 | µg/mL | +/- 36.4573 |
| 66 | Bis(2-ethylhexyl)adipate   | 103-23-1 | MKCM1988      | 99% | 1,005.2 | µg/mL | +/- 36.5705 |
| 67 | Benz(a)anthracene          | 56-55-3  | I220012022BAA | 99% | 1,002.2 | µg/mL | +/- 36.4614 |
| 68 | Chrysene                   | 218-01-9 | RP230601      | 99% | 1,008.3 | µg/mL | +/- 36.6837 |
| 69 | Bis(2-ethylhexyl)phthalate | 117-81-7 | MKCQ3468      | 99% | 1,001.8 | µg/mL | +/- 36.4472 |
| 70 | Di-n-octyl phthalate       | 117-84-0 | 14382700      | 99% | 1,006.0 | µg/mL | +/- 36.6008 |
| 71 | Benzo(b)fluoranthene       | 205-99-2 | 012013B       | 99% | 1,002.8 | µg/mL | +/- 36.4836 |
| 72 | Benzo(k)fluoranthene       | 207-08-9 | 012022K       | 99% | 1,003.0 | µg/mL | +/- 36.4917 |
| 73 | Benzo(a)pyrene             | 50-32-8  | P54915-0703   | 99% | 1,002.3 | µg/mL | +/- 36.4674 |
| 74 | Indeno(1,2,3-cd)pyrene     | 193-39-5 | 12-JKL-118-9  | 97% | 1,009.4 | µg/mL | +/- 36.7243 |
| 75 | Dibenz(a,h)anthracene      | 53-70-3  | 2-ASA-59-1    | 99% | 1,007.6 | µg/mL | +/- 36.6595 |
| 76 | Benzo(g,h,i)perylene       | 191-24-2 | RP231003RSR   | 99% | 1,002.9 | µg/mL | +/- 36.4876 |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

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

|    |
|----|
| 1  |
| 2  |
| 3  |
| 4  |
| 5  |
| 6  |
| 7  |
| 8  |
| 9  |
| 10 |
| 11 |
| 12 |
| 13 |
| 14 |
| 15 |
| 16 |
| 17 |
| 18 |



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic plus



### 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. :** 31087 **Lot No.:** A0206206  
**Description :** Acid Surrogate Mix (4/89 SOW)  
Acid Surrogate 10, 000µg/mL, Methanol, 5mL/ampul  
**Container Size :** 5 mL **Pkg Amt:** > 5 mL  
**Expiration Date :** January 31, 2032 **Storage:** 10°C or colder  
**Ship:** Ambient

512187 } RC/  
↓  
512206 } 03/18/24

### CERTIFIED VALUES

| Elution Order | Compound             | CAS #      | Lot #       | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|----------------------|------------|-------------|--------|-----------------------------|----------------------------------------|
| 1             | 2-Fluorophenol       | 367-12-4   | STBK1705    | 99%    | 10,005.3 µg/mL              | +/- 302.5390                           |
| 2             | Phenol-d6            | 13127-88-3 | PR-33287A   | 99%    | 10,005.5 µg/mL              | +/- 302.5475                           |
| 3             | 2,4,6-Tribromophenol | 118-79-6   | RP230831RSR | 99%    | 10,006.6 µg/mL              | +/- 302.5783                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** Methanol  
**CAS #** 67-56-1  
**Purity** 99%

## Quality Confirmation Test

**Column:**

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

**Carrier Gas:**

hydrogen-constant pressure 10 psi.

**Temp. Program:**

40°C (hold 2 min.) to 330°C  
@ 10°C/min. (hold 10 min.)

**Inj. Temp:**

250°C

**Det. Temp:**

330°C

**Det. Type:**

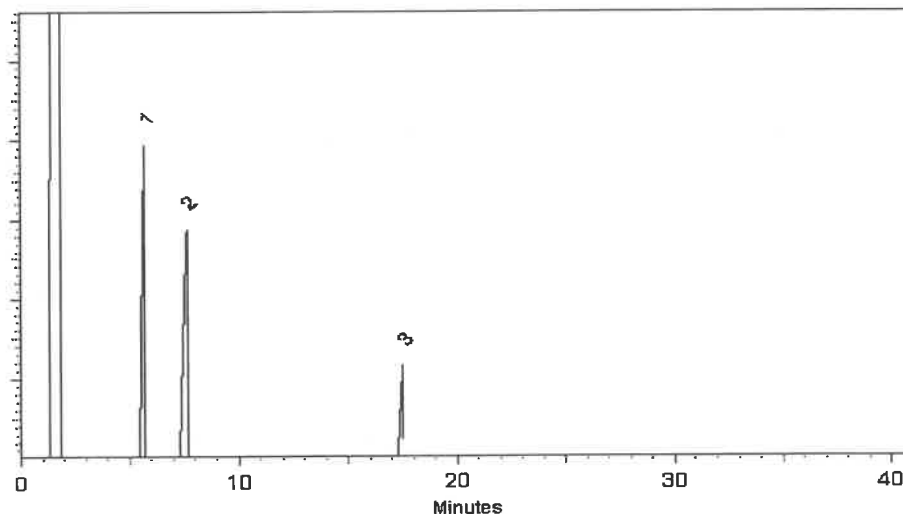
FID

**Split Vent:**

2 ml/min.

**Inj. Vol**

1µl



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.

*Penelope A. Riglin*

Penelope Riglin - Operations Tech I

*Christie Mills*

Christie Mills - Operations Lead Tech - ARM QC

Date Mixed: 04-Jan-2024

Balance Serial # 1128360905

Date Passed: 08-Jan-2024

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



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic plus



### 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. :** 31086 **Lot No.:** A0206381  
**Description :** B/N Surrogate Mix (4/89 SOW)  
Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul  
**Container Size :** 5 mL **Pkg Amt:** > 5 mL  
**Expiration Date :** December 31, 2029 **Storage:** 10°C or colder  
**Handling:** Sonicate prior to use. **Ship:** Ambient

S12207 } RC/  
↓  
S12221 } 03/18/24

### CERTIFIED VALUES

| Elution Order | Compound         | CAS #     | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|------------------|-----------|----------|--------|-----------------------------|----------------------------------------|
| 1             | Nitrobenzene-d5  | 4165-60-0 | I-25158  | 99%    | 5,029.3 µg/mL               | +/- 226.5204                           |
| 2             | 2-Fluorobiphenyl | 321-60-8  | 00021384 | 99%    | 5,030.9 µg/mL               | +/- 226.5936                           |
| 3             | p-Terphenyl-d14  | 1718-51-0 | PR-32599 | 99%    | 5,026.4 µg/mL               | +/- 226.3909                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

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

### Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

# Quality Confirmation Test

**Column:**

30m x 0.25mm x 0.25µm  
Rtx-S (cat.#10223)

**Carrier Gas:**

hydrogen-constant pressure 10 psi.

**Temp. Program:**

40°C (hold 2 min.) to 330°C  
@ 10°C/min. (hold 10 min.)

**Inj. Temp:**

250°C

**Det. Temp:**

330°C

**Det. Type:**

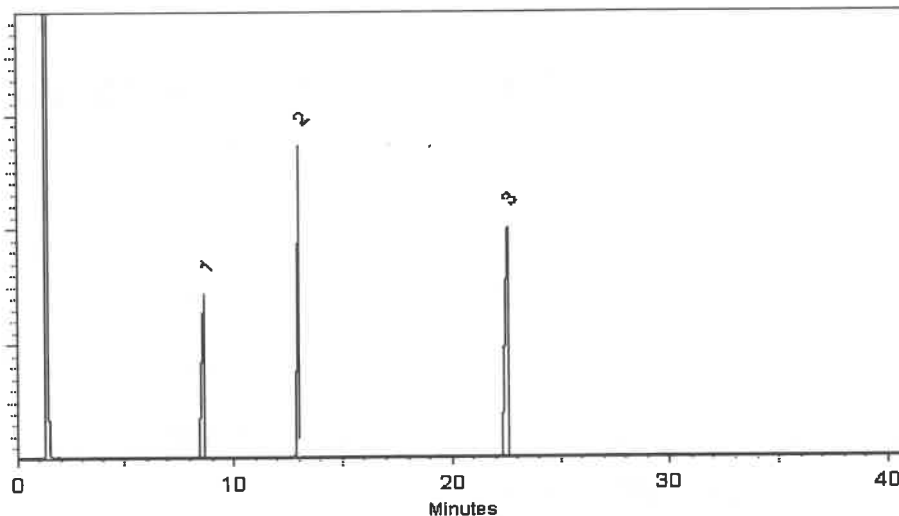
FID

**Split Vent:**

2 ml/min.

**Inj. Vol**

1µl



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.

Jess Hoy - Operations Tech I

Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 09-Jan-2024

Balance Serial # 1128360905

Date Passed: 11-Jan-2024

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



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic plus



### 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. :** 31086 **Lot No.:** A0206381  
**Description :** B/N Surrogate Mix (4/89 SOW)  
Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul  
**Container Size :** 5 mL **Pkg Amt:** > 5 mL  
**Expiration Date :** December 31, 2029 **Storage:** 10°C or colder  
**Handling:** Sonicate prior to use. **Ship:** Ambient

S12207 } RC/  
↓  
S12221 } 03/18/24

### CERTIFIED VALUES

| Elution Order | Compound         | CAS #     | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|------------------|-----------|----------|--------|-----------------------------|----------------------------------------|
| 1             | Nitrobenzene-d5  | 4165-60-0 | I-25158  | 99%    | 5,029.3 µg/mL               | +/- 226.5204                           |
| 2             | 2-Fluorobiphenyl | 321-60-8  | 00021384 | 99%    | 5,030.9 µg/mL               | +/- 226.5936                           |
| 3             | p-Terphenyl-d14  | 1718-51-0 | PR-32599 | 99%    | 5,026.4 µg/mL               | +/- 226.3909                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

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

### Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

# Quality Confirmation Test

**Column:**

30m x 0.25mm x 0.25µm  
Rtx-S (cat.#10223)

**Carrier Gas:**

hydrogen-constant pressure 10 psi.

**Temp. Program:**

40°C (hold 2 min.) to 330°C  
@ 10°C/min. (hold 10 min.)

**Inj. Temp:**

250°C

**Det. Temp:**

330°C

**Det. Type:**

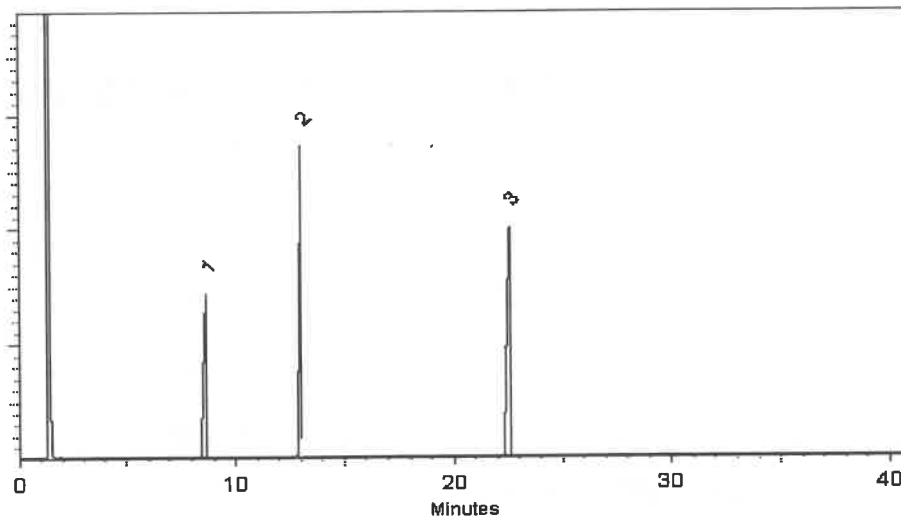
FID

**Split Vent:**

2 ml/min.

**Inj. Vol**

1µl



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.

Jess Hoy - Operations Tech I

Date Mixed: 09-Jan-2024

Balance Serial # 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 11-Jan-2024

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





110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic plus



### 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.:** A0206540

**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 :** December 31, 2029 **Storage:** 10°C or colder

**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

512312 } RC/  
↓ 05/30/24  
512331

### CERTIFIED VALUES

| Elution Order | Compound               | CAS #      | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|------------------------|------------|----------|--------|-----------------------------|----------------------------------------|
| 1             | 1,4-Dichlorobenzene-d4 | 3855-82-1  | PR-30447 | 99%    | 2,007.1 µg/mL               | +/- 90.4025                            |
| 2             | Naphthalene-d8         | 1146-65-2  | M-2180   | 99%    | 2,005.9 µg/mL               | +/- 90.3454                            |
| 3             | Acenaphthene-d10       | 15067-26-2 | PR-33507 | 99%    | 2,007.9 µg/mL               | +/- 90.4385                            |
| 4             | Phenanthrene-d10       | 1517-22-2  | PR-32303 | 99%    | 2,006.7 µg/mL               | +/- 90.3845                            |
| 5             | Chrysene-d12           | 1719-03-5  | PR-32210 | 99%    | 2,015.5 µg/mL               | +/- 90.7778                            |
| 6             | Perylene-d12           | 1520-96-3  | PR-33205 | 99%    | 2,014.7 µg/mL               | +/- 90.7448                            |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

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

# Quality Confirmation Test

**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:**

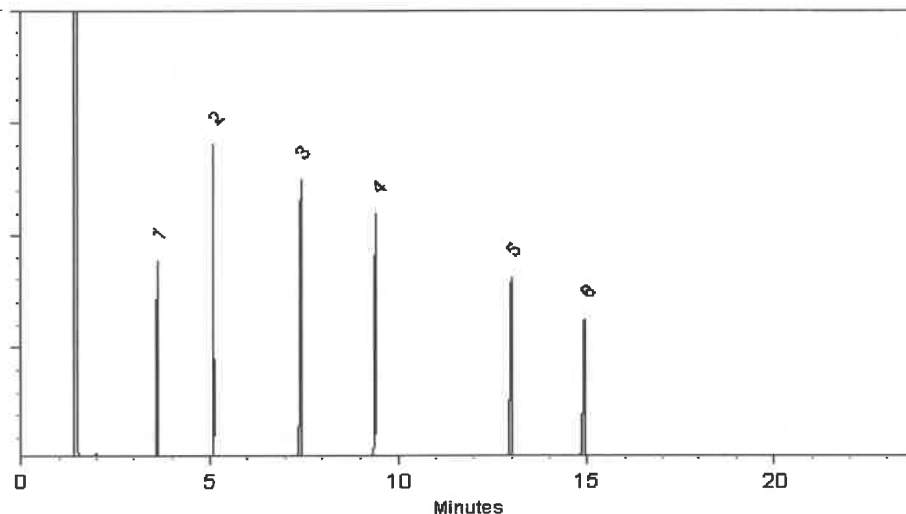
FID

**Split Vent:**

10 ml/min.

**Inj. Vol**

1µl



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.

*Malina Homan*  
Malina Homan - Operations Technician I

Date Mixed: 12-Jan-2024

Balance Serial # 1128360905

*Jennifer J. Pollino*  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jan-2024

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



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

### chromatographic plus



#### 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.:** A0206540

**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 :** December 31, 2029 **Storage:** 10°C or colder

**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

S12312 } RC/  
↓ 05/30/24  
S12331

#### CERTIFIED VALUES

| Elution Order | Compound               | CAS #      | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|------------------------|------------|----------|--------|-----------------------------|----------------------------------------|
| 1             | 1,4-Dichlorobenzene-d4 | 3855-82-1  | PR-30447 | 99%    | 2,007.1 µg/mL               | +/- 90.4025                            |
| 2             | Naphthalene-d8         | 1146-65-2  | M-2180   | 99%    | 2,005.9 µg/mL               | +/- 90.3454                            |
| 3             | Acenaphthene-d10       | 15067-26-2 | PR-33507 | 99%    | 2,007.9 µg/mL               | +/- 90.4385                            |
| 4             | Phenanthrene-d10       | 1517-22-2  | PR-32303 | 99%    | 2,006.7 µg/mL               | +/- 90.3845                            |
| 5             | Chrysene-d12           | 1719-03-5  | PR-32210 | 99%    | 2,015.5 µg/mL               | +/- 90.7778                            |
| 6             | Perylene-d12           | 1520-96-3  | PR-33205 | 99%    | 2,014.7 µg/mL               | +/- 90.7448                            |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

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

## Quality Confirmation Test

**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:**

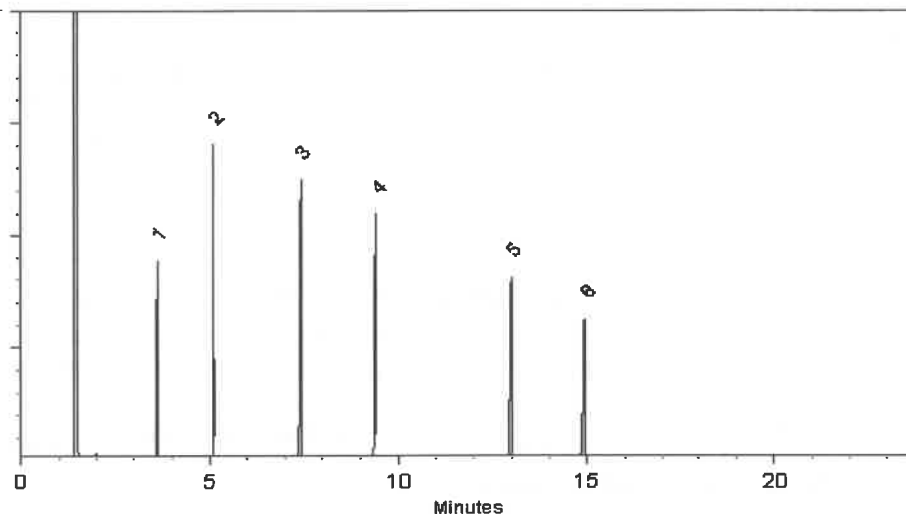
FID

**Split Vent:**

10 ml/min.

