

## Cover Page

**Order ID :** Q1207

**Project ID :** NYCDDC SANTWOBR Brooklyn Bridge BBMCR

**Client :** RU2 Engineering, LLC

### Lab Sample Number

Q1207-01  
Q1207-02  
Q1207-03  
Q1207-04  
Q1207-05  
Q1207-06  
Q1207-07  
Q1207-08  
Q1207-09  
Q1207-10  
Q1207-11  
Q1207-12  
Q1207-13  
Q1207-14  
Q1207-15  
Q1207-16  
Q1207-17  
Q1207-18  
Q1207-19  
Q1207-20

### Client Sample Number

JPP-2.1-012725  
JPP-2.1-012725  
JPP-2.1-012725  
JPP-2.1-012725  
JPP-5.1-012725  
JPP-5.1-012725  
JPP-5.1-012725  
JPP-5.1-012725  
JPP-4.5-012725  
JPP-4.5-012725  
JPP-4.5-012725  
JPP-4.5-012725  
JPP-16.2-012725  
JPP-16.2-012725  
JPP-16.2-012725  
JPP-16.2-012725  
JPP-20.2-012725  
JPP-20.2-012725  
JPP-20.2-012725  
JPP-20.2-012725

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 : \_\_\_\_\_

Date: 2/6/2025

## **CASE NARRATIVE**

**RU2 Engineering, LLC**

**Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR**

**Project # N/A**

**Chemtech Project # Q1207**

**Test Name: TCLP VOA**

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

20 Solid samples were received on 01/28/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for TCLP VOA.

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

The analysis performed on instrument MSVOA\_N were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868. The analysis of TCLP VOA was based on method 8260D and TCLP extraction method was 1311.

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

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

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:**

Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

Trip Blank was not provided with this set of samples.

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



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Phone: 908 789 8900 Fax: 908 789 8922

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.

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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\_\_\_\_\_

## 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                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| U     | 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.                                                                                                                                                                                                                                 |
| ND    | Indicates the analyte was analyzed for, but not detected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| J     | Indicates an estimated value. This flag is used:<br>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)<br>(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. |
| B     | Indicates the analyte was found in the blank as well as the sample report as “12 B”.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| E     | Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| D     | This flag identifies all compounds identified in an analysis at a secondary dilution factor.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| P     | 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”.                                                                                                                                                                                                                                                                                                                        |
| N     | 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.                                                                                                                                                                                                                  |
| A     | This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Q     | Indicates the LCS did not meet the control limits requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |



**ALLIANCE 284 Sheffield Street, Mountainside New Jersey 07092**

NEW JERSEY LAB ID#: 20012: NEW YORK LAB ID#: 11376

**GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY**

CHEMTECH PROJECT NUMBER: Q1207

MATRIX: TCLP

METHOD: 8260D/1311

|     |                                                                                                                                                                                                                                                                                                     | NA | NO | YES |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|
| 1.  | Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)                                                                                                                                                                                                                       |    |    | ✓   |
| 2.  | GC/MS Tuning Specifications<br>BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY<br>ASP CLP, 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 before sample analysis and<br>continuing calibration performed within 24 hours of sample analysis for 600 series and<br>12 hours for 8000 series.                                                                                                 |    |    | ✓   |
| 5.  | GC/MS Calibration Requirements.<br>The Initial Calibration met the requirements .<br><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.                                                                                                                                                        |    |    | ✓   |
| 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><br>The Blank Spike Duplicate met requirements for all samples . |    |    | ✓   |
| 9.  | Internal Standard Area/Retention Time Shift Meet Criteria<br><br>Comments:                                                                                                                                                                                                                          |    |    | ✓   |
| 10. | Analysis Holding Time Met<br><br>If not met, list number of days exceeded for each sample:                                                                                                                                                                                                          |    |    | ✓   |

**ALLIANCE** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012: NEW YORK LAB ID#: 11376

**GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)**

NA NO YES

ADDITIONAL COMMENTS:

Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

Trip Blank was not provided with this set of samples.

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

\_\_\_\_\_  
Date

## APPENDIX A

### QA REVIEW GENERAL DOCUMENTATION

Project #: Q1207

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: SOHIL JODHANI

Date: 02/06/2025

## LAB CHRONICLE

|                                     |                                                       |
|-------------------------------------|-------------------------------------------------------|
| <b>OrderID:</b> Q1207               | <b>OrderDate:</b> 1/28/2025 11:40:00 AM               |
| <b>Client:</b> RU2 Engineering, LLC | <b>Project:</b> NYCDDC SANTWOBR Brooklyn Bridge BBMCR |
| <b>Contact:</b> Rutu Manani         | <b>Location:</b> E11,VOA Ref. #2 Soil                 |

| LabID    | ClientID        | Matrix | Test     | Method | Sample Date | Prep Date | Anal Date | Received |
|----------|-----------------|--------|----------|--------|-------------|-----------|-----------|----------|
| Q1207-02 | JPP-2.1-012725  | TCLP   | TCLP VOA | 8260D  | 01/27/25    |           | 01/29/25  | 01/28/25 |
| Q1207-06 | JPP-5.1-012725  | TCLP   | TCLP VOA | 8260D  | 01/27/25    |           | 01/29/25  | 01/28/25 |
| Q1207-10 | JPP-4.5-012725  | TCLP   | TCLP VOA | 8260D  | 01/27/25    |           | 01/29/25  | 01/28/25 |
| Q1207-14 | JPP-16.2-012725 | TCLP   | TCLP VOA | 8260D  | 01/27/25    |           | 01/29/25  | 01/28/25 |
| Q1207-18 | JPP-20.2-012725 | TCLP   | TCLP VOA | 8260D  | 01/27/25    |           | 01/29/25  | 01/28/25 |

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

**SDG No.:** Q1207  
**Client:** RU2 Engineering, LLC

| Sample ID                     | Client ID                                 | Matrix | Parameter                   | Concentration | C | MDL  | RDL  | Units |
|-------------------------------|-------------------------------------------|--------|-----------------------------|---------------|---|------|------|-------|
| <b>Client ID:</b><br>Q1207-02 | <b>JPP-2.1-012725</b><br>JPP-2.1-012725   | TCLP   | 2-Butanone                  | 5.60          | J | 1.30 | 25.0 | ug/L  |
|                               |                                           |        | <b>Total Voc :</b>          | 5.60          |   |      |      |       |
|                               |                                           |        | <b>Total Concentration:</b> | 5.60          |   |      |      |       |
| <b>Client ID:</b><br>Q1207-06 | <b>JPP-5.1-012725</b><br>JPP-5.1-012725   | TCLP   | 2-Butanone                  | 5.90          | J | 1.30 | 25.0 | ug/L  |
|                               |                                           |        | <b>Total Voc :</b>          | 5.90          |   |      |      |       |
|                               |                                           |        | <b>Total Concentration:</b> | 5.90          |   |      |      |       |
| <b>Client ID:</b><br>Q1207-10 | <b>JPP-4.5-012725</b><br>JPP-4.5-012725   | TCLP   | 2-Butanone                  | 7.50          | J | 1.30 | 25.0 | ug/L  |
|                               |                                           |        | <b>Total Voc :</b>          | 7.50          |   |      |      |       |
|                               |                                           |        | <b>Total Concentration:</b> | 7.50          |   |      |      |       |
| <b>Client ID:</b><br>Q1207-14 | <b>JPP-16.2-012725</b><br>JPP-16.2-012725 | TCLP   | 2-Butanone                  | 6.00          | J | 1.30 | 25.0 | ug/L  |
|                               |                                           |        | <b>Total Voc :</b>          | 6.00          |   |      |      |       |
|                               |                                           |        | <b>Total Concentration:</b> | 6.00          |   |      |      |       |
| <b>Client ID:</b><br>Q1207-18 | <b>JPP-20.2-012725</b><br>JPP-20.2-012725 | TCLP   | 2-Butanone                  | 5.50          | J | 1.30 | 25.0 | ug/L  |
|                               |                                           |        | <b>Total Voc :</b>          | 5.50          |   |      |      |       |
|                               |                                           |        | <b>Total Concentration:</b> | 5.50          |   |      |      |       |



# QC SUMMARY

## Surrogate Summary

SDG No.: Q1207

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

| Lab Sample ID | Client ID       | Parameter             | Spike | Result | RecoveryQual | Limits |      |
|---------------|-----------------|-----------------------|-------|--------|--------------|--------|------|
|               |                 |                       |       |        |              | Low    | High |
| Q1207-02      | JPP-2.1-012725  | 1,2-Dichloroethane-d4 | 50    | 57.3   | 115          | 74     | 125  |
|               |                 | Dibromofluoromethane  | 50    | 51.0   | 102          | 75     | 124  |
|               |                 | Toluene-d8            | 50    | 52.5   | 105          | 86     | 113  |
|               |                 | 4-Bromofluorobenzene  | 50    | 44.6   | 89           | 77     | 121  |
| Q1207-06      | JPP-5.1-012725  | 1,2-Dichloroethane-d4 | 50    | 57.0   | 114          | 74     | 125  |
|               |                 | Dibromofluoromethane  | 50    | 52.2   | 104          | 75     | 124  |
|               |                 | Toluene-d8            | 50    | 52.8   | 106          | 86     | 113  |
|               |                 | 4-Bromofluorobenzene  | 50    | 44.3   | 89           | 77     | 121  |
| Q1207-10      | JPP-4.5-012725  | 1,2-Dichloroethane-d4 | 50    | 57.3   | 115          | 74     | 125  |
|               |                 | Dibromofluoromethane  | 50    | 52.9   | 106          | 75     | 124  |
|               |                 | Toluene-d8            | 50    | 53.1   | 106          | 86     | 113  |
|               |                 | 4-Bromofluorobenzene  | 50    | 46.6   | 93           | 77     | 121  |
| Q1207-14      | JPP-16.2-012725 | 1,2-Dichloroethane-d4 | 50    | 57.5   | 115          | 74     | 125  |
|               |                 | Dibromofluoromethane  | 50    | 52.5   | 105          | 75     | 124  |
|               |                 | Toluene-d8            | 50    | 53.3   | 107          | 86     | 113  |
|               |                 | 4-Bromofluorobenzene  | 50    | 44.0   | 88           | 77     | 121  |
| Q1207-18      | JPP-20.2-012725 | 1,2-Dichloroethane-d4 | 50    | 58.3   | 117          | 74     | 125  |
|               |                 | Dibromofluoromethane  | 50    | 51.7   | 103          | 75     | 124  |
|               |                 | Toluene-d8            | 50    | 53.5   | 107          | 86     | 113  |
|               |                 | 4-Bromofluorobenzene  | 50    | 44.3   | 89           | 77     | 121  |
| VN0129WBL01   | VN0129WBL01     | 1,2-Dichloroethane-d4 | 50    | 57.3   | 115          | 74     | 125  |
|               |                 | Dibromofluoromethane  | 50    | 53.7   | 107          | 75     | 124  |
|               |                 | Toluene-d8            | 50    | 50.2   | 100          | 86     | 113  |
|               |                 | 4-Bromofluorobenzene  | 50    | 48.3   | 97           | 77     | 121  |
| VN0129WBS01   | VN0129WBS01     | 1,2-Dichloroethane-d4 | 50    | 50.8   | 102          | 74     | 125  |
|               |                 | Dibromofluoromethane  | 50    | 52.1   | 104          | 75     | 124  |
|               |                 | Toluene-d8            | 50    | 53.0   | 106          | 86     | 113  |
|               |                 | 4-Bromofluorobenzene  | 50    | 55.3   | 111          | 77     | 121  |
| VN0129WBSD0   | VN0129WBSD01    | 1,2-Dichloroethane-d4 | 50    | 52.0   | 104          | 74     | 125  |
|               |                 | Dibromofluoromethane  | 50    | 52.8   | 106          | 75     | 124  |
|               |                 | Toluene-d8            | 50    | 53.1   | 106          | 86     | 113  |
|               |                 | 4-Bromofluorobenzene  | 50    | 54.8   | 110          | 77     | 121  |

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

**SW-846**

**SDG No.:** Q1207

**Client:** RU2 Engineering, LLC

**Analytical Method:** SW8260D

**Datafile :** VN085551.D

| Lab Sample ID | Parameter            | Spike | Result | Unit | Rec | RPD | Qual | Low | Limits<br>High | RPD |
|---------------|----------------------|-------|--------|------|-----|-----|------|-----|----------------|-----|
| VN0129WBS01   | Vinyl chloride       | 20    | 16.6   | ug/L | 83  |     |      | 65  | 117            |     |
|               | 1,1-Dichloroethene   | 20    | 18.0   | ug/L | 90  |     |      | 74  | 110            |     |
|               | 2-Butanone           | 100   | 100    | ug/L | 100 |     |      | 65  | 122            |     |
|               | Carbon Tetrachloride | 20    | 19.5   | ug/L | 98  |     |      | 77  | 113            |     |
|               | Chloroform           | 20    | 19.2   | ug/L | 96  |     |      | 79  | 113            |     |
|               | Benzene              | 20    | 19.4   | ug/L | 97  |     |      | 82  | 109            |     |
|               | 1,2-Dichloroethane   | 20    | 20.0   | ug/L | 100 |     |      | 80  | 115            |     |
|               | Trichloroethene      | 20    | 18.9   | ug/L | 95  |     |      | 77  | 113            |     |
|               | Tetrachloroethene    | 20    | 19.4   | ug/L | 97  |     |      | 67  | 123            |     |
|               | Chlorobenzene        | 20    | 19.3   | ug/L | 97  |     |      | 82  | 109            |     |



**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

**SW-846**

**SDG No.:** Q1207

**Client:** RU2 Engineering, LLC

**Analytical Method:** SW8260D

**Datafile :** VN085552.D

| Lab Sample ID | Parameter            | Spike | Result | Unit | Rec | RPD | Qual | Low | Limits<br>High | RPD |
|---------------|----------------------|-------|--------|------|-----|-----|------|-----|----------------|-----|
| VN0129WBSD01  | Vinyl chloride       | 20    | 16.3   | ug/L | 81  | 2   |      | 65  | 117            | 20  |
|               | 1,1-Dichloroethene   | 20    | 17.9   | ug/L | 90  | 0   |      | 74  | 110            | 20  |
|               | 2-Butanone           | 100   | 110    | ug/L | 110 | 10  |      | 65  | 122            | 20  |
|               | Carbon Tetrachloride | 20    | 18.8   | ug/L | 94  | 4   |      | 77  | 113            | 20  |
|               | Chloroform           | 20    | 19.4   | ug/L | 97  | 1   |      | 79  | 113            | 20  |
|               | Benzene              | 20    | 19.3   | ug/L | 97  | 0   |      | 82  | 109            | 20  |
|               | 1,2-Dichloroethane   | 20    | 20.6   | ug/L | 103 | 3   |      | 80  | 115            | 20  |
|               | Trichloroethene      | 20    | 18.3   | ug/L | 92  | 3   |      | 77  | 113            | 20  |
|               | Tetrachloroethene    | 20    | 19.1   | ug/L | 96  | 1   |      | 67  | 123            | 20  |
|               | Chlorobenzene        | 20    | 19.2   | ug/L | 96  | 1   |      | 82  | 109            | 20  |

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0129WBL01

Lab Name: CHEMTECH

Contract: RUTW01

Lab Code: CHEM Case No.: Q1207

SAS No.: Q1207 SDG NO.: Q1207

Lab File ID: VN085550.D

Lab Sample ID: VN0129WBL01

Date Analyzed: 01/29/2025

Time Analyzed: 12:06

GC Column: RXI-624 ID: 0.25 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA\_N

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 |
|-------------------|------------------|----------------|------------------|
| VN0129WBS01       | VN0129WBS01      | VN085551.D     | 01/29/2025       |
| VN0129WBSD01      | VN0129WBSD01     | VN085552.D     | 01/29/2025       |
| JPP-2.1-012725    | Q1207-02         | VN085557.D     | 01/29/2025       |
| JPP-5.1-012725    | Q1207-06         | VN085558.D     | 01/29/2025       |
| JPP-4.5-012725    | Q1207-10         | VN085559.D     | 01/29/2025       |
| JPP-16.2-012725   | Q1207-14         | VN085560.D     | 01/29/2025       |
| JPP-20.2-012725   | Q1207-18         | VN085561.D     | 01/29/2025       |

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

\_\_\_\_\_



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Fax : 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01  
Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207 SDG NO.: Q1207  
Lab File ID: VN085437.D BFB Injection Date: 01/14/2025  
Instrument ID: MSVOA\_N BFB Injection Time: 14:22  
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50  | 15.0 - 40.0% of mass 95            | 22.3                 |
| 75  | 30.0 - 60.0% of mass 95            | 58                   |
| 95  | Base Peak, 100% relative abundance | 100                  |
| 96  | 5.0 - 9.0% of mass 95              | 7.8                  |
| 173 | Less than 2.0% of mass 174         | 1.4 ( 1.8 ) 1        |
| 174 | 50.0 - 100.0% of mass 95           | 76                   |
| 175 | 5.0 - 9.0% of mass 174             | 5.4 ( 7.1 ) 1        |
| 176 | 95.0 - 101.0% of mass 174          | 74.1 ( 97.4 ) 1      |
| 177 | 5.0 - 9.0% of mass 176             | 4.9 ( 6.7 ) 2        |

1-Value is % mass 174

2-Value is % mass 176

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 |
|-------------------|------------------|----------------|------------------|------------------|
| VSTDICC100        | VSTDICC100       | VN085438.D     | 01/14/2025       | 14:56            |
| VSTDICCC050       | VSTDICCC050      | VN085439.D     | 01/14/2025       | 15:19            |
| VSTDICC020        | VSTDICC020       | VN085440.D     | 01/14/2025       | 15:43            |
| VSTDICC010        | VSTDICC010       | VN085441.D     | 01/14/2025       | 16:07            |
| VSTDICC005        | VSTDICC005       | VN085442.D     | 01/14/2025       | 16:31            |
| VSTDICC001        | VSTDICC001       | VN085443.D     | 01/14/2025       | 17:19            |



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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01  
Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207 SDG NO.: Q1207  
Lab File ID: VN085547.D BFB Injection Date: 01/29/2025  
Instrument ID: MSVOA\_N BFB Injection Time: 10:35  
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50  | 15.0 - 40.0% of mass 95            | 21.3                 |
| 75  | 30.0 - 60.0% of mass 95            | 54                   |
| 95  | Base Peak, 100% relative abundance | 100                  |
| 96  | 5.0 - 9.0% of mass 95              | 7.2                  |
| 173 | Less than 2.0% of mass 174         | 1.5 ( 2 ) 1          |
| 174 | 50.0 - 100.0% of mass 95           | 73.6                 |
| 175 | 5.0 - 9.0% of mass 174             | 5 ( 6.8 ) 1          |
| 176 | 95.0 - 101.0% of mass 174          | 70.7 ( 96 ) 1        |
| 177 | 5.0 - 9.0% of mass 176             | 5.2 ( 7.3 ) 2        |

1-Value is % mass 174

2-Value is % mass 176

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 |
|-------------------|------------------|----------------|------------------|------------------|
| VSTDCCC050        | VSTDCCC050       | VN085548.D     | 01/29/2025       | 11:08            |
| VN0129WBL01       | VN0129WBL01      | VN085550.D     | 01/29/2025       | 12:06            |
| VN0129WBS01       | VN0129WBS01      | VN085551.D     | 01/29/2025       | 12:30            |
| VN0129WBSD01      | VN0129WBSD01     | VN085552.D     | 01/29/2025       | 13:04            |
| JPP-2.1-012725    | Q1207-02         | VN085557.D     | 01/29/2025       | 15:04            |
| JPP-5.1-012725    | Q1207-06         | VN085558.D     | 01/29/2025       | 15:29            |
| JPP-4.5-012725    | Q1207-10         | VN085559.D     | 01/29/2025       | 15:53            |
| JPP-16.2-012725   | Q1207-14         | VN085560.D     | 01/29/2025       | 16:17            |
| JPP-20.2-012725   | Q1207-18         | VN085561.D     | 01/29/2025       | 16:41            |

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01  
 Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207 SDG NO.: Q1207  
 Lab File ID: VN085548.D Date Analyzed: 01/29/2025  
 Instrument ID: MSVOA\_N Time Analyzed: 11:08  
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

|                 | IS1<br>AREA # | RT #  | IS2<br>AREA # | RT # | IS3<br>AREA # | RT #   |
|-----------------|---------------|-------|---------------|------|---------------|--------|
| 12 HOUR STD     | 190920        | 8.22  | 314840        | 9.10 | 285899        | 11.87  |
| UPPER LIMIT     | 381840        | 8.724 | 629680        | 9.6  | 571798        | 12.365 |
| LOWER LIMIT     | 95460         | 7.724 | 157420        | 8.6  | 142950        | 11.365 |
| EPA SAMPLE NO.  |               |       |               |      |               |        |
| JPP-2.1-012725  | 163592        | 8.22  | 317371        | 9.10 | 301389        | 11.87  |
| JPP-5.1-012725  | 164603        | 8.22  | 316400        | 9.10 | 299930        | 11.87  |
| JPP-4.5-012725  | 160119        | 8.22  | 302819        | 9.10 | 292646        | 11.87  |
| JPP-16.2-012725 | 161120        | 8.22  | 308507        | 9.10 | 293568        | 11.87  |
| JPP-20.2-012725 | 159671        | 8.22  | 312230        | 9.10 | 298965        | 11.87  |
| VN0129WBL01     | 180587        | 8.22  | 341456        | 9.10 | 305749        | 11.87  |
| VN0129WBS01     | 209601        | 8.22  | 351459        | 9.10 | 313028        | 11.87  |
| VN0129WBSD01    | 199890        | 8.22  | 334279        | 9.10 | 300606        | 11.87  |

IS1 = Pentafluorobenzene  
 IS2 = 1,4-Difluorobenzene  
 IS3 = Chlorobenzene-d5

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

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01  
 Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207 SDG NO.: Q1207  
 Lab File ID: VN085548.D Date Analyzed: 01/29/2025  
 Instrument ID: MSVOA\_N Time Analyzed: 11:08  
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

|                 | IS4<br>AREA # | RT #   |  |  |  |  |
|-----------------|---------------|--------|--|--|--|--|
| 12 HOUR STD     | 149148        | 13.788 |  |  |  |  |
| UPPER LIMIT     | 298296        | 14.288 |  |  |  |  |
| LOWER LIMIT     | 74574         | 13.288 |  |  |  |  |
| EPA SAMPLE NO.  |               |        |  |  |  |  |
| JPP-2.1-012725  | 108730        | 13.79  |  |  |  |  |
| JPP-5.1-012725  | 105803        | 13.79  |  |  |  |  |
| JPP-4.5-012725  | 106369        | 13.79  |  |  |  |  |
| JPP-16.2-012725 | 107567        | 13.79  |  |  |  |  |
| JPP-20.2-012725 | 104378        | 13.79  |  |  |  |  |
| VN0129WBL01     | 123478        | 13.79  |  |  |  |  |
| VN0129WBS01     | 156507        | 13.79  |  |  |  |  |
| VN0129WBSD01    | 149604        | 13.79  |  |  |  |  |

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

\* Values outside of QC limits.



# SAMPLE DATA

## Report of Analysis

|                    |                                       |        |      |                 |          |    |
|--------------------|---------------------------------------|--------|------|-----------------|----------|----|
| Client:            | RU2 Engineering, LLC                  |        |      | Date Collected: | 01/27/25 |    |
| Project:           | NYCDDC SANTWOBR Brooklyn Bridge BBMCR |        |      | Date Received:  | 01/28/25 |    |
| Client Sample ID:  | JPP-2.1-012725                        |        |      | SDG No.:        | Q1207    |    |
| Lab Sample ID:     | Q1207-02                              |        |      | Matrix:         | TCLP     |    |
| Analytical Method: | SW8260                                |        |      | % Solid:        | 0        |    |
| Sample Wt/Vol:     | 5                                     | Units: | mL   | Final Vol:      | 5000     | uL |
| Soil Aliquot Vol:  |                                       |        | uL   | Test:           | TCLP VOA |    |
| GC Column:         | RXI-624                               | ID :   | 0.25 | Level :         | LOW      |    |
| Prep Method :      | SW5035                                |        |      |                 |          |    |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN085557.D        | 1         |           | 01/29/25 15:04 | VN012925      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL      | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|----------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |          |            |         |
| 75-01-4                   | Vinyl Chloride         | 5.00   | U         | 0.34     | 5.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 5.00   | U         | 0.26     | 5.00       | ug/L    |
| 78-93-3                   | 2-Butanone             | 5.60   | J         | 1.30     | 25.0       | ug/L    |
| 56-23-5                   | Carbon Tetrachloride   | 5.00   | U         | 0.25     | 5.00       | ug/L    |
| 67-66-3                   | Chloroform             | 5.00   | U         | 0.26     | 5.00       | ug/L    |
| 71-43-2                   | Benzene                | 5.00   | U         | 0.16     | 5.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 5.00   | U         | 0.24     | 5.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 5.00   | U         | 0.32     | 5.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 5.00   | U         | 0.25     | 5.00       | ug/L    |
| 108-90-7                  | Chlorobenzene          | 5.00   | U         | 0.13     | 5.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |          |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 57.3   |           | 74 - 125 | 115%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 51.0   |           | 75 - 124 | 102%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 52.5   |           | 86 - 113 | 105%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 44.6   |           | 77 - 121 | 89%        | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |          |            |         |
| 363-72-4                  | Pentafluorobenzene     | 164000 | 8.224     |          |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 317000 | 9.1       |          |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 301000 | 11.865    |          |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 109000 | 13.788    |          |            |         |

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:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085557.D  
 Acq On : 29 Jan 2025 15:04  
 Operator : JC\MD  
 Sample : Q1207-02  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 JPP-2.1-012725

Quant Time: Jan 30 00:36:15 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

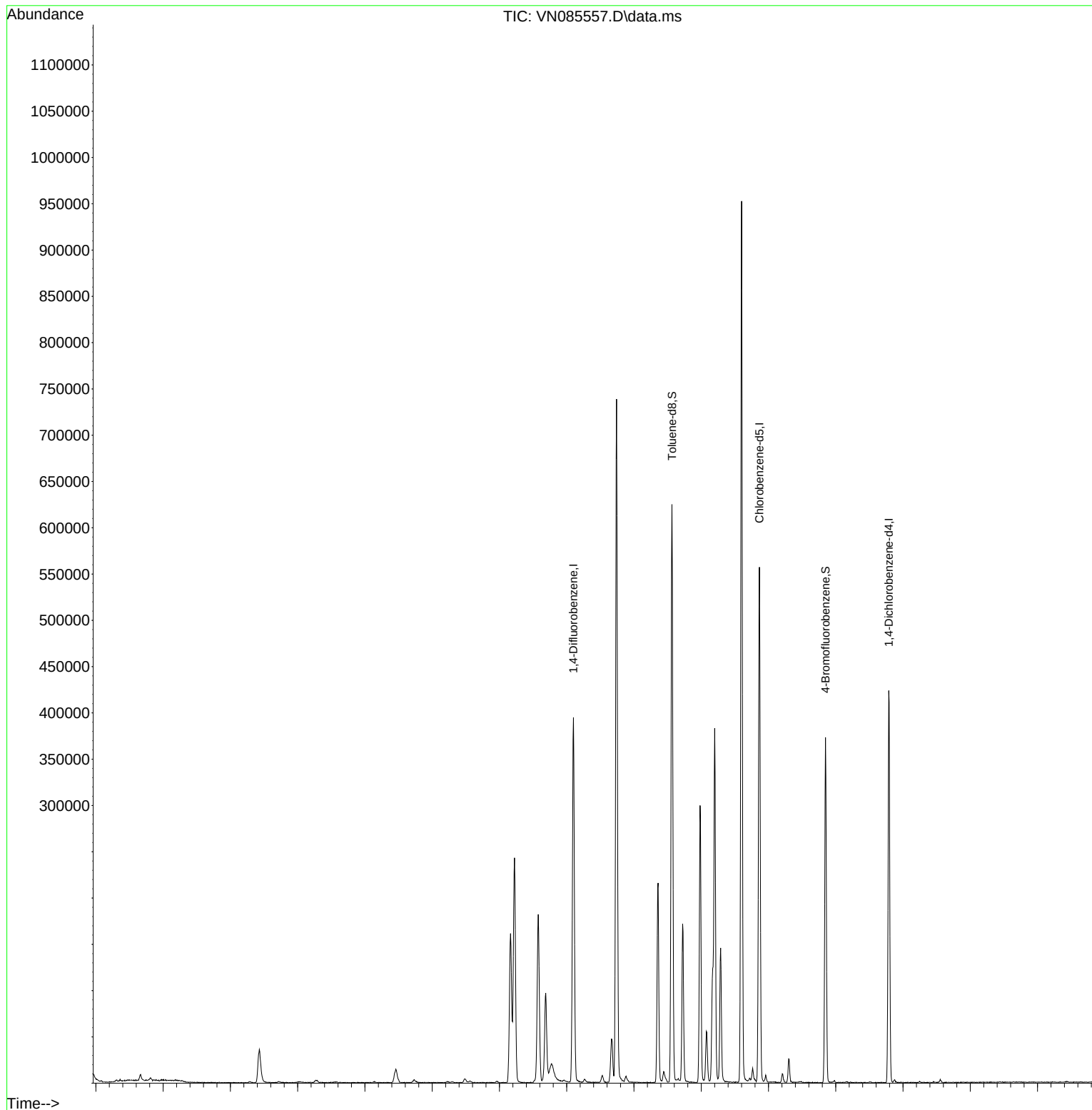
| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Pentafluorobenzene       | 8.224  | 168   | 163592   | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene     | 9.100  | 114   | 317371   | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5        | 11.865 | 117   | 301389   | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 13.788 | 152   | 108730   | 50.000   | ug/l   | 0.00     |
|                             |        |       |          |          |        |          |
| System Monitoring Compounds |        |       |          |          |        |          |
| 33) 1,2-Dichloroethane-d4   | 8.577  | 65    | 151357   | 57.317   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 74 - 125 | Recovery | =      | 114.640% |
| 35) Dibromofluoromethane    | 8.165  | 113   | 112222   | 50.969   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =      | 101.940% |
| 50) Toluene-d8              | 10.565 | 98    | 410833   | 52.517   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 86 - 113 | Recovery | =      | 105.040% |
| 62) 4-Bromofluorobenzene    | 12.847 | 95    | 119370   | 44.608   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 77 - 121 | Recovery | =      | 89.220%  |
|                             |        |       |          |          |        |          |
| Target Compounds            |        |       |          |          |        |          |
| 16) Acetone                 | 4.430  | 43    | 68391    | 80.155   | ug/l   | 98       |
| 25) 2-Butanone              | 7.483  | 43    | 7005     | 5.579    | ug/l   | 96       |
| 43) Isopropyl Acetate       | 8.689  | 43    | 107795   | 21.568   | ug/l # | 87       |
| -----                       |        |       |          |          |        |          |

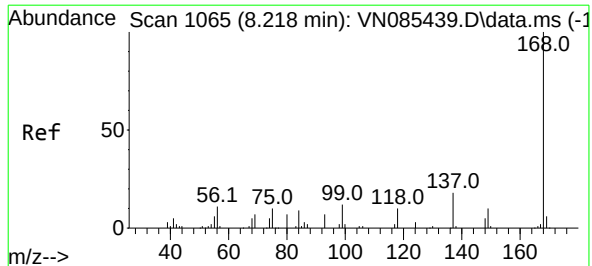
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085557.D  
Acq On : 29 Jan 2025 15:04  
Operator : JC\MD  
Sample : Q1207-02  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-2.1-012725

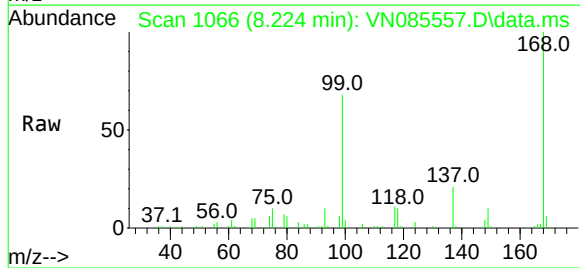
Quant Time: Jan 30 00:36:15 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration



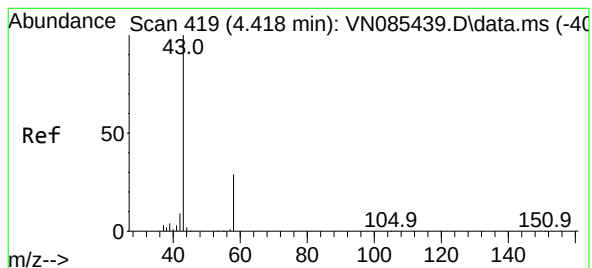
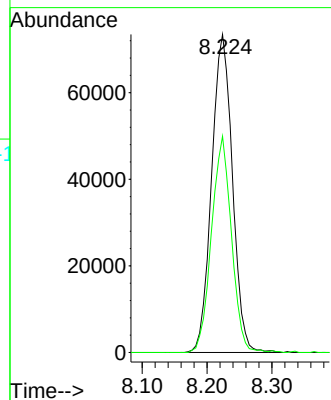
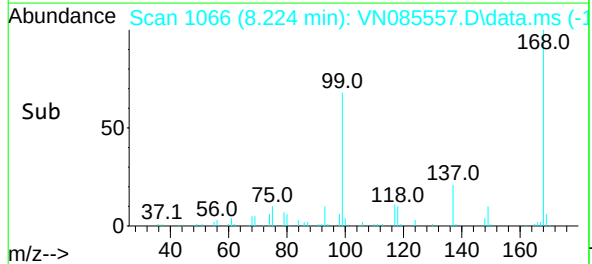


#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. 0.006 min  
Lab File: VN085557.D  
Acq: 29 Jan 2025 15:04

Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-2.1-012725

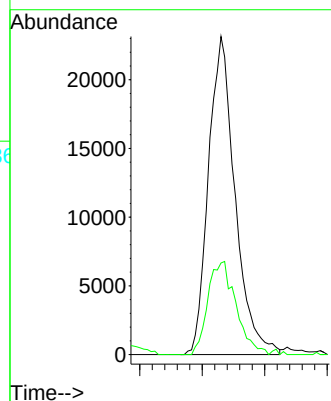
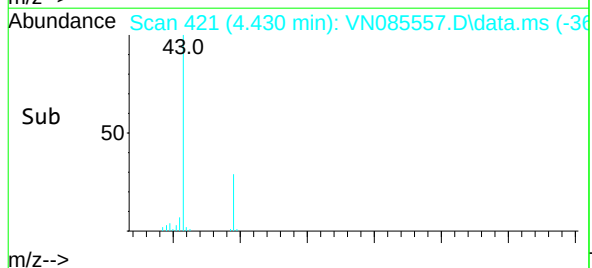
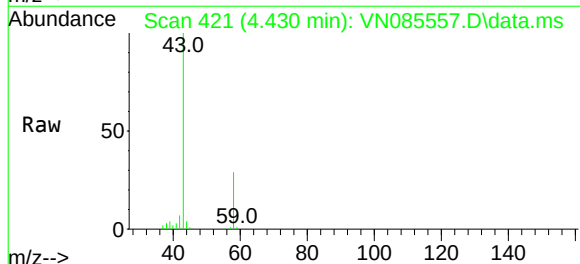


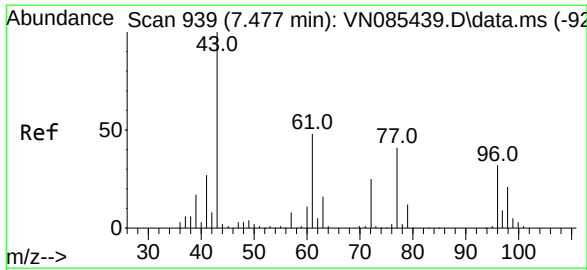
Tgt Ion:168 Resp: 163592  
Ion Ratio Lower Upper  
168 100  
99 68.0 53.6 80.4



#16  
Acetone  
Concen: 80.155 ug/l  
RT: 4.430 min Scan# 421  
Delta R.T. 0.012 min  
Lab File: VN085557.D  
Acq: 29 Jan 2025 15:04

Tgt Ion: 43 Resp: 68391  
Ion Ratio Lower Upper  
43 100  
58 28.8 23.8 35.6





#25

2-Butanone

Concen: 5.579 ug/l

RT: 7.483 min Scan# 94

Delta R.T. 0.006 min

Lab File: VN085557.D

Acq: 29 Jan 2025 15:04

Instrument :

MSVOA\_N

ClientSampleId :

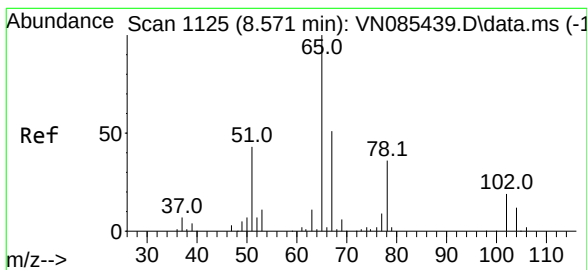
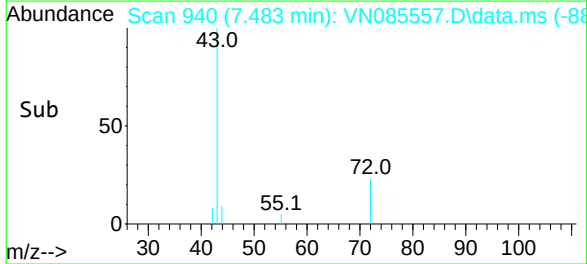
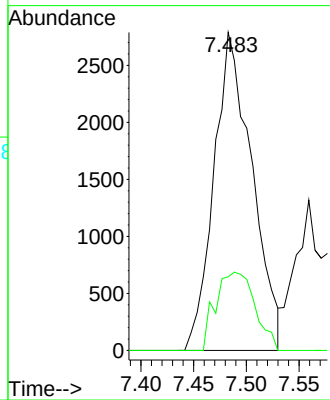
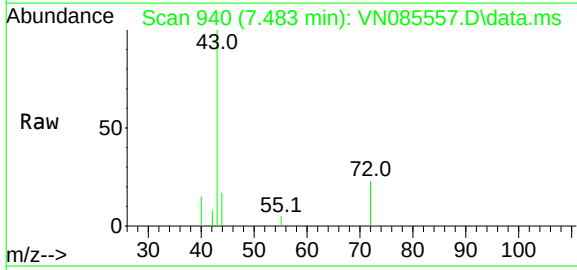
JPP-2.1-012725

Tgt Ion: 43 Resp: 7005

Ion Ratio Lower Upper

43 100

72 23.2 20.2 30.4



#33

1,2-Dichloroethane-d4

Concen: 57.317 ug/l

RT: 8.577 min Scan# 1126

Delta R.T. 0.006 min

Lab File: VN085557.D

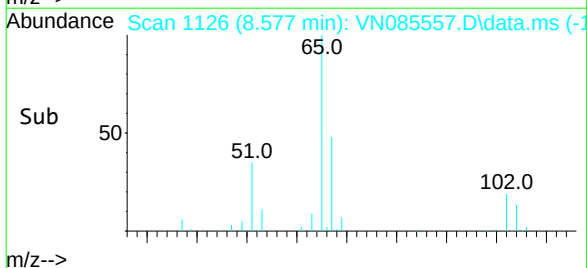
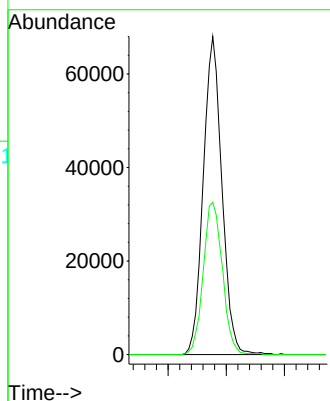
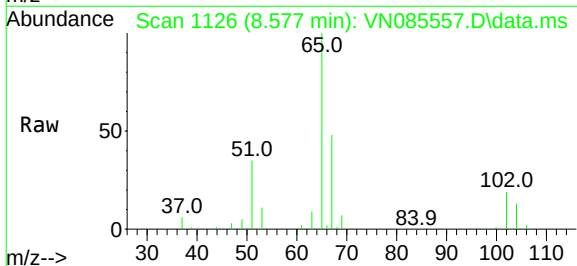
Acq: 29 Jan 2025 15:04

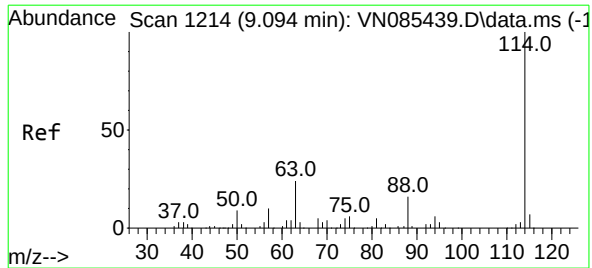
Tgt Ion: 65 Resp: 151357

Ion Ratio Lower Upper

65 100

67 49.2 0.0 101.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 12

Delta R.T. 0.006 min

Lab File: VN085557.D

Acq: 29 Jan 2025 15:04

Instrument :

MSVOA\_N

ClientSampleId :

JPP-2.1-012725

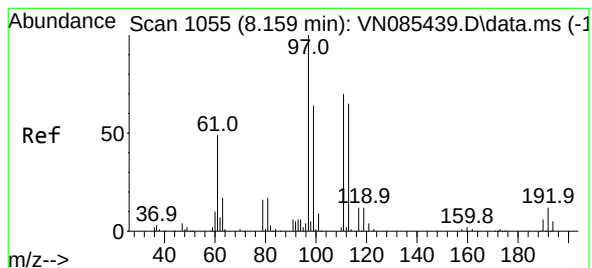
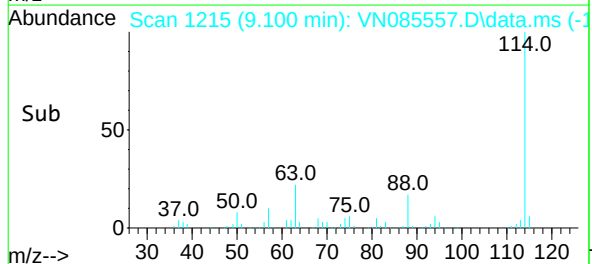
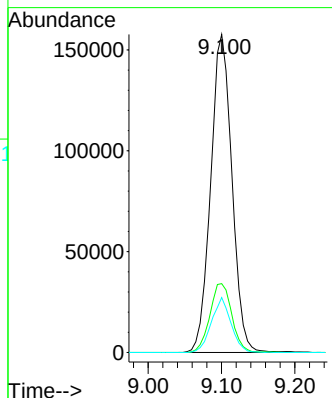
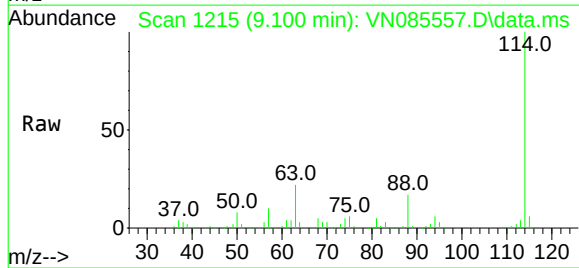
Tgt Ion:114 Resp: 317371

Ion Ratio Lower Upper

114 100

63 21.7 0.0 47.6

88 17.3 0.0 32.6



#35

Dibromofluoromethane

Concen: 50.969 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. 0.006 min

Lab File: VN085557.D

Acq: 29 Jan 2025 15:04

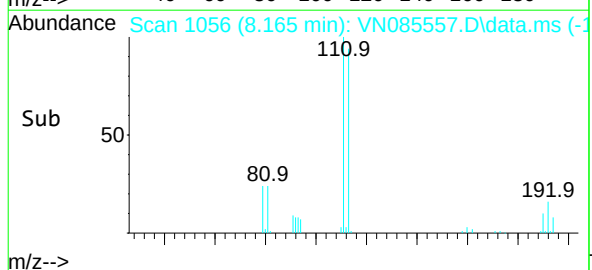
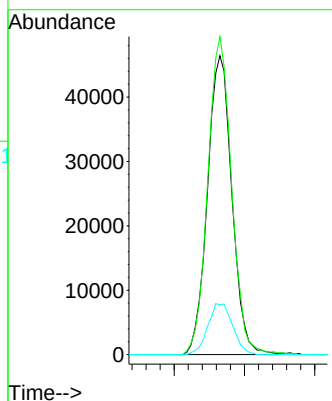
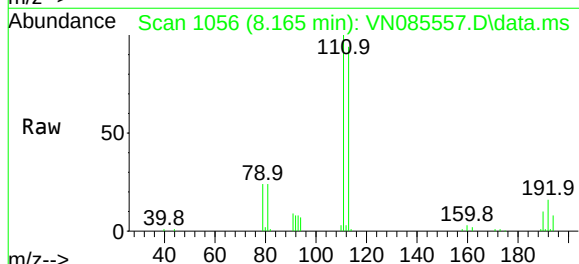
Tgt Ion:113 Resp: 112222

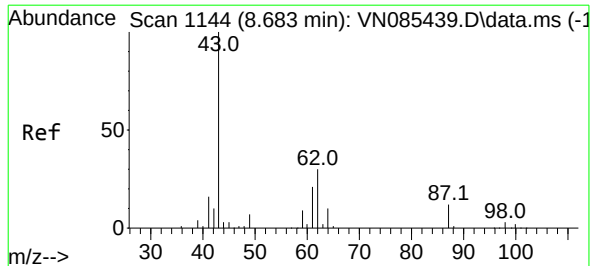
Ion Ratio Lower Upper

113 100

111 104.0 82.7 124.1

192 17.3 14.3 21.5





#43

Isopropyl Acetate

Concen: 21.568 ug/l

RT: 8.689 min Scan# 1144

Delta R.T. 0.006 min

Lab File: VN085557.D

Acq: 29 Jan 2025 15:04

Instrument :

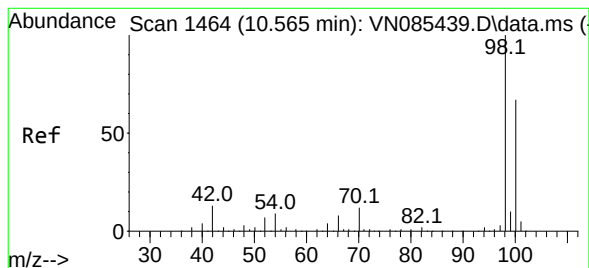
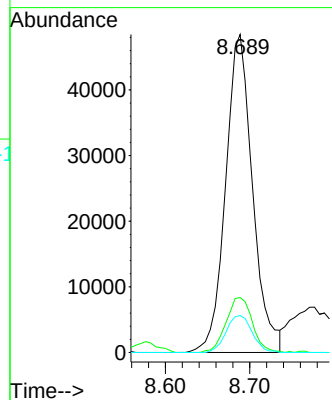
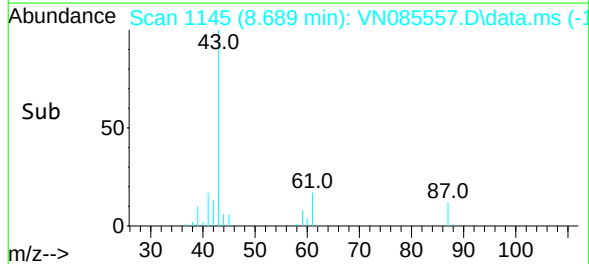
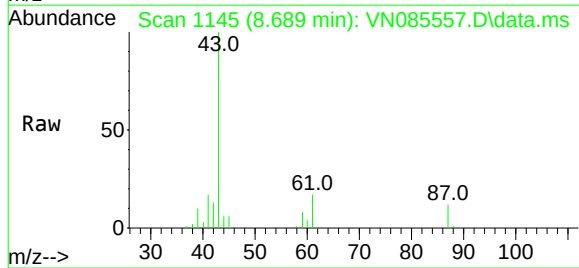
MSVOA\_N

ClientSampleId :

JPP-2.1-012725

Tgt Ion: 43 Resp: 107795

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 61  | 16.8  | 20.7  | 31.1  |
| 87  | 11.2  | 9.8   | 14.8  |



#50

Toluene-d8

Concen: 52.517 ug/l

RT: 10.565 min Scan# 1464

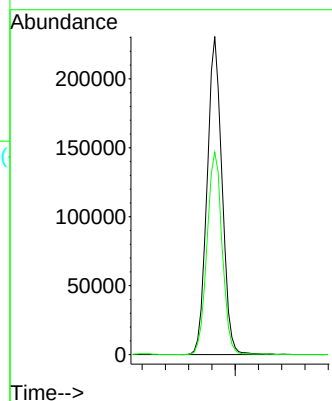
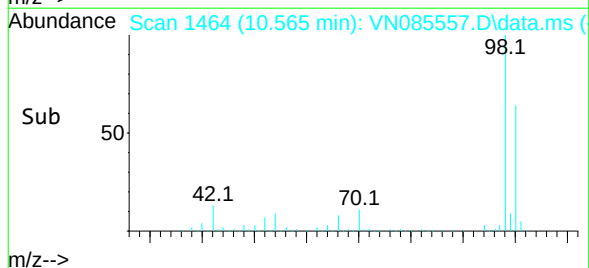
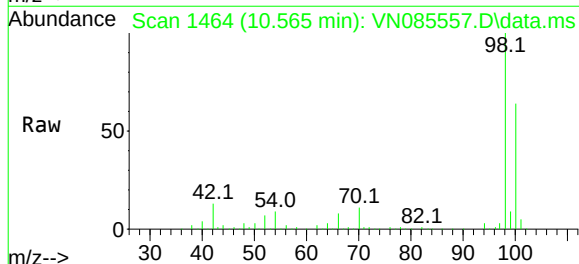
Delta R.T. 0.000 min

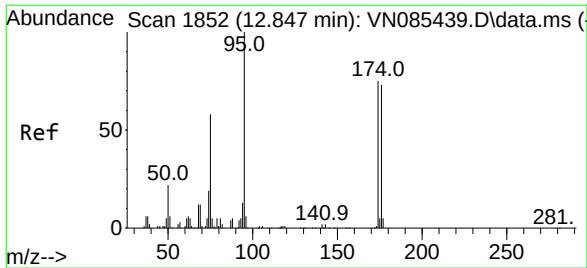
Lab File: VN085557.D

Acq: 29 Jan 2025 15:04

Tgt Ion: 98 Resp: 410833

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 98  | 100   |       |       |
| 100 | 64.5  | 52.2  | 78.4  |





#62

4-Bromofluorobenzene

Concen: 44.608 ug/l

RT: 12.847 min Scan# 1852

Delta R.T. 0.000 min

Lab File: VN085557.D

Acq: 29 Jan 2025 15:04

Instrument :

MSVOA\_N

ClientSampleId :

JPP-2.1-012725

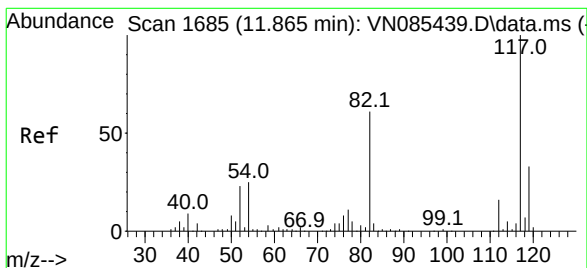
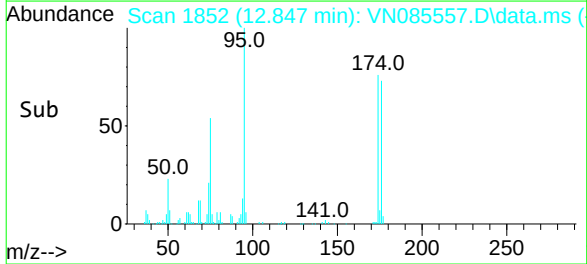
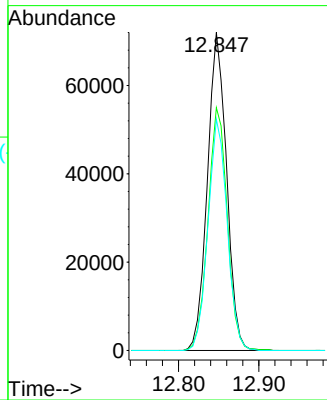
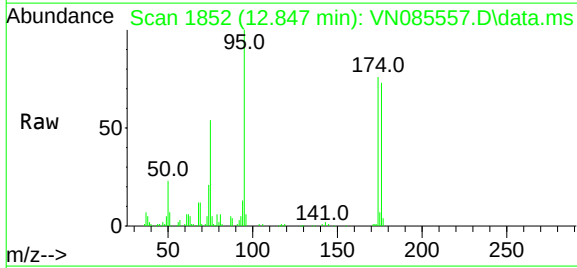
Tgt Ion: 95 Resp: 119370

Ion Ratio Lower Upper

95 100

174 77.0 0.0 145.0

176 72.7 0.0 142.4



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. 0.000 min

Lab File: VN085557.D

Acq: 29 Jan 2025 15:04

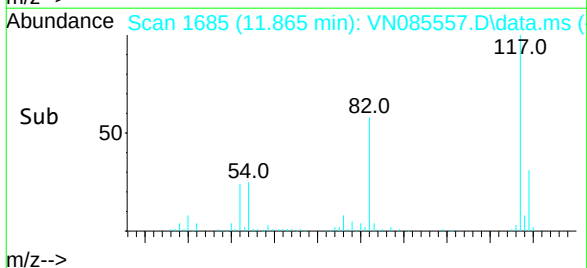
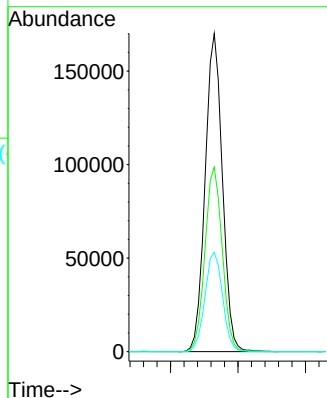
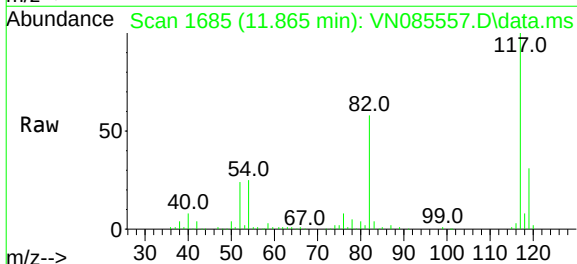
Tgt Ion: 117 Resp: 301389

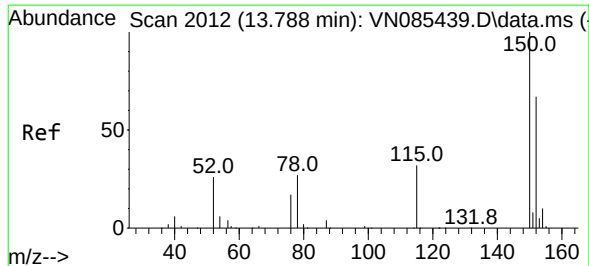
Ion Ratio Lower Upper

117 100

82 58.0 48.6 72.8

119 31.2 26.6 39.8





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.788 min Scan# 20

Delta R.T. 0.000 min

Lab File: VN085557.D

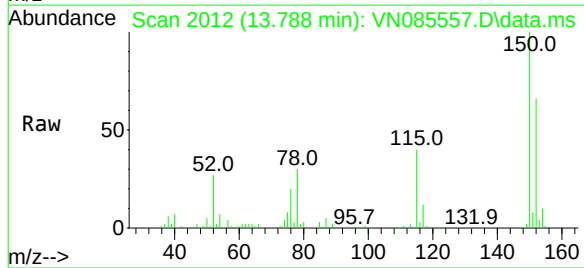
Acq: 29 Jan 2025 15:04

Instrument :

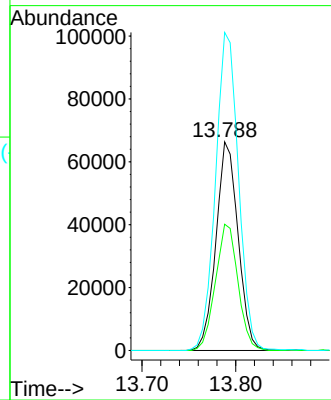
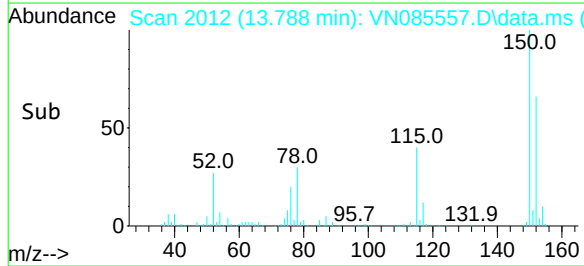
MSVOA\_N

ClientSampleId :

JPP-2.1-012725



|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 152   | Resp: | 108730 |
| Ion      | Ratio | Lower | Upper  |
| 152      | 100   |       |        |
| 115      | 61.6  | 31.1  | 93.3   |
| 150      | 158.4 | 0.0   | 343.6  |





## Report of Analysis

|                    |                                       |        |      |                 |          |    |
|--------------------|---------------------------------------|--------|------|-----------------|----------|----|
| Client:            | RU2 Engineering, LLC                  |        |      | Date Collected: | 01/27/25 |    |
| Project:           | NYCDDC SANTWOBR Brooklyn Bridge BBMCR |        |      | Date Received:  | 01/28/25 |    |
| Client Sample ID:  | JPP-5.1-012725                        |        |      | SDG No.:        | Q1207    |    |
| Lab Sample ID:     | Q1207-06                              |        |      | Matrix:         | TCLP     |    |
| Analytical Method: | SW8260                                |        |      | % Solid:        | 0        |    |
| Sample Wt/Vol:     | 5                                     | Units: | mL   | Final Vol:      | 5000     | uL |
| Soil Aliquot Vol:  |                                       |        | uL   | Test:           | TCLP VOA |    |
| GC Column:         | RXI-624                               | ID :   | 0.25 | Level :         | LOW      |    |
| Prep Method :      | SW5035                                |        |      |                 |          |    |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN085558.D        | 1         |           | 01/29/25 15:29 | VN012925      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL      | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|----------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |          |            |         |
| 75-01-4                   | Vinyl Chloride         | 5.00   | U         | 0.34     | 5.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 5.00   | U         | 0.26     | 5.00       | ug/L    |
| 78-93-3                   | 2-Butanone             | 5.90   | J         | 1.30     | 25.0       | ug/L    |
| 56-23-5                   | Carbon Tetrachloride   | 5.00   | U         | 0.25     | 5.00       | ug/L    |
| 67-66-3                   | Chloroform             | 5.00   | U         | 0.26     | 5.00       | ug/L    |
| 71-43-2                   | Benzene                | 5.00   | U         | 0.16     | 5.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 5.00   | U         | 0.24     | 5.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 5.00   | U         | 0.32     | 5.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 5.00   | U         | 0.25     | 5.00       | ug/L    |
| 108-90-7                  | Chlorobenzene          | 5.00   | U         | 0.13     | 5.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |          |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 57.0   |           | 74 - 125 | 114%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 52.2   |           | 75 - 124 | 104%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 52.8   |           | 86 - 113 | 106%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 44.3   |           | 77 - 121 | 89%        | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |          |            |         |
| 363-72-4                  | Pentafluorobenzene     | 165000 | 8.224     |          |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 316000 | 9.1       |          |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 300000 | 11.865    |          |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 106000 | 13.788    |          |            |         |

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:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085558.D  
 Acq On : 29 Jan 2025 15:29  
 Operator : JC\MD  
 Sample : Q1207-06  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 JPP-5.1-012725

Quant Time: Jan 30 00:36:44 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

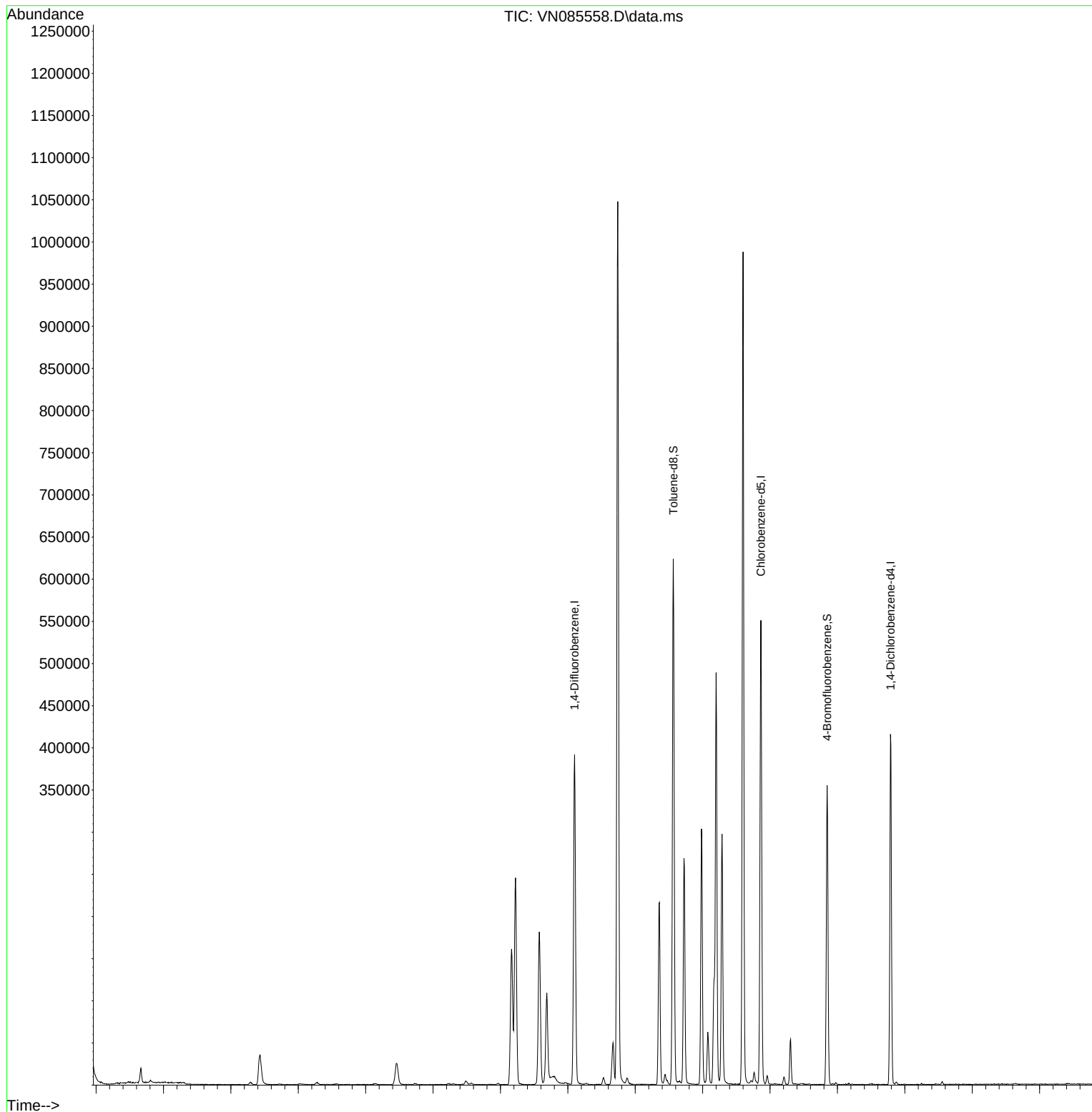
| Compound                    | R.T.   | QIon           | Response | Conc       | Units  | Dev(Min) |
|-----------------------------|--------|----------------|----------|------------|--------|----------|
| -----                       |        |                |          |            |        |          |
| Internal Standards          |        |                |          |            |        |          |
| 1) Pentafluorobenzene       | 8.224  | 168            | 164603   | 50.000     | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene     | 9.100  | 114            | 316400   | 50.000     | ug/l   | 0.00     |
| 63) Chlorobenzene-d5        | 11.865 | 117            | 299930   | 50.000     | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 13.788 | 152            | 105803   | 50.000     | ug/l   | 0.00     |
| System Monitoring Compounds |        |                |          |            |        |          |
| 33) 1,2-Dichloroethane-d4   | 8.577  | 65             | 151380   | 56.973     | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range 74 - 125 | Recovery | = 113.940% |        |          |
| 35) Dibromofluoromethane    | 8.165  | 113            | 114601   | 52.209     | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range 75 - 124 | Recovery | = 104.420% |        |          |
| 50) Toluene-d8              | 10.565 | 98             | 411811   | 52.804     | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range 86 - 113 | Recovery | = 105.600% |        |          |
| 62) 4-Bromofluorobenzene    | 12.847 | 95             | 118183   | 44.300     | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range 77 - 121 | Recovery | = 88.600%  |        |          |
| Target Compounds            |        |                |          |            |        |          |
|                             |        |                |          |            |        | Qvalue   |
| 16) Acetone                 | 4.430  | 43             | 70236    | 81.811     | ug/l   | 98       |
| 25) 2-Butanone              | 7.483  | 43             | 7406     | 5.862      | ug/l   | 97       |
| 43) Isopropyl Acetate       | 8.688  | 43             | 122030   | 24.492     | ug/l # | 86       |
| -----                       |        |                |          |            |        |          |

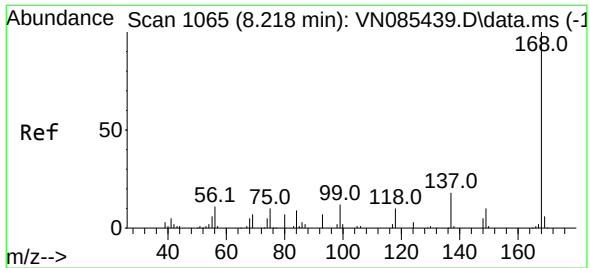
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085558.D  
Acq On : 29 Jan 2025 15:29  
Operator : JC\MD  
Sample : Q1207-06  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 13 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-5.1-012725

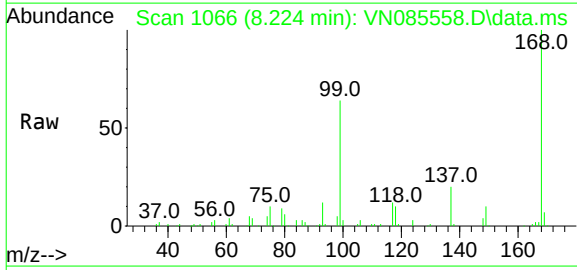
Quant Time: Jan 30 00:36:44 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration



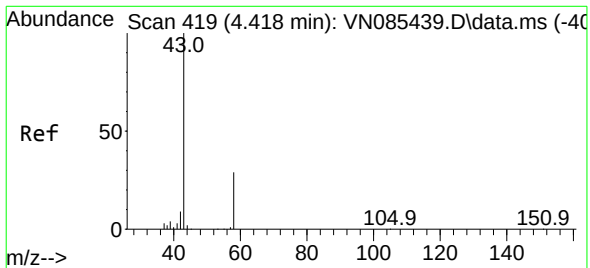
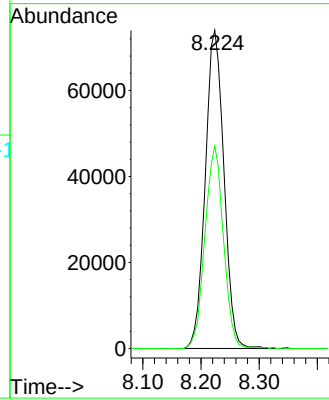
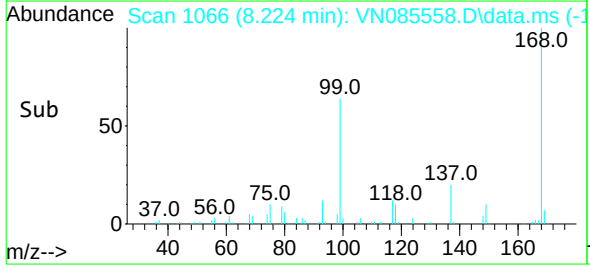


#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. 0.006 min  
Lab File: VN085558.D  
Acq: 29 Jan 2025 15:29

Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-5.1-012725

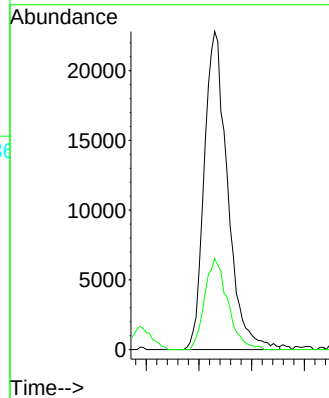
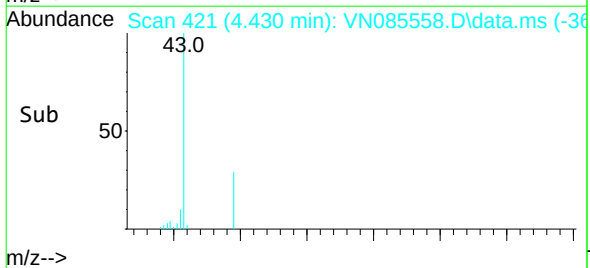
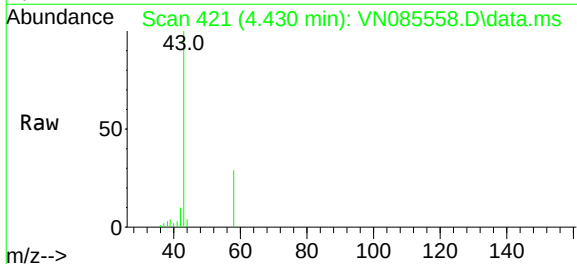


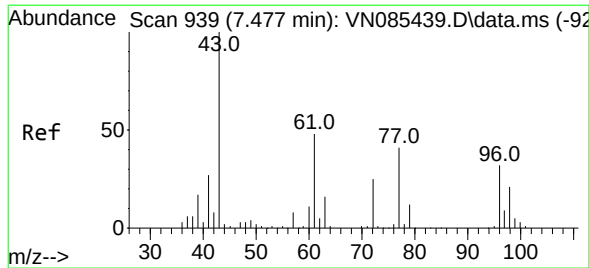
Tgt Ion:168 Resp: 164603  
Ion Ratio Lower Upper  
168 100  
99 63.7 53.6 80.4



#16  
Acetone  
Concen: 81.811 ug/l  
RT: 4.430 min Scan# 421  
Delta R.T. 0.012 min  
Lab File: VN085558.D  
Acq: 29 Jan 2025 15:29

Tgt Ion: 43 Resp: 70236  
Ion Ratio Lower Upper  
43 100  
58 28.6 23.8 35.6





#25

2-Butanone

Concen: 5.862 ug/l

RT: 7.483 min Scan# 94

Delta R.T. 0.006 min

Lab File: VN085558.D

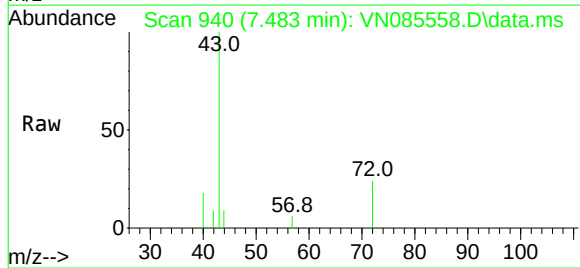
Acq: 29 Jan 2025 15:29

Instrument :

MSVOA\_N

ClientSampleId :

JPP-5.1-012725

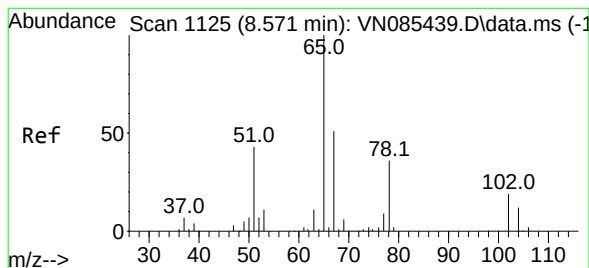
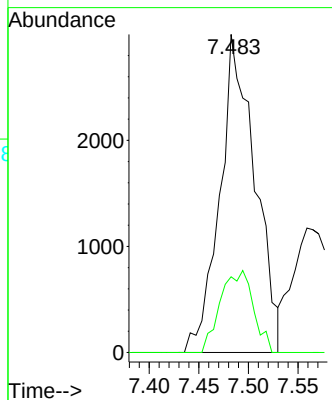
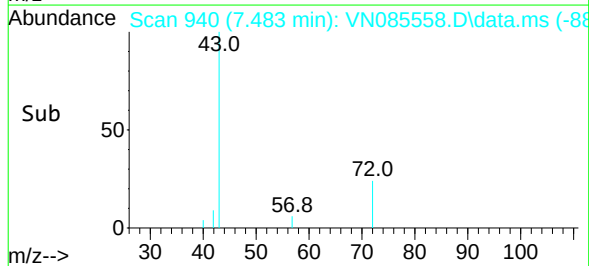


Tgt Ion: 43 Resp: 7406

Ion Ratio Lower Upper

43 100

72 23.8 20.2 30.4



#33

1,2-Dichloroethane-d4

Concen: 56.973 ug/l

RT: 8.577 min Scan# 1126

Delta R.T. 0.006 min

Lab File: VN085558.D

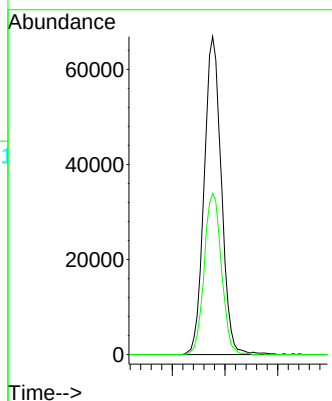
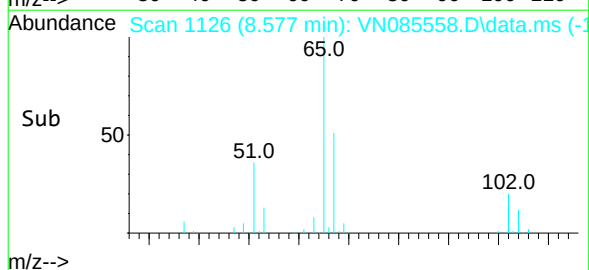
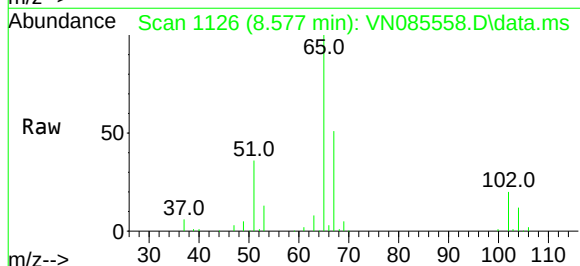
Acq: 29 Jan 2025 15:29

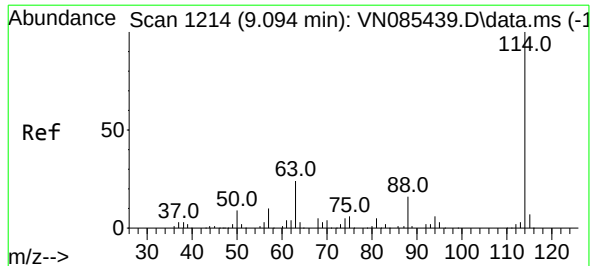
Tgt Ion: 65 Resp: 151380

Ion Ratio Lower Upper

65 100

67 50.8 0.0 101.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1214

Delta R.T. 0.006 min

Lab File: VN085558.D

Acq: 29 Jan 2025 15:29

Instrument :

MSVOA\_N

ClientSampleId :

JPP-5.1-012725

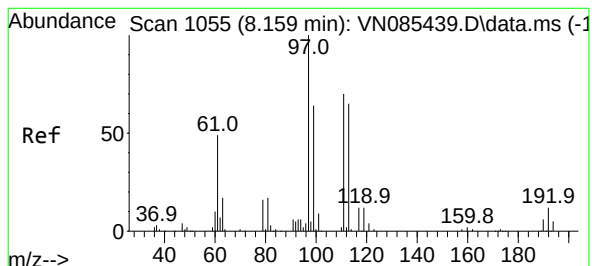
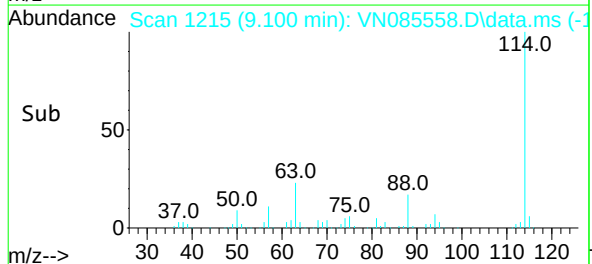
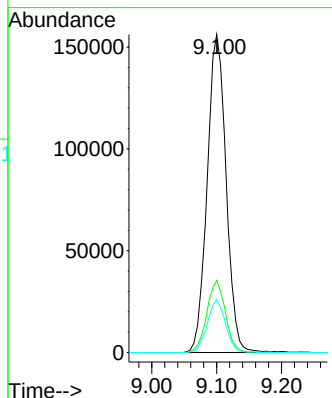
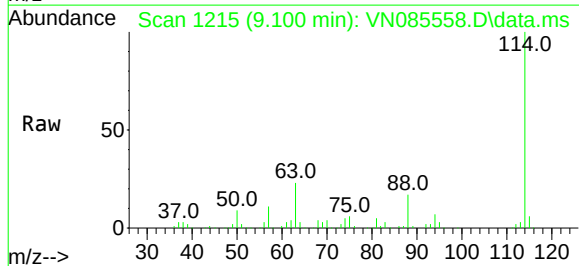
Tgt Ion:114 Resp: 316400

Ion Ratio Lower Upper

114 100

63 22.7 0.0 47.6

88 16.7 0.0 32.6



#35

Dibromofluoromethane

Concen: 52.209 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. 0.006 min

Lab File: VN085558.D

Acq: 29 Jan 2025 15:29

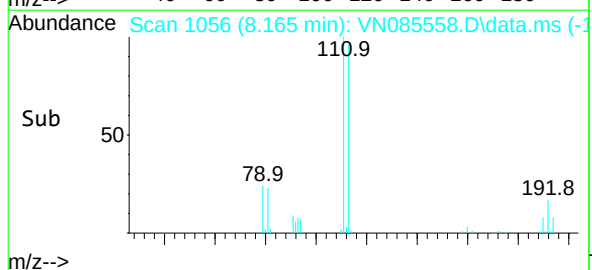
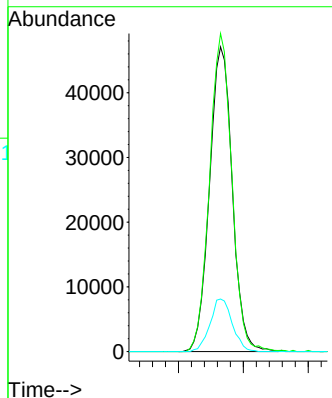
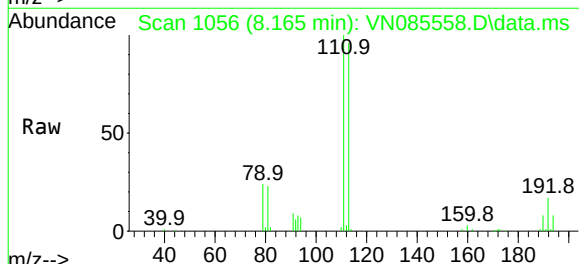
Tgt Ion:113 Resp: 114601

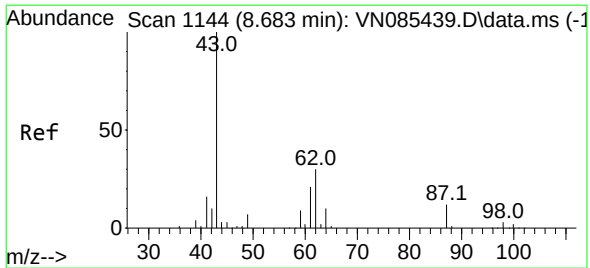
Ion Ratio Lower Upper

113 100

111 102.4 82.7 124.1

192 16.9 14.3 21.5





#43

Isopropyl Acetate

Concen: 24.492 ug/l

RT: 8.688 min Scan# 1144

Delta R.T. 0.006 min

Lab File: VN085558.D

Acq: 29 Jan 2025 15:29

Instrument :

MSVOA\_N

ClientSampleId :

JPP-5.1-012725

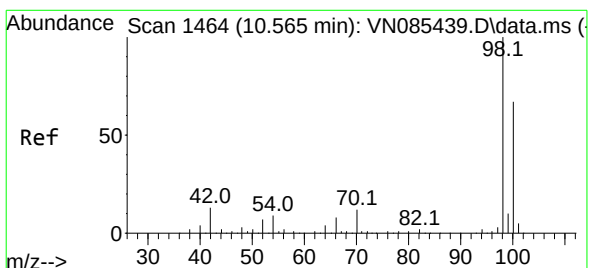
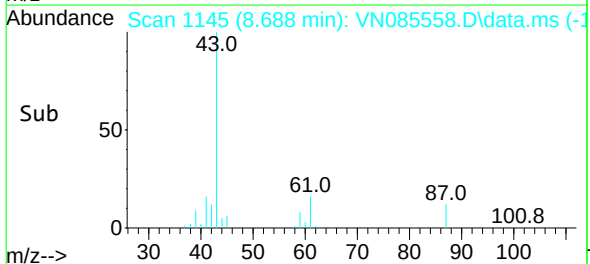
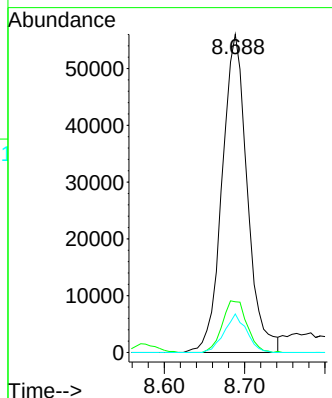
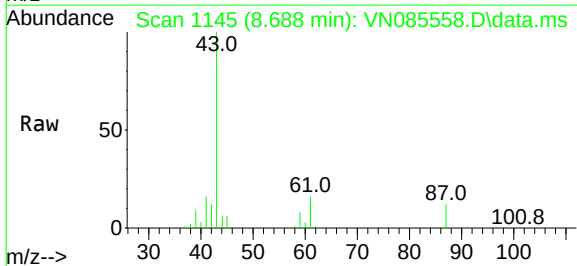
Tgt Ion: 43 Resp: 122030

Ion Ratio Lower Upper

43 100

61 16.0 20.7 31.1#

87 10.7 9.8 14.8



#50

Toluene-d8

Concen: 52.804 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. -0.000 min

Lab File: VN085558.D

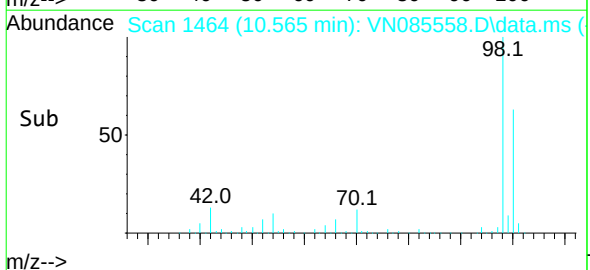
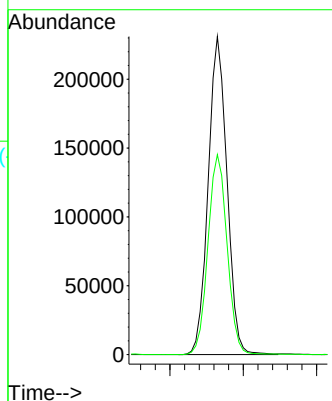
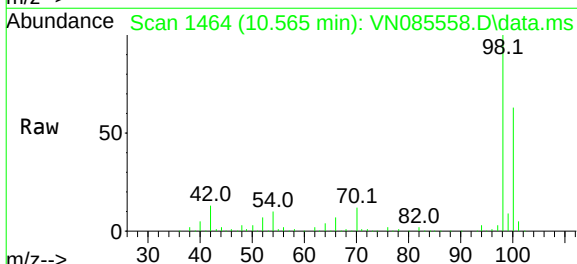
Acq: 29 Jan 2025 15:29

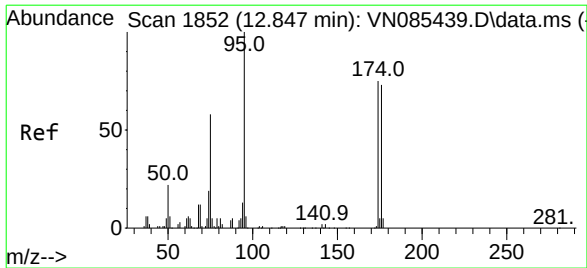
Tgt Ion: 98 Resp: 411811

Ion Ratio Lower Upper

98 100

100 64.1 52.2 78.4

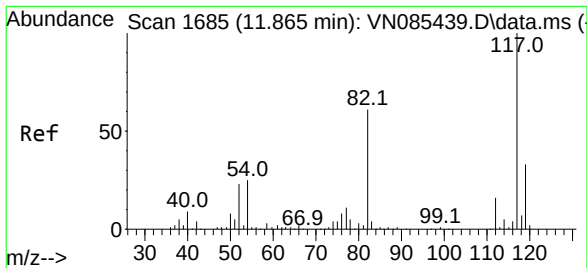
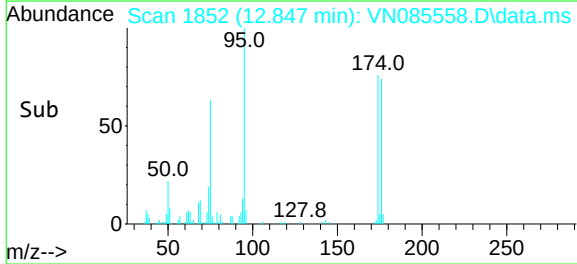
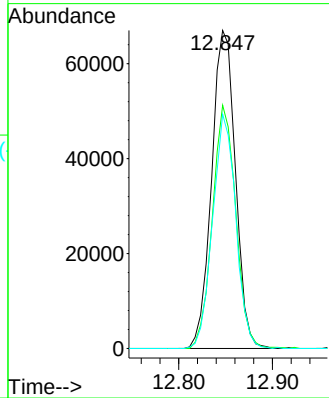
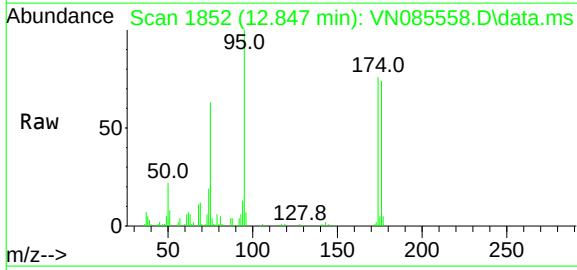




#62  
4-Bromofluorobenzene  
Concen: 44.300 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. -0.000 min  
Lab File: VN085558.D  
Acq: 29 Jan 2025 15:29

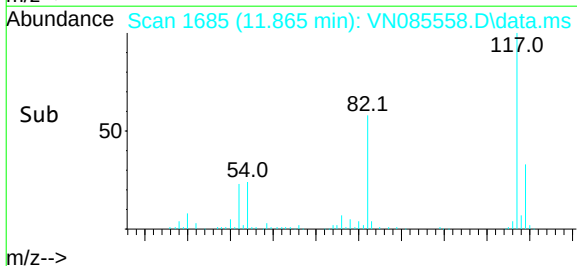
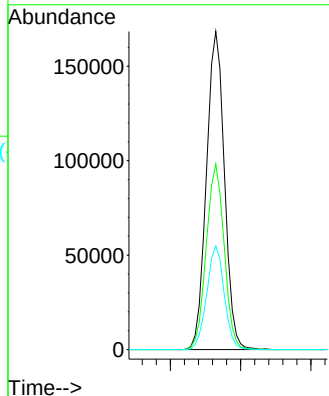
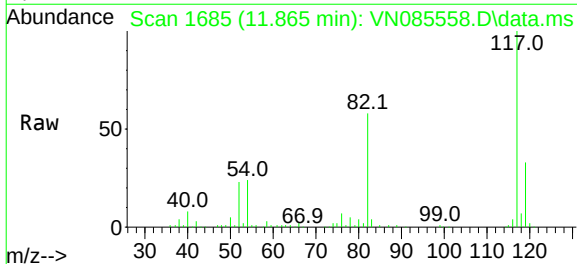
Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-5.1-012725

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 75.1  | 0.0   | 145.0 |
| 176     | 71.6  | 0.0   | 142.4 |

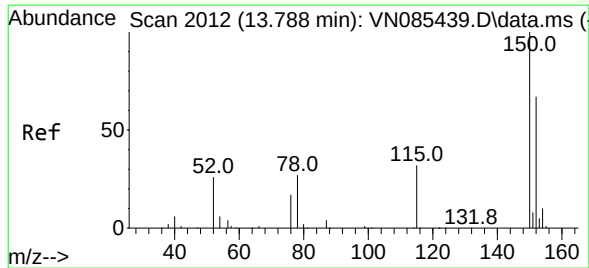


#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. -0.000 min  
Lab File: VN085558.D  
Acq: 29 Jan 2025 15:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 58.3  | 48.6  | 72.8  |
| 119     | 32.5  | 26.6  | 39.8  |







#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.788 min Scan# 20

Delta R.T. -0.000 min

Lab File: VN085558.D

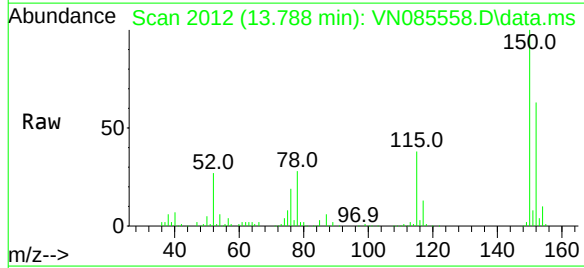
Acq: 29 Jan 2025 15:29

Instrument :

MSVOA\_N

ClientSampleId :

JPP-5.1-012725



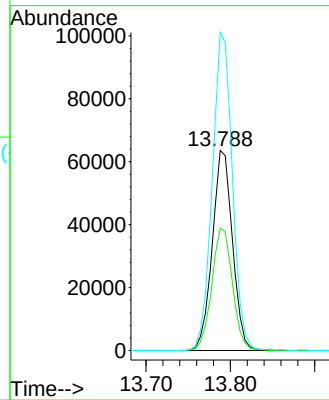
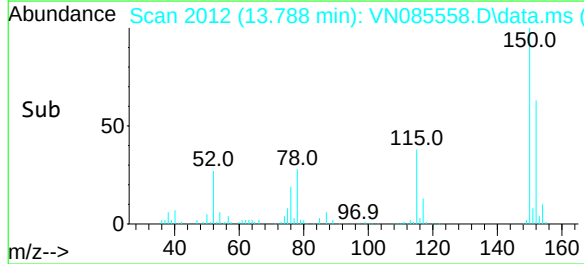
Tgt Ion:152 Resp: 105803

Ion Ratio Lower Upper

152 100

115 62.6 31.1 93.3

150 158.1 0.0 343.6



## Report of Analysis

|                    |                                       |        |      |                 |          |    |
|--------------------|---------------------------------------|--------|------|-----------------|----------|----|
| Client:            | RU2 Engineering, LLC                  |        |      | Date Collected: | 01/27/25 |    |
| Project:           | NYCDDC SANTWOBR Brooklyn Bridge BBMCR |        |      | Date Received:  | 01/28/25 |    |
| Client Sample ID:  | JPP-4.5-012725                        |        |      | SDG No.:        | Q1207    |    |
| Lab Sample ID:     | Q1207-10                              |        |      | Matrix:         | TCLP     |    |
| Analytical Method: | SW8260                                |        |      | % Solid:        | 0        |    |
| Sample Wt/Vol:     | 5                                     | Units: | mL   | Final Vol:      | 5000     | uL |
| Soil Aliquot Vol:  |                                       |        | uL   | Test:           | TCLP VOA |    |
| GC Column:         | RXI-624                               | ID :   | 0.25 | Level :         | LOW      |    |
| Prep Method :      | SW5035                                |        |      |                 |          |    |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN085559.D        | 1         |           | 01/29/25 15:53 | VN012925      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL      | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|----------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |          |            |         |
| 75-01-4                   | Vinyl Chloride         | 5.00   | U         | 0.34     | 5.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 5.00   | U         | 0.26     | 5.00       | ug/L    |
| 78-93-3                   | 2-Butanone             | 7.50   | J         | 1.30     | 25.0       | ug/L    |
| 56-23-5                   | Carbon Tetrachloride   | 5.00   | U         | 0.25     | 5.00       | ug/L    |
| 67-66-3                   | Chloroform             | 5.00   | U         | 0.26     | 5.00       | ug/L    |
| 71-43-2                   | Benzene                | 5.00   | U         | 0.16     | 5.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 5.00   | U         | 0.24     | 5.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 5.00   | U         | 0.32     | 5.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 5.00   | U         | 0.25     | 5.00       | ug/L    |
| 108-90-7                  | Chlorobenzene          | 5.00   | U         | 0.13     | 5.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |          |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 57.3   |           | 74 - 125 | 115%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 52.8   |           | 75 - 124 | 106%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 53.1   |           | 86 - 113 | 106%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 46.6   |           | 77 - 121 | 93%        | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |          |            |         |
| 363-72-4                  | Pentafluorobenzene     | 160000 | 8.224     |          |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 303000 | 9.1       |          |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 293000 | 11.865    |          |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 106000 | 13.794    |          |            |         |

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:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085559.D  
 Acq On : 29 Jan 2025 15:53  
 Operator : JC\MD  
 Sample : Q1207-10  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 JPP-4.5-012725

Quant Time: Jan 30 00:37:10 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

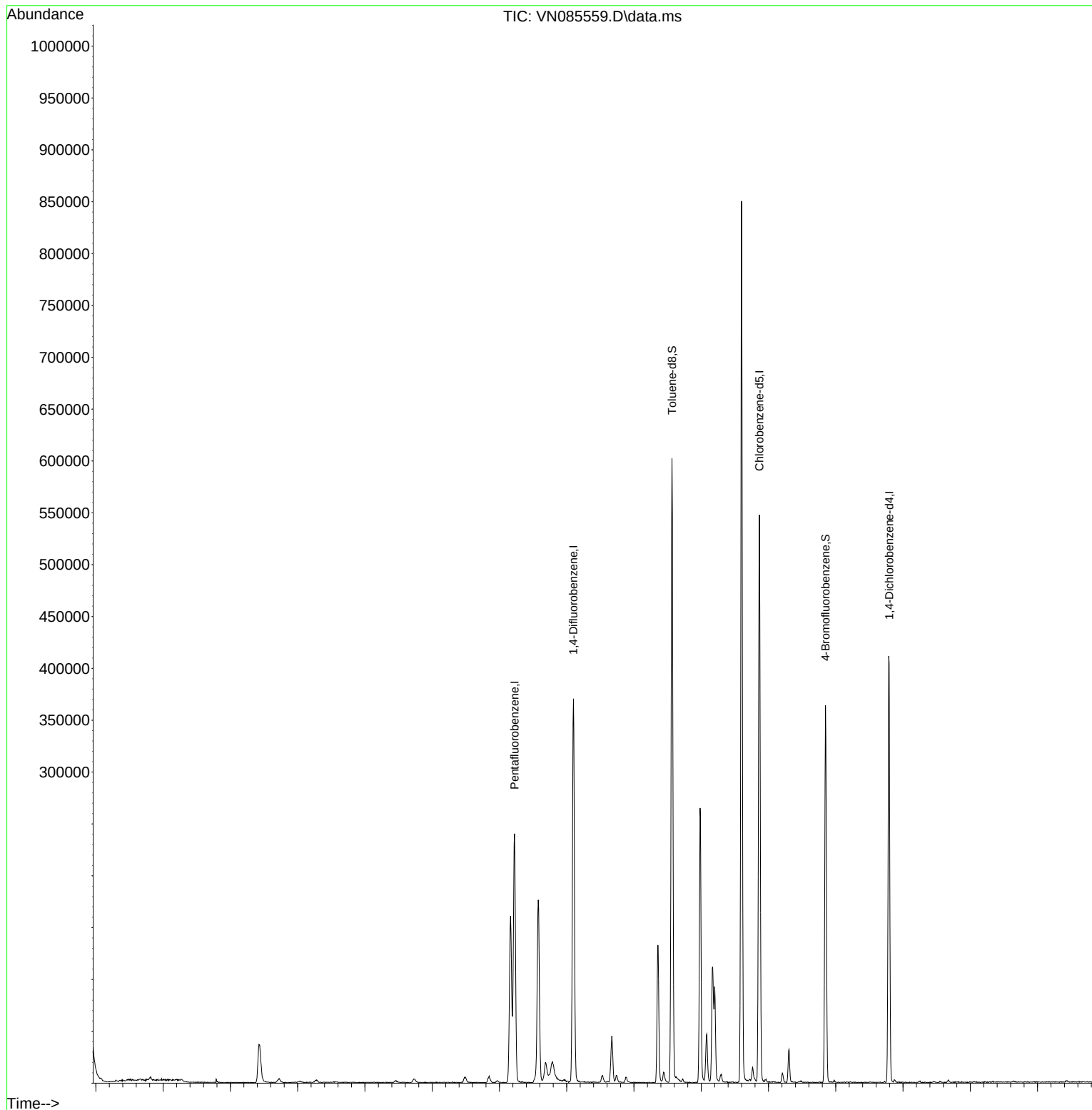
| Compound                    | R.T.   | QIon           | Response | Conc   | Units    | Dev(Min) |
|-----------------------------|--------|----------------|----------|--------|----------|----------|
| -----                       |        |                |          |        |          |          |
| Internal Standards          |        |                |          |        |          |          |
| 1) Pentafluorobenzene       | 8.224  | 168            | 160119   | 50.000 | ug/l     | 0.00     |
| 34) 1,4-Difluorobenzene     | 9.100  | 114            | 302819   | 50.000 | ug/l     | 0.00     |
| 63) Chlorobenzene-d5        | 11.865 | 117            | 292646   | 50.000 | ug/l     | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 13.794 | 152            | 106369   | 50.000 | ug/l     | 0.00     |
|                             |        |                |          |        |          |          |
| System Monitoring Compounds |        |                |          |        |          |          |
| 33) 1,2-Dichloroethane-d4   | 8.577  | 65             | 148132   | 57.312 | ug/l     | 0.00     |
| Spiked Amount               | 50.000 | Range 74 - 125 | Recovery | =      | 114.620% |          |
| 35) Dibromofluoromethane    | 8.165  | 113            | 111026   | 52.849 | ug/l     | 0.00     |
| Spiked Amount               | 50.000 | Range 75 - 124 | Recovery | =      | 105.700% |          |
| 50) Toluene-d8              | 10.565 | 98             | 396088   | 53.065 | ug/l     | 0.00     |
| Spiked Amount               | 50.000 | Range 86 - 113 | Recovery | =      | 106.140% |          |
| 62) 4-Bromofluorobenzene    | 12.847 | 95             | 119098   | 46.645 | ug/l     | 0.00     |
| Spiked Amount               | 50.000 | Range 77 - 121 | Recovery | =      | 93.280%  |          |
|                             |        |                |          |        |          |          |
| Target Compounds            |        |                |          |        |          |          |
| 16) Acetone                 | 4.430  | 43             | 73891    | 88.479 | ug/l     | 99       |
| 25) 2-Butanone              | 7.489  | 43             | 9272     | 7.545  | ug/l #   | 86       |
| 29) Tetrahydrofuran         | 7.847  | 42             | 3958     | 5.080  | ug/l     | 95       |
| 43) Isopropyl Acetate       | 8.688  | 43             | 23346    | 4.896  | ug/l #   | 80       |
| -----                       |        |                |          |        |          |          |

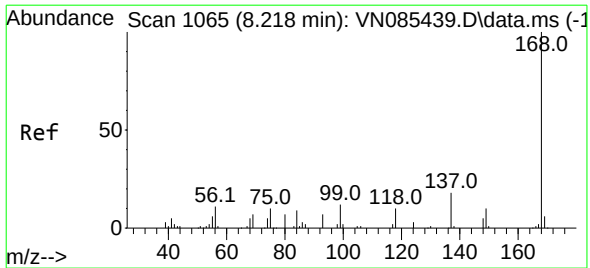
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085559.D  
Acq On : 29 Jan 2025 15:53  
Operator : JC\MD  
Sample : Q1207-10  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 14 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-4.5-012725

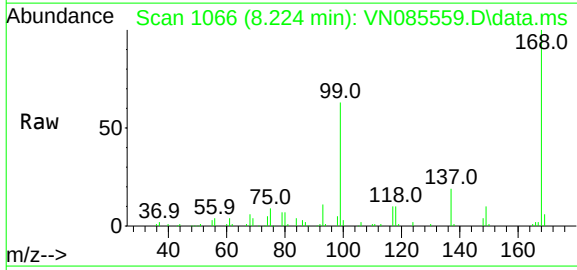
Quant Time: Jan 30 00:37:10 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration



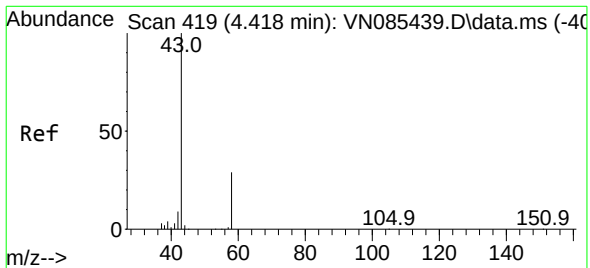
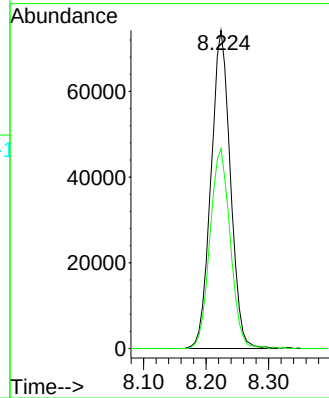
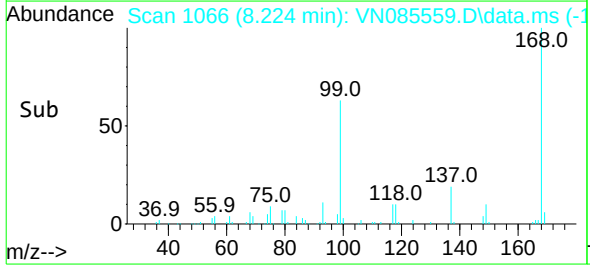


#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. 0.006 min  
Lab File: VN085559.D  
Acq: 29 Jan 2025 15:53

Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-4.5-012725

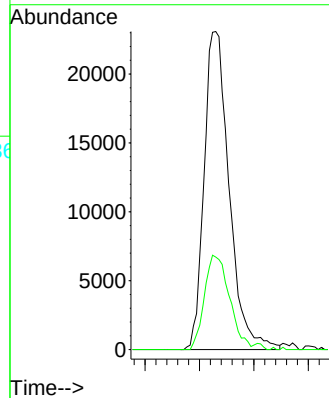
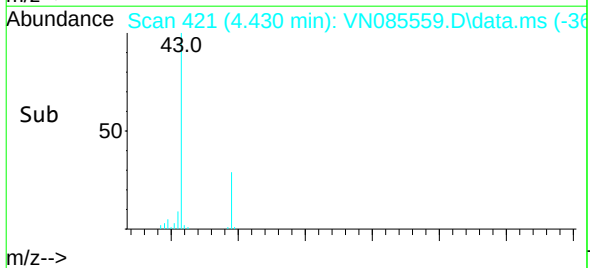
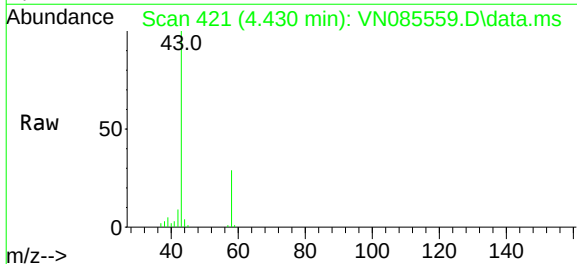


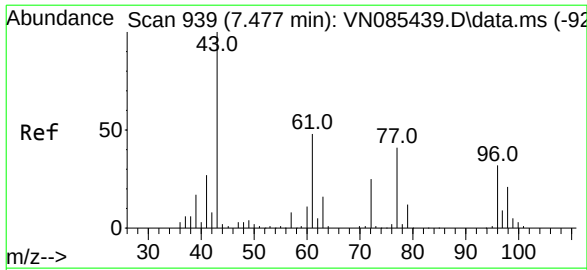
Tgt Ion:168 Resp: 160119  
Ion Ratio Lower Upper  
168 100  
99 62.8 53.6 80.4



#16  
Acetone  
Concen: 88.479 ug/l  
RT: 4.430 min Scan# 421  
Delta R.T. 0.012 min  
Lab File: VN085559.D  
Acq: 29 Jan 2025 15:53

Tgt Ion: 43 Resp: 73891  
Ion Ratio Lower Upper  
43 100  
58 29.1 23.8 35.6





#25

2-Butanone

Concen: 7.545 ug/l

RT: 7.489 min Scan# 941

Delta R.T. 0.012 min

Lab File: VN085559.D

Acq: 29 Jan 2025 15:53

Instrument :

MSVOA\_N

ClientSampleId :

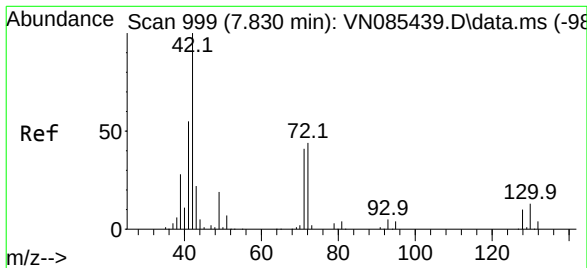
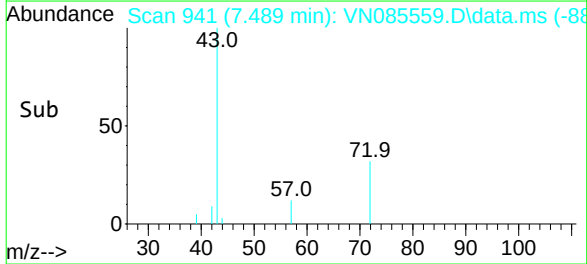
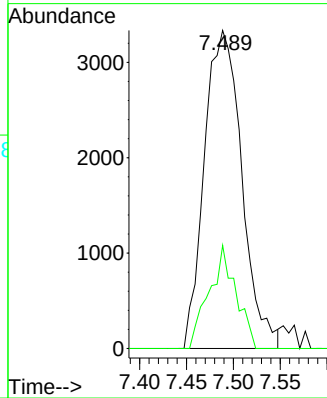
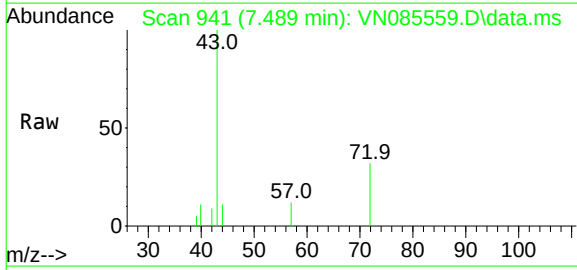
JPP-4.5-012725

Tgt Ion: 43 Resp: 9272

Ion Ratio Lower Upper

43 100

72 32.4 20.2 30.4#



#29

Tetrahydrofuran

Concen: 5.080 ug/l

RT: 7.847 min Scan# 1002

Delta R.T. 0.018 min

Lab File: VN085559.D

Acq: 29 Jan 2025 15:53

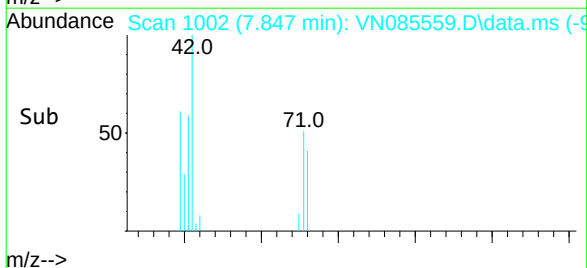
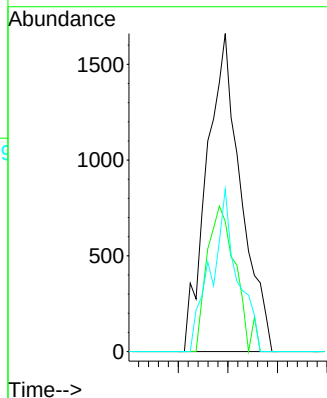
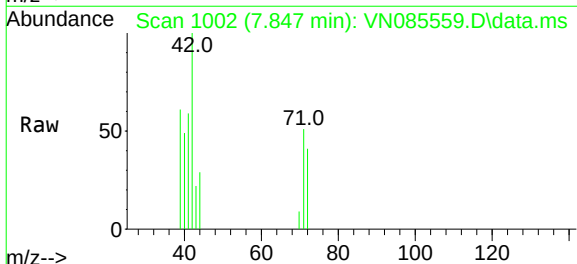
Tgt Ion: 42 Resp: 3958

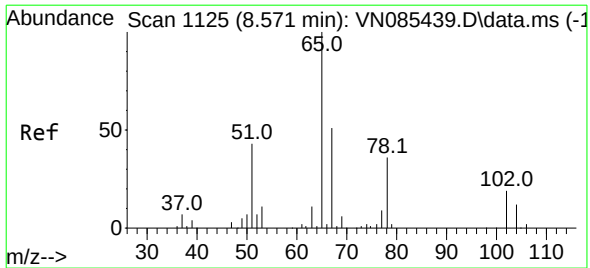
Ion Ratio Lower Upper

42 100

72 38.2 34.2 51.2

71 39.4 32.5 48.7





#33

1,2-Dichloroethane-d4

Concen: 57.312 ug/l

RT: 8.577 min Scan# 11

Delta R.T. 0.006 min

Lab File: VN085559.D

Acq: 29 Jan 2025 15:53

Instrument :

MSVOA\_N

ClientSampleId :

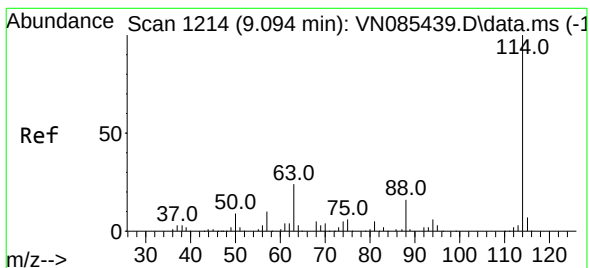
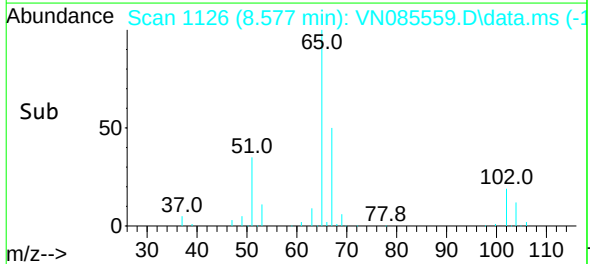
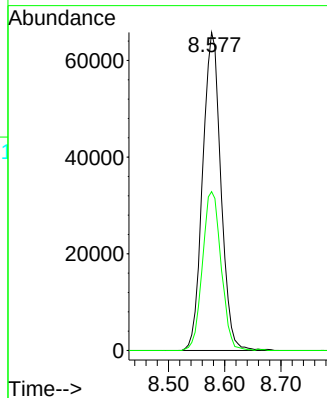
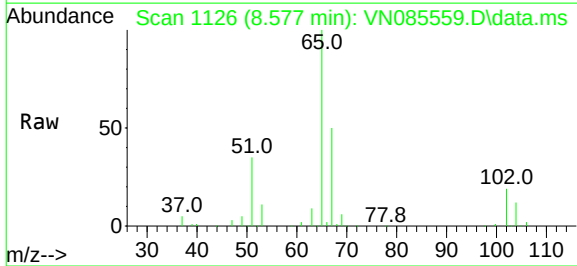
JPP-4.5-012725

Tgt Ion: 65 Resp: 148132

Ion Ratio Lower Upper

65 100

67 51.2 0.0 101.6



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. 0.006 min

Lab File: VN085559.D

Acq: 29 Jan 2025 15:53

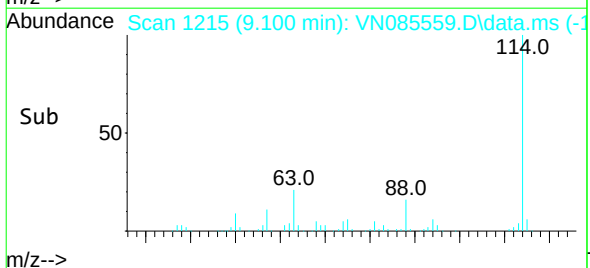
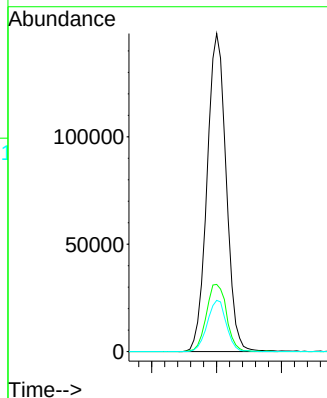
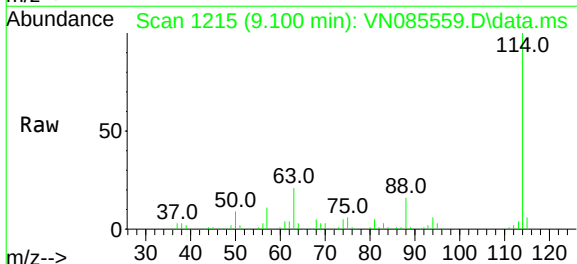
Tgt Ion: 114 Resp: 302819

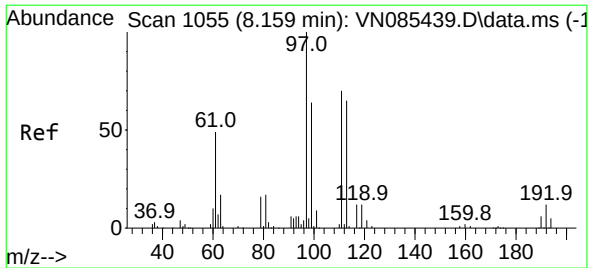
Ion Ratio Lower Upper

114 100

63 21.1 0.0 47.6

88 16.1 0.0 32.6





#35

Dibromofluoromethane

Concen: 52.849 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. 0.006 min

Lab File: VN085559.D

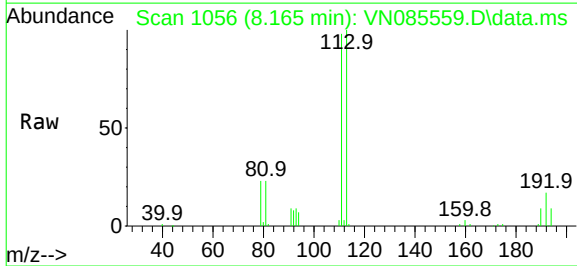
Acq: 29 Jan 2025 15:53

Instrument :

MSVOA\_N

ClientSampleId :

JPP-4.5-012725



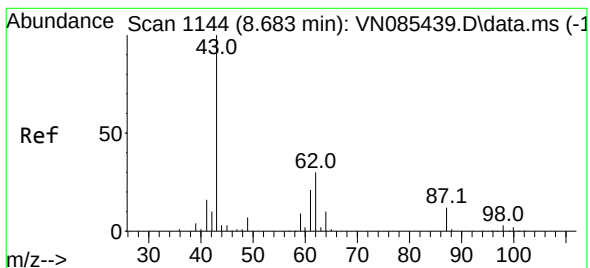
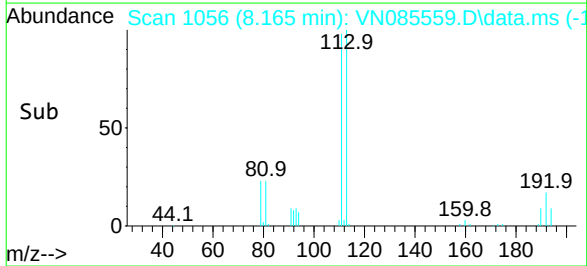
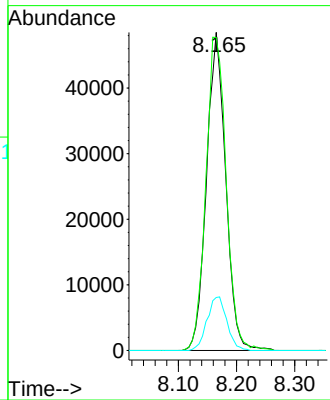
Tgt Ion:113 Resp: 111026

Ion Ratio Lower Upper

113 100

111 104.7 82.7 124.1

192 17.4 14.3 21.5



#43

Isopropyl Acetate

Concen: 4.896 ug/l

RT: 8.688 min Scan# 1145

Delta R.T. 0.006 min

Lab File: VN085559.D

Acq: 29 Jan 2025 15:53

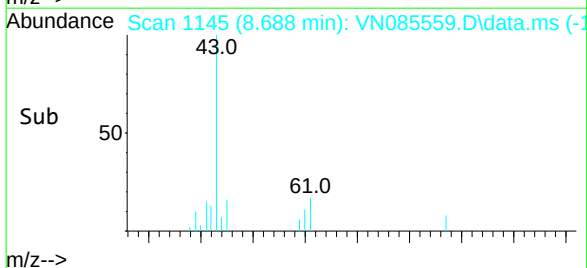
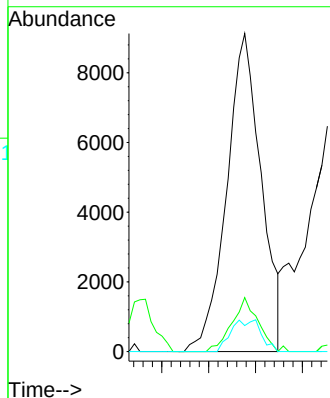
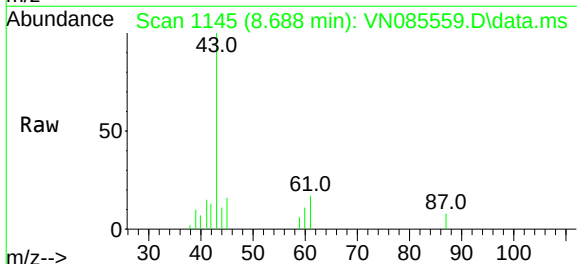
Tgt Ion: 43 Resp: 23346

Ion Ratio Lower Upper

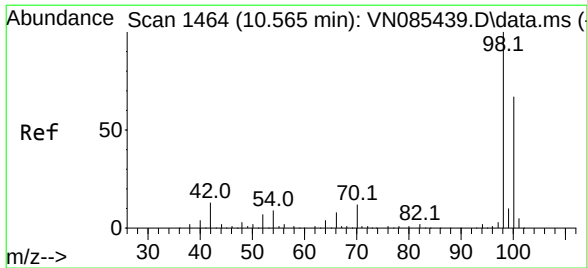
43 100

61 13.0 20.7 31.1#

87 8.7 9.8 14.8#







#50

Toluene-d8

Concen: 53.065 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. 0.000 min

Lab File: VN085559.D

Acq: 29 Jan 2025 15:53

Instrument :

MSVOA\_N

ClientSampleId :

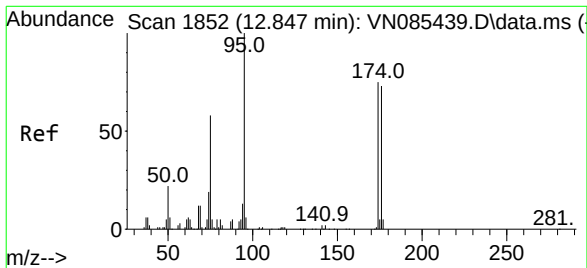
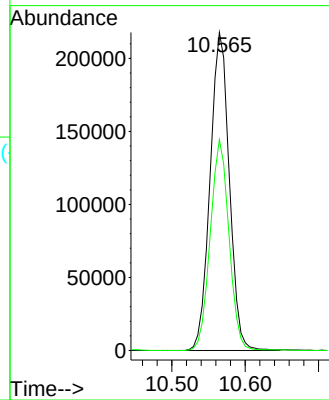
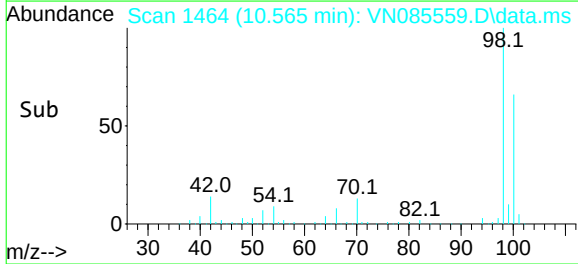
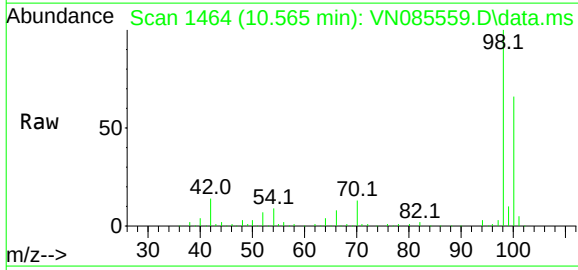
JPP-4.5-012725

Tgt Ion: 98 Resp: 396088

Ion Ratio Lower Upper

98 100

100 64.7 52.2 78.4



#62

4-Bromofluorobenzene

Concen: 46.645 ug/l

RT: 12.847 min Scan# 1852

Delta R.T. 0.000 min

Lab File: VN085559.D

Acq: 29 Jan 2025 15:53

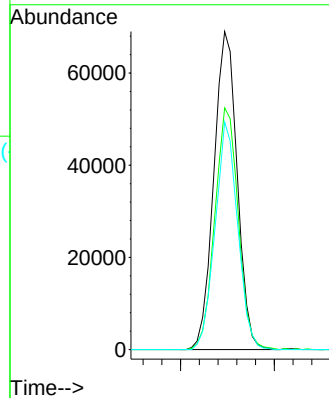
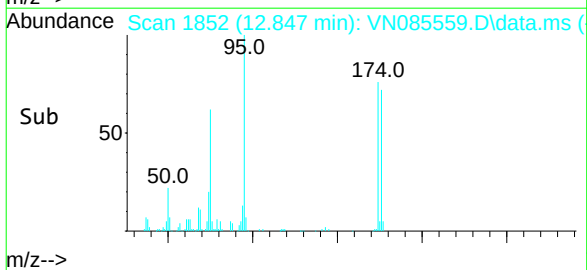
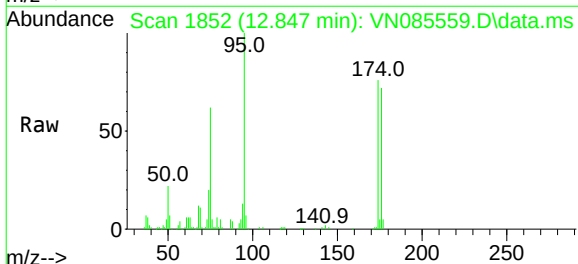
Tgt Ion: 95 Resp: 119098

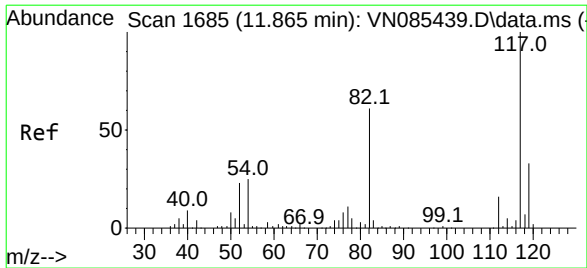
Ion Ratio Lower Upper

95 100

174 76.3 0.0 145.0

176 69.2 0.0 142.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 16

Delta R.T. 0.000 min

Lab File: VN085559.D

Acq: 29 Jan 2025 15:53

Instrument :

MSVOA\_N

ClientSampleId :

JPP-4.5-012725

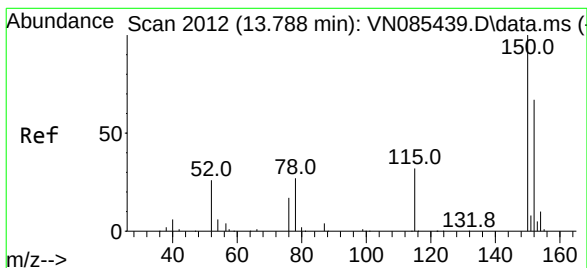
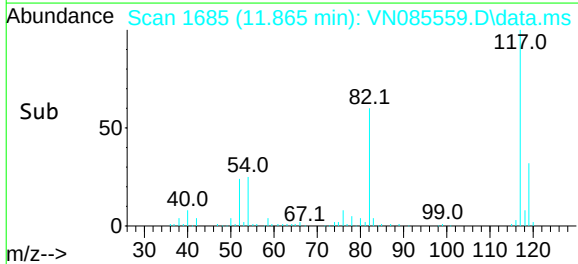
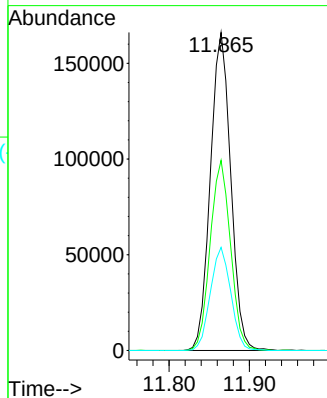
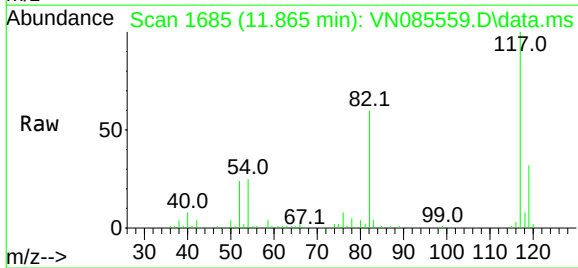
Tgt Ion:117 Resp: 292646

Ion Ratio Lower Upper

117 100

82 59.8 48.6 72.8

119 32.4 26.6 39.8



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.794 min Scan# 2013

Delta R.T. 0.006 min

Lab File: VN085559.D

Acq: 29 Jan 2025 15:53

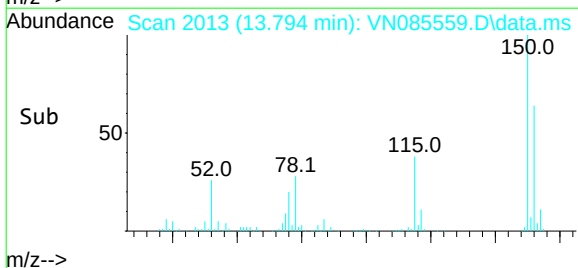
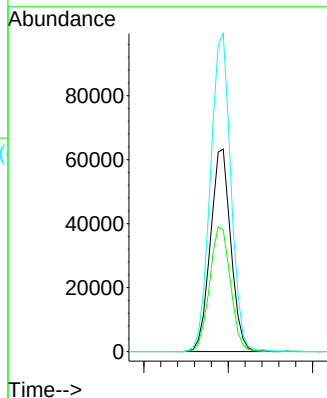
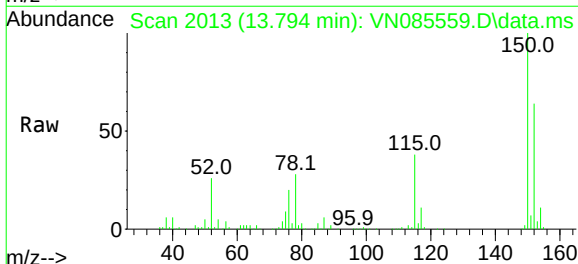
Tgt Ion:152 Resp: 106369

Ion Ratio Lower Upper

152 100

115 63.2 31.1 93.3

150 157.6 0.0 343.6



## Report of Analysis

|                    |                                       |        |      |                 |          |    |
|--------------------|---------------------------------------|--------|------|-----------------|----------|----|
| Client:            | RU2 Engineering, LLC                  |        |      | Date Collected: | 01/27/25 |    |
| Project:           | NYCDDC SANTWOBR Brooklyn Bridge BBMCR |        |      | Date Received:  | 01/28/25 |    |
| Client Sample ID:  | JPP-16.2-012725                       |        |      | SDG No.:        | Q1207    |    |
| Lab Sample ID:     | Q1207-14                              |        |      | Matrix:         | TCLP     |    |
| Analytical Method: | SW8260                                |        |      | % Solid:        | 0        |    |
| Sample Wt/Vol:     | 5                                     | Units: | mL   | Final Vol:      | 5000     | uL |
| Soil Aliquot Vol:  |                                       |        | uL   | Test:           | TCLP VOA |    |
| GC Column:         | RXI-624                               | ID :   | 0.25 | Level :         | LOW      |    |
| Prep Method :      | SW5035                                |        |      |                 |          |    |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN085560.D        | 1         |           | 01/29/25 16:17 | VN012925      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL      | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|----------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |          |            |         |
| 75-01-4                   | Vinyl Chloride         | 5.00   | U         | 0.34     | 5.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 5.00   | U         | 0.26     | 5.00       | ug/L    |
| 78-93-3                   | 2-Butanone             | 6.00   | J         | 1.30     | 25.0       | ug/L    |
| 56-23-5                   | Carbon Tetrachloride   | 5.00   | U         | 0.25     | 5.00       | ug/L    |
| 67-66-3                   | Chloroform             | 5.00   | U         | 0.26     | 5.00       | ug/L    |
| 71-43-2                   | Benzene                | 5.00   | U         | 0.16     | 5.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 5.00   | U         | 0.24     | 5.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 5.00   | U         | 0.32     | 5.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 5.00   | U         | 0.25     | 5.00       | ug/L    |
| 108-90-7                  | Chlorobenzene          | 5.00   | U         | 0.13     | 5.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |          |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 57.5   |           | 74 - 125 | 115%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 52.5   |           | 75 - 124 | 105%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 53.3   |           | 86 - 113 | 107%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 44.0   |           | 77 - 121 | 88%        | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |          |            |         |
| 363-72-4                  | Pentafluorobenzene     | 161000 | 8.224     |          |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 309000 | 9.1       |          |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 294000 | 11.865    |          |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 108000 | 13.788    |          |            |         |

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:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085560.D  
 Acq On : 29 Jan 2025 16:17  
 Operator : JC\MD  
 Sample : Q1207-14  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 JPP-16.2-012725

Quant Time: Jan 30 00:37:40 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

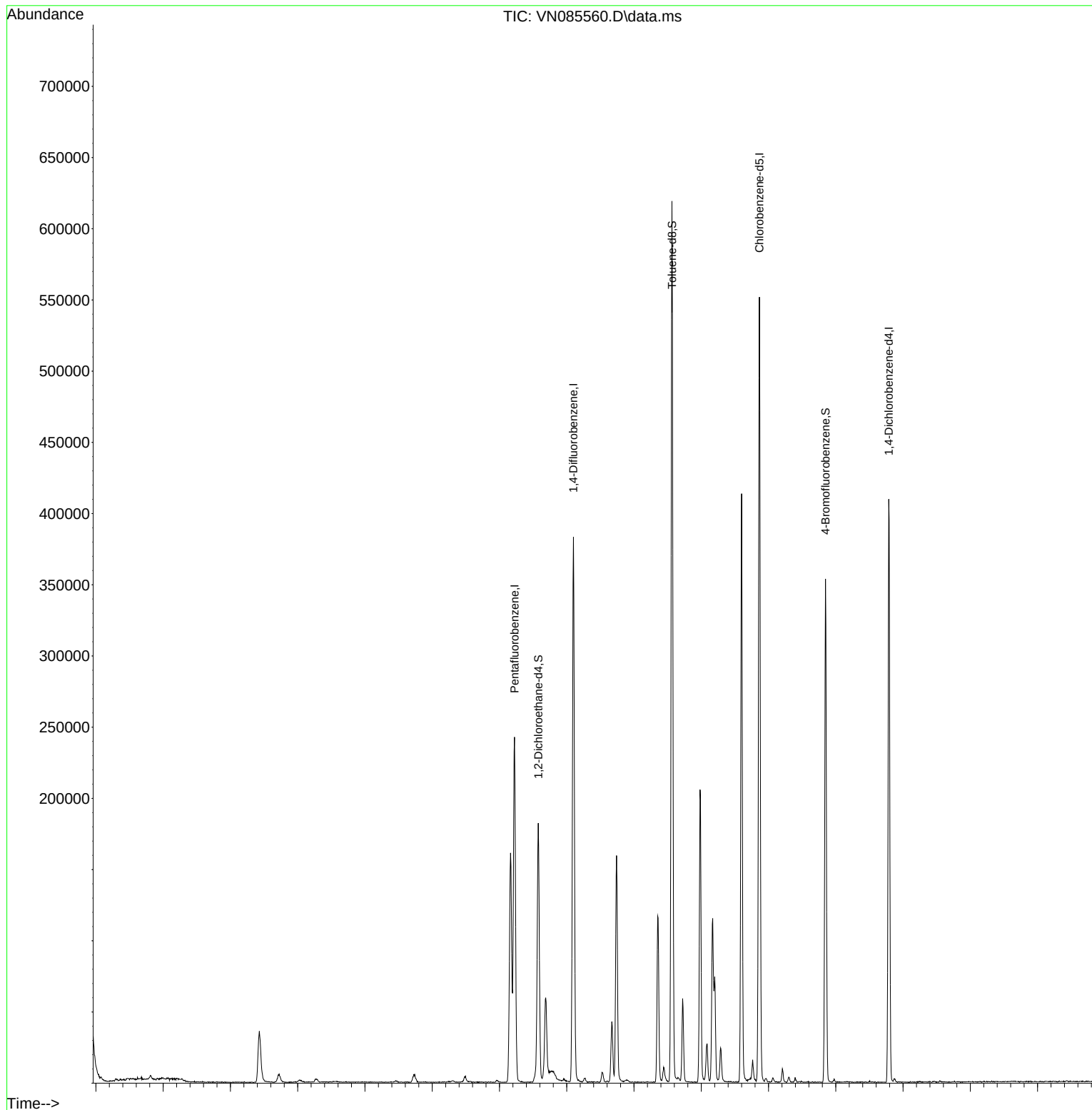
| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Pentafluorobenzene       | 8.224  | 168   | 161120   | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene     | 9.100  | 114   | 308507   | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5        | 11.865 | 117   | 293568   | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 13.788 | 152   | 107567   | 50.000   | ug/l   | 0.00     |
| System Monitoring Compounds |        |       |          |          |        |          |
| 33) 1,2-Dichloroethane-d4   | 8.577  | 65    | 149611   | 57.525   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 74 - 125 | Recovery | =      | 115.040% |
| 35) Dibromofluoromethane    | 8.165  | 113   | 112460   | 52.545   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =      | 105.080% |
| 50) Toluene-d8              | 10.565 | 98    | 405412   | 53.313   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 86 - 113 | Recovery | =      | 106.620% |
| 62) 4-Bromofluorobenzene    | 12.847 | 95    | 114545   | 44.034   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 77 - 121 | Recovery | =      | 88.060%  |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          | Qvalue |          |
| 16) Acetone                 | 4.430  | 43    | 70089    | 83.405   | ug/l   | 98       |
| 25) 2-Butanone              | 7.494  | 43    | 7426     | 6.005    | ug/l   | 96       |
| 43) Isopropyl Acetate       | 8.688  | 43    | 72365    | 14.895   | ug/l # | 84       |
| -----                       |        |       |          |          |        |          |

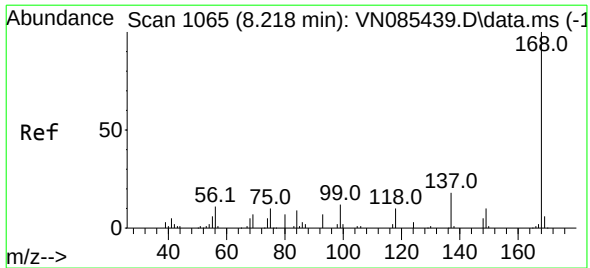
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085560.D  
Acq On : 29 Jan 2025 16:17  
Operator : JC\MD  
Sample : Q1207-14  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 15 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-16.2-012725

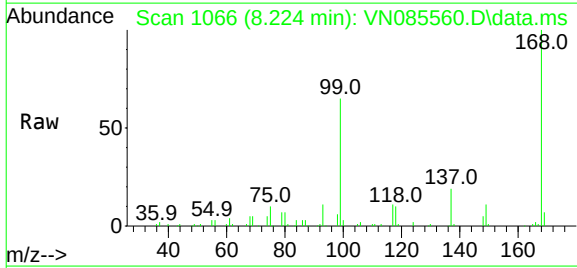
Quant Time: Jan 30 00:37:40 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration



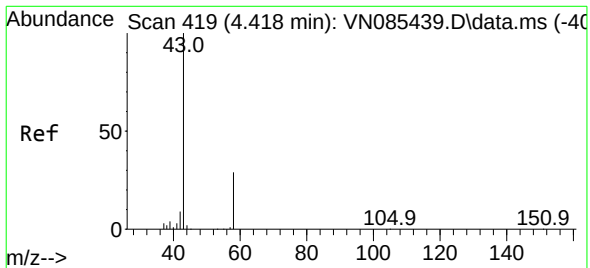
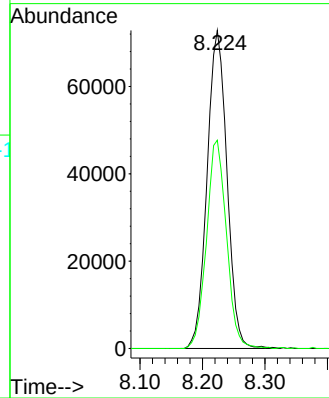
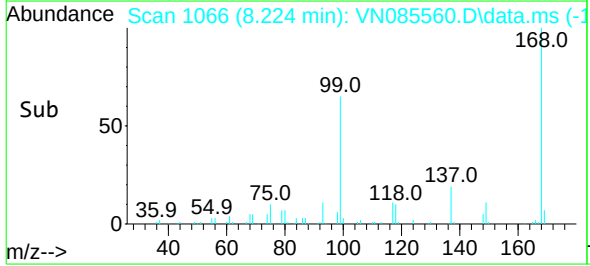


#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. 0.006 min  
Lab File: VN085560.D  
Acq: 29 Jan 2025 16:17

Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-16.2-012725

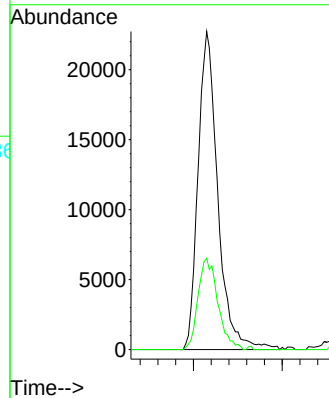
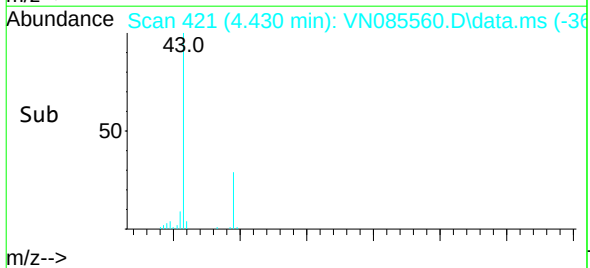
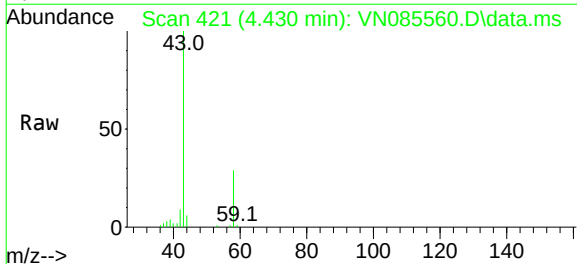


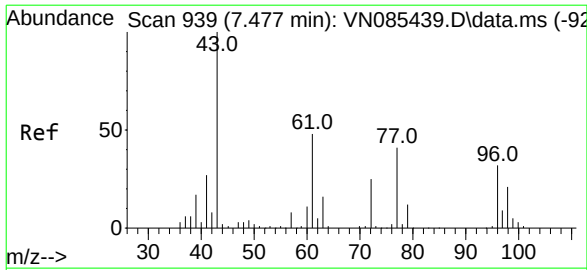
Tgt Ion:168 Resp: 161120  
Ion Ratio Lower Upper  
168 100  
99 65.5 53.6 80.4



#16  
Acetone  
Concen: 83.405 ug/l  
RT: 4.430 min Scan# 421  
Delta R.T. 0.012 min  
Lab File: VN085560.D  
Acq: 29 Jan 2025 16:17

Tgt Ion: 43 Resp: 70089  
Ion Ratio Lower Upper  
43 100  
58 28.7 23.8 35.6





#25

2-Butanone

Concen: 6.005 ug/l

RT: 7.494 min Scan# 94

Delta R.T. 0.018 min

Lab File: VN085560.D

Acq: 29 Jan 2025 16:17

Instrument :

MSVOA\_N

ClientSampleId :

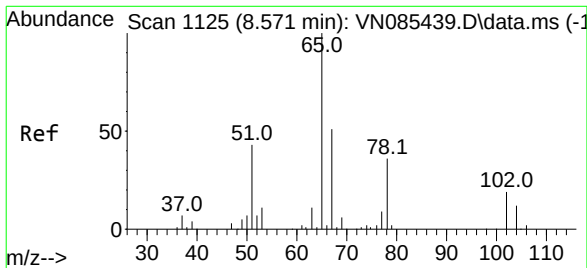
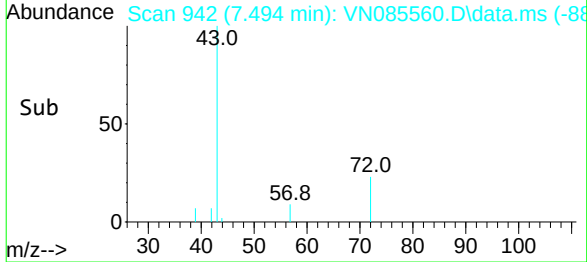
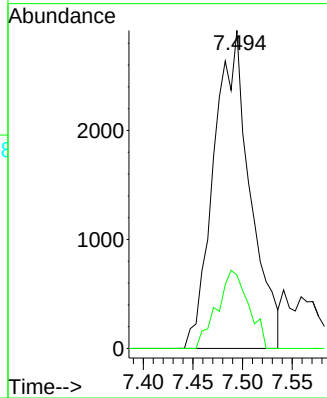
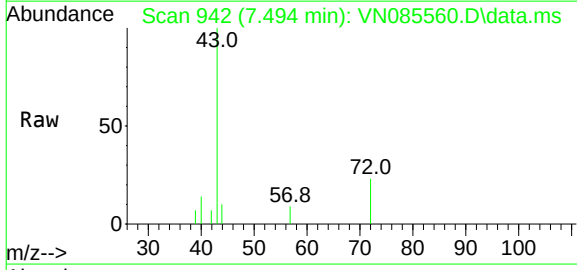
JPP-16.2-012725

Tgt Ion: 43 Resp: 7426

Ion Ratio Lower Upper

43 100

72 23.1 20.2 30.4



#33

1,2-Dichloroethane-d4

Concen: 57.525 ug/l

RT: 8.577 min Scan# 1126

Delta R.T. 0.006 min

Lab File: VN085560.D

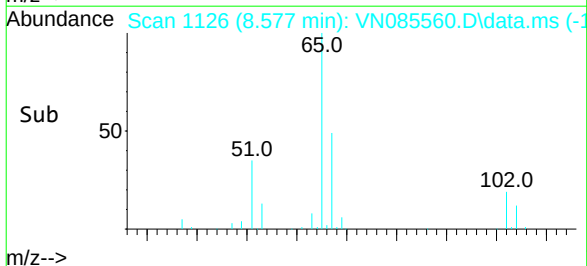
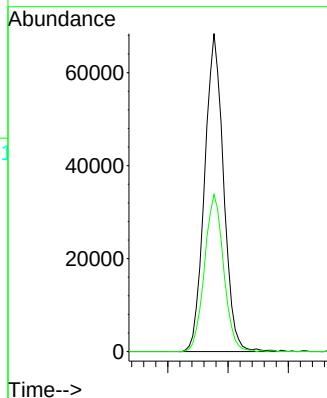
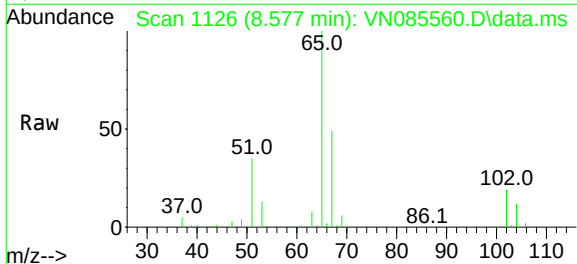
Acq: 29 Jan 2025 16:17

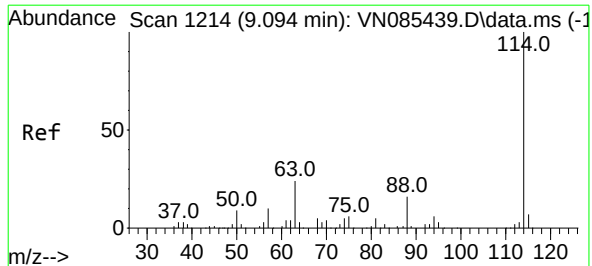
Tgt Ion: 65 Resp: 149611

Ion Ratio Lower Upper

65 100

67 49.8 0.0 101.6





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 12

Delta R.T. 0.006 min

Lab File: VN085560.D

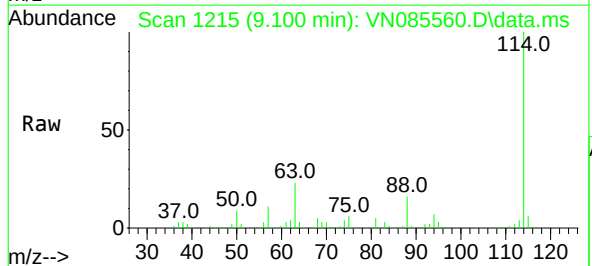
Acq: 29 Jan 2025 16:17

Instrument :

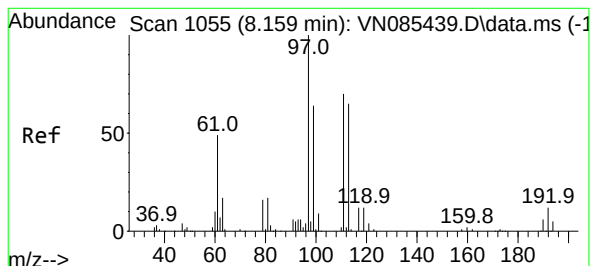
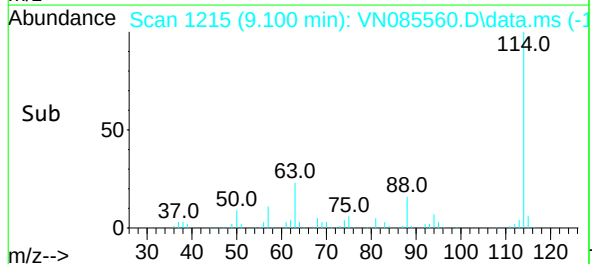
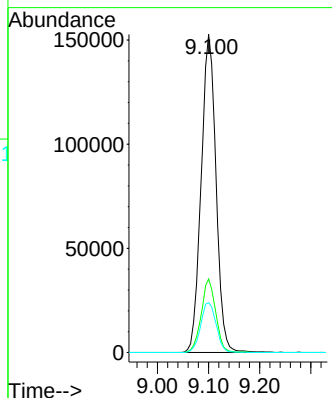
MSVOA\_N

ClientSampleId :

JPP-16.2-012725



|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 114   | Resp: | 308507 |
| Ion      | Ratio | Lower | Upper  |
| 114      | 100   |       |        |
| 63       | 23.1  | 0.0   | 47.6   |
| 88       | 15.7  | 0.0   | 32.6   |



#35

Dibromofluoromethane

Concen: 52.545 ug/l

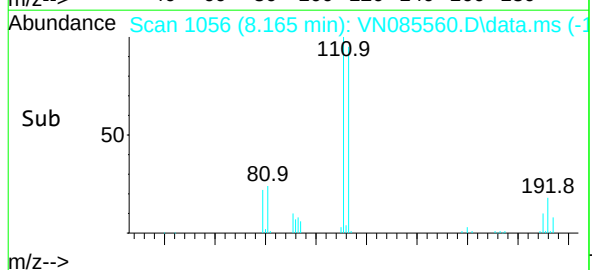
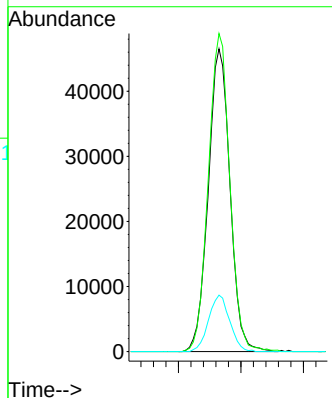
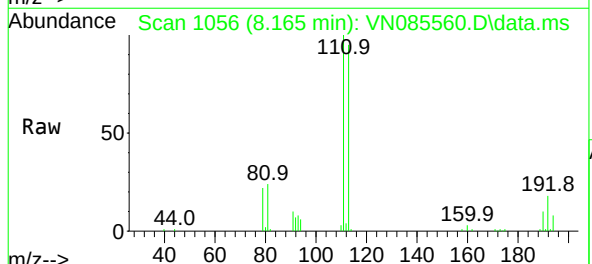
RT: 8.165 min Scan# 1056

Delta R.T. 0.006 min

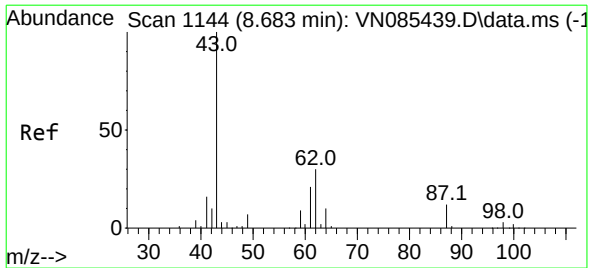
Lab File: VN085560.D

Acq: 29 Jan 2025 16:17

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 113   | Resp: | 112460 |
| Ion      | Ratio | Lower | Upper  |
| 113      | 100   |       |        |
| 111      | 103.7 | 82.7  | 124.1  |
| 192      | 18.1  | 14.3  | 21.5   |







#43

Isopropyl Acetate

Concen: 14.895 ug/l

RT: 8.688 min Scan# 1144

Delta R.T. 0.006 min

Lab File: VN085560.D

Acq: 29 Jan 2025 16:17

Instrument :

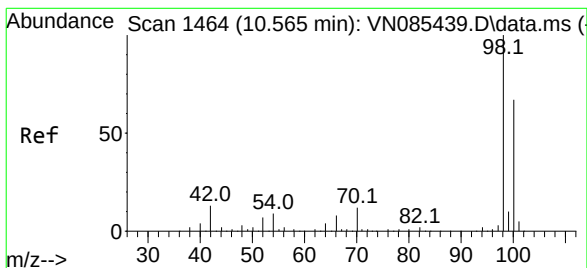
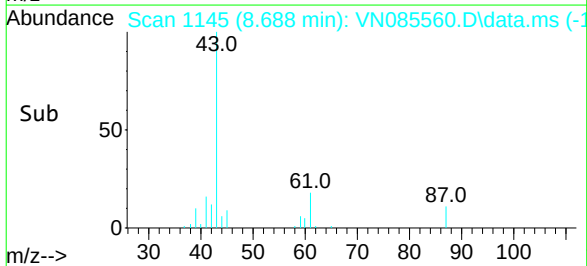
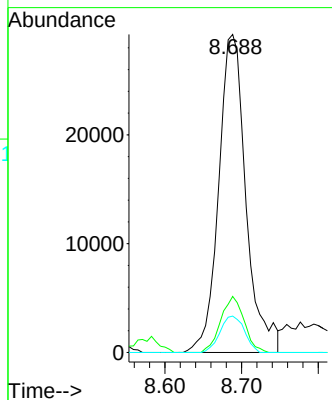
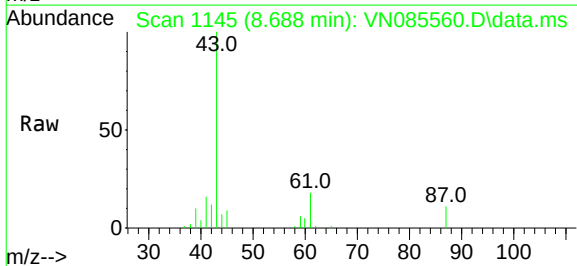
MSVOA\_N

ClientSampleId :

JPP-16.2-012725

Tgt Ion: 43 Resp: 72365

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 61  | 15.1  | 20.7  | 31.1  |
| 87  | 10.2  | 9.8   | 14.8  |



#50

Toluene-d8

Concen: 53.313 ug/l

RT: 10.565 min Scan# 1464

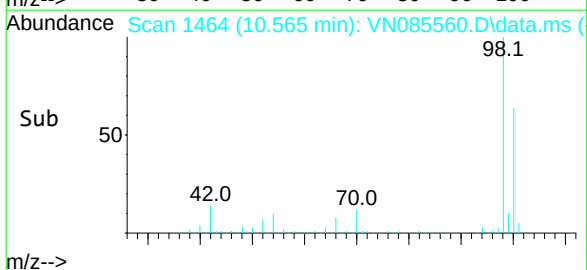
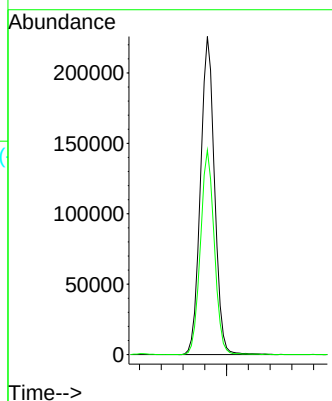
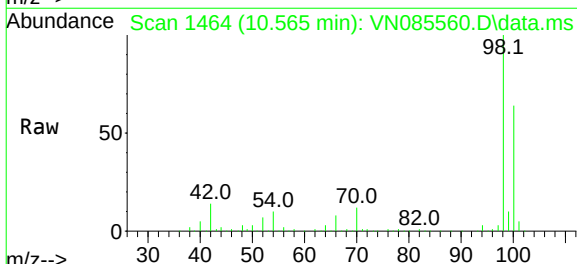
Delta R.T. -0.000 min

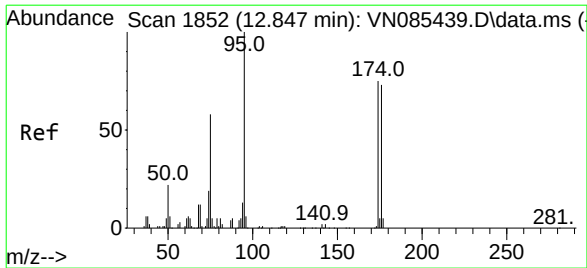
Lab File: VN085560.D

Acq: 29 Jan 2025 16:17

Tgt Ion: 98 Resp: 405412

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 98  | 100   |       |       |
| 100 | 63.4  | 52.2  | 78.4  |

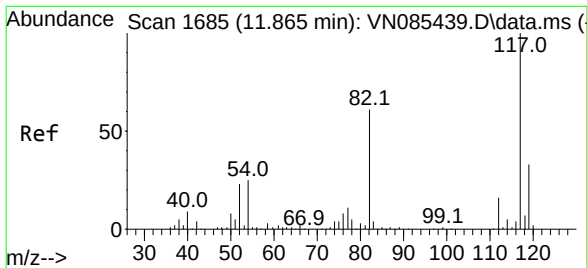
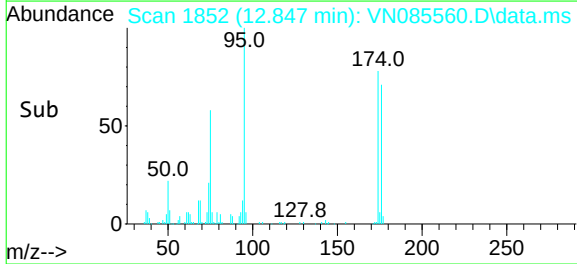
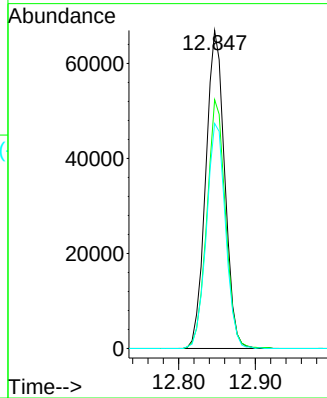
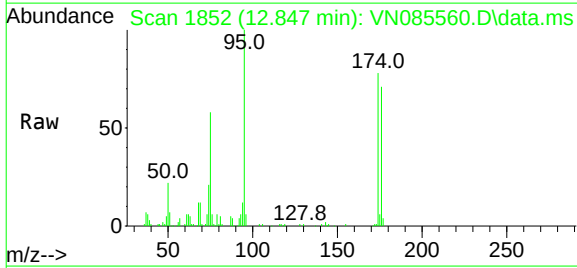




#62  
4-Bromofluorobenzene  
Concen: 44.034 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. -0.000 min  
Lab File: VN085560.D  
Acq: 29 Jan 2025 16:17

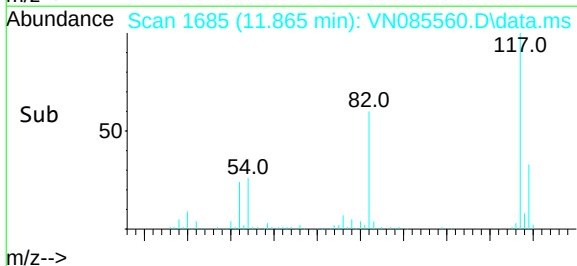
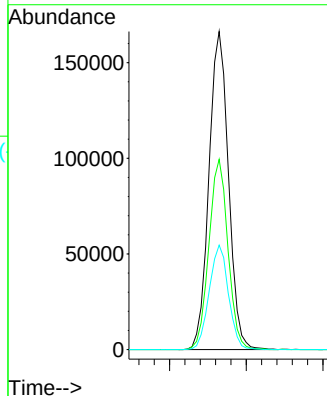
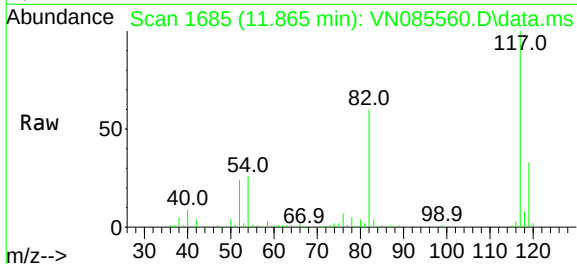
Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-16.2-012725

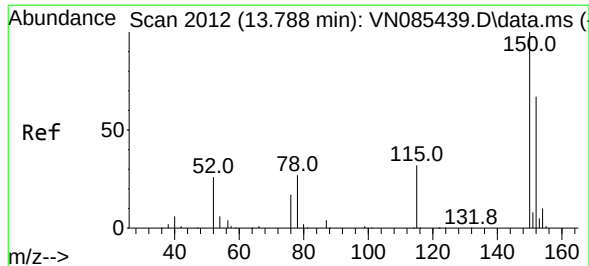
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 77.0  | 0.0   | 145.0 |
| 176     | 71.2  | 0.0   | 142.4 |



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. -0.000 min  
Lab File: VN085560.D  
Acq: 29 Jan 2025 16:17

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 59.8  | 48.6  | 72.8  |
| 119     | 32.8  | 26.6  | 39.8  |





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.788 min Scan# 20

Delta R.T. -0.000 min

Lab File: VN085560.D

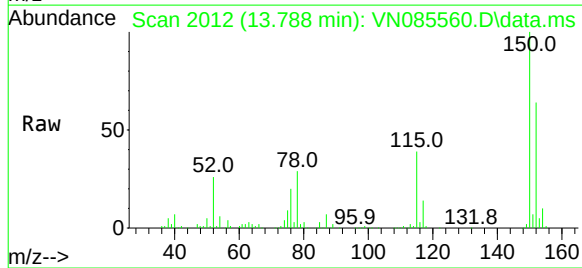
Acq: 29 Jan 2025 16:17

Instrument :

MSVOA\_N

ClientSampleId :

JPP-16.2-012725



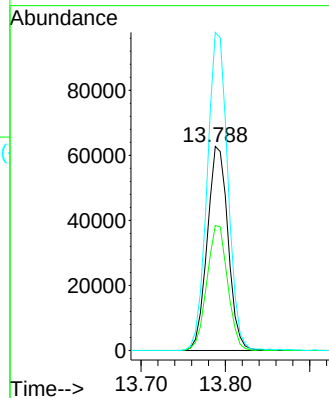
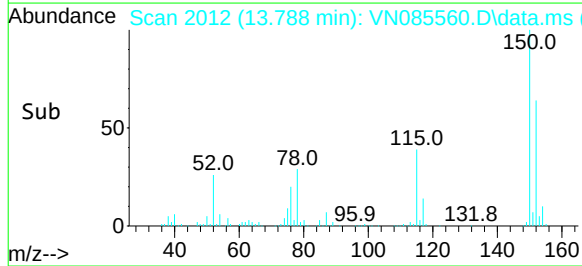
Tgt Ion:152 Resp: 107567

Ion Ratio Lower Upper

152 100

115 61.0 31.1 93.3

150 154.7 0.0 343.6



## Report of Analysis

|                    |                                       |        |      |                 |          |    |
|--------------------|---------------------------------------|--------|------|-----------------|----------|----|
| Client:            | RU2 Engineering, LLC                  |        |      | Date Collected: | 01/27/25 |    |
| Project:           | NYCDDC SANTWOBR Brooklyn Bridge BBMCR |        |      | Date Received:  | 01/28/25 |    |
| Client Sample ID:  | JPP-20.2-012725                       |        |      | SDG No.:        | Q1207    |    |
| Lab Sample ID:     | Q1207-18                              |        |      | Matrix:         | TCLP     |    |
| Analytical Method: | SW8260                                |        |      | % Solid:        | 0        |    |
| Sample Wt/Vol:     | 5                                     | Units: | mL   | Final Vol:      | 5000     | uL |
| Soil Aliquot Vol:  |                                       |        | uL   | Test:           | TCLP VOA |    |
| GC Column:         | RXI-624                               | ID :   | 0.25 | Level :         | LOW      |    |
| Prep Method :      | SW5035                                |        |      |                 |          |    |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN085561.D        | 1         |           | 01/29/25 16:41 | VN012925      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL      | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|----------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |          |            |         |
| 75-01-4                   | Vinyl Chloride         | 5.00   | U         | 0.34     | 5.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 5.00   | U         | 0.26     | 5.00       | ug/L    |
| 78-93-3                   | 2-Butanone             | 5.50   | J         | 1.30     | 25.0       | ug/L    |
| 56-23-5                   | Carbon Tetrachloride   | 5.00   | U         | 0.25     | 5.00       | ug/L    |
| 67-66-3                   | Chloroform             | 5.00   | U         | 0.26     | 5.00       | ug/L    |
| 71-43-2                   | Benzene                | 5.00   | U         | 0.16     | 5.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 5.00   | U         | 0.24     | 5.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 5.00   | U         | 0.32     | 5.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 5.00   | U         | 0.25     | 5.00       | ug/L    |
| 108-90-7                  | Chlorobenzene          | 5.00   | U         | 0.13     | 5.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |          |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 58.3   |           | 74 - 125 | 117%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 51.7   |           | 75 - 124 | 103%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 53.5   |           | 86 - 113 | 107%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 44.3   |           | 77 - 121 | 89%        | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |          |            |         |
| 363-72-4                  | Pentafluorobenzene     | 160000 | 8.224     |          |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 312000 | 9.1       |          |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 299000 | 11.865    |          |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 104000 | 13.788    |          |            |         |

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:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085561.D  
 Acq On : 29 Jan 2025 16:41  
 Operator : JC\MD  
 Sample : Q1207-18  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 JPP-20.2-012725

Quant Time: Jan 30 00:38:06 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

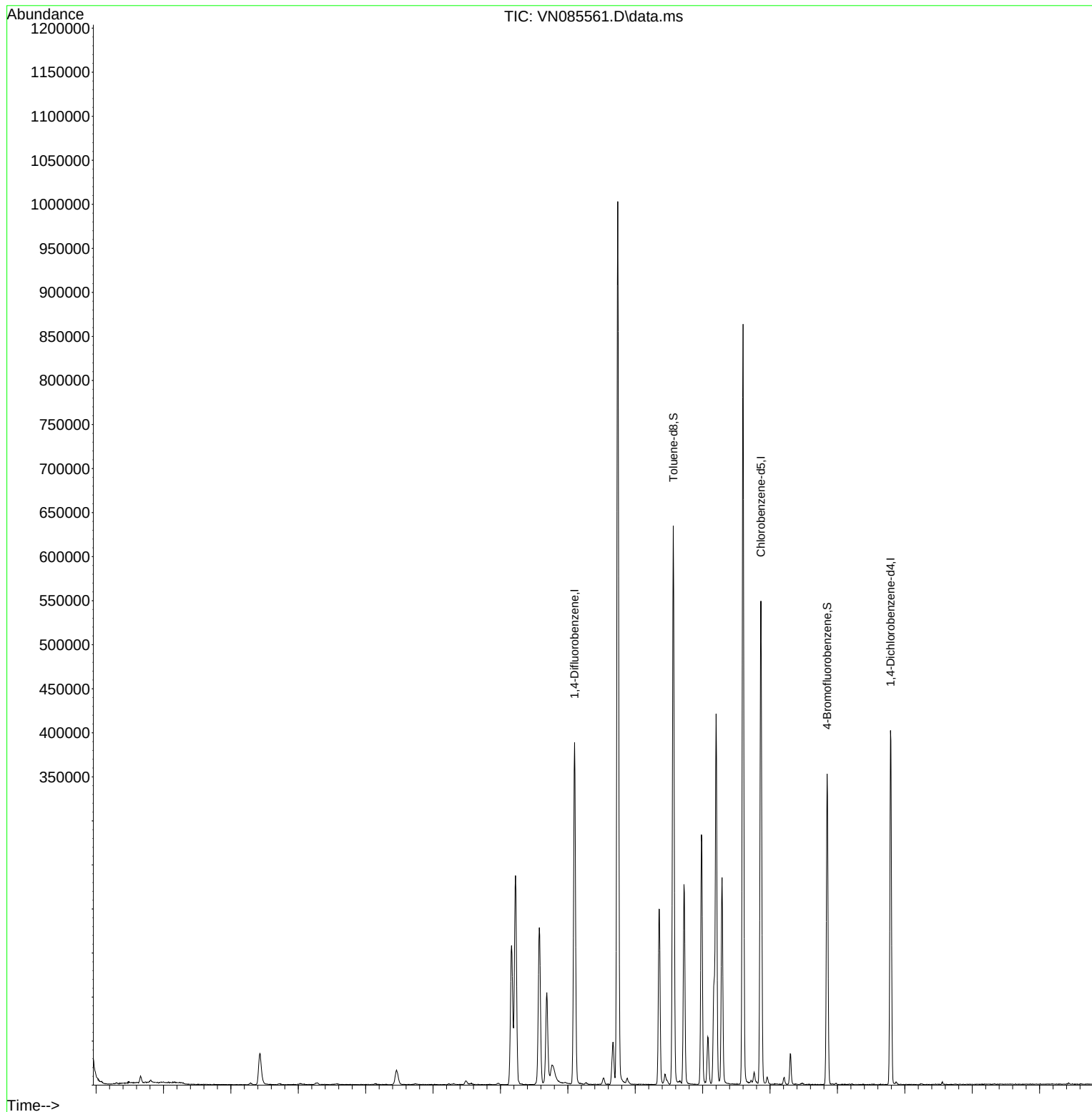
| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Pentafluorobenzene       | 8.224  | 168   | 159671   | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene     | 9.100  | 114   | 312230   | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5        | 11.865 | 117   | 298965   | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 13.788 | 152   | 104378   | 50.000   | ug/l   | 0.00     |
| System Monitoring Compounds |        |       |          |          |        |          |
| 33) 1,2-Dichloroethane-d4   | 8.577  | 65    | 150154   | 58.257   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 74 - 125 | Recovery | =      | 116.520% |
| 35) Dibromofluoromethane    | 8.165  | 113   | 111970   | 51.692   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =      | 103.380% |
| 50) Toluene-d8              | 10.565 | 98    | 411896   | 53.520   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 86 - 113 | Recovery | =      | 107.040% |
| 62) 4-Bromofluorobenzene    | 12.847 | 95    | 116737   | 44.342   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 77 - 121 | Recovery | =      | 88.680%  |
| Target Compounds            |        |       |          |          |        |          |
| 16) Acetone                 | 4.430  | 43    | 67993    | 81.645   | ug/l   | 98       |
| 25) 2-Butanone              | 7.488  | 43    | 6742     | 5.501    | ug/l   | 92       |
| 43) Isopropyl Acetate       | 8.688  | 43    | 115617   | 23.514   | ug/l # | 87       |
| -----                       |        |       |          |          |        |          |

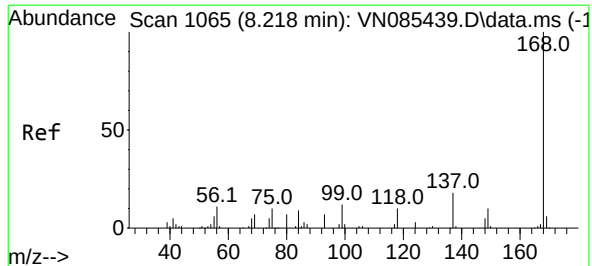
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085561.D  
Acq On : 29 Jan 2025 16:41  
Operator : JC\MD  
Sample : Q1207-18  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-20.2-012725

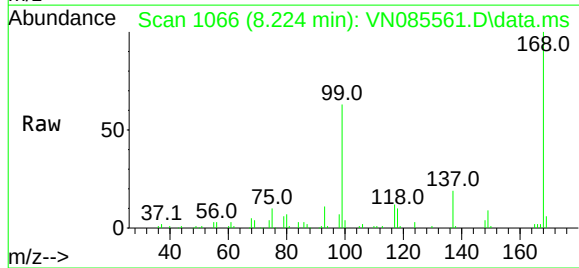
Quant Time: Jan 30 00:38:06 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration



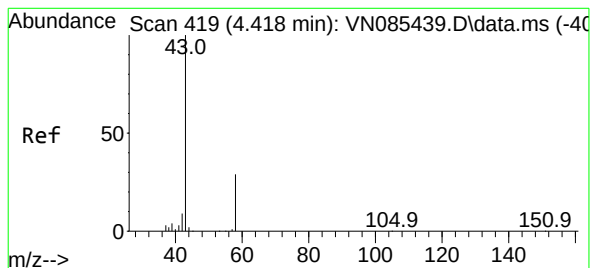
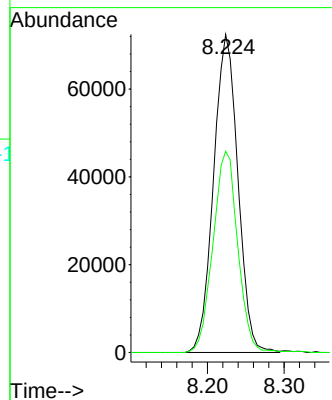
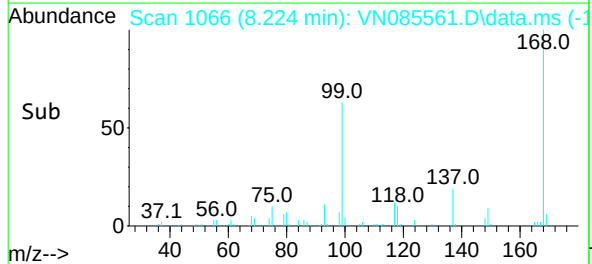


#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. 0.006 min  
Lab File: VN085561.D  
Acq: 29 Jan 2025 16:41

Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-20.2-012725

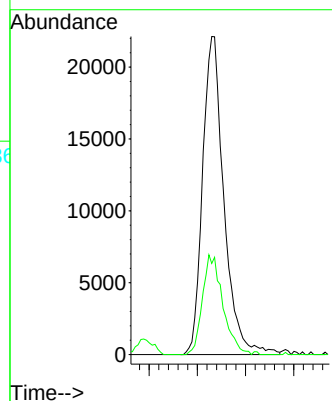
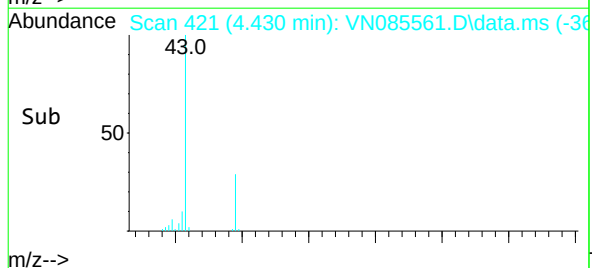
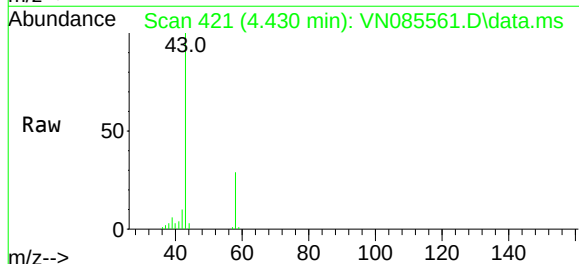


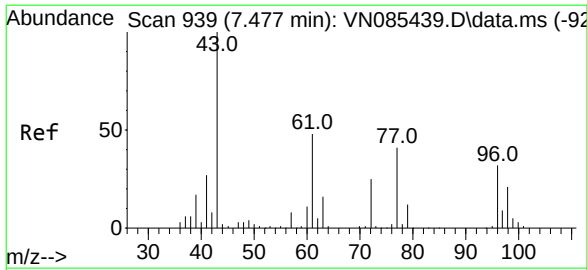
Tgt Ion:168 Resp: 159671  
Ion Ratio Lower Upper  
168 100  
99 63.3 53.6 80.4



#16  
Acetone  
Concen: 81.645 ug/l  
RT: 4.430 min Scan# 421  
Delta R.T. 0.012 min  
Lab File: VN085561.D  
Acq: 29 Jan 2025 16:41

Tgt Ion: 43 Resp: 67993  
Ion Ratio Lower Upper  
43 100  
58 28.7 23.8 35.6





#25

2-Butanone

Concen: 5.501 ug/l

RT: 7.488 min Scan# 941

Delta R.T. 0.012 min

Lab File: VN085561.D

Acq: 29 Jan 2025 16:41

Instrument :

MSVOA\_N

ClientSampleId :

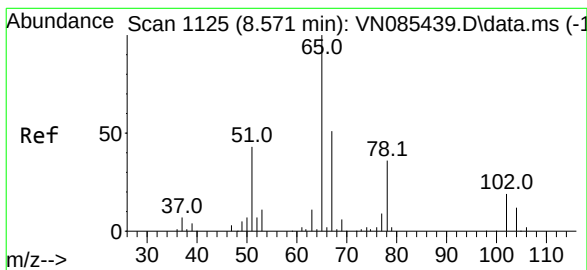
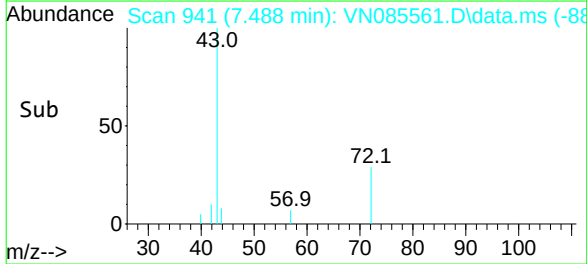
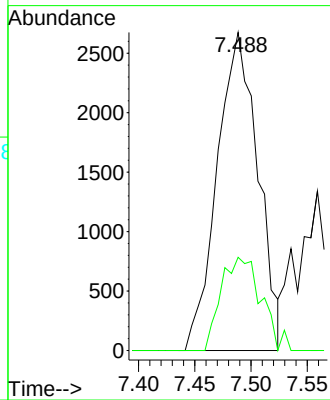
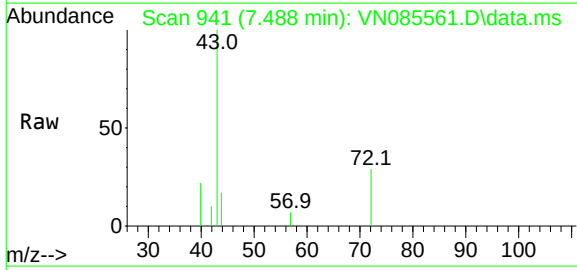
JPP-20.2-012725

Tgt Ion: 43 Resp: 6742

Ion Ratio Lower Upper

43 100

72 29.3 20.2 30.4



#33

1,2-Dichloroethane-d4

Concen: 58.257 ug/l

RT: 8.577 min Scan# 1126

Delta R.T. 0.006 min

Lab File: VN085561.D

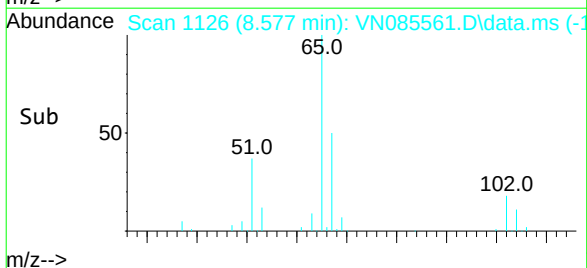
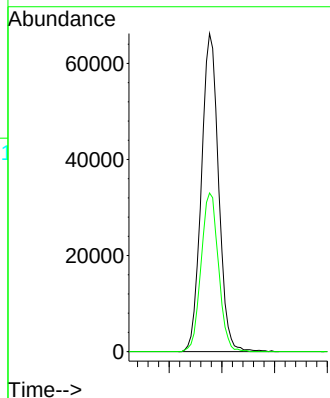
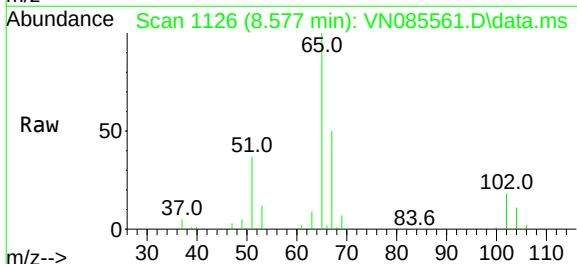
Acq: 29 Jan 2025 16:41

Tgt Ion: 65 Resp: 150154

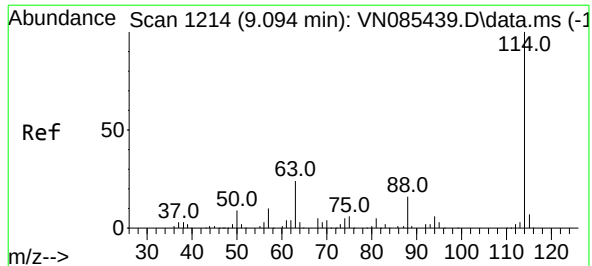
Ion Ratio Lower Upper

65 100

67 50.3 0.0 101.6







#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 12

Delta R.T. 0.006 min

Lab File: VN085561.D

Acq: 29 Jan 2025 16:41

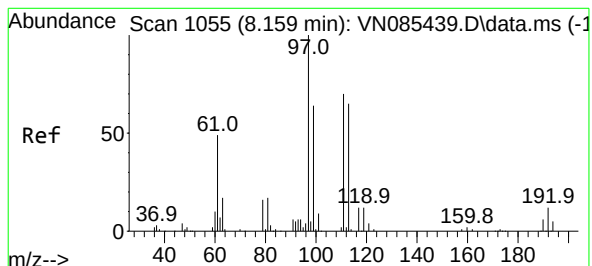
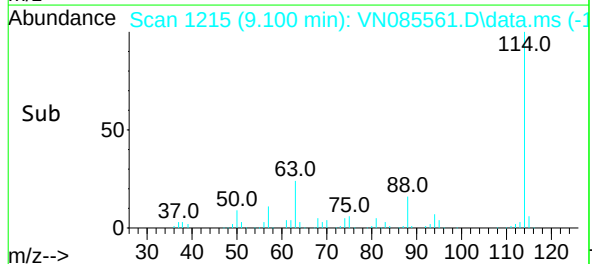
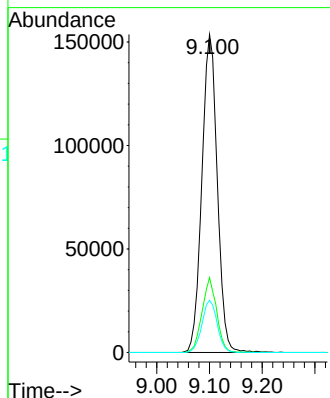
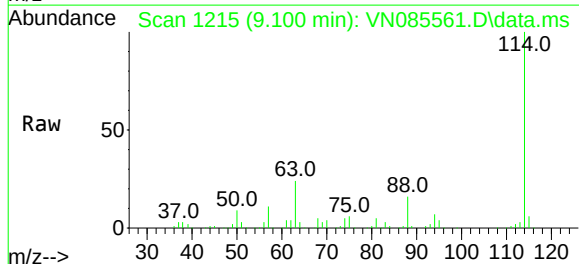
Instrument :

MSVOA\_N

ClientSampleId :

JPP-20.2-012725

|             |              |
|-------------|--------------|
| Tgt Ion:114 | Resp: 312230 |
| Ion Ratio   | Lower Upper  |
| 114 100     |              |
| 63 23.5     | 0.0 47.6     |
| 88 16.4     | 0.0 32.6     |



#35

Dibromofluoromethane

Concen: 51.692 ug/l

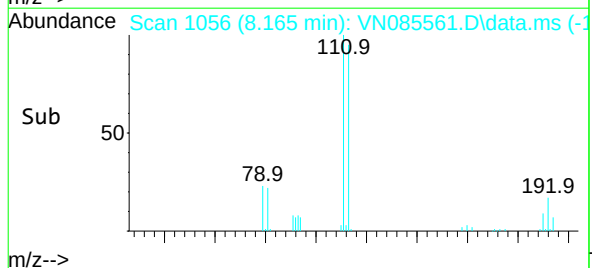
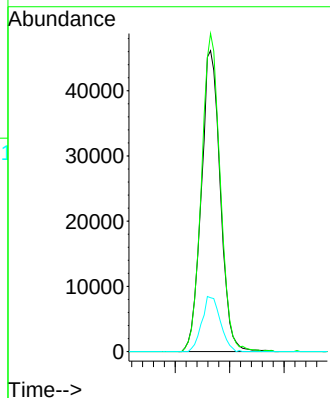
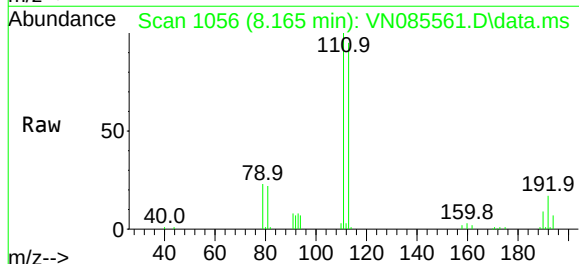
RT: 8.165 min Scan# 1056

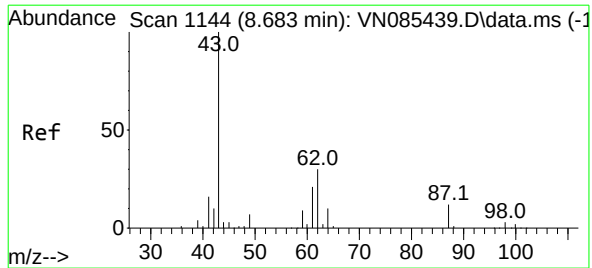
Delta R.T. 0.006 min

Lab File: VN085561.D

Acq: 29 Jan 2025 16:41

|             |              |
|-------------|--------------|
| Tgt Ion:113 | Resp: 111970 |
| Ion Ratio   | Lower Upper  |
| 113 100     |              |
| 111 104.1   | 82.7 124.1   |
| 192 17.8    | 14.3 21.5    |





#43

Isopropyl Acetate

Concen: 23.514 ug/l

RT: 8.688 min Scan# 1144

Delta R.T. 0.006 min

Lab File: VN085561.D

Acq: 29 Jan 2025 16:41

Instrument :

MSVOA\_N

ClientSampleId :

JPP-20.2-012725

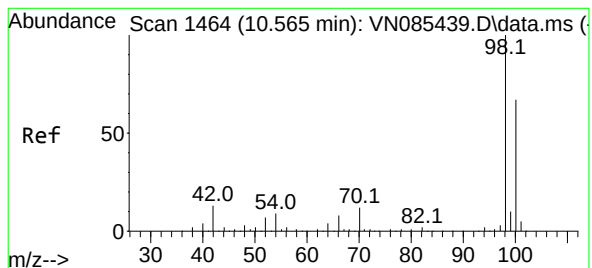
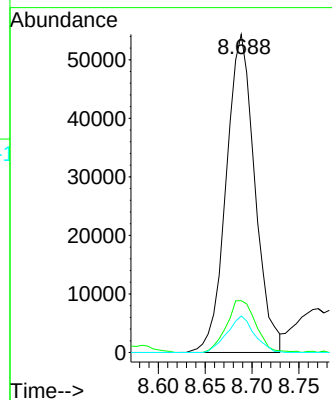
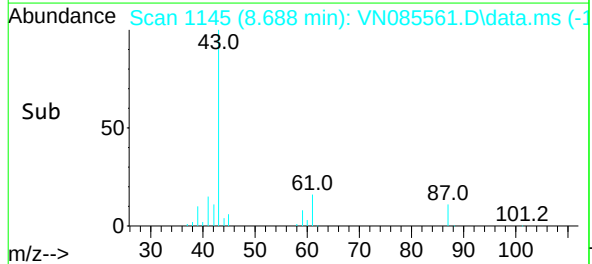
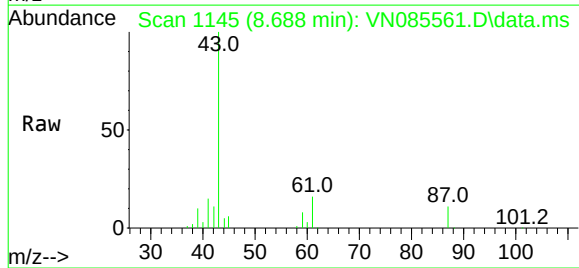
Tgt Ion: 43 Resp: 115617

Ion Ratio Lower Upper

43 100

61 16.7 20.7 31.1#

87 10.8 9.8 14.8



#50

Toluene-d8

Concen: 53.520 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. 0.000 min

Lab File: VN085561.D

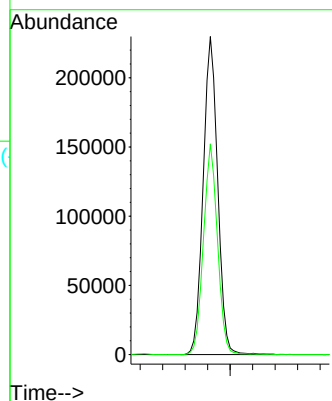
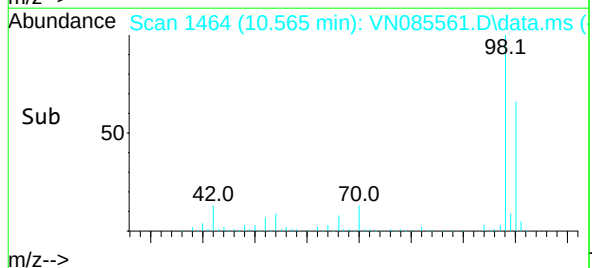
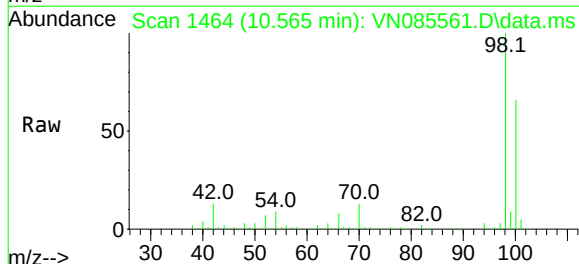
Acq: 29 Jan 2025 16:41

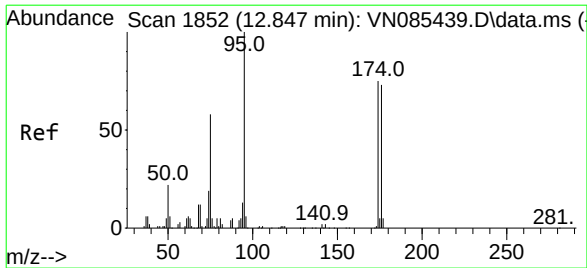
Tgt Ion: 98 Resp: 411896

Ion Ratio Lower Upper

98 100

100 64.2 52.2 78.4

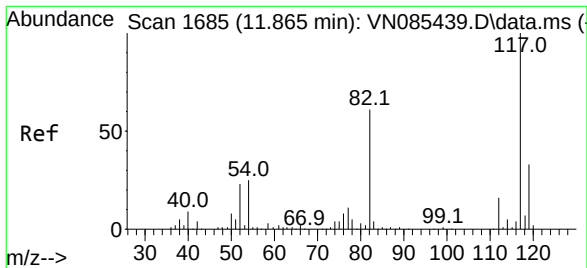
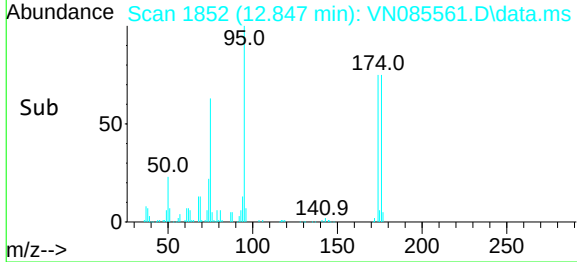
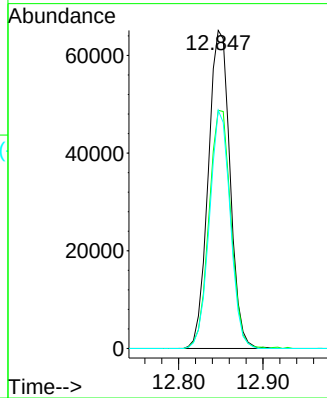
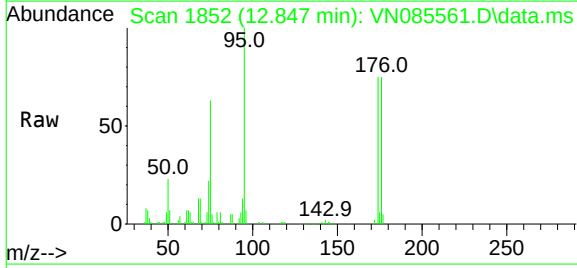




#62  
4-Bromofluorobenzene  
Concen: 44.342 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. -0.000 min  
Lab File: VN085561.D  
Acq: 29 Jan 2025 16:41

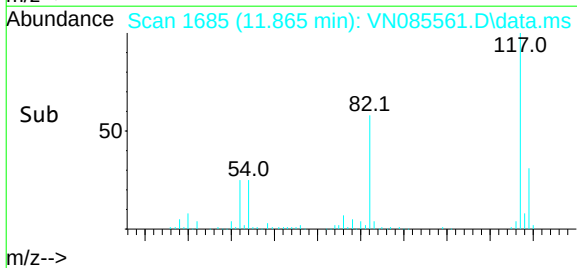
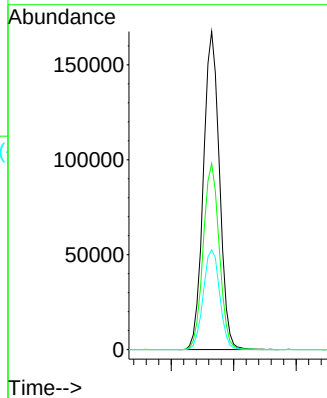
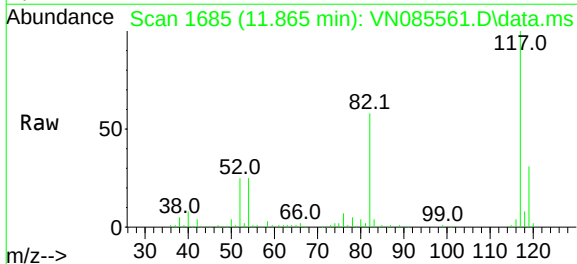
Instrument :  
MSVOA\_N  
ClientSampleId :  
JPP-20.2-012725

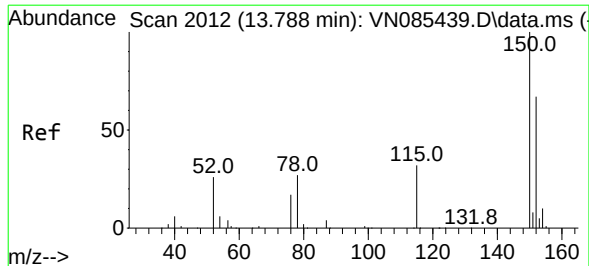
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 75.3  | 0.0   | 145.0 |
| 176     | 71.3  | 0.0   | 142.4 |



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. 0.000 min  
Lab File: VN085561.D  
Acq: 29 Jan 2025 16:41

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 58.5  | 48.6  | 72.8  |
| 119     | 31.4  | 26.6  | 39.8  |





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.788 min Scan# 20

Delta R.T. 0.000 min

Lab File: VN085561.D

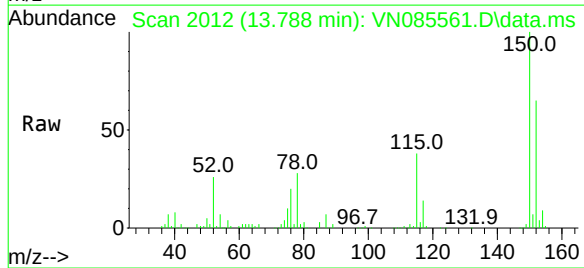
Acq: 29 Jan 2025 16:41

Instrument :

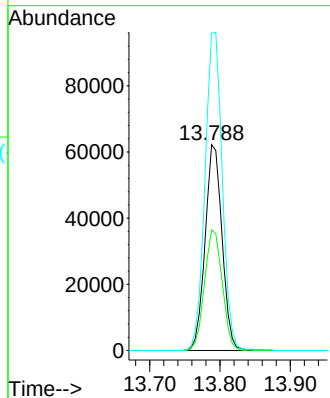
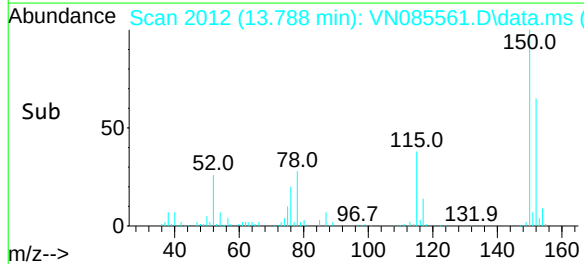
MSVOA\_N

ClientSampleId :

JPP-20.2-012725



|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 152   | Resp: | 104378 |
| Ion      | Ratio | Lower | Upper  |
| 152      | 100   |       |        |
| 115      | 61.0  | 31.1  | 93.3   |
| 150      | 157.0 | 0.0   | 343.6  |





# CALIBRATION SUMMARY



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

### VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01  
 Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207 SDG No.: Q1207  
 Instrument ID: MSVOA\_N Calibration Date(s): 01/14/2025 01/14/2025  
 Heated Purge: (Y/N) N Calibration Time(s): 14:56 17:19  
 GC Column: RXI-624 ID: 0.25 (mm)

|                       |        |                     |        |                     |        |                     |       |       |  |
|-----------------------|--------|---------------------|--------|---------------------|--------|---------------------|-------|-------|--|
| LAB FILE ID:          |        | RRF100 = VN085438.D |        | RRF050 = VN085439.D |        | RRF020 = VN085440.D |       |       |  |
|                       |        | RRF010 = VN085441.D |        | RRF005 = VN085442.D |        | RRF001 = VN085443.D |       |       |  |
| COMPOUND              | RRF100 | RRF050              | RRF020 | RRF010              | RRF005 | RRF001              | RRF   | % RSD |  |
| Vinyl Chloride        | 0.697  | 0.686               | 0.727  | 0.711               | 0.781  | 0.819               | 0.737 | 7.1   |  |
| 1,1-Dichloroethene    | 0.548  | 0.533               | 0.556  | 0.526               | 0.559  | 0.497               | 0.537 | 4.3   |  |
| 2-Butanone            | 0.378  | 0.390               | 0.398  | 0.363               | 0.387  | 0.386               | 0.384 | 3.1   |  |
| Carbon Tetrachloride  | 0.574  | 0.530               | 0.579  | 0.529               | 0.565  | 0.567               | 0.557 | 4     |  |
| Chloroform            | 1.197  | 1.175               | 1.241  | 1.169               | 1.253  | 1.273               | 1.218 | 3.6   |  |
| Benzene               | 1.551  | 1.449               | 1.527  | 1.376               | 1.474  | 1.400               | 1.463 | 4.7   |  |
| 1,2-Dichloroethane    | 0.569  | 0.547               | 0.575  | 0.522               | 0.574  | 0.517               | 0.551 | 4.8   |  |
| Trichloroethene       | 0.362  | 0.324               | 0.352  | 0.310               | 0.343  | 0.352               | 0.341 | 5.8   |  |
| Tetrachloroethene     | 0.351  | 0.322               | 0.365  | 0.338               | 0.346  | 0.323               | 0.341 | 4.9   |  |
| Chlorobenzene         | 1.133  | 1.076               | 1.154  | 1.047               | 1.110  | 1.051               | 1.095 | 4     |  |
| 1,2-Dichloroethane-d4 | 0.774  | 0.831               | 0.754  | 0.762               | 0.914  |                     | 0.807 | 8.3   |  |
| Dibromofluoromethane  | 0.359  | 0.358               | 0.335  | 0.310               | 0.373  |                     | 0.347 | 7.1   |  |
| Toluene-d8            | 1.339  | 1.267               | 1.207  | 1.076               | 1.274  |                     | 1.232 | 8.1   |  |
| 4-Bromofluorobenzene  | 0.475  | 0.449               | 0.410  | 0.357               | 0.417  |                     | 0.422 | 10.6  |  |

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.  
 RRF of 1,4-Dioxane = Value should be divide by 1000.

Method Path : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\  
 Method File : 82N011425W.M  
 Title : SW846 8260  
 Last Update : Wed Jan 15 02:16:08 2025  
 Response Via : Initial Calibration

## Calibration Files

1 =VN085443.D 5 =VN085442.D 10 =VN085441.D 20 =VN085440.D 50 =VN085439.D 100 =VN085438.

D

| Compound |                     | 1              | 5     | 10    | 20    | 50    | 100   | Avg   | %RSD   |
|----------|---------------------|----------------|-------|-------|-------|-------|-------|-------|--------|
| -----    |                     |                |       |       |       |       |       |       |        |
| 1) I     | Pentafluorobenzene  | -----ISTD----- |       |       |       |       |       |       |        |
| 2) T     | Dichlorodifluo...   | 0.714          | 0.708 | 0.667 | 0.681 | 0.629 | 0.664 | 0.677 | 4.59   |
| 3) P     | Chloromethane       | 0.839          | 0.779 | 0.693 | 0.727 | 0.680 | 0.680 | 0.733 | 8.77   |
| 4) C     | Vinyl Chloride      | 0.819          | 0.781 | 0.711 | 0.727 | 0.686 | 0.697 | 0.737 | 7.06#  |
| 5) T     | Bromomethane        | 0.525          | 0.437 | 0.454 | 0.417 | 0.392 | 0.445 | 0.445 | 11.26  |
| 6) T     | Chloroethane        | 0.542          | 0.505 | 0.429 | 0.468 | 0.424 | 0.435 | 0.467 | 10.27  |
| 7) T     | Trichlorofluor...   | 1.157          | 1.077 | 1.040 | 1.097 | 0.997 | 1.046 | 1.069 | 5.14   |
| 8) T     | Diethyl Ether       | 0.457          | 0.357 | 0.317 | 0.363 | 0.360 | 0.362 | 0.369 | 12.59  |
| 9) T     | 1,1,2-Trichlor...   | 0.646          | 0.639 | 0.587 | 0.609 | 0.542 | 0.590 | 0.602 | 6.35   |
| 10) T    | Methyl Iodide       | 0.661          | 0.640 | 0.704 | 0.719 | 0.723 | 0.690 | 0.690 | 5.35   |
| 11) T    | Tert butyl alc...   | 0.097          | 0.092 | 0.095 | 0.093 | 0.085 | 0.092 | 0.092 | 4.80   |
| 12) CM   | 1,1-Dichloroet...   | 0.497          | 0.559 | 0.526 | 0.556 | 0.533 | 0.548 | 0.537 | 4.31#  |
| 13) T    | Acrolein            | 0.101          | 0.131 | 0.124 | 0.140 | 0.136 | 0.126 | 0.126 | 12.09  |
| 14) T    | Allyl chloride      | 0.952          | 0.897 | 0.823 | 0.843 | 0.846 | 0.863 | 0.871 | 5.42   |
| 15) T    | Acrylonitrile       | 0.298          | 0.299 | 0.275 | 0.303 | 0.298 | 0.289 | 0.294 | 3.39   |
| 16) T    | Acetone             | 0.306          | 0.269 | 0.247 | 0.252 | 0.252 | 0.238 | 0.261 | 9.28   |
| 17) T    | Carbon Disulfide    | 1.978          | 1.719 | 1.537 | 1.647 | 1.477 | 1.555 | 1.652 | 10.95  |
| 18) T    | Methyl Acetate      | 0.871          | 0.810 | 0.779 | 0.758 | 0.790 | 0.751 | 0.793 | 5.54   |
| 19) T    | Methyl tert-bu...   | 1.545          | 1.685 | 1.664 | 1.853 | 1.873 | 1.834 | 1.742 | 7.53   |
| 20) T    | Methylene Chlo...   | 0.656          | 0.696 | 0.606 | 0.658 | 0.629 | 0.629 | 0.646 | 4.86   |
| 21) T    | trans-1,2-Dich...   | 0.632          | 0.569 | 0.539 | 0.574 | 0.555 | 0.571 | 0.573 | 5.50   |
| 22) T    | Diisopropyl ether   | 1.705          | 1.918 | 1.834 | 2.076 | 2.037 | 2.026 | 1.933 | 7.38   |
| 23) T    | Vinyl Acetate       | 1.110          | 1.270 | 1.279 | 1.466 | 1.495 | 1.495 | 1.353 | 11.67  |
| 24) P    | 1,1-Dichloroet...   | 1.204          | 1.226 | 1.100 | 1.206 | 1.170 | 1.164 | 1.178 | 3.81   |
| 25) T    | 2-Butanone          | 0.386          | 0.387 | 0.363 | 0.398 | 0.390 | 0.378 | 0.384 | 3.12   |
| 26) T    | 2,2-Dichloropr...   | 0.930          | 0.986 | 0.922 | 0.985 | 0.936 | 0.958 | 0.953 | 2.96   |
| 27) T    | cis-1,2-Dichlo...   | 0.655          | 0.669 | 0.639 | 0.715 | 0.683 | 0.691 | 0.675 | 4.02   |
| 28) T    | Bromochloromet...   | 0.624          | 0.595 | 0.486 | 0.513 | 0.542 | 0.530 | 0.548 | 9.44   |
| 29) T    | Tetrahydrofuran     | 0.221          | 0.236 | 0.233 | 0.261 | 0.260 | 0.248 | 0.243 | 6.58   |
| 30) C    | Chloroform          | 1.273          | 1.253 | 1.169 | 1.241 | 1.175 | 1.197 | 1.218 | 3.59#  |
| 31) T    | Cyclohexane         | 1.198          | 1.026 | 1.033 | 0.881 | 0.984 | 1.024 | 1.024 | 11.18  |
| 32) T    | 1,1,1-Trichlor...   | 1.102          | 1.148 | 1.000 | 1.091 | 1.016 | 1.053 | 1.068 | 5.24   |
| 33) S    | 1,2-Dichloroet...   | 0.914          | 0.762 | 0.754 | 0.831 | 0.774 | 0.807 | 0.807 | 8.28   |
| -----    |                     |                |       |       |       |       |       |       |        |
| 34) I    | 1,4-Difluorobenzene | -----ISTD----- |       |       |       |       |       |       |        |
| 35) S    | Dibromofluorom...   | 0.373          | 0.310 | 0.335 | 0.358 | 0.359 | 0.347 | 0.347 | 7.10   |
| 36) T    | 1,1-Dichloropr...   | 0.509          | 0.490 | 0.441 | 0.499 | 0.462 | 0.521 | 0.487 | 6.17   |
| 37) T    | Ethyl Acetate       | 0.504          | 0.520 | 0.452 | 0.488 | 0.488 | 0.496 | 0.491 | 4.66   |
| 38) T    | Carbon Tetrach...   | 0.567          | 0.565 | 0.529 | 0.579 | 0.530 | 0.574 | 0.557 | 3.96   |
| 39) T    | Methylcyclohexane   | 0.397          | 0.437 | 0.407 | 0.477 | 0.463 | 0.564 | 0.457 | 13.29  |
| 40) TM   | Benzene             | 1.400          | 1.474 | 1.376 | 1.527 | 1.449 | 1.551 | 1.463 | 4.70   |
| 41) T    | Methacrylonitrile   | 0.241          | 0.227 | 0.248 | 0.268 | 0.270 | 0.280 | 0.256 | 7.89   |
| 42) TM   | 1,2-Dichloroet...   | 0.517          | 0.574 | 0.522 | 0.575 | 0.547 | 0.569 | 0.551 | 4.78   |
| 43) T    | Isopropyl Acetate   | 0.793          | 0.764 | 0.719 | 0.801 | 0.813 | 0.835 | 0.787 | 5.20   |
| 44) TM   | Trichloroethene     | 0.352          | 0.343 | 0.310 | 0.352 | 0.324 | 0.362 | 0.341 | 5.79   |
| 45) C    | 1,2-Dichloropr...   | 0.371          | 0.388 | 0.334 | 0.388 | 0.371 | 0.390 | 0.374 | 5.69#  |
| 46) T    | Dibromomethane      | 0.292          | 0.254 | 0.254 | 0.277 | 0.267 | 0.275 | 0.270 | 5.50   |
| 47) T    | Bromodichlorom...   | 0.484          | 0.569 | 0.514 | 0.579 | 0.559 | 0.590 | 0.549 | 7.48   |
| 48) T    | Methyl methacr...   | 0.311          | 0.326 | 0.321 | 0.369 | 0.392 | 0.406 | 0.354 | 11.37  |
| 49) T    | 1,4-Dioxane         | 0.006          | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 6.72   |
| 50) S    | Toluene-d8          | 1.274          | 1.076 | 1.207 | 1.267 | 1.339 | 1.232 | 1.232 | 8.07   |
| 51) T    | 4-Methyl-2-Pen...   | 0.380          | 0.443 | 0.432 | 0.495 | 0.492 | 0.499 | 0.457 | 10.33  |
| 52) CM   | Toluene             | 0.690          | 0.835 | 0.808 | 0.919 | 0.870 | 0.964 | 0.848 | 11.27# |
| 53) T    | t-1,3-Dichloro...   | 0.416          | 0.527 | 0.481 | 0.544 | 0.551 | 0.594 | 0.519 | 11.98  |
| 54) T    | cis-1,3-Dichlo...   | 0.450          | 0.538 | 0.527 | 0.601 | 0.588 | 0.623 | 0.554 | 11.40  |
| 55) T    | 1,1,2-Trichlor...   | 0.314          | 0.349 | 0.309 | 0.353 | 0.340 | 0.348 | 0.335 | 5.67   |

|                                                  |    |                       |       |       |       |       |       |       |       |        |
|--------------------------------------------------|----|-----------------------|-------|-------|-------|-------|-------|-------|-------|--------|
| Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\ |    |                       |       |       |       |       |       |       |       |        |
| Method File : 82N011425W.M                       |    |                       |       |       |       |       |       |       |       |        |
| 56)                                              | T  | Ethyl methacry...     | 0.317 | 0.434 | 0.418 | 0.521 | 0.544 | 0.582 | 0.469 | 20.85  |
| 57)                                              | T  | 1,3-Dichloropr...     | 0.514 | 0.584 | 0.555 | 0.618 | 0.602 | 0.627 | 0.583 | 7.31   |
| 58)                                              | T  | 2-Chloroethyl ...     | 0.163 | 0.205 | 0.185 | 0.226 | 0.241 | 0.258 | 0.213 | 16.67  |
| 59)                                              | T  | 2-Hexanone            | 0.261 | 0.302 | 0.298 | 0.353 | 0.357 | 0.358 | 0.321 | 12.60  |
| 60)                                              | T  | Dibromochlorom...     | 0.386 | 0.420 | 0.368 | 0.412 | 0.414 | 0.430 | 0.405 | 5.79   |
| 61)                                              | T  | 1,2-Dibromoethane     | 0.334 | 0.321 | 0.309 | 0.356 | 0.334 | 0.349 | 0.334 | 5.16   |
| 62)                                              | S  | 4-Bromofluorob...     |       | 0.417 | 0.357 | 0.410 | 0.449 | 0.475 | 0.422 | 10.57  |
| -----ISTD-----                                   |    |                       |       |       |       |       |       |       |       |        |
| 63)                                              | I  | Chlorobenzene-d5      |       |       |       |       |       |       |       |        |
| 64)                                              | T  | Tetrachloroethene     | 0.323 | 0.346 | 0.338 | 0.365 | 0.322 | 0.351 | 0.341 | 4.87   |
| 65)                                              | PM | Chlorobenzene         | 1.051 | 1.110 | 1.047 | 1.154 | 1.076 | 1.133 | 1.095 | 4.03   |
| 66)                                              | T  | 1,1,1,2-Tetrac...     | 0.425 | 0.412 | 0.371 | 0.408 | 0.392 | 0.404 | 0.402 | 4.65   |
| 67)                                              | C  | Ethyl Benzene         | 1.430 | 1.709 | 1.685 | 1.940 | 1.867 | 2.072 | 1.784 | 12.67# |
| 68)                                              | T  | m/p-Xylenes           | 0.492 | 0.616 | 0.615 | 0.750 | 0.707 | 0.775 | 0.659 | 16.01  |
| 69)                                              | T  | o-Xylene              | 0.482 | 0.582 | 0.584 | 0.713 | 0.681 | 0.738 | 0.630 | 15.47  |
| 70)                                              | T  | Styrene               | 0.742 | 0.929 | 0.956 | 1.186 | 1.173 | 1.271 | 1.043 | 19.21  |
| 71)                                              | P  | Bromoform             | 0.235 | 0.284 | 0.273 | 0.312 | 0.311 | 0.311 | 0.288 | 10.61  |
| -----ISTD-----                                   |    |                       |       |       |       |       |       |       |       |        |
| 72)                                              | I  | 1,4-Dichlorobenzen... |       |       |       |       |       |       |       |        |
| 73)                                              | T  | Isopropylbenzene      | 2.766 | 3.157 | 3.272 | 3.681 | 3.448 | 3.922 | 3.375 | 12.06  |
| 74)                                              | T  | N-amyl acetate        | 1.364 | 1.394 | 1.405 | 1.642 | 1.622 | 1.673 | 1.517 | 9.43   |
| 75)                                              | P  | 1,1,2,2-Tetrac...     | 1.314 | 1.228 | 1.157 | 1.187 | 1.145 | 1.121 | 1.192 | 5.89   |
| 76)                                              | T  | 1,2,3-Trichlor...     | 1.104 | 0.965 | 0.957 | 1.118 | 0.893 | 1.061 | 1.016 | 8.96   |
| 77)                                              | T  | Bromobenzene          | 0.871 | 0.880 | 0.857 | 0.906 | 0.858 | 0.919 | 0.882 | 2.90   |
| 78)                                              | T  | n-propylbenzene       | 3.227 | 3.605 | 3.846 | 4.400 | 4.154 | 4.738 | 3.995 | 13.74  |
| 79)                                              | T  | 2-Chlorotoluene       | 2.252 | 2.533 | 2.571 | 2.761 | 2.585 | 2.812 | 2.586 | 7.67   |
| 80)                                              | T  | 1,3,5-Trimethy...     | 2.160 | 2.529 | 2.695 | 3.140 | 2.940 | 3.260 | 2.787 | 14.69  |
| 81)                                              | T  | trans-1,4-Dich...     |       | 0.335 | 0.347 | 0.386 | 0.390 | 0.419 | 0.376 | 9.04   |
| 82)                                              | T  | 4-Chlorotoluene       | 2.144 | 2.536 | 2.512 | 2.820 | 2.588 | 2.847 | 2.574 | 9.91   |
| 83)                                              | T  | tert-Butylbenzene     | 1.885 | 2.189 | 2.236 | 2.570 | 2.439 | 2.726 | 2.341 | 12.85  |
| 84)                                              | T  | 1,2,4-Trimethy...     | 1.888 | 2.542 | 2.710 | 3.190 | 3.016 | 3.323 | 2.778 | 18.89  |
| 85)                                              | T  | sec-Butylbenzene      | 2.318 | 3.026 | 3.147 | 3.643 | 3.421 | 3.912 | 3.244 | 17.17  |
| 86)                                              | T  | p-Isopropyltol...     | 1.777 | 2.368 | 2.541 | 2.942 | 2.872 | 3.286 | 2.631 | 20.04  |
| 87)                                              | T  | 1,3-Dichlorobe...     | 1.526 | 1.656 | 1.574 | 1.701 | 1.565 | 1.720 | 1.624 | 4.91   |
| 88)                                              | T  | 1,4-Dichlorobe...     | 1.767 | 1.743 | 1.607 | 1.713 | 1.562 | 1.706 | 1.683 | 4.78   |
| 89)                                              | T  | n-Butylbenzene        | 1.772 | 2.176 | 2.168 | 2.485 | 2.483 | 2.881 | 2.327 | 16.22  |
| 90)                                              | T  | Hexachloroethane      | 0.681 | 0.616 | 0.574 | 0.613 | 0.577 | 0.645 | 0.618 | 6.59   |
| 91)                                              | T  | 1,2-Dichlorobe...     | 1.766 | 1.600 | 1.532 | 1.654 | 1.555 | 1.611 | 1.620 | 5.15   |
| 92)                                              | T  | 1,2-Dibromo-3-...     | 0.202 | 0.228 | 0.212 | 0.224 | 0.222 | 0.218 | 0.218 | 4.31   |
| 93)                                              | T  | 1,2,4-Trichlor...     | 0.658 | 0.717 | 0.704 | 0.799 | 0.781 | 0.858 | 0.753 | 9.69   |
| 94)                                              | T  | Hexachlorobuta...     | 0.413 | 0.441 | 0.395 | 0.396 | 0.367 | 0.386 | 0.400 | 6.31   |
| 95)                                              | T  | Naphthalene           | 2.115 | 1.987 | 1.958 | 2.348 | 2.482 | 2.588 | 2.246 | 11.79  |
| 96)                                              | T  | 1,2,3-Trichlor...     | 0.750 | 0.693 | 0.732 | 0.792 | 0.786 | 0.817 | 0.762 | 5.96   |

(#) = Out of Range



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085438.D  
 Acq On : 14 Jan 2025 14:56  
 Operator : JC\MD  
 Sample : VSTDICC100  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC100

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:41:17 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 01:28:51 2025  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.218  | 168  | 202613   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.094  | 114  | 329363   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 298938   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.788 | 152  | 146196   | 50.000 | ug/l  | 0.00     |

|                             |        |                |          |         |           |      |
|-----------------------------|--------|----------------|----------|---------|-----------|------|
| System Monitoring Compounds |        |                |          |         |           |      |
| 33) 1,2-Dichloroethane-d4   | 8.571  | 65             | 313645   | 95.899  | ug/l      | 0.00 |
| Spiked Amount               | 50.000 | Range 74 - 125 | Recovery | =       | 191.800%# |      |
| 35) Dibromofluoromethane    | 8.159  | 113            | 236159   | 103.353 | ug/l      | 0.00 |
| Spiked Amount               | 50.000 | Range 75 - 124 | Recovery | =       | 206.700%# |      |
| 50) Toluene-d8              | 10.565 | 98             | 881956   | 108.636 | ug/l      | 0.00 |
| Spiked Amount               | 50.000 | Range 86 - 113 | Recovery | =       | 217.280%# |      |
| 62) 4-Bromofluorobenzene    | 12.847 | 95             | 313161   | 112.765 | ug/l      | 0.00 |
| Spiked Amount               | 50.000 | Range 77 - 121 | Recovery | =       | 225.520%# |      |

|                              |       |     |         |         |          |
|------------------------------|-------|-----|---------|---------|----------|
| Target Compounds             |       |     |         |         | Qvalue   |
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 269023  | 98.065  | ug/l 99  |
| 3) Chloromethane             | 2.359 | 50  | 275415  | 92.724  | ug/l 98  |
| 4) Vinyl Chloride            | 2.512 | 62  | 282361  | 94.576  | ug/l 99  |
| 5) Bromomethane              | 2.942 | 94  | 158888  | 88.105  | ug/l 98  |
| 6) Chloroethane              | 3.112 | 64  | 176111  | 93.043  | ug/l 99  |
| 7) Trichlorofluoromethane    | 3.494 | 101 | 423967  | 97.870  | ug/l 100 |
| 8) Diethyl Ether             | 3.953 | 74  | 146889  | 98.154  | ug/l 98  |
| 9) 1,1,2-Trichlorotrifluo... | 4.371 | 101 | 239104  | 97.997  | ug/l 99  |
| 10) Methyl Iodide            | 4.589 | 142 | 292983  | 104.856 | ug/l 95  |
| 11) Tert butyl alcohol       | 5.512 | 59  | 173044  | 462.061 | ug/l 99  |
| 12) 1,1-Dichloroethene       | 4.336 | 96  | 222117  | 102.146 | ug/l 99  |
| 13) Acrolein                 | 4.171 | 56  | 275350  | 538.600 | ug/l 99  |
| 14) Allyl chloride           | 5.018 | 41  | 349717  | 99.111  | ug/l 98  |
| 15) Acrylonitrile            | 5.712 | 53  | 585370  | 492.095 | ug/l 99  |
| 16) Acetone                  | 4.418 | 43  | 483221  | 457.268 | ug/l 96  |
| 17) Carbon Disulfide         | 4.712 | 76  | 630294  | 94.140  | ug/l 100 |
| 18) Methyl Acetate           | 5.012 | 43  | 304226  | 94.674  | ug/l 99  |
| 19) Methyl tert-butyl Ether  | 5.788 | 73  | 743008  | 105.230 | ug/l 100 |
| 20) Methylene Chloride       | 5.271 | 84  | 254912  | 97.440  | ug/l 98  |
| 21) trans-1,2-Dichloroethene | 5.783 | 96  | 231503  | 99.618  | ug/l 97  |
| 22) Diisopropyl ether        | 6.665 | 45  | 820871  | 104.812 | ug/l 99  |
| 23) Vinyl Acetate            | 6.594 | 43  | 3029568 | 550.850 | ug/l 99  |
| 24) 1,1-Dichloroethane       | 6.565 | 63  | 471831  | 98.803  | ug/l 99  |
| 25) 2-Butanone               | 7.477 | 43  | 764979  | 491.912 | ug/l 98  |
| 26) 2,2-Dichloropropane      | 7.482 | 77  | 388140  | 100.530 | ug/l 100 |
| 27) cis-1,2-Dichloroethene   | 7.482 | 96  | 280197  | 102.367 | ug/l 99  |
| 28) Bromochloromethane       | 7.806 | 49  | 214796  | 96.679  | ug/l 100 |
| 29) Tetrahydrofuran          | 7.830 | 42  | 503459  | 510.635 | ug/l 99  |
| 30) Chloroform               | 7.959 | 83  | 484941  | 98.253  | ug/l 100 |
| 31) Cyclohexane              | 8.253 | 56  | 398641  | 96.041  | ug/l 96  |
| 32) 1,1,1-Trichloroethane    | 8.165 | 97  | 426782  | 98.578  | ug/l 98  |
| 36) 1,1-Dichloropropene      | 8.365 | 75  | 342961  | 106.945 | ug/l 100 |
| 37) Ethyl Acetate            | 7.553 | 43  | 326802  | 100.961 | ug/l 97  |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 378390  | 103.065 | ug/l 97  |
| 39) Methylcyclohexane        | 9.594 | 83  | 371734  | 123.354 | ug/l 99  |
| 40) Benzene                  | 8.600 | 78  | 1021393 | 106.001 | ug/l 100 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085438.D  
 Acq On : 14 Jan 2025 14:56  
 Operator : JC\MD  
 Sample : VSTDICC100  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC100

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:41:17 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 01:28:51 2025  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 184326   | 109.454  | ug/l   | 96       |
| 42) 1,2-Dichloroethane        | 8.665  | 62   | 374938   | 103.314  | ug/l   | 100      |
| 43) Isopropyl Acetate         | 8.682  | 43   | 549969   | 106.035  | ug/l   | 100      |
| 44) Trichloroethene           | 9.347  | 130  | 238296   | 106.242  | ug/l   | 96       |
| 45) 1,2-Dichloropropane       | 9.618  | 63   | 256964   | 104.405  | ug/l   | 97       |
| 46) Dibromomethane            | 9.706  | 93   | 180990   | 101.913  | ug/l   | 99       |
| 47) Bromodichloromethane      | 9.882  | 83   | 388499   | 107.377  | ug/l   | 98       |
| 48) Methyl methacrylate       | 9.676  | 41   | 267689   | 114.685  | ug/l   | 99       |
| 49) 1,4-Dioxane               | 9.688  | 88   | 83879    | 2133.992 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone      | 10.441 | 43   | 1643800  | 546.159  | ug/l   | 100      |
| 52) Toluene                   | 10.623 | 92   | 634743   | 113.689  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 10.829 | 75   | 391238   | 114.424  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene   | 10.306 | 75   | 410403   | 112.369  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane     | 11.012 | 97   | 229522   | 103.879  | ug/l   | 98       |
| 56) Ethyl methacrylate        | 10.870 | 69   | 383663   | 101.029  | ug/l   | 99       |
| 57) 1,3-Dichloropropane       | 11.159 | 76   | 412886   | 107.469  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether | 10.153 | 63   | 848636   | 605.243  | ug/l   | 100      |
| 59) 2-Hexanone                | 11.194 | 43   | 1178831  | 556.643  | ug/l   | 99       |
| 60) Dibromochloromethane      | 11.353 | 129  | 283361   | 106.227  | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 11.465 | 107  | 230104   | 104.623  | ug/l   | 98       |
| 64) Tetrachloroethene         | 11.100 | 164  | 209870   | 102.980  | ug/l   | 98       |
| 65) Chlorobenzene             | 11.888 | 112  | 677679   | 103.482  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 241593   | 100.517  | ug/l   | 99       |
| 67) Ethyl Benzene             | 11.959 | 91   | 1239080  | 116.169  | ug/l   | 99       |
| 68) m/p-Xylenes               | 12.070 | 106  | 927244   | 235.219  | ug/l   | 99       |
| 69) o-Xylene                  | 12.394 | 106  | 441279   | 117.135  | ug/l   | 100      |
| 70) Styrene                   | 12.406 | 104  | 760136   | 121.919  | ug/l   | 99       |
| 71) Bromoform                 | 12.576 | 173  | 186124   | 108.227  | ug/l # | 99       |
| 73) Isopropylbenzene          | 12.694 | 105  | 1146752  | 116.221  | ug/l   | 100      |
| 74) N-amyl acetate            | 12.488 | 43   | 489217   | 110.308  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 327767   | 94.039   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane    | 12.988 | 75   | 310115m  | 104.530  | ug/l   |          |
| 77) Bromobenzene              | 12.976 | 156  | 268616   | 104.200  | ug/l   | 97       |
| 78) n-propylbenzene           | 13.029 | 91   | 1385353  | 118.600  | ug/l   | 100      |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 822258   | 108.767  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 953066   | 116.938  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 122508   | 111.544  | ug/l   | 87       |
| 82) 4-Chlorotoluene           | 13.217 | 91   | 832317   | 110.574  | ug/l   | 99       |
| 83) tert-Butylbenzene         | 13.435 | 119  | 797069   | 116.457  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene    | 13.476 | 105  | 971729   | 119.625  | ug/l   | 100      |
| 85) sec-Butylbenzene          | 13.611 | 105  | 1143885  | 120.587  | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 13.723 | 119  | 960747   | 100.111  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene       | 13.729 | 146  | 502960   | 105.943  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 13.811 | 146  | 498709   | 101.341  | ug/l   | 97       |
| 89) n-Butylbenzene            | 14.053 | 91   | 842368   | 123.781  | ug/l   | 98       |
| 90) Hexachloroethane          | 14.329 | 117  | 188541   | 104.405  | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene       | 14.100 | 146  | 470919   | 99.445   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 63846    | 100.313  | ug/l   | 98       |
| 93) 1,2,4-Trichlorobenzene    | 15.388 | 180  | 250787   | 113.946  | ug/l   | 99       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 112899   | 96.619   | ug/l   | 99       |
| 95) Naphthalene               | 15.635 | 128  | 756816   | 115.234  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 238860   | 107.256  | ug/l   | 100      |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
Data File : VN085438.D  
Acq On : 14 Jan 2025 14:56  
Operator : JC\MD  
Sample : VSTDICC100  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:41:17 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 01:28:51 2025  
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

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

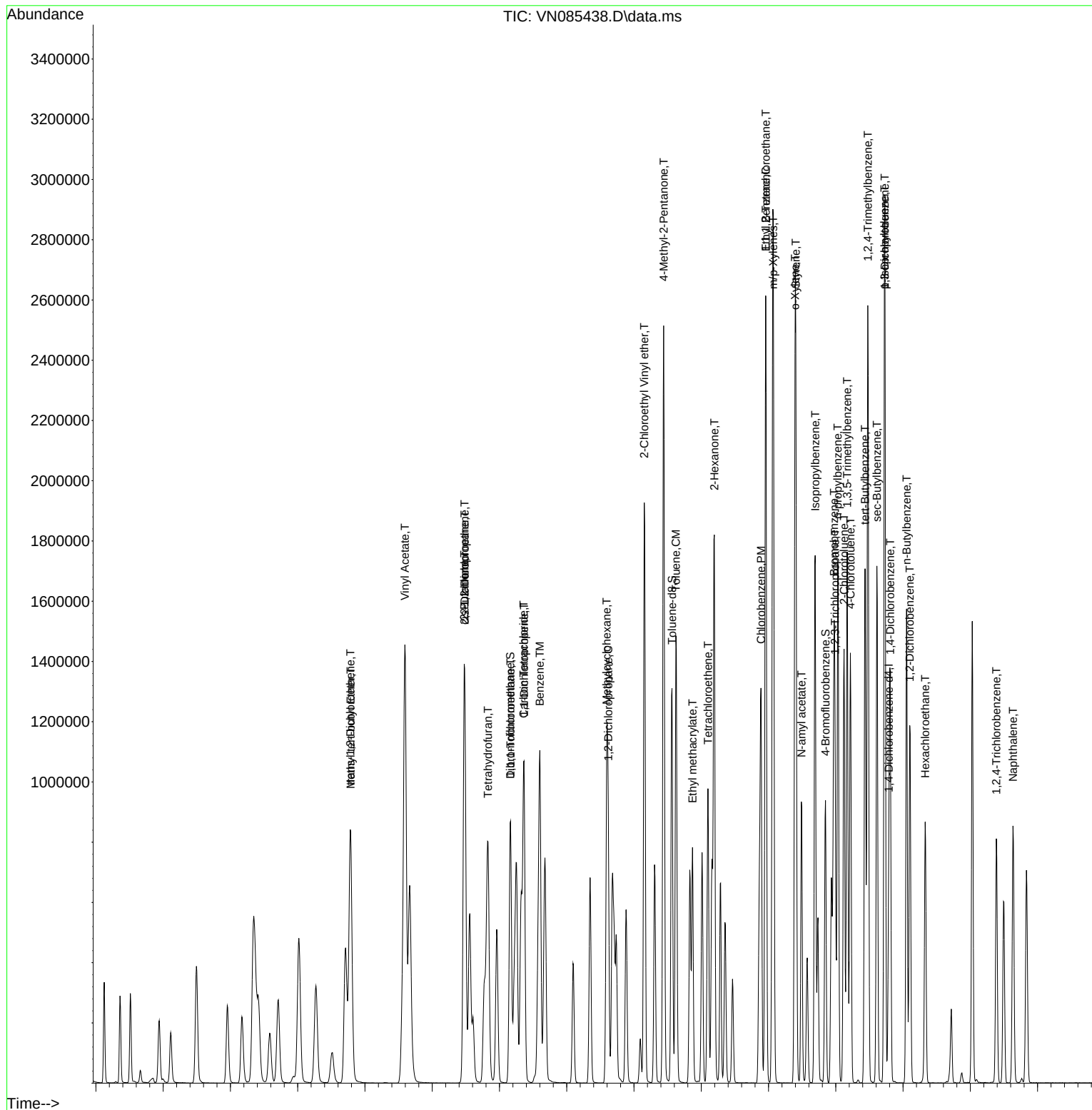
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Data File : VN085438.D  
Acq On : 14 Jan 2025 14:56  
Operator : JC\MD  
Sample : VSTDICC100  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 4 Sample Multiplier: 1

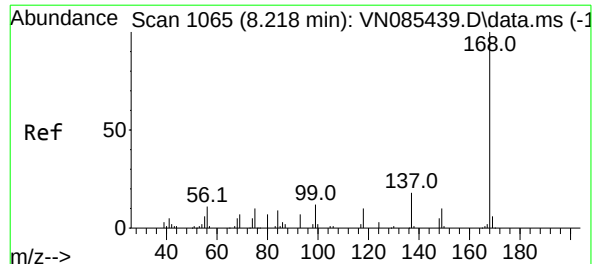
**Instrument :**  
MSVOA\_N  
**ClientSampleId :**  
VSTDICC100

## Manual Integrations APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:41:17 2025  
Quant Method : Z:\voasrv\HPCHEM1\M\$VOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 01:28:51 2025  
Response via : Initial Calibration





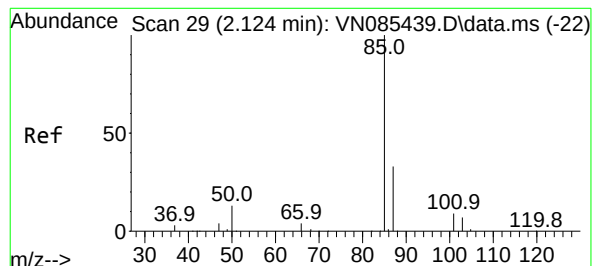
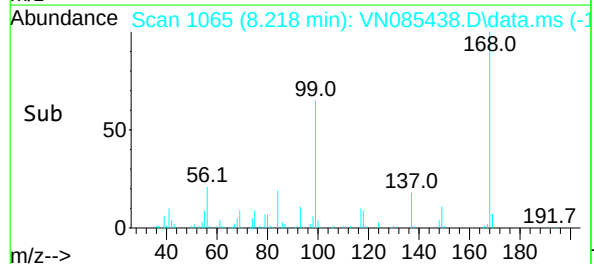
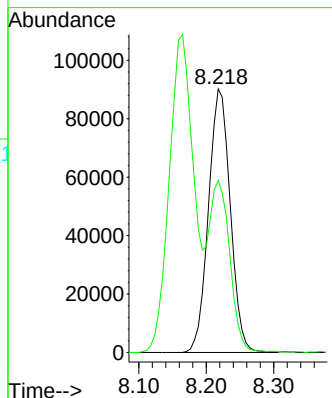
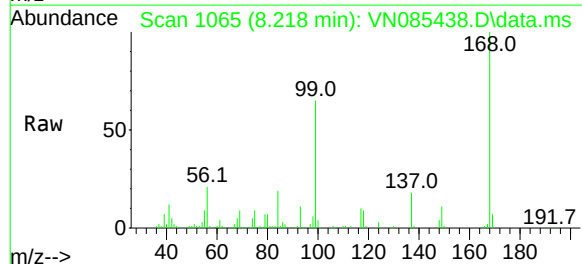
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Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.218 min Scan# 1065  
Delta R.T. -0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC100

Tgt Ion:168 Resp: 202613  
Ion Ratio Lower Upper  
168 100  
99 64.9 53.6 80.4

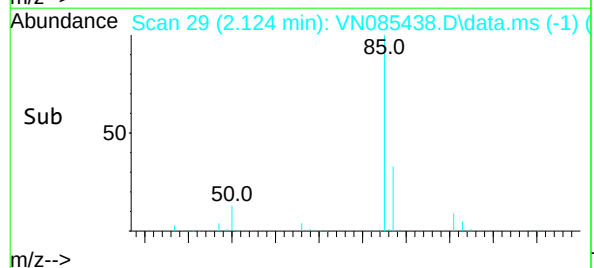
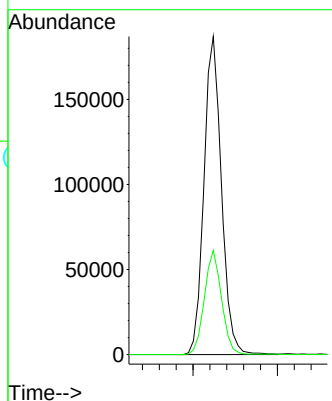
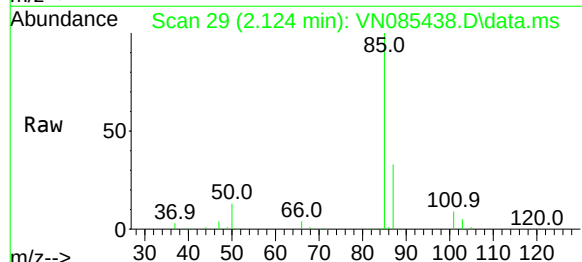
Manual Integrations  
APPROVED

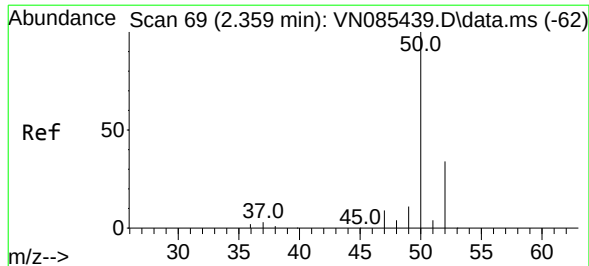
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#2  
Dichlorodifluoromethane  
Concen: 98.065 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. -0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

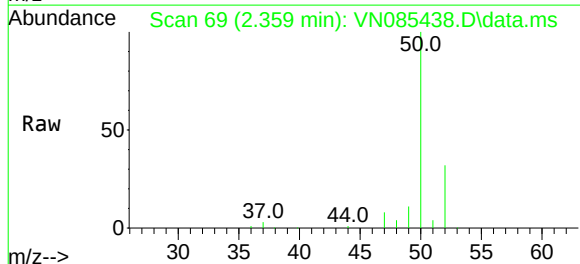
Tgt Ion: 85 Resp: 269023  
Ion Ratio Lower Upper  
85 100  
87 32.7 16.7 50.1





#3  
Chloromethane  
Concen: 92.724 ug/l  
RT: 2.359 min Scan# 69  
Delta R.T. -0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

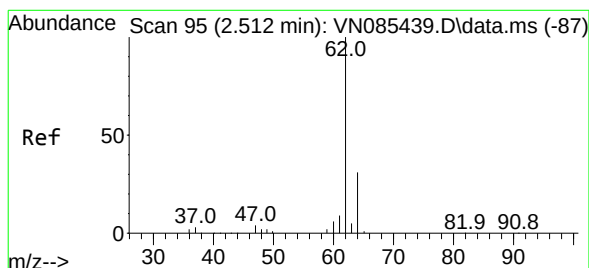
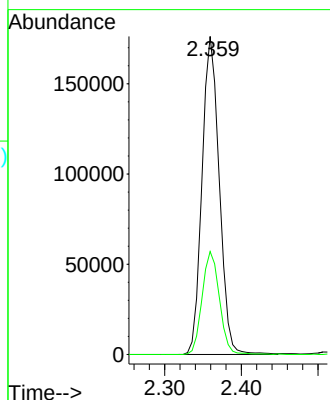
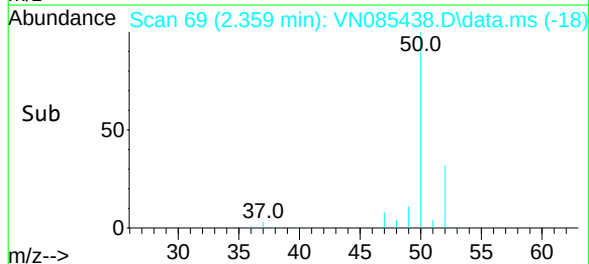
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion: 50 Resp: 275415  
Ion Ratio Lower Upper  
50 100  
52 32.4 27.0 40.6

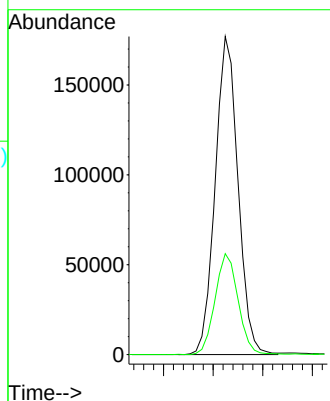
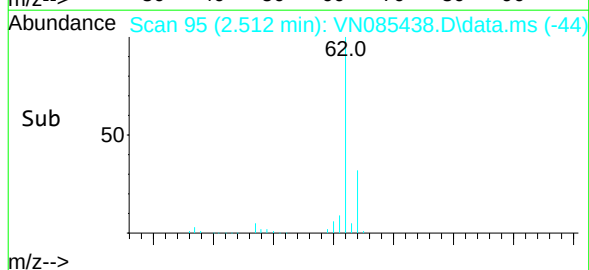
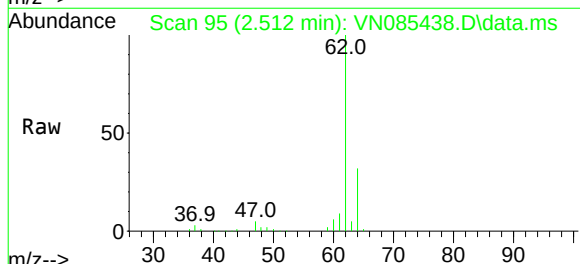
Manual Integrations  
APPROVED

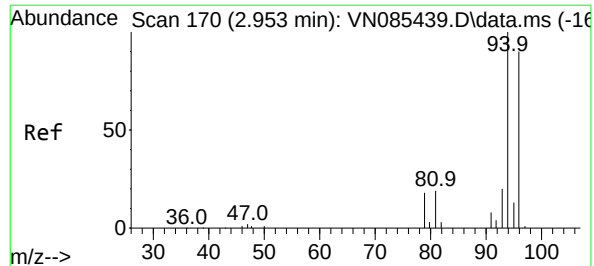
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#4  
Vinyl Chloride  
Concen: 94.576 ug/l  
RT: 2.512 min Scan# 95  
Delta R.T. -0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

Tgt Ion: 62 Resp: 282361  
Ion Ratio Lower Upper  
62 100  
64 31.6 24.8 37.2





#5

Bromomethane

Concen: 88.105 ug/l

RT: 2.942 min Scan# 16

Delta R.T. -0.012 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 94 Resp: 158888

Ion Ratio Lower Upper

94 100

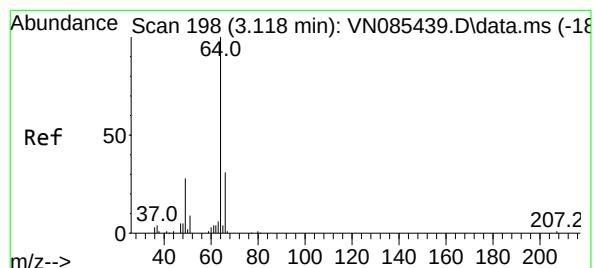
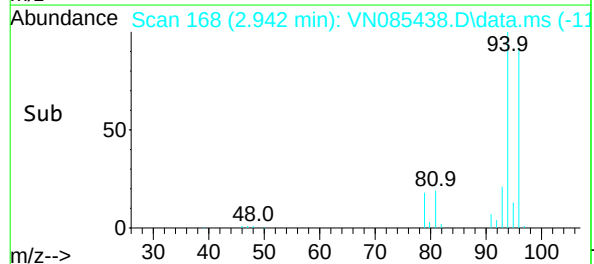
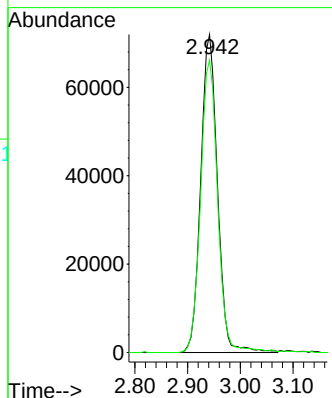
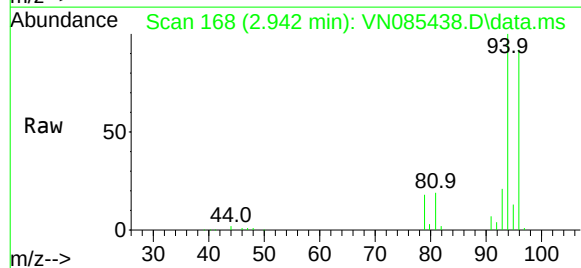
96 91.9 71.8 107.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#6

Chloroethane

Concen: 93.043 ug/l

RT: 3.112 min Scan# 197

Delta R.T. -0.006 min

Lab File: VN085438.D

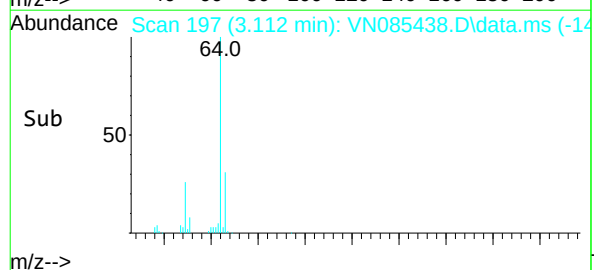
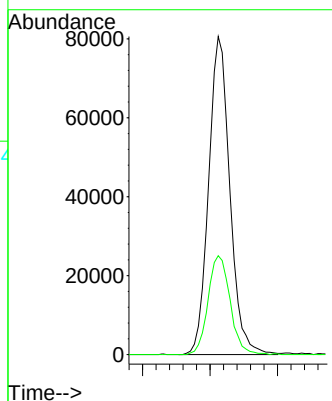
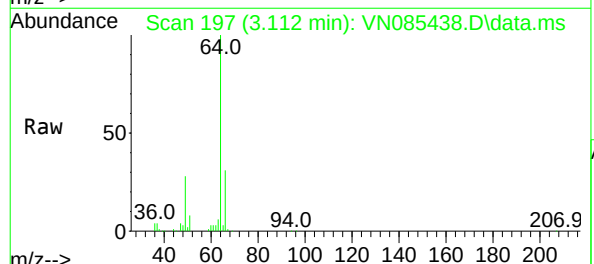
Acq: 14 Jan 2025 14:56

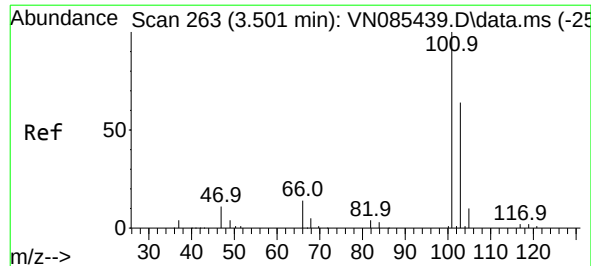
Tgt Ion: 64 Resp: 176111

Ion Ratio Lower Upper

64 100

66 31.1 24.6 36.8





#7

Trichlorofluoromethane

Concen: 97.870 ug/l

RT: 3.494 min Scan# 26

Delta R.T. -0.006 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion:101 Resp: 423967

Ion Ratio Lower Upper

101 100

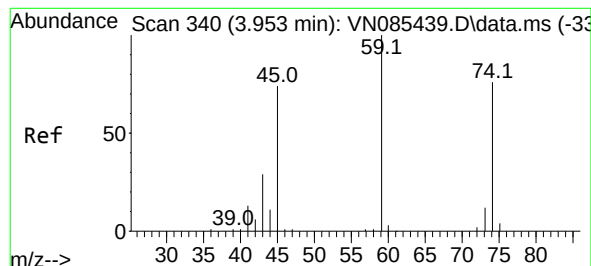
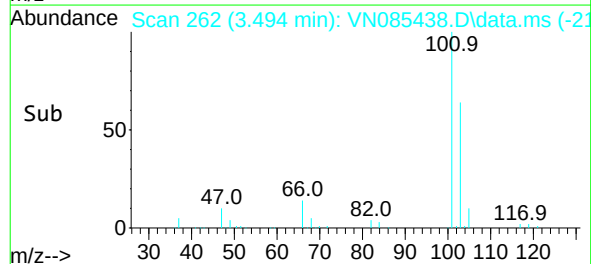
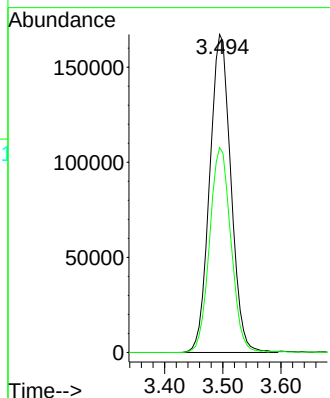
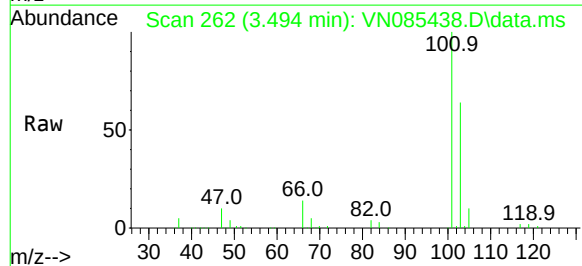
103 64.4 51.4 77.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#8

Diethyl Ether

Concen: 98.154 ug/l

RT: 3.953 min Scan# 340

Delta R.T. -0.000 min

Lab File: VN085438.D

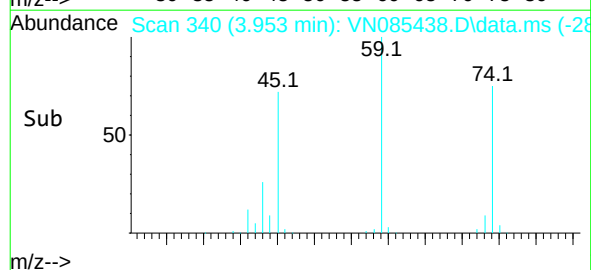
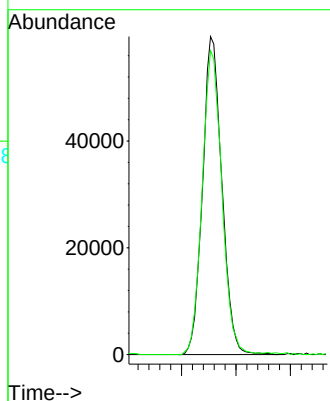
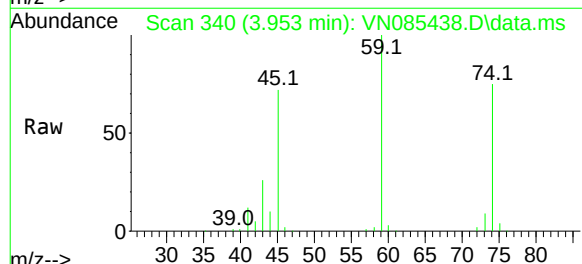
Acq: 14 Jan 2025 14:56

Tgt Ion: 74 Resp: 146889

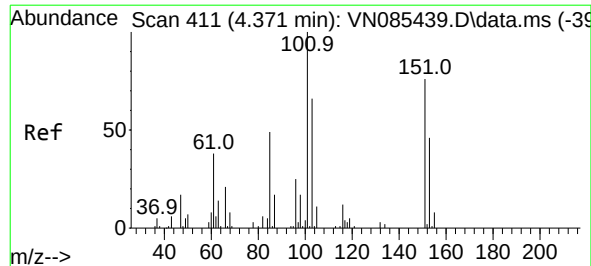
Ion Ratio Lower Upper

74 100

45 97.4 49.7 149.1







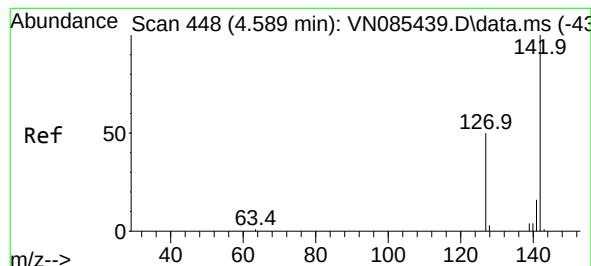
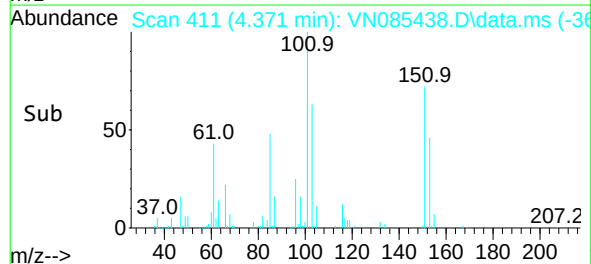
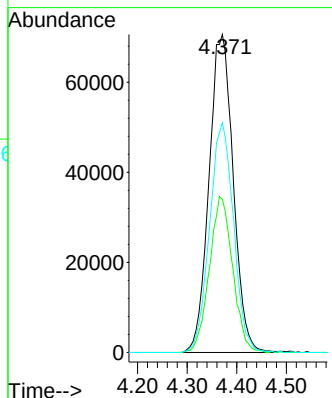
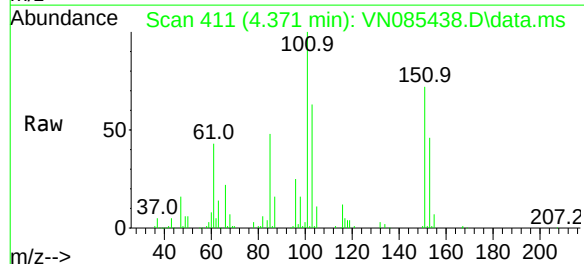
#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 97.997 ug/l  
RT: 4.371 min Scan# 411  
Delta R.T. -0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100

Tgt Ion:101 Resp: 239104  
Ion Ratio Lower Upper  
101 100  
85 47.1 37.8 56.8  
151 71.8 58.8 88.2

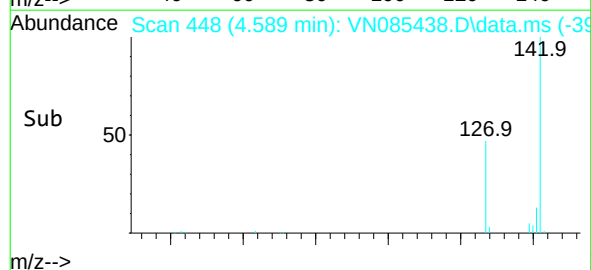
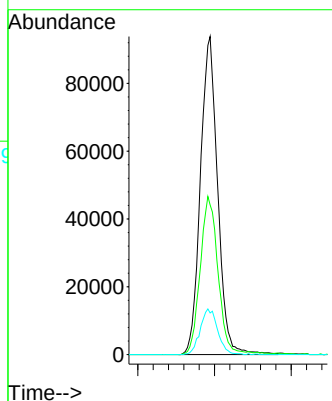
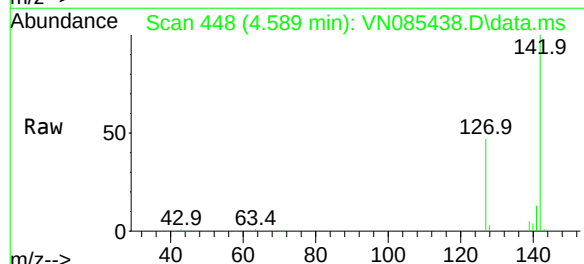
Manual Integrations  
APPROVED

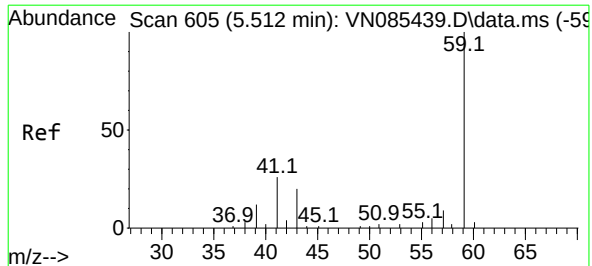
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#10  
Methyl Iodide  
Concen: 104.856 ug/l  
RT: 4.589 min Scan# 448  
Delta R.T. -0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

Tgt Ion:142 Resp: 292983  
Ion Ratio Lower Upper  
142 100  
127 47.1 40.3 60.5  
141 13.1 12.8 19.2





#11

Tert butyl alcohol

Concen: 462.061 ug/l

RT: 5.512 min Scan# 605

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 59 Resp: 173044

Ion Ratio Lower Upper

59 100

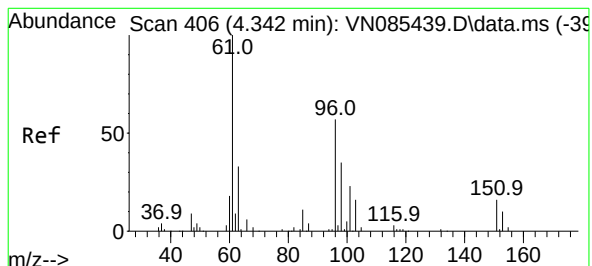
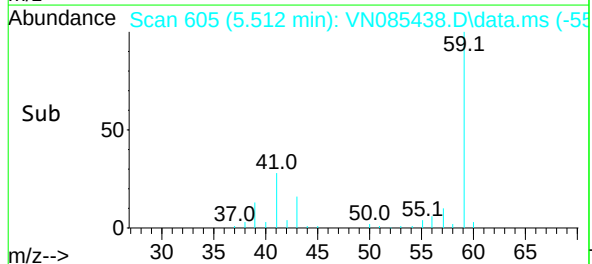
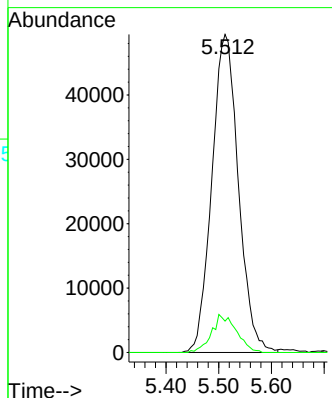
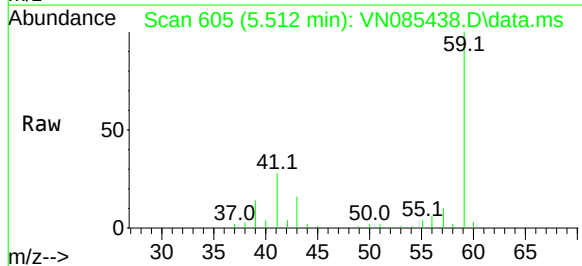
57 11.1 8.6 13.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#12

1,1-Dichloroethene

Concen: 102.146 ug/l

RT: 4.336 min Scan# 405

Delta R.T. -0.006 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

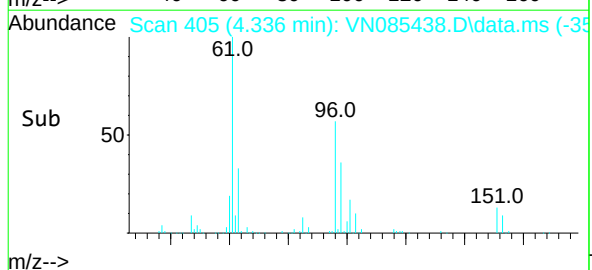
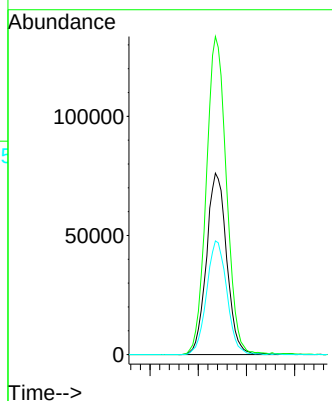
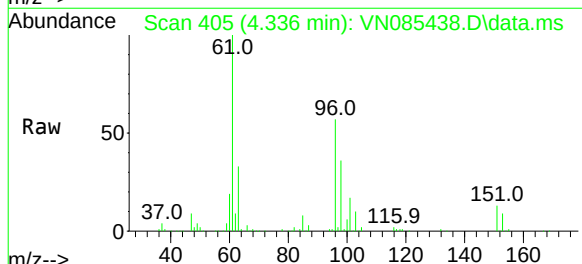
Tgt Ion: 96 Resp: 222117

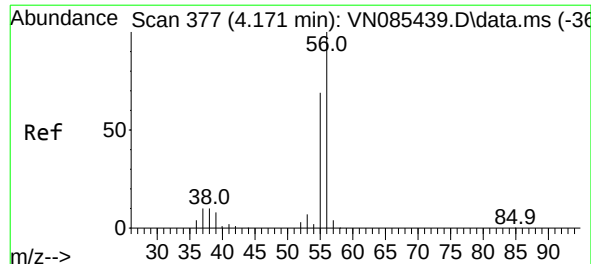
Ion Ratio Lower Upper

96 100

61 175.3 141.0 211.4

98 62.7 49.0 73.6





#13

Acrolein

Concen: 538.600 ug/l

RT: 4.171 min Scan# 377

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 56 Resp: 275350

Ion Ratio Lower Upper

56 100

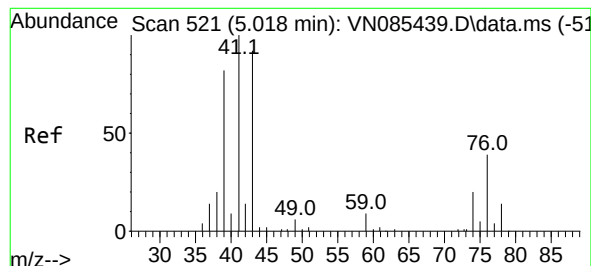
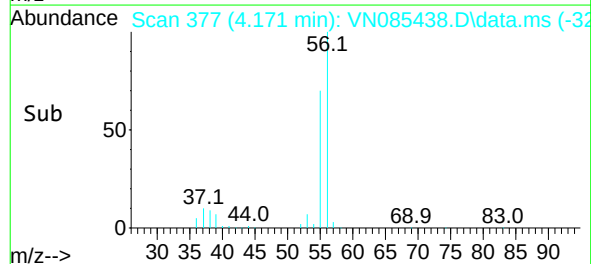
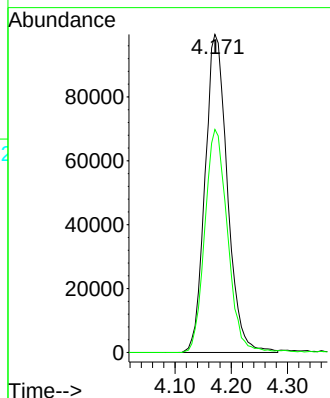
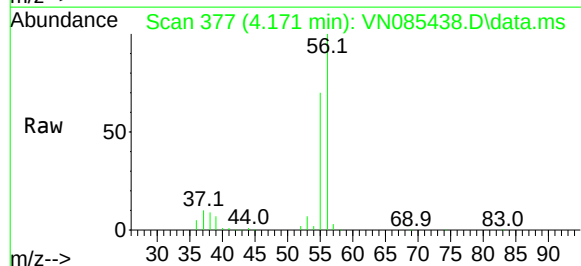
55 71.1 56.3 84.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#14

Allyl chloride

Concen: 99.111 ug/l

RT: 5.018 min Scan# 521

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

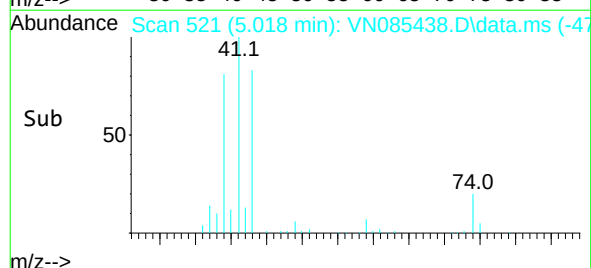
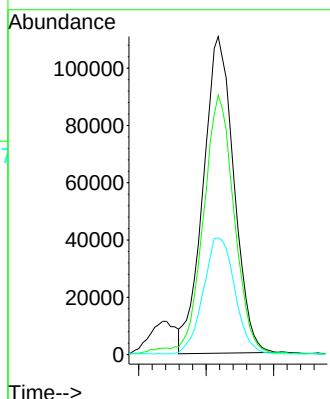
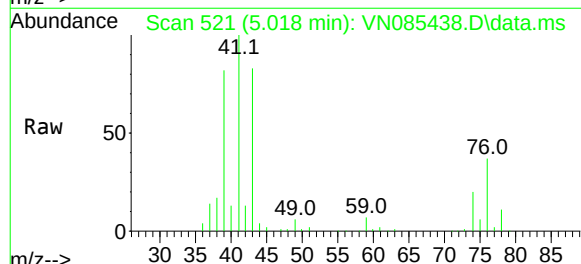
Tgt Ion: 41 Resp: 349717

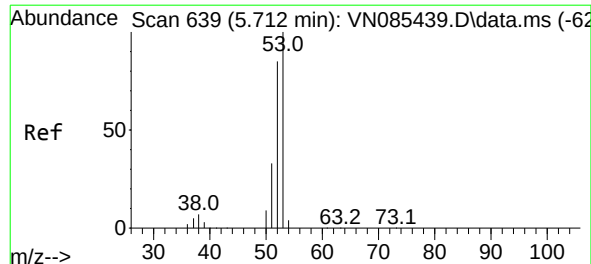
Ion Ratio Lower Upper

41 100

39 83.3 64.4 96.6

76 37.9 30.5 45.7





#15

Acrylonitrile

Concen: 492.095 ug/l

RT: 5.712 min Scan# 639

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

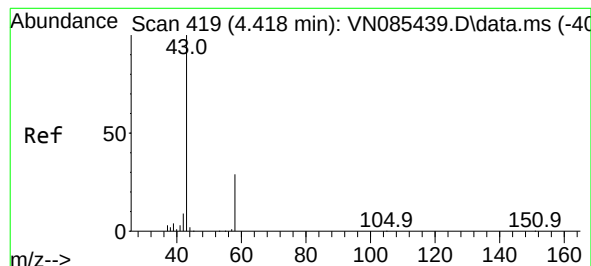
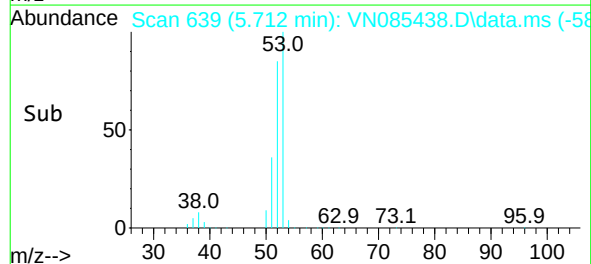
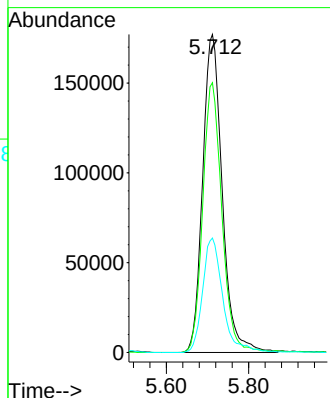
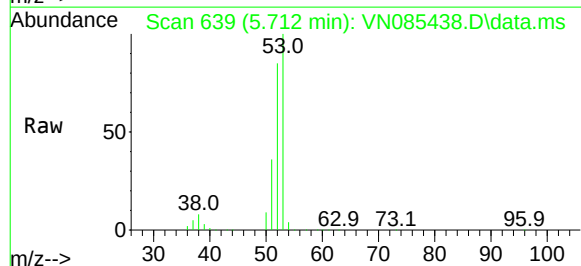
VSTDIC100

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 53    | Resp: | 585370 |
| Ion      | Ratio | Lower | Upper  |
| 53       | 100   |       |        |
| 52       | 83.0  | 65.5  | 98.3   |
| 51       | 37.1  | 29.8  | 44.8   |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#16

Acetone

Concen: 457.268 ug/l

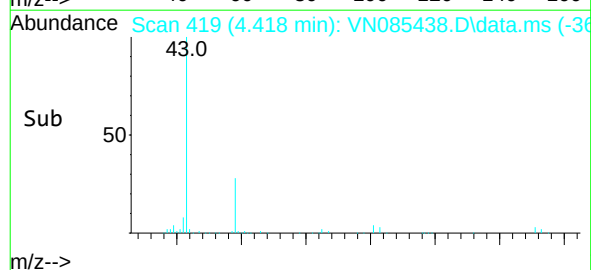
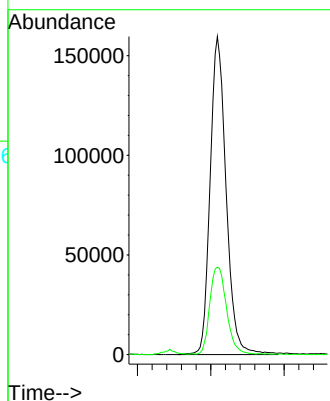
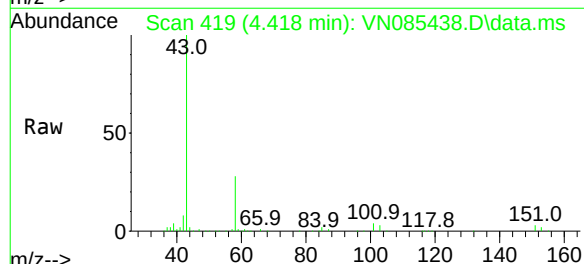
RT: 4.418 min Scan# 419

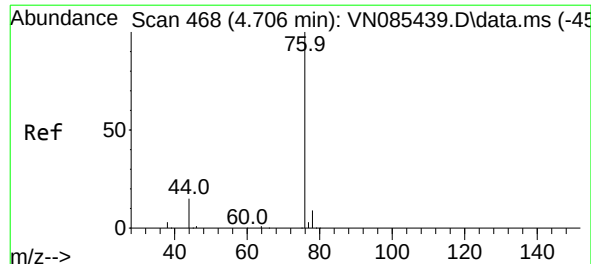
Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 483221 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 27.3  | 23.8  | 35.6   |





#17

Carbon Disulfide

Concen: 94.140 ug/l

RT: 4.712 min Scan# 46

Delta R.T. 0.006 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Tgt Ion: 76 Resp: 630294

Ion Ratio Lower Upper

76 100

78 8.7 6.9 10.3

Instrument :

MSVOA\_N

ClientSampleId :

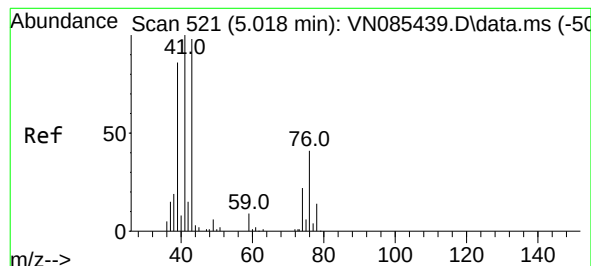
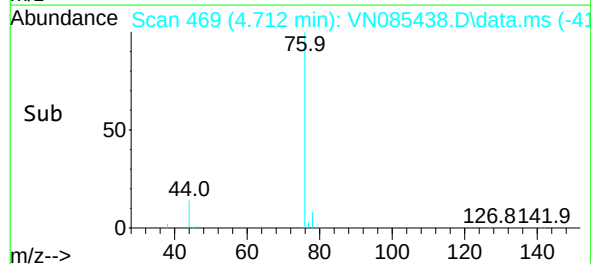
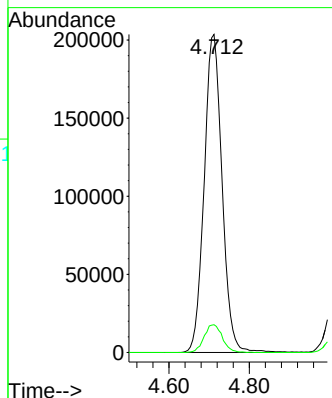
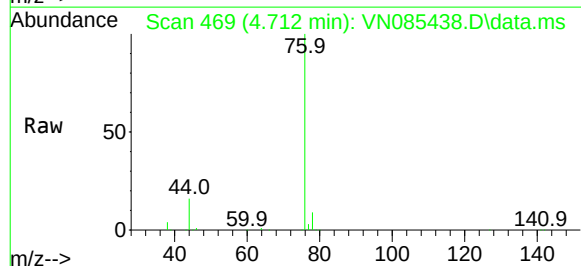
VSTDICC100

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#18

Methyl Acetate

Concen: 94.674 ug/l

RT: 5.012 min Scan# 520

Delta R.T. -0.006 min

Lab File: VN085438.D

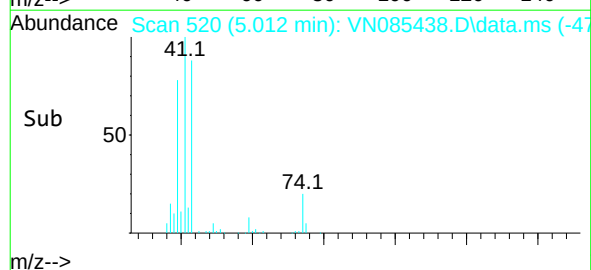
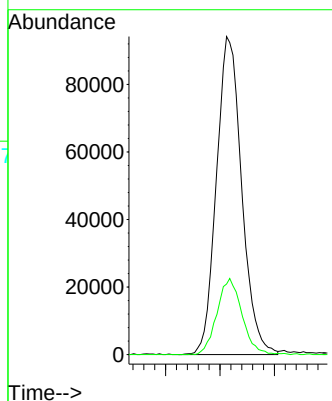
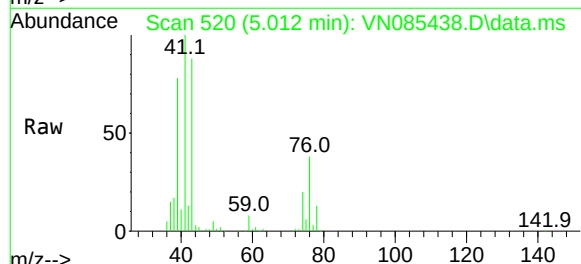
Acq: 14 Jan 2025 14:56

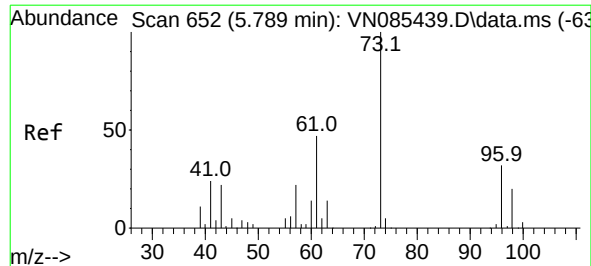
Tgt Ion: 43 Resp: 304226

Ion Ratio Lower Upper

43 100

74 23.6 18.6 28.0





#19

Methyl tert-butyl Ether

Concen: 105.230 ug/l

RT: 5.788 min Scan# 65

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 73 Resp: 743008

Ion Ratio Lower Upper

73 100

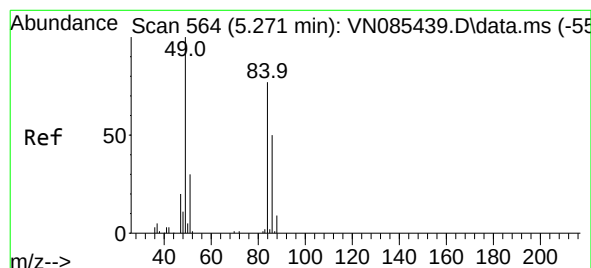
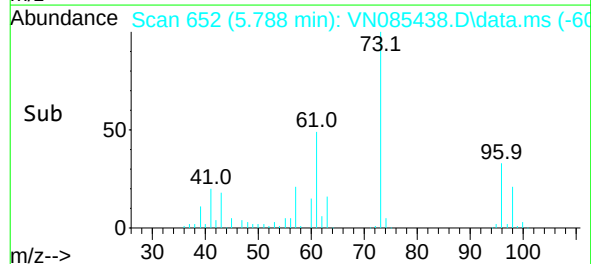
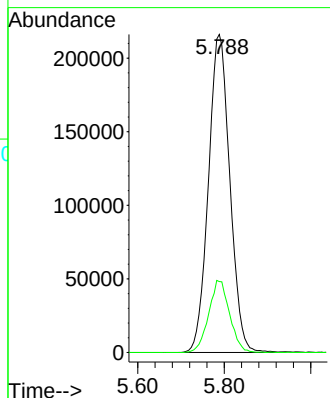
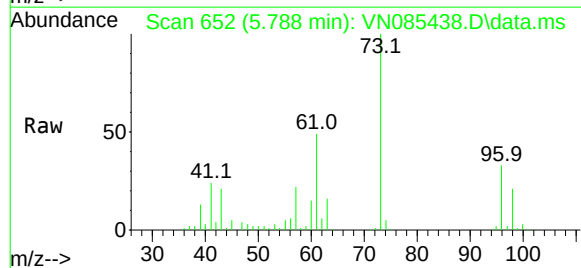
57 22.3 17.8 26.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#20

Methylene Chloride

Concen: 97.440 ug/l

RT: 5.271 min Scan# 564

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Tgt Ion: 84 Resp: 254912

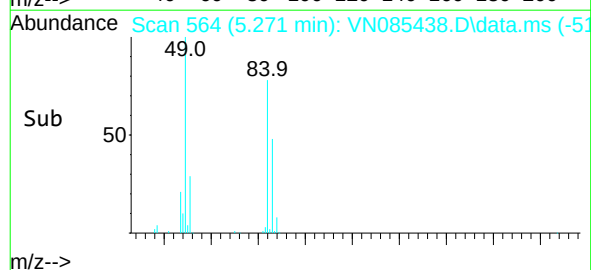
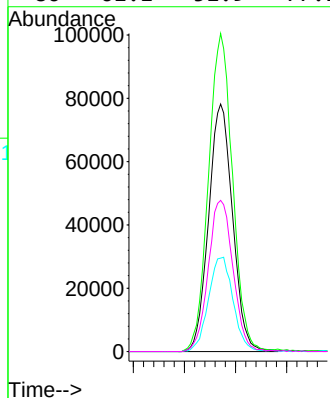
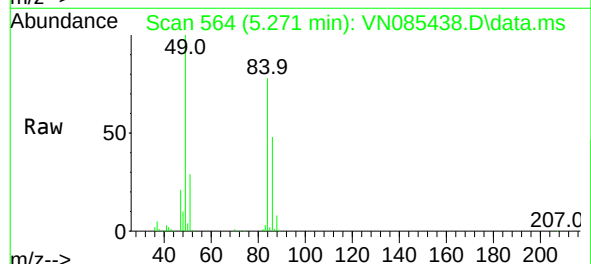
Ion Ratio Lower Upper

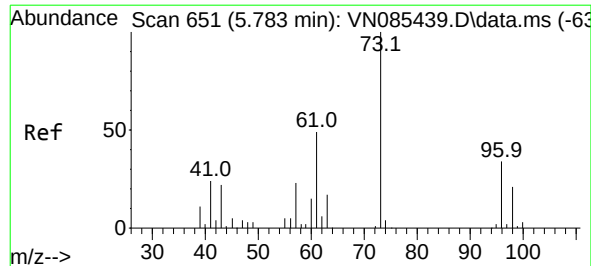
84 100

49 128.5 104.1 156.1

51 37.8 31.0 46.4

86 61.1 51.9 77.9





#21

trans-1,2-Dichloroethene

Concen: 99.618 ug/l

RT: 5.783 min Scan# 651

Delta R.T. -0.000 min

Lab File: VN085438.D

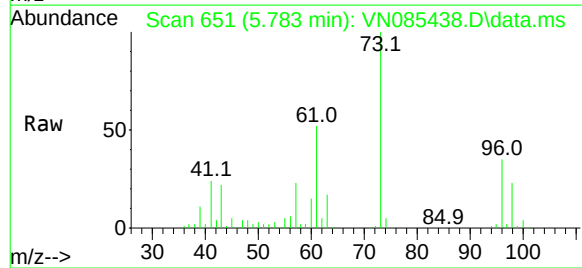
Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100



Tgt Ion: 96 Resp: 231503

Ion Ratio Lower Upper

96 100

61 148.3 115.7 173.5

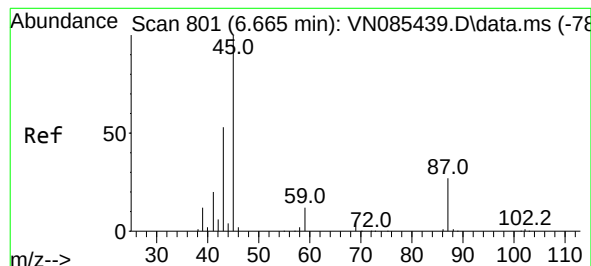
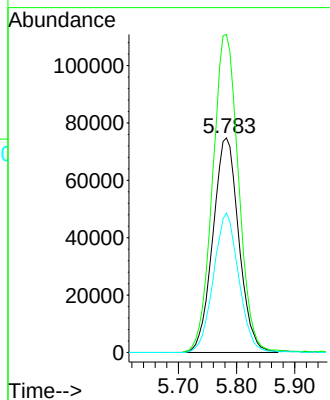
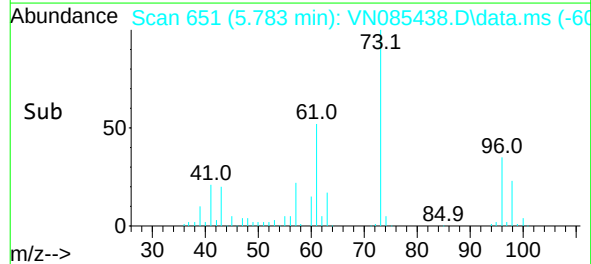
98 65.0 49.8 74.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#22

Diisopropyl ether

Concen: 104.812 ug/l

RT: 6.665 min Scan# 801

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Tgt Ion: 45 Resp: 820871

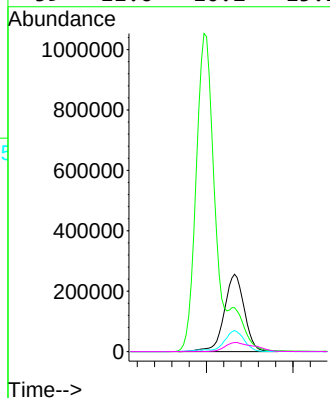
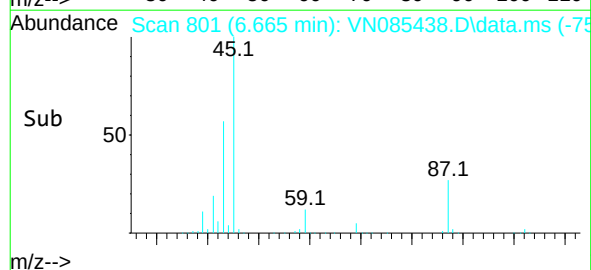
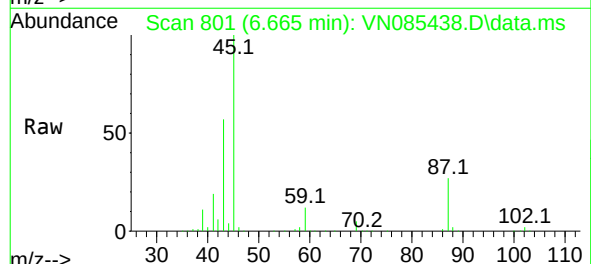
Ion Ratio Lower Upper

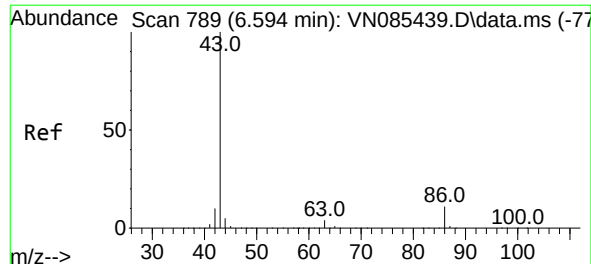
45 100

43 55.7 45.0 67.6

87 27.2 21.8 32.8

59 11.6 10.2 15.2





#23

Vinyl Acetate

Concen: 550.850 ug/l

RT: 6.594 min Scan# 789

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 43 Resp: 3029568

Ion Ratio Lower Upper

43 100

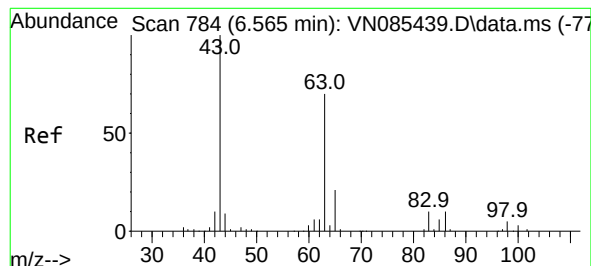
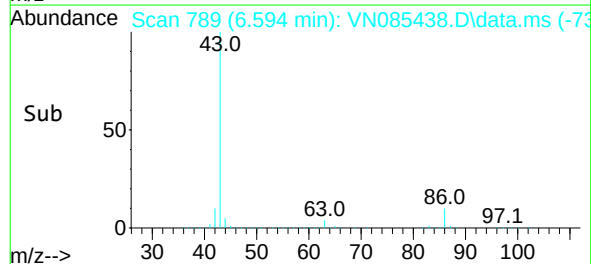
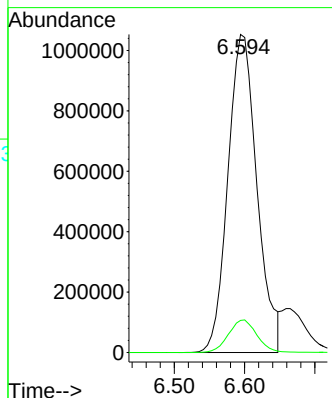
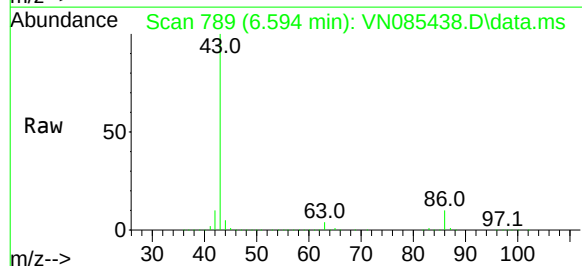
86 10.1 8.4 12.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#24

1,1-Dichloroethane

Concen: 98.803 ug/l

RT: 6.565 min Scan# 784

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

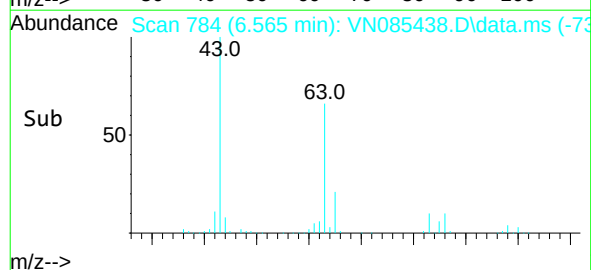
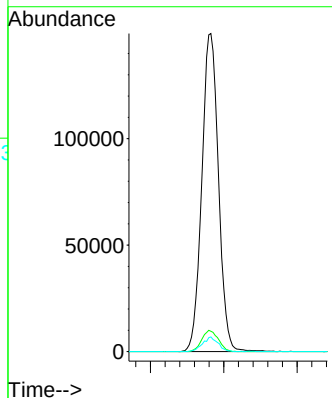
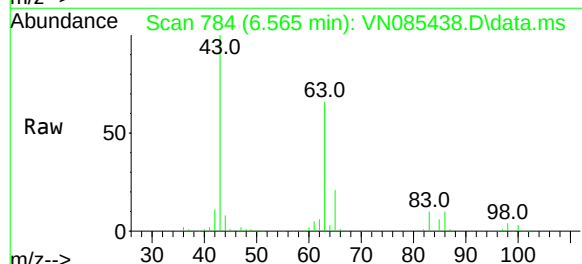
Tgt Ion: 63 Resp: 471831

Ion Ratio Lower Upper

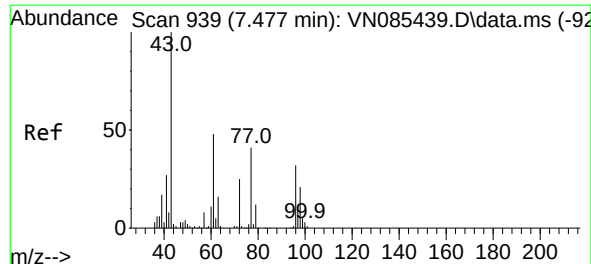
63 100

98 6.4 3.3 9.8

100 4.6 2.0 6.0







#25

2-Butanone

Concen: 491.912 ug/l

RT: 7.477 min Scan# 939

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 43 Resp: 764979

Ion Ratio Lower Upper

43 100

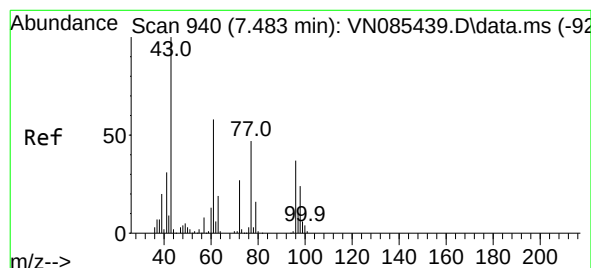
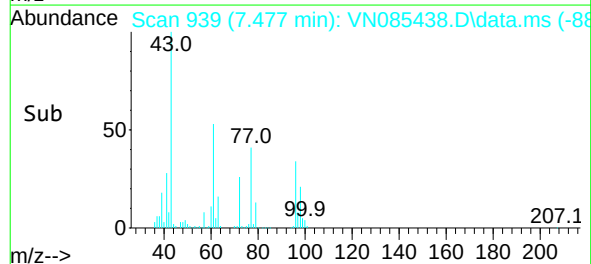
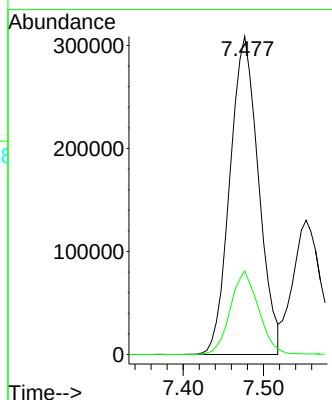
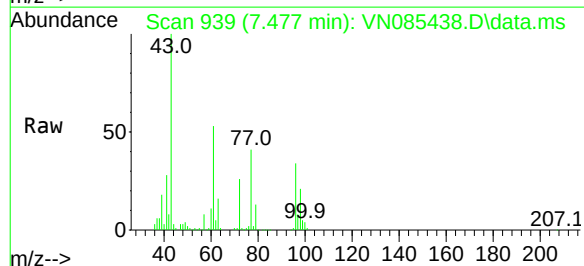
72 26.3 20.2 30.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#26

2,2-Dichloropropane

Concen: 100.530 ug/l

RT: 7.482 min Scan# 940

Delta R.T. -0.000 min

Lab File: VN085438.D

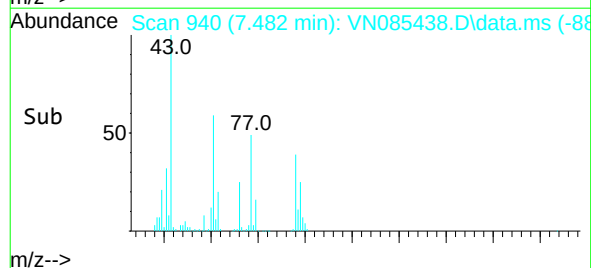
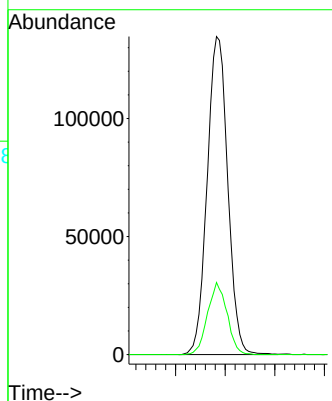
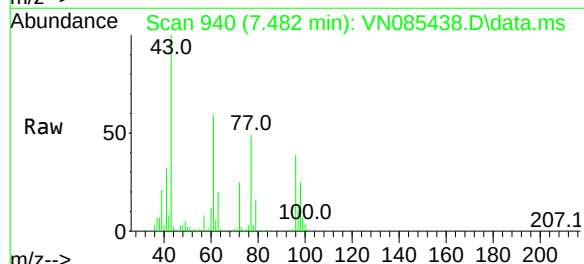
Acq: 14 Jan 2025 14:56

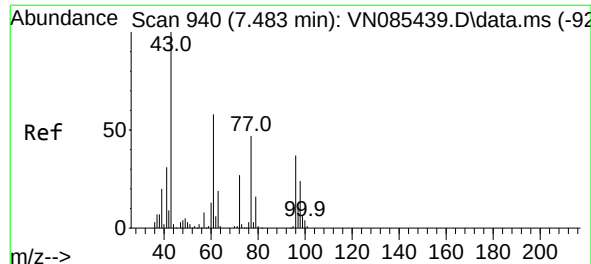
Tgt Ion: 77 Resp: 388140

Ion Ratio Lower Upper

77 100

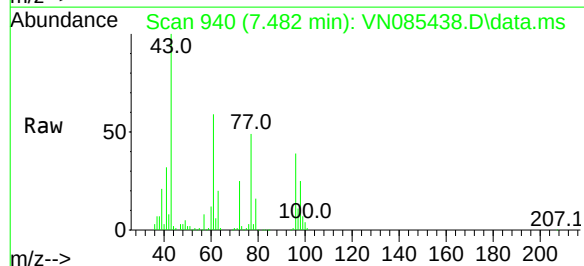
97 21.4 10.7 32.1





#27  
cis-1,2-Dichloroethene  
Concen: 102.367 ug/l  
RT: 7.482 min Scan# 940  
Delta R.T. -0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

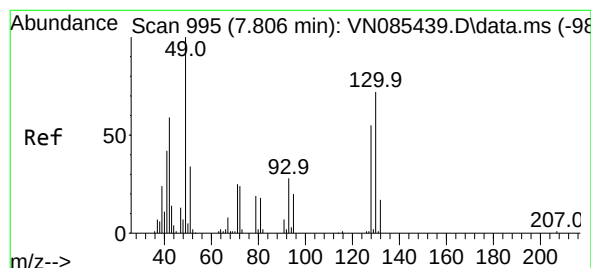
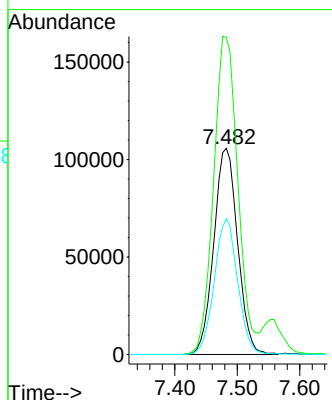
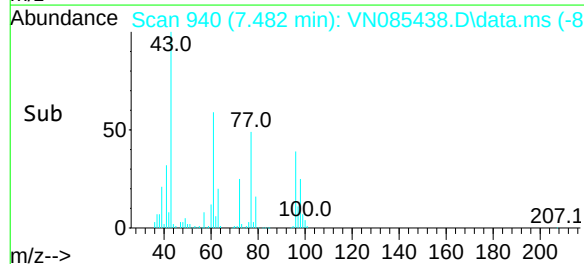
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion: 96 Resp: 280197  
Ion Ratio Lower Upper  
96 100  
61 156.8 0.0 311.8  
98 65.0 0.0 126.0

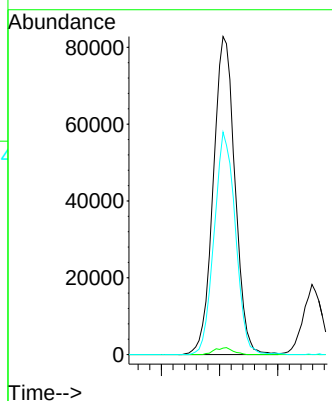
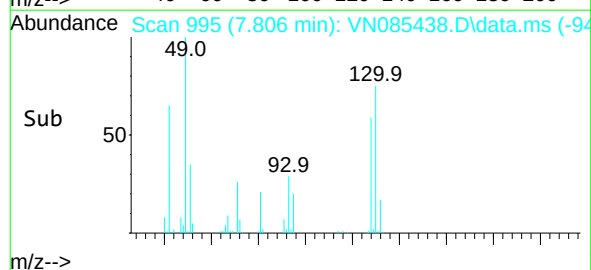
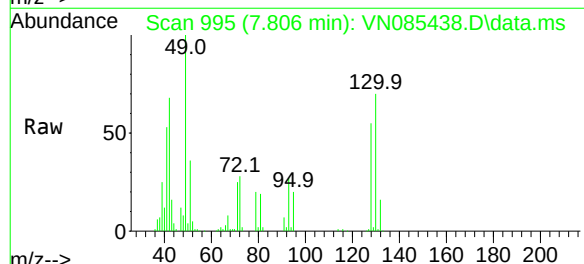
Manual Integrations  
APPROVED

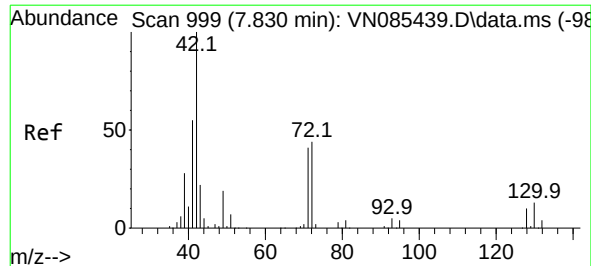
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#28  
Bromochloromethane  
Concen: 96.679 ug/l  
RT: 7.806 min Scan# 995  
Delta R.T. -0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

Tgt Ion: 49 Resp: 214796  
Ion Ratio Lower Upper  
49 100  
129 1.9 0.0 4.4  
130 68.4 55.0 82.4





#29

Tetrahydrofuran

Concen: 510.635 ug/l

RT: 7.830 min Scan# 999

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 42 Resp: 503459

Ion Ratio Lower Upper

42 100

72 43.1 34.2 51.2

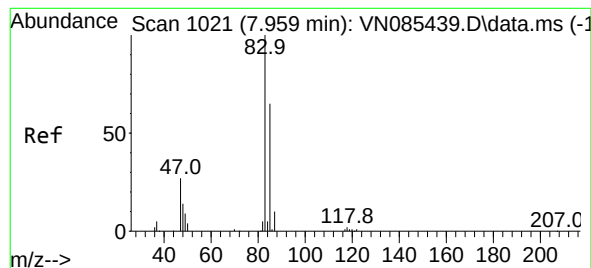
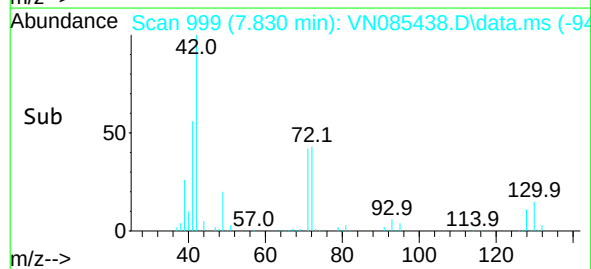
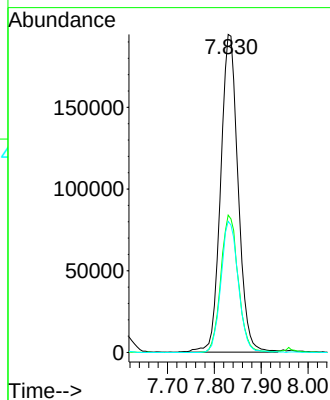
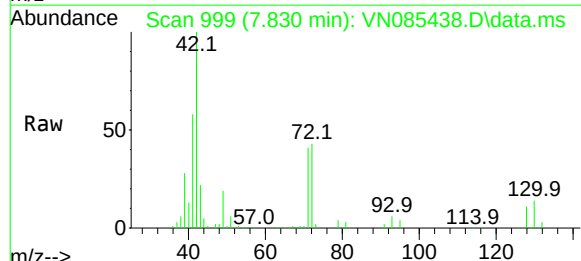
71 40.9 32.5 48.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#30

Chloroform

Concen: 98.253 ug/l

RT: 7.959 min Scan# 1021

Delta R.T. -0.000 min

Lab File: VN085438.D

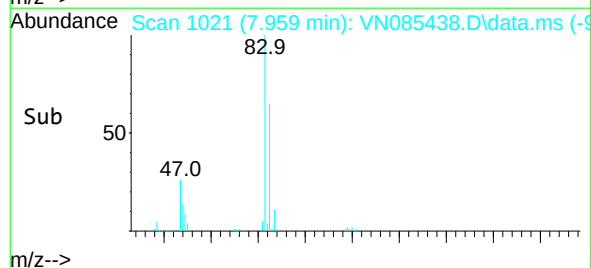
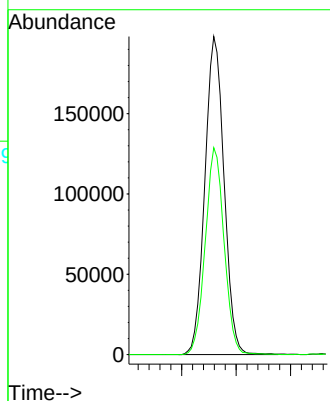
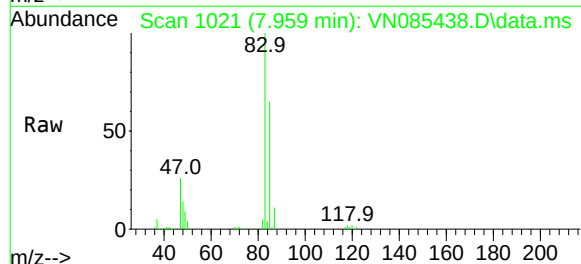
Acq: 14 Jan 2025 14:56

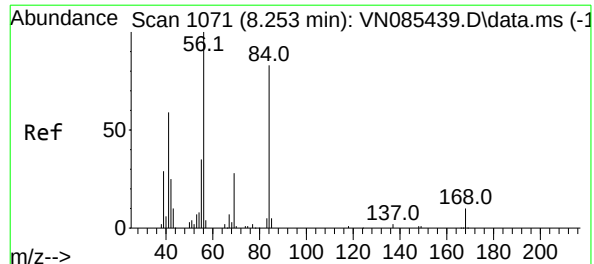
Tgt Ion: 83 Resp: 484941

Ion Ratio Lower Upper

83 100

85 65.0 51.8 77.6





#31

Cyclohexane

Concen: 96.041 ug/l

RT: 8.253 min Scan# 1071

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 56 Resp: 398641

Ion Ratio Lower Upper

56 100

69 29.2 22.2 33.4

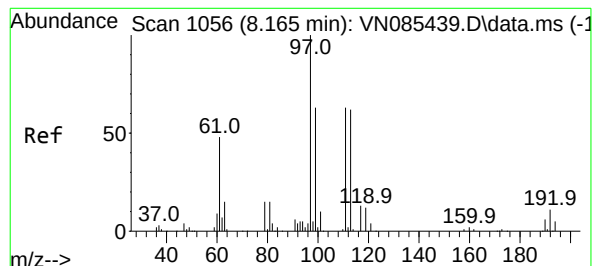
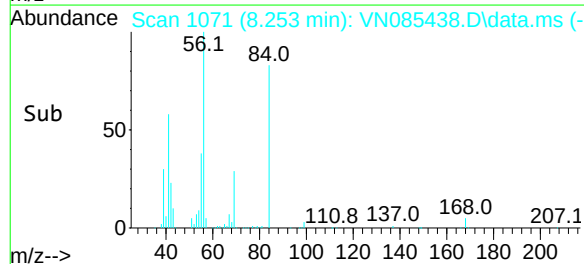
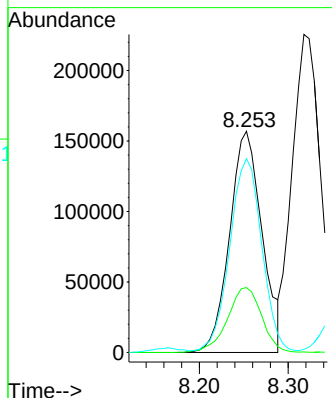
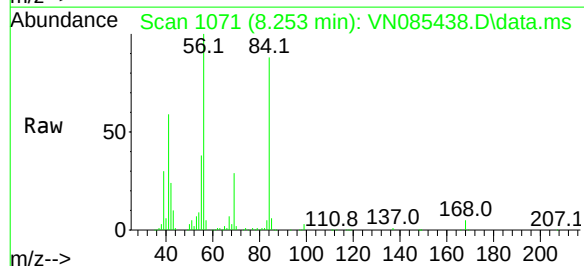
84 86.4 66.4 99.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#32

1,1,1-Trichloroethane

Concen: 98.578 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

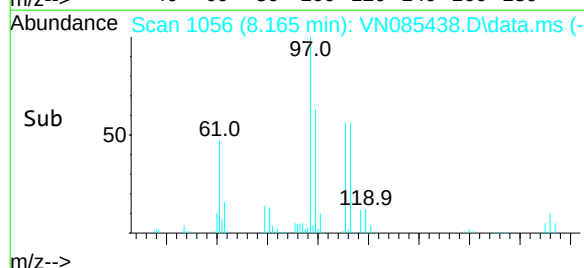
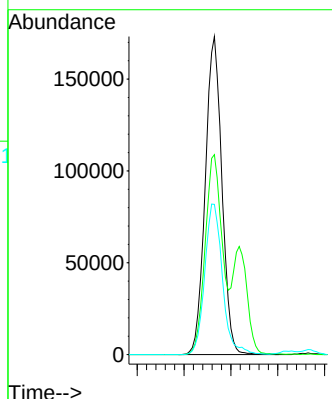
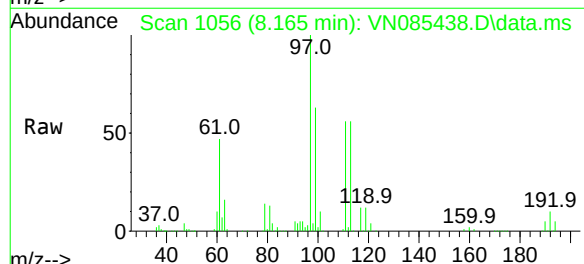
Tgt Ion: 97 Resp: 426782

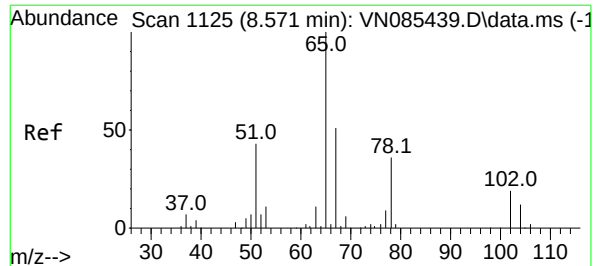
Ion Ratio Lower Upper

97 100

99 64.2 49.8 74.6

61 50.6 41.4 62.2





#33

1,2-Dichloroethane-d4

Concen: 95.899 ug/l

RT: 8.571 min Scan# 1125

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 65 Resp: 313645

Ion Ratio Lower Upper

65 100

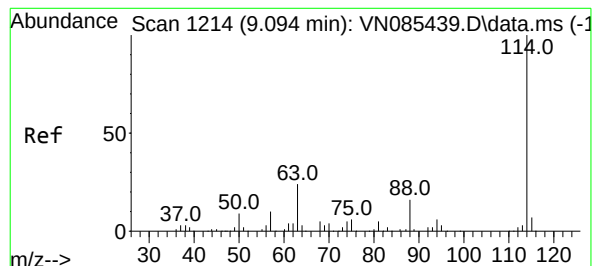
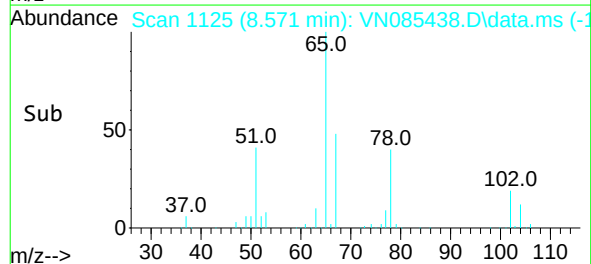
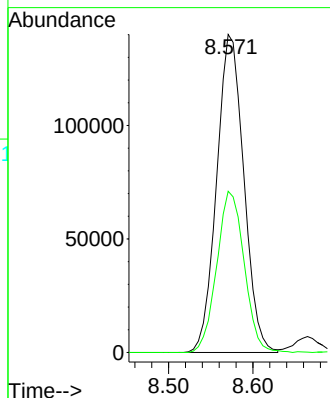
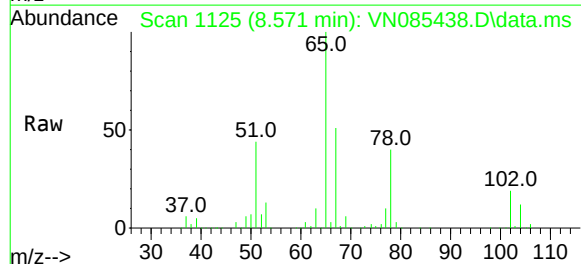
67 51.1 0.0 101.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.094 min Scan# 1214

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

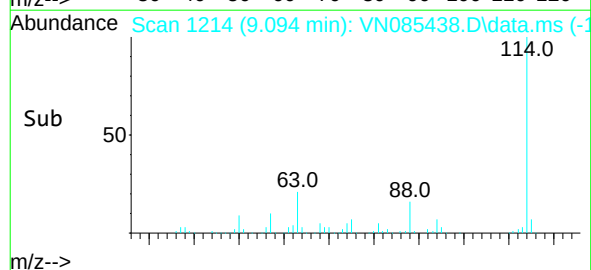
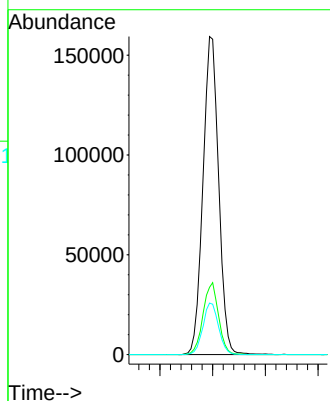
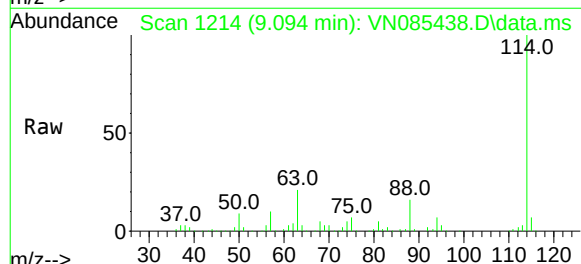
Tgt Ion:114 Resp: 329363

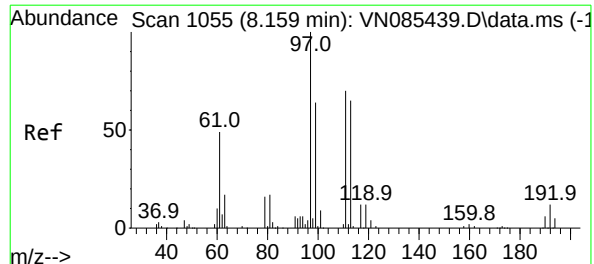
Ion Ratio Lower Upper

114 100

63 21.2 0.0 47.6

88 16.2 0.0 32.6





#35

Dibromofluoromethane

Concen: 103.353 ug/l

RT: 8.159 min Scan# 1055

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 113 Resp: 236159

Ion Ratio Lower Upper

113 100

111 102.3 82.7 124.1

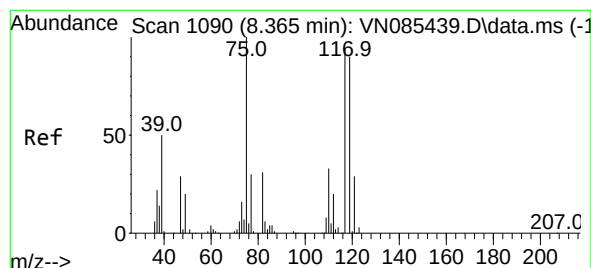
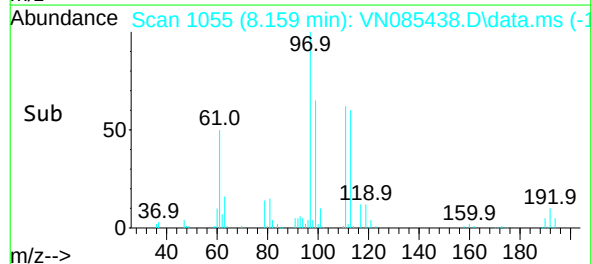
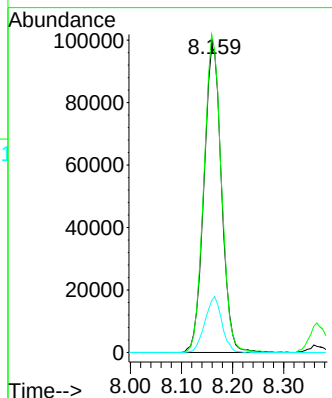
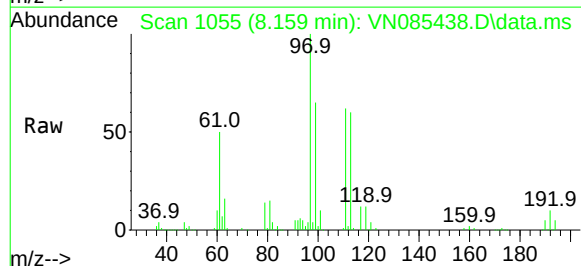
192 17.4 14.3 21.5

Manual Integrations

APPROVED

Reviewed By : John Carlone 01/15/2025

Supervised By : Mahesh Dadoda 01/15/2025



#36

1,1-Dichloropropene

Concen: 106.945 ug/l

RT: 8.365 min Scan# 1090

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

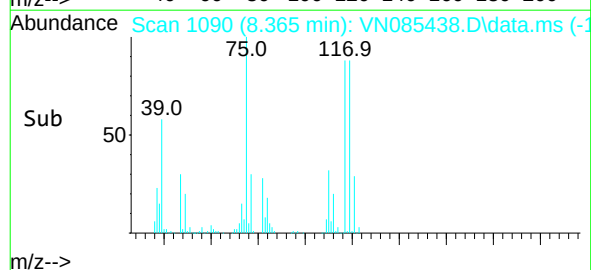
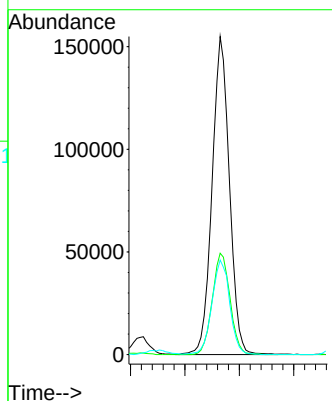
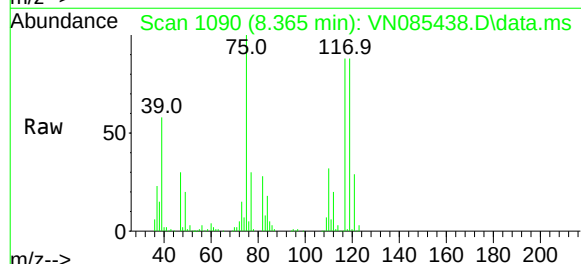
Tgt Ion: 75 Resp: 342961

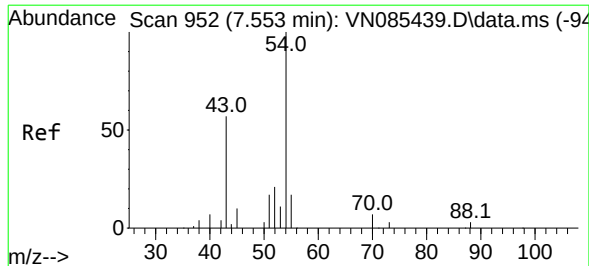
Ion Ratio Lower Upper

75 100

110 32.6 16.5 49.5

77 30.6 24.4 36.6





#37

Ethyl Acetate

Concen: 100.961 ug/l

RT: 7.553 min Scan# 95

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 43 Resp: 326802

Ion Ratio Lower Upper

43 100

61 12.0 10.9 16.3

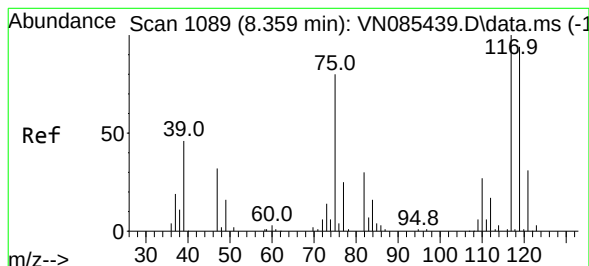
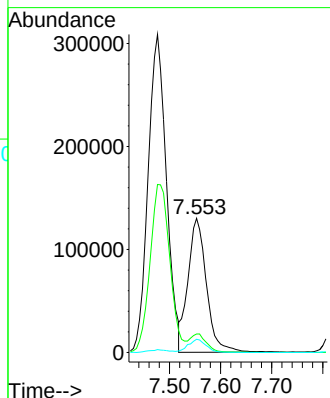
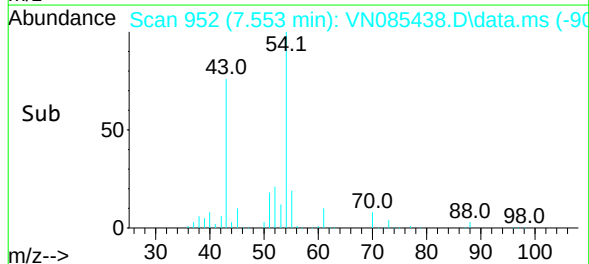
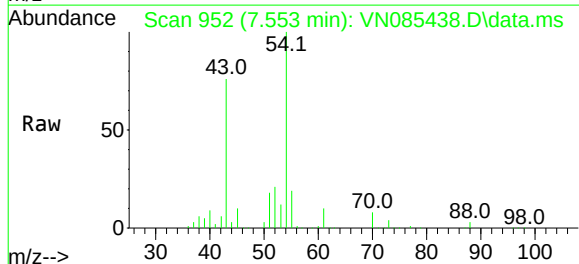
70 9.6 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#38

Carbon Tetrachloride

Concen: 103.065 ug/l

RT: 8.359 min Scan# 1089

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

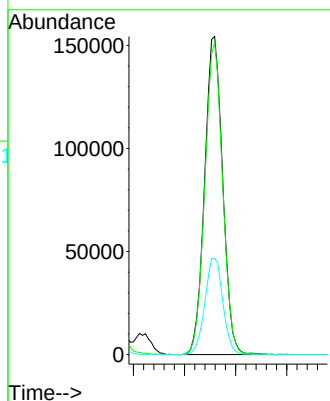
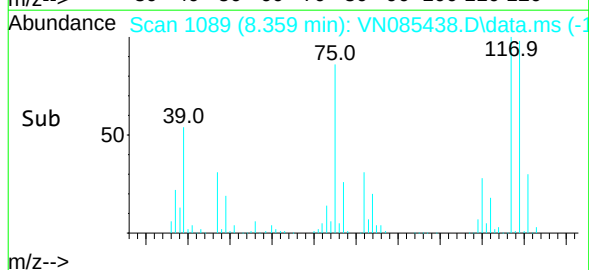
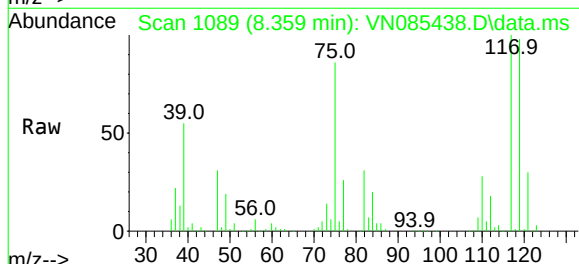
Tgt Ion:117 Resp: 378390

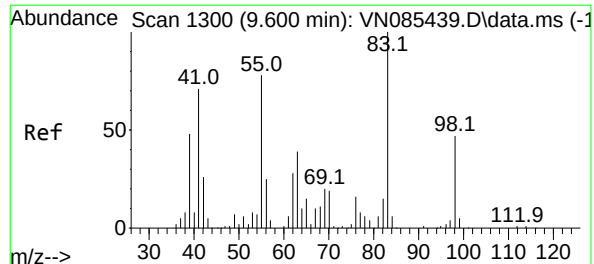
Ion Ratio Lower Upper

117 100

119 98.1 75.4 113.2

121 30.2 24.6 37.0





#39

Methylcyclohexane

Concen: 123.354 ug/l

RT: 9.594 min Scan# 12

Delta R.T. -0.006 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 83 Resp: 371734

Ion Ratio Lower Upper

83 100

55 79.3 62.6 94.0

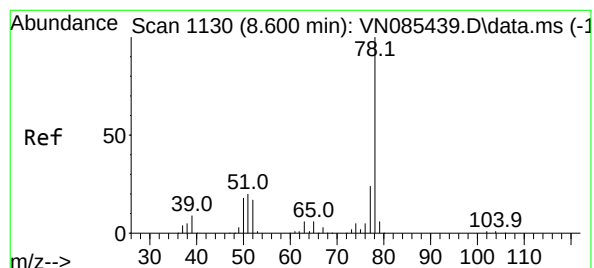
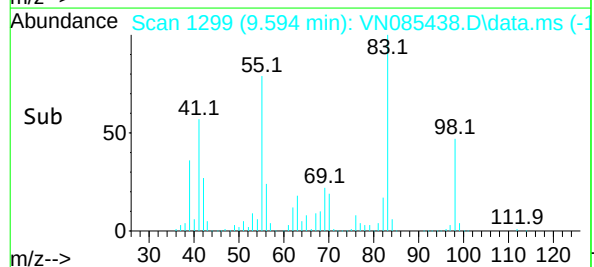
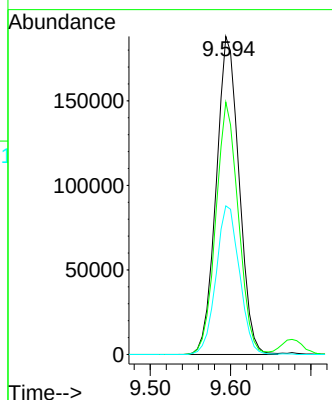
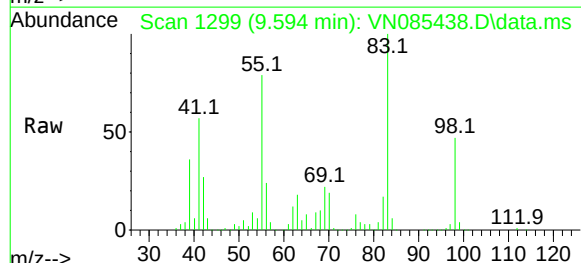
98 46.7 37.7 56.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#40

Benzene

Concen: 106.001 ug/l

RT: 8.600 min Scan# 1130

Delta R.T. -0.000 min

Lab File: VN085438.D

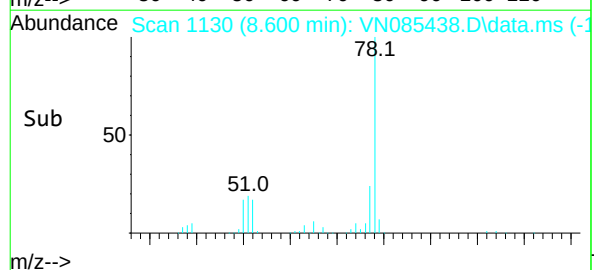
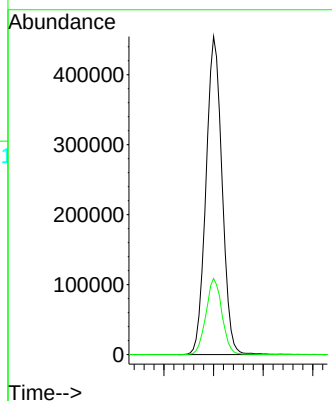
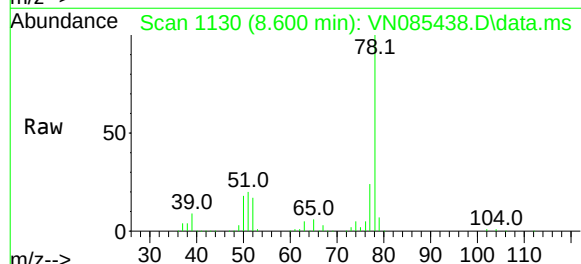
Acq: 14 Jan 2025 14:56

Tgt Ion: 78 Resp: 1021393

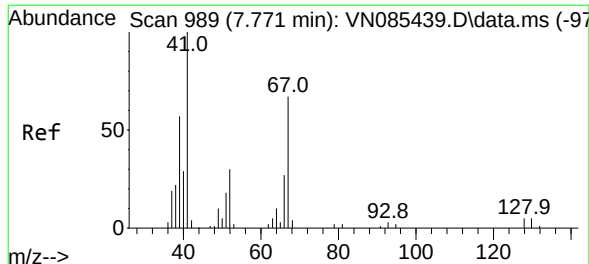
Ion Ratio Lower Upper

78 100

77 23.9 19.0 28.6







#41

Methacrylonitrile

Concen: 109.454 ug/l

RT: 7.777 min Scan# 99

Delta R.T. 0.006 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 41 Resp: 184326

Ion Ratio Lower Upper

41 100

39 52.8 46.0 69.0

67 68.8 57.4 86.2

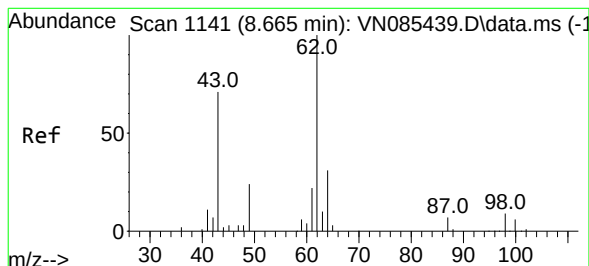
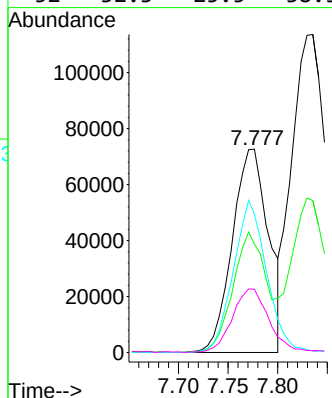
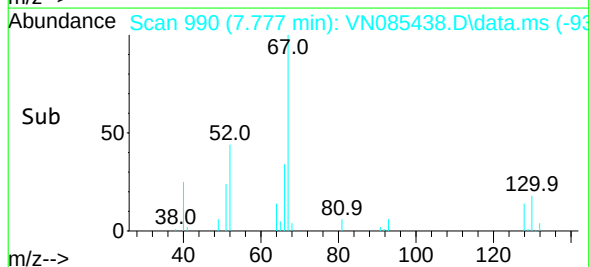
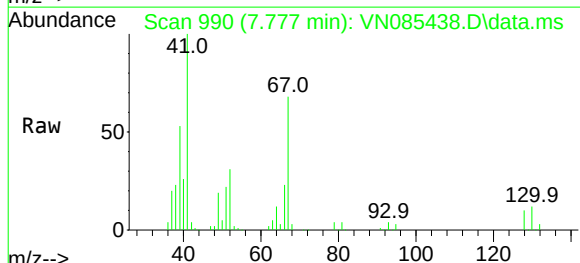
52 32.3 25.5 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#42

1,2-Dichloroethane

Concen: 103.314 ug/l

RT: 8.665 min Scan# 1141

Delta R.T. -0.000 min

Lab File: VN085438.D

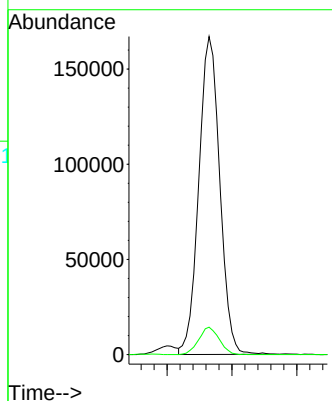
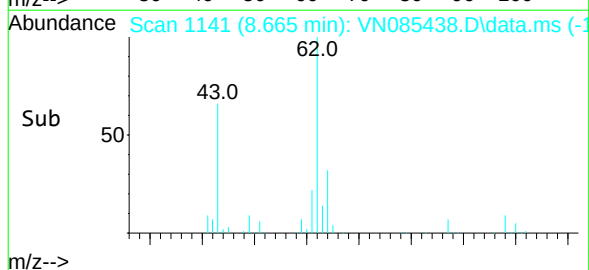
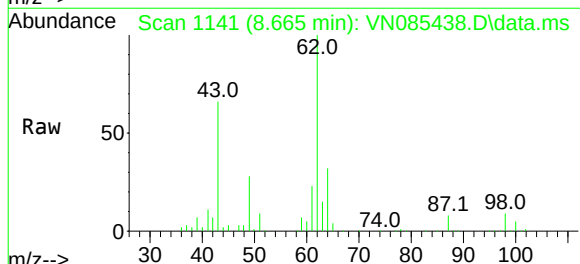
Acq: 14 Jan 2025 14:56

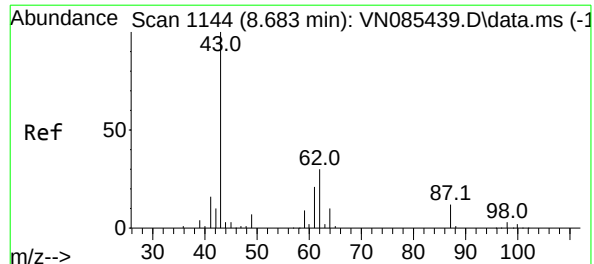
Tgt Ion: 62 Resp: 374938

Ion Ratio Lower Upper

62 100

98 8.4 0.0 17.0





#43

Isopropyl Acetate

Concen: 106.035 ug/l

RT: 8.682 min Scan# 1144

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 43 Resp: 549969

Ion Ratio Lower Upper

43 100

61 25.7 20.7 31.1

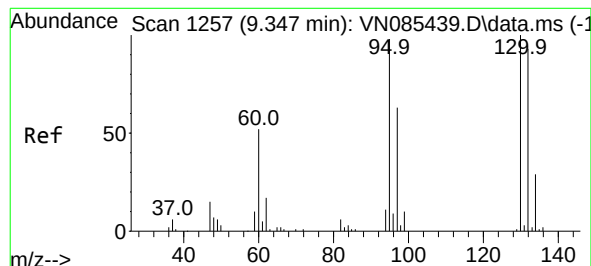
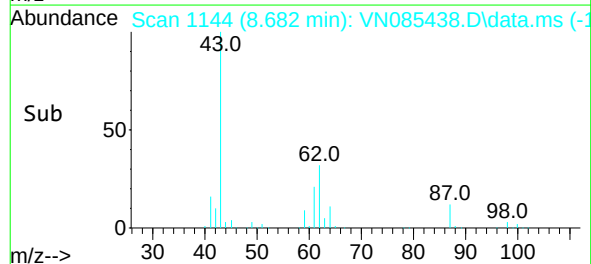
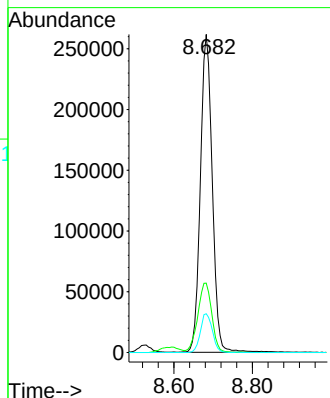
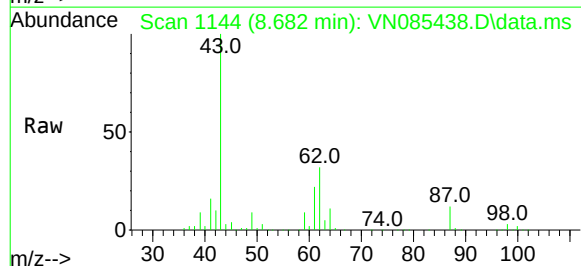
87 12.2 9.8 14.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#44

Trichloroethene

Concen: 106.242 ug/l

RT: 9.347 min Scan# 1257

Delta R.T. -0.000 min

Lab File: VN085438.D

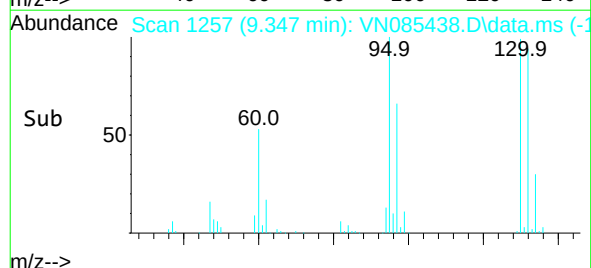
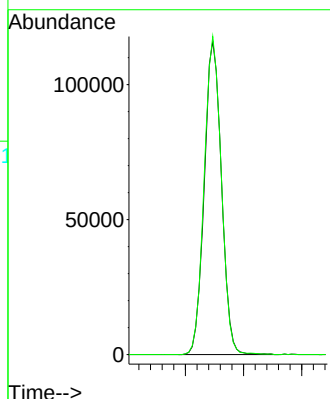
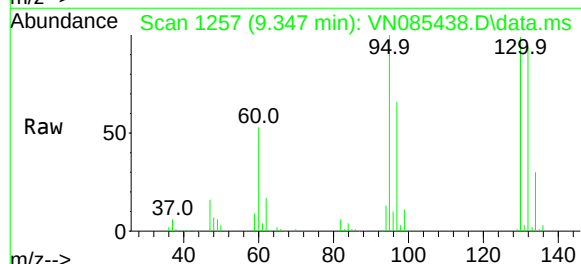
Acq: 14 Jan 2025 14:56

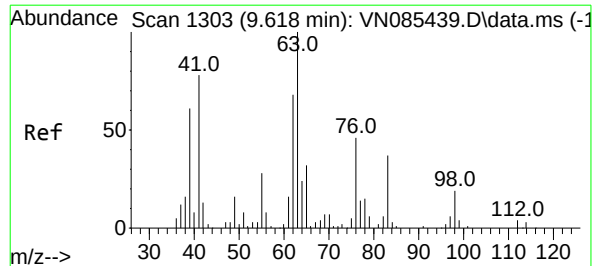
Tgt Ion:130 Resp: 238296

Ion Ratio Lower Upper

130 100

95 101.5 0.0 195.8





#45

1,2-Dichloropropane

Concen: 104.405 ug/l

RT: 9.618 min Scan# 13

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 63 Resp: 256964

Ion Ratio Lower Upper

63 100

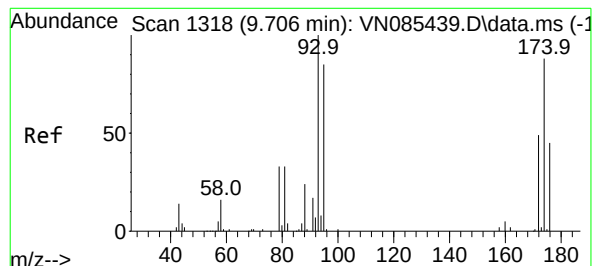
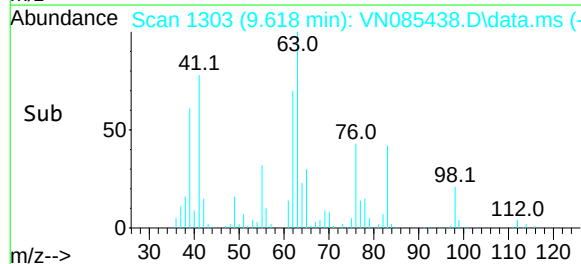
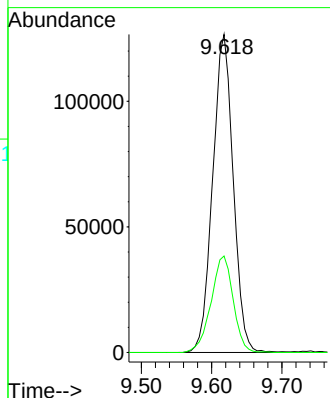
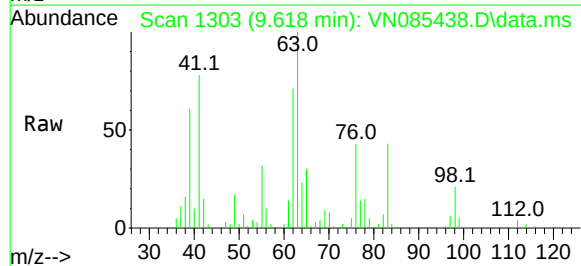
65 30.3 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#46

Dibromomethane

Concen: 101.913 ug/l

RT: 9.706 min Scan# 1318

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

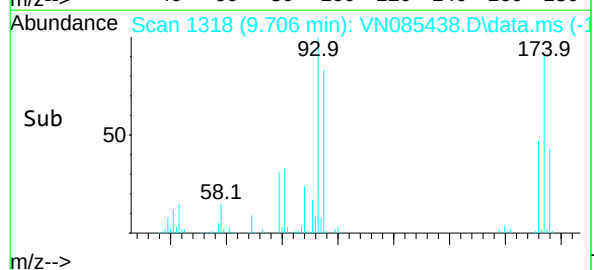
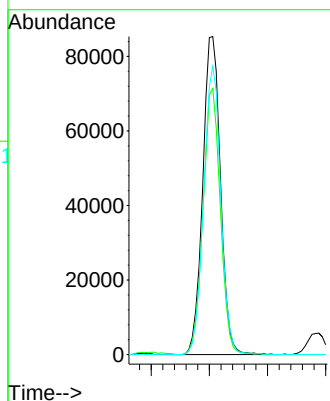
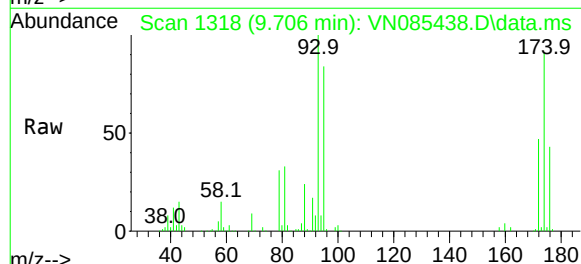
Tgt Ion: 93 Resp: 180990

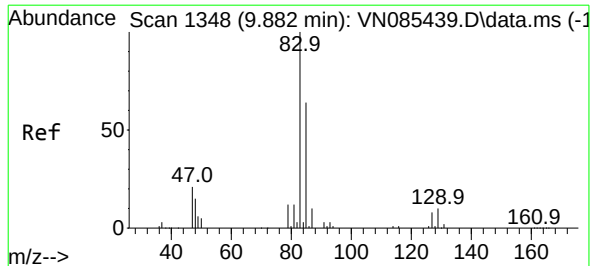
Ion Ratio Lower Upper

93 100

95 81.6 64.7 97.1

174 87.5 69.0 103.4





#47

Bromodichloromethane

Concen: 107.377 ug/l

RT: 9.882 min Scan# 1348

Delta R.T. 0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

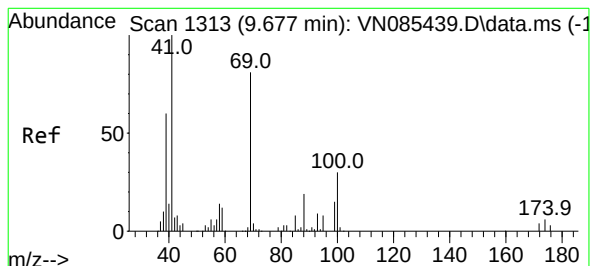
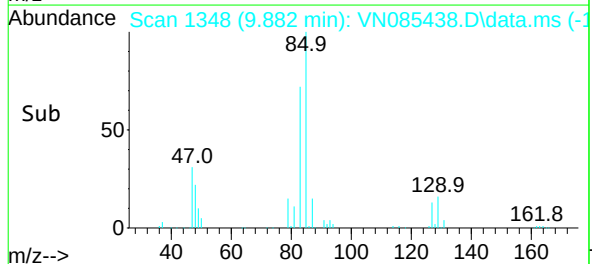
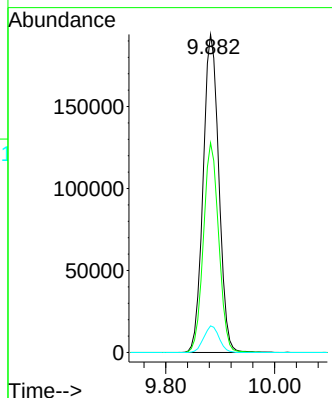
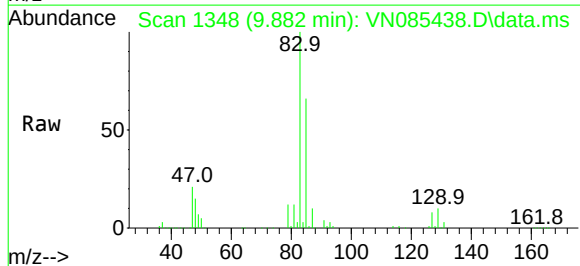
ClientSampleId :

VSTDIC100

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 388499 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 85       | 65.9  | 51.2  | 76.8   |
| 127      | 8.4   | 6.5   | 9.7    |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#48

Methyl methacrylate

Concen: 114.685 ug/l

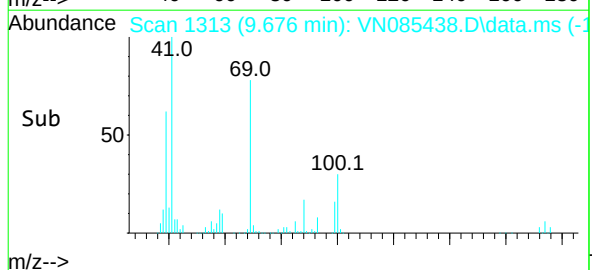
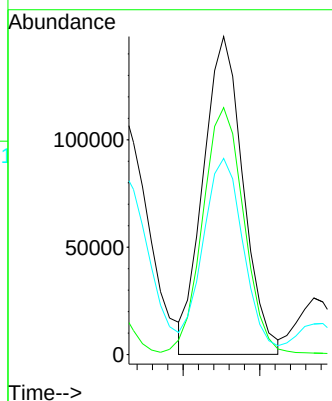
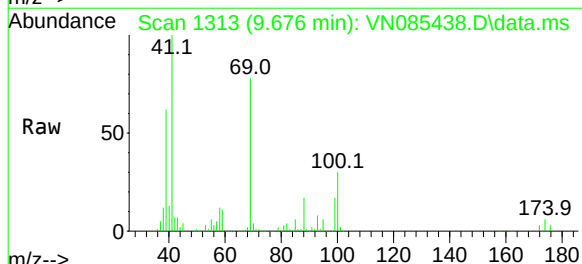
RT: 9.676 min Scan# 1313

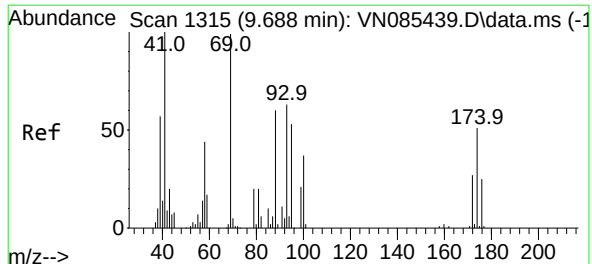
Delta R.T. -0.001 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 41    | Resp: | 267689 |
| Ion      | Ratio | Lower | Upper  |
| 41       | 100   |       |        |
| 69       | 80.9  | 64.7  | 97.1   |
| 39       | 63.1  | 49.0  | 73.6   |





#49

1,4-Dioxane

Concen: 2133.992 ug/l

RT: 9.688 min Scan# 1315

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 88 Resp: 83879

Ion Ratio Lower Upper

88 100

43 31.3 26.6 39.8

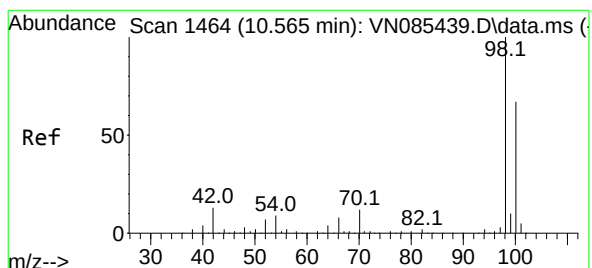
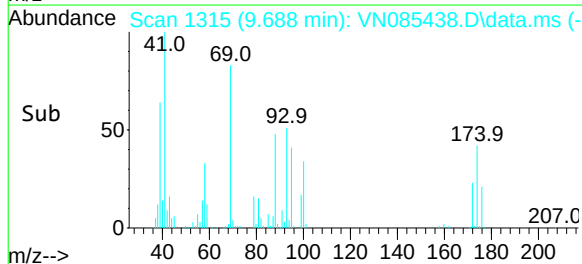
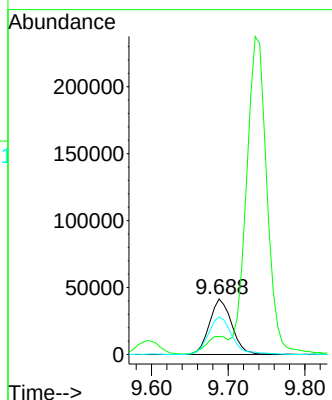
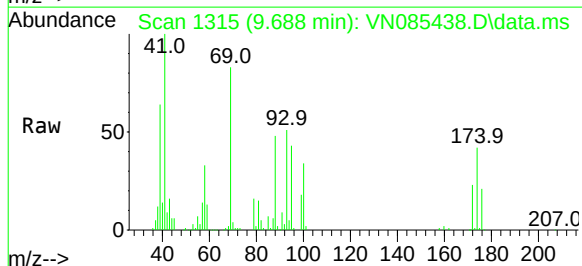
58 72.1 59.5 89.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#50

Toluene-d8

Concen: 108.636 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. -0.000 min

Lab File: VN085438.D

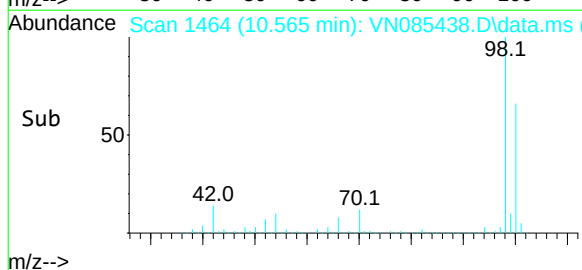
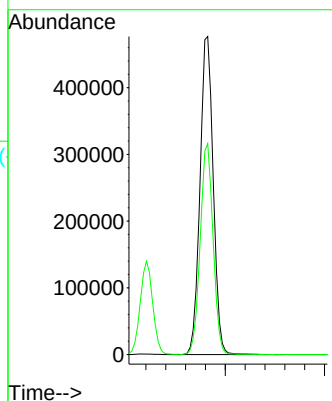
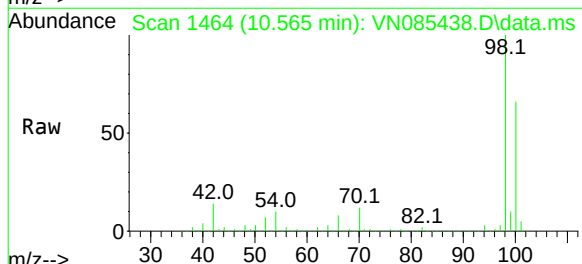
Acq: 14 Jan 2025 14:56

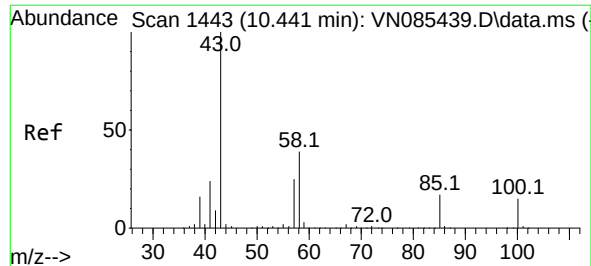
Tgt Ion: 98 Resp: 881956

Ion Ratio Lower Upper

98 100

100 64.5 52.2 78.4





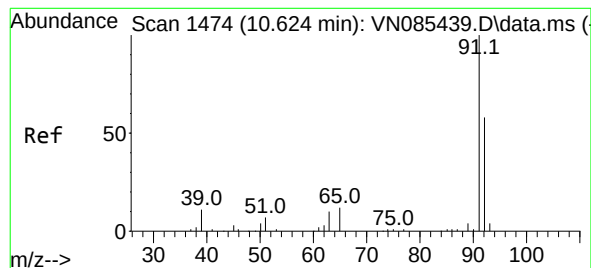
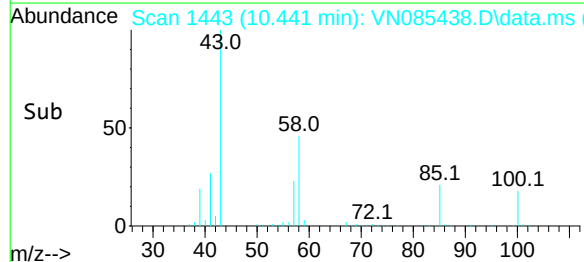
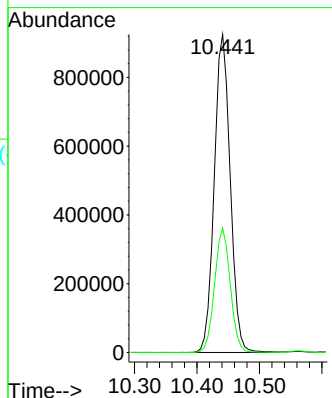
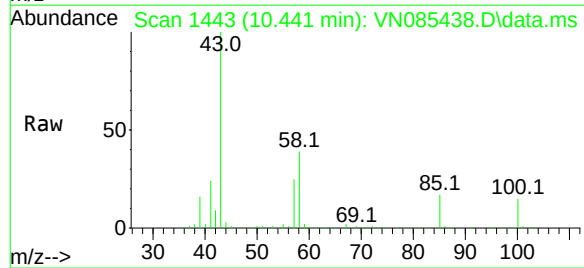
#51  
4-Methyl-2-Pentanone  
Concen: 546.159 ug/l  
RT: 10.441 min Scan# 1443  
Delta R.T. 0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100

Tgt Ion: 43 Resp: 1643800  
Ion Ratio Lower Upper  
43 100  
58 38.4 30.5 45.7

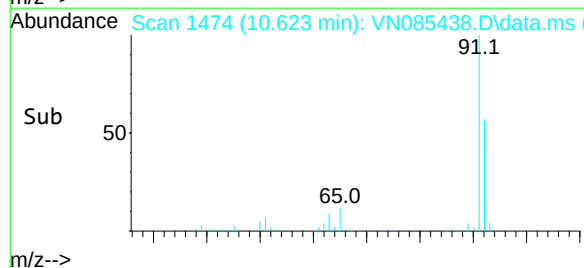
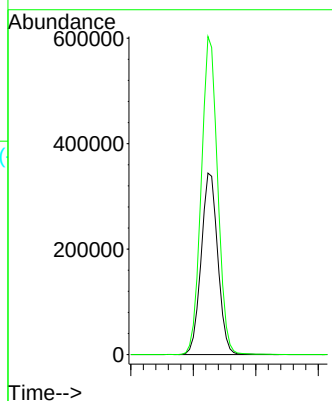
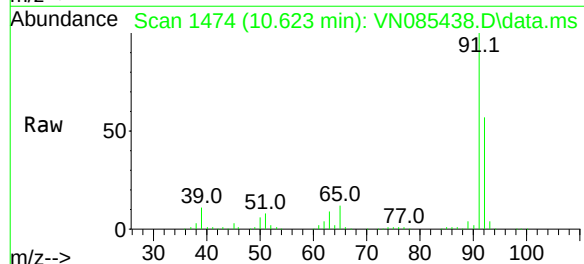
Manual Integrations  
APPROVED

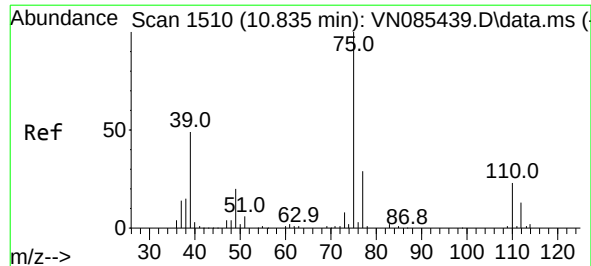
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#52  
Toluene  
Concen: 113.689 ug/l  
RT: 10.623 min Scan# 1474  
Delta R.T. -0.001 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

Tgt Ion: 92 Resp: 634743  
Ion Ratio Lower Upper  
92 100  
91 173.1 139.2 208.8





#53

t-1,3-Dichloropropene

Concen: 114.424 ug/l

RT: 10.829 min Scan# 1510

Delta R.T. -0.006 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 75 Resp: 391238

Ion Ratio Lower Upper

75 100

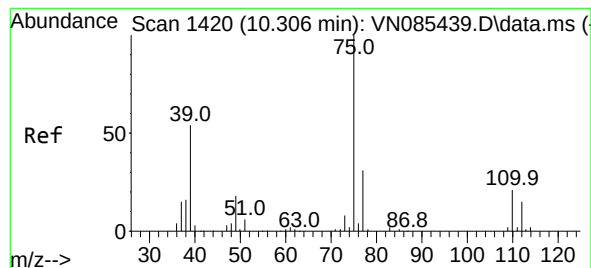
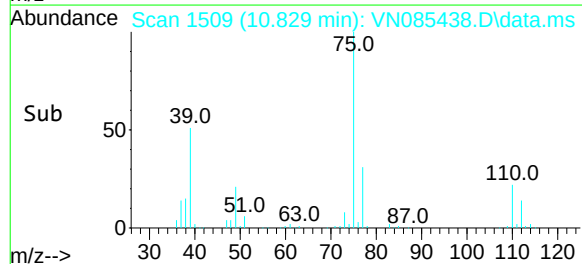
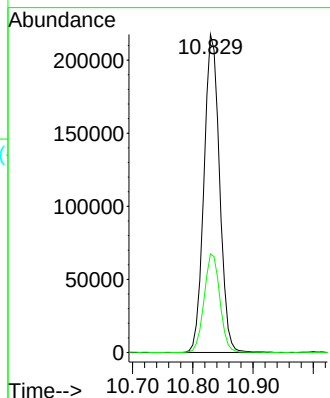
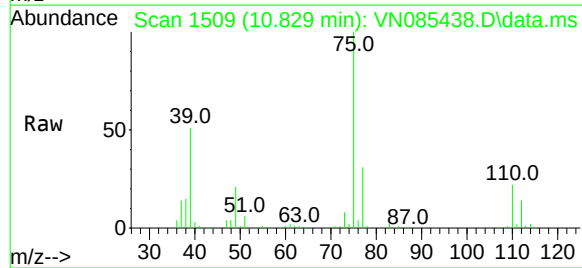
77 31.0 23.5 35.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#54

cis-1,3-Dichloropropene

Concen: 112.369 ug/l

RT: 10.306 min Scan# 1420

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

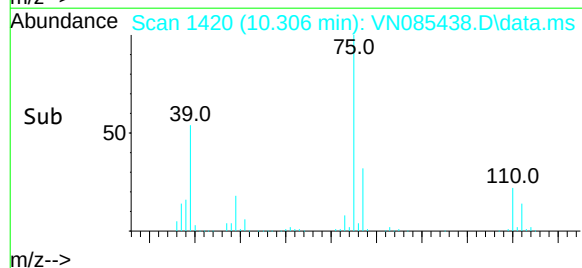
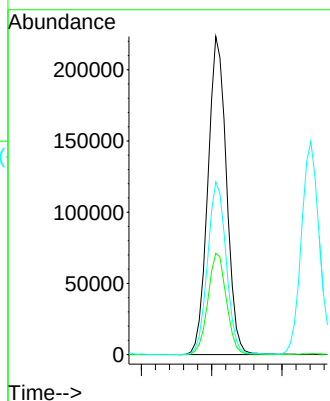
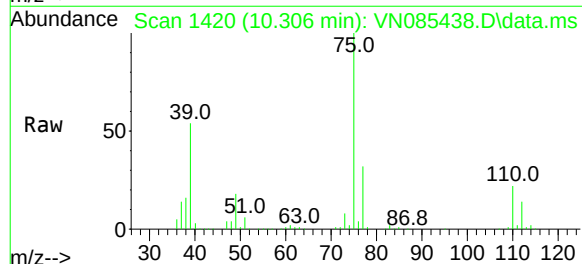
Tgt Ion: 75 Resp: 410403

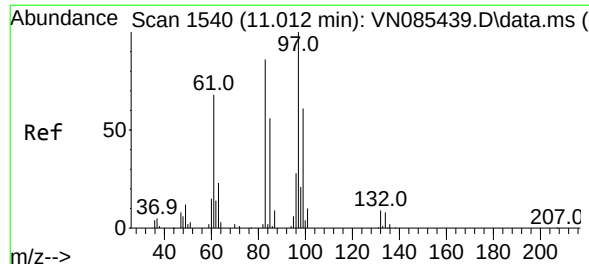
Ion Ratio Lower Upper

75 100

77 31.9 25.0 37.4

39 54.3 43.1 64.7





#55

1,1,2-Trichloroethane

Concen: 103.879 ug/l

RT: 11.012 min Scan# 15

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 97 Resp: 229522

Ion Ratio Lower Upper

97 100

83 88.4 69.0 103.6

85 56.3 44.6 66.8

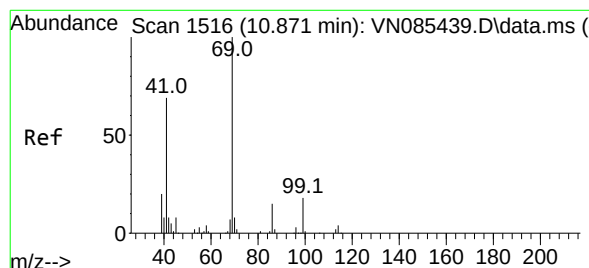
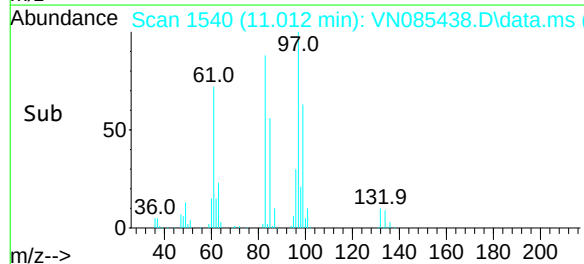
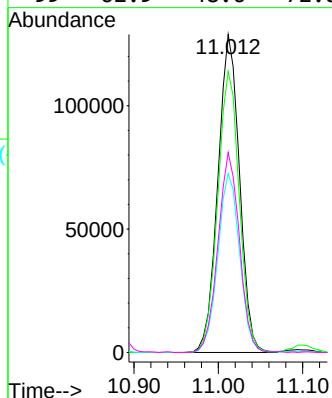
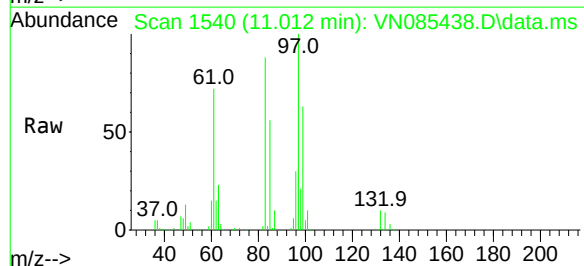
99 62.9 48.6 72.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#56

Ethyl methacrylate

Concen: 101.029 ug/l

RT: 10.870 min Scan# 1516

Delta R.T. -0.001 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

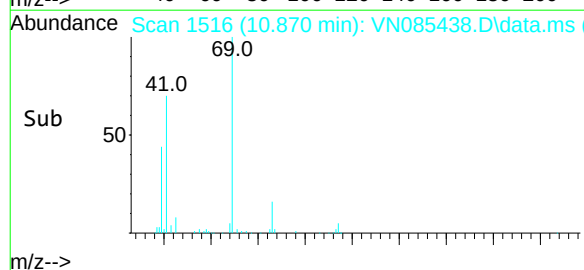
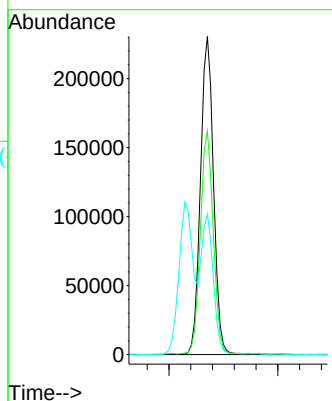
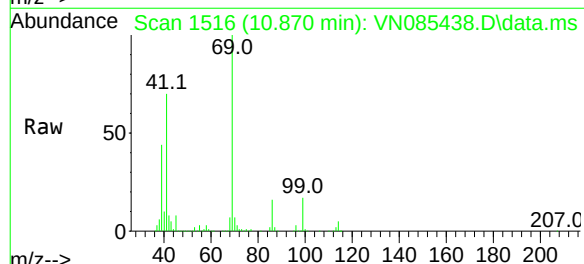
Tgt Ion: 69 Resp: 383663

Ion Ratio Lower Upper

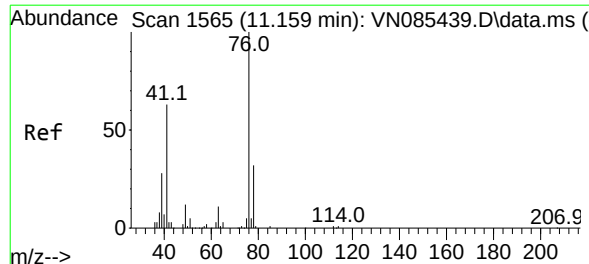
69 100

41 69.1 54.6 82.0

39 40.1 32.4 48.6







#57

1,3-Dichloropropane

Concen: 107.469 ug/l

RT: 11.159 min Scan# 1565

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 76 Resp: 412886

Ion Ratio Lower Upper

76 100

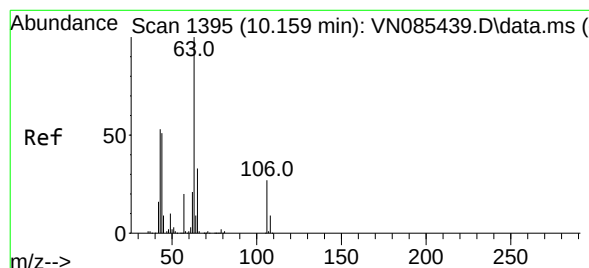
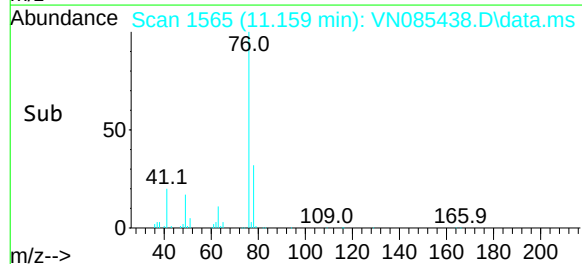
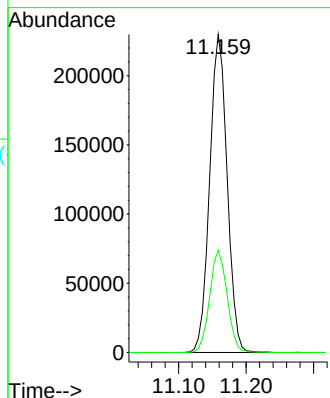
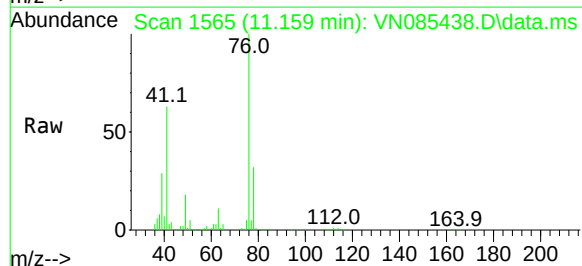
78 32.2 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#58

2-Chloroethyl Vinyl ether

Concen: 605.243 ug/l

RT: 10.153 min Scan# 1394

Delta R.T. -0.006 min

Lab File: VN085438.D

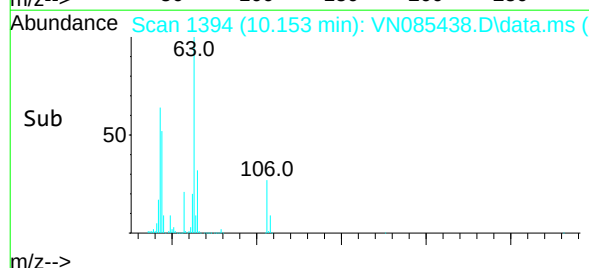
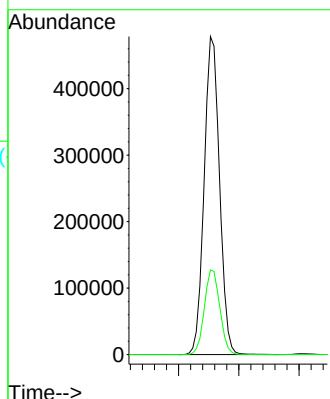
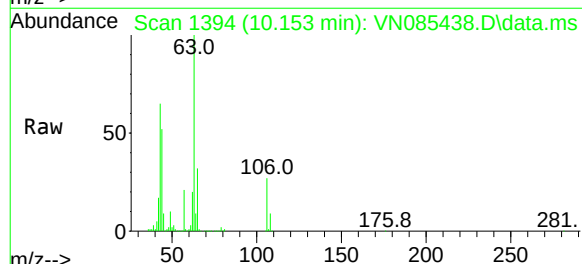
Acq: 14 Jan 2025 14:56

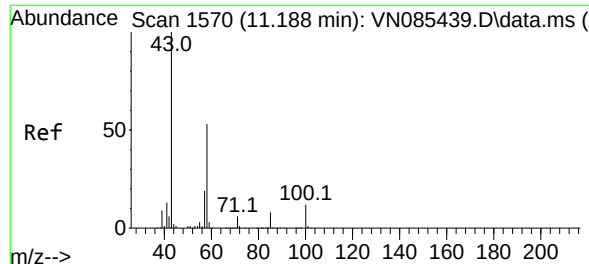
Tgt Ion: 63 Resp: 848636

Ion Ratio Lower Upper

63 100

106 26.8 21.6 32.4





#59

2-Hexanone

Concen: 556.643 ug/l

RT: 11.194 min Scan# 15

Delta R.T. 0.006 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 43 Resp: 1178831

Ion Ratio Lower Upper

43 100

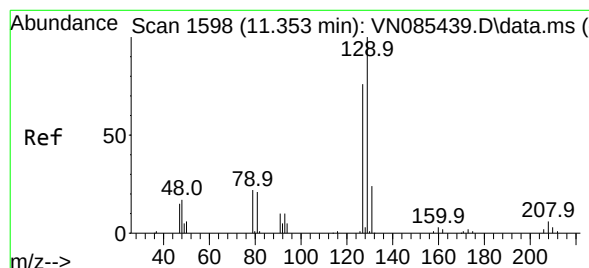
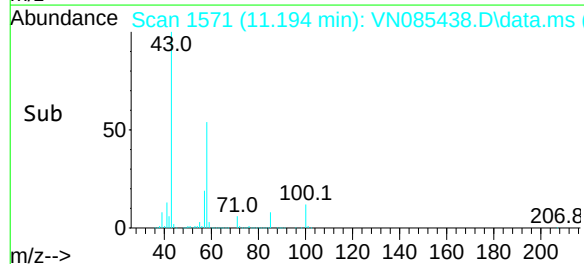
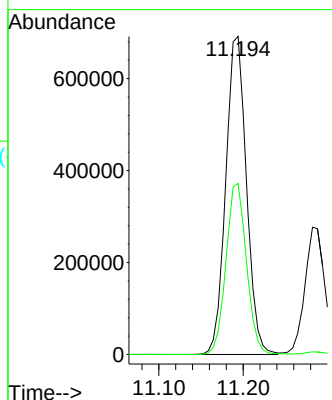
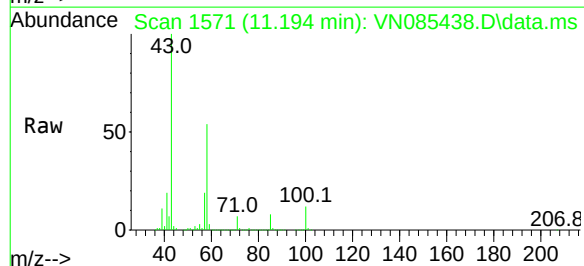
58 53.2 26.2 78.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#60

Dibromochloromethane

Concen: 106.227 ug/l

RT: 11.353 min Scan# 1598

Delta R.T. -0.000 min

Lab File: VN085438.D

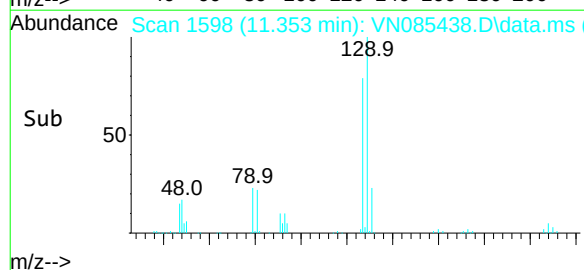
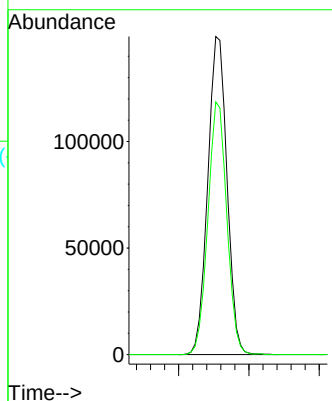
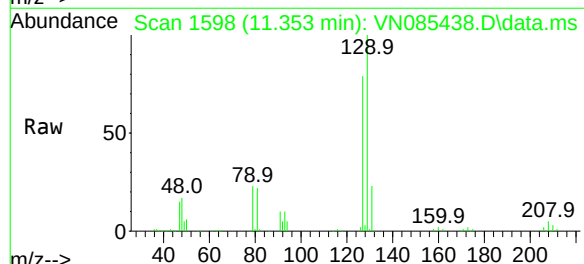
Acq: 14 Jan 2025 14:56

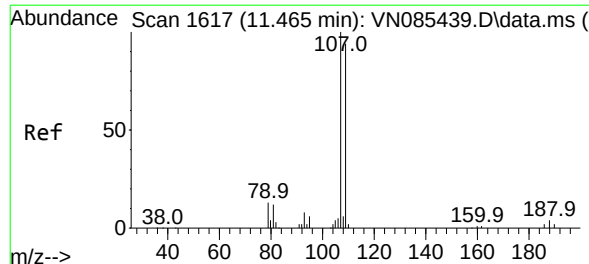
Tgt Ion:129 Resp: 283361

Ion Ratio Lower Upper

129 100

127 78.1 38.6 115.8





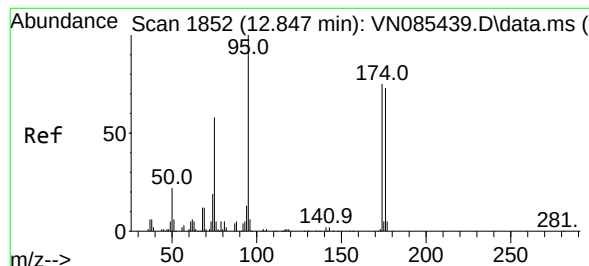
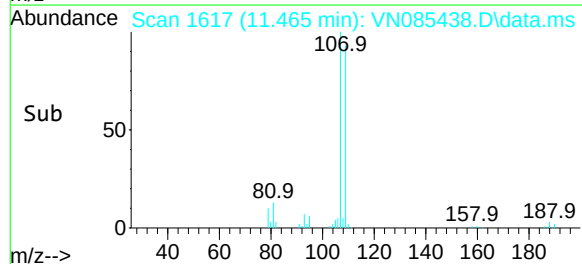
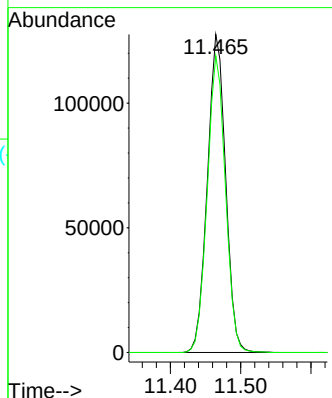
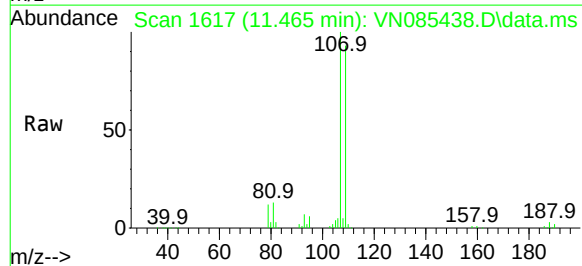
#61  
1,2-Dibromoethane  
Concen: 104.623 ug/l  
RT: 11.465 min Scan# 1617  
Delta R.T. -0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC100

Tgt Ion: 107 Resp: 230104  
Ion Ratio Lower Upper  
107 100  
109 93.1 75.9 113.9

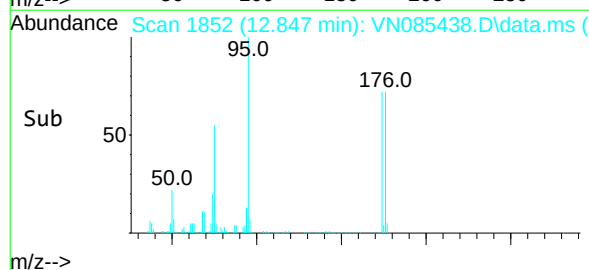
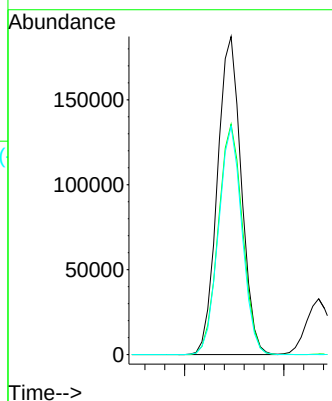
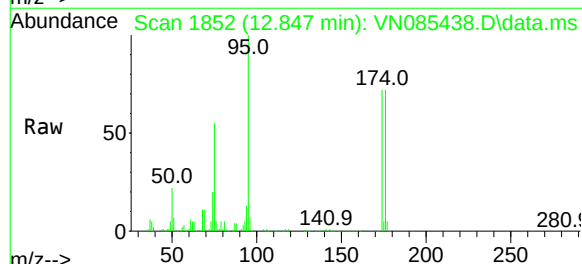
Manual Integrations  
APPROVED

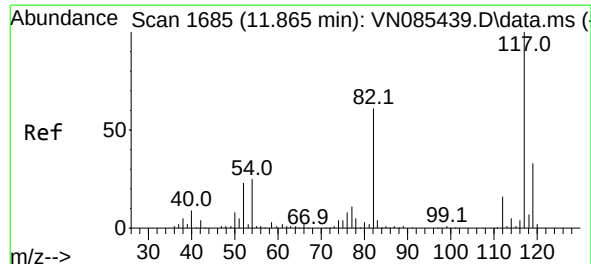
Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025



#62  
4-Bromofluorobenzene  
Concen: 112.765 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. -0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

Tgt Ion: 95 Resp: 313161  
Ion Ratio Lower Upper  
95 100  
174 73.4 0.0 145.0  
176 70.5 0.0 142.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion:117 Resp: 298938

Ion Ratio Lower Upper

117 100

82 59.3 48.6 72.8

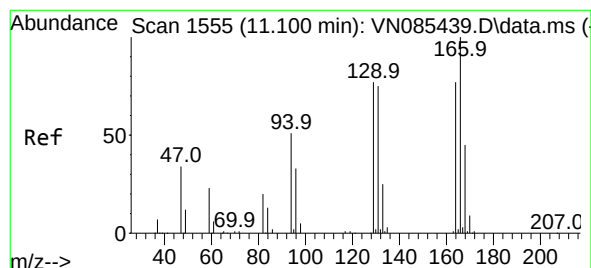
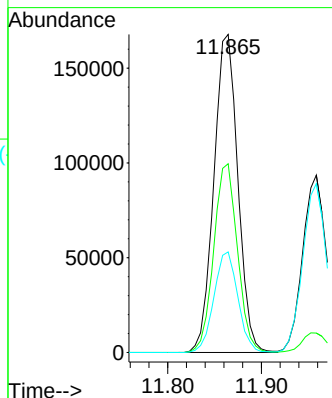
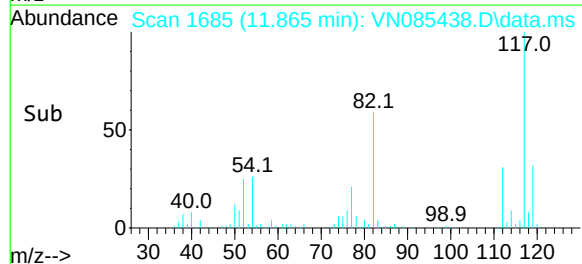
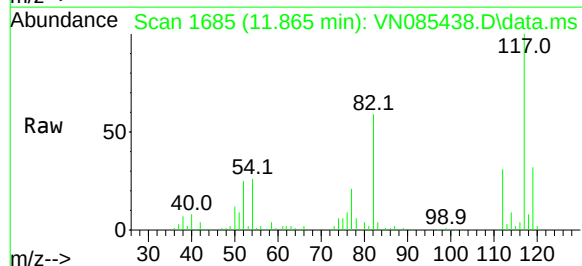
119 31.6 26.6 39.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#64

Tetrachloroethene

Concen: 102.980 ug/l

RT: 11.100 min Scan# 1555

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Tgt Ion:164 Resp: 209870

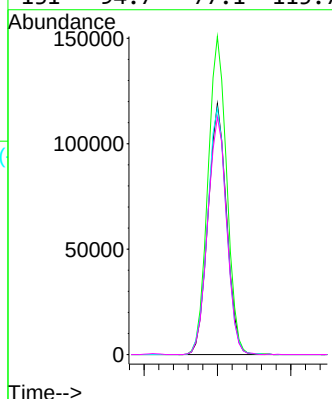
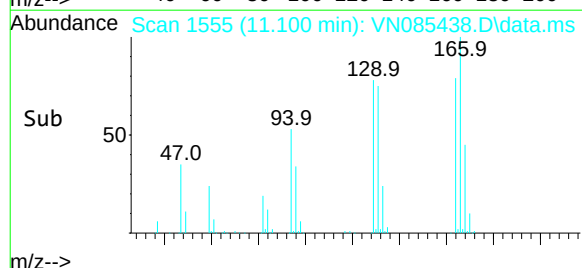
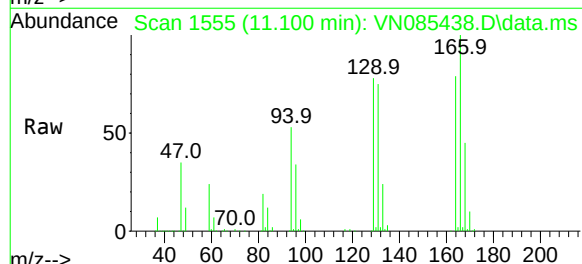
Ion Ratio Lower Upper

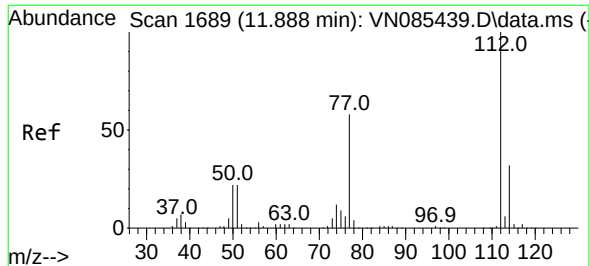
164 100

166 126.8 103.4 155.2

129 98.3 79.2 118.8

131 94.7 77.1 115.7





#65

Chlorobenzene

Concen: 103.482 ug/l

RT: 11.888 min Scan# 1689

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion:112 Resp: 677679

Ion Ratio Lower Upper

112 100

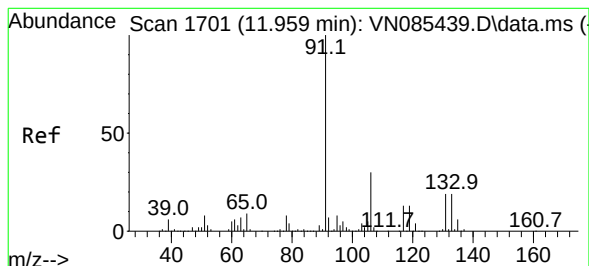
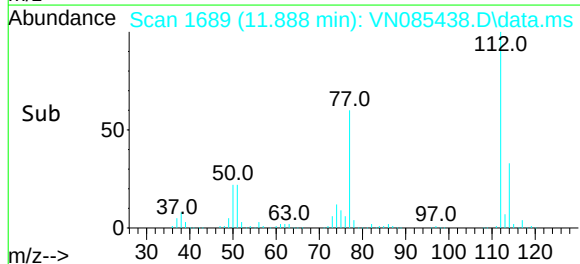
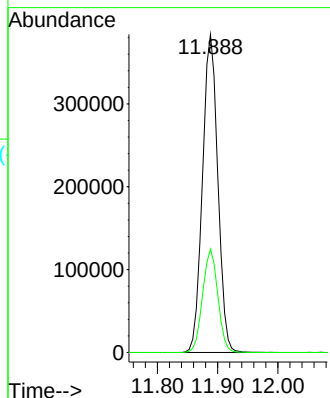
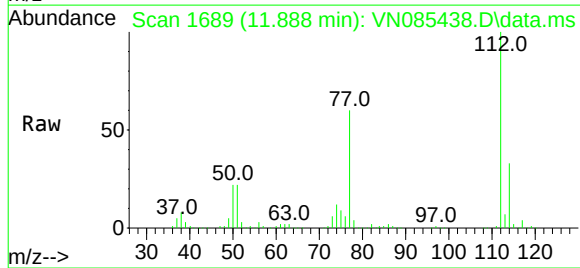
114 32.5 25.3 37.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#66

1,1,1,2-Tetrachloroethane

Concen: 100.517 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

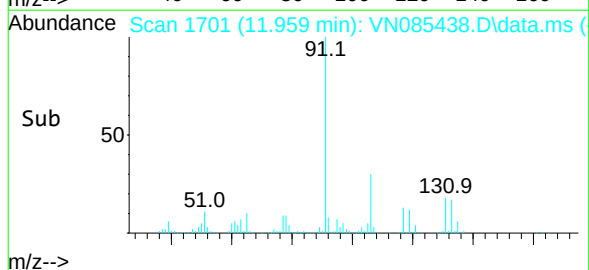
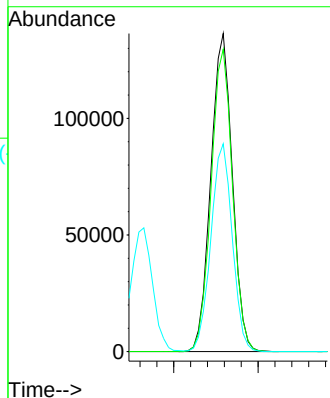
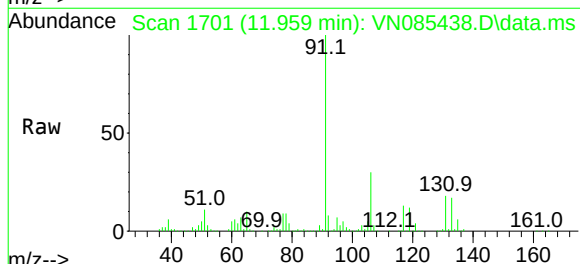
Tgt Ion:131 Resp: 241593

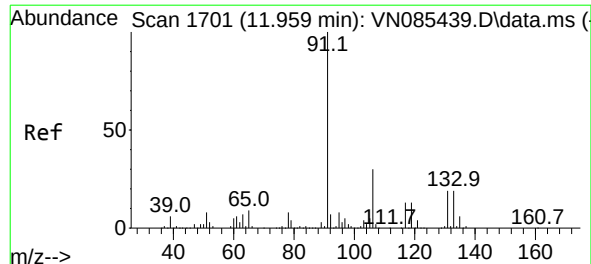
Ion Ratio Lower Upper

131 100

133 94.3 47.4 142.3

119 64.9 33.1 99.5





#67

Ethyl Benzene

Concen: 116.169 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 91 Resp: 1239080

Ion Ratio Lower Upper

91 100

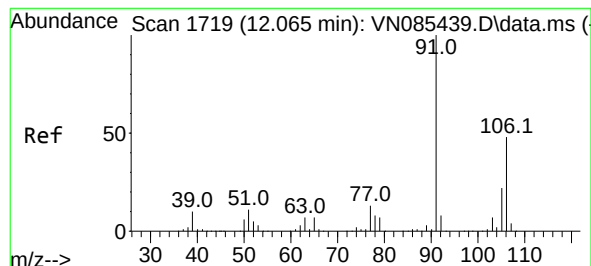
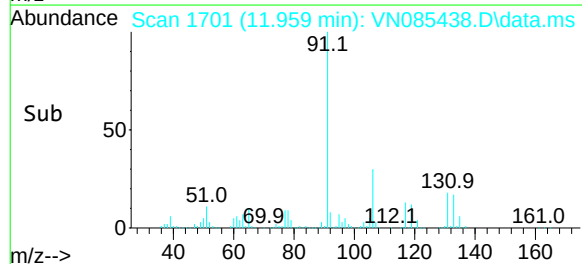
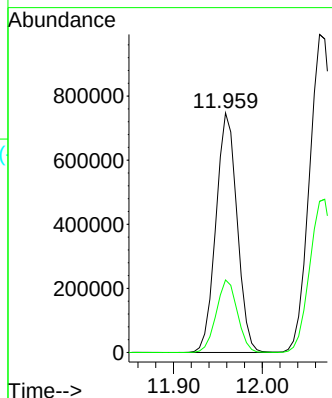
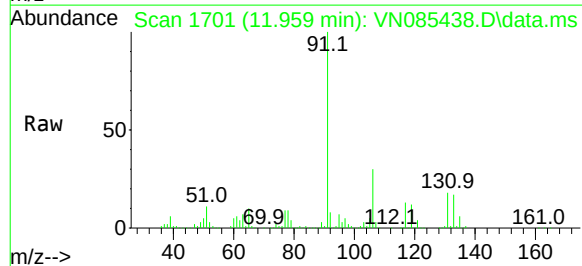
106 30.3 23.8 35.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#68

m/p-Xylenes

Concen: 235.219 ug/l

RT: 12.070 min Scan# 1720

Delta R.T. 0.006 min

Lab File: VN085438.D

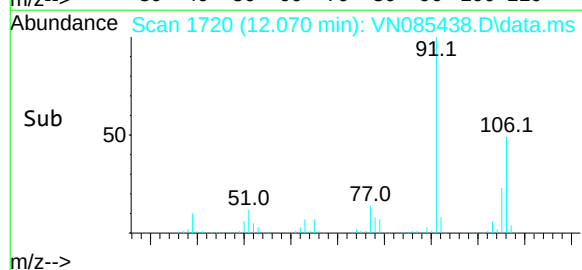
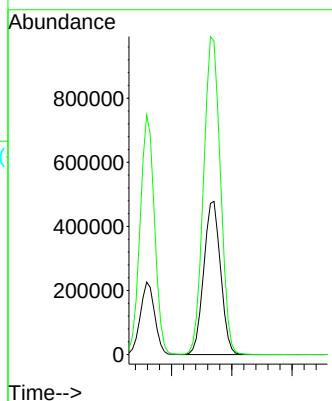
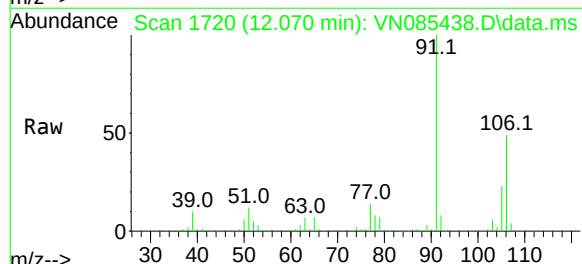
Acq: 14 Jan 2025 14:56

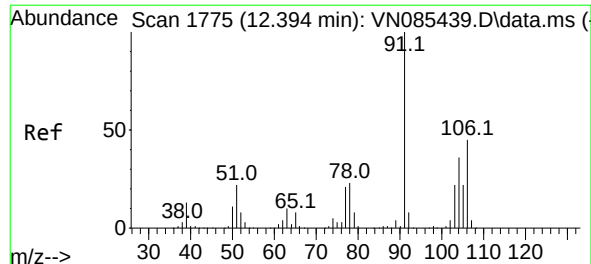
Tgt Ion:106 Resp: 927244

Ion Ratio Lower Upper

106 100

91 208.0 167.7 251.5





#69

o-Xylene

Concen: 117.135 ug/l

RT: 12.394 min Scan# 1775

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion:106 Resp: 441279

Ion Ratio Lower Upper

106 100

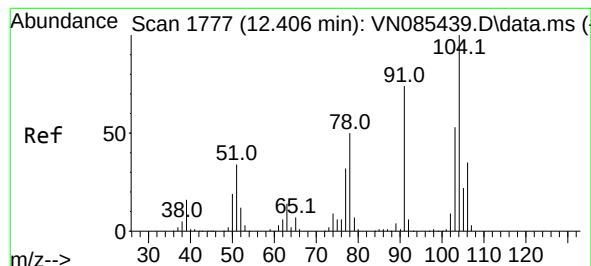
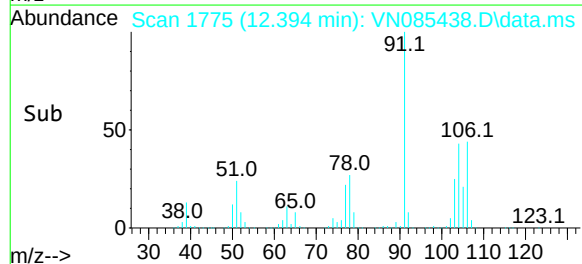
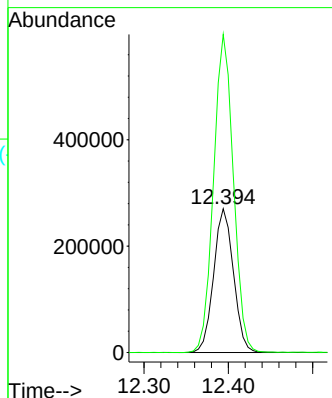
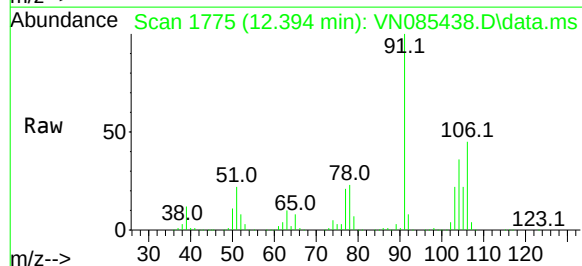
91 221.3 110.4 331.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#70

Styrene

Concen: 121.919 ug/l

RT: 12.406 min Scan# 1777

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

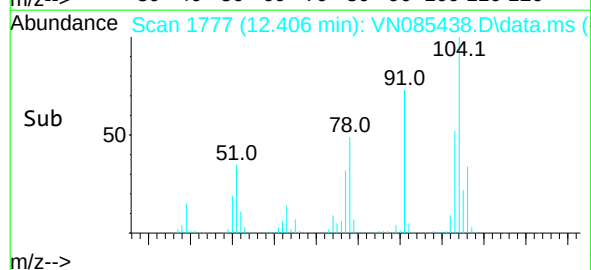
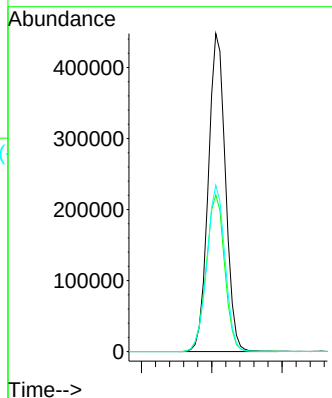
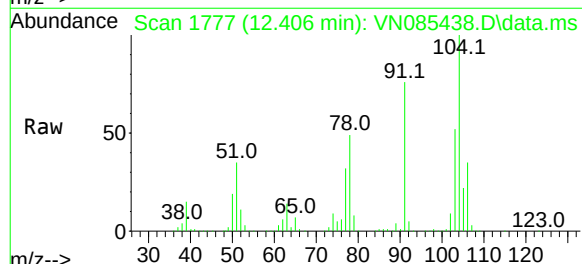
Tgt Ion:104 Resp: 760136

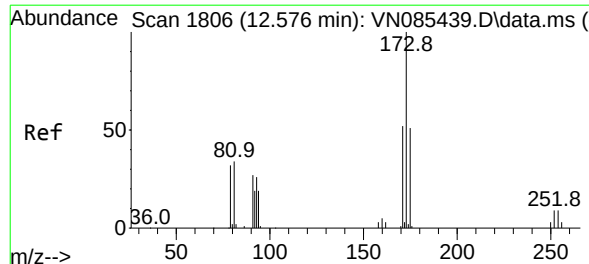
Ion Ratio Lower Upper

104 100

78 52.8 42.5 63.7

103 55.3 43.8 65.8





#71

Bromoform

Concen: 108.227 ug/l

RT: 12.576 min Scan# 18

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

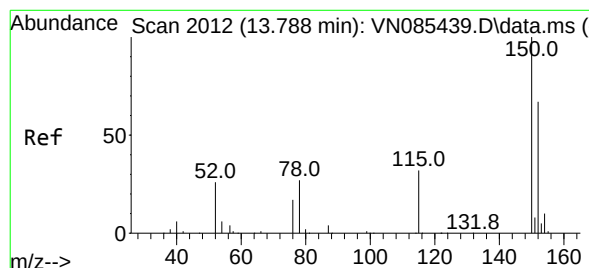
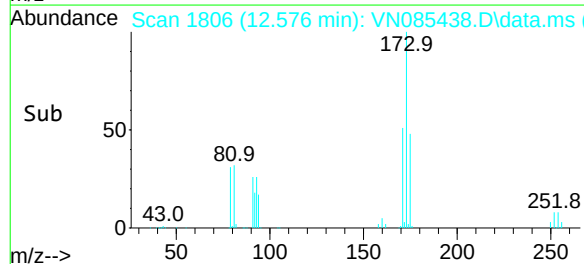
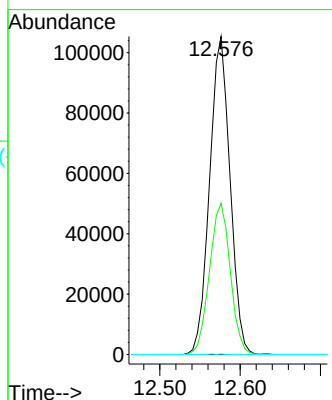
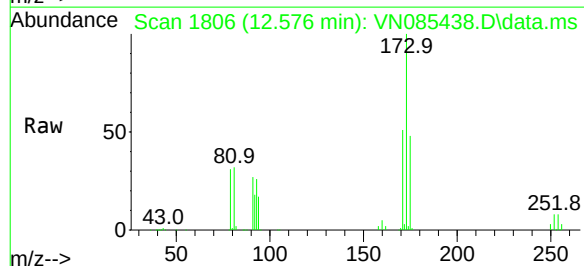
VSTDICC100

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 173   | Resp: | 186124 |
| Ion      | Ratio | Lower | Upper  |
| 173      | 100   |       |        |
| 175      | 48.4  | 24.4  | 73.2   |
| 254      | 0.1   | 0.0   | 0.0    |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

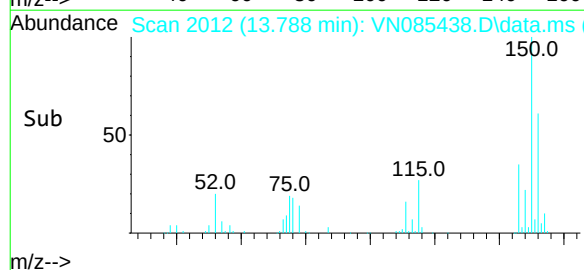
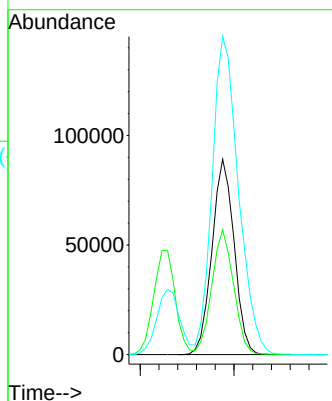
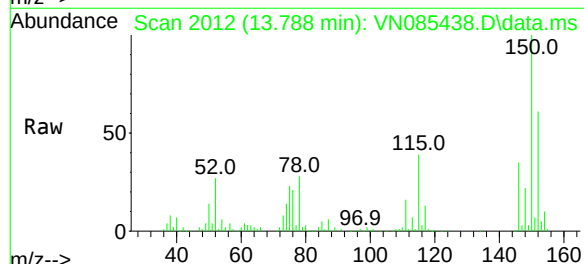
RT: 13.788 min Scan# 2012