**Inj. Vol**

1µl



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.

*Malina Homan*  
Malina Homan - Operations Technician I

Date Mixed: 12-Jan-2024

Balance Serial # 1128360905

*Jennifer Pollino*  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jan-2024

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



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

gravimetric



### 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. :** 555223 **Lot No.:** A0214021

**Description :** Custom 8270 Plus Standard #1  
Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

**Expiration Date :** July 31, 2026 **Storage:** 10°C or colder

**Handling:** This product is photosensitive. **Ship:** Ambient

### CERTIFIED VALUES

| Component # | Compound               | CAS #     | Lot #      | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|-------------|------------------------|-----------|------------|--------|-----------------------------|----------------------------------------|
| 1           | 3,3'-Dichlorobenzidine | 91-94-1   | S240326RSR | 99%    | 1,004.0 µg/mL               | +/- 23.0487                            |
| 2           | Atrazine               | 1912-24-9 | 5FYWL      | 99%    | 1,005.0 µg/mL               | +/- 23.0717                            |
| 3           | Benzidine              | 92-87-5   | S240430RSR | 99%    | 1,006.0 µg/mL               | +/- 23.0947                            |
| 4           | epsilon-Caprolactam    | 105-60-2  | Y16H012    | 99%    | 1,000.0 µg/mL               | +/- 22.9569                            |

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

S12449 } RC/  
↓  
S12508 } 7/24/24

Rebecca Gingerich - Operations Tech II

**Date Mixed:** 18-Jul-2024

**Balance:** 1128353505

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

gravimetric



### 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. :** 555223 **Lot No.:** A0214021

**Description :** Custom 8270 Plus Standard #1  
Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

**Expiration Date :** July 31, 2026 **Storage:** 10°C or colder

**Handling:** This product is photosensitive. **Ship:** Ambient

### CERTIFIED VALUES

| Component # | Compound               | CAS #     | Lot #      | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|-------------|------------------------|-----------|------------|--------|-----------------------------|----------------------------------------|
| 1           | 3,3'-Dichlorobenzidine | 91-94-1   | S240326RSR | 99%    | 1,004.0 µg/mL               | +/- 23.0487                            |
| 2           | Atrazine               | 1912-24-9 | 5FYWL      | 99%    | 1,005.0 µg/mL               | +/- 23.0717                            |
| 3           | Benzidine              | 92-87-5   | S240430RSR | 99%    | 1,006.0 µg/mL               | +/- 23.0947                            |
| 4           | epsilon-Caprolactam    | 105-60-2  | Y16H012    | 99%    | 1,000.0 µg/mL               | +/- 22.9569                            |

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

S12449 } RC/  
↓  
S12508 } 7/24/24

Rebecca Gingerich - Operations Tech II

**Date Mixed:** 18-Jul-2024

**Balance:** 1128353505

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.





110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

gravimetric



### 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. :** 555224 **Lot No.:** A0214017

**Description :** Custom 8270 Plus Standard #2

Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul

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

**Expiration Date :** July 31, 2026 **Storage:** 10°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Component # | Compound                   | CAS #    | Lot #        | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|-------------|----------------------------|----------|--------------|--------|-----------------------------|----------------------------------------|
| 1           | 1,2,4,5-Tetrachlorobenzene | 95-94-3  | MKCT9480     | 99%    | 1,005.0 µg/mL               | +/- 29.541899                          |
| 2           | Acetophenone               | 98-86-2  | STBH8205     | 99%    | 1,005.0 µg/mL               | +/- 29.541899                          |
| 3           | Benzaldehyde               | 100-52-7 | RD231129RSRA | 99%    | 1,008.0 µg/mL               | +/- 29.630084                          |
| 4           | Benzoic acid               | 65-85-0  | MKCR2694     | 99%    | 1,010.0 µg/mL               | +/- 29.688874                          |
| 5           | Biphenyl                   | 92-52-4  | MKCS5928     | 99%    | 1,008.0 µg/mL               | +/- 29.630084                          |

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

S12509 } RC/  
↓  
S12568 } 7/24/24

Jess Hoy - Operations Tech I

Date Mixed: 18-Jul-2024

Balance: 1128360905

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.



# SHIPPING DOCUMENTS

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

|                                                                                                                                                   |                          |                                                                                                                                                                                                                                                                                                                                                                                                |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--|--|-------------------------------------------------------------------------------|--|--|--|---|------------------|----------|---|------------------------------------------------------------------------------|---|---|---|---|--|
| <b>CHEMTECH</b><br>CHAIN OF CUSTODY RECORD                                                                                                        |                          | 284 Sheffield Street, Mountainside, NJ 07092<br>(908) 789-8900 Fax: (908) 78-8922<br>www.chemtech.net                                                                                                                                                                                                                                                                                          |   | Chemtech Project Number: <span style="font-size: 1.5em;">Q1022</span>                                                                                                                                                                                                                                                                                                                                                                                               |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
|                                                                                                                                                   |                          |                                                                                                                                                                                                                                                                                                                                                                                                |   | COC Number:                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| CLIENT INFORMATION                                                                                                                                |                          | PROJECT INFORMATION                                                                                                                                                                                                                                                                                                                                                                            |   | BILLING INFORMATION                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| COMPANY: Tetra Tech                                                                                                                               |                          | PROJECT NAME: NWIRP Bethpage                                                                                                                                                                                                                                                                                                                                                                   |   | BILL TO: SEE CONTRACT                                                                                                                                                                                                                                                                                                                                                                                                                                               |        | PO#                                                                                                                                                                                                                                                                                          |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| ADDRESS: 4433 Corporation Lane Suite 300                                                                                                          |                          | PROJECT #: 112G08005-WE13 LOCATION: VPB-189                                                                                                                                                                                                                                                                                                                                                    |   | ADDRESS:                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| CITY: Virginia Beach STATE: VA ZIP: 23462                                                                                                         |                          | PROJECT MANAGER: Ernie Wu                                                                                                                                                                                                                                                                                                                                                                      |   | CITY:                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        | STATE: ZIP:                                                                                                                                                                                                                                                                                  |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| ATTENTION: Ernie Wu                                                                                                                               |                          | E-MAIL: ernie.wu@tetrattech.com                                                                                                                                                                                                                                                                                                                                                                |   | ATTENTION:                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        | PHONE:                                                                                                                                                                                                                                                                                       |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| PHONE: 757-466-4901 FAX: 757-461-4148                                                                                                             |                          | PHONE: 757-466-4901 FAX: 757-461-4148                                                                                                                                                                                                                                                                                                                                                          |   | ANALYSIS                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| DATA TURNAROUND INFORMATION                                                                                                                       |                          | DATA DELIVERABLE INFORMATION                                                                                                                                                                                                                                                                                                                                                                   |   | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">VOC(SW846-8260B)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">1,4 Dioxane (8270 SIM)</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td></td> </tr> </table> |        |                                                                                                                                                                                                                                                                                              |      | VOC(SW846-8260B)     | 1,4 Dioxane (8270 SIM) |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  | 1 | 2                | 3        | 4 | 5                                                                            | 6 | 7 | 8 | 9 |  |
| VOC(SW846-8260B)                                                                                                                                  | 1,4 Dioxane (8270 SIM)   |                                                                                                                                                                                                                                                                                                                                                                                                |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| 1                                                                                                                                                 | 2                        | 3                                                                                                                                                                                                                                                                                                                                                                                              | 4 | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6      | 7                                                                                                                                                                                                                                                                                            | 8    | 9                    |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| FAX: 2 & 10 DAYS*<br>HARD COPY: 2 & 10 DAYS*<br>EDD: 2 & 10 DAYS*<br>* TO BE APPROVED BY CHEMTECH<br>STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS |                          | <input type="checkbox"/> RESEULTS ONLY <input type="checkbox"/> USEPA CLP<br><input type="checkbox"/> RESULTS + QC <input type="checkbox"/> New York State ASP "B"<br><input type="checkbox"/> New Jersey REDUCED <input type="checkbox"/> New York State ASP "A"<br><input type="checkbox"/> New Jersey CLP <input type="checkbox"/> Other _____<br><input type="checkbox"/> EDD Format _____ |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| CHEMTECH<br>SAMPLE<br>ID                                                                                                                          |                          | PROJECT<br>SAMPLE IDENTIFICATION                                                                                                                                                                                                                                                                                                                                                               |   | SAMPLE<br>MATRIX                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        | SAMPLE<br>TYPE                                                                                                                                                                                                                                                                               |      | SAMPLE<br>COLLECTION |                        | # of Bottles                                                                                                                                                                       | PRESERVATIVES |  |  |                                                                               |  |  |  |   |                  | COMMENTS |   |                                                                              |   |   |   |   |  |
|                                                                                                                                                   |                          |                                                                                                                                                                                                                                                                                                                                                                                                |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        | COMP                                                                                                                                                                                                                                                                                         | GRAB | DATE                 | TIME                   |                                                                                                                                                                                    | A             |  |  |                                                                               |  |  |  |   |                  |          |   | <-- Specify Preservatives<br>A-HCl B-HNO3<br>C-H2SO4 D-NaOH<br>E-ICE F-Other |   |   |   |   |  |
| 1.                                                                                                                                                | BP-VPB-190A-TB-20250103  | QA                                                                                                                                                                                                                                                                                                                                                                                             |   | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1/3/25 | 8:00                                                                                                                                                                                                                                                                                         | 2    | 2                    |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   | Trip Blank       |          |   |                                                                              |   |   |   |   |  |
| 2.                                                                                                                                                | BP-VPB-190A-DUP-20250103 | QA                                                                                                                                                                                                                                                                                                                                                                                             |   | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1/3/25 | 12:00                                                                                                                                                                                                                                                                                        | 2    | 2                    |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   | Duplicate sample |          |   |                                                                              |   |   |   |   |  |
| 3.                                                                                                                                                | BP-VPB-190A-GW-838-840   | AQ                                                                                                                                                                                                                                                                                                                                                                                             |   | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1/3/25 | 11:45                                                                                                                                                                                                                                                                                        | 3    | 2                    | 1                      |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| 4.                                                                                                                                                | BP-VPB-190A-GW-858-860   | AQ                                                                                                                                                                                                                                                                                                                                                                                             |   | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1/3/25 | 14:15                                                                                                                                                                                                                                                                                        | 2    | 2                    |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| 5.                                                                                                                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                                |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| 6.                                                                                                                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                                |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| 7.                                                                                                                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                                |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| 8.                                                                                                                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                                |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| 9.                                                                                                                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                                |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| 10.                                                                                                                                               |                          |                                                                                                                                                                                                                                                                                                                                                                                                |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY                                           |                          |                                                                                                                                                                                                                                                                                                                                                                                                |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| RELINQUISHED BY SAMPLER                                                                                                                           |                          | DATE/TIME                                                                                                                                                                                                                                                                                                                                                                                      |   | RECEIVED BY                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        | Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant <input type="checkbox"/> Cooler Temp <u>2.8°C</u><br>MeOH extraction requires an additional 4oz. Jar for percent solid <input type="checkbox"/> Ice in Cooler?: _____ |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| RELINQUISHED BY                                                                                                                                   |                          | DATE/TIME                                                                                                                                                                                                                                                                                                                                                                                      |   | RECEIVED BY                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        | Comments: <b>48hr TAT</b> - For VOC's see worksheet #15 of SAP 2018 for VPB program VOC list<br><b>10-DAY TAT</b> - For 1,4 Dioxane (8270 SIM)                                                                                                                                               |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| RELINQUISHED BY                                                                                                                                   |                          | DATE/TIME                                                                                                                                                                                                                                                                                                                                                                                      |   | RECEIVED FOR LAB BY                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        | Page <u>1</u> of <u>1</u>                                                                                                                                                                                                                                                                    |      |                      |                        | SHIPPED VIA: CLIENT: <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Overnight<br>CHEMTECH: <input type="checkbox"/> Picked Up <input type="checkbox"/> Overnight |               |  |  | Shipment Complete<br><input type="checkbox"/> YES <input type="checkbox"/> NO |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |
| WHITE - CHEMTECH COPY FOR RETURN TO CLIENT    YELLOW - CHEMTECH COPY    PINK - SAMPLER COPY                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                                                                                                                                                                                                                                                              |      |                      |                        |                                                                                                                                                                                    |               |  |  |                                                                               |  |  |  |   |                  |          |   |                                                                              |   |   |   |   |  |

**Laboratory Certification**

| Certified By         | License No.      |
|----------------------|------------------|
|                      |                  |
| CAS EPA CLP Contract | 68HERH20D0011    |
|                      |                  |
| Connecticut          | PH-0830          |
|                      |                  |
| DOD ELAP (ANAB)      | L2219            |
|                      |                  |
| Maine                | 2024021          |
|                      |                  |
| Maryland             | 296              |
|                      |                  |
| New Hampshire        | 255424 Rev 1     |
|                      |                  |
| New Jersey           | 20012            |
|                      |                  |
| New York             | 11376            |
|                      |                  |
| Pennsylvania         | 68-00548         |
|                      |                  |
| Soil Permit          | 525-24-234-08441 |
|                      |                  |
| Texas                | T104704488       |

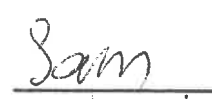
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18

**LOGIN REPORT/SAMPLE TRANSFER**

|                                            |               |                                                |                              |
|--------------------------------------------|---------------|------------------------------------------------|------------------------------|
| <b>Order ID :</b> Q1022                    | <b>TETRO6</b> | <b>Order Date :</b> 1/6/2025 3:27:00 PM        | <b>Project Mgr :</b>         |
| <b>Client Name :</b> Tetra Tech NUS, Inc.  |               | <b>Project Name :</b> CTO WE13                 | <b>Report Type :</b> Level 4 |
| <b>Client Contact :</b> Ernie Wu           |               | <b>Receive DateTime :</b> 1/6/2025 12:00:00 AM | <b>EDD Type :</b> ADAPT      |
| <b>Invoice Name :</b> Tetra Tech NUS, Inc. |               | <b>Purchase Order :</b> 18:19                  | <b>Hard Copy Date :</b>      |
| <b>Invoice Contact :</b> Ernie Wu          |               |                                                | <b>Date Signoff :</b>        |

| LAB ID   | CLIENT ID                | MATRIX | SAMPLE DATE | SAMPLE TIME | TEST         | TEST GROUP | METHOD   | FAX DATE    | DUE DATES |
|----------|--------------------------|--------|-------------|-------------|--------------|------------|----------|-------------|-----------|
| Q1022-01 | BP-VPB-190A-TB-20250103  | Water  | 01/03/2025  | 08:00       | VOCMS Group1 |            | 8260-Low | 2 Bus. Days |           |
| Q1022-02 | BP-VPB-190A-DUP-20250103 | Water  | 01/03/2025  | 12:00       | VOCMS Group1 |            | 8260-Low | 2 Bus. Days |           |
| Q1022-03 | BP-VPB-190A-GW-838-840   | Water  | 01/03/2025  | 11:45       | VOCMS Group1 |            | 8260-Low | 2 Bus. Days |           |
| Q1022-04 | BP-VPB-190A-GW-858-860   | Water  | 01/03/2025  | 14:15       | VOCMS Group1 |            | 8260-Low | 2 Bus. Days |           |

Relinquished By :   
Date / Time : 1-7-25 0945

Received By :   
Date / Time : 01/07/25 9:45 Reg # 4

Storage Area : VOA Refridgerator Room

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
 Data File : BN035902.D  
 Acq On : 07 Jan 2025 18:31  
 Operator : RC/JU  
 Sample : SSTDCCC0.4  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4EC

Quant Time: Jan 07 22:16:50 2025  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Thu Jan 02 15:39:17 2025  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards            |        |      |          |       |       |          |
| 1) 1,4-Dichlorobenzene-d4     | 7.832  | 152  | 1452     | 0.400 | ng    | 0.00     |
| 7) Naphthalene-d8             | 10.622 | 136  | 2753     | 0.400 | ng    | 0.00     |
| 13) Acenaphthene-d10          | 14.463 | 164  | 1274     | 0.400 | ng    | 0.00     |
| 19) Phenanthrene-d10          | 17.199 | 188  | 2352     | 0.400 | ng    | #-0.01   |
| 29) Chrysene-d12              | 21.385 | 240  | 1851     | 0.400 | ng    | 0.00     |
| 35) Perylene-d12              | 23.683 | 264  | 2159     | 0.400 | ng    | #-0.01   |
| System Monitoring Compounds   |        |      |          |       |       |          |
| 4) 2-Fluorophenol             | 5.405  | 112  | 1376     | 0.386 | ng    | 0.00     |
| 5) Phenol-d6                  | 6.979  | 99   | 1696     | 0.383 | ng    | 0.00     |
| 8) Nitrobenzene-d5            | 8.977  | 82   | 921      | 0.423 | ng    | 0.00     |
| 11) 2-Methylnaphthalene-d10   | 12.213 | 152  | 1378     | 0.374 | ng    | 0.00     |
| 14) 2,4,6-Tribromophenol      | 15.945 | 330  | 255      | 0.417 | ng    | -0.01    |
| 15) 2-Fluorobiphenyl          | 13.094 | 172  | 2279     | 0.408 | ng    | 0.00     |
| 27) Fluoranthene-d10          | 19.230 | 212  | 2161     | 0.370 | ng    | 0.00     |
| 31) Terphenyl-d14             | 19.834 | 244  | 1398     | 0.379 | ng    | 0.00     |
| Target Compounds              |        |      |          |       |       |          |
|                               |        |      |          |       |       | Qvalue   |
| 2) 1,4-Dioxane                | 3.318  | 88   | 581      | 0.403 | ng    | 95       |
| 3) n-Nitrosodimethylamine     | 3.628  | 42   | 1008     | 0.401 | ng    | 100      |
| 6) bis(2-Chloroethyl)ether    | 7.247  | 93   | 1358     | 0.403 | ng    | 97       |
| 9) Naphthalene                | 10.675 | 128  | 3077     | 0.398 | ng    | 98       |
| 10) Hexachlorobutadiene       | 10.974 | 225  | 1008     | 0.402 | ng    | # 99     |
| 12) 2-Methylnaphthalene       | 12.289 | 142  | 1821     | 0.381 | ng    | 98       |
| 16) Acenaphthylene            | 14.174 | 152  | 2402     | 0.400 | ng    | 99       |
| 17) Acenaphthene              | 14.527 | 154  | 1586     | 0.403 | ng    | 97       |
| 18) Fluorene                  | 15.511 | 166  | 1613     | 0.373 | ng    | 98       |
| 20) 4,6-Dinitro-2-methylph... | 15.573 | 198  | 194      | 0.475 | ng    | 86       |
| 21) 4-Bromophenyl-phenylether | 16.404 | 248  | 650      | 0.403 | ng    | # 78     |
| 22) Hexachlorobenzene         | 16.516 | 284  | 900      | 0.409 | ng    | 98       |
| 23) Atrazine                  | 16.665 | 200  | 410      | 0.379 | ng    | # 93     |
| 24) Pentachlorophenol         | 16.851 | 266  | 327      | 0.420 | ng    | 98       |
| 25) Phenanthrene              | 17.248 | 178  | 2714     | 0.395 | ng    | 99       |
| 26) Anthracene                | 17.335 | 178  | 2419     | 0.387 | ng    | 98       |
| 28) Fluoranthene              | 19.262 | 202  | 2953     | 0.369 | ng    | 99       |
| 30) Pyrene                    | 19.620 | 202  | 3018     | 0.402 | ng    | 99       |
| 32) Benzo(a)anthracene        | 21.367 | 228  | 2584     | 0.396 | ng    | 99       |
| 33) Chrysene                  | 21.421 | 228  | 2729     | 0.400 | ng    | 98       |
| 34) Bis(2-ethylhexyl)phtha... | 21.313 | 149  | 1090     | 0.411 | ng    | 100      |
| 36) Indeno(1,2,3-cd)pyrene    | 26.040 | 276  | 3218     | 0.378 | ng    | 98       |
| 37) Benzo(b)fluoranthene      | 22.991 | 252  | 2788     | 0.376 | ng    | # 96     |
| 38) Benzo(k)fluoranthene      | 22.991 | 252  | 2788     | 0.380 | ng    | 97       |
| 39) Benzo(a)pyrene            | 23.587 | 252  | 2395     | 0.373 | ng    | 95       |
| 40) Dibenzo(a,h)anthracene    | 26.058 | 278  | 2545     | 0.376 | ng    | 96       |
| 41) Benzo(g,h,i)perylene      | 26.750 | 276  | 2881     | 0.380 | ng    | 99       |

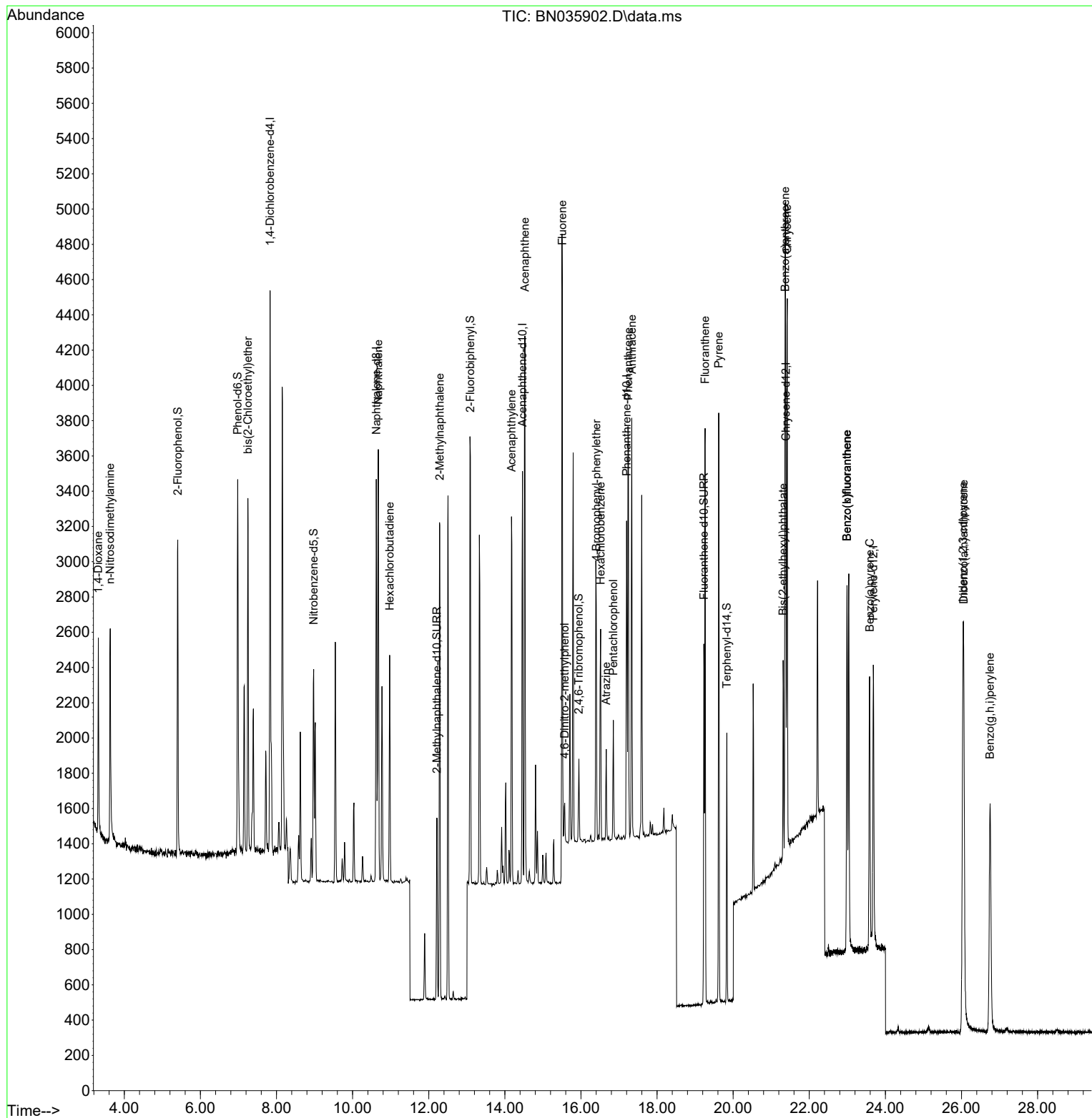
(#) = qualifier out of range (m) = manual integration (+) = signals summed



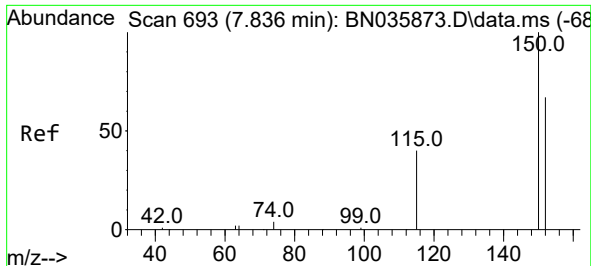
Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN010725\  
Data File : BN035902.D  
Acq On : 07 Jan 2025 18:31  
Operator : RC/JU  
Sample : SSTDCCC0.4  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

Quant Time: Jan 07 22:16:50 2025  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN010225.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Thu Jan 02 15:39:17 2025  
Response via : Initial Calibration

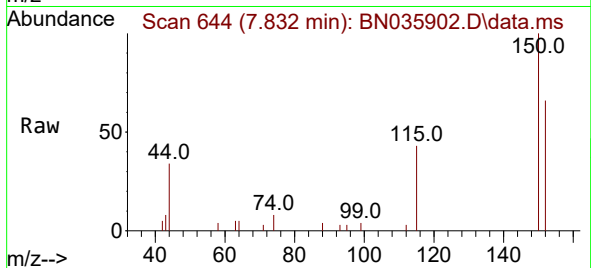






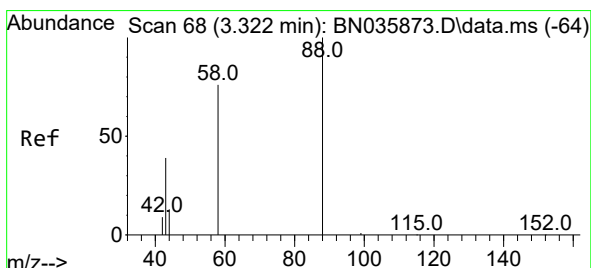
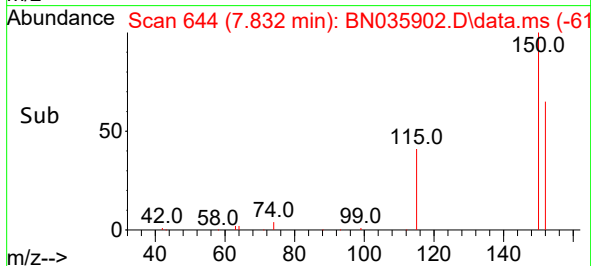
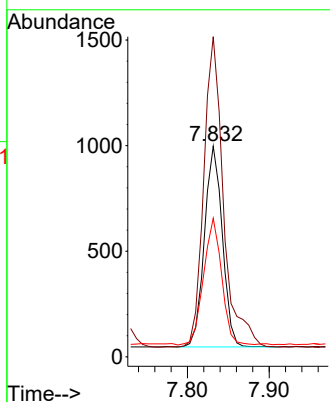
#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 7.832 min Scan# 64  
 Delta R.T. -0.004 min  
 Lab File: BN035902.D  
 Acq: 07 Jan 2025 18:31

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4EC



Tgt Ion:152 Resp: 1452  

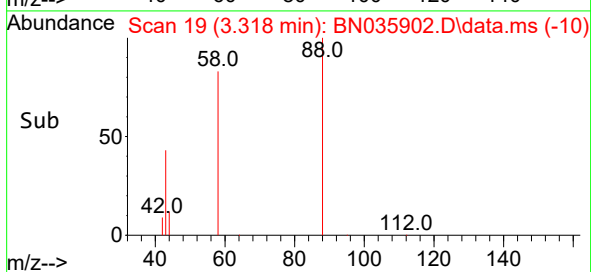
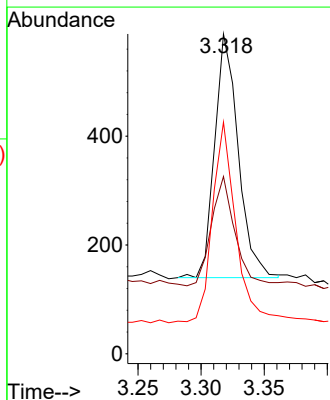
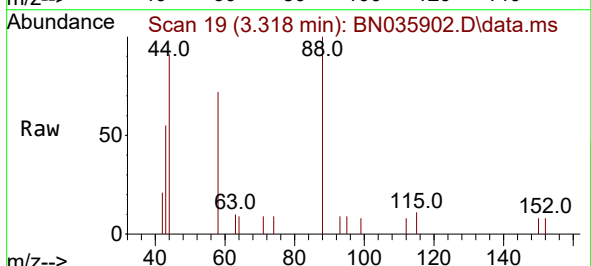
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 152 | 100   |       |       |
| 150 | 151.9 | 117.8 | 176.6 |
| 115 | 65.7  | 51.0  | 76.4  |

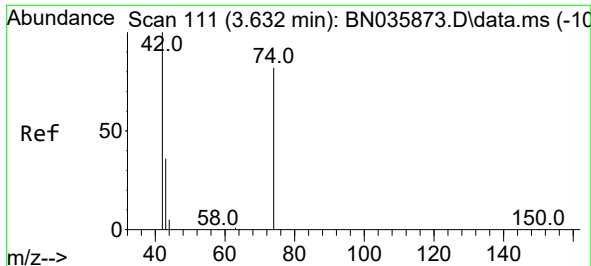


#2  
 1,4-Dioxane  
 Concen: 0.403 ng  
 RT: 3.318 min Scan# 19  
 Delta R.T. -0.004 min  
 Lab File: BN035902.D  
 Acq: 07 Jan 2025 18:31

Tgt Ion: 88 Resp: 581  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 88  | 100   |       |       |
| 43  | 44.8  | 32.7  | 49.1  |
| 58  | 81.9  | 63.0  | 94.4  |

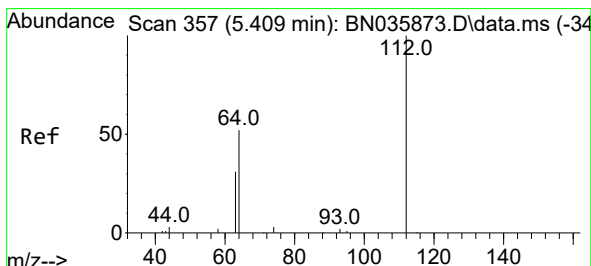
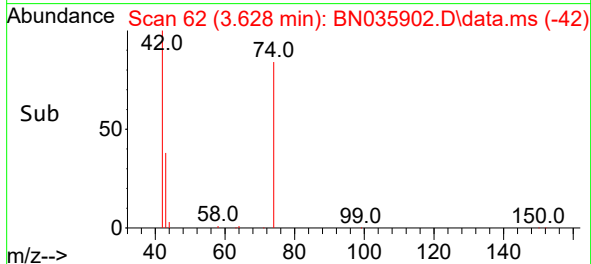
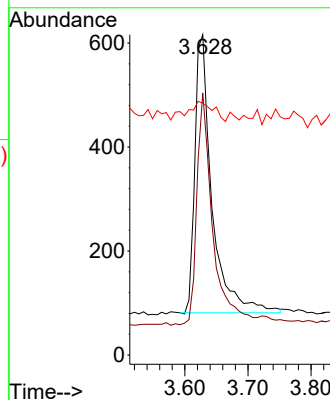
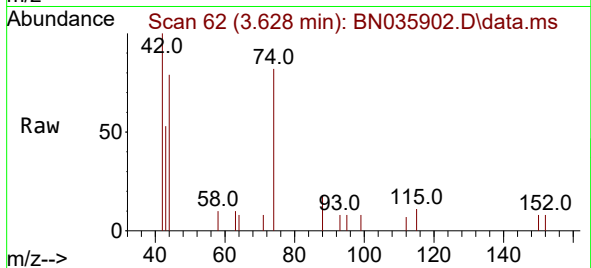




#3  
n-Nitrosodimethylamine  
Concen: 0.401 ng  
RT: 3.628 min Scan# 61  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

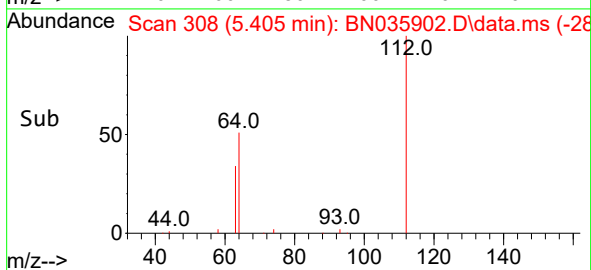
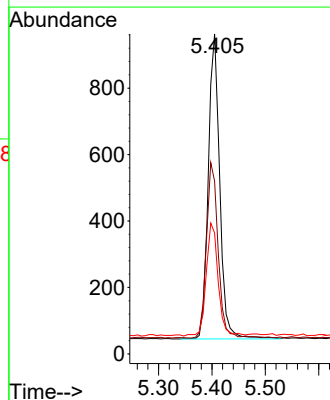
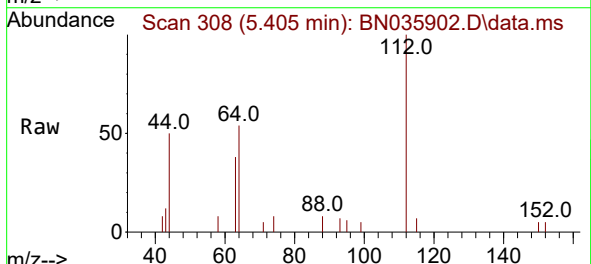
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

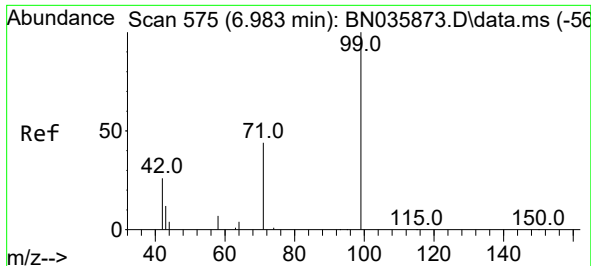
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 1008  |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 74       | 77.4  | 62.2  | 93.2  |
| 44       | 8.8   | 7.1   | 10.7  |