Delta R.T. -0.000 min

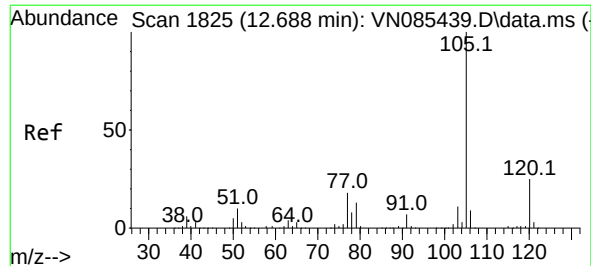
Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 152   | Resp: | 146196 |
| Ion      | Ratio | Lower | Upper  |
| 152      | 100   |       |        |
| 115      | 62.7  | 31.1  | 93.3   |
| 150      | 193.1 | 0.0   | 343.6  |







#73

Isopropylbenzene

Concen: 116.221 ug/l

RT: 12.694 min Scan# 1825

Delta R.T. 0.006 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion:105 Resp: 1146752

Ion Ratio Lower Upper

105 100

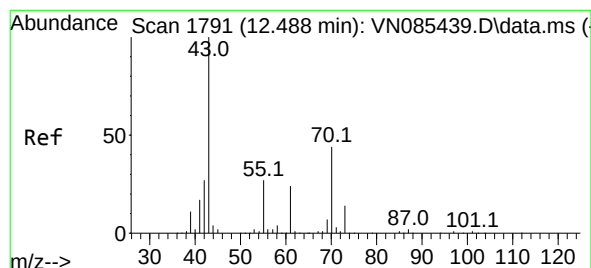
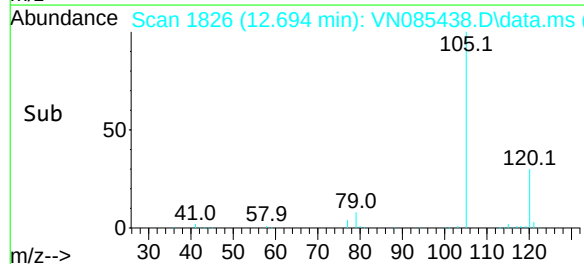
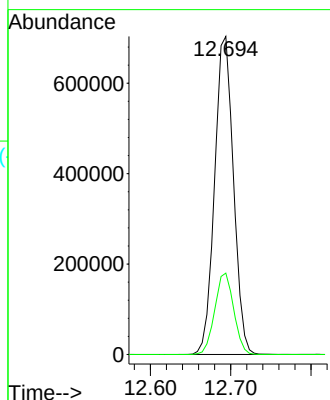
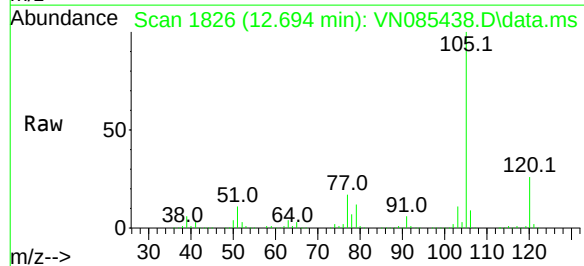
120 25.7 12.8 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#74

N-ethyl acetate

Concen: 110.308 ug/l

RT: 12.488 min Scan# 1791

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Tgt Ion: 43 Resp: 489217

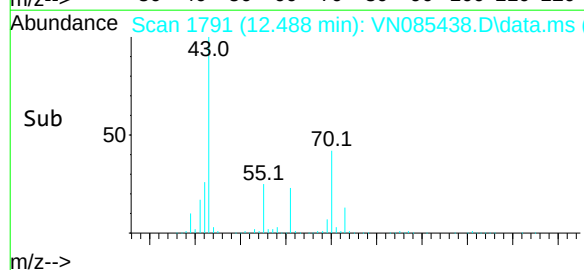
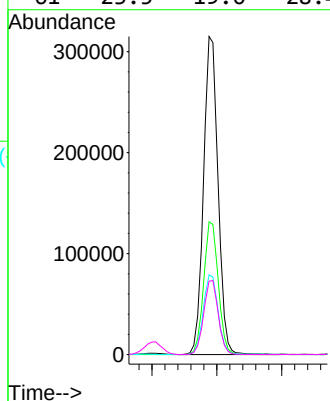
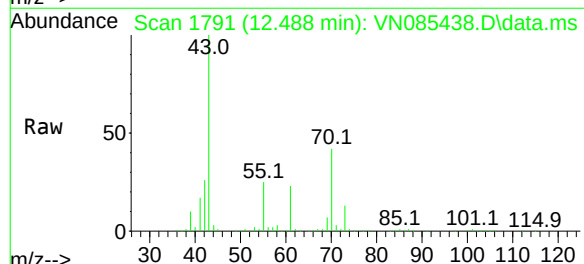
Ion Ratio Lower Upper

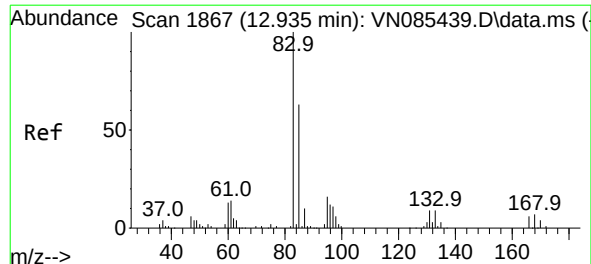
43 100

70 41.9 34.0 51.0

55 25.7 21.4 32.2

61 23.5 19.0 28.4





#75

1,1,2,2-Tetrachloroethane

Concen: 94.039 ug/l

RT: 12.935 min Scan# 1867

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

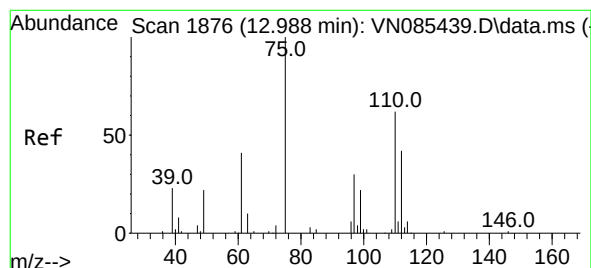
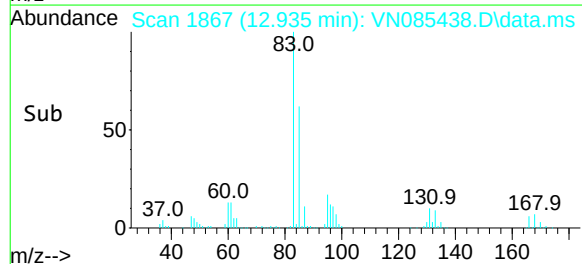
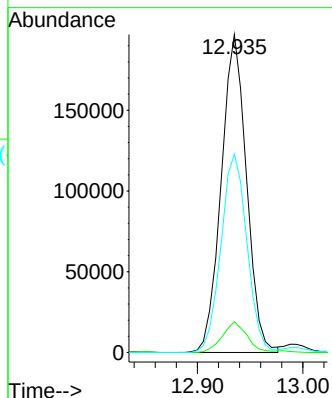
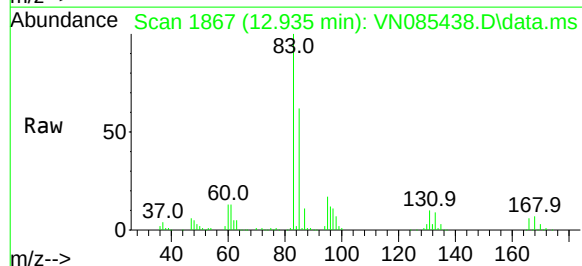
VSTDICC100

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 327767 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 131      | 9.8   | 4.8   | 14.4   |
| 85       | 64.1  | 32.2  | 96.6   |

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#76

1,2,3-Trichloropropane

Concen: 104.530 ug/l m

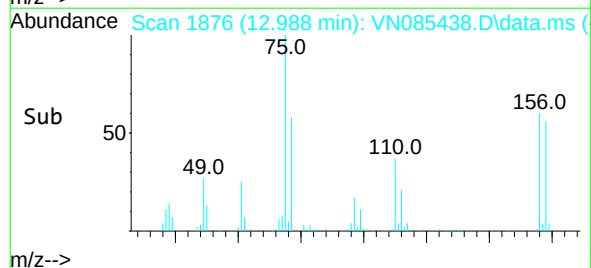
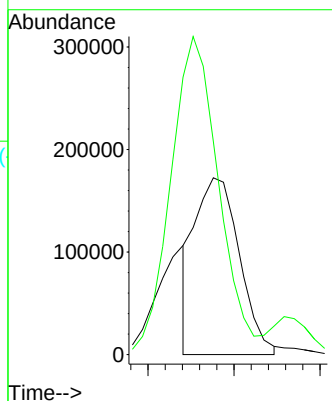
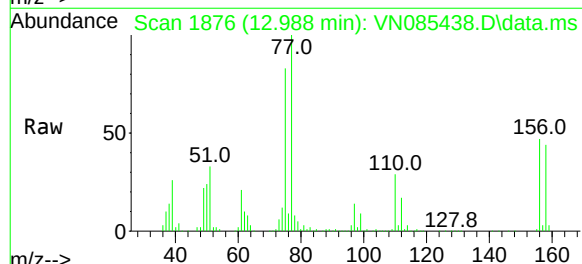
RT: 12.988 min Scan# 1876

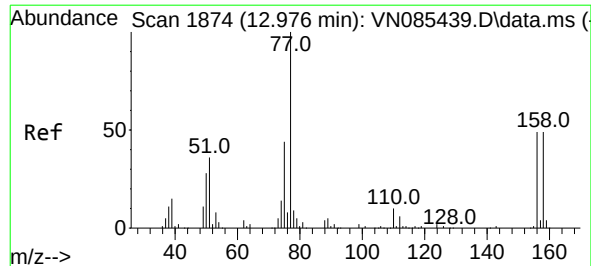
Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 75    | Resp: | 310115 |
| Ion      | Ratio | Lower | Upper  |
| 75       | 100   |       |        |
| 77       | 192.6 | 109.7 | 329.2  |





#77

Bromobenzene

Concen: 104.200 ug/l

RT: 12.976 min Scan# 1874

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion:156 Resp: 268616

Ion Ratio Lower Upper

156 100

77 222.4 114.1 342.4

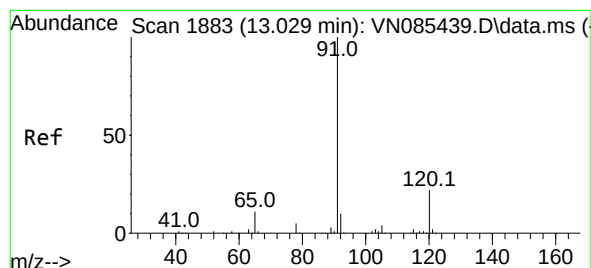
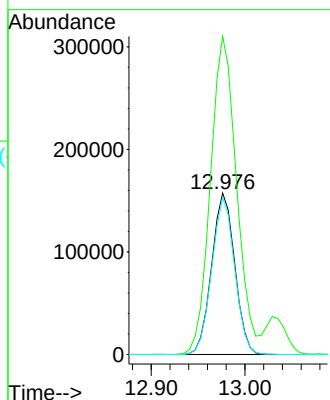
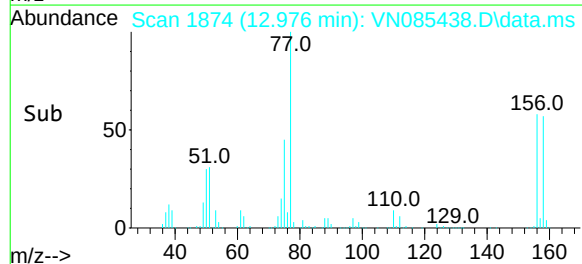
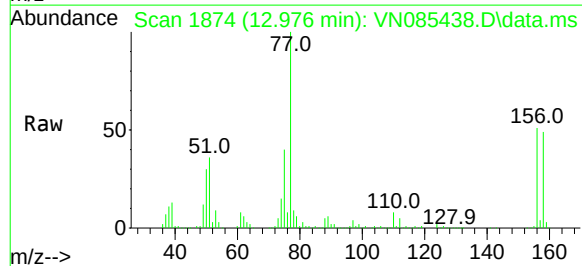
158 96.3 48.9 146.8

Manual Integrations

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Reviewed By :John Carlone 01/15/2025

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#78

n-propylbenzene

Concen: 118.600 ug/l

RT: 13.029 min Scan# 1883

Delta R.T. -0.000 min

Lab File: VN085438.D

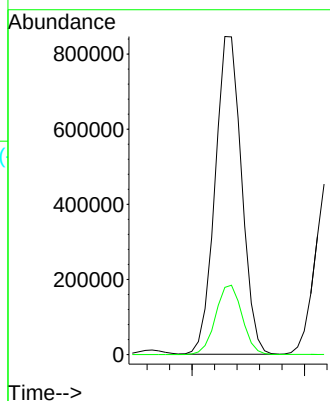
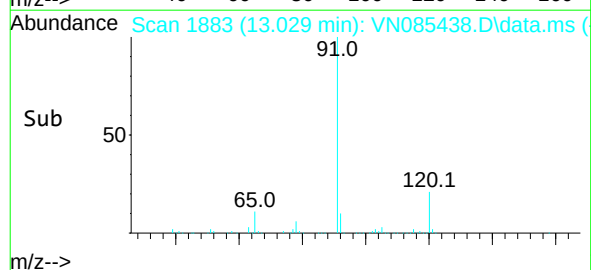
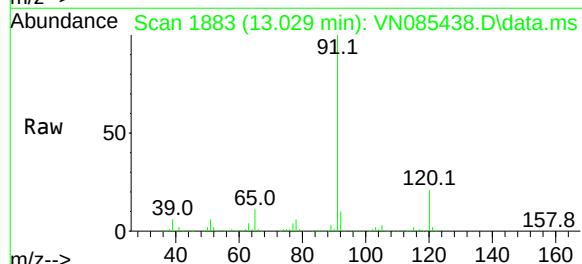
Acq: 14 Jan 2025 14:56

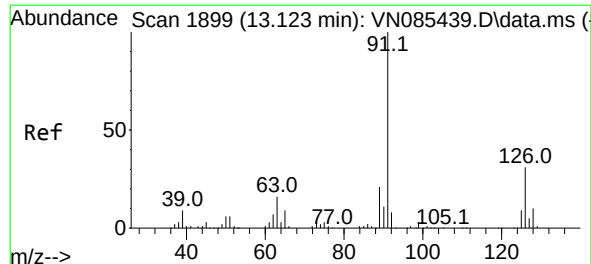
Tgt Ion: 91 Resp: 1385353

Ion Ratio Lower Upper

91 100

120 21.8 10.9 32.6





#79

2-Chlorotoluene

Concen: 108.767 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 91 Resp: 822258

Ion Ratio Lower Upper

91 100

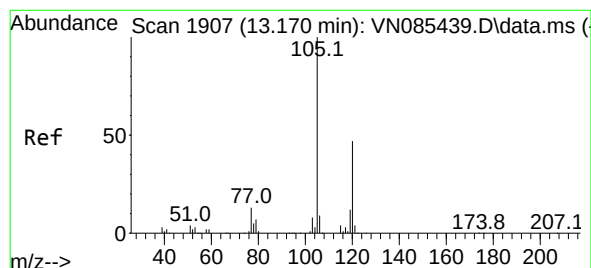
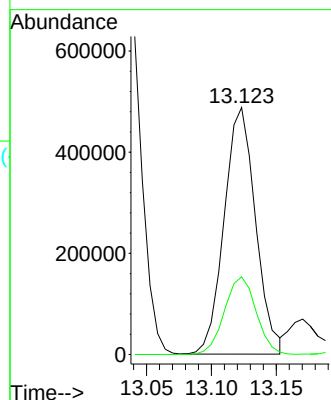
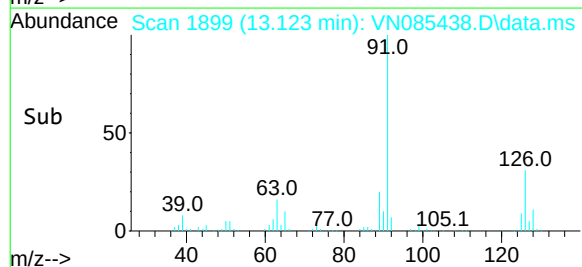
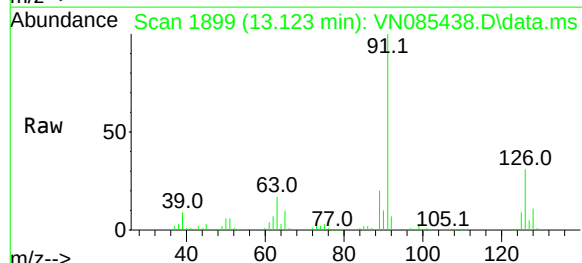
126 31.8 15.7 47.1

Manual Integrations

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Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#80

1,3,5-Trimethylbenzene

Concen: 116.938 ug/l

RT: 13.170 min Scan# 1907

Delta R.T. -0.000 min

Lab File: VN085438.D

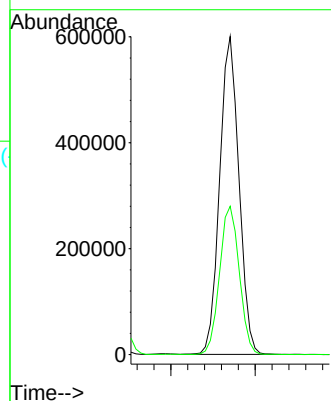
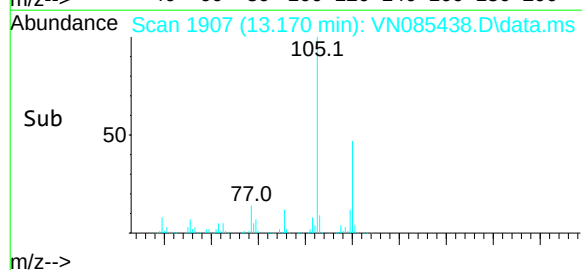
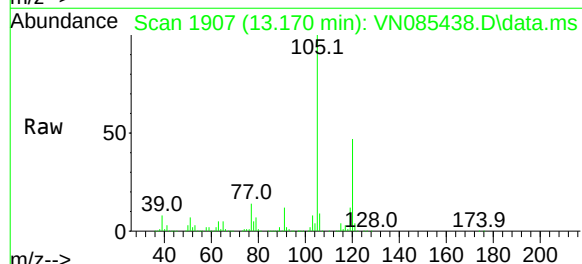
Acq: 14 Jan 2025 14:56

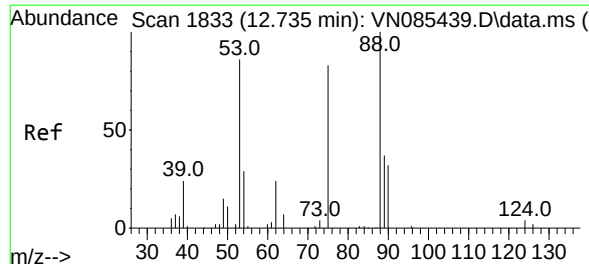
Tgt Ion:105 Resp: 953066

Ion Ratio Lower Upper

105 100

120 47.8 23.9 71.7





#81

trans-1,4-Dichloro-2-butene

Concen: 111.544 ug/l

RT: 12.735 min Scan# 1833

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 75 Resp: 122508

Ion Ratio Lower Upper

75 100

53 100.9 95.6 143.4

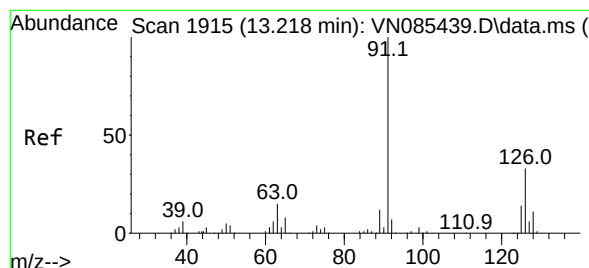
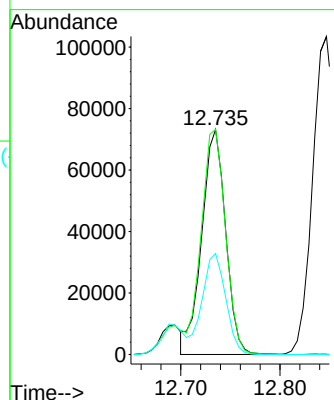
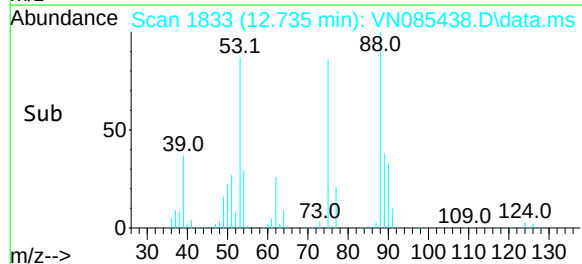
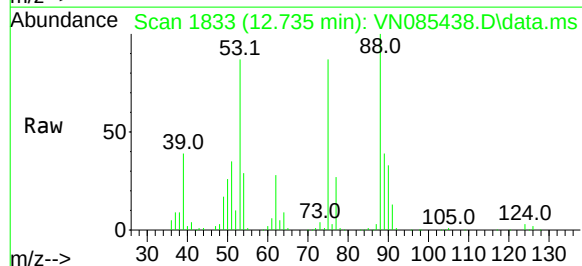
89 44.4 37.0 55.6

Manual Integrations

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Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#82

4-Chlorotoluene

Concen: 110.574 ug/l

RT: 13.217 min Scan# 1915

Delta R.T. -0.000 min

Lab File: VN085438.D

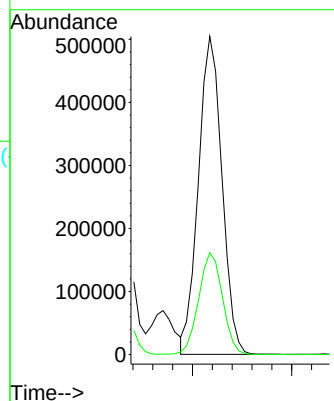
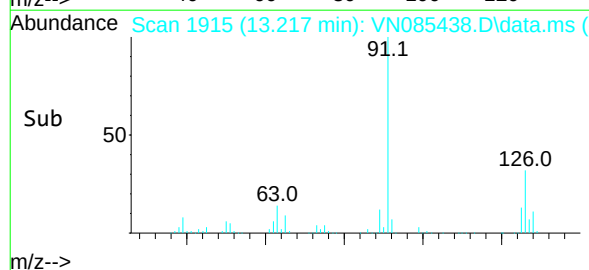
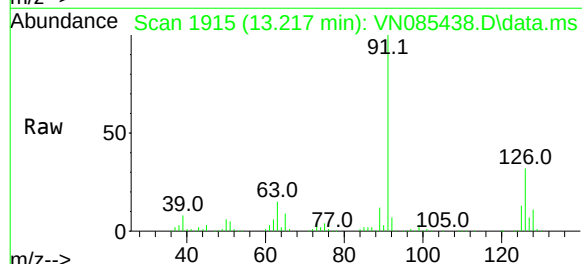
Acq: 14 Jan 2025 14:56

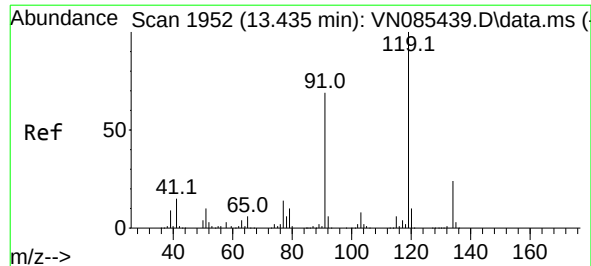
Tgt Ion: 91 Resp: 832317

Ion Ratio Lower Upper

91 100

126 32.5 15.9 47.7





#83

tert-Butylbenzene

Concen: 116.457 ug/l

RT: 13.435 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion:119 Resp: 797069

Ion Ratio Lower Upper

119 100

91 70.7 35.1 105.3

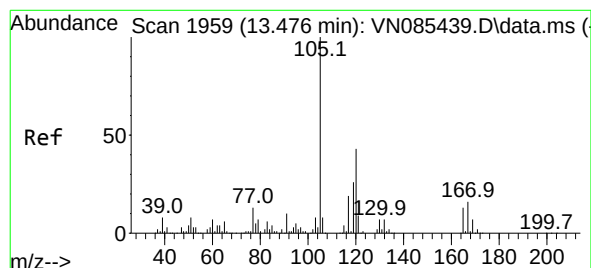
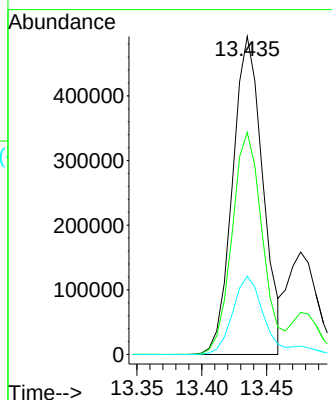
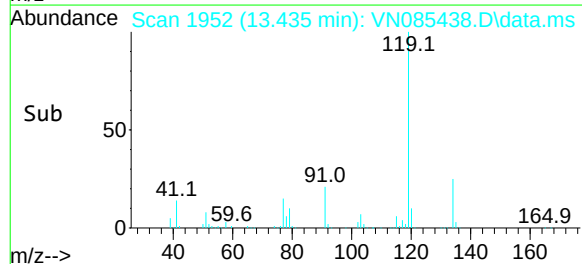
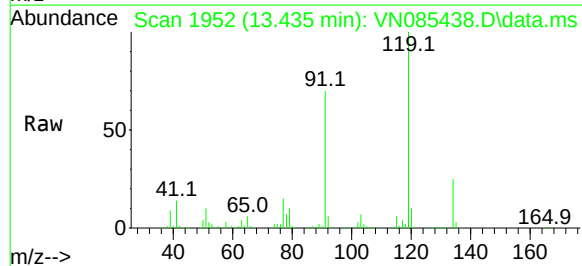
134 26.6 12.0 36.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#84

1,2,4-Trimethylbenzene

Concen: 119.625 ug/l

RT: 13.476 min Scan# 1959

Delta R.T. -0.000 min

Lab File: VN085438.D

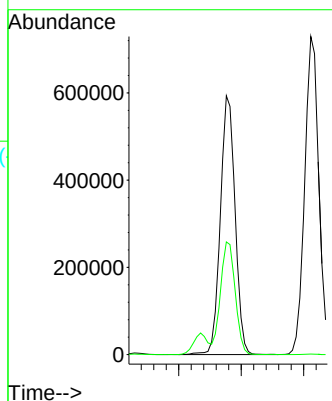
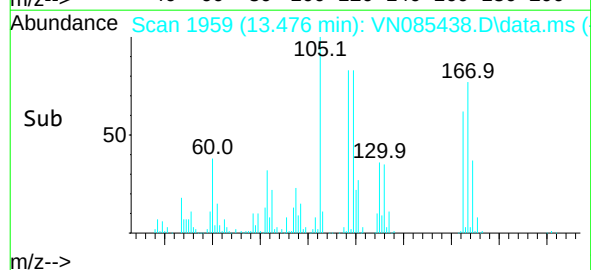
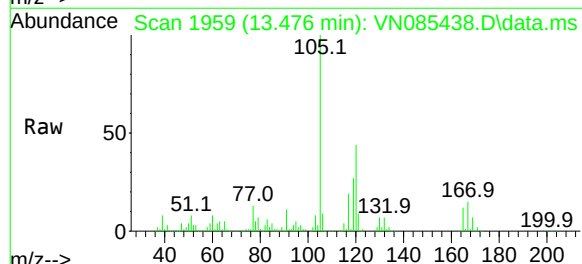
Acq: 14 Jan 2025 14:56

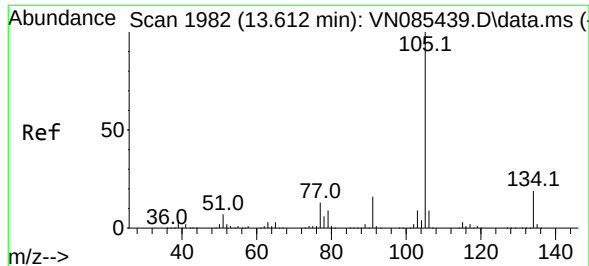
Tgt Ion:105 Resp: 971729

Ion Ratio Lower Upper

105 100

120 43.4 21.6 65.0





#85

sec-Butylbenzene

Concen: 120.587 ug/l

RT: 13.611 min Scan# 19

Delta R.T. -0.001 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion:105 Resp: 1143885

Ion Ratio Lower Upper

105 100

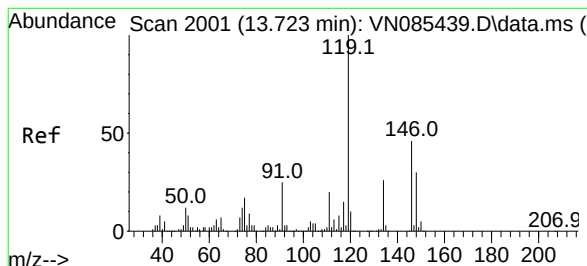
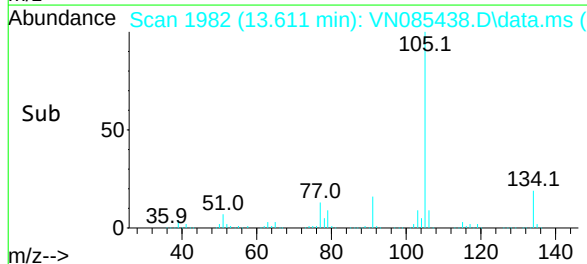
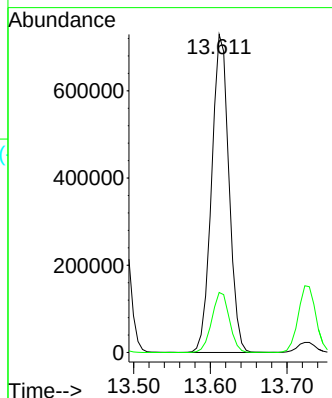
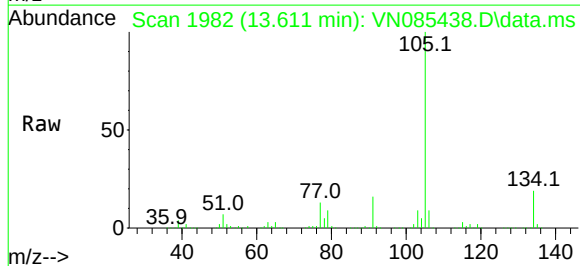
134 19.2 9.7 28.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#86

p-Isopropyltoluene

Concen: 100.111 ug/l

RT: 13.723 min Scan# 2001

Delta R.T. 0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

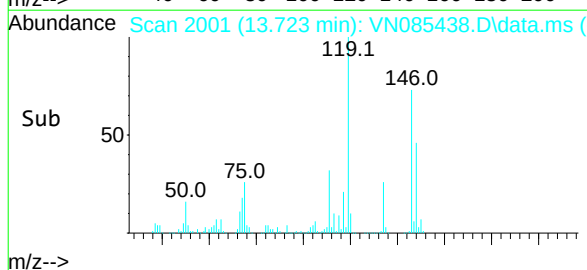
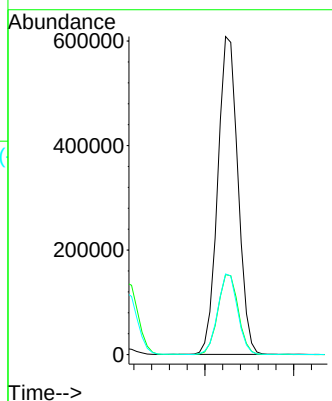
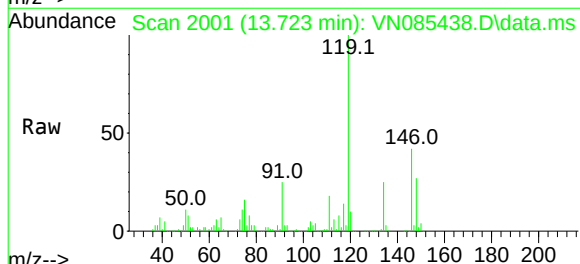
Tgt Ion:119 Resp: 960747

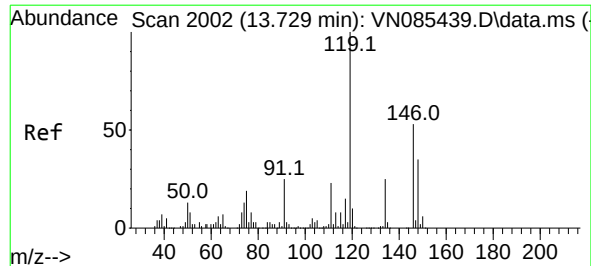
Ion Ratio Lower Upper

119 100

134 25.3 12.7 38.0

91 25.0 12.7 38.1





#87

1,3-Dichlorobenzene

Concen: 105.943 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion:146 Resp: 502960

Ion Ratio Lower Upper

146 100

111 42.8 21.4 64.3

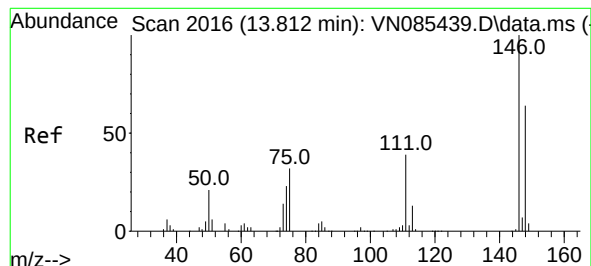
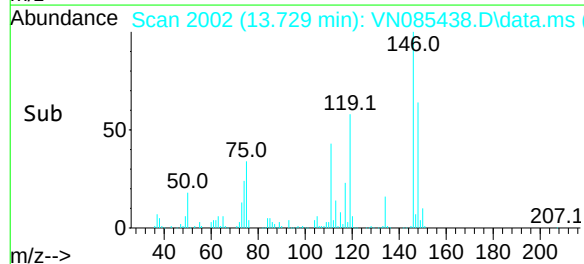
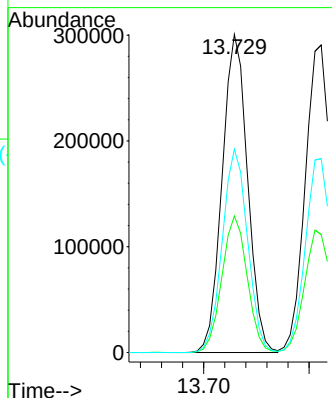
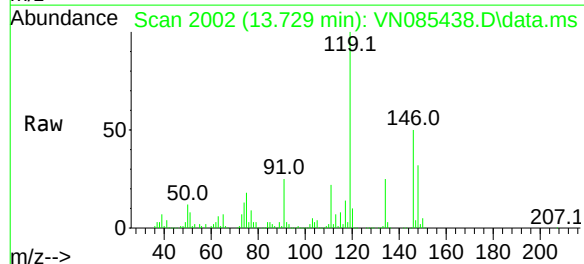
148 63.6 32.3 96.9

Manual Integrations

APPROVED

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Supervised By :Mahesh Dadoda 01/15/2025



#88

1,4-Dichlorobenzene

Concen: 101.341 ug/l

RT: 13.811 min Scan# 2016

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

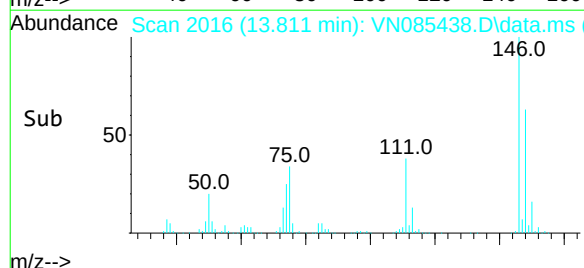
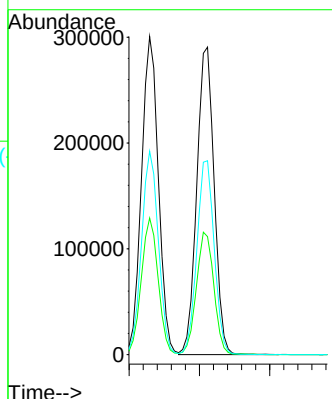
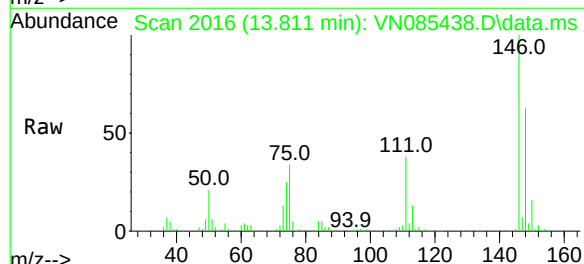
Tgt Ion:146 Resp: 498709

Ion Ratio Lower Upper

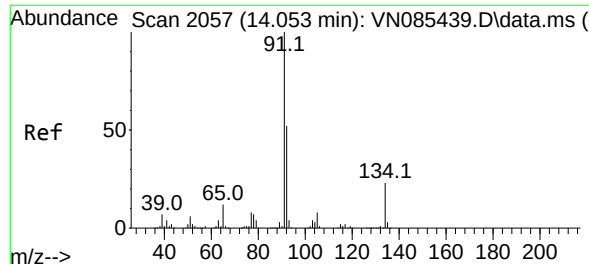
146 100

111 40.1 21.3 63.7

148 63.1 32.4 97.0







#89

n-Butylbenzene

Concen: 123.781 ug/l

RT: 14.053 min Scan# 2057

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

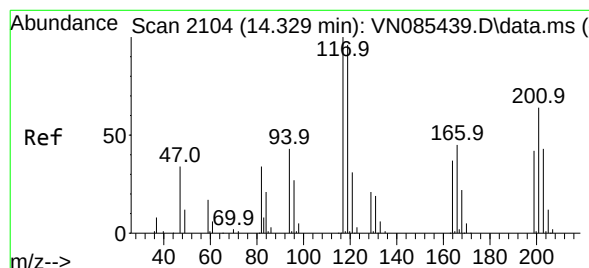
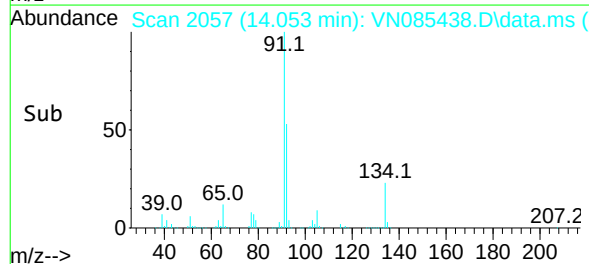
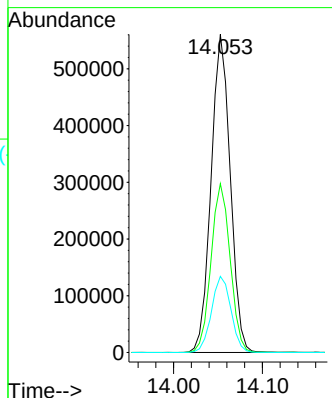
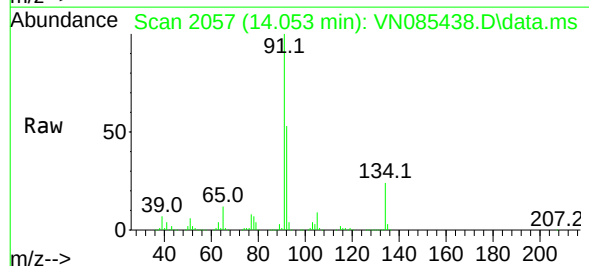
ClientSampleId :

VSTDICC100

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 91    | Resp: | 842368 |
| Ion      | Ratio | Lower | Upper  |
| 91       | 100   |       |        |
| 92       | 52.8  | 25.8  | 77.3   |
| 134      | 24.3  | 11.7  | 35.1   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#90

Hexachloroethane

Concen: 104.405 ug/l

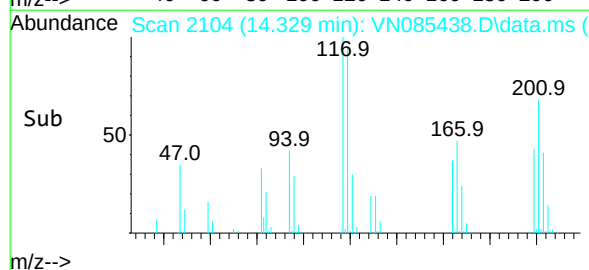
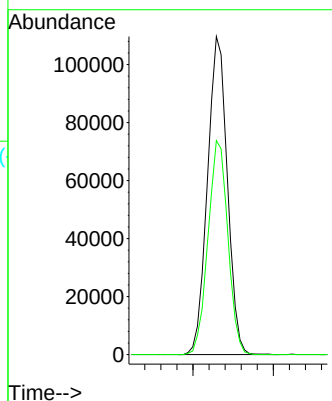
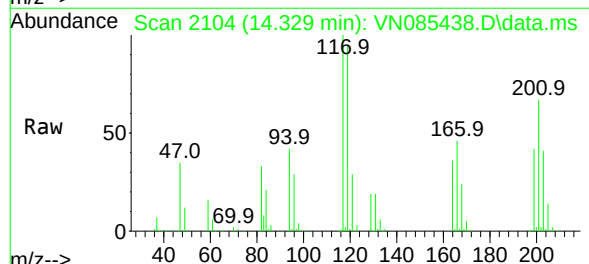
RT: 14.329 min Scan# 2104

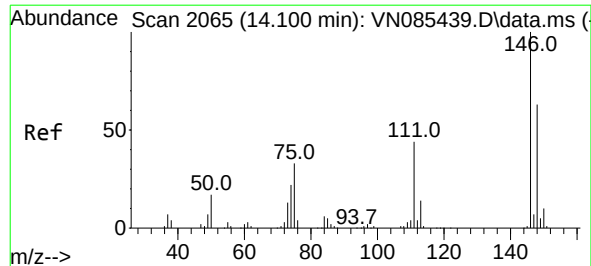
Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 117   | Resp: | 188541 |
| Ion      | Ratio | Lower | Upper  |
| 117      | 100   |       |        |
| 201      | 67.2  | 33.7  | 101.0  |





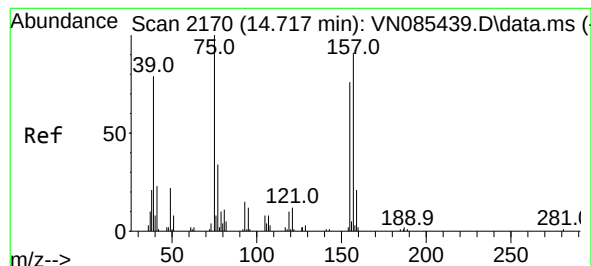
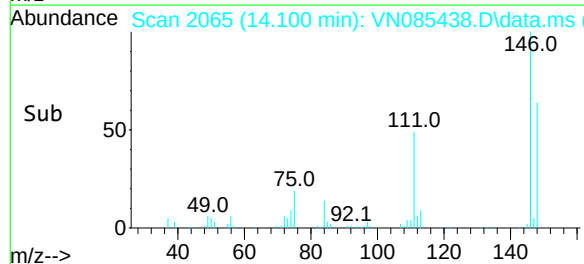
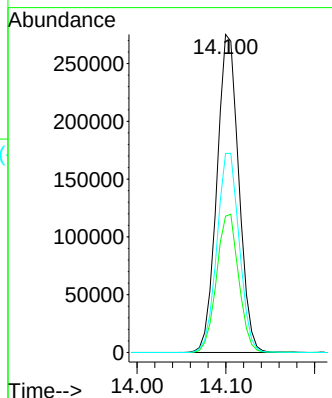
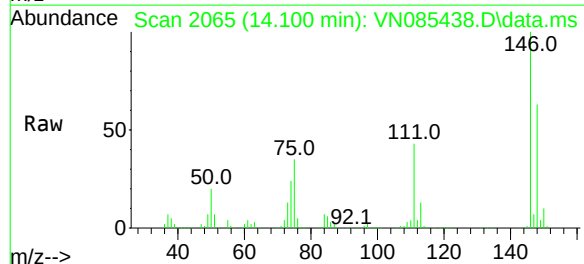
#91  
1,2-Dichlorobenzene  
Concen: 99.445 ug/l  
RT: 14.100 min Scan# 2065  
Delta R.T. -0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC100

Tgt Ion: 146 Resp: 470919  
Ion Ratio Lower Upper  
146 100  
111 43.9 21.7 65.1  
148 64.0 31.4 94.2

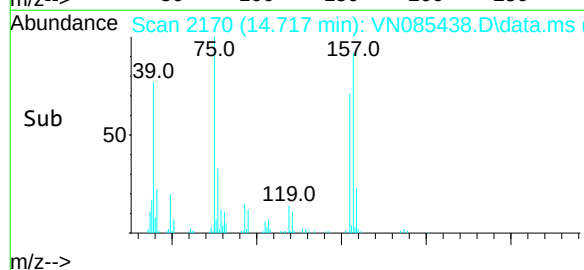
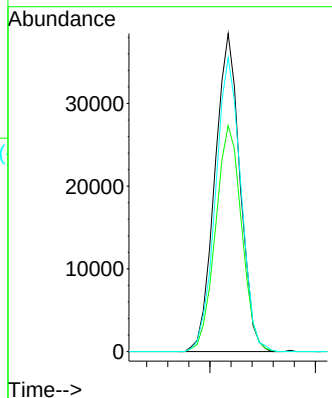
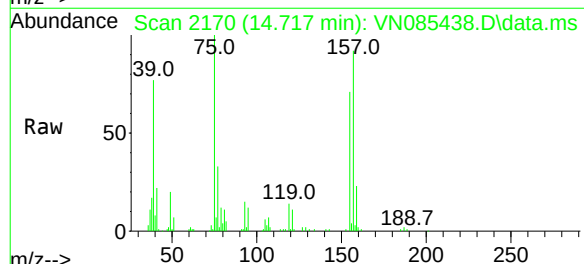
Manual Integrations  
APPROVED

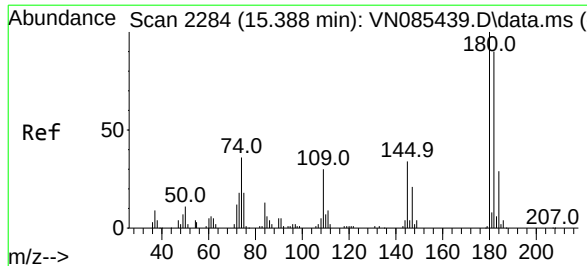
Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025



#92  
1,2-Dibromo-3-Chloropropane  
Concen: 100.313 ug/l  
RT: 14.717 min Scan# 2170  
Delta R.T. -0.000 min  
Lab File: VN085438.D  
Acq: 14 Jan 2025 14:56

Tgt Ion: 75 Resp: 63846  
Ion Ratio Lower Upper  
75 100  
155 73.5 36.4 109.2  
157 93.0 45.4 136.1





#93

1,2,4-Trichlorobenzene

Concen: 113.946 ug/l

RT: 15.388 min Scan# 2284

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion:180 Resp: 250787

Ion Ratio Lower Upper

180 100

182 94.9 46.8 140.3

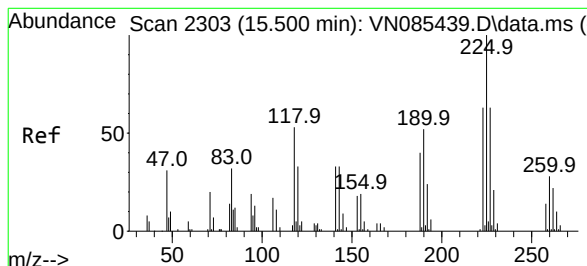
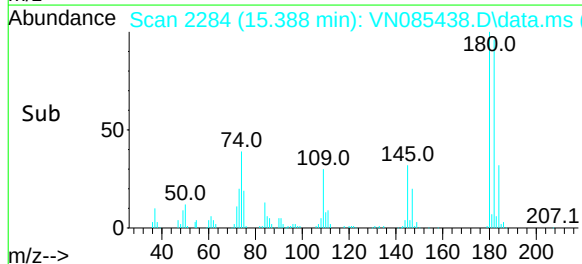
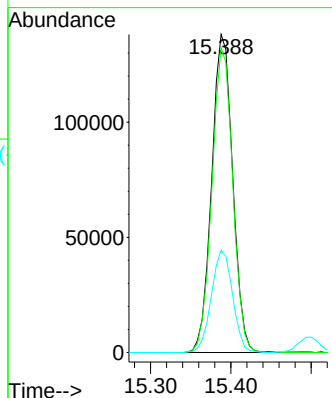
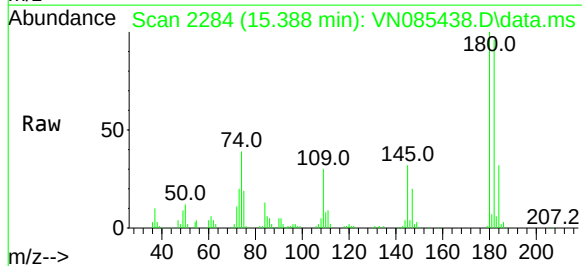
145 32.6 16.0 48.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#94

Hexachlorobutadiene

Concen: 96.619 ug/l

RT: 15.500 min Scan# 2303

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

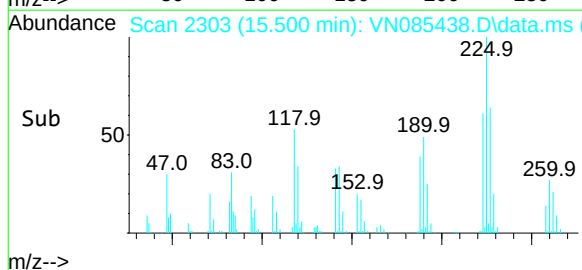
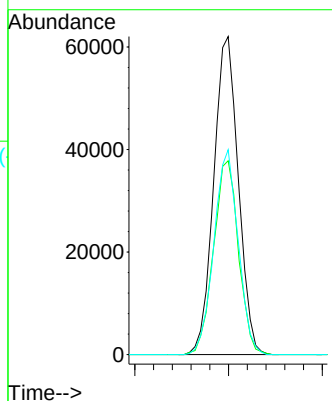
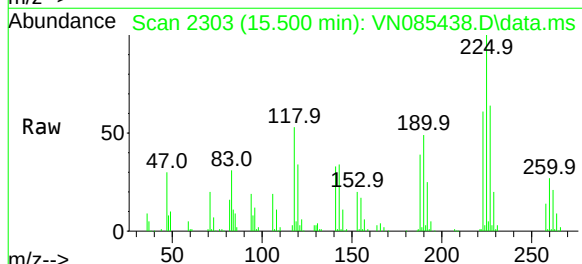
Tgt Ion:225 Resp: 112899

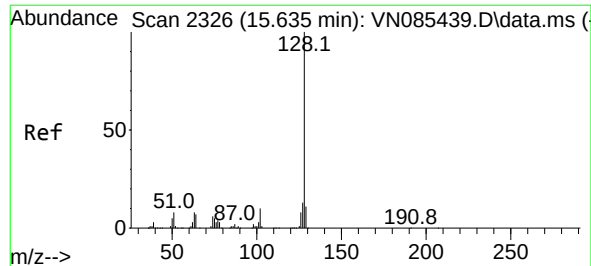
Ion Ratio Lower Upper

225 100

223 61.8 30.7 92.1

227 63.6 30.9 92.5





#95

Naphthalene

Concen: 115.234 ug/l

RT: 15.635 min Scan# 2326

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion:128 Resp: 756816

Ion Ratio Lower Upper

128 100

127 13.1 10.6 16.0

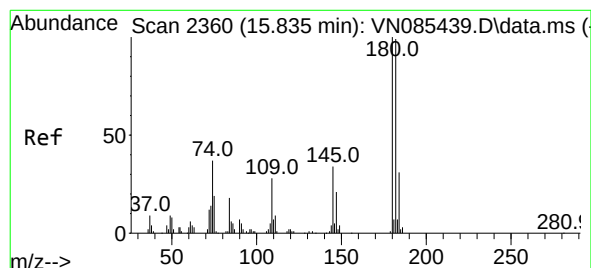
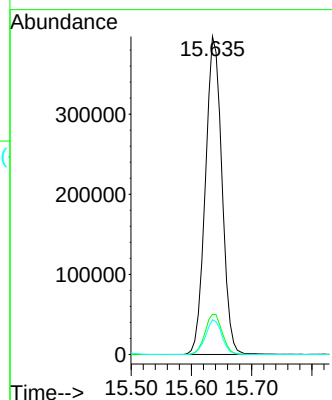
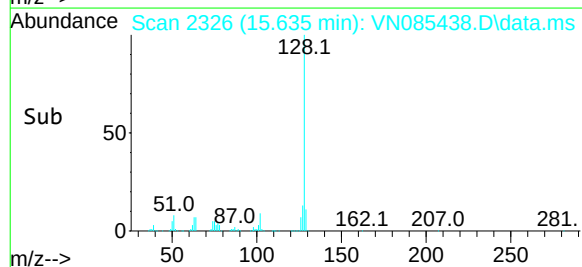
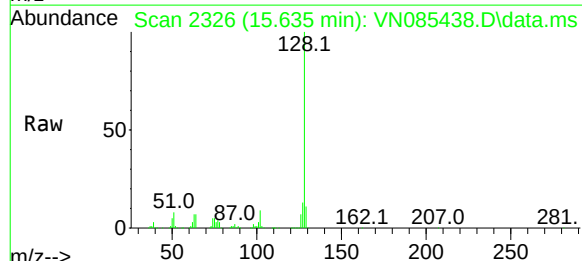
129 10.8 8.8 13.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#96

1,2,3-Trichlorobenzene

Concen: 107.256 ug/l

RT: 15.835 min Scan# 2360

Delta R.T. -0.000 min

Lab File: VN085438.D

Acq: 14 Jan 2025 14:56

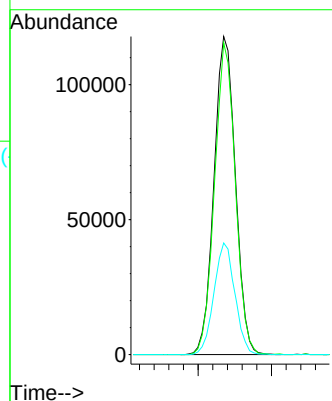
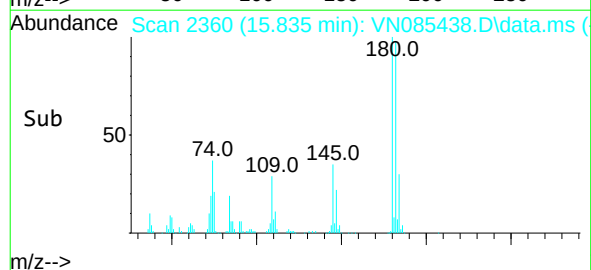
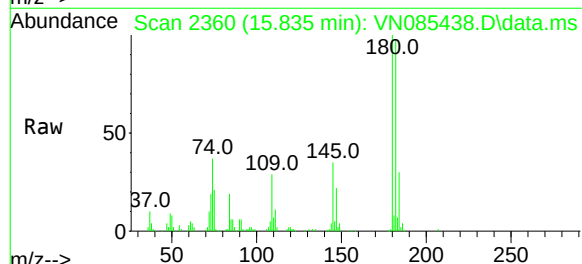
Tgt Ion:180 Resp: 238860

Ion Ratio Lower Upper

180 100

182 95.0 47.4 142.2

145 34.3 16.9 50.7



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085439.D  
 Acq On : 14 Jan 2025 15:19  
 Operator : JC\MD  
 Sample : VSTDICCC050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICCC050

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:42:13 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 01:28:51 2025  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.218  | 168  | 199403   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.094  | 114  | 339872   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 297366   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.788 | 152  | 146624   | 50.000 | ug/l  | 0.00     |

|                             |        |       |          |          |      |          |
|-----------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds |        |       |          |          |      |          |
| 33) 1,2-Dichloroethane-d4   | 8.571  | 65    | 165768   | 51.500   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 74 - 125 | Recovery | =    | 103.000% |
| 35) Dibromofluoromethane    | 8.159  | 113   | 121554   | 51.552   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =    | 103.100% |
| 50) Toluene-d8              | 10.565 | 98    | 430698   | 51.411   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 86 - 113 | Recovery | =    | 102.820% |
| 62) 4-Bromofluorobenzene    | 12.847 | 95    | 152568   | 53.239   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 77 - 121 | Recovery | =    | 106.480% |

|                              |       |     |         |         |        |     |
|------------------------------|-------|-----|---------|---------|--------|-----|
| Target Compounds             |       |     |         |         | Qvalue |     |
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 125504  | 46.486  | ug/l   | 100 |
| 3) Chloromethane             | 2.359 | 50  | 135631  | 46.398  | ug/l   | 100 |
| 4) Vinyl Chloride            | 2.512 | 62  | 136831  | 46.569  | ug/l   | 100 |
| 5) Bromomethane              | 2.953 | 94  | 83199   | 46.877  | ug/l   | 100 |
| 6) Chloroethane              | 3.118 | 64  | 84517   | 45.371  | ug/l   | 100 |
| 7) Trichlorofluoromethane    | 3.501 | 101 | 198726  | 46.613  | ug/l   | 100 |
| 8) Diethyl Ether             | 3.953 | 74  | 71764   | 48.726  | ug/l   | 100 |
| 9) 1,1,2-Trichlorotrifluo... | 4.371 | 101 | 108081  | 45.010  | ug/l   | 100 |
| 10) Methyl Iodide            | 4.589 | 142 | 143383  | 52.142  | ug/l   | 100 |
| 11) Tert butyl alcohol       | 5.512 | 59  | 92841   | 251.894 | ug/l   | 100 |
| 12) 1,1-Dichloroethene       | 4.342 | 96  | 106247  | 49.647  | ug/l   | 100 |
| 13) Acrolein                 | 4.171 | 56  | 139234  | 276.734 | ug/l   | 100 |
| 14) Allyl chloride           | 5.018 | 41  | 168654  | 48.567  | ug/l   | 100 |
| 15) Acrylonitrile            | 5.712 | 53  | 296781  | 253.507 | ug/l   | 100 |
| 16) Acetone                  | 4.418 | 43  | 251271  | 241.603 | ug/l   | 100 |
| 17) Carbon Disulfide         | 4.706 | 76  | 294604  | 44.710  | ug/l   | 100 |
| 18) Methyl Acetate           | 5.018 | 43  | 157485  | 49.798  | ug/l   | 100 |
| 19) Methyl tert-butyl Ether  | 5.789 | 73  | 373561  | 53.758  | ug/l   | 100 |
| 20) Methylene Chloride       | 5.271 | 84  | 125508  | 48.748  | ug/l   | 100 |
| 21) trans-1,2-Dichloroethene | 5.783 | 96  | 110684  | 48.395  | ug/l   | 100 |
| 22) Diisopropyl ether        | 6.665 | 45  | 406253  | 52.707  | ug/l   | 100 |
| 23) Vinyl Acetate            | 6.594 | 43  | 1491031 | 275.471 | ug/l   | 100 |
| 24) 1,1-Dichloroethane       | 6.565 | 63  | 233336  | 49.648  | ug/l   | 100 |
| 25) 2-Butanone               | 7.477 | 43  | 388457  | 253.815 | ug/l   | 100 |
| 26) 2,2-Dichloropropane      | 7.483 | 77  | 186591  | 49.106  | ug/l   | 100 |
| 27) cis-1,2-Dichloroethene   | 7.483 | 96  | 136229  | 50.571  | ug/l   | 100 |
| 28) Bromochloromethane       | 7.806 | 49  | 108148  | 49.461  | ug/l   | 100 |
| 29) Tetrahydrofuran          | 7.830 | 42  | 259683  | 267.624 | ug/l   | 100 |
| 30) Chloroform               | 7.959 | 83  | 234271  | 48.229  | ug/l   | 100 |
| 31) Cyclohexane              | 8.253 | 56  | 175588  | 42.984  | ug/l   | 100 |
| 32) 1,1,1-Trichloroethane    | 8.165 | 97  | 202590  | 47.547  | ug/l   | 100 |
| 36) 1,1-Dichloropropene      | 8.365 | 75  | 157031  | 47.453  | ug/l   | 100 |
| 37) Ethyl Acetate            | 7.553 | 43  | 165866  | 49.658  | ug/l   | 100 |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 180199  | 47.564  | ug/l   | 100 |
| 39) Methylcyclohexane        | 9.600 | 83  | 157234  | 50.562  | ug/l   | 100 |
| 40) Benzene                  | 8.600 | 78  | 492606  | 49.542  | ug/l   | 100 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085439.D  
 Acq On : 14 Jan 2025 15:19  
 Operator : JC\MD  
 Sample : VSTDICCC050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICCC050

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:42:13 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 01:28:51 2025  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| 41) Methacrylonitrile         | 7.771  | 41   | 91711    | 52.775   | ug/l   | 100      |
| 42) 1,2-Dichloroethane        | 8.665  | 62   | 186065   | 49.685   | ug/l   | 100      |
| 43) Isopropyl Acetate         | 8.683  | 43   | 276228   | 51.611   | ug/l   | 100      |
| 44) Trichloroethene           | 9.347  | 130  | 109953   | 47.506   | ug/l   | 100      |
| 45) 1,2-Dichloropropane       | 9.618  | 63   | 126084   | 49.644   | ug/l   | 100      |
| 46) Dibromomethane            | 9.706  | 93   | 90670    | 49.476   | ug/l   | 100      |
| 47) Bromodichloromethane      | 9.882  | 83   | 189915   | 50.867   | ug/l   | 100      |
| 48) Methyl methacrylate       | 9.677  | 41   | 133399   | 55.385   | ug/l   | 100      |
| 49) 1,4-Dioxane               | 9.688  | 88   | 43048    | 1061.334 | ug/l   | 100      |
| 51) 4-Methyl-2-Pentanone      | 10.441 | 43   | 836707   | 269.403  | ug/l   | 100      |
| 52) Toluene                   | 10.624 | 92   | 295792   | 51.341   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 187439   | 53.125   | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene   | 10.306 | 75   | 199771   | 53.006   | ug/l   | 100      |
| 55) 1,1,2-Trichloroethane     | 11.012 | 97   | 115462   | 50.641   | ug/l   | 100      |
| 56) Ethyl methacrylate        | 10.871 | 69   | 184775   | 48.182   | ug/l   | 100      |
| 57) 1,3-Dichloropropane       | 11.159 | 76   | 204590   | 51.606   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 409594   | 283.088  | ug/l   | 100      |
| 59) 2-Hexanone                | 11.188 | 43   | 606740   | 277.643  | ug/l   | 100      |
| 60) Dibromochloromethane      | 11.353 | 129  | 140704   | 51.116   | ug/l   | 100      |
| 61) 1,2-Dibromoethane         | 11.465 | 107  | 113541   | 50.028   | ug/l   | 100      |
| 64) Tetrachloroethene         | 11.100 | 164  | 95879    | 47.295   | ug/l   | 100      |
| 65) Chlorobenzene             | 11.888 | 112  | 319992   | 49.121   | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 116488   | 48.722   | ug/l   | 100      |
| 67) Ethyl Benzene             | 11.959 | 91   | 555322   | 52.339   | ug/l   | 100      |
| 68) m/p-Xylenes               | 12.065 | 106  | 420702   | 107.286  | ug/l   | 100      |
| 69) o-Xylene                  | 12.394 | 106  | 202597   | 54.062   | ug/l   | 100      |
| 70) Styrene                   | 12.406 | 104  | 348720   | 56.227   | ug/l   | 100      |
| 71) Bromoform                 | 12.576 | 173  | 92366    | 53.993   | ug/l # | 100      |
| 73) Isopropylbenzene          | 12.688 | 105  | 505619   | 51.094   | ug/l   | 100      |
| 74) N-amyl acetate            | 12.488 | 43   | 237870   | 53.478   | ug/l   | 100      |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 167856   | 48.019   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane    | 12.988 | 75   | 130866m  | 43.982   | ug/l   |          |
| 77) Bromobenzene              | 12.976 | 156  | 125800   | 48.657   | ug/l   | 100      |
| 78) n-propylbenzene           | 13.029 | 91   | 609022   | 51.986   | ug/l   | 100      |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 378981   | 49.985   | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 431021   | 52.730   | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 57184    | 51.914   | ug/l   | 100      |
| 82) 4-Chlorotoluene           | 13.218 | 91   | 379524   | 50.273   | ug/l   | 100      |
| 83) tert-Butylbenzene         | 13.435 | 119  | 357563   | 52.090   | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene    | 13.476 | 105  | 442175   | 54.275   | ug/l   | 100      |
| 85) sec-Butylbenzene          | 13.612 | 105  | 501561   | 52.719   | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 13.723 | 119  | 421052   | 49.240   | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene       | 13.729 | 146  | 229518   | 48.204   | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 229084   | 46.416   | ug/l   | 100      |
| 89) n-Butylbenzene            | 14.053 | 91   | 364111   | 53.348   | ug/l   | 100      |
| 90) Hexachloroethane          | 14.329 | 117  | 84602    | 46.712   | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene       | 14.100 | 146  | 228024   | 48.012   | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 32536    | 50.971   | ug/l   | 100      |
| 93) 1,2,4-Trichlorobenzene    | 15.388 | 180  | 114468   | 51.857   | ug/l   | 100      |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 53846    | 45.947   | ug/l   | 100      |
| 95) Naphthalene               | 15.635 | 128  | 363882   | 55.243   | ug/l   | 100      |
| 96) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 115251   | 51.601   | ug/l   | 100      |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
Data File : VN085439.D  
Acq On : 14 Jan 2025 15:19  
Operator : JC\MD  
Sample : VSTDICCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:42:13 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 01:28:51 2025  
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

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

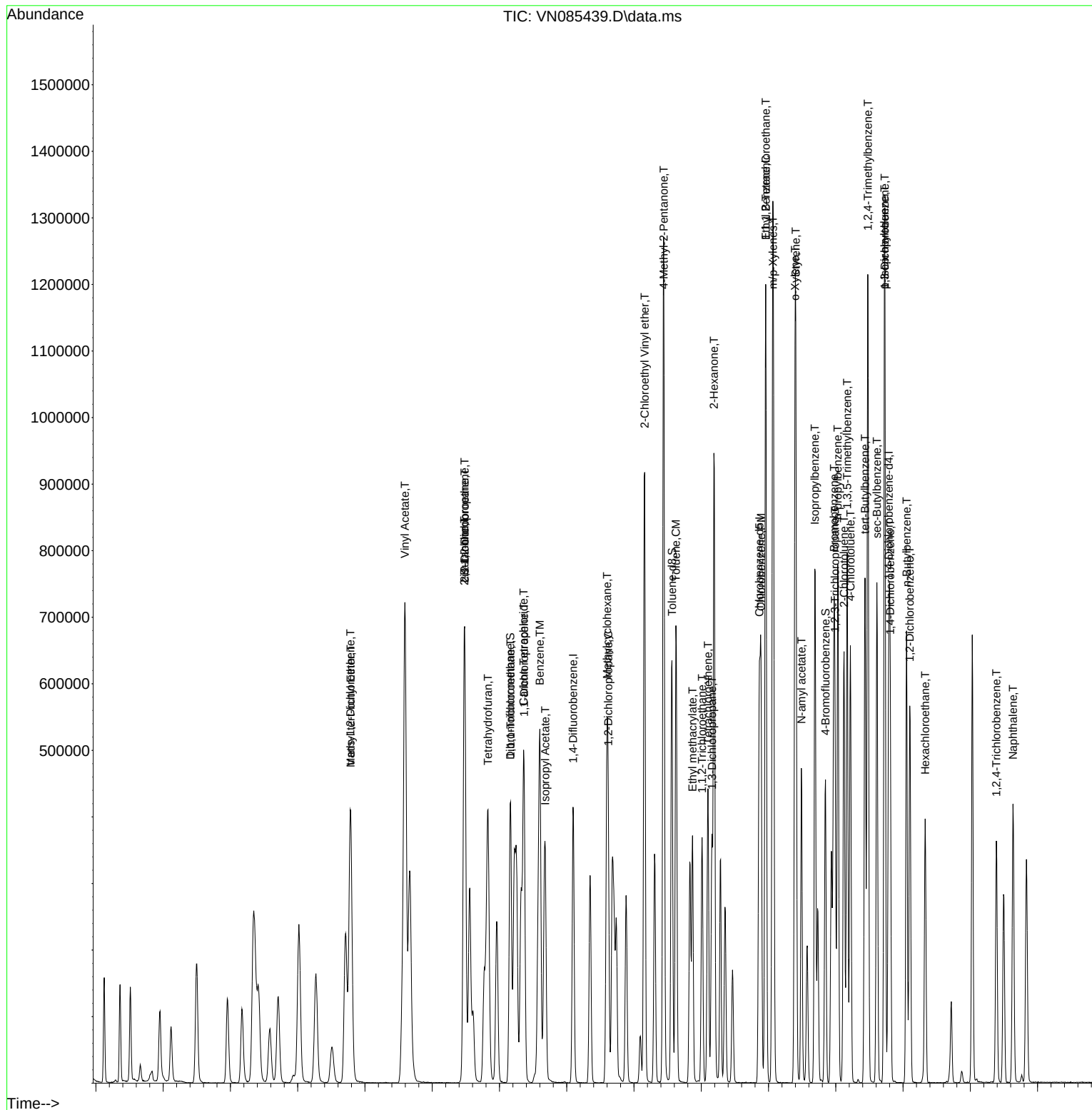
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
Data File : VN085439.D  
Acq On : 14 Jan 2025 15:19  
Operator : JC\MD  
Sample : VSTDICCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

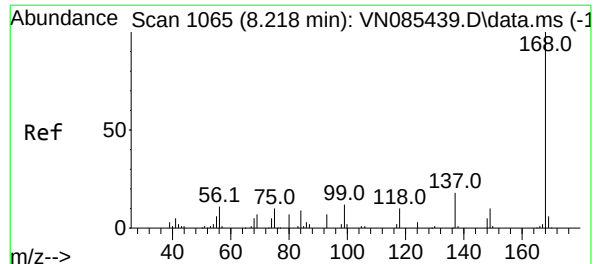
Quant Time: Jan 15 01:42:13 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 01:28:51 2025  
Response via : Initial Calibration

Manual Integrations  
APPROVED

Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025







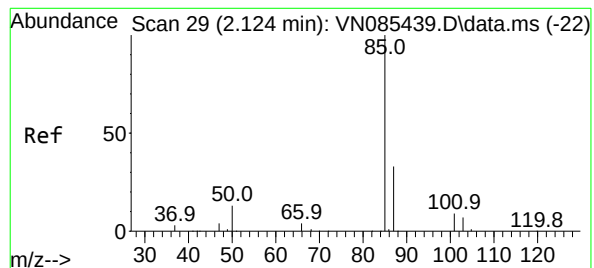
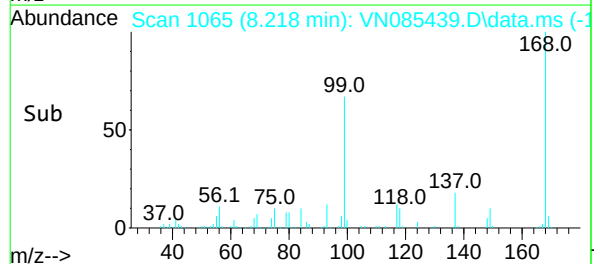
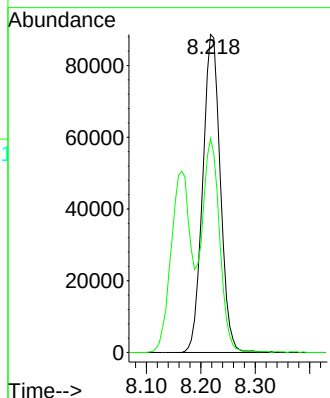
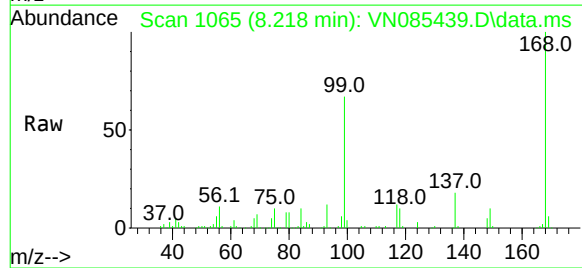
#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.218 min Scan# 1065  
Delta R.T. -0.000 min  
Lab File: VN085439.D  
Acq: 14 Jan 2025 15:19

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion:168 Resp: 199403  
Ion Ratio Lower Upper  
168 100  
99 67.0 53.6 80.4

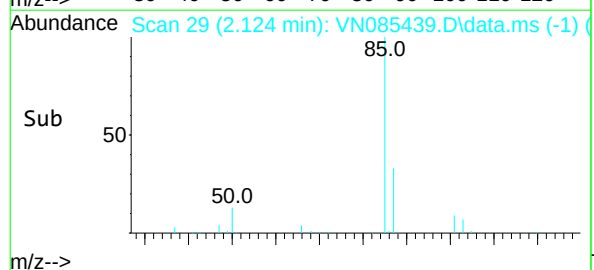
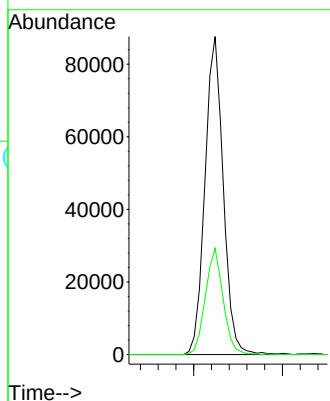
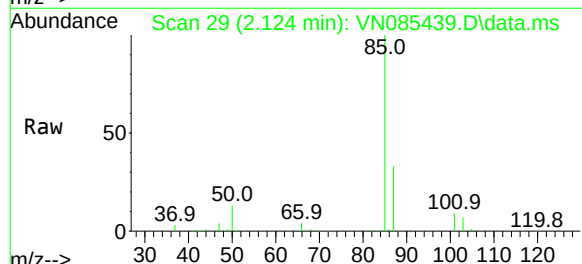
Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

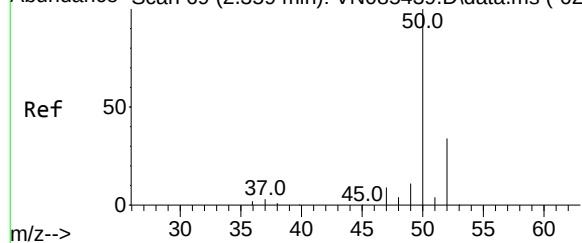


#2  
Dichlorodifluoromethane  
Concen: 46.486 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. 0.000 min  
Lab File: VN085439.D  
Acq: 14 Jan 2025 15:19

Tgt Ion: 85 Resp: 125504  
Ion Ratio Lower Upper  
85 100  
87 33.4 16.7 50.1



Abundance Scan 69 (2.359 min): VN085439.D\data.ms (-62)



#3

Chloromethane

Concen: 46.398 ug/l

RT: 2.359 min Scan# 69

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 50 Resp: 135631

Ion Ratio Lower Upper

50 100

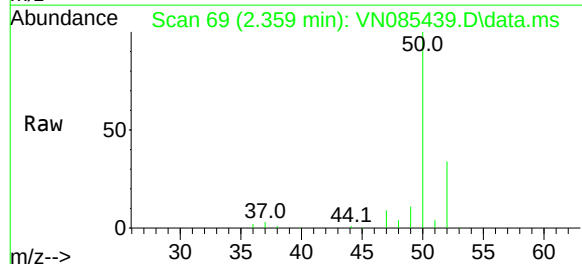
52 33.8 27.0 40.6

Manual Integrations

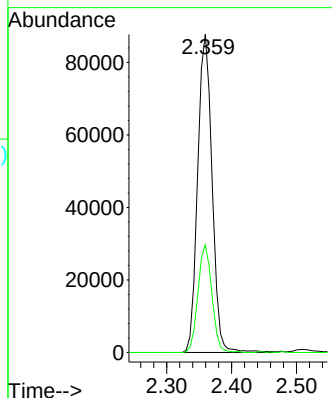
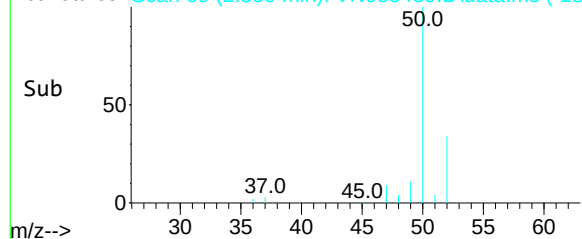
APPROVED

Reviewed By :John Carlone 01/15/2025

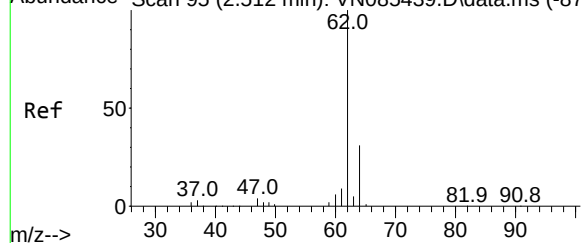
Supervised By :Mahesh Dadoda 01/15/2025



Abundance Scan 69 (2.359 min): VN085439.D\data.ms (-18)



Abundance Scan 95 (2.512 min): VN085439.D\data.ms (-87)



#4

Vinyl Chloride

Concen: 46.569 ug/l

RT: 2.512 min Scan# 95

Delta R.T. 0.000 min

Lab File: VN085439.D

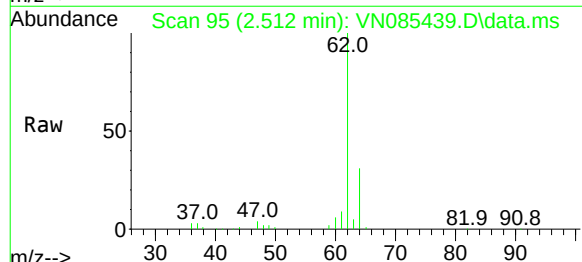
Acq: 14 Jan 2025 15:19

Tgt Ion: 62 Resp: 136831

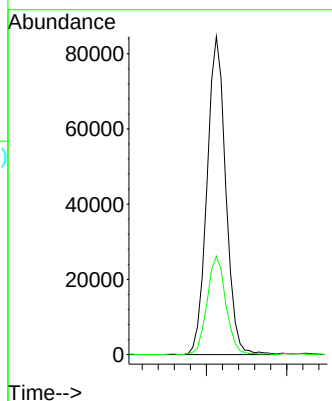
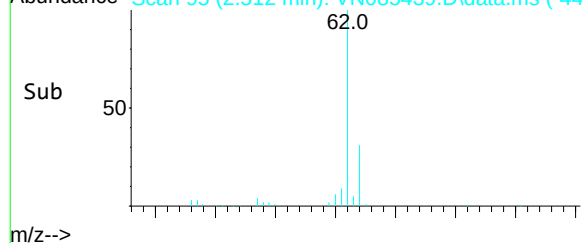
Ion Ratio Lower Upper

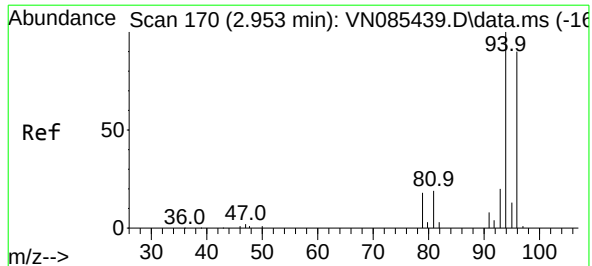
62 100

64 31.0 24.8 37.2



Abundance Scan 95 (2.512 min): VN085439.D\data.ms (-44)





#5

Bromomethane

Concen: 46.877 ug/l

RT: 2.953 min Scan# 170

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 94 Resp: 83199

Ion Ratio Lower Upper

94 100

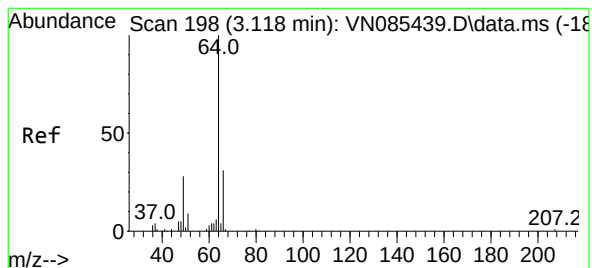
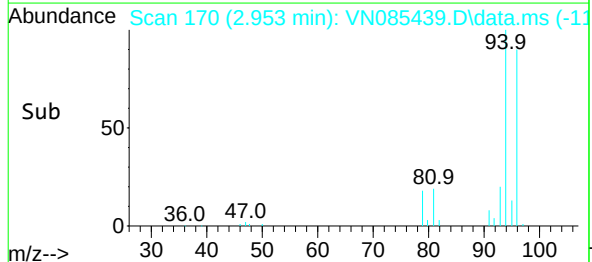
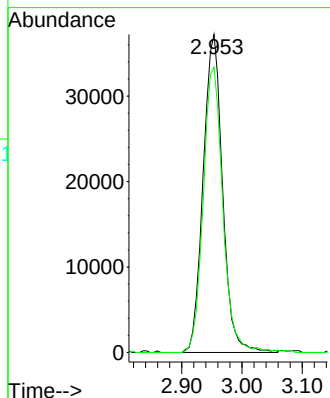
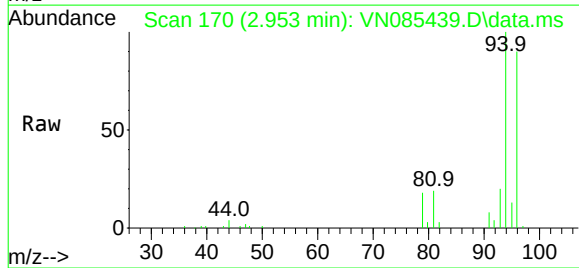
96 89.7 71.8 107.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#6

Chloroethane

Concen: 45.371 ug/l

RT: 3.118 min Scan# 198

Delta R.T. 0.000 min

Lab File: VN085439.D

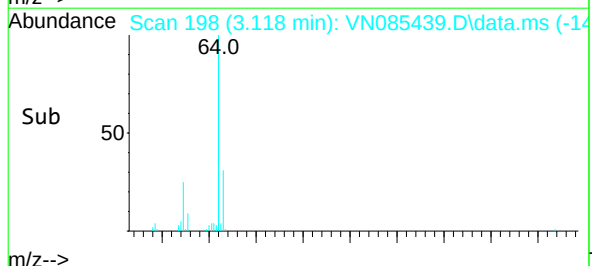
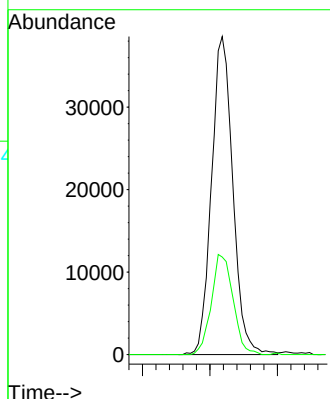
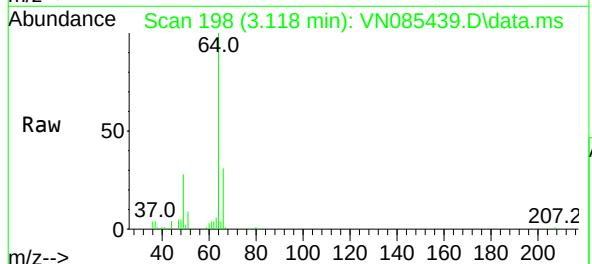
Acq: 14 Jan 2025 15:19

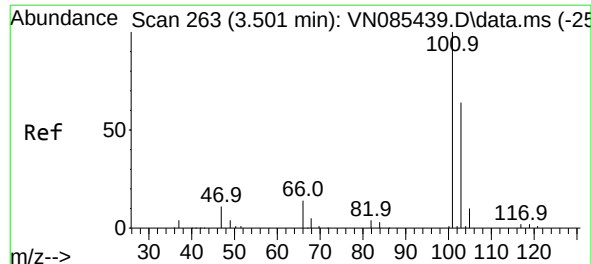
Tgt Ion: 64 Resp: 84517

Ion Ratio Lower Upper

64 100

66 30.7 24.6 36.8





#7

Trichlorofluoromethane

Concen: 46.613 ug/l

RT: 3.501 min Scan# 263

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:101 Resp: 198726

Ion Ratio Lower Upper

101 100

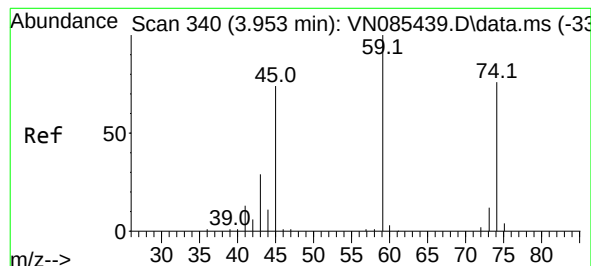
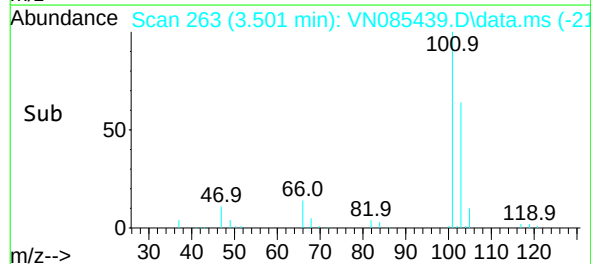
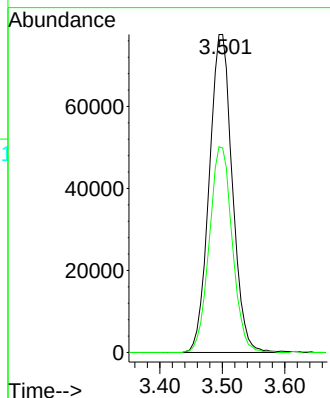
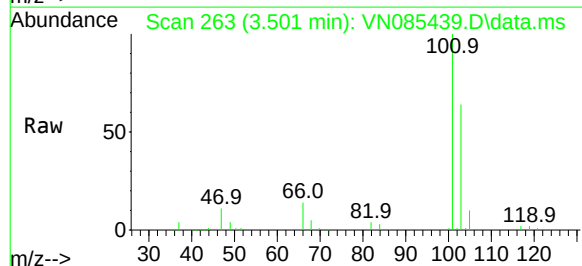
103 64.3 51.4 77.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#8

Diethyl Ether

Concen: 48.726 ug/l

RT: 3.953 min Scan# 340

Delta R.T. 0.000 min

Lab File: VN085439.D

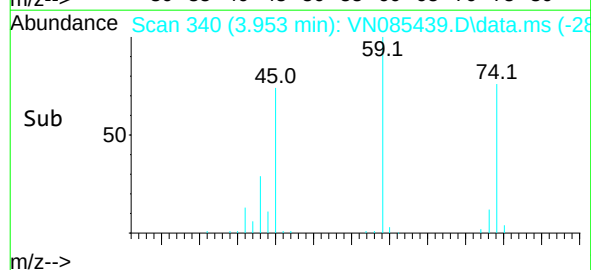
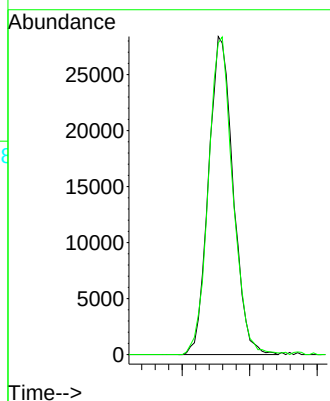
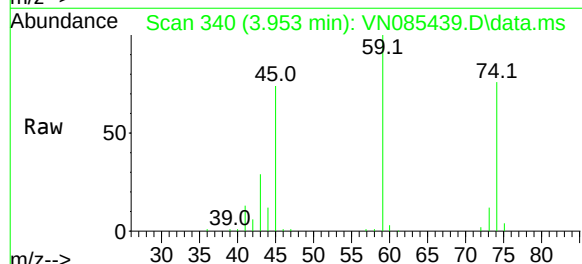
Acq: 14 Jan 2025 15:19

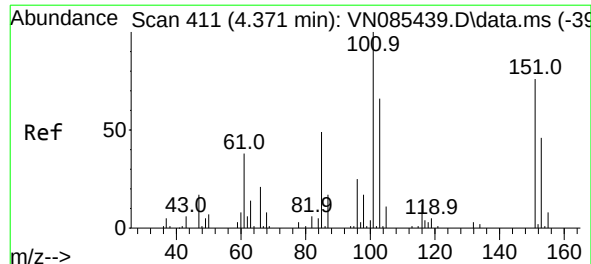
Tgt Ion: 74 Resp: 71764

Ion Ratio Lower Upper

74 100

45 99.4 49.7 149.1





#9

1,1,2-Trichlorotrifluoroethane

Concen: 45.010 ug/l

RT: 4.371 min Scan# 411

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:101 Resp: 108081

Ion Ratio Lower Upper

101 100

85 47.3 37.8 56.8

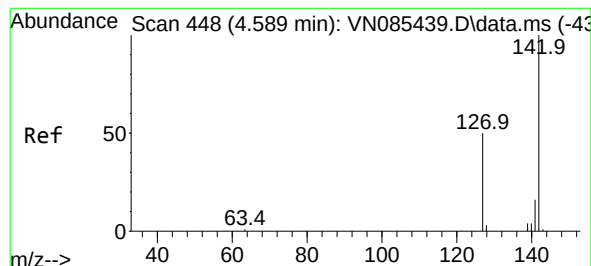
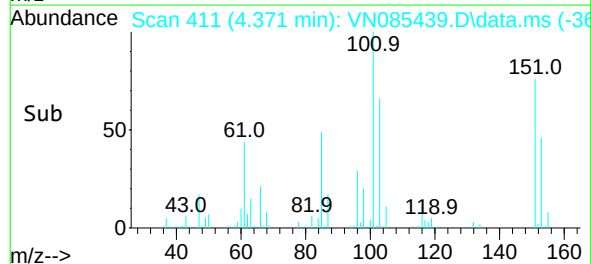
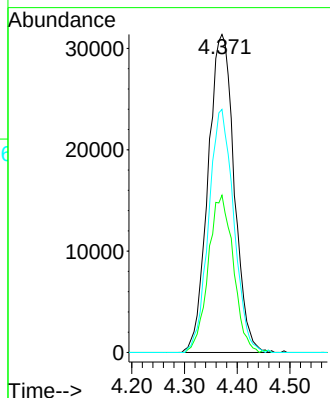
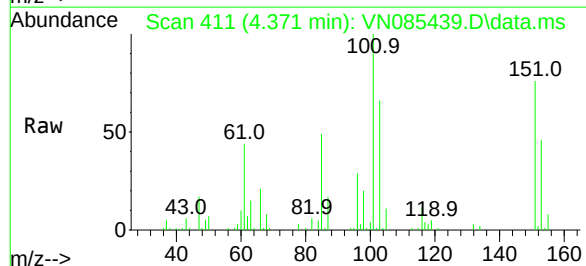
151 73.5 58.8 88.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#10

Methyl Iodide

Concen: 52.142 ug/l

RT: 4.589 min Scan# 448

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

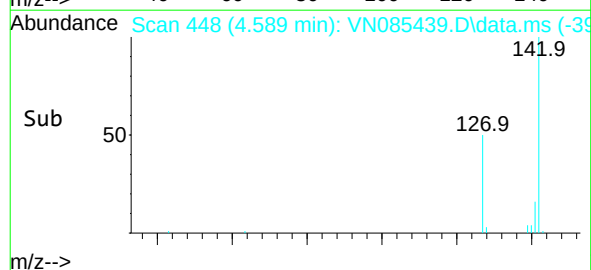
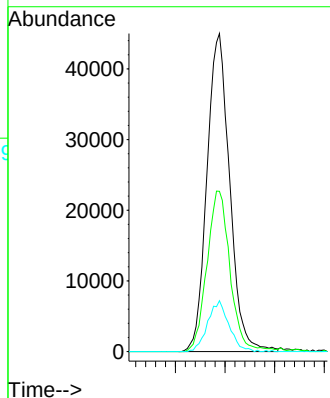
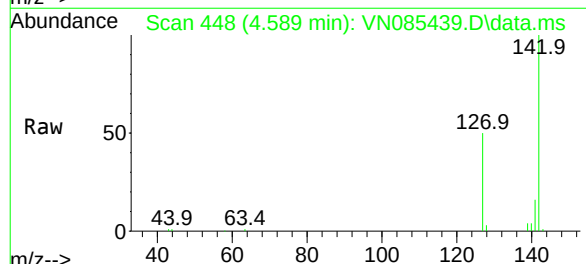
Tgt Ion:142 Resp: 143383

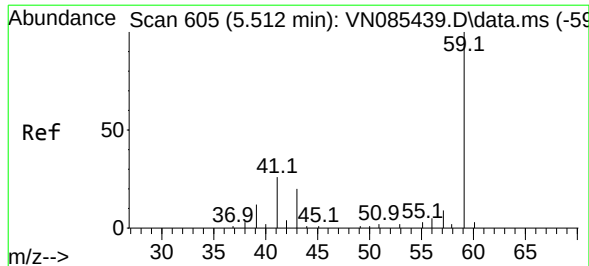
Ion Ratio Lower Upper

142 100

127 50.4 40.3 60.5

141 16.0 12.8 19.2





#11

Tert butyl alcohol

Concen: 251.894 ug/l

RT: 5.512 min Scan# 605

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 59 Resp: 92841

Ion Ratio Lower Upper

59 100

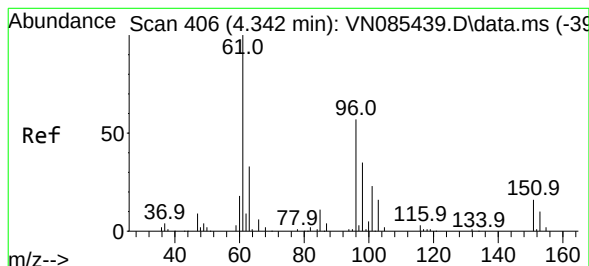
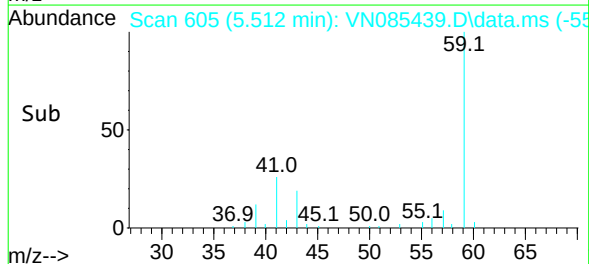
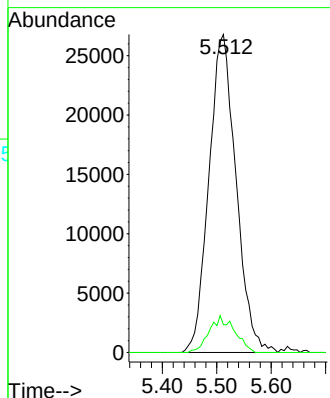
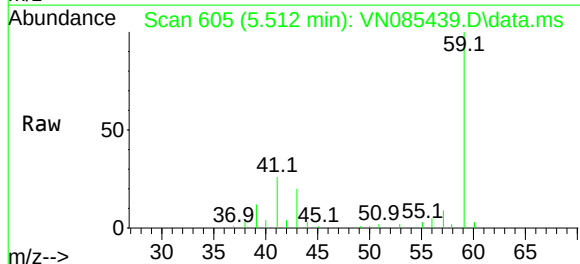
57 10.8 8.6 13.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#12

1,1-Dichloroethene

Concen: 49.647 ug/l

RT: 4.342 min Scan# 406

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

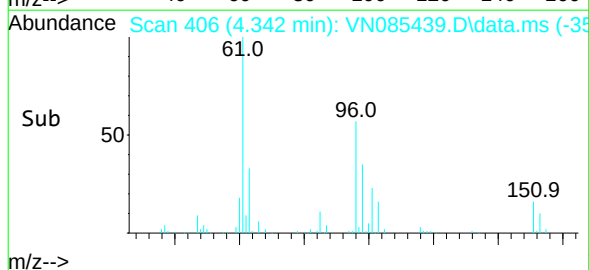
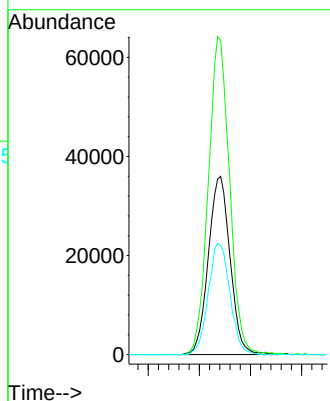
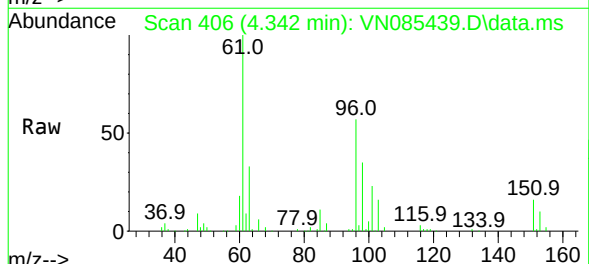
Tgt Ion: 96 Resp: 106247

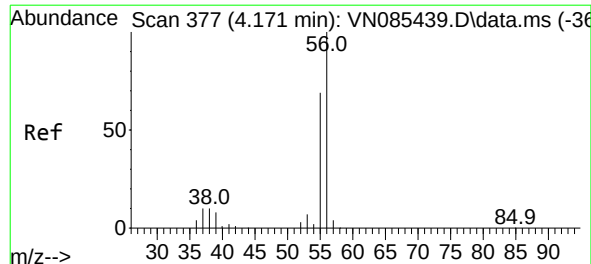
Ion Ratio Lower Upper

96 100

61 176.2 141.0 211.4

98 61.3 49.0 73.6





#13

Acrolein

Concen: 276.734 ug/l

RT: 4.171 min Scan# 377

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 56 Resp: 139234

Ion Ratio Lower Upper

56 100

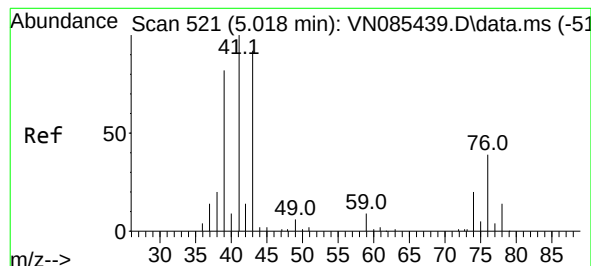
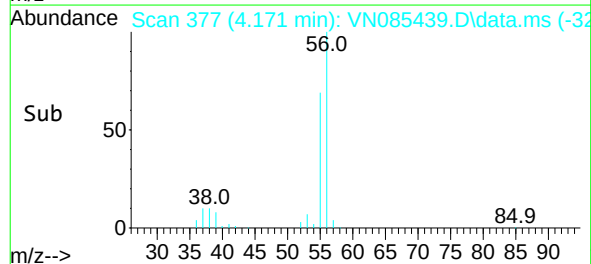
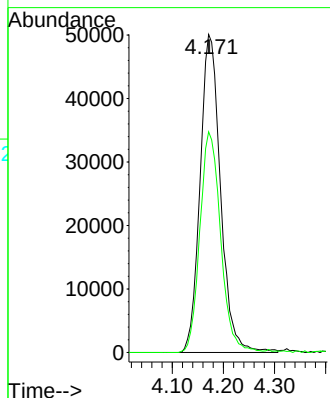
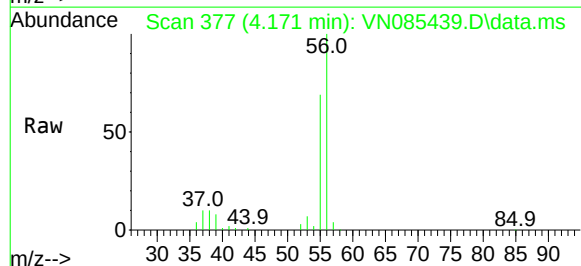
55 70.4 56.3 84.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#14

Allyl chloride

Concen: 48.567 ug/l

RT: 5.018 min Scan# 521

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

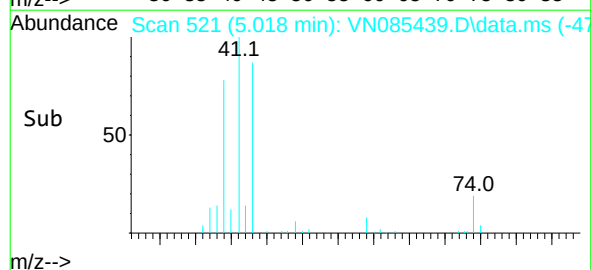
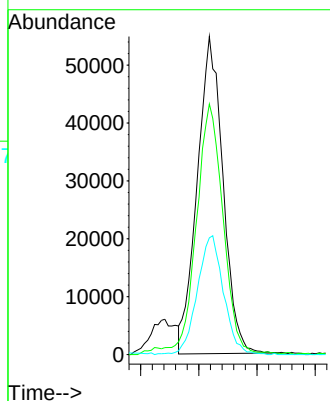
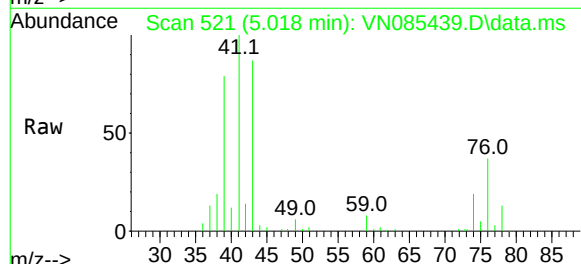
Tgt Ion: 41 Resp: 168654

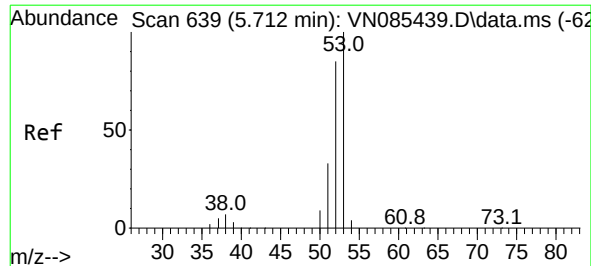
Ion Ratio Lower Upper

41 100

39 80.5 64.4 96.6

76 38.1 30.5 45.7





#15

Acrylonitrile

Concen: 253.507 ug/l

RT: 5.712 min Scan# 639

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

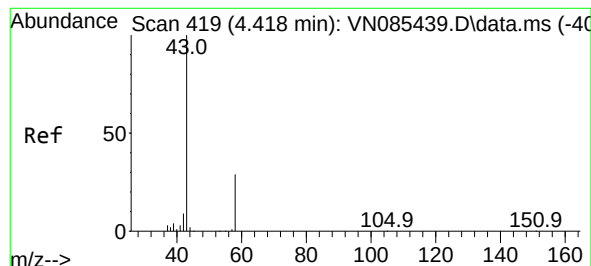
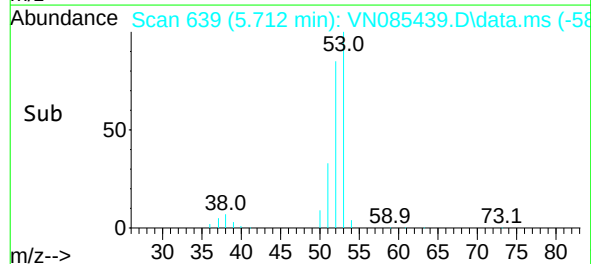
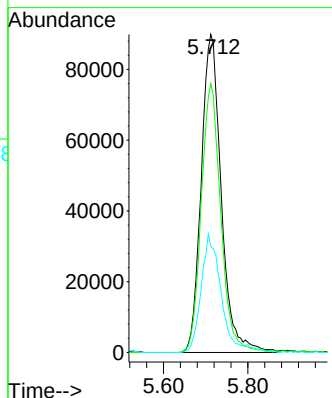
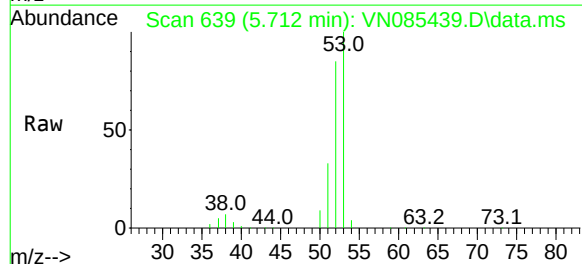
ClientSampleId :

VSTDICCC050

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 53    | Resp: | 296781 |
| Ion      | Ratio | Lower | Upper  |
| 53       | 100   |       |        |
| 52       | 81.9  | 65.5  | 98.3   |
| 51       | 37.3  | 29.8  | 44.8   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#16

Acetone

Concen: 241.603 ug/l

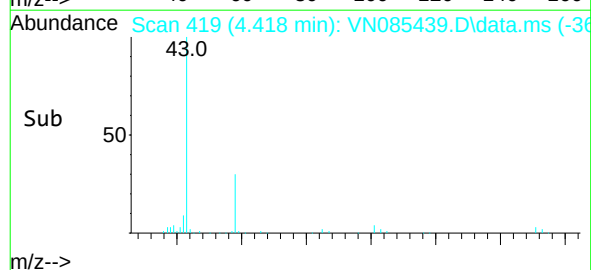
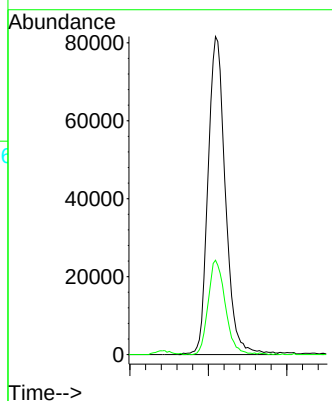
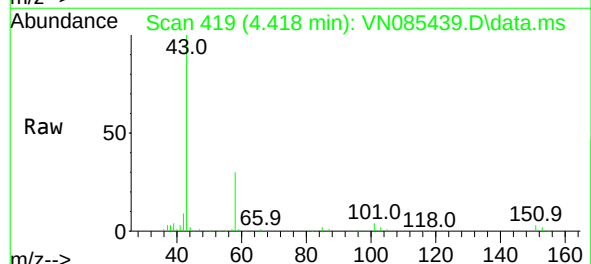
RT: 4.418 min Scan# 419

Delta R.T. 0.000 min

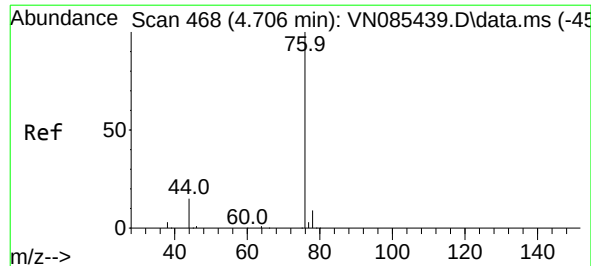
Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 251271 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 29.7  | 23.8  | 35.6   |







#17

Carbon Disulfide

Concen: 44.710 ug/l

RT: 4.706 min Scan# 468

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 76 Resp: 294604

Ion Ratio Lower Upper

76 100

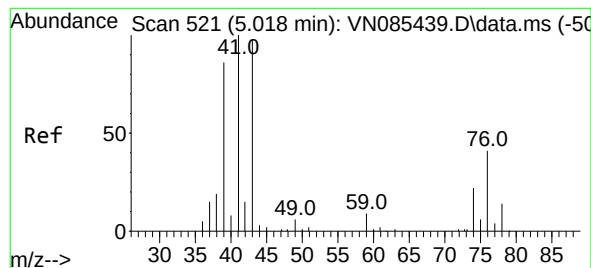
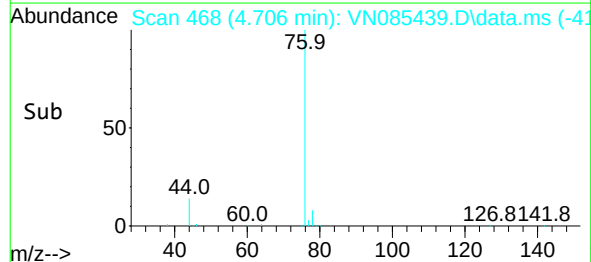
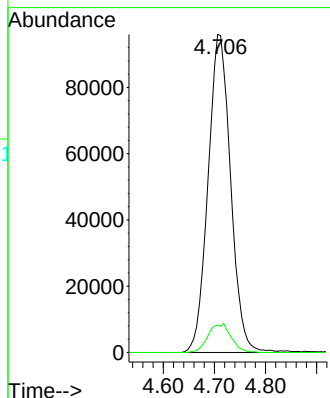
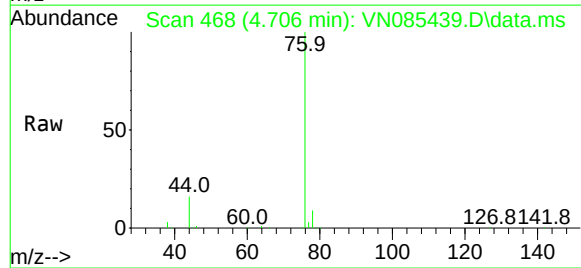
78 8.6 6.9 10.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#18

Methyl Acetate

Concen: 49.798 ug/l

RT: 5.018 min Scan# 521

Delta R.T. 0.000 min

Lab File: VN085439.D

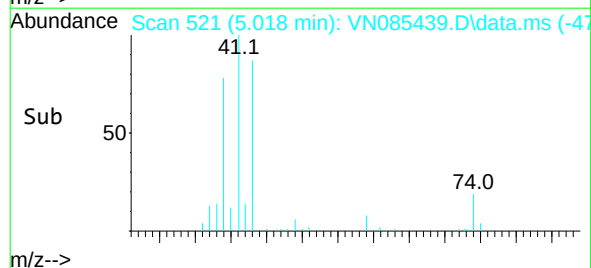
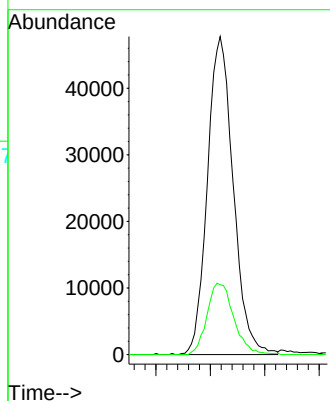
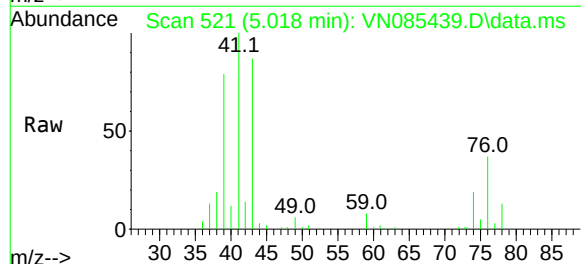
Acq: 14 Jan 2025 15:19

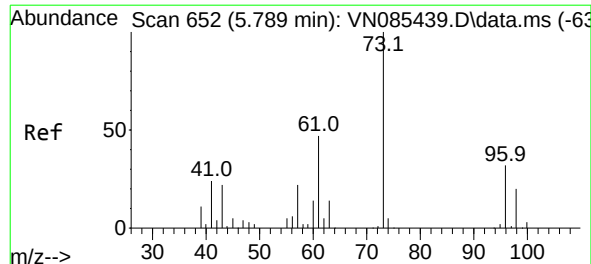
Tgt Ion: 43 Resp: 157485

Ion Ratio Lower Upper

43 100

74 23.3 18.6 28.0





#19

Methyl tert-butyl Ether

Concen: 53.758 ug/l

RT: 5.789 min Scan# 65

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 73 Resp: 373561

Ion Ratio Lower Upper

73 100

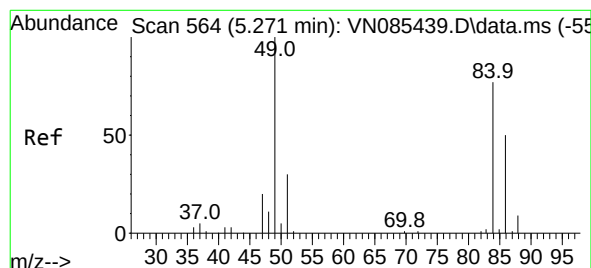
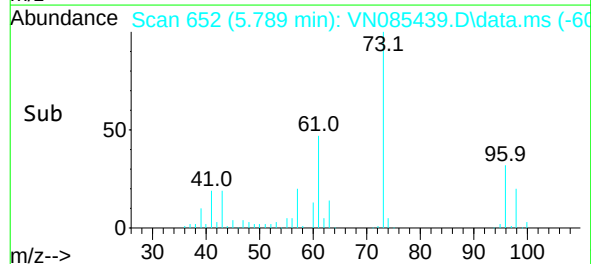
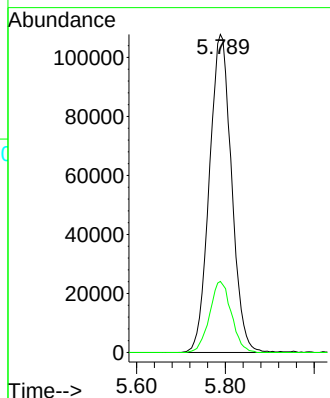
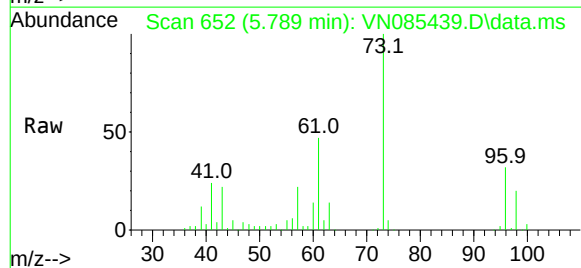
57 22.3 17.8 26.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#20

Methylene Chloride

Concen: 48.748 ug/l

RT: 5.271 min Scan# 564

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Tgt Ion: 84 Resp: 125508

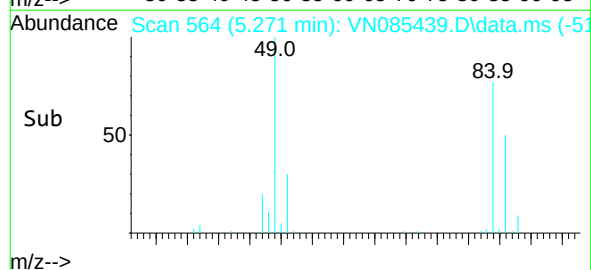
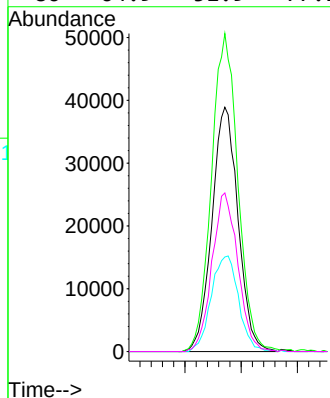
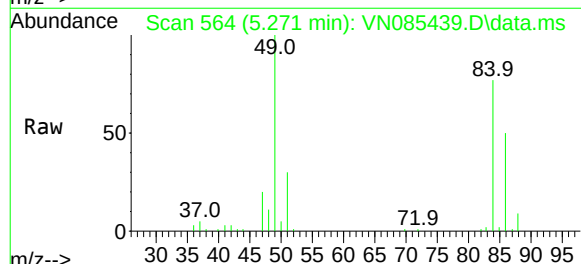
Ion Ratio Lower Upper

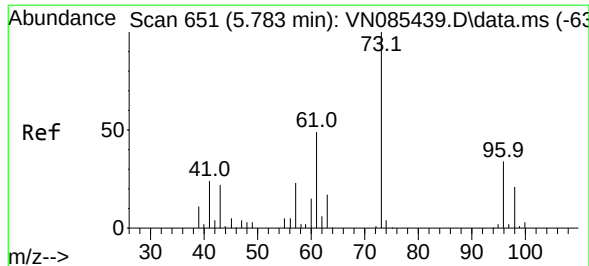
84 100

49 130.1 104.1 156.1

51 38.7 31.0 46.4

86 64.9 51.9 77.9





#21

trans-1,2-Dichloroethene

Concen: 48.395 ug/l

RT: 5.783 min Scan# 651

Delta R.T. 0.000 min

Lab File: VN085439.D

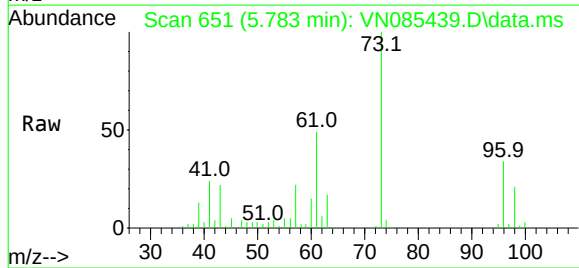
Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050



Tgt Ion: 96 Resp: 110684

Ion Ratio Lower Upper

96 100

61 144.6 115.7 173.5

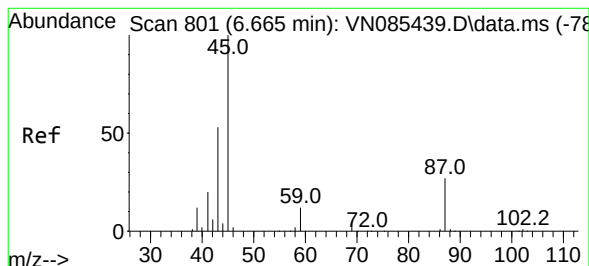
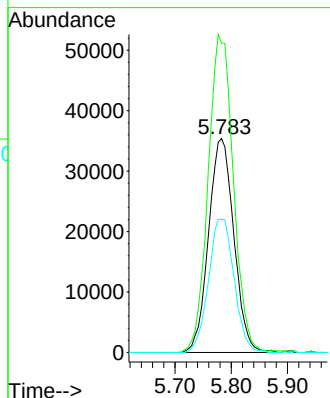
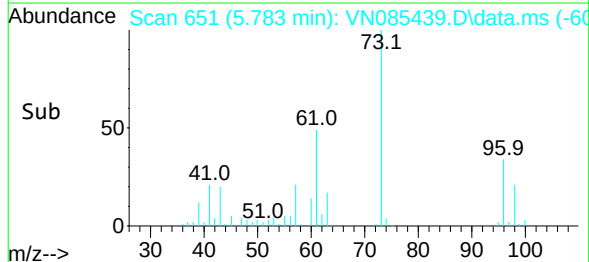
98 62.3 49.8 74.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#22

Diisopropyl ether

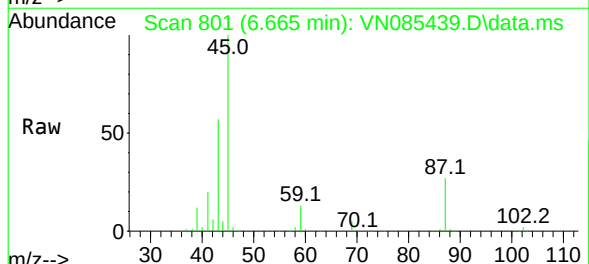
Concen: 52.707 ug/l

RT: 6.665 min Scan# 801

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19



Tgt Ion: 45 Resp: 406253

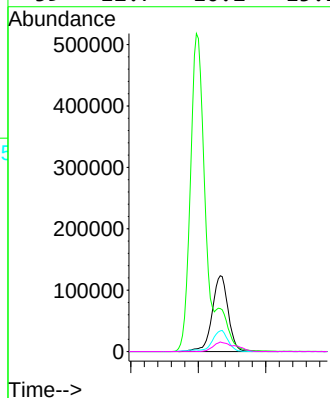
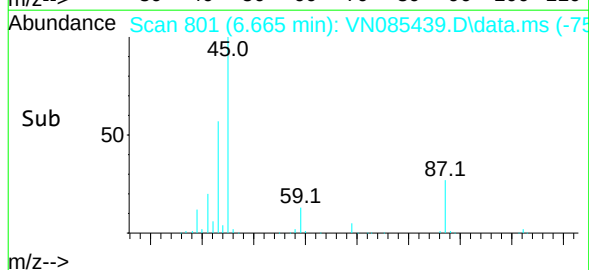
Ion Ratio Lower Upper

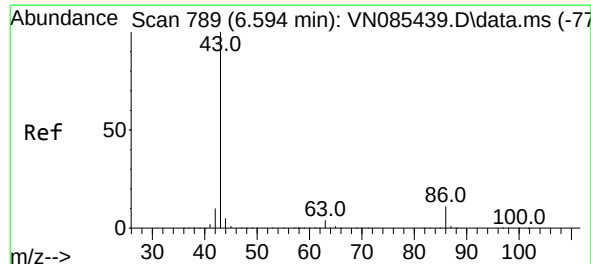
45 100

43 56.3 45.0 67.6

87 27.3 21.8 32.8

59 12.7 10.2 15.2





#23

Vinyl Acetate

Concen: 275.471 ug/l

RT: 6.594 min Scan# 789

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 43 Resp: 1491031

Ion Ratio Lower Upper

43 100

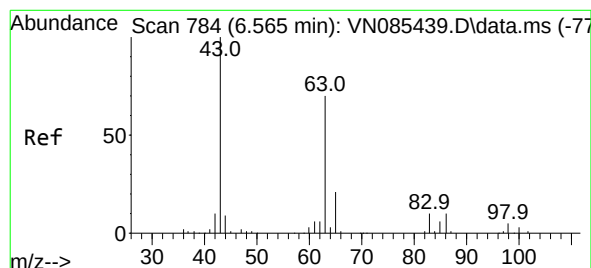
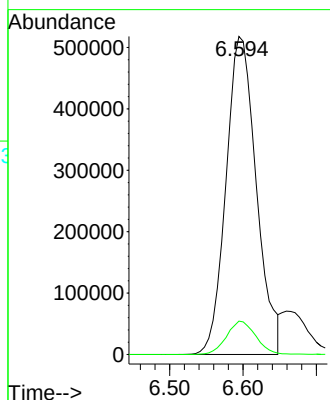
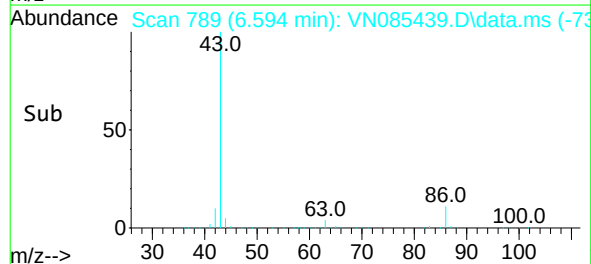
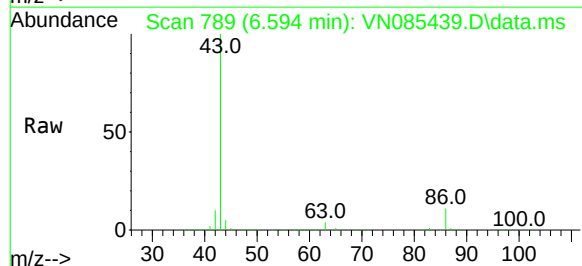
86 10.5 8.4 12.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#24

1,1-Dichloroethane

Concen: 49.648 ug/l

RT: 6.565 min Scan# 784

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

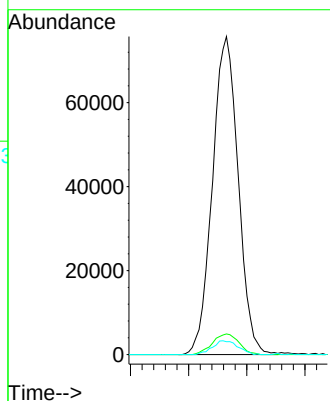
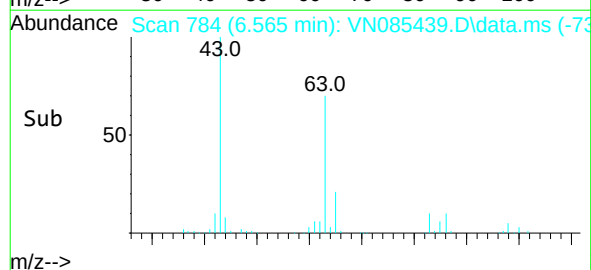
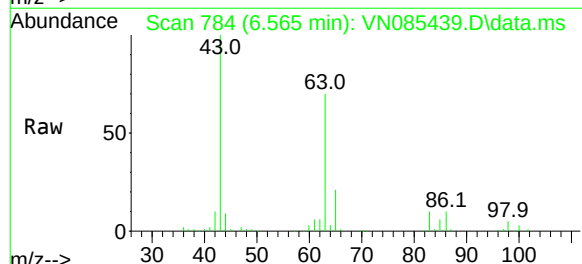
Tgt Ion: 63 Resp: 233336

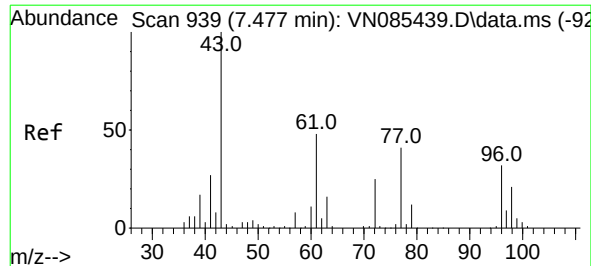
Ion Ratio Lower Upper

63 100

98 6.5 3.3 9.8

100 4.0 2.0 6.0





#25

2-Butanone

Concen: 253.815 ug/l

RT: 7.477 min Scan# 939

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Tgt Ion: 43 Resp: 388457

Ion Ratio Lower Upper

43 100

72 25.3 20.2 30.4

Instrument :

MSVOA\_N

ClientSampleId :

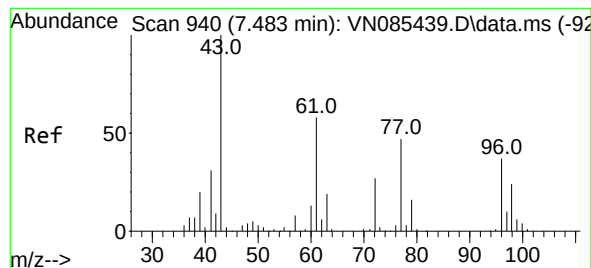
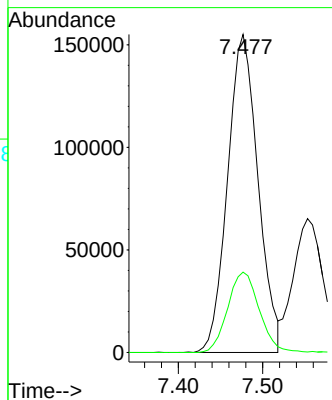
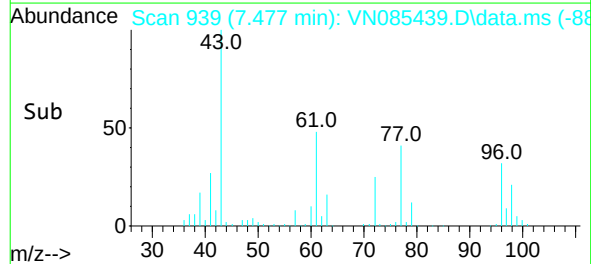
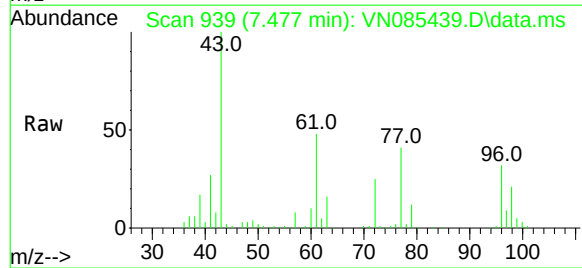
VSTDICCC050

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#26

2,2-Dichloropropane

Concen: 49.106 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.000 min

Lab File: VN085439.D

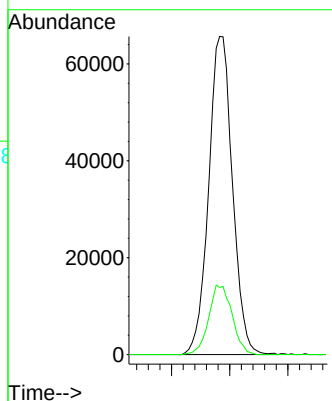
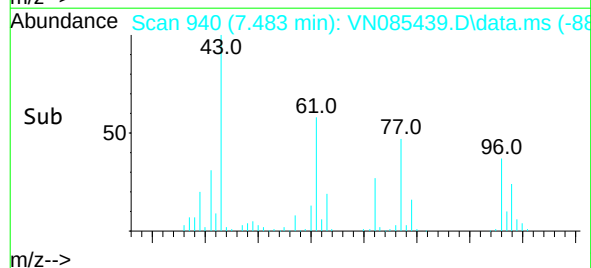
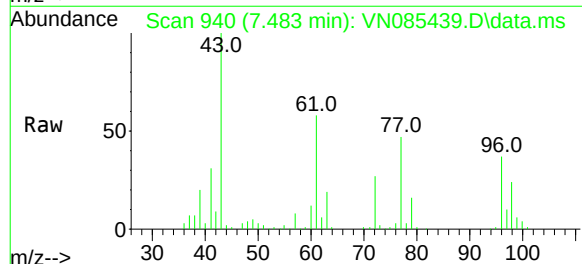
Acq: 14 Jan 2025 15:19

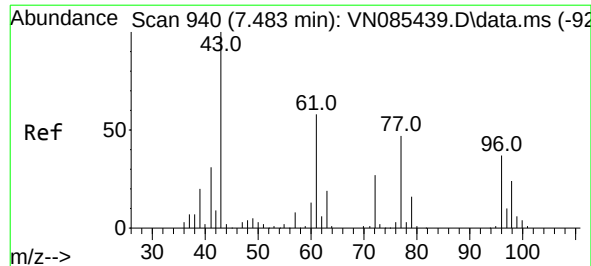
Tgt Ion: 77 Resp: 186591

Ion Ratio Lower Upper

77 100

97 21.4 10.7 32.1





#27

cis-1,2-Dichloroethene

Concen: 50.571 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 96 Resp: 136229

Ion Ratio Lower Upper

96 100

61 155.9 0.0 311.8

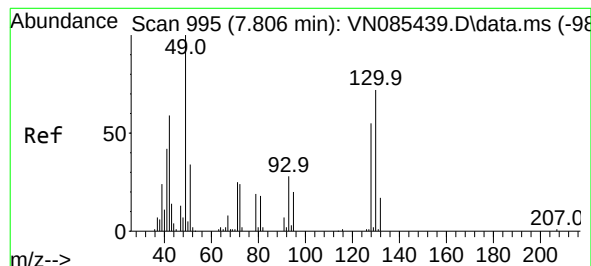
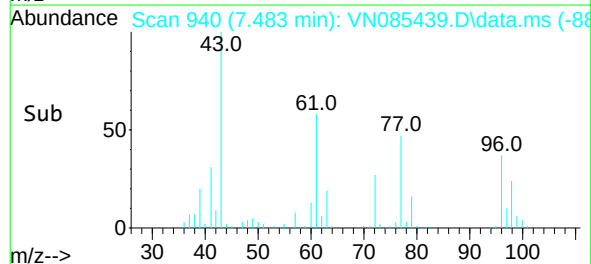
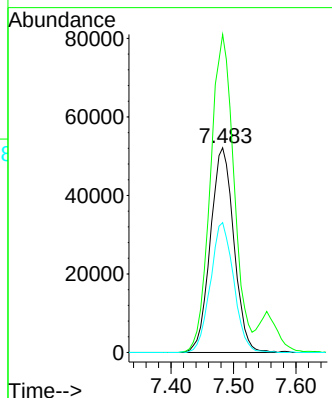
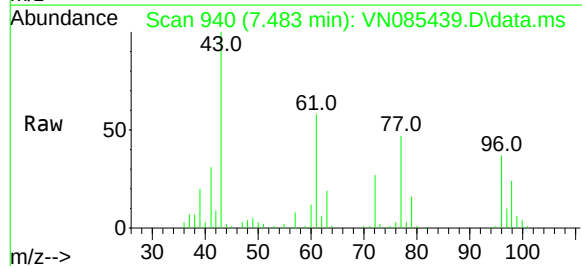
98 63.0 0.0 126.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#28

Bromochloromethane

Concen: 49.461 ug/l

RT: 7.806 min Scan# 995

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

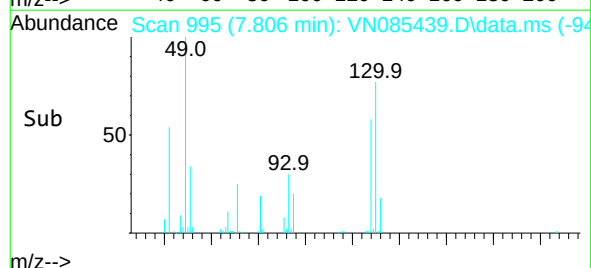
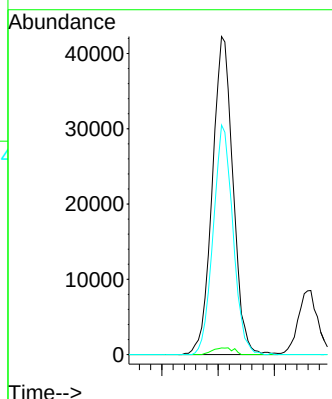
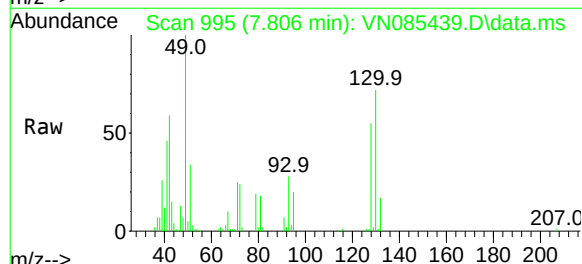
Tgt Ion: 49 Resp: 108148

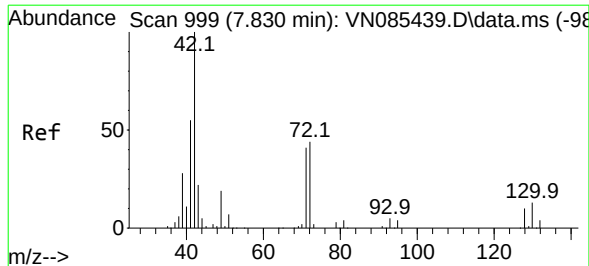
Ion Ratio Lower Upper

49 100

129 2.2 0.0 4.4

130 68.7 55.0 82.4





#29

Tetrahydrofuran

Concen: 267.624 ug/l

RT: 7.830 min Scan# 999

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

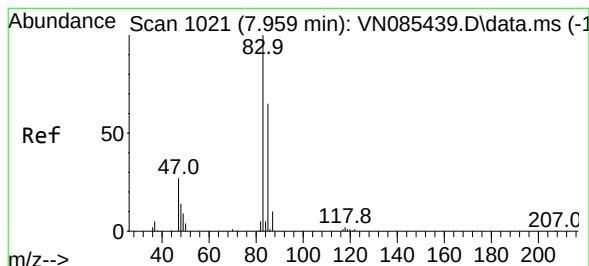
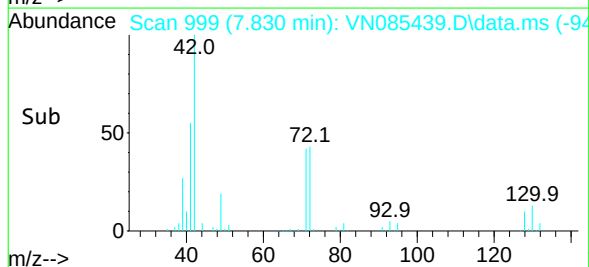
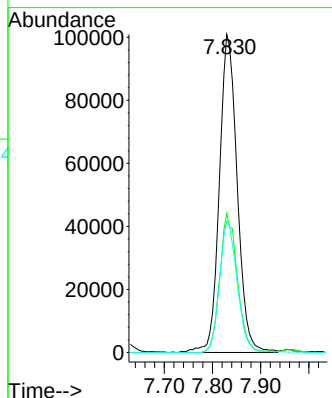
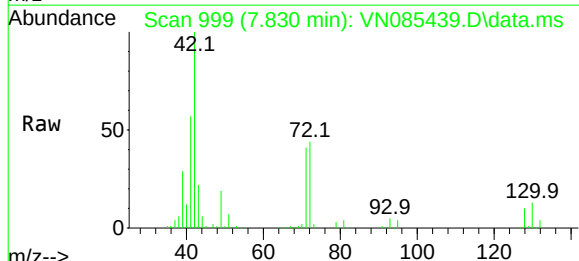
ClientSampleId :

VSTDICCC050

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 42    | Resp: | 259683 |
| Ion      | Ratio | Lower | Upper  |
| 42       | 100   |       |        |
| 72       | 42.7  | 34.2  | 51.2   |
| 71       | 40.6  | 32.5  | 48.7   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#30

Chloroform

Concen: 48.229 ug/l

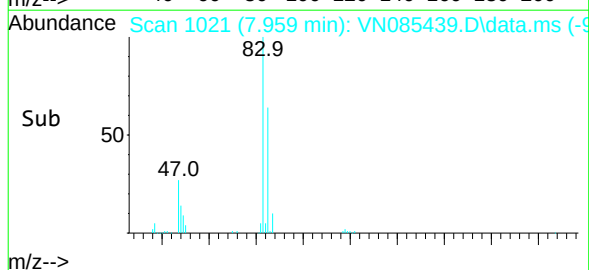
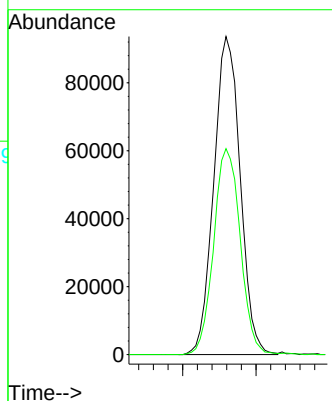
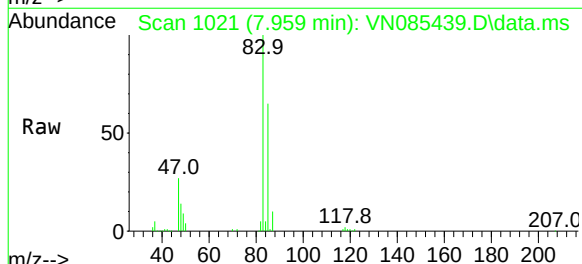
RT: 7.959 min Scan# 1021

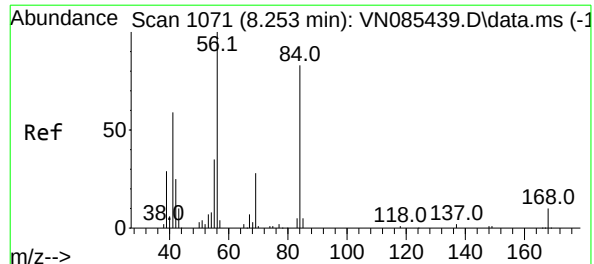
Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 234271 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 85       | 64.7  | 51.8  | 77.6   |





#31

Cyclohexane

Concen: 42.984 ug/l

RT: 8.253 min Scan# 1071

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Tgt Ion: 56 Resp: 175588

Ion Ratio Lower Upper

56 100

69 27.8 22.2 33.4

84 83.0 66.4 99.6

Instrument :

MSVOA\_N

ClientSampleId :

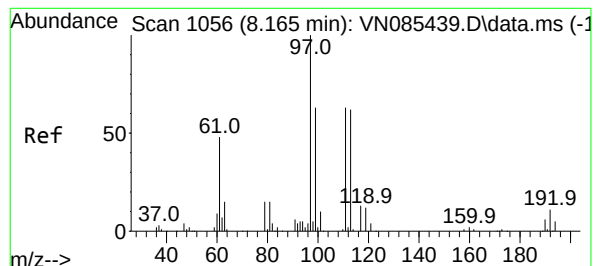
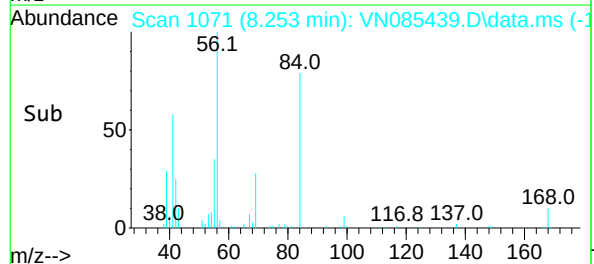
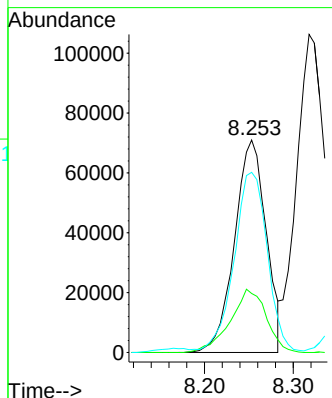
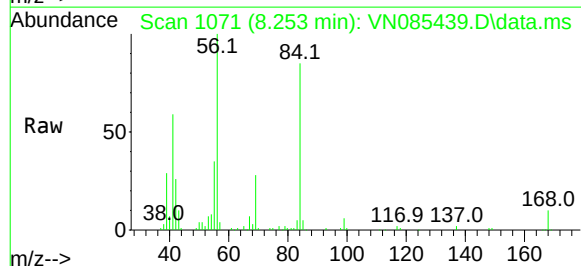
VSTDICCC050

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#32

1,1,1-Trichloroethane

Concen: 47.547 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

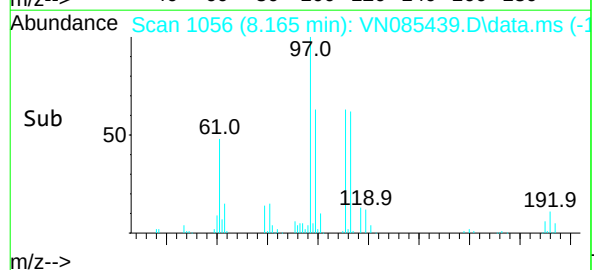
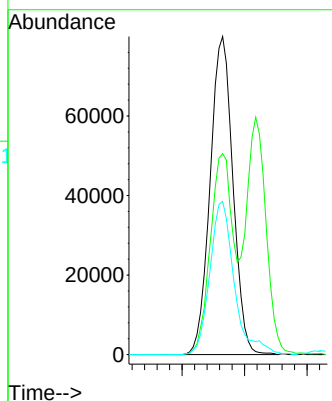
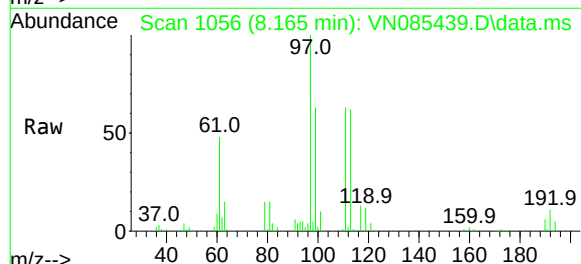
Tgt Ion: 97 Resp: 202590

Ion Ratio Lower Upper

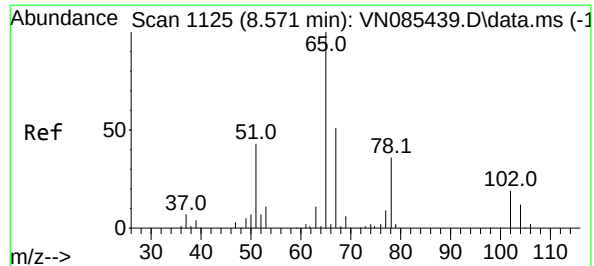
97 100

99 62.2 49.8 74.6

61 51.8 41.4 62.2







#33

1,2-Dichloroethane-d4

Concen: 51.500 ug/l

RT: 8.571 min Scan# 1125

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 65 Resp: 165768

Ion Ratio Lower Upper

65 100

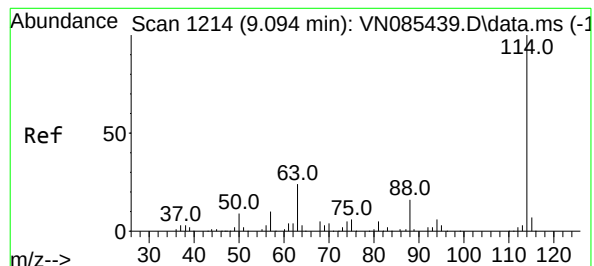
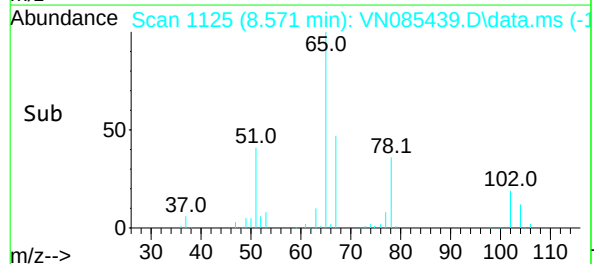
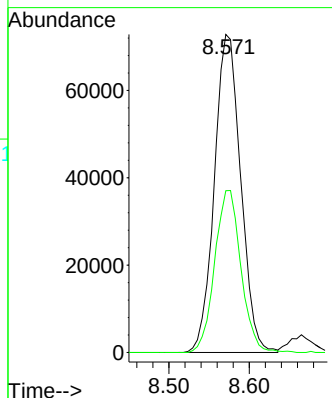
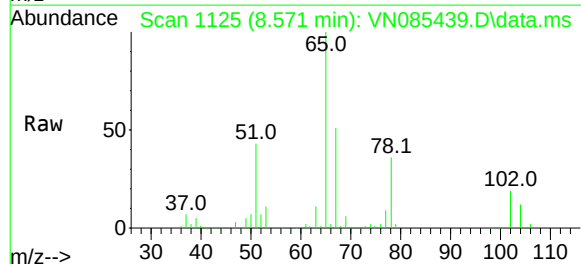
67 50.8 0.0 101.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.094 min Scan# 1214

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

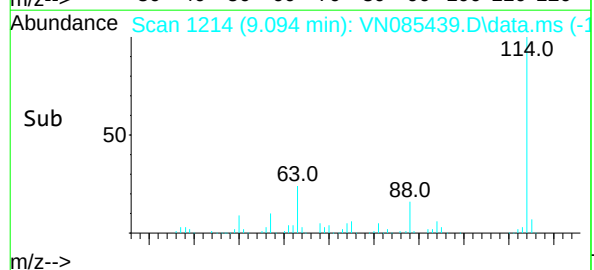
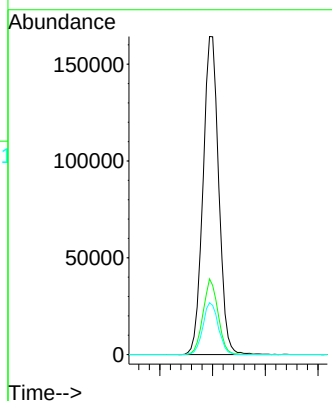
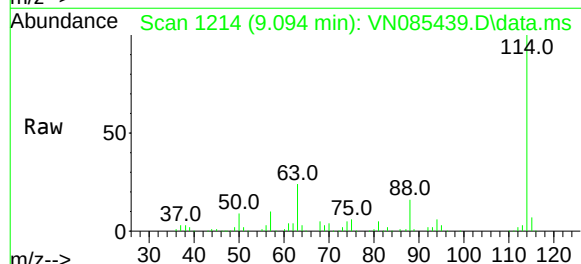
Tgt Ion:114 Resp: 339872

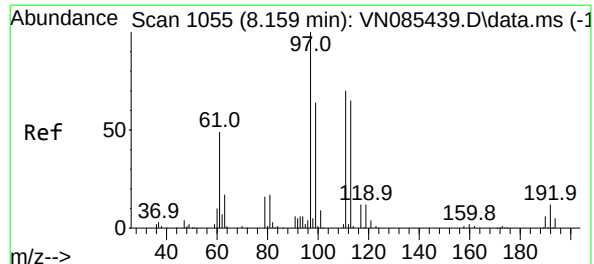
Ion Ratio Lower Upper

114 100

63 23.8 0.0 47.6

88 16.3 0.0 32.6





#35

Dibromofluoromethane

Concen: 51.552 ug/l

RT: 8.159 min Scan# 1055

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 113 Resp: 121554

Ion Ratio Lower Upper

113 100

111 103.4 82.7 124.1

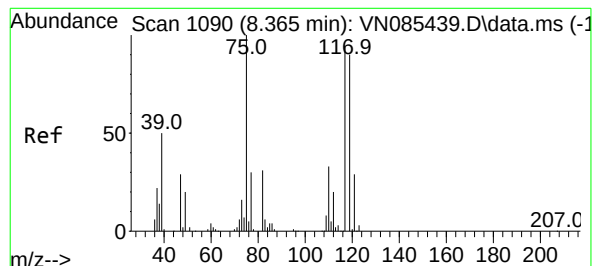
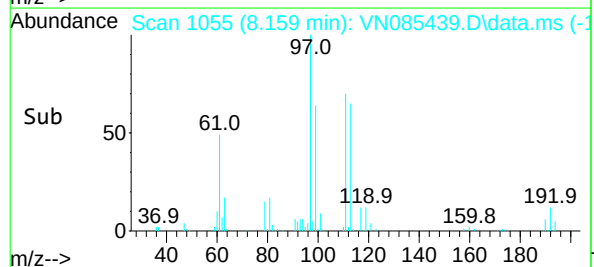
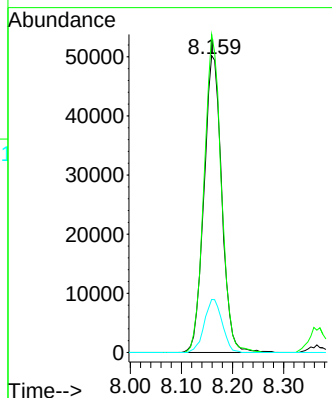
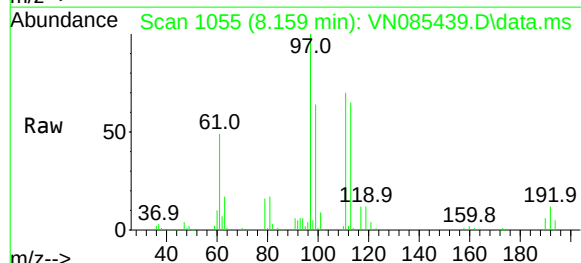
192 17.9 14.3 21.5

Manual Integrations

APPROVED

Reviewed By : John Carlone 01/15/2025

Supervised By : Mahesh Dadoda 01/15/2025



#36

1,1-Dichloropropene

Concen: 47.453 ug/l

RT: 8.365 min Scan# 1090

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

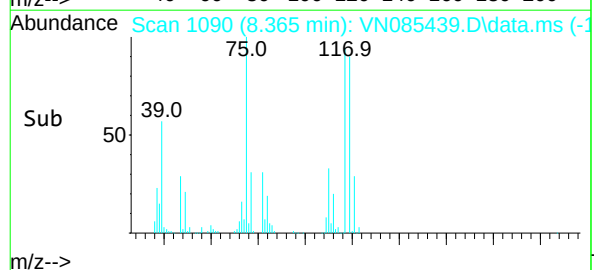
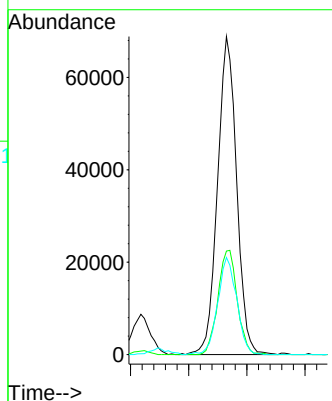
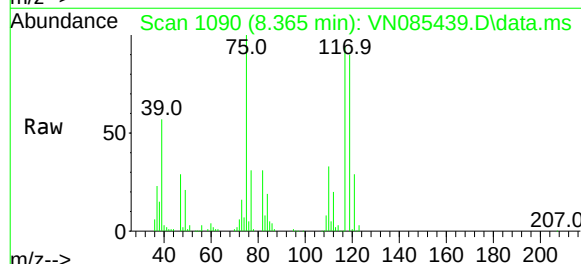
Tgt Ion: 75 Resp: 157031

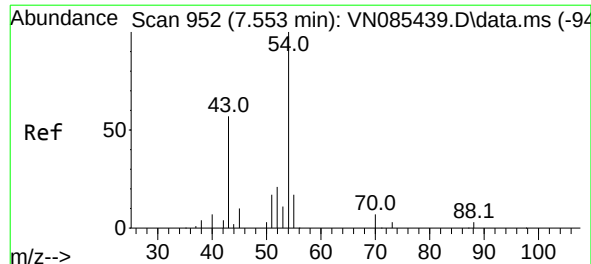
Ion Ratio Lower Upper

75 100

110 33.0 16.5 49.5

77 30.5 24.4 36.6





#37

Ethyl Acetate

Concen: 49.658 ug/l

RT: 7.553 min Scan# 952

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 43 Resp: 165866

Ion Ratio Lower Upper

43 100

61 13.6 10.9 16.3

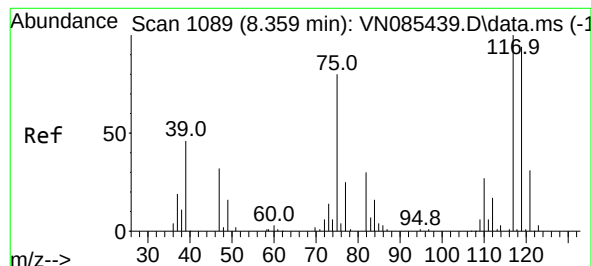
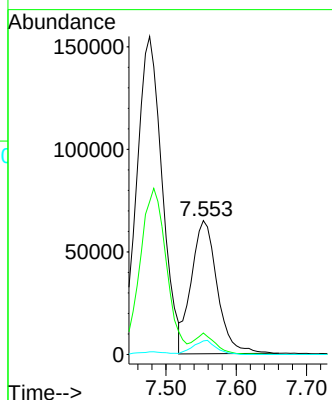
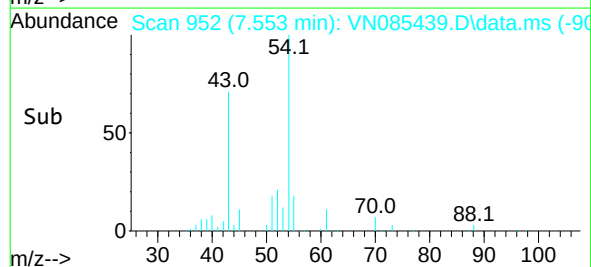
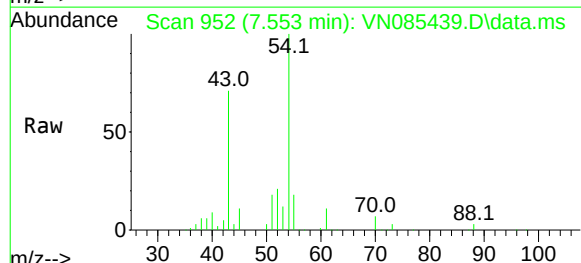
70 9.4 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#38

Carbon Tetrachloride

Concen: 47.564 ug/l

RT: 8.359 min Scan# 1089

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

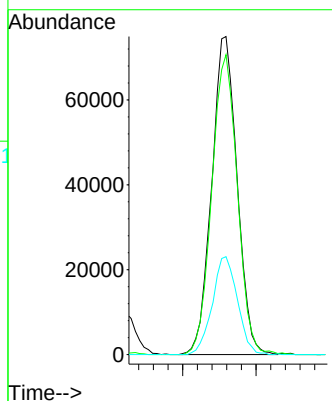
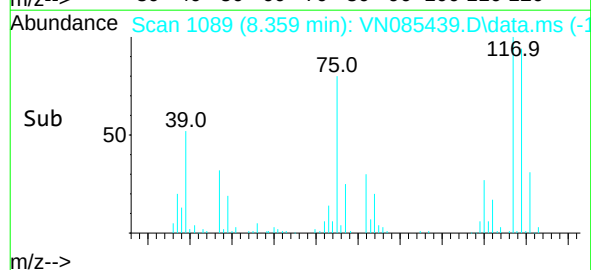
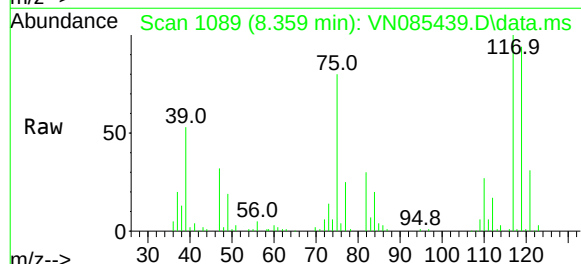
Tgt Ion:117 Resp: 180199

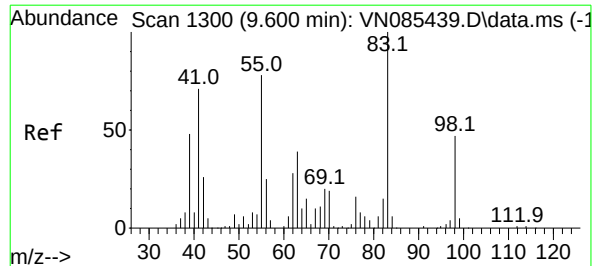
Ion Ratio Lower Upper

117 100

119 94.3 75.4 113.2

121 30.8 24.6 37.0





#39

Methylcyclohexane

Concen: 50.562 ug/l

RT: 9.600 min Scan# 1300

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

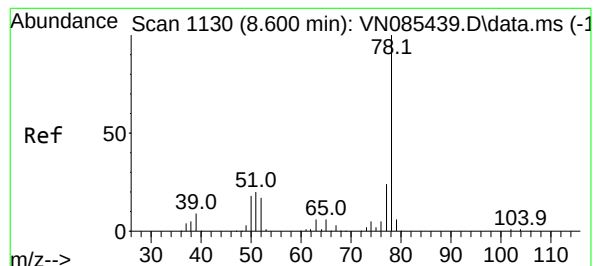
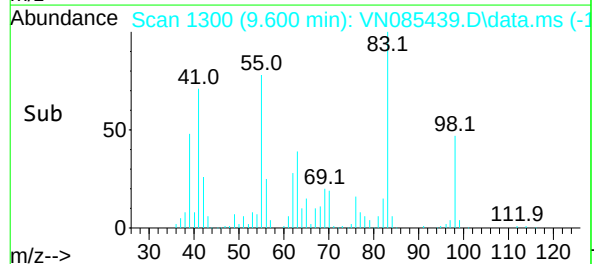
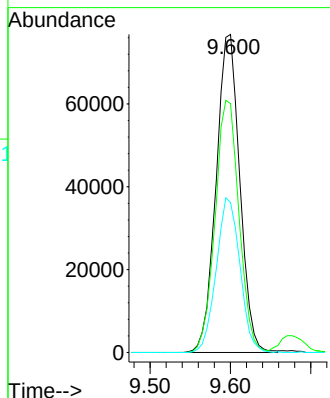
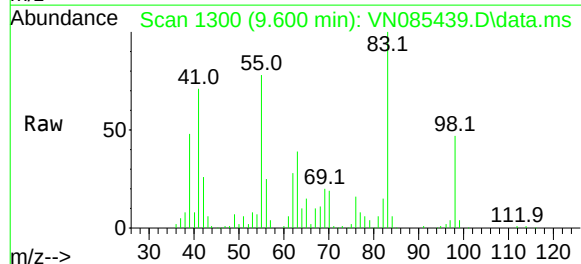
ClientSampleId :

VSTDICCC050

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 157234 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 55       | 78.3  | 62.6  | 94.0   |
| 98       | 47.1  | 37.7  | 56.5   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#40

Benzene

Concen: 49.542 ug/l

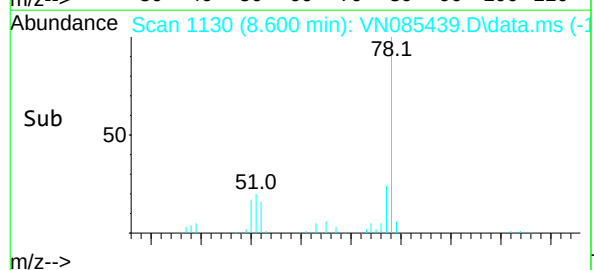
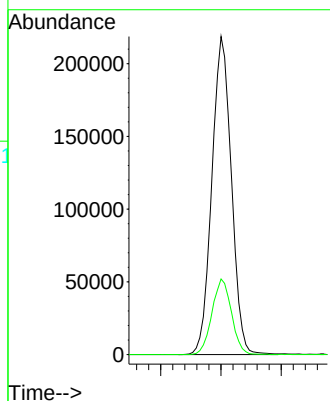
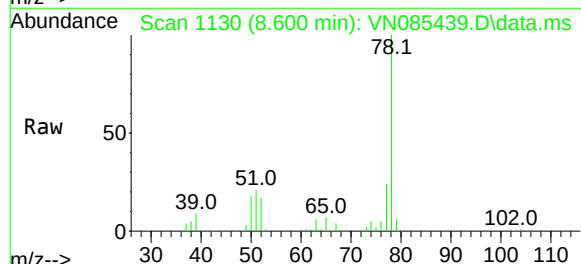
RT: 8.600 min Scan# 1130

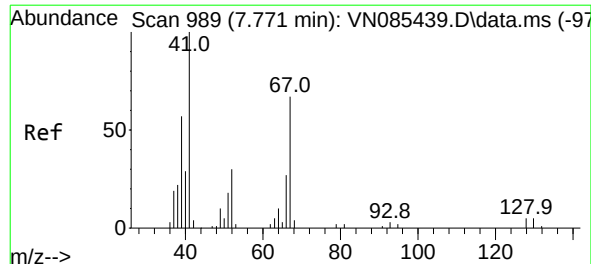
Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 78    | Resp: | 492606 |
| Ion      | Ratio | Lower | Upper  |
| 78       | 100   |       |        |
| 77       | 23.8  | 19.0  | 28.6   |





#41

Methacrylonitrile

Concen: 52.775 ug/l

RT: 7.771 min Scan# 989

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

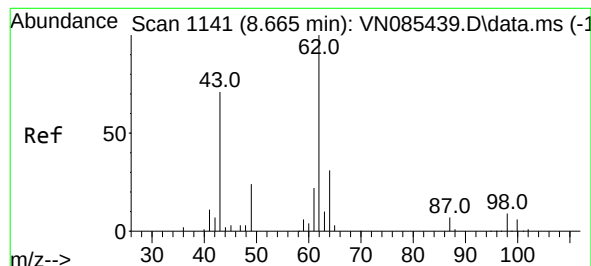
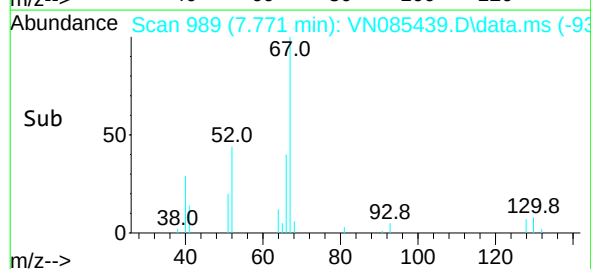
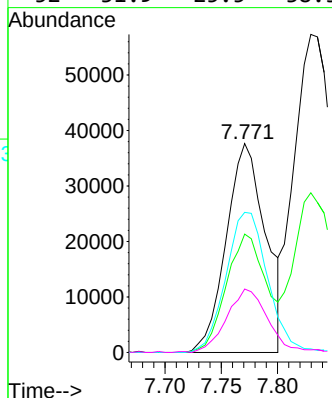
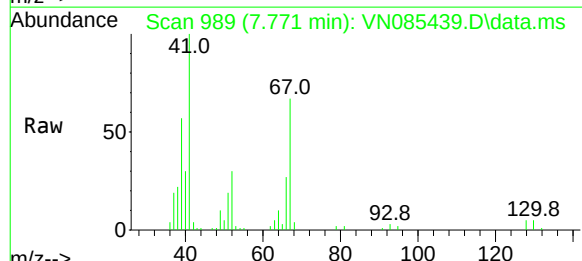
VSTDICCC050

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 91711 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 57.5  | 46.0  | 69.0  |
| 67       | 71.8  | 57.4  | 86.2  |
| 52       | 31.9  | 25.5  | 38.3  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#42

1,2-Dichloroethane

Concen: 49.685 ug/l

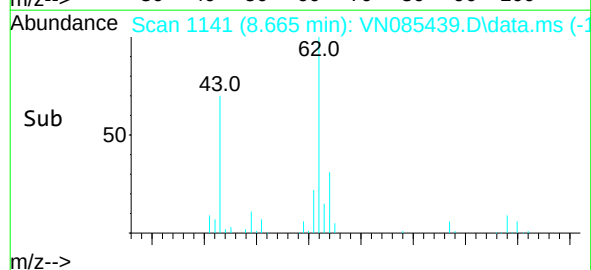
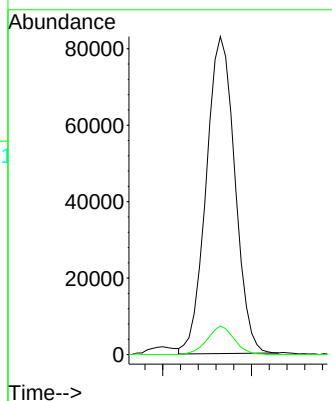
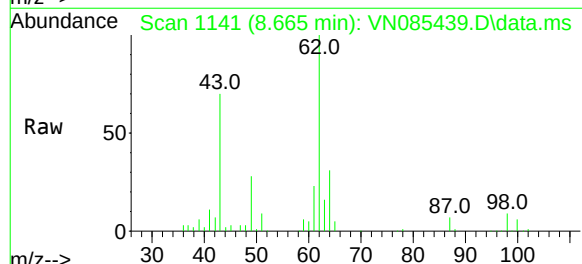
RT: 8.665 min Scan# 1141

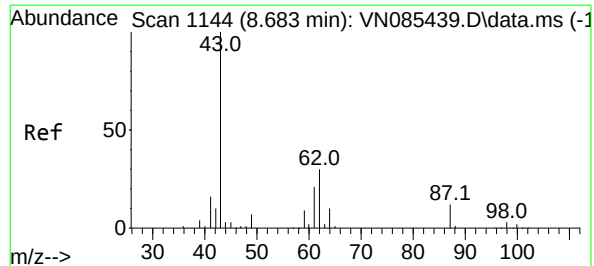
Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 62    | Resp: | 186065 |
| Ion      | Ratio | Lower | Upper  |
| 62       | 100   |       |        |
| 98       | 8.5   | 0.0   | 17.0   |





#43

Isopropyl Acetate

Concen: 51.611 ug/l

RT: 8.683 min Scan# 1144

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 43 Resp: 276228

Ion Ratio Lower Upper

43 100

61 25.9 20.7 31.1

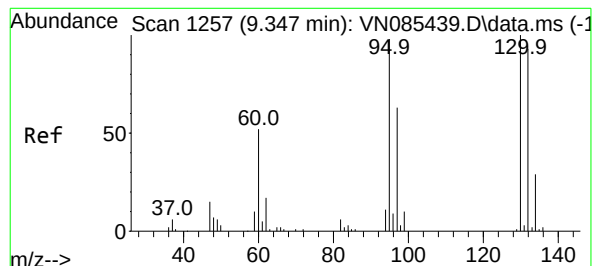
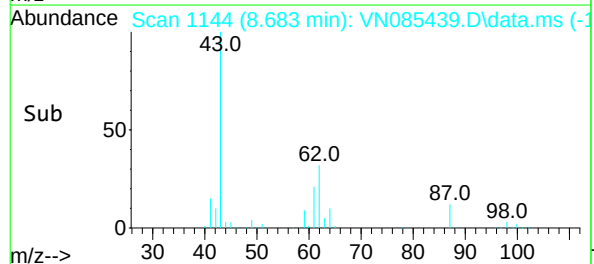
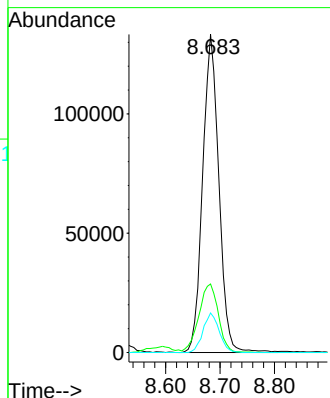
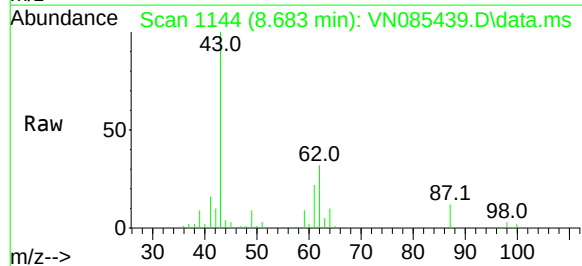
87 12.3 9.8 14.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#44

Trichloroethene

Concen: 47.506 ug/l

RT: 9.347 min Scan# 1257

Delta R.T. 0.000 min

Lab File: VN085439.D

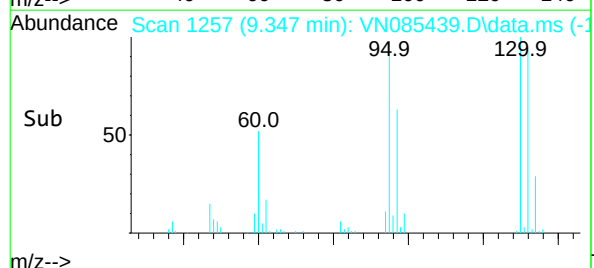
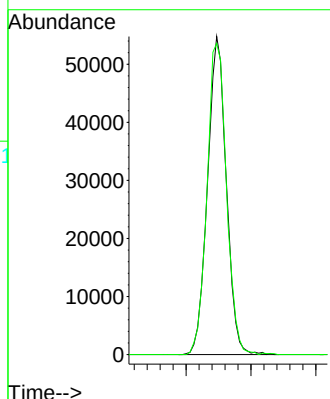
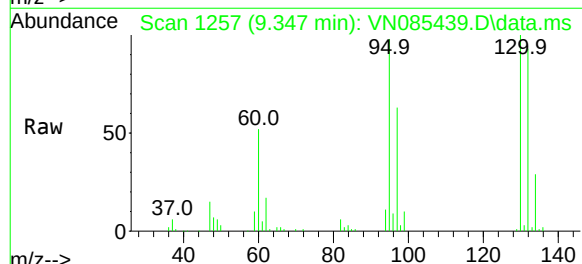
Acq: 14 Jan 2025 15:19

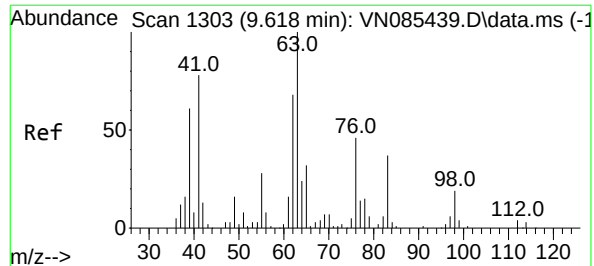
Tgt Ion:130 Resp: 109953

Ion Ratio Lower Upper

130 100

95 97.9 0.0 195.8





#45

1,2-Dichloropropane

Concen: 49.644 ug/l

RT: 9.618 min Scan# 1303

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 63 Resp: 126084

Ion Ratio Lower Upper

63 100

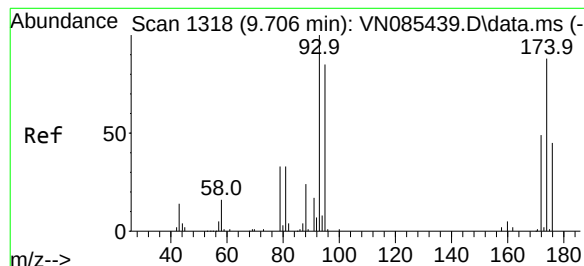
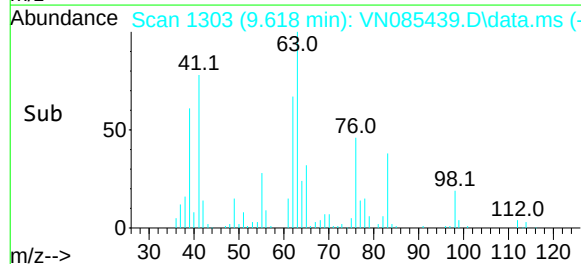
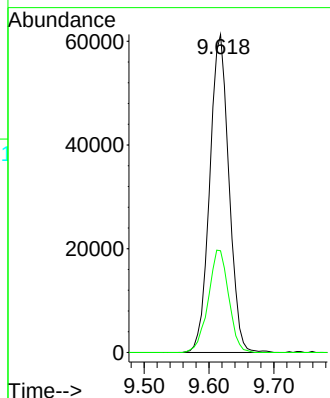
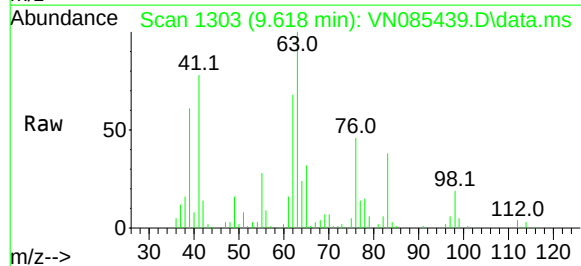
65 32.0 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#46

Dibromomethane

Concen: 49.476 ug/l

RT: 9.706 min Scan# 1318

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

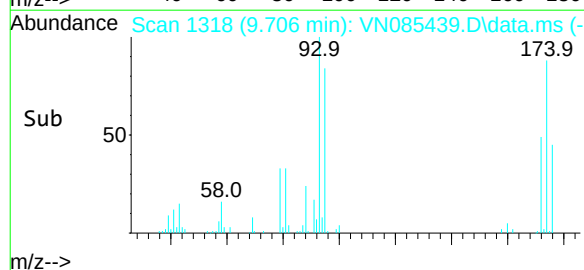
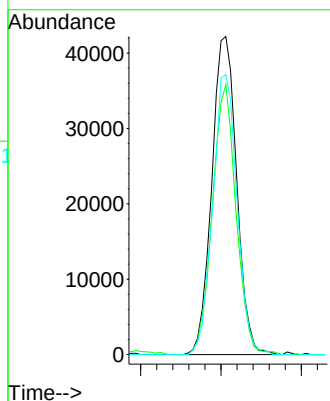
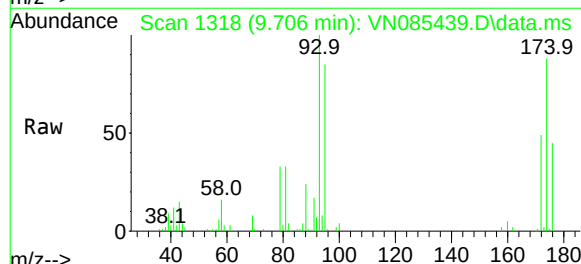
Tgt Ion: 93 Resp: 90670

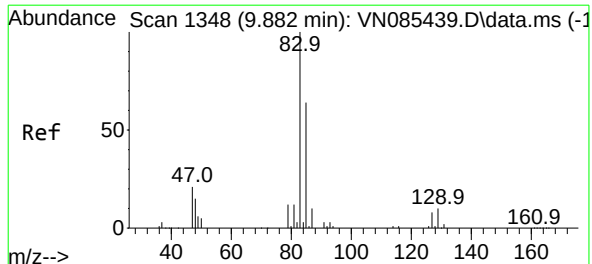
Ion Ratio Lower Upper

93 100

95 80.9 64.7 97.1

174 86.2 69.0 103.4





#47

Bromodichloromethane

Concen: 50.867 ug/l

RT: 9.882 min Scan# 1348

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

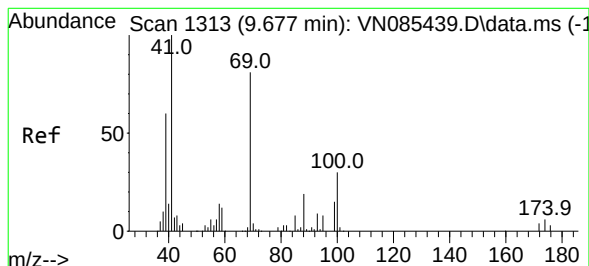
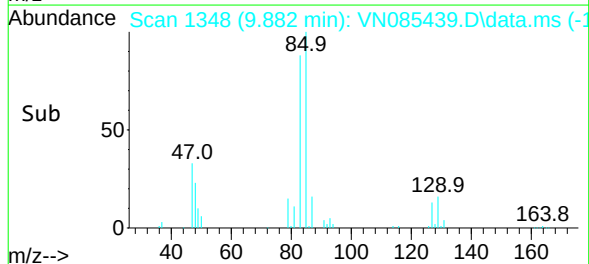
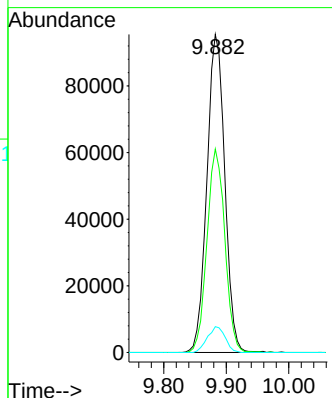
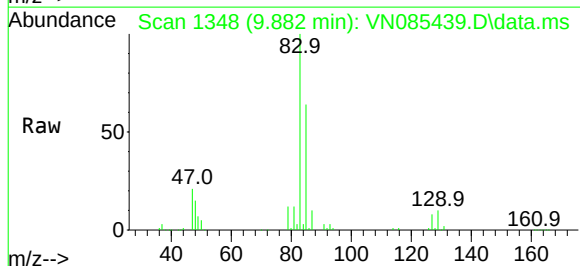
Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

| Tgt Ion: | 83    | Resp: | 189915 |
|----------|-------|-------|--------|
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 85       | 64.0  | 51.2  | 76.8   |
| 127      | 8.1   | 6.5   | 9.7    |

Manual Integrations  
APPROVEDReviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

#48

Methyl methacrylate

Concen: 55.385 ug/l

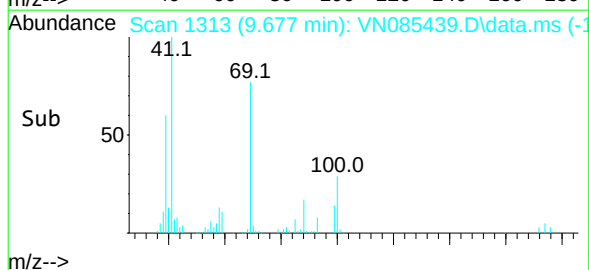
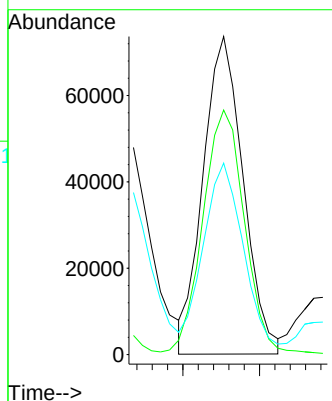
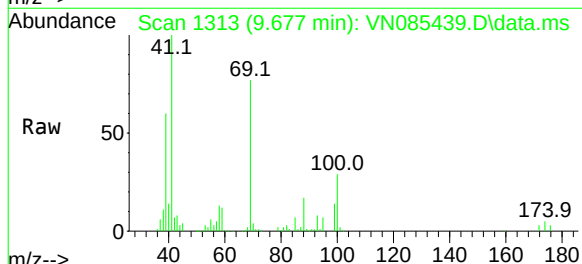
RT: 9.677 min Scan# 1313

Delta R.T. -0.000 min

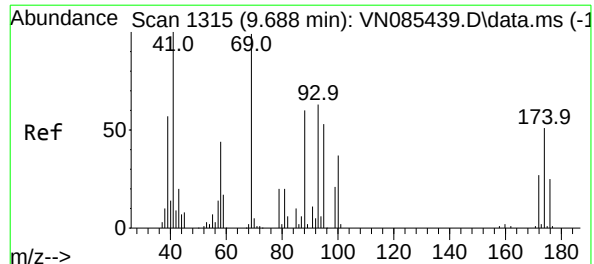
Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

| Tgt Ion: | 41    | Resp: | 133399 |
|----------|-------|-------|--------|
| Ion      | Ratio | Lower | Upper  |
| 41       | 100   |       |        |
| 69       | 80.9  | 64.7  | 97.1   |
| 39       | 61.3  | 49.0  | 73.6   |







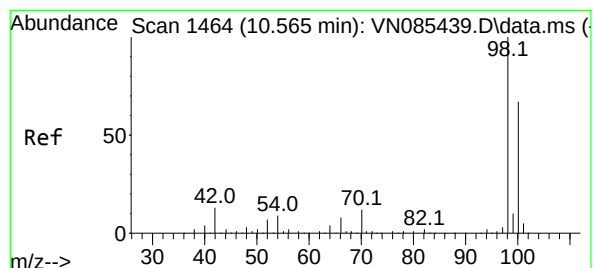
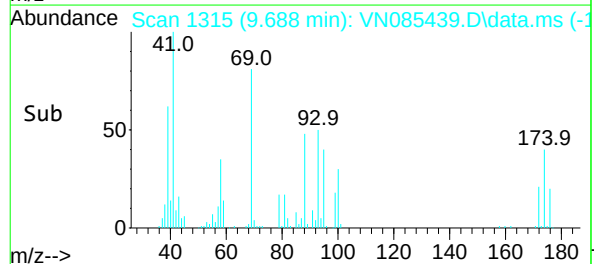
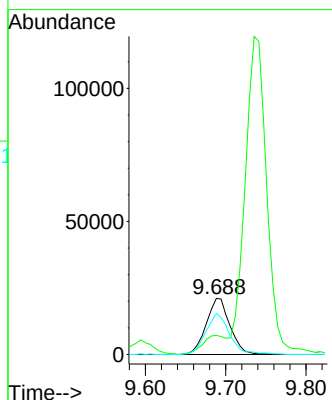
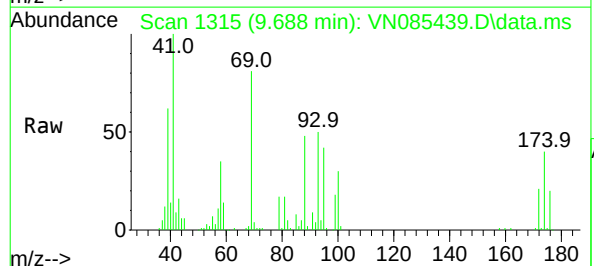
#49  
1,4-Dioxane  
Concen: 1061.334 ug/l  
RT: 9.688 min Scan# 1315  
Delta R.T. 0.000 min  
Lab File: VN085439.D  
Acq: 14 Jan 2025 15:19

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 88 Resp: 43048  
Ion Ratio Lower Upper  
88 100  
43 33.2 26.6 39.8  
58 74.4 59.5 89.3

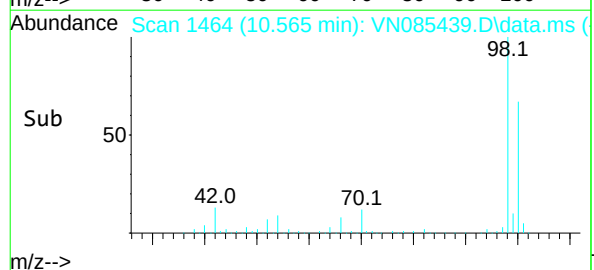
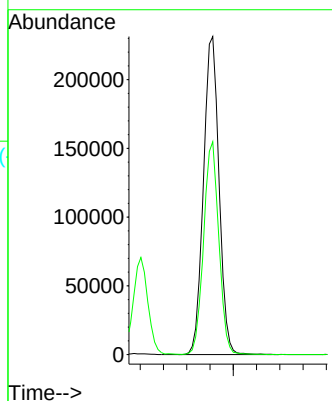
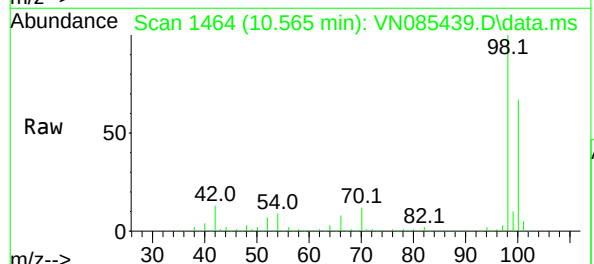
Manual Integrations  
APPROVED

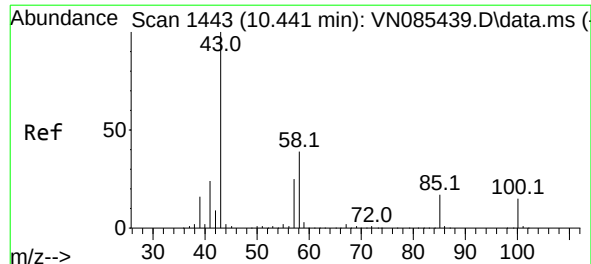
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#50  
Toluene-d8  
Concen: 51.411 ug/l  
RT: 10.565 min Scan# 1464  
Delta R.T. 0.000 min  
Lab File: VN085439.D  
Acq: 14 Jan 2025 15:19

Tgt Ion: 98 Resp: 430698  
Ion Ratio Lower Upper  
98 100  
100 65.3 52.2 78.4





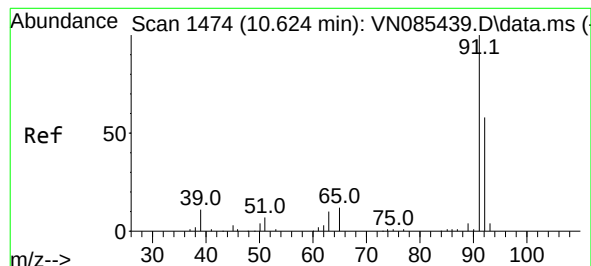
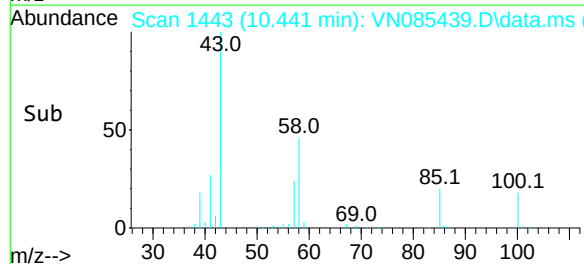
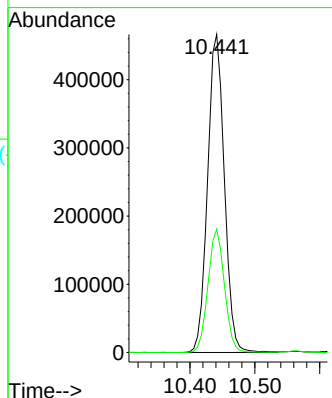
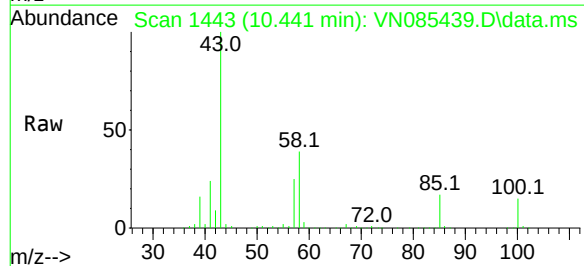
#51  
4-Methyl-2-Pentanone  
Concen: 269.403 ug/l  
RT: 10.441 min Scan# 1443  
Delta R.T. 0.000 min  
Lab File: VN085439.D  
Acq: 14 Jan 2025 15:19

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 43 Resp: 836707  
Ion Ratio Lower Upper  
43 100  
58 38.1 30.5 45.7

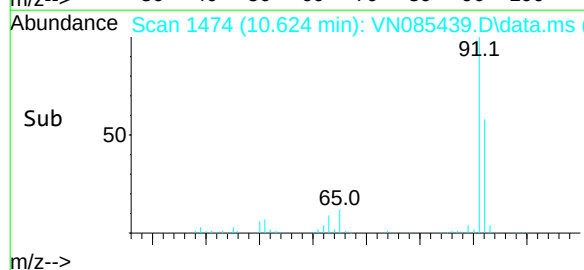
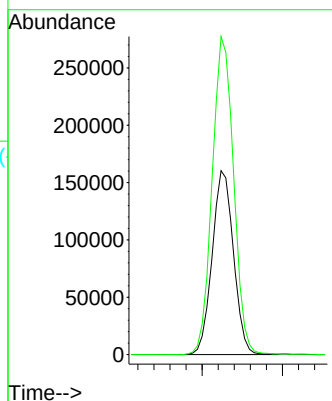
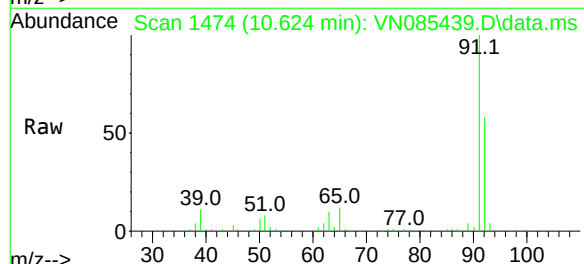
Manual Integrations  
APPROVED

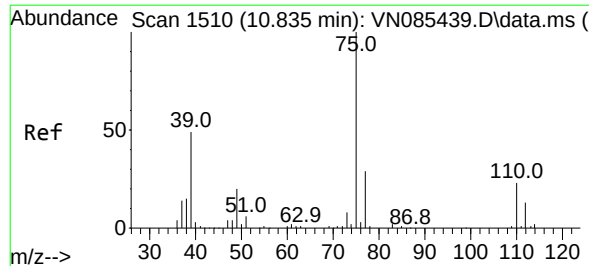
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#52  
Toluene  
Concen: 51.341 ug/l  
RT: 10.624 min Scan# 1474  
Delta R.T. -0.000 min  
Lab File: VN085439.D  
Acq: 14 Jan 2025 15:19

Tgt Ion: 92 Resp: 295792  
Ion Ratio Lower Upper  
92 100  
91 174.0 139.2 208.8





#53

t-1,3-Dichloropropene

Concen: 53.125 ug/l

RT: 10.835 min Scan# 1510

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 75 Resp: 187439

Ion Ratio Lower Upper

75 100

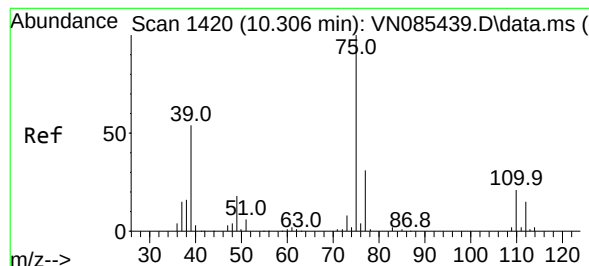
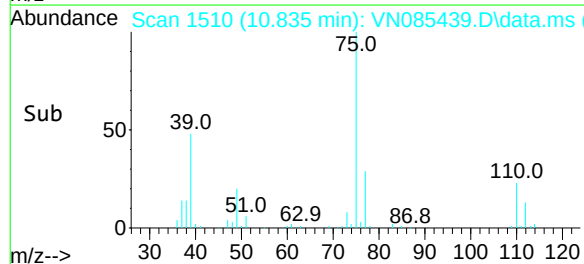
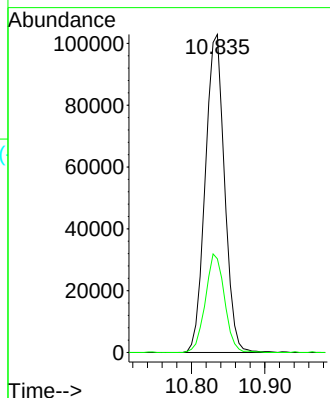
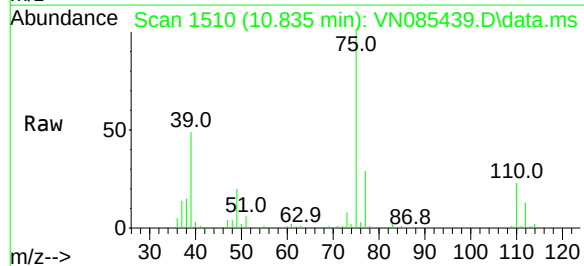
77 29.4 23.5 35.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#54

cis-1,3-Dichloropropene

Concen: 53.006 ug/l

RT: 10.306 min Scan# 1420

Delta R.T. -0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

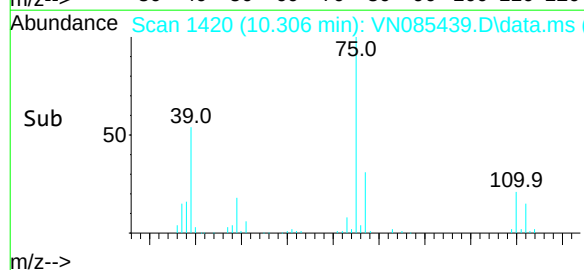
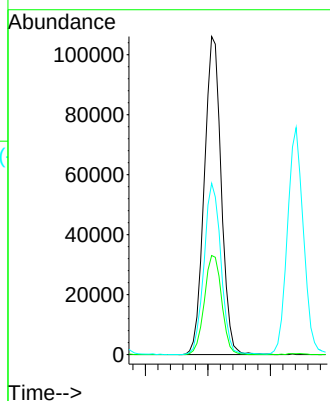
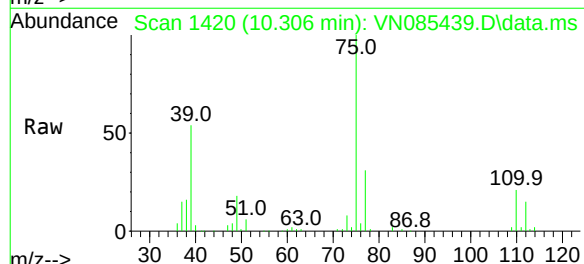
Tgt Ion: 75 Resp: 199771

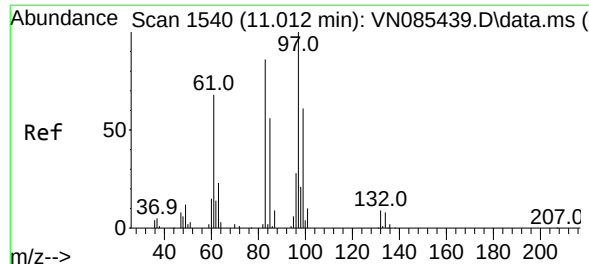
Ion Ratio Lower Upper

75 100

77 31.2 25.0 37.4

39 53.9 43.1 64.7





#55

1,1,2-Trichloroethane

Concen: 50.641 ug/l

RT: 11.012 min Scan# 1540

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 97 Resp: 115462

Ion Ratio Lower Upper

97 100

83 86.3 69.0 103.6

85 55.7 44.6 66.8

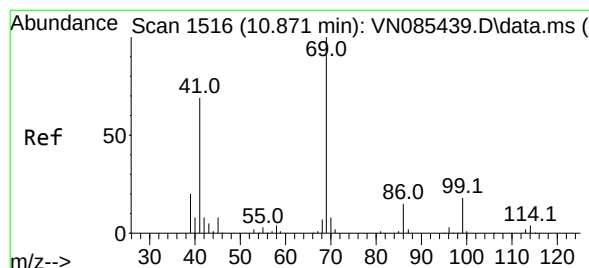
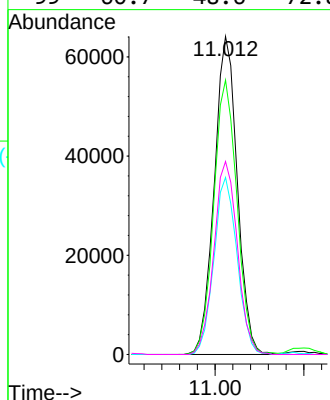
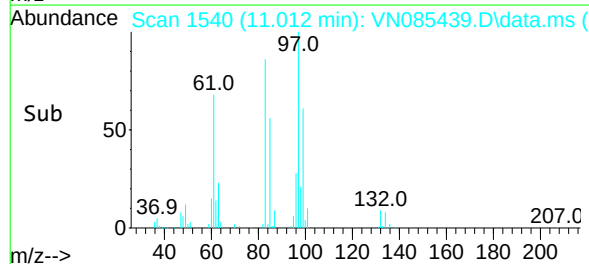
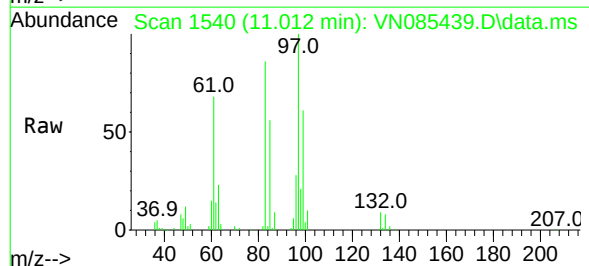
99 60.7 48.6 72.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#56