#4  
2-Fluorophenol  
Concen: 0.386 ng  
RT: 5.405 min Scan# 308  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 112   | Resp: | 1376  |
| Ion      | Ratio | Lower | Upper |
| 112      | 100   |       |       |
| 64       | 58.0  | 48.2  | 72.2  |
| 63       | 38.3  | 30.0  | 45.0  |

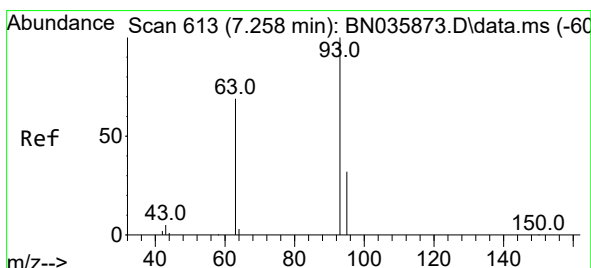
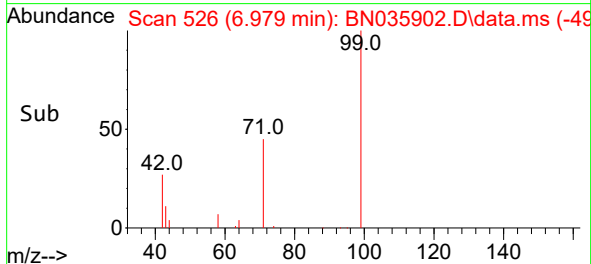
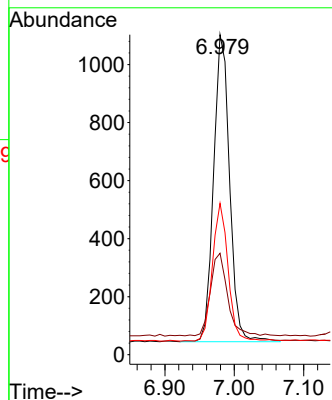
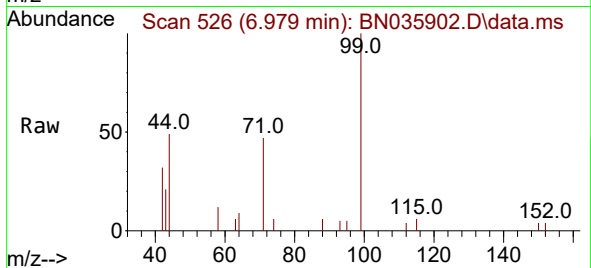




#5  
Phenol-d6  
Concen: 0.383 ng  
RT: 6.979 min Scan# 51  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

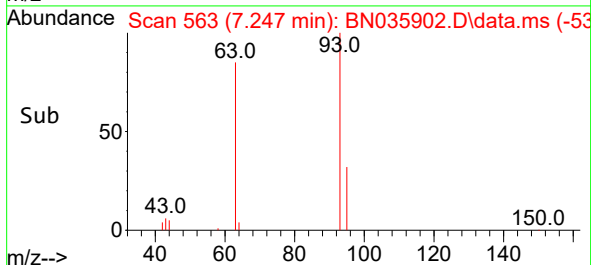
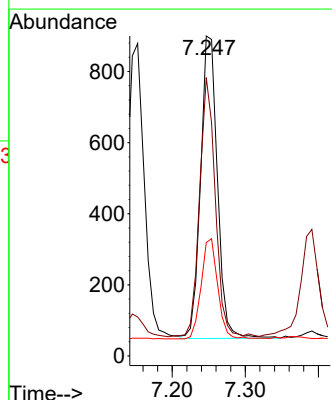
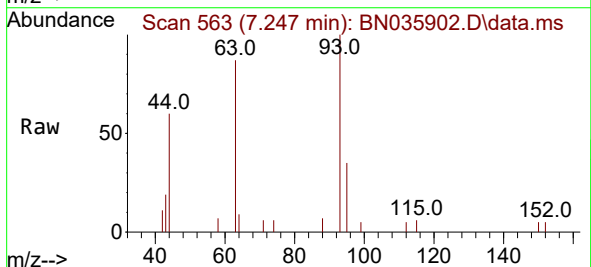
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

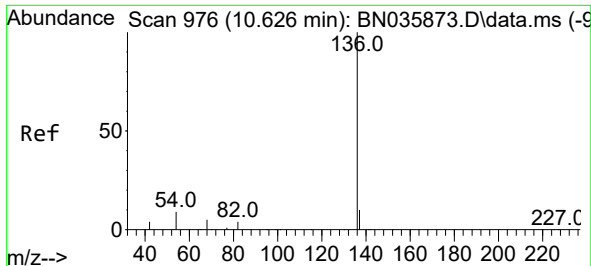
Tgt Ion: 99 Resp: 1696  
Ion Ratio Lower Upper  
99 100  
42 29.1 23.5 35.3  
71 44.1 35.5 53.3



#6  
bis(2-Chloroethyl)ether  
Concen: 0.403 ng  
RT: 7.247 min Scan# 563  
Delta R.T. -0.011 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion: 93 Resp: 1358  
Ion Ratio Lower Upper  
93 100  
63 80.2 62.0 93.0  
95 32.6 25.5 38.3

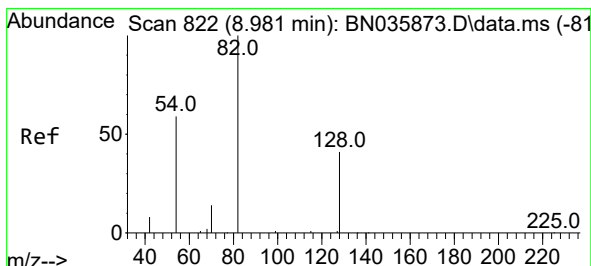
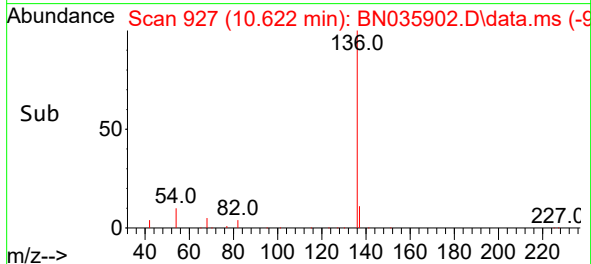
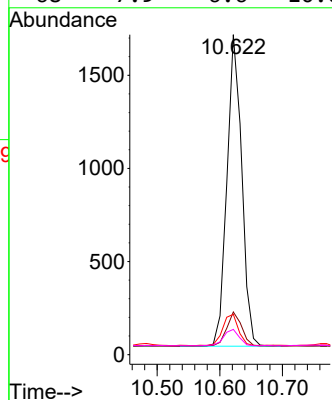
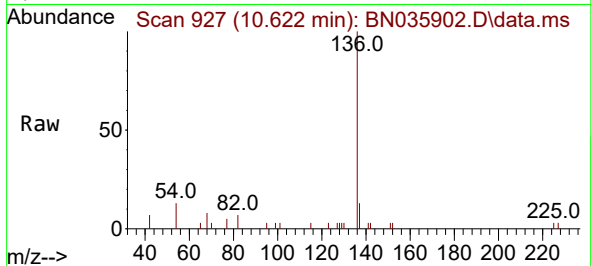




#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.622 min Scan# 91  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

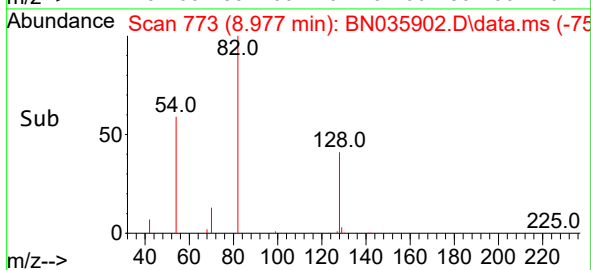
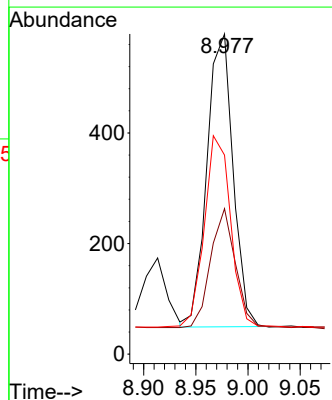
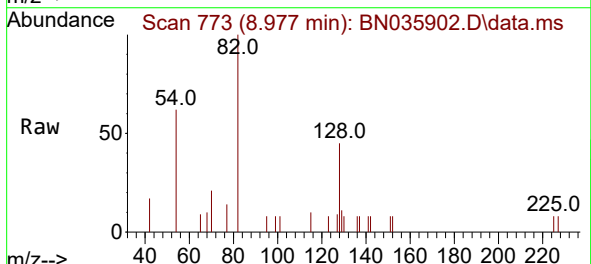
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

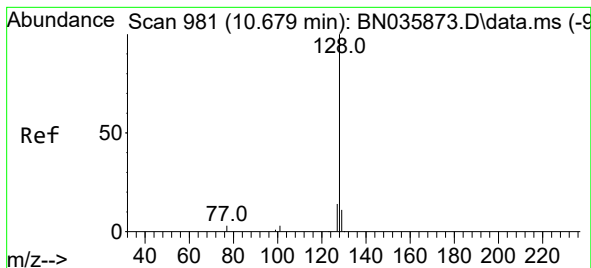
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 136   | Resp: | 2753  |
| Ion      | Ratio | Lower | Upper |
| 136      | 100   |       |       |
| 137      | 13.3  | 10.6  | 15.8  |
| 54       | 12.6  | 9.8   | 14.6  |
| 68       | 7.9   | 6.6   | 10.0  |



#8  
Nitrobenzene-d5  
Concen: 0.423 ng  
RT: 8.977 min Scan# 773  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 82    | Resp: | 921   |
| Ion      | Ratio | Lower | Upper |
| 82       | 100   |       |       |
| 128      | 45.4  | 36.9  | 55.3  |
| 54       | 62.2  | 50.4  | 75.6  |





#9

Naphthalene

Concen: 0.398 ng

RT: 10.675 min Scan# 91

Delta R.T. -0.004 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4EC

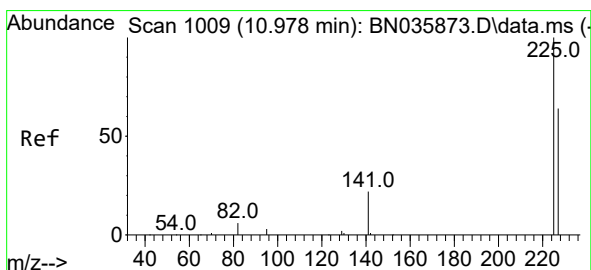
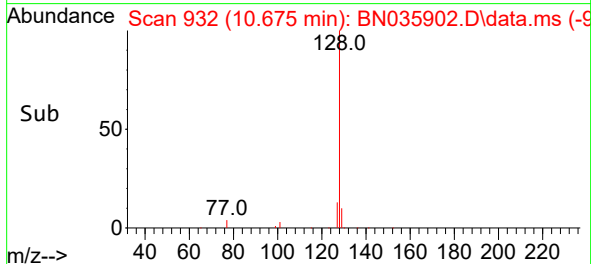
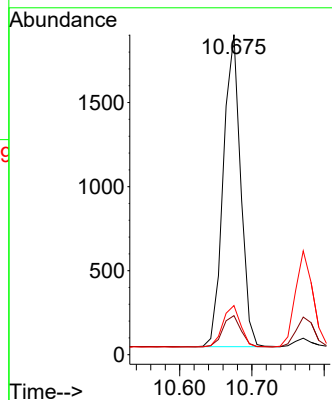
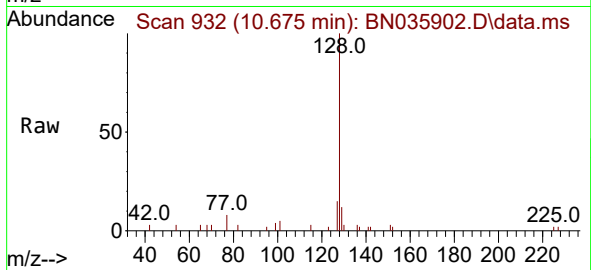
Tgt Ion:128 Resp: 3077

Ion Ratio Lower Upper

128 100

129 12.2 10.6 16.0

127 15.3 12.8 19.2



#10

Hexachlorobutadiene

Concen: 0.402 ng

RT: 10.974 min Scan# 960

Delta R.T. -0.004 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

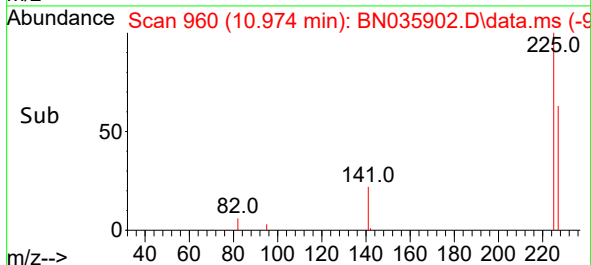
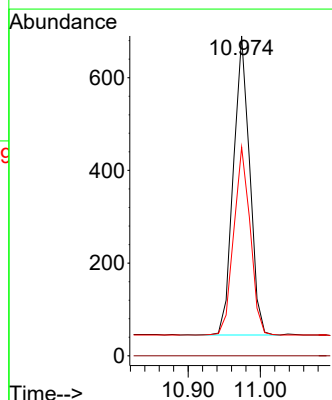
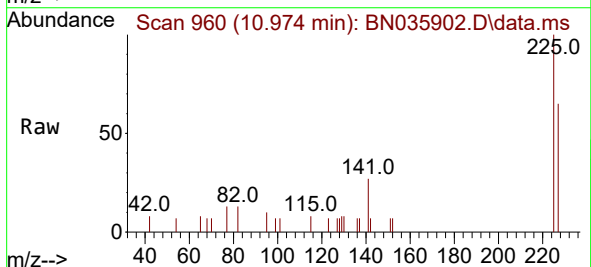
Tgt Ion:225 Resp: 1008

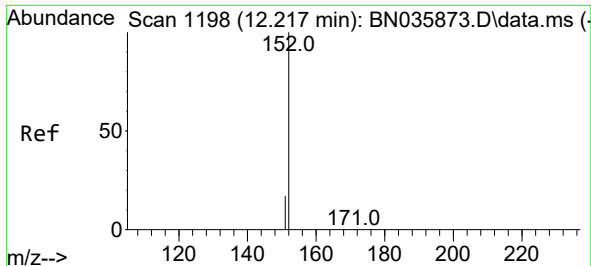
Ion Ratio Lower Upper

225 100

223 0.0 0.0 0.0

227 63.5 51.5 77.3

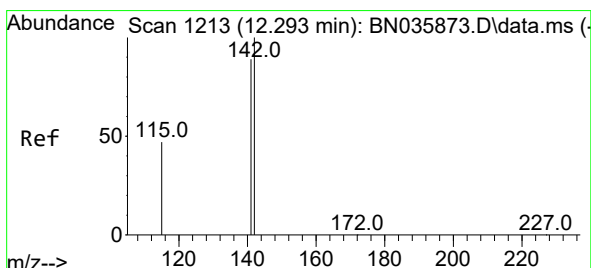
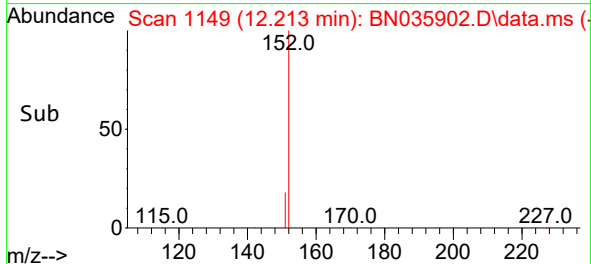
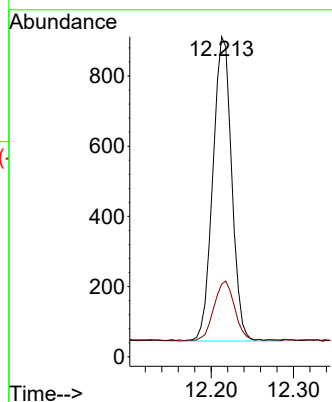
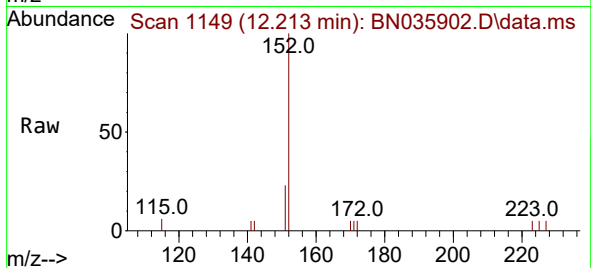




#11  
2-Methylnaphthalene-d10  
Concen: 0.374 ng  
RT: 12.213 min Scan# 1198  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