Ethyl methacrylate

Concen: 48.182 ug/l

RT: 10.871 min Scan# 1516

Delta R.T. -0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

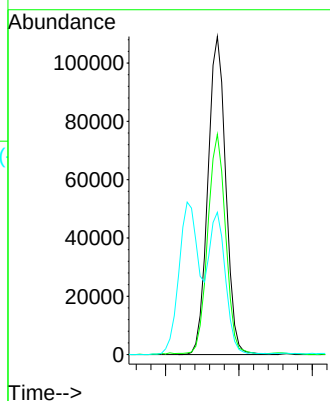
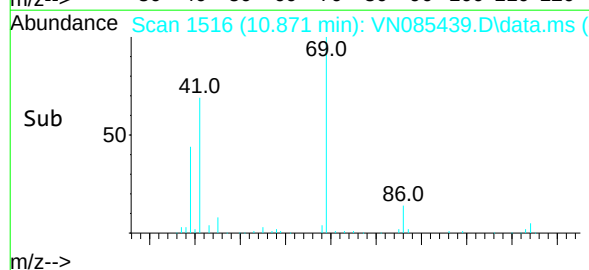
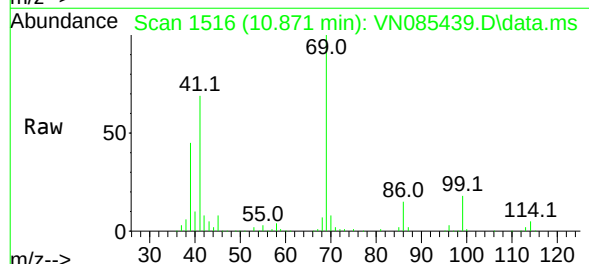
Tgt Ion: 69 Resp: 184775

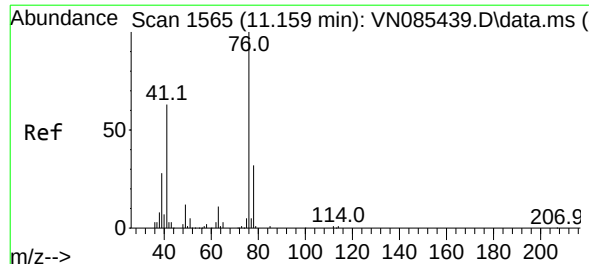
Ion Ratio Lower Upper

69 100

41 68.3 54.6 82.0

39 40.5 32.4 48.6





#57

1,3-Dichloropropane

Concen: 51.606 ug/l

RT: 11.159 min Scan# 1565

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 76 Resp: 204596

Ion Ratio Lower Upper

76 100

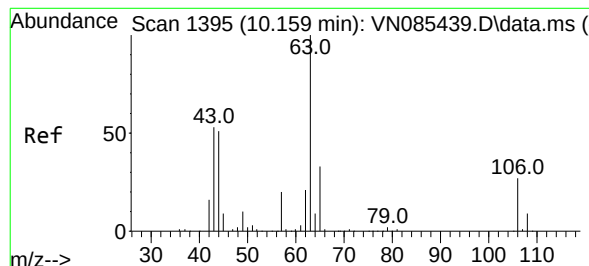
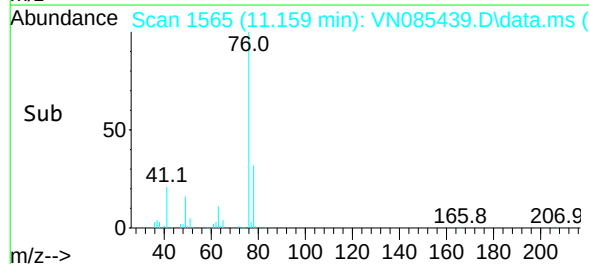
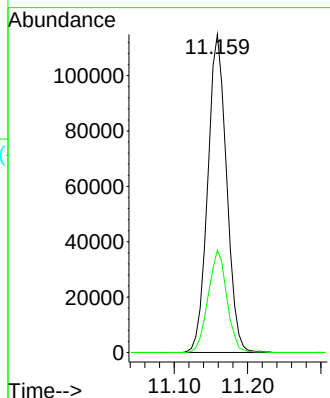
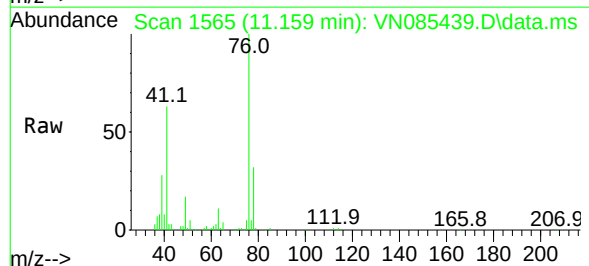
78 32.0 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#58

2-Chloroethyl Vinyl ether

Concen: 283.088 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. 0.000 min

Lab File: VN085439.D

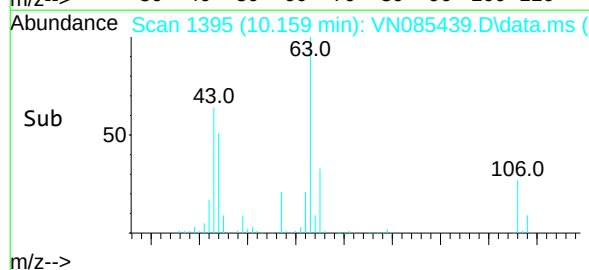
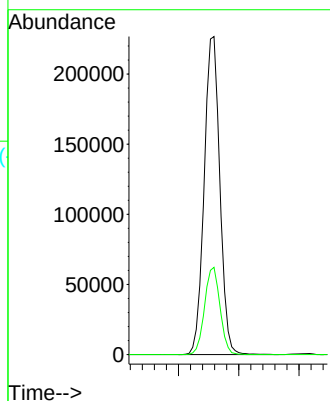
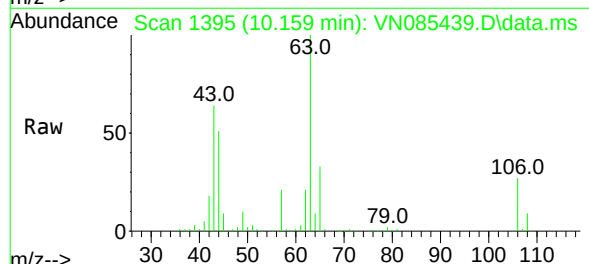
Acq: 14 Jan 2025 15:19

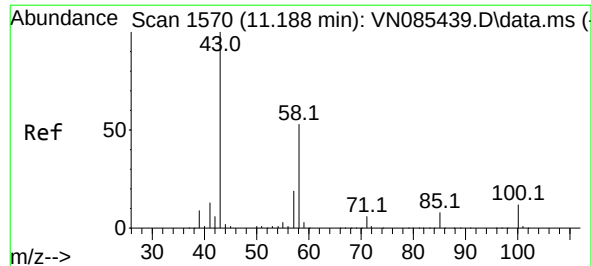
Tgt Ion: 63 Resp: 409594

Ion Ratio Lower Upper

63 100

106 27.0 21.6 32.4





#59

2-Hexanone

Concen: 277.643 ug/l

RT: 11.188 min Scan# 1570

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 43 Resp: 606740

Ion Ratio Lower Upper

43 100

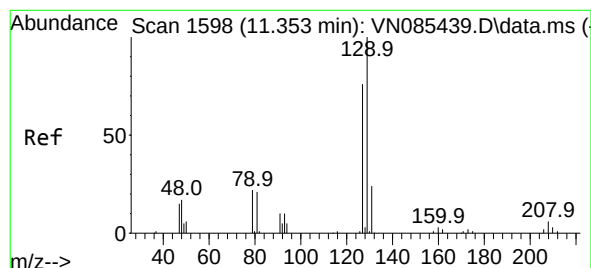
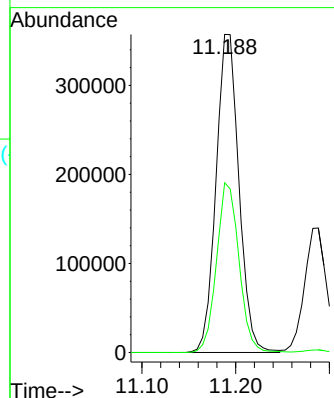
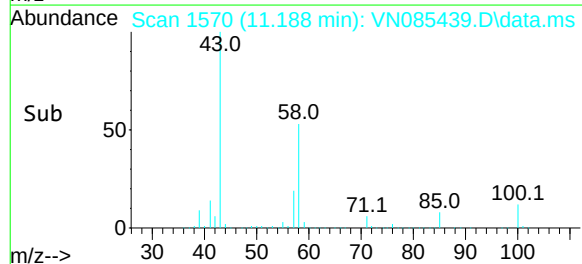
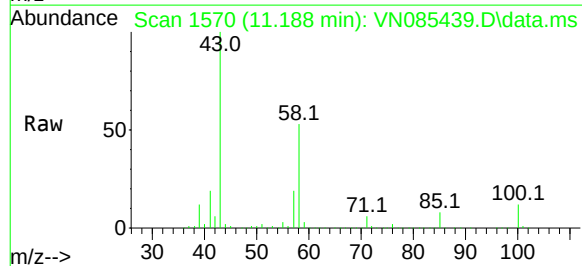
58 52.4 26.2 78.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#60

Dibromochloromethane

Concen: 51.116 ug/l

RT: 11.353 min Scan# 1598

Delta R.T. 0.000 min

Lab File: VN085439.D

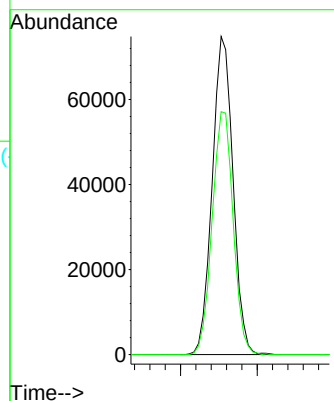
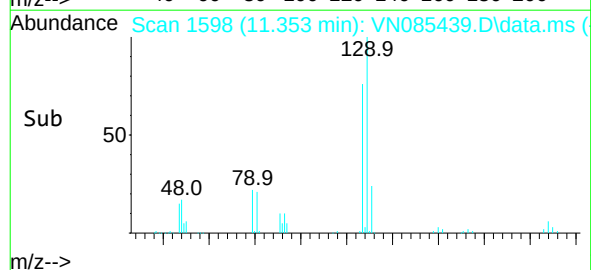
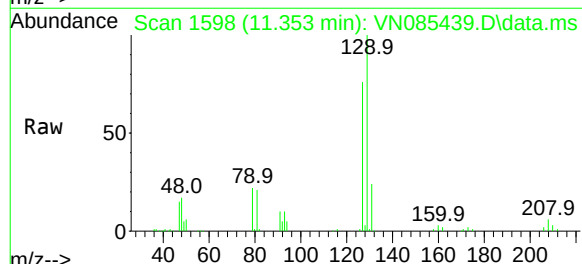
Acq: 14 Jan 2025 15:19

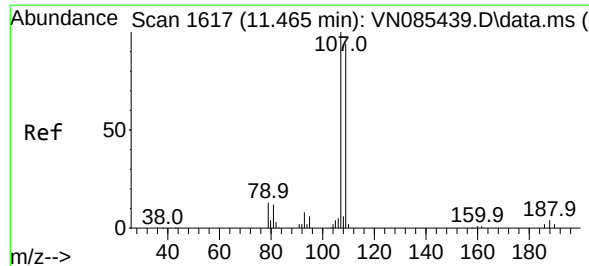
Tgt Ion:129 Resp: 140704

Ion Ratio Lower Upper

129 100

127 77.2 38.6 115.8





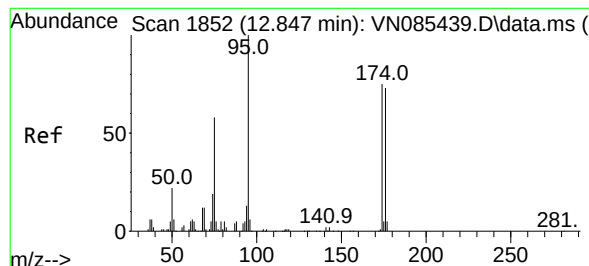
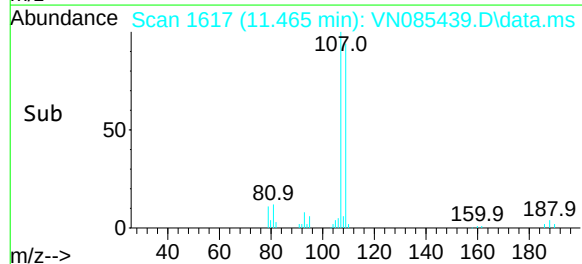
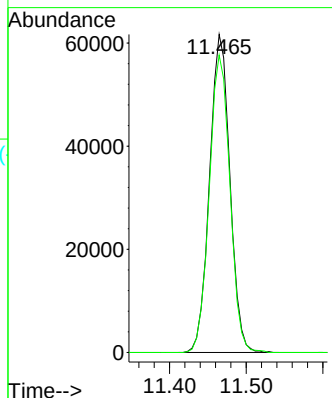
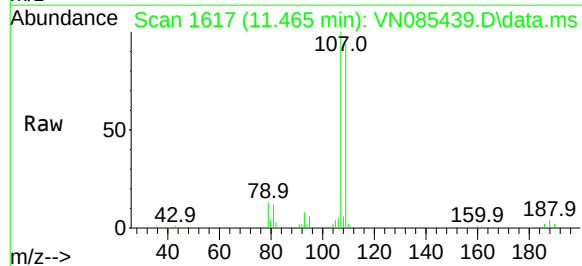
#61  
1,2-Dibromoethane  
Concen: 50.028 ug/l  
RT: 11.465 min Scan# 1617  
Delta R.T. 0.000 min  
Lab File: VN085439.D  
Acq: 14 Jan 2025 15:19

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 107 Resp: 113541  
Ion Ratio Lower Upper  
107 100  
109 94.9 75.9 113.9

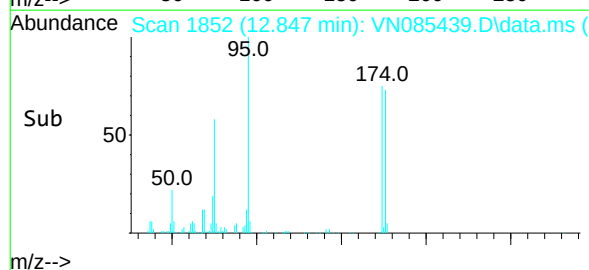
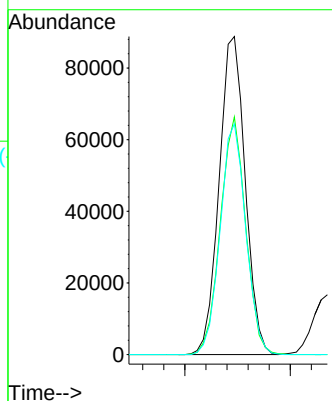
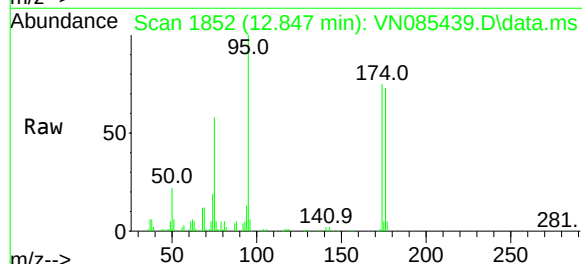
Manual Integrations  
APPROVED

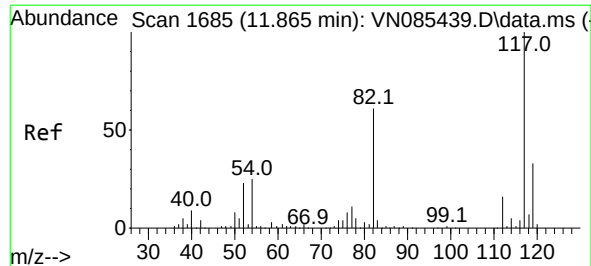
Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025



#62  
4-Bromofluorobenzene  
Concen: 53.239 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN085439.D  
Acq: 14 Jan 2025 15:19

Tgt Ion: 95 Resp: 152568  
Ion Ratio Lower Upper  
95 100  
174 72.5 0.0 145.0  
176 71.2 0.0 142.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:117 Resp: 297366

Ion Ratio Lower Upper

117 100

82 60.7 48.6 72.8

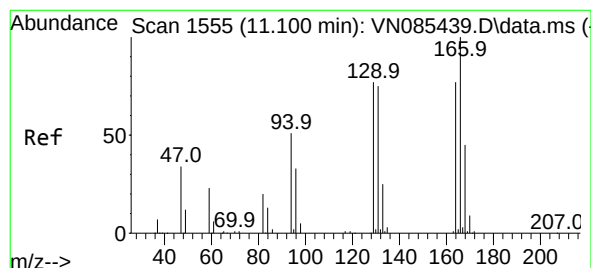
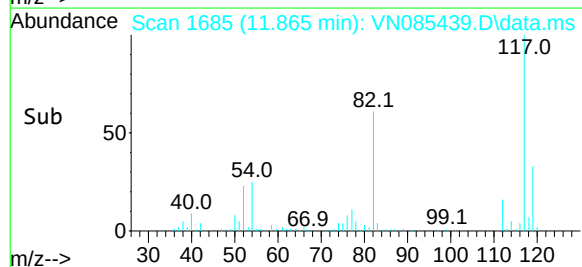
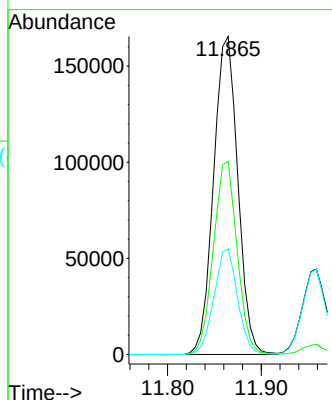
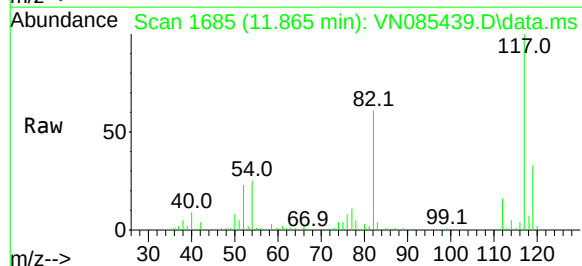
119 33.2 26.6 39.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#64

Tetrachloroethene

Concen: 47.295 ug/l

RT: 11.100 min Scan# 1555

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Tgt Ion:164 Resp: 95879

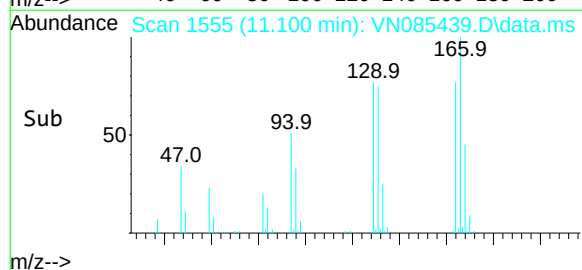
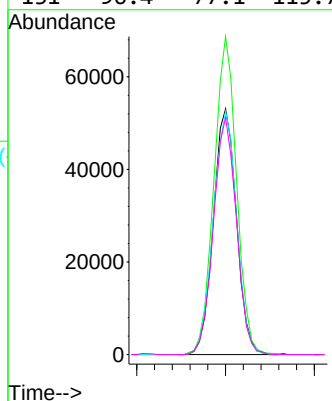
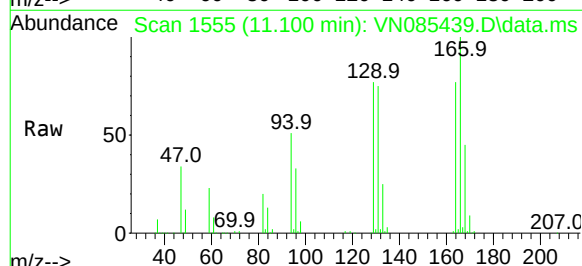
Ion Ratio Lower Upper

164 100

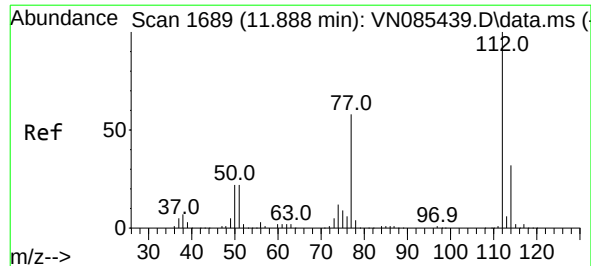
166 129.3 103.4 155.2

129 99.0 79.2 118.8

131 96.4 77.1 115.7







#65

Chlorobenzene

Concen: 49.121 ug/l

RT: 11.888 min Scan# 1689

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:112 Resp: 319992

Ion Ratio Lower Upper

112 100

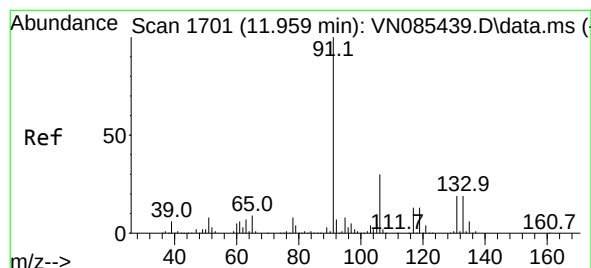
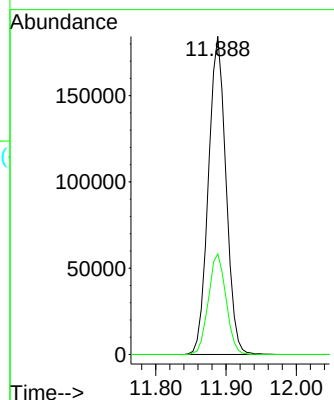
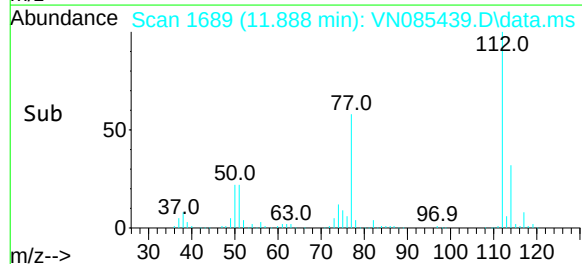
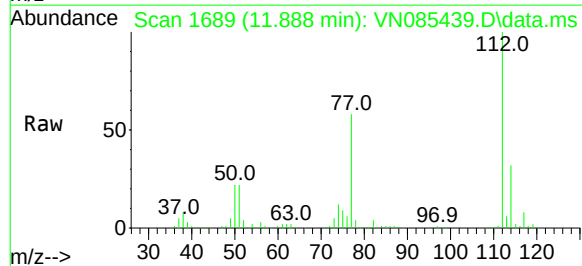
114 31.6 25.3 37.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#66

1,1,1,2-Tetrachloroethane

Concen: 48.722 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

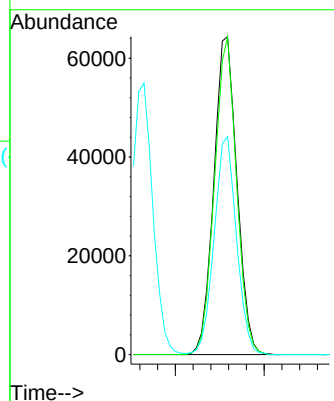
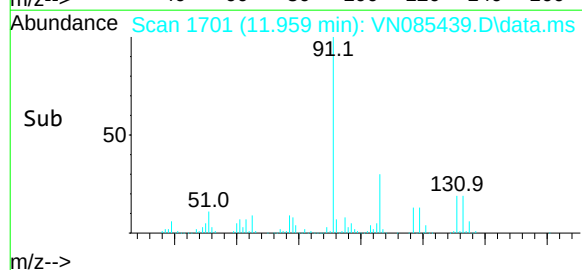
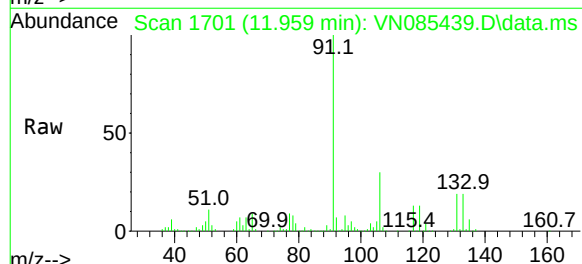
Tgt Ion:131 Resp: 116488

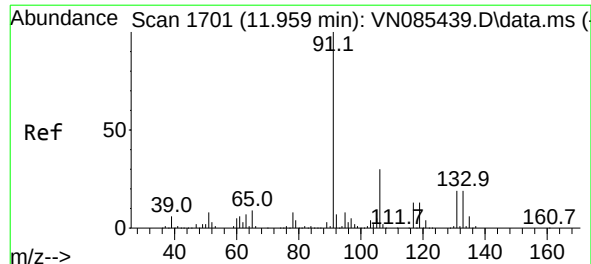
Ion Ratio Lower Upper

131 100

133 94.9 47.4 142.3

119 66.3 33.1 99.5





#67

Ethyl Benzene

Concen: 52.339 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 91 Resp: 555322

Ion Ratio Lower Upper

91 100

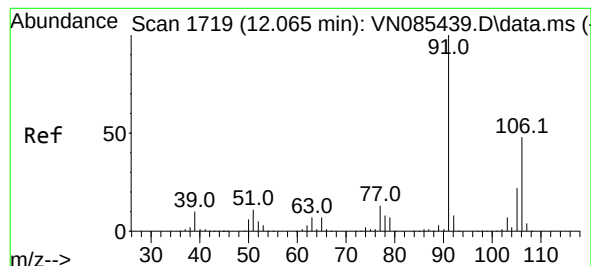
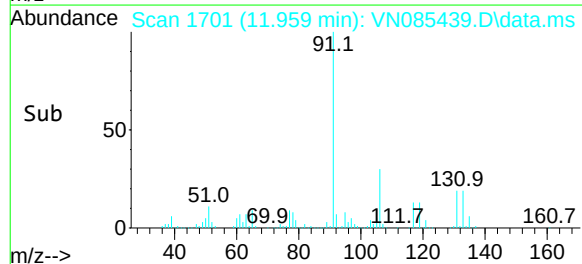
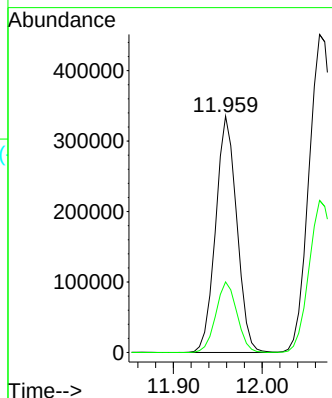
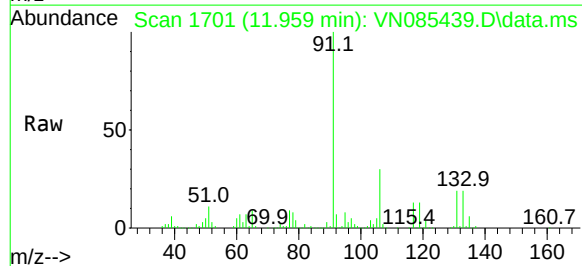
106 29.8 23.8 35.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#68

m/p-Xylenes

Concen: 107.286 ug/l

RT: 12.065 min Scan# 1719

Delta R.T. 0.000 min

Lab File: VN085439.D

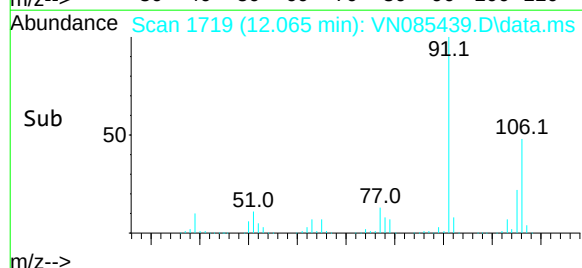
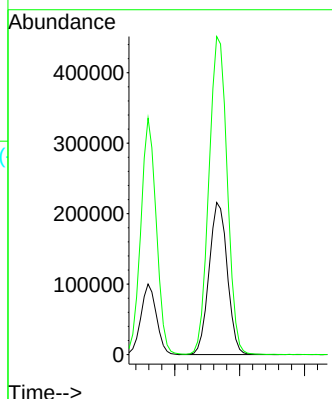
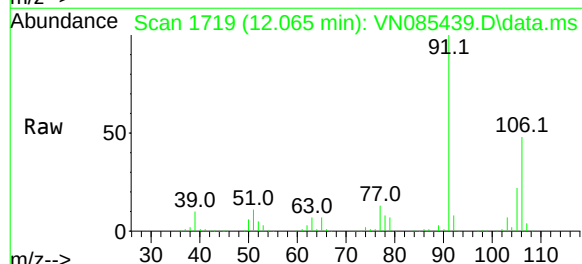
Acq: 14 Jan 2025 15:19

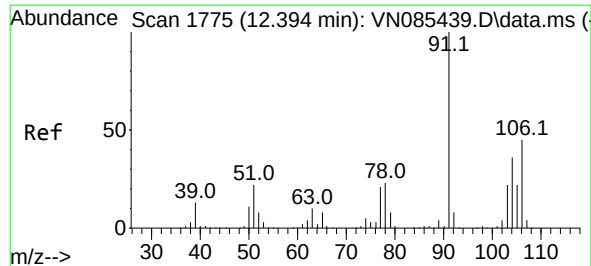
Tgt Ion:106 Resp: 420702

Ion Ratio Lower Upper

106 100

91 209.6 167.7 251.5





#69

o-Xylene

Concen: 54.062 ug/l

RT: 12.394 min Scan# 1775

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:106 Resp: 202597

Ion Ratio Lower Upper

106 100

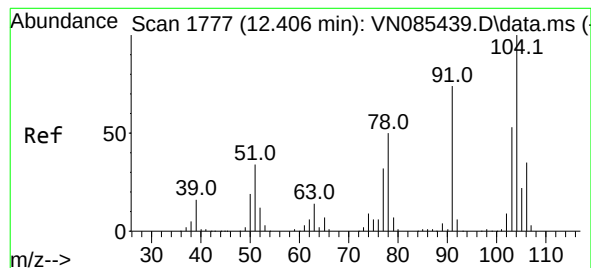
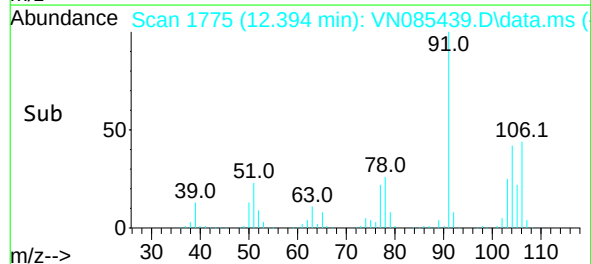
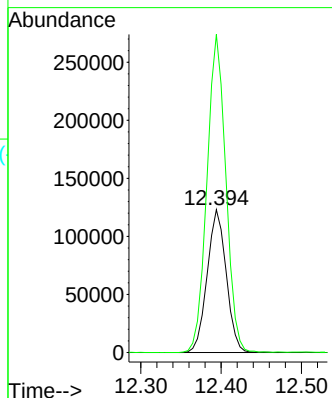
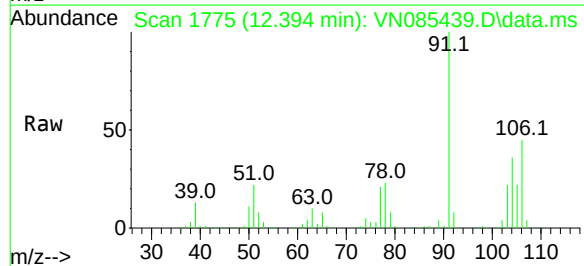
91 220.8 110.4 331.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#70

Styrene

Concen: 56.227 ug/l

RT: 12.406 min Scan# 1777

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

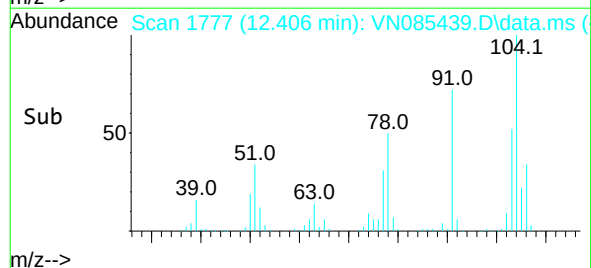
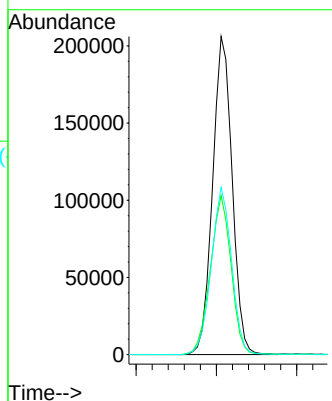
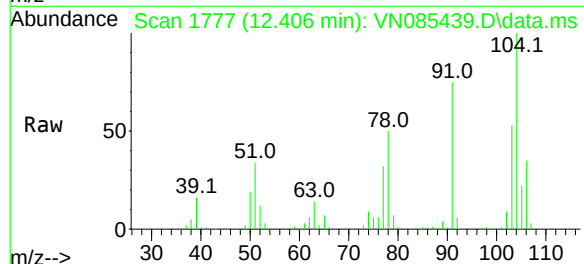
Tgt Ion:104 Resp: 348720

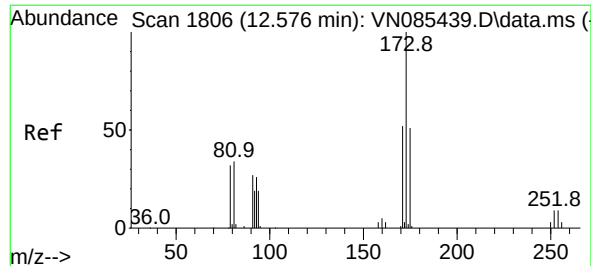
Ion Ratio Lower Upper

104 100

78 53.1 42.5 63.7

103 54.8 43.8 65.8





#71

Bromoform

Concen: 53.993 ug/l

RT: 12.576 min Scan# 1806

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

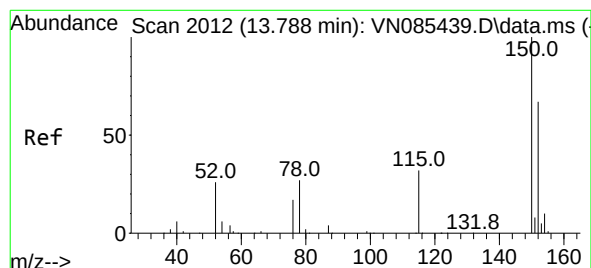
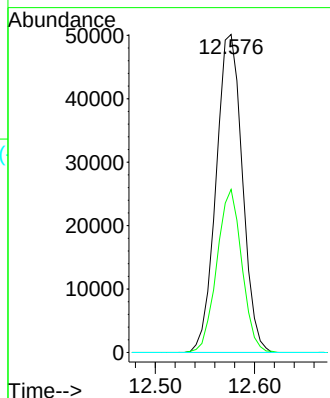
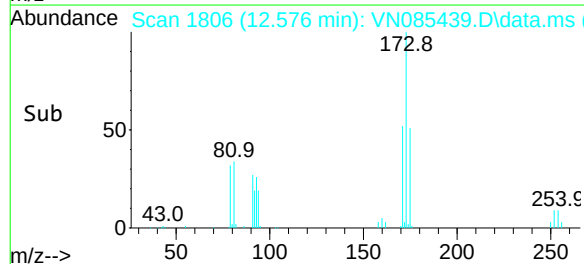
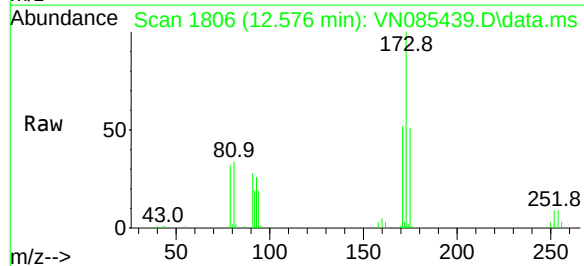
ClientSampleId :

VSTDICCC050

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 173   | Resp: | 92366 |
| Ion Ratio | Lower | Upper |       |
| 173       | 100   |       |       |
| 175       | 48.8  | 24.4  | 73.2  |
| 254       | 0.0   | 0.0   | 0.0   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

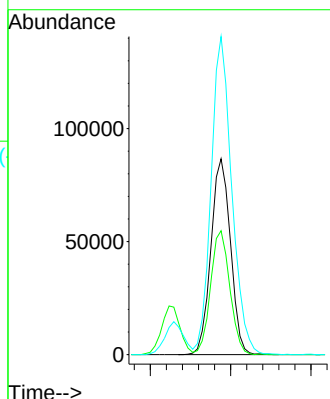
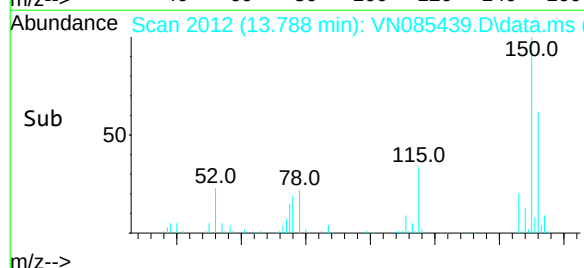
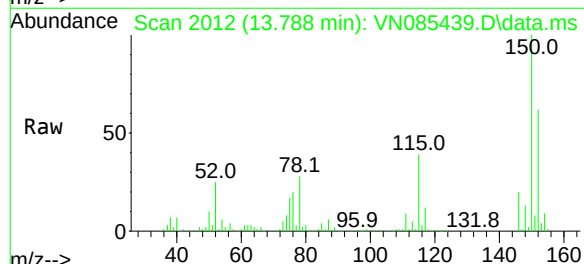
RT: 13.788 min Scan# 2012

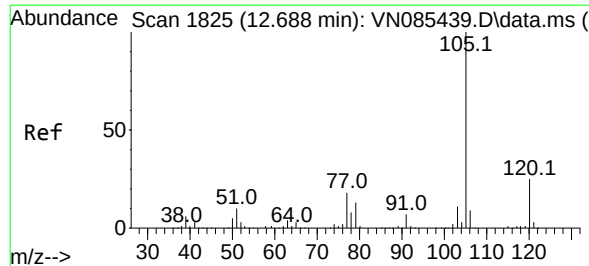
Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 152   | Resp: | 146624 |
| Ion Ratio | Lower | Upper |        |
| 152       | 100   |       |        |
| 115       | 62.2  | 31.1  | 93.3   |
| 150       | 171.8 | 0.0   | 343.6  |





#73

Isopropylbenzene

Concen: 51.094 ug/l

RT: 12.688 min Scan# 1825

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:105 Resp: 505619

Ion Ratio Lower Upper

105 100

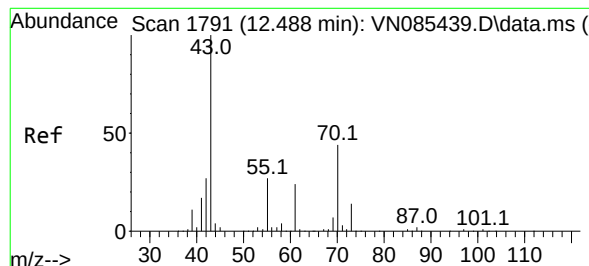
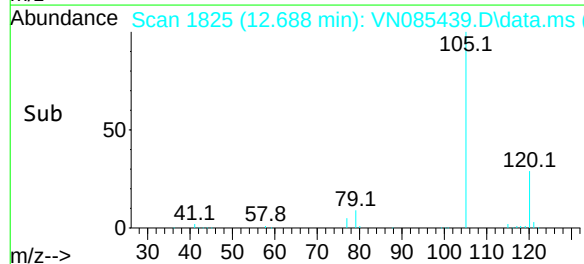
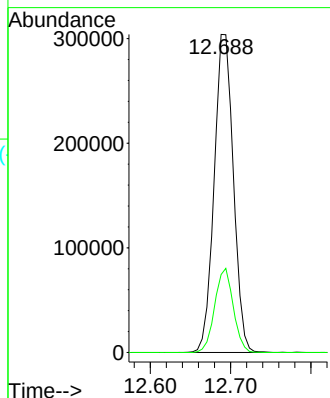
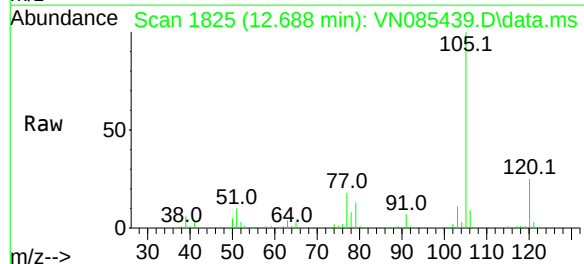
120 25.5 12.8 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#74

N-ethyl acetate

Concen: 53.478 ug/l

RT: 12.488 min Scan# 1791

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Tgt Ion: 43 Resp: 237870

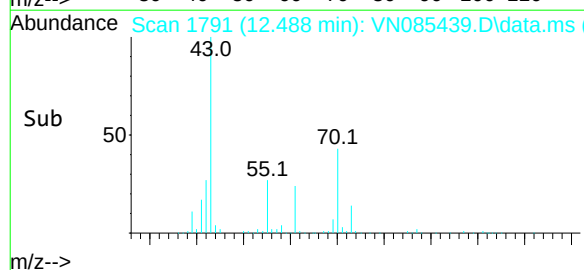
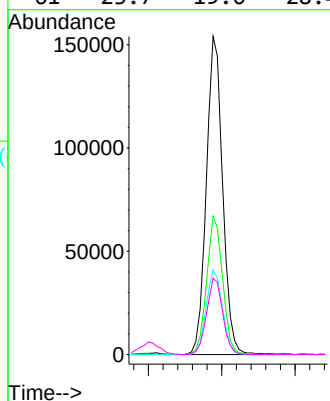
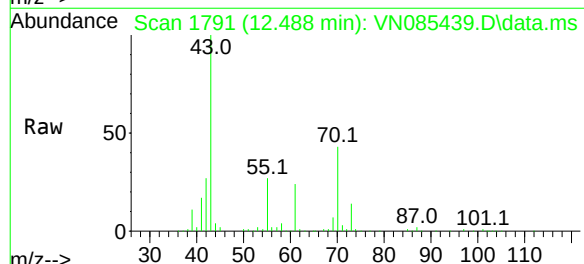
Ion Ratio Lower Upper

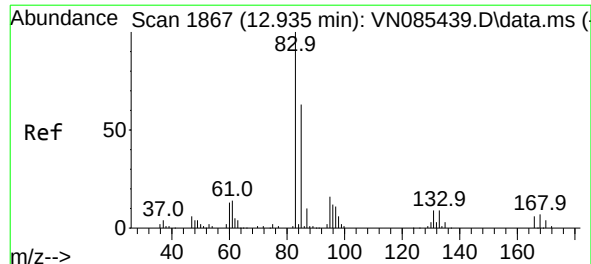
43 100

70 42.5 34.0 51.0

55 26.8 21.4 32.2

61 23.7 19.0 28.4





#75

1,1,2,2-Tetrachloroethane

Concen: 48.019 ug/l

RT: 12.935 min Scan# 1867

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

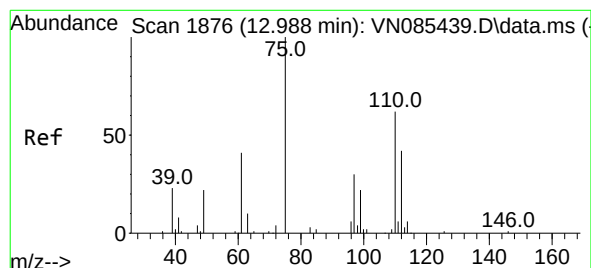
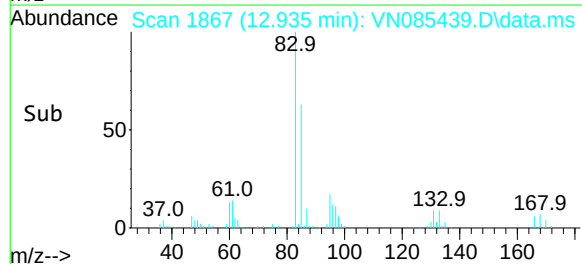
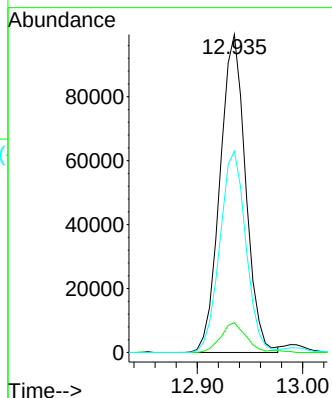
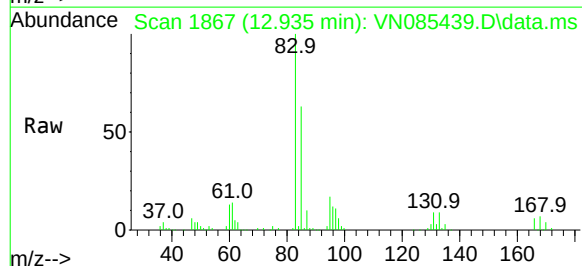
VSTDICCC050

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 167856 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 131      | 9.6   | 4.8   | 14.4   |
| 85       | 64.4  | 32.2  | 96.6   |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#76

1,2,3-Trichloropropane

Concen: 43.982 ug/l m

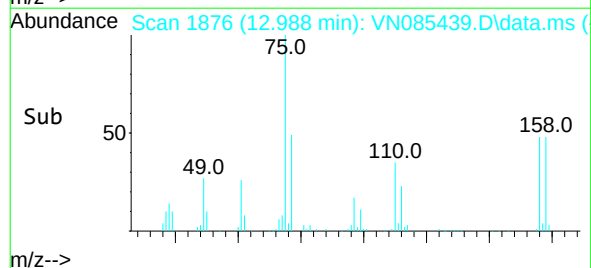
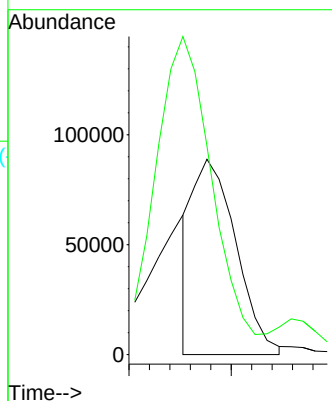
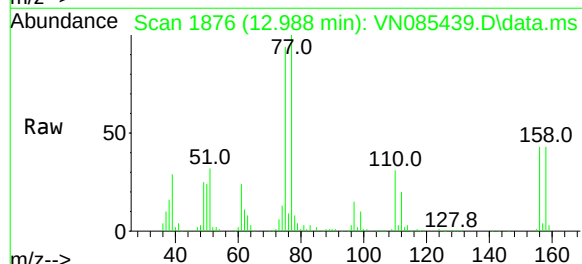
RT: 12.988 min Scan# 1876

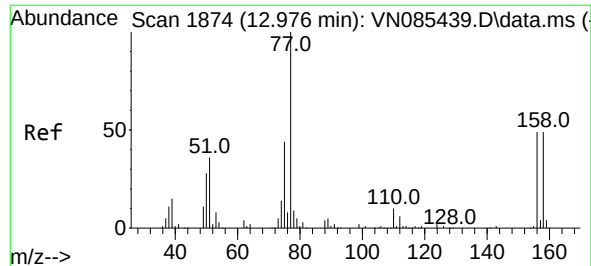
Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 75    | Resp: | 130866 |
| Ion      | Ratio | Lower | Upper  |
| 75       | 100   |       |        |
| 77       | 219.5 | 109.7 | 329.2  |





#77

Bromobenzene

Concen: 48.657 ug/l

RT: 12.976 min Scan# 1874

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:156 Resp: 125800

Ion Ratio Lower Upper

156 100

77 228.3 114.1 342.4

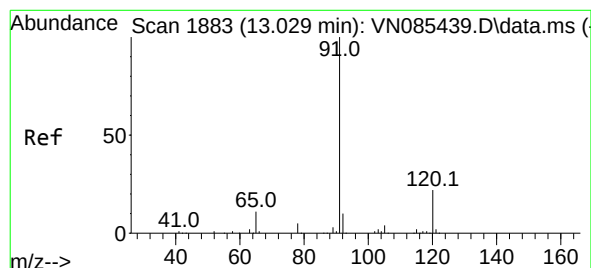
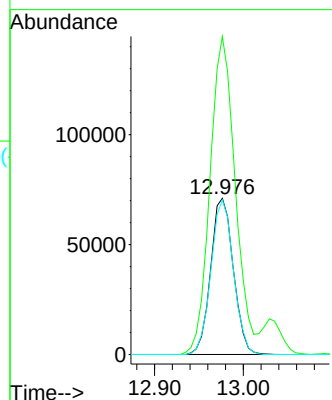
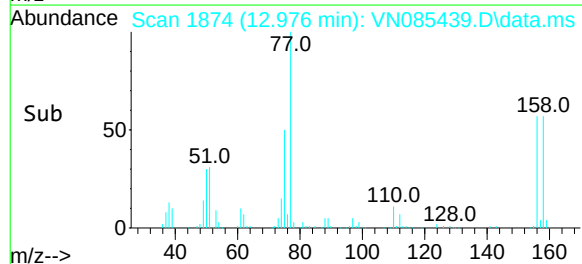
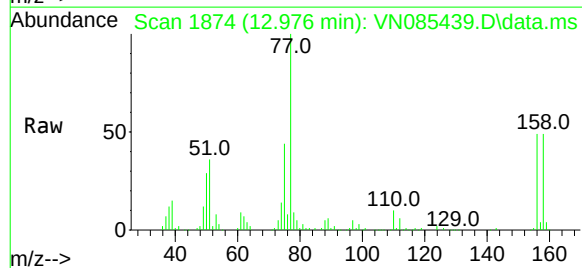
158 97.9 48.9 146.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#78

n-propylbenzene

Concen: 51.986 ug/l

RT: 13.029 min Scan# 1883

Delta R.T. 0.000 min

Lab File: VN085439.D

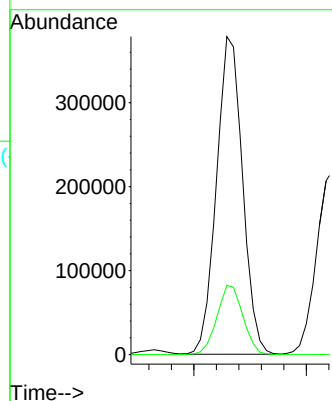
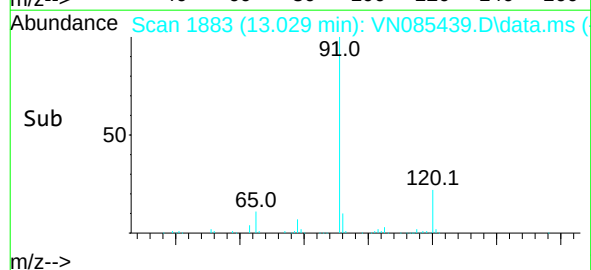
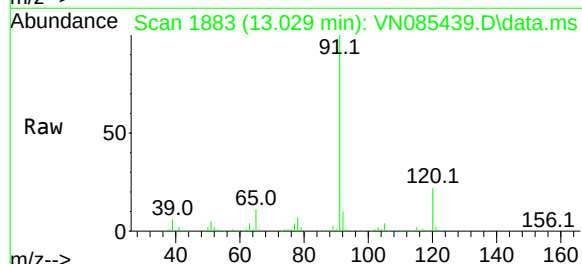
Acq: 14 Jan 2025 15:19

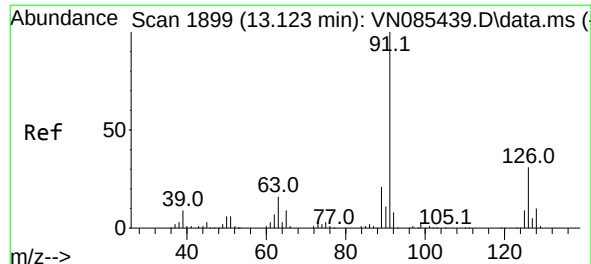
Tgt Ion: 91 Resp: 609022

Ion Ratio Lower Upper

91 100

120 21.7 10.9 32.6





#79

2-Chlorotoluene

Concen: 49.985 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 91 Resp: 378981

Ion Ratio Lower Upper

91 100

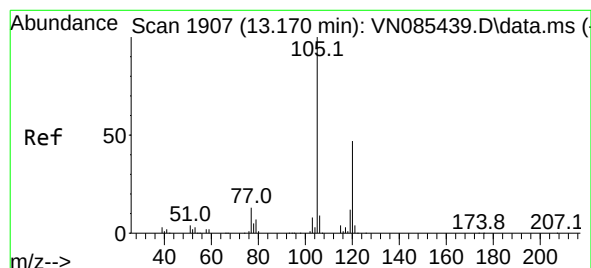
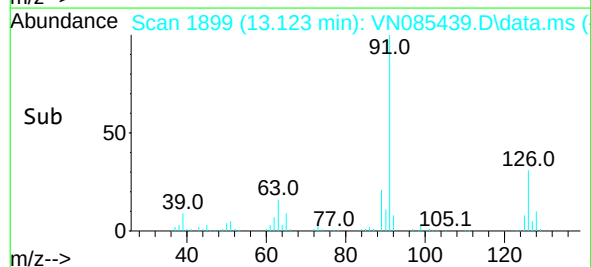
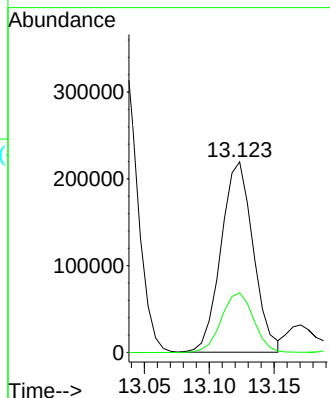
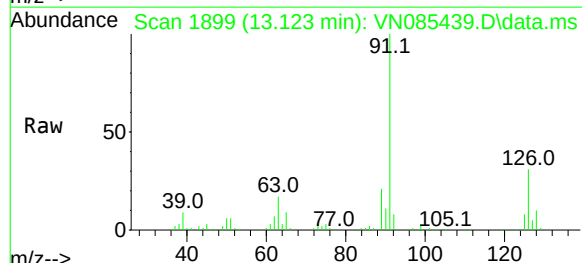
126 31.4 15.7 47.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#80

1,3,5-Trimethylbenzene

Concen: 52.730 ug/l

RT: 13.170 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VN085439.D

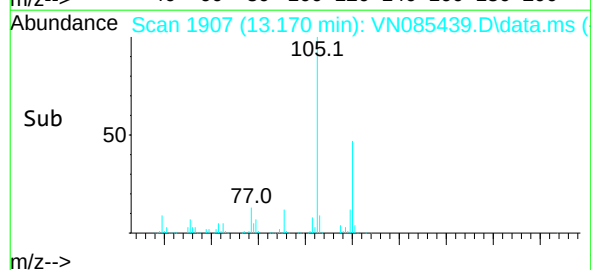
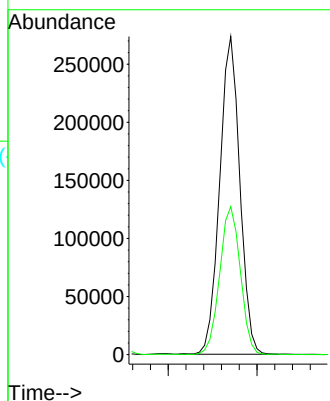
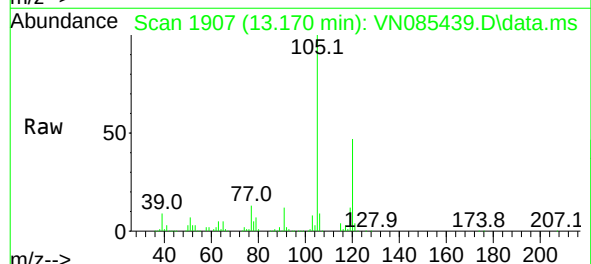
Acq: 14 Jan 2025 15:19

Tgt Ion:105 Resp: 431021

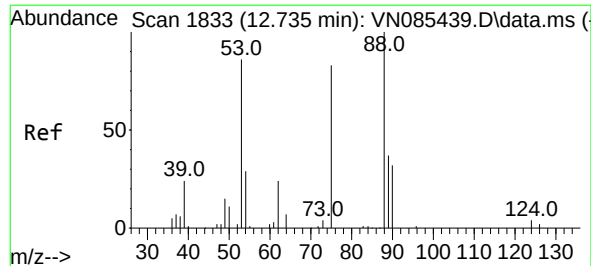
Ion Ratio Lower Upper

105 100

120 47.8 23.9 71.7







#81

trans-1,4-Dichloro-2-butene

Concen: 51.914 ug/l

RT: 12.735 min Scan# 1833

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

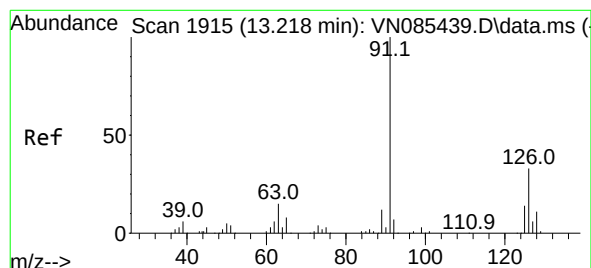
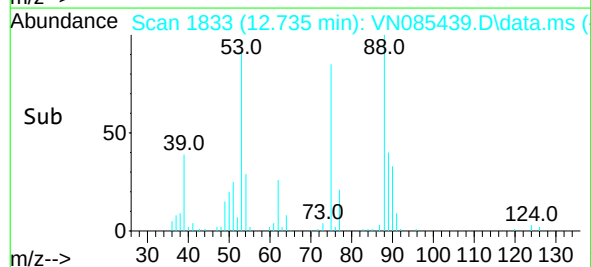
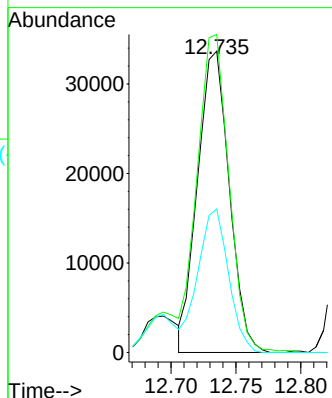
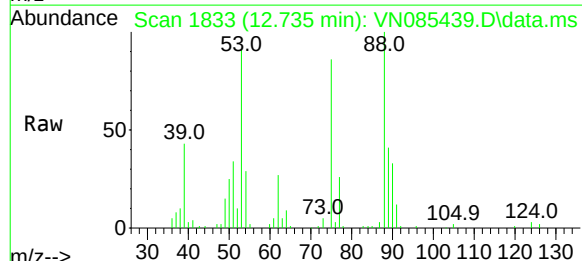
ClientSampleId :

VSTDICCC050

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 57184 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 53       | 119.5 | 95.6  | 143.4 |
| 89       | 46.3  | 37.0  | 55.6  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#82

4-Chlorotoluene

Concen: 50.273 ug/l

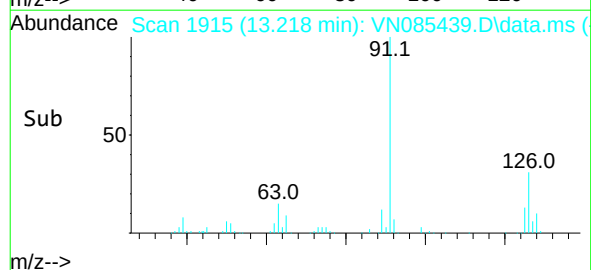
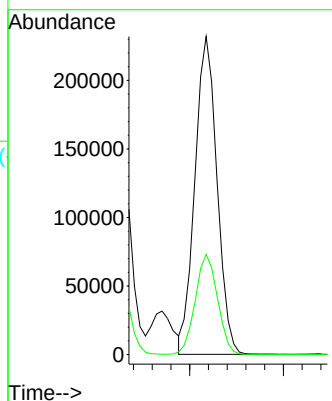
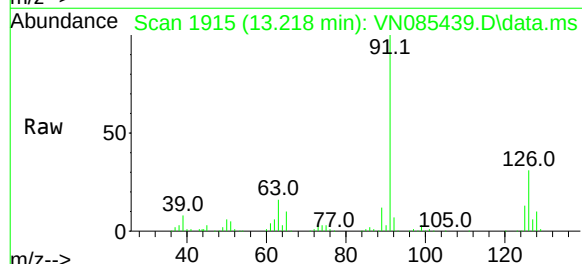
RT: 13.218 min Scan# 1915

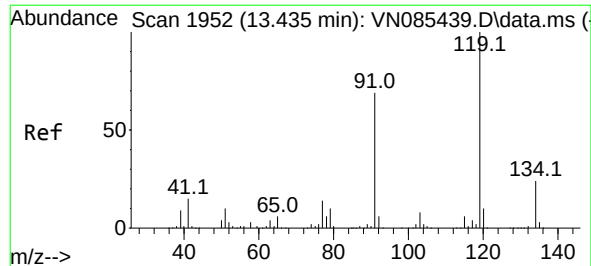
Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 91    | Resp: | 379524 |
| Ion      | Ratio | Lower | Upper  |
| 91       | 100   |       |        |
| 126      | 31.8  | 15.9  | 47.7   |





#83

tert-Butylbenzene

Concen: 52.090 ug/l

RT: 13.435 min Scan# 1952

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:119 Resp: 357563

Ion Ratio Lower Upper

119 100

91 70.2 35.1 105.3

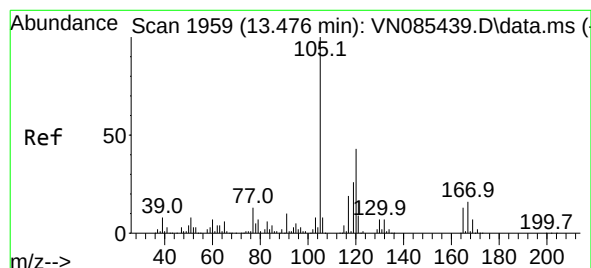
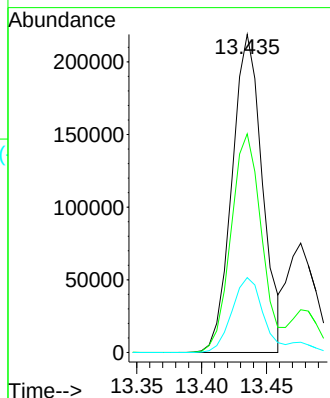
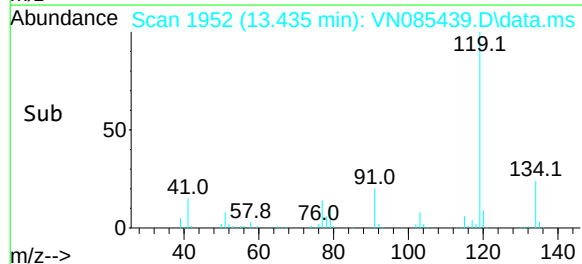
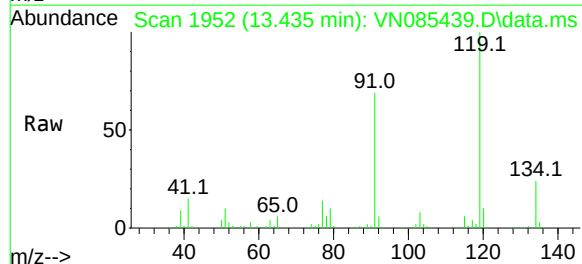
134 24.1 12.0 36.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#84

1,2,4-Trimethylbenzene

Concen: 54.275 ug/l

RT: 13.476 min Scan# 1959

Delta R.T. 0.000 min

Lab File: VN085439.D

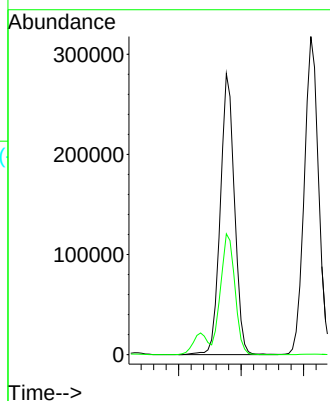
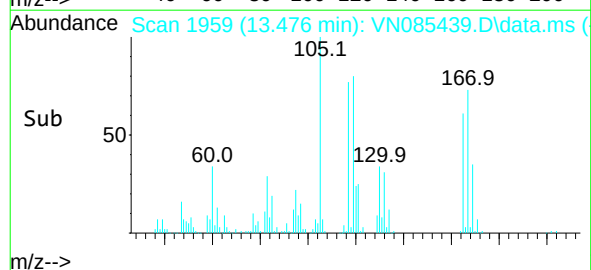
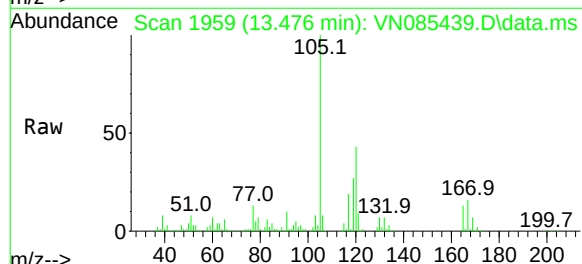
Acq: 14 Jan 2025 15:19

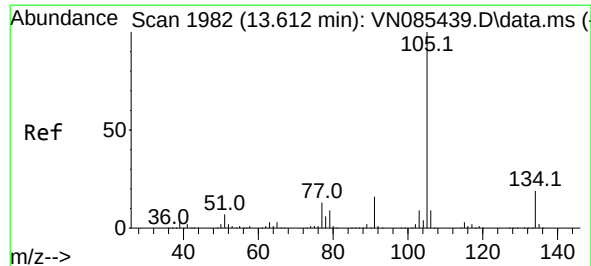
Tgt Ion:105 Resp: 442175

Ion Ratio Lower Upper

105 100

120 43.3 21.6 65.0





#85

sec-Butylbenzene

Concen: 52.719 ug/l

RT: 13.612 min Scan# 1982

Delta R.T. -0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:105 Resp: 501561

Ion Ratio Lower Upper

105 100

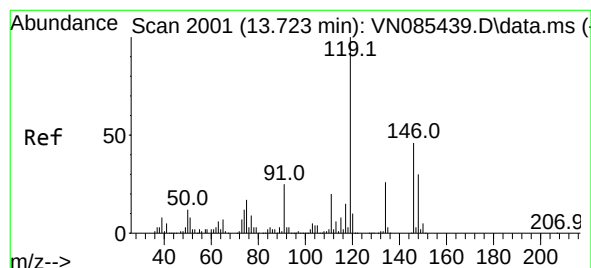
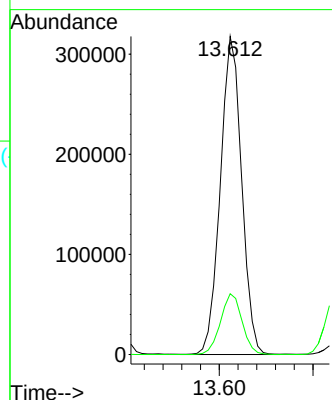
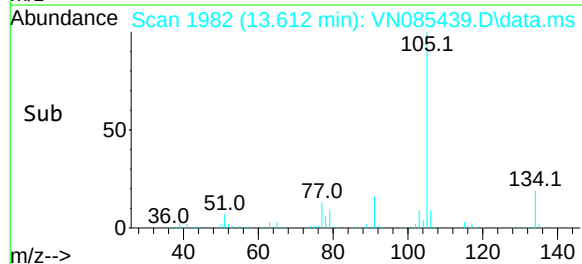
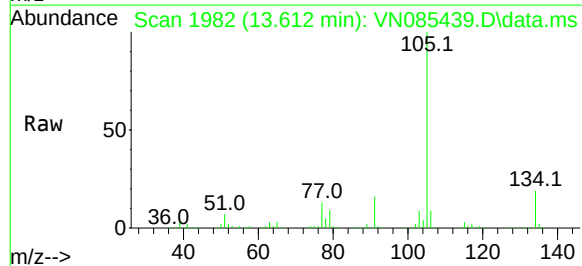
134 19.3 9.7 28.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#86

p-Isopropyltoluene

Concen: 49.240 ug/l

RT: 13.723 min Scan# 2001

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

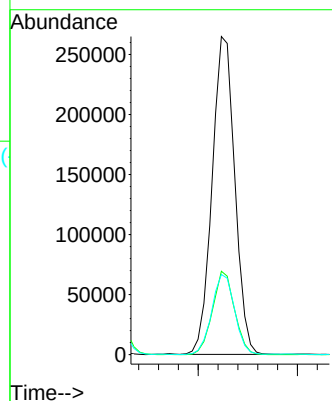
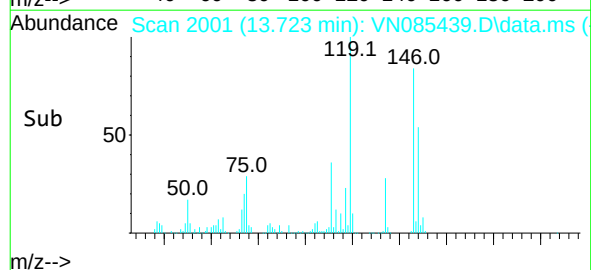
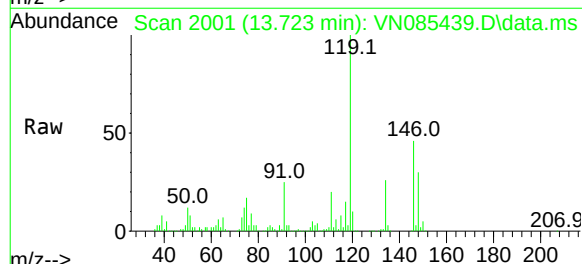
Tgt Ion:119 Resp: 421052

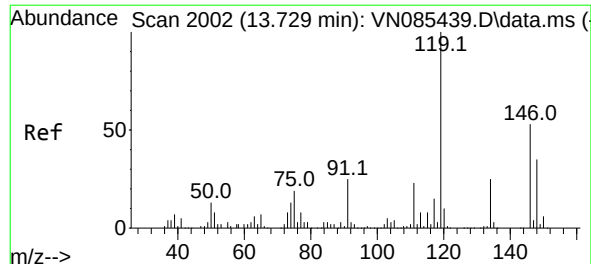
Ion Ratio Lower Upper

119 100

134 25.3 12.7 38.0

91 25.4 12.7 38.1





#87

1,3-Dichlorobenzene

Concen: 48.204 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

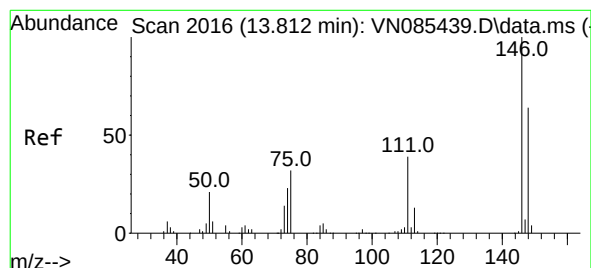
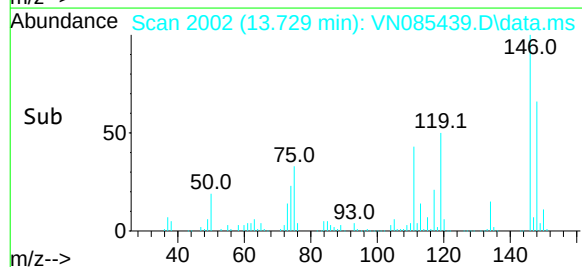
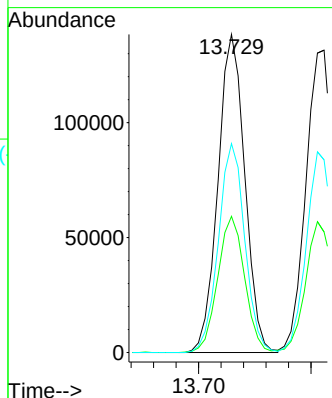
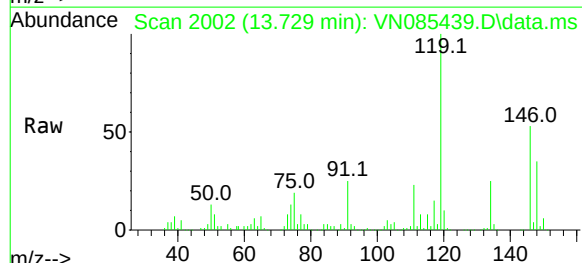
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 146   | Resp: | 229518 |
| Ion      | Ratio | Lower | Upper  |
| 146      | 100   |       |        |
| 111      | 42.9  | 21.4  | 64.3   |
| 148      | 64.6  | 32.3  | 96.9   |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#88

1,4-Dichlorobenzene

Concen: 46.416 ug/l

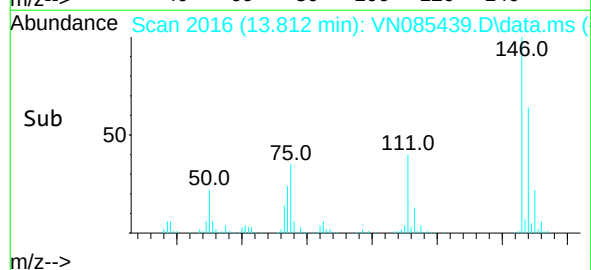
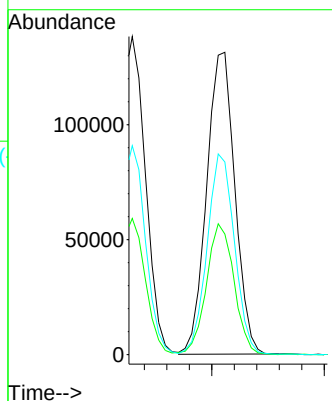
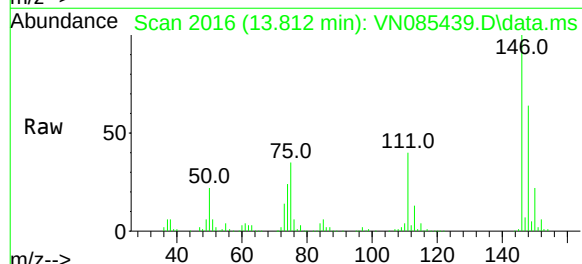
RT: 13.812 min Scan# 2016

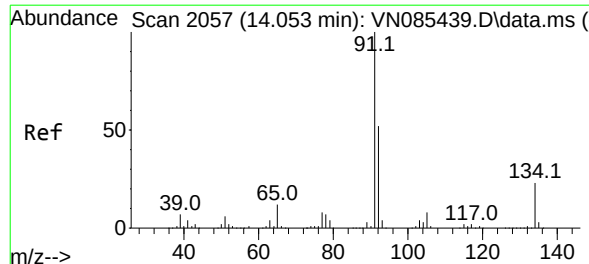
Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 146   | Resp: | 229084 |
| Ion      | Ratio | Lower | Upper  |
| 146      | 100   |       |        |
| 111      | 42.5  | 21.3  | 63.7   |
| 148      | 64.7  | 32.4  | 97.0   |





#89

n-Butylbenzene

Concen: 53.348 ug/l

RT: 14.053 min Scan# 2057

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

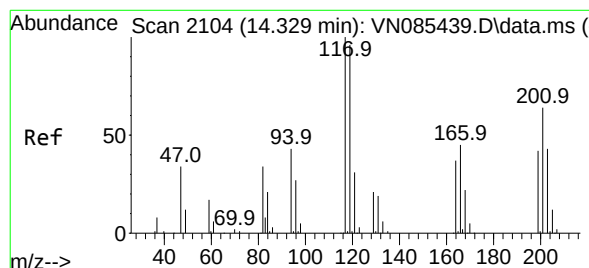
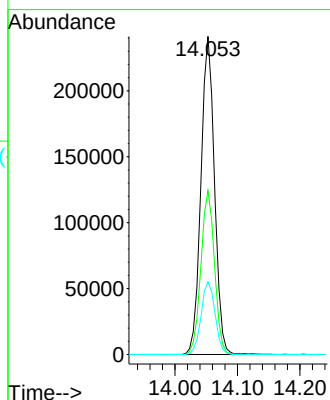
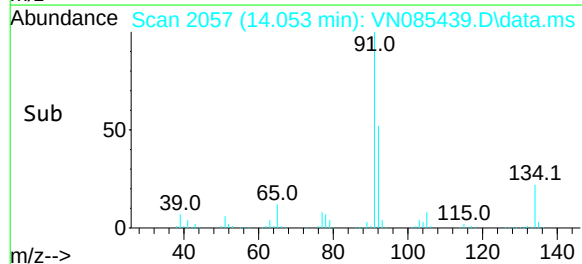
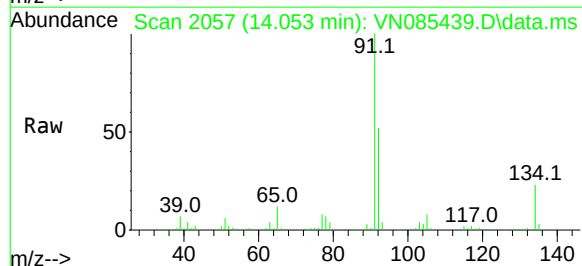
ClientSampleId :

VSTDICCC050

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 91    | Resp: | 364111 |
| Ion      | Ratio | Lower | Upper  |
| 91       | 100   |       |        |
| 92       | 51.5  | 25.8  | 77.3   |
| 134      | 23.4  | 11.7  | 35.1   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#90

Hexachloroethane

Concen: 46.712 ug/l

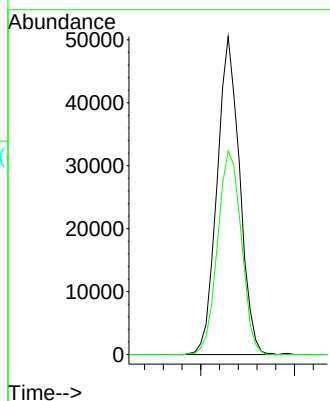
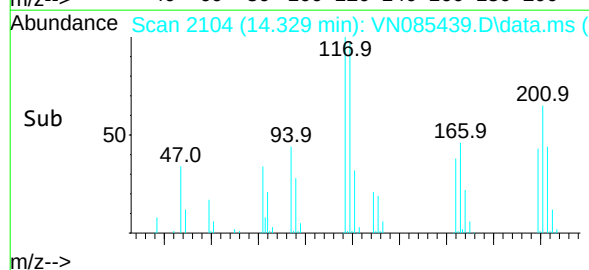
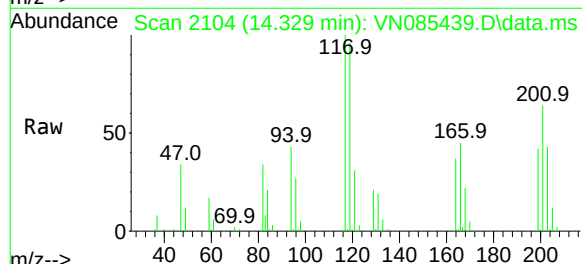
RT: 14.329 min Scan# 2104

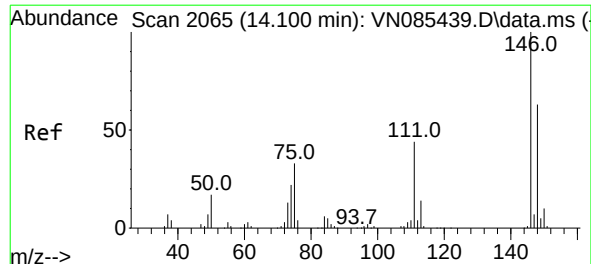
Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 84602 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 201      | 67.3  | 33.7  | 101.0 |





#91

1,2-Dichlorobenzene

Concen: 48.012 ug/l

RT: 14.100 min Scan# 2065

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

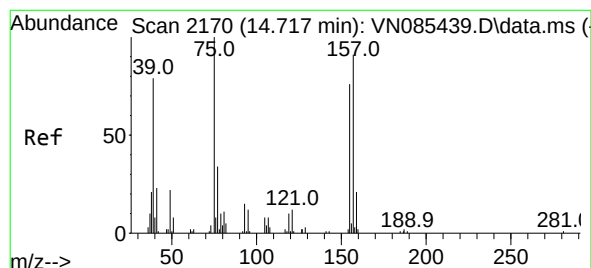
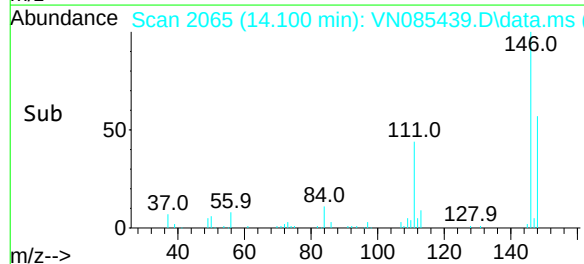
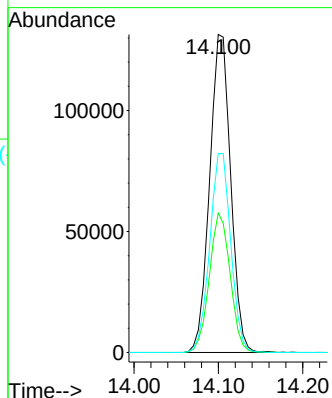
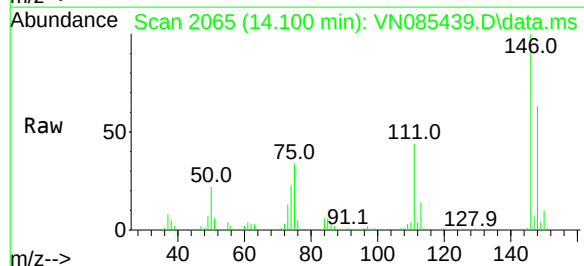
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 146   | Resp: | 228024 |
| Ion      | Ratio | Lower | Upper  |
| 146      | 100   |       |        |
| 111      | 43.4  | 21.7  | 65.1   |
| 148      | 62.8  | 31.4  | 94.2   |

## Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#92

1,2-Dibromo-3-Chloropropane

Concen: 50.971 ug/l

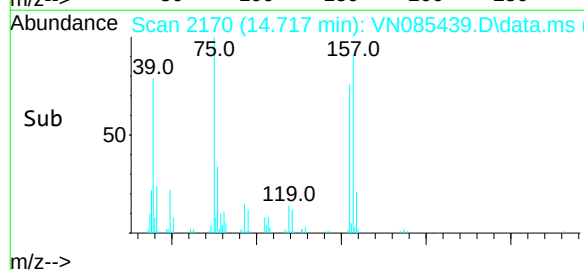
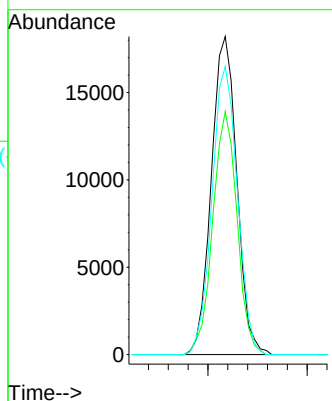
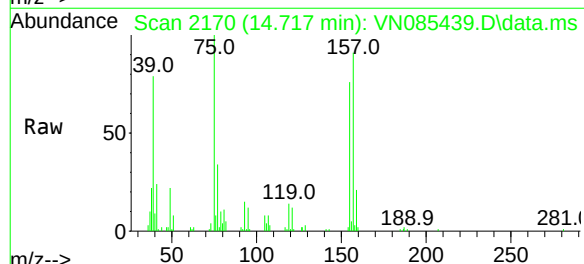
RT: 14.717 min Scan# 2170

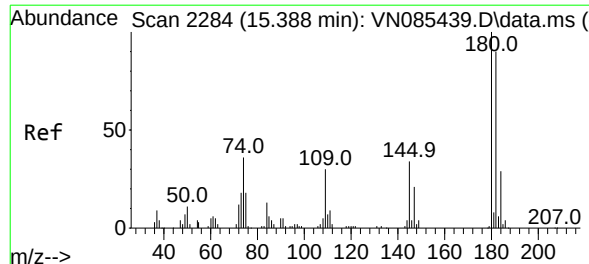
Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 32536 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 155      | 72.8  | 36.4  | 109.2 |
| 157      | 90.7  | 45.4  | 136.1 |





#93

1,2,4-Trichlorobenzene

Concen: 51.857 ug/l

RT: 15.388 min Scan# 2284

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:180 Resp: 114468

Ion Ratio Lower Upper

180 100

182 93.5 46.8 140.3

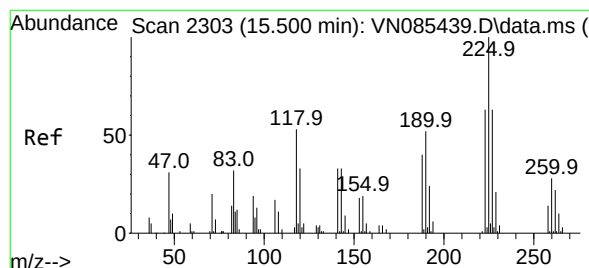
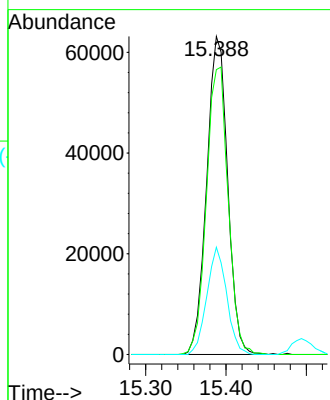
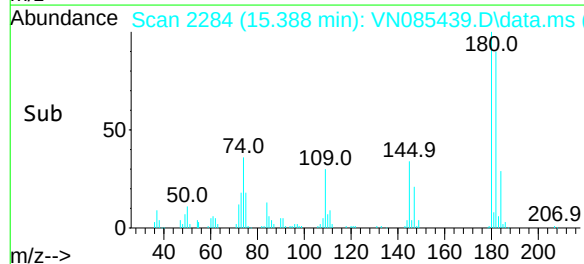
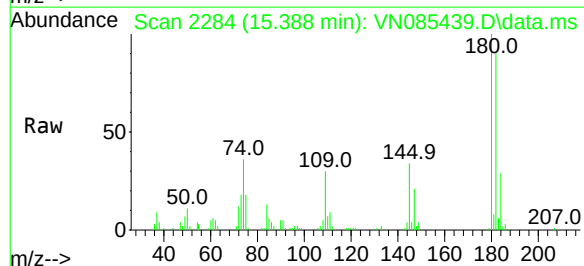
145 32.0 16.0 48.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#94

Hexachlorobutadiene

Concen: 45.947 ug/l

RT: 15.500 min Scan# 2303

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

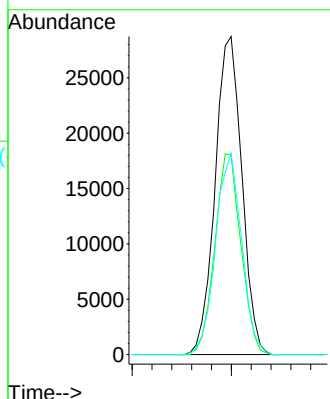
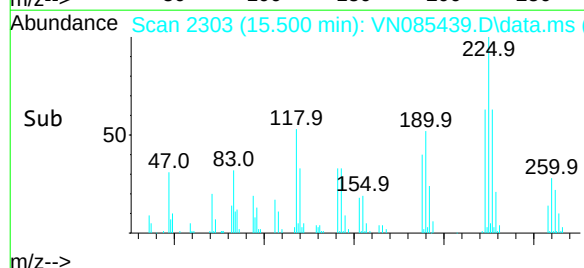
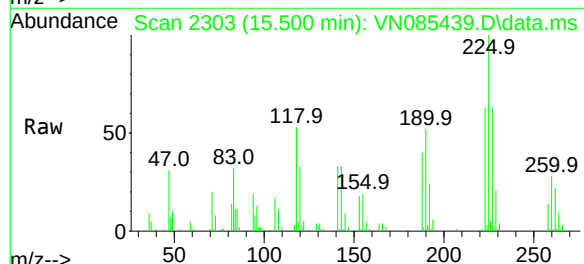
Tgt Ion:225 Resp: 53846

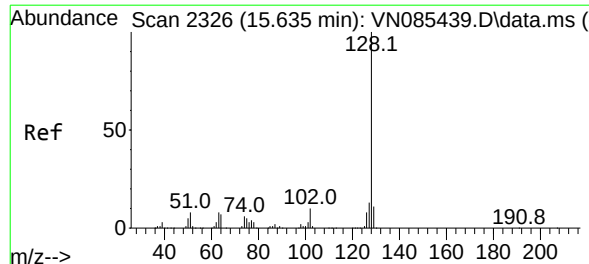
Ion Ratio Lower Upper

225 100

223 61.4 30.7 92.1

227 61.7 30.9 92.5





#95

Naphthalene

Concen: 55.243 ug/l

RT: 15.635 min Scan# 2326

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:128 Resp: 363882

Ion Ratio Lower Upper

128 100

127 13.3 10.6 16.0

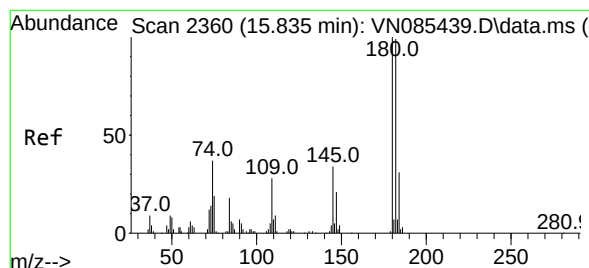
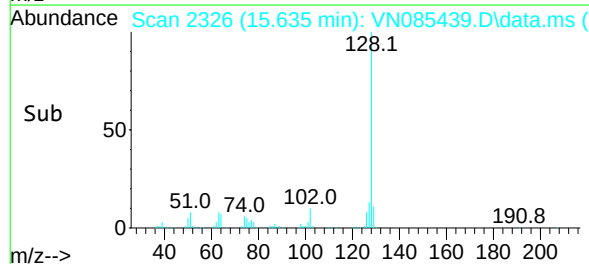
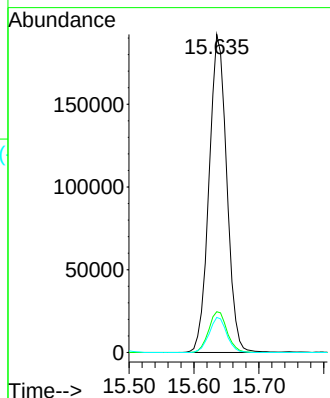
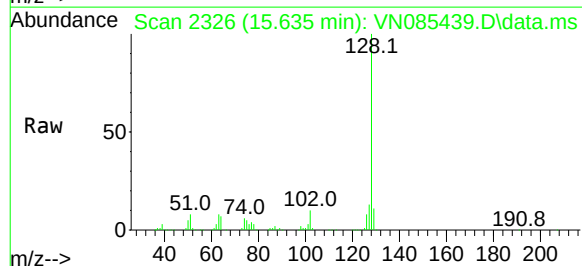
129 11.0 8.8 13.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#96

1,2,3-Trichlorobenzene

Concen: 51.601 ug/l

RT: 15.835 min Scan# 2360

Delta R.T. 0.000 min

Lab File: VN085439.D

Acq: 14 Jan 2025 15:19

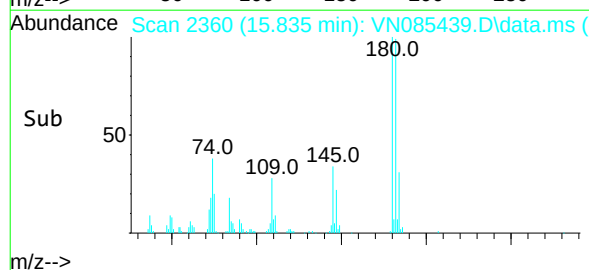
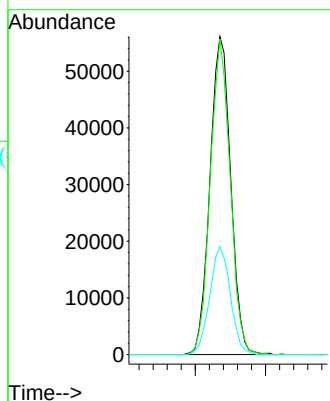
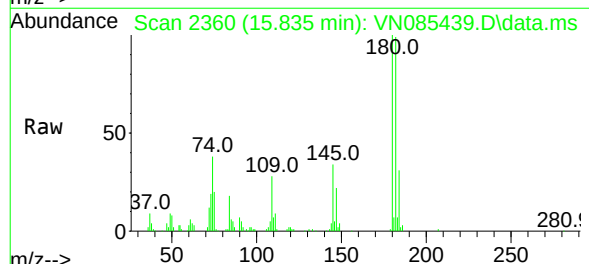
Tgt Ion:180 Resp: 115251

Ion Ratio Lower Upper

180 100

182 94.8 47.4 142.2

145 33.8 16.9 50.7





Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085440.D  
 Acq On : 14 Jan 2025 15:43  
 Operator : JC\MD  
 Sample : VSTDICC020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC020

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:43:07 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 01:28:51 2025  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 200796   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.094  | 114  | 340593   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 296298   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.788 | 152  | 143526   | 50.000 | ug/l  | 0.00     |

|                             |        |       |          |          |      |          |
|-----------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds |        |       |          |          |      |          |
| 33) 1,2-Dichloroethane-d4   | 8.571  | 65    | 60593    | 18.694   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 74 - 125 | Recovery | =    | 37.380%# |
| 35) Dibromofluoromethane    | 8.165  | 113   | 45655    | 19.322   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =    | 38.640%# |
| 50) Toluene-d8              | 10.559 | 98    | 164391   | 19.581   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 86 - 113 | Recovery | =    | 39.160%# |
| 62) 4-Bromofluorobenzene    | 12.847 | 95    | 55798    | 19.430   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 77 - 121 | Recovery | =    | 38.860%# |

|                              |       |     |         |         |        |        |
|------------------------------|-------|-----|---------|---------|--------|--------|
| Target Compounds             |       |     |         |         |        | Qvalue |
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 54666   | 20.107  | ug/l   | 98     |
| 3) Chloromethane             | 2.359 | 50  | 58426   | 19.848  | ug/l   | 100    |
| 4) Vinyl Chloride            | 2.512 | 62  | 58403   | 19.739  | ug/l   | 99     |
| 5) Bromomethane              | 2.954 | 94  | 36440   | 20.389  | ug/l   | 94     |
| 6) Chloroethane              | 3.118 | 64  | 37594   | 20.041  | ug/l   | 93     |
| 7) Trichlorofluoromethane    | 3.501 | 101 | 88121   | 20.526  | ug/l   | 99     |
| 8) Diethyl Ether             | 3.965 | 74  | 29138   | 19.647  | ug/l   | 98     |
| 9) 1,1,2-Trichlorotrifluo... | 4.371 | 101 | 48933   | 20.237  | ug/l   | 99     |
| 10) Methyl Iodide            | 4.589 | 142 | 56567   | 20.428  | ug/l   | 93     |
| 11) Tert butyl alcohol       | 5.506 | 59  | 37984   | 102.342 | ug/l   | 100    |
| 12) 1,1-Dichloroethene       | 4.342 | 96  | 44670   | 20.728  | ug/l   | 95     |
| 13) Acrolein                 | 4.171 | 56  | 49649   | 97.995  | ug/l   | 99     |
| 14) Allyl chloride           | 5.024 | 41  | 67705   | 19.362  | ug/l   | 96     |
| 15) Acrylonitrile            | 5.712 | 53  | 121626  | 103.171 | ug/l   | 99     |
| 16) Acetone                  | 4.424 | 43  | 101065  | 96.502  | ug/l   | 96     |
| 17) Carbon Disulfide         | 4.712 | 76  | 132300  | 19.939  | ug/l   | 98     |
| 18) Methyl Acetate           | 5.018 | 43  | 60873   | 19.115  | ug/l   | 99     |
| 19) Methyl tert-butyl Ether  | 5.795 | 73  | 148847  | 21.272  | ug/l   | 100    |
| 20) Methylene Chloride       | 5.271 | 84  | 52813   | 20.370  | ug/l   | 97     |
| 21) trans-1,2-Dichloroethene | 5.789 | 96  | 46115   | 20.023  | ug/l   | 98     |
| 22) Diisopropyl ether        | 6.671 | 45  | 166719  | 21.480  | ug/l   | 97     |
| 23) Vinyl Acetate            | 6.594 | 43  | 588567m | 107.984 | ug/l   |        |
| 24) 1,1-Dichloroethane       | 6.565 | 63  | 96875   | 20.469  | ug/l # | 96     |
| 25) 2-Butanone               | 7.477 | 43  | 159952  | 103.786 | ug/l   | 98     |
| 26) 2,2-Dichloropropane      | 7.483 | 77  | 79145   | 20.684  | ug/l   | 99     |
| 27) cis-1,2-Dichloroethene   | 7.483 | 96  | 57454   | 21.180  | ug/l   | 98     |
| 28) Bromochloromethane       | 7.812 | 49  | 41181   | 18.703  | ug/l   | 99     |
| 29) Tetrahydrofuran          | 7.836 | 42  | 104792  | 107.247 | ug/l   | 99     |
| 30) Chloroform               | 7.959 | 83  | 99655   | 20.374  | ug/l   | 99     |
| 31) Cyclohexane              | 8.253 | 56  | 82980   | 20.173  | ug/l   | 97     |
| 32) 1,1,1-Trichloroethane    | 8.165 | 97  | 87659   | 20.431  | ug/l   | 98     |
| 36) 1,1-Dichloropropene      | 8.371 | 75  | 67949   | 20.490  | ug/l   | 98     |
| 37) Ethyl Acetate            | 7.553 | 43  | 66443   | 19.850  | ug/l   | 96     |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 78842   | 20.767  | ug/l   | 96     |
| 39) Methylcyclohexane        | 9.594 | 83  | 65012   | 20.862  | ug/l   | 96     |
| 40) Benzene                  | 8.600 | 78  | 207985  | 20.873  | ug/l   | 99     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085440.D  
 Acq On : 14 Jan 2025 15:43  
 Operator : JC\MD  
 Sample : VSTDICC020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC020

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:43:07 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 01:28:51 2025  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.771  | 41   | 36578    | 21.004  | ug/l   | 99       |
| 42) 1,2-Dichloroethane        | 8.665  | 62   | 78402    | 20.891  | ug/l   | 99       |
| 43) Isopropyl Acetate         | 8.683  | 43   | 109131   | 20.347  | ug/l   | 98       |
| 44) Trichloroethene           | 9.347  | 130  | 48009    | 20.699  | ug/l   | 96       |
| 45) 1,2-Dichloropropane       | 9.618  | 63   | 52833    | 20.758  | ug/l   | 93       |
| 46) Dibromomethane            | 9.700  | 93   | 37721    | 20.540  | ug/l   | 98       |
| 47) Bromodichloromethane      | 9.882  | 83   | 78918    | 21.093  | ug/l   | 96       |
| 48) Methyl methacrylate       | 9.677  | 41   | 50224    | 20.808  | ug/l   | 96       |
| 49) 1,4-Dioxane               | 9.688  | 88   | 17140    | 421.686 | ug/l   | 95       |
| 51) 4-Methyl-2-Pentanone      | 10.441 | 43   | 336911   | 108.249 | ug/l   | 100      |
| 52) Toluene                   | 10.630 | 92   | 125172   | 21.680  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 74129    | 20.965  | ug/l   | 96       |
| 54) cis-1,3-Dichloropropene   | 10.306 | 75   | 81897    | 21.684  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane     | 11.012 | 97   | 48039    | 21.025  | ug/l   | 97       |
| 56) Ethyl methacrylate        | 10.871 | 69   | 70934    | 19.649  | ug/l   | 99       |
| 57) 1,3-Dichloropropane       | 11.159 | 76   | 84210    | 21.196  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 153681   | 105.991 | ug/l   | 100      |
| 59) 2-Hexanone                | 11.194 | 43   | 240595   | 109.863 | ug/l   | 98       |
| 60) Dibromochloromethane      | 11.353 | 129  | 56069    | 20.326  | ug/l   | 96       |
| 61) 1,2-Dibromoethane         | 11.465 | 107  | 48465    | 21.309  | ug/l   | 96       |
| 64) Tetrachloroethene         | 11.100 | 164  | 43243    | 21.408  | ug/l   | 96       |
| 65) Chlorobenzene             | 11.888 | 112  | 136809   | 21.077  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 48370    | 20.304  | ug/l   | 98       |
| 67) Ethyl Benzene             | 11.959 | 91   | 229978   | 21.753  | ug/l   | 98       |
| 68) m/p-Xylenes               | 12.071 | 106  | 177755   | 45.494  | ug/l   | 100      |
| 69) o-Xylene                  | 12.394 | 106  | 84548    | 22.643  | ug/l   | 98       |
| 70) Styrene                   | 12.412 | 104  | 140581   | 22.749  | ug/l   | 99       |
| 71) Bromoform                 | 12.576 | 173  | 36961    | 21.683  | ug/l # | 96       |
| 73) Isopropylbenzene          | 12.694 | 105  | 211354   | 21.819  | ug/l   | 100      |
| 74) N-amyl acetate            | 12.494 | 43   | 94292    | 21.656  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 68151    | 19.917  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 12.988 | 75   | 64180m   | 22.036  | ug/l   |          |
| 77) Bromobenzene              | 12.976 | 156  | 52022    | 20.556  | ug/l   | 99       |
| 78) n-propylbenzene           | 13.035 | 91   | 252610   | 22.028  | ug/l   | 100      |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 158511   | 21.358  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene    | 13.171 | 105  | 180294   | 22.533  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 22178m   | 20.569  | ug/l   |          |
| 82) 4-Chlorotoluene           | 13.218 | 91   | 161880   | 21.906  | ug/l   | 100      |
| 83) tert-Butylbenzene         | 13.435 | 119  | 147541   | 21.958  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 183144   | 22.965  | ug/l   | 99       |
| 85) sec-Butylbenzene          | 13.612 | 105  | 209133   | 22.457  | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 168888   | 21.661  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 13.729 | 146  | 97652    | 20.952  | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene       | 13.806 | 146  | 98321    | 20.351  | ug/l   | 99       |
| 89) n-Butylbenzene            | 14.053 | 91   | 142673   | 21.355  | ug/l   | 99       |
| 90) Hexachloroethane          | 14.329 | 117  | 35205    | 19.858  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene       | 14.100 | 146  | 94954    | 20.425  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 12859    | 20.580  | ug/l   | 100      |
| 93) 1,2,4-Trichlorobenzene    | 15.388 | 180  | 45878    | 21.233  | ug/l   | 99       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 22719    | 19.805  | ug/l   | 95       |
| 95) Naphthalene               | 15.635 | 128  | 134793   | 20.906  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 45468    | 20.797  | ug/l   | 97       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
Data File : VN085440.D  
Acq On : 14 Jan 2025 15:43  
Operator : JC\MD  
Sample : VSTDICC020  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:43:07 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 01:28:51 2025  
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

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

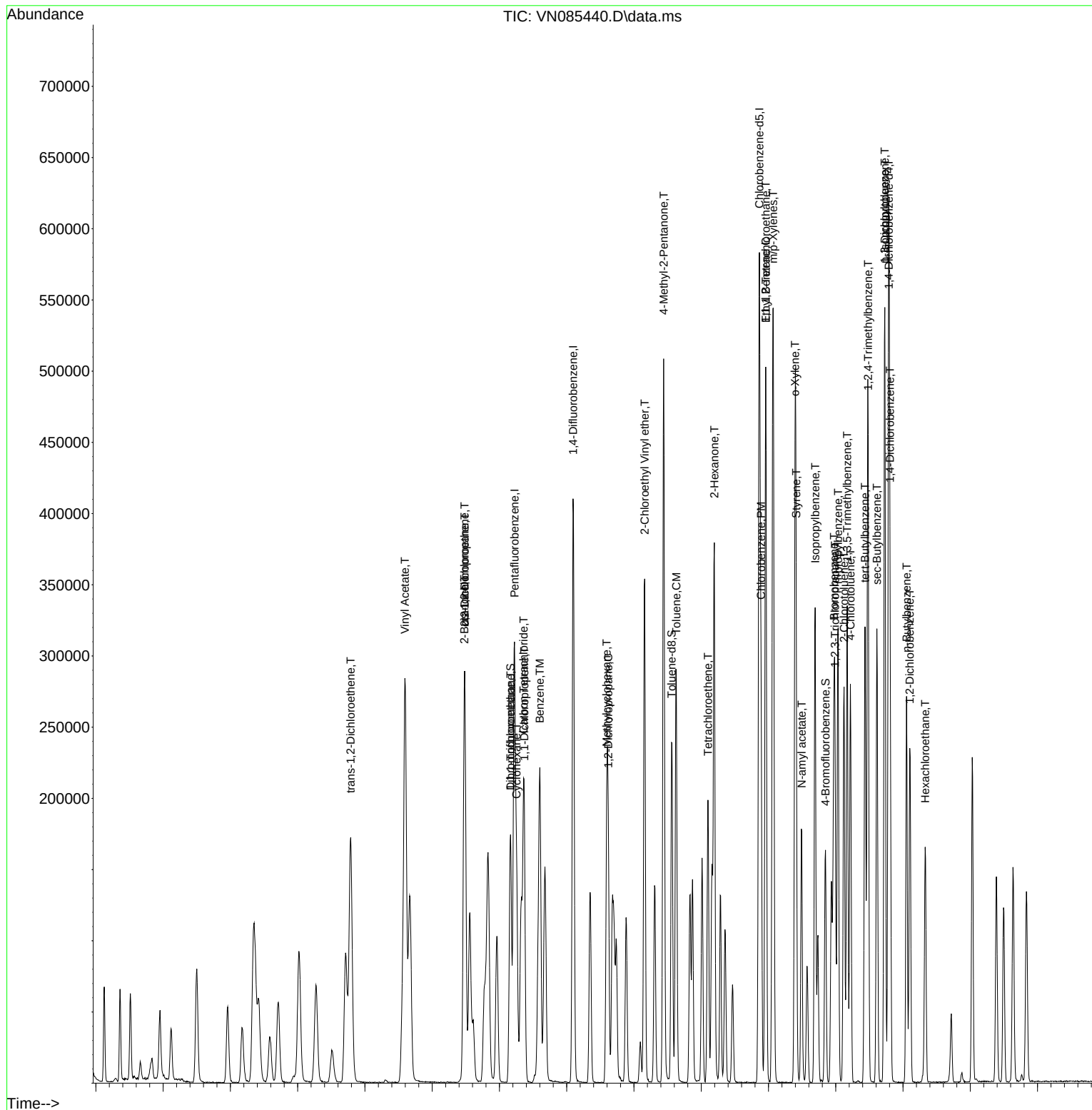
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Acq On : 14 Jan 2025 15:43  
Operator : JC\MD  
Sample : VSTDICC020  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 6 Sample Multiplier: 1

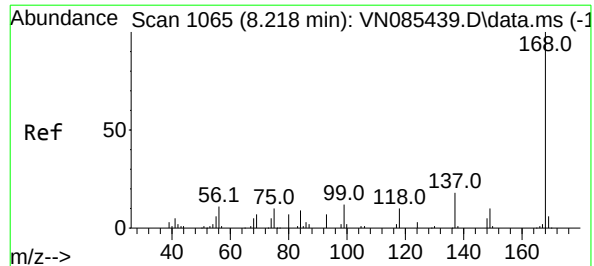
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

Manual Integrations  
APPROVED

Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025

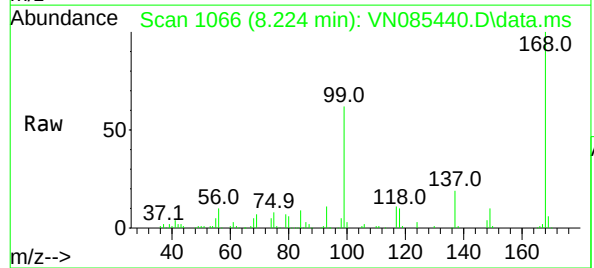
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Quant Title : SW846 8260  
QLast Update : Wed Jan 15 01:28:51 2025  
Response via : Initial Calibration





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. 0.006 min  
Lab File: VN085440.D  
Acq: 14 Jan 2025 15:43

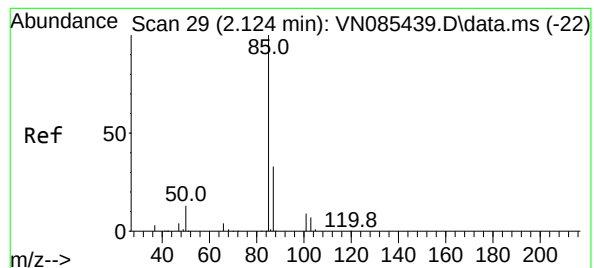
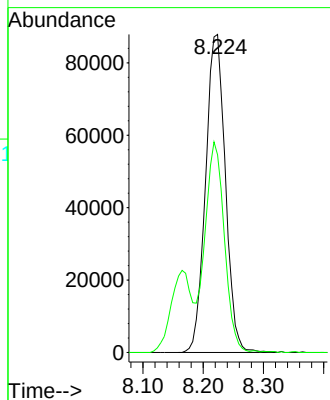
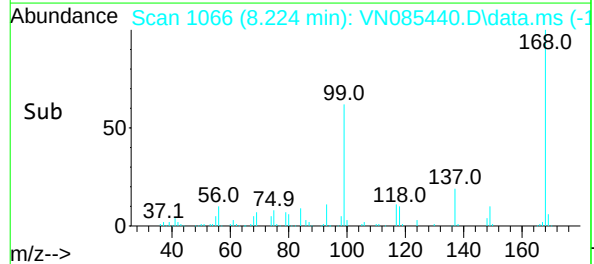
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



Tgt Ion: 168 Resp: 200796  
Ion Ratio Lower Upper  
168 100  
99 62.2 53.6 80.4

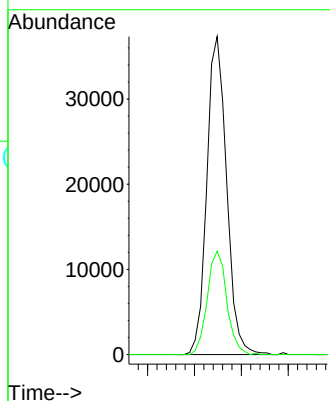
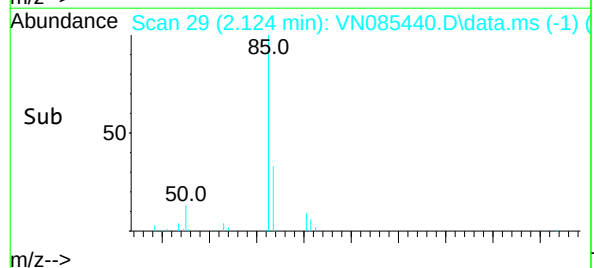
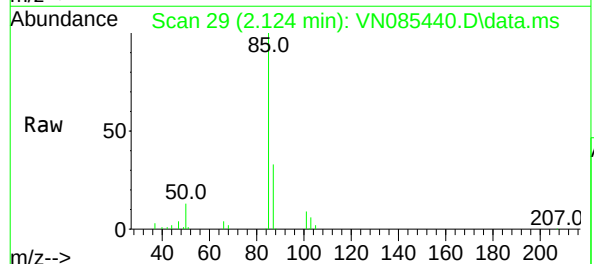
Manual Integrations  
APPROVED

Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025

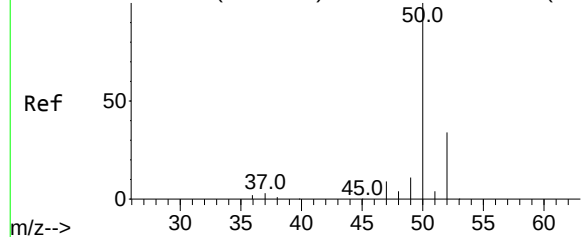


#2  
Dichlorodifluoromethane  
Concen: 20.107 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. 0.000 min  
Lab File: VN085440.D  
Acq: 14 Jan 2025 15:43

Tgt Ion: 85 Resp: 54666  
Ion Ratio Lower Upper  
85 100  
87 32.5 16.7 50.1



Abundance Scan 69 (2.359 min): VN085439.D\data.ms (-62)



#3

Chloromethane

Concen: 19.848 ug/l

RT: 2.359 min Scan# 69

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 50 Resp: 58426

Ion Ratio Lower Upper

50 100

52 34.0 27.0 40.6

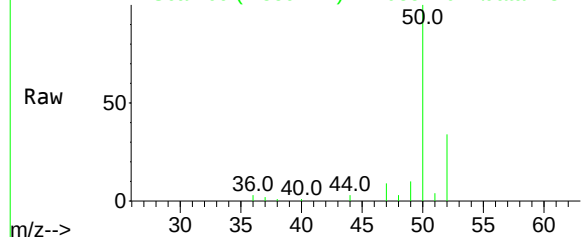
Manual Integrations

APPROVED

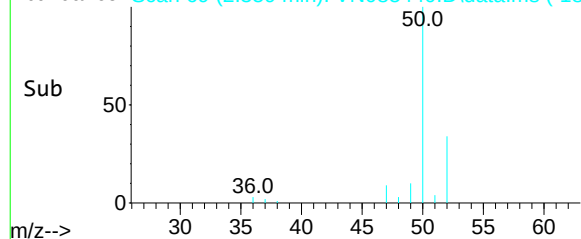
Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025

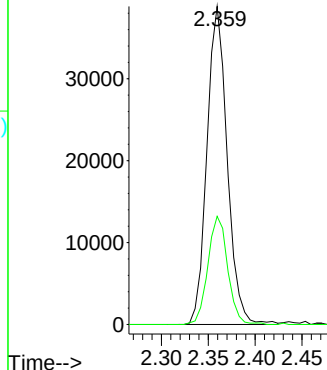
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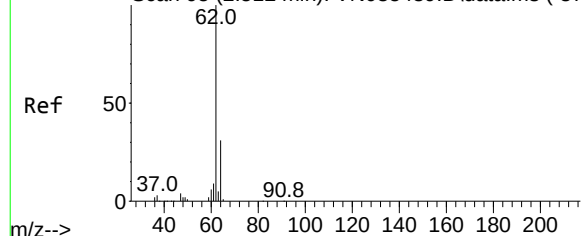
Abundance Scan 69 (2.359 min): VN085440.D\data.ms (-18)



Abundance



Abundance Scan 95 (2.512 min): VN085439.D\data.ms (-87)



#4

Vinyl Chloride

Concen: 19.739 ug/l

RT: 2.512 min Scan# 95

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

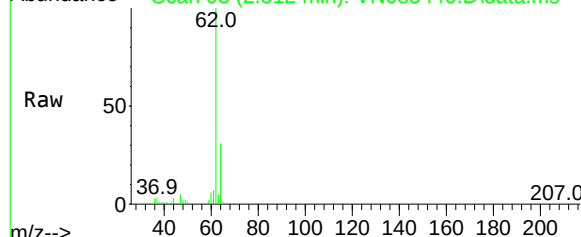
Tgt Ion: 62 Resp: 58403

Ion Ratio Lower Upper

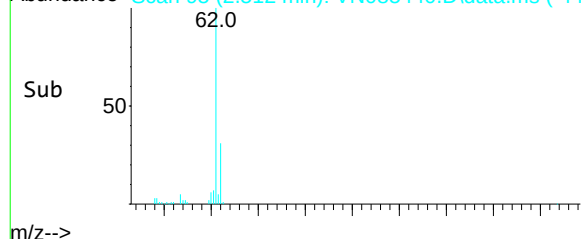
62 100

64 30.7 24.8 37.2

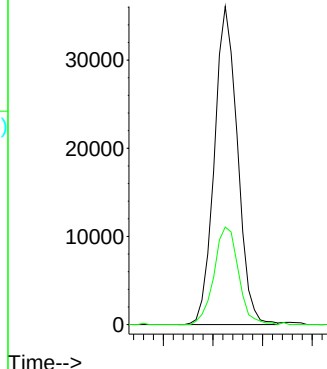
Abundance Scan 95 (2.512 min): VN085440.D\data.ms

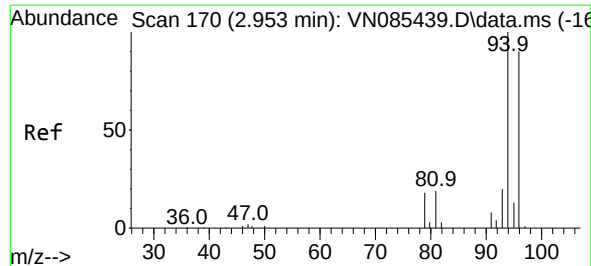


Abundance Scan 95 (2.512 min): VN085440.D\data.ms (-44)



Abundance





#5

Bromomethane

Concen: 20.389 ug/l

RT: 2.954 min Scan# 170

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 94 Resp: 36440

Ion Ratio Lower Upper

94 100

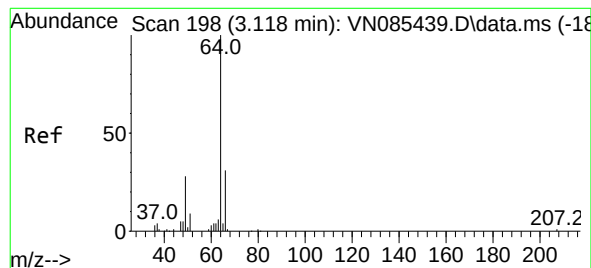
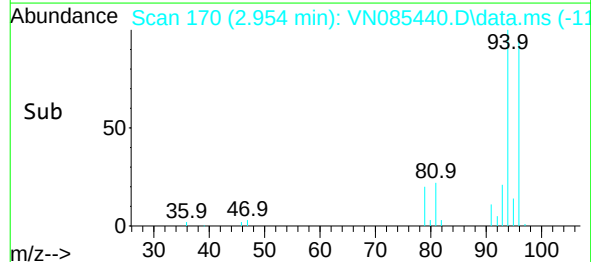
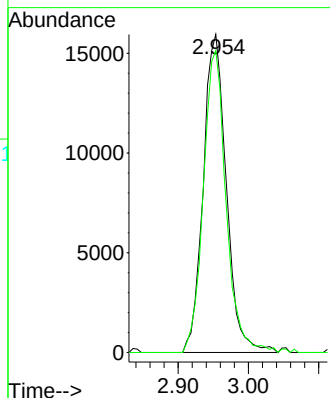
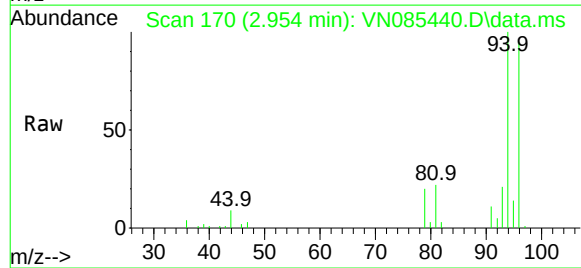
96 94.9 71.8 107.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#6

Chloroethane

Concen: 20.041 ug/l

RT: 3.118 min Scan# 198

Delta R.T. 0.000 min

Lab File: VN085440.D

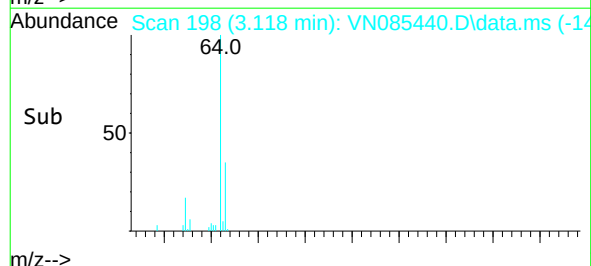
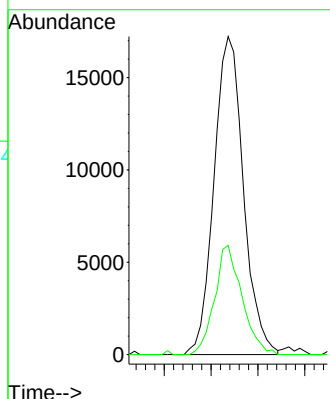
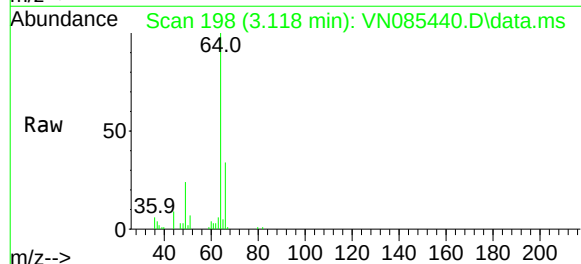
Acq: 14 Jan 2025 15:43

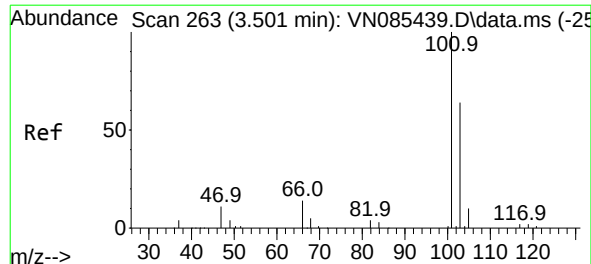
Tgt Ion: 64 Resp: 37594

Ion Ratio Lower Upper

64 100

66 34.3 24.6 36.8





#7

Trichlorofluoromethane

Concen: 20.526 ug/l

RT: 3.501 min Scan# 26

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Tgt Ion: 101 Resp: 88121

Ion Ratio Lower Upper

101 100

103 65.3 51.4 77.2

Instrument :

MSVOA\_N

ClientSampleId :

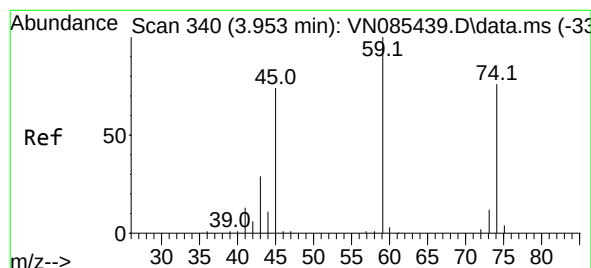
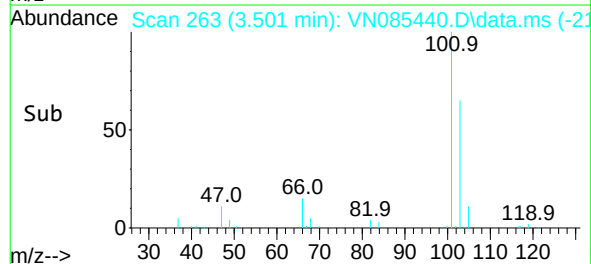
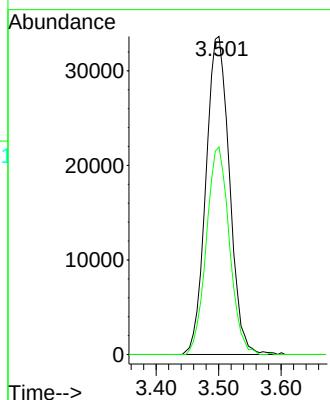
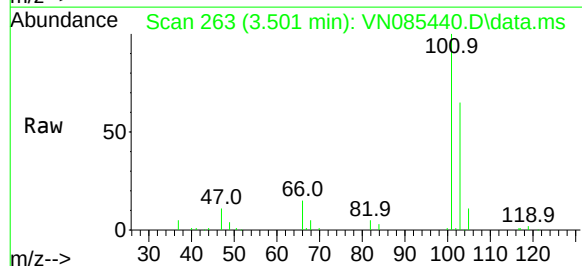
VSTDICC020

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#8

Diethyl Ether

Concen: 19.647 ug/l

RT: 3.965 min Scan# 342

Delta R.T. 0.012 min

Lab File: VN085440.D

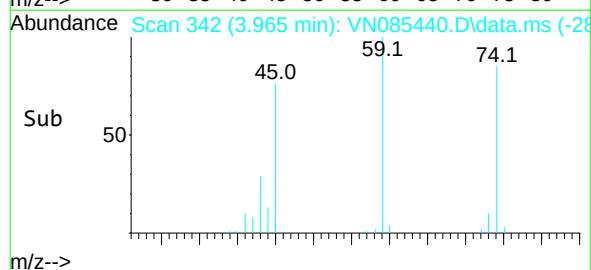
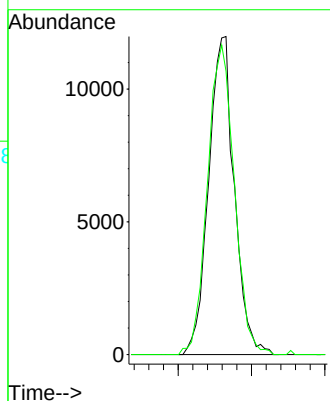
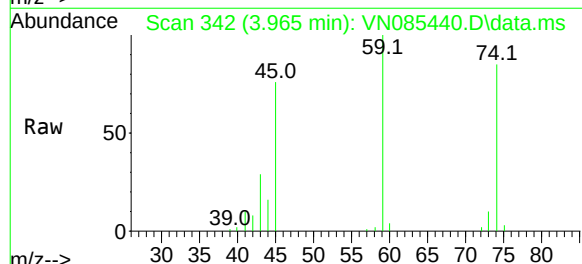
Acq: 14 Jan 2025 15:43

Tgt Ion: 74 Resp: 29138

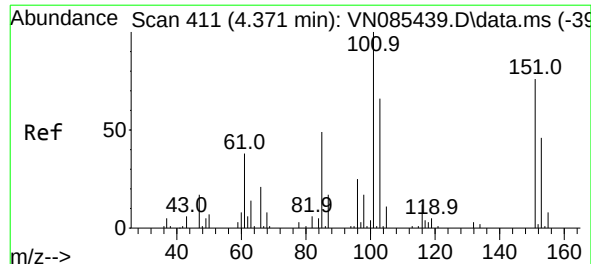
Ion Ratio Lower Upper

74 100

45 101.8 49.7 149.1







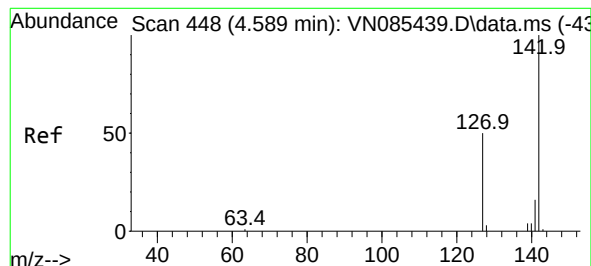
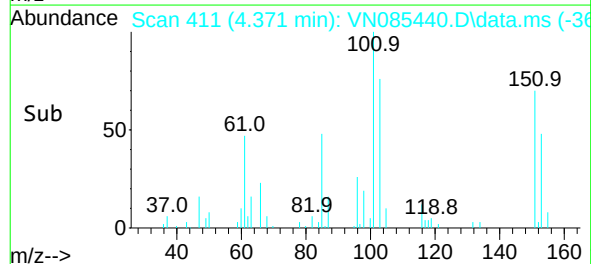
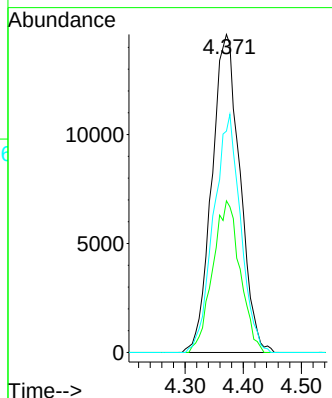
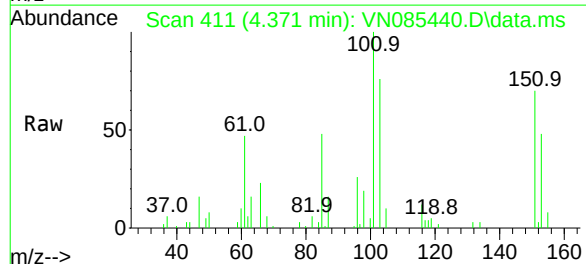
#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 20.237 ug/l  
RT: 4.371 min Scan# 411  
Delta R.T. 0.000 min  
Lab File: VN085440.D  
Acq: 14 Jan 2025 15:43

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

Tgt Ion:101 Resp: 48933  
Ion Ratio Lower Upper  
101 100  
85 46.6 37.8 56.8  
151 72.1 58.8 88.2

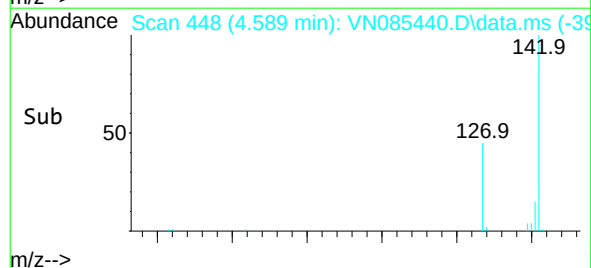
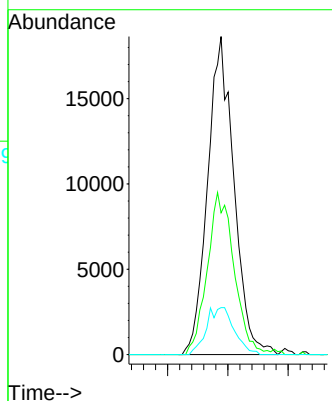
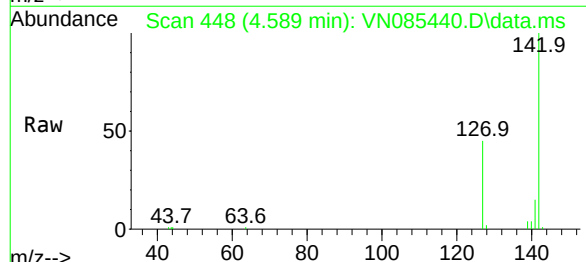
Manual Integrations  
APPROVED

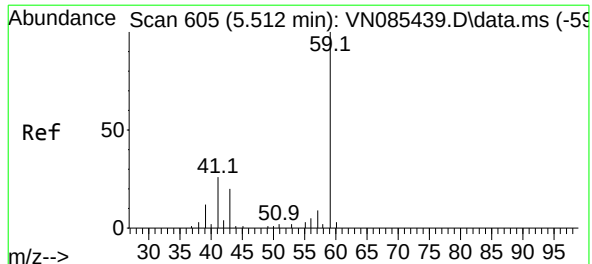
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#10  
Methyl Iodide  
Concen: 20.428 ug/l  
RT: 4.589 min Scan# 448  
Delta R.T. 0.000 min  
Lab File: VN085440.D  
Acq: 14 Jan 2025 15:43

Tgt Ion:142 Resp: 56567  
Ion Ratio Lower Upper  
142 100  
127 44.6 40.3 60.5  
141 14.8 12.8 19.2





#11

Tert butyl alcohol

Concen: 102.342 ug/l

RT: 5.506 min Scan# 605

Delta R.T. -0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 59 Resp: 37984

Ion Ratio Lower Upper

59 100

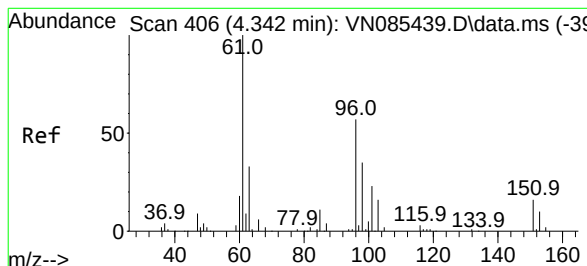
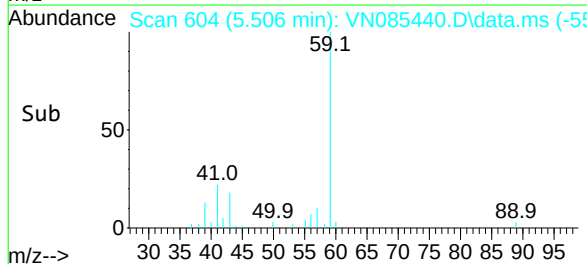
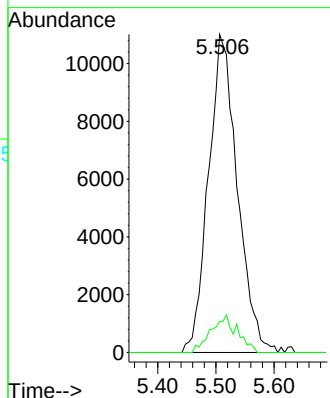
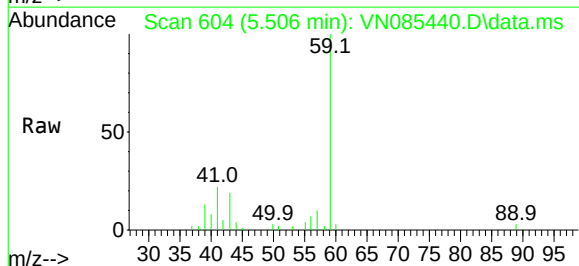
57 10.7 8.6 13.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#12

1,1-Dichloroethene

Concen: 20.728 ug/l

RT: 4.342 min Scan# 406

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

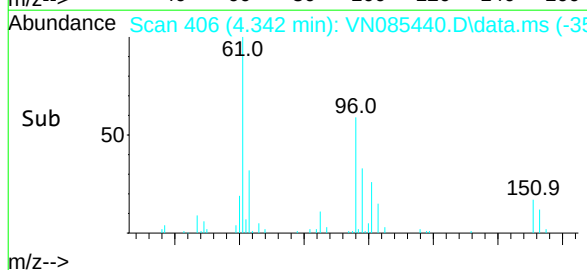
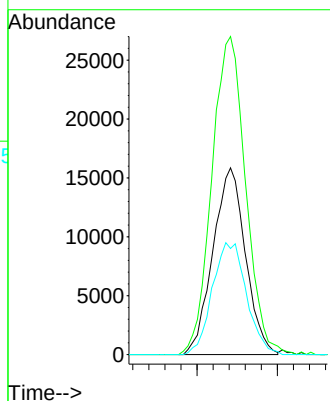
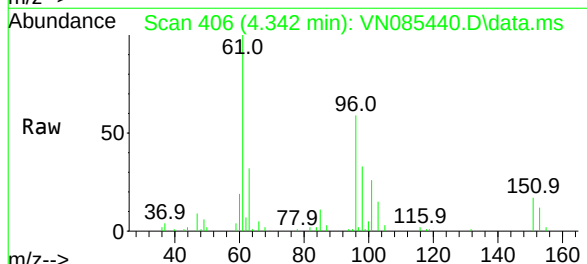
Tgt Ion: 96 Resp: 44670

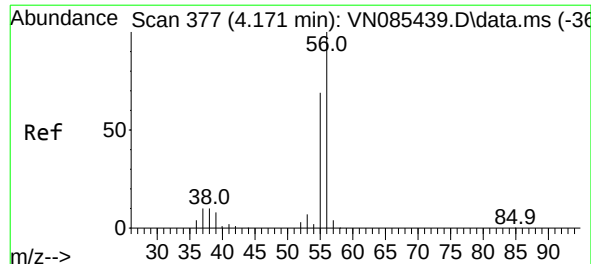
Ion Ratio Lower Upper

96 100

61 170.3 141.0 211.4

98 56.8 49.0 73.6





#13

Acrolein

Concen: 97.995 ug/l

RT: 4.171 min Scan# 377

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 56 Resp: 49649

Ion Ratio Lower Upper

56 100

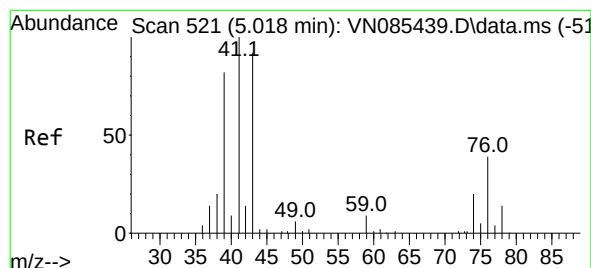
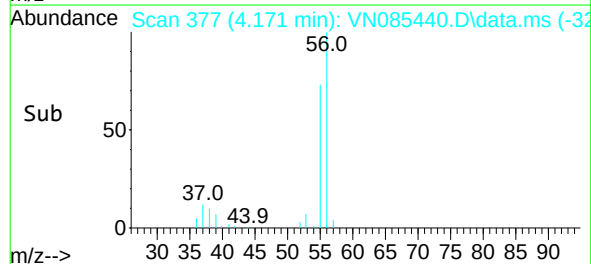
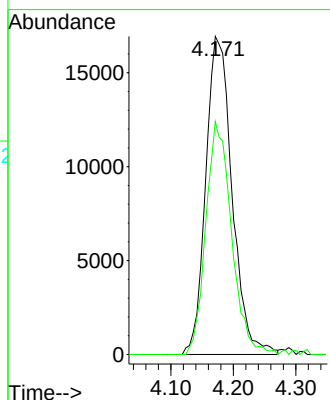
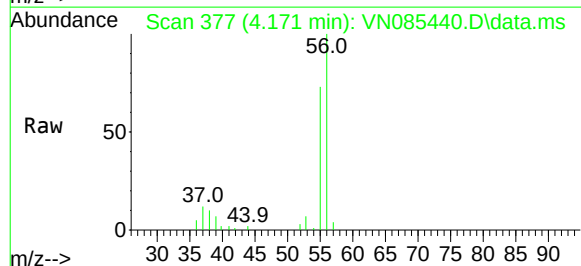
55 71.4 56.3 84.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#14

Allyl chloride

Concen: 19.362 ug/l

RT: 5.024 min Scan# 522

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

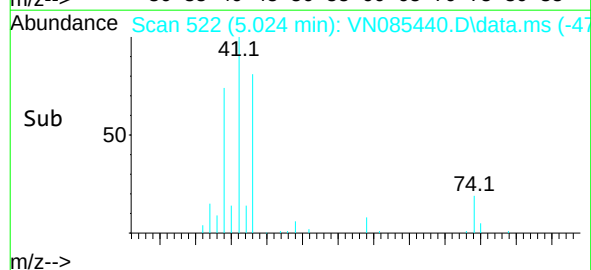
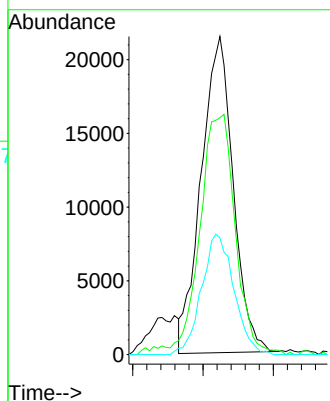
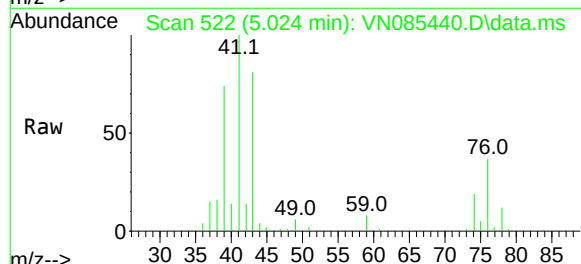
Tgt Ion: 41 Resp: 67705

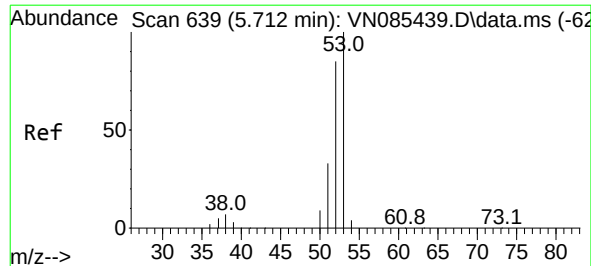
Ion Ratio Lower Upper

41 100

39 85.0 64.4 96.6

76 38.6 30.5 45.7





#15

Acrylonitrile

Concen: 103.171 ug/l

RT: 5.712 min Scan# 639

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 53 Resp: 121626

Ion Ratio Lower Upper

53 100

52 81.1 65.5 98.3

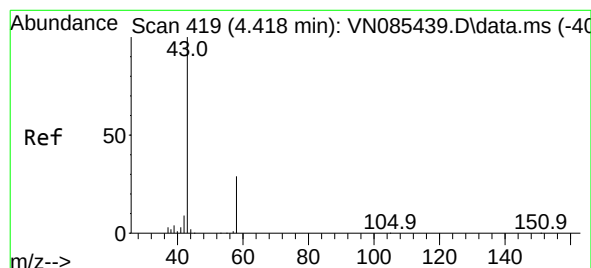
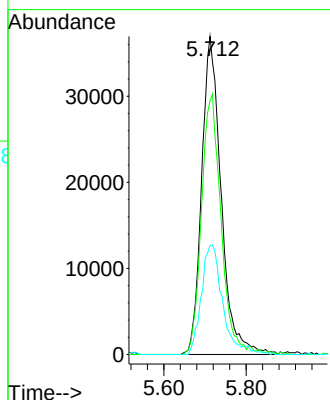
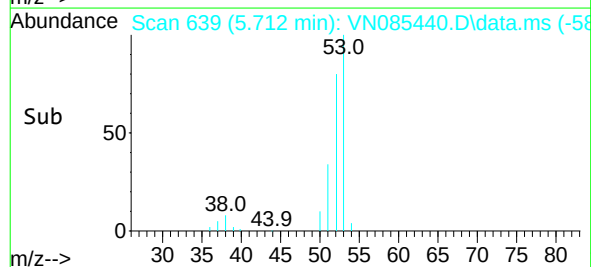
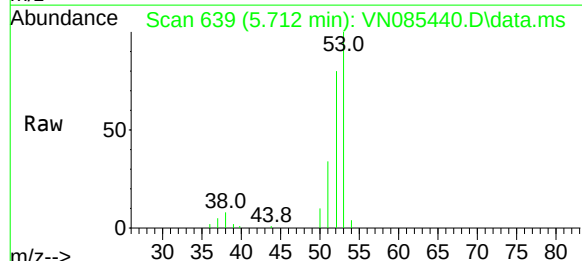
51 36.1 29.8 44.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#16

Acetone

Concen: 96.502 ug/l

RT: 4.424 min Scan# 420

Delta R.T. 0.006 min

Lab File: VN085440.D

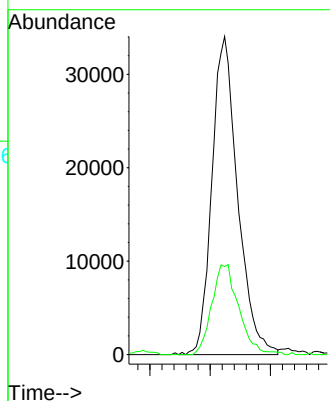
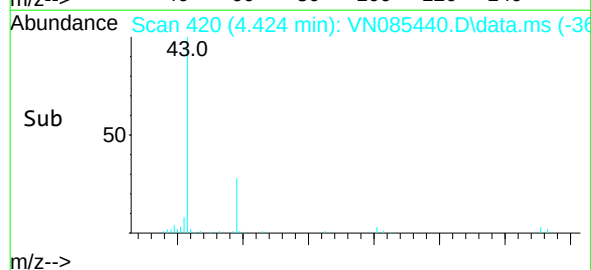
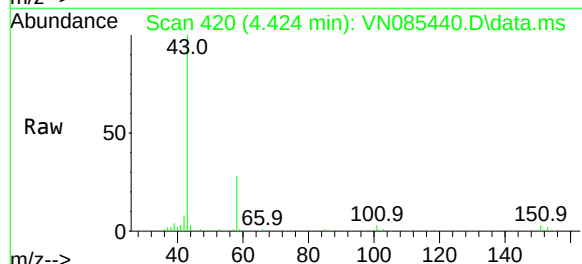
Acq: 14 Jan 2025 15:43

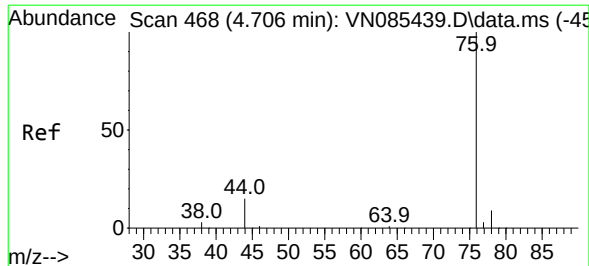
Tgt Ion: 43 Resp: 101065

Ion Ratio Lower Upper

43 100

58 27.7 23.8 35.6





#17

Carbon Disulfide

Concen: 19.939 ug/l

RT: 4.712 min Scan# 468

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 76 Resp: 132300

Ion Ratio Lower Upper

76 100

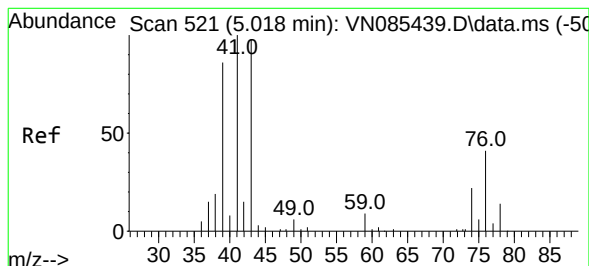
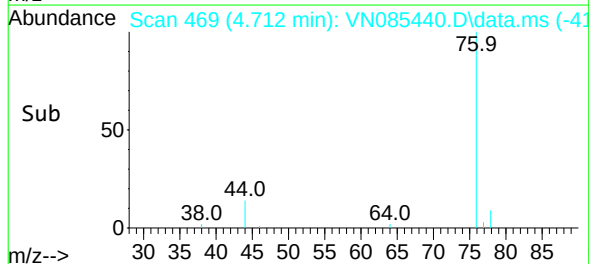
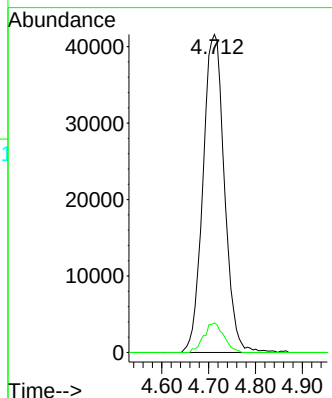
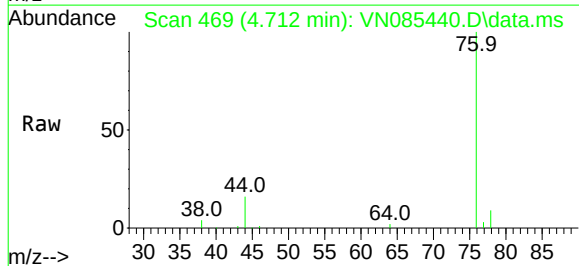
78 9.3 6.9 10.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#18

Methyl Acetate

Concen: 19.115 ug/l

RT: 5.018 min Scan# 521

Delta R.T. 0.000 min

Lab File: VN085440.D

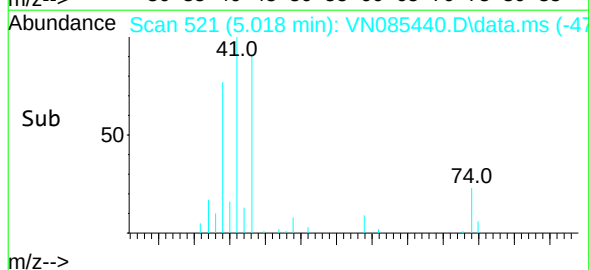
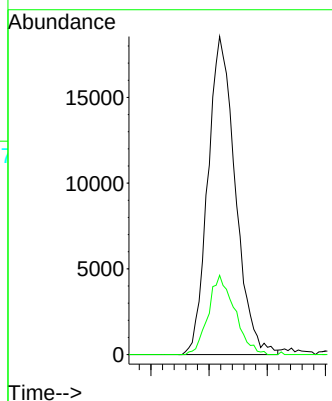
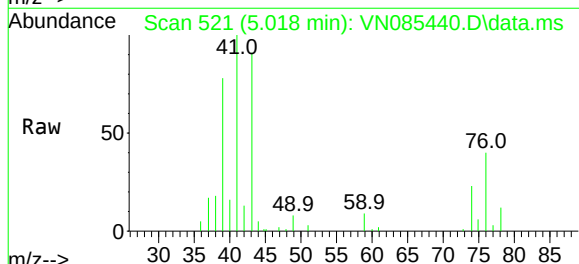
Acq: 14 Jan 2025 15:43

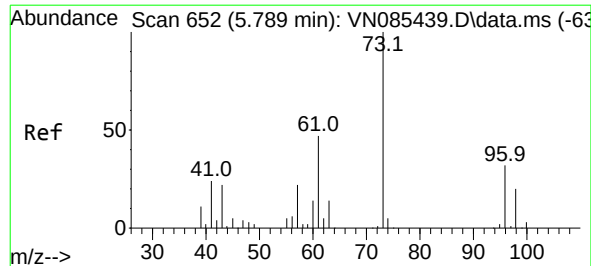
Tgt Ion: 43 Resp: 60873

Ion Ratio Lower Upper

43 100

74 24.0 18.6 28.0





#19

Methyl tert-butyl Ether

Concen: 21.272 ug/l

RT: 5.795 min Scan# 65

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 73 Resp: 148847

Ion Ratio Lower Upper

73 100

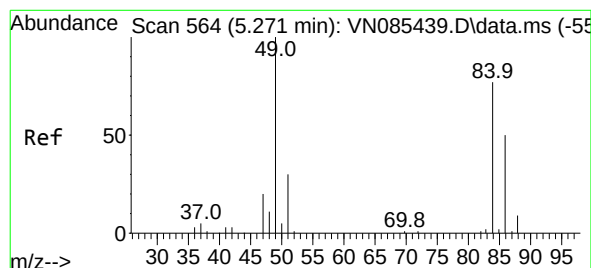
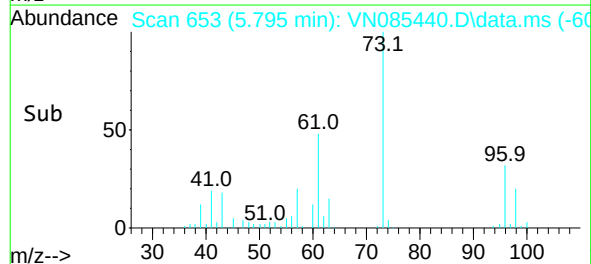
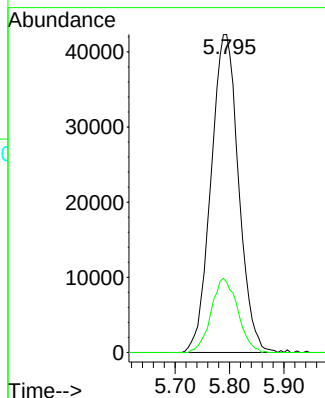
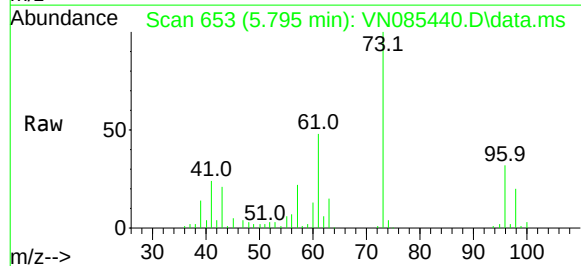
57 22.1 17.8 26.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#20

Methylene Chloride

Concen: 20.370 ug/l

RT: 5.271 min Scan# 564

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Tgt Ion: 84 Resp: 52813

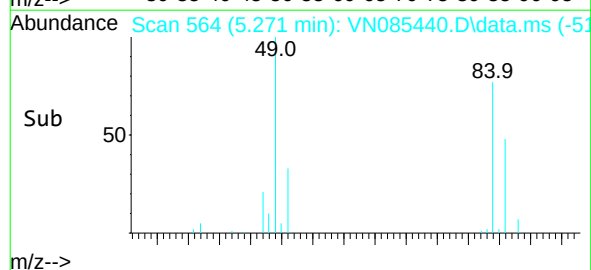
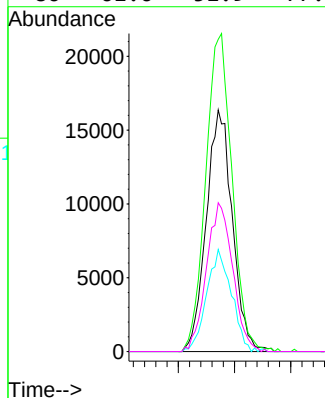
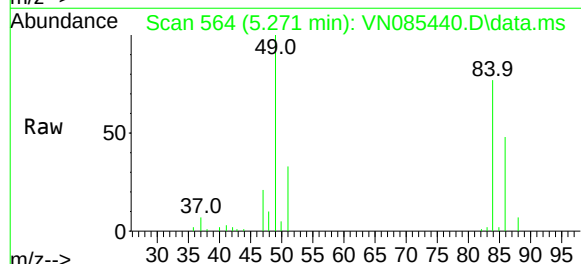
Ion Ratio Lower Upper

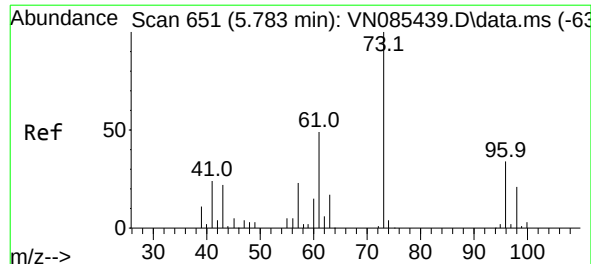
84 100

49 129.2 104.1 156.1

51 42.2 31.0 46.4

86 61.6 51.9 77.9





#21

trans-1,2-Dichloroethene

Concen: 20.023 ug/l

RT: 5.789 min Scan# 651

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 96 Resp: 46115

Ion Ratio Lower Upper

96 100

61 146.1 115.7 173.5

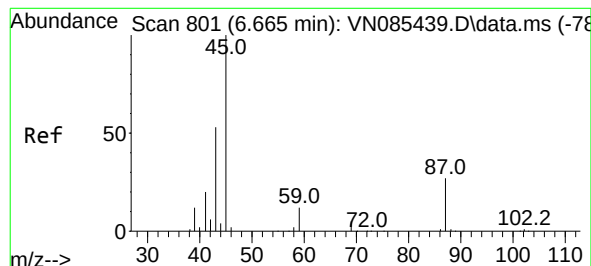
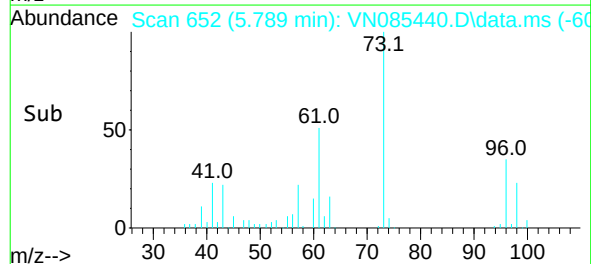
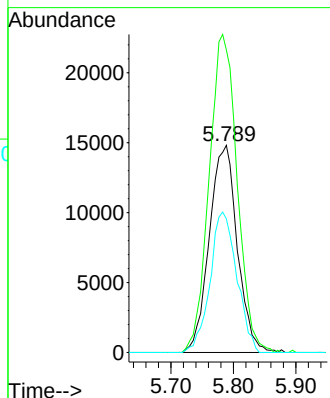
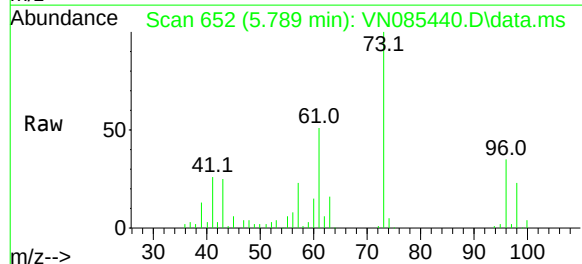
98 64.5 49.8 74.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#22

Diisopropyl ether

Concen: 21.480 ug/l

RT: 6.671 min Scan# 802

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Tgt Ion: 45 Resp: 166719

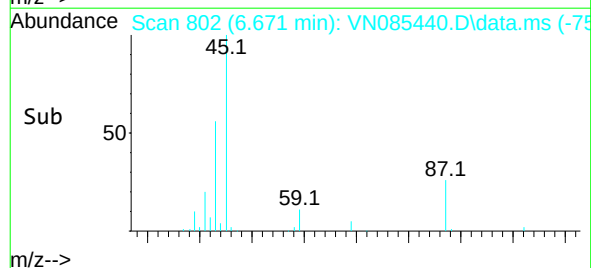
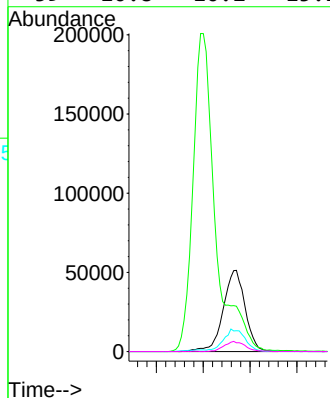
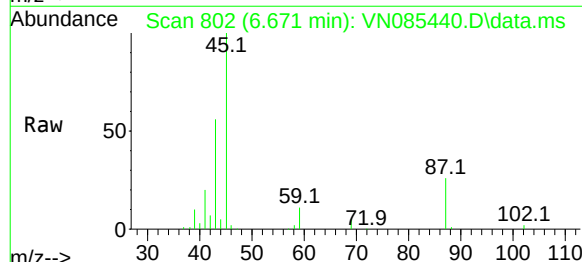
Ion Ratio Lower Upper

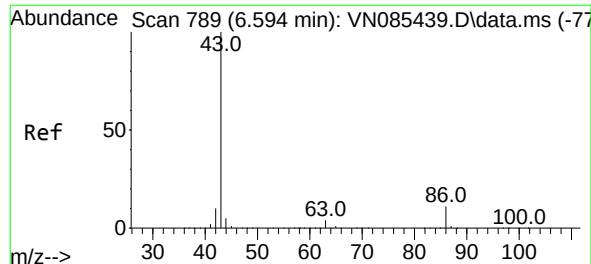
45 100

43 54.3 45.0 67.6

87 25.3 21.8 32.8

59 10.8 10.2 15.2





#23

Vinyl Acetate

Concen: 107.984 ug/l m

RT: 6.594 min Scan# 789

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 43 Resp: 588567

Ion Ratio Lower Upper

43 100

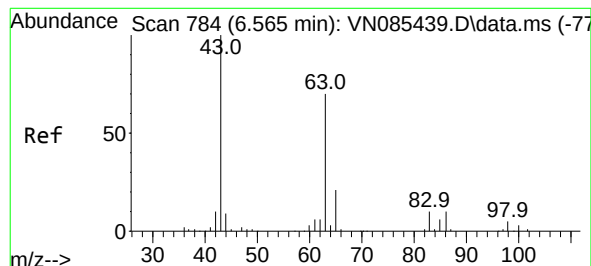
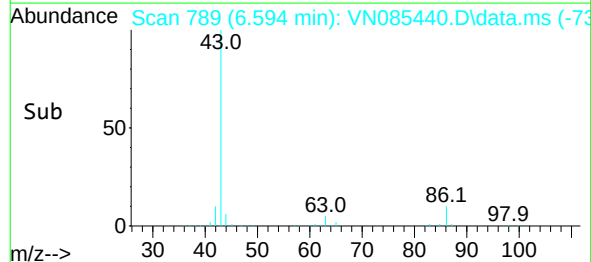
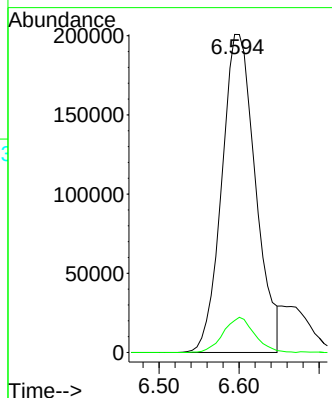
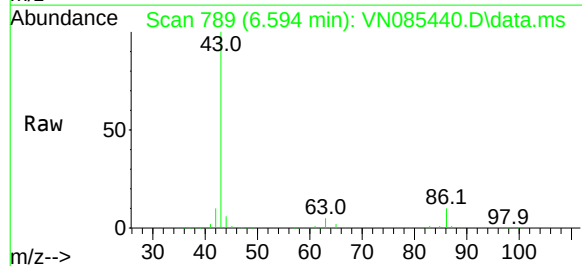
86 10.1 8.4 12.6

Manual Integrations

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Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#24

1,1-Dichloroethane

Concen: 20.469 ug/l

RT: 6.565 min Scan# 784

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

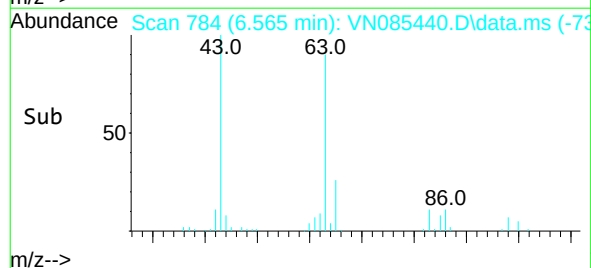
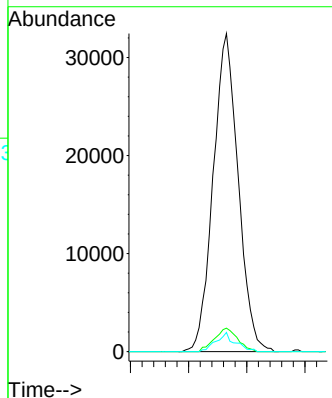
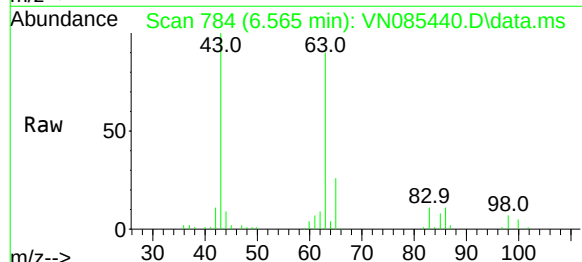
Tgt Ion: 63 Resp: 96875

Ion Ratio Lower Upper

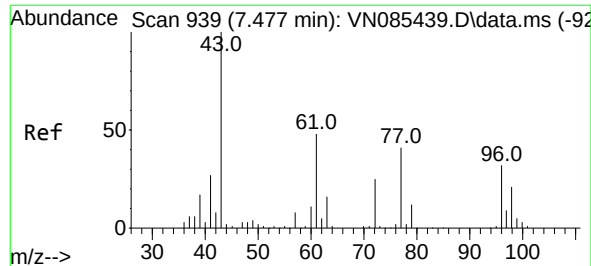
63 100

98 7.4 3.3 9.8

100 6.0 2.0 6.0#







#25

2-Butanone

Concen: 103.786 ug/l

RT: 7.477 min Scan# 93

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Tgt Ion: 43 Resp: 159952

Ion Ratio Lower Upper

43 100

72 24.1 20.2 30.4

Instrument :

MSVOA\_N

ClientSampleId :

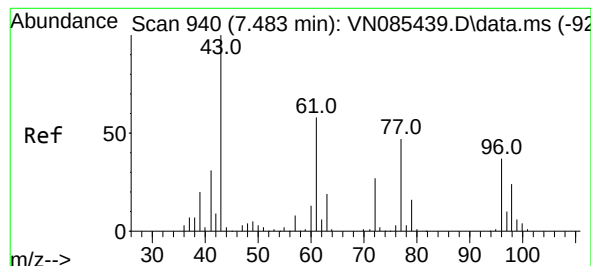
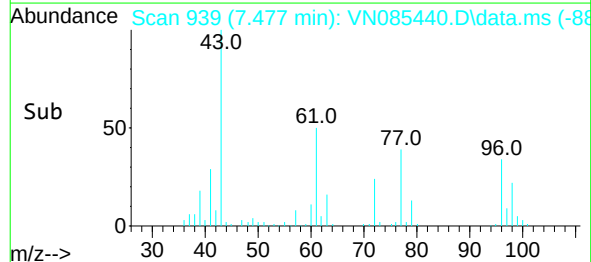
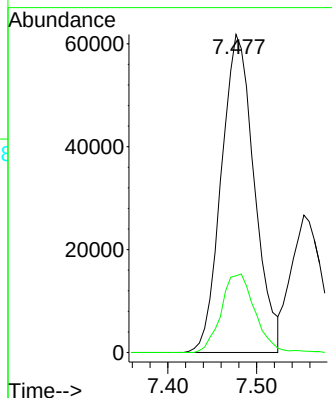
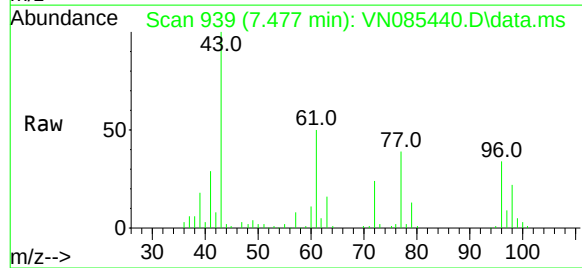
VSTDICC020

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#26

2,2-Dichloropropane

Concen: 20.684 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.000 min

Lab File: VN085440.D

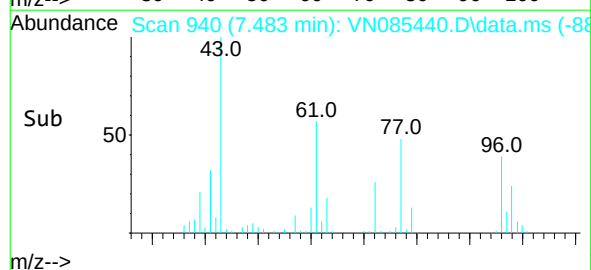
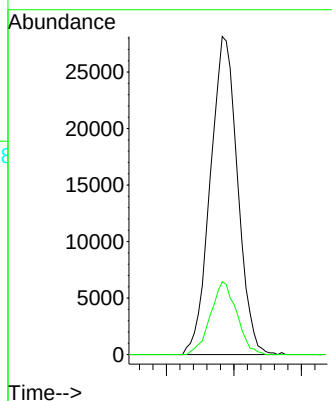
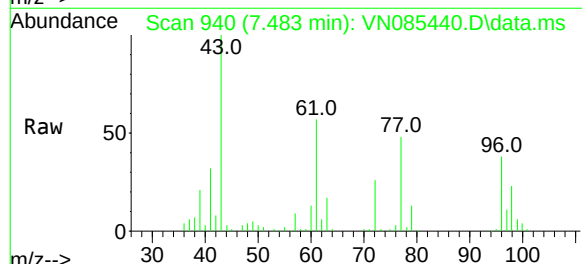
Acq: 14 Jan 2025 15:43

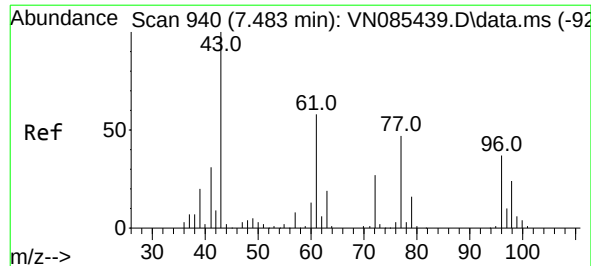
Tgt Ion: 77 Resp: 79145

Ion Ratio Lower Upper

77 100

97 22.0 10.7 32.1





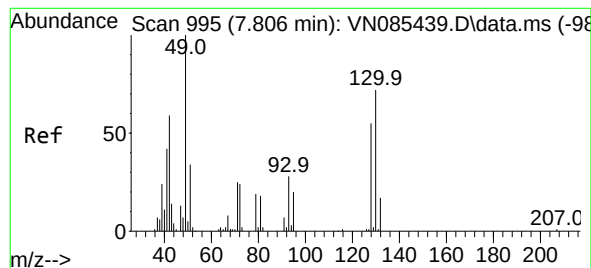
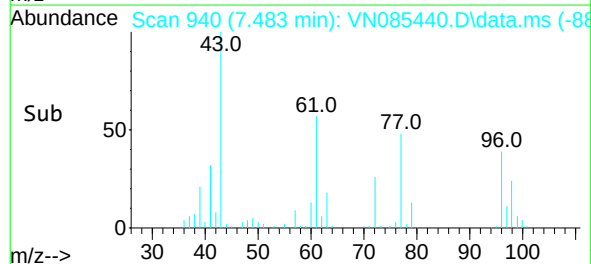
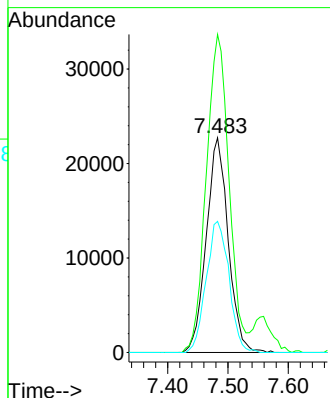
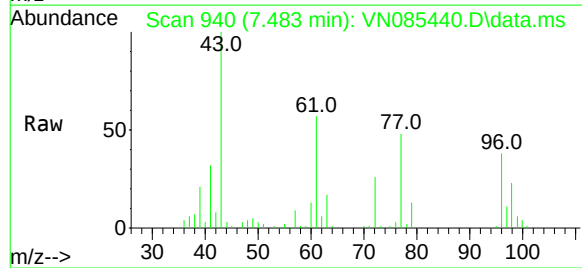
#27  
 cis-1,2-Dichloroethene  
 Concen: 21.180 ug/l  
 RT: 7.483 min Scan# 940  
 Delta R.T. 0.000 min  
 Lab File: VN085440.D  
 Acq: 14 Jan 2025 15:43

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC020

Tgt Ion: 96 Resp: 57454  
 Ion Ratio Lower Upper  
 96 100  
 61 153.0 0.0 311.8  
 98 63.7 0.0 126.0

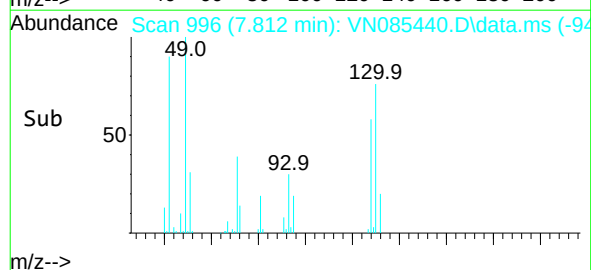
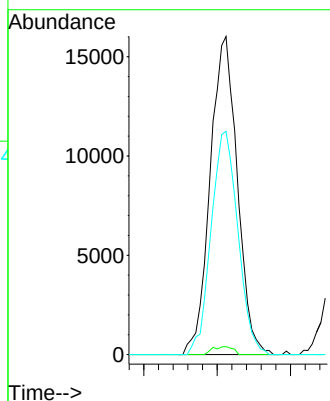
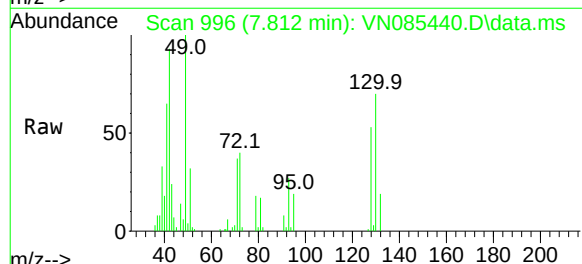
Manual Integrations  
 APPROVED

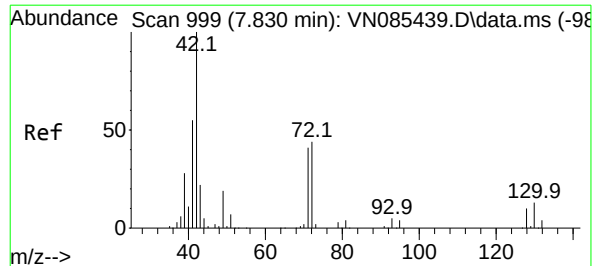
Reviewed By :John Carlone 01/15/2025  
 Supervised By :Mahesh Dadoda 01/15/2025



#28  
 Bromochloromethane  
 Concen: 18.703 ug/l  
 RT: 7.812 min Scan# 996  
 Delta R.T. 0.006 min  
 Lab File: VN085440.D  
 Acq: 14 Jan 2025 15:43

Tgt Ion: 49 Resp: 41181  
 Ion Ratio Lower Upper  
 49 100  
 129 1.9 0.0 4.4  
 130 69.3 55.0 82.4





#29

Tetrahydrofuran

Concen: 107.247 ug/l

RT: 7.836 min Scan# 10

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 42 Resp: 104792

Ion Ratio Lower Upper

42 100

72 42.6 34.2 51.2

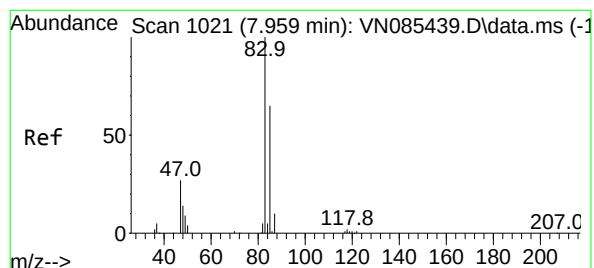
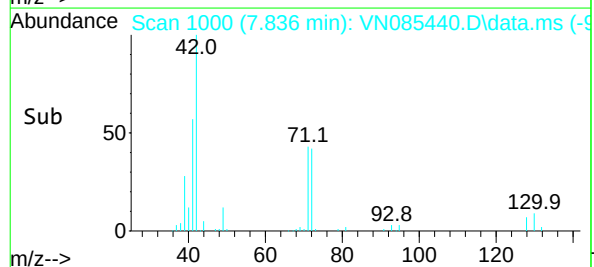
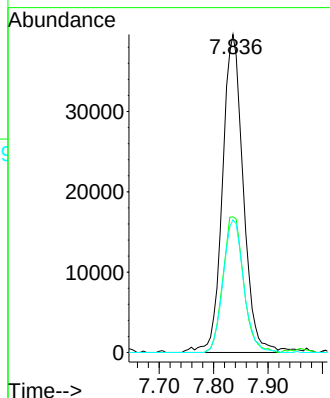
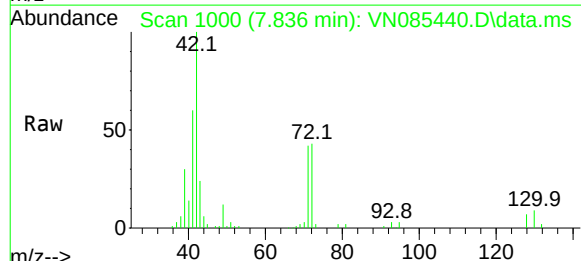
71 41.4 32.5 48.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#30

Chloroform

Concen: 20.374 ug/l

RT: 7.959 min Scan# 1021

Delta R.T. 0.000 min

Lab File: VN085440.D

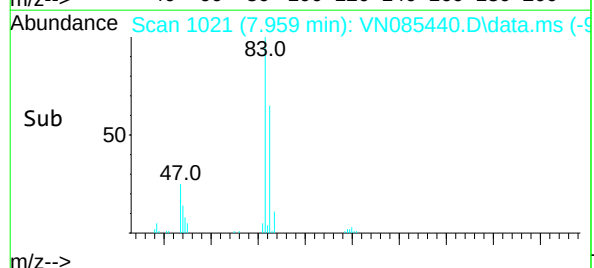
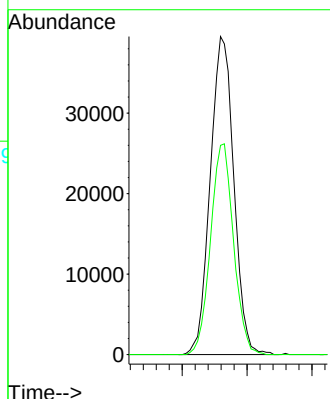
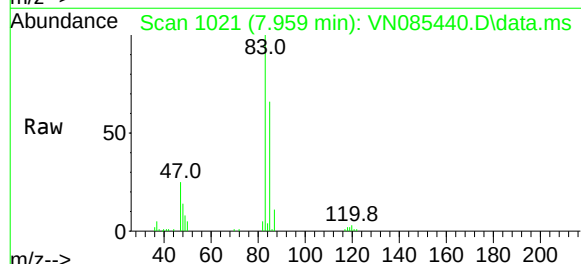
Acq: 14 Jan 2025 15:43

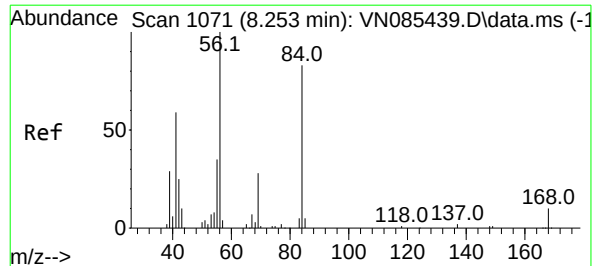
Tgt Ion: 83 Resp: 99655

Ion Ratio Lower Upper

83 100

85 65.8 51.8 77.6





#31

Cyclohexane

Concen: 20.173 ug/l

RT: 8.253 min Scan# 1071

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 56 Resp: 82980

Ion Ratio Lower Upper

56 100

69 31.2 22.2 33.4

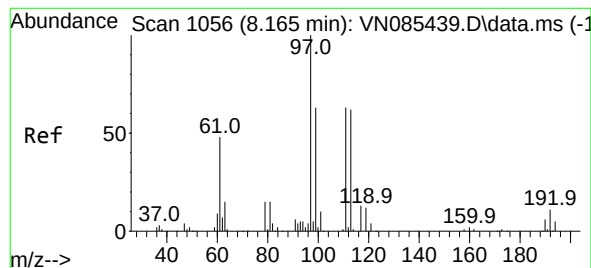
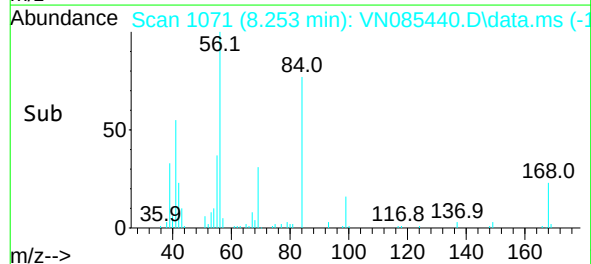
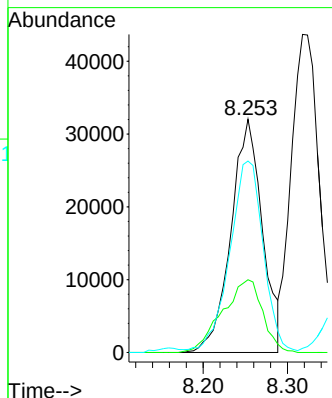
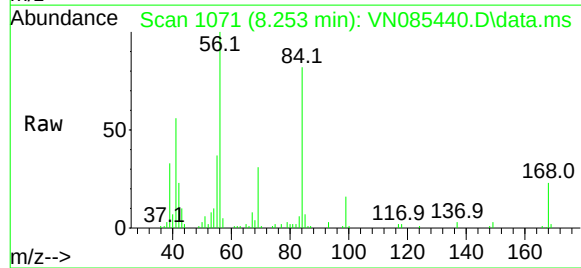
84 80.8 66.4 99.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#32

1,1,1-Trichloroethane

Concen: 20.431 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

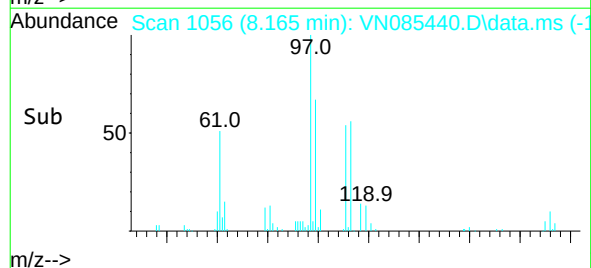
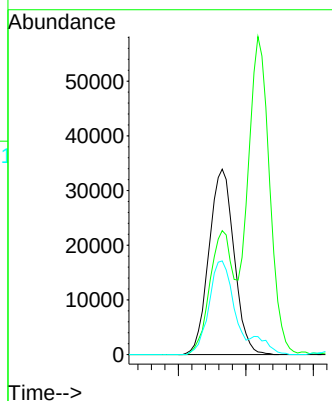
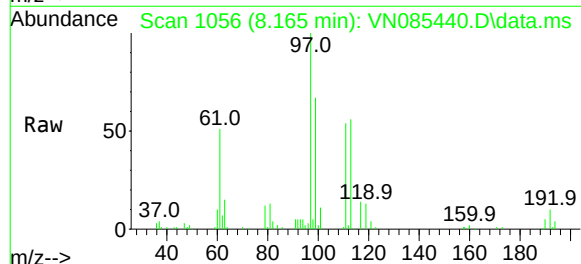
Tgt Ion: 97 Resp: 87659

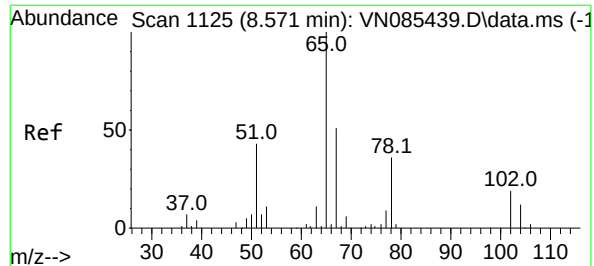
Ion Ratio Lower Upper

97 100

99 64.2 49.8 74.6

61 50.3 41.4 62.2





#33

1,2-Dichloroethane-d4

Concen: 18.694 ug/l

RT: 8.571 min Scan# 1125

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 65 Resp: 60593

Ion Ratio Lower Upper

65 100

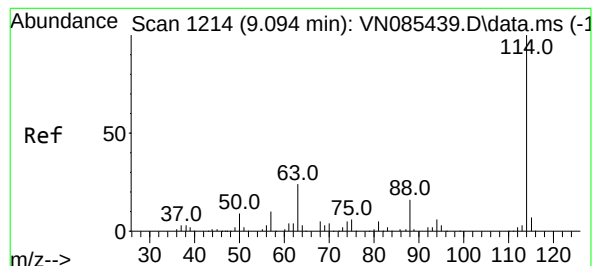
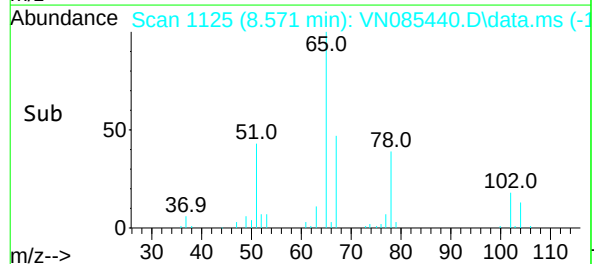
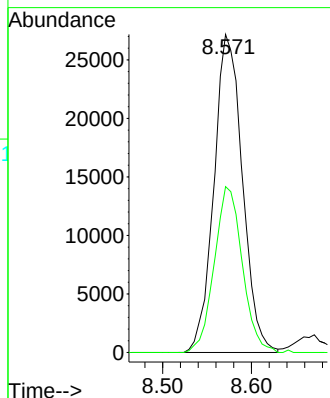
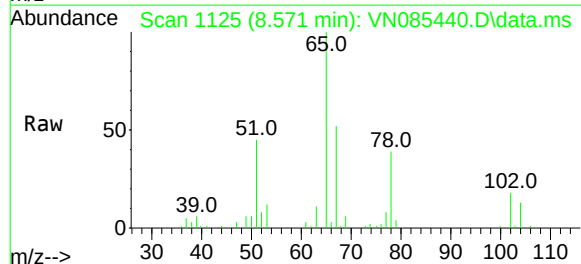
67 51.2 0.0 101.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.094 min Scan# 1214

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

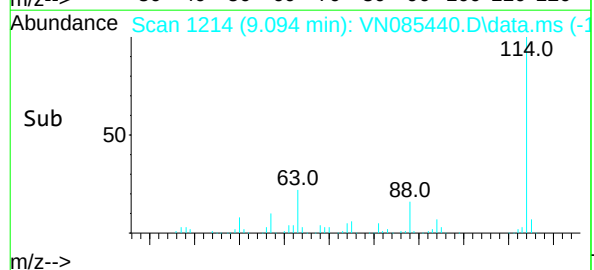
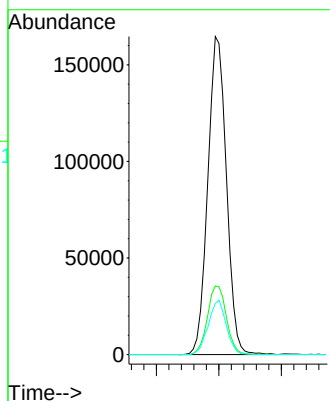
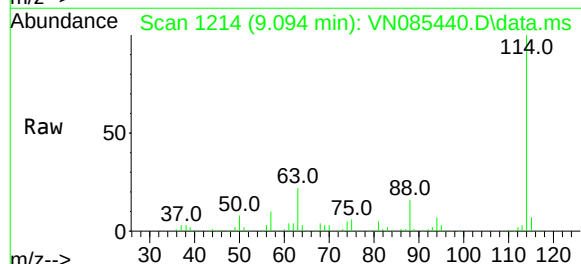
Tgt Ion:114 Resp: 340593

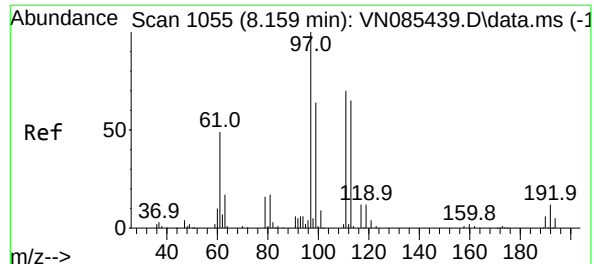
Ion Ratio Lower Upper

114 100

63 21.6 0.0 47.6

88 16.0 0.0 32.6





#35

Dibromofluoromethane

Concen: 19.322 ug/l

RT: 8.165 min Scan# 1055

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 113 Resp: 45655

Ion Ratio Lower Upper

113 100

111 100.6 82.7 124.1

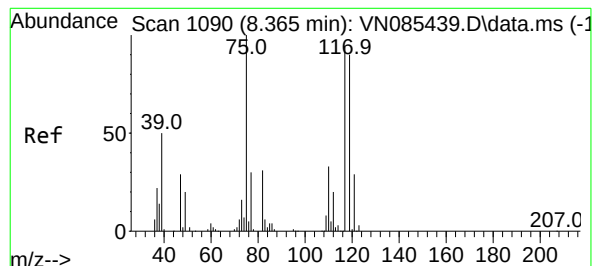
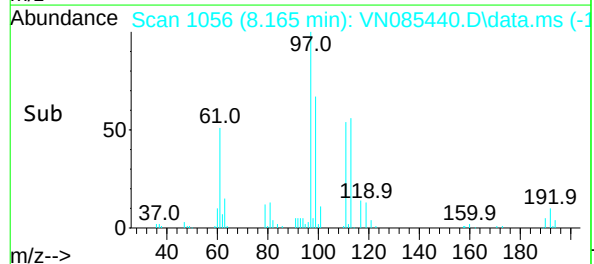
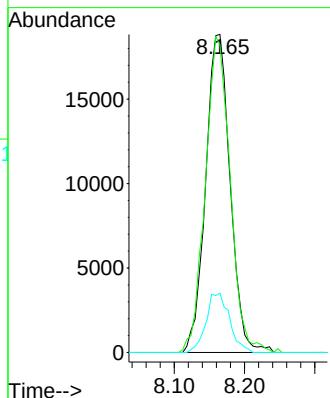
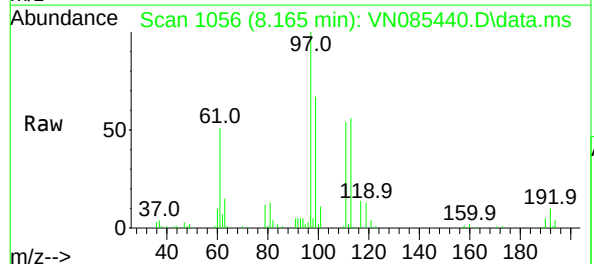
192 17.9 14.3 21.5

Manual Integrations

APPROVED

Reviewed By : John Carlone 01/15/2025

Supervised By : Mahesh Dadoda 01/15/2025



#36

1,1-Dichloropropene

Concen: 20.490 ug/l

RT: 8.371 min Scan# 1091

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

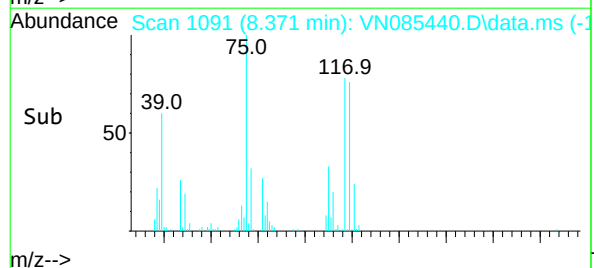
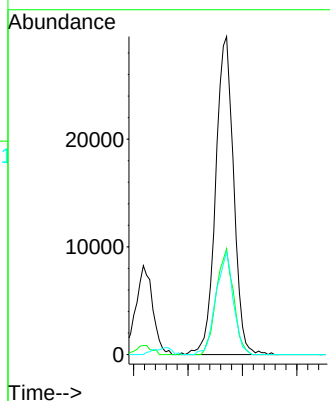
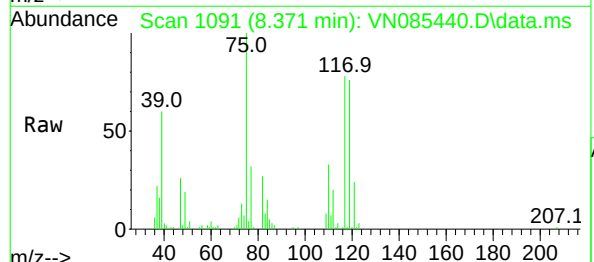
Tgt Ion: 75 Resp: 67949

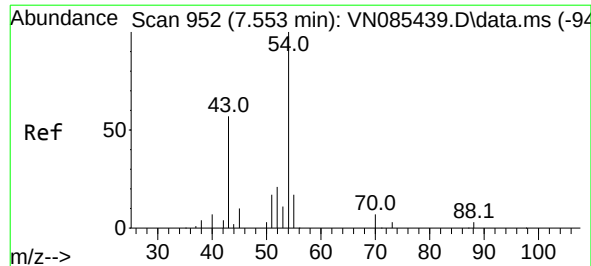
Ion Ratio Lower Upper

75 100

110 31.8 16.5 49.5

77 31.1 24.4 36.6





#37

Ethyl Acetate

Concen: 19.850 ug/l

RT: 7.553 min Scan# 952

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

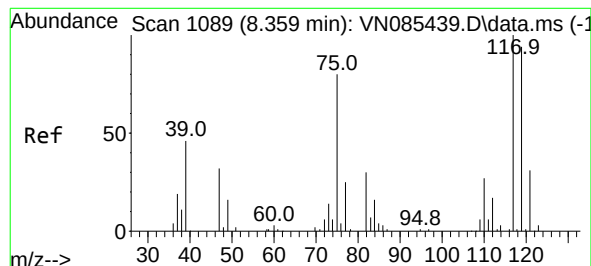
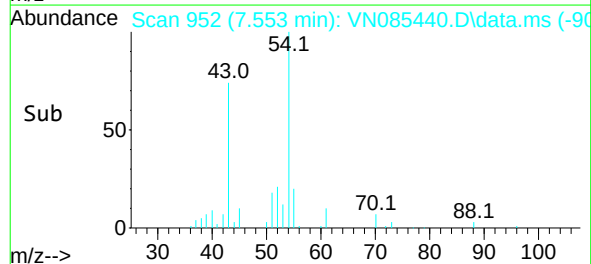
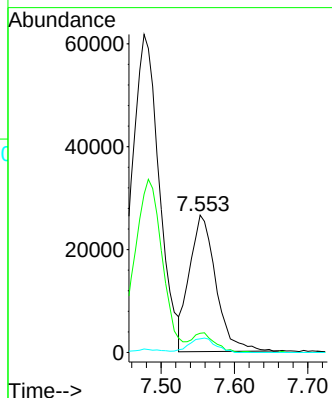
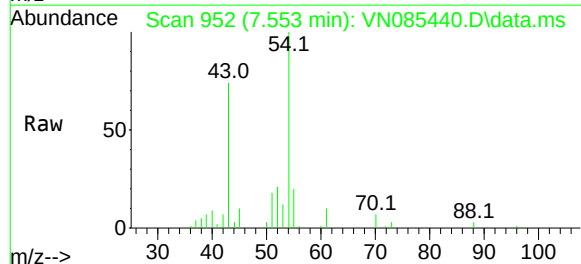
VSTDICC020

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 66443 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 11.9  | 10.9  | 16.3  |
| 70       | 10.6  | 7.5   | 11.3  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#38

Carbon Tetrachloride

Concen: 20.767 ug/l

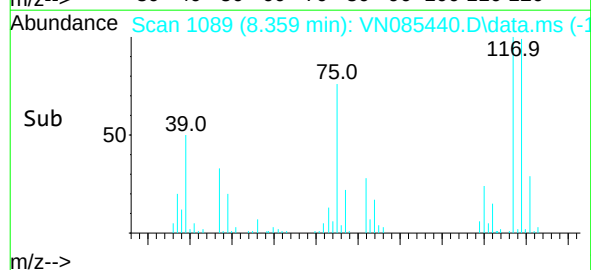
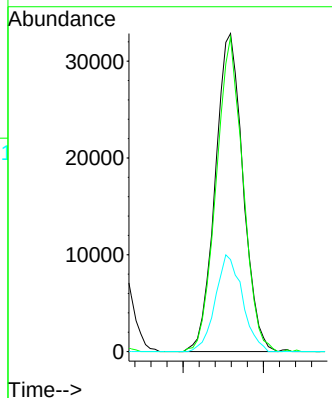
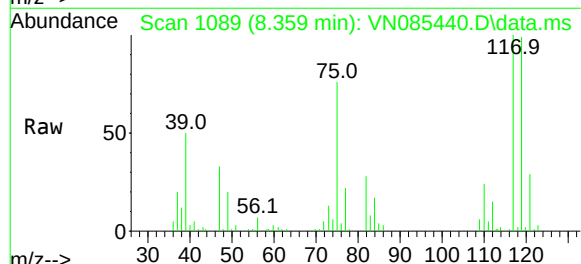
RT: 8.359 min Scan# 1089

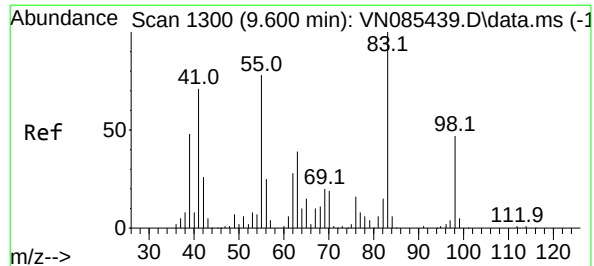
Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 78842 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 119      | 98.9  | 75.4  | 113.2 |
| 121      | 28.9  | 24.6  | 37.0  |





#39

Methylcyclohexane

Concen: 20.862 ug/l

RT: 9.594 min Scan# 12

Delta R.T. -0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 83 Resp: 65012

Ion Ratio Lower Upper

83 100

55 83.4 62.6 94.0

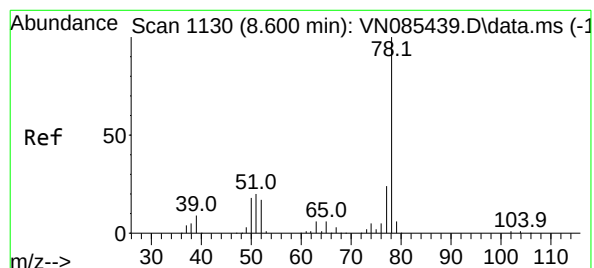
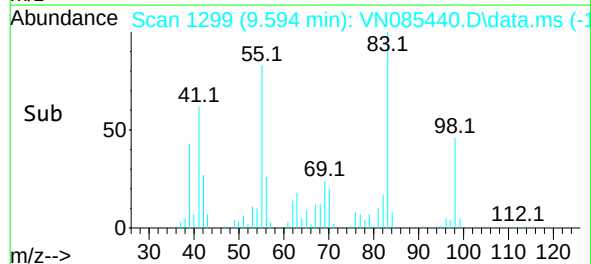
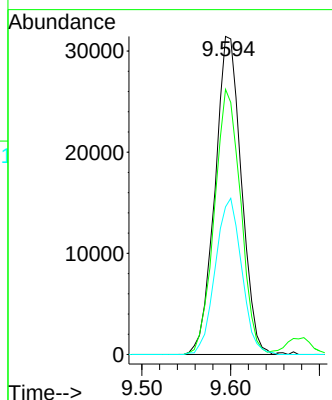
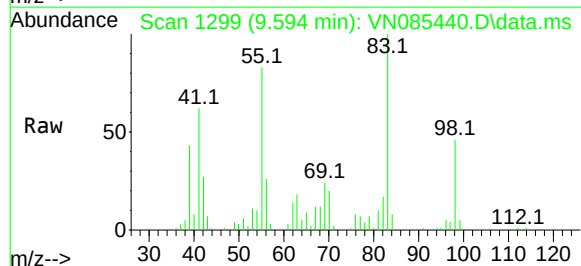
98 46.4 37.7 56.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#40

Benzene

Concen: 20.873 ug/l

RT: 8.600 min Scan# 1130

Delta R.T. 0.000 min

Lab File: VN085440.D

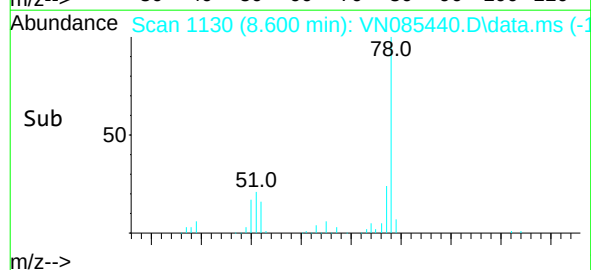
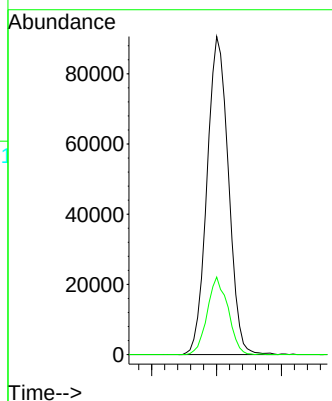
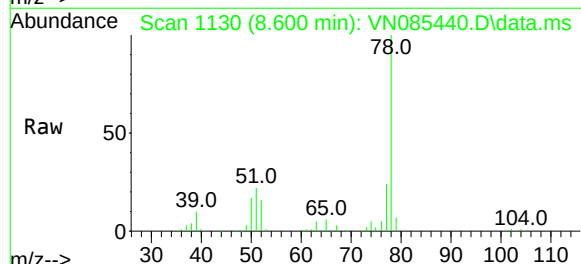
Acq: 14 Jan 2025 15:43

Tgt Ion: 78 Resp: 207985

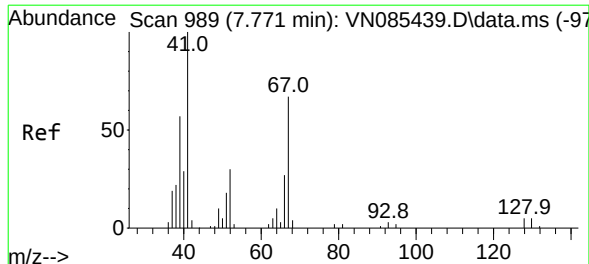
Ion Ratio Lower Upper

78 100

77 24.4 19.0 28.6







#41

Methacrylonitrile

Concen: 21.004 ug/l

RT: 7.771 min Scan# 989

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 41 Resp: 36578

Ion Ratio Lower Upper

41 100

39 56.6 46.0 69.0

67 70.3 57.4 86.2

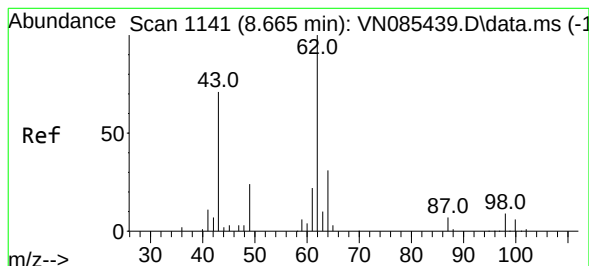
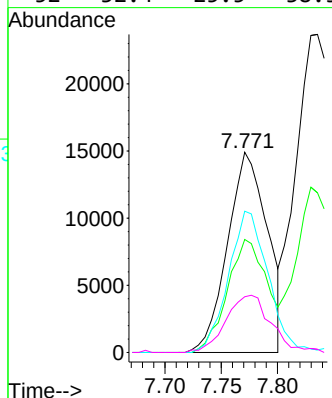
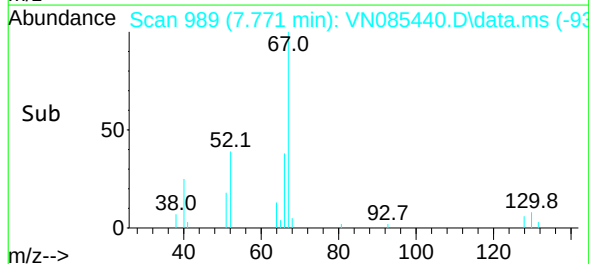
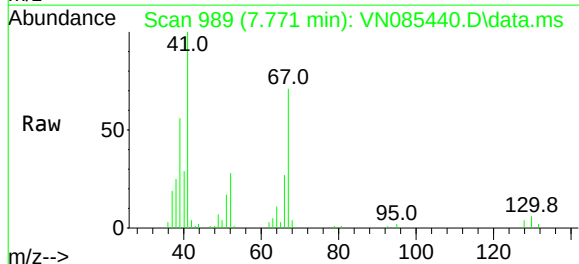
52 32.4 25.5 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#42

1,2-Dichloroethane

Concen: 20.891 ug/l

RT: 8.665 min Scan# 1141

Delta R.T. 0.000 min

Lab File: VN085440.D

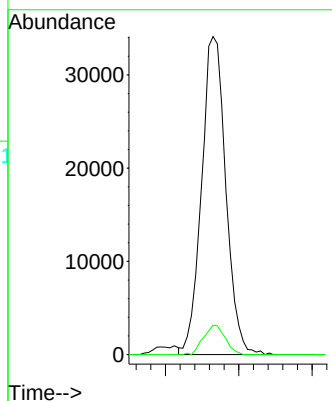
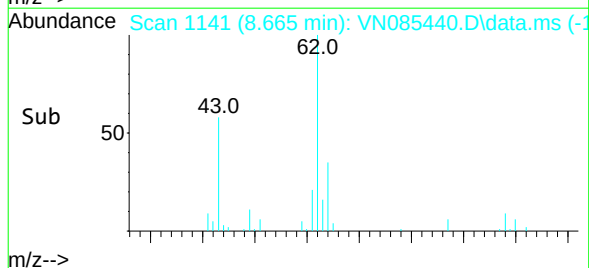
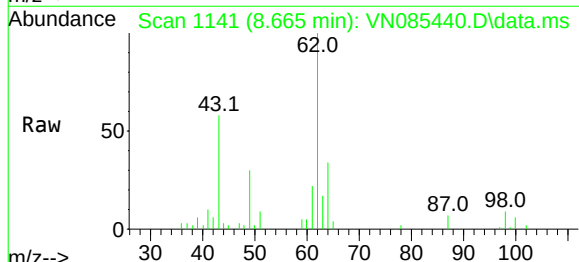
Acq: 14 Jan 2025 15:43

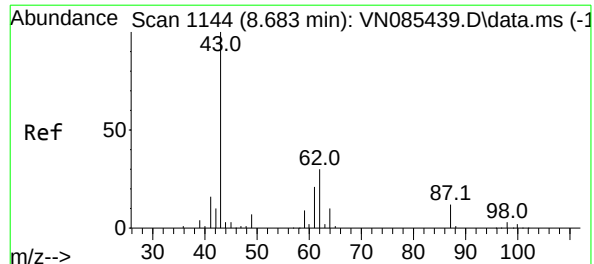
Tgt Ion: 62 Resp: 78402

Ion Ratio Lower Upper

62 100

98 8.3 0.0 17.0





#43

Isopropyl Acetate

Concen: 20.347 ug/l

RT: 8.683 min Scan# 11

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 43 Resp: 109131

Ion Ratio Lower Upper

43 100

61 27.2 20.7 31.1

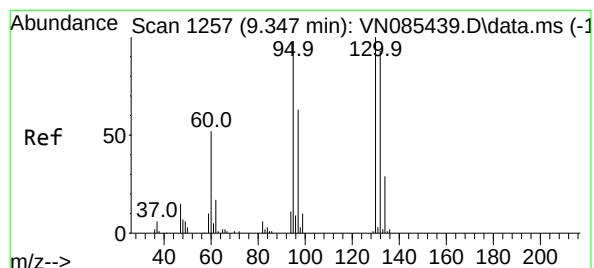
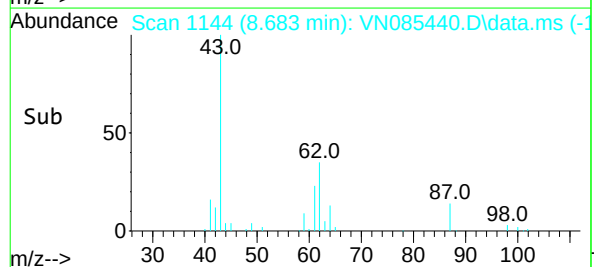
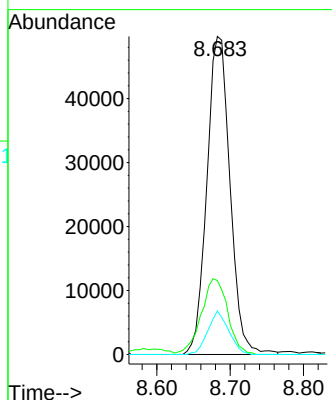
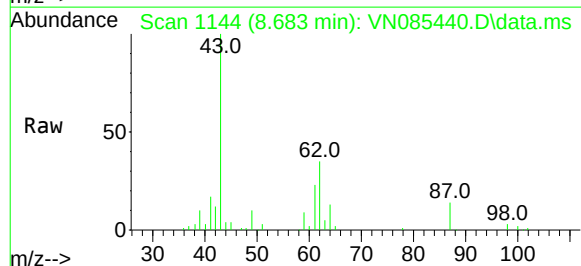
87 12.3 9.8 14.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#44

Trichloroethene

Concen: 20.699 ug/l

RT: 9.347 min Scan# 1257

Delta R.T. 0.000 min

Lab File: VN085440.D

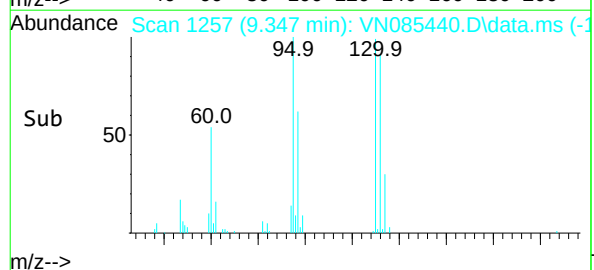
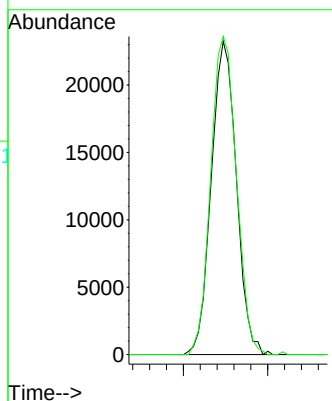
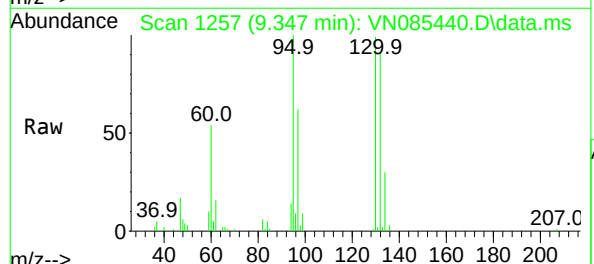
Acq: 14 Jan 2025 15:43

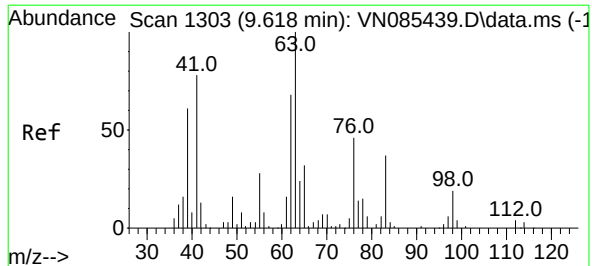
Tgt Ion:130 Resp: 48009

Ion Ratio Lower Upper

130 100

95 101.5 0.0 195.8





#45

1,2-Dichloropropane

Concen: 20.758 ug/l

RT: 9.618 min Scan# 13

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 63 Resp: 52833

Ion Ratio Lower Upper

63 100

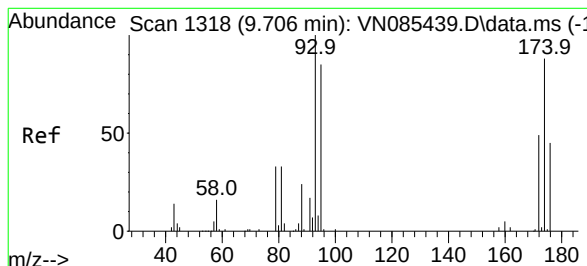
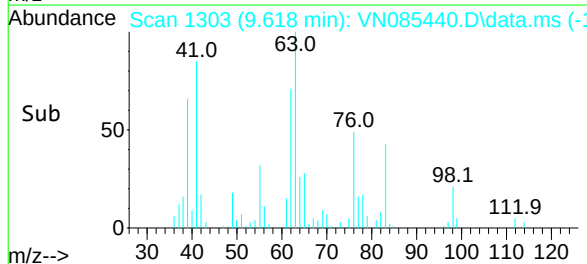
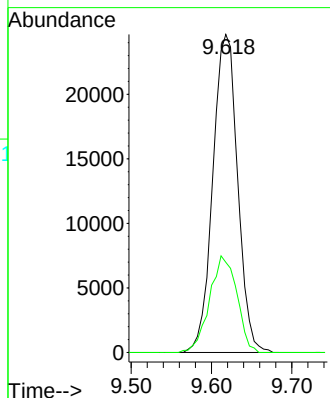
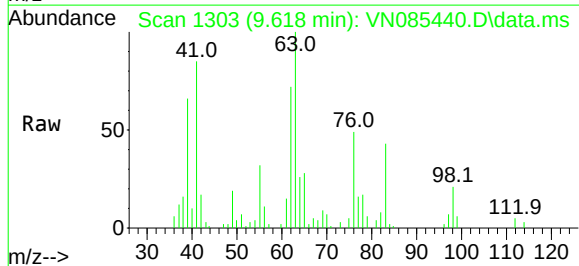
65 28.3 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#46

Dibromomethane

Concen: 20.540 ug/l

RT: 9.700 min Scan# 1317

Delta R.T. -0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

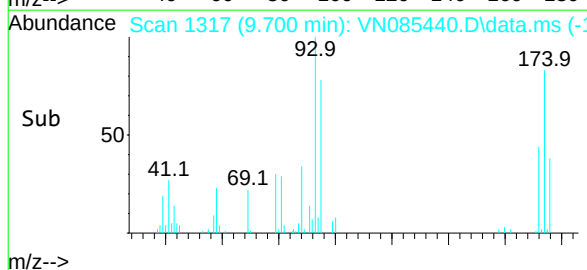
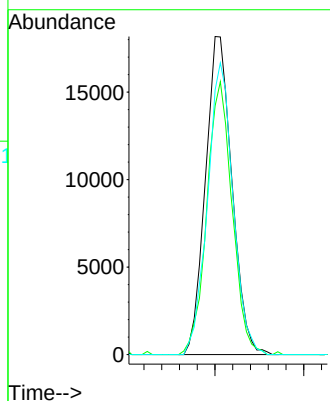
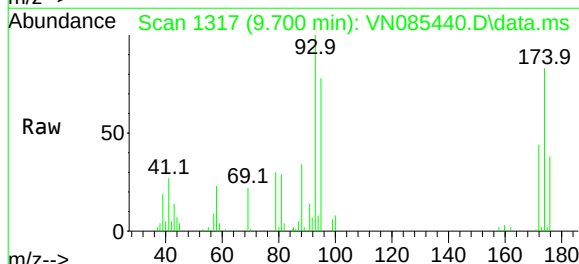
Tgt Ion: 93 Resp: 37721

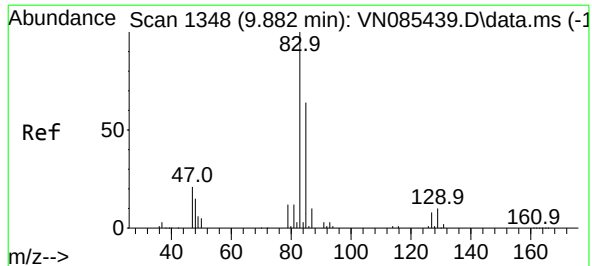
Ion Ratio Lower Upper

93 100

95 82.0 64.7 97.1

174 88.4 69.0 103.4





#47

Bromodichloromethane

Concen: 21.093 ug/l

RT: 9.882 min Scan# 1348

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

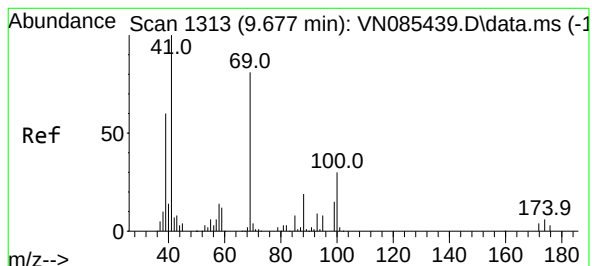
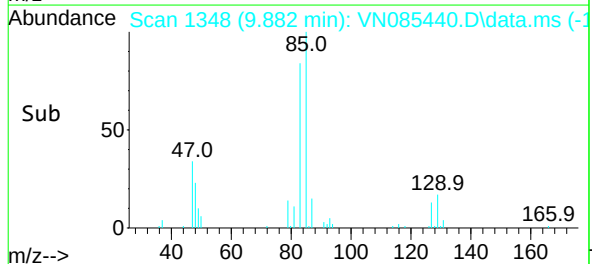
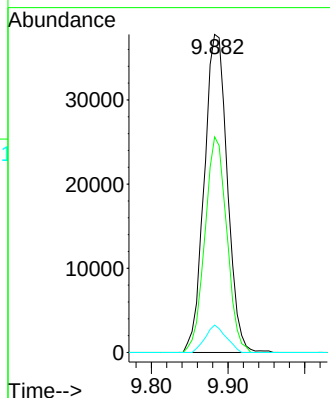
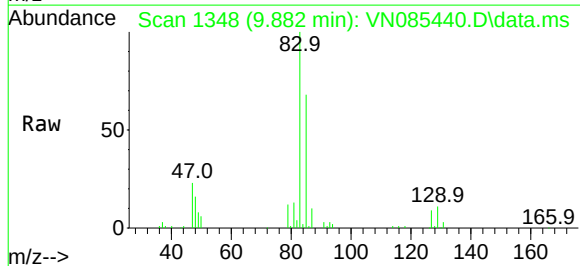
ClientSampleId :

VSTDIC020

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 78918 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 67.8  | 51.2  | 76.8  |
| 127      | 8.6   | 6.5   | 9.7   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#48

Methyl methacrylate

Concen: 20.808 ug/l

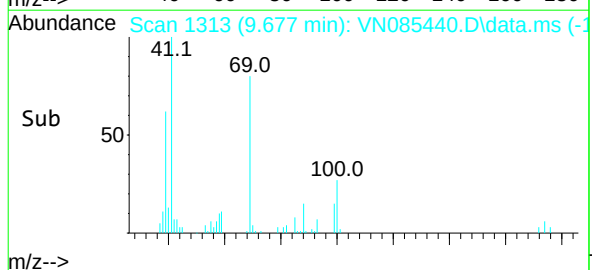
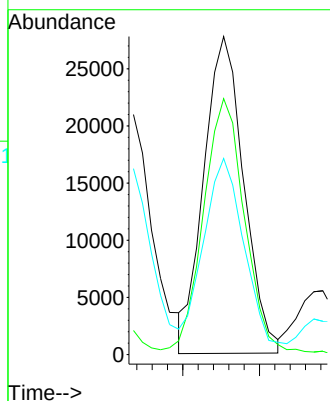
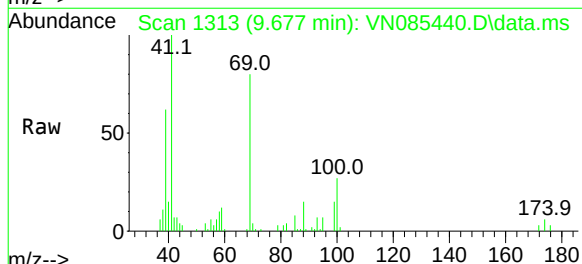
RT: 9.677 min Scan# 1313

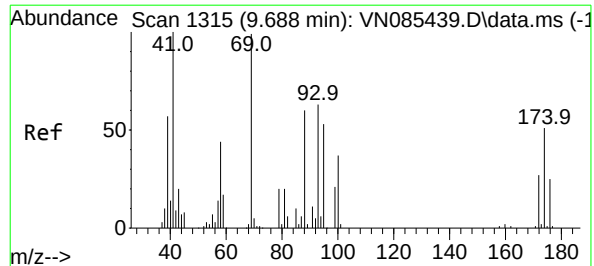
Delta R.T. -0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 50224 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 69       | 84.3  | 64.7  | 97.1  |
| 39       | 64.2  | 49.0  | 73.6  |





#49

1,4-Dioxane

Concen: 421.686 ug/l

RT: 9.688 min Scan# 1315

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 88 Resp: 17140

Ion Ratio Lower Upper

88 100

43 34.9 26.6 39.8

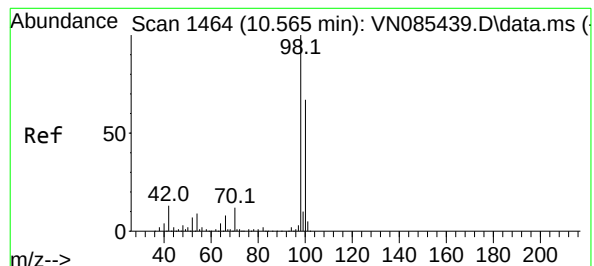
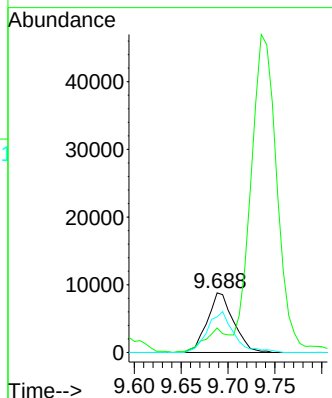
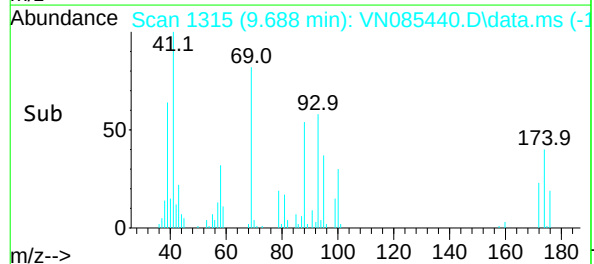
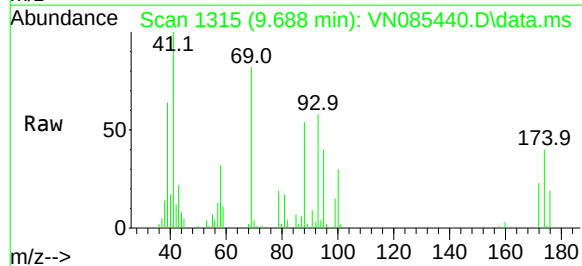
58 69.0 59.5 89.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#50

Toluene-d8

Concen: 19.581 ug/l

RT: 10.559 min Scan# 1463

Delta R.T. -0.006 min

Lab File: VN085440.D

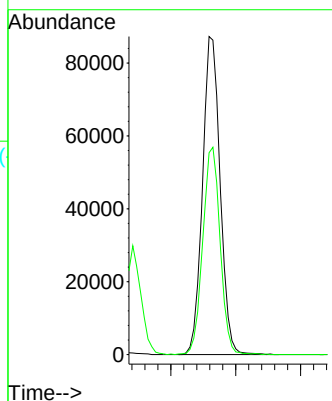
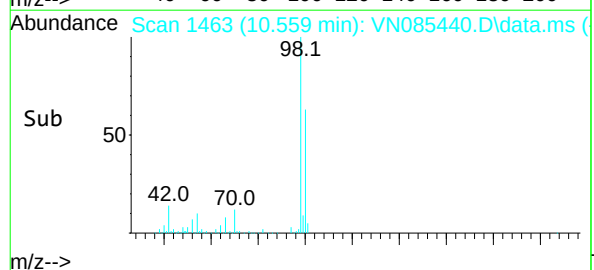
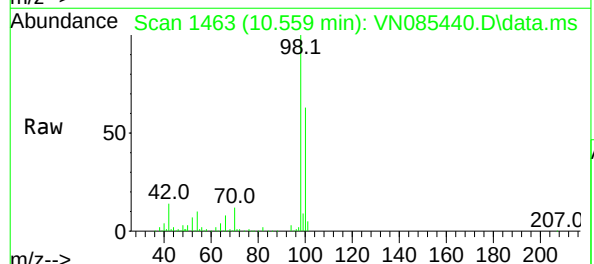
Acq: 14 Jan 2025 15:43

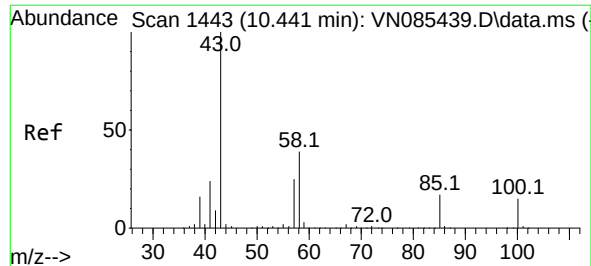
Tgt Ion: 98 Resp: 164391

Ion Ratio Lower Upper

98 100

100 64.4 52.2 78.4





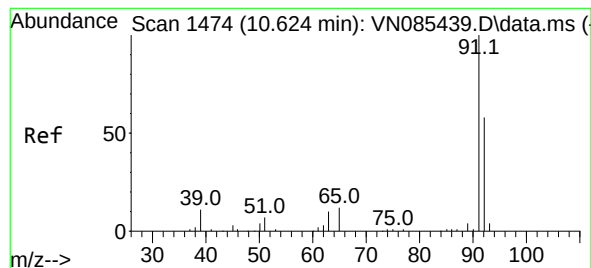
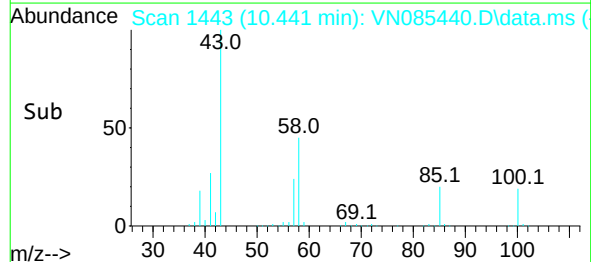
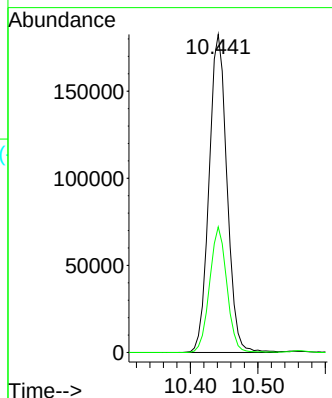
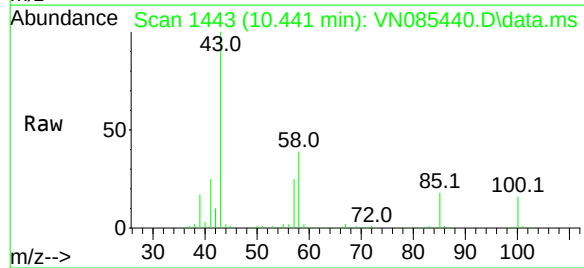
#51  
4-Methyl-2-Pentanone  
Concen: 108.249 ug/l  
RT: 10.441 min Scan# 1443  
Delta R.T. 0.000 min  
Lab File: VN085440.D  
Acq: 14 Jan 2025 15:43

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC020

Tgt Ion: 43 Resp: 336911  
Ion Ratio Lower Upper  
43 100  
58 38.1 30.5 45.7

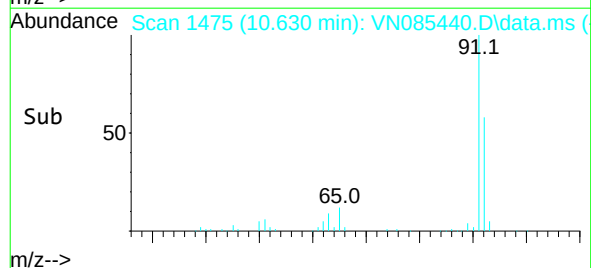
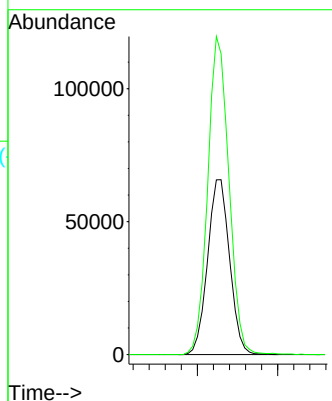
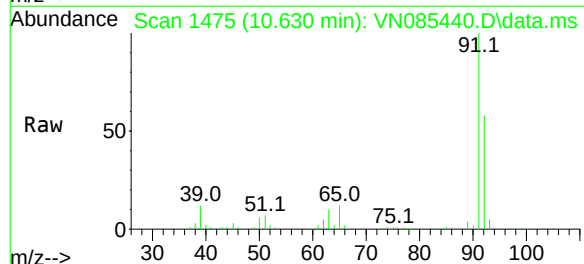
Manual Integrations  
APPROVED

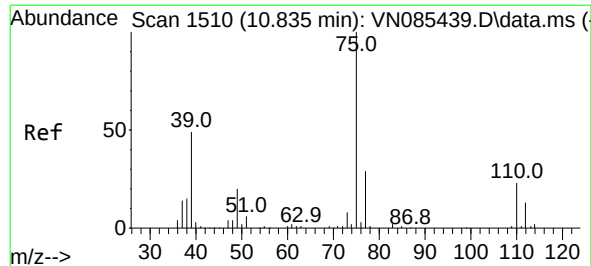
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#52  
Toluene  
Concen: 21.680 ug/l  
RT: 10.630 min Scan# 1475  
Delta R.T. 0.005 min  
Lab File: VN085440.D  
Acq: 14 Jan 2025 15:43

Tgt Ion: 92 Resp: 125172  
Ion Ratio Lower Upper  
92 100  
91 175.1 139.2 208.8





#53

t-1,3-Dichloropropene

Concen: 20.965 ug/l

RT: 10.835 min Scan# 1510

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 75 Resp: 74129

Ion Ratio Lower Upper

75 100

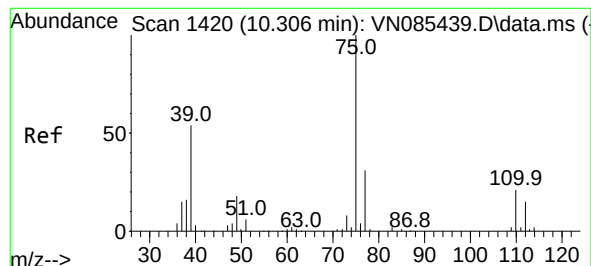
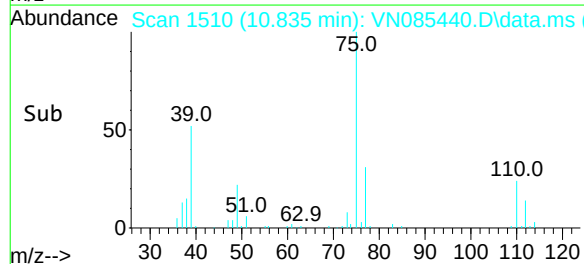
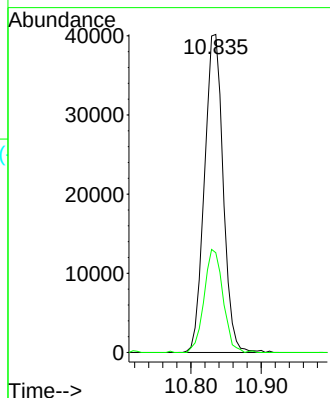
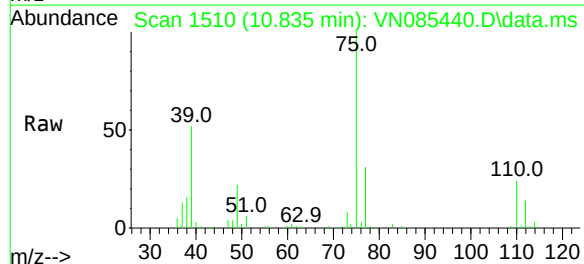
77 31.4 23.5 35.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#54

cis-1,3-Dichloropropene

Concen: 21.684 ug/l

RT: 10.306 min Scan# 1420

Delta R.T. -0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

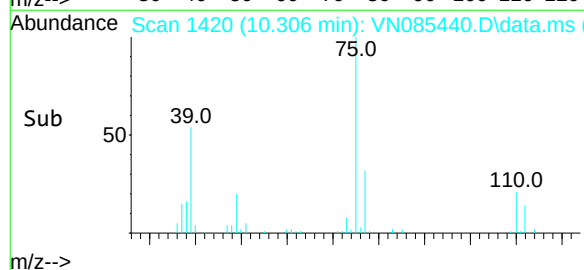
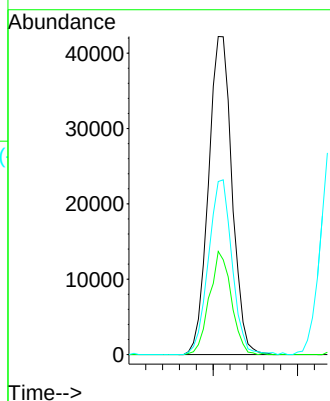
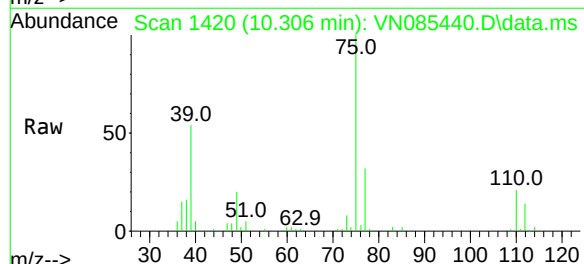
Tgt Ion: 75 Resp: 81897

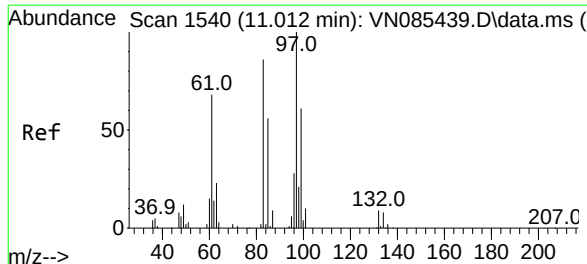
Ion Ratio Lower Upper

75 100

77 32.4 25.0 37.4

39 54.4 43.1 64.7





#55

1,1,2-Trichloroethane

Concen: 21.025 ug/l

RT: 11.012 min Scan# 1540

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 97 Resp: 48039

Ion Ratio Lower Upper

97 100

83 84.1 69.0 103.6

85 54.6 44.6 66.8

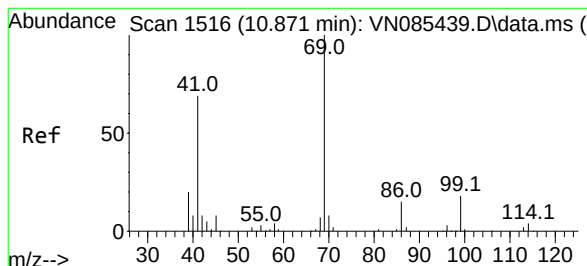
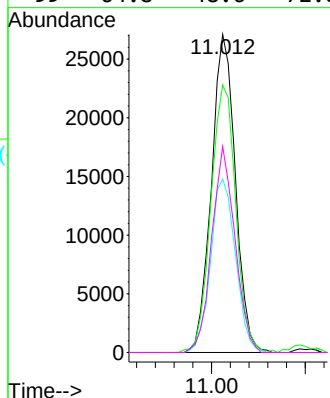
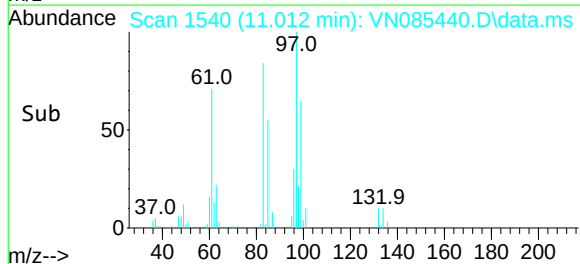
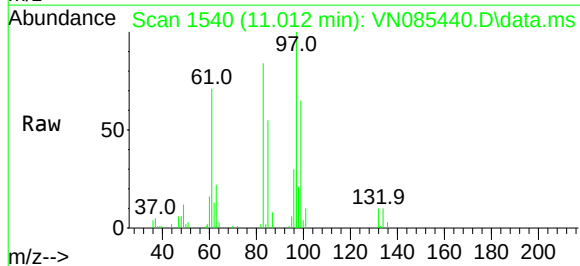
99 64.8 48.6 72.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#56

Ethyl methacrylate

Concen: 19.649 ug/l

RT: 10.871 min Scan# 1516

Delta R.T. -0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

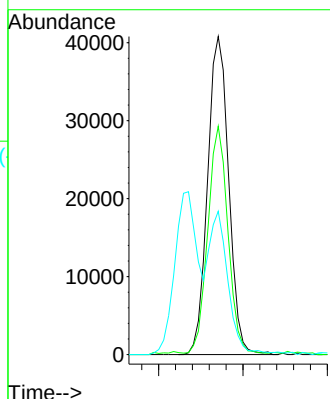
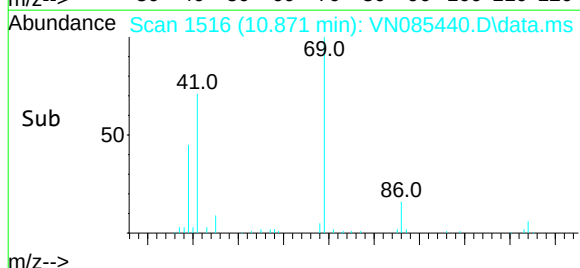
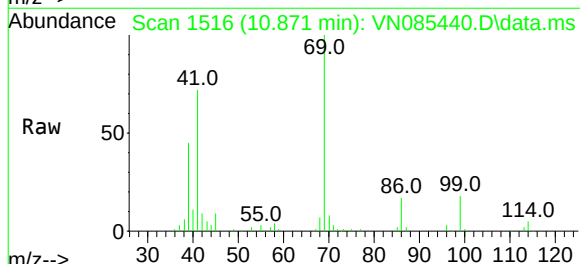
Tgt Ion: 69 Resp: 70934

Ion Ratio Lower Upper

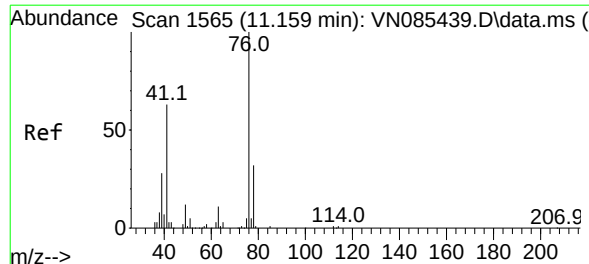
69 100

41 67.6 54.6 82.0

39 41.7 32.4 48.6







#57

1,3-Dichloropropane

Concen: 21.196 ug/l

RT: 11.159 min Scan# 1565

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Tgt Ion: 76 Resp: 84210

Ion Ratio Lower Upper

76 100

78 32.7 25.6 38.4

Instrument :

MSVOA\_N

ClientSampleId :

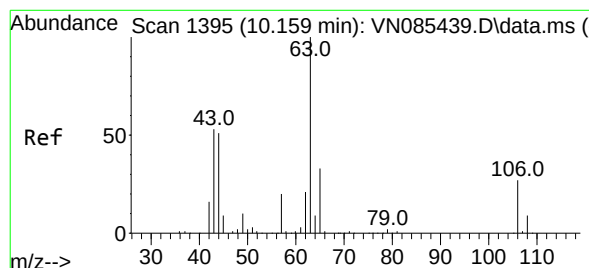
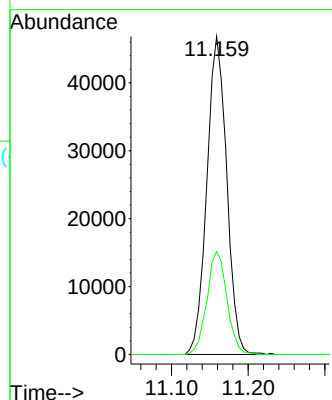
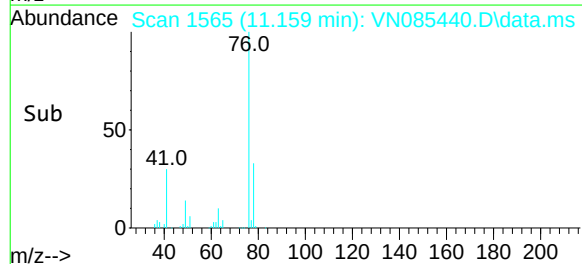
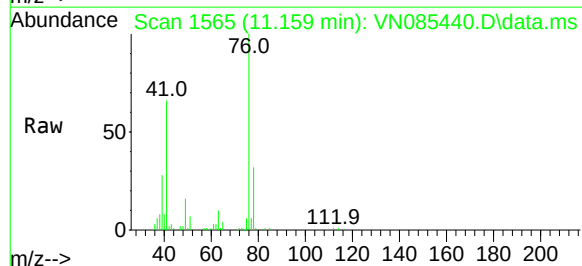
VSTDIC020

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#58

2-Chloroethyl Vinyl ether

Concen: 105.991 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. 0.000 min

Lab File: VN085440.D

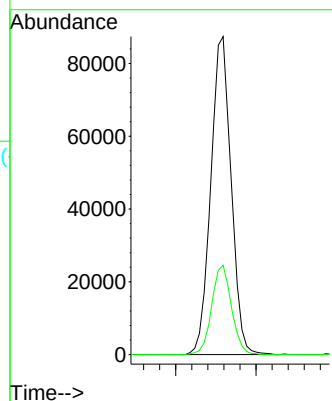
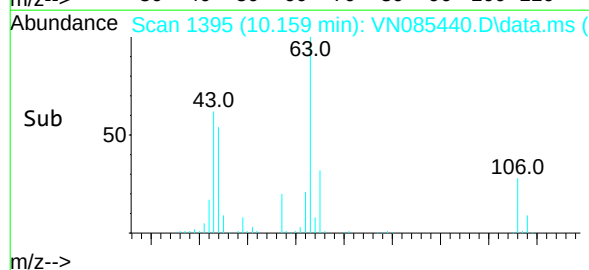
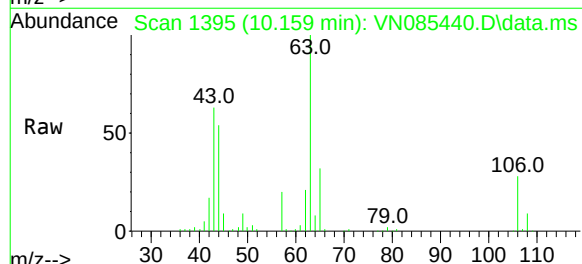
Acq: 14 Jan 2025 15:43

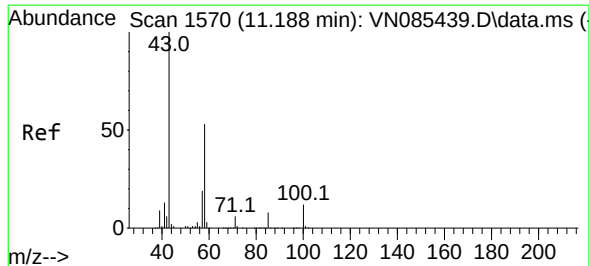
Tgt Ion: 63 Resp: 153681

Ion Ratio Lower Upper

63 100

106 27.2 21.6 32.4





#59

2-Hexanone

Concen: 109.863 ug/l

RT: 11.194 min Scan# 1570

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 43 Resp: 240595

Ion Ratio Lower Upper

43 100

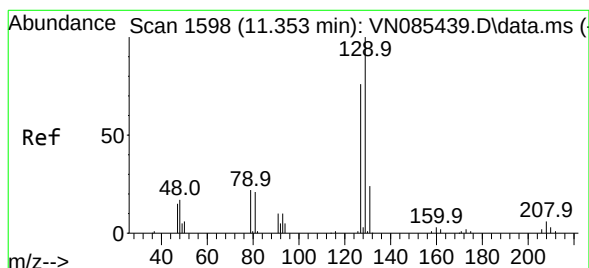
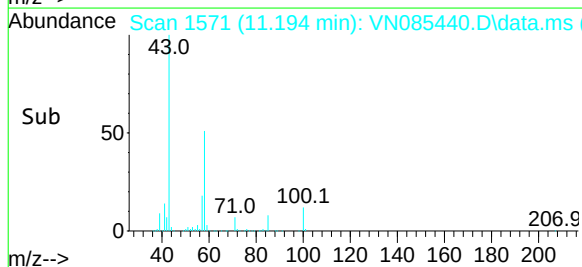
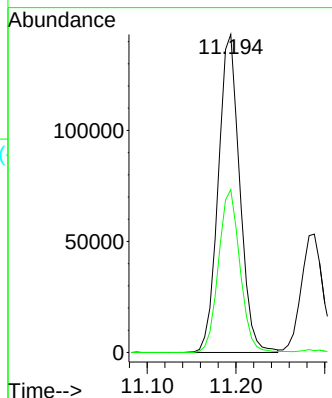
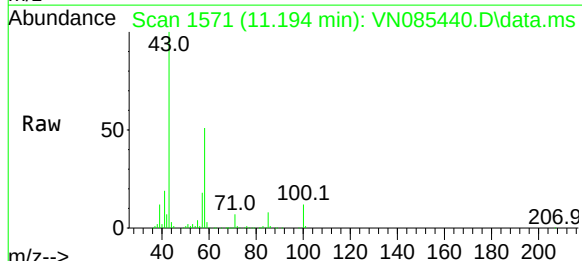
58 51.1 26.2 78.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#60

Dibromochloromethane

Concen: 20.326 ug/l

RT: 11.353 min Scan# 1598

Delta R.T. 0.000 min

Lab File: VN085440.D

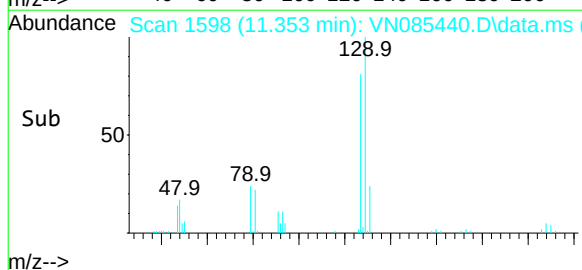
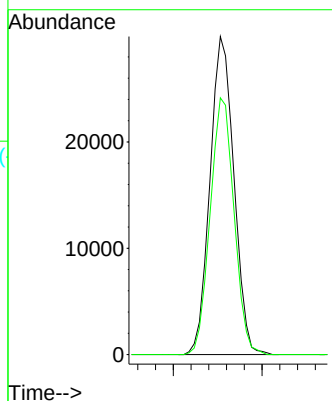
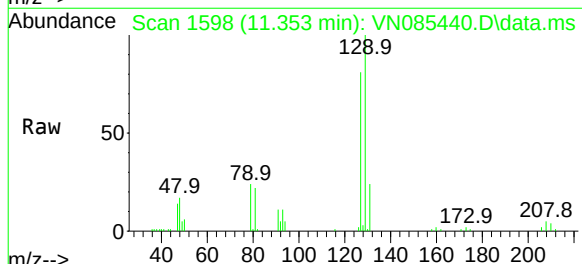
Acq: 14 Jan 2025 15:43

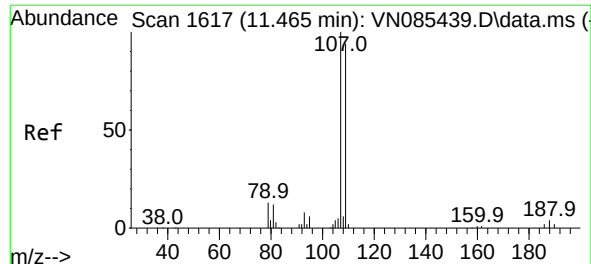
Tgt Ion:129 Resp: 56069

Ion Ratio Lower Upper

129 100

127 80.4 38.6 115.8





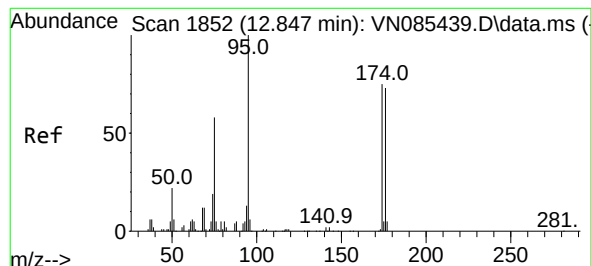
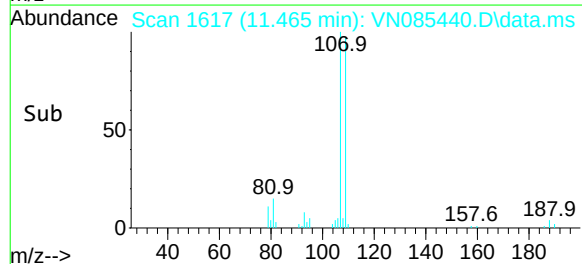
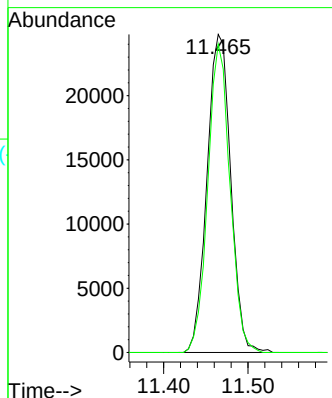
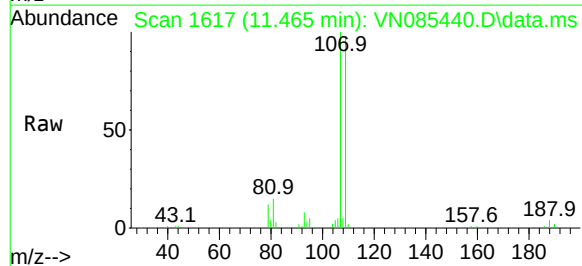
#61  
1,2-Dibromoethane  
Concen: 21.309 ug/l  
RT: 11.465 min Scan# 1617  
Delta R.T. 0.000 min  
Lab File: VN085440.D  
Acq: 14 Jan 2025 15:43

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC020

Tgt Ion: 107 Resp: 48465  
Ion Ratio Lower Upper  
107 100  
109 90.6 75.9 113.9

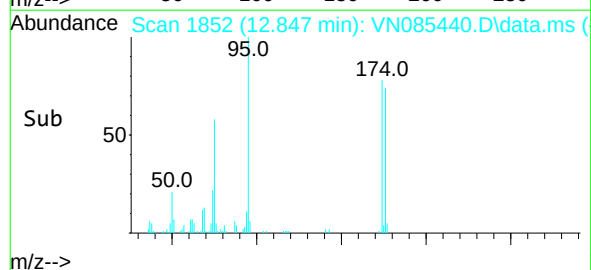
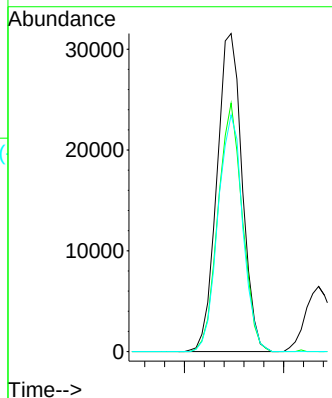
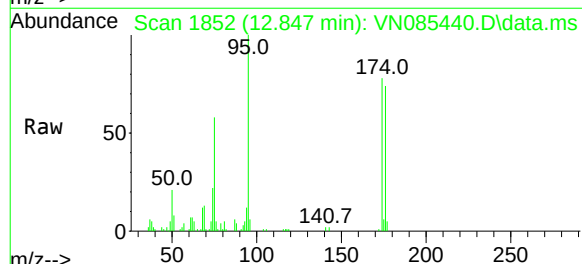
Manual Integrations  
APPROVED

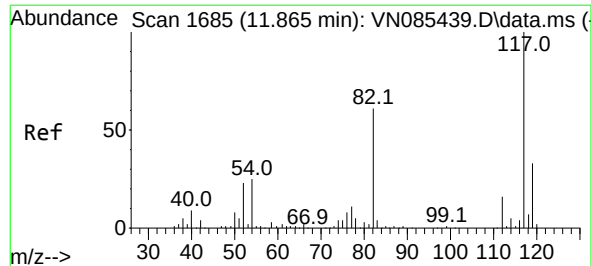
Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025



#62  
4-Bromofluorobenzene  
Concen: 19.430 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN085440.D  
Acq: 14 Jan 2025 15:43

Tgt Ion: 95 Resp: 55798  
Ion Ratio Lower Upper  
95 100  
174 75.2 0.0 145.0  
176 73.2 0.0 142.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion:117 Resp: 296298

Ion Ratio Lower Upper

117 100

82 59.3 48.6 72.8

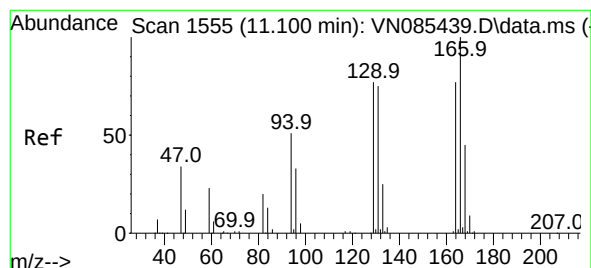
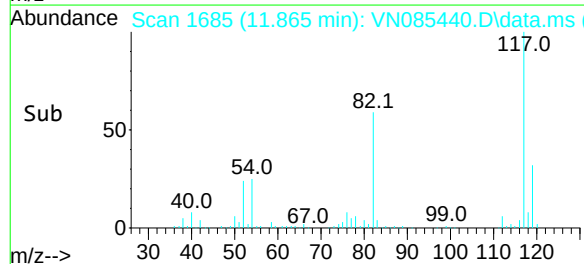
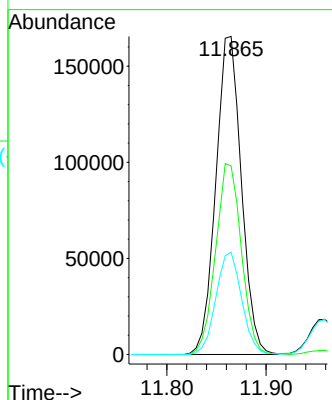
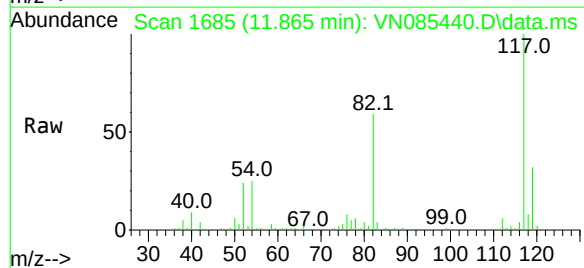
119 32.2 26.6 39.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#64

Tetrachloroethene

Concen: 21.408 ug/l

RT: 11.100 min Scan# 1555

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Tgt Ion:164 Resp: 43243

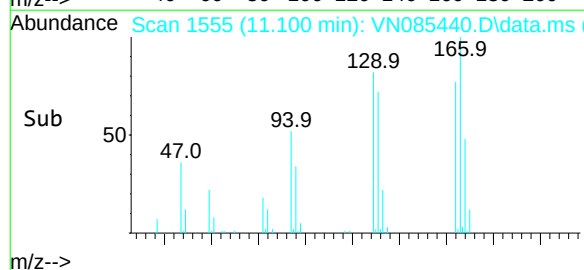
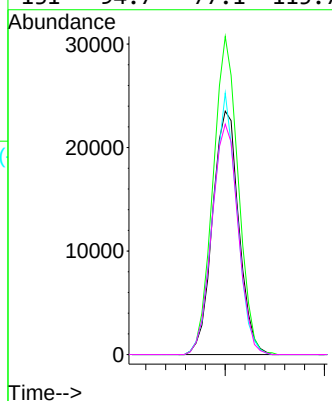
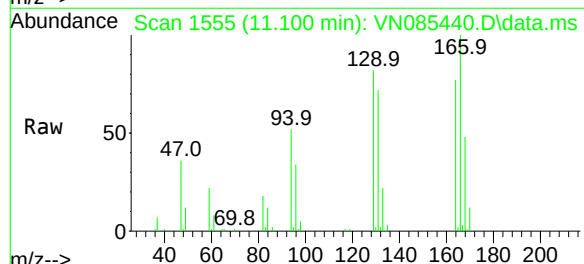
Ion Ratio Lower Upper

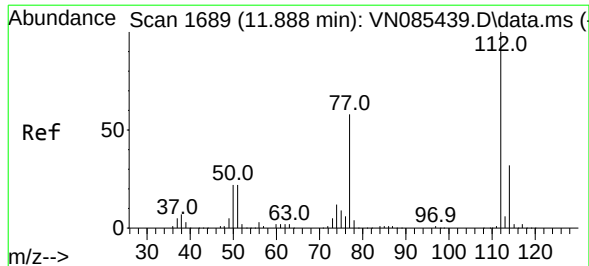
164 100

166 130.6 103.4 155.2

129 107.4 79.2 118.8

131 94.7 77.1 115.7





#65

Chlorobenzene

Concen: 21.077 ug/l

RT: 11.888 min Scan# 1689

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion:112 Resp: 136809

Ion Ratio Lower Upper

112 100

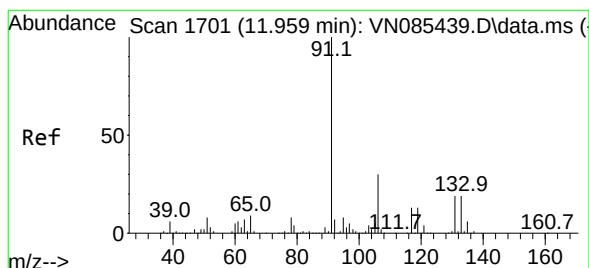
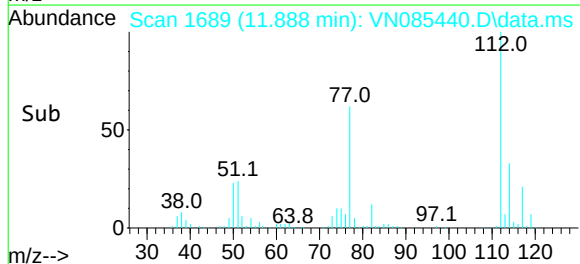
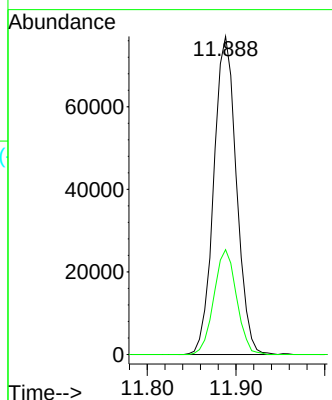
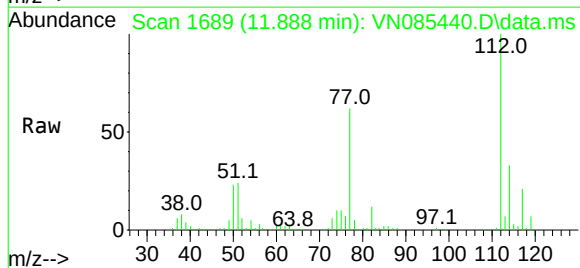
114 32.9 25.3 37.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#66

1,1,1,2-Tetrachloroethane

Concen: 20.304 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

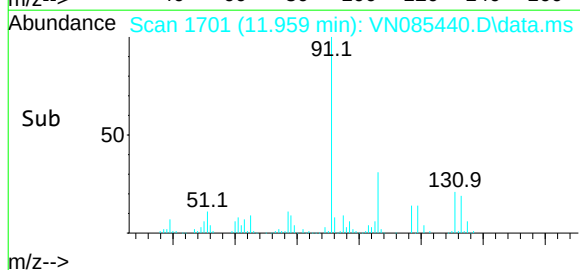
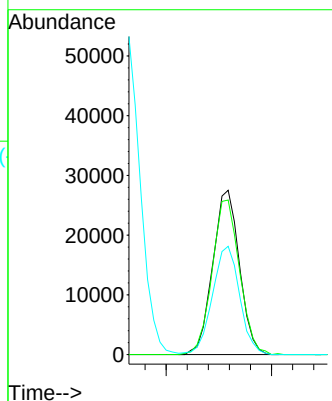
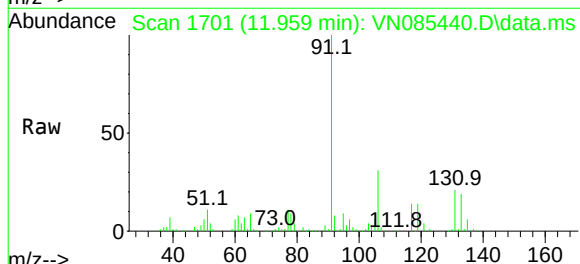
Tgt Ion:131 Resp: 48370

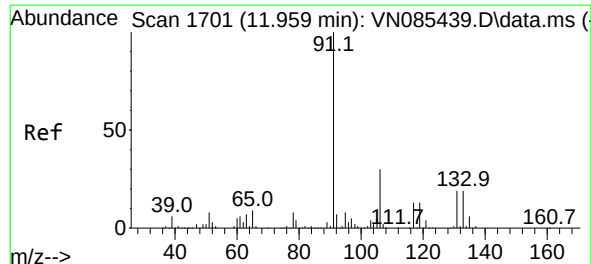
Ion Ratio Lower Upper

131 100

133 96.9 47.4 142.3

119 67.2 33.1 99.5





#67

Ethyl Benzene

Concen: 21.753 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 91 Resp: 229978

Ion Ratio Lower Upper

91 100

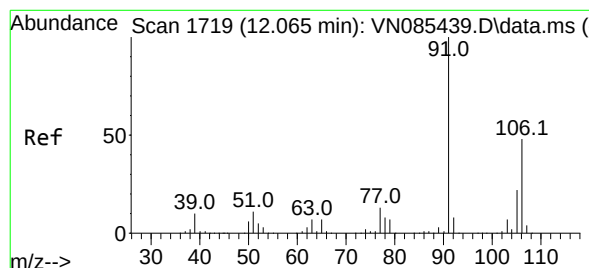
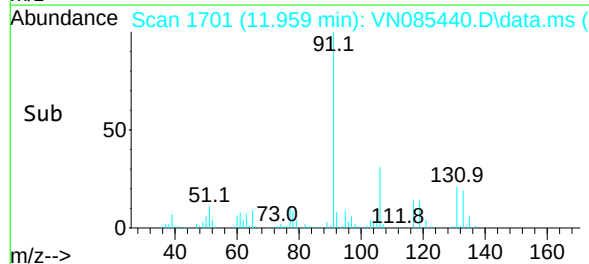
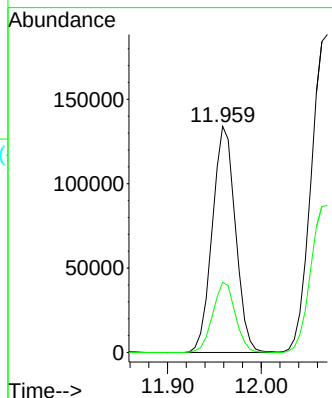
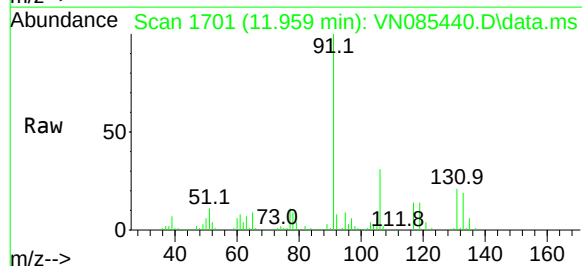
106 31.1 23.8 35.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#68

m/p-Xylenes

Concen: 45.494 ug/l

RT: 12.071 min Scan# 1720

Delta R.T. 0.006 min

Lab File: VN085440.D

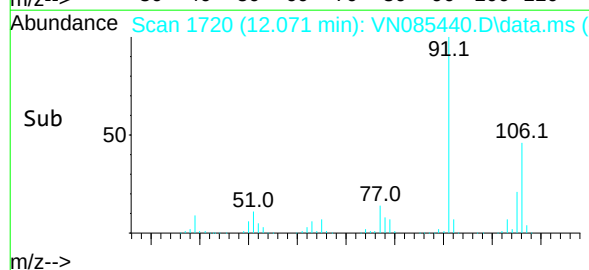
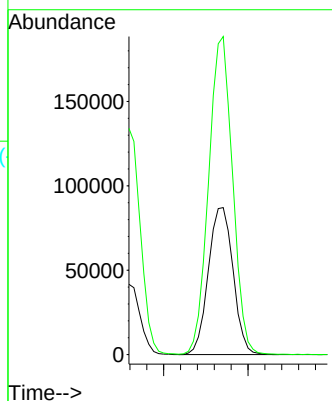
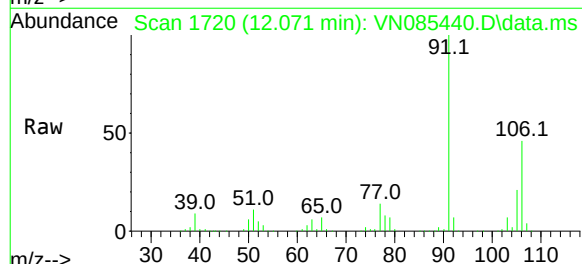
Acq: 14 Jan 2025 15:43

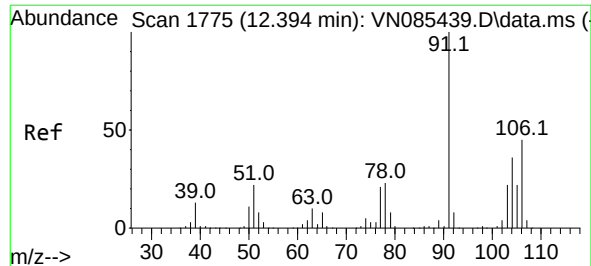
Tgt Ion:106 Resp: 177755

Ion Ratio Lower Upper

106 100

91 209.3 167.7 251.5





#69

o-Xylene

Concen: 22.643 ug/l

RT: 12.394 min Scan# 1775

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion:106 Resp: 84548

Ion Ratio Lower Upper

106 100

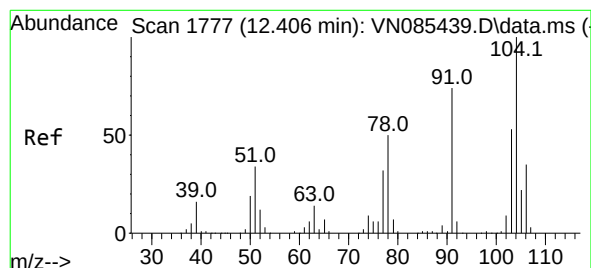
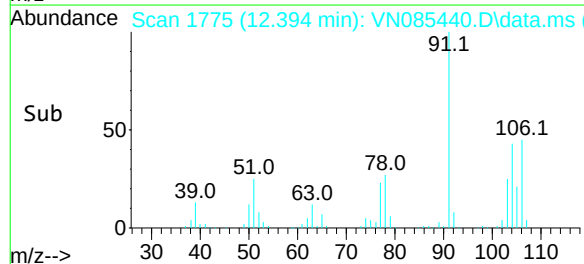
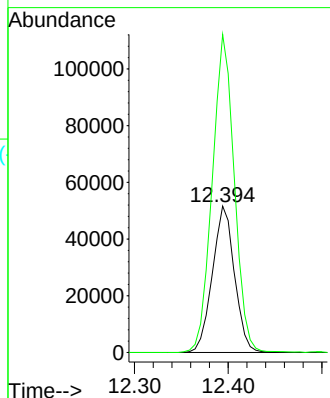
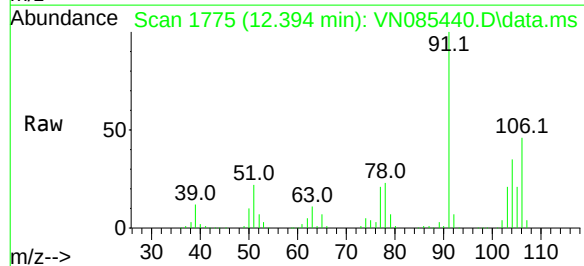
91 217.0 110.4 331.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#70

Styrene

Concen: 22.749 ug/l

RT: 12.412 min Scan# 1778

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

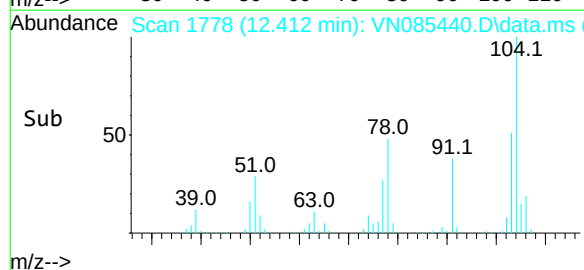
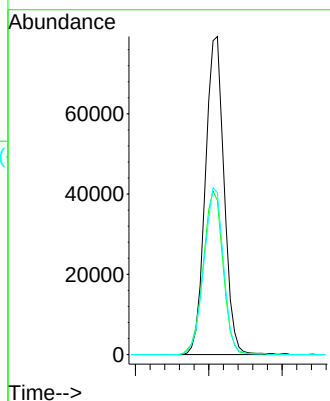
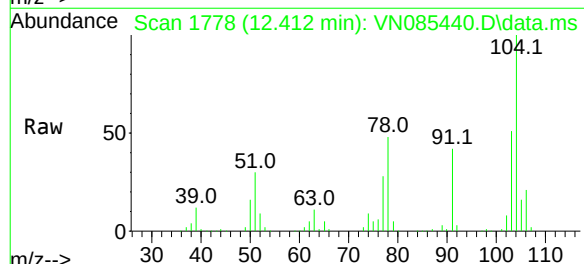
Tgt Ion:104 Resp: 140581

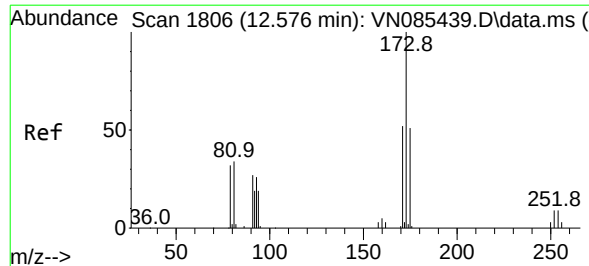
Ion Ratio Lower Upper

104 100

78 54.4 42.5 63.7

103 54.8 43.8 65.8





#71

Bromoform

Concen: 21.683 ug/l

RT: 12.576 min Scan# 1806

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

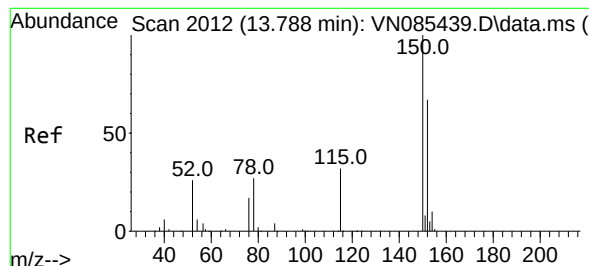
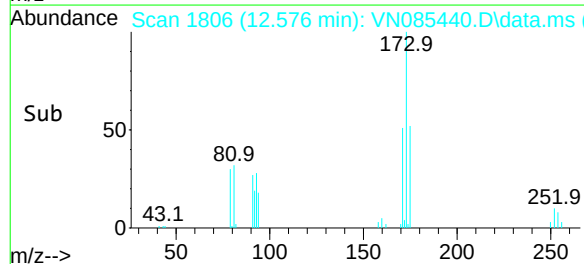
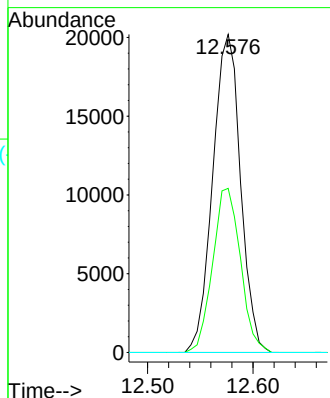
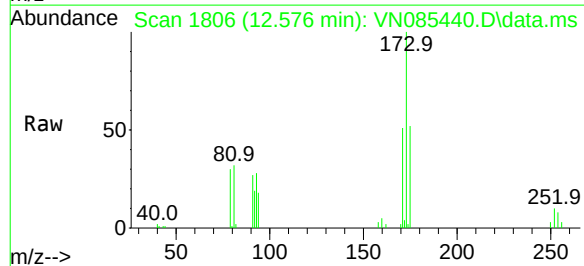
VSTDIC020

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 173   | Resp: | 36961 |
| Ion Ratio | Lower | Upper |       |
| 173       | 100   |       |       |
| 175       | 51.7  | 24.4  | 73.2  |
| 254       | 0.0   | 0.0   | 0.0   |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

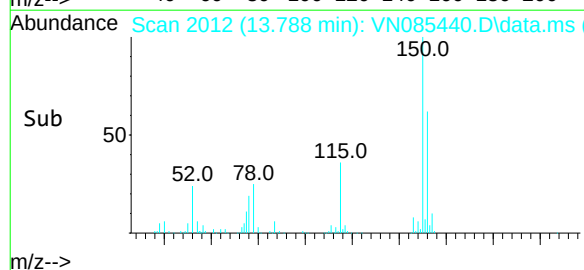
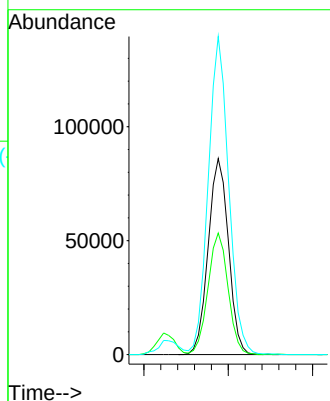
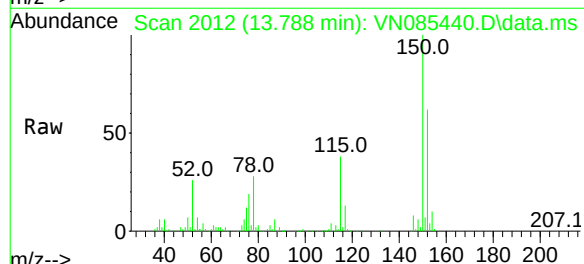
RT: 13.788 min Scan# 2012

Delta R.T. 0.000 min

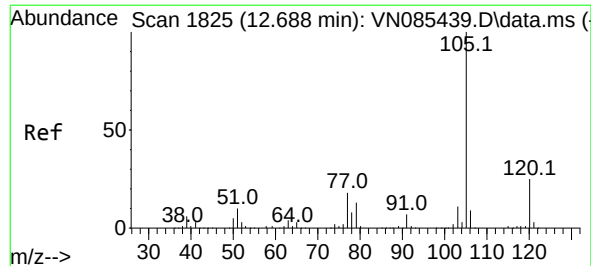
Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 152   | Resp: | 143526 |
| Ion Ratio | Lower | Upper |        |
| 152       | 100   |       |        |
| 115       | 61.4  | 31.1  | 93.3   |
| 150       | 163.9 | 0.0   | 343.6  |







#73

Isopropylbenzene

Concen: 21.819 ug/l

RT: 12.694 min Scan# 18

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion:105 Resp: 211354

Ion Ratio Lower Upper

105 100

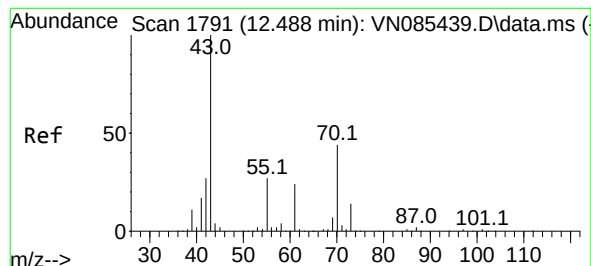
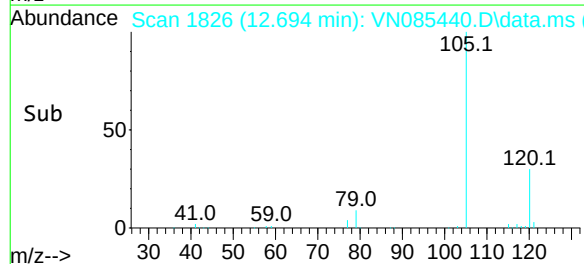
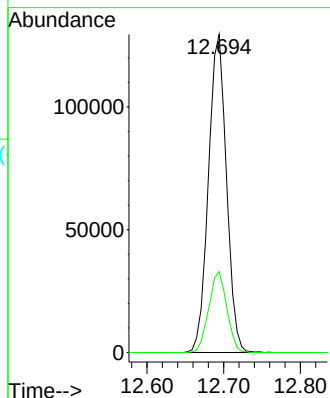
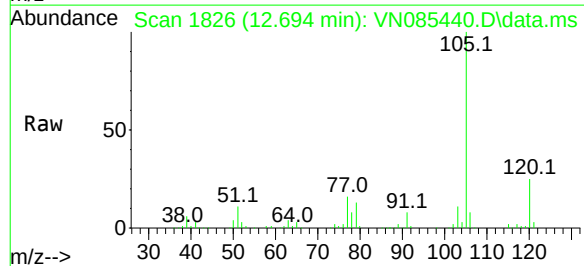
120 25.5 12.8 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#74

N-ethyl acetate

Concen: 21.656 ug/l

RT: 12.494 min Scan# 1792

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Tgt Ion: 43 Resp: 94292

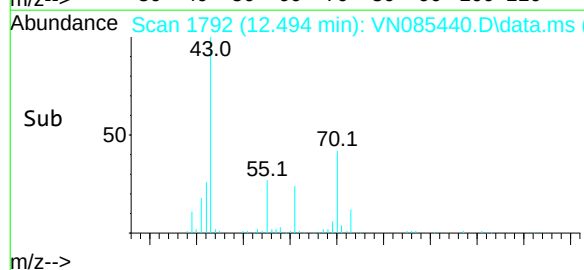
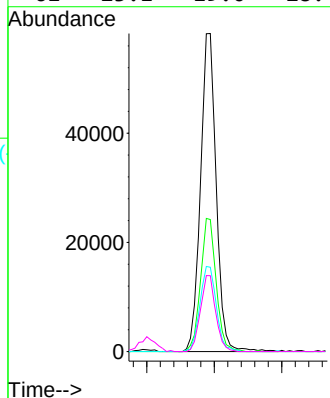
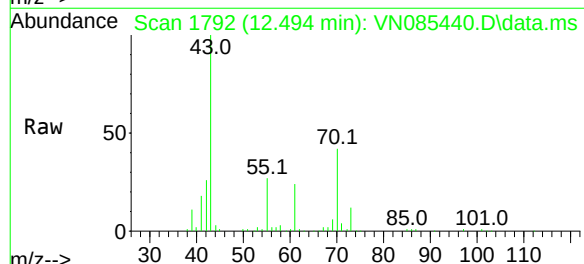
Ion Ratio Lower Upper

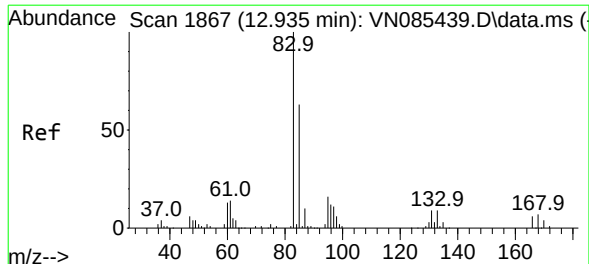
43 100

70 41.4 34.0 51.0

55 27.9 21.4 32.2

61 23.1 19.0 28.4





#75

1,1,2,2-Tetrachloroethane

Concen: 19.917 ug/l

RT: 12.935 min Scan# 1867

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

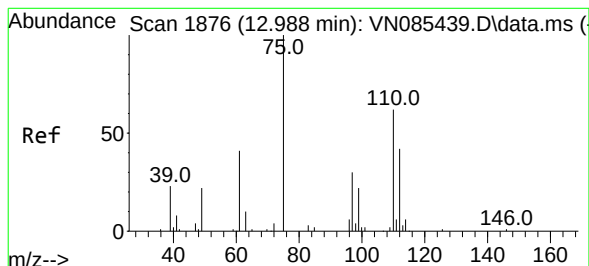
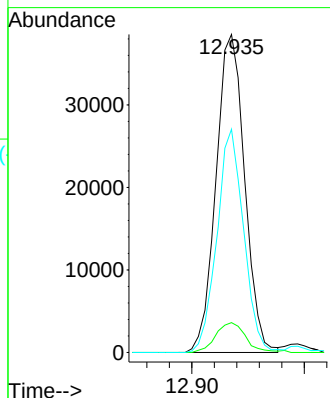
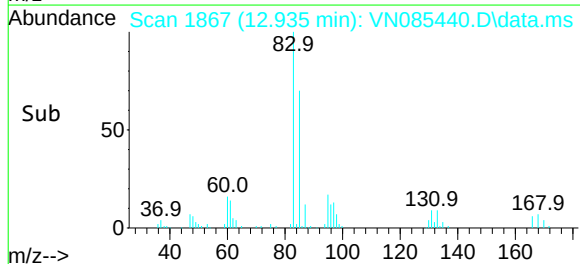
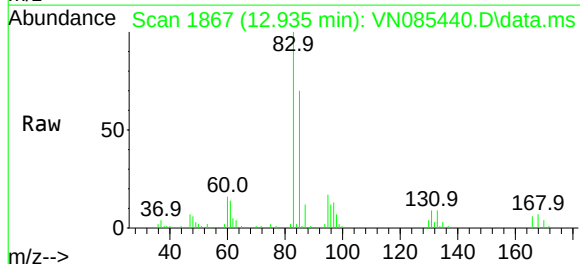
VSTDIC020

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 68151 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 131      | 9.9   | 4.8   | 14.4  |
| 85       | 65.5  | 32.2  | 96.6  |

## Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#76

1,2,3-Trichloropropane

Concen: 22.036 ug/l m

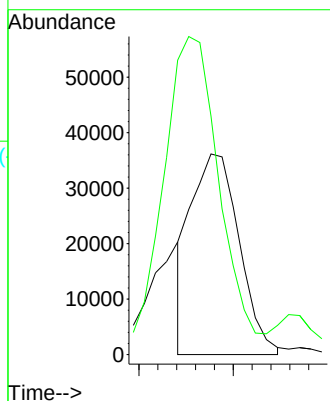
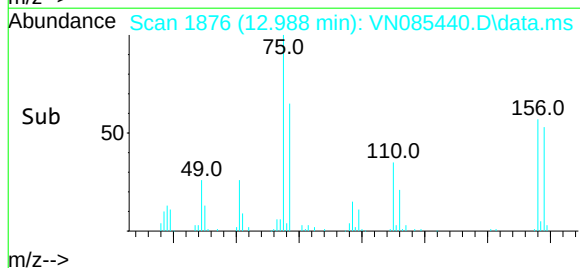
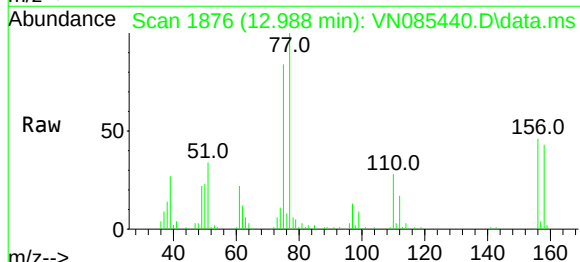
RT: 12.988 min Scan# 1876

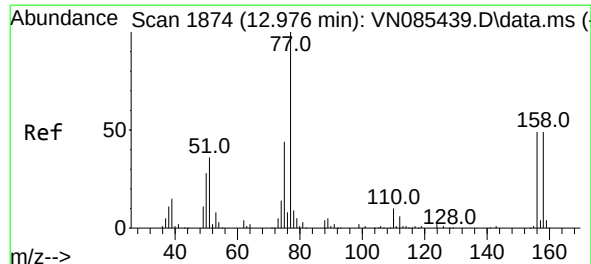
Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 64180 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 77       | 186.8 | 109.7 | 329.2 |





#77

Bromobenzene

Concen: 20.556 ug/l

RT: 12.976 min Scan# 1874

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion:156 Resp: 52022

Ion Ratio Lower Upper

156 100

77 230.4 114.1 342.4

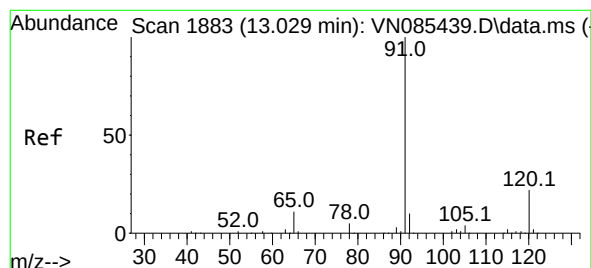
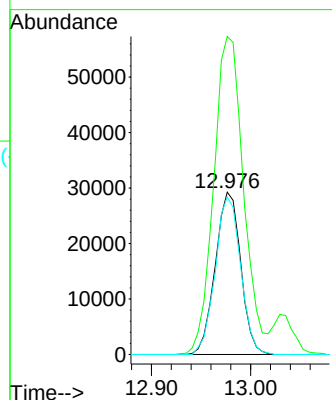
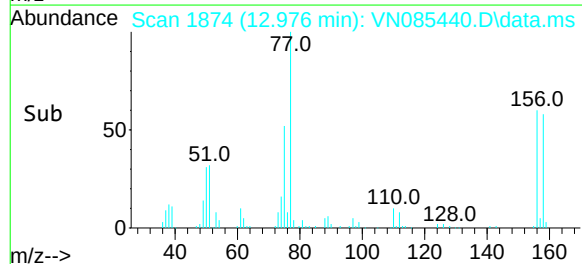
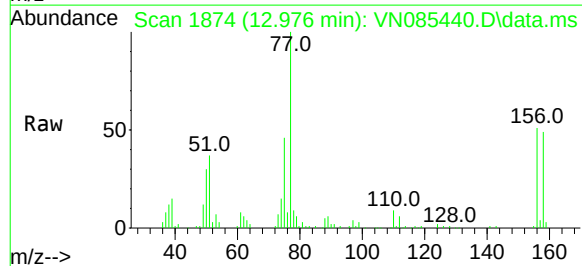
158 97.0 48.9 146.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#78

n-propylbenzene

Concen: 22.028 ug/l

RT: 13.035 min Scan# 1884

Delta R.T. 0.006 min

Lab File: VN085440.D

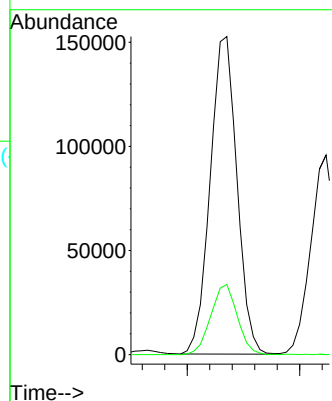
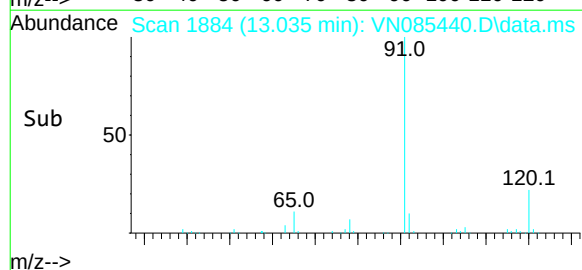
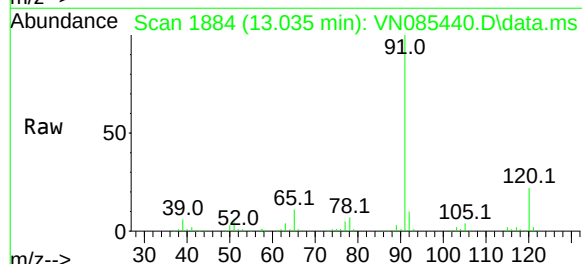
Acq: 14 Jan 2025 15:43

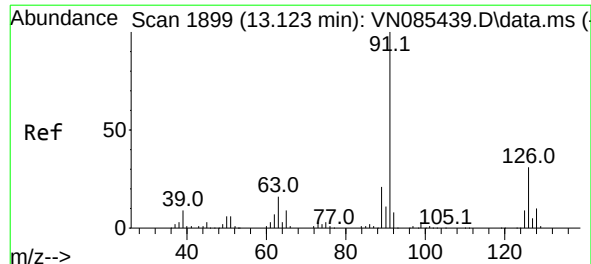
Tgt Ion: 91 Resp: 252610

Ion Ratio Lower Upper

91 100

120 21.8 10.9 32.6





#79

2-Chlorotoluene

Concen: 21.358 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Tgt Ion: 91 Resp: 158511

Ion Ratio Lower Upper

91 100

126 31.5 15.7 47.1

Instrument :

MSVOA\_N

ClientSampleId :

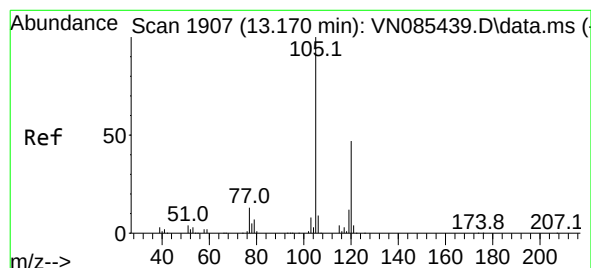
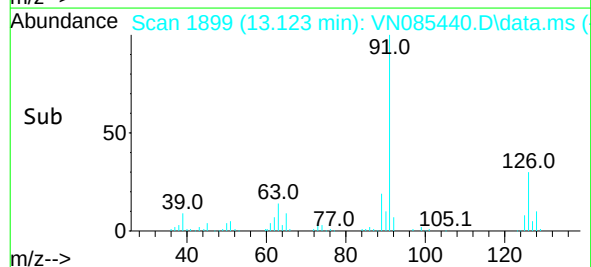
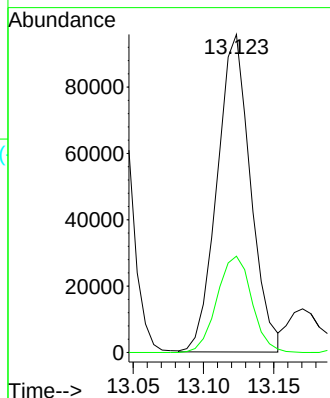
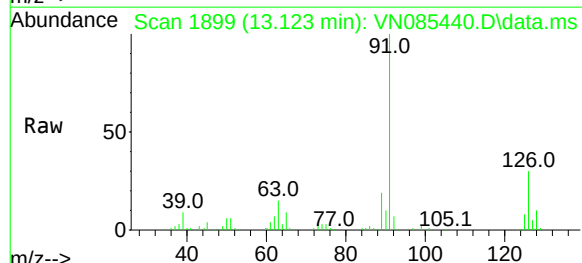
VSTDIC020

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#80

1,3,5-Trimethylbenzene

Concen: 22.533 ug/l

RT: 13.171 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VN085440.D

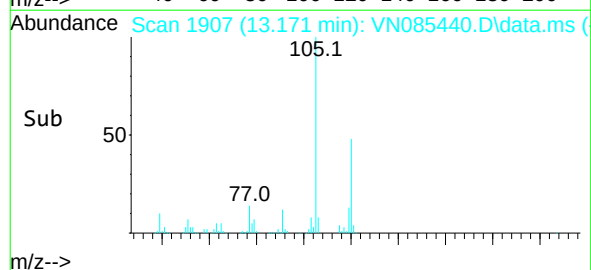
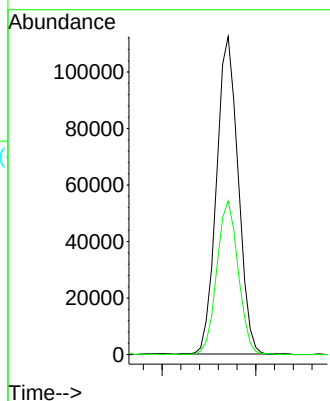
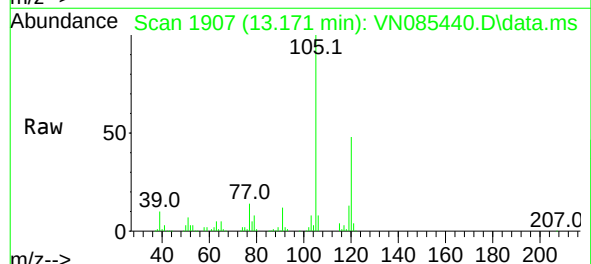
Acq: 14 Jan 2025 15:43

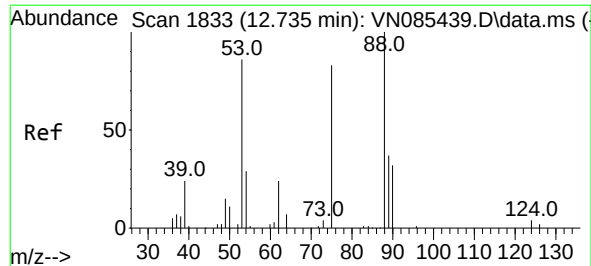
Tgt Ion:105 Resp: 180294

Ion Ratio Lower Upper

105 100

120 47.9 23.9 71.7





#81

trans-1,4-Dichloro-2-butene

Concen: 20.569 ug/l m

RT: 12.735 min Scan# 1833

Delta R.T. 0.000 min

Lab File: VN085440.D

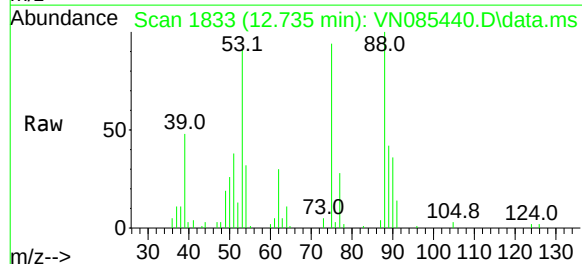
Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

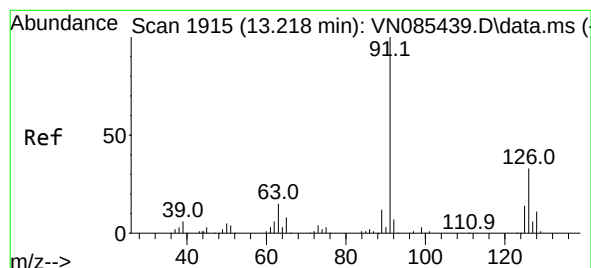
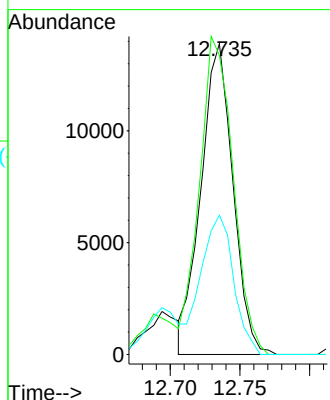
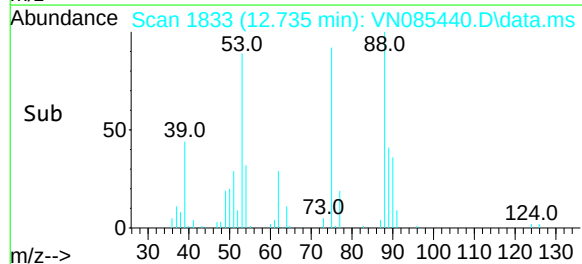
VSTDIC020



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 22178 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 53       | 107.2 | 95.6  | 143.4 |
| 89       | 46.9  | 37.0  | 55.6  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#82

4-Chlorotoluene

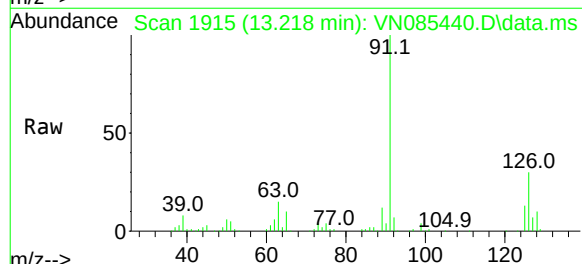
Concen: 21.906 ug/l

RT: 13.218 min Scan# 1915

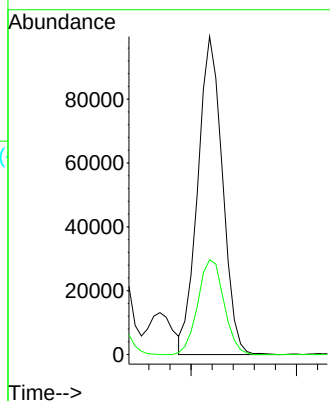
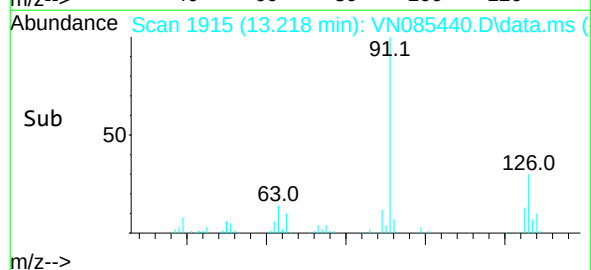
Delta R.T. 0.000 min

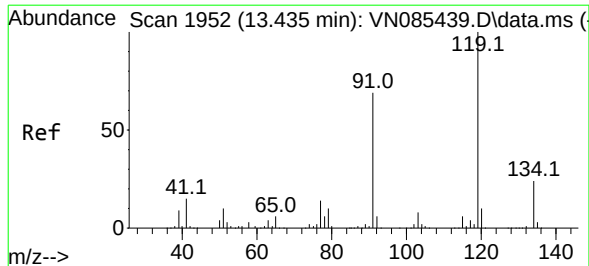
Lab File: VN085440.D

Acq: 14 Jan 2025 15:43



|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 91    | Resp: | 161880 |
| Ion      | Ratio | Lower | Upper  |
| 91       | 100   |       |        |
| 126      | 31.6  | 15.9  | 47.7   |





#83

tert-Butylbenzene

Concen: 21.958 ug/l

RT: 13.435 min Scan# 19

Delta R.T. 0.000 min

Lab File: VN085440.D

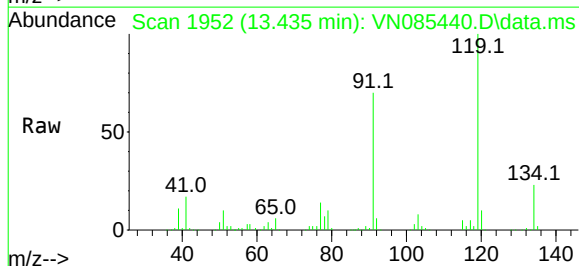
Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

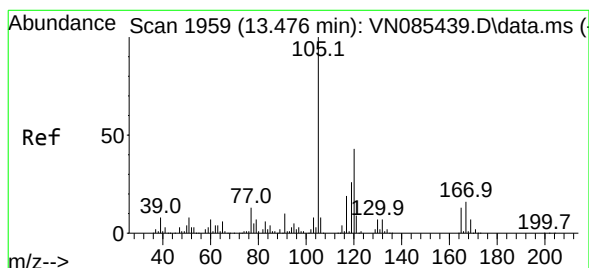
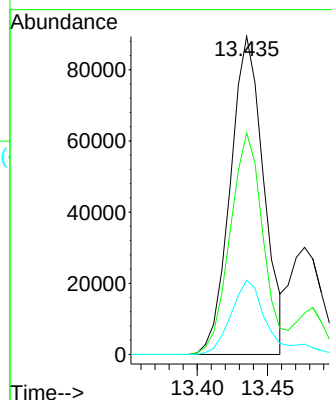
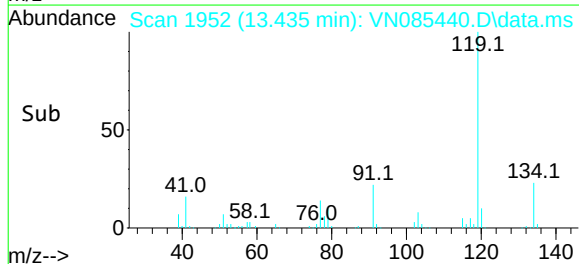
VSTDIC020



|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 119   | Resp: | 147541 |
| Ion      | Ratio | Lower | Upper  |
| 119      | 100   |       |        |
| 91       | 69.5  | 35.1  | 105.3  |
| 134      | 25.5  | 12.0  | 36.1   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#84

1,2,4-Trimethylbenzene

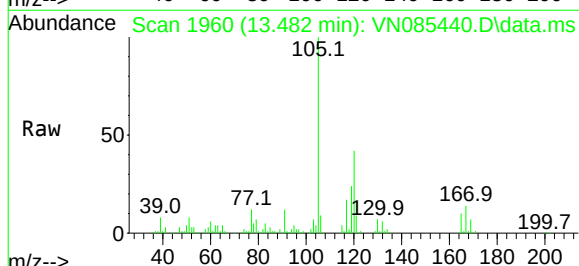
Concen: 22.965 ug/l

RT: 13.482 min Scan# 1960

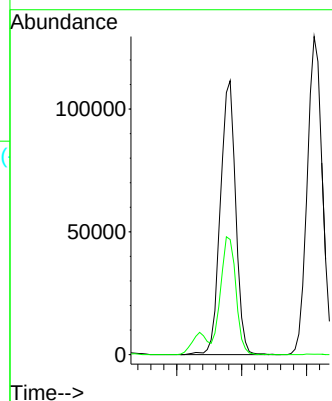
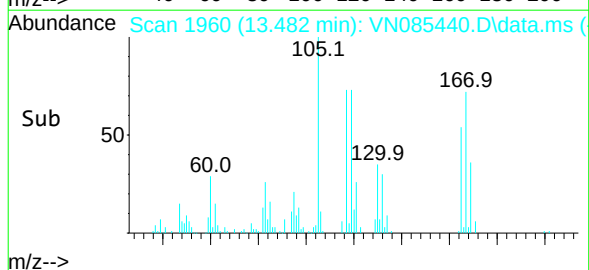
Delta R.T. 0.006 min

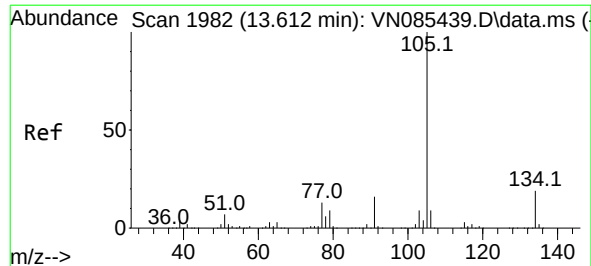
Lab File: VN085440.D

Acq: 14 Jan 2025 15:43



|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 105   | Resp: | 183144 |
| Ion      | Ratio | Lower | Upper  |
| 105      | 100   |       |        |
| 120      | 42.8  | 21.6  | 65.0   |





#85

sec-Butylbenzene

Concen: 22.457 ug/l

RT: 13.612 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion:105 Resp: 209133

Ion Ratio Lower Upper

105 100

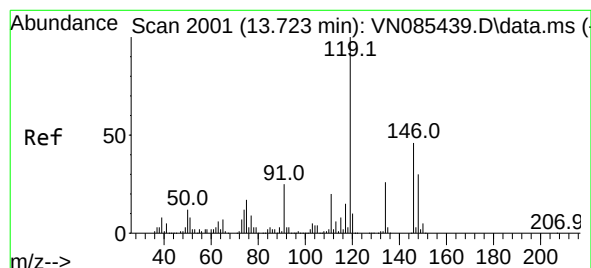
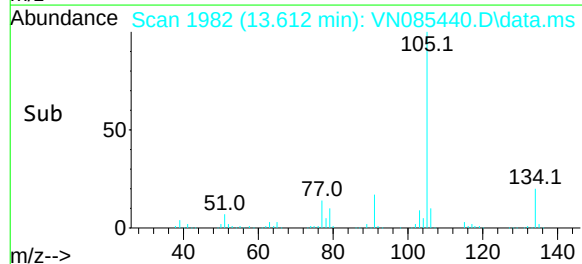
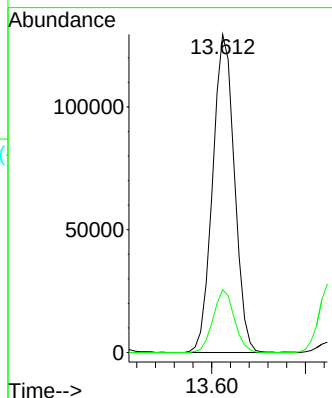
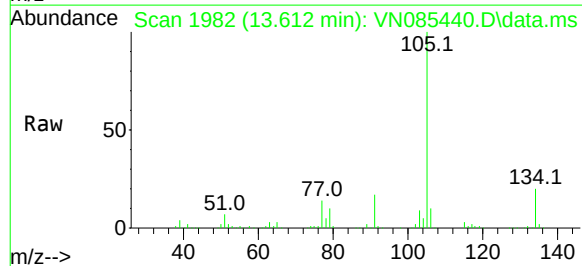
134 19.2 9.7 28.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#86

p-Isopropyltoluene

Concen: 21.661 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

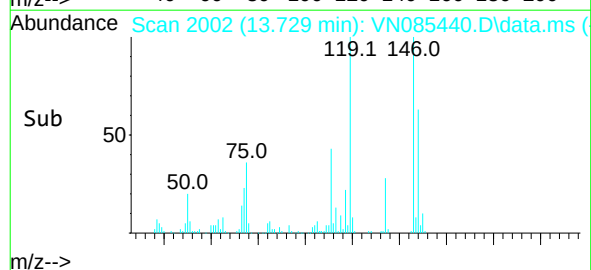
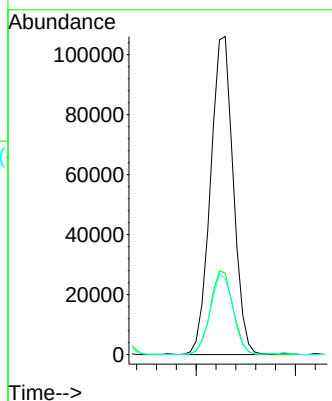
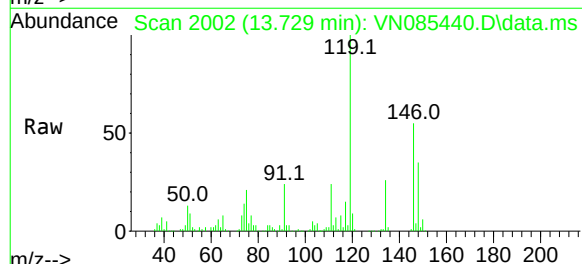
Tgt Ion:119 Resp: 168888

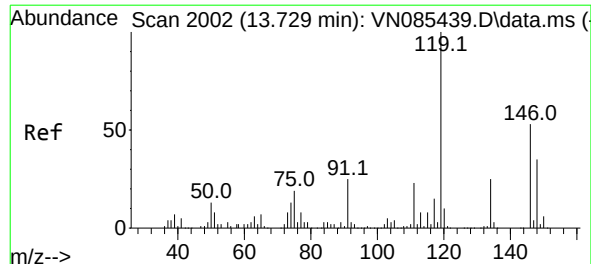
Ion Ratio Lower Upper

119 100

134 26.4 12.7 38.0

91 25.5 12.7 38.1





#87

1,3-Dichlorobenzene

Concen: 20.952 ug/l

RT: 13.729 min Scan# 20

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion:146 Resp: 97652

Ion Ratio Lower Upper

146 100

111 42.9 21.4 64.3

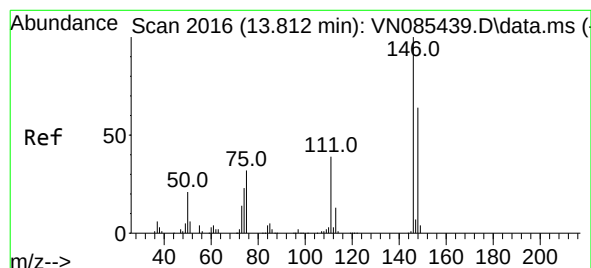
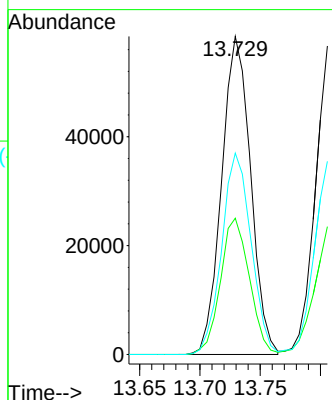
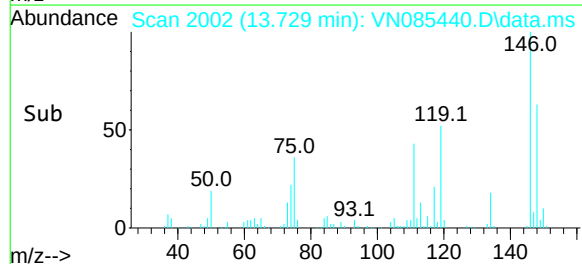
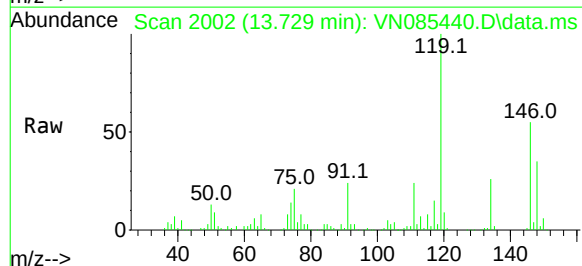
148 64.3 32.3 96.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#88

1,4-Dichlorobenzene

Concen: 20.351 ug/l

RT: 13.806 min Scan# 2015

Delta R.T. -0.006 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

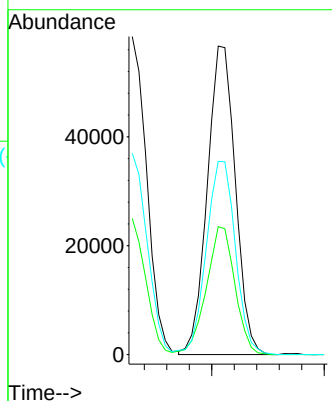
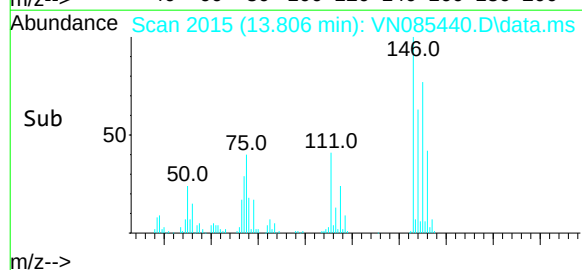
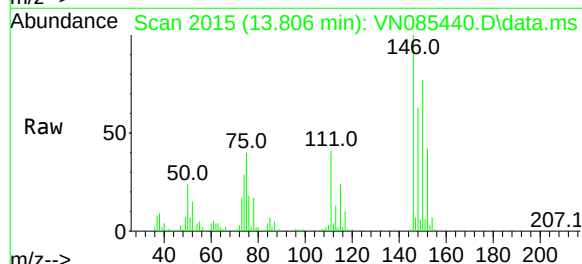
Tgt Ion:146 Resp: 98321

Ion Ratio Lower Upper

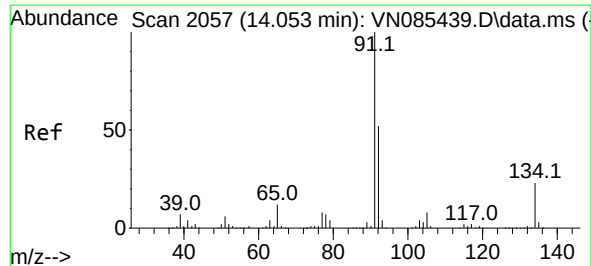
146 100

111 42.2 21.3 63.7

148 65.1 32.4 97.0







#89

n-Butylbenzene

Concen: 21.355 ug/l

RT: 14.053 min Scan# 2057

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

ClientSampleId :

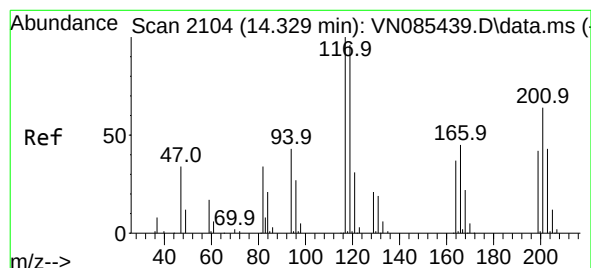
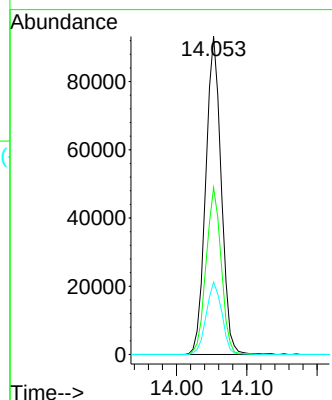
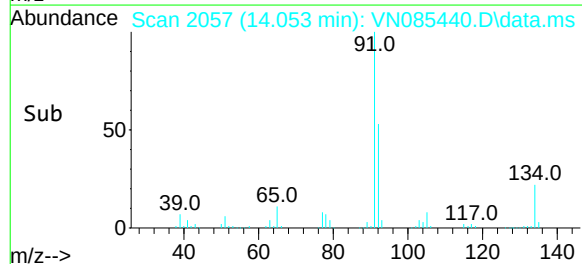
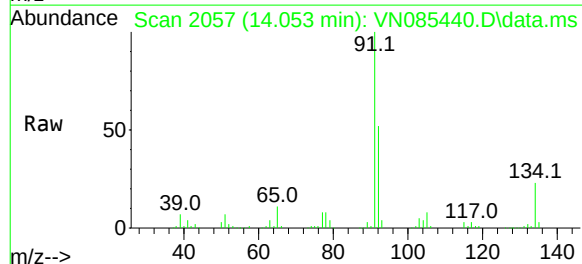
VSTDICC020

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 91    | Resp: | 142673 |
| Ion Ratio | Lower | Upper |        |
| 91        | 100   |       |        |
| 92        | 51.0  | 25.8  | 77.3   |
| 134       | 23.0  | 11.7  | 35.1   |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#90

Hexachloroethane

Concen: 19.858 ug/l

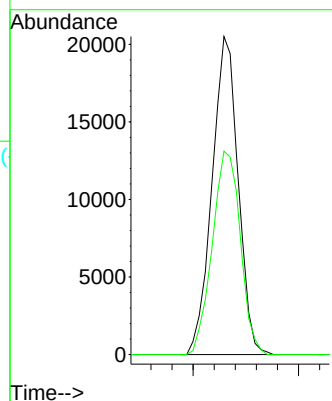
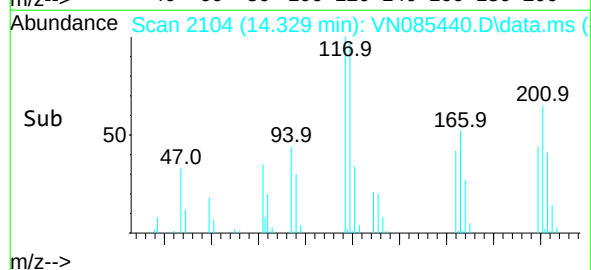
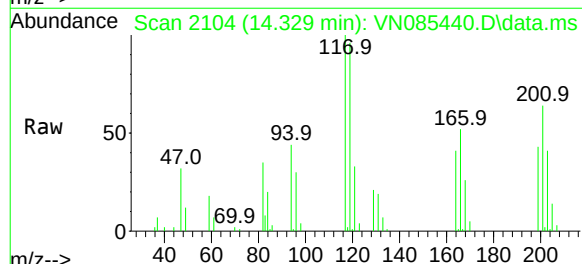
RT: 14.329 min Scan# 2104

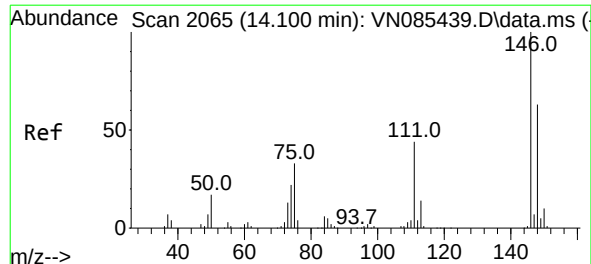
Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 117   | Resp: | 35205 |
| Ion Ratio | Lower | Upper |       |
| 117       | 100   |       |       |
| 201       | 68.8  | 33.7  | 101.0 |





#91

1,2-Dichlorobenzene

Concen: 20.425 ug/l

RT: 14.100 min Scan# 2065

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

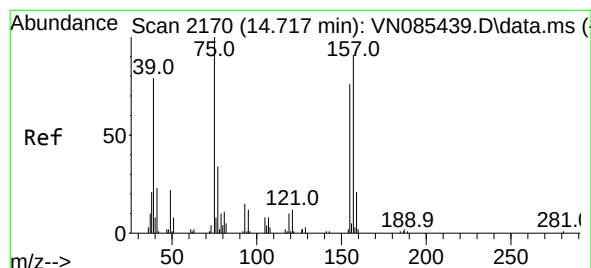
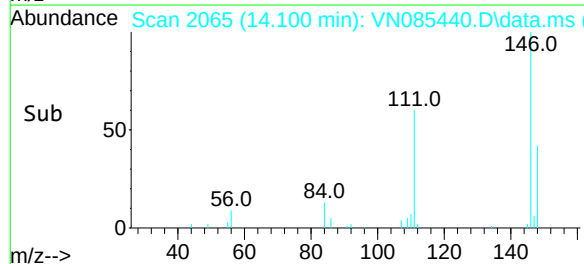
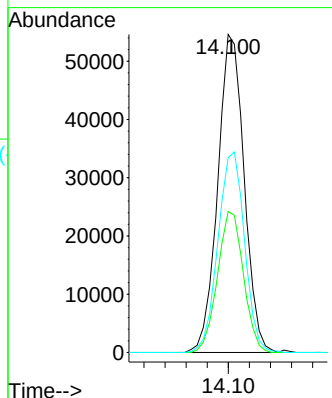
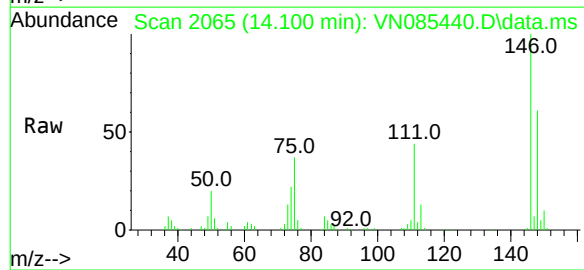
ClientSampleId :

VSTDIC020

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 146   | Resp: | 94954 |
| Ion      | Ratio | Lower | Upper |
| 146      | 100   |       |       |
| 111      | 43.5  | 21.7  | 65.1  |
| 148      | 63.5  | 31.4  | 94.2  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#92

1,2-Dibromo-3-Chloropropane

Concen: 20.580 ug/l

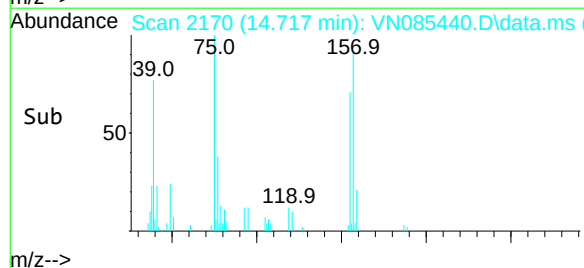
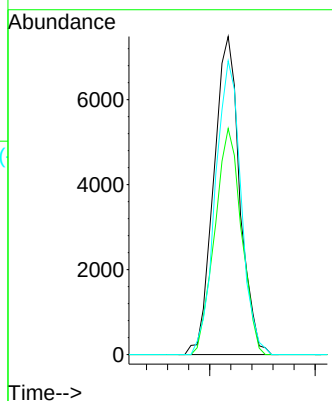
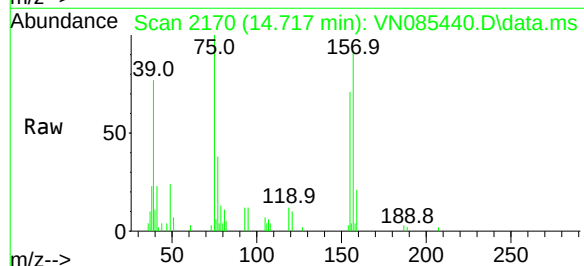
RT: 14.717 min Scan# 2170

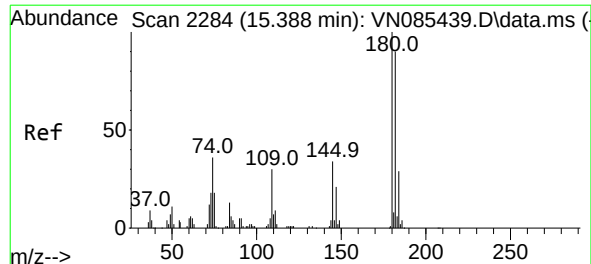
Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 12859 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 155      | 72.7  | 36.4  | 109.2 |
| 157      | 90.9  | 45.4  | 136.1 |





#93

1,2,4-Trichlorobenzene

Concen: 21.233 ug/l

RT: 15.388 min Scan# 2284

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

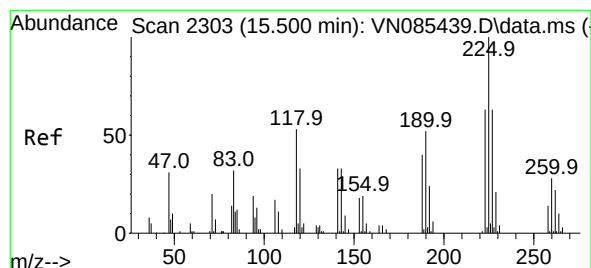
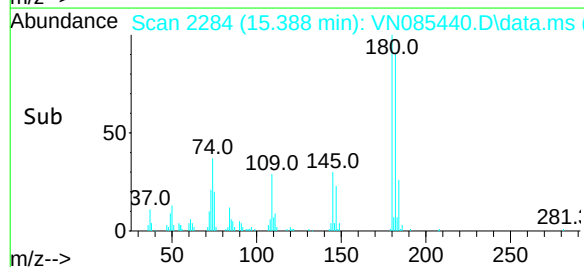
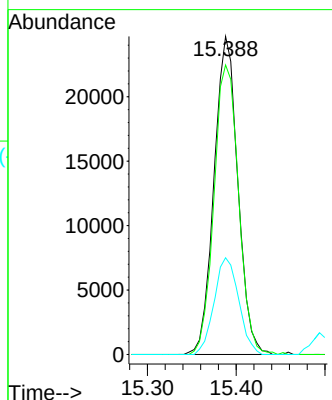
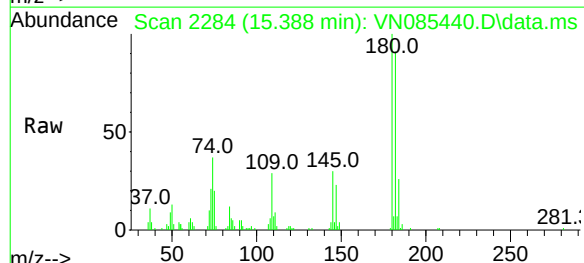
ClientSampleId :

VSTDIC020

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 180   | Resp: | 45878 |
| Ion Ratio | Lower | Upper |       |
| 180       | 100   |       |       |
| 182       | 94.2  | 46.8  | 140.3 |
| 145       | 31.4  | 16.0  | 48.0  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#94

Hexachlorobutadiene

Concen: 19.805 ug/l

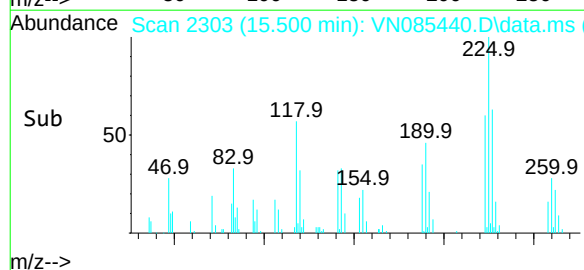
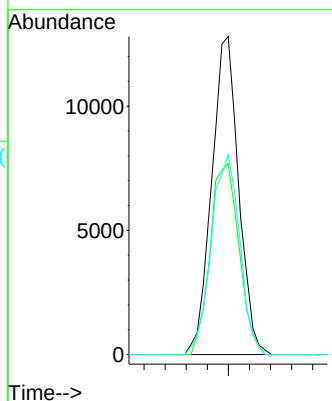
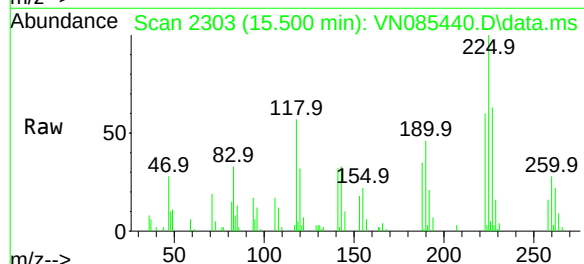
RT: 15.500 min Scan# 2303

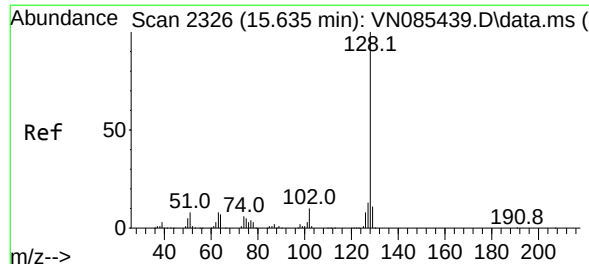
Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 225   | Resp: | 22719 |
| Ion Ratio | Lower | Upper |       |
| 225       | 100   |       |       |
| 223       | 64.3  | 30.7  | 92.1  |
| 227       | 66.3  | 30.9  | 92.5  |





#95

Naphthalene

Concen: 20.906 ug/l

RT: 15.635 min Scan# 2326

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

Instrument :

MSVOA\_N

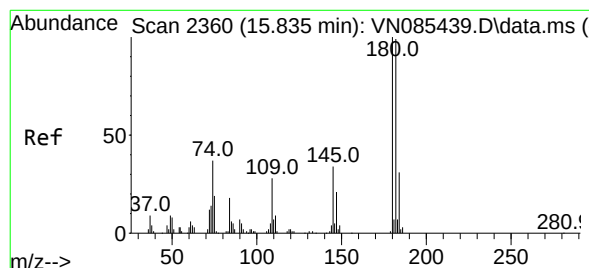
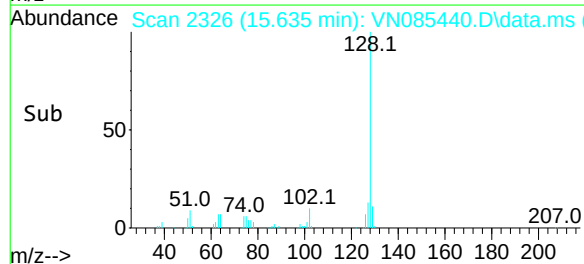
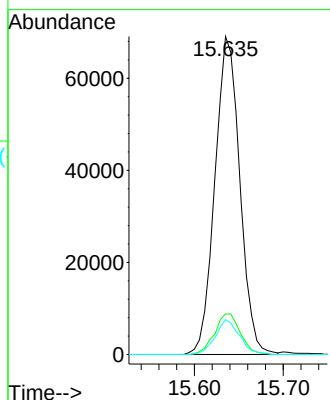
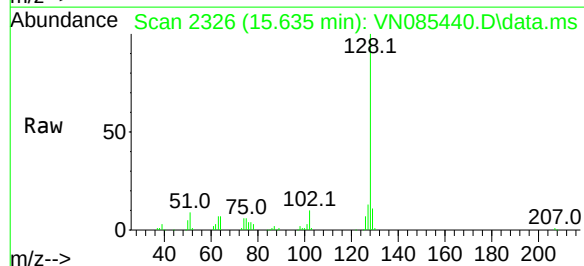
ClientSampleId :

VSTDIC020

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 128   | Resp: | 134793 |
| Ion      | Ratio | Lower | Upper  |
| 128      | 100   |       |        |
| 127      | 13.3  | 10.6  | 16.0   |
| 129      | 10.6  | 8.8   | 13.2   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#96

1,2,3-Trichlorobenzene

Concen: 20.797 ug/l

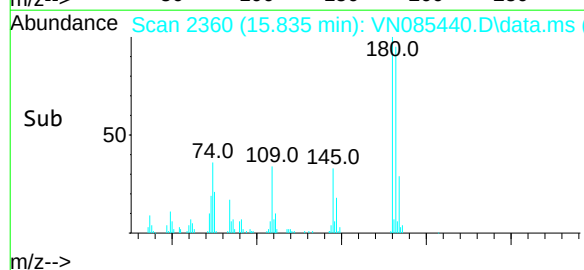
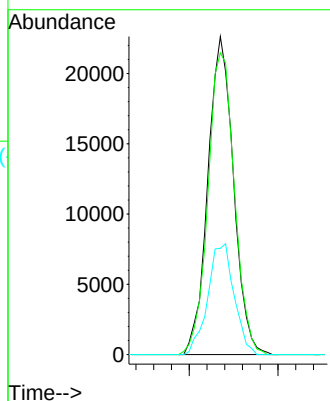
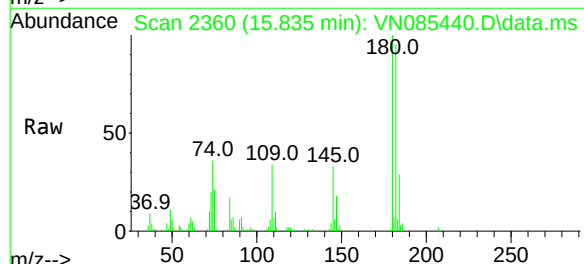
RT: 15.835 min Scan# 2360

Delta R.T. 0.000 min

Lab File: VN085440.D

Acq: 14 Jan 2025 15:43

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 180   | Resp: | 45468 |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 97.9  | 47.4  | 142.2 |
| 145      | 35.7  | 16.9  | 50.7  |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085441.D  
 Acq On : 14 Jan 2025 16:07  
 Operator : JC\MD  
 Sample : VSTDICC010  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC010

Quant Time: Jan 15 01:44:05 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 01:28:51 2025  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 195889   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 340403   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 294508   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.788 | 152  | 132934   | 50.000 | ug/l  | 0.00     |

|                             |        |       |          |          |      |          |
|-----------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds |        |       |          |          |      |          |
| 33) 1,2-Dichloroethane-d4   | 8.571  | 65    | 29856    | 9.442    | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 74 - 125 | Recovery | =    | 18.880%# |
| 35) Dibromofluoromethane    | 8.165  | 113   | 21110    | 8.939    | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =    | 17.880%# |
| 50) Toluene-d8              | 10.565 | 98    | 73223    | 8.727    | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 86 - 113 | Recovery | =    | 17.460%# |
| 62) 4-Bromofluorobenzene    | 12.847 | 95    | 24327    | 8.476    | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 77 - 121 | Recovery | =    | 16.960%# |

|                              |       |     |        |        |        |     |
|------------------------------|-------|-----|--------|--------|--------|-----|
| Target Compounds             |       |     |        | Qvalue |        |     |
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 26124  | 9.850  | ug/l   | 96  |
| 3) Chloromethane             | 2.359 | 50  | 27143  | 9.452  | ug/l   | 99  |
| 4) Vinyl Chloride            | 2.512 | 62  | 27862  | 9.653  | ug/l   | 100 |
| 5) Bromomethane              | 2.965 | 94  | 17139  | 9.830  | ug/l   | 87  |
| 6) Chloroethane              | 3.130 | 64  | 16791  | 9.175  | ug/l   | 96  |
| 7) Trichlorofluoromethane    | 3.501 | 101 | 40755  | 9.731  | ug/l   | 98  |
| 8) Diethyl Ether             | 3.953 | 74  | 12415  | 8.581  | ug/l   | 94  |
| 9) 1,1,2-Trichlorotrifluo... | 4.371 | 101 | 22982  | 9.742  | ug/l   | 98  |
| 10) Methyl Iodide            | 4.589 | 142 | 25085  | 9.286  | ug/l   | 99  |
| 11) Tert butyl alcohol       | 5.512 | 59  | 17962  | 49.608 | ug/l   | 97  |
| 12) 1,1-Dichloroethene       | 4.342 | 96  | 20615  | 9.806  | ug/l   | 99  |
| 13) Acrolein                 | 4.177 | 56  | 25568  | 51.729 | ug/l   | 99  |
| 14) Allyl chloride           | 5.018 | 41  | 32240  | 9.451  | ug/l   | 97  |
| 15) Acrylonitrile            | 5.712 | 53  | 53959  | 46.918 | ug/l   | 98  |
| 16) Acetone                  | 4.424 | 43  | 48475  | 47.446 | ug/l   | 98  |
| 17) Carbon Disulfide         | 4.712 | 76  | 60201  | 9.300  | ug/l # | 94  |
| 18) Methyl Acetate           | 5.030 | 43  | 30500  | 9.817  | ug/l   | 98  |
| 19) Methyl tert-butyl Ether  | 5.789 | 73  | 65207  | 9.552  | ug/l   | 91  |
| 20) Methylene Chloride       | 5.277 | 84  | 23723  | 9.379  | ug/l   | 96  |
| 21) trans-1,2-Dichloroethene | 5.783 | 96  | 21127  | 9.403  | ug/l   | 97  |
| 22) Diisopropyl ether        | 6.671 | 45  | 71857  | 9.490  | ug/l   | 97  |
| 23) Vinyl Acetate            | 6.600 | 43  | 250575 | 47.125 | ug/l   | 98  |
| 24) 1,1-Dichloroethane       | 6.565 | 63  | 43099  | 9.335  | ug/l   | 95  |
| 25) 2-Butanone               | 7.477 | 43  | 71191  | 47.350 | ug/l   | 99  |
| 26) 2,2-Dichloropropane      | 7.483 | 77  | 36105  | 9.672  | ug/l   | 99  |
| 27) cis-1,2-Dichloroethene   | 7.489 | 96  | 25049  | 9.466  | ug/l   | 97  |
| 28) Bromochloromethane       | 7.806 | 49  | 19037  | 8.863  | ug/l   | 97  |
| 29) Tetrahydrofuran          | 7.836 | 42  | 45641  | 47.881 | ug/l   | 98  |
| 30) Chloroform               | 7.965 | 83  | 45792  | 9.596  | ug/l   | 100 |
| 31) Cyclohexane              | 8.253 | 56  | 40211  | 10.020 | ug/l # | 93  |
| 32) 1,1,1-Trichloroethane    | 8.165 | 97  | 39170  | 9.358  | ug/l   | 99  |
| 36) 1,1-Dichloropropene      | 8.371 | 75  | 30015  | 9.056  | ug/l   | 97  |
| 37) Ethyl Acetate            | 7.559 | 43  | 30760  | 9.195  | ug/l   | 97  |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 36015  | 9.492  | ug/l   | 94  |
| 39) Methylcyclohexane        | 9.594 | 83  | 27721  | 8.900  | ug/l   | 95  |
| 40) Benzene                  | 8.600 | 78  | 93680  | 9.407  | ug/l   | 96  |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085441.D  
 Acq On : 14 Jan 2025 16:07  
 Operator : JC\MD  
 Sample : VSTDICC010  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC010

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:44:05 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 01:28:51 2025  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 16859    | 9.686   | ug/l   | 96       |
| 42) 1,2-Dichloroethane        | 8.665  | 62   | 35569    | 9.483   | ug/l   | 99       |
| 43) Isopropyl Acetate         | 8.683  | 43   | 48926    | 9.127   | ug/l   | 99       |
| 44) Trichloroethene           | 9.347  | 130  | 21113    | 9.108   | ug/l   | 95       |
| 45) 1,2-Dichloropropane       | 9.618  | 63   | 22747    | 8.942   | ug/l   | 97       |
| 46) Dibromomethane            | 9.706  | 93   | 17260    | 9.404   | ug/l   | 99       |
| 47) Bromodichloromethane      | 9.883  | 83   | 35020    | 9.365   | ug/l   | 98       |
| 48) Methyl methacrylate       | 9.677  | 41   | 21873    | 9.067   | ug/l   | 97       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 7734     | 190.382 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone      | 10.441 | 43   | 146990   | 47.254  | ug/l   | 98       |
| 52) Toluene                   | 10.630 | 92   | 54976    | 9.527   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 32780    | 9.276   | ug/l   | 96       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 35904    | 9.512   | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane     | 11.012 | 97   | 21060    | 9.222   | ug/l   | 98       |
| 56) Ethyl methacrylate        | 10.871 | 69   | 28454    | 9.042   | ug/l   | 95       |
| 57) 1,3-Dichloropropane       | 11.159 | 76   | 37768    | 9.512   | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 63110    | 43.550  | ug/l   | 98       |
| 59) 2-Hexanone                | 11.194 | 43   | 101318   | 46.291  | ug/l   | 98       |
| 60) Dibromochloromethane      | 11.353 | 129  | 25029    | 9.079   | ug/l   | 98       |
| 61) 1,2-Dibromoethane         | 11.465 | 107  | 21055    | 9.263   | ug/l   | 100      |
| 64) Tetrachloroethene         | 11.100 | 164  | 19934    | 9.928   | ug/l   | 97       |
| 65) Chlorobenzene             | 11.888 | 112  | 61680    | 9.560   | ug/l   | 93       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 21853    | 9.229   | ug/l   | 98       |
| 67) Ethyl Benzene             | 11.959 | 91   | 99248    | 9.445   | ug/l   | 97       |
| 68) m/p-Xylenes               | 12.065 | 106  | 72431    | 18.650  | ug/l   | 99       |
| 69) o-Xylene                  | 12.394 | 106  | 34382    | 9.264   | ug/l   | 99       |
| 70) Styrene                   | 12.406 | 104  | 56285    | 9.163   | ug/l   | 98       |
| 71) Bromoform                 | 12.576 | 173  | 16071    | 9.485   | ug/l # | 98       |
| 73) Isopropylbenzene          | 12.694 | 105  | 87003    | 9.697   | ug/l   | 99       |
| 74) N-amyl acetate            | 12.494 | 43   | 37343    | 9.260   | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 30770    | 9.709   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 25443m   | 9.432   | ug/l   |          |
| 77) Bromobenzene              | 12.976 | 156  | 22784    | 9.720   | ug/l   | 97       |
| 78) n-propylbenzene           | 13.035 | 91   | 102262   | 9.628   | ug/l   | 98       |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 68346    | 9.943   | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene    | 13.171 | 105  | 71656    | 9.669   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 9236     | 9.248   | ug/l   | 100      |
| 82) 4-Chlorotoluene           | 13.218 | 91   | 66773    | 9.756   | ug/l   | 97       |
| 83) tert-Butylbenzene         | 13.435 | 119  | 59455    | 9.553   | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene    | 13.476 | 105  | 72046    | 9.754   | ug/l   | 99       |
| 85) sec-Butylbenzene          | 13.612 | 105  | 83662    | 9.699   | ug/l   | 99       |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 67556    | 9.674   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 13.729 | 146  | 41843    | 9.693   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 42728    | 9.549   | ug/l   | 99       |
| 89) n-Butylbenzene            | 14.053 | 91   | 57632    | 9.314   | ug/l   | 97       |
| 90) Hexachloroethane          | 14.329 | 117  | 15261    | 9.294   | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 40726    | 9.458   | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 5639     | 9.744   | ug/l   | 95       |
| 93) 1,2,4-Trichlorobenzene    | 15.388 | 180  | 18720    | 9.354   | ug/l   | 99       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 10491    | 9.874   | ug/l   | 98       |
| 95) Naphthalene               | 15.635 | 128  | 52054    | 8.717   | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 19450    | 9.605   | ug/l   | 96       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
Data File : VN085441.D  
Acq On : 14 Jan 2025 16:07  
Operator : JC\MD  
Sample : VSTDICC010  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:44:05 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 01:28:51 2025  
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

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

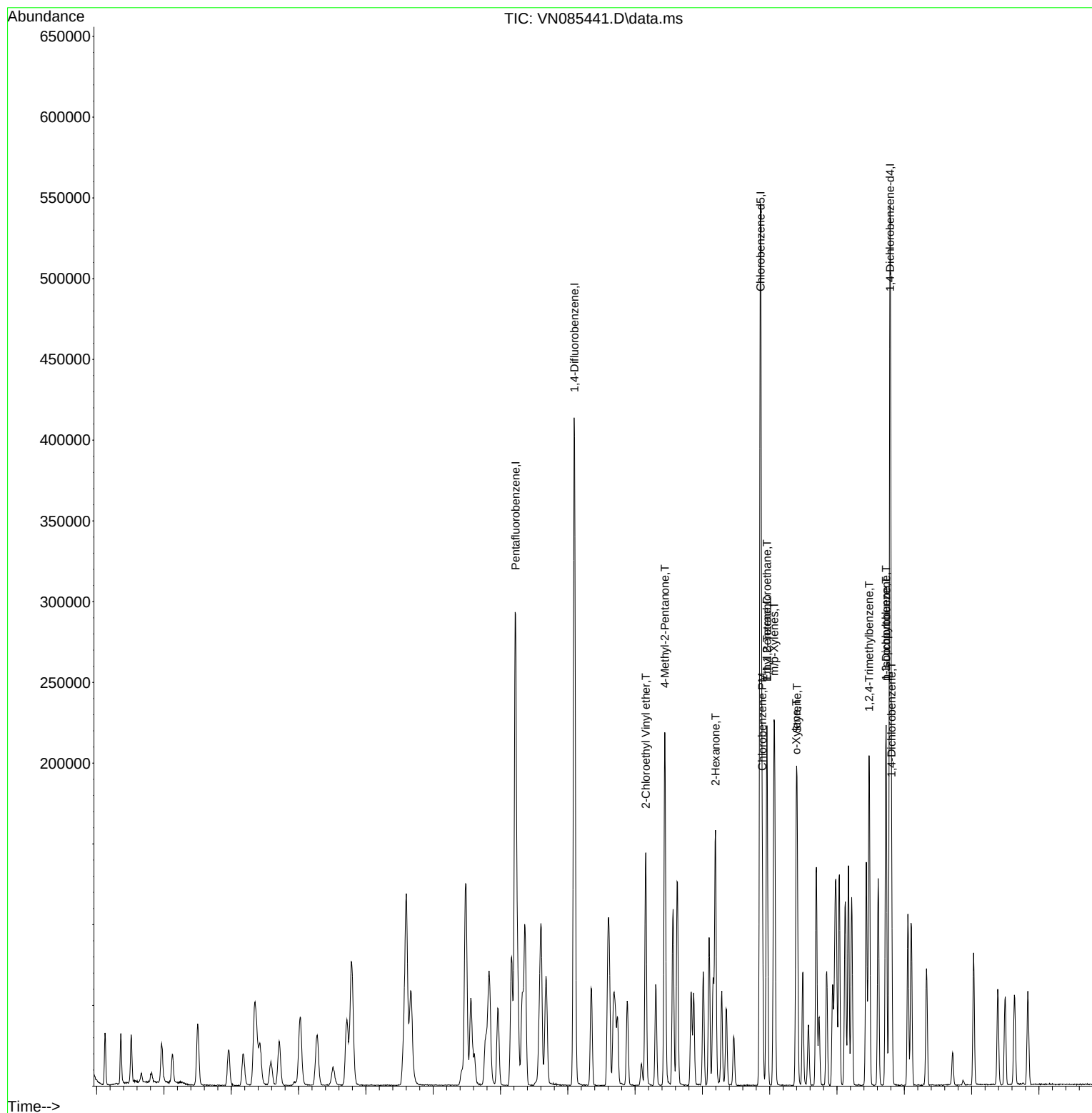
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
Data File : VN085441.D  
Acq On : 14 Jan 2025 16:07  
Operator : JC\MD  
Sample : VSTDIC010  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC010

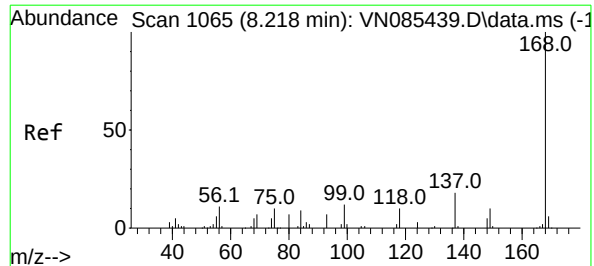
Manual Integrations  
APPROVED

Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:44:05 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 01:28:51 2025  
Response via : Initial Calibration







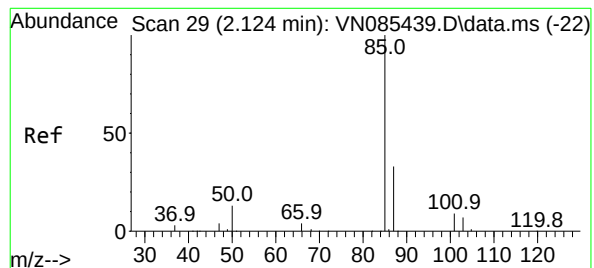
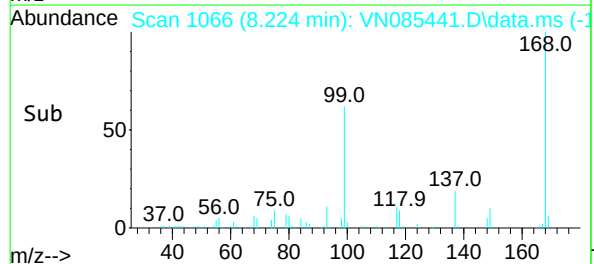
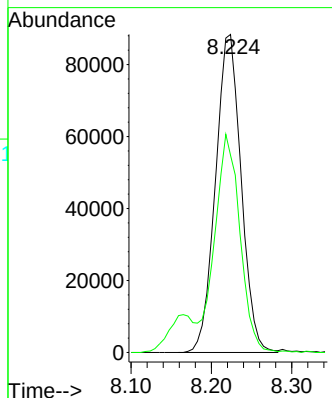
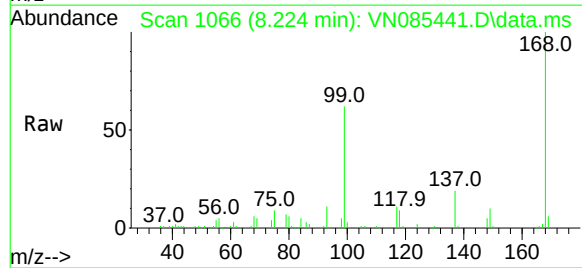
#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. 0.006 min  
Lab File: VN085441.D  
Acq: 14 Jan 2025 16:07

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Tgt Ion:168 Resp: 195889  
Ion Ratio Lower Upper  
168 100  
99 61.7 53.6 80.4

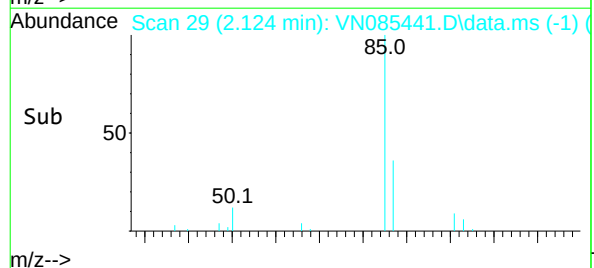
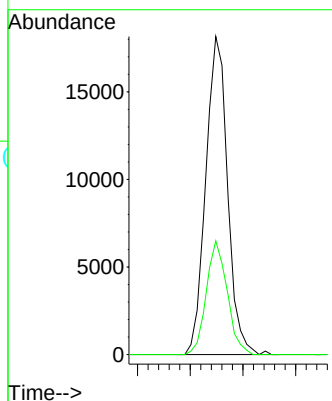
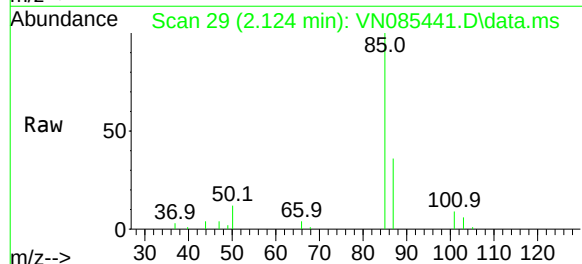
Manual Integrations  
APPROVED

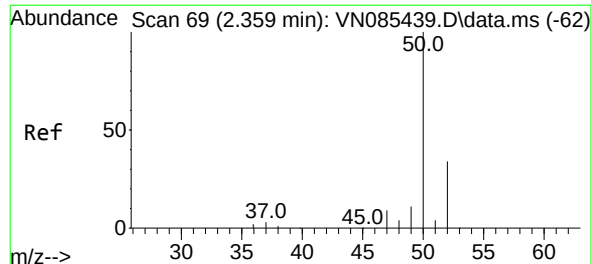
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#2  
Dichlorodifluoromethane  
Concen: 9.850 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. 0.000 min  
Lab File: VN085441.D  
Acq: 14 Jan 2025 16:07

Tgt Ion: 85 Resp: 26124  
Ion Ratio Lower Upper  
85 100  
87 35.8 16.7 50.1





#3

Chloromethane

Concen: 9.452 ug/l

RT: 2.359 min Scan# 69

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 50 Resp: 27143

Ion Ratio Lower Upper

50 100

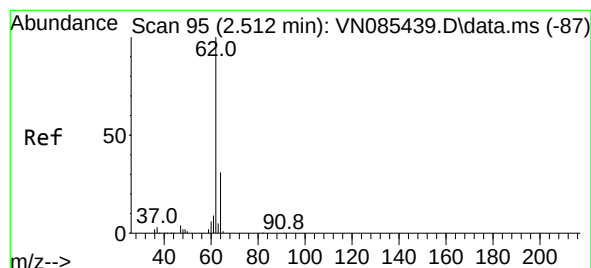
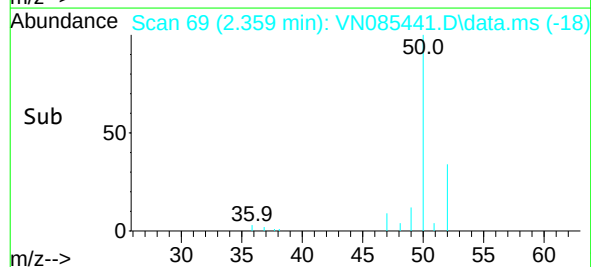
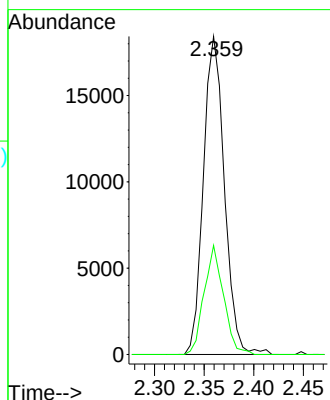
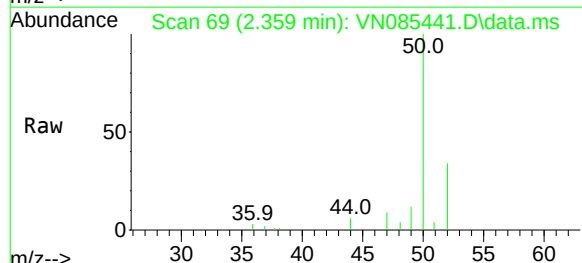
52 34.3 27.0 40.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#4

Vinyl Chloride

Concen: 9.653 ug/l

RT: 2.512 min Scan# 95

Delta R.T. 0.000 min

Lab File: VN085441.D

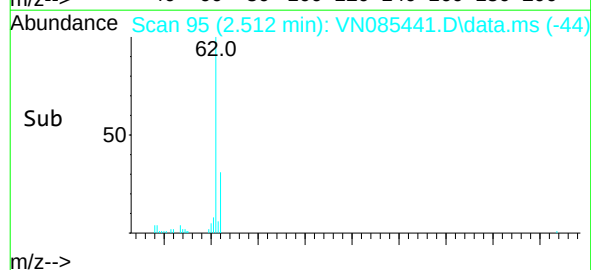
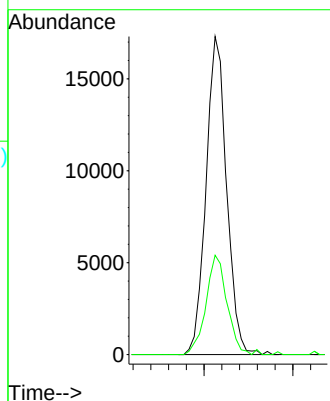
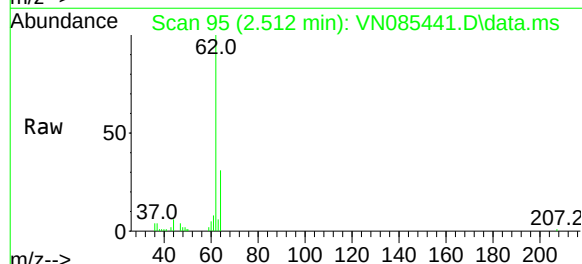
Acq: 14 Jan 2025 16:07

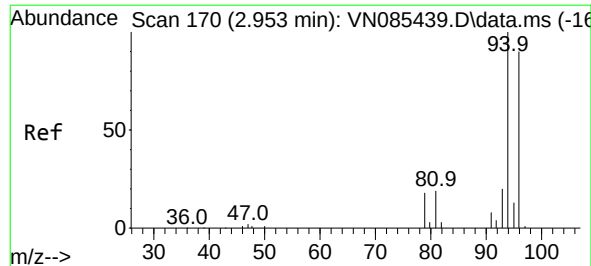
Tgt Ion: 62 Resp: 27862

Ion Ratio Lower Upper

62 100

64 31.2 24.8 37.2





#5

Bromomethane

Concen: 9.830 ug/l

RT: 2.965 min Scan# 171

Delta R.T. 0.012 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 94 Resp: 17139

Ion Ratio Lower Upper

94 100

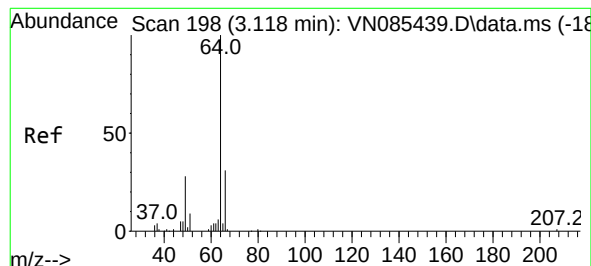
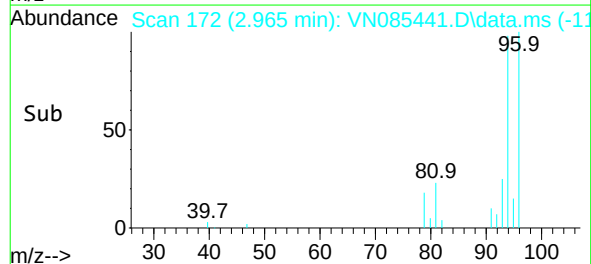
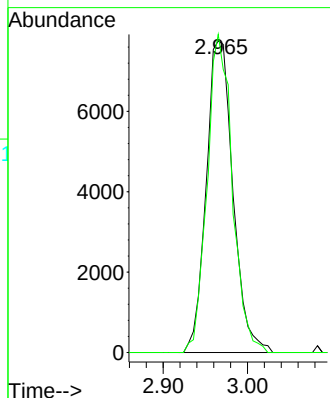
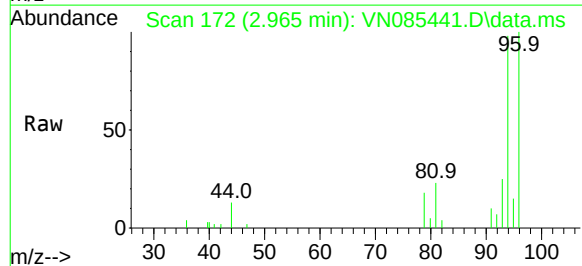
96 102.1 71.8 107.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#6

Chloroethane

Concen: 9.175 ug/l

RT: 3.130 min Scan# 200

Delta R.T. 0.012 min

Lab File: VN085441.D

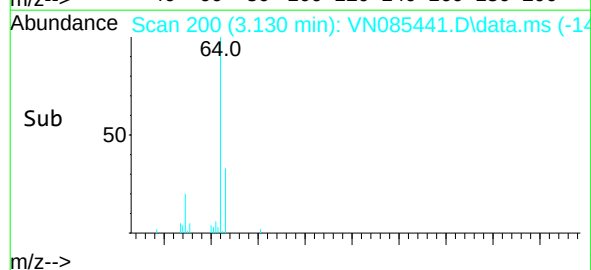
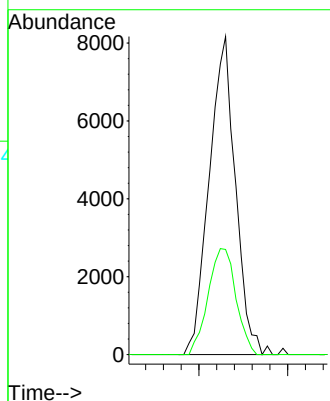
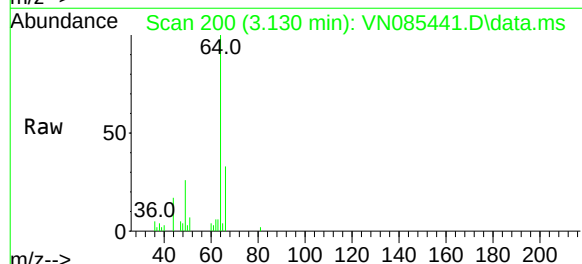
Acq: 14 Jan 2025 16:07

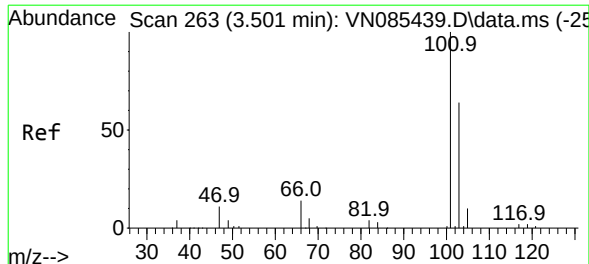
Tgt Ion: 64 Resp: 16791

Ion Ratio Lower Upper

64 100

66 33.1 24.6 36.8





#7

Trichlorofluoromethane

Concen: 9.731 ug/l

RT: 3.501 min Scan# 263

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion:101 Resp: 40755

Ion Ratio Lower Upper

101 100

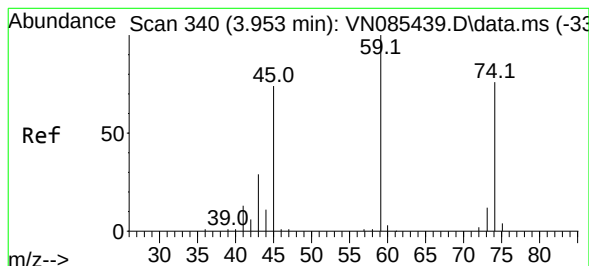
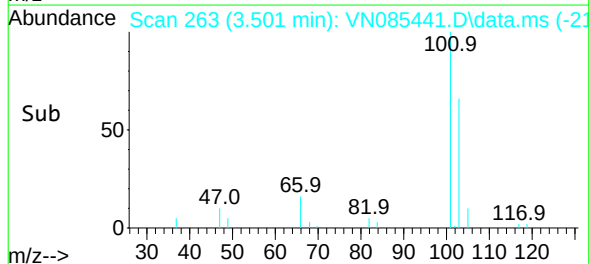
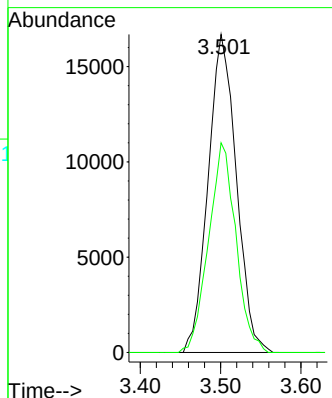
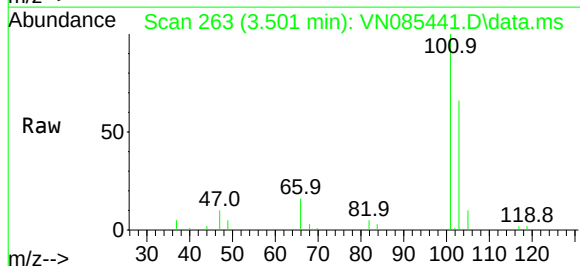
103 65.9 51.4 77.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#8

Diethyl Ether

Concen: 8.581 ug/l

RT: 3.953 min Scan# 340

Delta R.T. 0.000 min

Lab File: VN085441.D

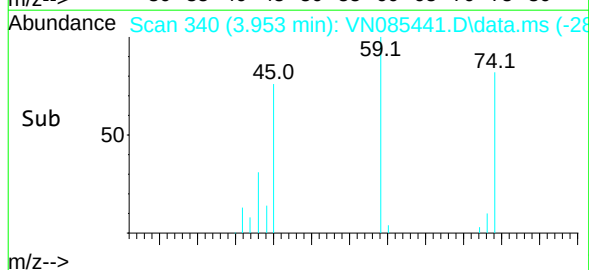
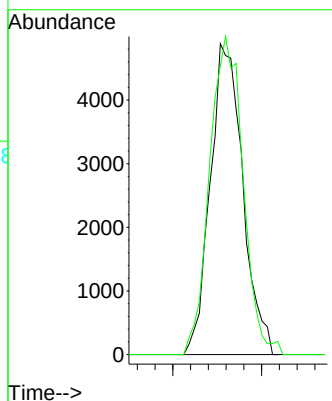
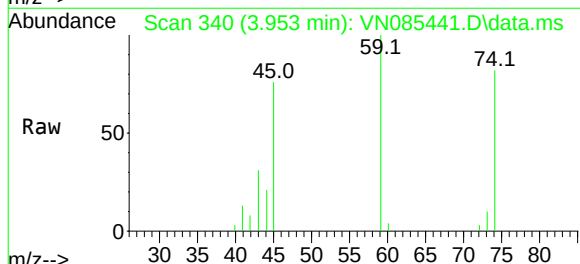
Acq: 14 Jan 2025 16:07

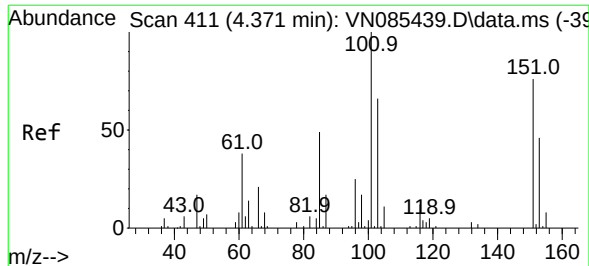
Tgt Ion: 74 Resp: 12415

Ion Ratio Lower Upper

74 100

45 105.3 49.7 149.1





#9

1,1,2-Trichlorotrifluoroethane

Concen: 9.742 ug/l

RT: 4.371 min Scan# 411

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion:101 Resp: 22982

Ion Ratio Lower Upper

101 100

85 45.8 37.8 56.8

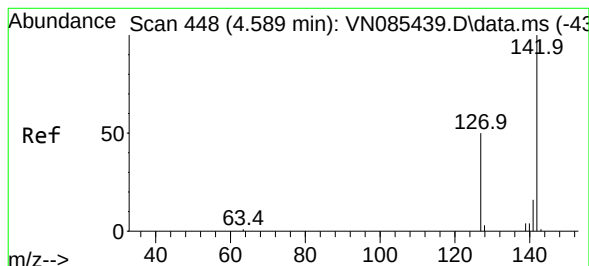
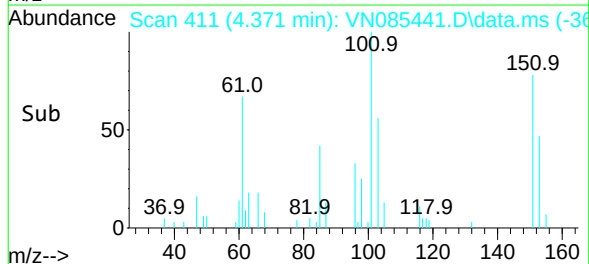
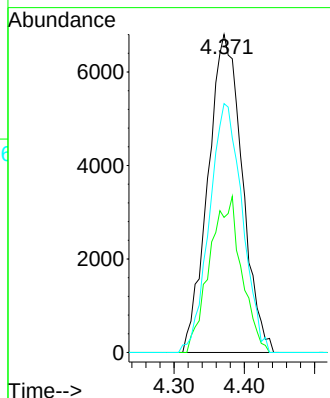
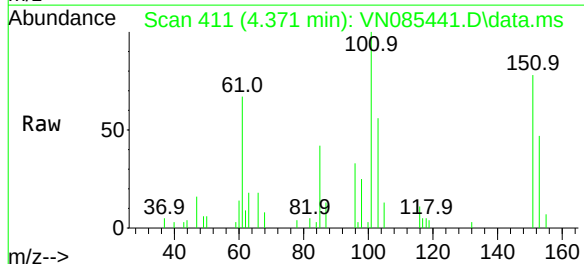
151 75.2 58.8 88.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#10

Methyl Iodide

Concen: 9.286 ug/l

RT: 4.589 min Scan# 448

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

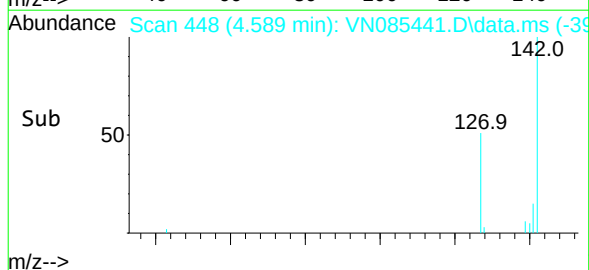
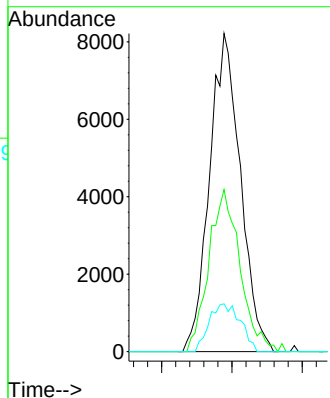
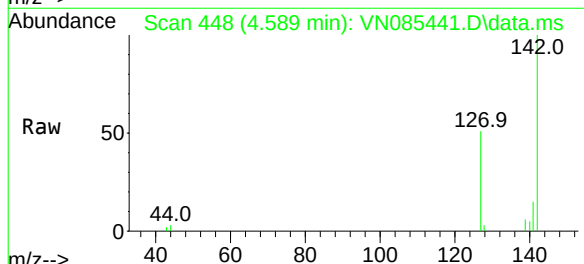
Tgt Ion:142 Resp: 25085

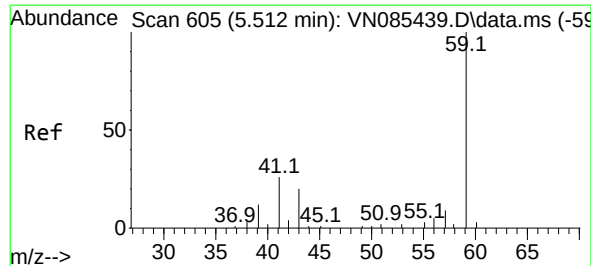
Ion Ratio Lower Upper

142 100

127 50.9 40.3 60.5

141 15.0 12.8 19.2





#11

Tert butyl alcohol

Concen: 49.608 ug/l

RT: 5.512 min Scan# 605

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 59 Resp: 17962

Ion Ratio Lower Upper

59 100

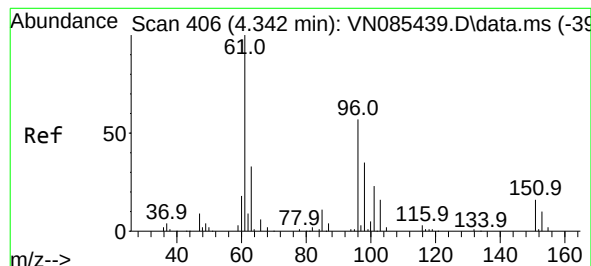
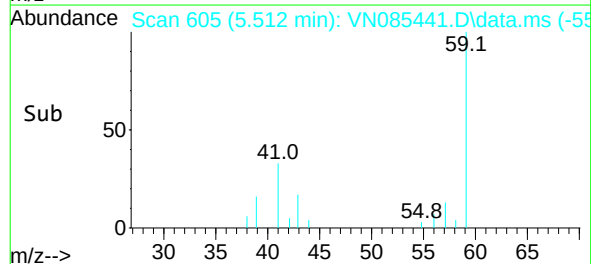
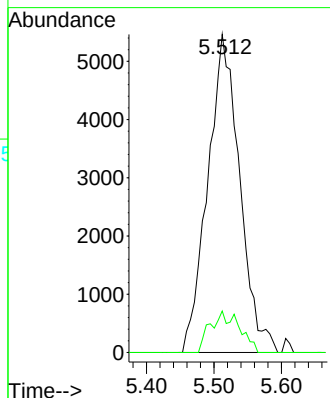
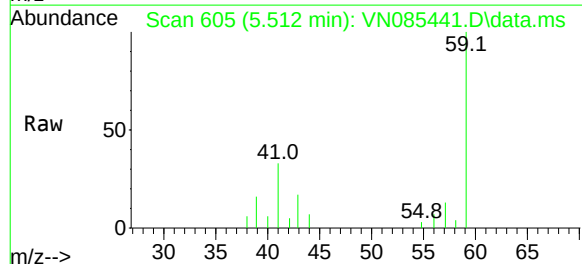
57 11.9 8.6 13.0

Manual Integrations

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Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#12

1,1-Dichloroethene

Concen: 9.806 ug/l

RT: 4.342 min Scan# 406

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

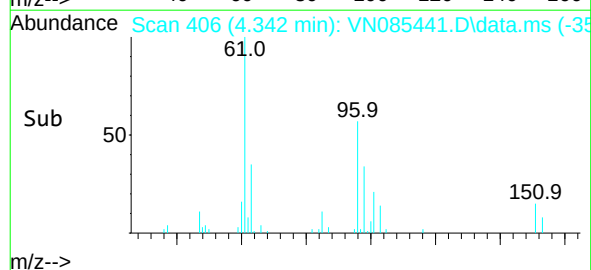
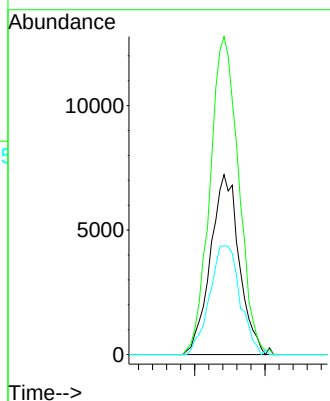
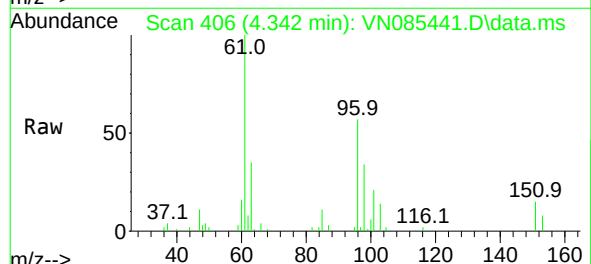
Tgt Ion: 96 Resp: 20615

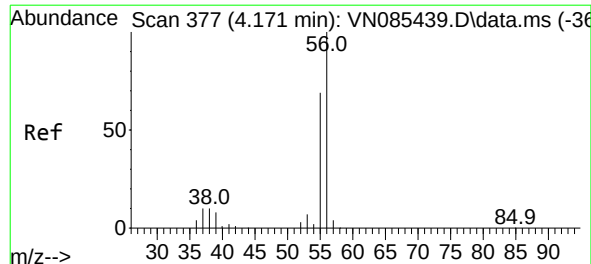
Ion Ratio Lower Upper

96 100

61 176.8 141.0 211.4

98 60.5 49.0 73.6





#13

Acrolein

Concen: 51.729 ug/l

RT: 4.177 min Scan# 377

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 56 Resp: 25568

Ion Ratio Lower Upper

56 100

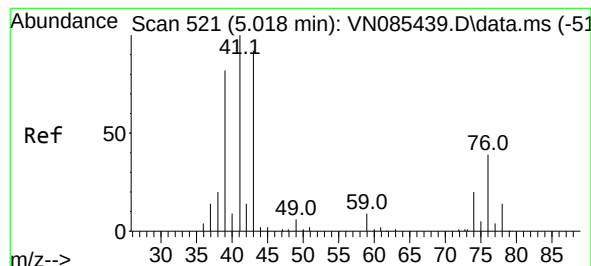
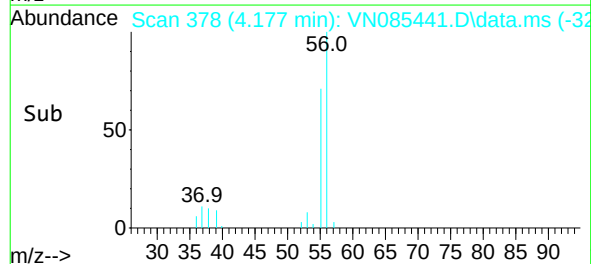
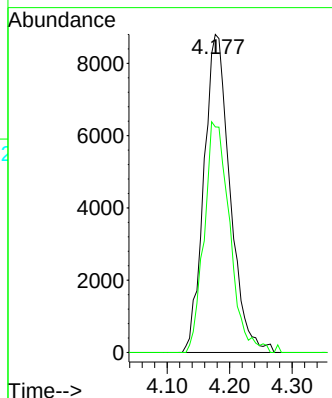
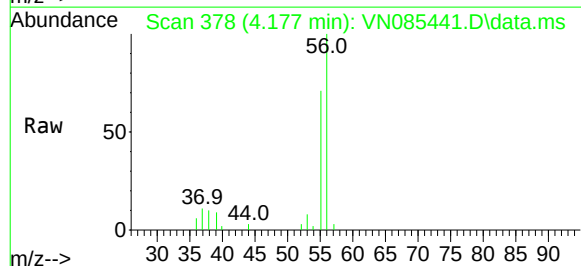
55 70.9 56.3 84.5

Manual Integrations

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Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#14

Allyl chloride

Concen: 9.451 ug/l

RT: 5.018 min Scan# 521

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

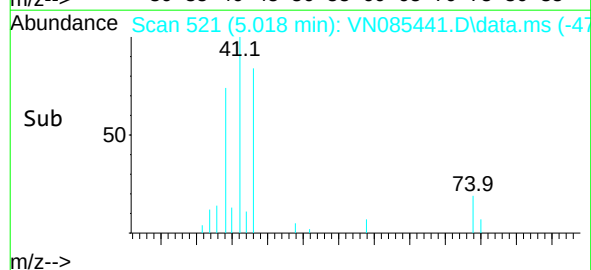
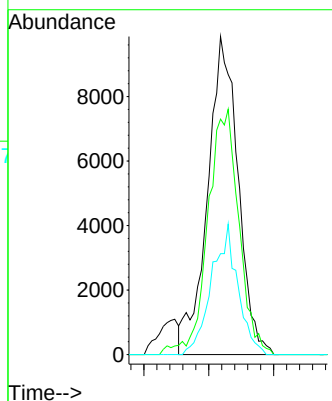
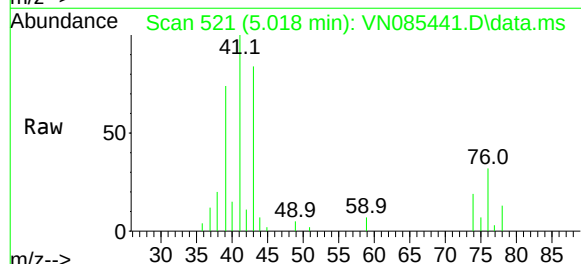
Tgt Ion: 41 Resp: 32240

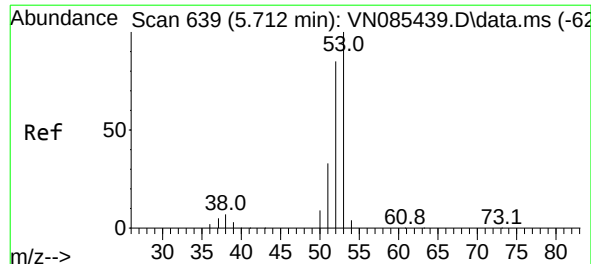
Ion Ratio Lower Upper

41 100

39 78.3 64.4 96.6

76 35.1 30.5 45.7





#15

Acrylonitrile

Concen: 46.918 ug/l

RT: 5.712 min Scan# 63

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

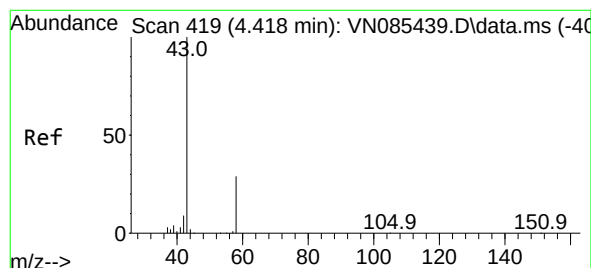
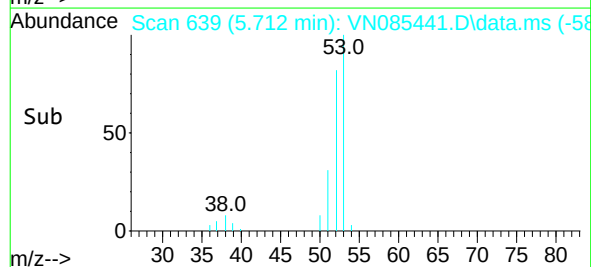
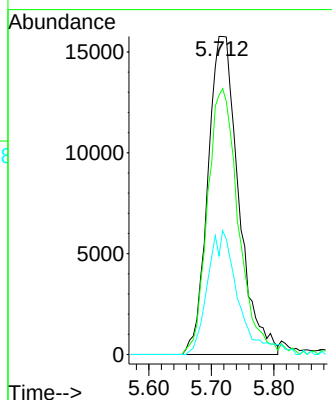
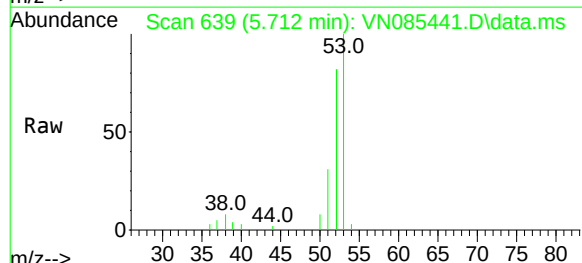
VSTDIC010

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 53    | Resp: | 53959 |
| Ion      | Ratio | Lower | Upper |
| 53       | 100   |       |       |
| 52       | 83.3  | 65.5  | 98.3  |
| 51       | 38.8  | 29.8  | 44.8  |

Manual Integrations

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Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#16

Acetone

Concen: 47.446 ug/l

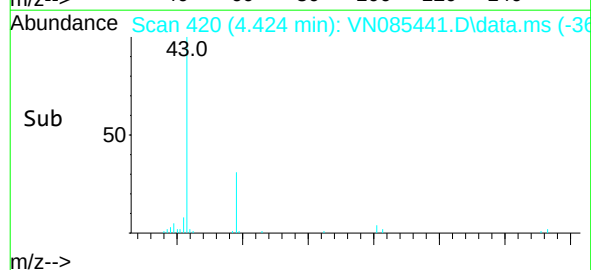
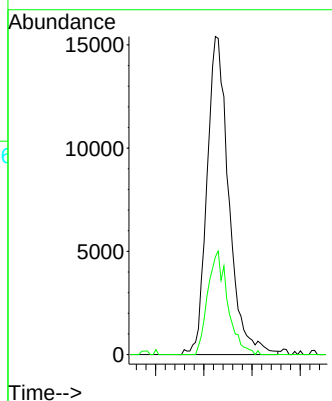
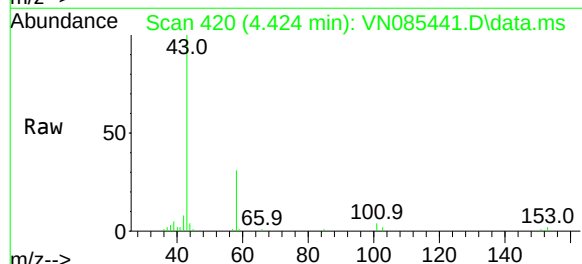
RT: 4.424 min Scan# 420

Delta R.T. 0.006 min

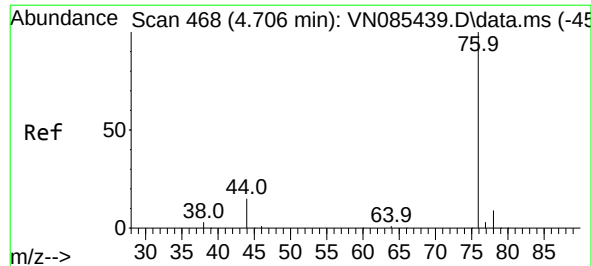
Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 48475 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 30.8  | 23.8  | 35.6  |







#17

Carbon Disulfide

Concen: 9.300 ug/l

RT: 4.712 min Scan# 46

Delta R.T. 0.006 min

Lab File: VN085441.D

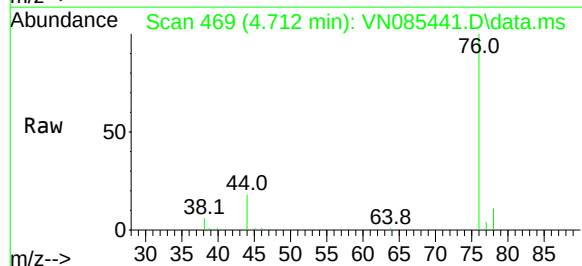
Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010



Tgt Ion: 76 Resp: 60201

Ion Ratio Lower Upper

76 100

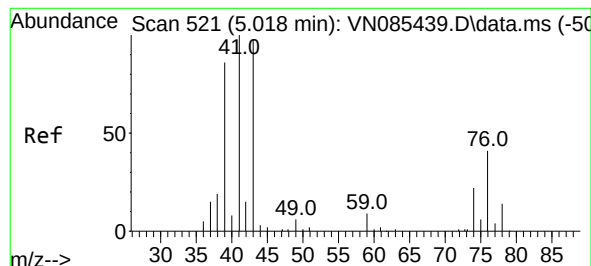
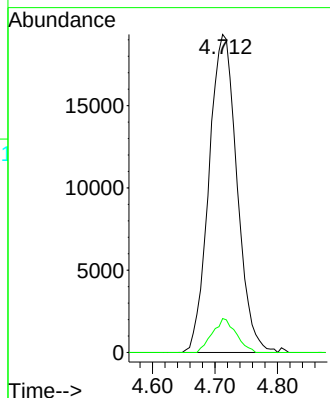
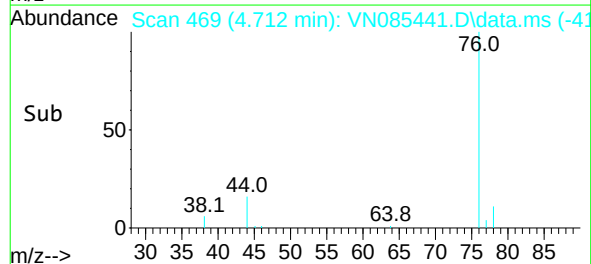
78 10.7 6.9 10.3#

Manual Integrations

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Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#18

Methyl Acetate

Concen: 9.817 ug/l

RT: 5.030 min Scan# 523

Delta R.T. 0.012 min

Lab File: VN085441.D

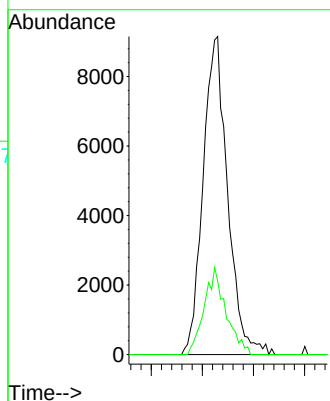
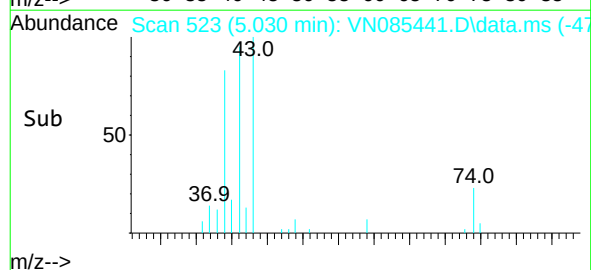
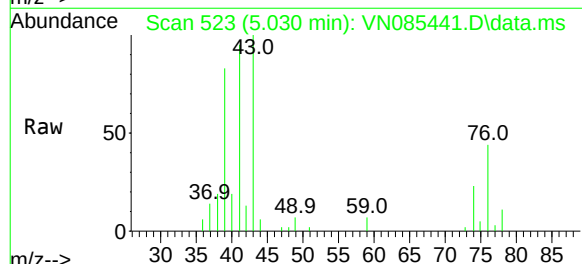
Acq: 14 Jan 2025 16:07

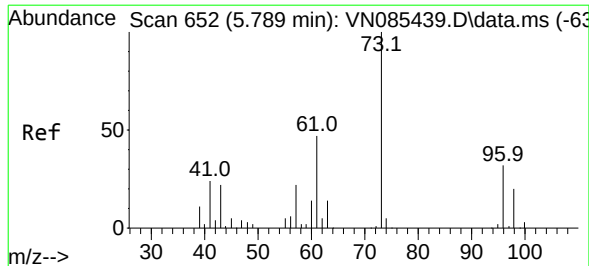
Tgt Ion: 43 Resp: 30500

Ion Ratio Lower Upper

43 100

74 24.3 18.6 28.0





#19

Methyl tert-butyl Ether

Concen: 9.552 ug/l

RT: 5.789 min Scan# 65

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 73 Resp: 65207

Ion Ratio Lower Upper

73 100

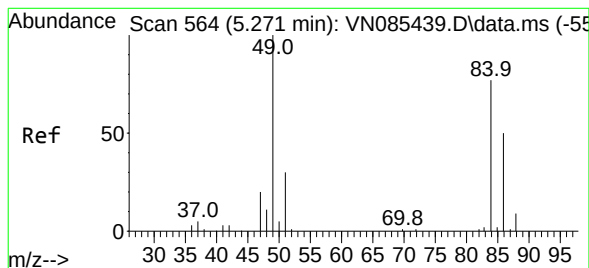
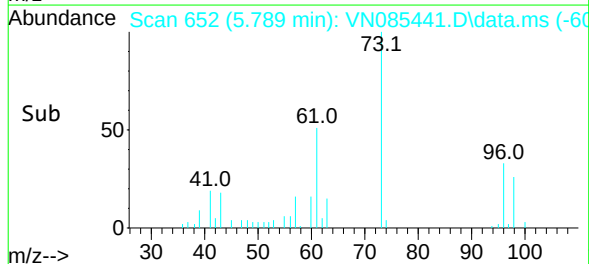
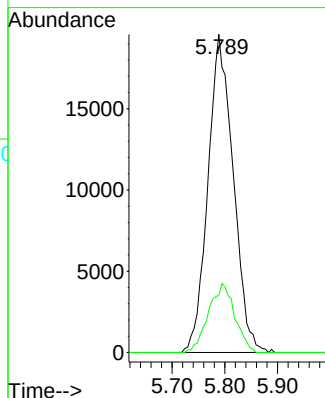
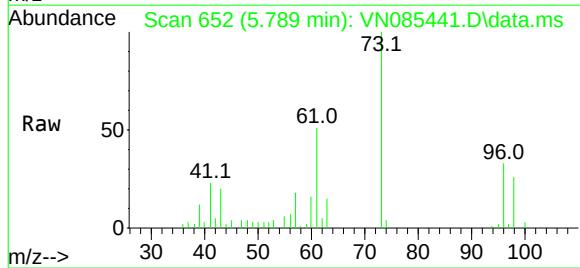
57 18.1 17.8 26.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#20

Methylene Chloride

Concen: 9.379 ug/l

RT: 5.277 min Scan# 565

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Tgt Ion: 84 Resp: 23723

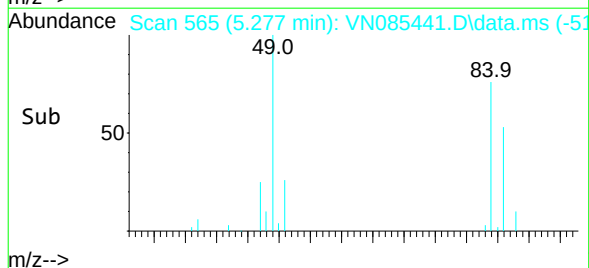
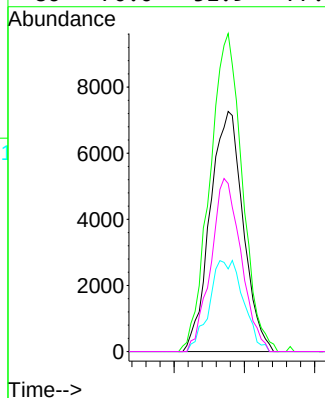
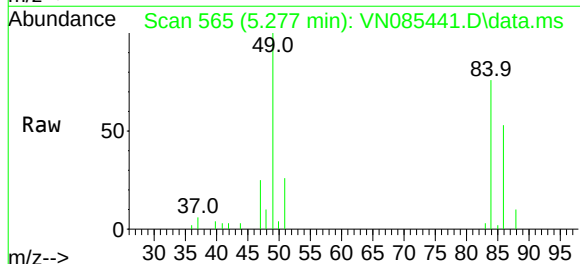
Ion Ratio Lower Upper

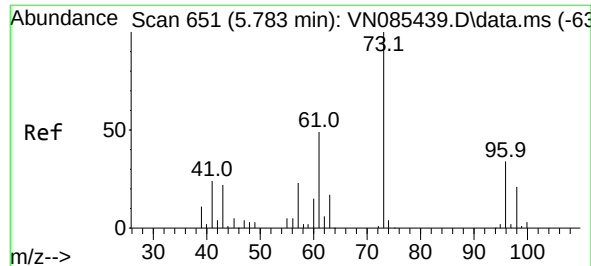
84 100

49 132.4 104.1 156.1

51 34.4 31.0 46.4

86 70.0 51.9 77.9





#21

trans-1,2-Dichloroethene

Concen: 9.403 ug/l

RT: 5.783 min Scan# 651

Delta R.T. 0.000 min

Lab File: VN085441.D

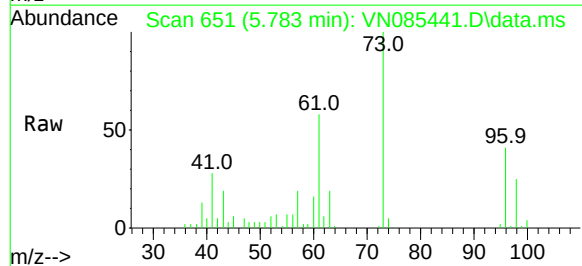
Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

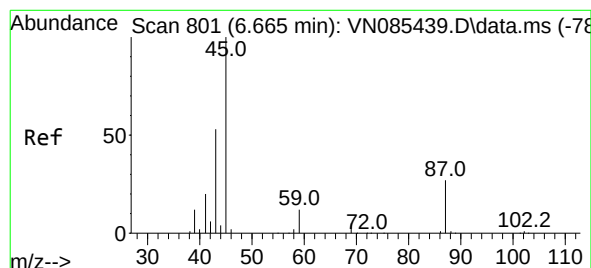
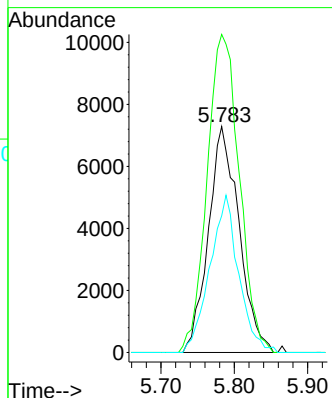
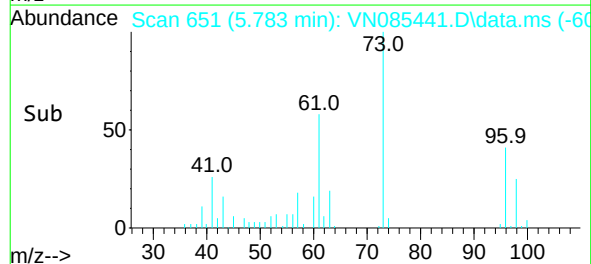
VSTDIC010



| Tgt Ion: | 96    | Resp: | 21127 |
|----------|-------|-------|-------|
| Ion      | Ratio | Lower | Upper |
| 96       | 100   |       |       |
| 61       | 140.8 | 115.7 | 173.5 |
| 98       | 60.5  | 49.8  | 74.8  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#22

Diisopropyl ether

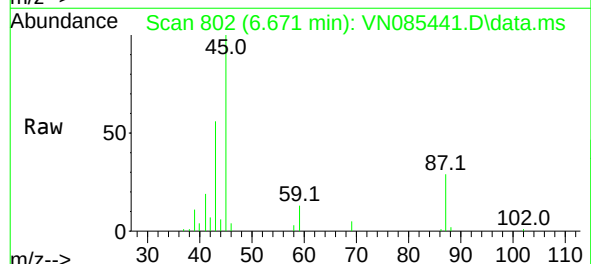
Concen: 9.490 ug/l

RT: 6.671 min Scan# 802

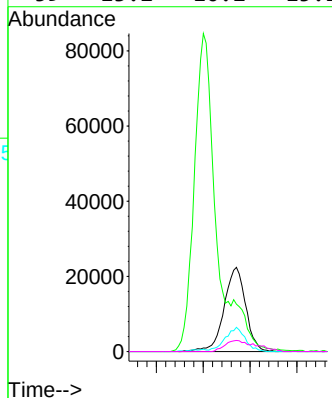
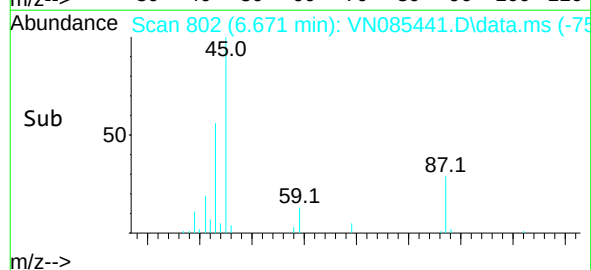
Delta R.T. 0.006 min

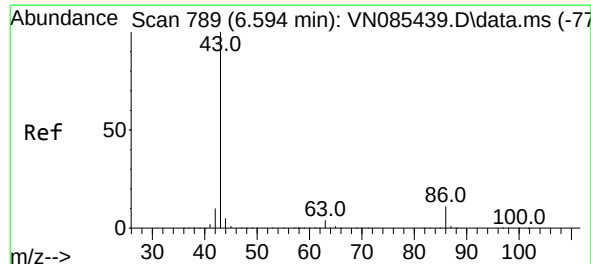
Lab File: VN085441.D

Acq: 14 Jan 2025 16:07



| Tgt Ion: | 45    | Resp: | 71857 |
|----------|-------|-------|-------|
| Ion      | Ratio | Lower | Upper |
| 45       | 100   |       |       |
| 43       | 53.2  | 45.0  | 67.6  |
| 87       | 28.8  | 21.8  | 32.8  |
| 59       | 13.2  | 10.2  | 15.2  |





#23

Vinyl Acetate

Concen: 47.125 ug/l

RT: 6.600 min Scan# 790

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 43 Resp: 250575

Ion Ratio Lower Upper

43 100

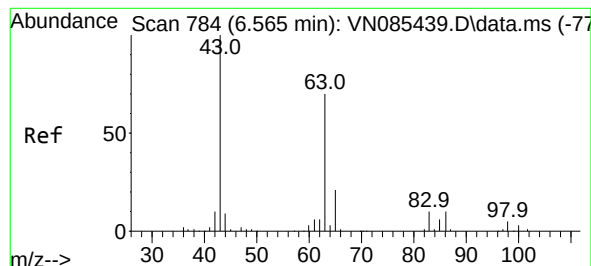
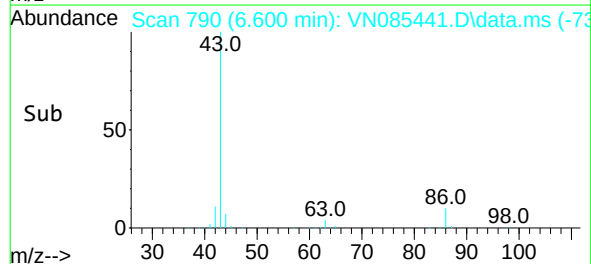
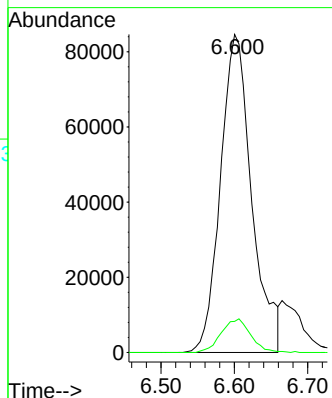
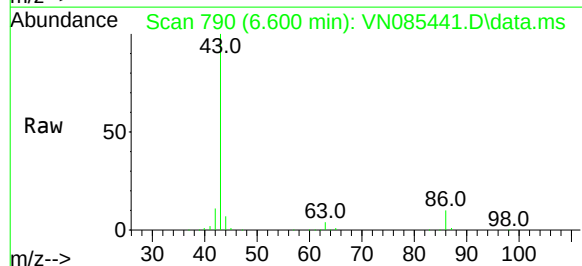
86 9.8 8.4 12.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#24