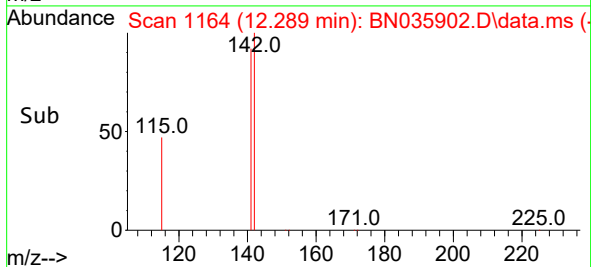
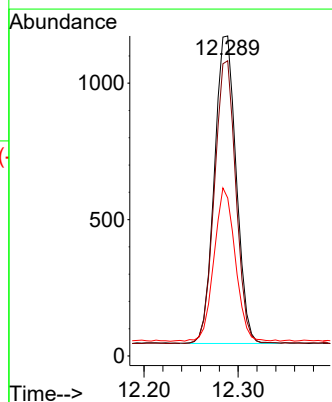
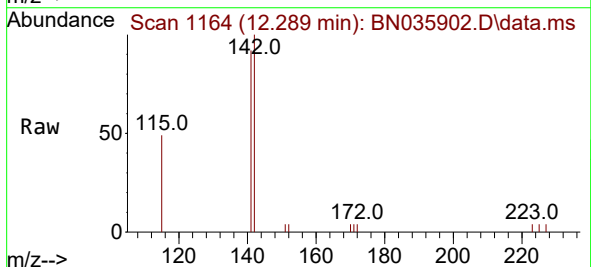
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

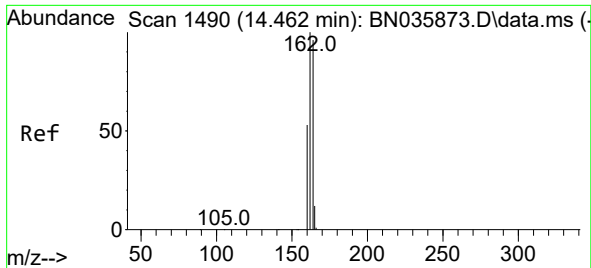
Tgt Ion:152 Resp: 1378  
Ion Ratio Lower Upper  
152 100  
151 21.6 17.0 25.6



#12  
2-Methylnaphthalene  
Concen: 0.381 ng  
RT: 12.289 min Scan# 1164  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:142 Resp: 1821  
Ion Ratio Lower Upper  
142 100  
141 92.2 71.9 107.9  
115 49.4 39.6 59.4

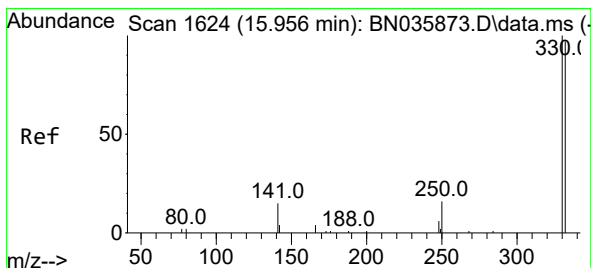
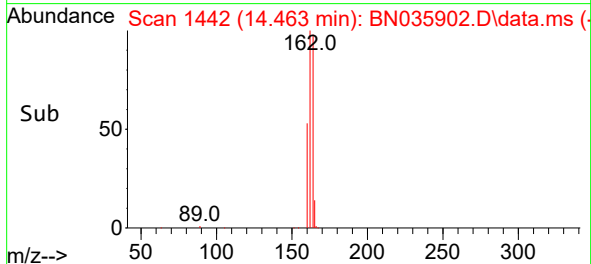
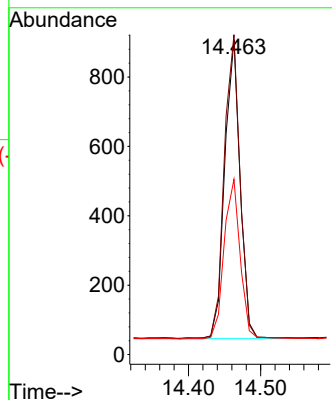
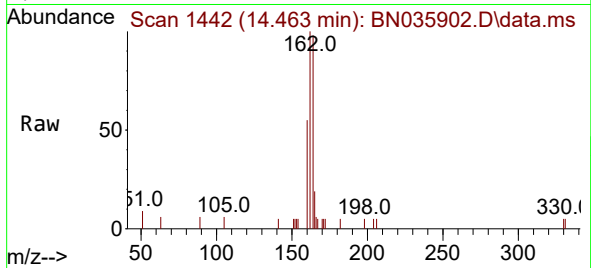




#13  
Acenaphthene-d10  
Concen: 0.400 ng  
RT: 14.463 min Scan# 14  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

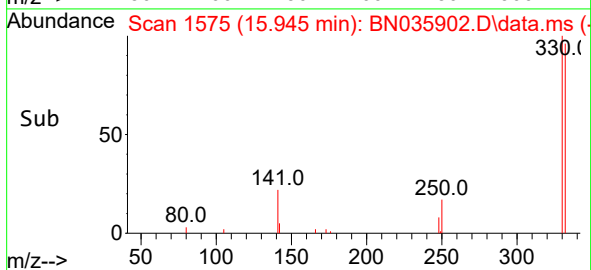
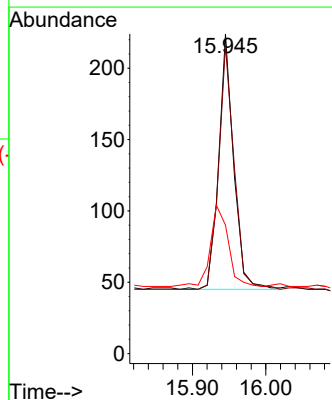
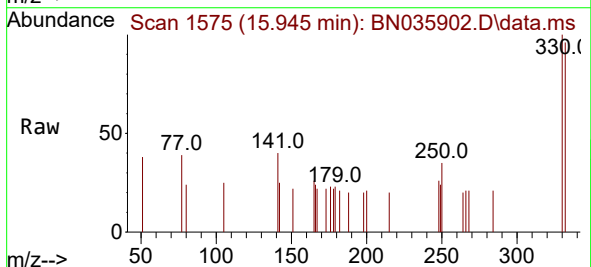
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

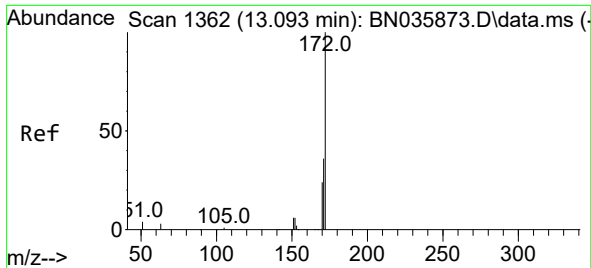
Tgt Ion:164 Resp: 1274  
Ion Ratio Lower Upper  
164 100  
162 101.5 83.1 124.7  
160 55.6 46.0 69.0



#14  
2,4,6-Tribromophenol  
Concen: 0.417 ng  
RT: 15.945 min Scan# 1575  
Delta R.T. -0.011 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:330 Resp: 255  
Ion Ratio Lower Upper  
330 100  
332 98.0 77.2 115.8  
141 37.6 31.6 47.4

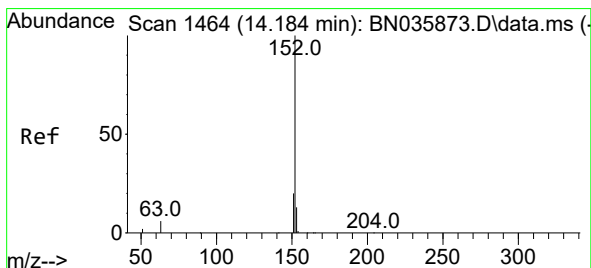
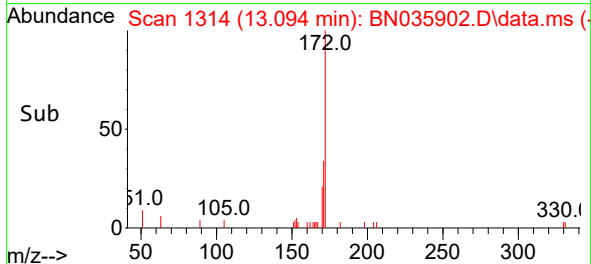
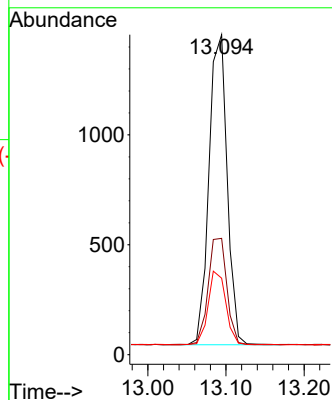
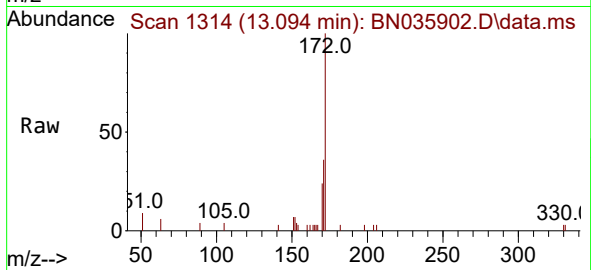




#15  
2-Fluorobiphenyl  
Concen: 0.408 ng  
RT: 13.094 min Scan# 11  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

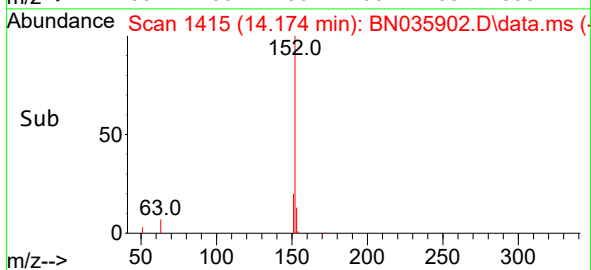
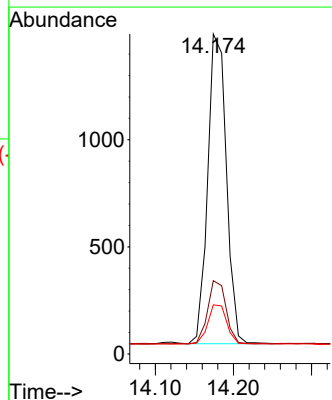
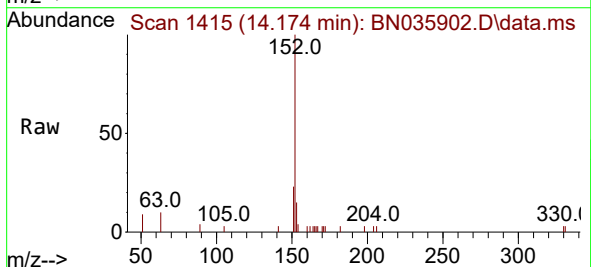
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 172   | Resp: | 2279  |
| Ion      | Ratio | Lower | Upper |
| 172      | 100   |       |       |
| 171      | 36.3  | 30.5  | 45.7  |
| 170      | 23.9  | 20.8  | 31.2  |

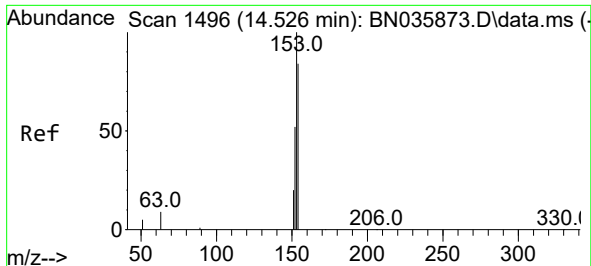


#16  
Acenaphthylene  
Concen: 0.400 ng  
RT: 14.174 min Scan# 1415  
Delta R.T. -0.010 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 152   | Resp: | 2402  |
| Ion      | Ratio | Lower | Upper |
| 152      | 100   |       |       |
| 151      | 19.9  | 16.3  | 24.5  |
| 153      | 13.1  | 10.6  | 15.8  |



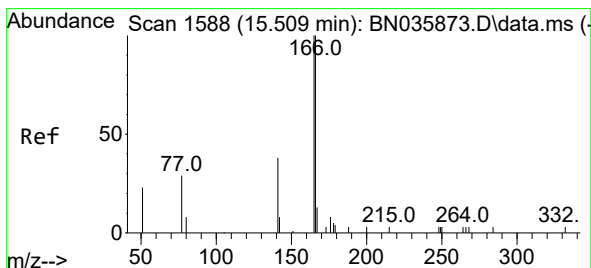
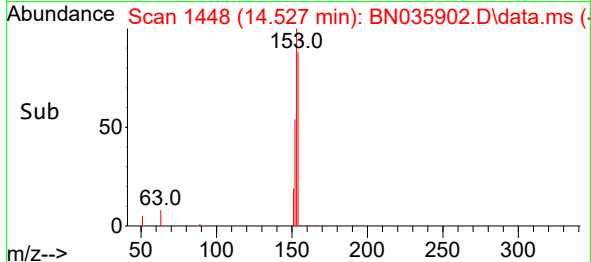
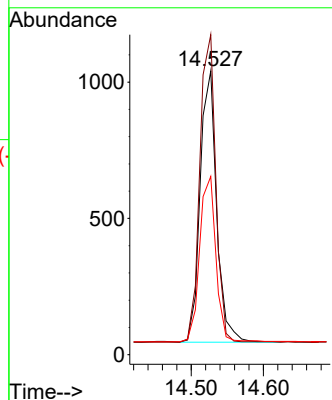
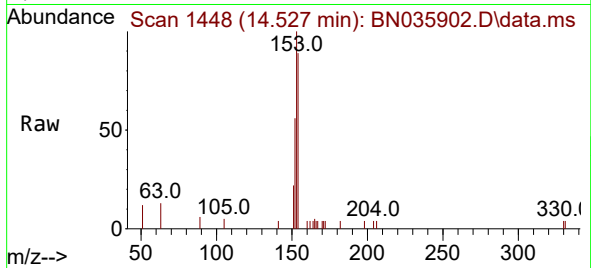




#17  
Acenaphthene  
Concen: 0.403 ng  
RT: 14.527 min Scan# 1496  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

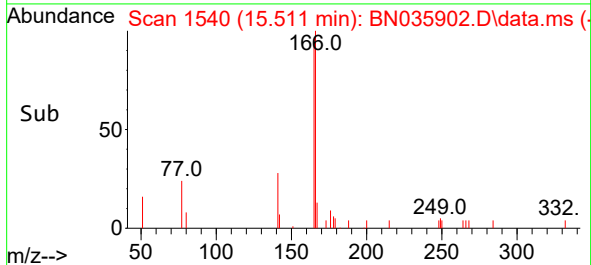
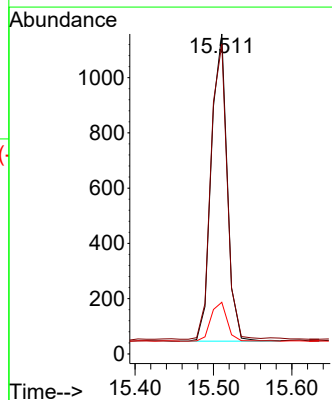
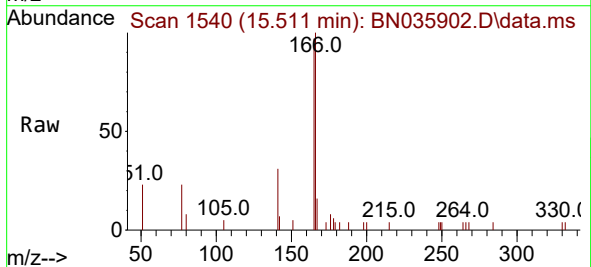
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

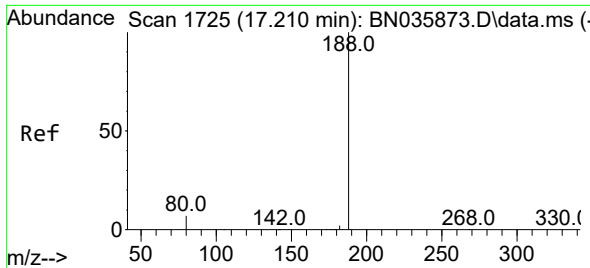
Tgt Ion:154 Resp: 1586  
Ion Ratio Lower Upper  
154 100  
153 109.1 90.5 135.7  
152 59.6 48.6 73.0



#18  
Fluorene  
Concen: 0.373 ng  
RT: 15.511 min Scan# 1540  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:166 Resp: 1613  
Ion Ratio Lower Upper  
166 100  
165 102.2 80.6 120.8  
167 13.1 11.4 17.0

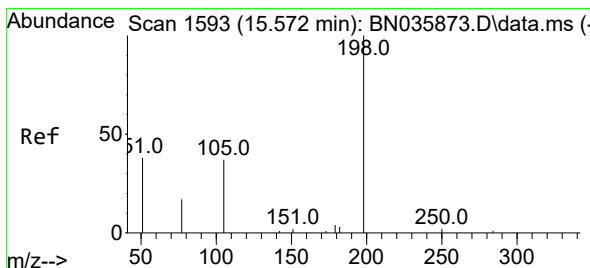
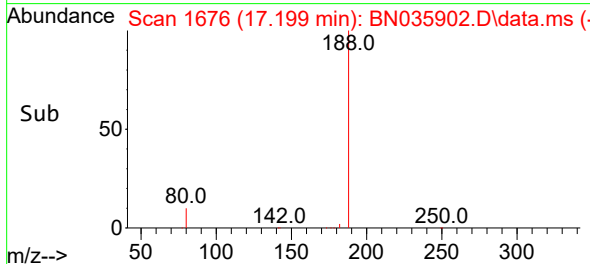
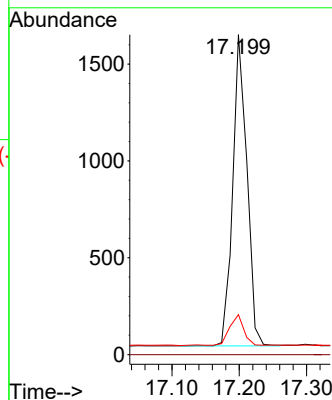
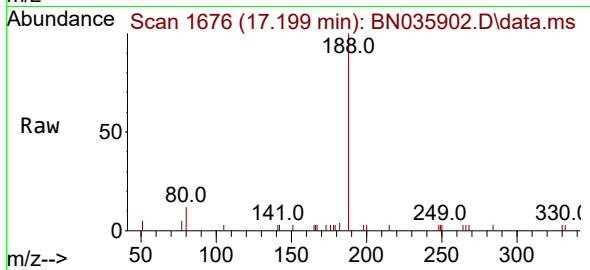




#19  
Phenanthrene-d10  
Concen: 0.400 ng  
RT: 17.199 min Scan# 11  
Delta R.T. -0.011 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

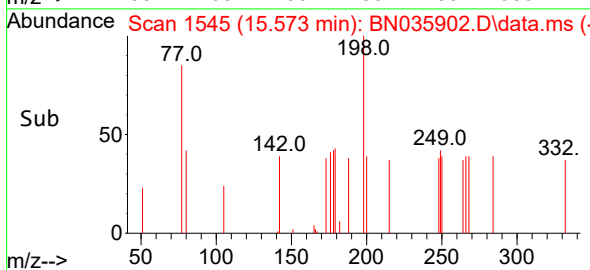
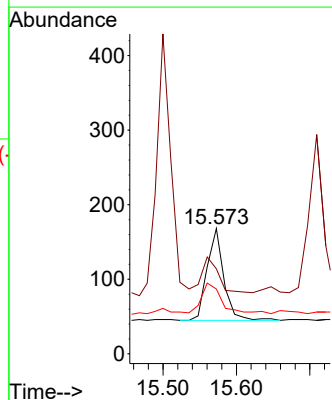
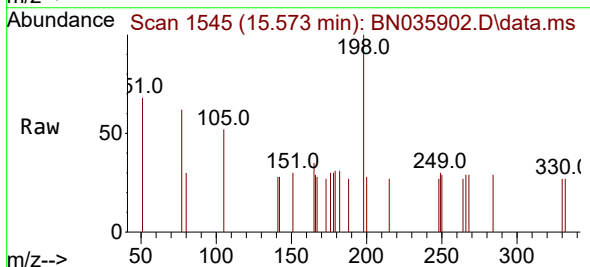
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

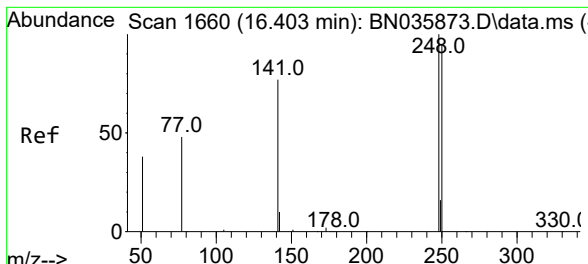
Tgt Ion:188 Resp: 2352  
Ion Ratio Lower Upper  
188 100  
94 0.0 0.0 0.0  
80 12.5 7.3 10.9#



#20  
4,6-Dinitro-2-methylphenol  
Concen: 0.475 ng  
RT: 15.573 min Scan# 1545  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:198 Resp: 194  
Ion Ratio Lower Upper  
198 100  
51 67.9 64.3 96.5  
105 51.8 50.0 75.0

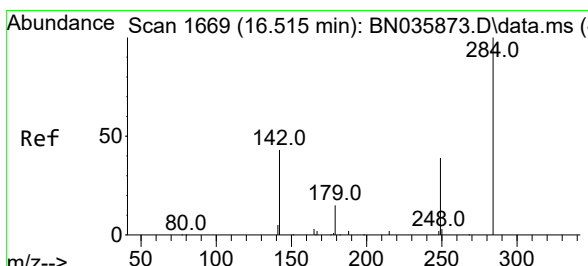
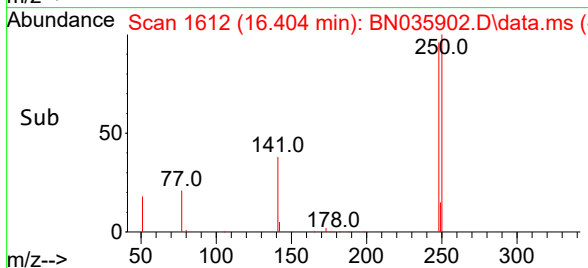
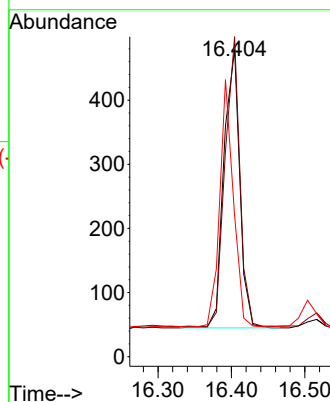
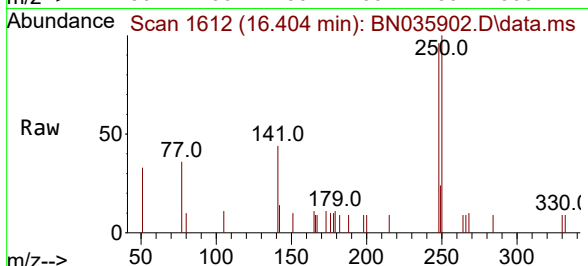




#21  
4-Bromophenyl-phenylether  
Concen: 0.403 ng  
RT: 16.404 min Scan# 1612  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

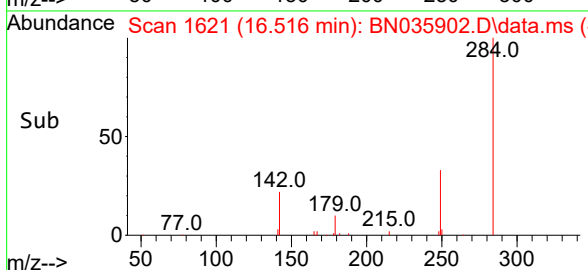
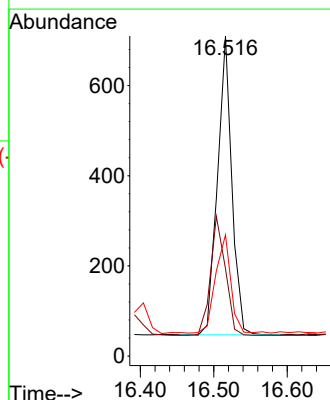
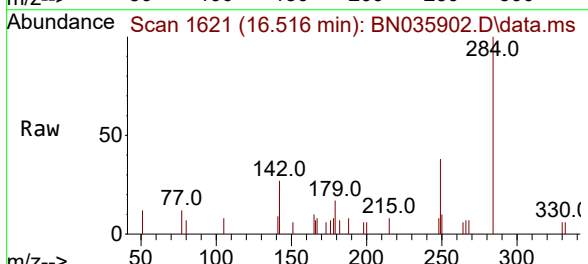
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

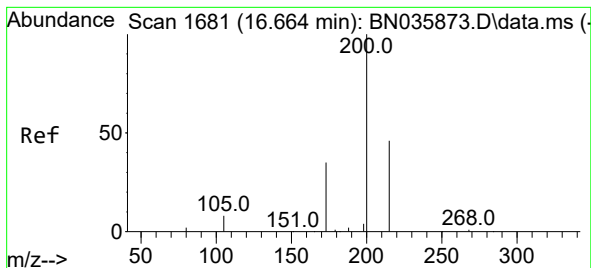
Tgt Ion:248 Resp: 650  
Ion Ratio Lower Upper  
248 100  
250 104.2 76.8 115.2  
141 45.9 63.6 95.4#



#22  
Hexachlorobenzene  
Concen: 0.409 ng  
RT: 16.516 min Scan# 1621  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:284 Resp: 900  
Ion Ratio Lower Upper  
284 100  
142 41.2 31.4 47.0  
249 34.0 27.8 41.8





#23

Atrazine

Concen: 0.379 ng

RT: 16.665 min Scan# 1

Delta R.T. 0.001 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4EC

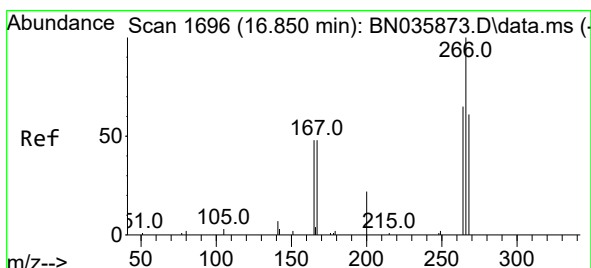
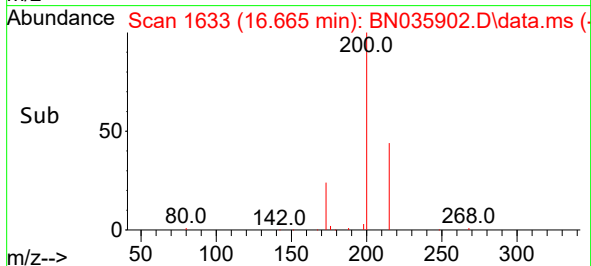
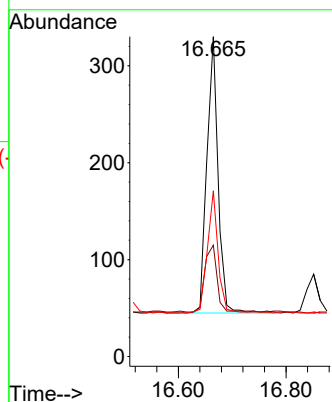
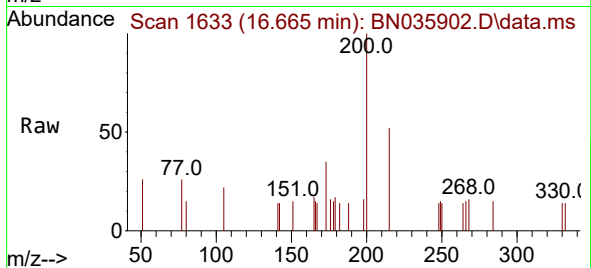
Tgt Ion:200 Resp: 410

Ion Ratio Lower Upper

200 100

173 34.8 35.4 53.0#

215 51.8 42.4 63.6



#24

Pentachlorophenol

Concen: 0.420 ng

RT: 16.851 min Scan# 1648

Delta R.T. 0.001 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

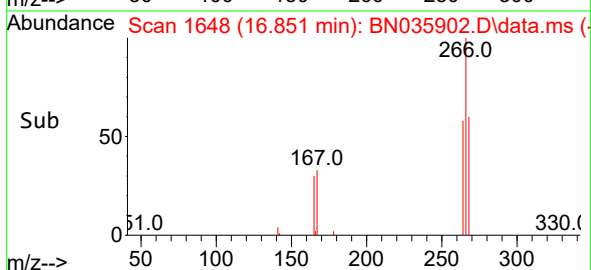
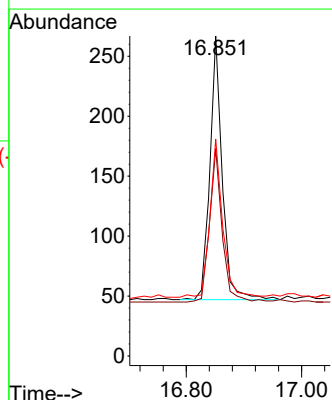
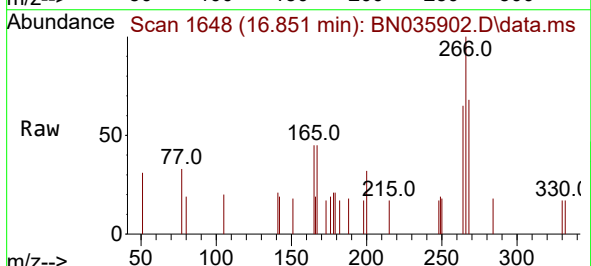
Tgt Ion:266 Resp: 327

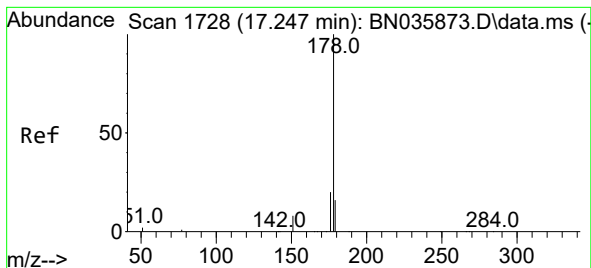
Ion Ratio Lower Upper

266 100

264 59.3 49.9 74.9

268 62.1 50.2 75.2





#25

Phenanthrene

Concen: 0.395 ng

RT: 17.248 min Scan# 1680

Delta R.T. 0.001 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4EC

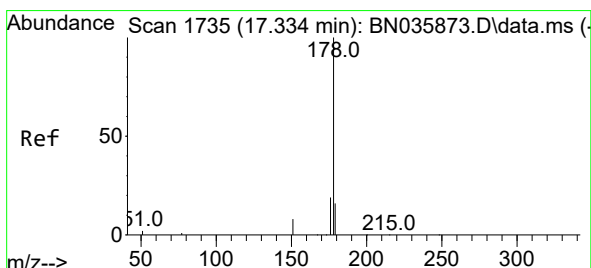
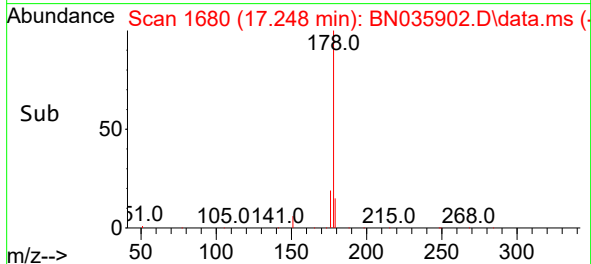
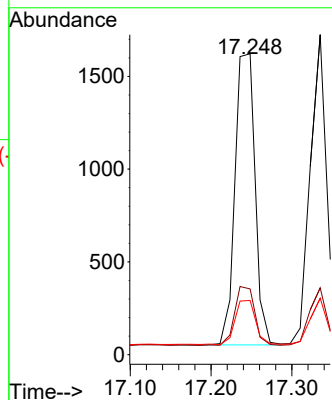
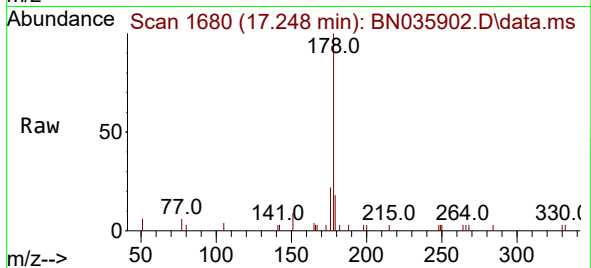
Tgt Ion:178 Resp: 2714

Ion Ratio Lower Upper

178 100

176 20.0 15.9 23.9

179 15.3 12.9 19.3



#26

Anthracene

Concen: 0.387 ng

RT: 17.335 min Scan# 1687

Delta R.T. 0.001 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

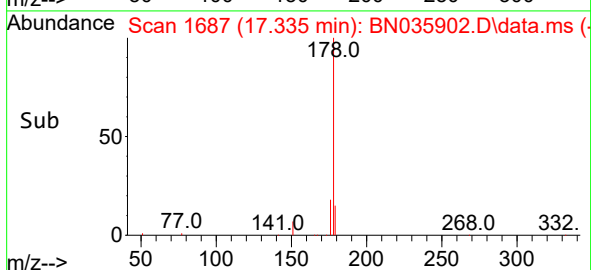
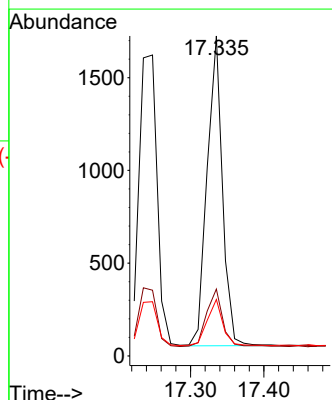
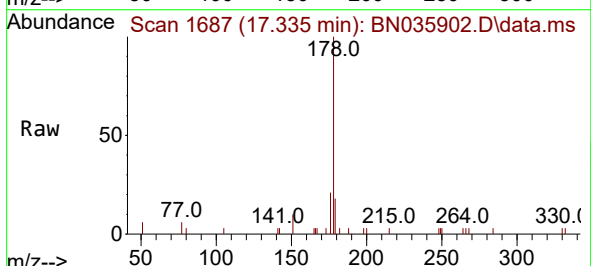
Tgt Ion:178 Resp: 2419