1,1-Dichloroethane

Concen: 9.335 ug/l

RT: 6.565 min Scan# 784

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

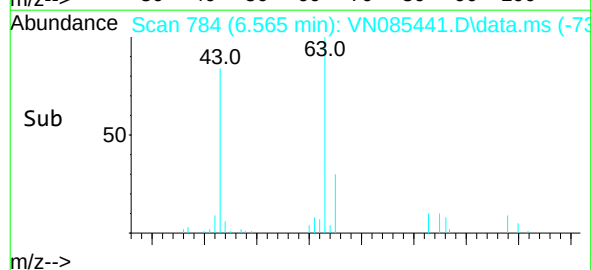
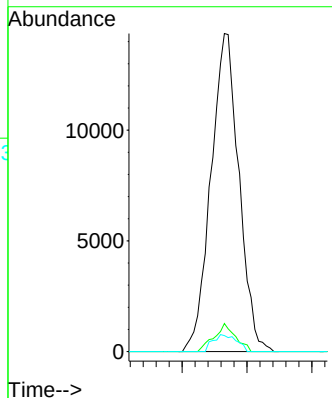
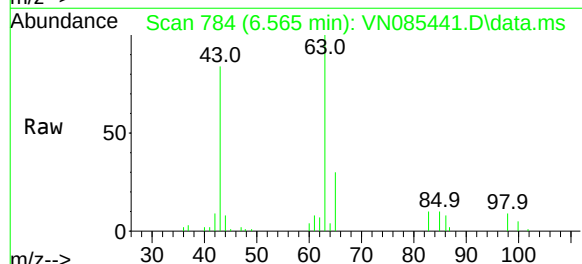
Tgt Ion: 63 Resp: 43099

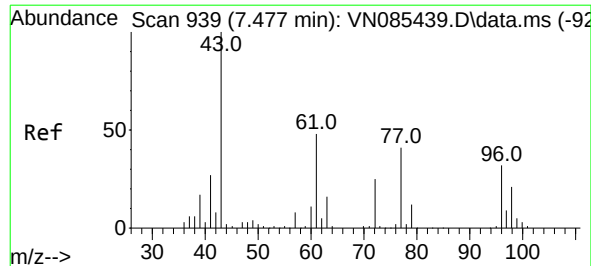
Ion Ratio Lower Upper

63 100

98 8.8 3.3 9.8

100 5.0 2.0 6.0





#25

2-Butanone

Concen: 47.350 ug/l

RT: 7.477 min Scan# 939

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Tgt Ion: 43 Resp: 71191

Ion Ratio Lower Upper

43 100

72 24.8 20.2 30.4

Instrument :

MSVOA\_N

ClientSampleId :

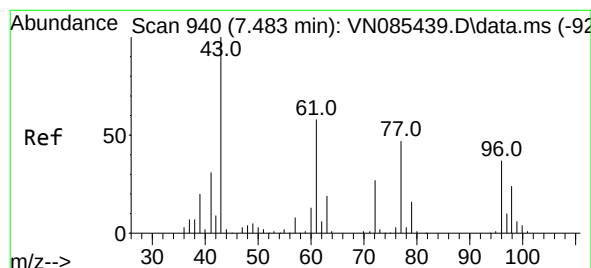
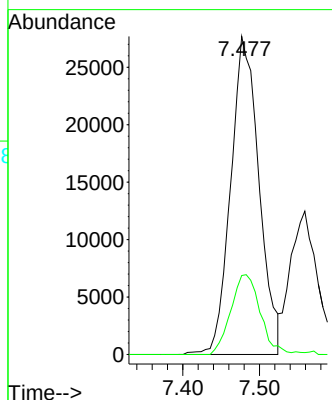
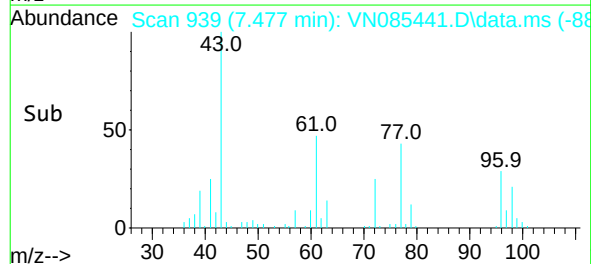
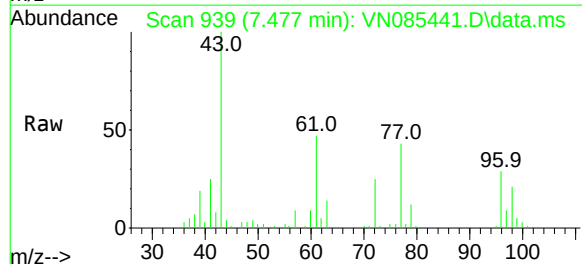
VSTDIC010

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#26

2,2-Dichloropropane

Concen: 9.672 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.000 min

Lab File: VN085441.D

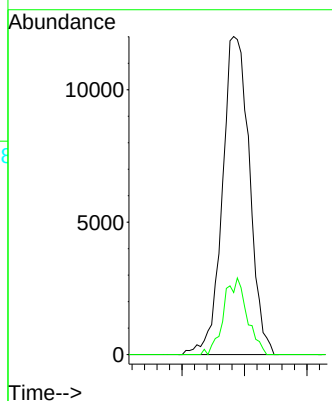
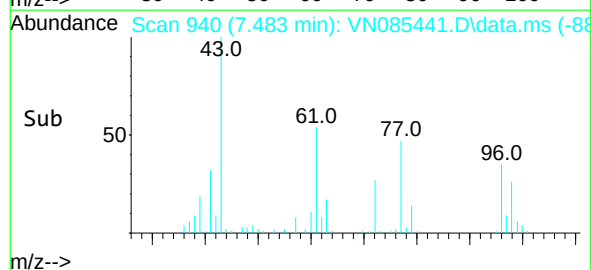
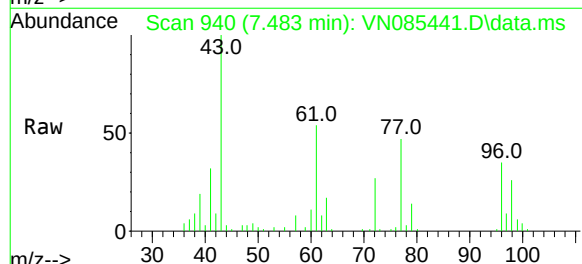
Acq: 14 Jan 2025 16:07

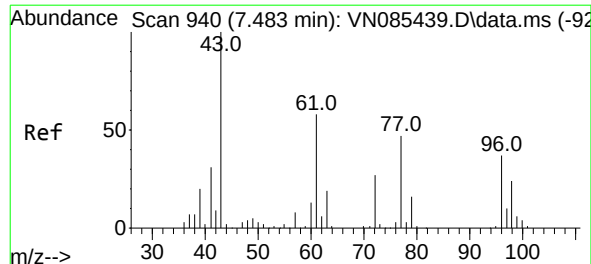
Tgt Ion: 77 Resp: 36105

Ion Ratio Lower Upper

77 100

97 20.8 10.7 32.1





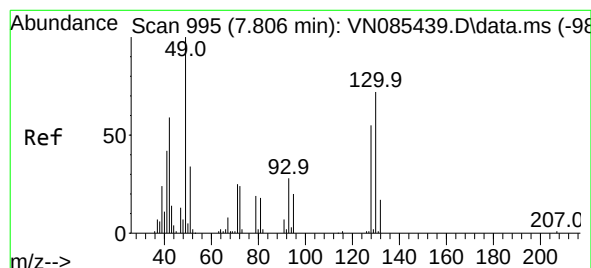
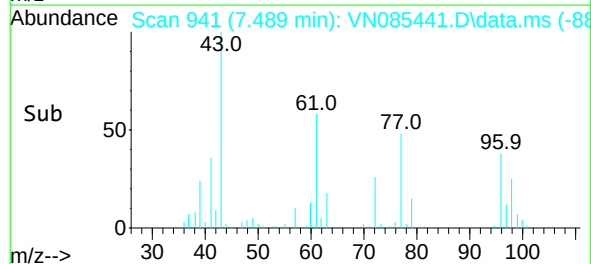
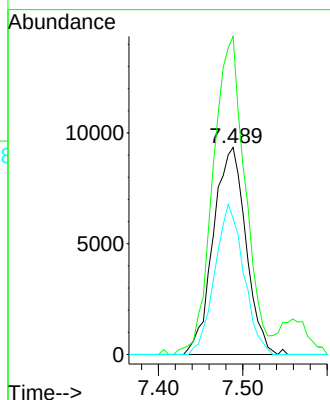
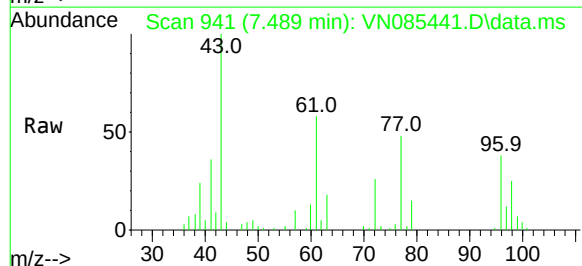
#27  
 cis-1,2-Dichloroethene  
 Concen: 9.466 ug/l  
 RT: 7.489 min Scan# 940  
 Delta R.T. 0.006 min  
 Lab File: VN085441.D  
 Acq: 14 Jan 2025 16:07

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDIC010

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 151.8 | 0.0   | 311.8 |
| 98      | 64.7  | 0.0   | 126.0 |

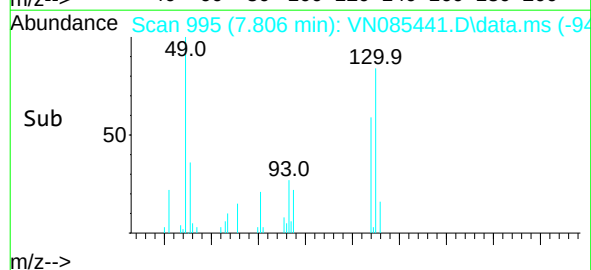
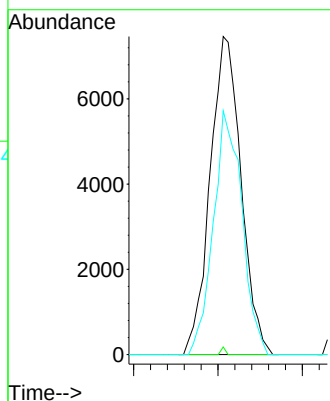
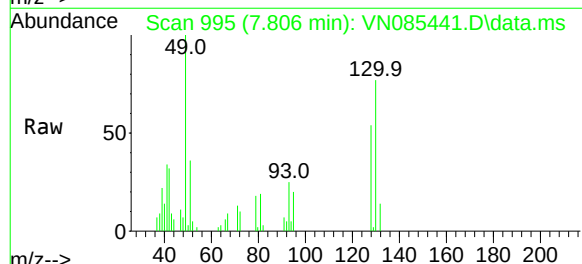
Manual Integrations  
 APPROVED

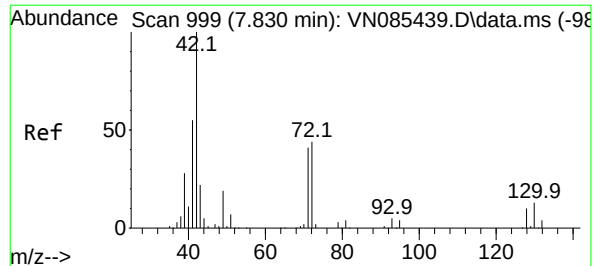
Reviewed By :John Carlone 01/15/2025  
 Supervised By :Mahesh Dadoda 01/15/2025



#28  
 Bromochloromethane  
 Concen: 8.863 ug/l  
 RT: 7.806 min Scan# 995  
 Delta R.T. 0.000 min  
 Lab File: VN085441.D  
 Acq: 14 Jan 2025 16:07

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49      | 100   |       |       |
| 129     | 0.3   | 0.0   | 4.4   |
| 130     | 70.8  | 55.0  | 82.4  |





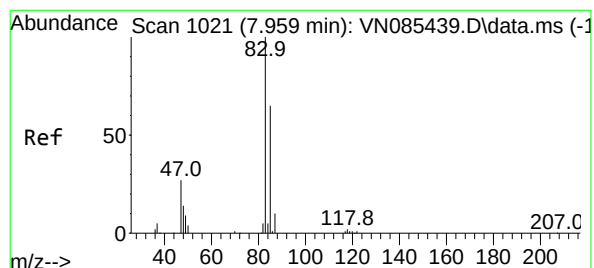
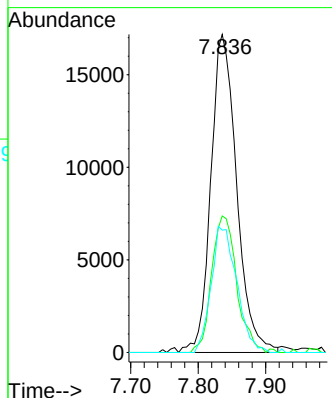
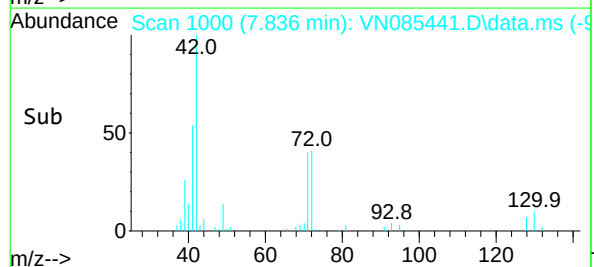
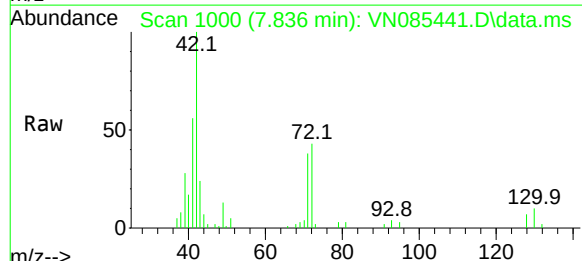
#29  
Tetrahydrofuran  
Concen: 47.881 ug/l  
RT: 7.836 min Scan# 10  
Delta R.T. 0.006 min  
Lab File: VN085441.D  
Acq: 14 Jan 2025 16:07

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Tgt Ion: 42 Resp: 45641  
Ion Ratio Lower Upper  
42 100  
72 41.6 34.2 51.2  
71 39.2 32.5 48.7

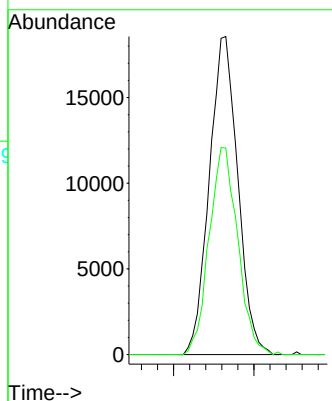
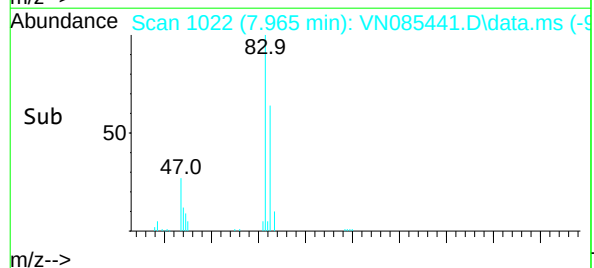
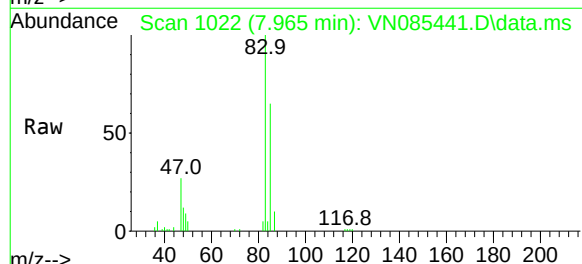
Manual Integrations  
APPROVED

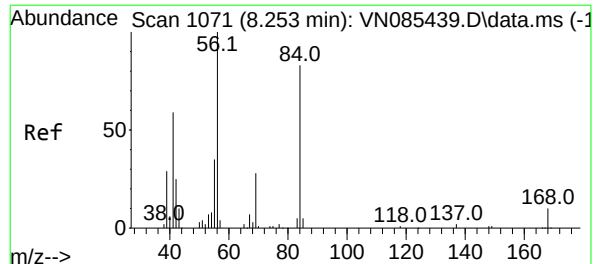
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#30  
Chloroform  
Concen: 9.596 ug/l  
RT: 7.965 min Scan# 1022  
Delta R.T. 0.006 min  
Lab File: VN085441.D  
Acq: 14 Jan 2025 16:07

Tgt Ion: 83 Resp: 45792  
Ion Ratio Lower Upper  
83 100  
85 64.9 51.8 77.6





#31

Cyclohexane

Concen: 10.020 ug/l

RT: 8.253 min Scan# 1071

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 56 Resp: 40211

Ion Ratio Lower Upper

56 100

69 34.2 22.2 33.4

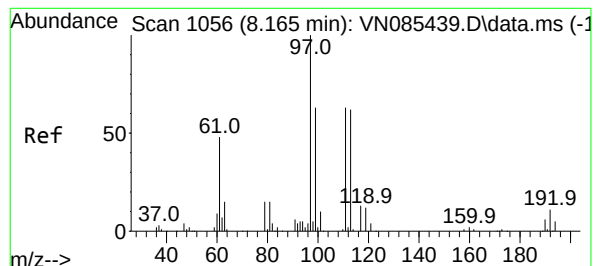
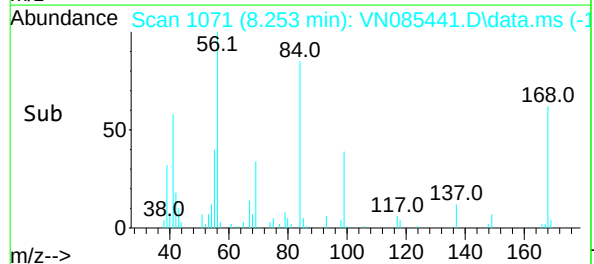
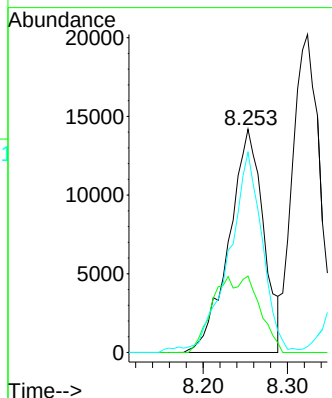
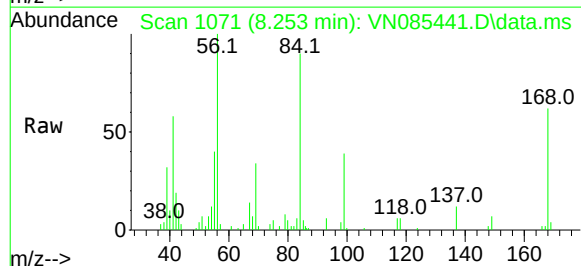
84 87.2 66.4 99.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#32

1,1,1-Trichloroethane

Concen: 9.358 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

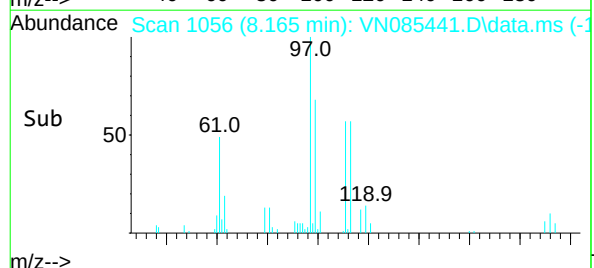
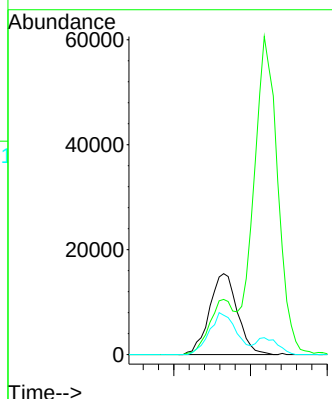
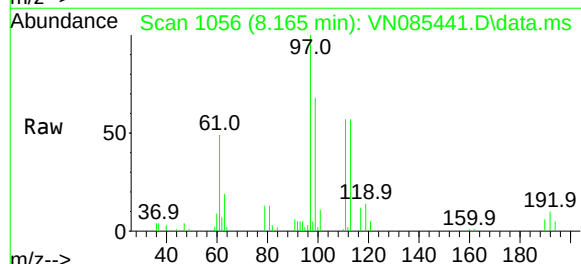
Tgt Ion: 97 Resp: 39170

Ion Ratio Lower Upper

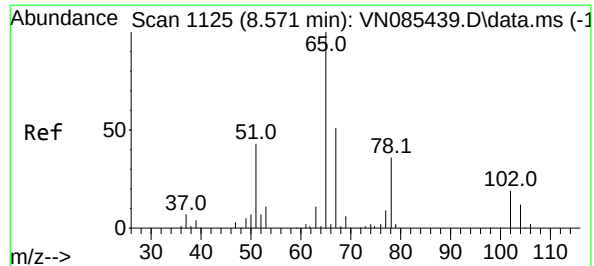
97 100

99 62.6 49.8 74.6

61 50.2 41.4 62.2







#33

1,2-Dichloroethane-d4

Concen: 9.442 ug/l

RT: 8.571 min Scan# 11

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 65 Resp: 29856

Ion Ratio Lower Upper

65 100

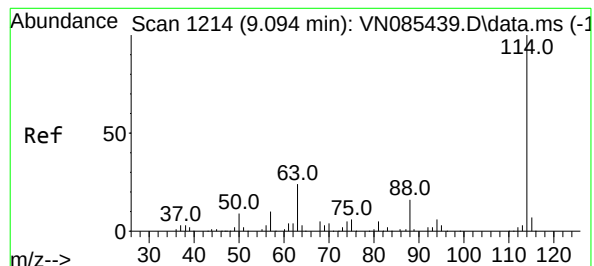
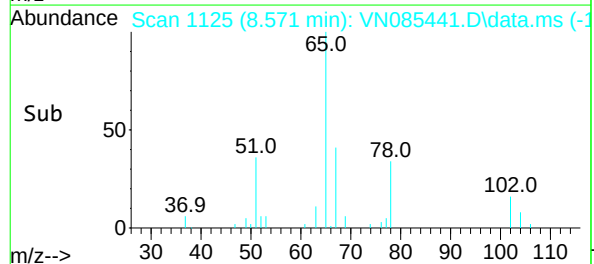
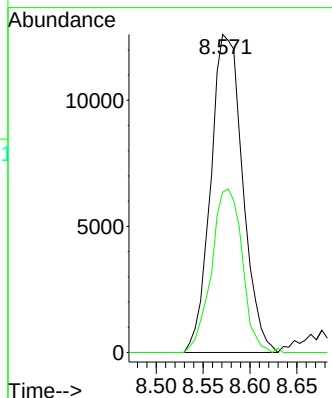
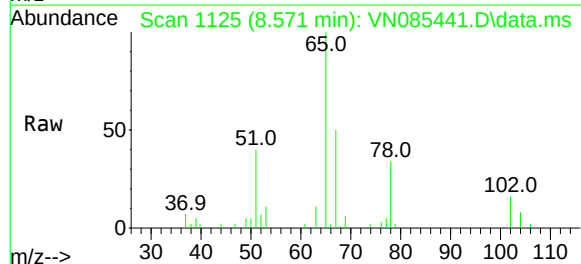
67 49.5 0.0 101.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

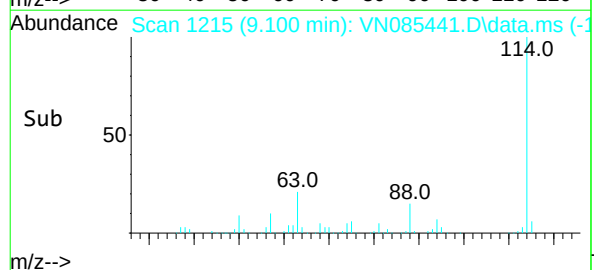
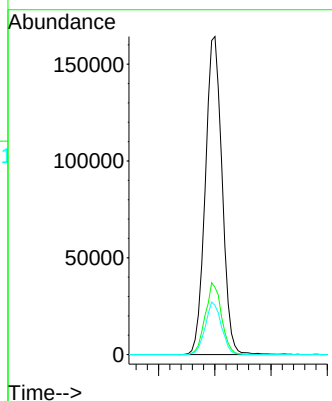
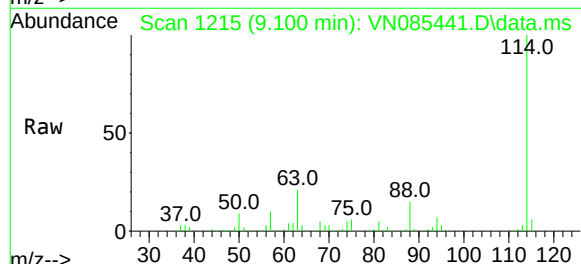
Tgt Ion:114 Resp: 340403

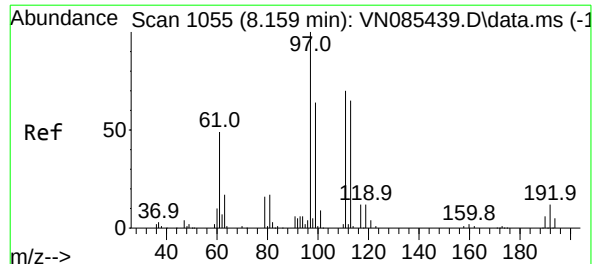
Ion Ratio Lower Upper

114 100

63 21.1 0.0 47.6

88 15.5 0.0 32.6





#35

Dibromofluoromethane

Concen: 8.939 ug/l

RT: 8.165 min Scan# 1055

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 113 Resp: 21110

Ion Ratio Lower Upper

113 100

111 103.4 82.7 124.1

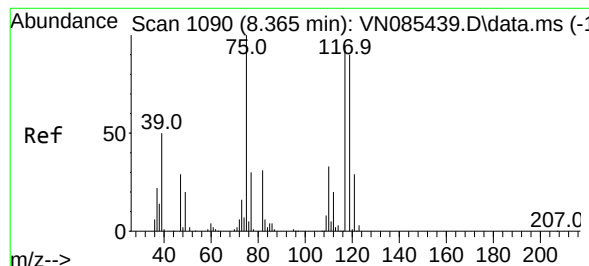
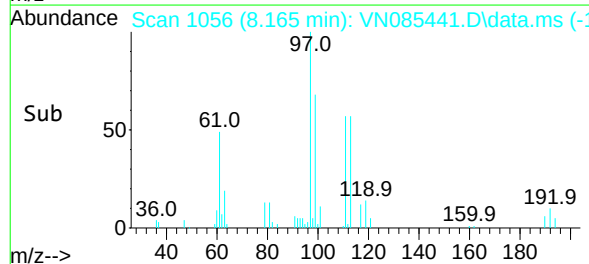
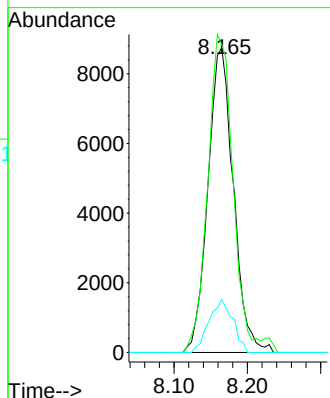
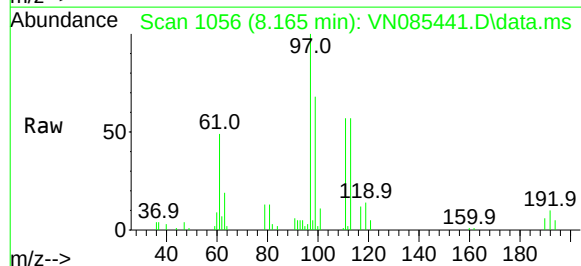
192 16.4 14.3 21.5

Manual Integrations

APPROVED

Reviewed By : John Carlone 01/15/2025

Supervised By : Mahesh Dadoda 01/15/2025



#36

1,1-Dichloropropene

Concen: 9.056 ug/l

RT: 8.371 min Scan# 1091

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

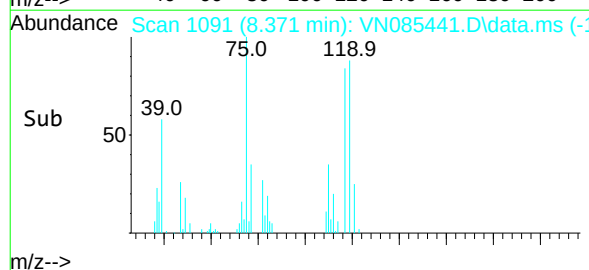
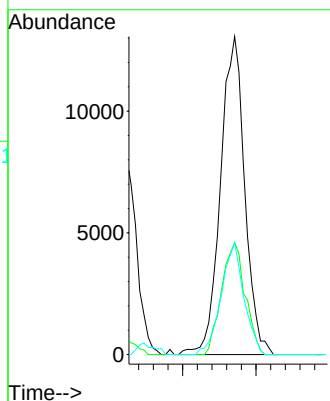
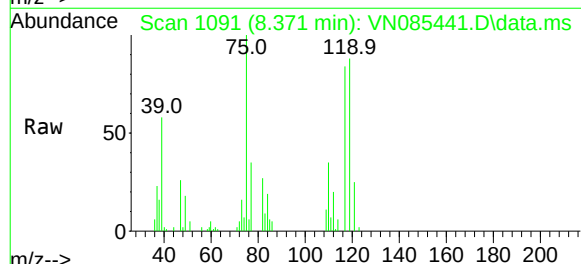
Tgt Ion: 75 Resp: 30015

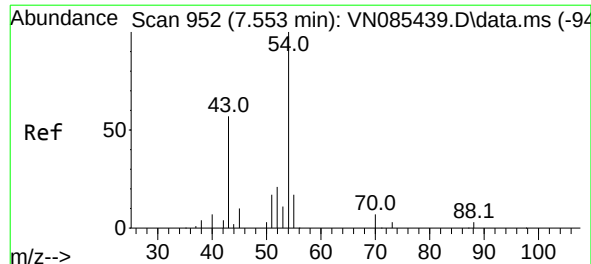
Ion Ratio Lower Upper

75 100

110 34.3 16.5 49.5

77 32.9 24.4 36.6





#37

Ethyl Acetate

Concen: 9.195 ug/l

RT: 7.559 min Scan# 95

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

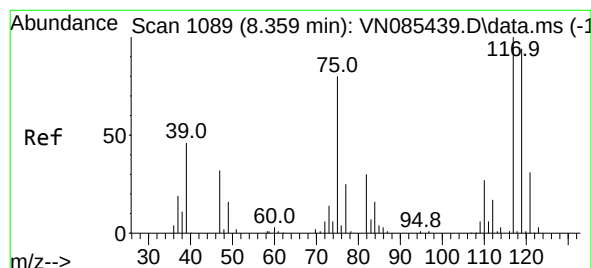
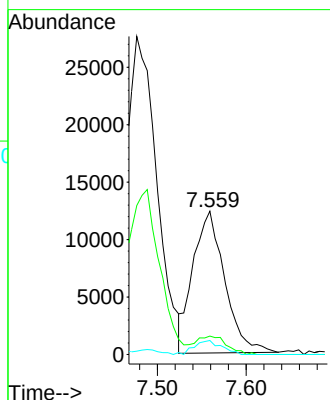
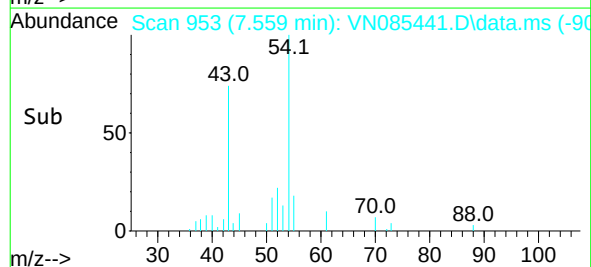
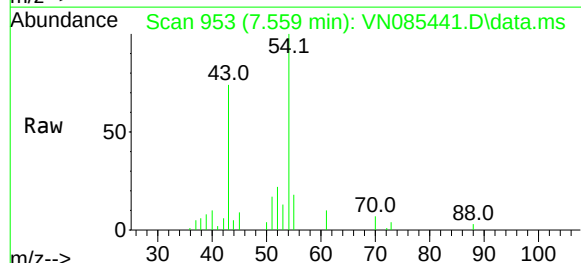
ClientSampleId :

VSTDICC010

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 30760 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 12.2  | 10.9  | 16.3  |
| 70       | 8.4   | 7.5   | 11.3  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#38

Carbon Tetrachloride

Concen: 9.492 ug/l

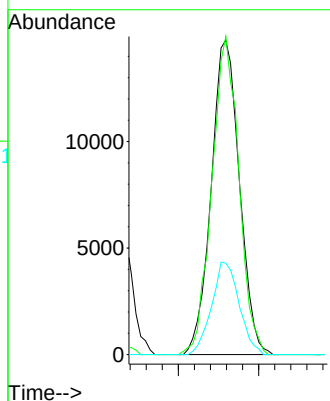
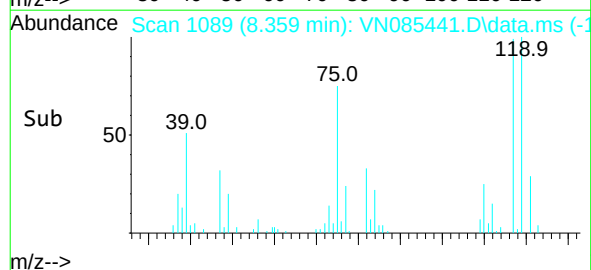
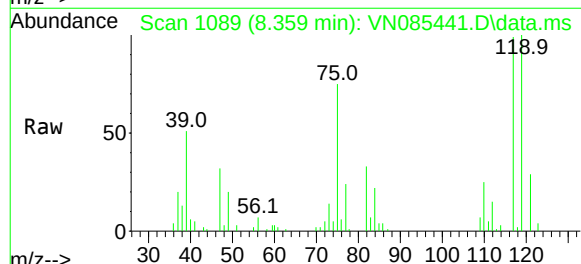
RT: 8.359 min Scan# 1089

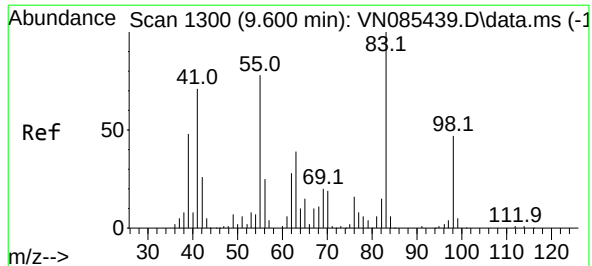
Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 36015 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 119      | 101.2 | 75.4  | 113.2 |
| 121      | 29.1  | 24.6  | 37.0  |





#39

Methylcyclohexane

Concen: 8.900 ug/l

RT: 9.594 min Scan# 12

Delta R.T. -0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 83 Resp: 27721

Ion Ratio Lower Upper

83 100

55 83.8 62.6 94.0

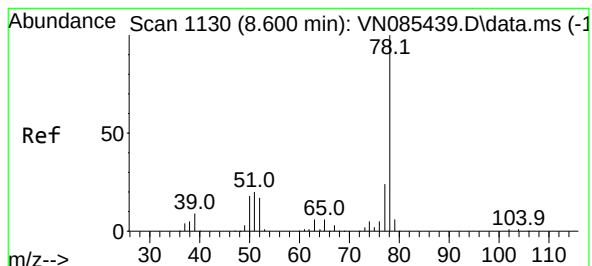
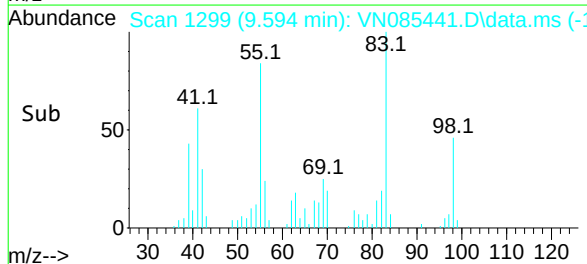
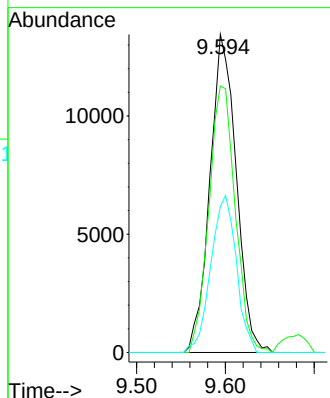
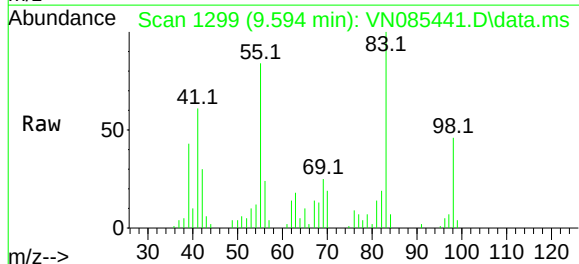
98 45.8 37.7 56.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#40

Benzene

Concen: 9.407 ug/l

RT: 8.600 min Scan# 1130

Delta R.T. 0.000 min

Lab File: VN085441.D

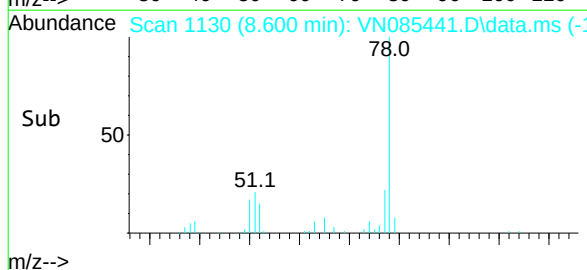
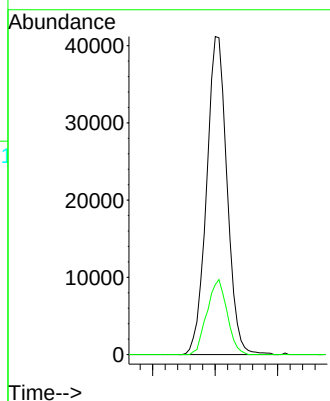
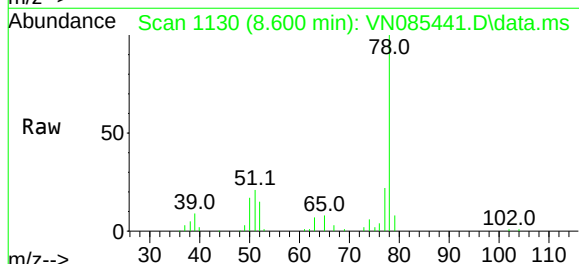
Acq: 14 Jan 2025 16:07

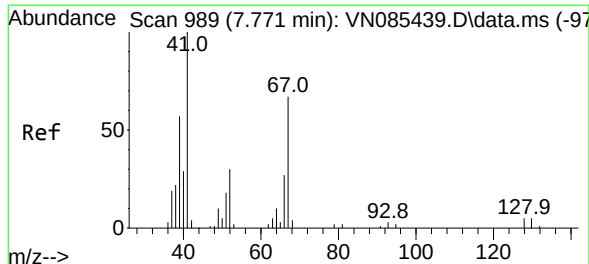
Tgt Ion: 78 Resp: 93680

Ion Ratio Lower Upper

78 100

77 22.0 19.0 28.6





#41

Methacrylonitrile

Concen: 9.686 ug/l

RT: 7.777 min Scan# 990

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

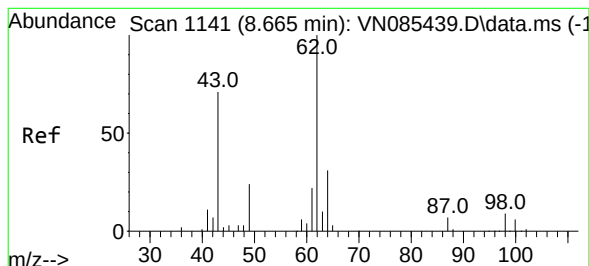
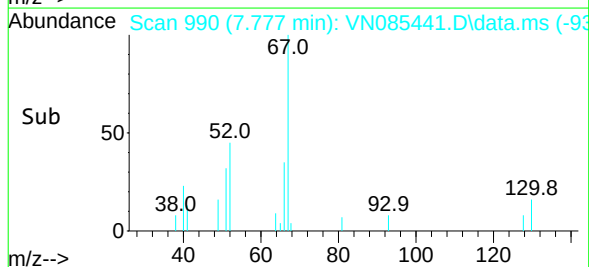
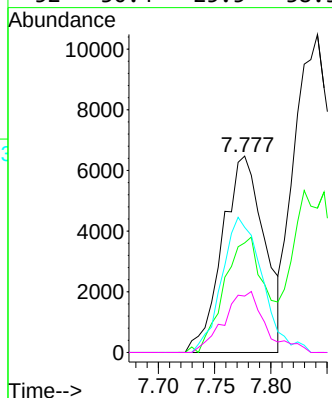
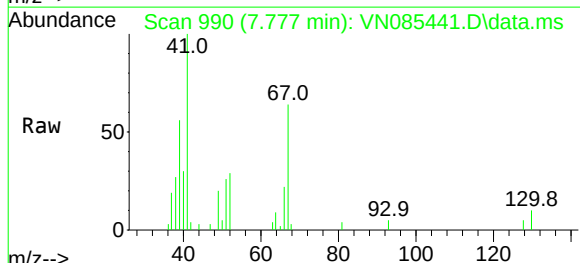
VSTDICC010

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 16859 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 57.3  | 46.0  | 69.0  |
| 67       | 66.2  | 57.4  | 86.2  |
| 52       | 30.4  | 25.5  | 38.3  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#42

1,2-Dichloroethane

Concen: 9.483 ug/l

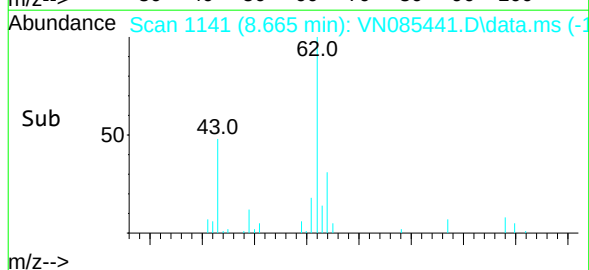
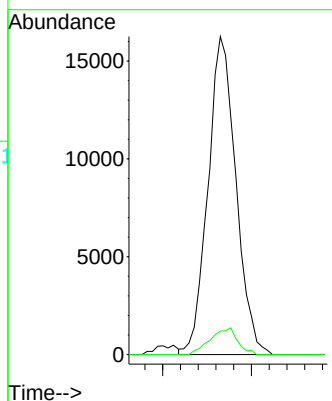
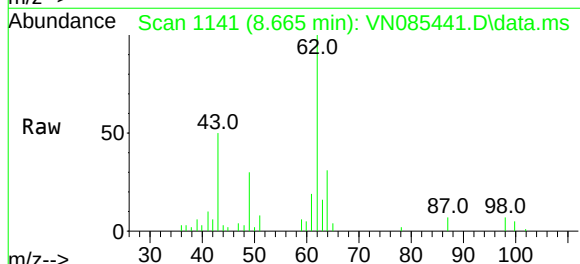
RT: 8.665 min Scan# 1141

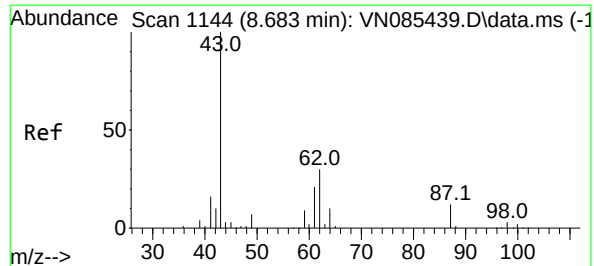
Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 62    | Resp: | 35569 |
| Ion      | Ratio | Lower | Upper |
| 62       | 100   |       |       |
| 98       | 8.2   | 0.0   | 17.0  |





#43

Isopropyl Acetate

Concen: 9.127 ug/l

RT: 8.683 min Scan# 1144

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 43 Resp: 48926

Ion Ratio Lower Upper

43 100

61 26.2 20.7 31.1

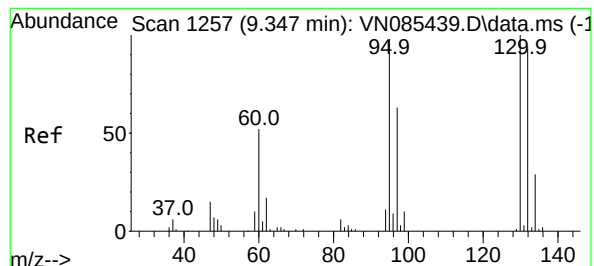
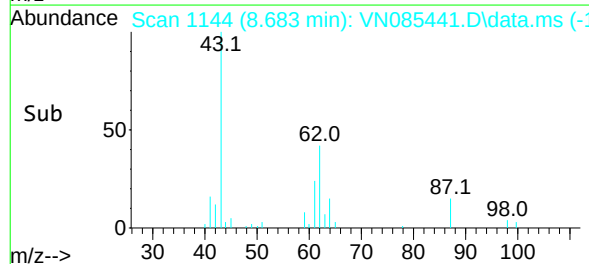
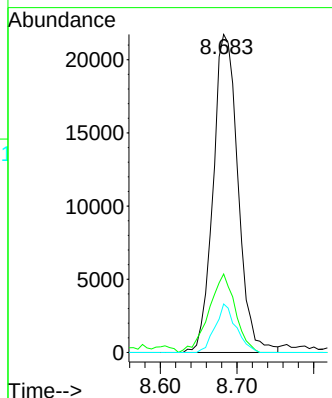
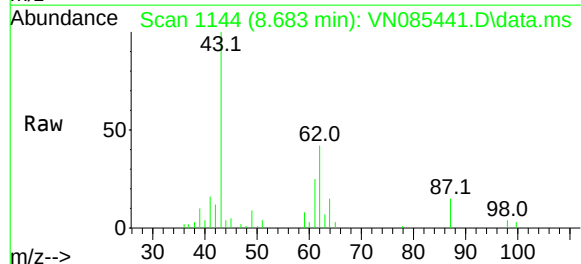
87 12.8 9.8 14.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#44

Trichloroethene

Concen: 9.108 ug/l

RT: 9.347 min Scan# 1257

Delta R.T. 0.000 min

Lab File: VN085441.D

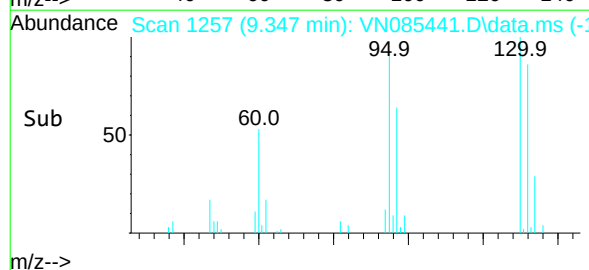
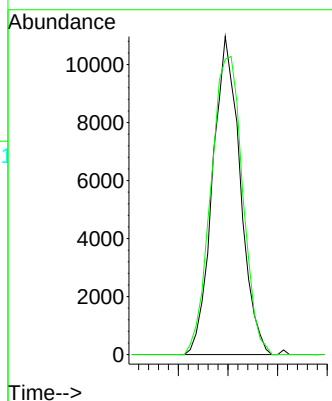
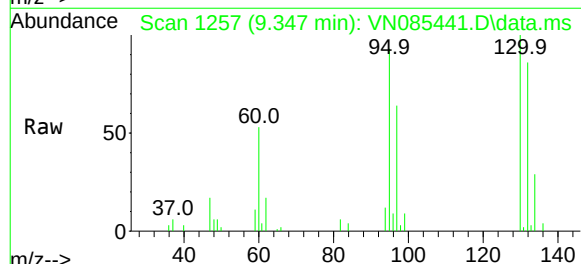
Acq: 14 Jan 2025 16:07

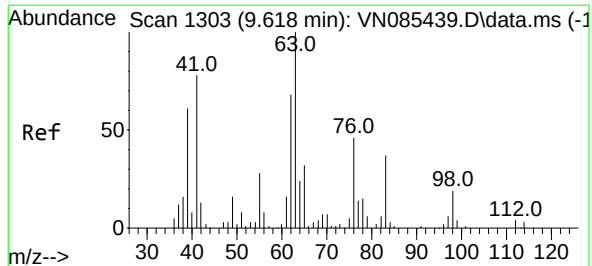
Tgt Ion:130 Resp: 21113

Ion Ratio Lower Upper

130 100

95 92.9 0.0 195.8





#45

1,2-Dichloropropane

Concen: 8.942 ug/l

RT: 9.618 min Scan# 13

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 63 Resp: 22747

Ion Ratio Lower Upper

63 100

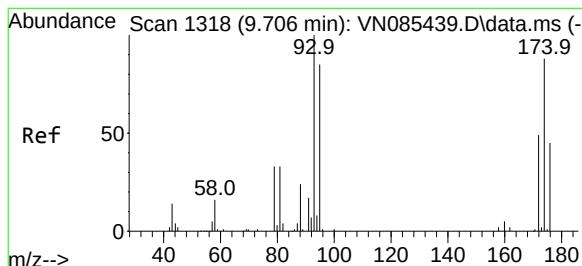
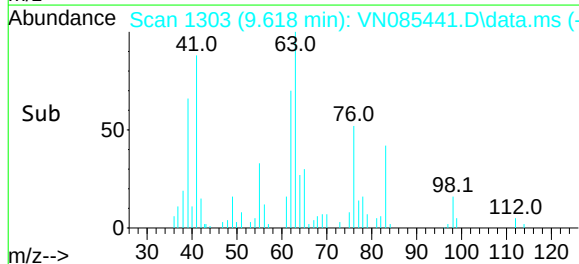
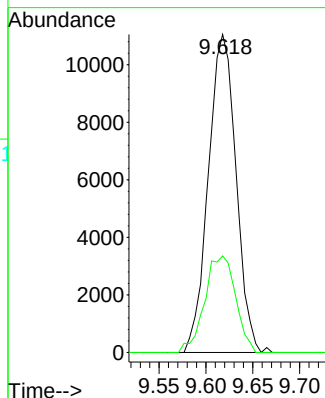
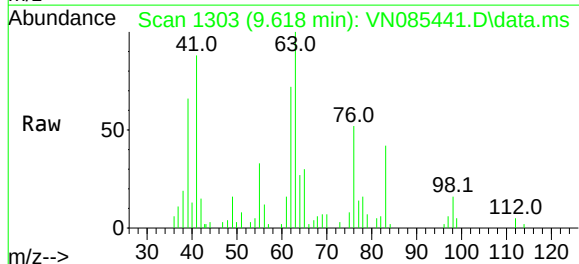
65 30.4 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#46

Dibromomethane

Concen: 9.404 ug/l

RT: 9.706 min Scan# 1318

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

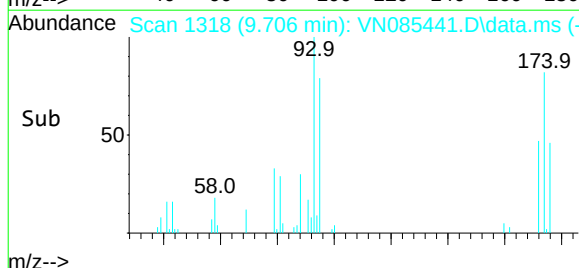
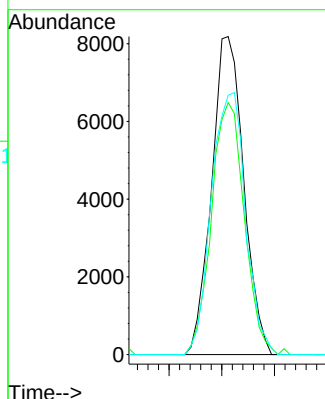
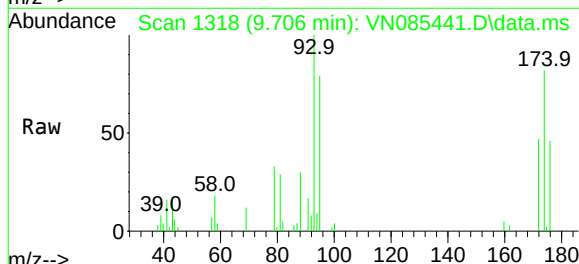
Tgt Ion: 93 Resp: 17260

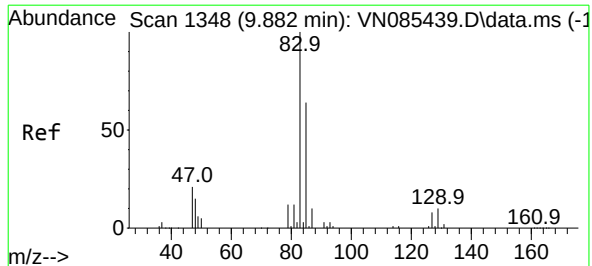
Ion Ratio Lower Upper

93 100

95 81.5 64.7 97.1

174 87.8 69.0 103.4





#47

Bromodichloromethane

Concen: 9.365 ug/l

RT: 9.883 min Scan# 1348

Delta R.T. 0.001 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

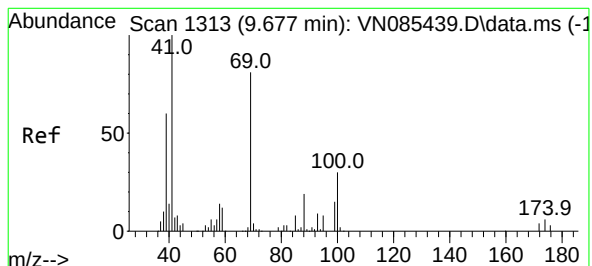
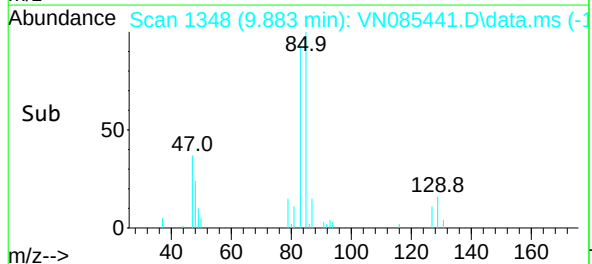
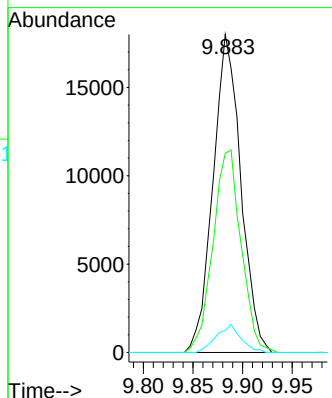
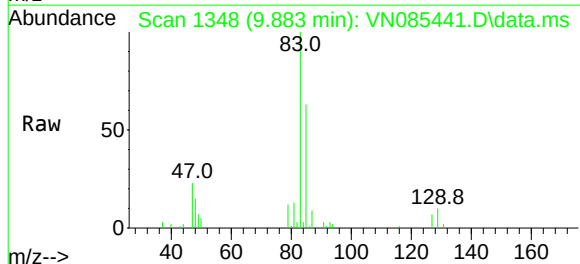
ClientSampleId :

VSTDIC010

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 35020 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 62.6  | 51.2  | 76.8  |
| 127      | 6.9   | 6.5   | 9.7   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#48

Methyl methacrylate

Concen: 9.067 ug/l

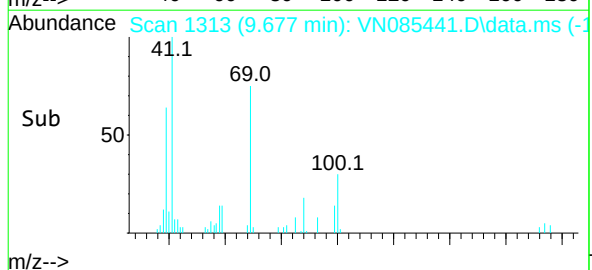
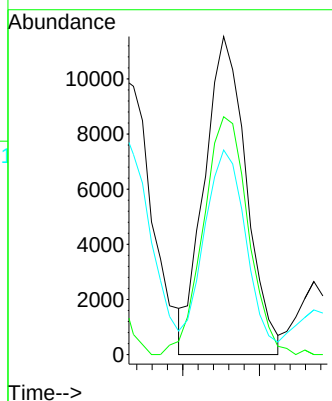
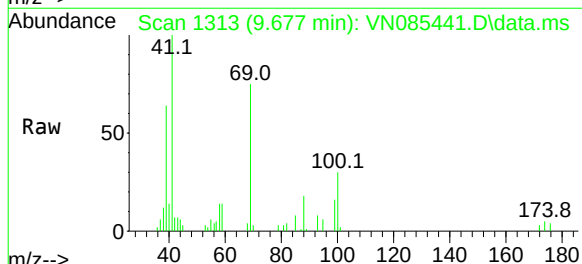
RT: 9.677 min Scan# 1313

Delta R.T. -0.000 min

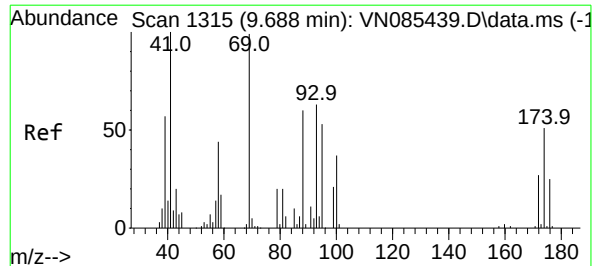
Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 21873 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 69       | 80.0  | 64.7  | 97.1  |
| 39       | 65.2  | 49.0  | 73.6  |







#49

1,4-Dioxane

Concen: 190.382 ug/l

RT: 9.694 min Scan# 1315

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 88 Resp: 7734

Ion Ratio Lower Upper

88 100

43 35.2 26.6 39.8

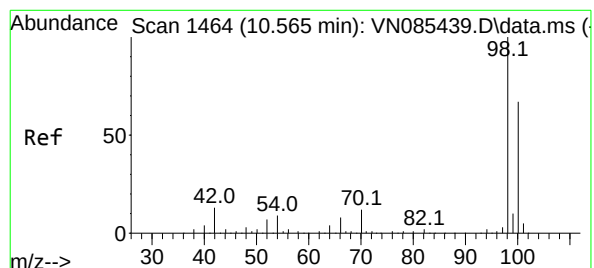
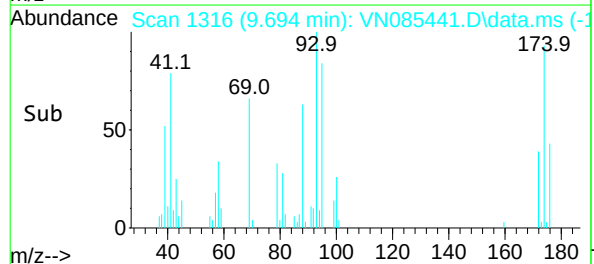
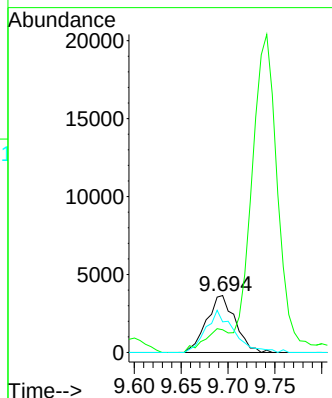
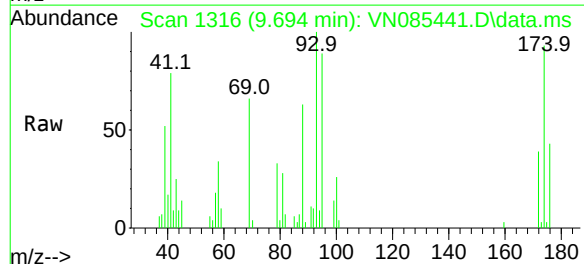
58 73.3 59.5 89.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#50

Toluene-d8

Concen: 8.727 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. 0.000 min

Lab File: VN085441.D

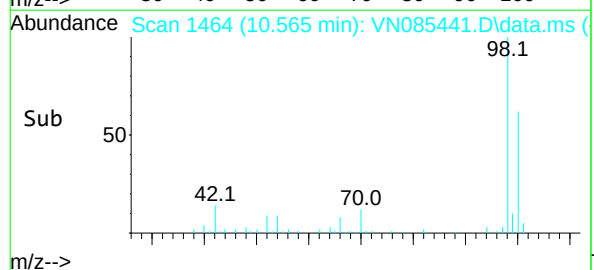
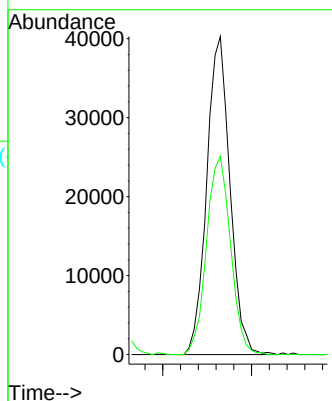
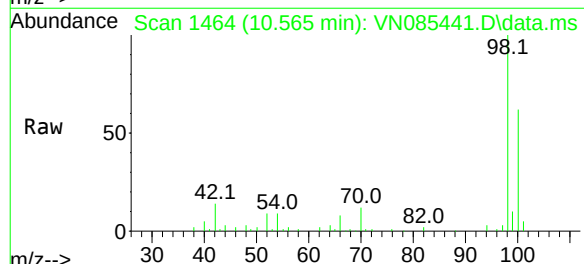
Acq: 14 Jan 2025 16:07

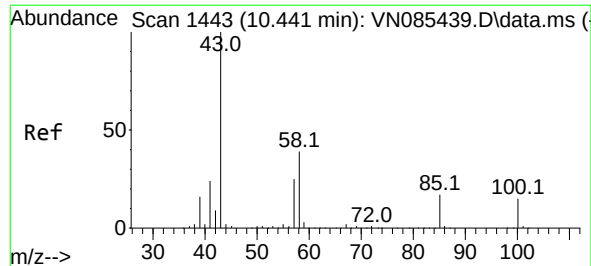
Tgt Ion: 98 Resp: 73223

Ion Ratio Lower Upper

98 100

100 64.5 52.2 78.4





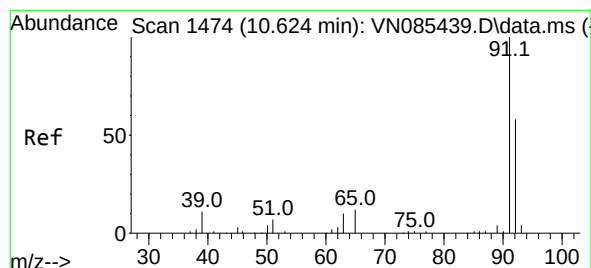
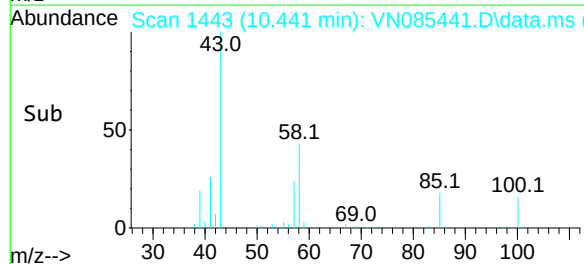
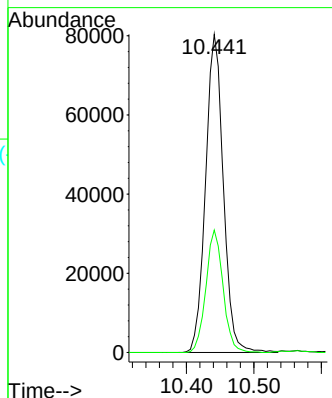
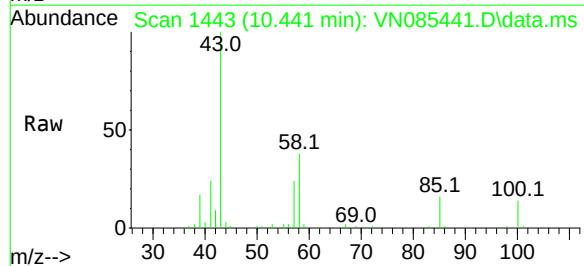
#51  
4-Methyl-2-Pentanone  
Concen: 47.254 ug/l  
RT: 10.441 min Scan# 1443  
Delta R.T. 0.000 min  
Lab File: VN085441.D  
Acq: 14 Jan 2025 16:07

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Tgt Ion: 43 Resp: 146990  
Ion Ratio Lower Upper  
43 100  
58 37.1 30.5 45.7

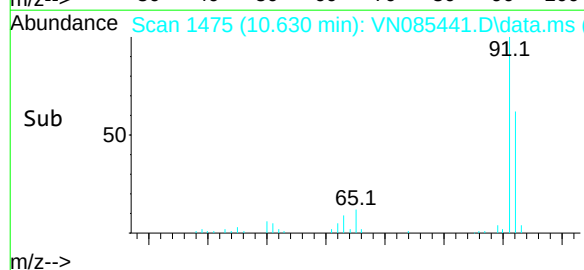
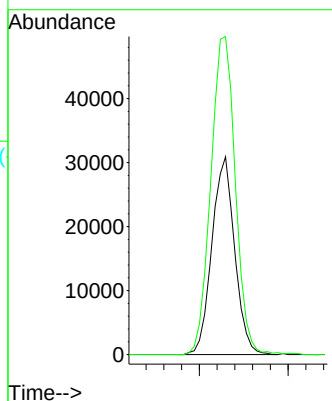
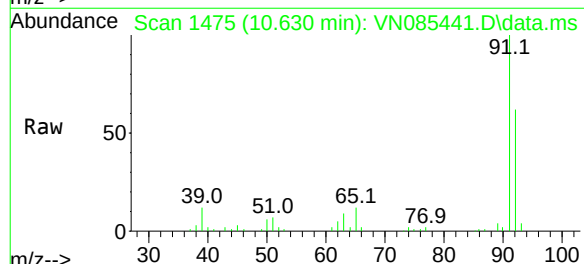
Manual Integrations  
APPROVED

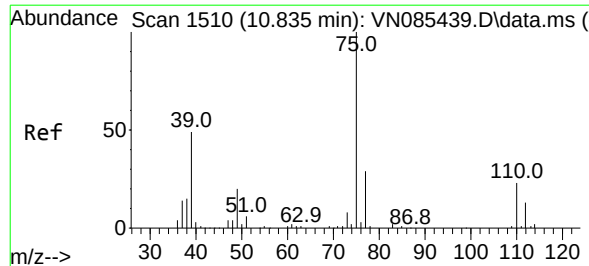
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#52  
Toluene  
Concen: 9.527 ug/l  
RT: 10.630 min Scan# 1475  
Delta R.T. 0.006 min  
Lab File: VN085441.D  
Acq: 14 Jan 2025 16:07

Tgt Ion: 92 Resp: 54976  
Ion Ratio Lower Upper  
92 100  
91 173.7 139.2 208.8





#53

t-1,3-Dichloropropene

Concen: 9.276 ug/l

RT: 10.835 min Scan# 1510

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 75 Resp: 32780

Ion Ratio Lower Upper

75 100

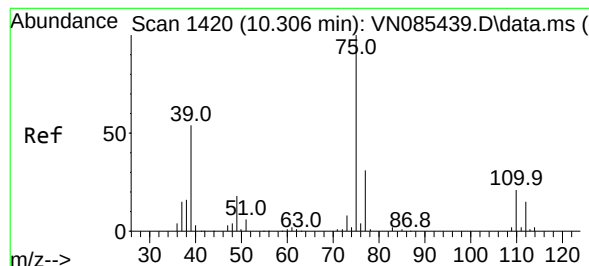
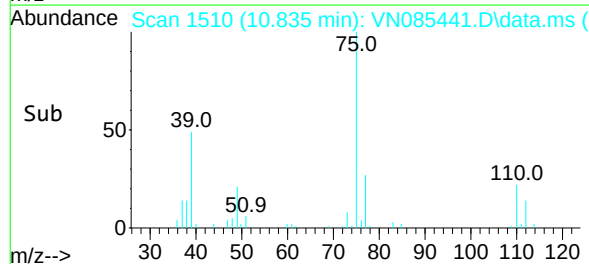
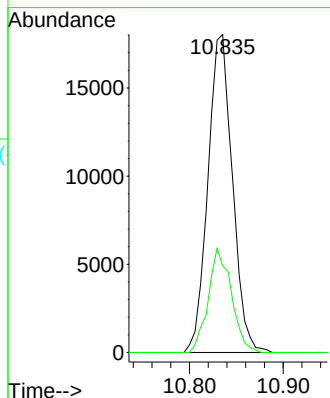
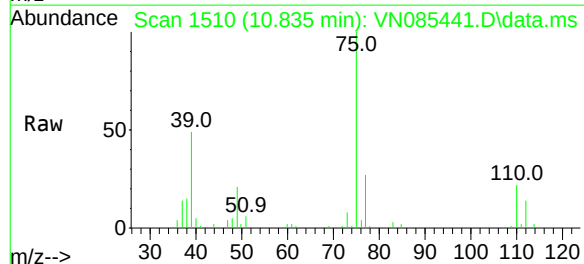
77 27.2 23.5 35.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#54

cis-1,3-Dichloropropene

Concen: 9.512 ug/l

RT: 10.312 min Scan# 1421

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

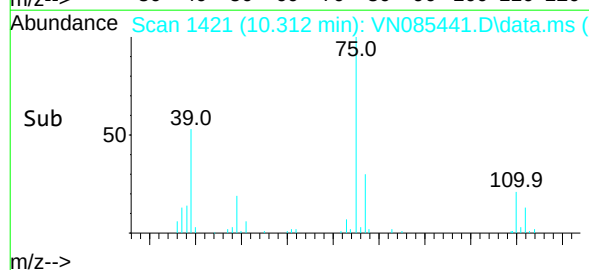
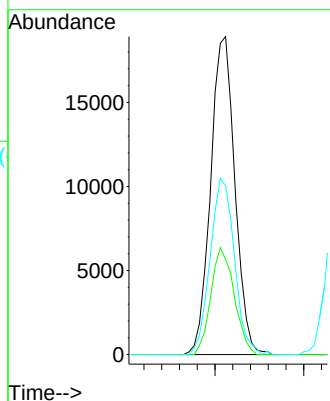
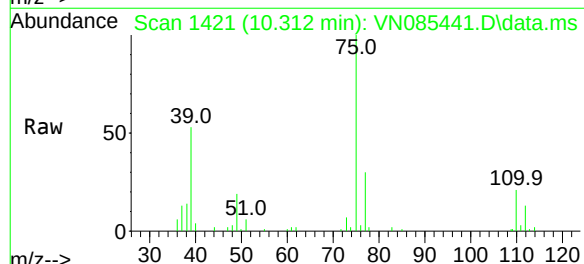
Tgt Ion: 75 Resp: 35904

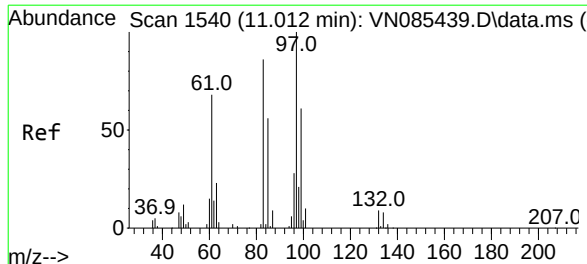
Ion Ratio Lower Upper

75 100

77 30.0 25.0 37.4

39 53.1 43.1 64.7





#55

1,1,2-Trichloroethane

Concen: 9.222 ug/l

RT: 11.012 min Scan# 1540

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 97 Resp: 21060

Ion Ratio Lower Upper

97 100

83 88.3 69.0 103.6

85 57.3 44.6 66.8

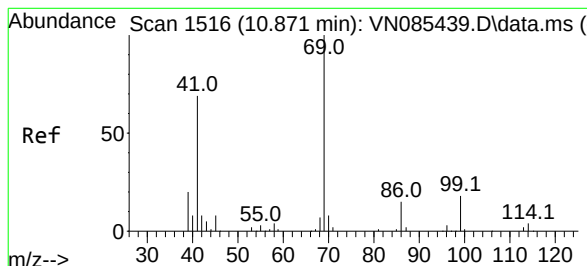
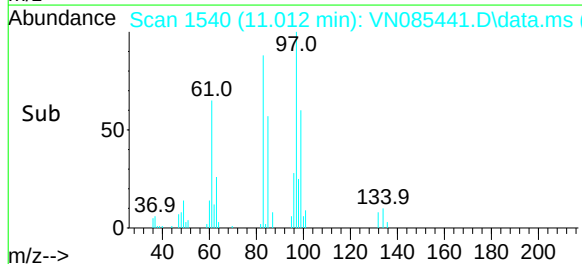
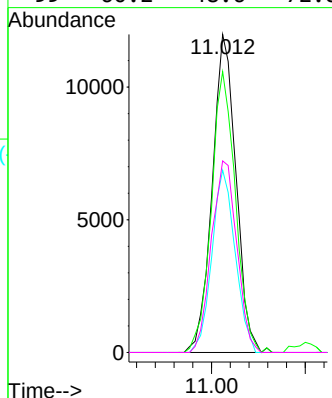
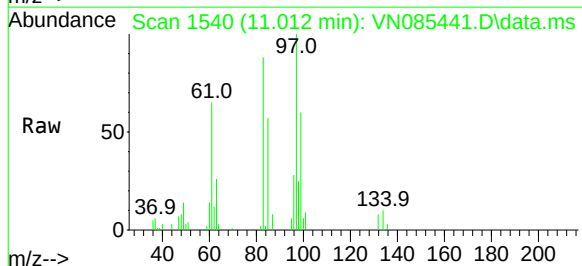
99 60.2 48.6 72.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#56

Ethyl methacrylate

Concen: 9.042 ug/l

RT: 10.871 min Scan# 1516

Delta R.T. -0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

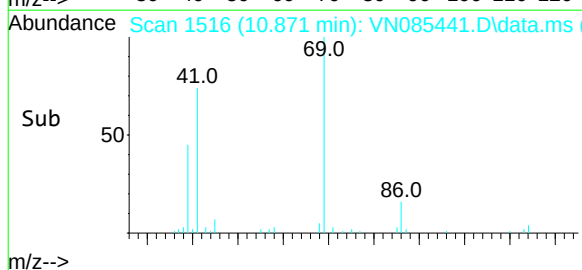
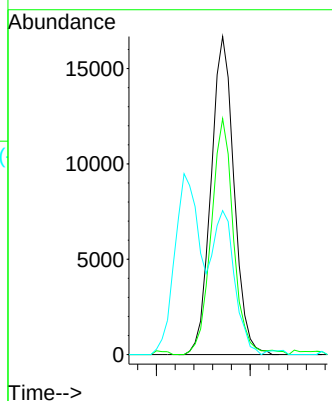
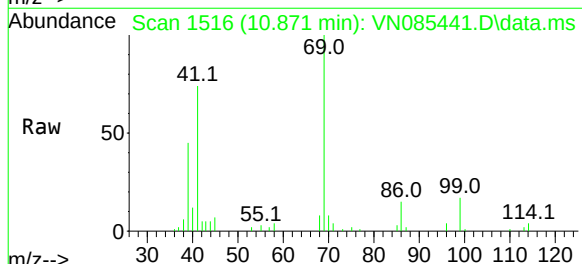
Tgt Ion: 69 Resp: 28454

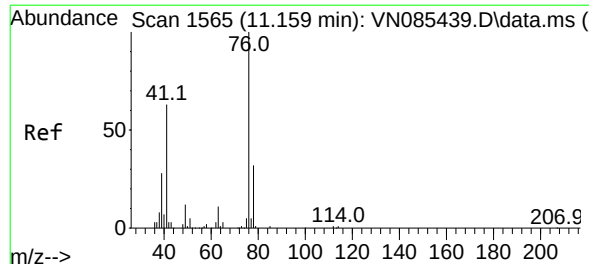
Ion Ratio Lower Upper

69 100

41 72.1 54.6 82.0

39 43.4 32.4 48.6





#57

1,3-Dichloropropane

Concen: 9.512 ug/l

RT: 11.159 min Scan# 1565

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 76 Resp: 37768

Ion Ratio Lower Upper

76 100

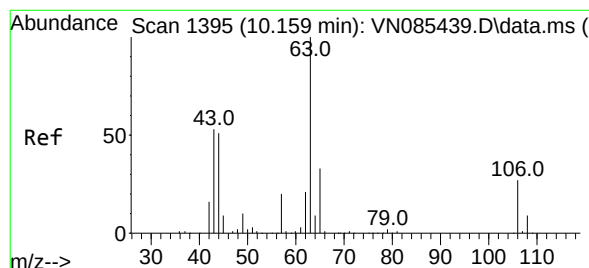
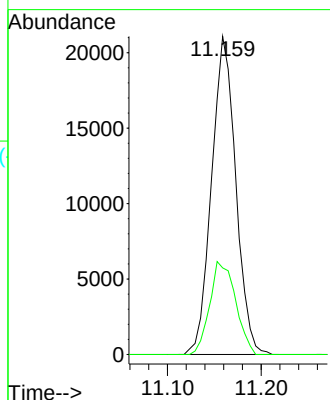
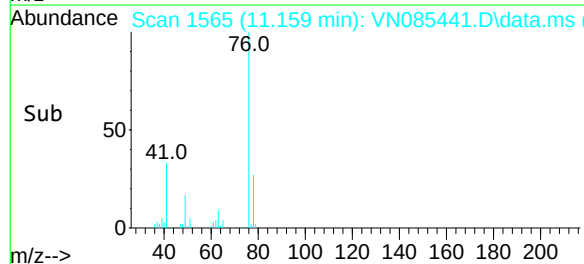
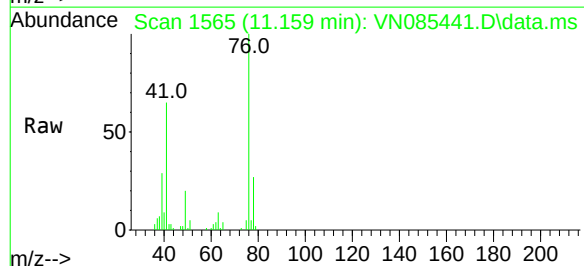
78 31.1 25.6 38.4

Manual Integrations

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Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#58

2-Chloroethyl Vinyl ether

Concen: 43.550 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. 0.000 min

Lab File: VN085441.D

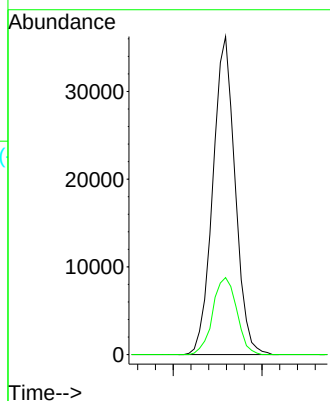
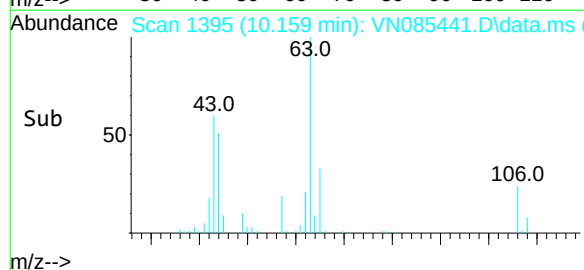
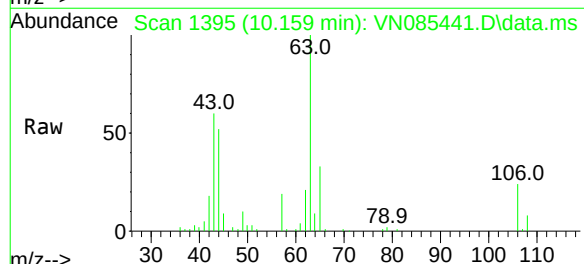
Acq: 14 Jan 2025 16:07

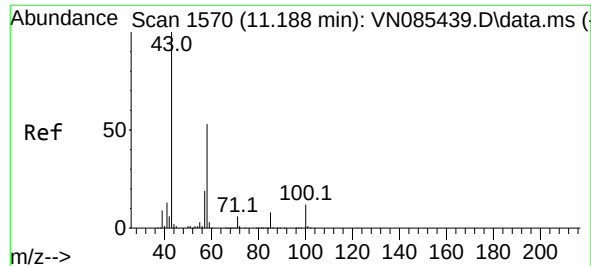
Tgt Ion: 63 Resp: 63110

Ion Ratio Lower Upper

63 100

106 26.1 21.6 32.4





#59

2-Hexanone

Concen: 46.291 ug/l

RT: 11.194 min Scan# 1570

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 43 Resp: 101318

Ion Ratio Lower Upper

43 100

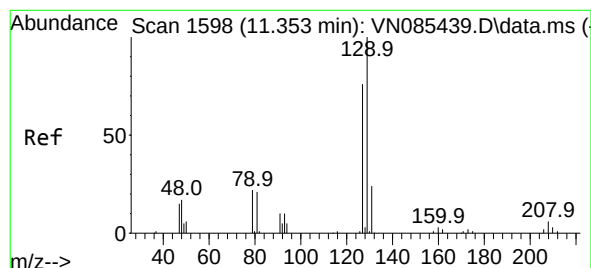
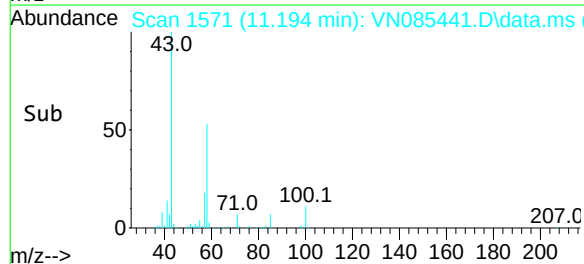
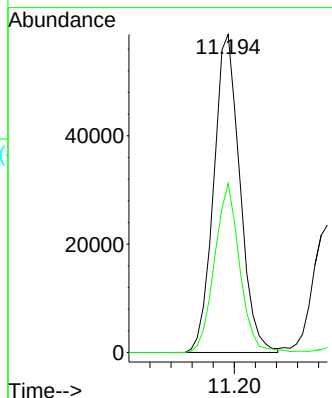
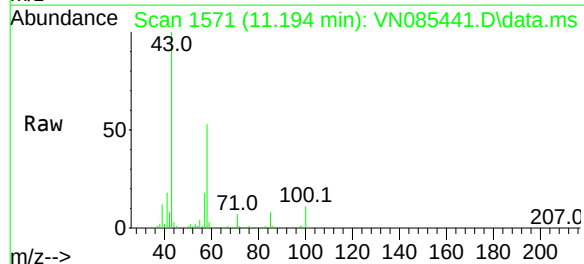
58 50.9 26.2 78.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#60

Dibromochloromethane

Concen: 9.079 ug/l

RT: 11.353 min Scan# 1598

Delta R.T. 0.000 min

Lab File: VN085441.D

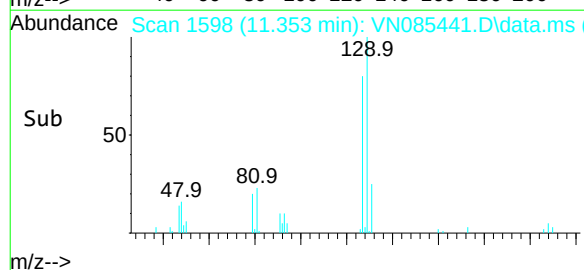
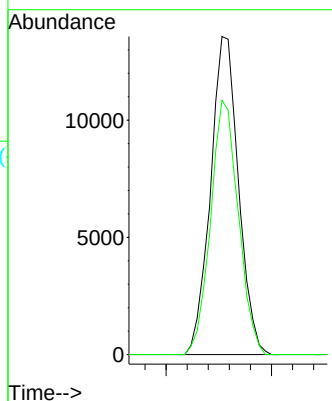
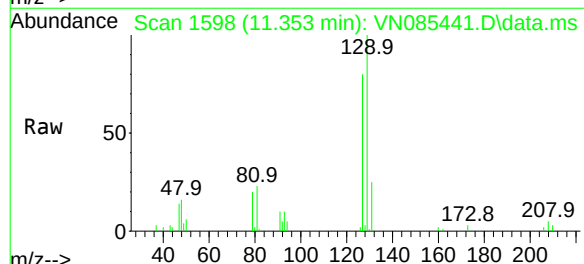
Acq: 14 Jan 2025 16:07

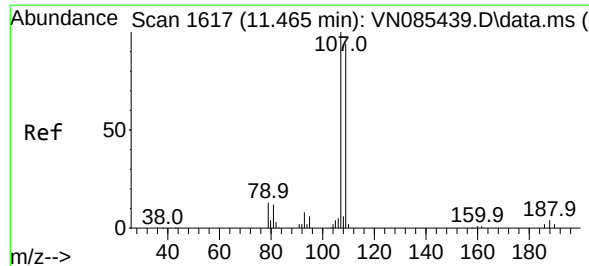
Tgt Ion:129 Resp: 25029

Ion Ratio Lower Upper

129 100

127 79.1 38.6 115.8





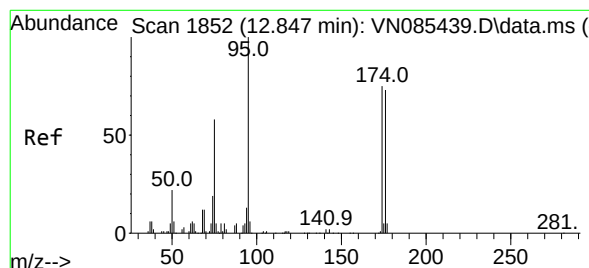
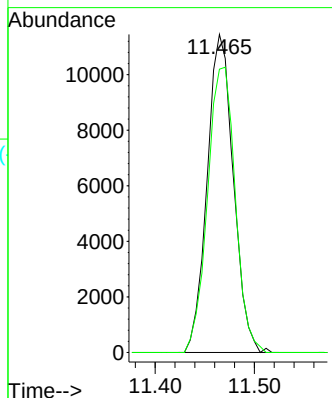
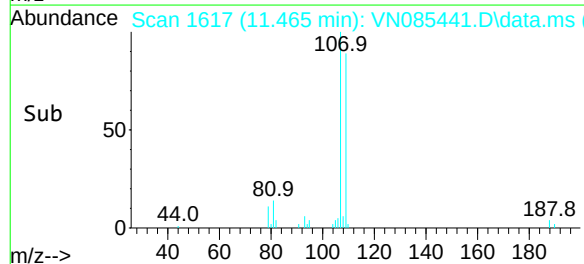
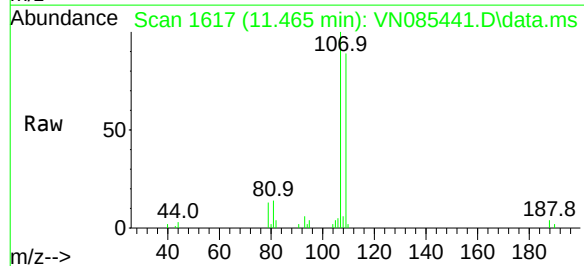
#61  
1,2-Dibromoethane  
Concen: 9.263 ug/l  
RT: 11.465 min Scan# 1617  
Delta R.T. 0.000 min  
Lab File: VN085441.D  
Acq: 14 Jan 2025 16:07

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Tgt Ion: 107 Resp: 21055  
Ion Ratio Lower Upper  
107 100  
109 94.6 75.9 113.9

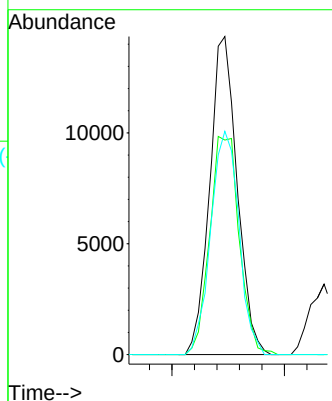
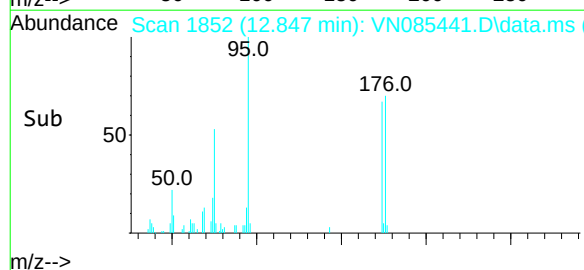
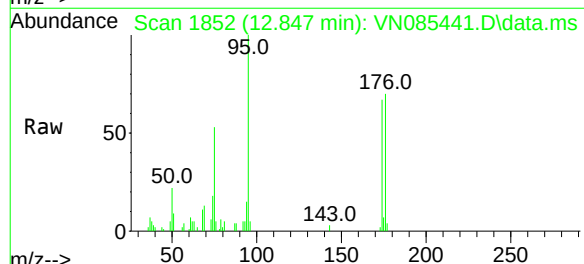
Manual Integrations  
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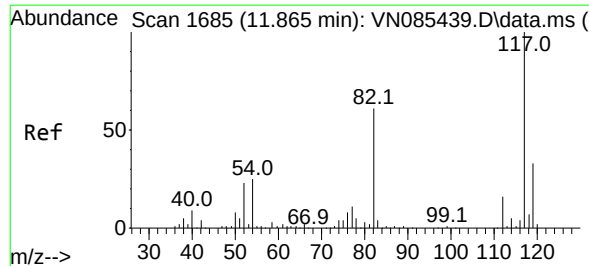
Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025



#62  
4-Bromofluorobenzene  
Concen: 8.476 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN085441.D  
Acq: 14 Jan 2025 16:07

Tgt Ion: 95 Resp: 24327  
Ion Ratio Lower Upper  
95 100  
174 73.9 0.0 145.0  
176 72.1 0.0 142.4





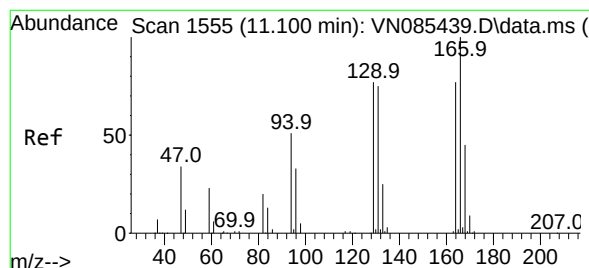
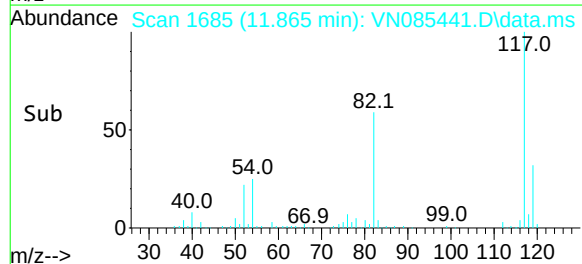
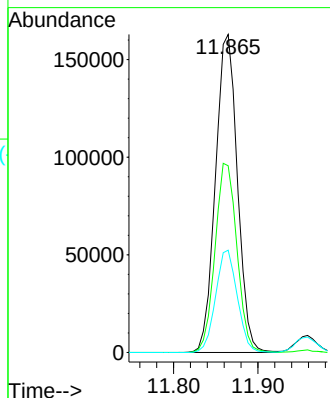
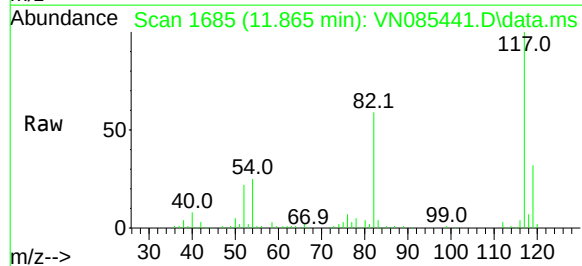
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. 0.000 min  
Lab File: VN085441.D  
Acq: 14 Jan 2025 16:07

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 58.7  | 48.6  | 72.8  |
| 119     | 32.2  | 26.6  | 39.8  |

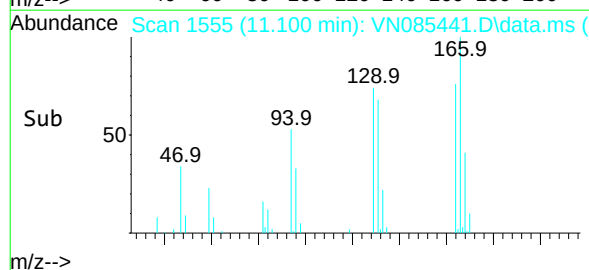
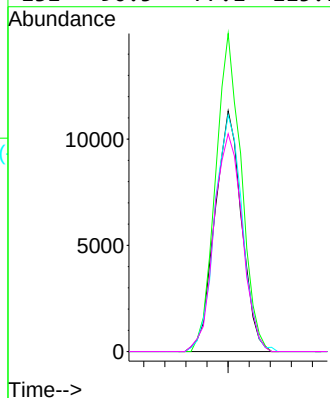
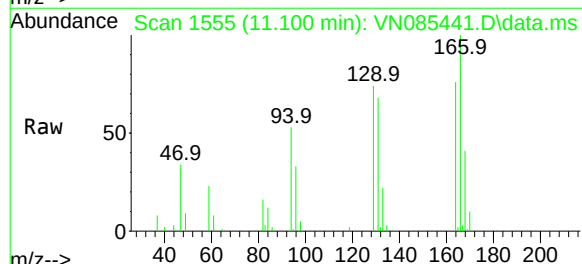
Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

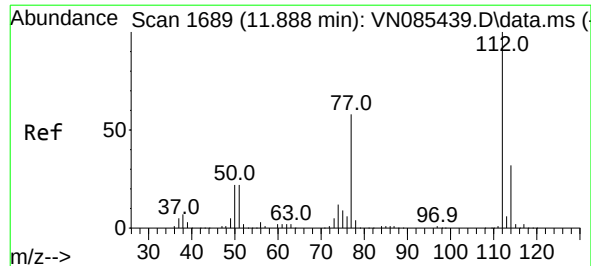


#64  
Tetrachloroethene  
Concen: 9.928 ug/l  
RT: 11.100 min Scan# 1555  
Delta R.T. 0.000 min  
Lab File: VN085441.D  
Acq: 14 Jan 2025 16:07

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 132.2 | 103.4 | 155.2 |
| 129     | 98.3  | 79.2  | 118.8 |
| 131     | 90.5  | 77.1  | 115.7 |







#65

Chlorobenzene

Concen: 9.560 ug/l

RT: 11.888 min Scan# 1689

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion:112 Resp: 61680

Ion Ratio Lower Upper

112 100

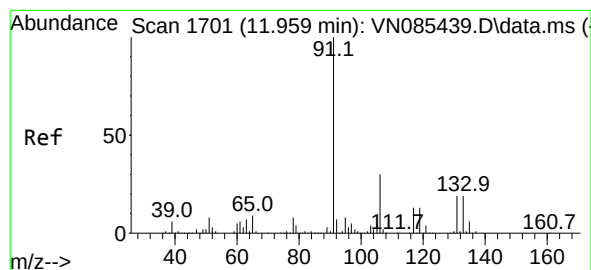
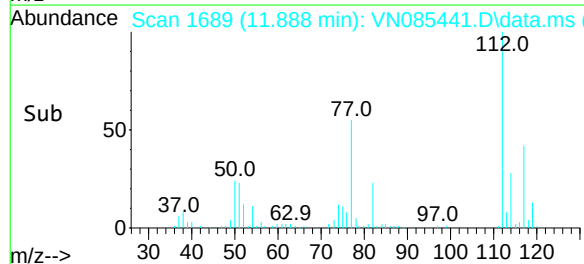
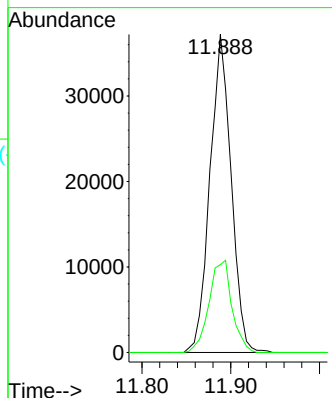
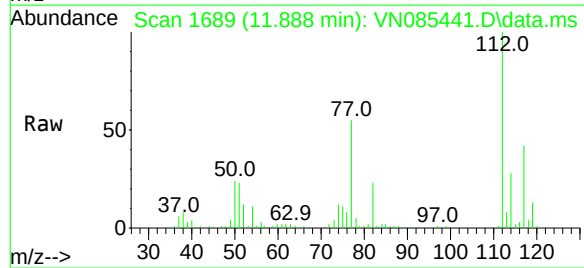
114 27.6 25.3 37.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#66

1,1,1,2-Tetrachloroethane

Concen: 9.229 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

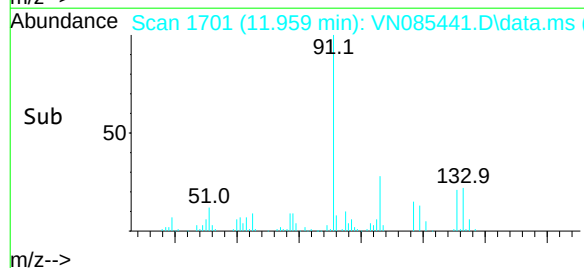
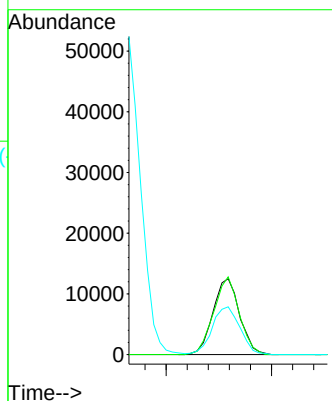
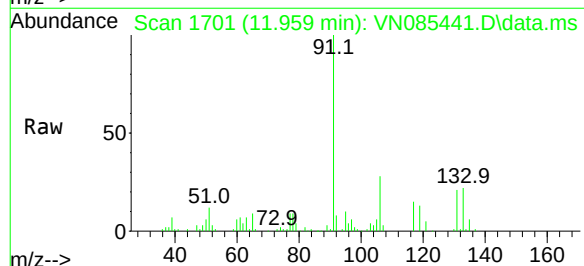
Tgt Ion:131 Resp: 21853

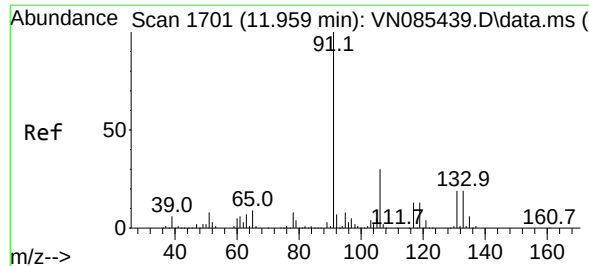
Ion Ratio Lower Upper

131 100

133 98.5 47.4 142.3

119 66.0 33.1 99.5





#67

Ethyl Benzene

Concen: 9.445 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 91 Resp: 99248

Ion Ratio Lower Upper

91 100

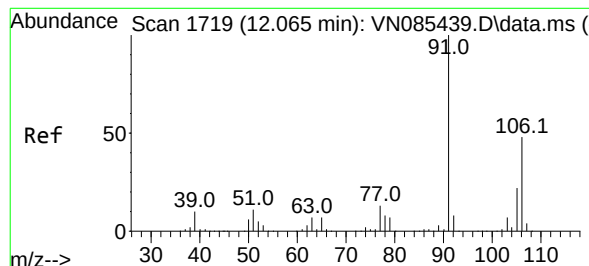
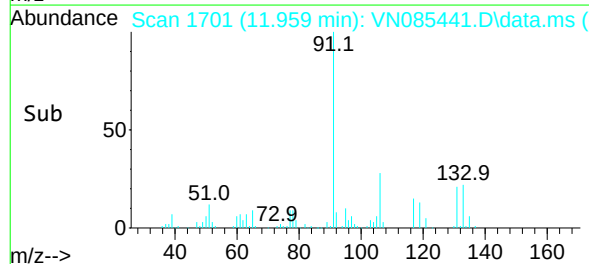
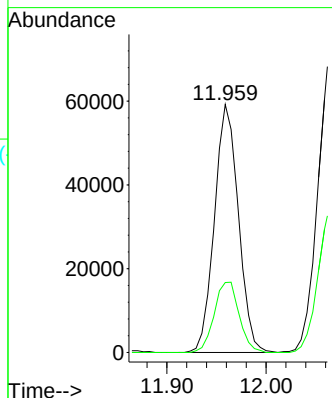
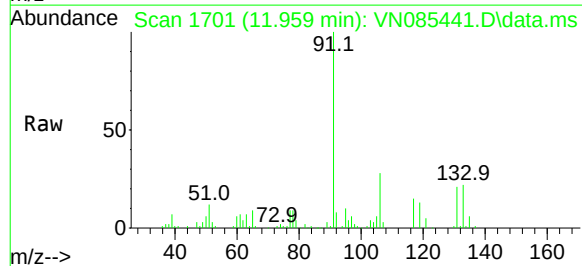
106 28.2 23.8 35.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#68

m/p-Xylenes

Concen: 18.650 ug/l

RT: 12.065 min Scan# 1719

Delta R.T. 0.000 min

Lab File: VN085441.D

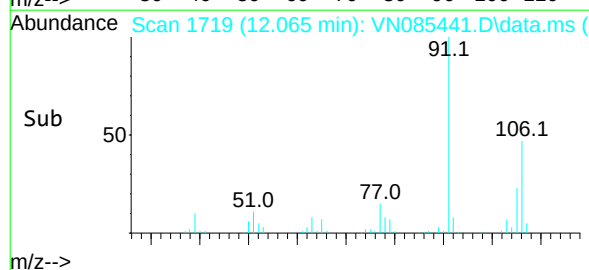
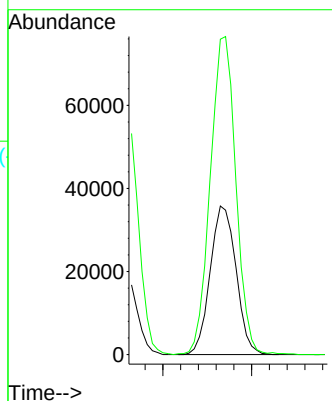
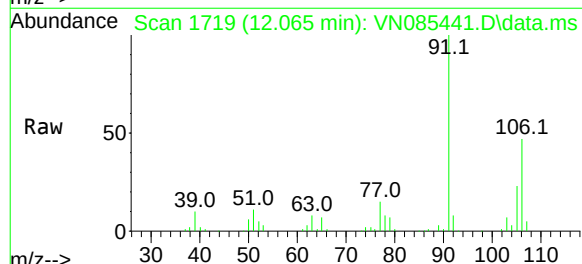
Acq: 14 Jan 2025 16:07

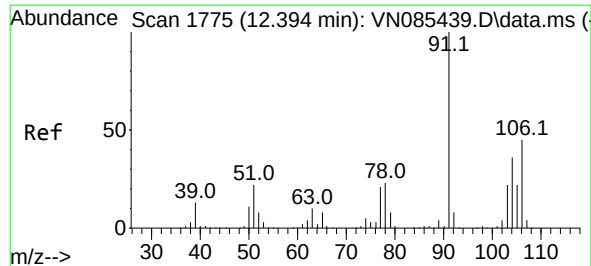
Tgt Ion:106 Resp: 72431

Ion Ratio Lower Upper

106 100

91 211.7 167.7 251.5





#69

o-Xylene

Concen: 9.264 ug/l

RT: 12.394 min Scan# 1775

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion:106 Resp: 34382

Ion Ratio Lower Upper

106 100

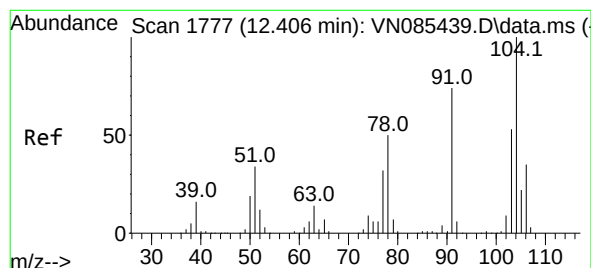
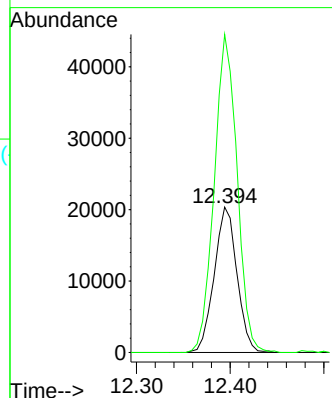
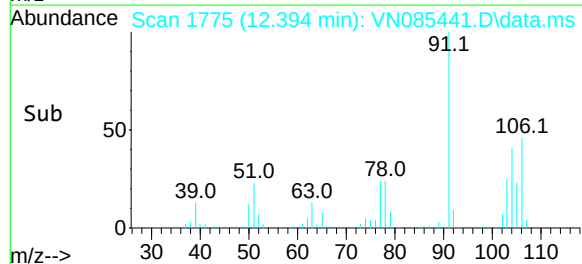
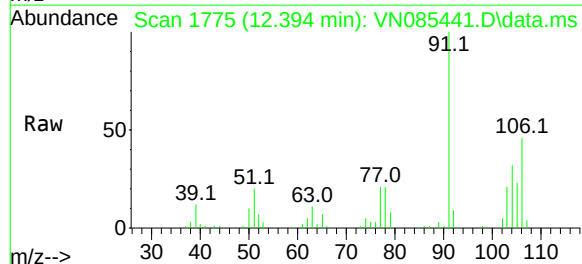
91 219.5 110.4 331.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#70

Styrene

Concen: 9.163 ug/l

RT: 12.406 min Scan# 1777

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

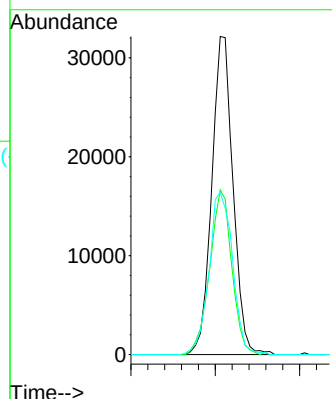
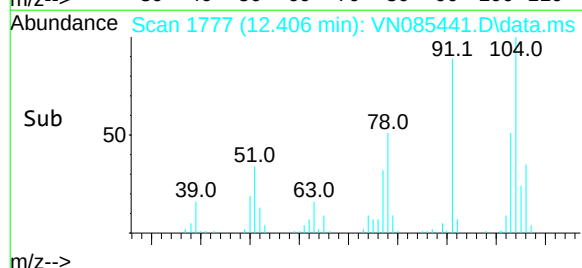
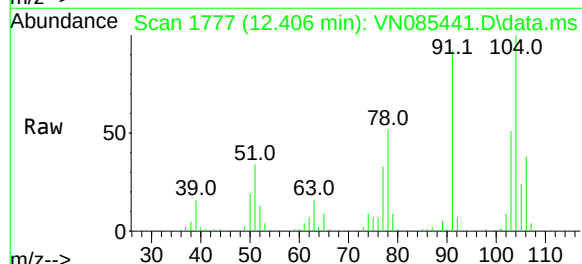
Tgt Ion:104 Resp: 56285

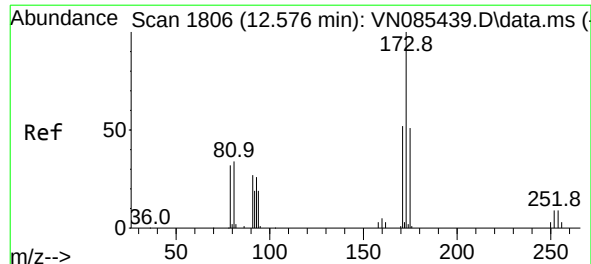
Ion Ratio Lower Upper

104 100

78 53.8 42.5 63.7

103 56.8 43.8 65.8





#71

Bromoform

Concen: 9.485 ug/l

RT: 12.576 min Scan# 1806

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

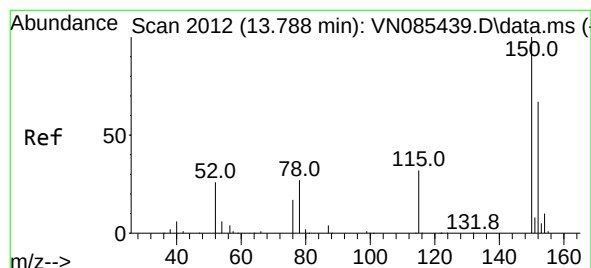
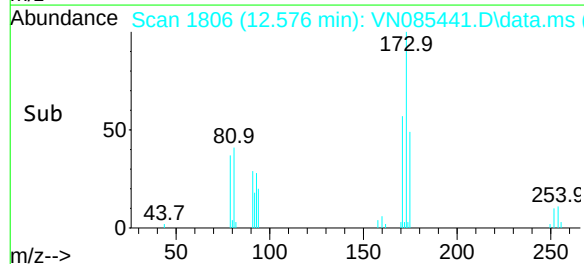
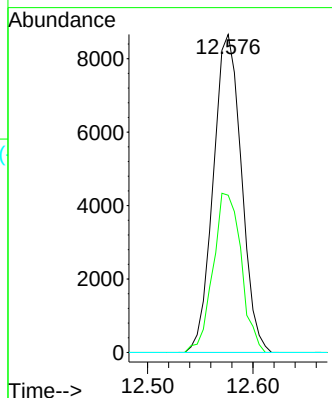
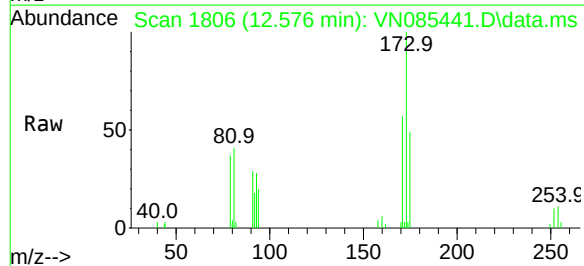
ClientSampleId :

VSTDICC010

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 173   | Resp: | 16071 |
| Ion Ratio | Lower | Upper |       |
| 173       | 100   |       |       |
| 175       | 50.0  | 24.4  | 73.2  |
| 254       | 0.0   | 0.0   | 0.0   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

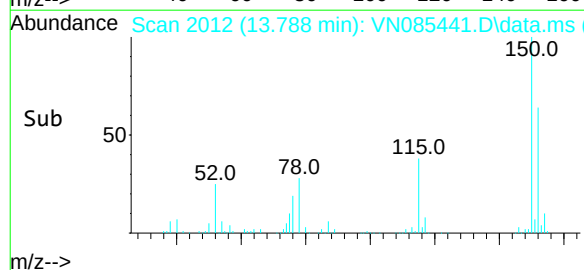
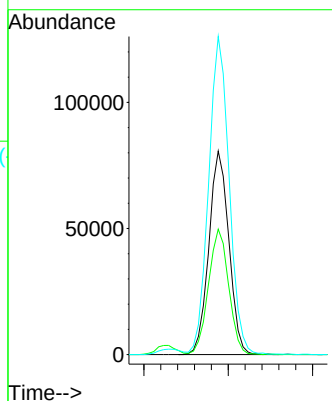
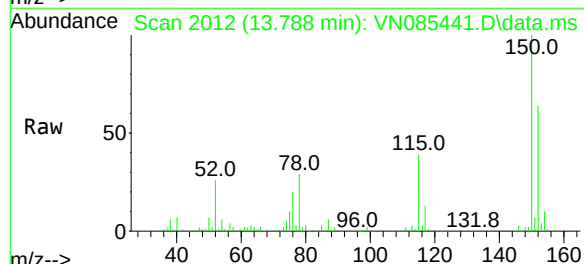
RT: 13.788 min Scan# 2012

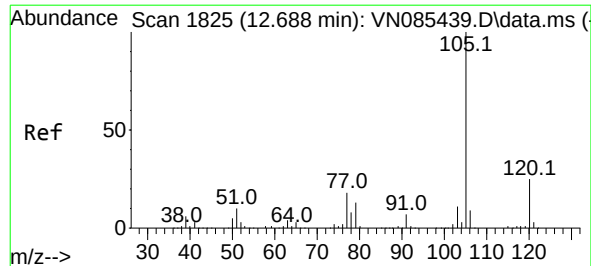
Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 152   | Resp: | 132934 |
| Ion Ratio | Lower | Upper |        |
| 152       | 100   |       |        |
| 115       | 62.3  | 31.1  | 93.3   |
| 150       | 159.8 | 0.0   | 343.6  |





#73

Isopropylbenzene

Concen: 9.697 ug/l

RT: 12.694 min Scan# 18

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion:105 Resp: 87003

Ion Ratio Lower Upper

105 100

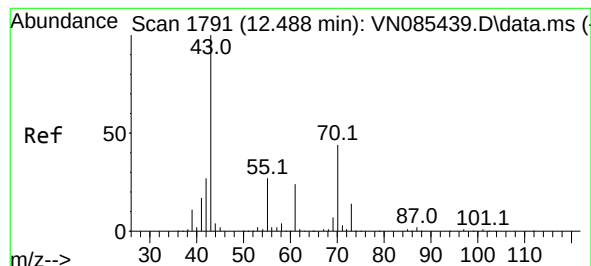
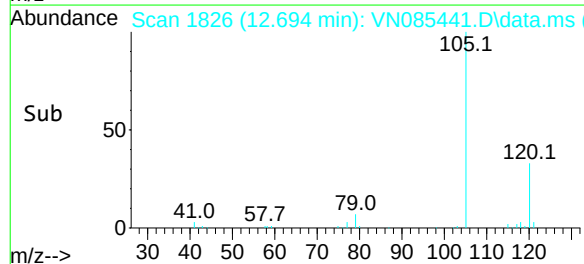
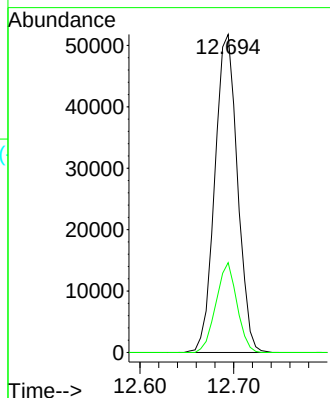
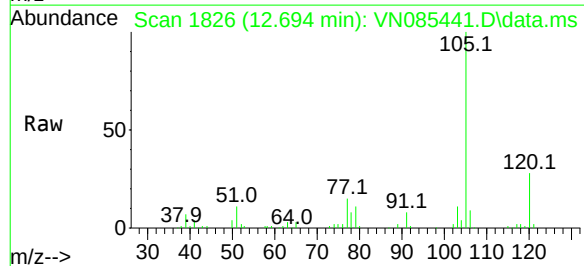
120 26.1 12.8 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#74

N-ethyl acetate

Concen: 9.260 ug/l

RT: 12.494 min Scan# 1792

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Tgt Ion: 43 Resp: 37343

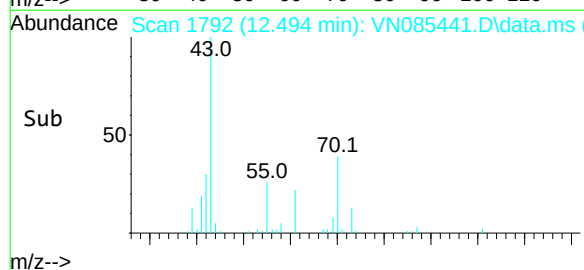
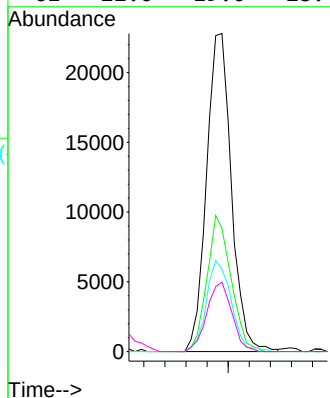
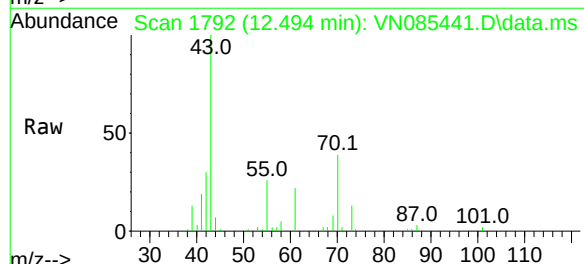
Ion Ratio Lower Upper

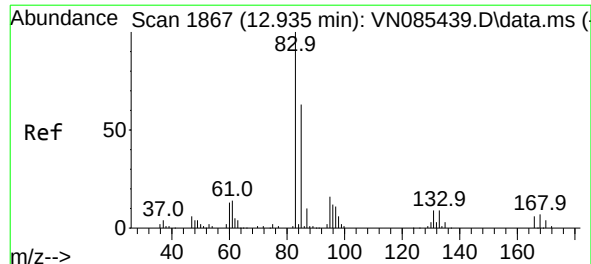
43 100

70 41.4 34.0 51.0

55 28.5 21.4 32.2

61 22.0 19.0 28.4





#75

1,1,2,2-Tetrachloroethane

Concen: 9.709 ug/l

RT: 12.935 min Scan# 18

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

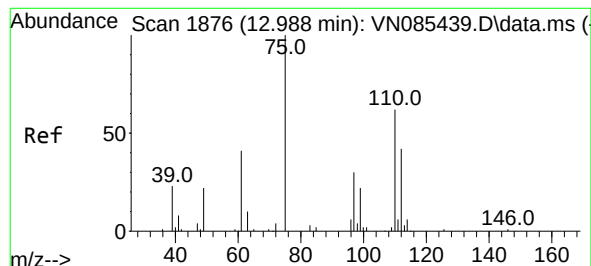
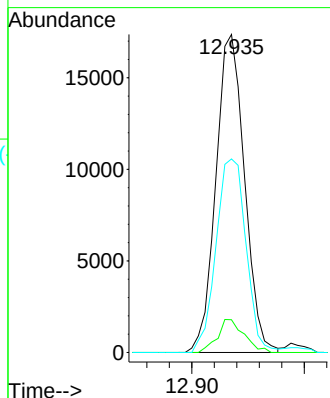
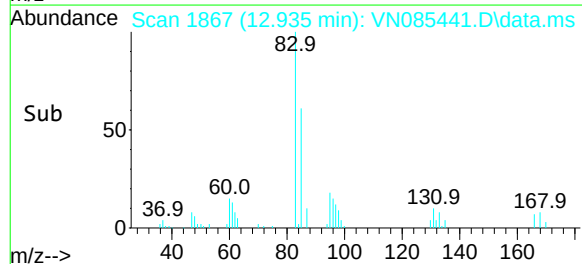
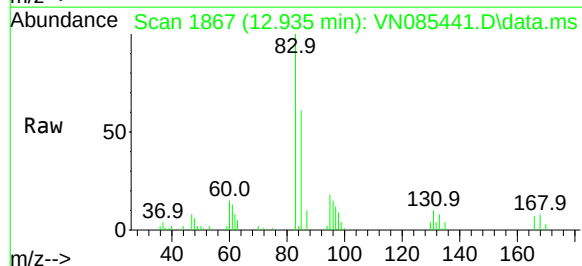
VSTDIC010

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 30770 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 131      | 9.6   | 4.8   | 14.4  |
| 85       | 63.6  | 32.2  | 96.6  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#76

1,2,3-Trichloropropane

Concen: 9.432 ug/l m

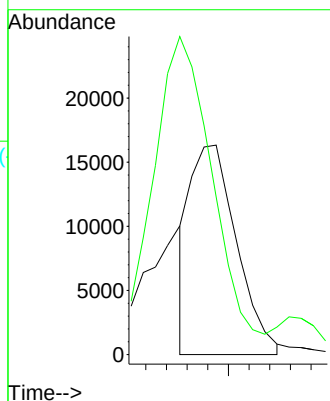
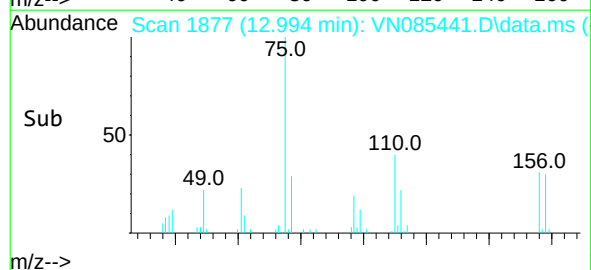
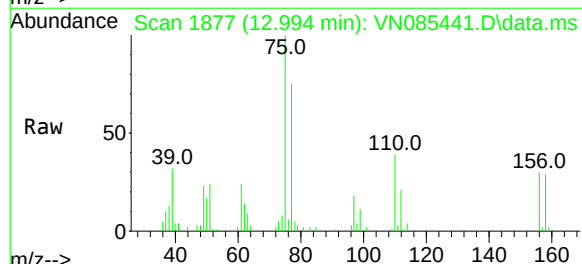
RT: 12.994 min Scan# 1877

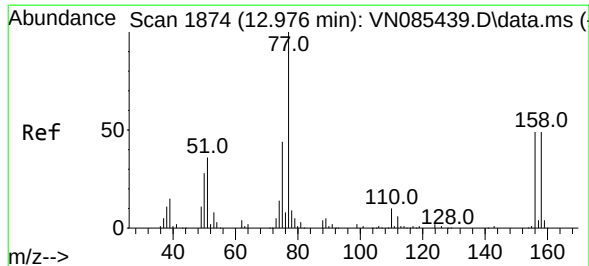
Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 25443 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 77       | 198.5 | 109.7 | 329.2 |





#77

Bromobenzene

Concen: 9.720 ug/l

RT: 12.976 min Scan# 1874

Delta R.T. 0.000 min

Lab File: VN085441.D

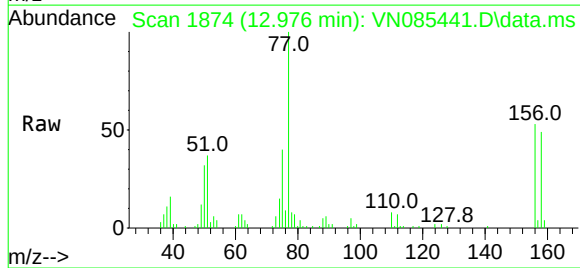
Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

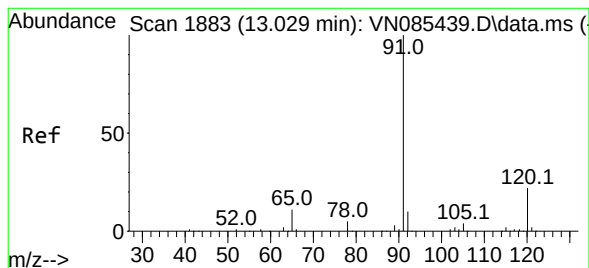
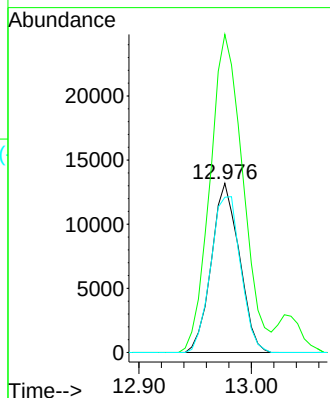
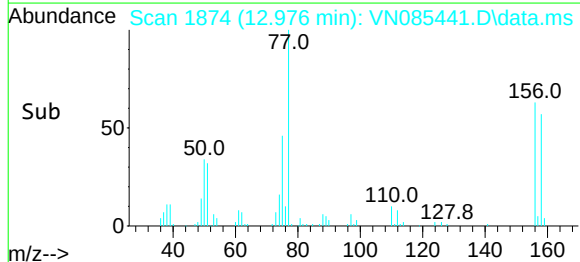
VSTDIC010



| Tgt Ion: | 156   | Resp: | 22784 |
|----------|-------|-------|-------|
| Ion      | Ratio | Lower | Upper |
| 156      | 100   |       |       |
| 77       | 221.6 | 114.1 | 342.4 |
| 158      | 98.7  | 48.9  | 146.8 |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#78

n-propylbenzene

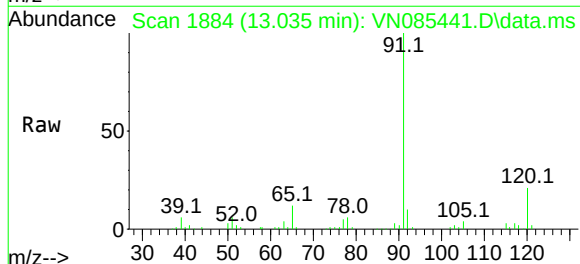
Concen: 9.628 ug/l

RT: 13.035 min Scan# 1884

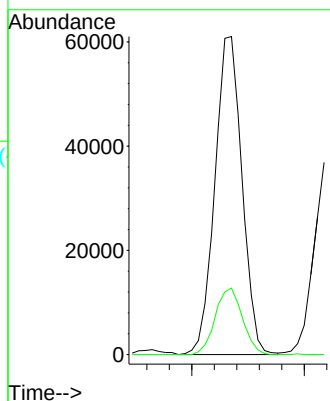
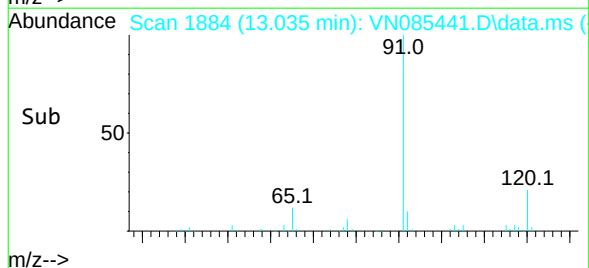
Delta R.T. 0.006 min

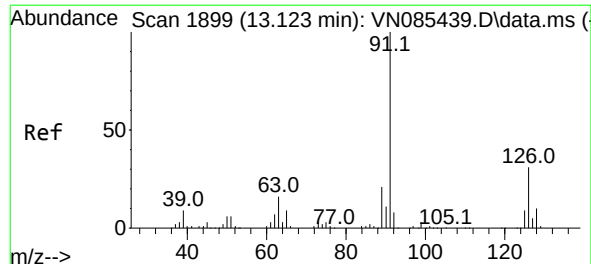
Lab File: VN085441.D

Acq: 14 Jan 2025 16:07



| Tgt Ion: | 91    | Resp: | 102262 |
|----------|-------|-------|--------|
| Ion      | Ratio | Lower | Upper  |
| 91       | 100   |       |        |
| 120      | 20.9  | 10.9  | 32.6   |





#79

2-Chlorotoluene

Concen: 9.943 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 91 Resp: 68346

Ion Ratio Lower Upper

91 100

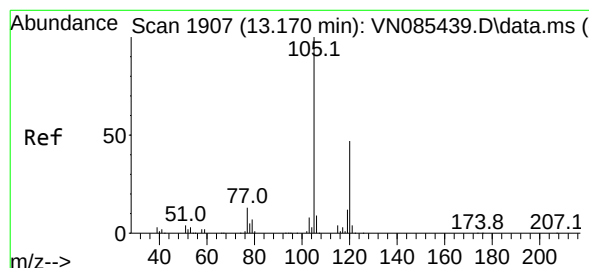
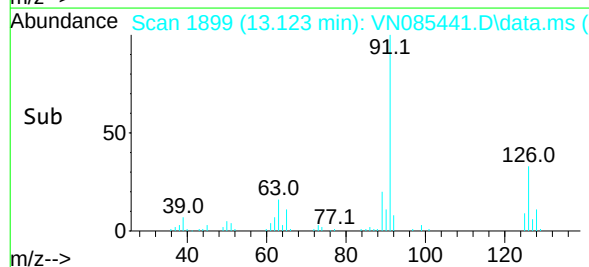
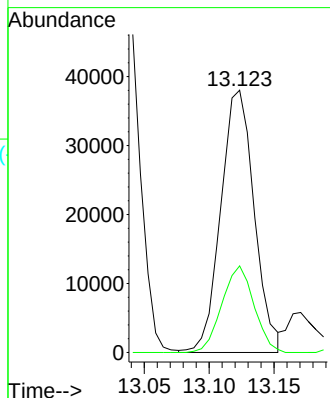
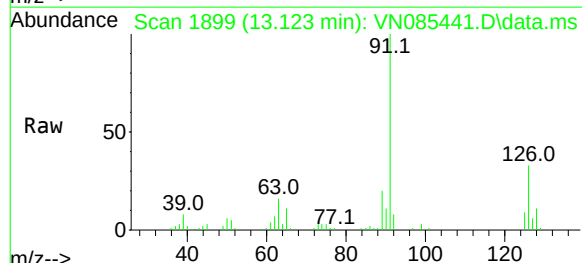
126 31.5 15.7 47.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#80

1,3,5-Trimethylbenzene

Concen: 9.669 ug/l

RT: 13.171 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VN085441.D

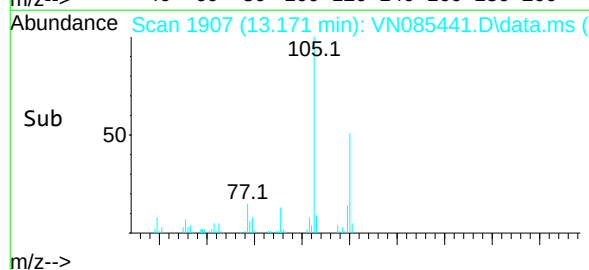
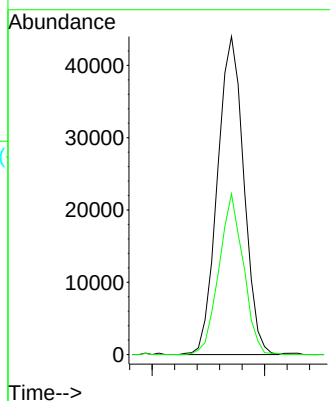
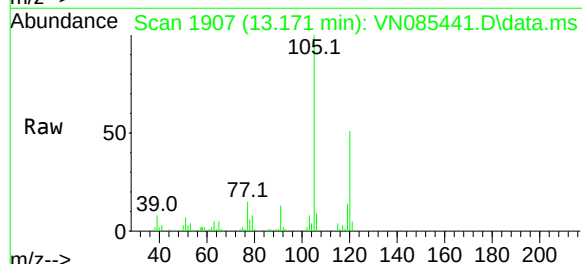
Acq: 14 Jan 2025 16:07

Tgt Ion:105 Resp: 71656

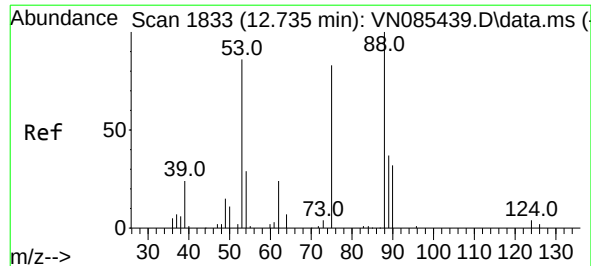
Ion Ratio Lower Upper

105 100

120 46.8 23.9 71.7







#81

trans-1,4-Dichloro-2-butene

Concen: 9.248 ug/l

RT: 12.735 min Scan# 1833

Delta R.T. 0.000 min

Lab File: VN085441.D

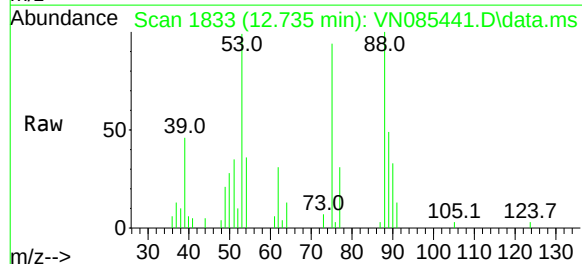
Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

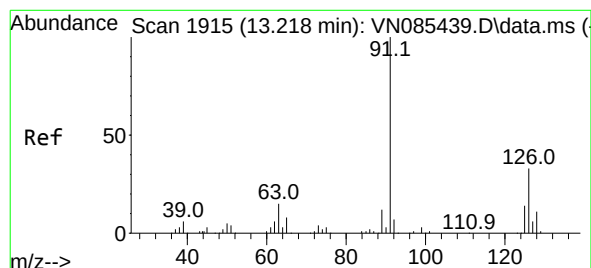
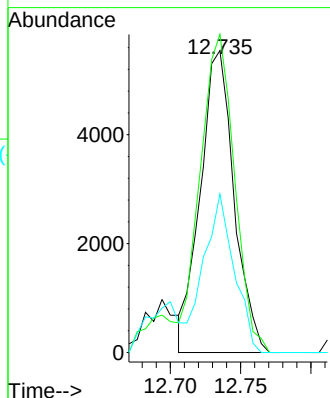
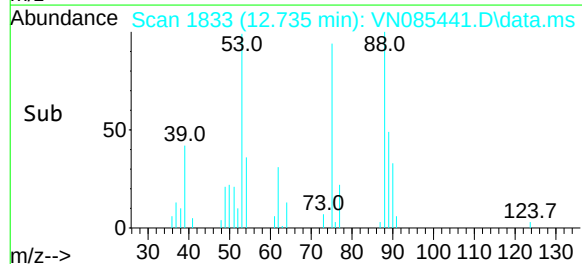
VSTDIC010



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 9236  |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 53       | 119.6 | 95.6  | 143.4 |
| 89       | 46.6  | 37.0  | 55.6  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#82

4-Chlorotoluene

Concen: 9.756 ug/l

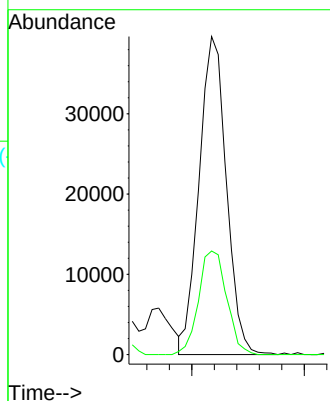
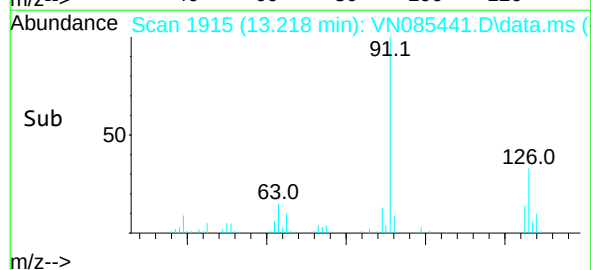
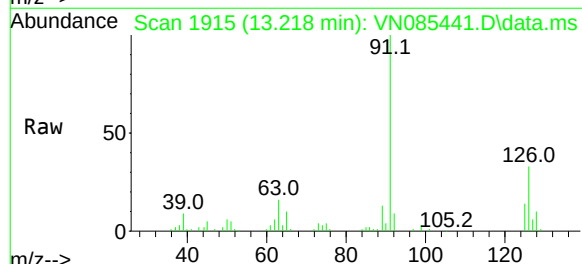
RT: 13.218 min Scan# 1915

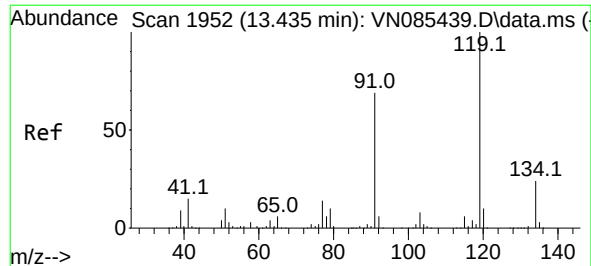
Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 91    | Resp: | 66773 |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 126      | 33.6  | 15.9  | 47.7  |





#83

tert-Butylbenzene

Concen: 9.553 ug/l

RT: 13.435 min Scan# 1952

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

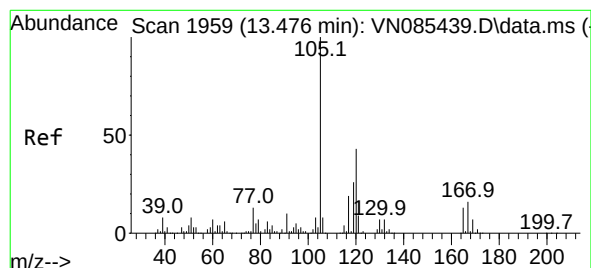
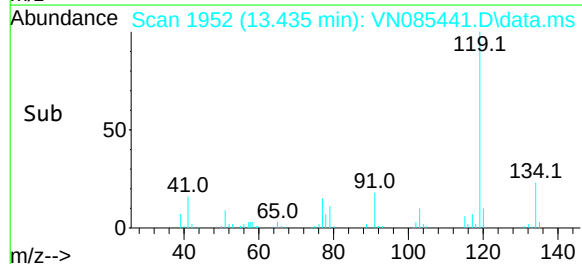
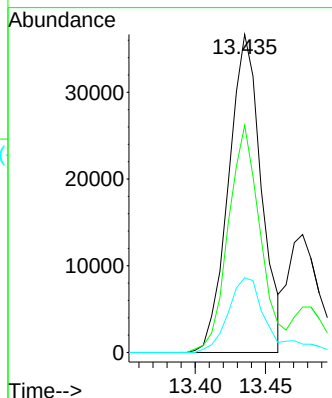
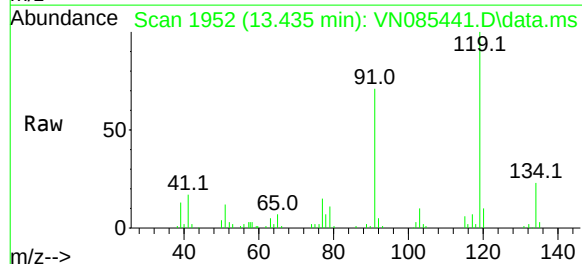
ClientSampleId :

VSTDIC010

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 119   | Resp: | 59455 |
| Ion Ratio | Lower | Upper |       |
| 119       | 100   |       |       |
| 91        | 70.0  | 35.1  | 105.3 |
| 134       | 27.8  | 12.0  | 36.1  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#84

1,2,4-Trimethylbenzene

Concen: 9.754 ug/l

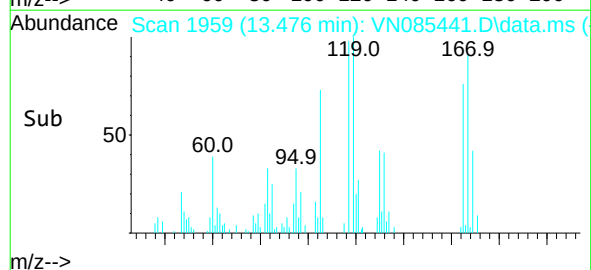
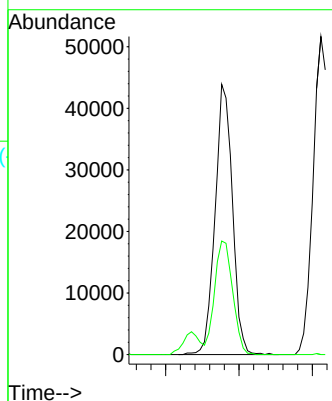
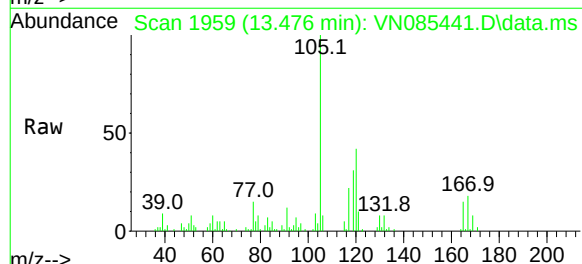
RT: 13.476 min Scan# 1959

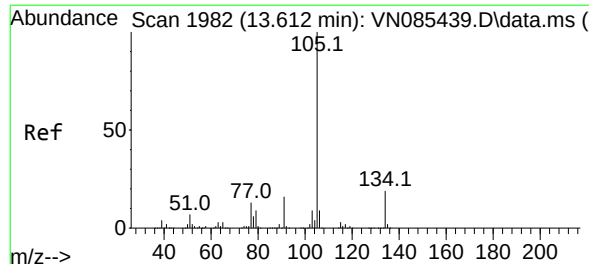
Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 105   | Resp: | 72046 |
| Ion Ratio | Lower | Upper |       |
| 105       | 100   |       |       |
| 120       | 43.8  | 21.6  | 65.0  |





#85

sec-Butylbenzene

Concen: 9.699 ug/l

RT: 13.612 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion:105 Resp: 83662

Ion Ratio Lower Upper

105 100

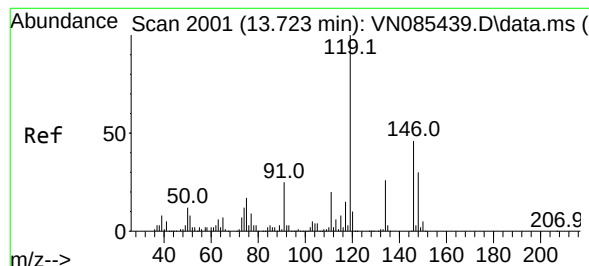
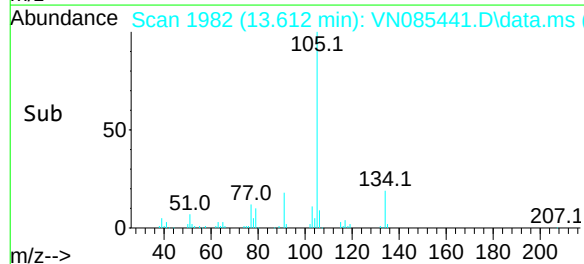
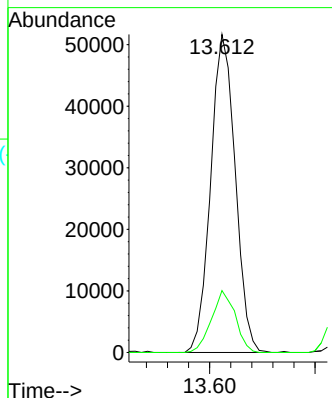
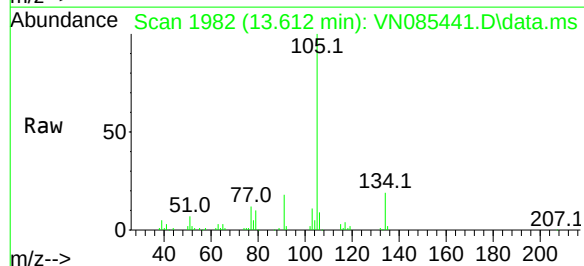
134 18.9 9.7 28.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#86

p-Isopropyltoluene

Concen: 9.674 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

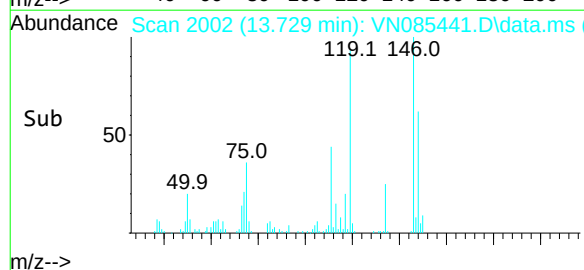
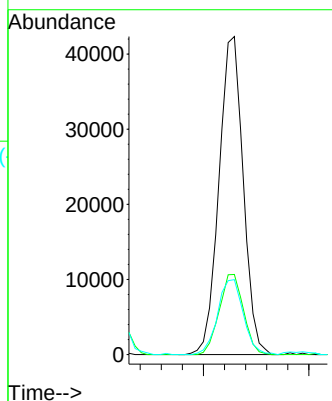
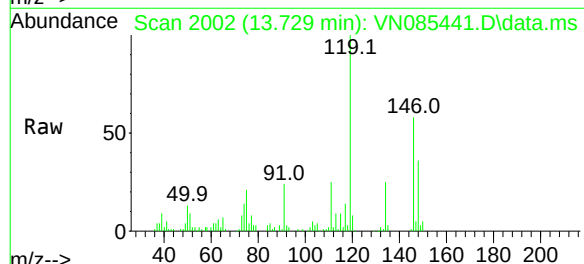
Tgt Ion:119 Resp: 67556

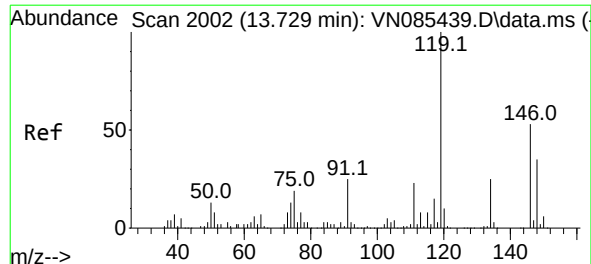
Ion Ratio Lower Upper

119 100

134 25.2 12.7 38.0

91 25.0 12.7 38.1





#87

1,3-Dichlorobenzene

Concen: 9.693 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

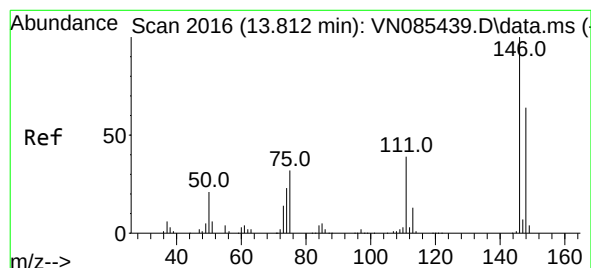
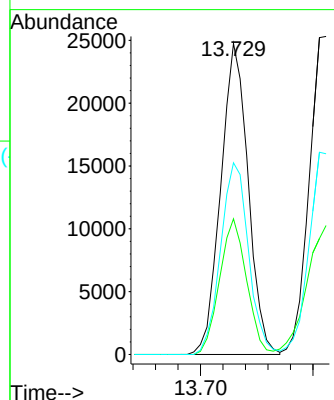
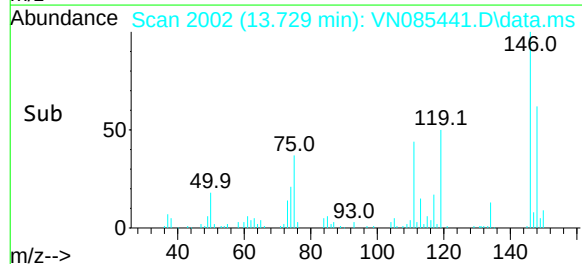
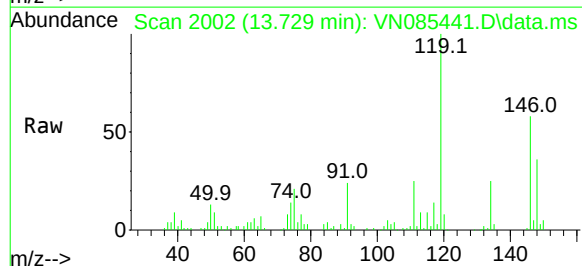
ClientSampleId :

VSTDIC010

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 146   | Resp: | 41843 |
| Ion Ratio | Lower | Upper |       |
| 146       | 100   |       |       |
| 111       | 43.1  | 21.4  | 64.3  |
| 148       | 63.0  | 32.3  | 96.9  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#88

1,4-Dichlorobenzene

Concen: 9.549 ug/l

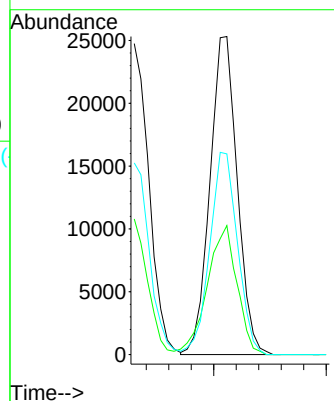
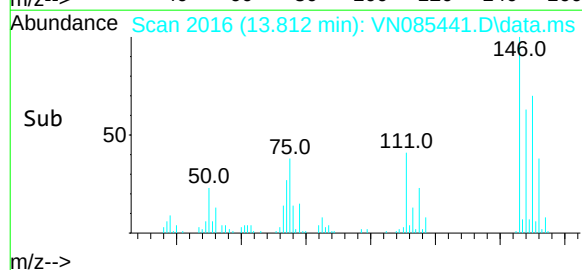
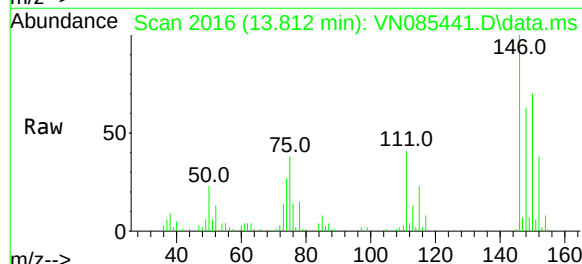
RT: 13.812 min Scan# 2016

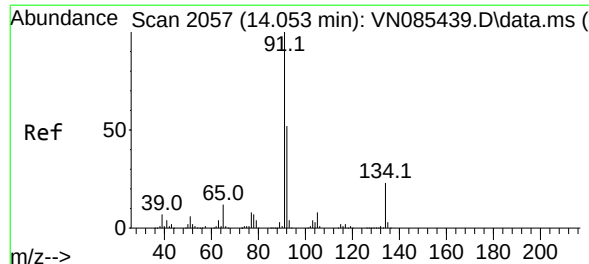
Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 146   | Resp: | 42728 |
| Ion Ratio | Lower | Upper |       |
| 146       | 100   |       |       |
| 111       | 44.0  | 21.3  | 63.7  |
| 148       | 64.6  | 32.4  | 97.0  |





#89

n-Butylbenzene

Concen: 9.314 ug/l

RT: 14.053 min Scan# 2057

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

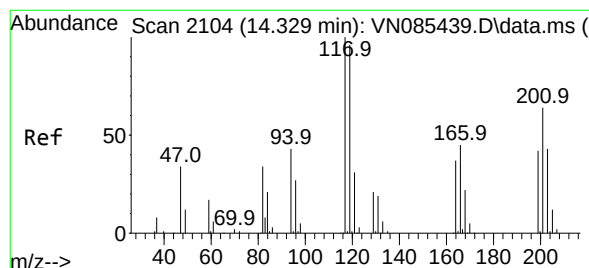
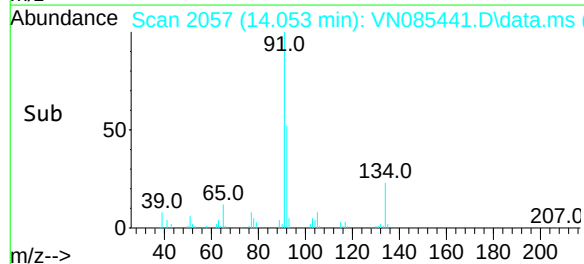
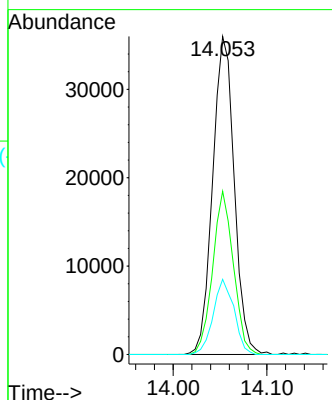
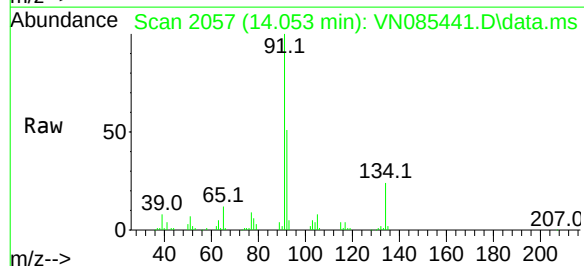
VSTDICC010

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 91    | Resp: | 57632 |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 92       | 49.2  | 25.8  | 77.3  |
| 134      | 22.8  | 11.7  | 35.1  |

## Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#90

Hexachloroethane

Concen: 9.294 ug/l

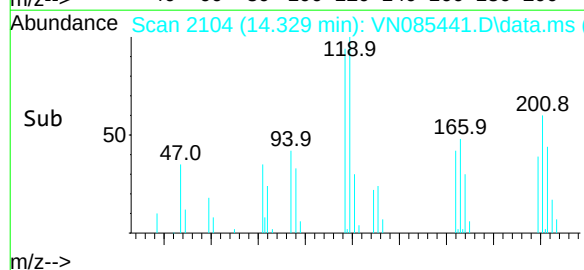
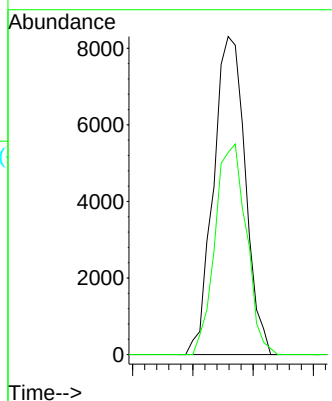
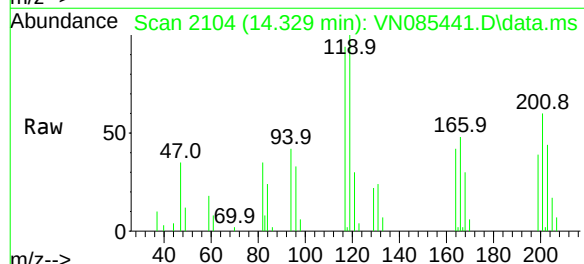
RT: 14.329 min Scan# 2104

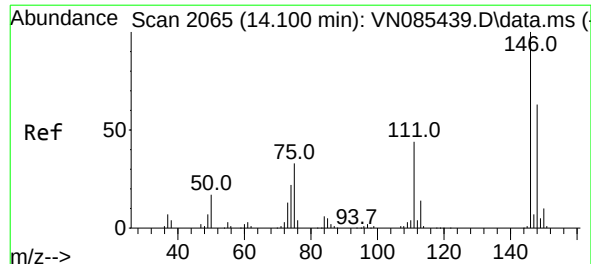
Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 15261 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 201      | 65.0  | 33.7  | 101.0 |





#91

1,2-Dichlorobenzene

Concen: 9.458 ug/l

RT: 14.106 min Scan# 2065

Delta R.T. 0.006 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

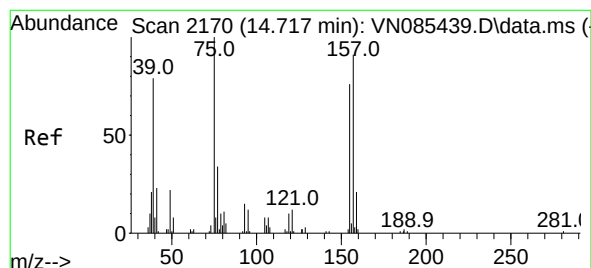
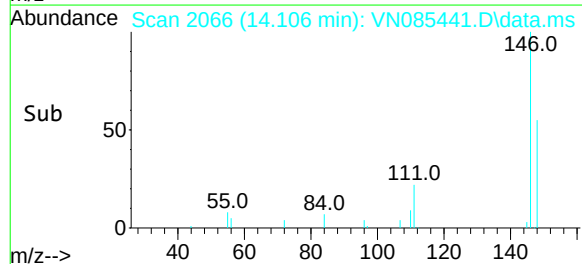
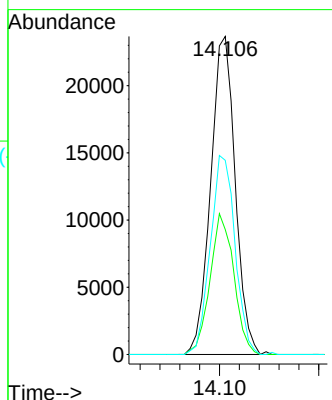
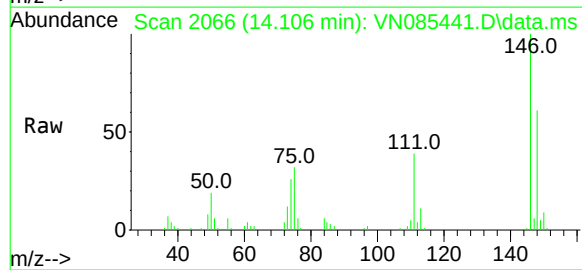
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 146   | Resp: | 40726 |
| Ion      | Ratio | Lower | Upper |
| 146      | 100   |       |       |
| 111      | 42.9  | 21.7  | 65.1  |
| 148      | 62.9  | 31.4  | 94.2  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#92

1,2-Dibromo-3-Chloropropane

Concen: 9.744 ug/l

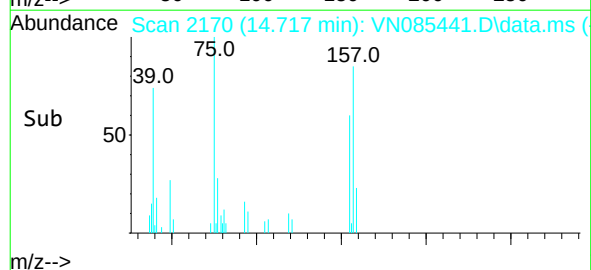
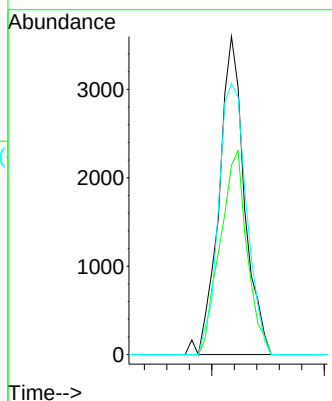
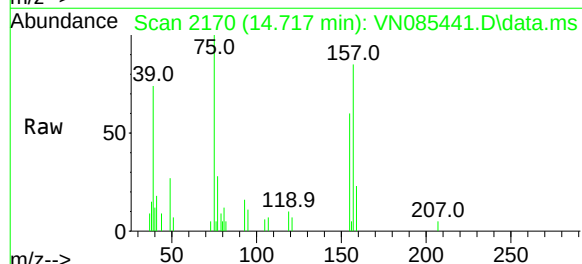
RT: 14.717 min Scan# 2170

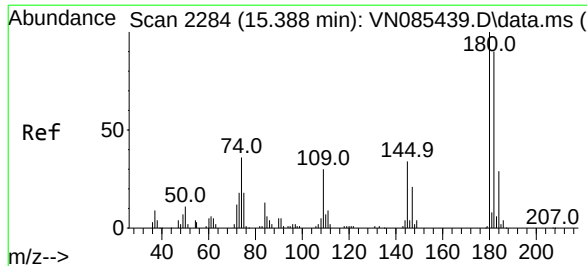
Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 5639  |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 155      | 67.9  | 36.4  | 109.2 |
| 157      | 94.1  | 45.4  | 136.1 |





#93

1,2,4-Trichlorobenzene

Concen: 9.354 ug/l

RT: 15.388 min Scan# 2284

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion:180 Resp: 18720

Ion Ratio Lower Upper

180 100

182 92.4 46.8 140.3

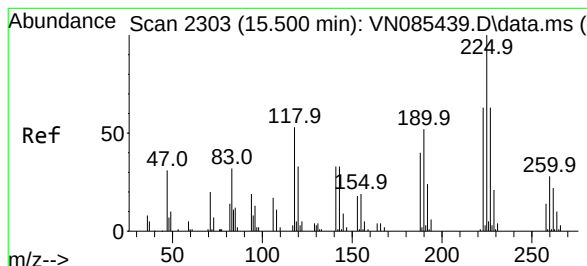
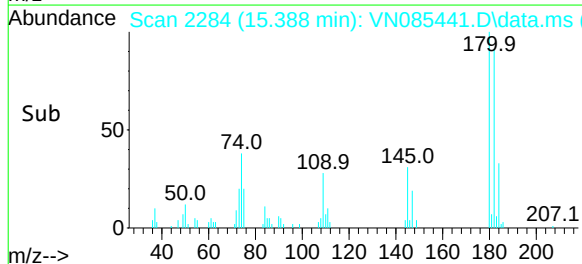
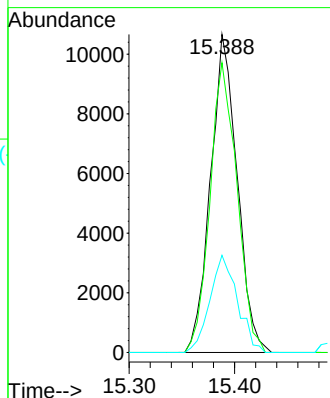
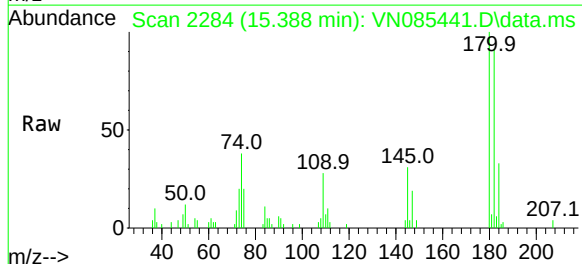
145 31.7 16.0 48.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#94

Hexachlorobutadiene

Concen: 9.874 ug/l

RT: 15.500 min Scan# 2303

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

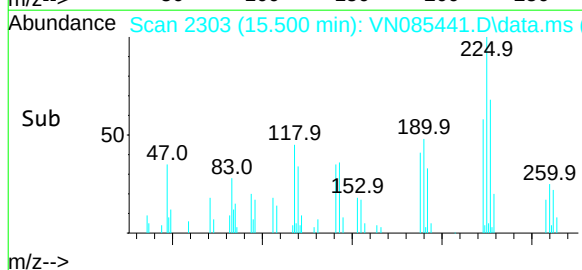
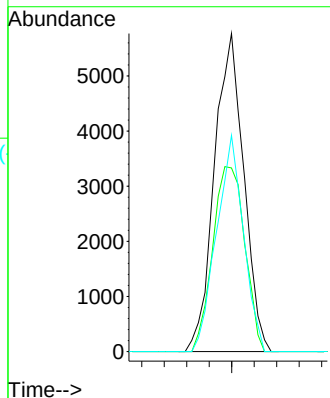
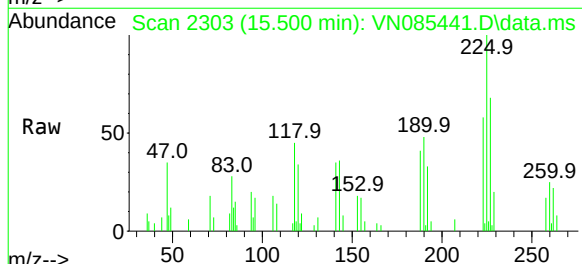
Tgt Ion:225 Resp: 10491

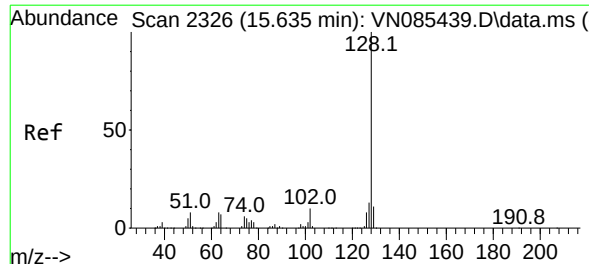
Ion Ratio Lower Upper

225 100

223 63.3 30.7 92.1

227 62.1 30.9 92.5





#95

Naphthalene

Concen: 8.717 ug/l

RT: 15.635 min Scan# 2326

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

Instrument :

MSVOA\_N

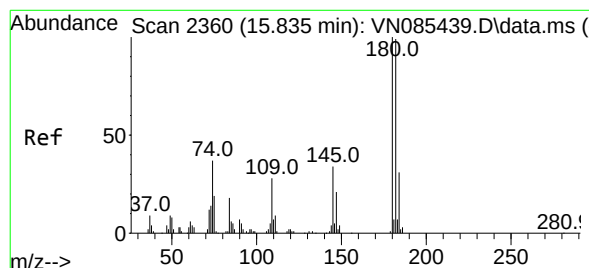
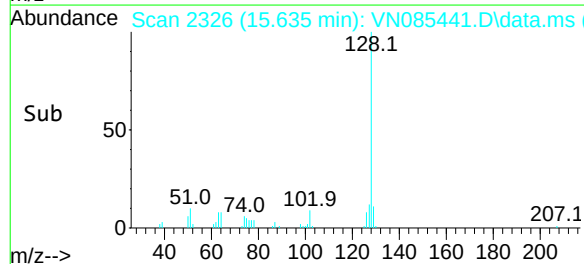
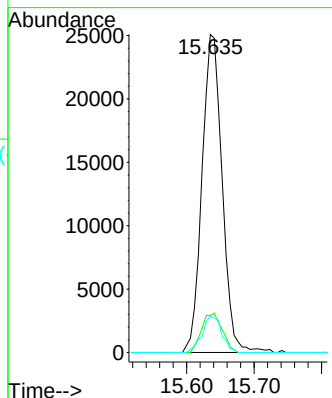
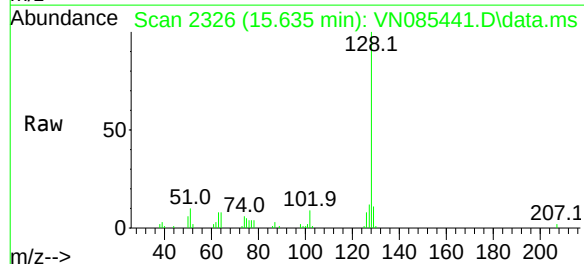
ClientSampleId :

VSTDIC010

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 128   | Resp: | 52054 |
| Ion Ratio | Lower | Upper |       |
| 128       | 100   |       |       |
| 127       | 12.6  | 10.6  | 16.0  |
| 129       | 11.2  | 8.8   | 13.2  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#96

1,2,3-Trichlorobenzene

Concen: 9.605 ug/l

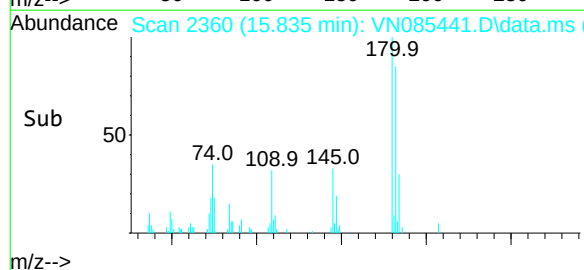
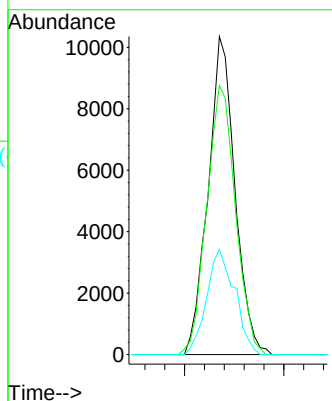
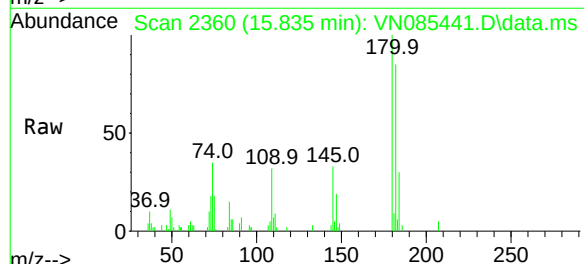
RT: 15.835 min Scan# 2360

Delta R.T. 0.000 min

Lab File: VN085441.D

Acq: 14 Jan 2025 16:07

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 180   | Resp: | 19450 |
| Ion Ratio | Lower | Upper |       |
| 180       | 100   |       |       |
| 182       | 90.3  | 47.4  | 142.2 |
| 145       | 34.7  | 16.9  | 50.7  |





Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085442.D  
 Acq On : 14 Jan 2025 16:31  
 Operator : JC\MD  
 Sample : VSTDICC005  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC005

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:45:08 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 01:28:51 2025  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.218  | 168  | 186556   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 324413   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 282203   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.788 | 152  | 126086   | 50.000 | ug/l  | 0.00     |

|                             |        |       |          |          |      |          |
|-----------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds |        |       |          |          |      |          |
| 33) 1,2-Dichloroethane-d4   | 8.577  | 65    | 17046    | 5.660    | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 74 - 125 | Recovery | =    | 11.320%# |
| 35) Dibromofluoromethane    | 8.165  | 113   | 12102    | 5.377    | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =    | 10.760%# |
| 50) Toluene-d8              | 10.565 | 98    | 41328    | 5.168    | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 86 - 113 | Recovery | =    | 10.340%# |
| 62) 4-Bromofluorobenzene    | 12.847 | 95    | 13520    | 4.943    | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 77 - 121 | Recovery | =    | 9.880%#  |

|                              |       |     |         |        |        |     |
|------------------------------|-------|-----|---------|--------|--------|-----|
| Target Compounds             |       |     |         | Qvalue |        |     |
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 13199   | 5.225  | ug/l   | 97  |
| 3) Chloromethane             | 2.359 | 50  | 14526   | 5.311  | ug/l   | 96  |
| 4) Vinyl Chloride            | 2.512 | 62  | 14564   | 5.298  | ug/l   | 98  |
| 5) Bromomethane              | 2.953 | 94  | 9788    | 5.895  | ug/l   | 98  |
| 6) Chloroethane              | 3.124 | 64  | 9430    | 5.411  | ug/l   | 99  |
| 7) Trichlorofluoromethane    | 3.501 | 101 | 20098   | 5.039  | ug/l   | 92  |
| 8) Diethyl Ether             | 3.959 | 74  | 6652    | 4.828  | ug/l   | 100 |
| 9) 1,1,2-Trichlorotrifluo... | 4.365 | 101 | 11917   | 5.305  | ug/l   | 97  |
| 10) Methyl Iodide            | 4.583 | 142 | 12331   | 4.793  | ug/l   | 99  |
| 11) Tert butyl alcohol       | 5.518 | 59  | 9075    | 26.318 | ug/l # | 94  |
| 12) 1,1-Dichloroethene       | 4.342 | 96  | 10429   | 5.209  | ug/l   | 96  |
| 13) Acrolein                 | 4.171 | 56  | 9430    | 20.033 | ug/l   | 97  |
| 14) Allyl chloride           | 5.030 | 41  | 16741   | 5.153  | ug/l   | 97  |
| 15) Acrylonitrile            | 5.718 | 53  | 27869   | 25.445 | ug/l   | 97  |
| 16) Acetone                  | 4.430 | 43  | 25122   | 25.819 | ug/l   | 97  |
| 17) Carbon Disulfide         | 4.706 | 76  | 32068   | 5.202  | ug/l   | 96  |
| 18) Methyl Acetate           | 5.024 | 43  | 15106   | 5.106  | ug/l   | 97  |
| 19) Methyl tert-butyl Ether  | 5.800 | 73  | 31439   | 4.836  | ug/l   | 94  |
| 20) Methylene Chloride       | 5.271 | 84  | 12981   | 5.389  | ug/l # | 83  |
| 21) trans-1,2-Dichloroethene | 5.783 | 96  | 10614   | 4.960  | ug/l # | 78  |
| 22) Diisopropyl ether        | 6.665 | 45  | 35785   | 4.962  | ug/l # | 96  |
| 23) Vinyl Acetate            | 6.600 | 43  | 118439m | 23.389 | ug/l   |     |
| 24) 1,1-Dichloroethane       | 6.565 | 63  | 22865   | 5.200  | ug/l   | 99  |
| 25) 2-Butanone               | 7.483 | 43  | 36127   | 25.231 | ug/l   | 99  |
| 26) 2,2-Dichloropropane      | 7.488 | 77  | 18398   | 5.175  | ug/l   | 100 |
| 27) cis-1,2-Dichloroethene   | 7.488 | 96  | 12477   | 4.951  | ug/l   | 99  |
| 28) Bromochloromethane       | 7.806 | 49  | 11096   | 5.424  | ug/l   | 99  |
| 29) Tetrahydrofuran          | 7.841 | 42  | 21983   | 24.215 | ug/l   | 99  |
| 30) Chloroform               | 7.959 | 83  | 23384   | 5.146  | ug/l   | 98  |
| 31) Cyclohexane              | 8.247 | 56  | 22343   | 5.846  | ug/l # | 92  |
| 32) 1,1,1-Trichloroethane    | 8.159 | 97  | 21416   | 5.372  | ug/l   | 91  |
| 36) 1,1-Dichloropropene      | 8.371 | 75  | 15886   | 5.029  | ug/l   | 96  |
| 37) Ethyl Acetate            | 7.553 | 43  | 16879m  | 5.294  | ug/l   |     |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 18317   | 5.065  | ug/l   | 96  |
| 39) Methylcyclohexane        | 9.600 | 83  | 14175   | 4.776  | ug/l   | 98  |
| 40) Benzene                  | 8.600 | 78  | 47833   | 5.040  | ug/l   | 99  |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085442.D  
 Acq On : 14 Jan 2025 16:31  
 Operator : JC\MD  
 Sample : VSTDICC005  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC005

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:45:08 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 01:28:51 2025  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|--------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 7380     | 4.449  | ug/l   | 96       |
| 42) 1,2-Dichloroethane        | 8.671  | 62   | 18628    | 5.211  | ug/l   | 98       |
| 43) Isopropyl Acetate         | 8.688  | 43   | 24792    | 4.853  | ug/l   | 98       |
| 44) Trichloroethene           | 9.347  | 130  | 11133    | 5.039  | ug/l   | 86       |
| 45) 1,2-Dichloropropane       | 9.618  | 63   | 12591    | 5.194  | ug/l   | 92       |
| 46) Dibromomethane            | 9.700  | 93   | 8230     | 4.705  | ug/l   | 91       |
| 47) Bromodichloromethane      | 9.888  | 83   | 18456    | 5.179  | ug/l # | 96       |
| 48) Methyl methacrylate       | 9.677  | 41   | 10574    | 4.599  | ug/l   | 95       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 3619     | 93.477 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone      | 10.441 | 43   | 71889    | 24.250 | ug/l   | 98       |
| 52) Toluene                   | 10.629 | 92   | 27098    | 4.928  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene     | 10.829 | 75   | 17099    | 5.077  | ug/l   | 95       |
| 54) cis-1,3-Dichloropropene   | 10.306 | 75   | 17440    | 4.848  | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane     | 11.012 | 97   | 11311    | 5.197  | ug/l   | 96       |
| 56) Ethyl methacrylate        | 10.871 | 69   | 14094    | 5.627  | ug/l   | 94       |
| 57) 1,3-Dichloropropane       | 11.159 | 76   | 18945    | 5.006  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 33210    | 24.047 | ug/l   | 97       |
| 59) 2-Hexanone                | 11.194 | 43   | 49021    | 23.501 | ug/l   | 94       |
| 60) Dibromochloromethane      | 11.353 | 129  | 13635    | 5.190  | ug/l   | 96       |
| 61) 1,2-Dibromoethane         | 11.471 | 107  | 10419    | 4.810  | ug/l   | 98       |
| 64) Tetrachloroethene         | 11.100 | 164  | 9756     | 5.071  | ug/l   | 91       |
| 65) Chlorobenzene             | 11.888 | 112  | 31312    | 5.065  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 11620    | 5.121  | ug/l   | 98       |
| 67) Ethyl Benzene             | 11.965 | 91   | 48216    | 4.789  | ug/l   | 98       |
| 68) m/p-Xylenes               | 12.065 | 106  | 34771    | 9.344  | ug/l   | 99       |
| 69) o-Xylene                  | 12.394 | 106  | 16419    | 4.617  | ug/l   | 98       |
| 70) Styrene                   | 12.412 | 104  | 26218    | 4.454  | ug/l   | 99       |
| 71) Bromoform                 | 12.576 | 173  | 8017     | 4.938  | ug/l # | 99       |
| 73) Isopropylbenzene          | 12.694 | 105  | 39811    | 4.678  | ug/l   | 99       |
| 74) N-amyl acetate            | 12.488 | 43   | 17577    | 4.595  | ug/l   | 95       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 15483    | 5.151  | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 12173m   | 4.758  | ug/l   |          |
| 77) Bromobenzene              | 12.982 | 156  | 11091    | 4.989  | ug/l   | 99       |
| 78) n-propylbenzene           | 13.035 | 91   | 45450    | 4.512  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 31932    | 4.898  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 31891    | 4.537  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-b... | 12.729 | 75   | 4229     | 4.465  | ug/l   | 90       |
| 82) 4-Chlorotoluene           | 13.218 | 91   | 31976    | 4.926  | ug/l   | 100      |
| 83) tert-Butylbenzene         | 13.435 | 119  | 27597    | 4.675  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 32054    | 4.575  | ug/l   | 98       |
| 85) sec-Butylbenzene          | 13.612 | 105  | 38148    | 4.663  | ug/l   | 98       |
| 86) p-Isopropyltoluene        | 13.723 | 119  | 29856    | 4.584  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene       | 13.729 | 146  | 20876    | 5.099  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 21982    | 5.179  | ug/l   | 97       |
| 89) n-Butylbenzene            | 14.053 | 91   | 27437    | 4.675  | ug/l   | 96       |
| 90) Hexachloroethane          | 14.329 | 117  | 7767     | 4.987  | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 20177    | 4.940  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropr... | 14.729 | 75   | 2872     | 5.232  | ug/l   | 90       |
| 93) 1,2,4-Trichlorobenzene    | 15.388 | 180  | 9037     | 4.761  | ug/l   | 94       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 5563     | 5.520  | ug/l   | 98       |
| 95) Naphthalene               | 15.641 | 128  | 25047    | 4.422  | ug/l   | 96       |
| 96) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 8737     | 4.549  | ug/l   | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
Data File : VN085442.D  
Acq On : 14 Jan 2025 16:31  
Operator : JC\MD  
Sample : VSTDICC005  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:45:08 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 01:28:51 2025  
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

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

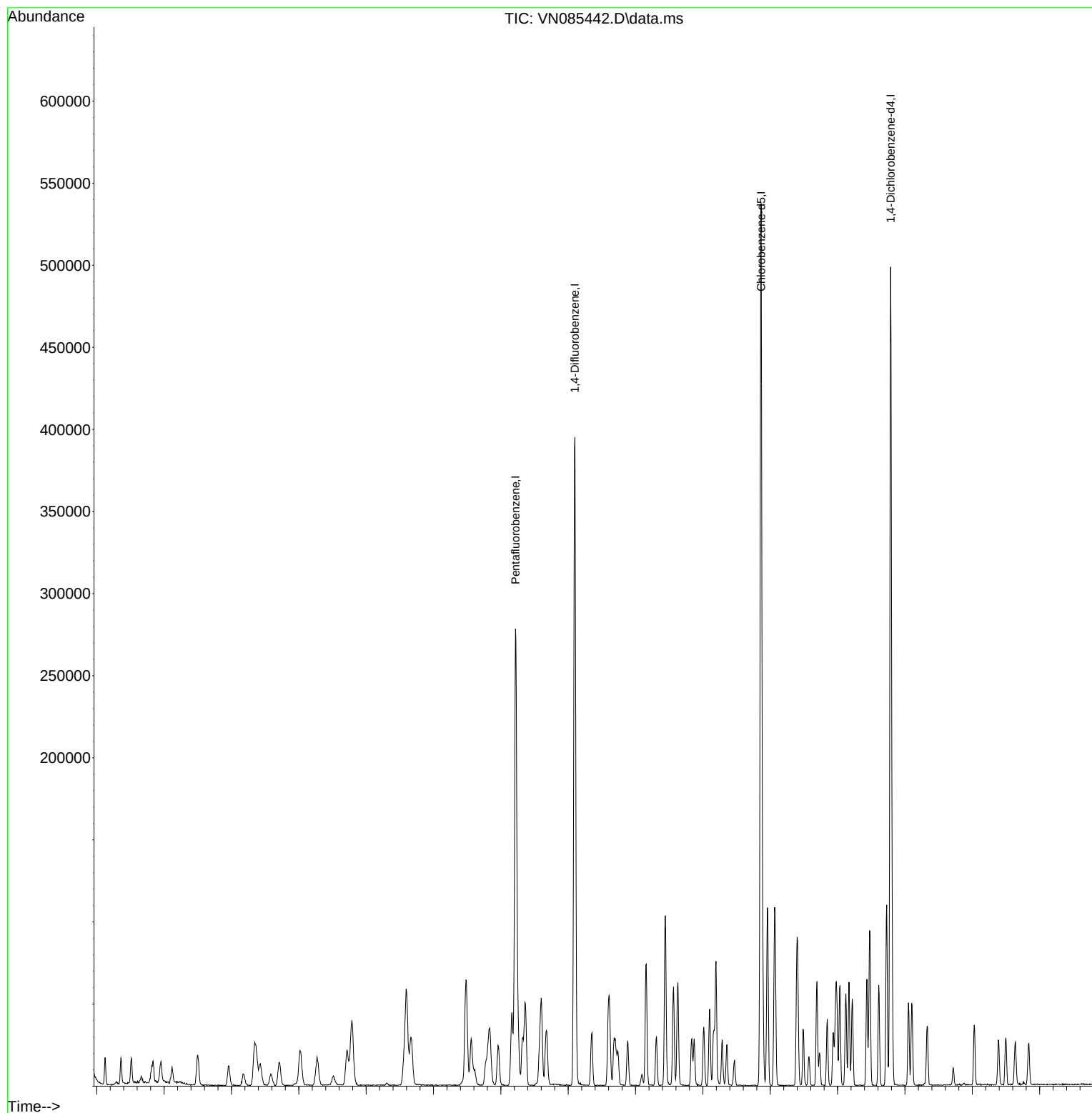
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Data File : VN085442.D  
Acq On : 14 Jan 2025 16:31  
Operator : JC\MD  
Sample : VSTDICC005  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 8 Sample Multiplier: 1

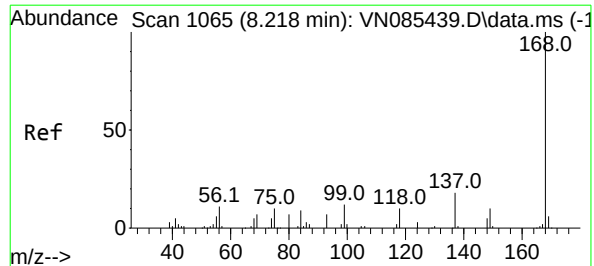
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Manual Integrations  
APPROVED

Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:45:08 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 01:28:51 2025  
Response via : Initial Calibration





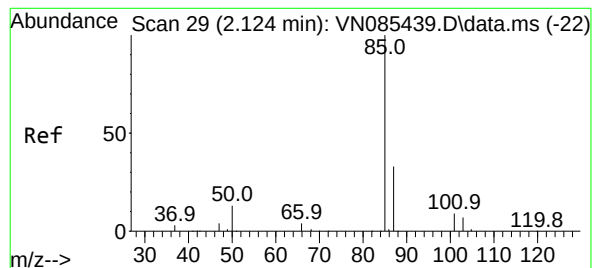
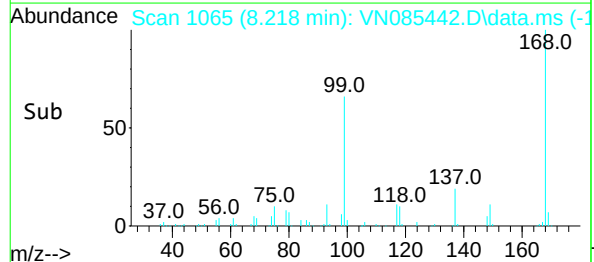
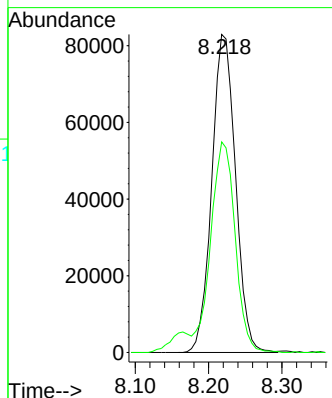
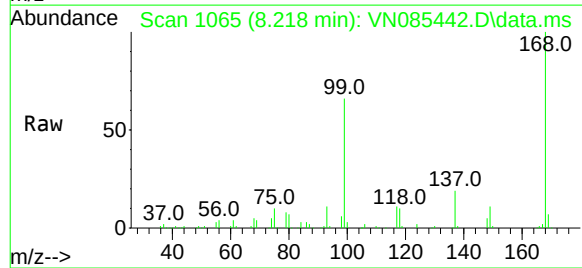
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Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.218 min Scan# 1065  
Delta R.T. -0.000 min  
Lab File: VN085442.D  
Acq: 14 Jan 2025 16:31

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Tgt Ion: 168 Resp: 186556  
Ion Ratio Lower Upper  
168 100  
99 65.9 53.6 80.4

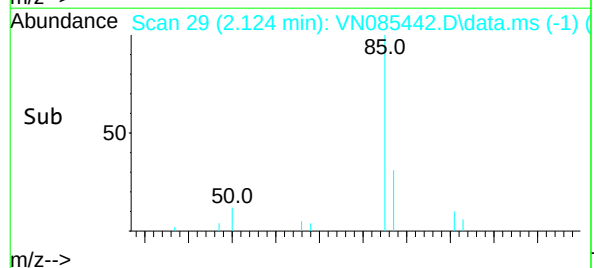
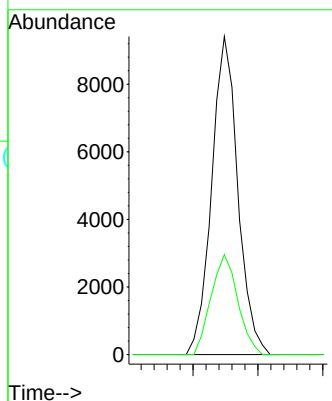
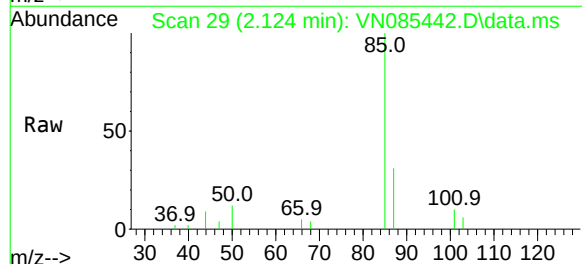
Manual Integrations  
APPROVED

Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025

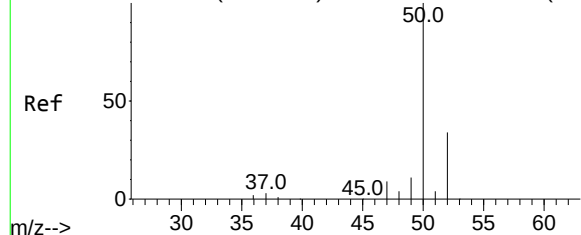


#2  
Dichlorodifluoromethane  
Concen: 5.225 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. -0.000 min  
Lab File: VN085442.D  
Acq: 14 Jan 2025 16:31

Tgt Ion: 85 Resp: 13199  
Ion Ratio Lower Upper  
85 100  
87 31.5 16.7 50.1



Abundance Scan 69 (2.359 min): VN085439.D\data.ms (-62)



#3

Chloromethane

Concen: 5.311 ug/l

RT: 2.359 min Scan# 69

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 50 Resp: 14526

Ion Ratio Lower Upper

50 100

52 31.6 27.0 40.6

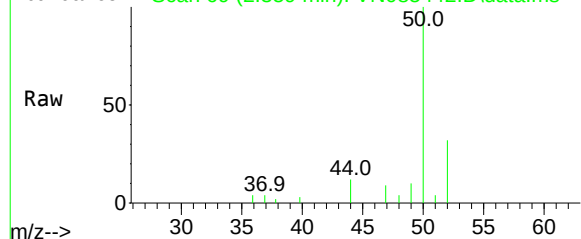
Manual Integrations

APPROVED

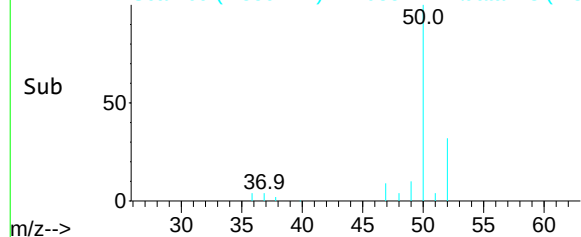
Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025

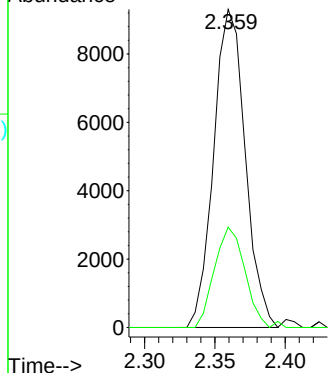
Abundance Scan 69 (2.359 min): VN085442.D\data.ms



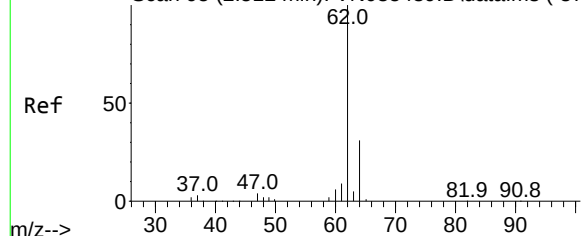
Abundance Scan 69 (2.359 min): VN085442.D\data.ms (-18)



Abundance



Abundance Scan 95 (2.512 min): VN085439.D\data.ms (-87)



#4

Vinyl Chloride

Concen: 5.298 ug/l

RT: 2.512 min Scan# 95

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

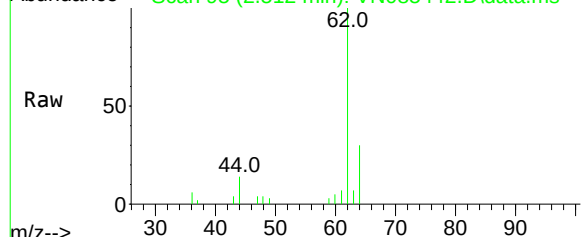
Tgt Ion: 62 Resp: 14564

Ion Ratio Lower Upper

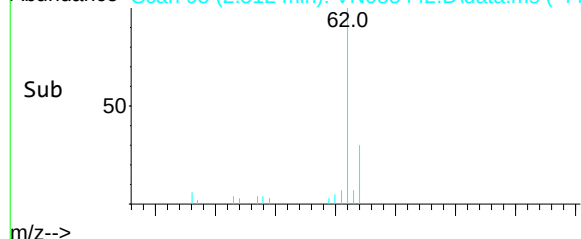
62 100

64 29.9 24.8 37.2

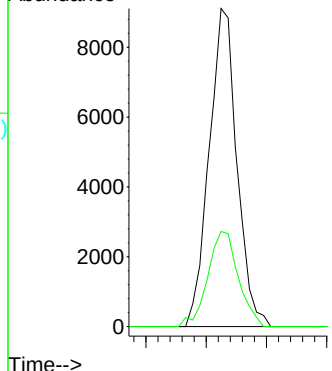
Abundance Scan 95 (2.512 min): VN085442.D\data.ms

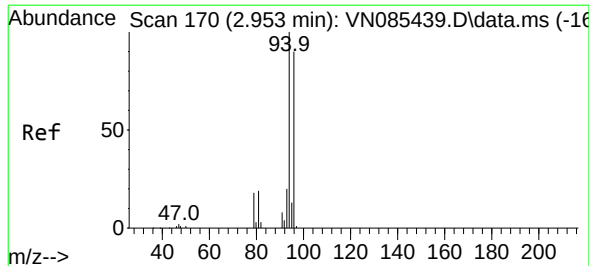


Abundance Scan 95 (2.512 min): VN085442.D\data.ms (-44)



Abundance





#5

Bromomethane

Concen: 5.895 ug/l

RT: 2.953 min Scan# 170

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005

Tgt Ion: 94 Resp: 9788

Ion Ratio Lower Upper

94 100

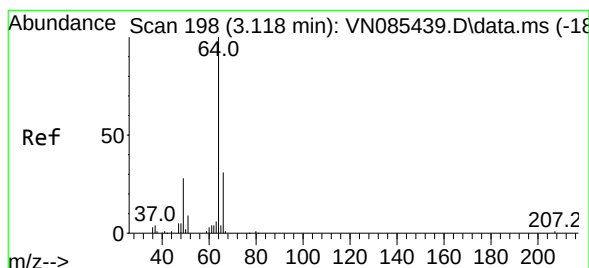
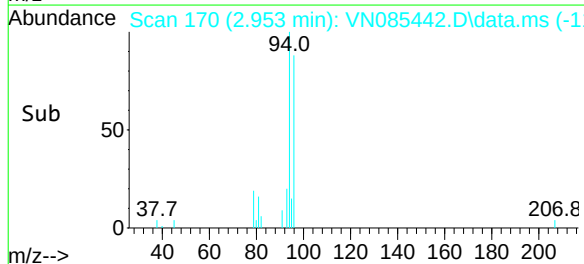
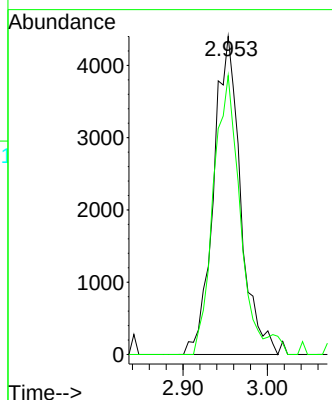
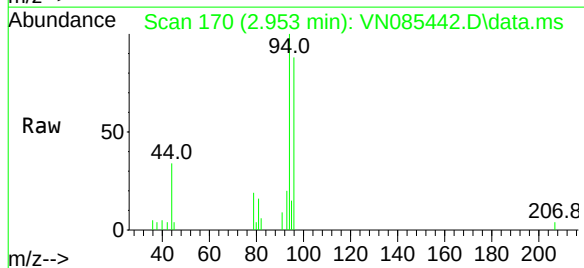
96 87.7 71.8 107.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#6

Chloroethane

Concen: 5.411 ug/l

RT: 3.124 min Scan# 199

Delta R.T. 0.006 min

Lab File: VN085442.D

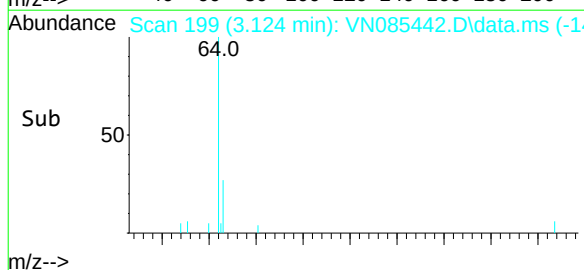
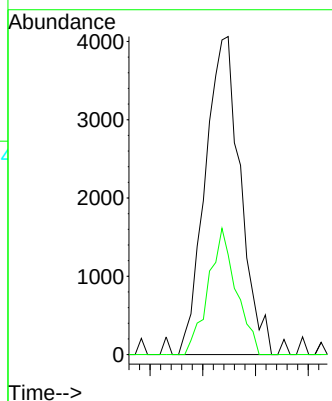
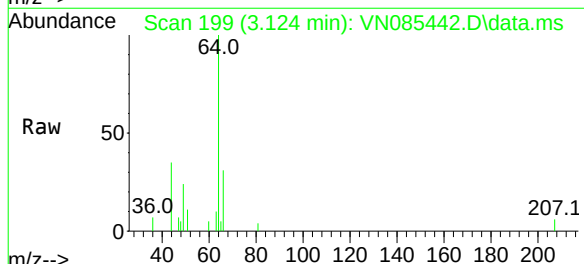
Acq: 14 Jan 2025 16:31

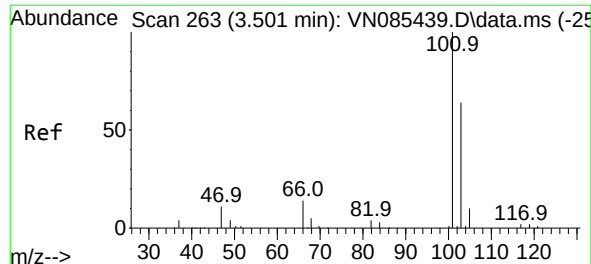
Tgt Ion: 64 Resp: 9430

Ion Ratio Lower Upper

64 100

66 31.4 24.6 36.8





#7

Trichlorofluoromethane

Concen: 5.039 ug/l

RT: 3.501 min Scan# 26

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005

Tgt Ion:101 Resp: 20098

Ion Ratio Lower Upper

101 100

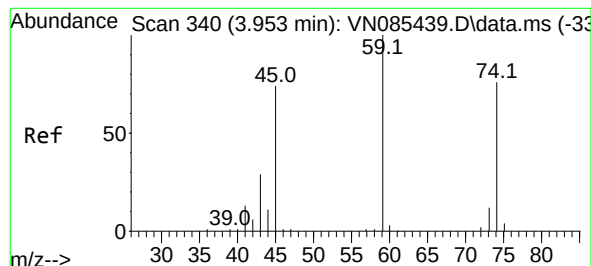
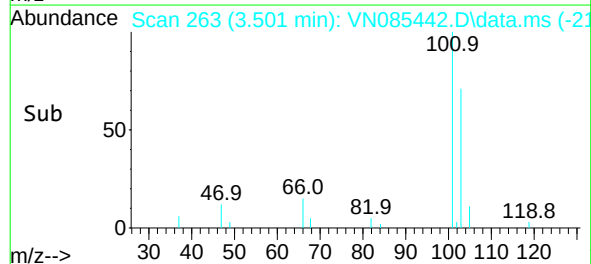
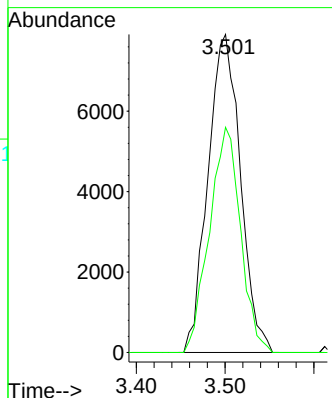
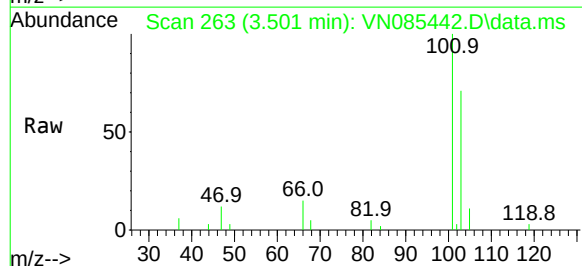
103 70.8 51.4 77.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#8