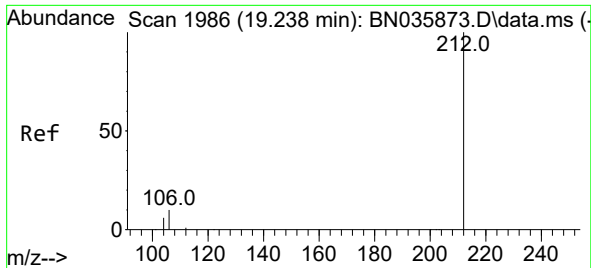
Ion Ratio Lower Upper

178 100

176 19.6 15.0 22.6

179 15.1 13.0 19.6

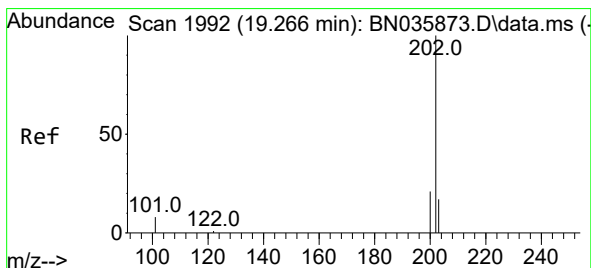
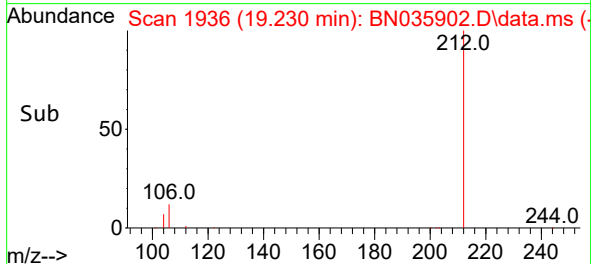
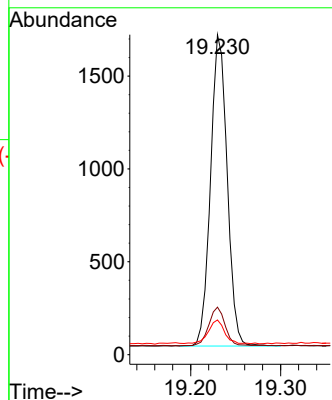
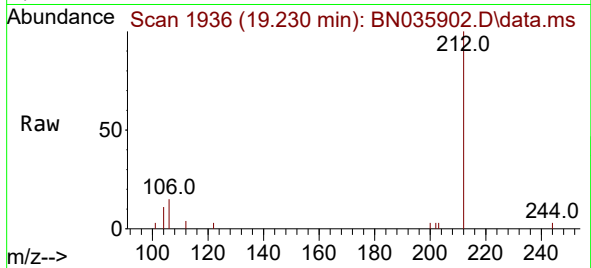




#27  
Fluoranthene-d10  
Concen: 0.370 ng  
RT: 19.230 min Scan# 1943  
Delta R.T. -0.008 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

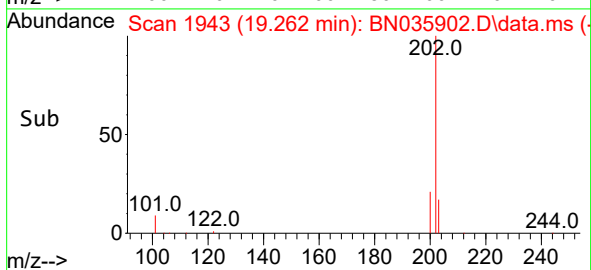
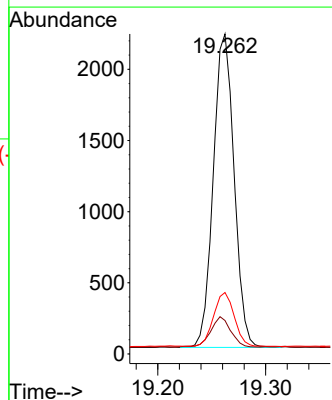
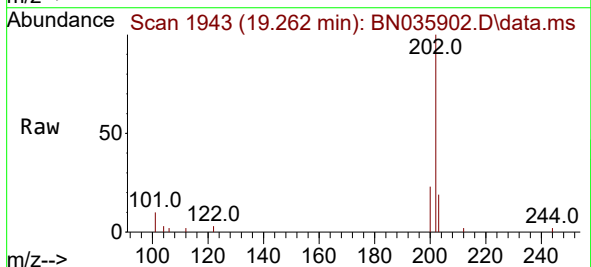
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

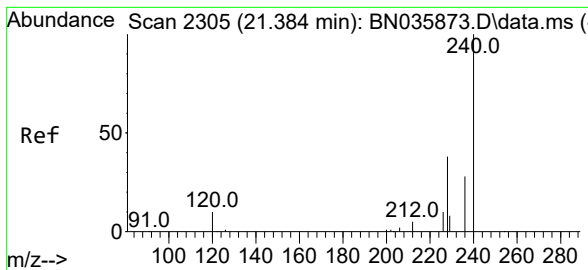
Tgt Ion:212 Resp: 2161  
Ion Ratio Lower Upper  
212 100  
106 12.1 9.0 13.6  
104 7.3 5.4 8.2



#28  
Fluoranthene  
Concen: 0.369 ng  
RT: 19.262 min Scan# 1943  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:202 Resp: 2953  
Ion Ratio Lower Upper  
202 100  
101 9.4 7.2 10.8  
203 17.2 13.9 20.9

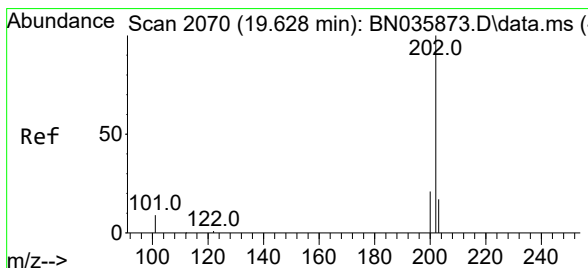
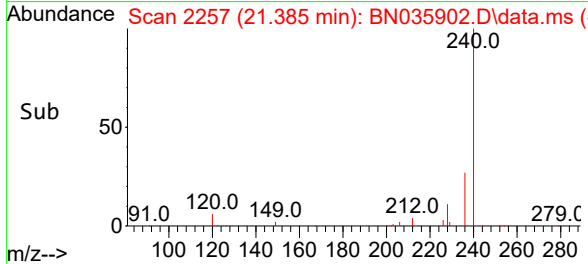
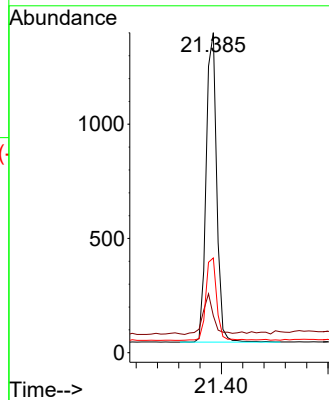
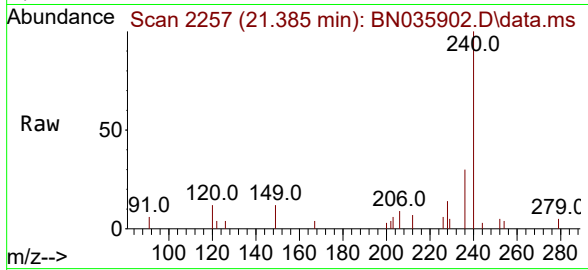




#29  
Chrysene-d12  
Concen: 0.400 ng  
RT: 21.385 min Scan# 21  
Delta R.T. 0.001 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

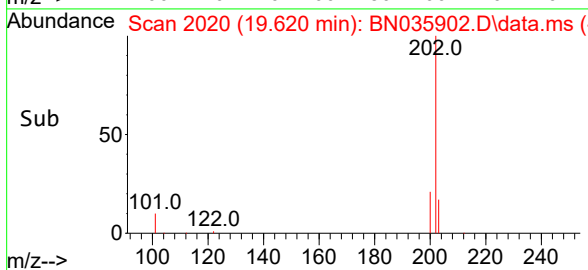
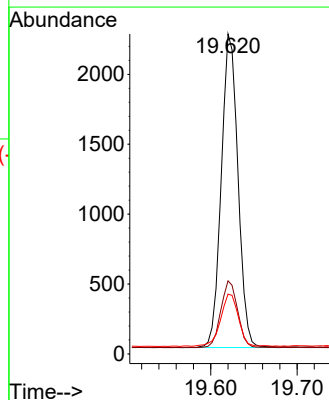
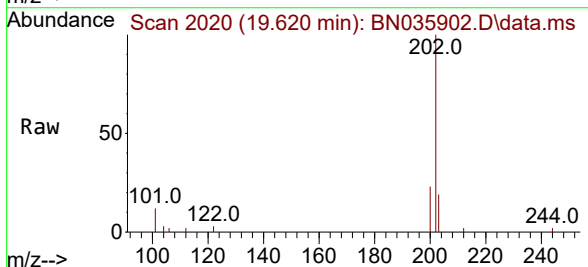
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

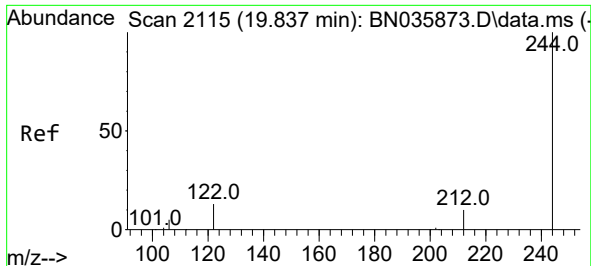
|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:240 | Resp: | 1851      |
| Ion Ratio   | Lower | Upper     |
| 240         | 100   |           |
| 120         | 11.6  | 11.1 16.7 |
| 236         | 29.6  | 24.6 36.8 |



#30  
Pyrene  
Concen: 0.402 ng  
RT: 19.620 min Scan# 2020  
Delta R.T. -0.008 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:202 | Resp: | 3018      |
| Ion Ratio   | Lower | Upper     |
| 202         | 100   |           |
| 200         | 21.5  | 17.0 25.6 |
| 203         | 18.0  | 14.6 22.0 |

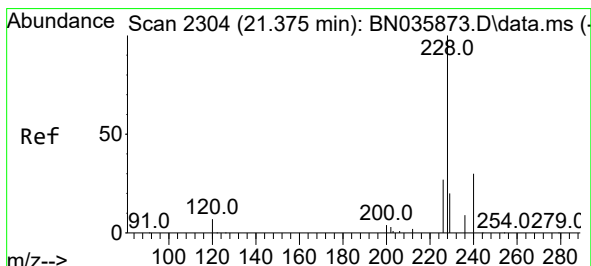
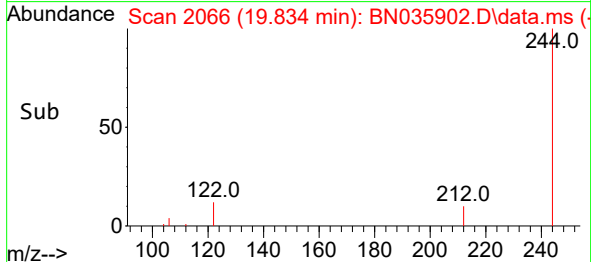
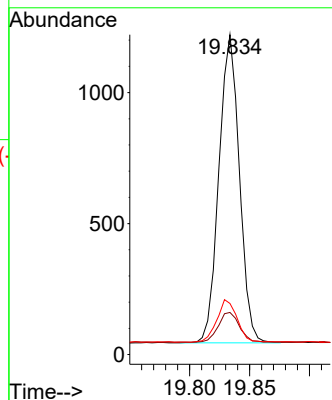
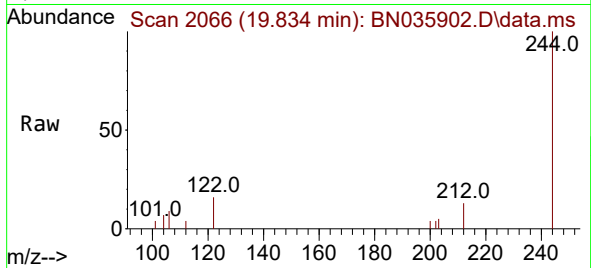




#31  
Terphenyl-d14  
Concen: 0.379 ng  
RT: 19.834 min Scan# 2066  
Delta R.T. -0.004 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

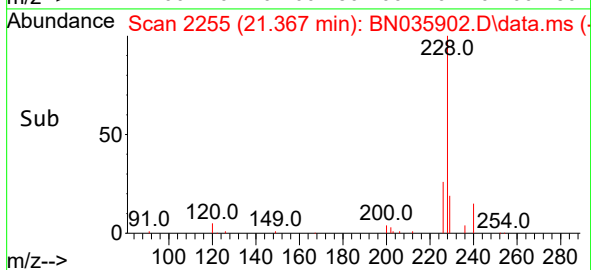
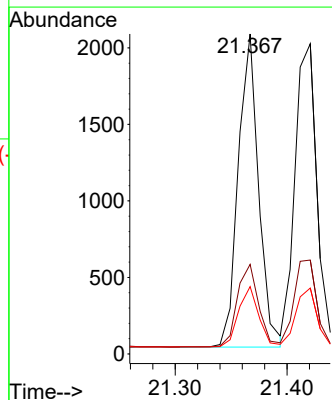
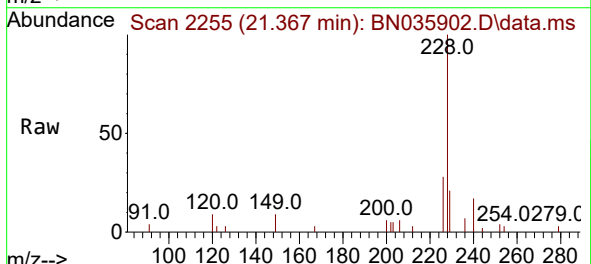
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

|             |       |             |
|-------------|-------|-------------|
| Tgt Ion:244 | Resp: | 1398        |
| Ion         | Ratio | Lower Upper |
| 244         | 100   |             |
| 212         | 13.2  | 10.1 15.1   |
| 122         | 16.0  | 12.2 18.4   |

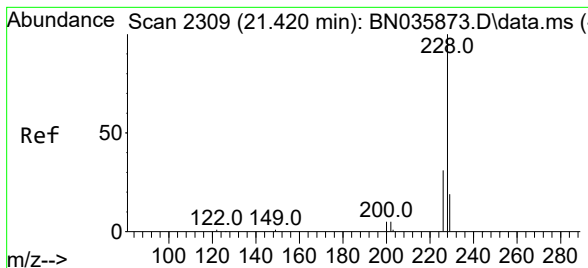


#32  
Benzo(a)anthracene  
Concen: 0.396 ng  
RT: 21.367 min Scan# 2255  
Delta R.T. -0.008 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

|             |       |             |
|-------------|-------|-------------|
| Tgt Ion:228 | Resp: | 2584        |
| Ion         | Ratio | Lower Upper |
| 228         | 100   |             |
| 226         | 28.0  | 22.7 34.1   |
| 229         | 21.0  | 17.1 25.7   |







#33

Chrysene

Concen: 0.400 ng

RT: 21.421 min Scan# 21

Delta R.T. 0.001 min

Lab File: BN035902.D

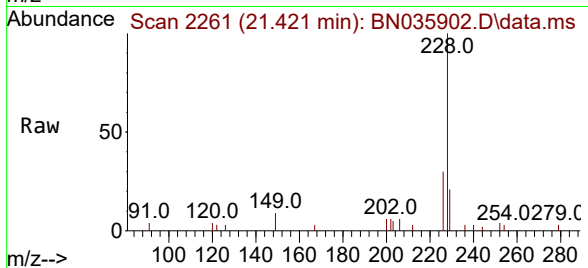
Acq: 07 Jan 2025 18:31

Instrument :

BNA\_N

ClientSampleId :

SSTDCCC0.4EC



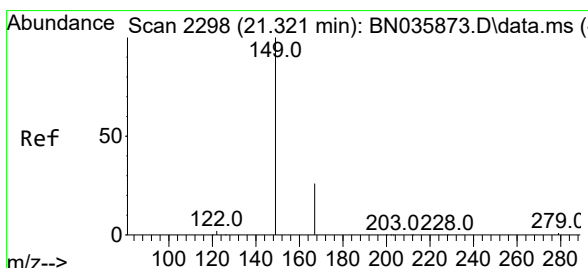
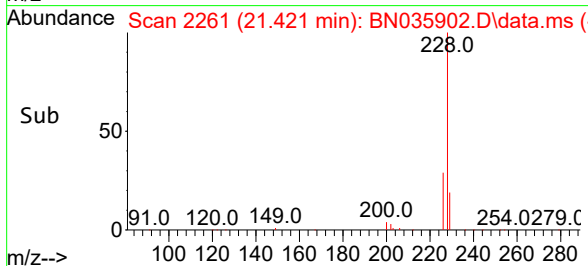
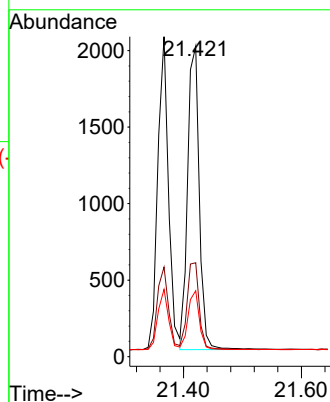
Tgt Ion:228 Resp: 2729