Diethyl Ether

Concen: 4.828 ug/l

RT: 3.959 min Scan# 341

Delta R.T. 0.006 min

Lab File: VN085442.D

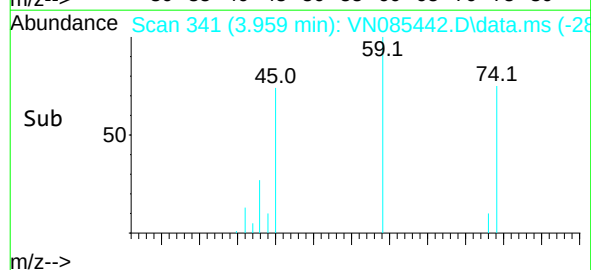
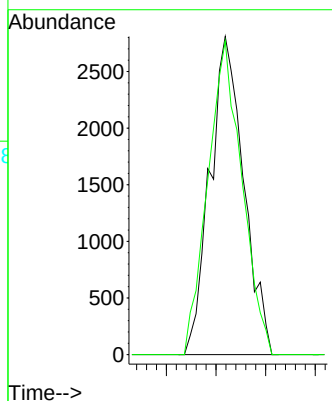
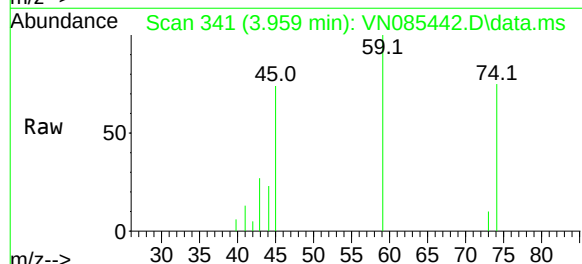
Acq: 14 Jan 2025 16:31

Tgt Ion: 74 Resp: 6652

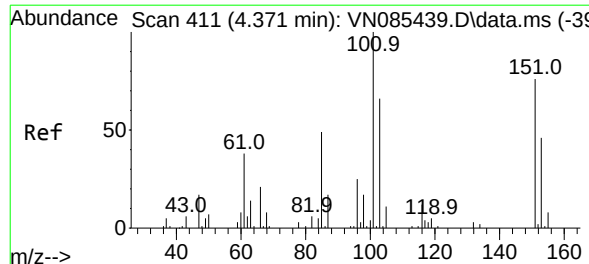
Ion Ratio Lower Upper

74 100

45 99.5 49.7 149.1







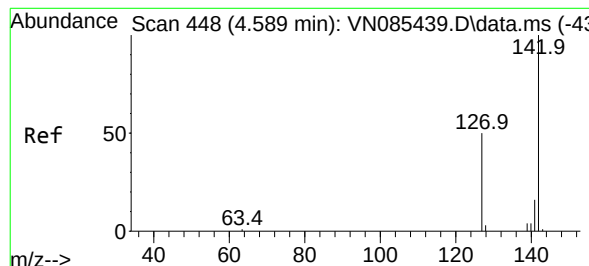
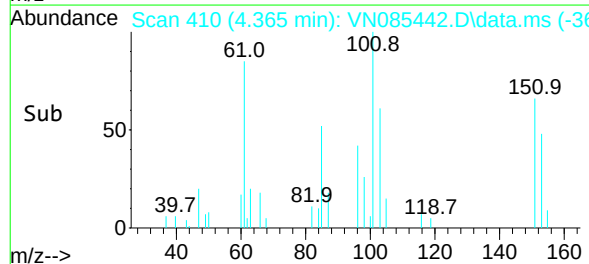
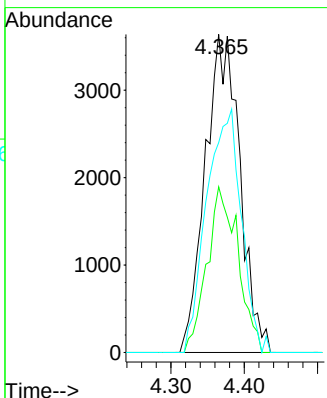
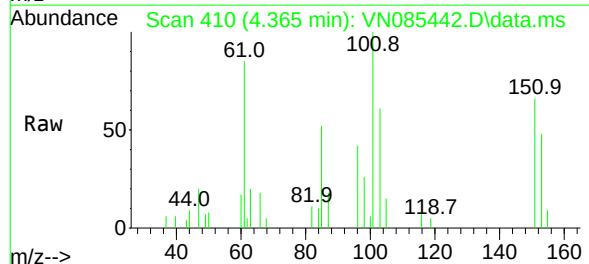
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1,1,2-Trichlorotrifluoroethane  
Concen: 5.305 ug/l  
RT: 4.365 min Scan# 411  
Delta R.T. -0.006 min  
Lab File: VN085442.D  
Acq: 14 Jan 2025 16:31

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC005

| Tgt Ion   | 101   | Resp  | 11917 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 101       | 100   |       |       |
| 85        | 46.5  | 37.8  | 56.8  |
| 151       | 76.7  | 58.8  | 88.2  |

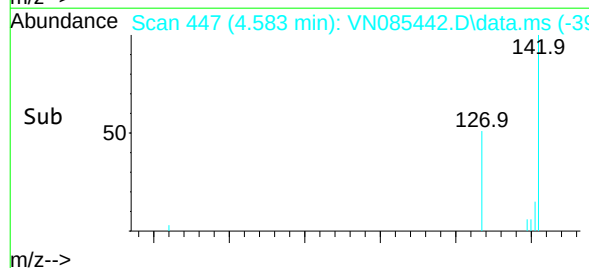
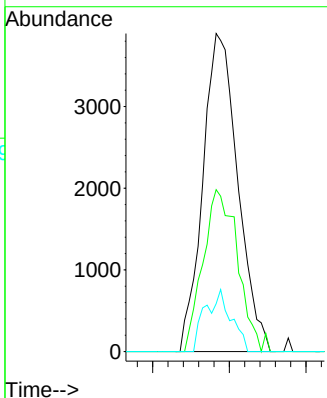
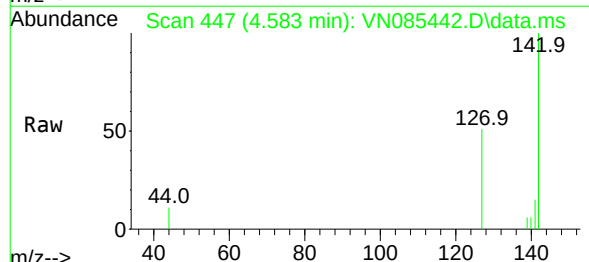
Manual Integrations  
APPROVED

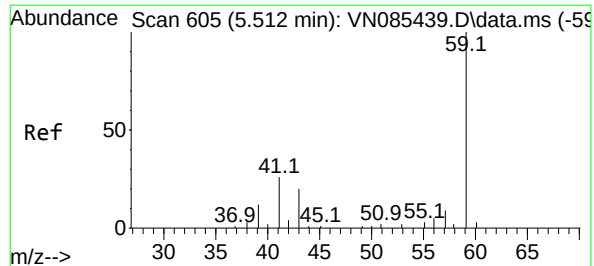
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#10  
Methyl Iodide  
Concen: 4.793 ug/l  
RT: 4.583 min Scan# 447  
Delta R.T. -0.006 min  
Lab File: VN085442.D  
Acq: 14 Jan 2025 16:31

| Tgt Ion   | 142   | Resp  | 12331 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 142       | 100   |       |       |
| 127       | 50.9  | 40.3  | 60.5  |
| 141       | 15.0  | 12.8  | 19.2  |





#11

Tert butyl alcohol

Concen: 26.318 ug/l

RT: 5.518 min Scan# 605

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 59 Resp: 9075

Ion Ratio Lower Upper

59 100

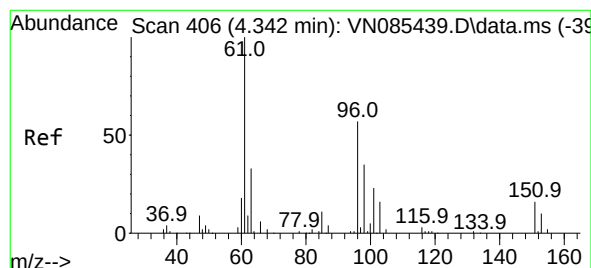
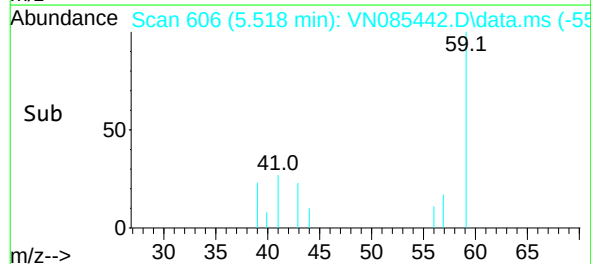
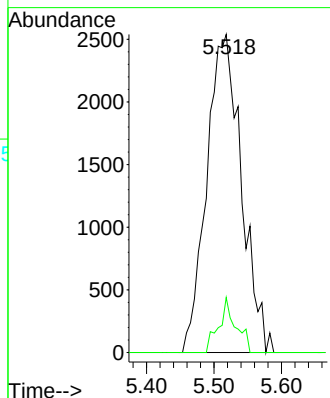
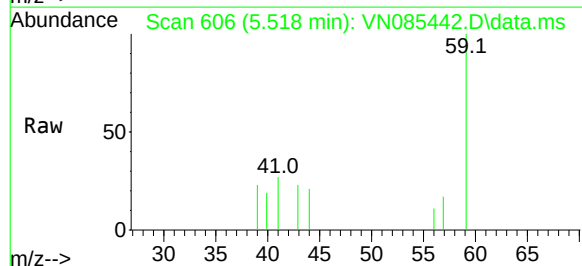
57 8.5 8.6 13.0#

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#12

1,1-Dichloroethene

Concen: 5.209 ug/l

RT: 4.342 min Scan# 406

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

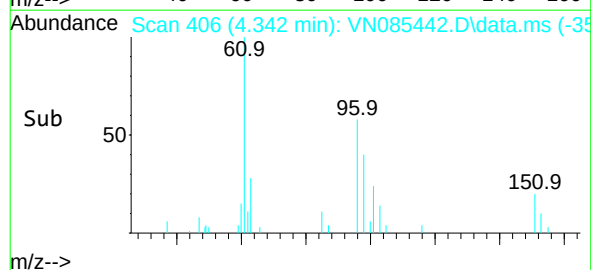
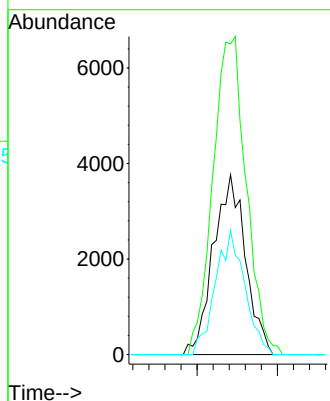
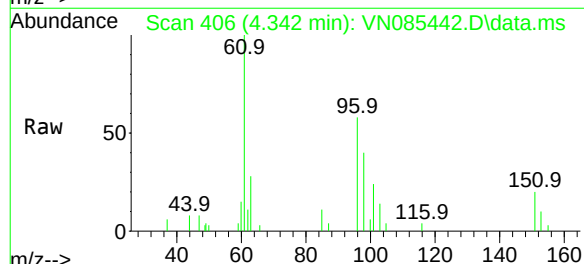
Tgt Ion: 96 Resp: 10429

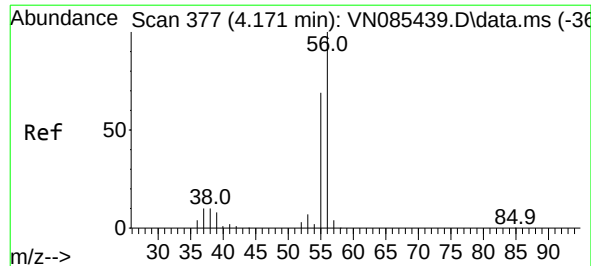
Ion Ratio Lower Upper

96 100

61 172.7 141.0 211.4

98 69.0 49.0 73.6





#13

Acrolein

Concen: 20.033 ug/l

RT: 4.171 min Scan# 377

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005

Tgt Ion: 56 Resp: 9430

Ion Ratio Lower Upper

56 100

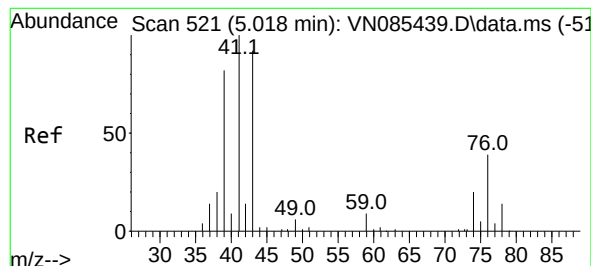
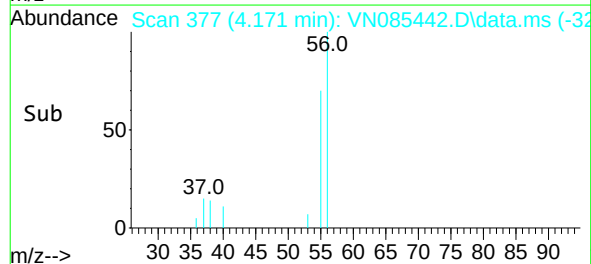
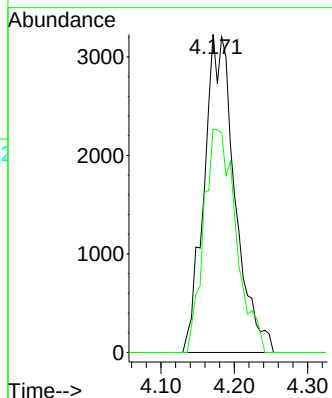
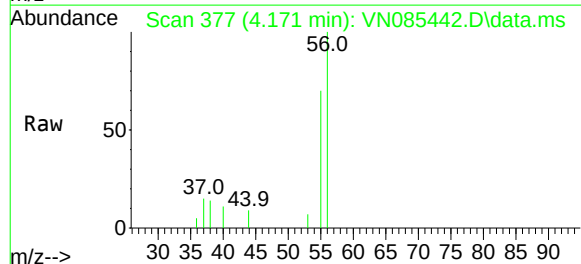
55 73.2 56.3 84.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#14

Allyl chloride

Concen: 5.153 ug/l

RT: 5.030 min Scan# 523

Delta R.T. 0.012 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

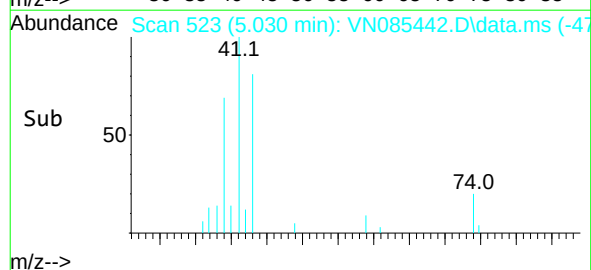
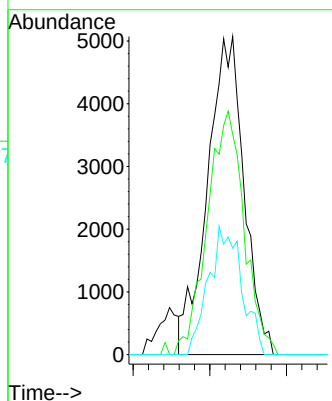
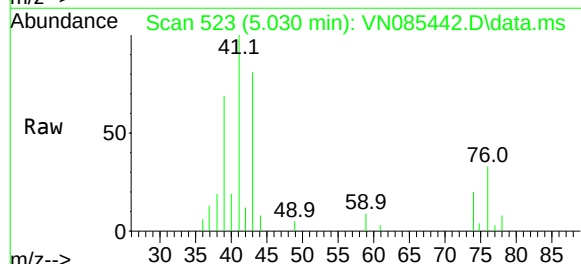
Tgt Ion: 41 Resp: 16741

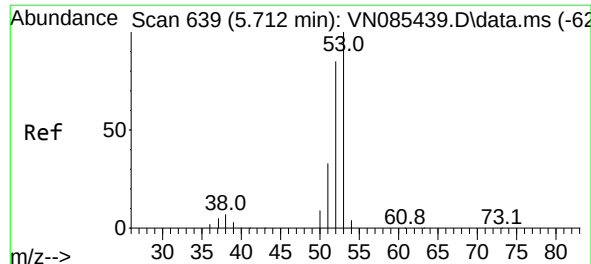
Ion Ratio Lower Upper

41 100

39 77.4 64.4 96.6

76 36.6 30.5 45.7





#15

Acrylonitrile

Concen: 25.445 ug/l

RT: 5.718 min Scan# 64

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

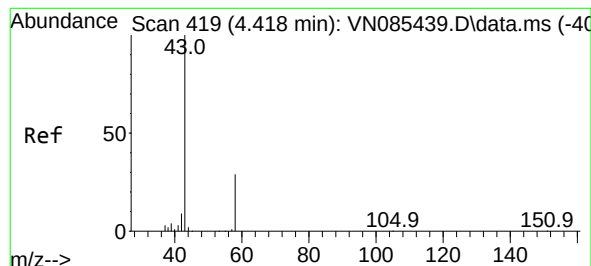
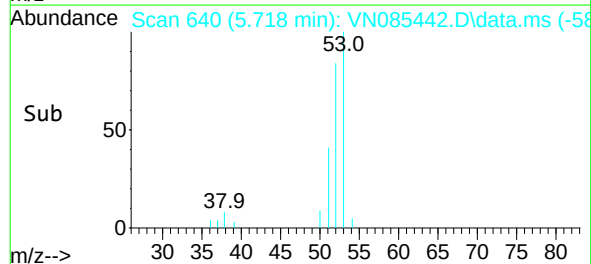
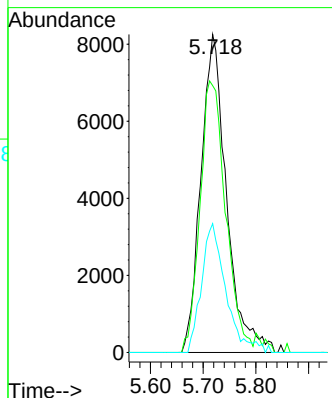
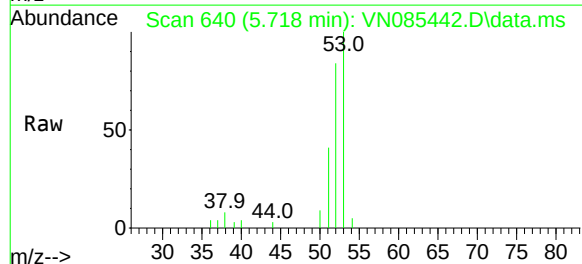
ClientSampleId :

VSTDICC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 53    | Resp: | 27869 |
| Ion      | Ratio | Lower | Upper |
| 53       | 100   |       |       |
| 52       | 85.5  | 65.5  | 98.3  |
| 51       | 38.5  | 29.8  | 44.8  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#16

Acetone

Concen: 25.819 ug/l

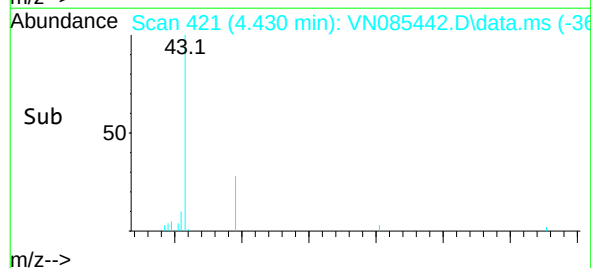
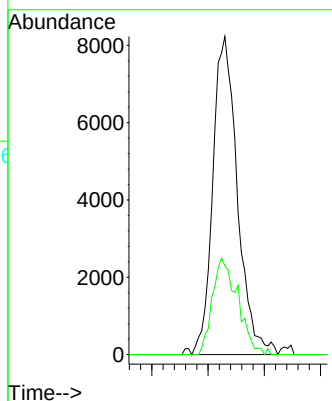
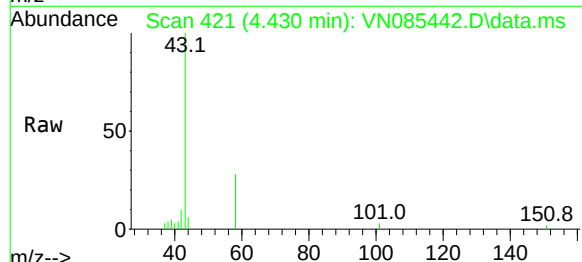
RT: 4.430 min Scan# 421

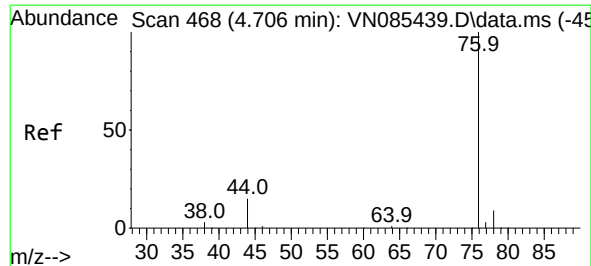
Delta R.T. 0.012 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 25122 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 27.9  | 23.8  | 35.6  |





#17

Carbon Disulfide

Concen: 5.202 ug/l

RT: 4.706 min Scan# 468

Delta R.T. 0.000 min

Lab File: VN085442.D

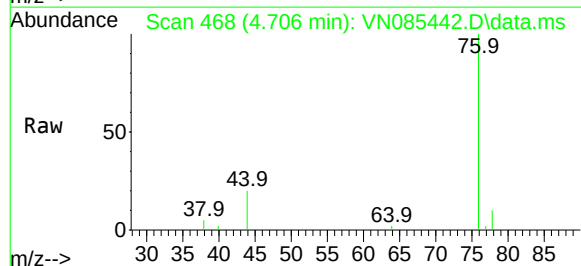
Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005



Tgt Ion: 76 Resp: 32068

Ion Ratio Lower Upper

76 100

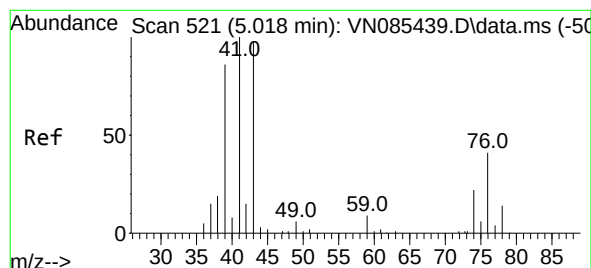
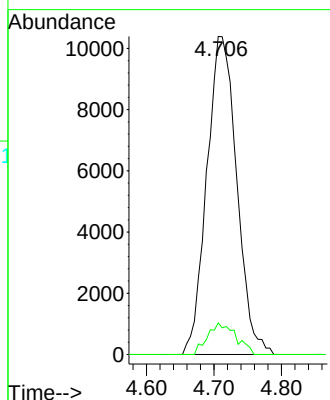
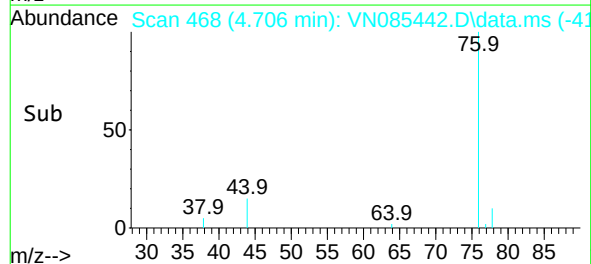
78 9.9 6.9 10.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#18

Methyl Acetate

Concen: 5.106 ug/l

RT: 5.024 min Scan# 522

Delta R.T. 0.006 min

Lab File: VN085442.D

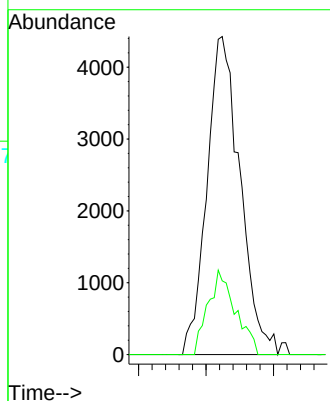
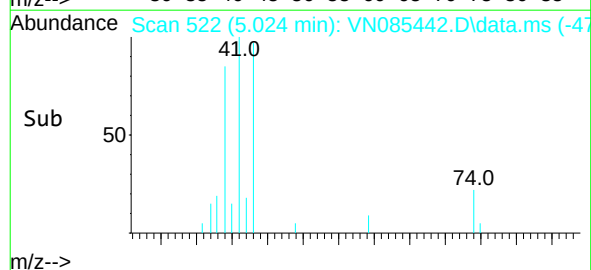
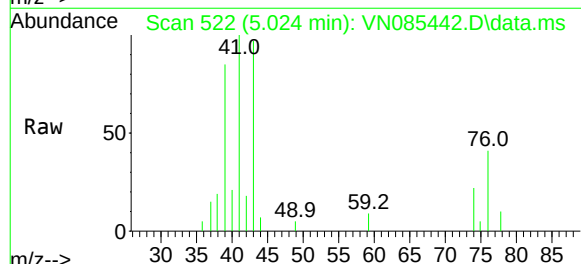
Acq: 14 Jan 2025 16:31

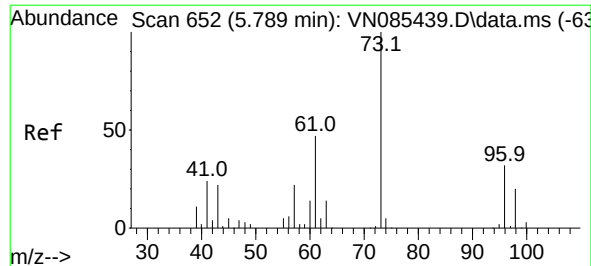
Tgt Ion: 43 Resp: 15106

Ion Ratio Lower Upper

43 100

74 22.0 18.6 28.0





#19

Methyl tert-butyl Ether

Concen: 4.836 ug/l

RT: 5.800 min Scan# 65

Delta R.T. 0.012 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 73 Resp: 31439

Ion Ratio Lower Upper

73 100

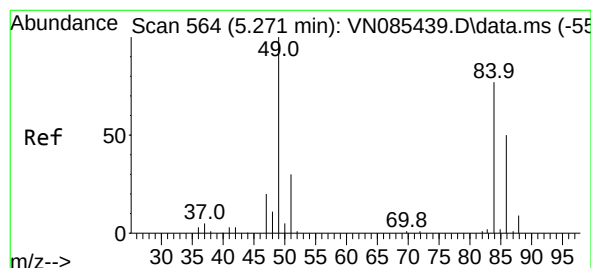
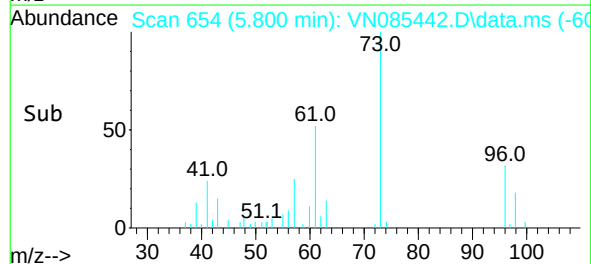
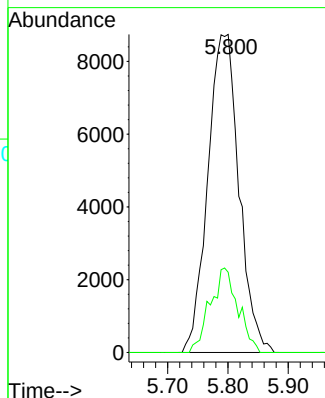
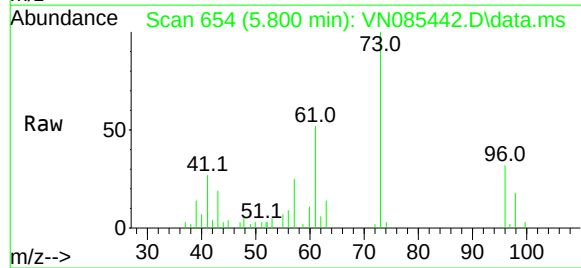
57 25.2 17.8 26.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#20

Methylene Chloride

Concen: 5.389 ug/l

RT: 5.271 min Scan# 564

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Tgt Ion: 84 Resp: 12981

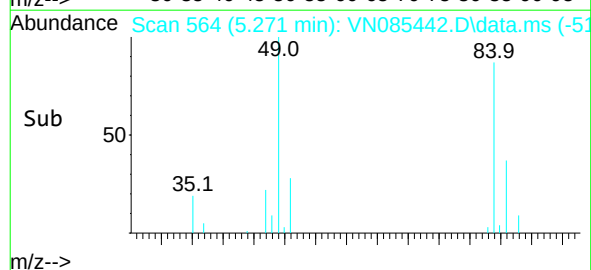
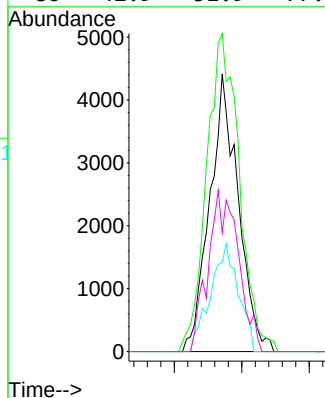
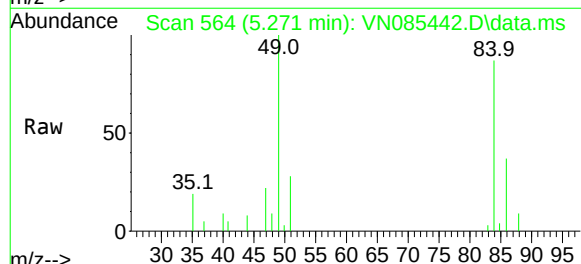
Ion Ratio Lower Upper

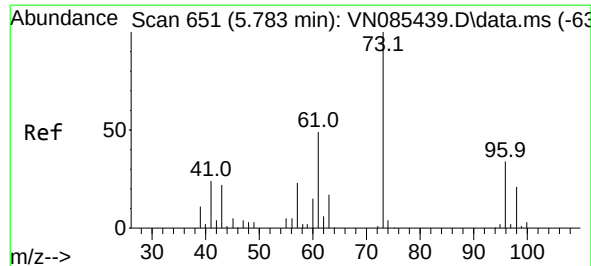
84 100

49 114.5 104.1 156.1

51 32.1 31.0 46.4

86 42.9 51.9 77.9#





#21

trans-1,2-Dichloroethene

Concen: 4.960 ug/l

RT: 5.783 min Scan# 651

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 96 Resp: 10614

Ion Ratio Lower Upper

96 100

61 118.1 115.7 173.5

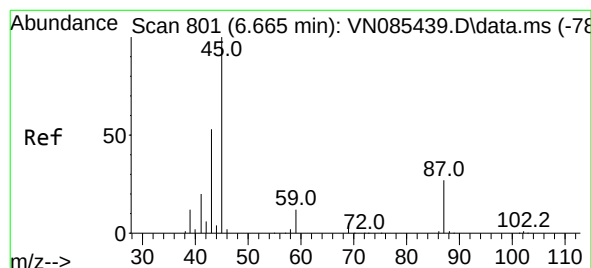
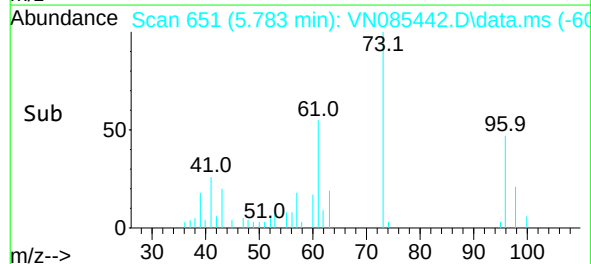
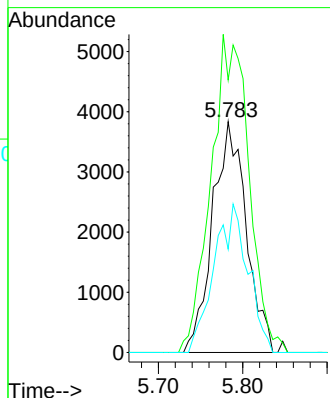
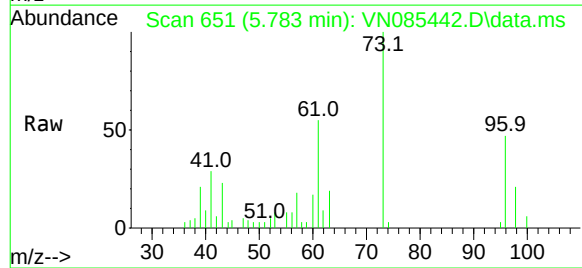
98 44.7 49.8 74.8#

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#22

Diisopropyl ether

Concen: 4.962 ug/l

RT: 6.665 min Scan# 801

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Tgt Ion: 45 Resp: 35785

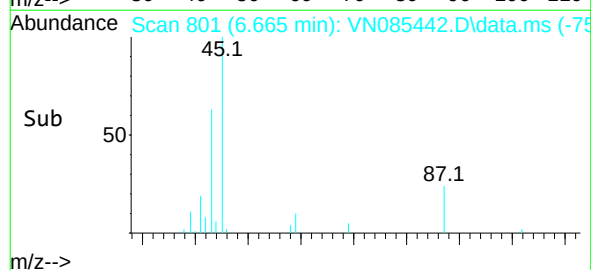
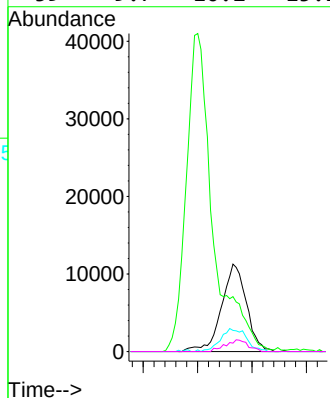
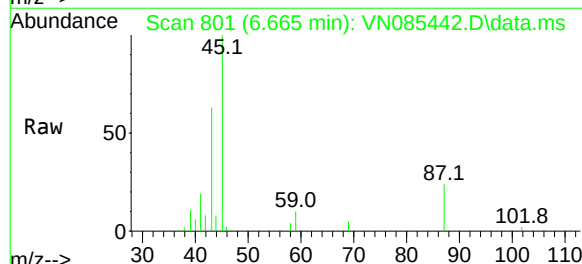
Ion Ratio Lower Upper

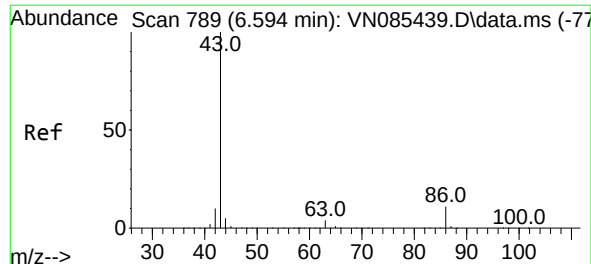
45 100

43 58.3 45.0 67.6

87 24.2 21.8 32.8

59 9.7 10.2 15.2#





#23

Vinyl Acetate

Concen: 23.389 ug/l m

RT: 6.600 min Scan# 790

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Tgt Ion: 43 Resp: 118439

Ion Ratio Lower Upper

43 100

86 9.0 8.4 12.6

Instrument :

MSVOA\_N

ClientSampleId :

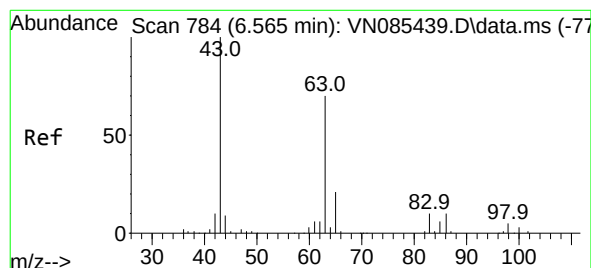
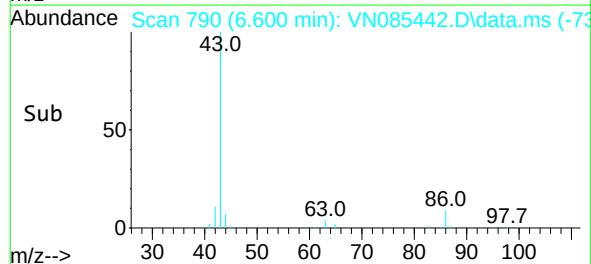
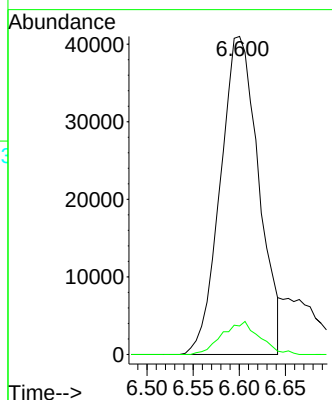
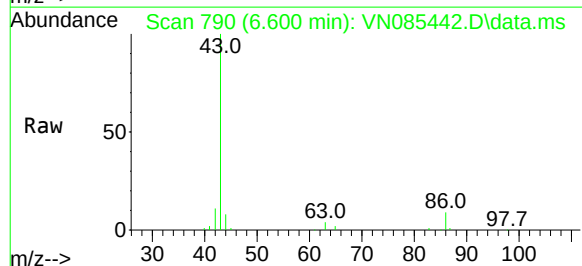
VSTDICC005

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#24

1,1-Dichloroethane

Concen: 5.200 ug/l

RT: 6.565 min Scan# 784

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

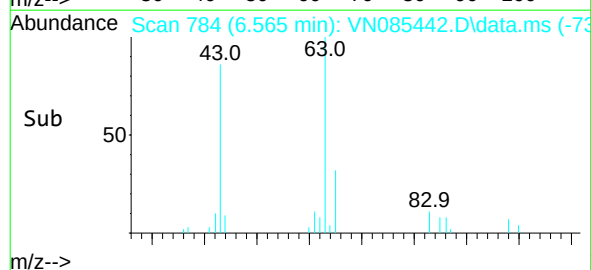
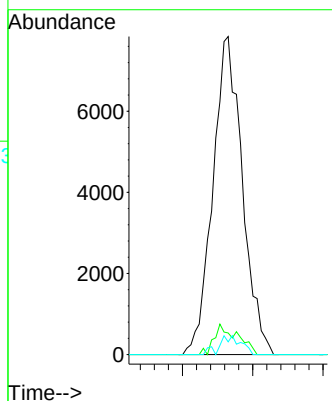
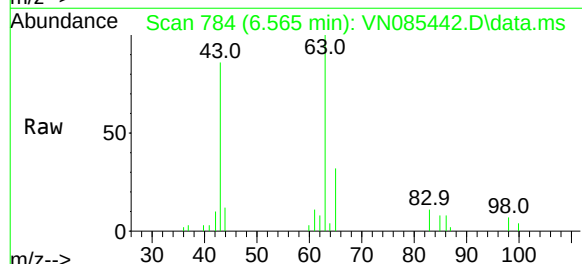
Tgt Ion: 63 Resp: 22865

Ion Ratio Lower Upper

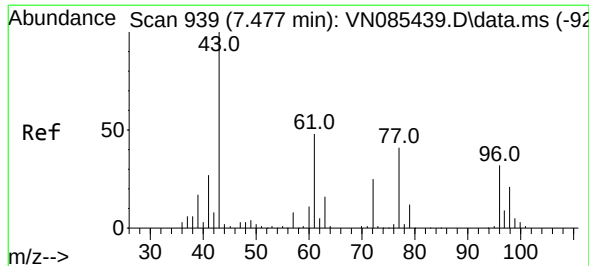
63 100

98 6.8 3.3 9.8

100 4.0 2.0 6.0







#25

2-Butanone

Concen: 25.231 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Tgt Ion: 43 Resp: 36127

Ion Ratio Lower Upper

43 100

72 24.9 20.2 30.4

Instrument :

MSVOA\_N

ClientSampleId :

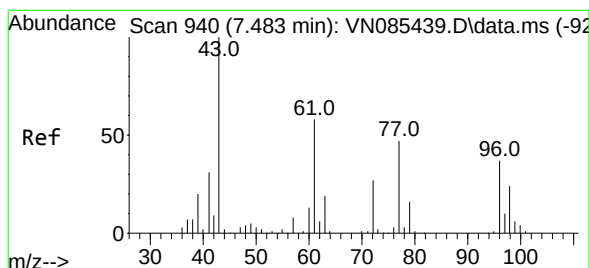
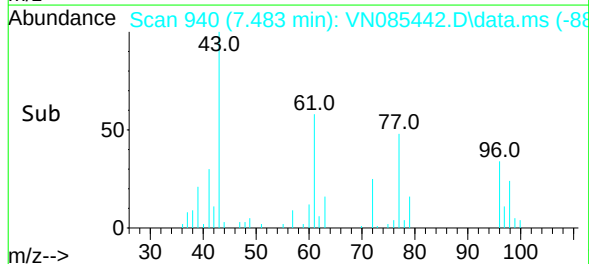
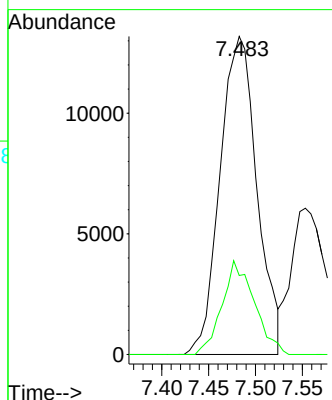
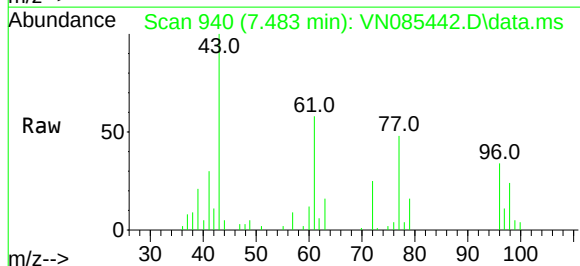
VSTDICC005

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#26

2,2-Dichloropropane

Concen: 5.175 ug/l

RT: 7.488 min Scan# 941

Delta R.T. 0.006 min

Lab File: VN085442.D

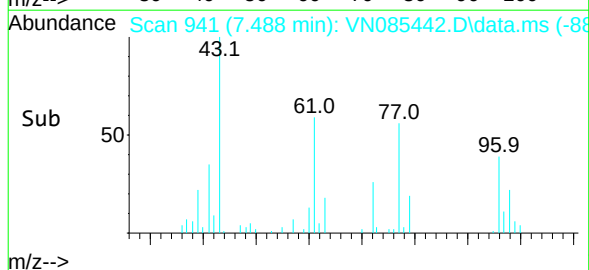
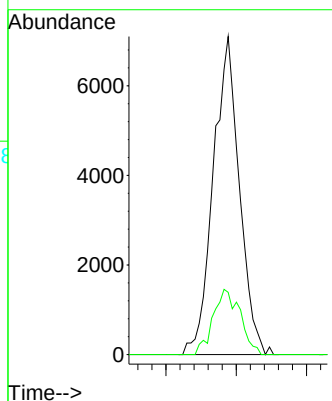
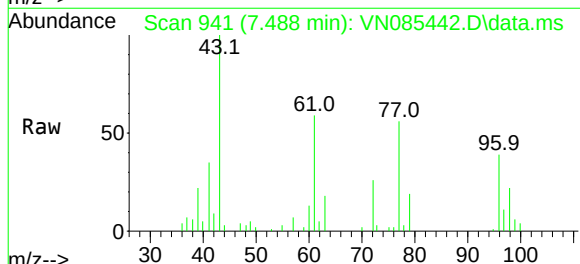
Acq: 14 Jan 2025 16:31

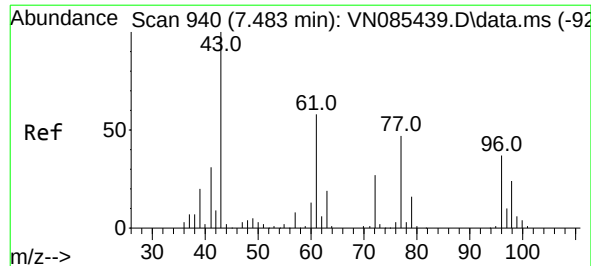
Tgt Ion: 77 Resp: 18398

Ion Ratio Lower Upper

77 100

97 21.2 10.7 32.1





#27

cis-1,2-Dichloroethene

Concen: 4.951 ug/l

RT: 7.488 min Scan# 941

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005

Tgt Ion: 96 Resp: 12477

Ion Ratio Lower Upper

96 100

61 154.5 0.0 311.8

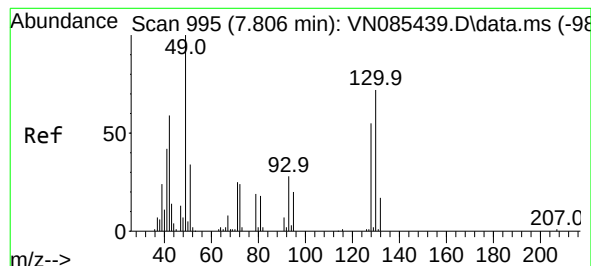
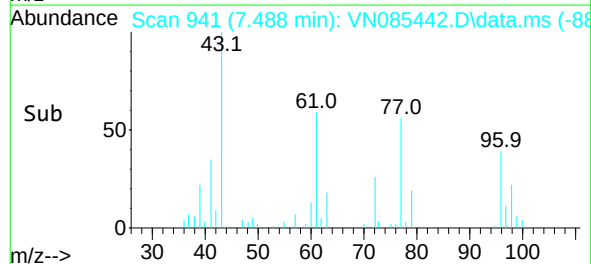
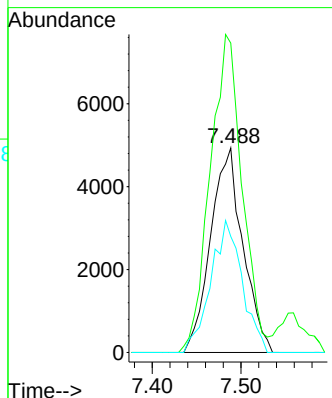
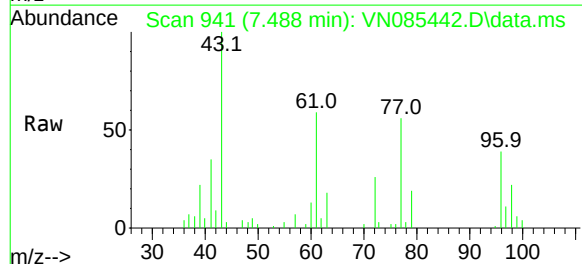
98 62.8 0.0 126.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#28

Bromochloromethane

Concen: 5.424 ug/l

RT: 7.806 min Scan# 995

Delta R.T. -0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

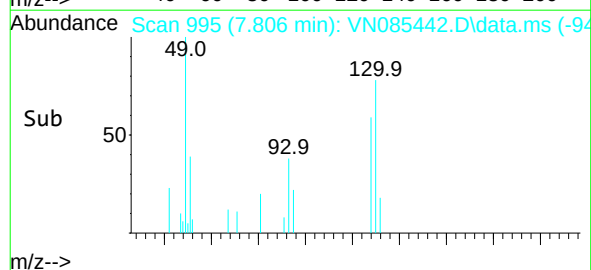
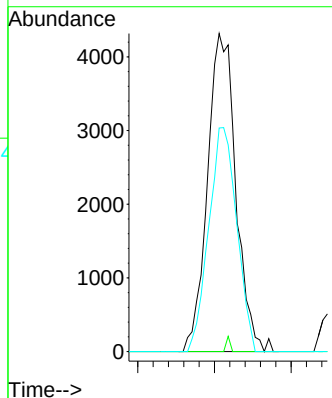
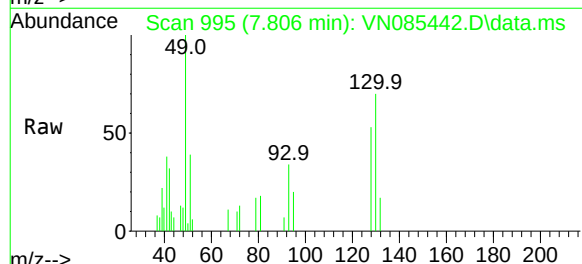
Tgt Ion: 49 Resp: 11096

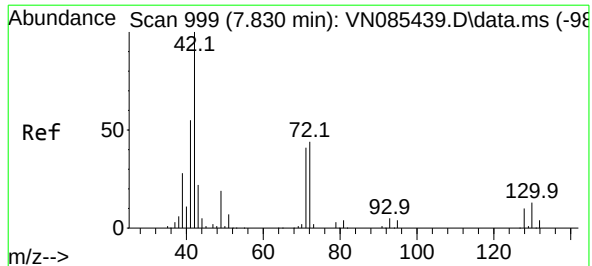
Ion Ratio Lower Upper

49 100

129 0.7 0.0 4.4

130 69.5 55.0 82.4





#29

Tetrahydrofuran

Concen: 24.215 ug/l

RT: 7.841 min Scan# 10

Delta R.T. 0.012 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 42 Resp: 21983

Ion Ratio Lower Upper

42 100

72 41.5 34.2 51.2

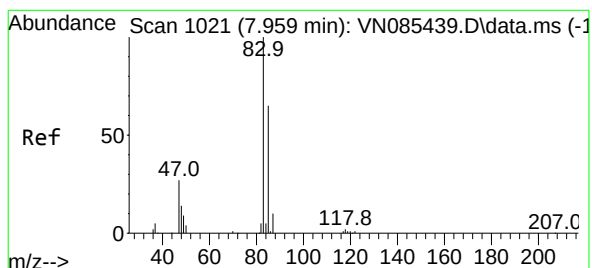
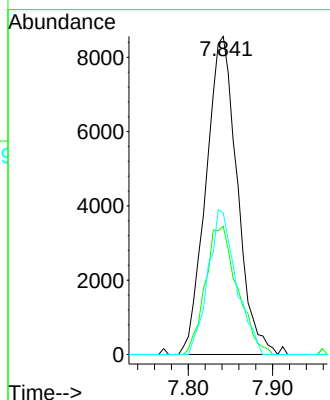
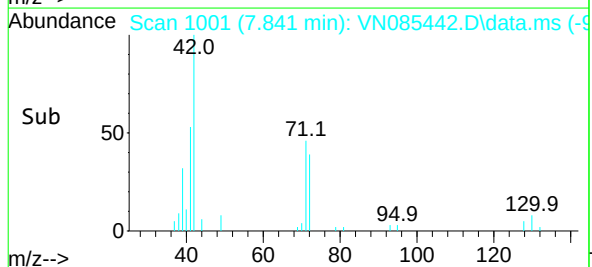
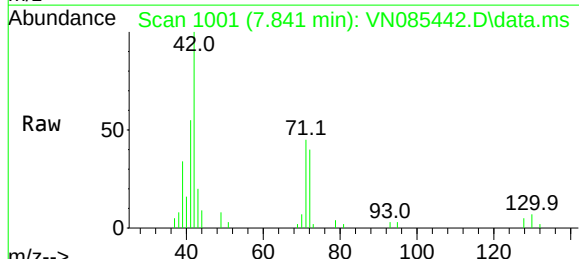
71 41.0 32.5 48.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#30

Chloroform

Concen: 5.146 ug/l

RT: 7.959 min Scan# 1021

Delta R.T. 0.000 min

Lab File: VN085442.D

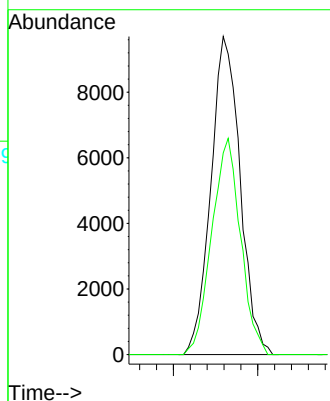
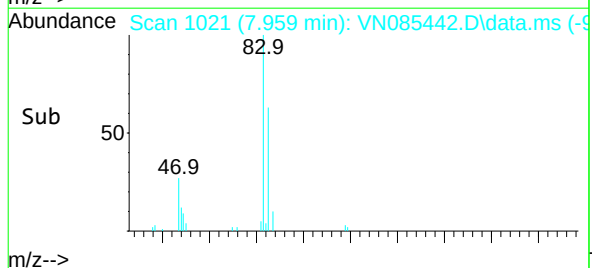
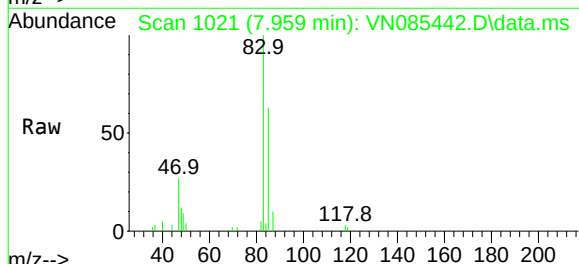
Acq: 14 Jan 2025 16:31

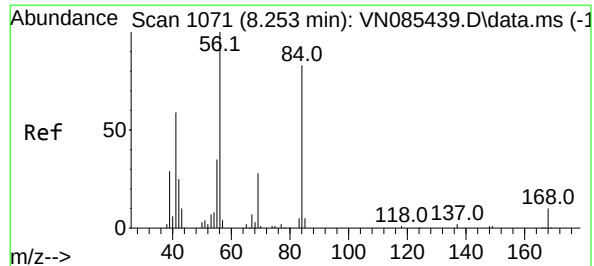
Tgt Ion: 83 Resp: 23384

Ion Ratio Lower Upper

83 100

85 63.4 51.8 77.6





#31

Cyclohexane

Concen: 5.846 ug/l

RT: 8.247 min Scan# 1071

Delta R.T. -0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 56 Resp: 22343

Ion Ratio Lower Upper

56 100

69 42.3 22.2 33.4

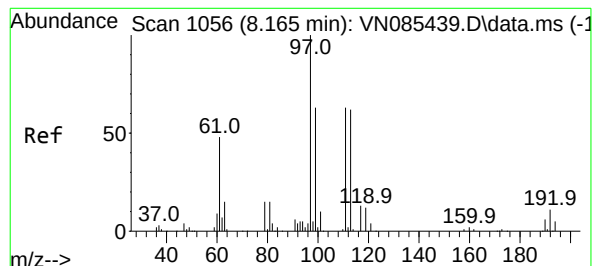
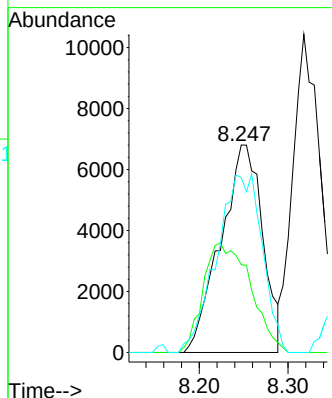
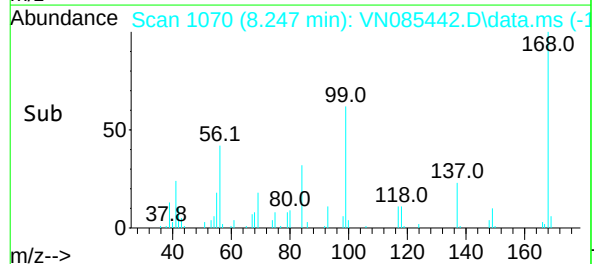
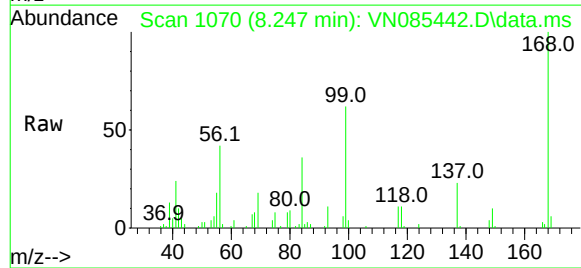
84 84.3 66.4 99.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#32

1,1,1-Trichloroethane

Concen: 5.372 ug/l

RT: 8.159 min Scan# 1055

Delta R.T. -0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

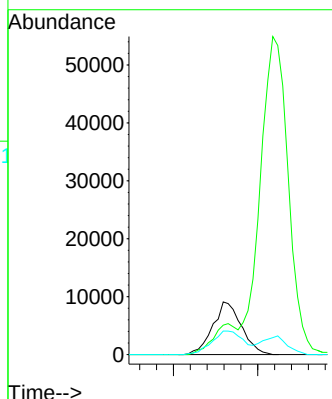
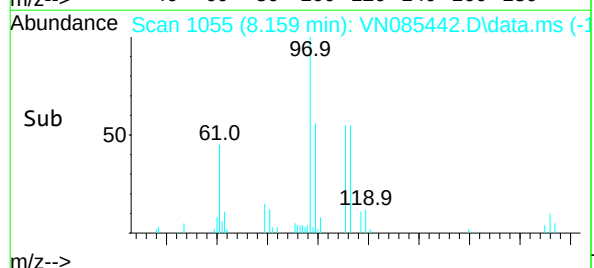
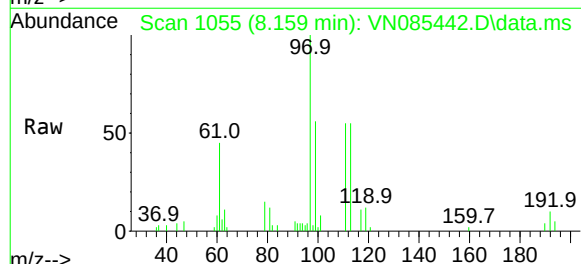
Tgt Ion: 97 Resp: 21416

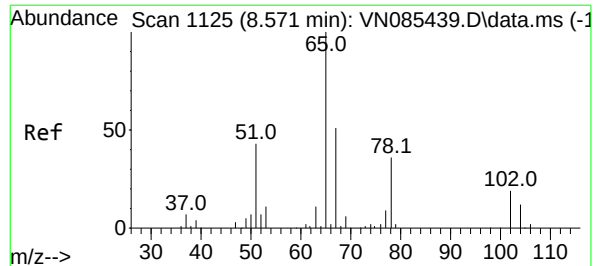
Ion Ratio Lower Upper

97 100

99 50.5 49.8 74.6

61 50.1 41.4 62.2





#33

1,2-Dichloroethane-d4

Concen: 5.660 ug/l

RT: 8.577 min Scan# 11

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 65 Resp: 17046

Ion Ratio Lower Upper

65 100

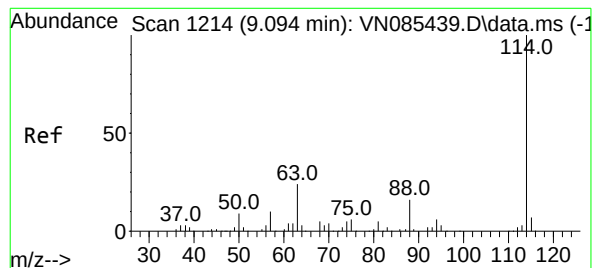
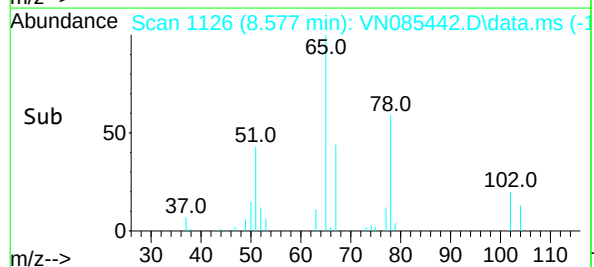
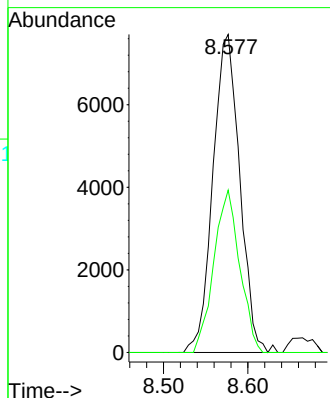
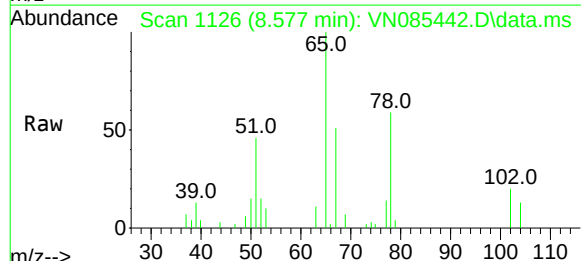
67 49.2 0.0 101.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

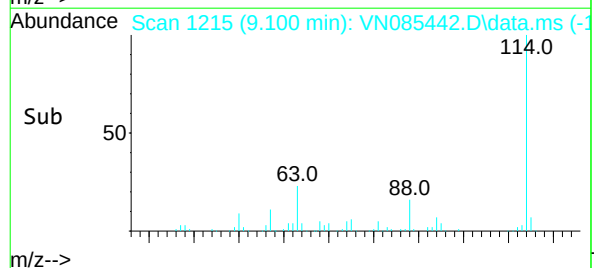
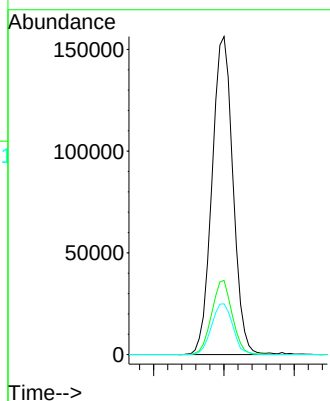
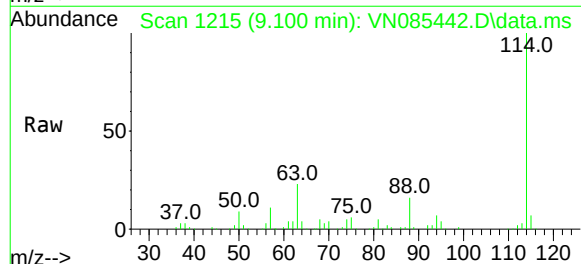
Tgt Ion:114 Resp: 324413

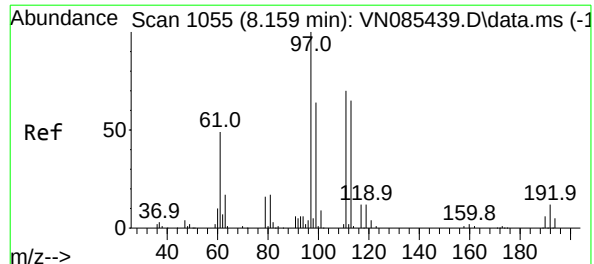
Ion Ratio Lower Upper

114 100

63 23.3 0.0 47.6

88 16.0 0.0 32.6





#35

Dibromofluoromethane

Concen: 5.377 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion:113 Resp: 12102

Ion Ratio Lower Upper

113 100

111 107.4 82.7 124.1

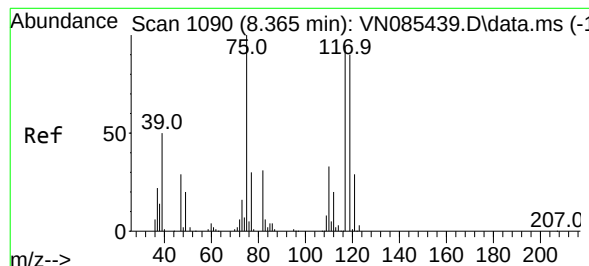
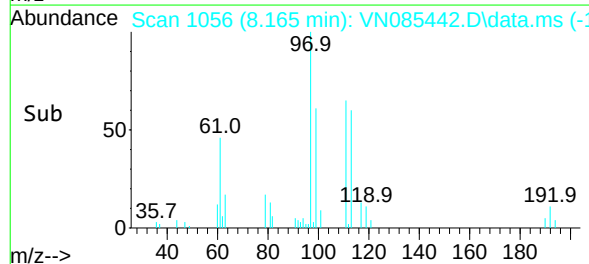
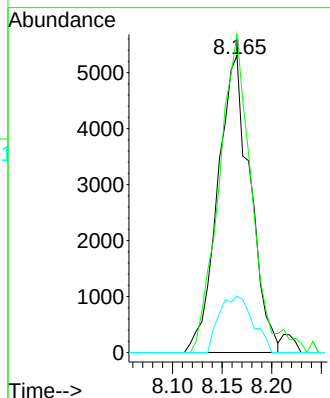
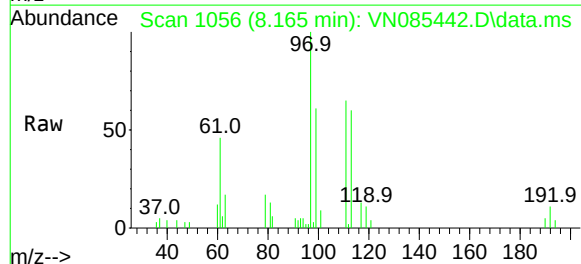
192 19.7 14.3 21.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#36

1,1-Dichloropropene

Concen: 5.029 ug/l

RT: 8.371 min Scan# 1091

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

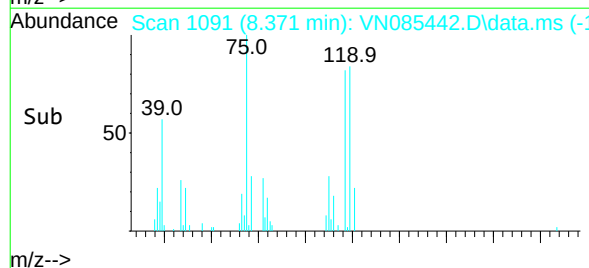
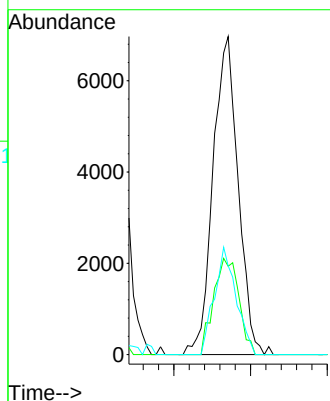
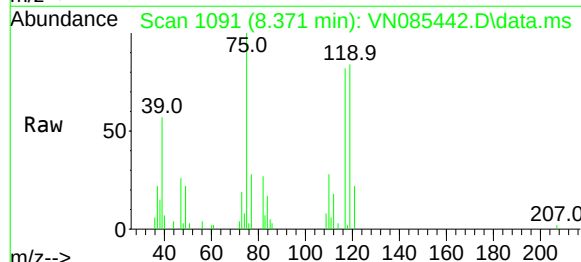
Tgt Ion: 75 Resp: 15886

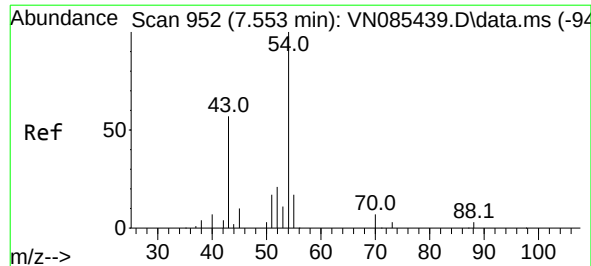
Ion Ratio Lower Upper

75 100

110 30.3 16.5 49.5

77 29.2 24.4 36.6





#37

Ethyl Acetate

Concen: 5.294 ug/l m

RT: 7.553 min Scan# 952

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

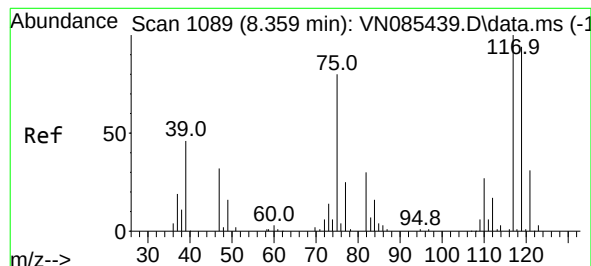
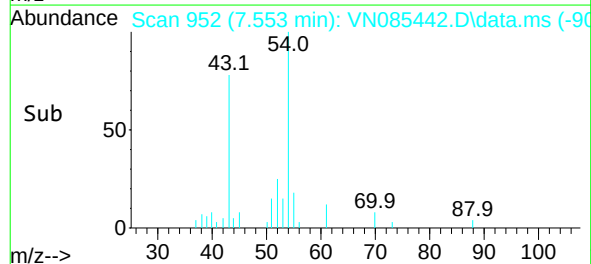
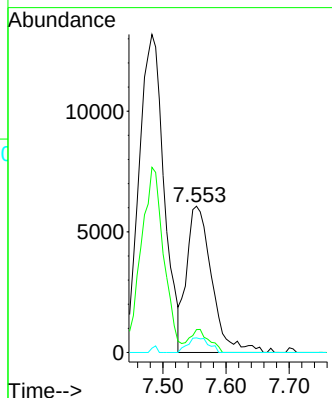
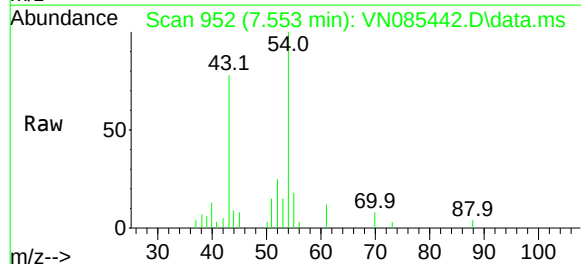
ClientSampleId :

VSTDIC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 16879 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 12.3  | 10.9  | 16.3  |
| 70       | 8.4   | 7.5   | 11.3  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#38

Carbon Tetrachloride

Concen: 5.065 ug/l

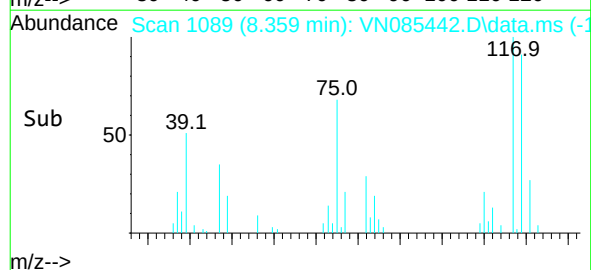
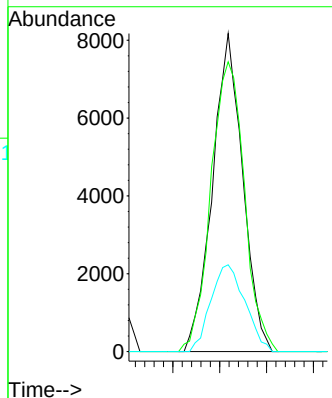
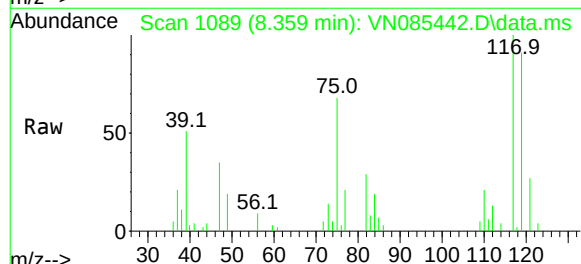
RT: 8.359 min Scan# 1089

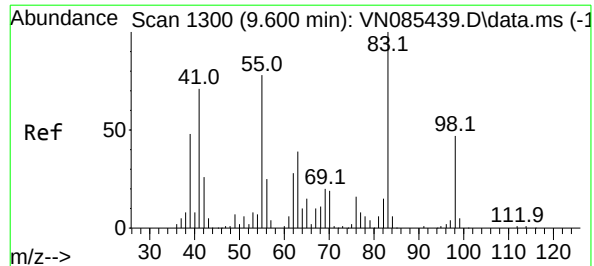
Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 18317 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 119      | 91.1  | 75.4  | 113.2 |
| 121      | 27.3  | 24.6  | 37.0  |





#39

Methylcyclohexane

Concen: 4.776 ug/l

RT: 9.600 min Scan# 13

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 83 Resp: 14175

Ion Ratio Lower Upper

83 100

55 76.5 62.6 94.0

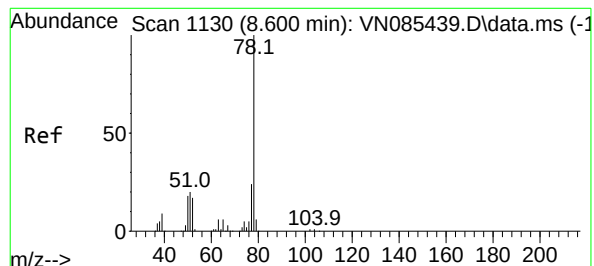
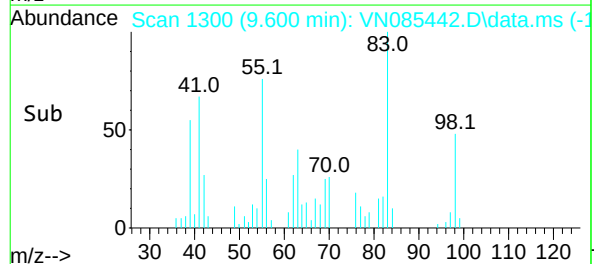
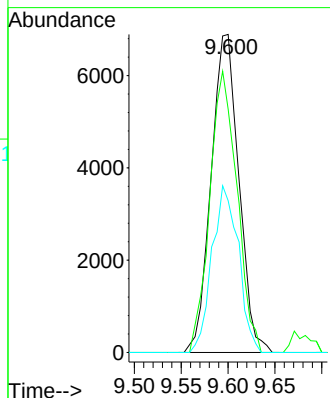
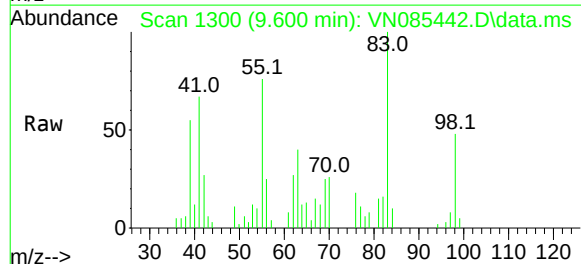
98 47.7 37.7 56.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#40

Benzene

Concen: 5.040 ug/l

RT: 8.600 min Scan# 1130

Delta R.T. -0.000 min

Lab File: VN085442.D

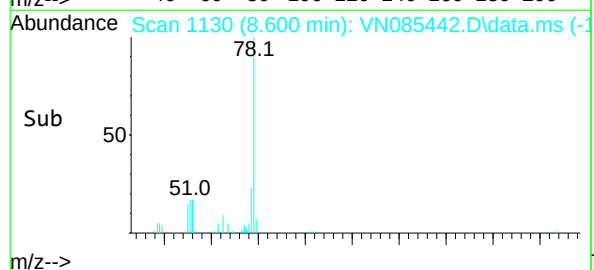
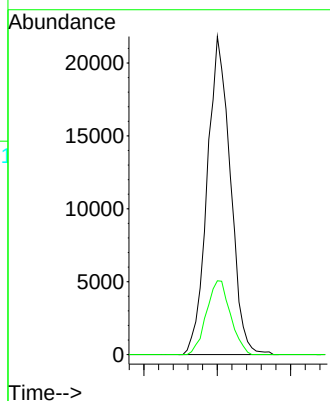
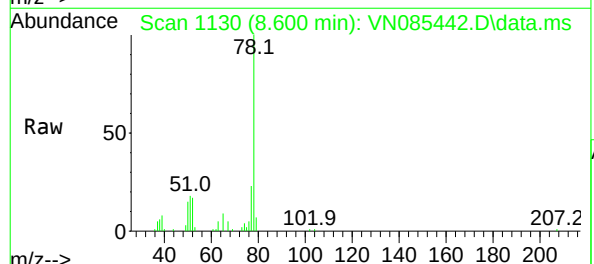
Acq: 14 Jan 2025 16:31

Tgt Ion: 78 Resp: 47833

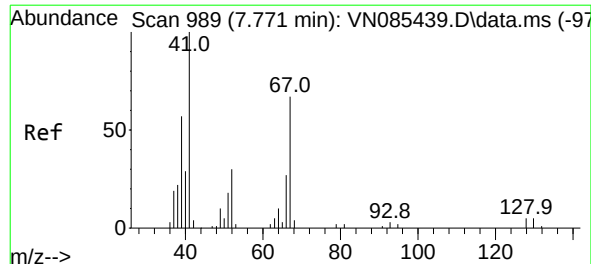
Ion Ratio Lower Upper

78 100

77 23.2 19.0 28.6







#41

Methacrylonitrile

Concen: 4.449 ug/l

RT: 7.777 min Scan# 99

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 41 Resp: 7380

Ion Ratio Lower Upper

41 100

39 60.5 46.0 69.0

67 74.6 57.4 86.2

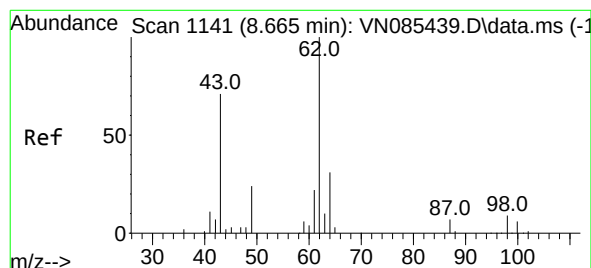
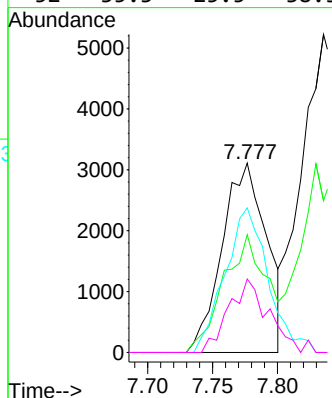
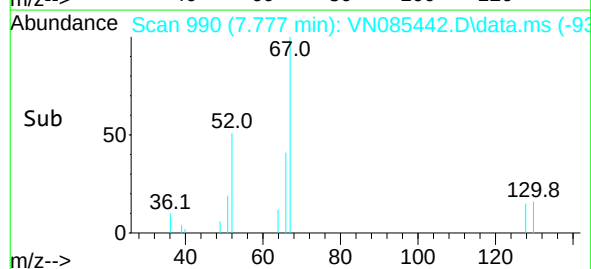
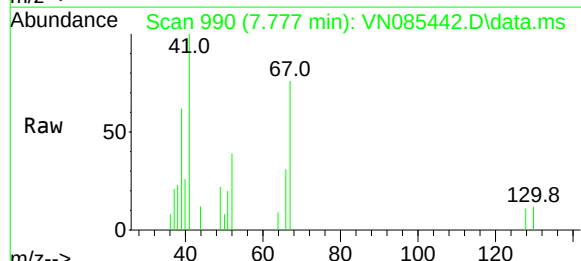
52 35.3 25.5 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#42

1,2-Dichloroethane

Concen: 5.211 ug/l

RT: 8.671 min Scan# 1142

Delta R.T. 0.006 min

Lab File: VN085442.D

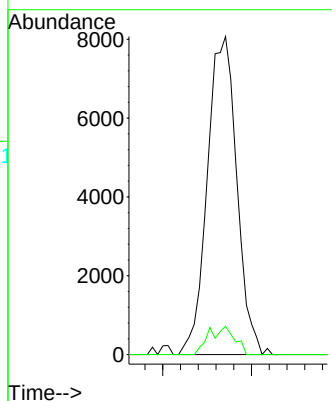
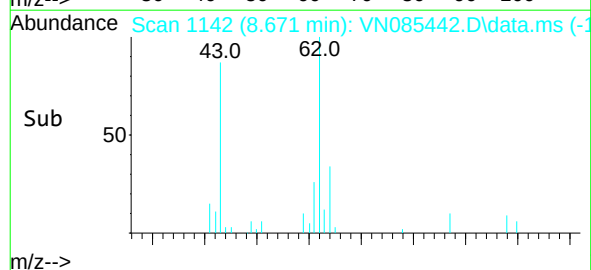
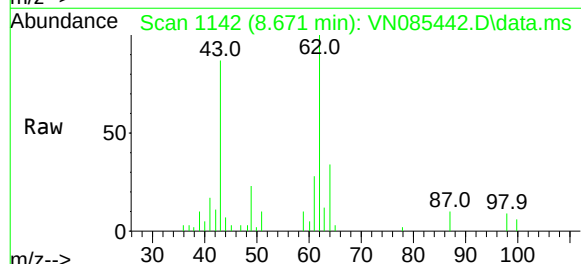
Acq: 14 Jan 2025 16:31

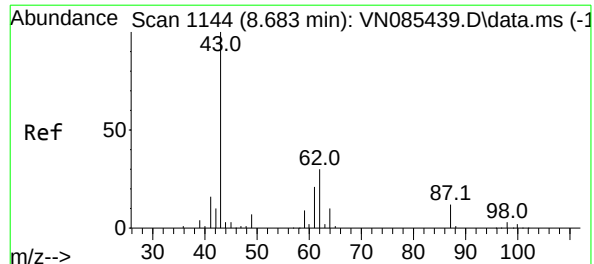
Tgt Ion: 62 Resp: 18628

Ion Ratio Lower Upper

62 100

98 7.8 0.0 17.0





#43

Isopropyl Acetate

Concen: 4.853 ug/l

RT: 8.688 min Scan# 1144

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

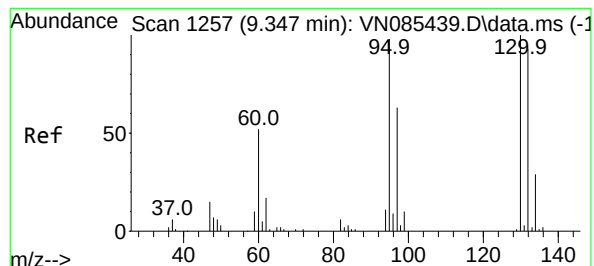
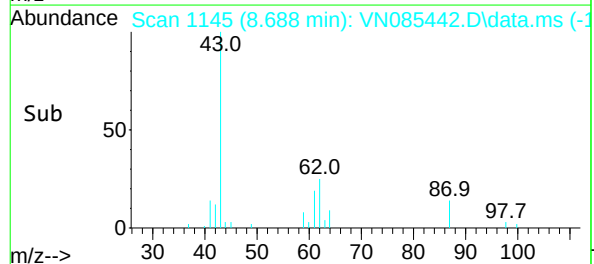
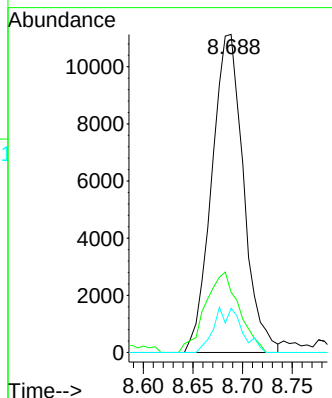
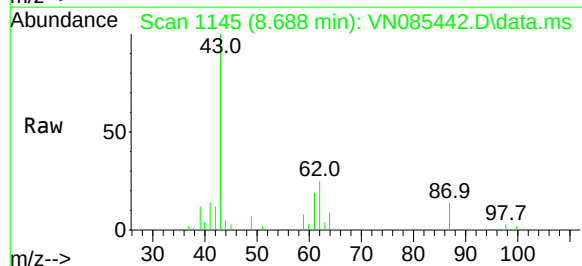
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 24792 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 27.0  | 20.7  | 31.1  |
| 87       | 12.3  | 9.8   | 14.8  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#44

Trichloroethene

Concen: 5.039 ug/l

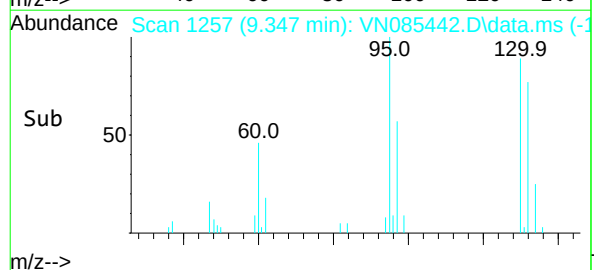
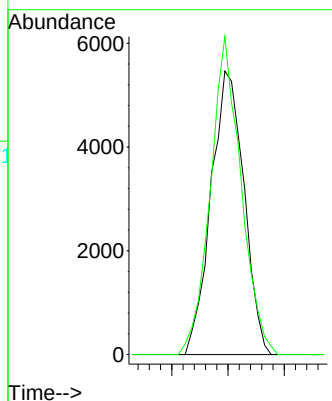
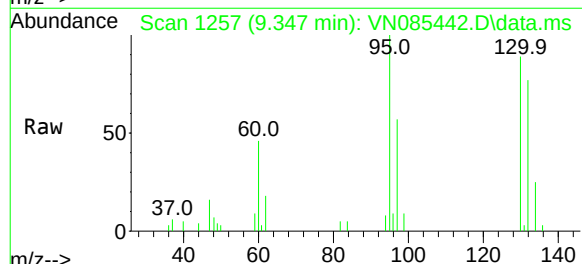
RT: 9.347 min Scan# 1257

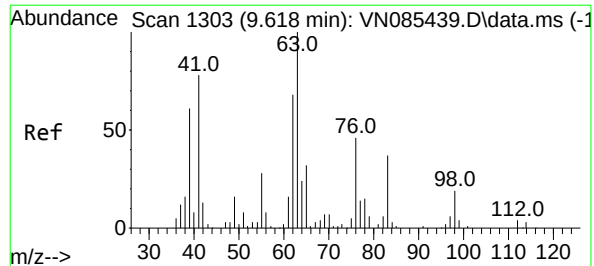
Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 130   | Resp: | 11133 |
| Ion      | Ratio | Lower | Upper |
| 130      | 100   |       |       |
| 95       | 112.2 | 0.0   | 195.8 |





#45

1,2-Dichloropropane

Concen: 5.194 ug/l

RT: 9.618 min Scan# 13

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005

Tgt Ion: 63 Resp: 12591

Ion Ratio Lower Upper

63 100

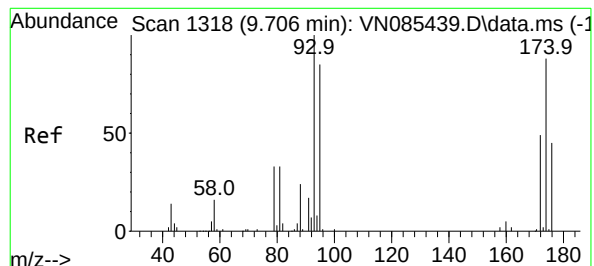
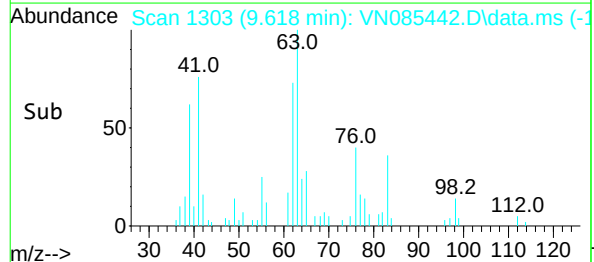
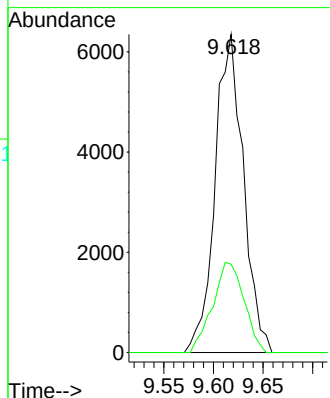
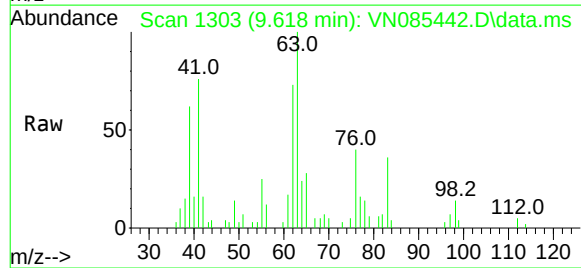
65 27.8 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#46

Dibromomethane

Concen: 4.705 ug/l

RT: 9.700 min Scan# 1317

Delta R.T. -0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

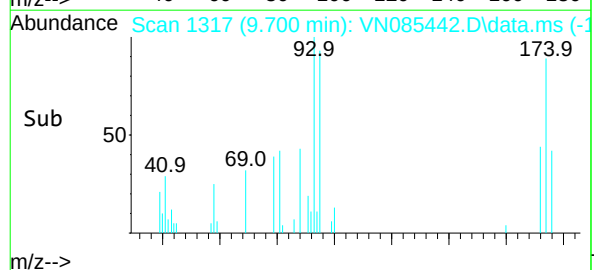
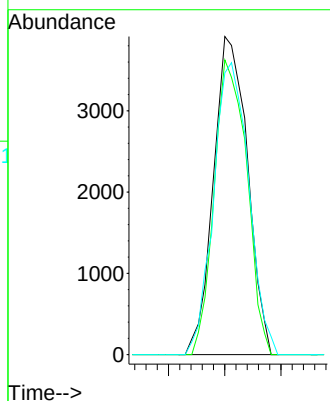
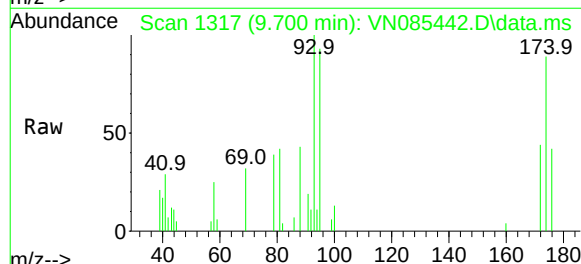
Tgt Ion: 93 Resp: 8230

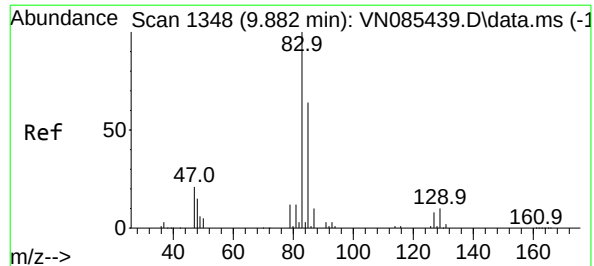
Ion Ratio Lower Upper

93 100

95 88.7 64.7 97.1

174 95.0 69.0 103.4





#47

Bromodichloromethane

Concen: 5.179 ug/l

RT: 9.888 min Scan# 1348

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 83 Resp: 18456

Ion Ratio Lower Upper

83 100

85 67.0 51.2 76.8

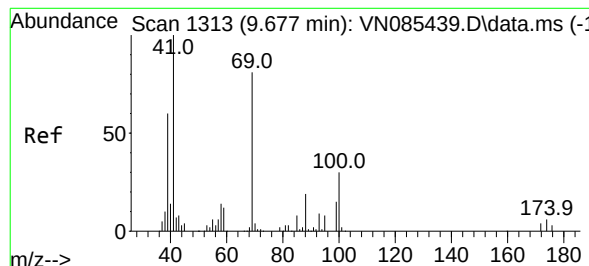
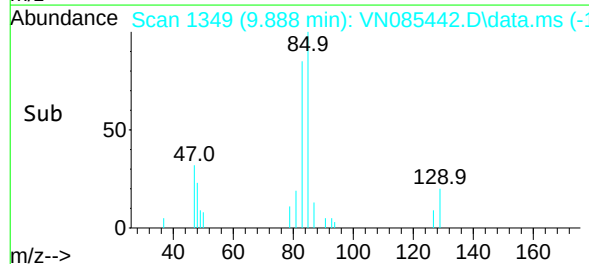
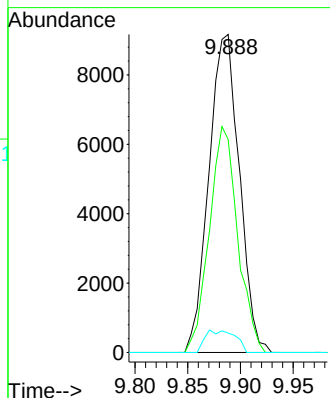
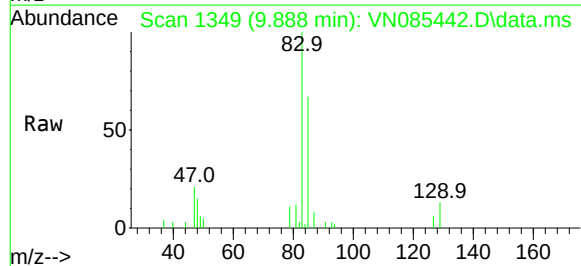
127 6.1 6.5 9.7#

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#48

Methyl methacrylate

Concen: 4.599 ug/l

RT: 9.677 min Scan# 1313

Delta R.T. -0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

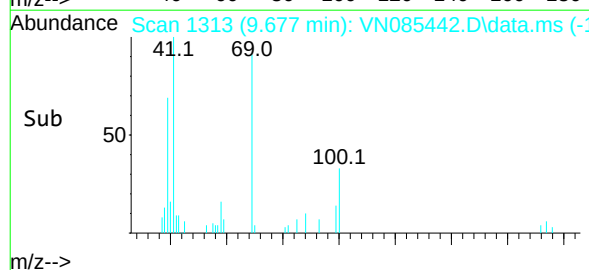
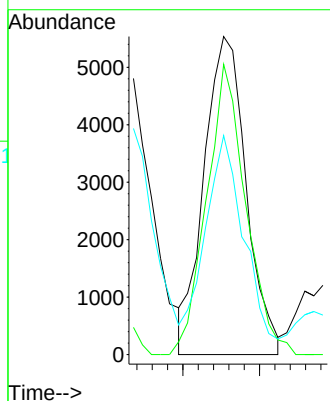
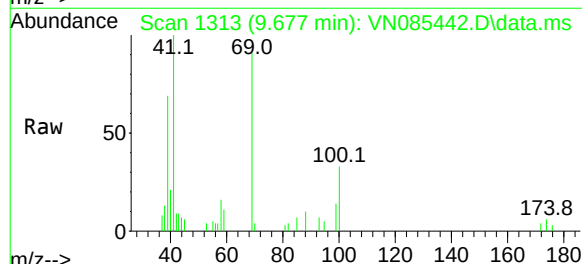
Tgt Ion: 41 Resp: 10574

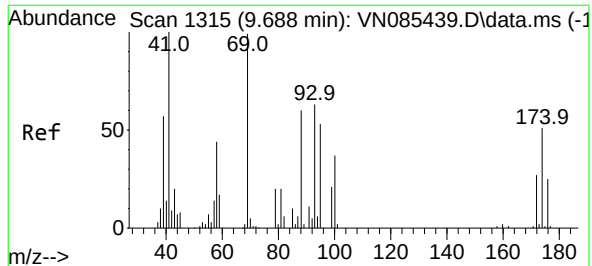
Ion Ratio Lower Upper

41 100

69 84.9 64.7 97.1

39 65.3 49.0 73.6





#49

1,4-Dioxane

Concen: 93.477 ug/l

RT: 9.694 min Scan# 1315

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 88 Resp: 3619

Ion Ratio Lower Upper

88 100

43 32.3 26.6 39.8

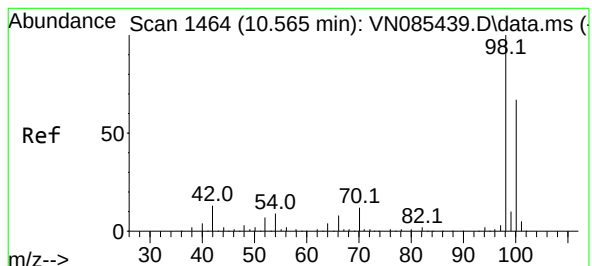
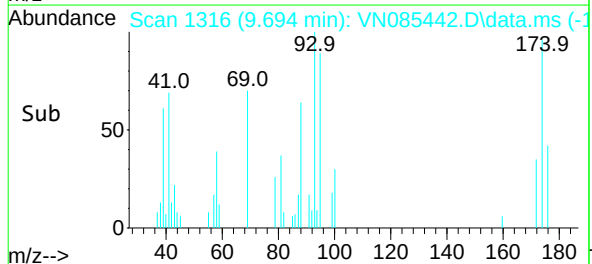
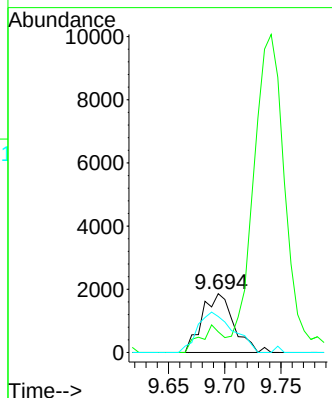
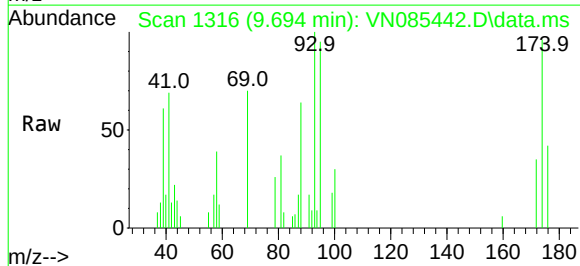
58 77.9 59.5 89.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#50

Toluene-d8

Concen: 5.168 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. 0.000 min

Lab File: VN085442.D

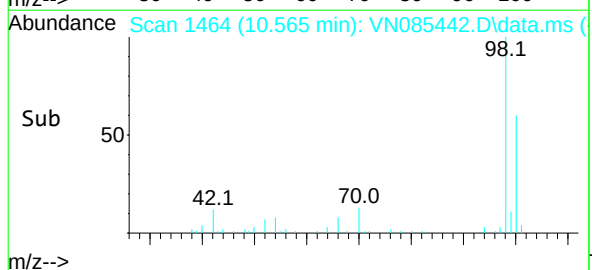
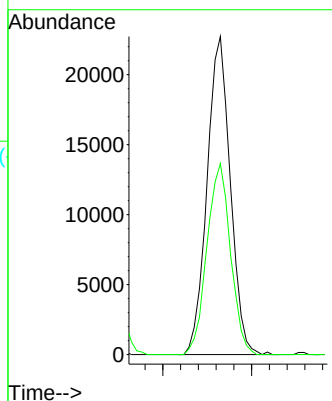
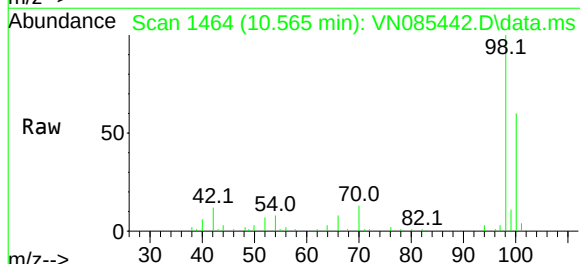
Acq: 14 Jan 2025 16:31

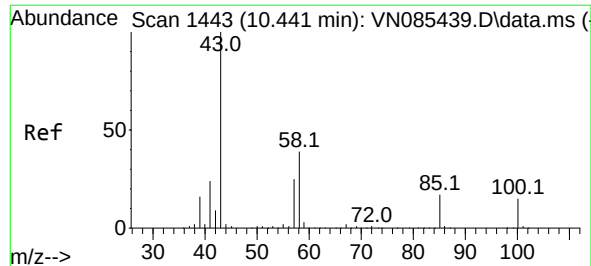
Tgt Ion: 98 Resp: 41328

Ion Ratio Lower Upper

98 100

100 60.9 52.2 78.4





#51

4-Methyl-2-Pentanone

Concen: 24.250 ug/l

RT: 10.441 min Scan# 14

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 43 Resp: 71889

Ion Ratio Lower Upper

43 100

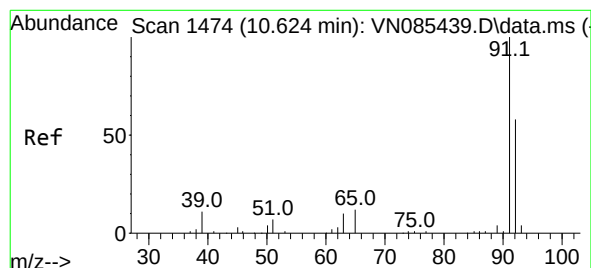
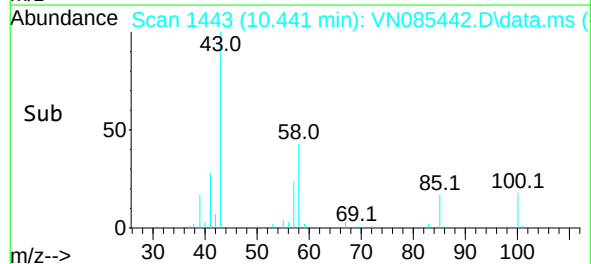
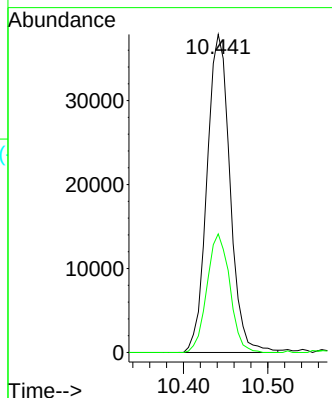
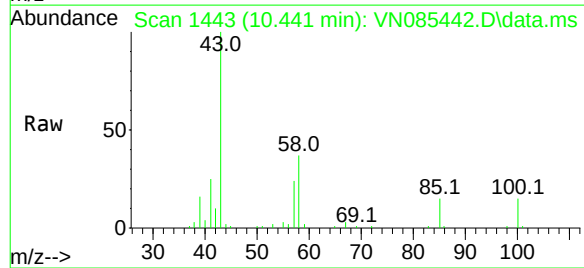
58 36.9 30.5 45.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#52

Toluene

Concen: 4.928 ug/l

RT: 10.629 min Scan# 1475

Delta R.T. 0.005 min

Lab File: VN085442.D

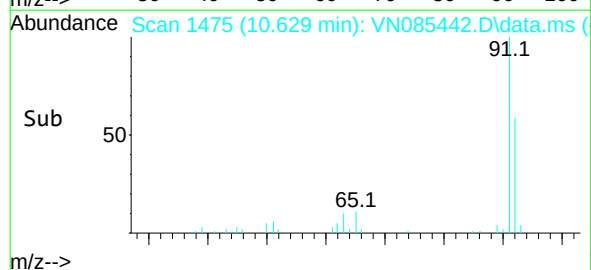
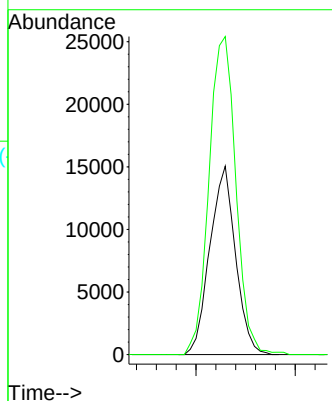
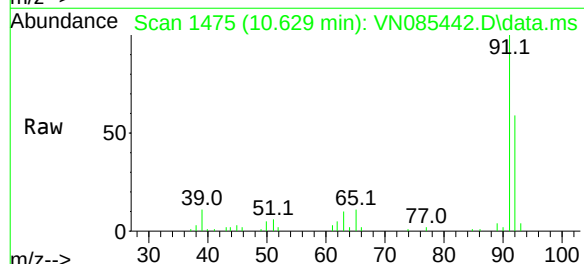
Acq: 14 Jan 2025 16:31

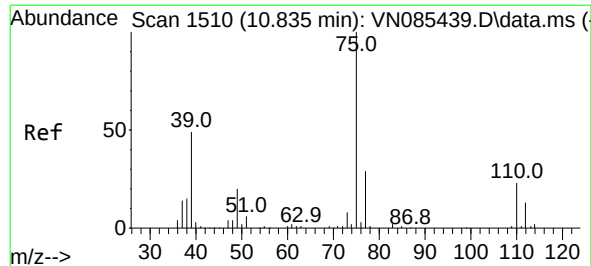
Tgt Ion: 92 Resp: 27098

Ion Ratio Lower Upper

92 100

91 176.4 139.2 208.8





#53

t-1,3-Dichloropropene

Concen: 5.077 ug/l

RT: 10.829 min Scan# 1510

Delta R.T. -0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 75 Resp: 17099

Ion Ratio Lower Upper

75 100

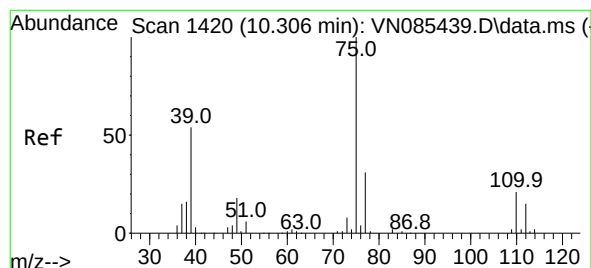
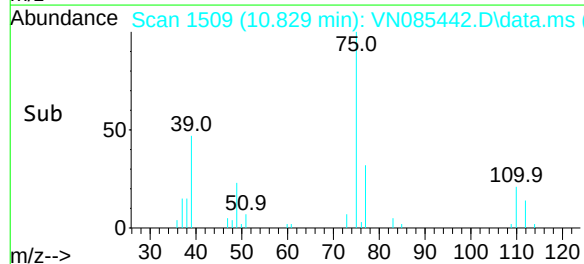
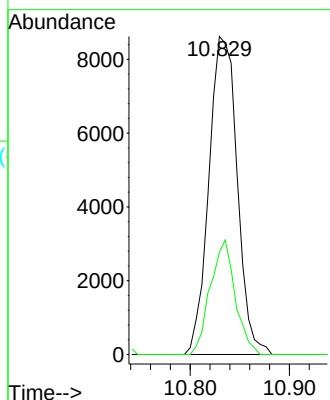
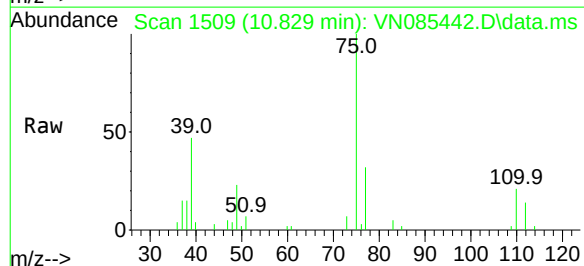
77 32.2 23.5 35.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#54

cis-1,3-Dichloropropene

Concen: 4.848 ug/l

RT: 10.306 min Scan# 1420

Delta R.T. -0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

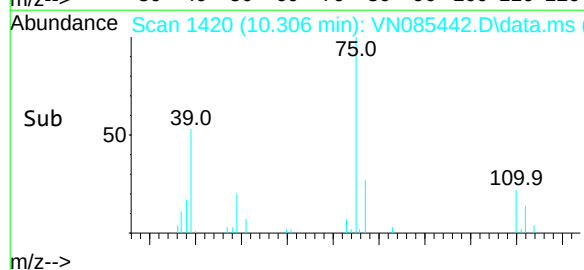
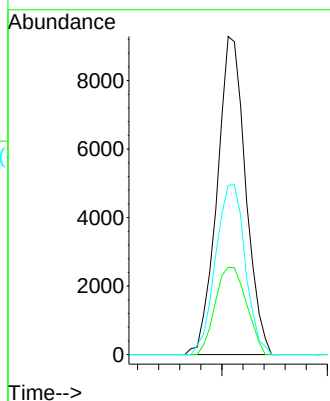
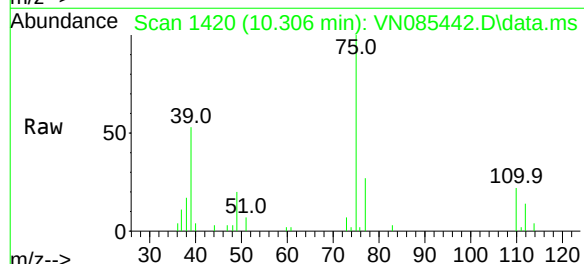
Tgt Ion: 75 Resp: 17440

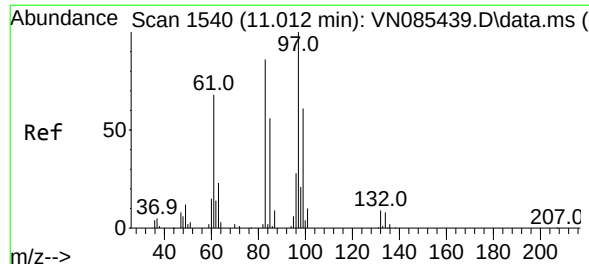
Ion Ratio Lower Upper

75 100

77 27.5 25.0 37.4

39 53.2 43.1 64.7





#55

1,1,2-Trichloroethane

Concen: 5.197 ug/l

RT: 11.012 min Scan# 1540

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 97 Resp: 11311

Ion Ratio Lower Upper

97 100

83 82.7 69.0 103.6

85 51.3 44.6 66.8

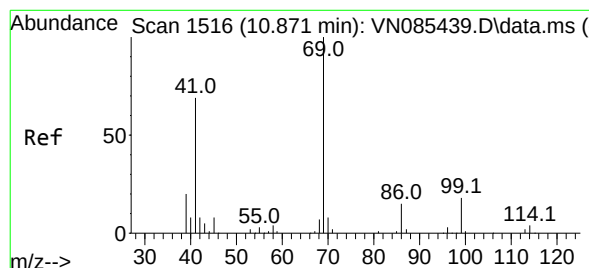
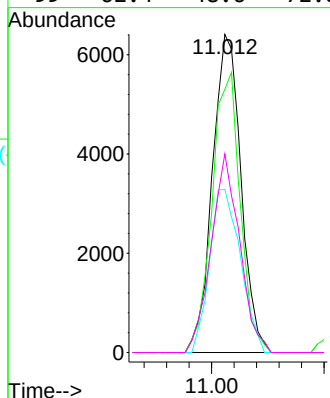
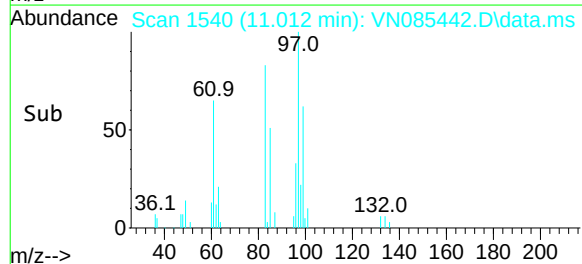
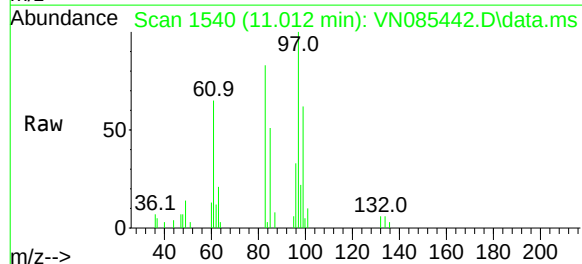
99 62.4 48.6 72.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#56

Ethyl methacrylate

Concen: 5.627 ug/l

RT: 10.871 min Scan# 1516

Delta R.T. -0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

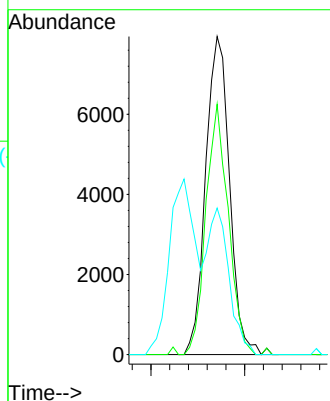
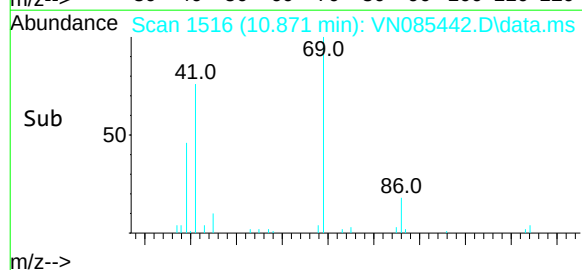
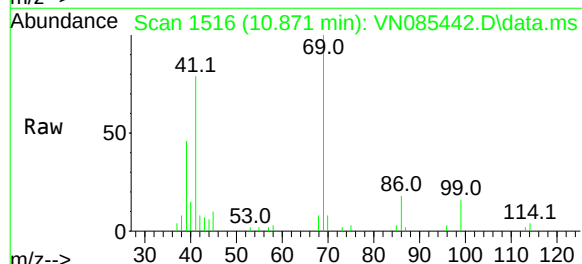
Tgt Ion: 69 Resp: 14094

Ion Ratio Lower Upper

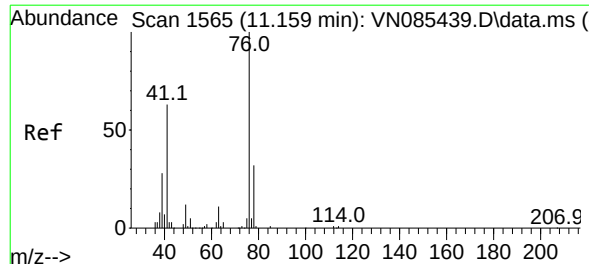
69 100

41 73.8 54.6 82.0

39 42.6 32.4 48.6







#57

1,3-Dichloropropane

Concen: 5.006 ug/l

RT: 11.159 min Scan# 1565

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 76 Resp: 18945

Ion Ratio Lower Upper

76 100

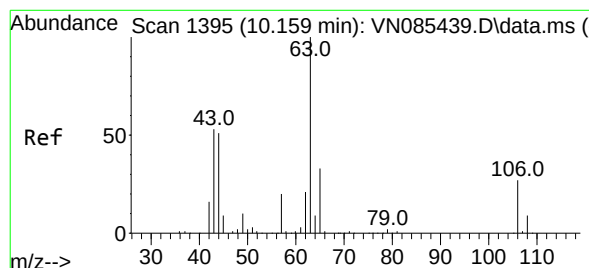
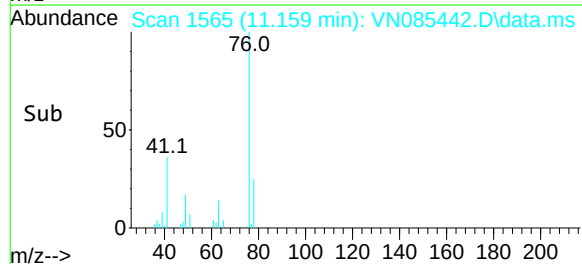
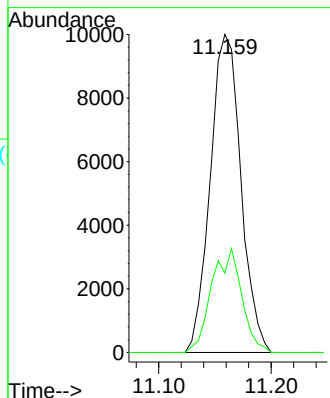
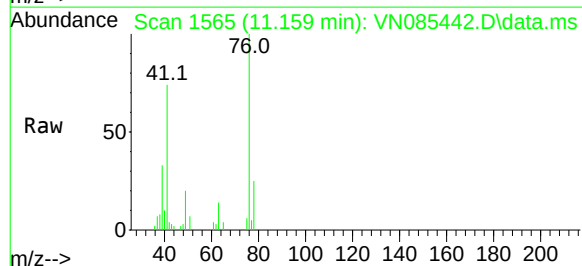
78 32.2 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#58

2-Chloroethyl Vinyl ether

Concen: 24.047 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. 0.000 min

Lab File: VN085442.D

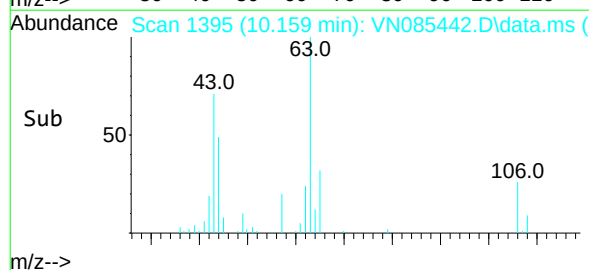
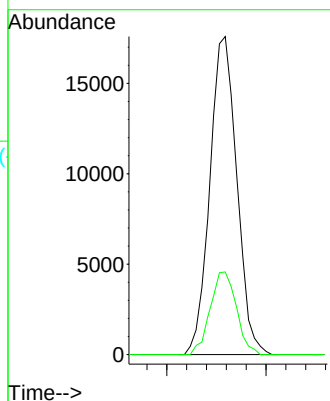
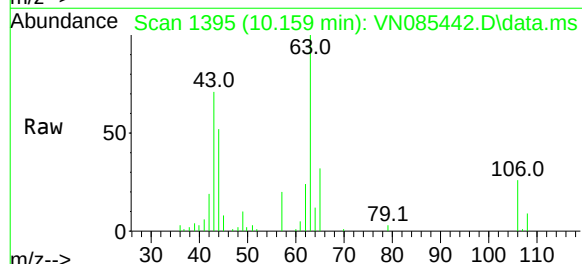
Acq: 14 Jan 2025 16:31

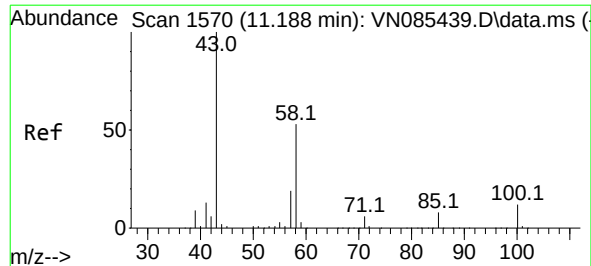
Tgt Ion: 63 Resp: 33210

Ion Ratio Lower Upper

63 100

106 25.2 21.6 32.4





#59

2-Hexanone

Concen: 23.501 ug/l

RT: 11.194 min Scan# 1570

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 43 Resp: 49021

Ion Ratio Lower Upper

43 100

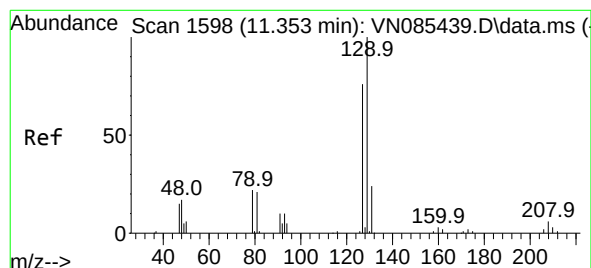
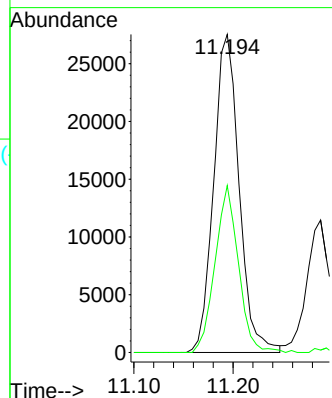
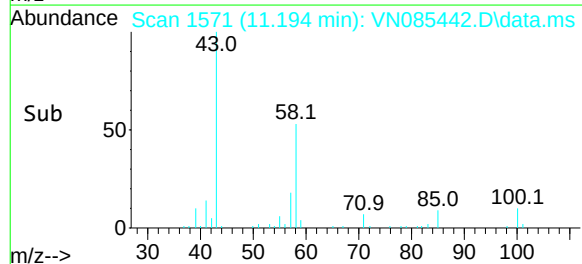
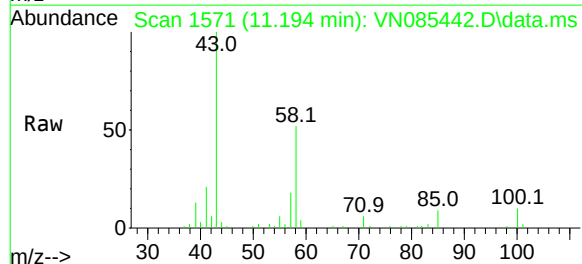
58 48.3 26.2 78.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#60

Dibromochloromethane

Concen: 5.190 ug/l

RT: 11.353 min Scan# 1598

Delta R.T. 0.000 min

Lab File: VN085442.D

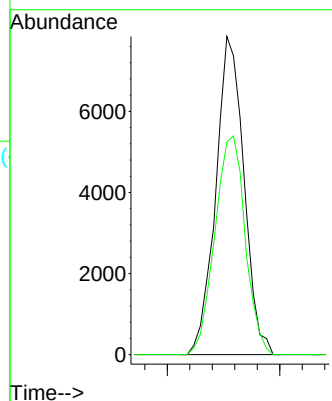
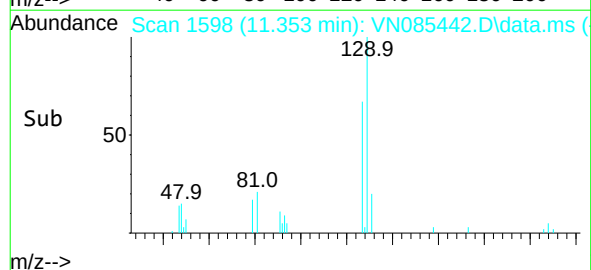
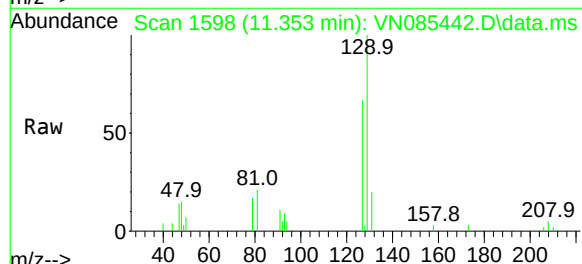
Acq: 14 Jan 2025 16:31

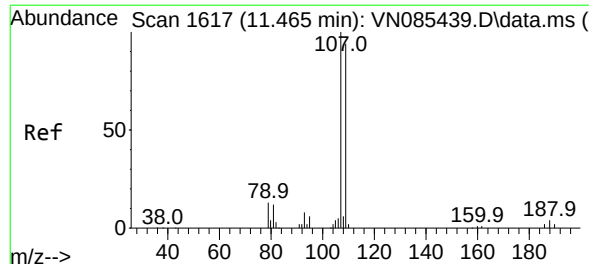
Tgt Ion:129 Resp: 13635

Ion Ratio Lower Upper

129 100

127 73.9 38.6 115.8





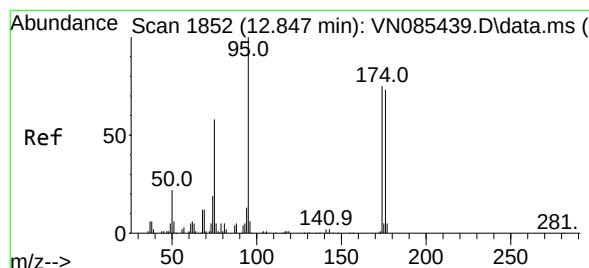
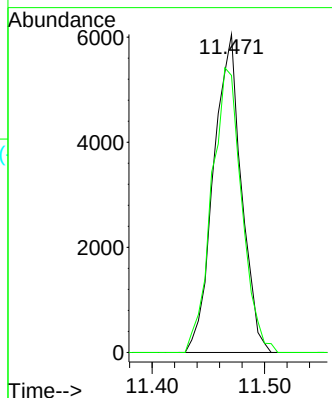
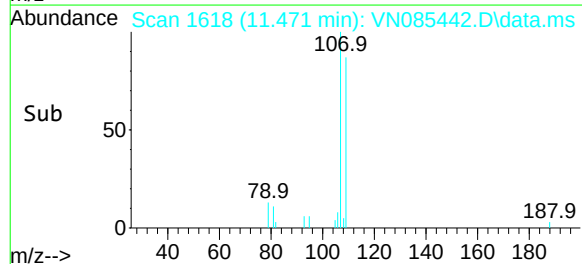
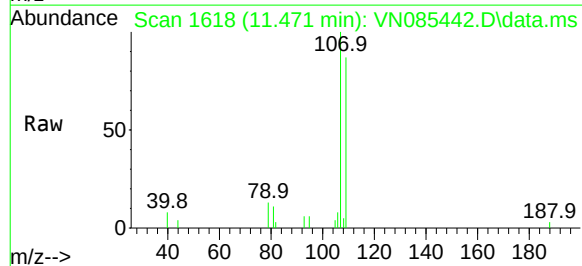
#61  
1,2-Dibromoethane  
Concen: 4.810 ug/l  
RT: 11.471 min Scan# 1617  
Delta R.T. 0.006 min  
Lab File: VN085442.D  
Acq: 14 Jan 2025 16:31

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Tgt Ion: 107 Resp: 10419  
Ion Ratio Lower Upper  
107 100  
109 96.8 75.9 113.9

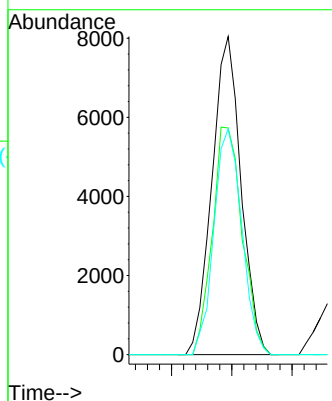
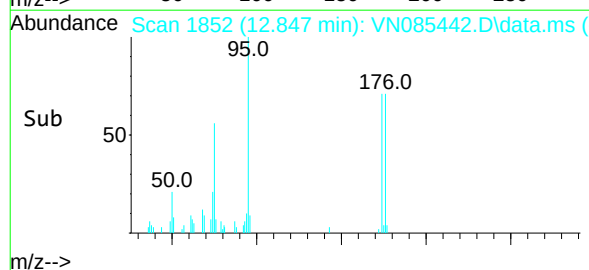
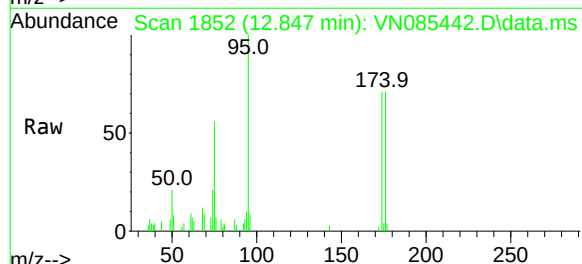
Manual Integrations  
APPROVED

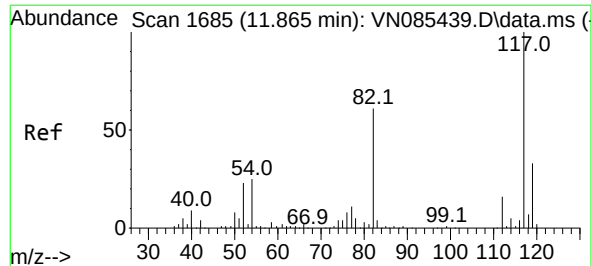
Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025



#62  
4-Bromofluorobenzene  
Concen: 4.943 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. -0.000 min  
Lab File: VN085442.D  
Acq: 14 Jan 2025 16:31

Tgt Ion: 95 Resp: 13520  
Ion Ratio Lower Upper  
95 100  
174 73.2 0.0 145.0  
176 68.0 0.0 142.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion:117 Resp: 282203

Ion Ratio Lower Upper

117 100

82 58.3 48.6 72.8

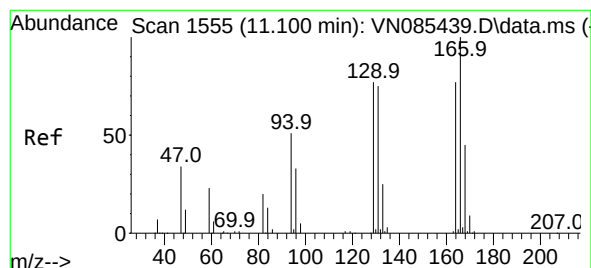
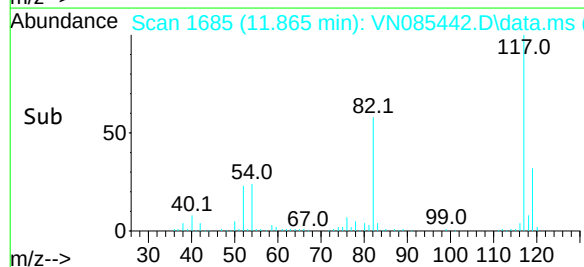
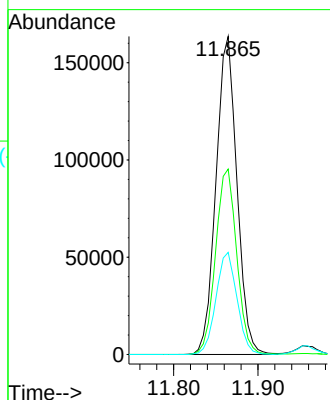
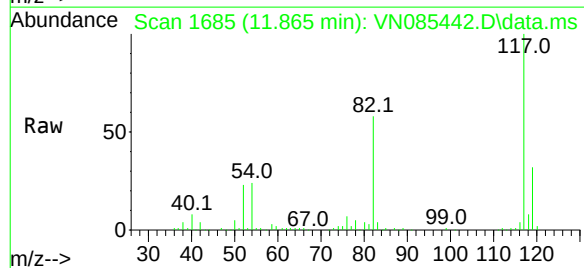
119 32.1 26.6 39.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#64

Tetrachloroethene

Concen: 5.071 ug/l

RT: 11.100 min Scan# 1555

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Tgt Ion:164 Resp: 9756

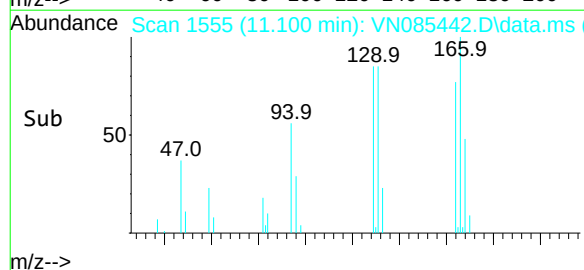
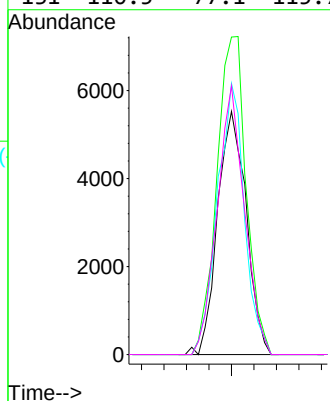
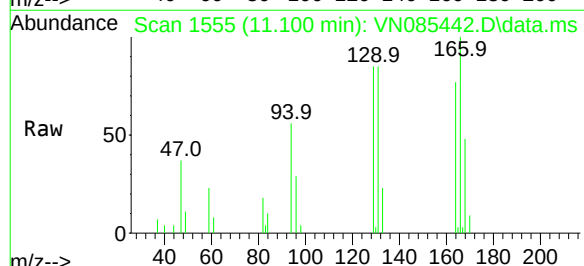
Ion Ratio Lower Upper

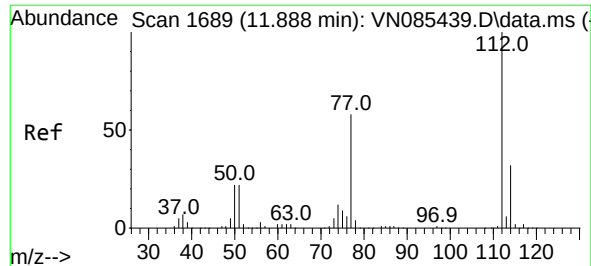
164 100

166 130.6 103.4 155.2

129 111.5 79.2 118.8

131 110.5 77.1 115.7





#65

Chlorobenzene

Concen: 5.065 ug/l

RT: 11.888 min Scan# 1689

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion:112 Resp: 31312

Ion Ratio Lower Upper

112 100

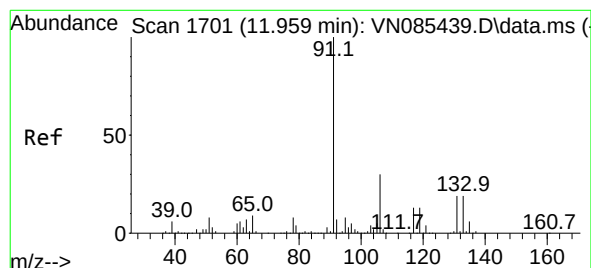
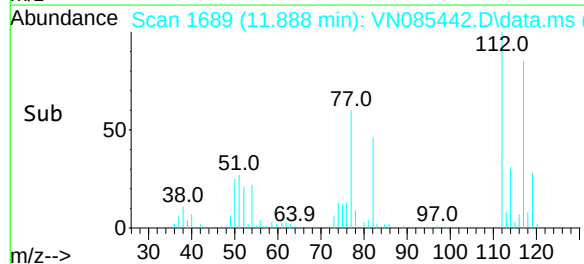
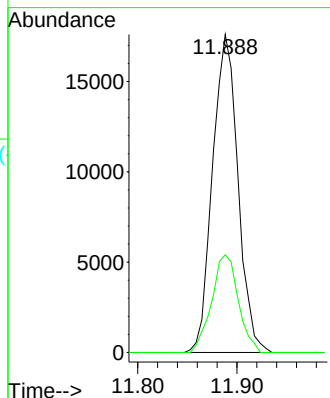
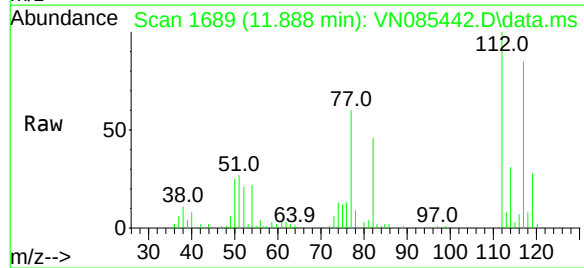
114 30.7 25.3 37.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#66

1,1,1,2-Tetrachloroethane

Concen: 5.121 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

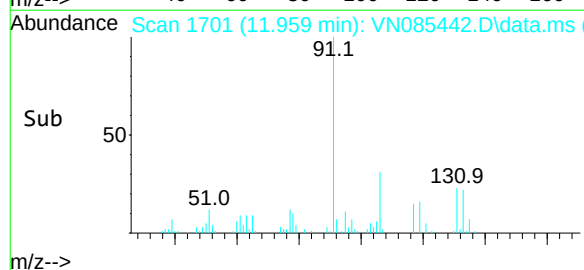
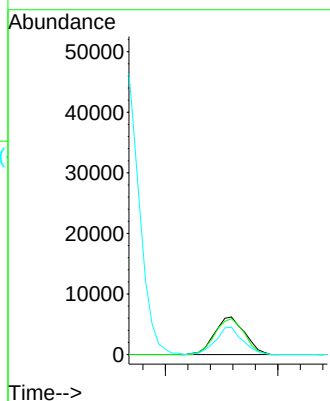
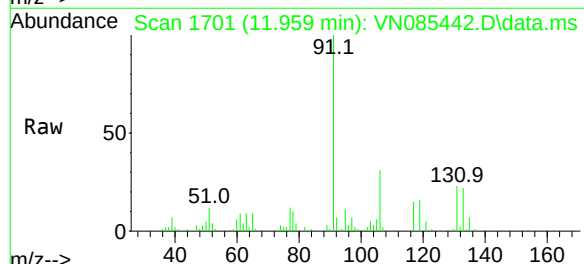
Tgt Ion:131 Resp: 11620

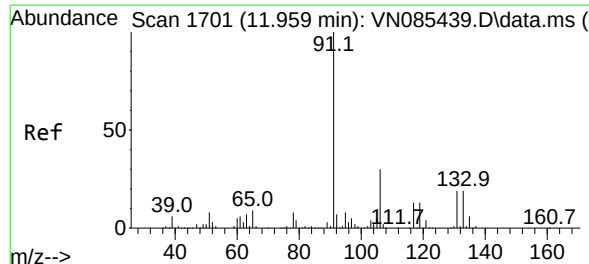
Ion Ratio Lower Upper

131 100

133 92.7 47.4 142.3

119 65.0 33.1 99.5





#67

Ethyl Benzene

Concen: 4.789 ug/l

RT: 11.965 min Scan# 17

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 91 Resp: 48216

Ion Ratio Lower Upper

91 100

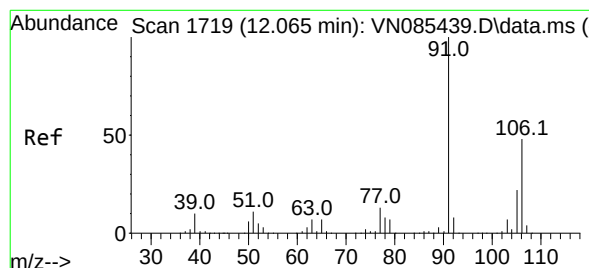
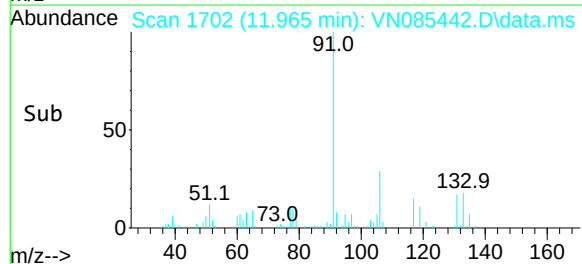
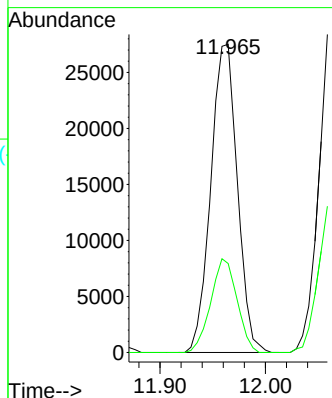
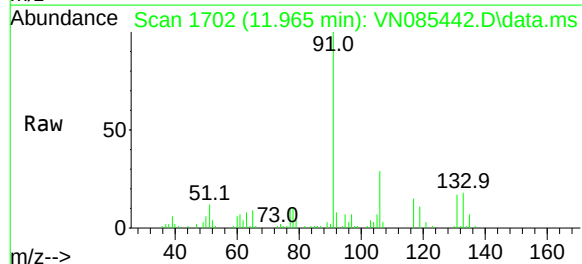
106 28.9 23.8 35.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#68

m/p-Xylenes

Concen: 9.344 ug/l

RT: 12.065 min Scan# 1719

Delta R.T. 0.000 min

Lab File: VN085442.D

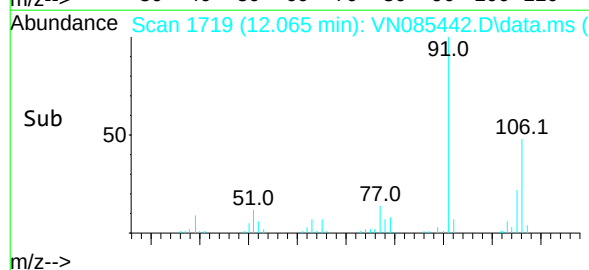
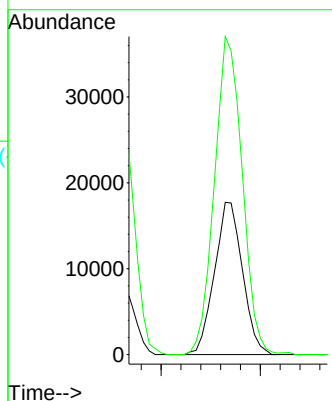
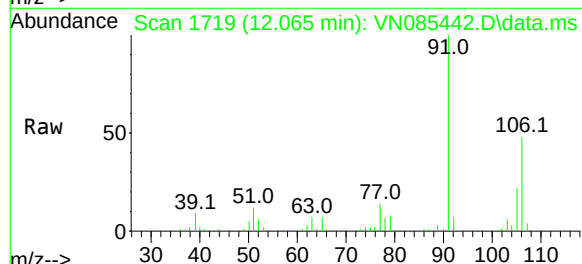
Acq: 14 Jan 2025 16:31

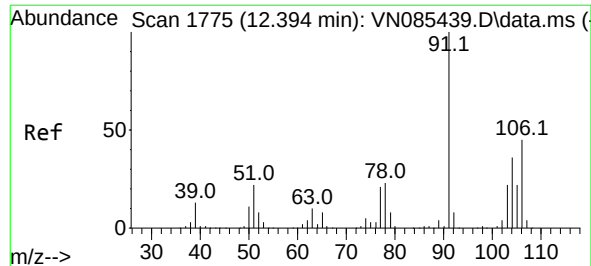
Tgt Ion:106 Resp: 34771

Ion Ratio Lower Upper

106 100

91 207.9 167.7 251.5





#69

o-Xylene

Concen: 4.617 ug/l

RT: 12.394 min Scan# 1775

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion:106 Resp: 16419

Ion Ratio Lower Upper

106 100

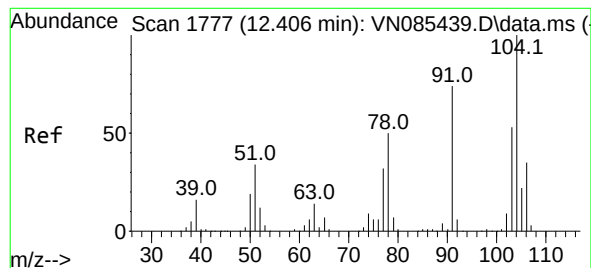
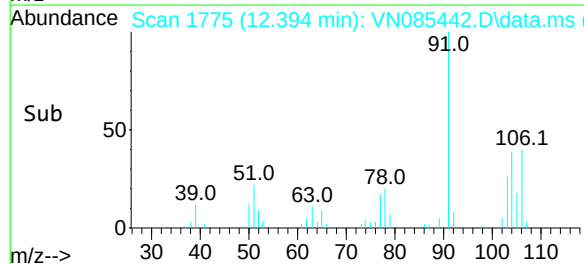
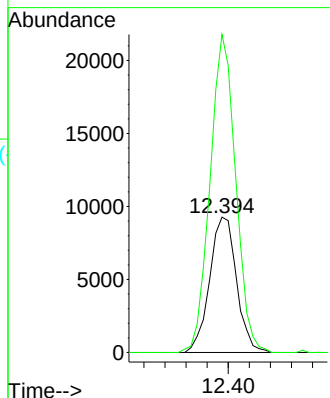
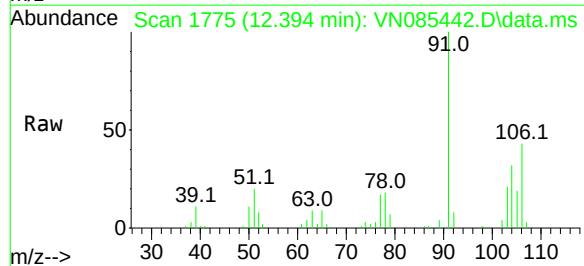
91 224.0 110.4 331.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#70

Styrene

Concen: 4.454 ug/l

RT: 12.412 min Scan# 1778

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

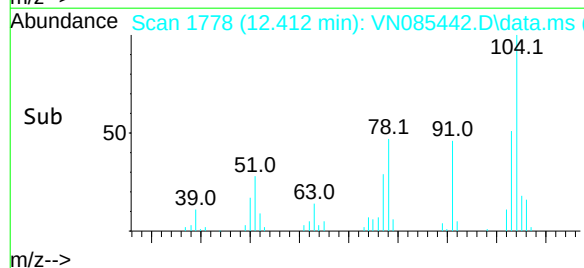
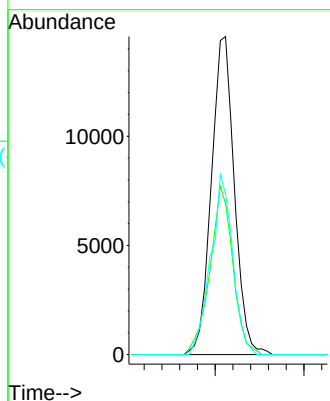
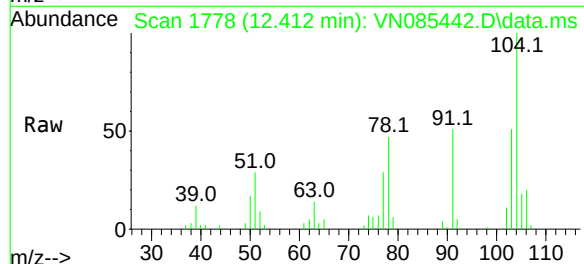
Tgt Ion:104 Resp: 26218

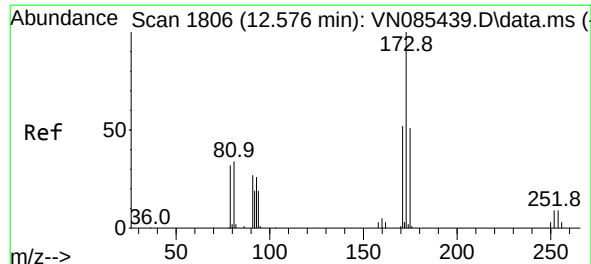
Ion Ratio Lower Upper

104 100

78 52.6 42.5 63.7

103 54.2 43.8 65.8





#71

Bromoform

Concen: 4.938 ug/l

RT: 12.576 min Scan# 1806

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

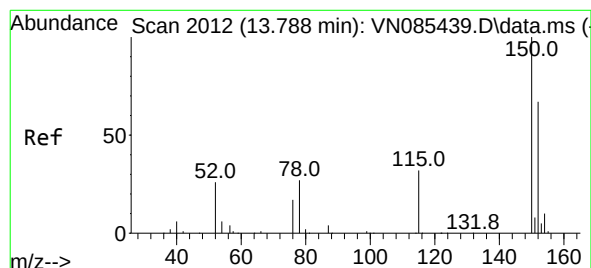
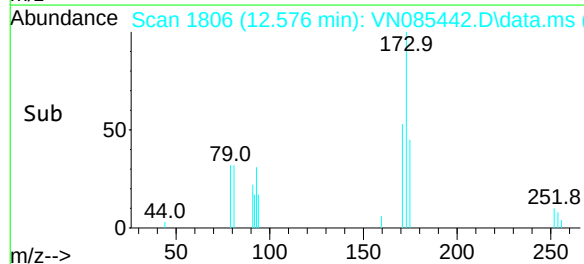
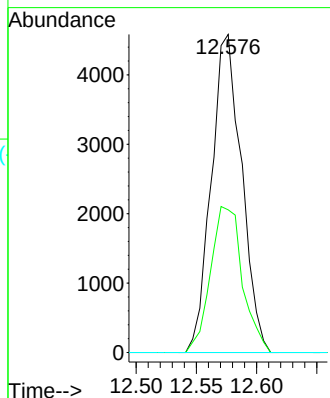
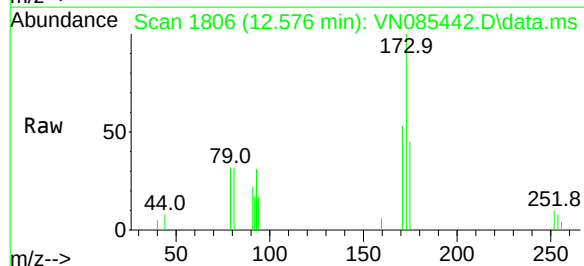
VSTDICC005

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 173   | Resp: | 8017 |
| Ion Ratio | Lower | Upper |      |
| 173       | 100   |       |      |
| 175       | 48.3  | 24.4  | 73.2 |
| 254       | 0.0   | 0.0   | 0.0  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

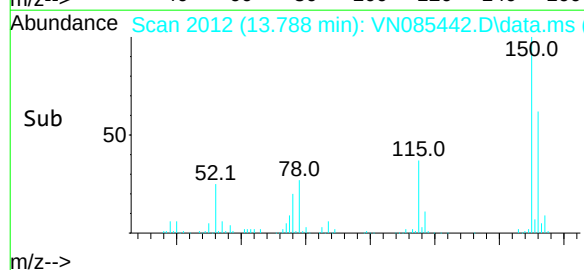
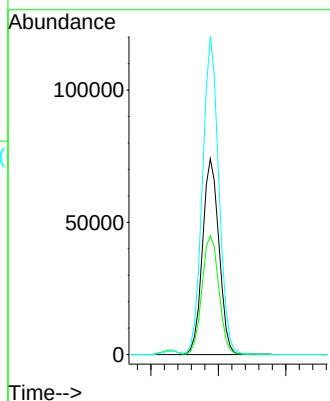
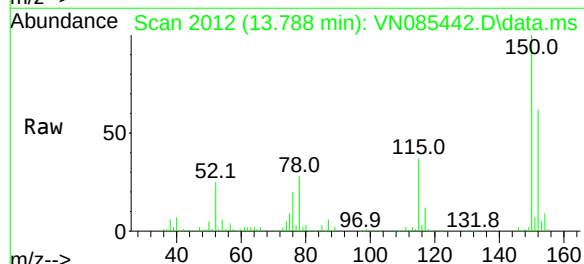
RT: 13.788 min Scan# 2012

Delta R.T. 0.000 min

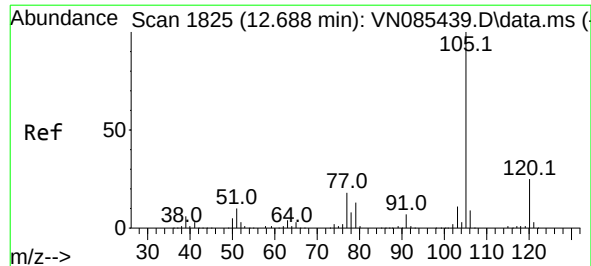
Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 152   | Resp: | 126086 |
| Ion Ratio | Lower | Upper |        |
| 152       | 100   |       |        |
| 115       | 62.0  | 31.1  | 93.3   |
| 150       | 160.7 | 0.0   | 343.6  |







#73

Isopropylbenzene

Concen: 4.678 ug/l

RT: 12.694 min Scan# 1825

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 105 Resp: 39811

Ion Ratio Lower Upper

105 100

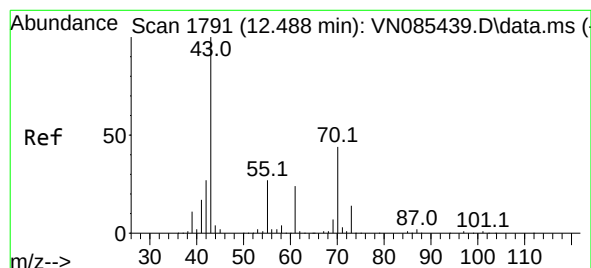
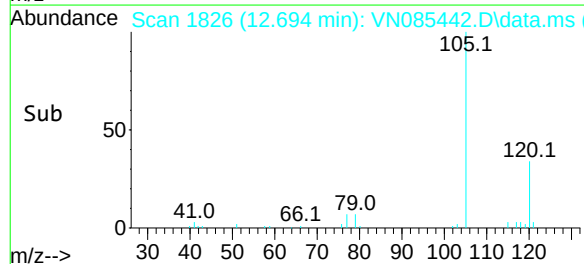
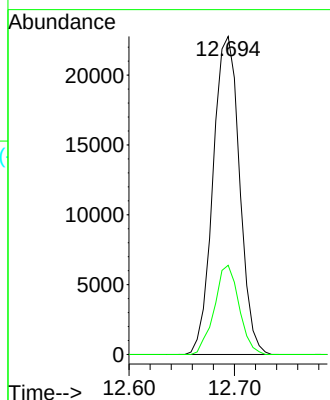
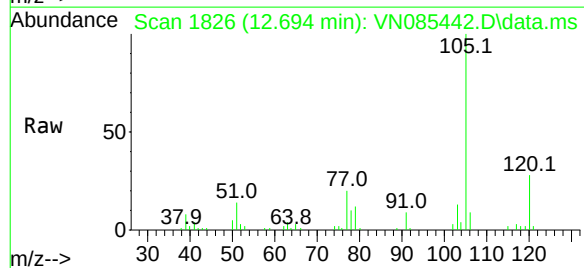
120 26.1 12.8 38.3

Manual Integrations

APPROVED

Reviewed By : John Carlone 01/15/2025

Supervised By : Mahesh Dadoda 01/15/2025



#74

N-ethyl acetate

Concen: 4.595 ug/l

RT: 12.488 min Scan# 1791

Delta R.T. -0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Tgt Ion: 43 Resp: 17577

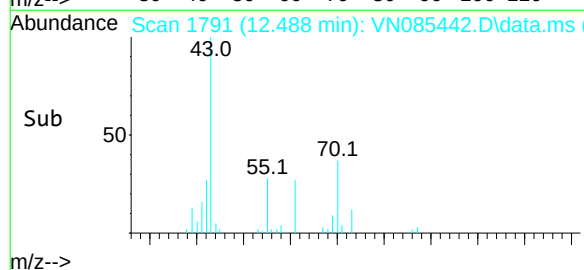
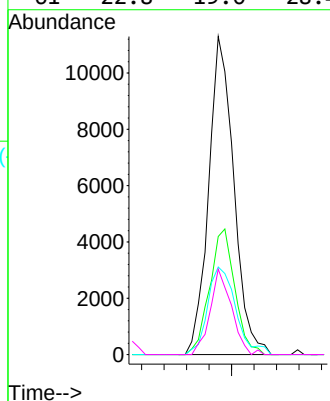
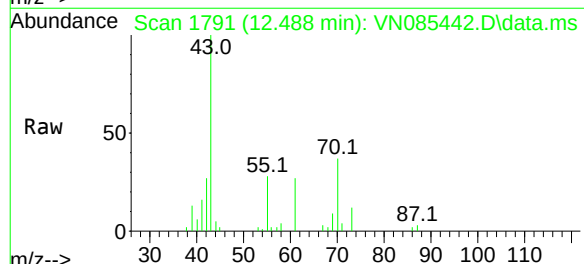
Ion Ratio Lower Upper

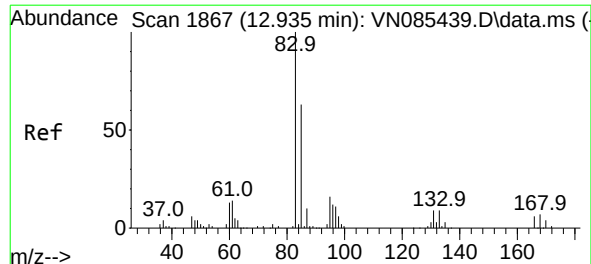
43 100

70 39.5 34.0 51.0

55 30.8 21.4 32.2

61 22.8 19.0 28.4





#75

1,1,2,2-Tetrachloroethane

Concen: 5.151 ug/l

RT: 12.935 min Scan# 18

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

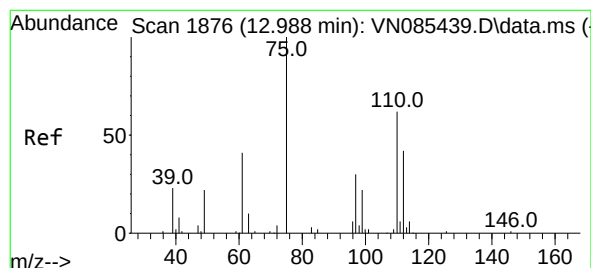
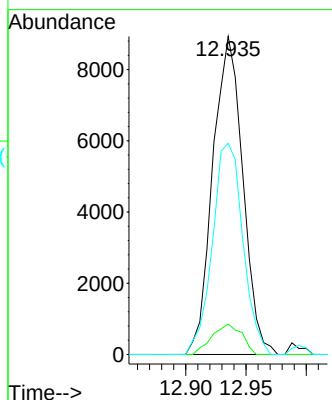
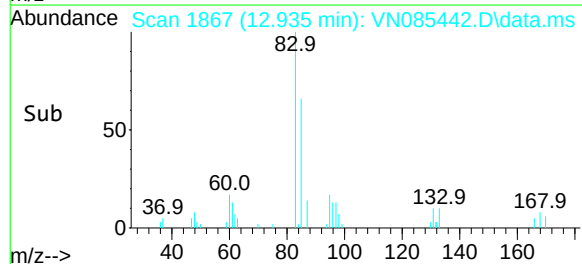
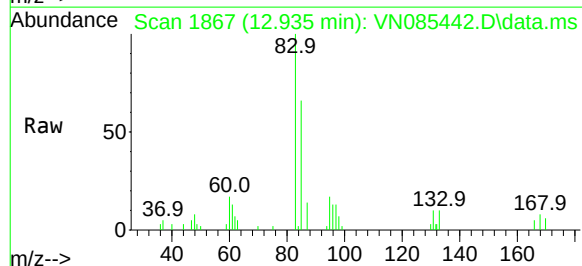
VSTDIC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 15483 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 131      | 9.5   | 4.8   | 14.4  |
| 85       | 67.5  | 32.2  | 96.6  |

## Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#76

1,2,3-Trichloropropane

Concen: 4.758 ug/l m

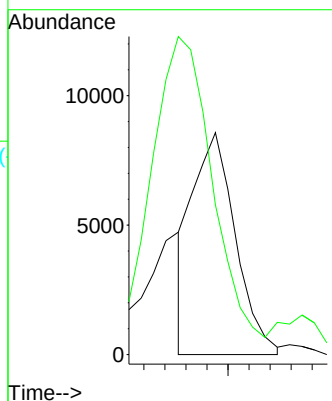
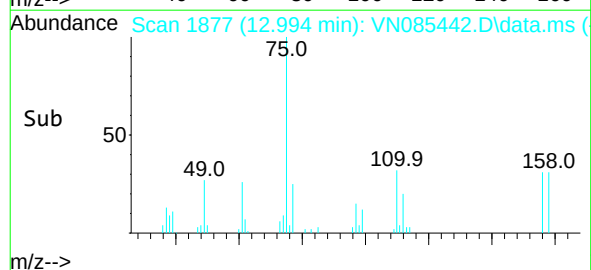
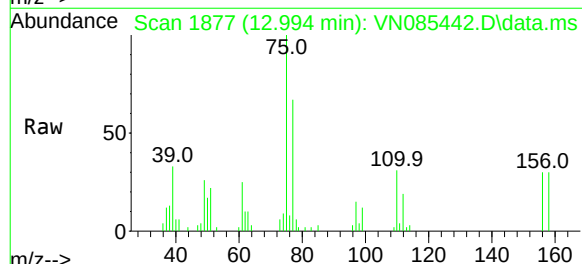
RT: 12.994 min Scan# 1877

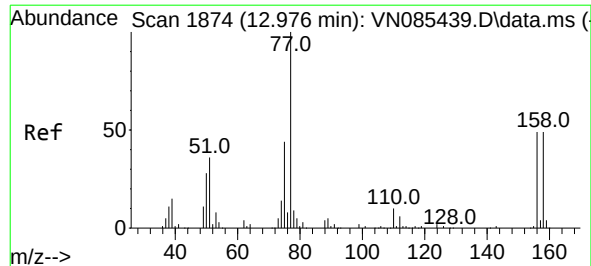
Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 12173 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 77       | 209.1 | 109.7 | 329.2 |





#77

Bromobenzene

Concen: 4.989 ug/l

RT: 12.982 min Scan# 1875

Delta R.T. 0.006 min

Lab File: VN085442.D

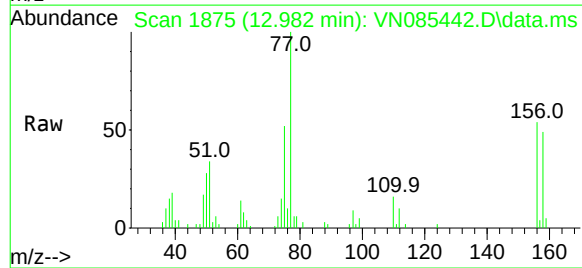
Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

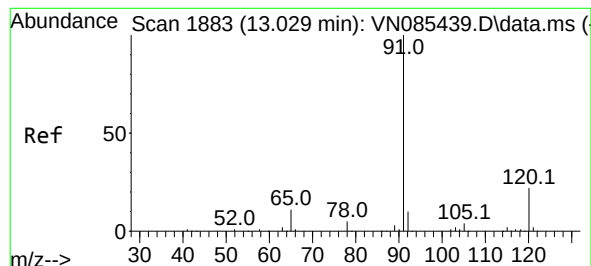
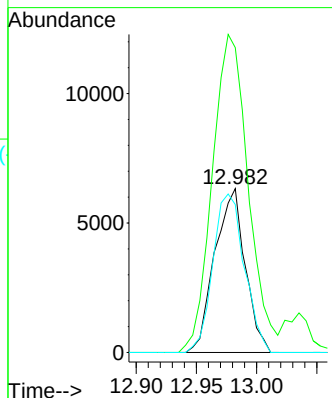
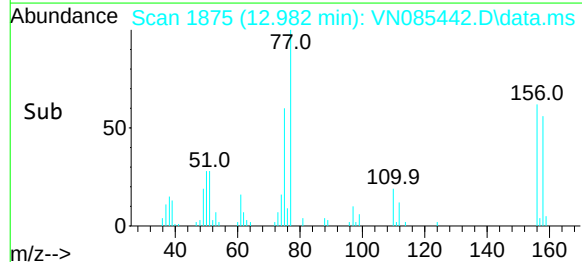
VSTDIC005



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 156   | Resp: | 11091 |
| Ion      | Ratio | Lower | Upper |
| 156      | 100   |       |       |
| 77       | 229.5 | 114.1 | 342.4 |
| 158      | 100.8 | 48.9  | 146.8 |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#78

n-propylbenzene

Concen: 4.512 ug/l

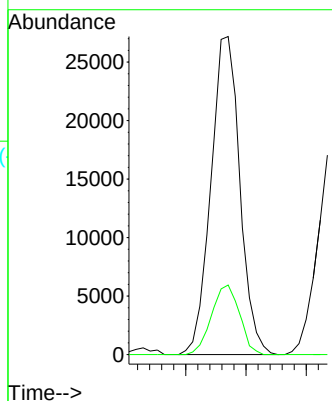
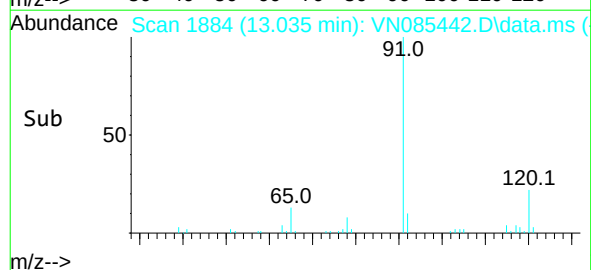
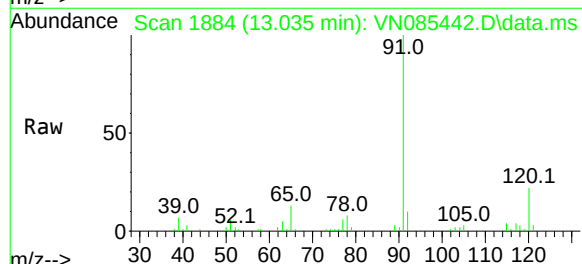
RT: 13.035 min Scan# 1884

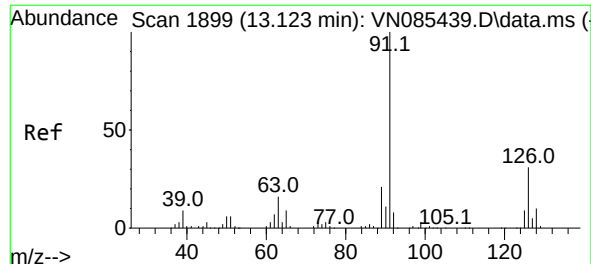
Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 91    | Resp: | 45450 |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 120      | 21.1  | 10.9  | 32.6  |





#79

2-Chlorotoluene

Concen: 4.898 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Tgt Ion: 91 Resp: 31932

Ion Ratio Lower Upper

91 100

126 32.6 15.7 47.1

Instrument :

MSVOA\_N

ClientSampleId :

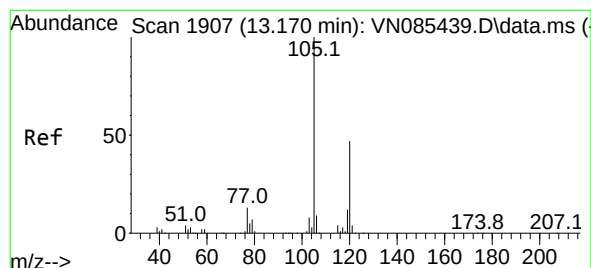
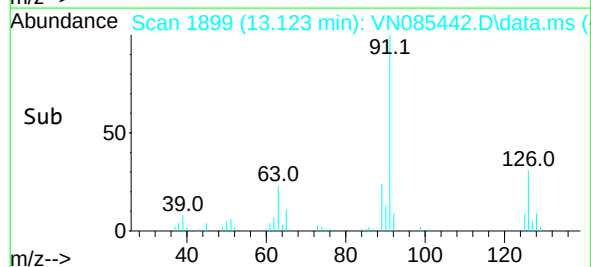
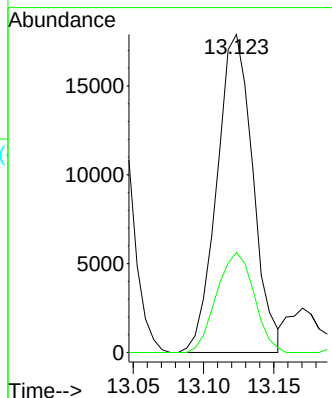
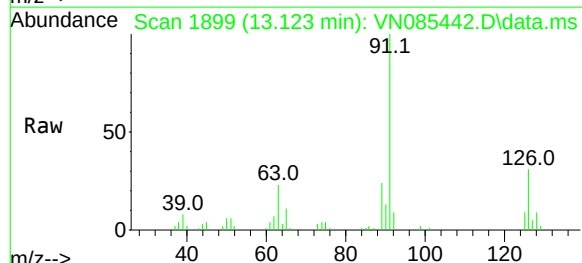
VSTDIC005

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#80

1,3,5-Trimethylbenzene

Concen: 4.537 ug/l

RT: 13.170 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VN085442.D

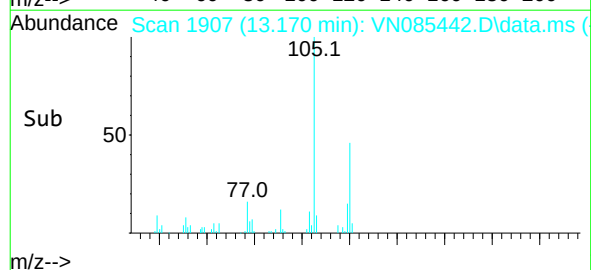
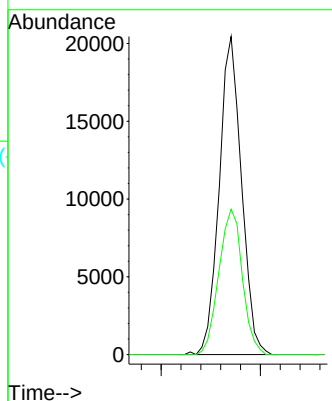
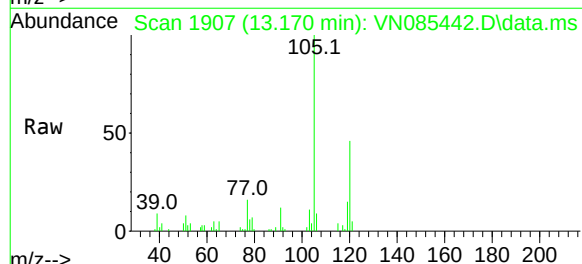
Acq: 14 Jan 2025 16:31

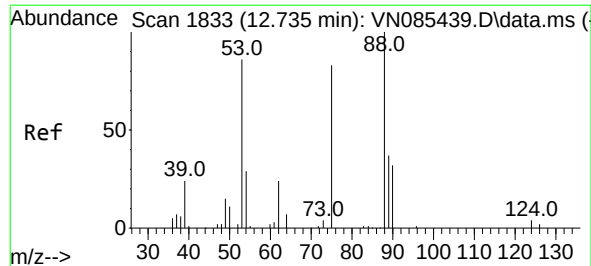
Tgt Ion:105 Resp: 31891

Ion Ratio Lower Upper

105 100

120 48.1 23.9 71.7





#81

trans-1,4-Dichloro-2-butene

Concen: 4.465 ug/l

RT: 12.729 min Scan# 1833

Delta R.T. -0.006 min

Lab File: VN085442.D

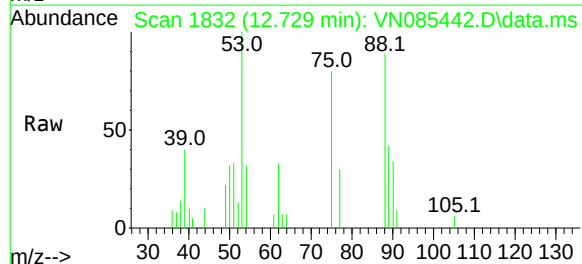
Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

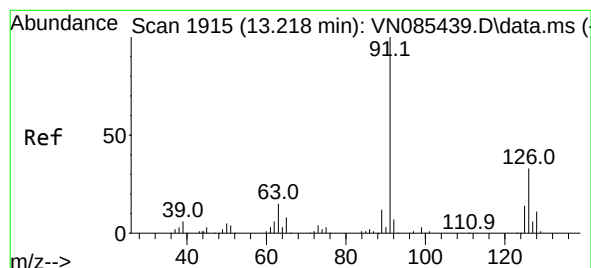
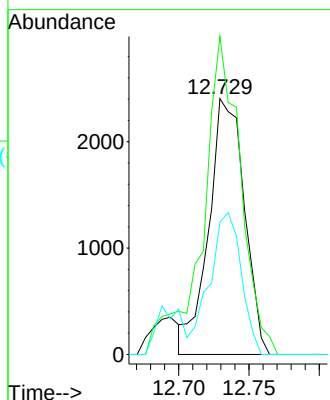
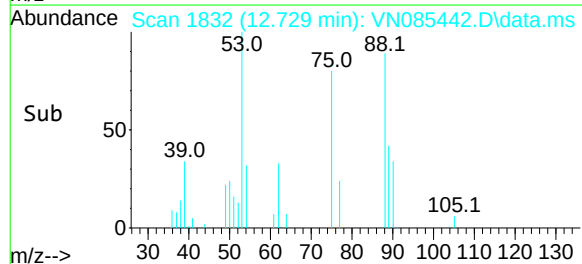
VSTDIC005



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 4229  |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 53       | 132.6 | 95.6  | 143.4 |
| 89       | 49.7  | 37.0  | 55.6  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#82

4-Chlorotoluene

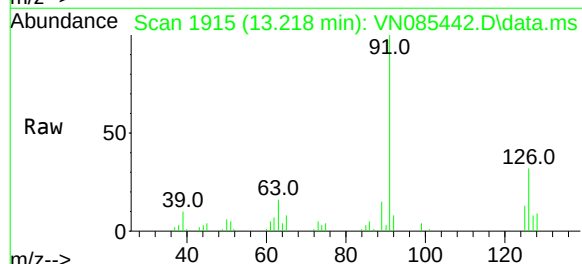
Concen: 4.926 ug/l

RT: 13.218 min Scan# 1915

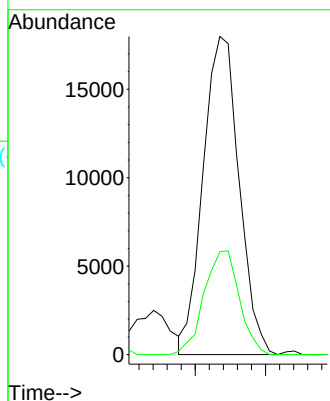
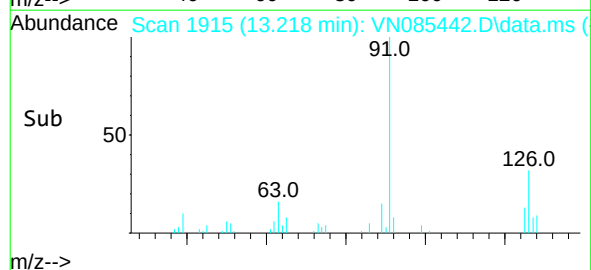
Delta R.T. 0.000 min

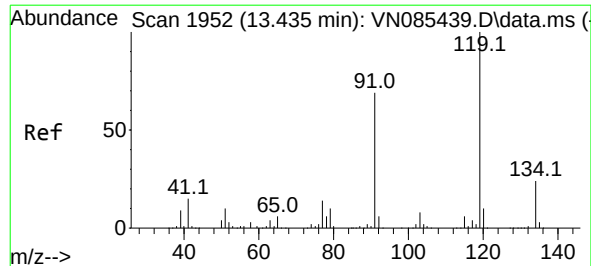
Lab File: VN085442.D

Acq: 14 Jan 2025 16:31



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 91    | Resp: | 31976 |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 126      | 31.9  | 15.9  | 47.7  |





#83

tert-Butylbenzene

Concen: 4.675 ug/l

RT: 13.435 min Scan# 19

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

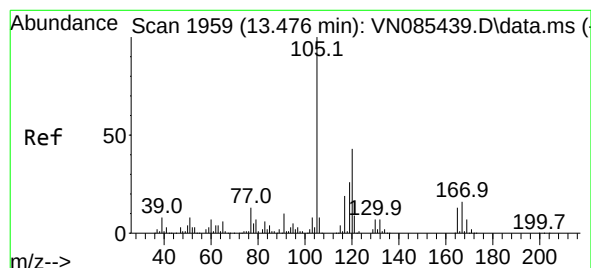
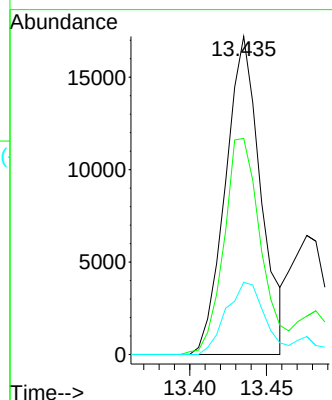
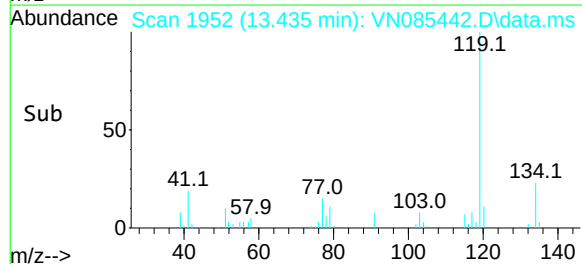
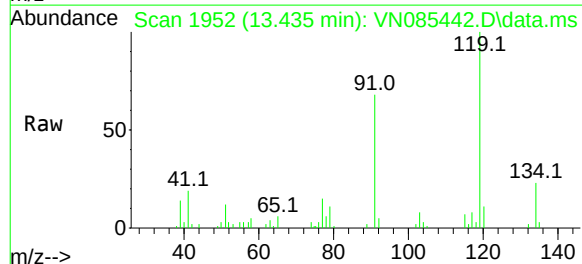
ClientSampleId :

VSTDIC005

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 91      | 71.1  | 35.1  | 105.3 |
| 134     | 24.8  | 12.0  | 36.1  |

**Manual Integrations  
APPROVED**

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#84

1,2,4-Trimethylbenzene

Concen: 4.575 ug/l

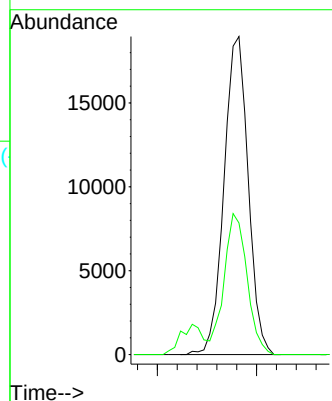
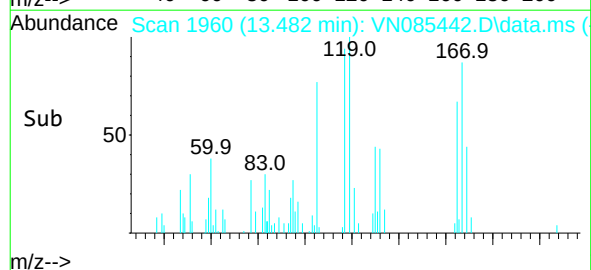
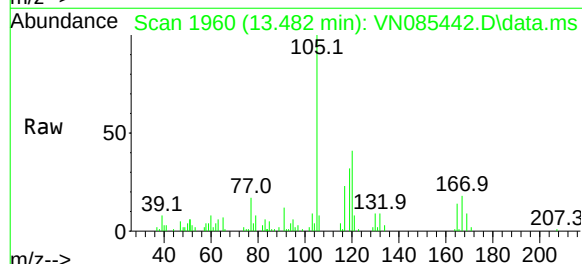
RT: 13.482 min Scan# 1960

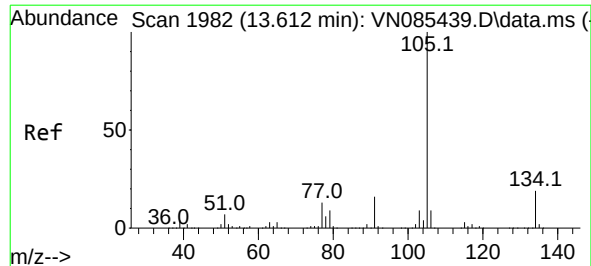
Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 42.0  | 21.6  | 65.0  |





#85

sec-Butylbenzene

Concen: 4.663 ug/l

RT: 13.612 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion:105 Resp: 38148

Ion Ratio Lower Upper

105 100

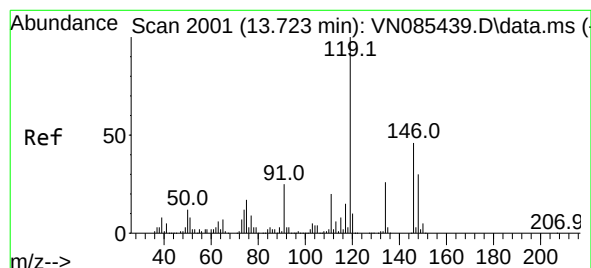
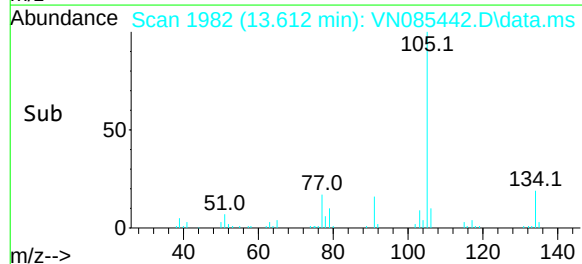
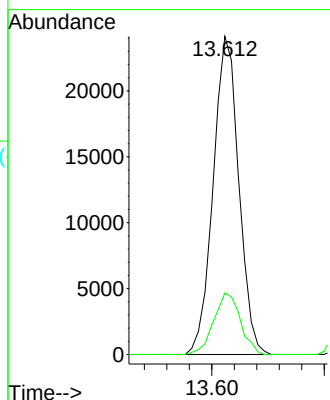
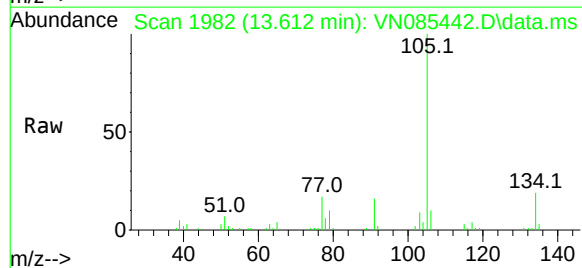
134 20.1 9.7 28.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#86

p-Isopropyltoluene

Concen: 4.584 ug/l

RT: 13.723 min Scan# 2001

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

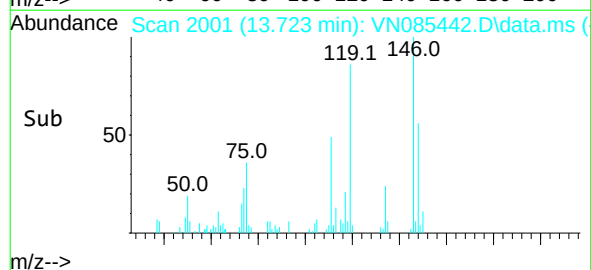
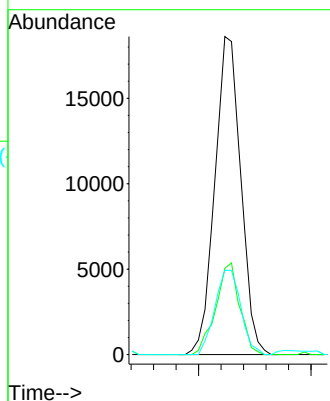
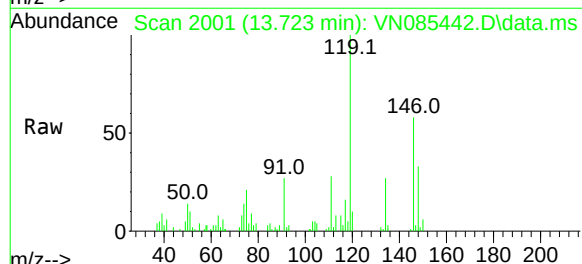
Tgt Ion:119 Resp: 29856

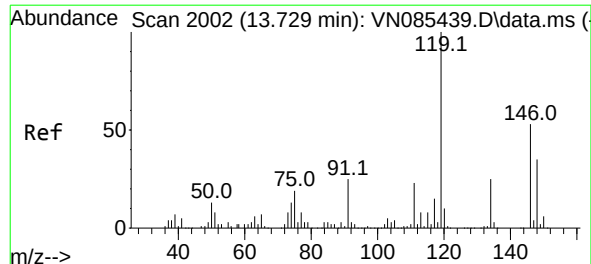
Ion Ratio Lower Upper

119 100

134 26.5 12.7 38.0

91 26.5 12.7 38.1





#87

1,3-Dichlorobenzene

Concen: 5.099 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion:146 Resp: 20876

Ion Ratio Lower Upper

146 100

111 42.3 21.4 64.3

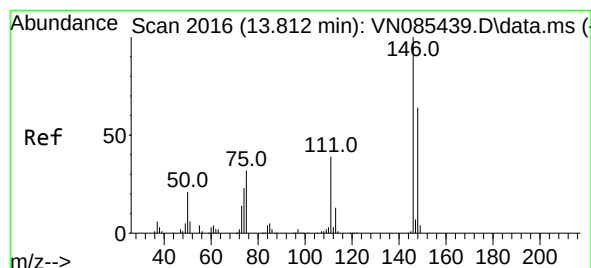
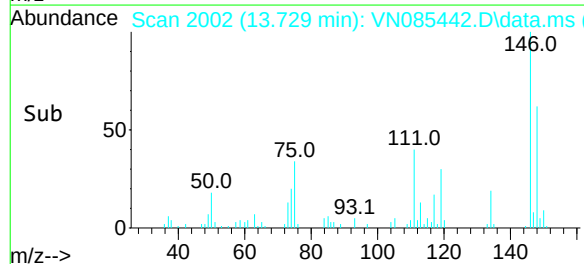
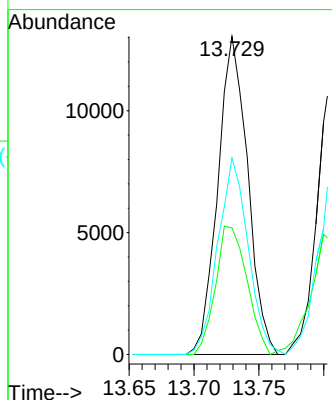
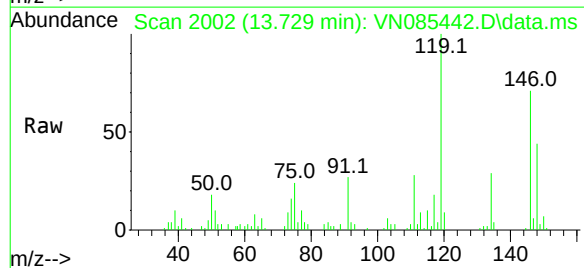
148 62.7 32.3 96.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#88

1,4-Dichlorobenzene

Concen: 5.179 ug/l

RT: 13.812 min Scan# 2016

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

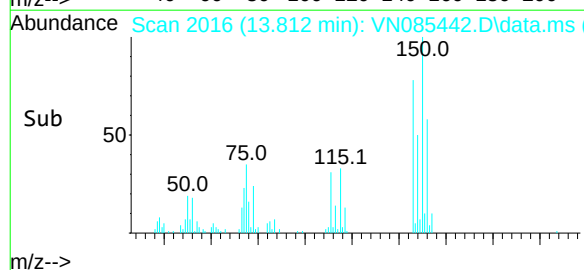
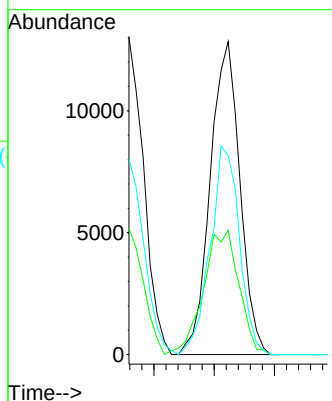
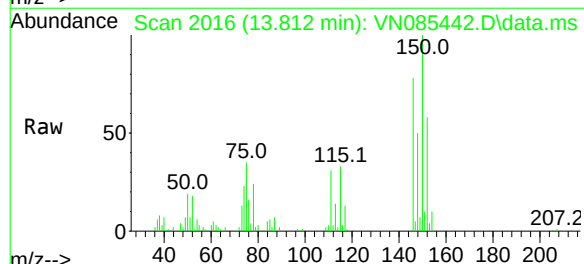
Tgt Ion:146 Resp: 21982

Ion Ratio Lower Upper

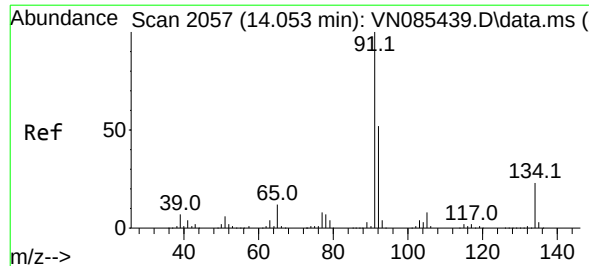
146 100

111 47.1 21.3 63.7

148 65.5 32.4 97.0







#89

n-Butylbenzene

Concen: 4.675 ug/l

RT: 14.053 min Scan# 2057

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

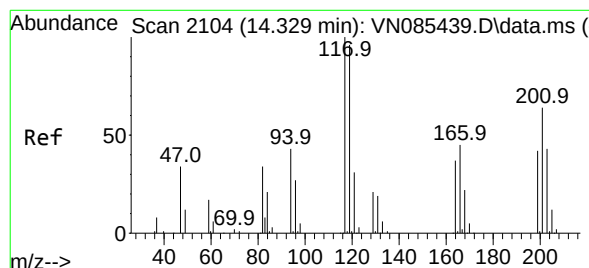
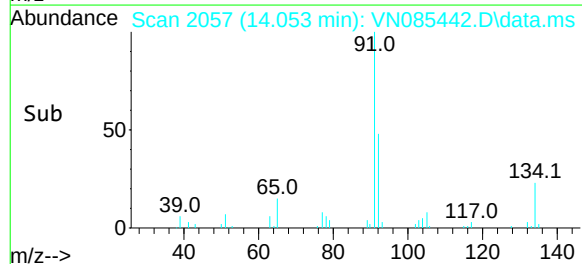
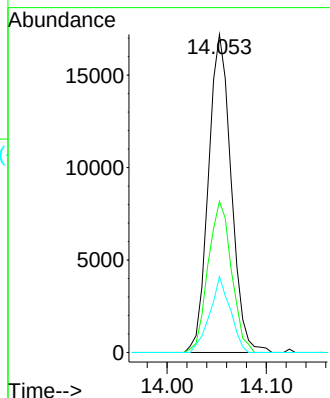
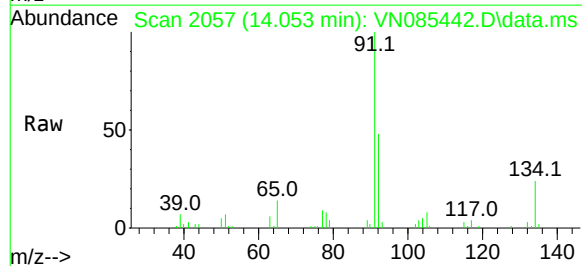
ClientSampleId :

VSTDICC005

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 91    | Resp: | 27437 |
| Ion Ratio | Lower | Upper |       |
| 91        | 100   |       |       |
| 92        | 48.7  | 25.8  | 77.3  |
| 134       | 21.4  | 11.7  | 35.1  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#90

Hexachloroethane

Concen: 4.987 ug/l

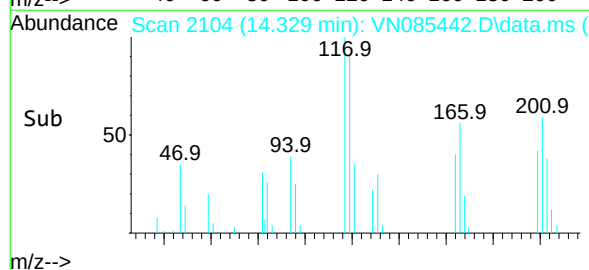
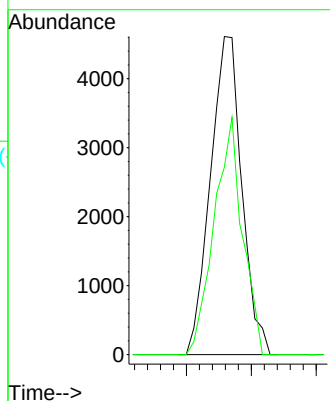
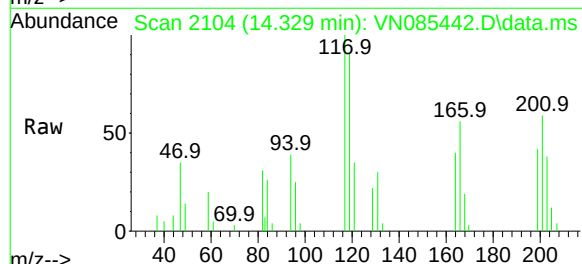
RT: 14.329 min Scan# 2104

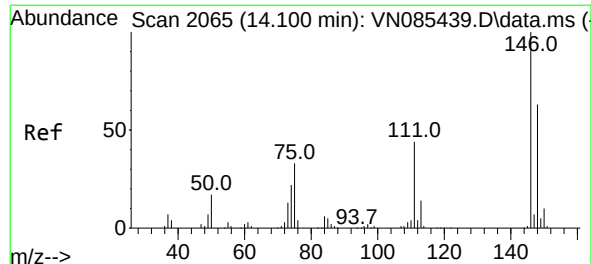
Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 117   | Resp: | 7767  |
| Ion Ratio | Lower | Upper |       |
| 117       | 100   |       |       |
| 201       | 66.9  | 33.7  | 101.0 |





#91

1,2-Dichlorobenzene

Concen: 4.940 ug/l

RT: 14.106 min Scan# 2065

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

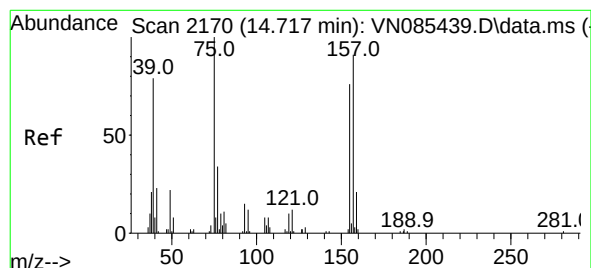
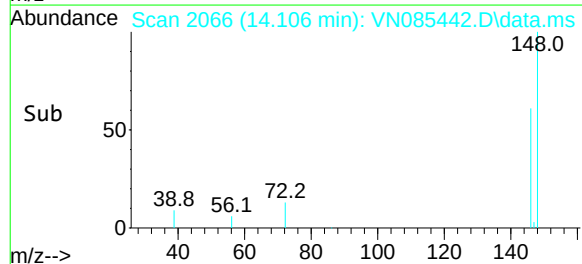
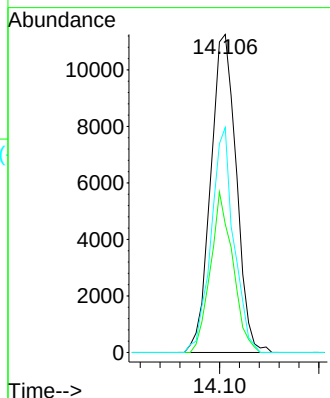
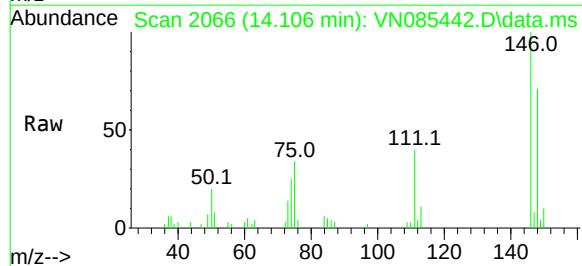
VSTDIC005

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 146   | Resp: | 20177 |
| Ion Ratio | Lower | Upper |       |
| 146       | 100   |       |       |
| 111       | 44.0  | 21.7  | 65.1  |
| 148       | 62.8  | 31.4  | 94.2  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#92

1,2-Dibromo-3-Chloropropane

Concen: 5.232 ug/l

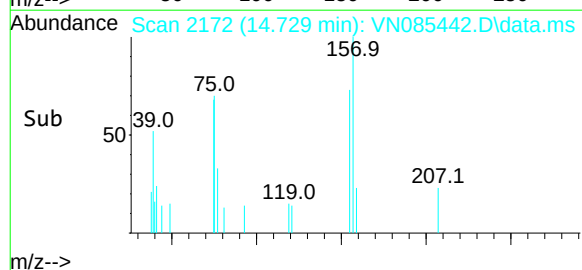
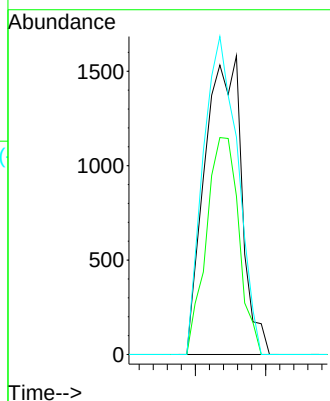
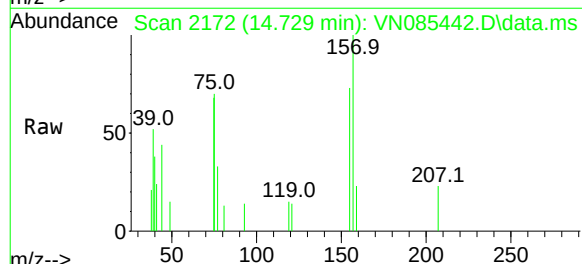
RT: 14.729 min Scan# 2172

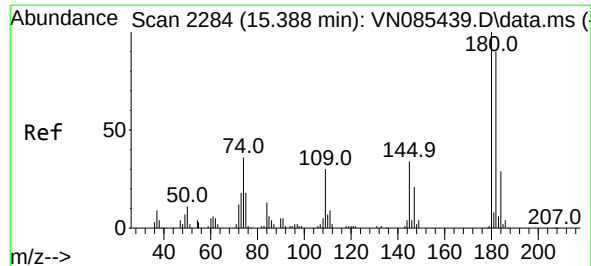
Delta R.T. 0.012 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 75    | Resp: | 2872  |
| Ion Ratio | Lower | Upper |       |
| 75        | 100   |       |       |
| 155       | 64.2  | 36.4  | 109.2 |
| 157       | 99.8  | 45.4  | 136.1 |





#93

1,2,4-Trichlorobenzene

Concen: 4.761 ug/l

RT: 15.388 min Scan# 2284

Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

ClientSampleId :

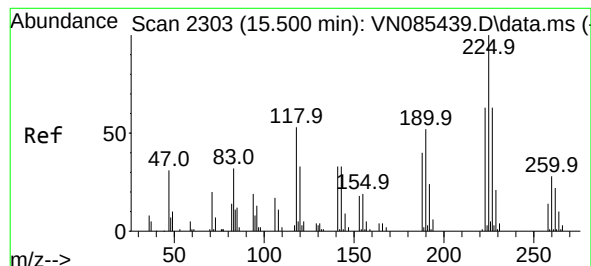
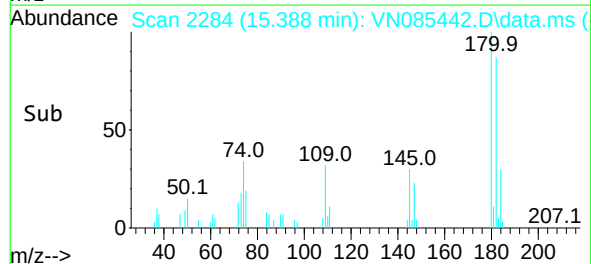
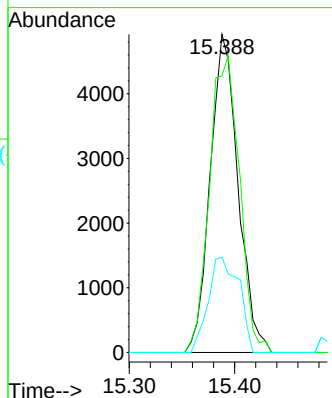
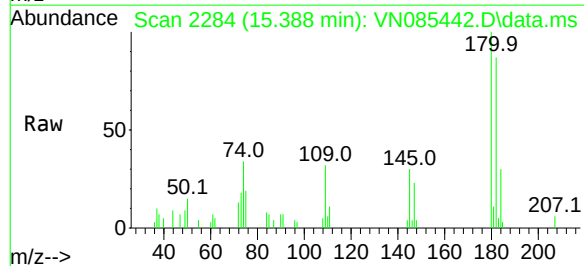
VSTDIC005