Ion Ratio Lower Upper

228 100

226 30.3 25.2 37.8

229 21.3 16.0 24.0



#34

Bis(2-ethylhexyl)phthalate

Concen: 0.411 ng

RT: 21.313 min Scan# 2249

Delta R.T. -0.008 min

Lab File: BN035902.D

Acq: 07 Jan 2025 18:31

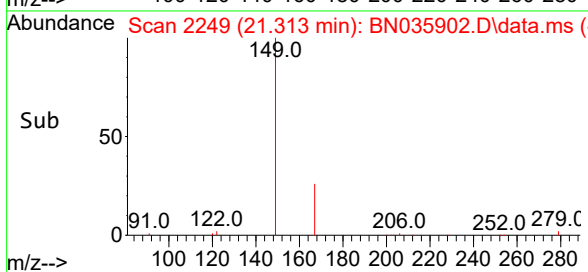
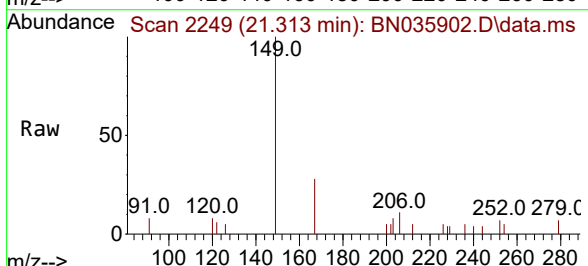
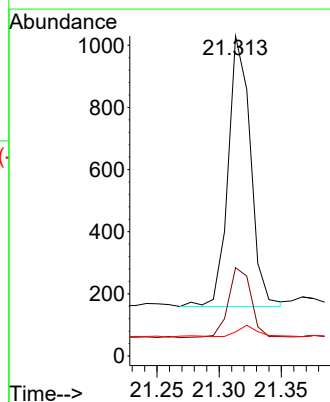
Tgt Ion:149 Resp: 1090

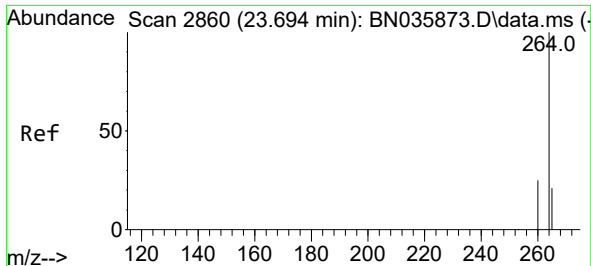
Ion Ratio Lower Upper

149 100

167 26.5 21.4 32.0

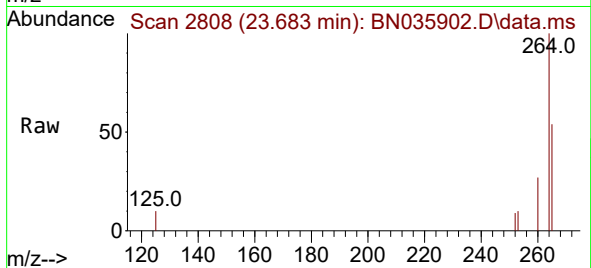
279 3.9 3.0 4.6



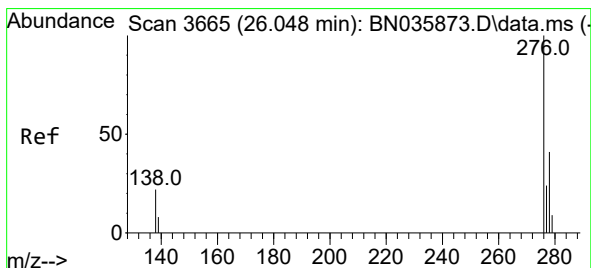
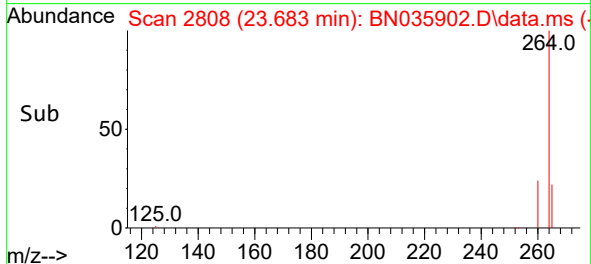
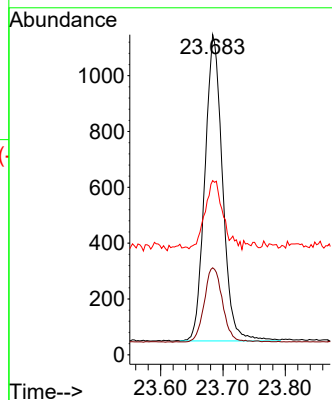


#35  
Perylene-d12  
Concen: 0.400 ng  
RT: 23.683 min Scan# 2159  
Delta R.T. -0.011 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

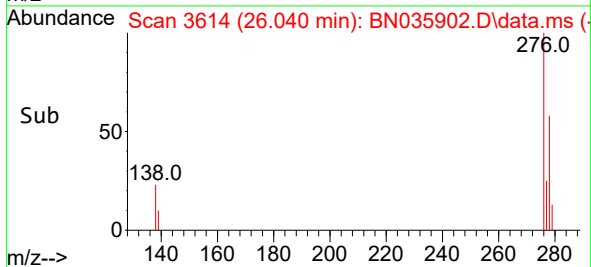
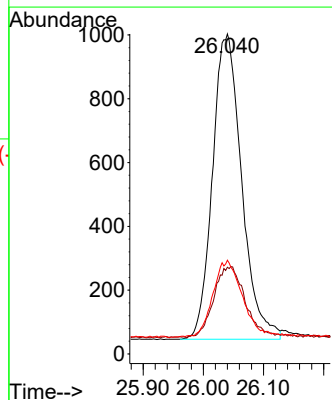
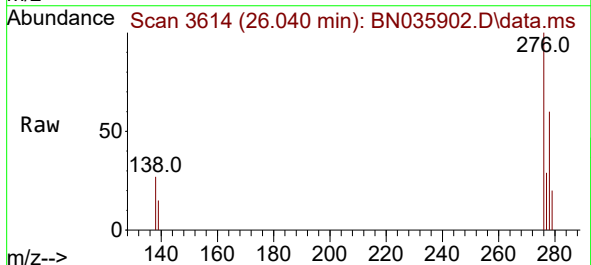


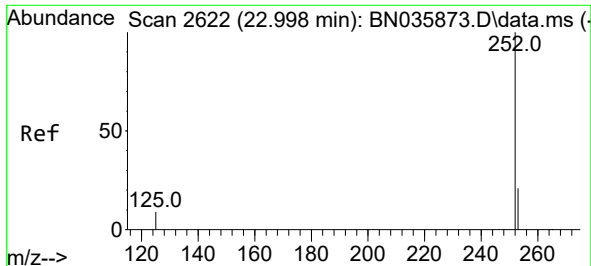
Tgt Ion:264 Resp: 2159  
Ion Ratio Lower Upper  
264 100  
260 27.2 21.7 32.5  
265 54.4 33.9 50.9#



#36  
Indeno(1,2,3-cd)pyrene  
Concen: 0.378 ng  
RT: 26.040 min Scan# 3614  
Delta R.T. -0.008 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Tgt Ion:276 Resp: 3218  
Ion Ratio Lower Upper  
276 100  
138 25.1 18.9 28.3  
277 24.4 19.5 29.3

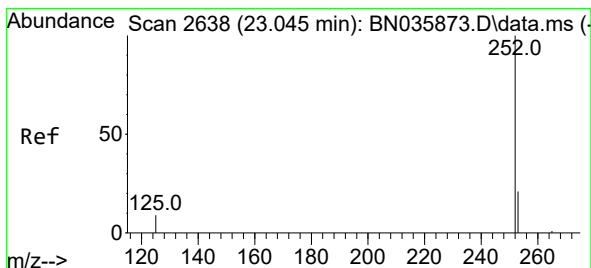
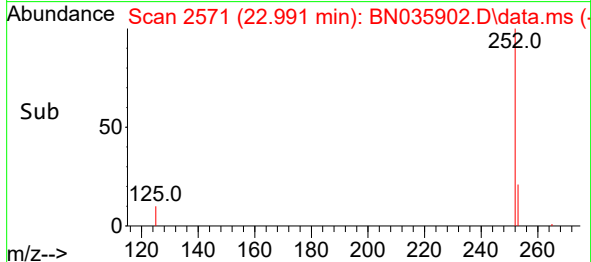
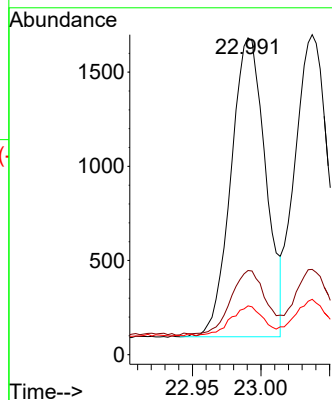
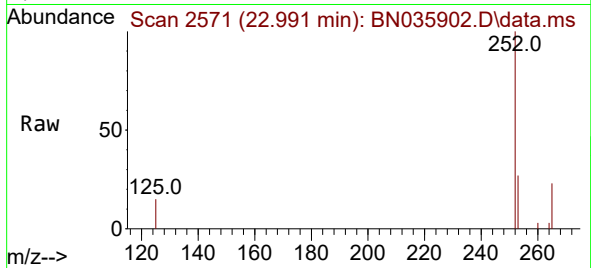




#37  
Benzo(b)fluoranthene  
Concen: 0.376 ng  
RT: 22.991 min Scan# 2571  
Delta R.T. -0.008 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

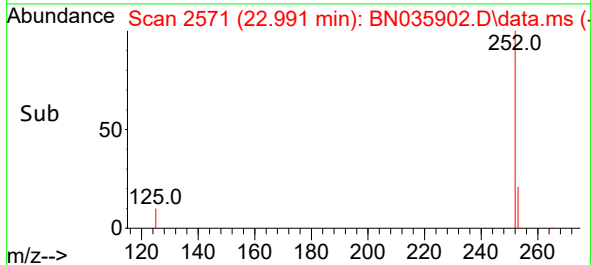
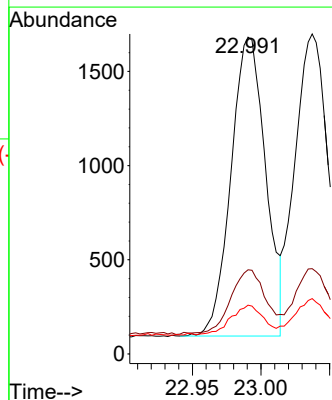
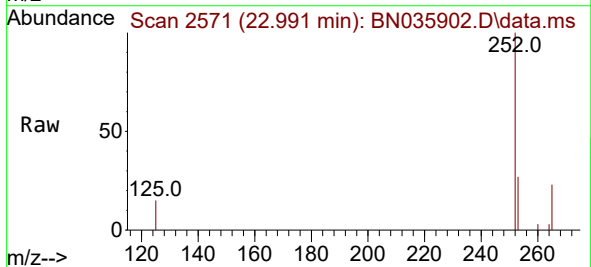
Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

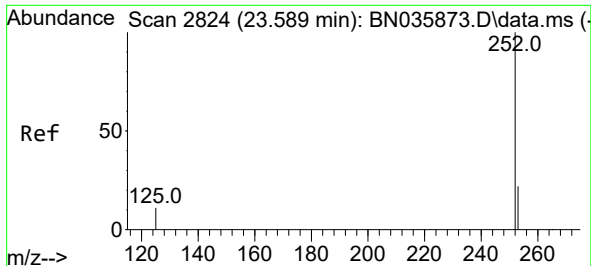
Tgt Ion:252 Resp: 2788  
Ion Ratio Lower Upper  
252 100  
253 26.6 20.1 30.1  
125 15.4 9.9 14.9#



#38  
Benzo(k)fluoranthene  
Concen: 0.380 ng  
RT: 22.991 min Scan# 2571  
Delta R.T. -0.054 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

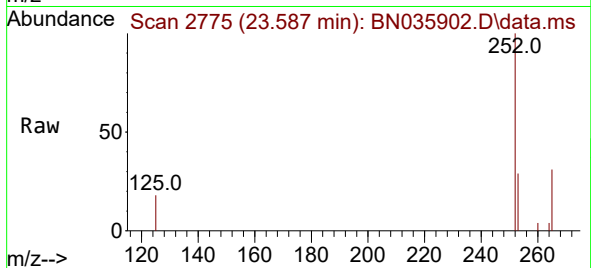
Tgt Ion:252 Resp: 2788  
Ion Ratio Lower Upper  
252 100  
253 26.6 20.5 30.7  
125 15.4 10.6 16.0



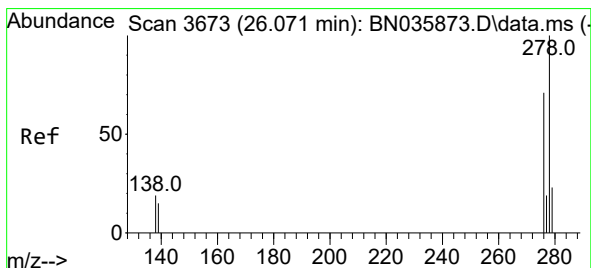
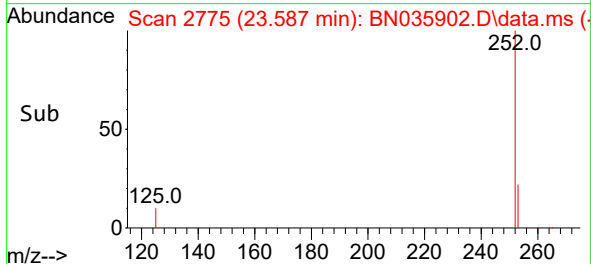
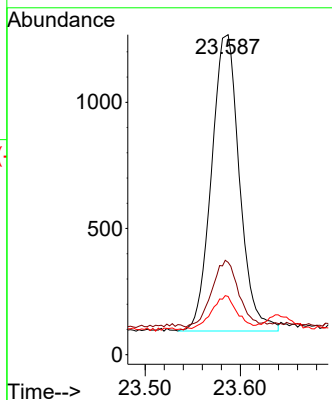


#39  
Benzo(a)pyrene  
Concen: 0.373 ng  
RT: 23.587 min Scan# 21  
Delta R.T. -0.002 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDCCC0.4EC

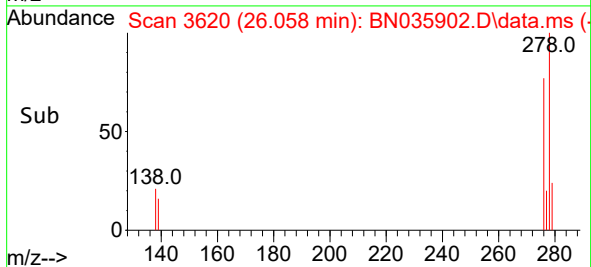
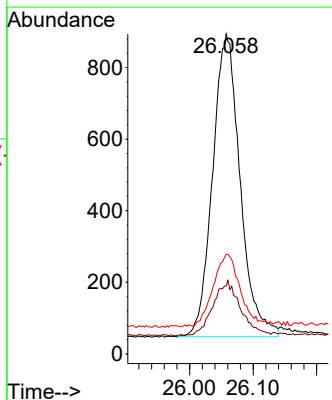
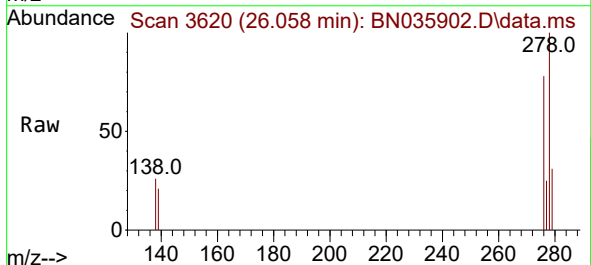


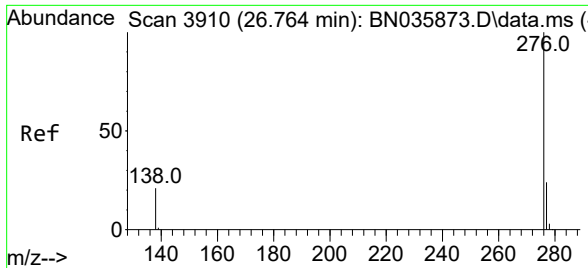
Tgt Ion:252 Resp: 2395  
Ion Ratio Lower Upper  
252 100  
253 28.9 21.5 32.3  
125 18.2 12.6 19.0



#40  
Dibenzo(a,h)anthracene  
Concen: 0.376 ng  
RT: 26.058 min Scan# 3620  
Delta R.T. -0.013 min  
Lab File: BN035902.D  
Acq: 07 Jan 2025 18:31

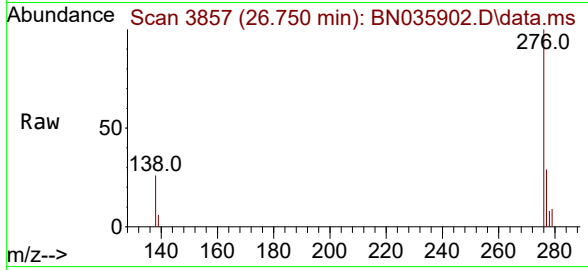
Tgt Ion:278 Resp: 2545  
Ion Ratio Lower Upper  
278 100  
139 21.3 15.9 23.9  
279 31.1 23.0 34.4





#41  
 Benzo(g,h,i)perylene  
 Concen: 0.380 ng  
 RT: 26.750 min Scan# 3857  
 Delta R.T. -0.013 min  
 Lab File: BN035902.D  
 Acq: 07 Jan 2025 18:31

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4EC



|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 276   | Resp: | 2881 |
| Ion Ratio | Lower | Upper |      |
| 276       | 100   |       |      |
| 277       | 29.3  | 22.8  | 34.2 |
| 138       | 25.5  | 20.1  | 30.1 |