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 180   | Resp: | 9037  |
| Ion Ratio | Lower | Upper |       |
| 180       | 100   |       |       |
| 182       | 100.5 | 46.8  | 140.3 |
| 145       | 33.0  | 16.0  | 48.0  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#94

Hexachlorobutadiene

Concen: 5.520 ug/l

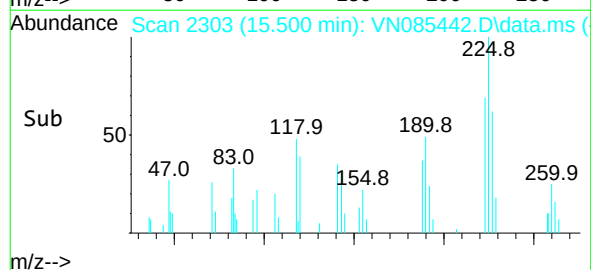
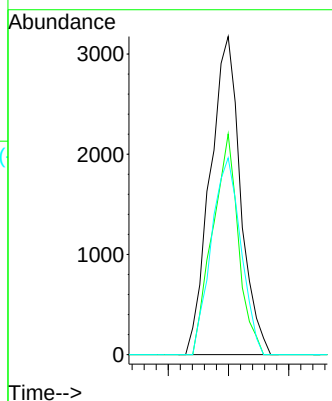
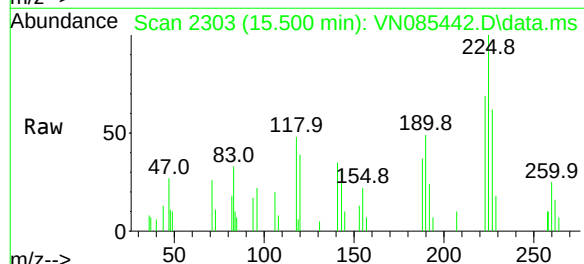
RT: 15.500 min Scan# 2303

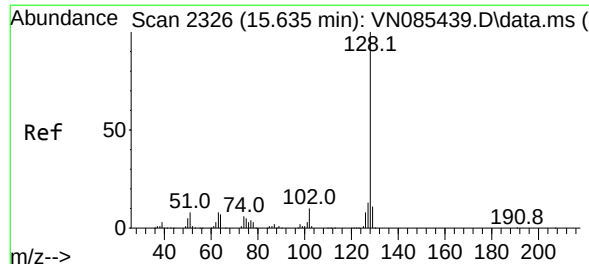
Delta R.T. 0.000 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 225   | Resp: | 5563 |
| Ion Ratio | Lower | Upper |      |
| 225       | 100   |       |      |
| 223       | 59.2  | 30.7  | 92.1 |
| 227       | 60.1  | 30.9  | 92.5 |





#95

Naphthalene

Concen: 4.422 ug/l

RT: 15.641 min Scan# 2326

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

Instrument :

MSVOA\_N

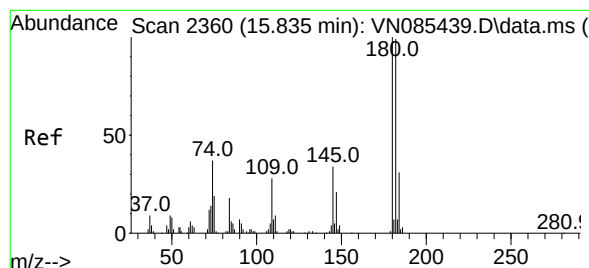
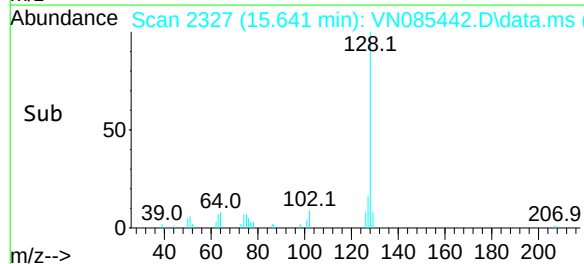
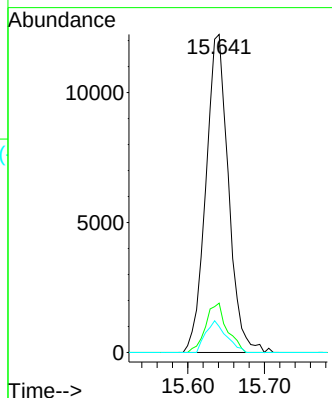
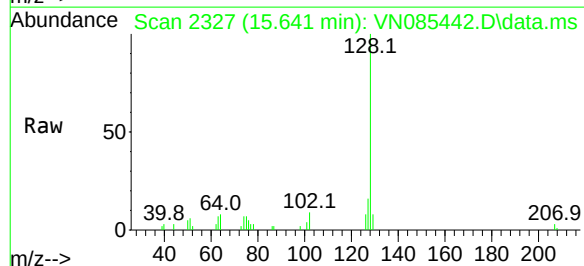
ClientSampleId :

VSTDIC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 128   | Resp: | 25047 |
| Ion      | Ratio | Lower | Upper |
| 128      | 100   |       |       |
| 127      | 14.7  | 10.6  | 16.0  |
| 129      | 9.1   | 8.8   | 13.2  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#96

1,2,3-Trichlorobenzene

Concen: 4.549 ug/l

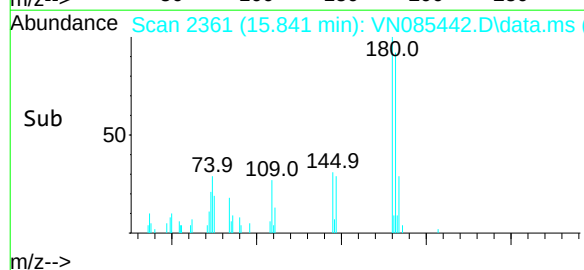
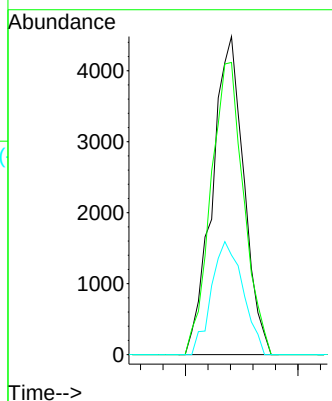
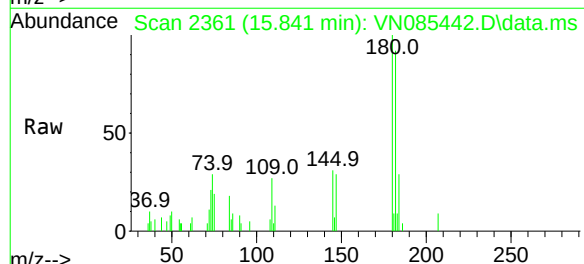
RT: 15.841 min Scan# 2361

Delta R.T. 0.006 min

Lab File: VN085442.D

Acq: 14 Jan 2025 16:31

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 180   | Resp: | 8737  |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 95.6  | 47.4  | 142.2 |
| 145      | 35.5  | 16.9  | 50.7  |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085443.D  
 Acq On : 14 Jan 2025 17:19  
 Operator : JC\MD  
 Sample : VSTDICC001  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC001

Quant Time: Jan 15 01:46:03 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 01:28:51 2025  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 166880   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 302938   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 256851   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.788 | 152  | 99539    | 50.000 | ug/l  | 0.00     |

#### System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 33) 1,2-Dichloroethane-d4 | 0.000  | 65    | 0d       | 0.000    | ug/l |         |
| Spiked Amount             | 50.000 | Range | 74 - 125 | Recovery | =    | 0.000%# |
| 35) Dibromofluoromethane  | 0.000  | 113   | 0d       | 0.000    | ug/l |         |
| Spiked Amount             | 50.000 | Range | 75 - 124 | Recovery | =    | 0.000%# |
| 50) Toluene-d8            | 0.000  | 98    | 0d       | 0.000    | ug/l |         |
| Spiked Amount             | 50.000 | Range | 86 - 113 | Recovery | =    | 0.000%# |
| 62) 4-Bromofluorobenzene  | 0.000  | 95    | 0d       | 0.000    | ug/l |         |
| Spiked Amount             | 50.000 | Range | 77 - 121 | Recovery | =    | 0.000%# |

#### Target Compounds

|                              |       |     |        |       |        | Qvalue |
|------------------------------|-------|-----|--------|-------|--------|--------|
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 2382   | 1.054 | ug/l   | 91     |
| 3) Chloromethane             | 2.359 | 50  | 2801   | 1.145 | ug/l   | 93     |
| 4) Vinyl Chloride            | 2.512 | 62  | 2732   | 1.111 | ug/l # | 81     |
| 6) Chloroethane              | 3.124 | 64  | 1809   | 1.160 | ug/l   | 94     |
| 7) Trichlorofluoromethane    | 3.512 | 101 | 3860   | 1.082 | ug/l   | 88     |
| 8) Diethyl Ether             | 3.953 | 74  | 1526   | 1.238 | ug/l   | 81     |
| 9) 1,1,2-Trichlorotrifluo... | 4.359 | 101 | 2156m  | 1.073 | ug/l   |        |
| 12) 1,1-Dichloroethene       | 4.330 | 96  | 1660   | 0.927 | ug/l # | 67     |
| 14) Allyl chloride           | 5.024 | 41  | 3179   | 1.094 | ug/l # | 85     |
| 15) Acrylonitrile            | 5.718 | 53  | 4967   | 5.070 | ug/l # | 70     |
| 16) Acetone                  | 4.436 | 43  | 5102   | 5.862 | ug/l   | 92     |
| 17) Carbon Disulfide         | 4.706 | 76  | 6601   | 1.197 | ug/l # | 87     |
| 18) Methyl Acetate           | 5.030 | 43  | 2908   | 1.099 | ug/l # | 80     |
| 19) Methyl tert-butyl Ether  | 5.789 | 73  | 5156   | 0.887 | ug/l # | 87     |
| 20) Methylene Chloride       | 5.265 | 84  | 2190   | 1.016 | ug/l # | 87     |
| 21) trans-1,2-Dichloroethene | 5.794 | 96  | 2110   | 1.102 | ug/l # | 66     |
| 22) Diisopropyl ether        | 6.677 | 45  | 5691   | 0.882 | ug/l # | 88     |
| 23) Vinyl Acetate            | 6.606 | 43  | 18526m | 4.090 | ug/l   |        |
| 24) 1,1-Dichloroethane       | 6.583 | 63  | 4020m  | 1.022 | ug/l   |        |
| 25) 2-Butanone               | 7.483 | 43  | 6448m  | 5.034 | ug/l   |        |
| 26) 2,2-Dichloropropane      | 7.488 | 77  | 3104   | 0.976 | ug/l   | 92     |
| 27) cis-1,2-Dichloroethene   | 7.477 | 96  | 2185   | 0.969 | ug/l   | 92     |
| 28) Bromochloromethane       | 7.812 | 49  | 2082   | 1.138 | ug/l # | 89     |
| 29) Tetrahydrofuran          | 7.835 | 42  | 3693   | 4.548 | ug/l   | 98     |
| 30) Chloroform               | 7.965 | 83  | 4250   | 1.045 | ug/l # | 80     |
| 32) 1,1,1-Trichloroethane    | 8.165 | 97  | 3678   | 1.031 | ug/l # | 56     |
| 36) 1,1-Dichloropropene      | 8.371 | 75  | 3084   | 1.046 | ug/l # | 84     |
| 37) Ethyl Acetate            | 7.577 | 43  | 3056m  | 1.026 | ug/l   |        |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 3436   | 1.018 | ug/l   | 90     |
| 39) Methylcyclohexane        | 9.600 | 83  | 2403   | 0.867 | ug/l # | 87     |
| 40) Benzene                  | 8.606 | 78  | 8480   | 0.957 | ug/l   | 91     |
| 41) Methacrylonitrile        | 7.771 | 41  | 1458   | 0.941 | ug/l # | 76     |
| 42) 1,2-Dichloroethane       | 8.665 | 62  | 3131   | 0.938 | ug/l   | 91     |
| 43) Isopropyl Acetate        | 8.682 | 43  | 4803   | 1.007 | ug/l # | 87     |
| 44) Trichloroethene          | 9.347 | 130 | 2133   | 1.034 | ug/l   | 71     |
| 45) 1,2-Dichloropropane      | 9.618 | 63  | 2246   | 0.992 | ug/l   | 99     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085443.D  
 Acq On : 14 Jan 2025 17:19  
 Operator : JC\MD  
 Sample : VSTDIC001  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDIC001

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:46:03 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 01:28:51 2025  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|--------|--------|----------|
| 46) Dibromomethane            | 9.706  | 93   | 1769     | 1.083  | ug/l   | 92       |
| 47) Bromodichloromethane      | 9.882  | 83   | 2935     | 0.882  | ug/l   | 90       |
| 48) Methyl methacrylate       | 9.677  | 41   | 1886     | 0.878  | ug/l   | 96       |
| 49) 1,4-Dioxane               | 9.688  | 88   | 673      | 18.616 | ug/l # | 47       |
| 51) 4-Methyl-2-Pentanone      | 10.441 | 43   | 11523    | 4.163  | ug/l   | 93       |
| 52) Toluene                   | 10.618 | 92   | 4180     | 0.814  | ug/l   | 93       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 2522     | 0.802  | ug/l   | 92       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 2725     | 0.811  | ug/l # | 83       |
| 55) 1,1,2-Trichloroethane     | 11.018 | 97   | 1901     | 0.935  | ug/l   | 91       |
| 56) Ethyl methacrylate        | 10.871 | 69   | 1923     | 2.471  | ug/l # | 88       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 3113     | 0.881  | ug/l   | 95       |
| 58) 2-Chloroethyl Vinyl ether | 10.153 | 63   | 4929     | 3.822  | ug/l   | 91       |
| 59) 2-Hexanone                | 11.194 | 43   | 7905     | 4.058  | ug/l   | 87       |
| 60) Dibromochloromethane      | 11.359 | 129  | 2339     | 0.953  | ug/l   | 98       |
| 61) 1,2-Dibromoethane         | 11.465 | 107  | 2022     | 1.000  | ug/l   | 90       |
| 64) Tetrachloroethene         | 11.106 | 164  | 1658     | 0.947  | ug/l # | 83       |
| 65) Chlorobenzene             | 11.888 | 112  | 5401     | 0.960  | ug/l   | 93       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 2185     | 1.058  | ug/l # | 64       |
| 67) Ethyl Benzene             | 11.959 | 91   | 7347     | 0.802  | ug/l   | 94       |
| 68) m/p-Xylenes               | 12.070 | 106  | 5059     | 1.494  | ug/l   | 100      |
| 69) o-Xylene                  | 12.394 | 106  | 2478     | 0.766  | ug/l   | 97       |
| 70) Styrene                   | 12.406 | 104  | 3812     | 0.712  | ug/l   | 99       |
| 71) Bromoform                 | 12.582 | 173  | 1208     | 0.818  | ug/l # | 88       |
| 73) Isopropylbenzene          | 12.688 | 105  | 5506     | 0.820  | ug/l   | 98       |
| 74) N-amyl acetate            | 12.494 | 43   | 2716     | 0.899  | ug/l # | 87       |
| 75) 1,1,1,2-Tetrachloroethane | 12.935 | 83   | 2616     | 1.102  | ug/l # | 96       |
| 76) 1,2,3-Trichloropropane    | 12.982 | 75   | 2198m    | 1.088  | ug/l   |          |
| 77) Bromobenzene              | 12.976 | 156  | 1733     | 0.987  | ug/l   | 97       |
| 78) n-propylbenzene           | 13.029 | 91   | 6424     | 0.808  | ug/l   | 93       |
| 79) 2-Chlorotoluene           | 13.117 | 91   | 4483     | 0.871  | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene    | 13.165 | 105  | 4301     | 0.775  | ug/l   | 90       |
| 82) 4-Chlorotoluene           | 13.223 | 91   | 4268     | 0.833  | ug/l   | 99       |
| 83) tert-Butylbenzene         | 13.435 | 119  | 3753     | 0.805  | ug/l   | 96       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 3758     | 0.679  | ug/l   | 93       |
| 85) sec-Butylbenzene          | 13.612 | 105  | 4614     | 0.714  | ug/l   | 99       |
| 86) p-Isopropyltoluene        | 13.723 | 119  | 3538     | 0.716  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene       | 13.723 | 146  | 3038     | 0.940  | ug/l   | 95       |
| 88) 1,4-Dichlorobenzene       | 13.806 | 146  | 3517m    | 1.050  | ug/l   |          |
| 89) n-Butylbenzene            | 14.053 | 91   | 3527     | 0.761  | ug/l   | 93       |
| 90) Hexachloroethane          | 14.341 | 117  | 1355     | 1.102  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 3515     | 1.090  | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.711 | 75   | 402      | 0.928  | ug/l   | 74       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 1310     | 0.874  | ug/l # | 80       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 822      | 1.033  | ug/l   | 89       |
| 95) Naphthalene               | 15.641 | 128  | 4210     | 0.941  | ug/l # | 90       |
| 96) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 1494     | 0.985  | ug/l # | 86       |

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

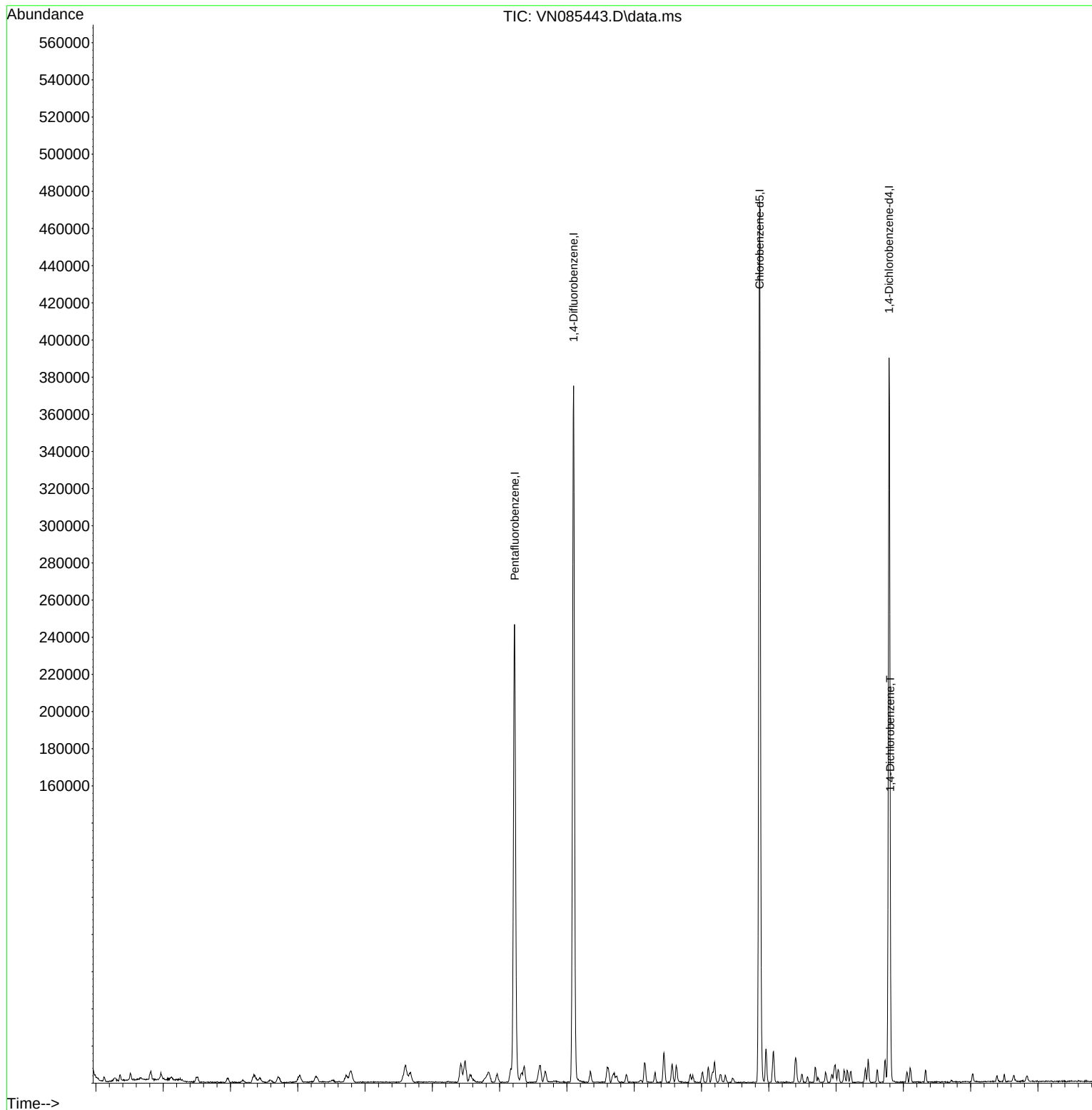
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Data File : VN085443.D  
Acq On : 14 Jan 2025 17:19  
Operator : JC\MD  
Sample : VSTDIC001  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 10 Sample Multiplier: 1

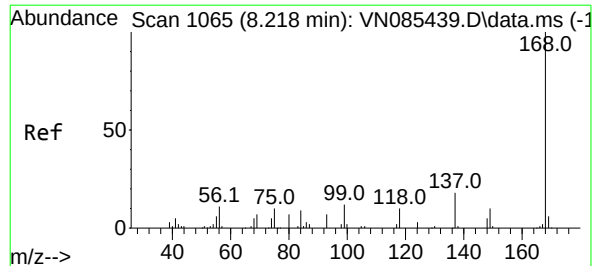
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC001

Manual Integrations  
APPROVED

Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 01:46:03 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 01:28:51 2025  
Response via : Initial Calibration





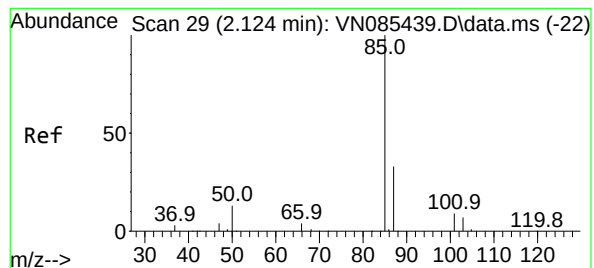
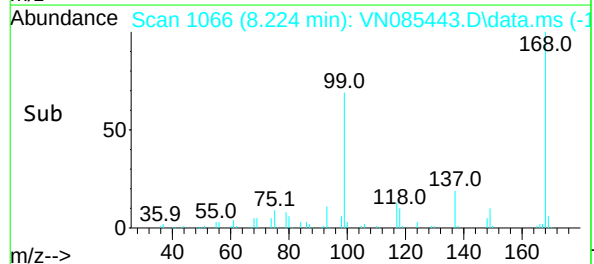
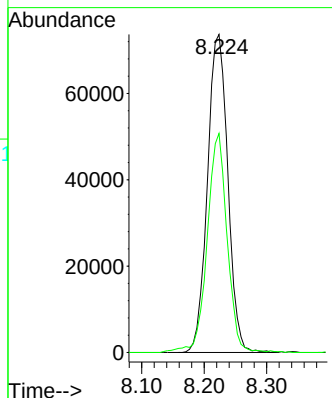
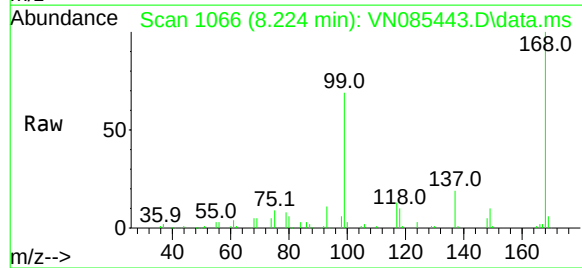
#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. 0.006 min  
Lab File: VN085443.D  
Acq: 14 Jan 2025 17:19

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC001

Tgt Ion: 168 Resp: 166880  
Ion Ratio Lower Upper  
168 100  
99 68.6 53.6 80.4

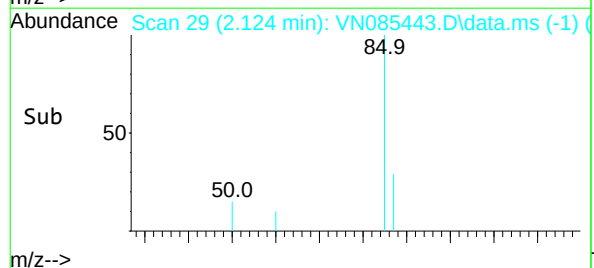
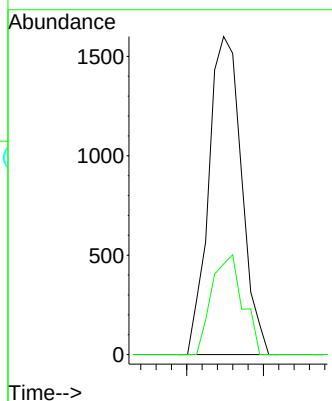
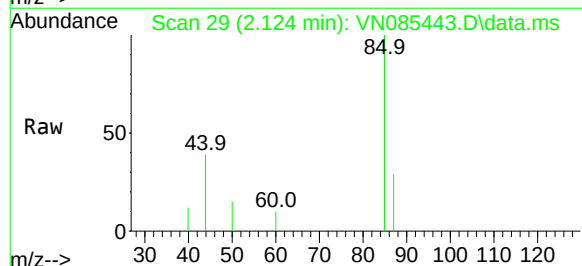
Manual Integrations  
APPROVED

Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025



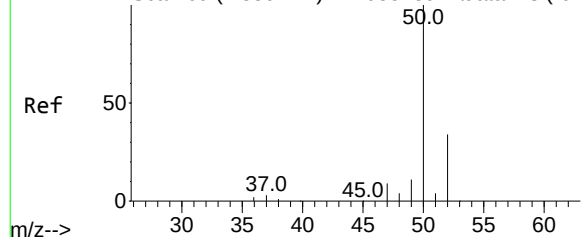
#2  
Dichlorodifluoromethane  
Concen: 1.054 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. -0.000 min  
Lab File: VN085443.D  
Acq: 14 Jan 2025 17:19

Tgt Ion: 85 Resp: 2382  
Ion Ratio Lower Upper  
85 100  
87 28.5 16.7 50.1





Abundance Scan 69 (2.359 min): VN085439.D\data.ms (-62)



#3

Chloromethane

Concen: 1.145 ug/l

RT: 2.359 min Scan# 69

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

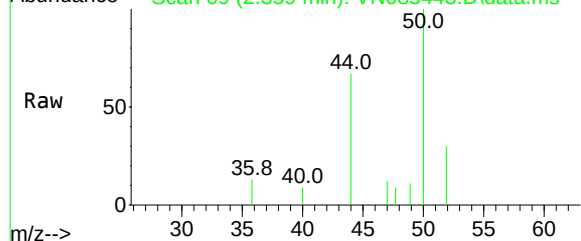
Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC001

Abundance Scan 69 (2.359 min): VN085443.D\data.ms



Tgt Ion: 50 Resp: 2801

Ion Ratio Lower Upper

50 100

52 29.7 27.0 40.6

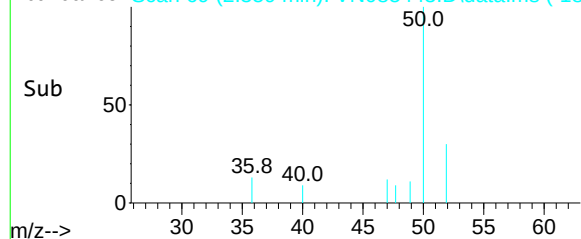
Manual Integrations

APPROVED

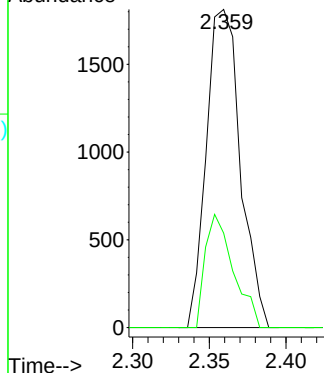
Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025

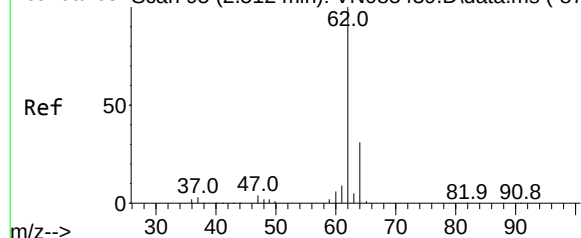
Abundance Scan 69 (2.359 min): VN085443.D\data.ms (-18)



Abundance



Abundance Scan 95 (2.512 min): VN085439.D\data.ms (-87)



#4

Vinyl Chloride

Concen: 1.111 ug/l

RT: 2.512 min Scan# 95

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

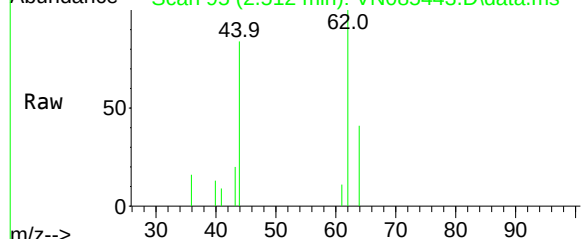
Tgt Ion: 62 Resp: 2732

Ion Ratio Lower Upper

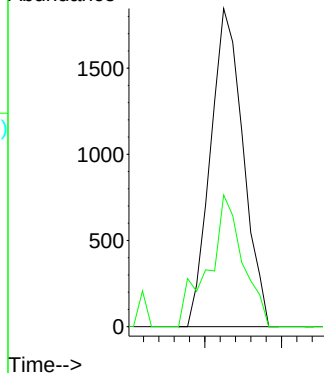
62 100

64 41.4 24.8 37.2

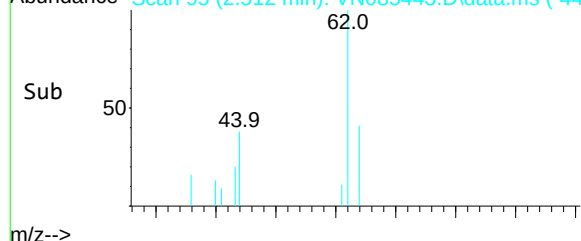
Abundance Scan 95 (2.512 min): VN085443.D\data.ms

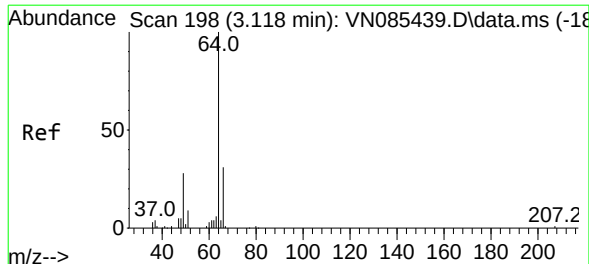


Abundance



Abundance Scan 95 (2.512 min): VN085443.D\data.ms (-44)





#6

Chloroethane

Concen: 1.160 ug/l

RT: 3.124 min Scan# 19

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 64 Resp: 1809

Ion Ratio Lower Upper

64 100

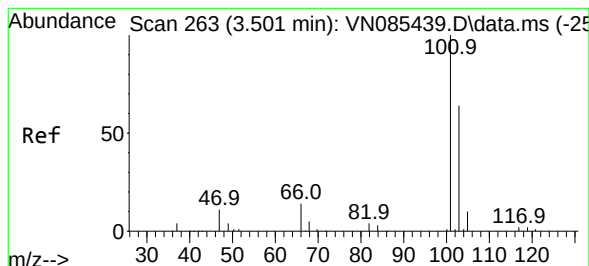
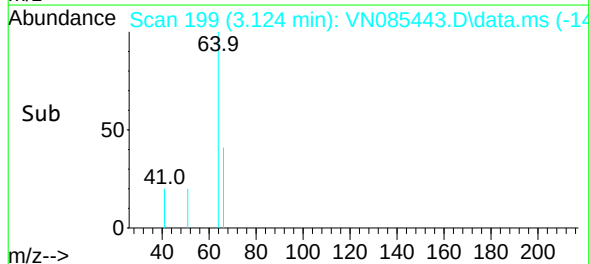
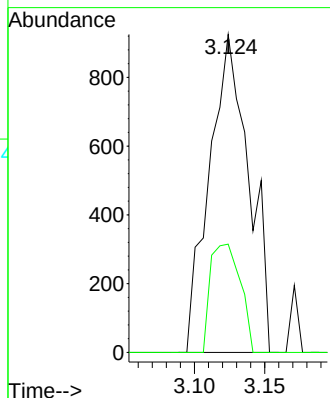
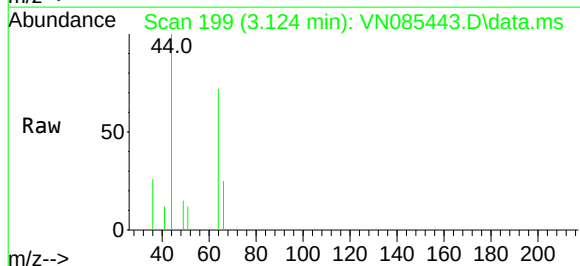
66 34.1 24.6 36.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#7

Trichlorofluoromethane

Concen: 1.082 ug/l

RT: 3.512 min Scan# 265

Delta R.T. 0.012 min

Lab File: VN085443.D

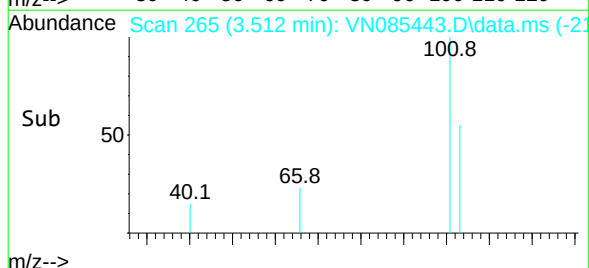
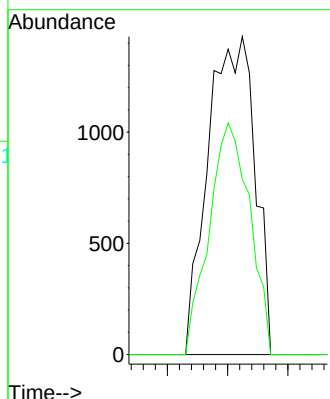
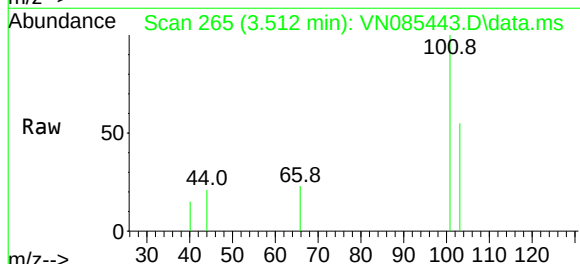
Acq: 14 Jan 2025 17:19

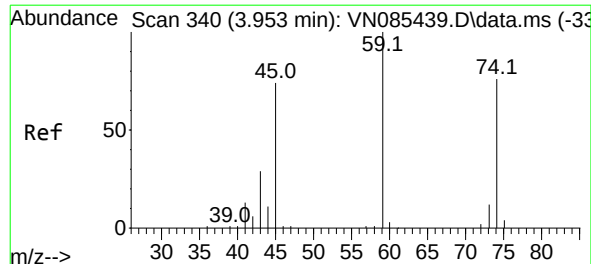
Tgt Ion:101 Resp: 3860

Ion Ratio Lower Upper

101 100

103 55.0 51.4 77.2





#8

Diethyl Ether

Concen: 1.238 ug/l

RT: 3.953 min Scan# 340

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC001

Tgt Ion: 74 Resp: 1526

Ion Ratio Lower Upper

74 100

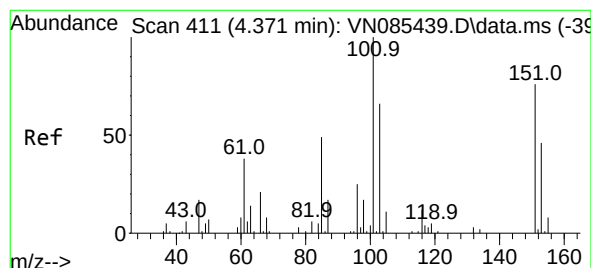
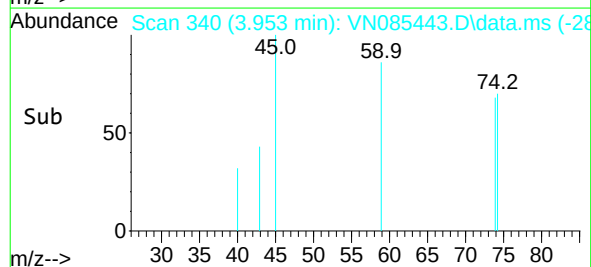
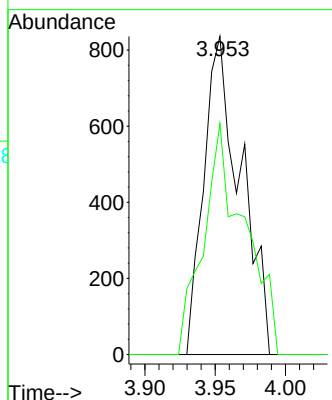
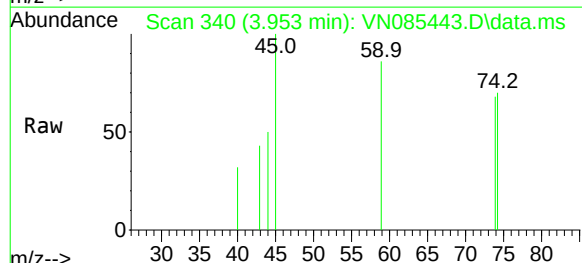
45 80.9 49.7 149.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#9

1,1,2-Trichlorotrifluoroethane

Concen: 1.073 ug/l m

RT: 4.359 min Scan# 409

Delta R.T. -0.012 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

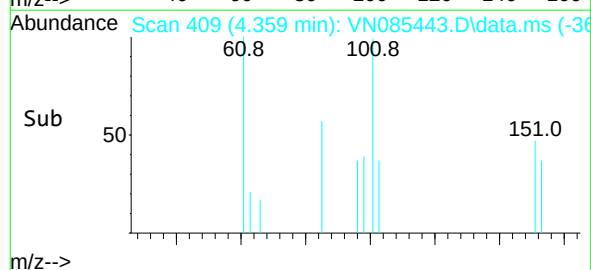
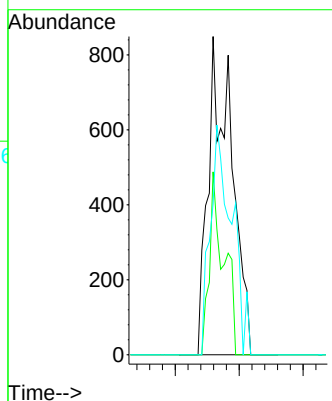
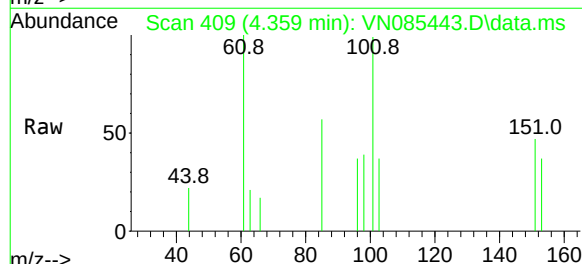
Tgt Ion:101 Resp: 2156

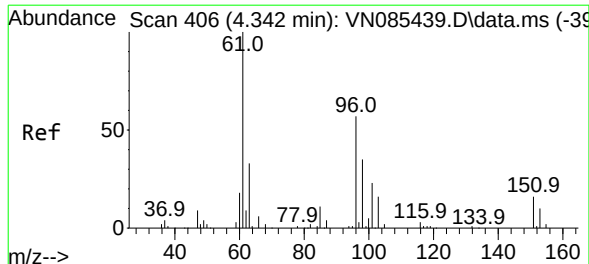
Ion Ratio Lower Upper

101 100

85 35.3 37.8 56.8#

151 66.4 58.8 88.2





#12

1,1-Dichloroethene

Concen: 0.927 ug/l

RT: 4.330 min Scan# 406

Delta R.T. -0.012 min

Lab File: VN085443.D

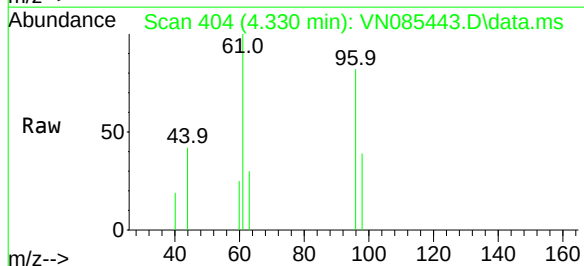
Acq: 14 Jan 2025 17:19

Instrument :

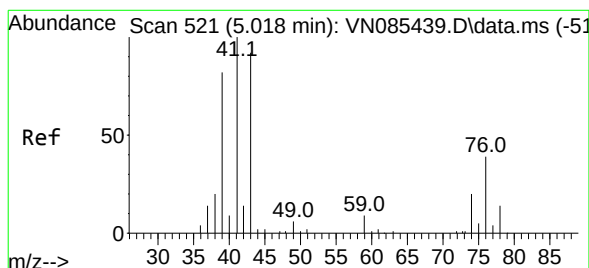
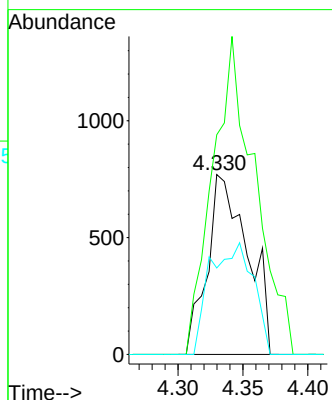
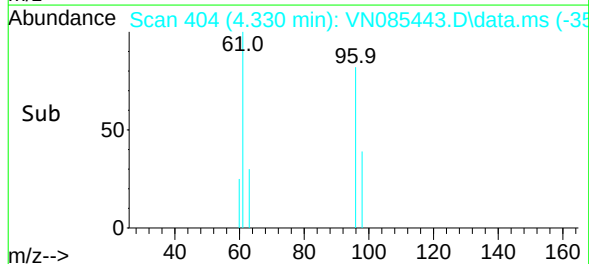
MSVOA\_N

ClientSampleId :

VSTDIC001



| Tgt Ion: | 96    | Resp: | 1660   |
|----------|-------|-------|--------|
| Ion      | Ratio | Lower | Upper  |
| 96       | 100   |       |        |
| 61       | 122.1 | 141.0 | 211.4# |
| 98       | 48.1  | 49.0  | 73.6#  |

Manual Integrations  
APPROVEDReviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

#14

Allyl chloride

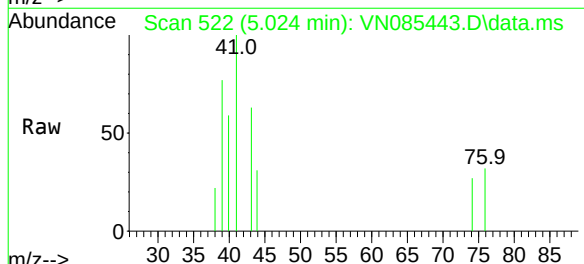
Concen: 1.094 ug/l

RT: 5.024 min Scan# 522

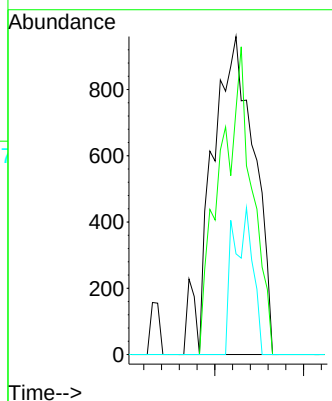
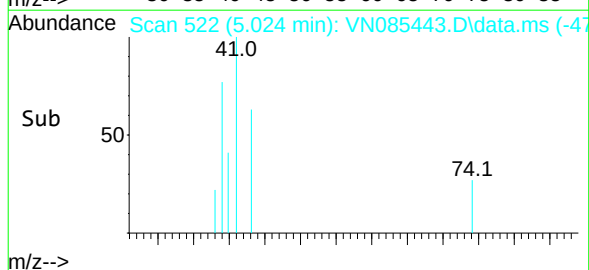
Delta R.T. 0.006 min

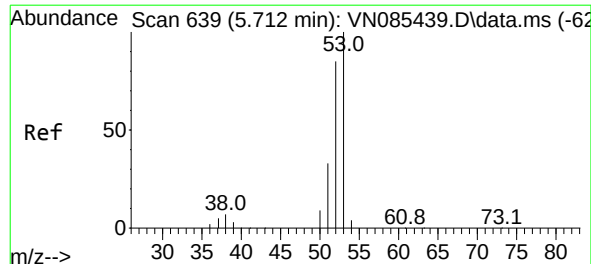
Lab File: VN085443.D

Acq: 14 Jan 2025 17:19



| Tgt Ion: | 41    | Resp: | 3179  |
|----------|-------|-------|-------|
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 73.1  | 64.4  | 96.6  |
| 76       | 21.4  | 30.5  | 45.7# |





#15

Acrylonitrile

Concen: 5.070 ug/l

RT: 5.718 min Scan# 64

Delta R.T. 0.006 min

Lab File: VN085443.D

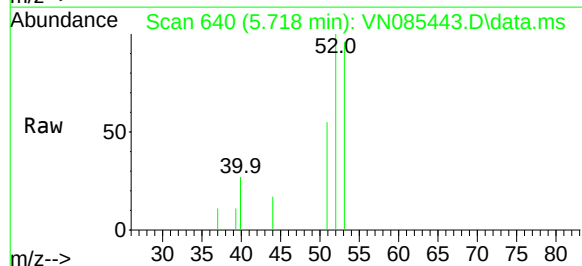
Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

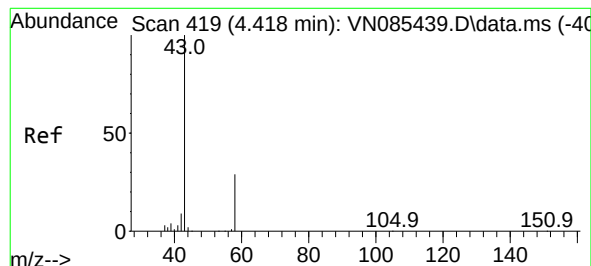
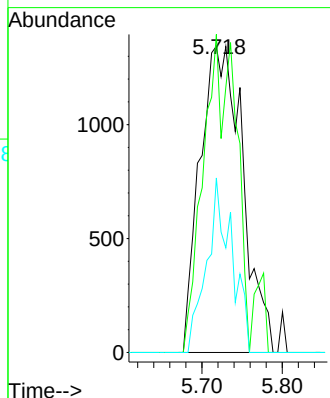
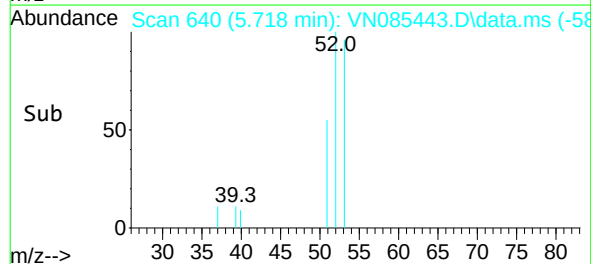
VSTDIC001



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 53    | Resp: | 4967  |
| Ion      | Ratio | Lower | Upper |
| 53       | 100   |       |       |
| 52       | 45.1  | 65.5  | 98.3  |
| 51       | 33.3  | 29.8  | 44.8  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#16

Acetone

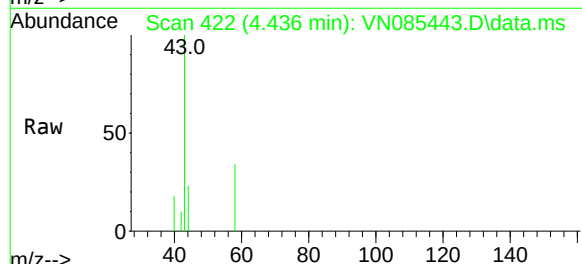
Concen: 5.862 ug/l

RT: 4.436 min Scan# 422

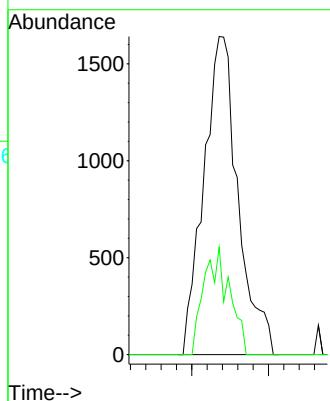
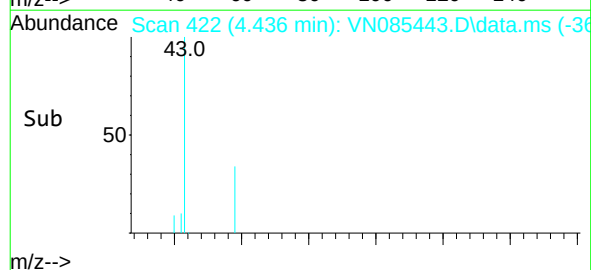
Delta R.T. 0.018 min

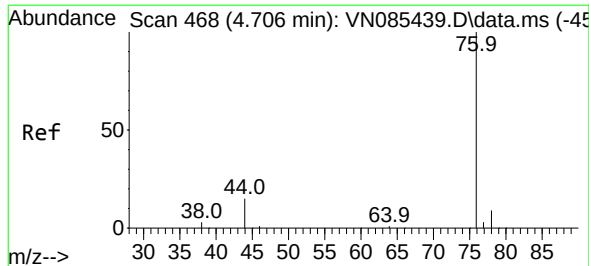
Lab File: VN085443.D

Acq: 14 Jan 2025 17:19



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 5102  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 33.8  | 23.8  | 35.6  |





#17

Carbon Disulfide

Concen: 1.197 ug/l

RT: 4.706 min Scan# 468

Delta R.T. -0.000 min

Lab File: VN085443.D

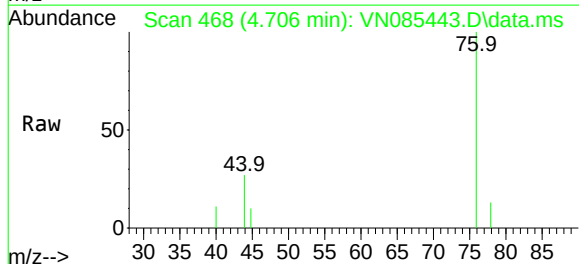
Acq: 14 Jan 2025 17:19

Instrument :

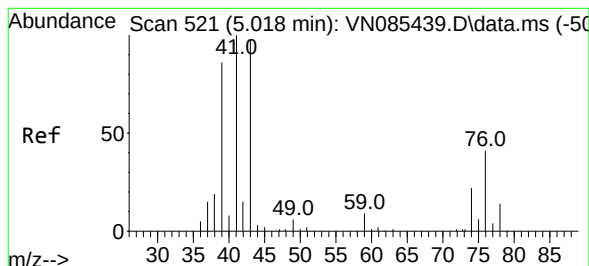
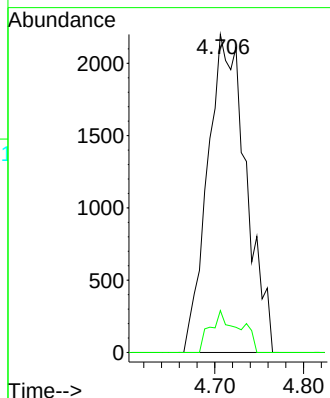
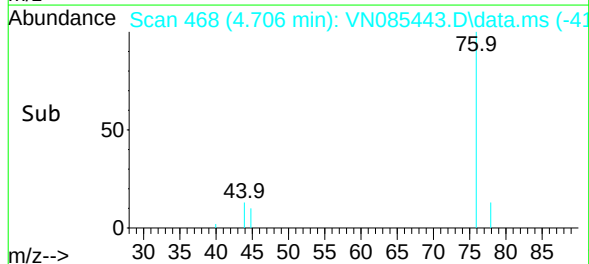
MSVOA\_N

ClientSampleId :

VSTDIC001



| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 76      | 100   |       |       |
| 78      | 13.2  | 6.9   | 10.3  |

Manual Integrations  
APPROVEDReviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

#18

Methyl Acetate

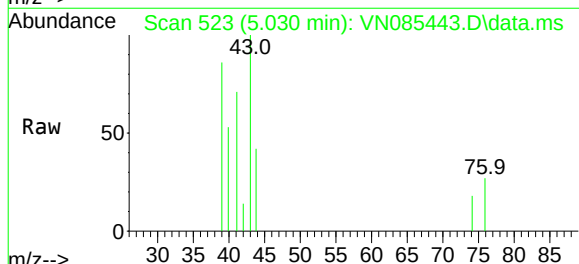
Concen: 1.099 ug/l

RT: 5.030 min Scan# 523

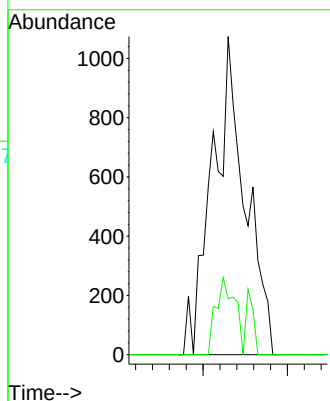
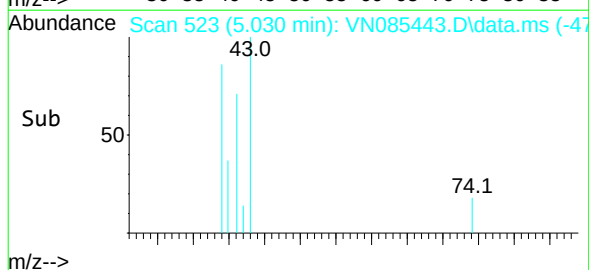
Delta R.T. 0.012 min

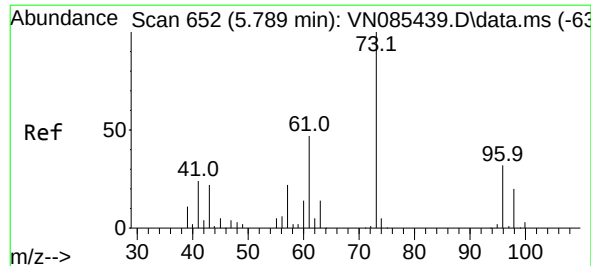
Lab File: VN085443.D

Acq: 14 Jan 2025 17:19



| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 74      | 13.8  | 18.6  | 28.0  |





#19

Methyl tert-butyl Ether

Concen: 0.887 ug/l

RT: 5.789 min Scan# 65

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 73 Resp: 5156

Ion Ratio Lower Upper

73 100

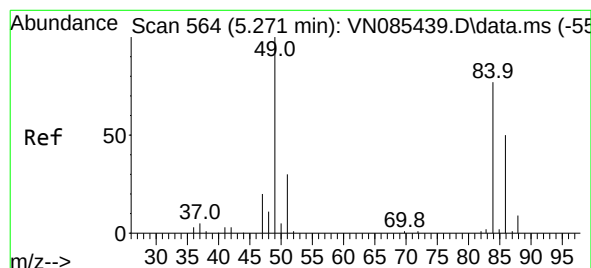
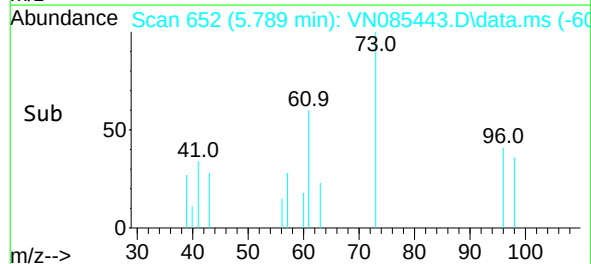
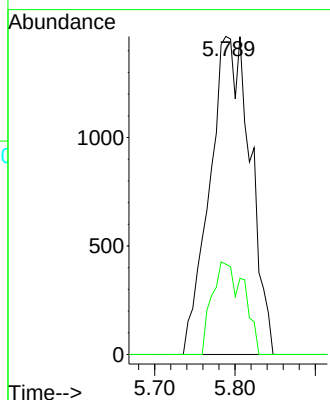
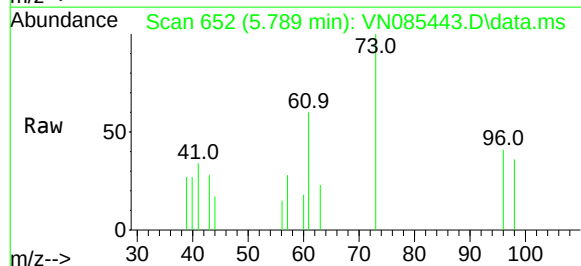
57 28.4 17.8 26.8#

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#20

Methylene Chloride

Concen: 1.016 ug/l

RT: 5.265 min Scan# 563

Delta R.T. -0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Tgt Ion: 84 Resp: 2190

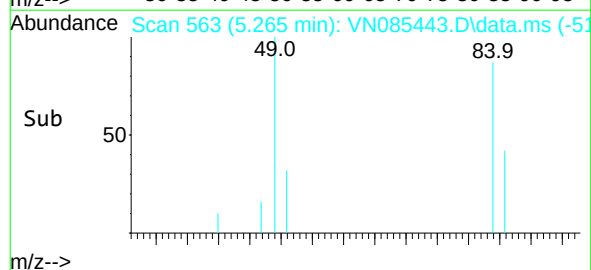
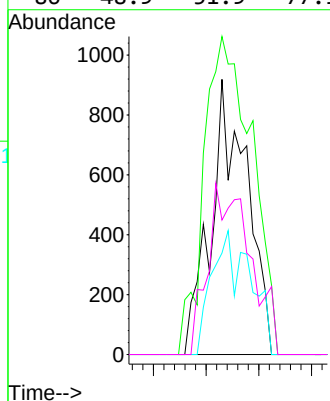
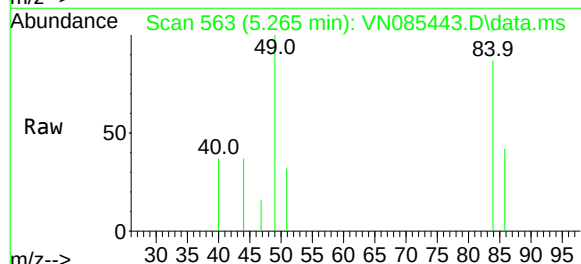
Ion Ratio Lower Upper

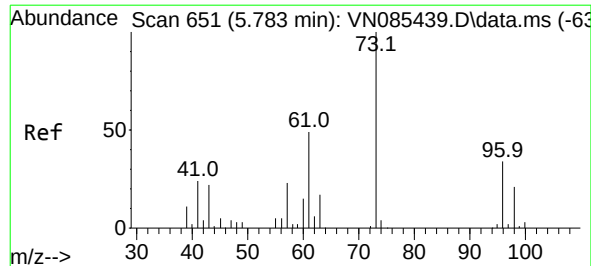
84 100

49 115.6 104.1 156.1

51 36.9 31.0 46.4

86 48.9 51.9 77.9#





#21

trans-1,2-Dichloroethene

Concen: 1.102 ug/l

RT: 5.794 min Scan# 651

Delta R.T. 0.012 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 96 Resp: 2110

Ion Ratio Lower Upper

96 100

61 98.7 115.7 173.5#

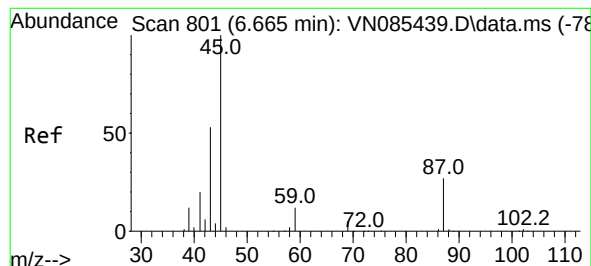
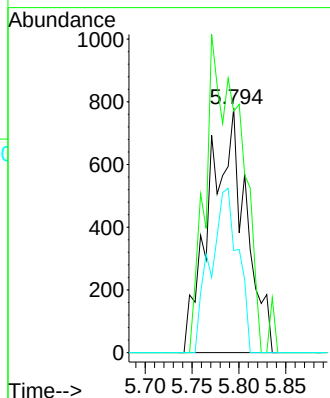
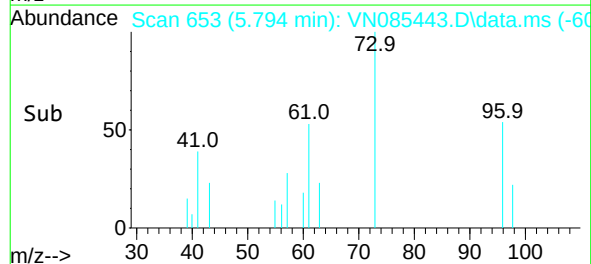
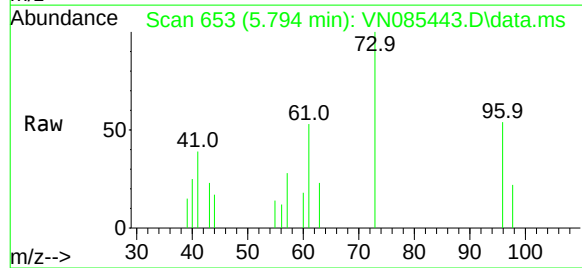
98 41.8 49.8 74.8#

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#22

Diisopropyl ether

Concen: 0.882 ug/l

RT: 6.677 min Scan# 803

Delta R.T. 0.012 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Tgt Ion: 45 Resp: 5691

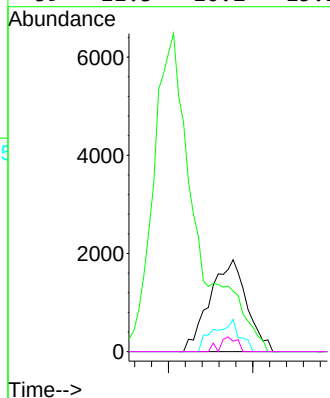
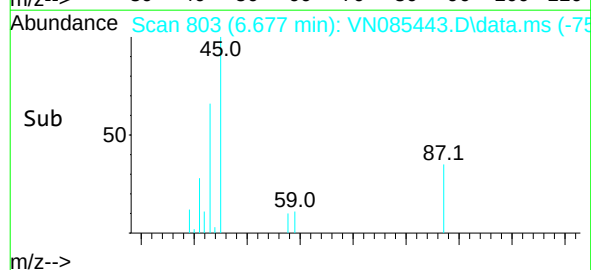
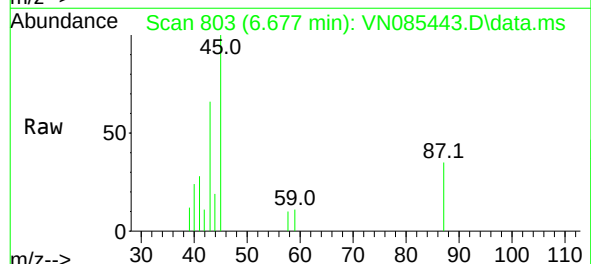
Ion Ratio Lower Upper

45 100

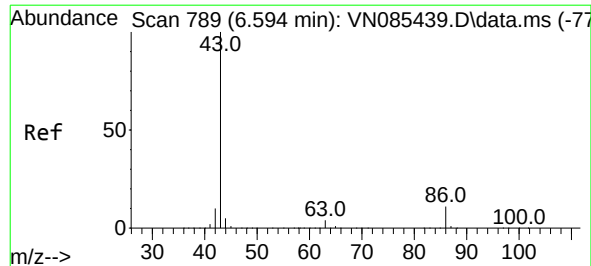
43 65.9 45.0 67.6

87 35.0 21.8 32.8#

59 11.3 10.2 15.2







#23

Vinyl Acetate

Concen: 4.090 ug/l m

RT: 6.606 min Scan# 791

Delta R.T. 0.012 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC001

Tgt Ion: 43 Resp: 18526

Ion Ratio Lower Upper

43 100

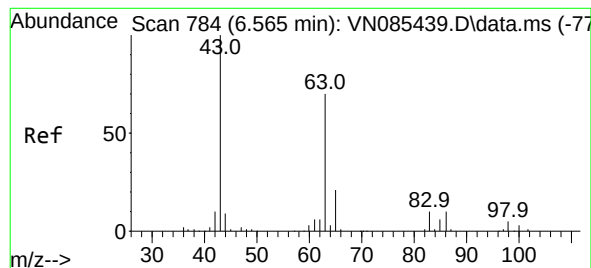
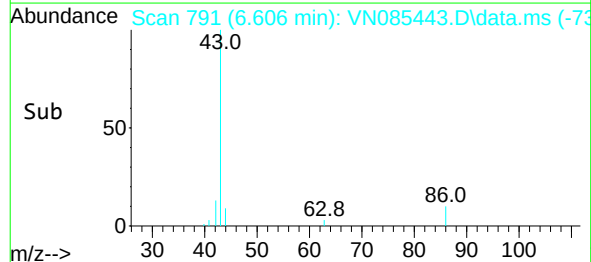
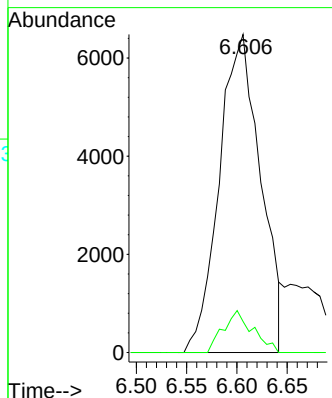
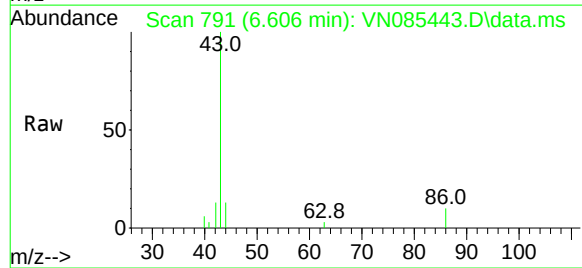
86 9.8 8.4 12.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#24

1,1-Dichloroethane

Concen: 1.022 ug/l m

RT: 6.583 min Scan# 787

Delta R.T. 0.018 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

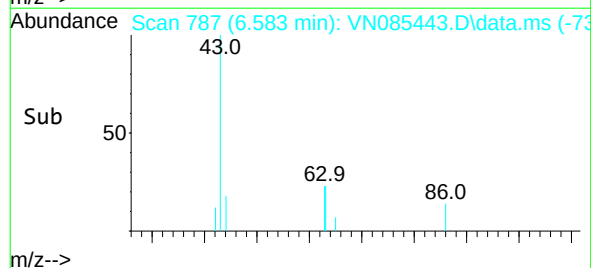
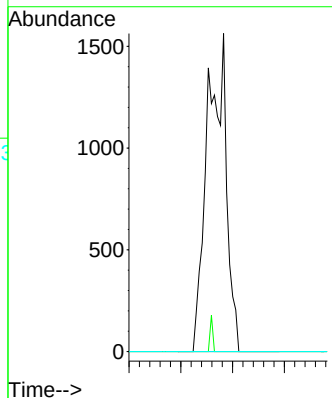
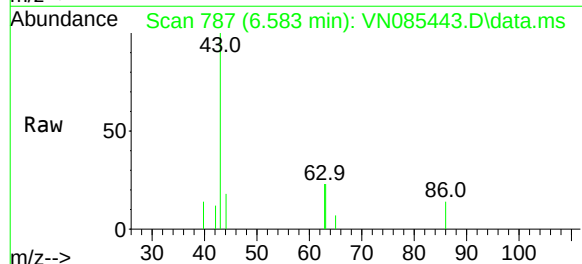
Tgt Ion: 63 Resp: 4020

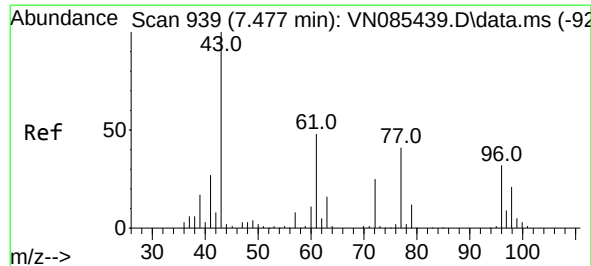
Ion Ratio Lower Upper

63 100

98 0.0 3.3 9.8#

100 0.0 2.0 6.0#





#25

2-Butanone

Concen: 5.034 ug/l m

RT: 7.483 min Scan# 940

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Tgt Ion: 43 Resp: 6448

Ion Ratio Lower Upper

43 100

72 18.0 20.2 30.4#

Instrument :

MSVOA\_N

ClientSampleId :

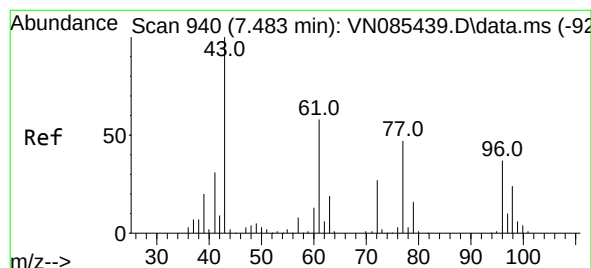
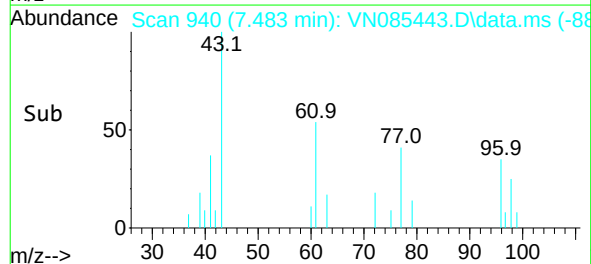
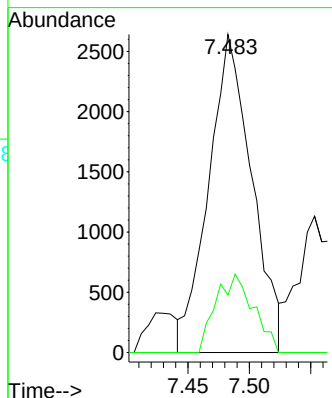
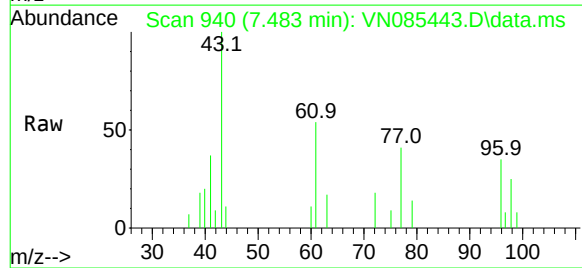
VSTDIC001

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#26

2,2-Dichloropropane

Concen: 0.976 ug/l

RT: 7.488 min Scan# 941

Delta R.T. 0.006 min

Lab File: VN085443.D

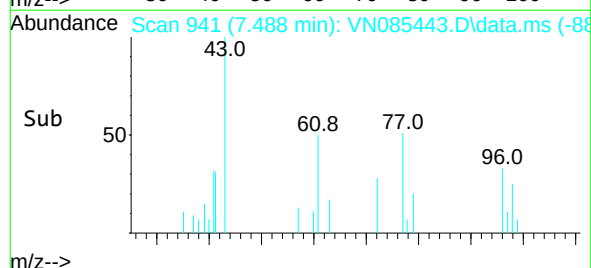
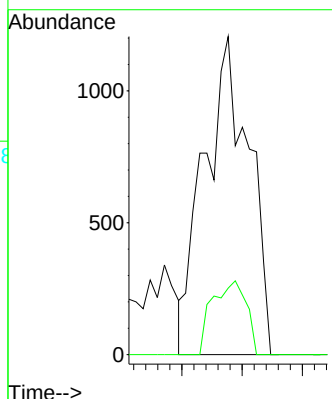
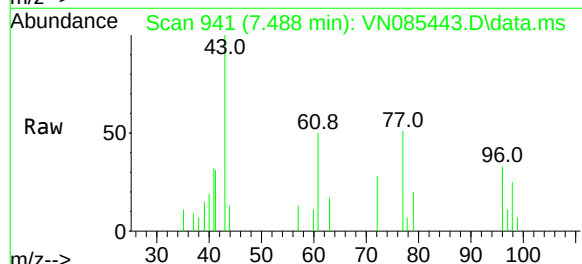
Acq: 14 Jan 2025 17:19

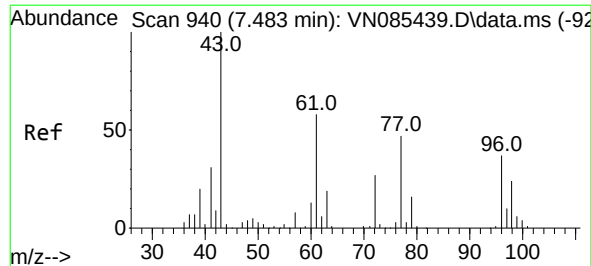
Tgt Ion: 77 Resp: 3104

Ion Ratio Lower Upper

77 100

97 17.7 10.7 32.1





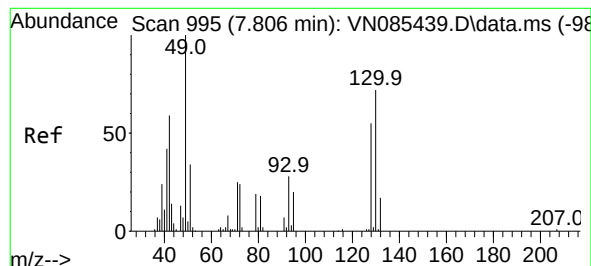
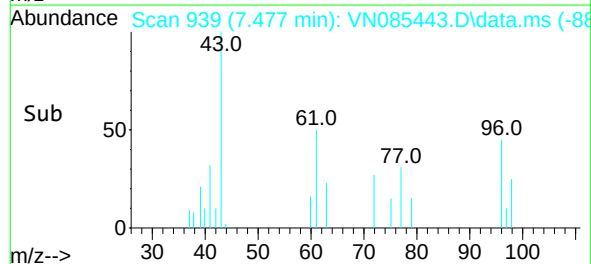
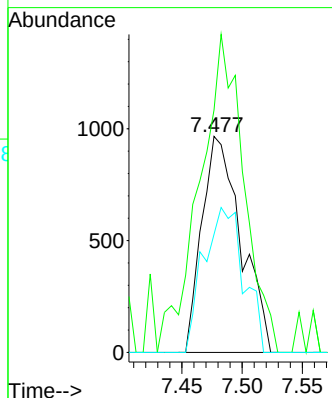
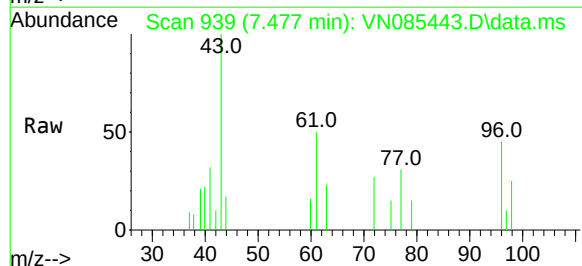
#27  
cis-1,2-Dichloroethene  
Concen: 0.969 ug/l  
RT: 7.477 min Scan# 935  
Delta R.T. -0.006 min  
Lab File: VN085443.D  
Acq: 14 Jan 2025 17:19

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 166.1 | 0.0   | 311.8 |
| 98      | 68.7  | 0.0   | 126.0 |

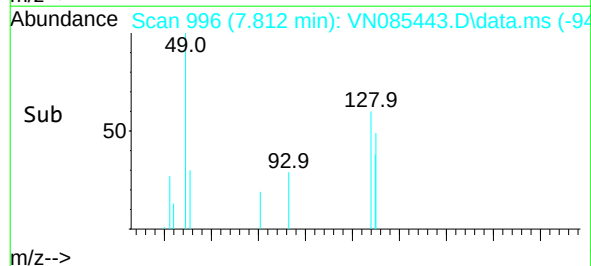
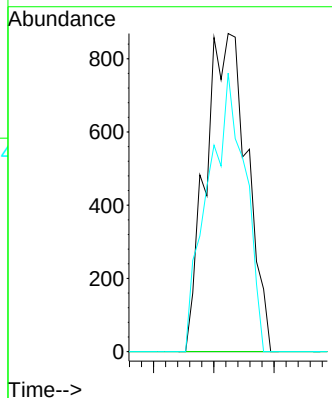
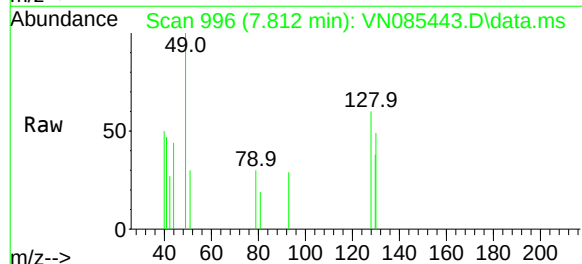
Manual Integrations  
APPROVED

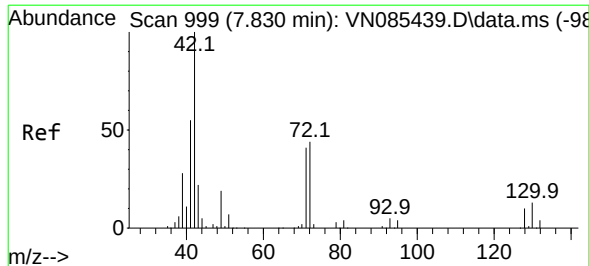
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#28  
Bromochloromethane  
Concen: 1.138 ug/l  
RT: 7.812 min Scan# 996  
Delta R.T. 0.006 min  
Lab File: VN085443.D  
Acq: 14 Jan 2025 17:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 49      | 100   |       |       |
| 129     | 0.0   | 0.0   | 4.4   |
| 130     | 78.0  | 55.0  | 82.4  |





#29

Tetrahydrofuran

Concen: 4.548 ug/l

RT: 7.835 min Scan# 10

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

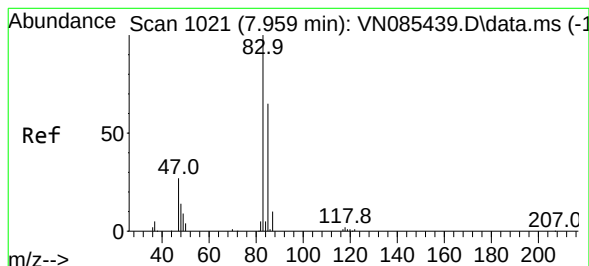
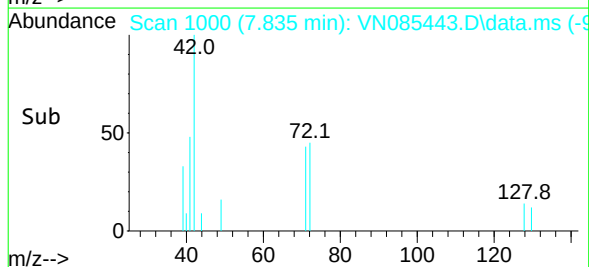
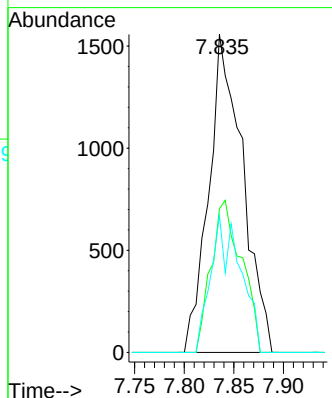
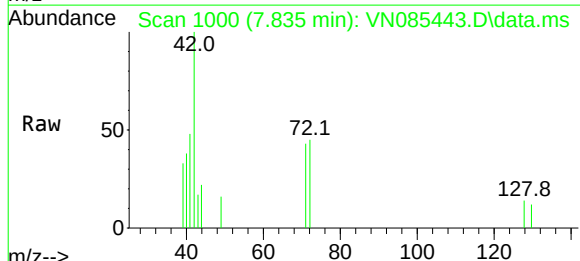
VSTDIC001

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 3693  |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 43.1  | 34.2  | 51.2  |
| 71       | 37.9  | 32.5  | 48.7  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#30

Chloroform

Concen: 1.045 ug/l

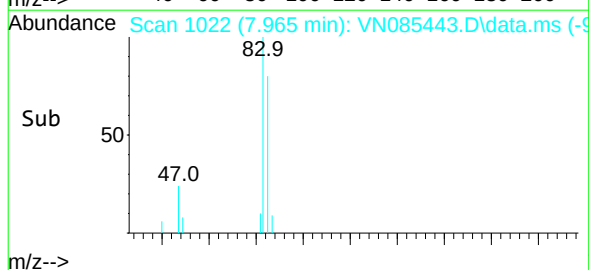
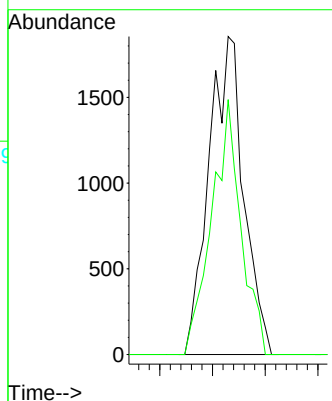
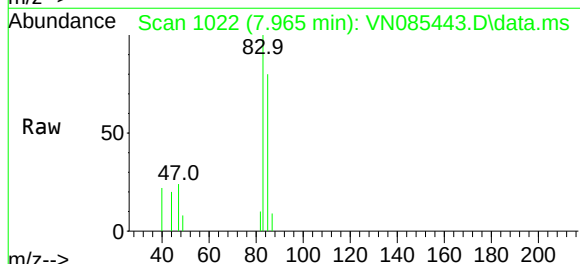
RT: 7.965 min Scan# 1022

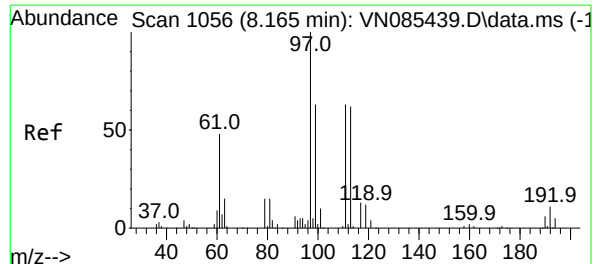
Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

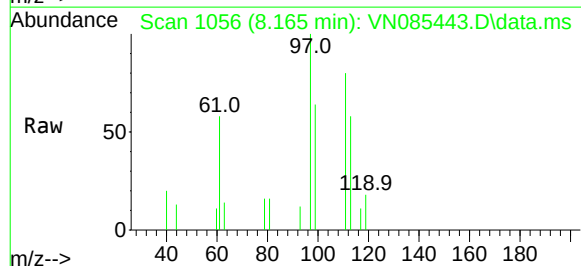
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 4250  |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 80.2  | 51.8  | 77.6  |





#32  
1,1,1-Trichloroethane  
Concen: 1.031 ug/l  
RT: 8.165 min Scan# 10  
Delta R.T. -0.000 min  
Lab File: VN085443.D  
Acq: 14 Jan 2025 17:19

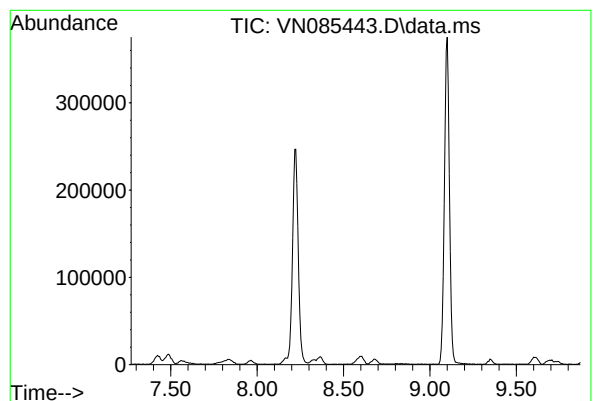
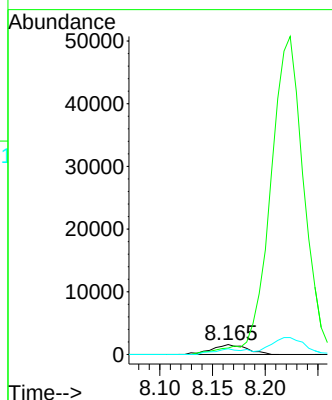
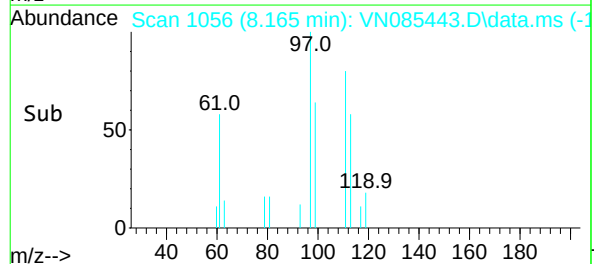
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001



Tgt Ion: 97 Resp: 3678  
Ion Ratio Lower Upper  
97 100  
99 0.0 49.8 74.6#  
61 52.2 41.4 62.2

Manual Integrations  
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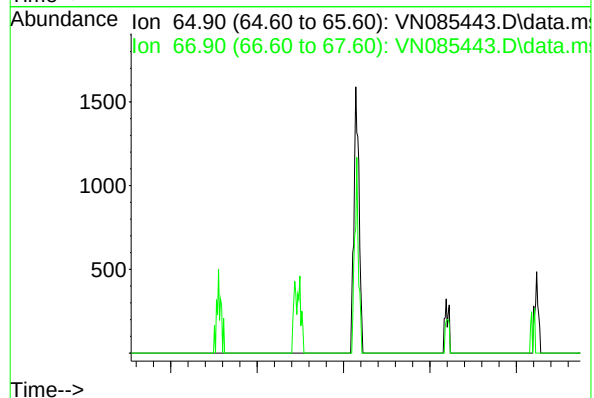
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

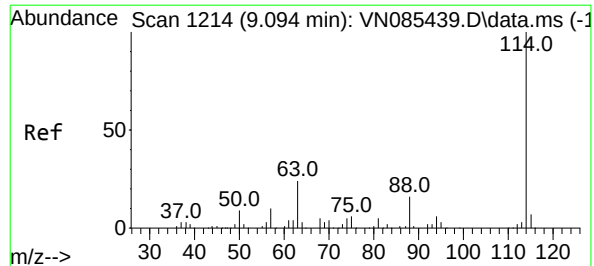


#33  
1,2-Dichloroethane-d4  
Concen: 0.000 ug/l  
Expected RT: 8.57 min

Lab File: VN085443.D  
Acq: 14 Jan 2025 17:19

Tgt Ion: 65  
Sig Exp Ratio  
65 100  
67 50.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 12

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion:114 Resp: 302938

Ion Ratio Lower Upper

114 100

63 22.3 0.0 47.6

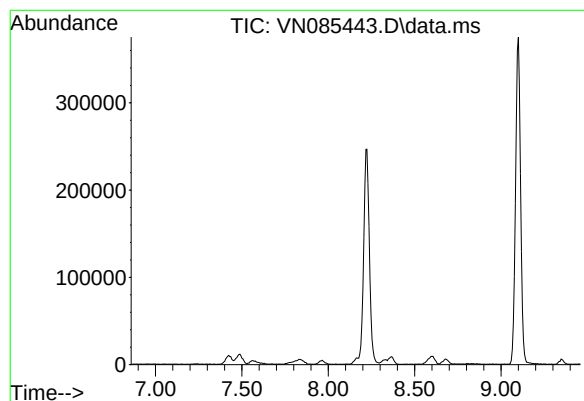
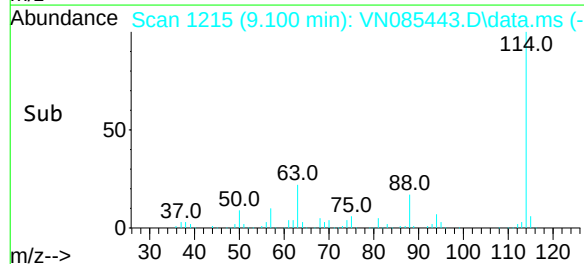
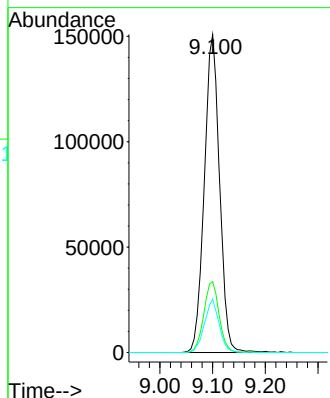
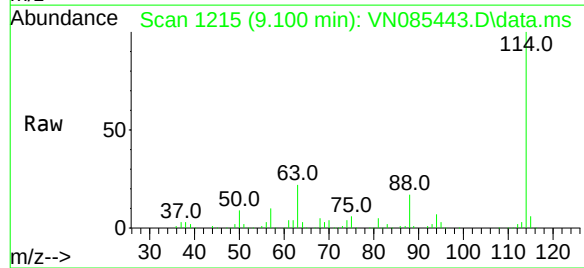
88 16.8 0.0 32.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#35

Dibromofluoromethane

Concen: 0.000 ug/l

Expected RT: 8.16 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

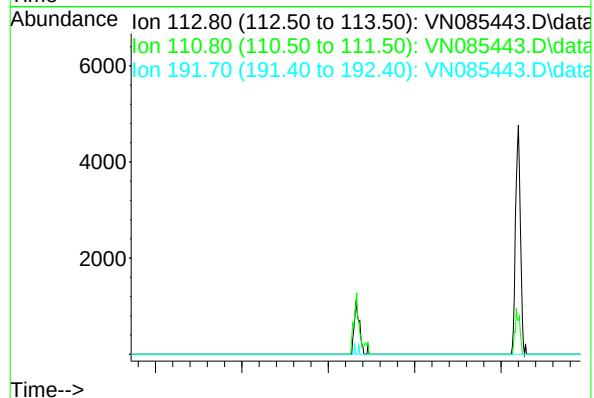
Tgt Ion: 113

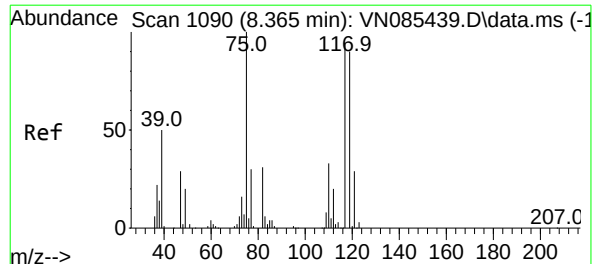
Sig Exp Ratio

113 100

111 103.4

192 17.9





#36

1,1-Dichloropropene

Concen: 1.046 ug/l

RT: 8.371 min Scan# 1091

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC001

Tgt Ion: 75 Resp: 3084

Ion Ratio Lower Upper

75 100

110 30.1 16.5 49.5

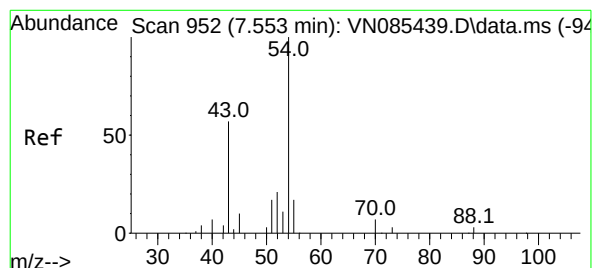
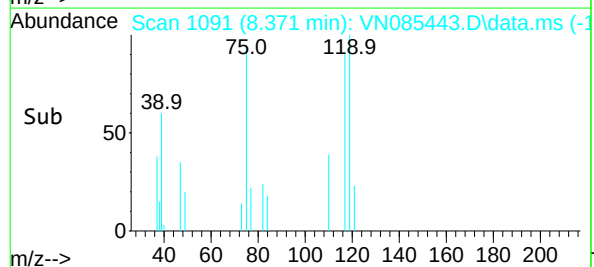
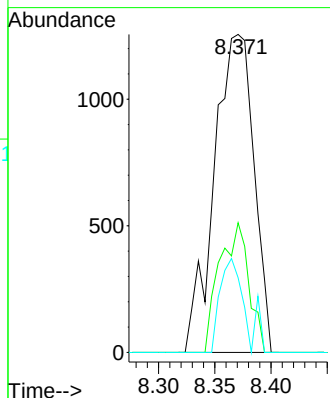
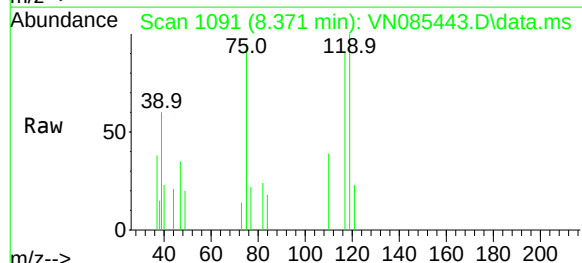
77 15.9 24.4 36.6#

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#37

Ethyl Acetate

Concen: 1.026 ug/l m

RT: 7.577 min Scan# 956

Delta R.T. 0.023 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

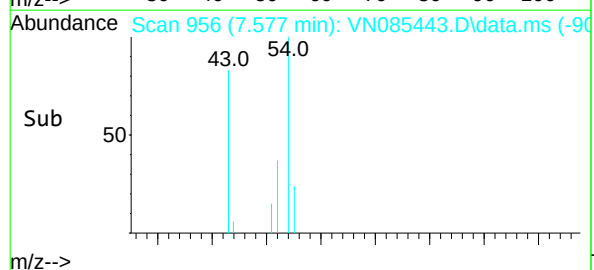
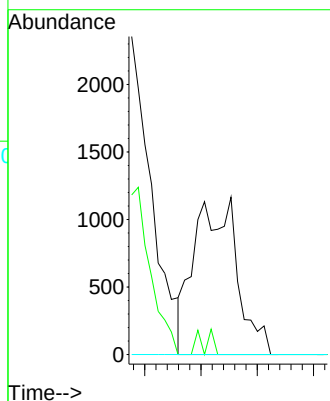
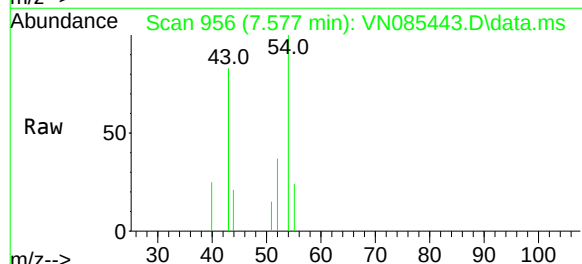
Tgt Ion: 43 Resp: 3056

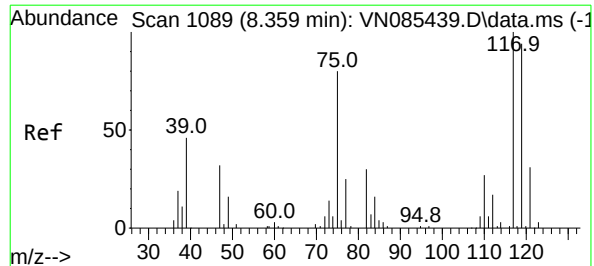
Ion Ratio Lower Upper

43 100

61 4.3 10.9 16.3#

70 0.0 7.5 11.3#





#38

Carbon Tetrachloride

Concen: 1.018 ug/l

RT: 8.359 min Scan# 1089

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 117 Resp: 3436

Ion Ratio Lower Upper

117 100

119 106.6 75.4 113.2

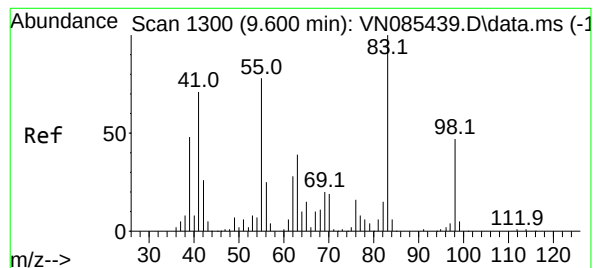
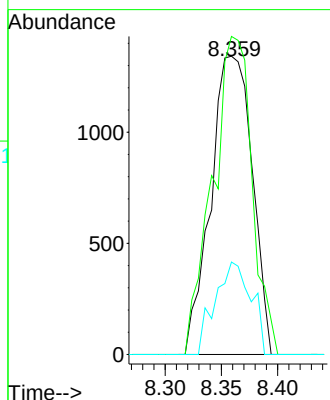
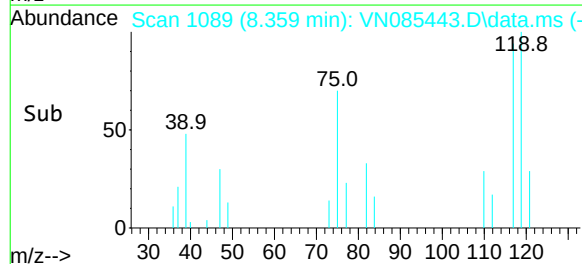
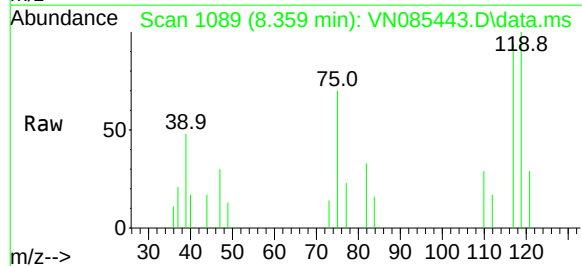
121 31.0 24.6 37.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#39

Methylcyclohexane

Concen: 0.867 ug/l

RT: 9.600 min Scan# 1300

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

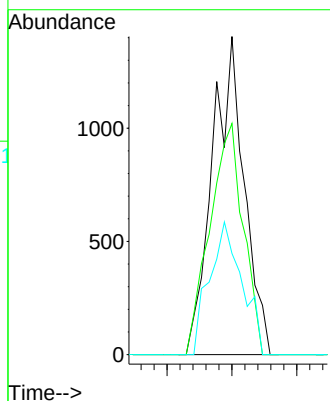
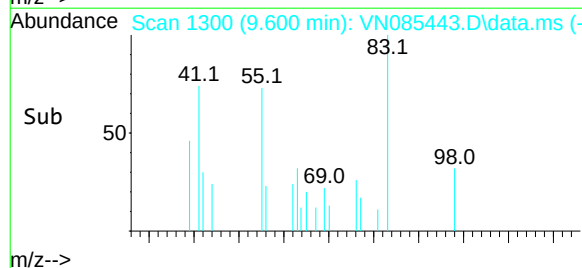
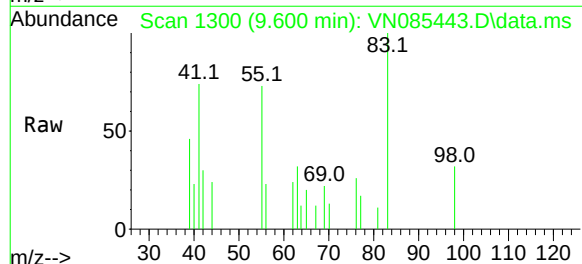
Tgt Ion: 83 Resp: 2403

Ion Ratio Lower Upper

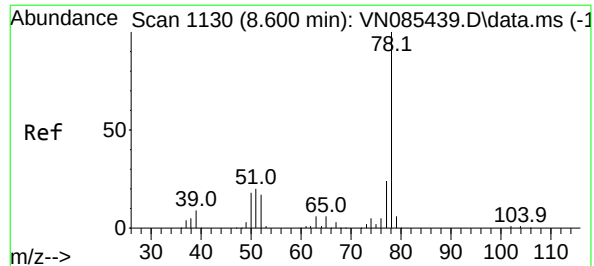
83 100

55 72.7 62.6 94.0

98 31.8 37.7 56.5#







#40

Benzene

Concen: 0.957 ug/l

RT: 8.606 min Scan# 11

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 78 Resp: 8480

Ion Ratio Lower Upper

78 100

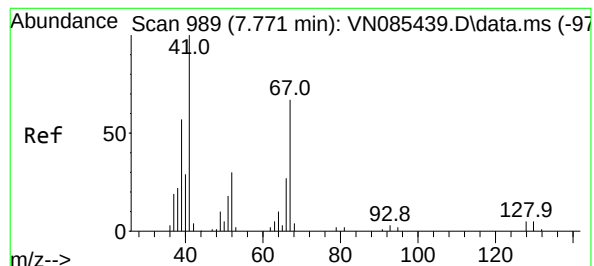
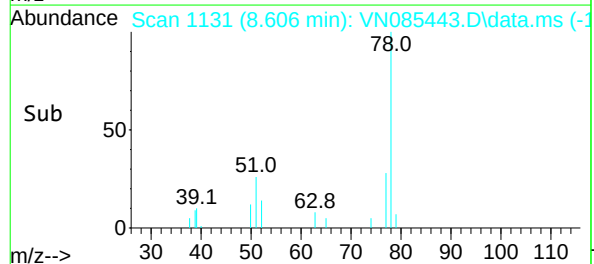
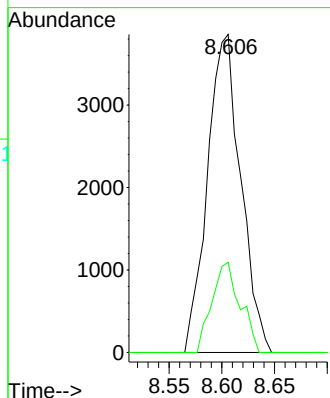
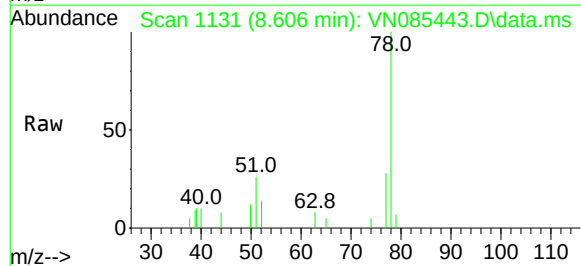
77 28.3 19.0 28.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#41

Methacrylonitrile

Concen: 0.941 ug/l

RT: 7.771 min Scan# 989

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Tgt Ion: 41 Resp: 1458

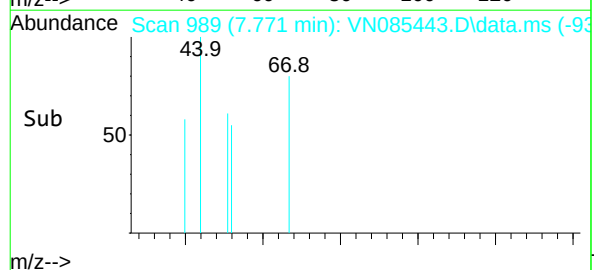
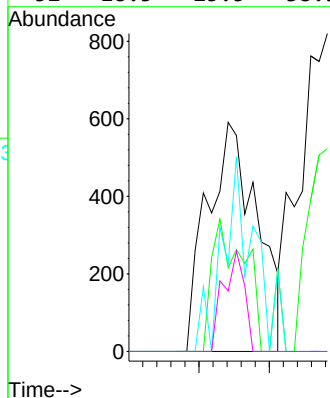
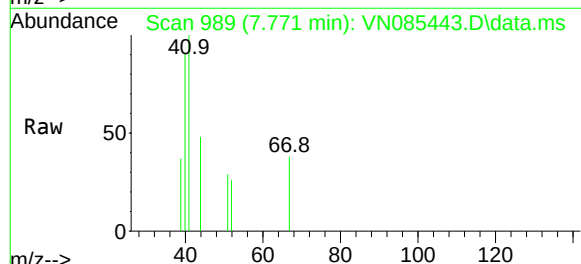
Ion Ratio Lower Upper

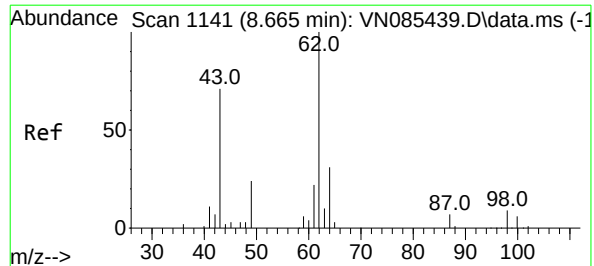
41 100

39 37.6 46.0 69.0#

67 53.8 57.4 86.2#

52 18.5 25.5 38.3#





#42

1,2-Dichloroethane

Concen: 0.938 ug/l

RT: 8.665 min Scan# 1141

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 62 Resp: 3131

Ion Ratio Lower Upper

62 100

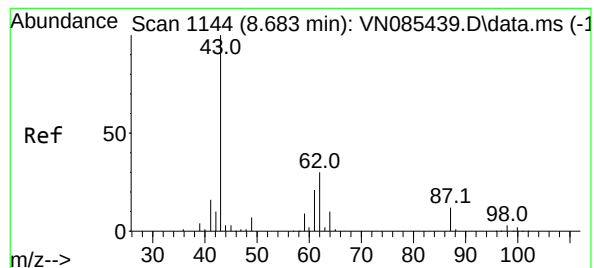
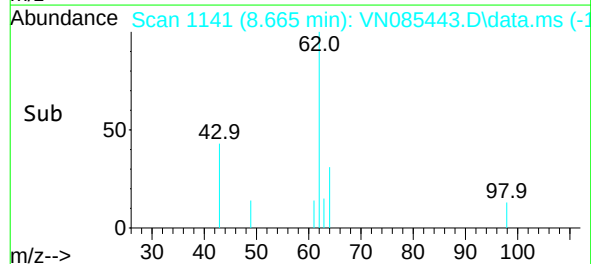
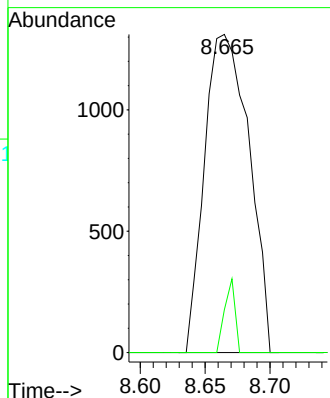
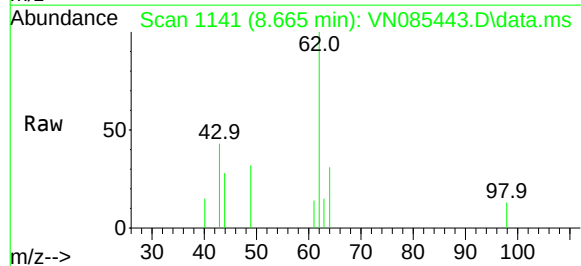
98 5.4 0.0 17.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#43

Isopropyl Acetate

Concen: 1.007 ug/l

RT: 8.682 min Scan# 1144

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

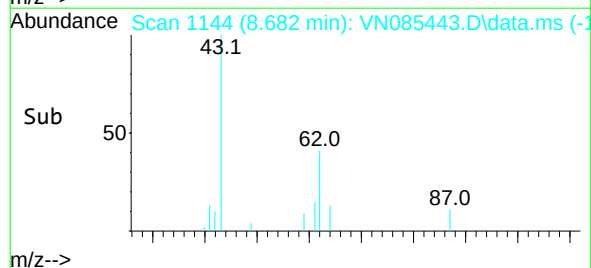
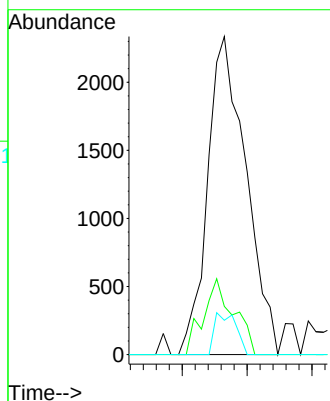
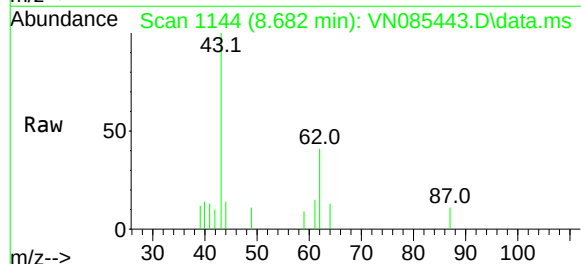
Tgt Ion: 43 Resp: 4803

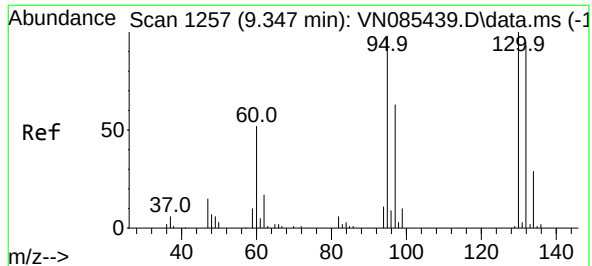
Ion Ratio Lower Upper

43 100

61 18.9 20.7 31.1#

87 7.3 9.8 14.8#





#44

Trichloroethene

Concen: 1.034 ug/l

RT: 9.347 min Scan# 1257

Delta R.T. -0.000 min

Lab File: VN085443.D

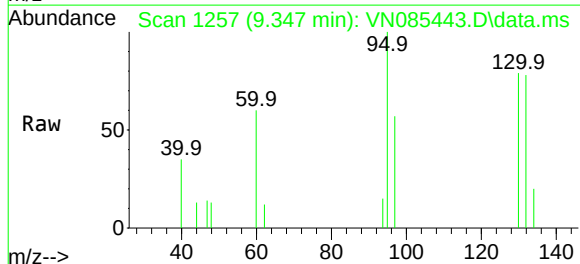
Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001



Tgt Ion:130 Resp: 2133

Ion Ratio Lower Upper

130 100

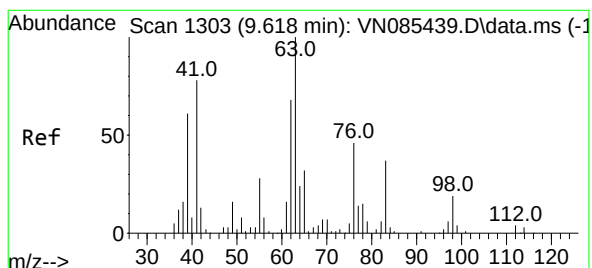
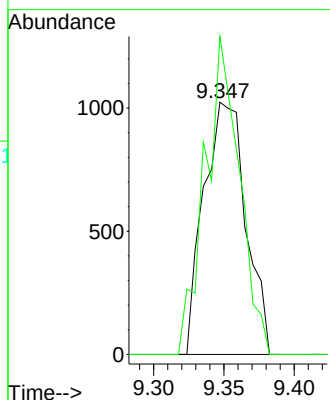
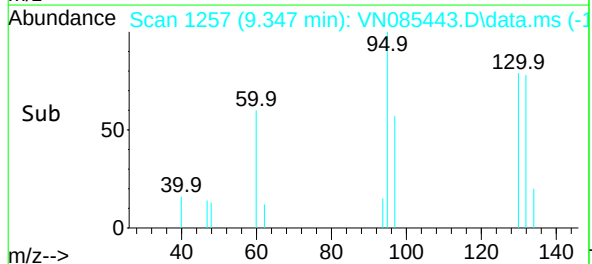
95 126.1 0.0 195.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#45

1,2-Dichloropropane

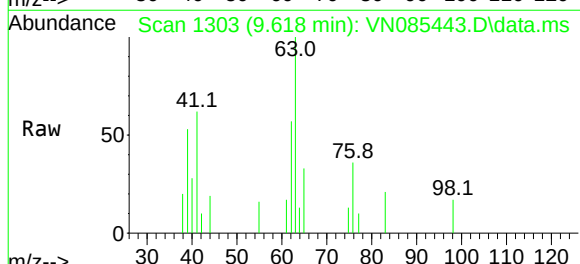
Concen: 0.992 ug/l

RT: 9.618 min Scan# 1303

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

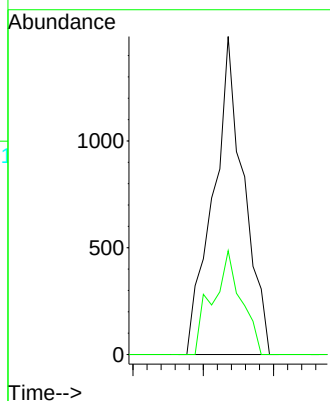
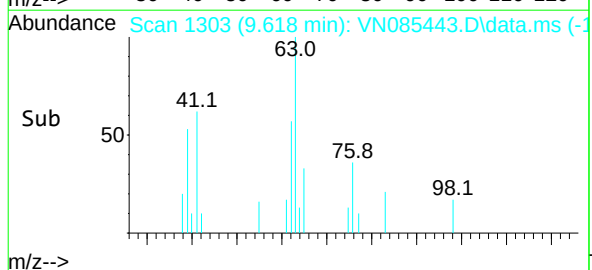


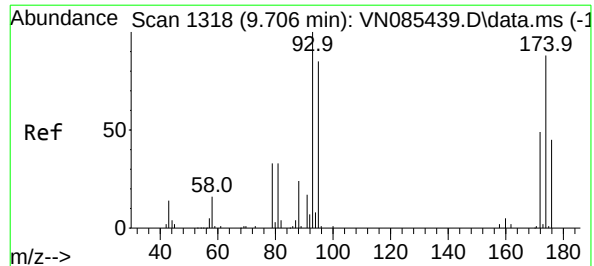
Tgt Ion: 63 Resp: 2246

Ion Ratio Lower Upper

63 100

65 32.6 25.6 38.4





#46

Dibromomethane

Concen: 1.083 ug/l

RT: 9.706 min Scan# 1318

Delta R.T. -0.000 min

Lab File: VN085443.D

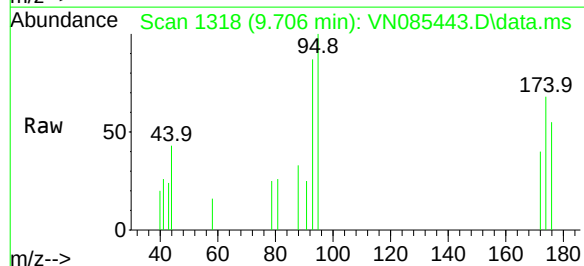
Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

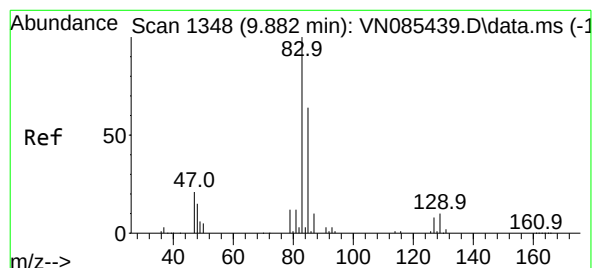
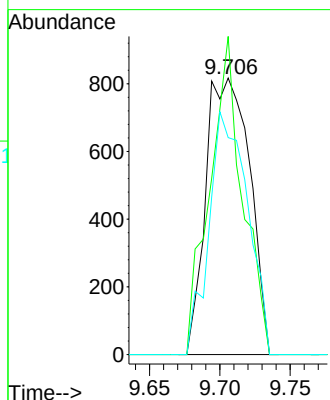
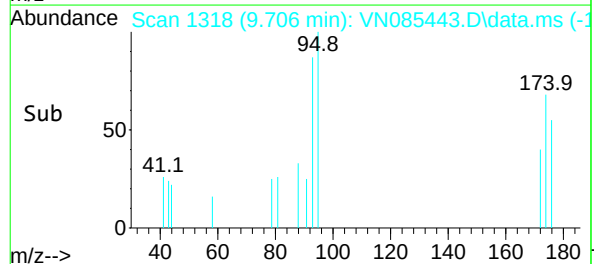
VSTDIC001



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 93    | Resp: | 1769  |
| Ion      | Ratio | Lower | Upper |
| 93       | 100   |       |       |
| 95       | 86.5  | 64.7  | 97.1  |
| 174      | 77.4  | 69.0  | 103.4 |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#47

Bromodichloromethane

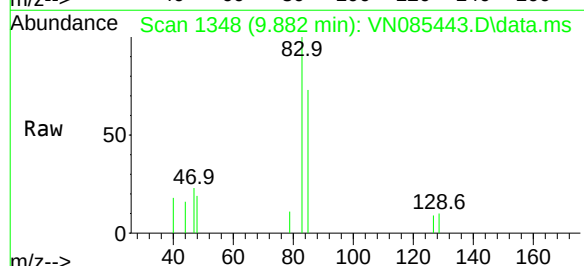
Concen: 0.882 ug/l

RT: 9.882 min Scan# 1348

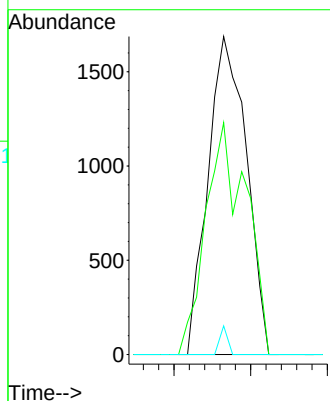
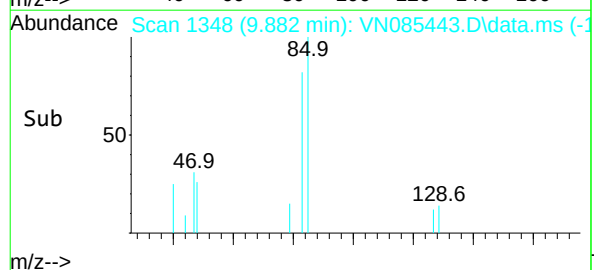
Delta R.T. 0.000 min

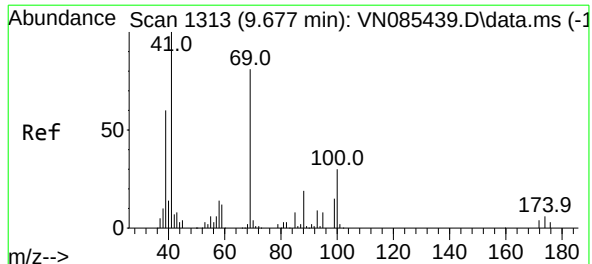
Lab File: VN085443.D

Acq: 14 Jan 2025 17:19



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 2935  |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 72.9  | 51.2  | 76.8  |
| 127      | 9.0   | 6.5   | 9.7   |





#48

Methyl methacrylate

Concen: 0.878 ug/l

RT: 9.677 min Scan# 1313

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 41 Resp: 1886

Ion Ratio Lower Upper

41 100

69 76.2 64.7 97.1

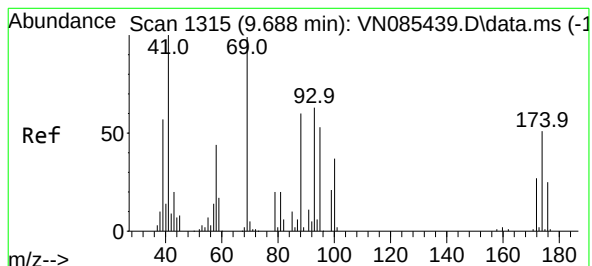
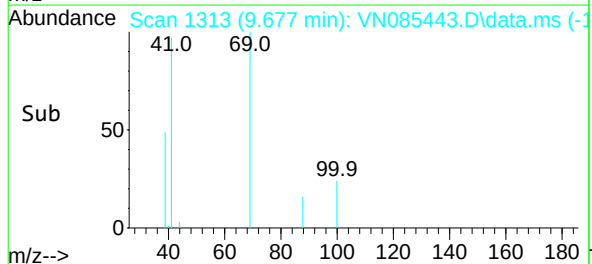
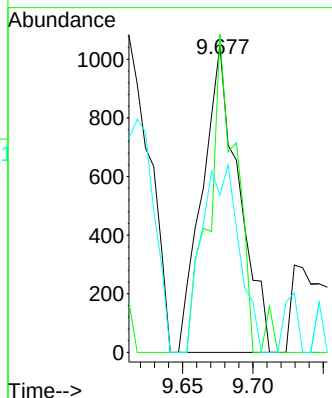
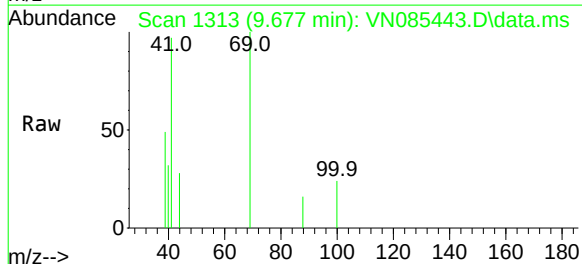
39 62.8 49.0 73.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#49

1,4-Dioxane

Concen: 18.616 ug/l

RT: 9.688 min Scan# 1315

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

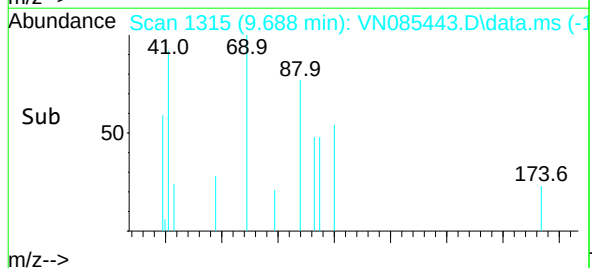
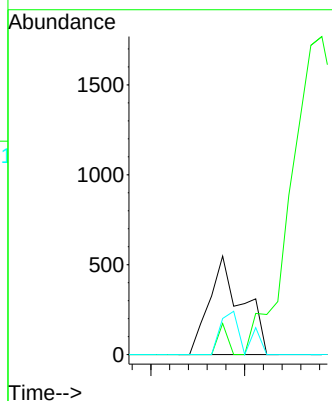
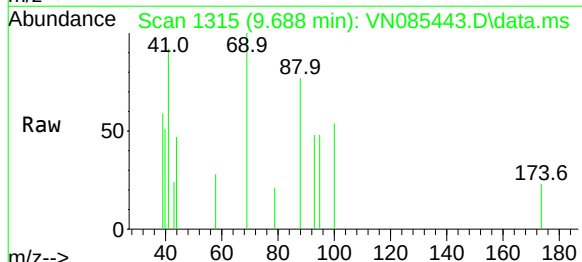
Tgt Ion: 88 Resp: 673

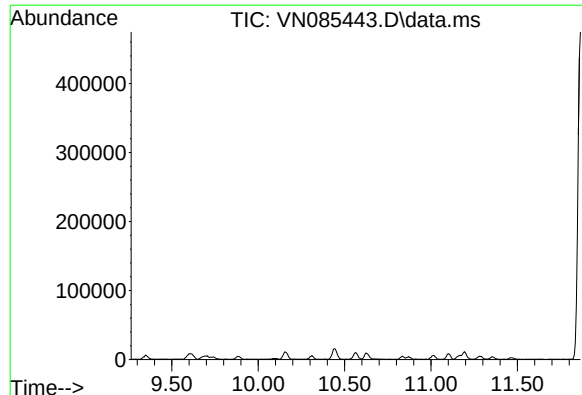
Ion Ratio Lower Upper

88 100

43 0.0 26.6 39.8#

58 31.1 59.5 89.3#





#50

Toluene-d8

Concen: 0.000 ug/l

Expected RT: 10.56 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Tgt Ion: 98

Sig Exp Ratio

|     |      |
|-----|------|
| 98  | 100  |
| 100 | 65.3 |

Instrument :

MSVOA\_N

ClientSampleId :

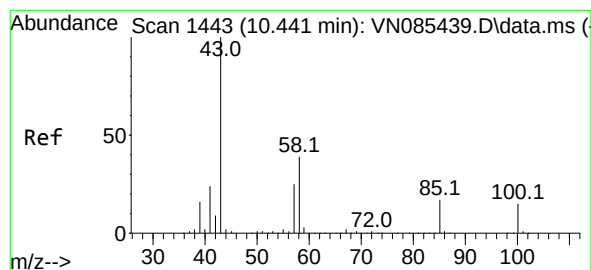
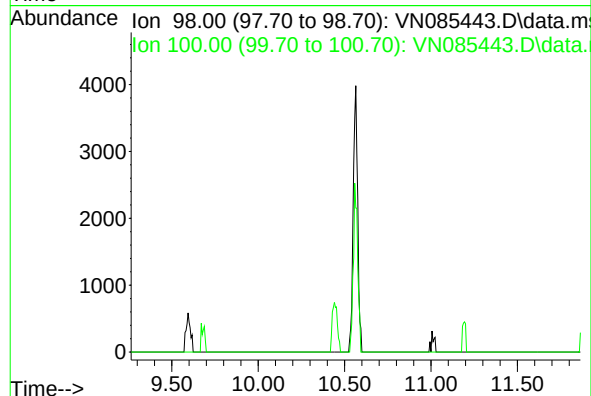
VSTDICC001

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#51

4-Methyl-2-Pentanone

Concen: 4.163 ug/l

RT: 10.441 min Scan# 1443

Delta R.T. 0.000 min

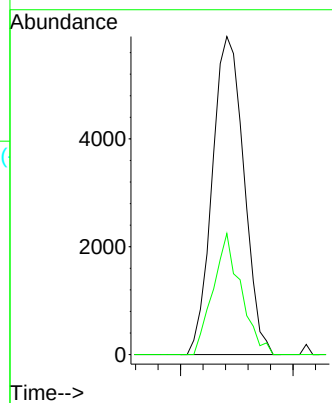
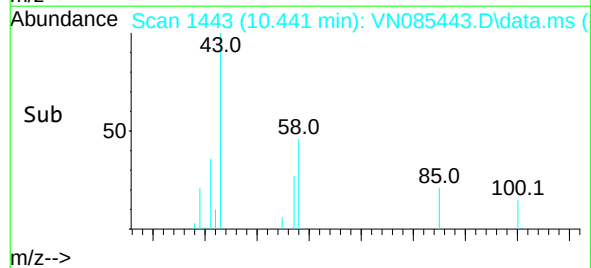
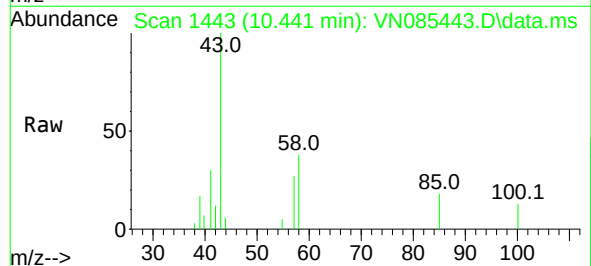
Lab File: VN085443.D

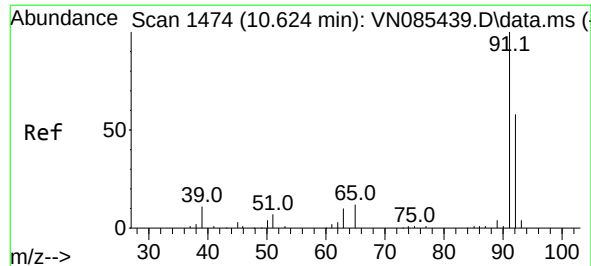
Acq: 14 Jan 2025 17:19

Tgt Ion: 43 Resp: 11523

Ion Ratio Lower Upper

|    |      |      |      |
|----|------|------|------|
| 43 | 100  |      |      |
| 58 | 33.6 | 30.5 | 45.7 |





#52

Toluene

Concen: 0.814 ug/l

RT: 10.618 min Scan# 1473

Delta R.T. -0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC001

Tgt Ion: 92 Resp: 4180

Ion Ratio Lower Upper

92 100

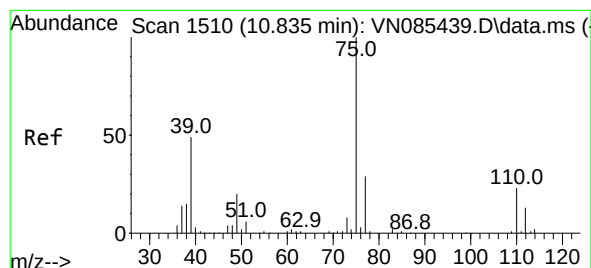
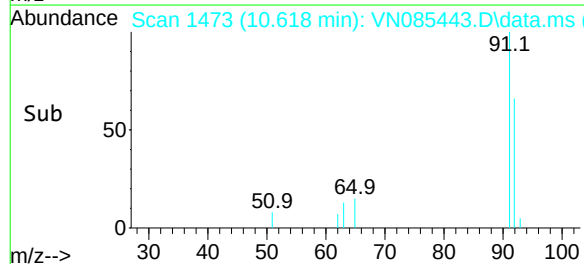
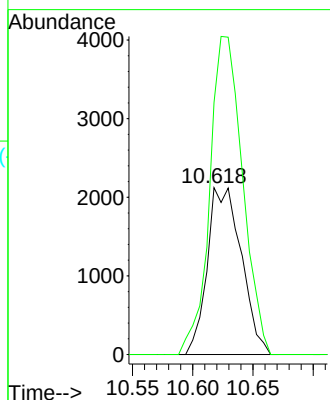
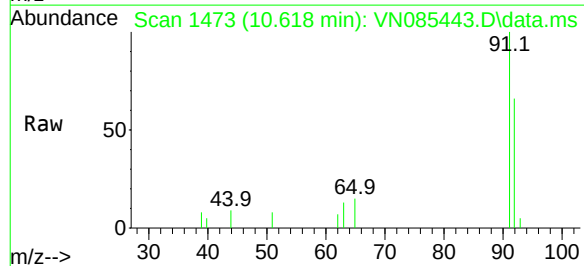
91 183.9 139.2 208.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#53

t-1,3-Dichloropropene

Concen: 0.802 ug/l

RT: 10.835 min Scan# 1510

Delta R.T. -0.000 min

Lab File: VN085443.D

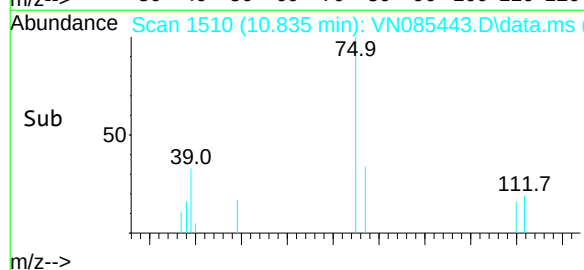
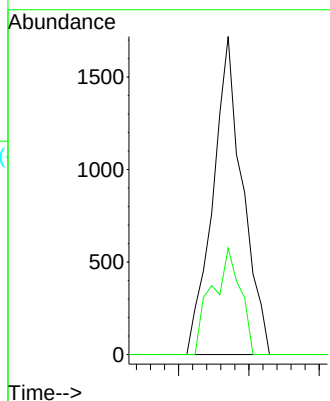
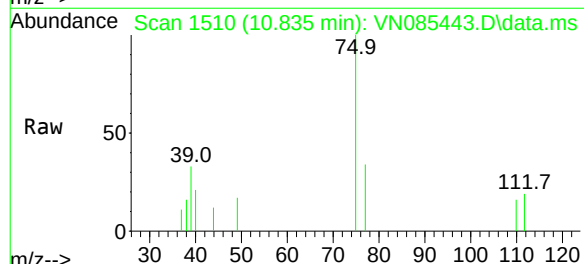
Acq: 14 Jan 2025 17:19

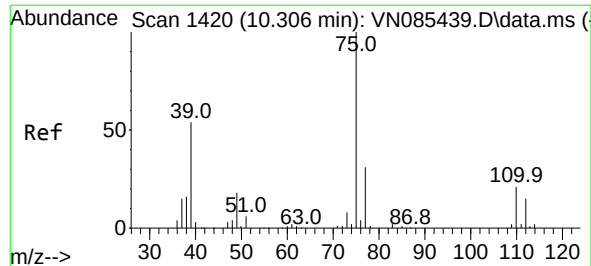
Tgt Ion: 75 Resp: 2522

Ion Ratio Lower Upper

75 100

77 33.5 23.5 35.3





#54

cis-1,3-Dichloropropene

Concen: 0.811 ug/l

RT: 10.312 min Scan# 14

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 75 Resp: 2725

Ion Ratio Lower Upper

75 100

77 39.0 25.0 37.4#

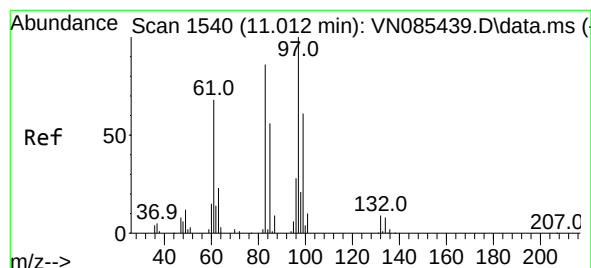
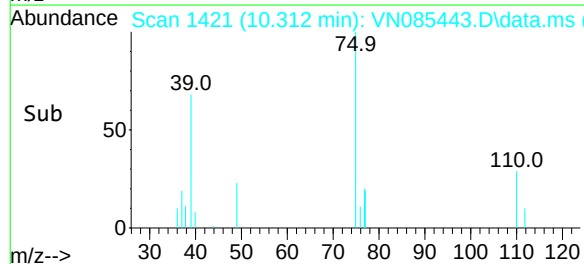
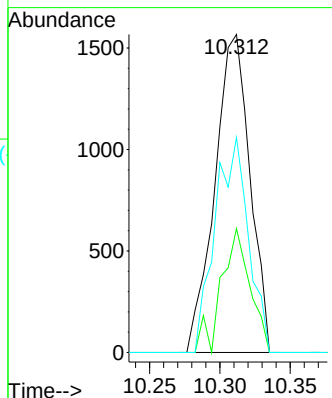
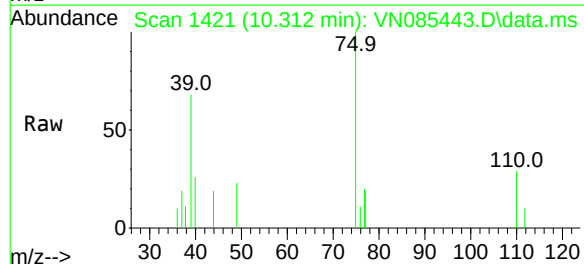
39 67.6 43.1 64.7#

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#55

1,1,2-Trichloroethane

Concen: 0.935 ug/l

RT: 11.018 min Scan# 1541

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Tgt Ion: 97 Resp: 1901

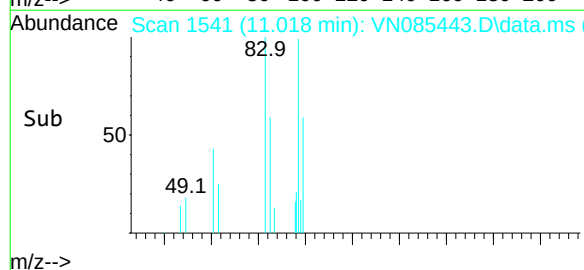
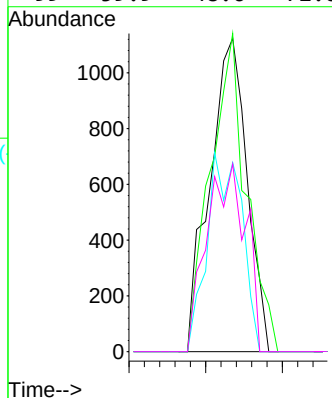
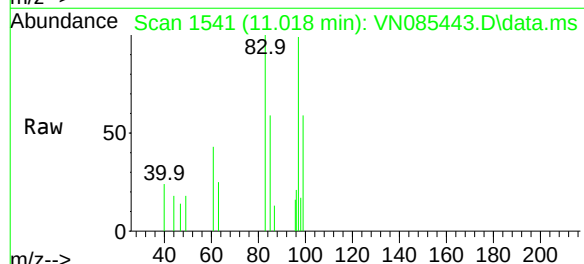
Ion Ratio Lower Upper

97 100

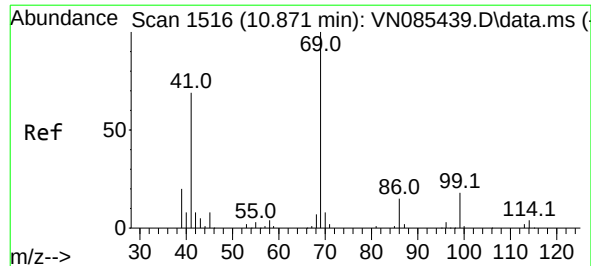
83 101.5 69.0 103.6

85 60.3 44.6 66.8

99 59.9 48.6 72.8







#56

Ethyl methacrylate

Concen: 2.471 ug/l

RT: 10.871 min Scan# 1516

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

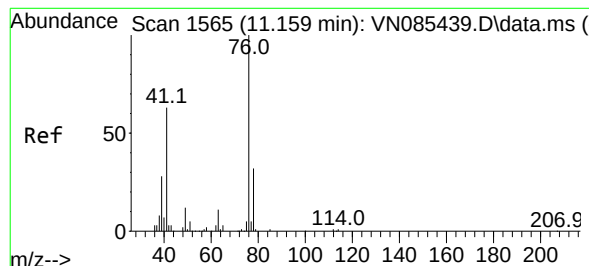
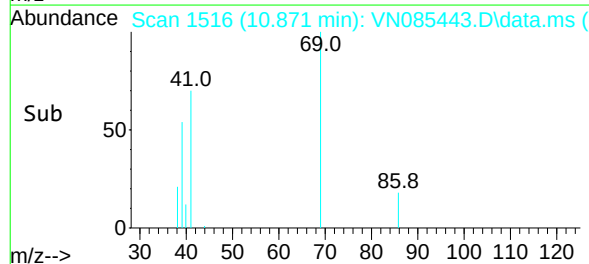
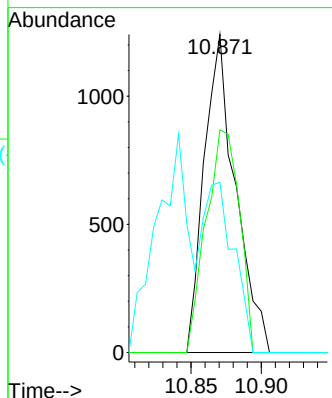
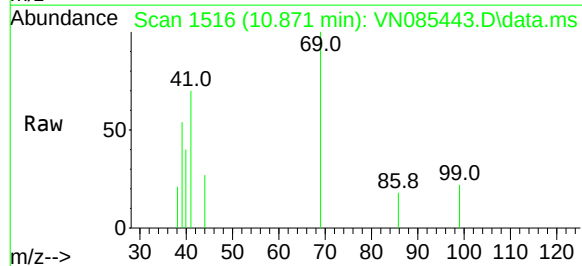
VSTDICC001

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 69    | Resp: | 1923  |
| Ion      | Ratio | Lower | Upper |
| 69       | 100   |       |       |
| 41       | 74.4  | 54.6  | 82.0  |
| 39       | 52.4  | 32.4  | 48.6  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#57

1,3-Dichloropropane

Concen: 0.881 ug/l

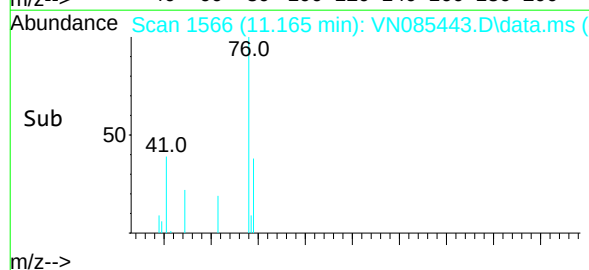
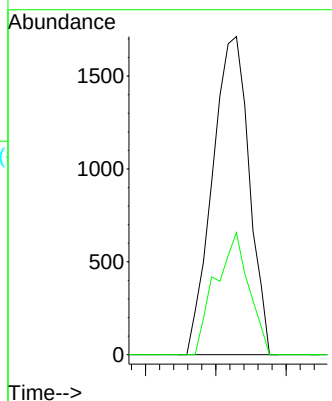
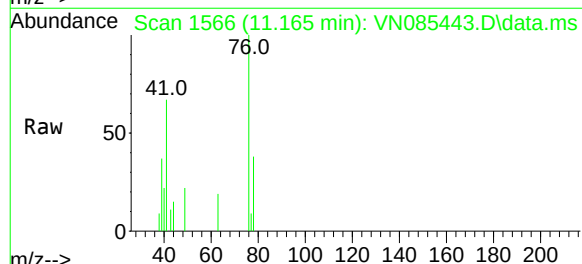
RT: 11.165 min Scan# 1566

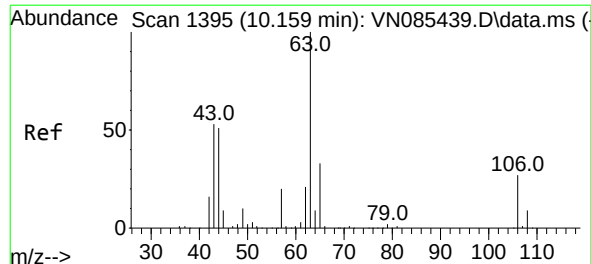
Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 76    | Resp: | 3113  |
| Ion      | Ratio | Lower | Upper |
| 76       | 100   |       |       |
| 78       | 34.9  | 25.6  | 38.4  |





#58

2-Chloroethyl Vinyl ether

Concen: 3.822 ug/l

RT: 10.153 min Scan# 1395

Delta R.T. -0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 63 Resp: 4929

Ion Ratio Lower Upper

63 100

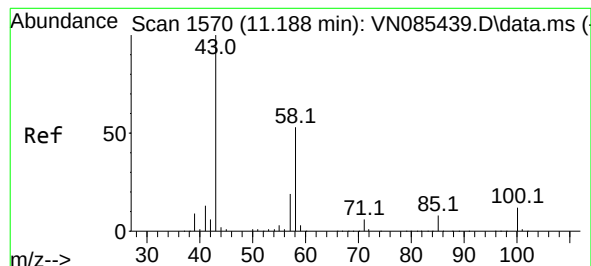
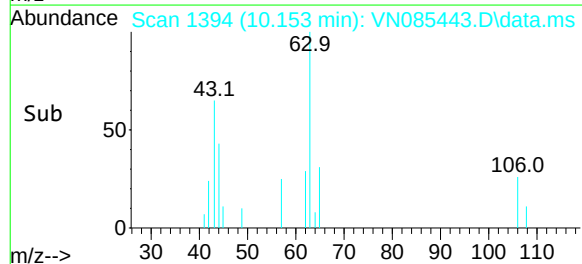
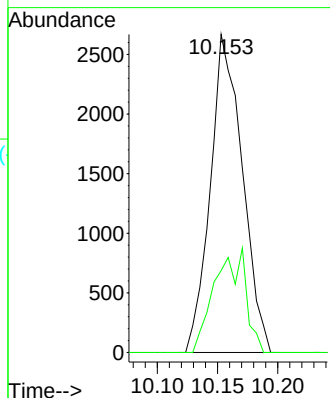
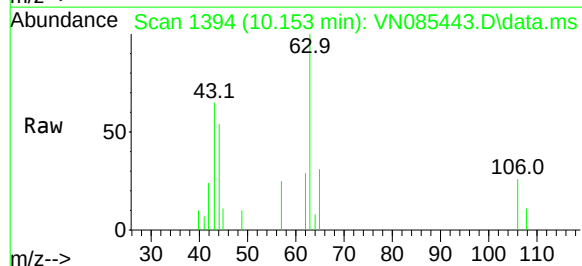
106 31.7 21.6 32.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#59

2-Hexanone

Concen: 4.058 ug/l

RT: 11.194 min Scan# 1571

Delta R.T. 0.006 min

Lab File: VN085443.D

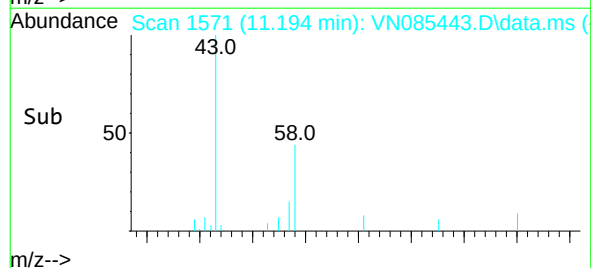
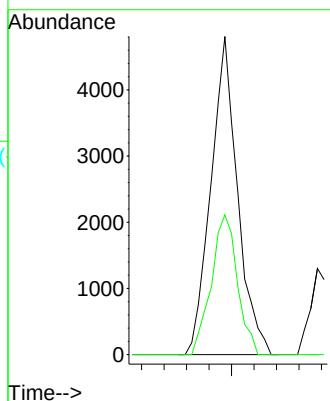
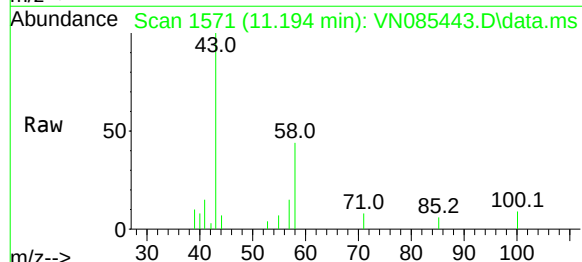
Acq: 14 Jan 2025 17:19

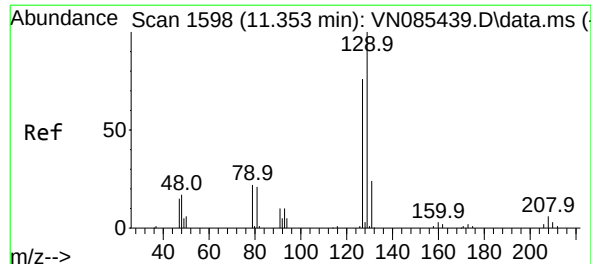
Tgt Ion: 43 Resp: 7905

Ion Ratio Lower Upper

43 100

58 42.9 26.2 78.6





#60

Dibromochloromethane

Concen: 0.953 ug/l

RT: 11.359 min Scan# 1598

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Tgt Ion:129 Resp: 2339

Ion Ratio Lower Upper

129 100

127 78.9 38.6 115.8

Instrument :

MSVOA\_N

ClientSampleId :

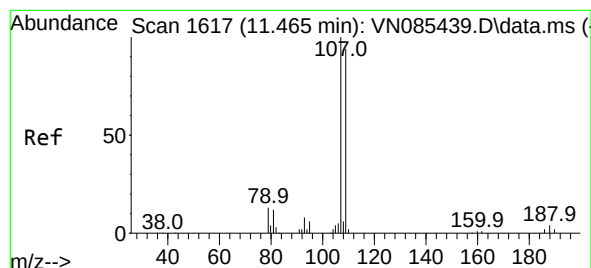
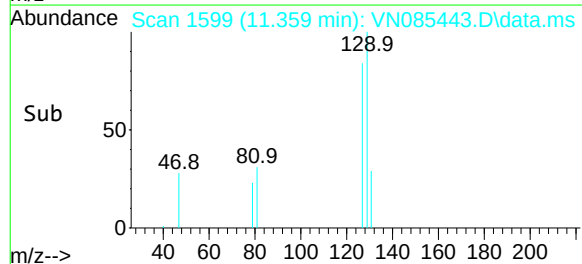
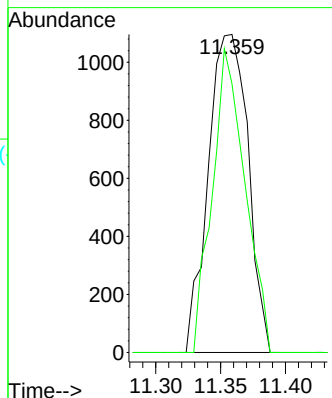
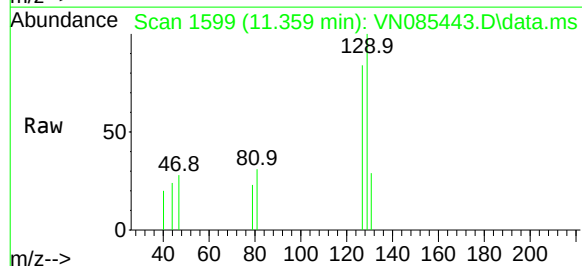
VSTDICC001

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#61

1,2-Dibromoethane

Concen: 1.000 ug/l

RT: 11.465 min Scan# 1617

Delta R.T. -0.000 min

Lab File: VN085443.D

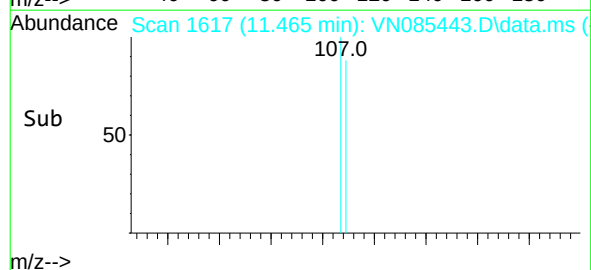
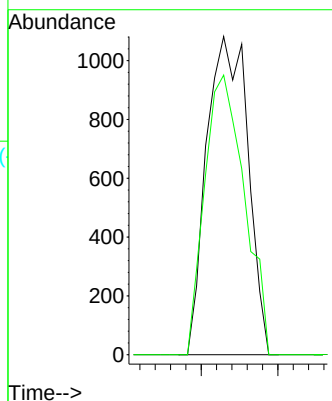
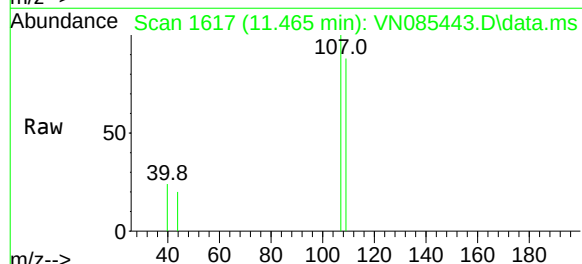
Acq: 14 Jan 2025 17:19

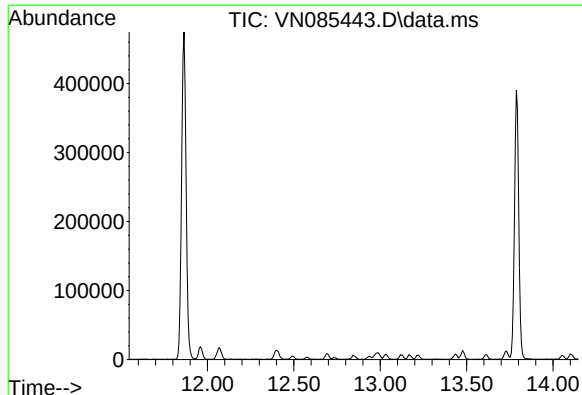
Tgt Ion:107 Resp: 2022

Ion Ratio Lower Upper

107 100

109 84.8 75.9 113.9





#62

4-Bromofluorobenzene

Concen: 0.000 ug/l

Expected RT: 12.85 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Tgt Ion: 95

Sig Exp Ratio

95 100

174 72.5

176 71.2

Instrument :

MSVOA\_N

ClientSampleId :

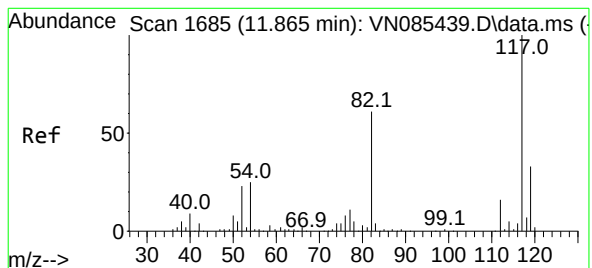
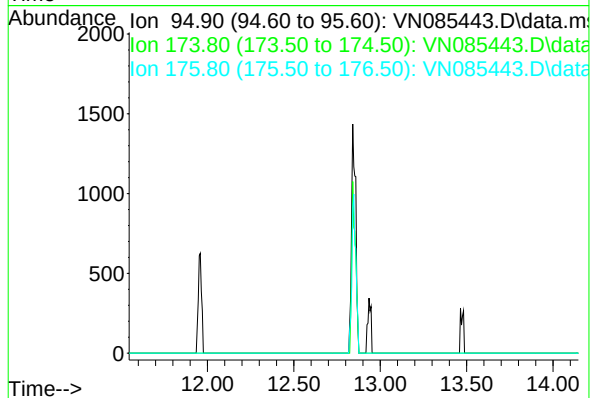
VSTDICC001

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

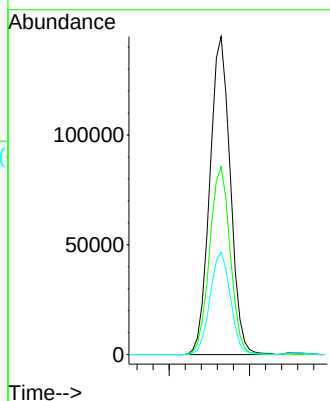
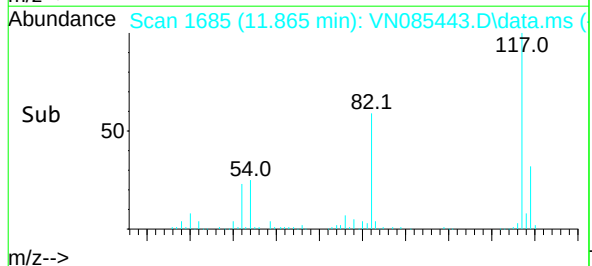
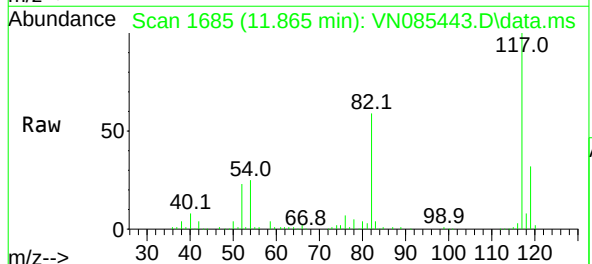
Tgt Ion:117 Resp: 256851

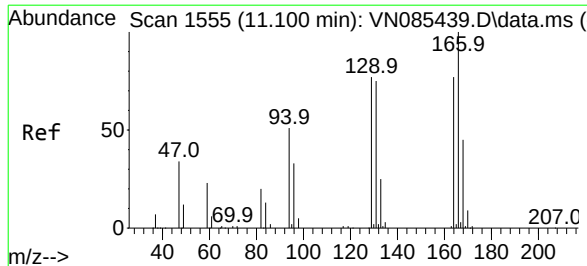
Ion Ratio Lower Upper

117 100

82 59.0 48.6 72.8

119 32.2 26.6 39.8





#64

Tetrachloroethene

Concen: 0.947 ug/l

RT: 11.106 min Scan# 1555

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion:164 Resp: 1658

Ion Ratio Lower Upper

164 100

166 152.1 103.4 155.2

129 128.3 79.2 118.8#

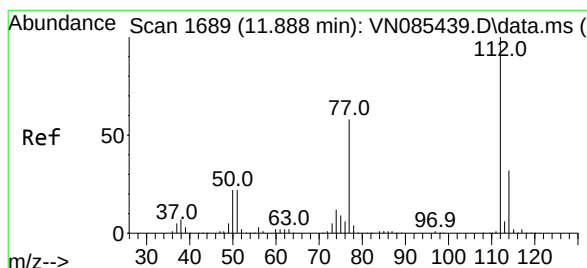
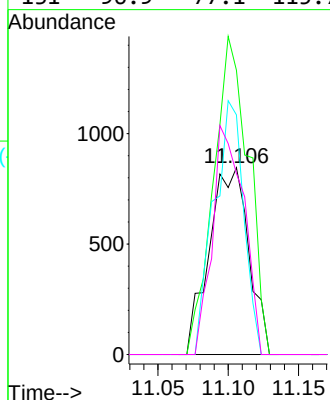
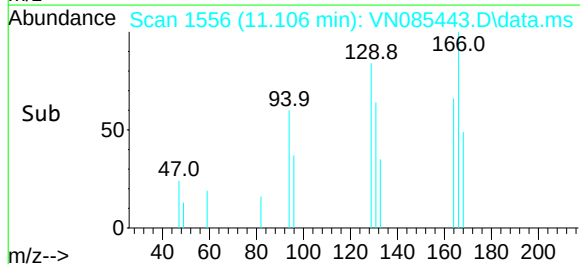
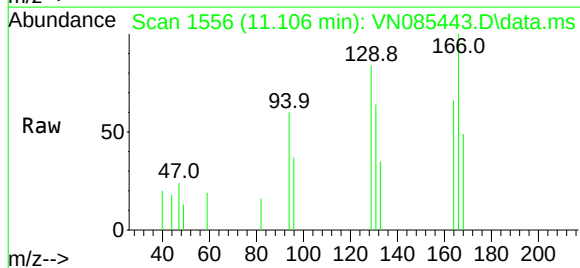
131 96.9 77.1 115.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#65

Chlorobenzene

Concen: 0.960 ug/l

RT: 11.888 min Scan# 1689

Delta R.T. -0.000 min

Lab File: VN085443.D

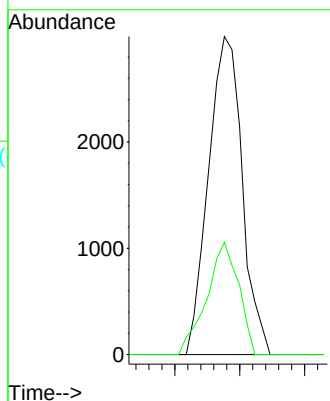
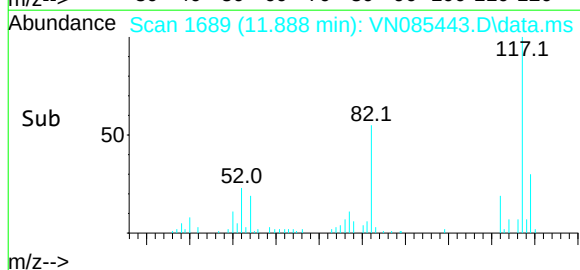
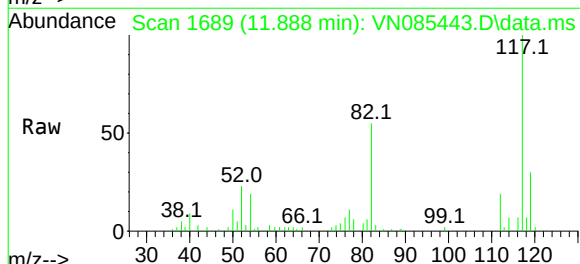
Acq: 14 Jan 2025 17:19

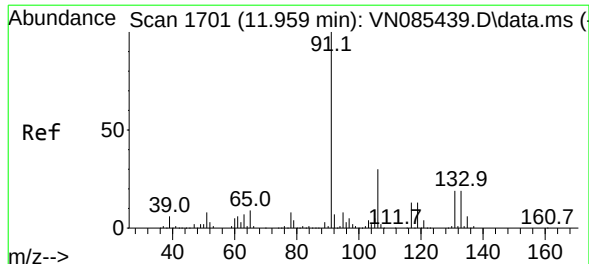
Tgt Ion:112 Resp: 5401

Ion Ratio Lower Upper

112 100

114 35.3 25.3 37.9





#66

1,1,1,2-Tetrachloroethane

Concen: 1.058 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. -0.000 min

Lab File: VN085443.D

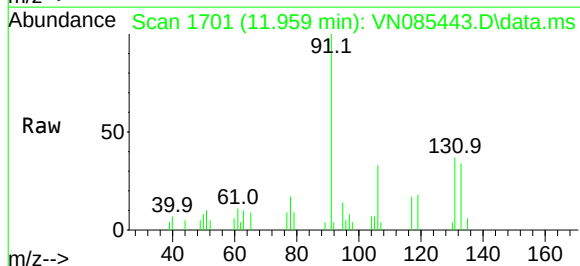
Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001



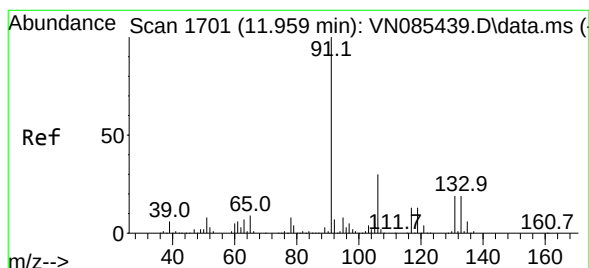
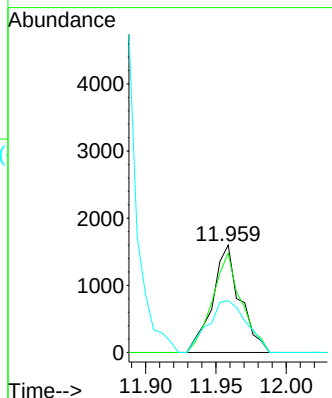
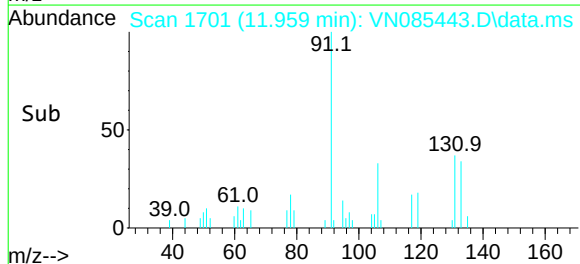
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 131   | Resp: | 2185  |
| Ion Ratio | Lower | Upper |       |
| 131       | 100   |       |       |
| 133       | 97.7  | 47.4  | 142.3 |
| 119       | 0.0   | 33.1  | 99.5  |

## Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#67

Ethyl Benzene

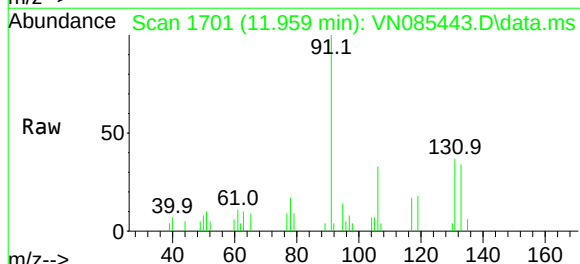
Concen: 0.802 ug/l

RT: 11.959 min Scan# 1701

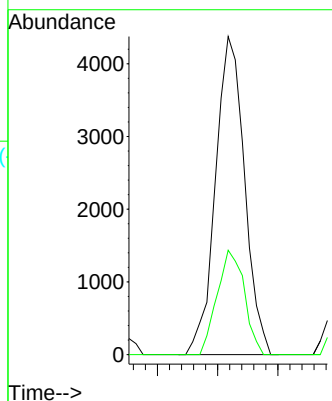
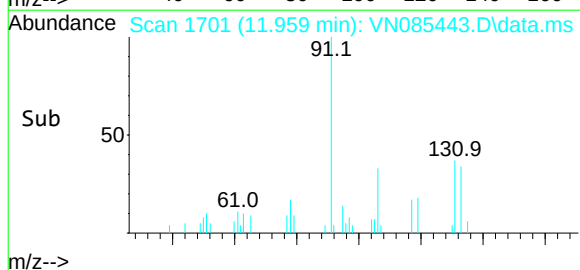
Delta R.T. -0.000 min

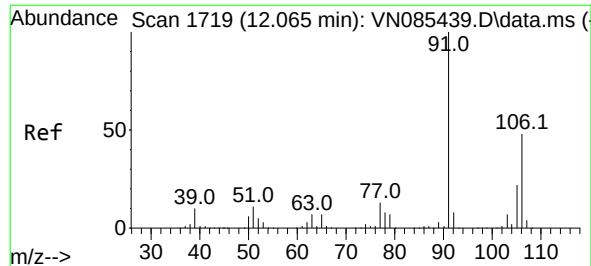
Lab File: VN085443.D

Acq: 14 Jan 2025 17:19



|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 91    | Resp: | 7347 |
| Ion Ratio | Lower | Upper |      |
| 91        | 100   |       |      |
| 106       | 32.8  | 23.8  | 35.8 |





#68

m/p-Xylenes

Concen: 1.494 ug/l

RT: 12.070 min Scan# 1719

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion:106 Resp: 5059

Ion Ratio Lower Upper

106 100

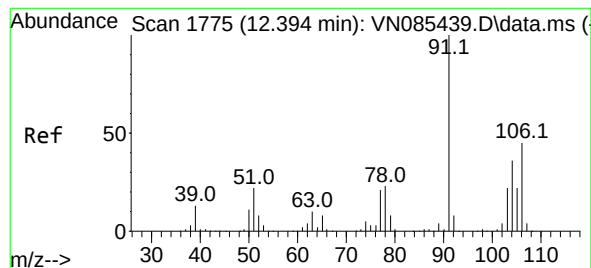
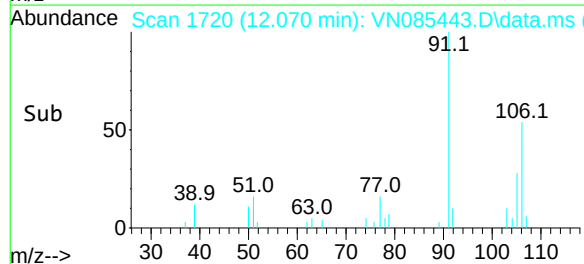
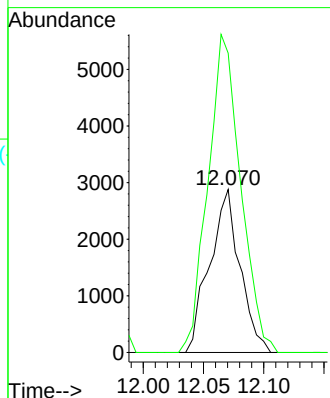
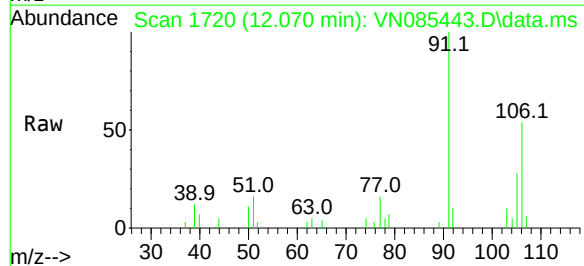
91 209.3 167.7 251.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#69

o-Xylene

Concen: 0.766 ug/l

RT: 12.394 min Scan# 1775

Delta R.T. -0.000 min

Lab File: VN085443.D

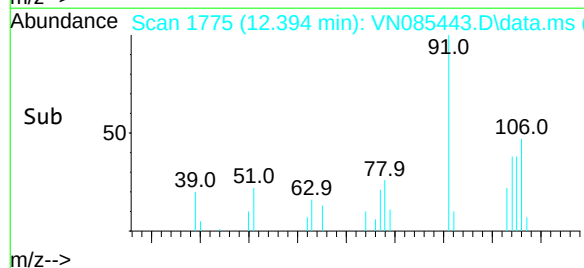
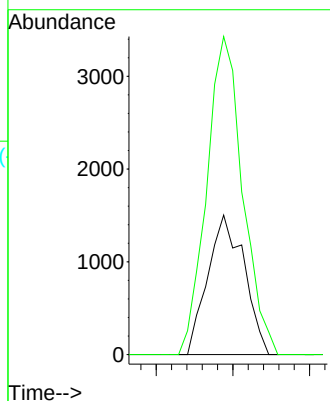
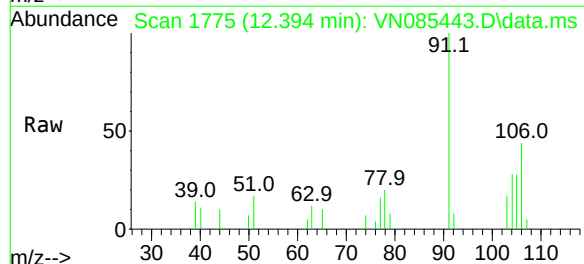
Acq: 14 Jan 2025 17:19

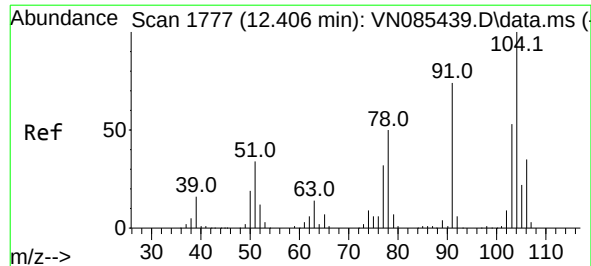
Tgt Ion:106 Resp: 2478

Ion Ratio Lower Upper

106 100

91 225.4 110.4 331.2





#70

Styrene

Concen: 0.712 ug/l

RT: 12.406 min Scan# 1777

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

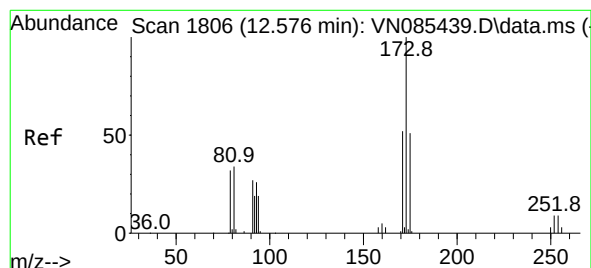
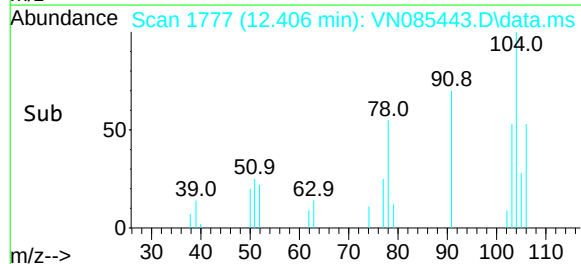
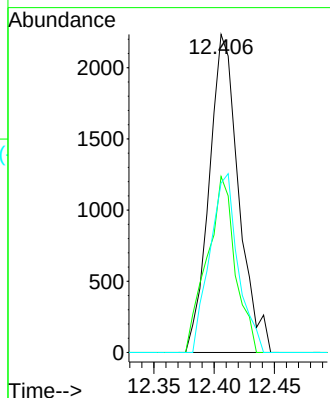
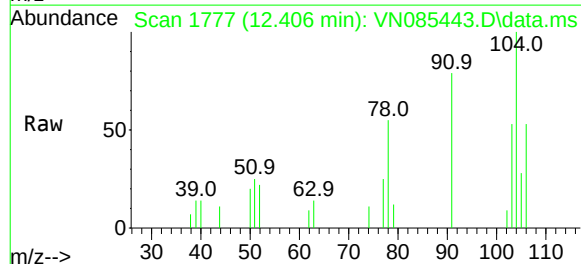
VSTDIC001

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 104   | Resp: | 3812 |
| Ion Ratio | Lower | Upper |      |
| 104       | 100   |       |      |
| 78        | 52.9  | 42.5  | 63.7 |
| 103       | 53.7  | 43.8  | 65.8 |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#71

Bromoform

Concen: 0.818 ug/l

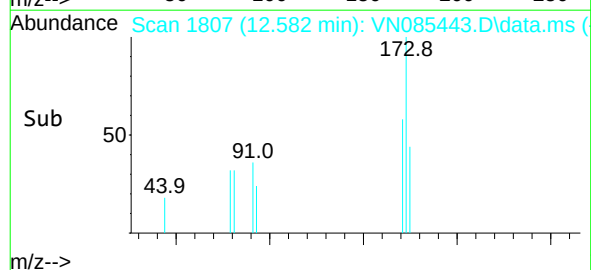
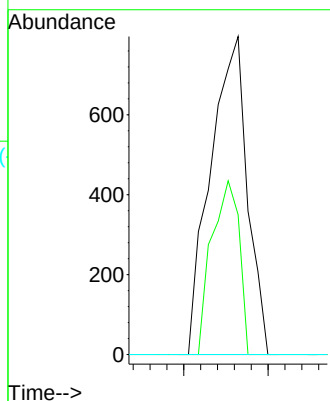
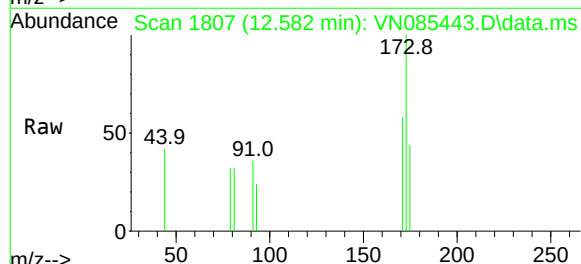
RT: 12.582 min Scan# 1807

Delta R.T. 0.006 min

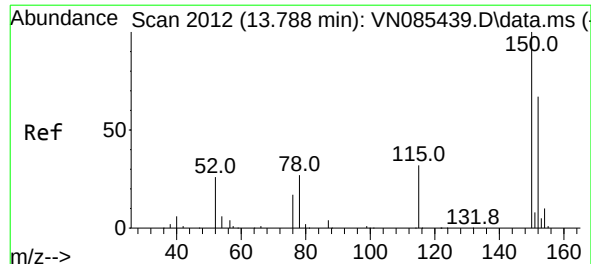
Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 173   | Resp: | 1208 |
| Ion Ratio | Lower | Upper |      |
| 173       | 100   |       |      |
| 175       | 40.7  | 24.4  | 73.2 |
| 254       | 0.0   | 0.0   | 0.0  |







#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.788 min Scan# 2012

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion:152 Resp: 99539

Ion Ratio Lower Upper

152 100

115 63.8 31.1 93.3

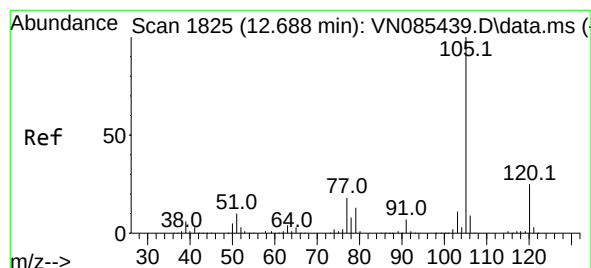
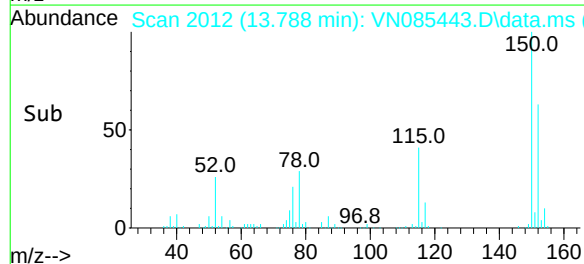
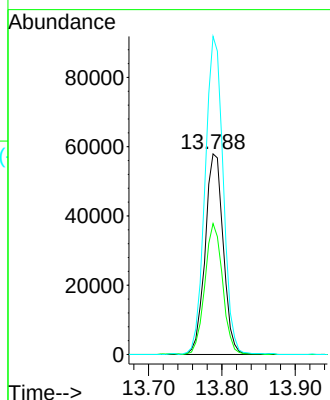
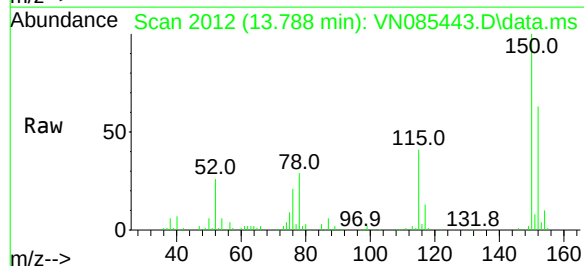
150 158.5 0.0 343.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#73

Isopropylbenzene

Concen: 0.820 ug/l

RT: 12.688 min Scan# 1825

Delta R.T. -0.000 min

Lab File: VN085443.D

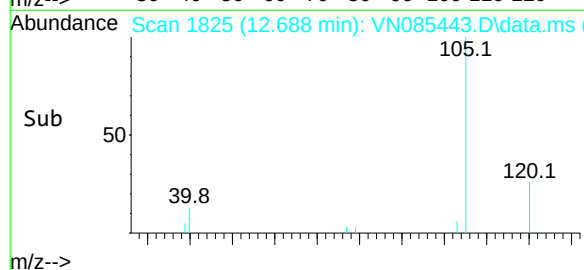
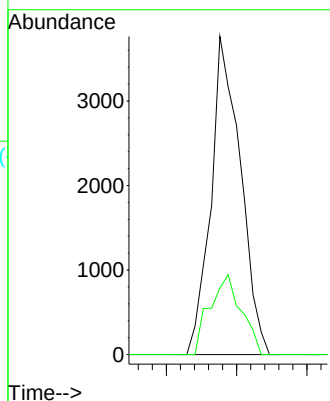
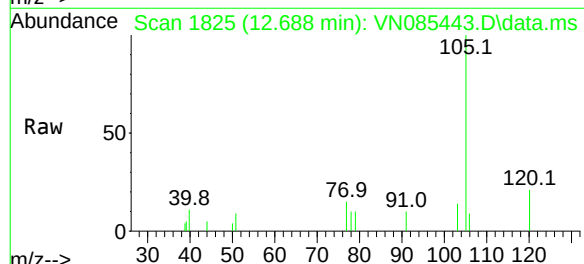
Acq: 14 Jan 2025 17:19

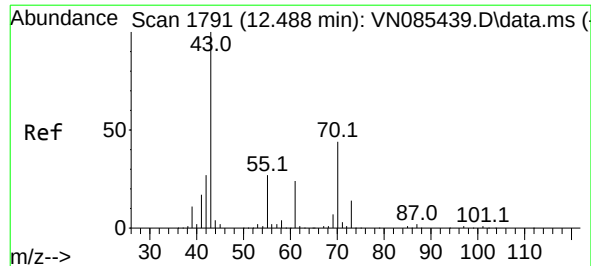
Tgt Ion:105 Resp: 5506

Ion Ratio Lower Upper

105 100

120 26.7 12.8 38.3





#74

N-amy1 acetate

Concen: 0.899 ug/l

RT: 12.494 min Scan# 1791

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 43 Resp: 2716

Ion Ratio Lower Upper

43 100

70 30.4 34.0 51.0#

55 24.2 21.4 32.2

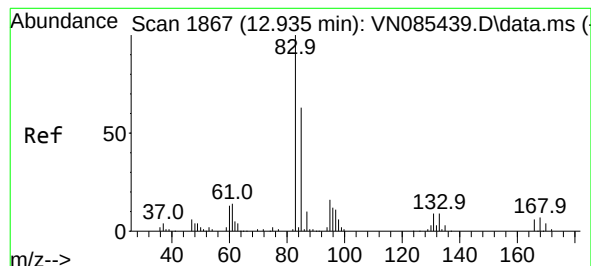
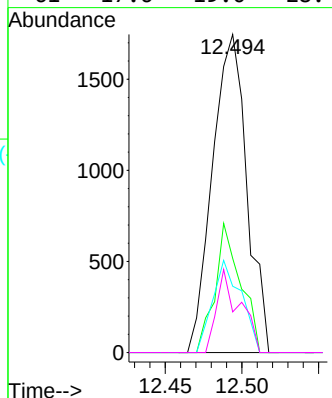
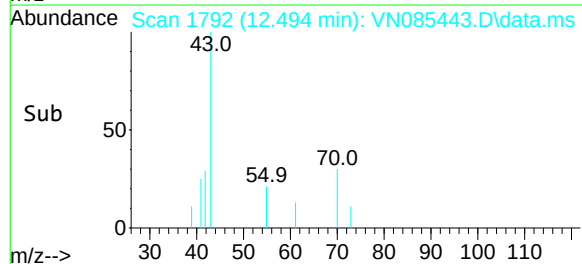
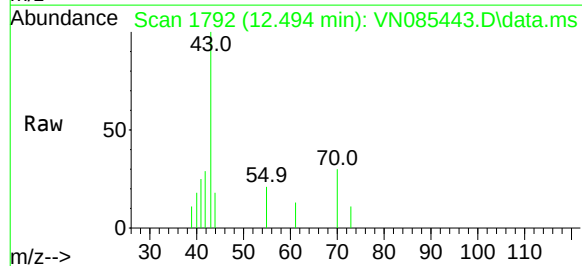
61 17.6 19.0 28.4#

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#75

1,1,2,2-Tetrachloroethane

Concen: 1.102 ug/l

RT: 12.935 min Scan# 1867

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

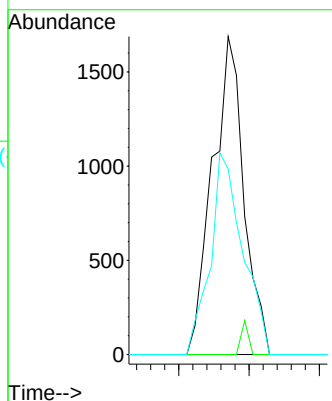
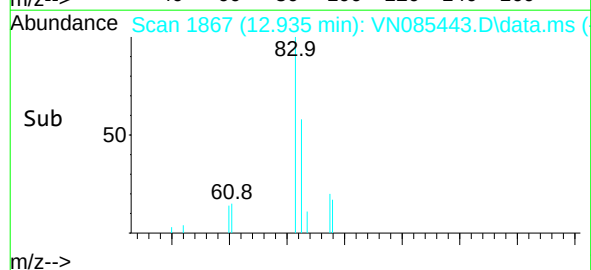
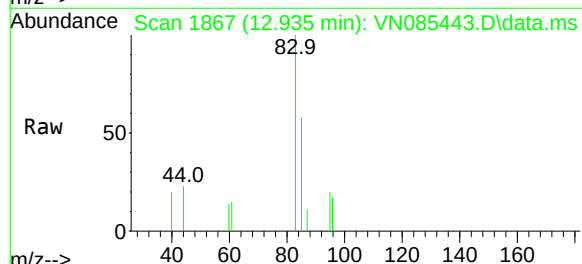
Tgt Ion: 83 Resp: 2616

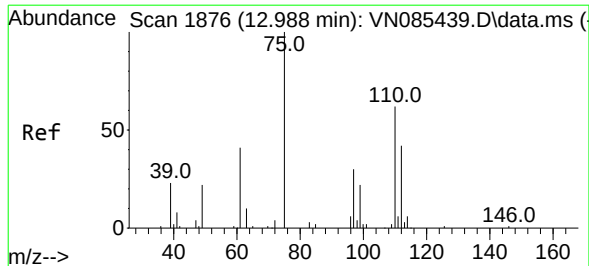
Ion Ratio Lower Upper

83 100

131 2.4 4.8 14.4#

85 65.7 32.2 96.6





#76

1,2,3-Trichloropropane

Concen: 1.088 ug/l m

RT: 12.982 min Scan# 18

Delta R.T. -0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 75 Resp: 2198

Ion Ratio Lower Upper

75 100

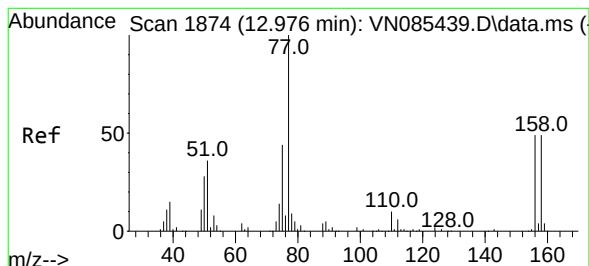
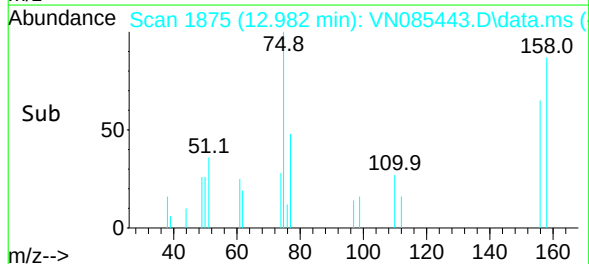
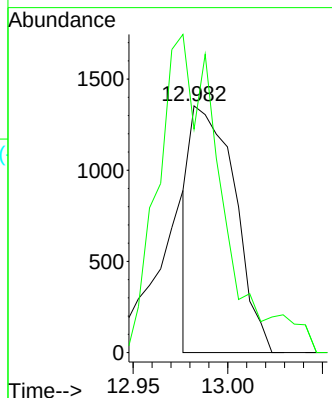
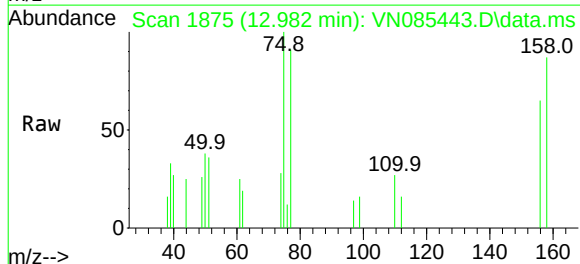
77 184.2 109.7 329.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#77

Bromobenzene

Concen: 0.987 ug/l

RT: 12.976 min Scan# 1874

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

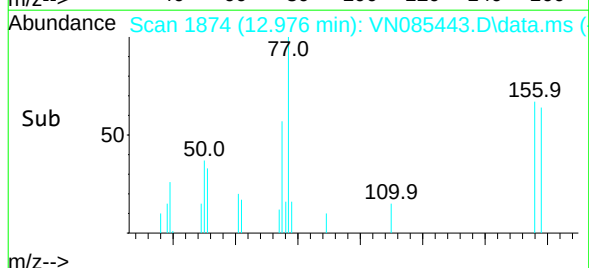
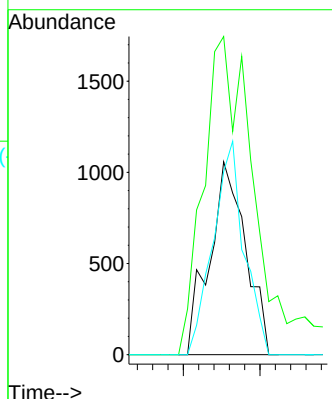
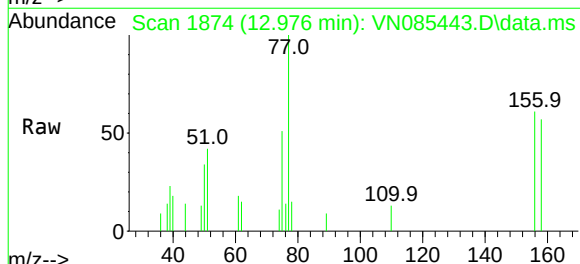
Tgt Ion:156 Resp: 1733

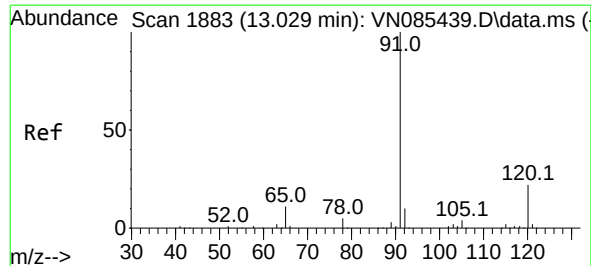
Ion Ratio Lower Upper

156 100

77 233.6 114.1 342.4

158 94.9 48.9 146.8





#78

n-propylbenzene

Concen: 0.808 ug/l

RT: 13.029 min Scan# 18

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 91 Resp: 6424

Ion Ratio Lower Upper

91 100

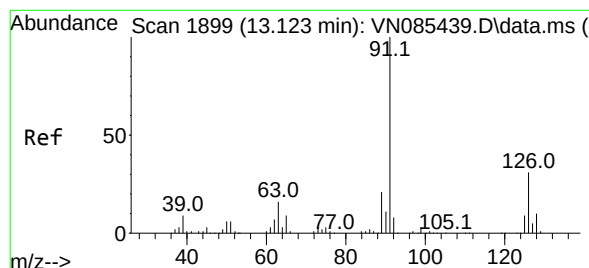
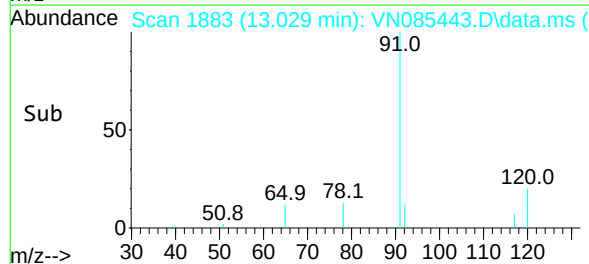
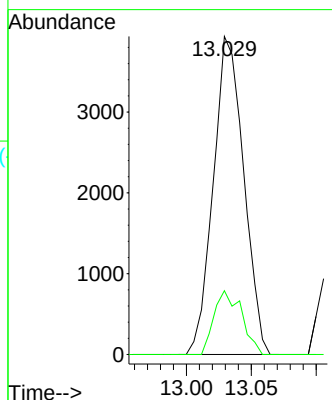
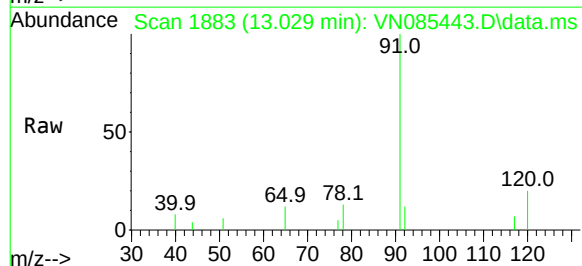
120 18.2 10.9 32.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#79

2-Chlorotoluene

Concen: 0.871 ug/l

RT: 13.117 min Scan# 1898

Delta R.T. -0.006 min

Lab File: VN085443.D

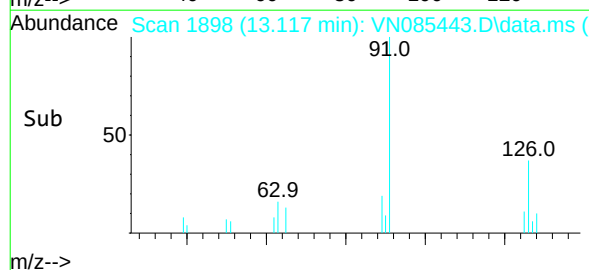
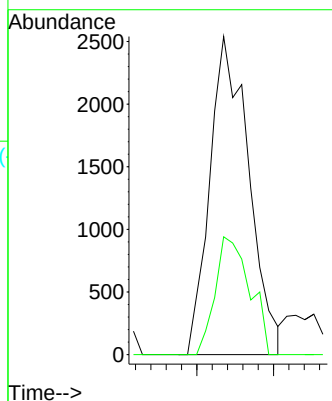
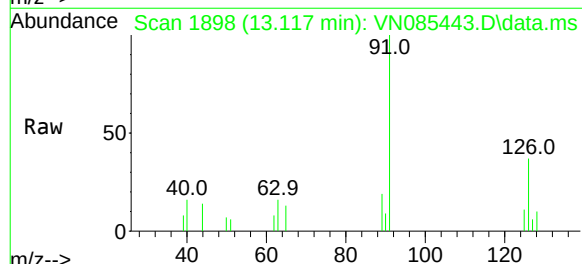
Acq: 14 Jan 2025 17:19

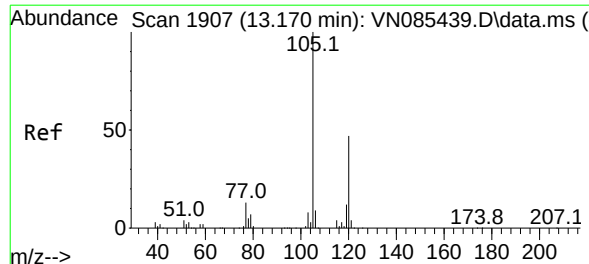
Tgt Ion: 91 Resp: 4483

Ion Ratio Lower Upper

91 100

126 32.9 15.7 47.1





#80

1,3,5-Trimethylbenzene

Concen: 0.775 ug/l

RT: 13.165 min Scan# 19

Delta R.T. -0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC001

Tgt Ion: 105 Resp: 4301

Ion Ratio Lower Upper

105 100

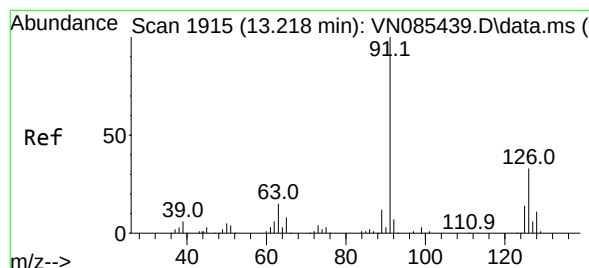
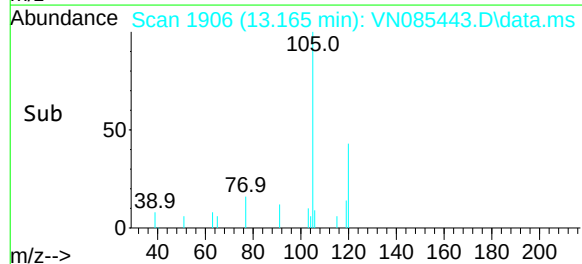
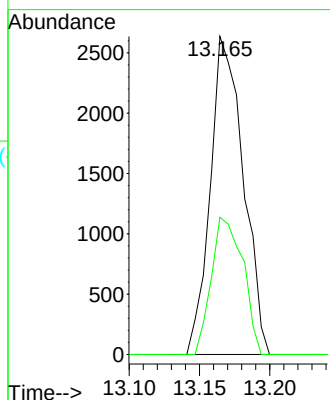
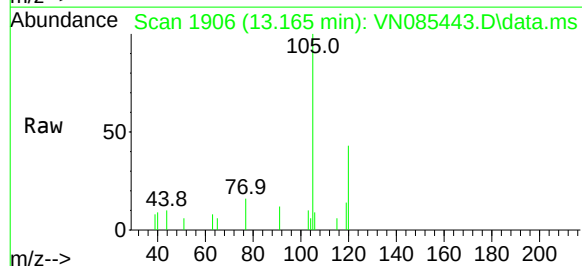
120 41.2 23.9 71.7

Manual Integrations

APPROVED

Reviewed By : John Carlone 01/15/2025

Supervised By : Mahesh Dadoda 01/15/2025



#82

4-Chlorotoluene

Concen: 0.833 ug/l

RT: 13.223 min Scan# 1916

Delta R.T. 0.006 min

Lab File: VN085443.D

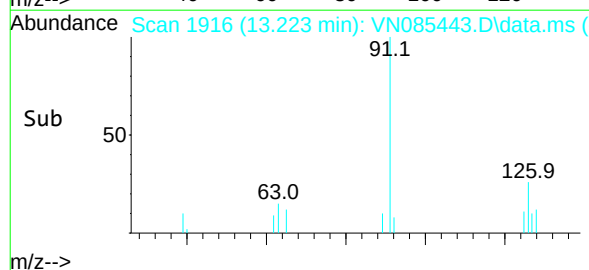
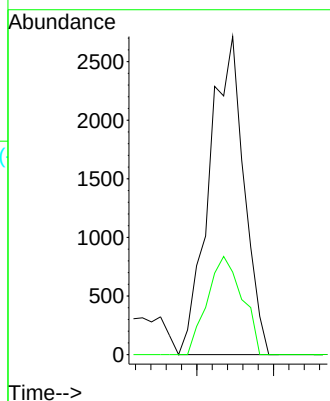
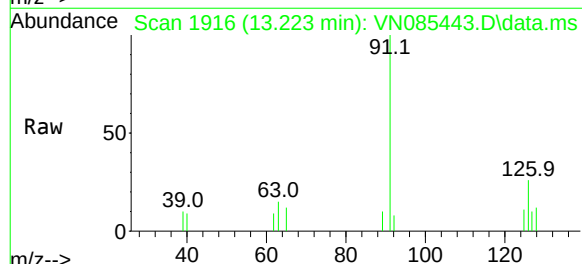
Acq: 14 Jan 2025 17:19

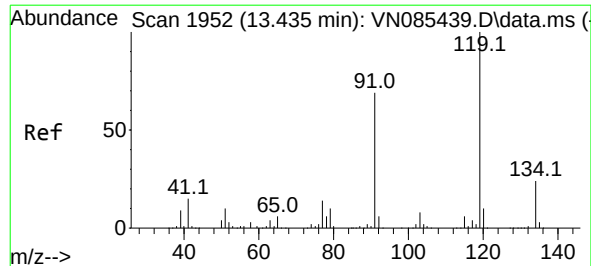
Tgt Ion: 91 Resp: 4268

Ion Ratio Lower Upper

91 100

126 31.0 15.9 47.7





#83

tert-Butylbenzene

Concen: 0.805 ug/l

RT: 13.435 min Scan# 1952

Delta R.T. -0.000 min

Lab File: VN085443.D

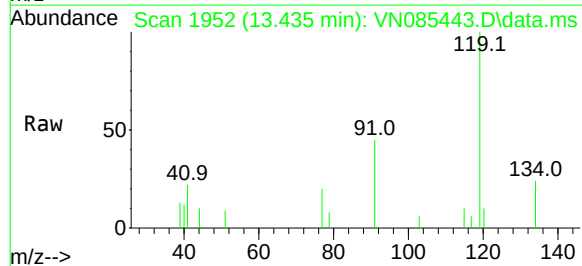
Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

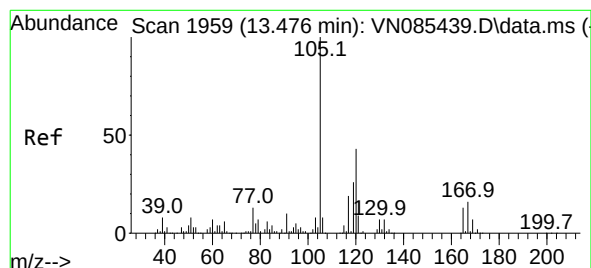
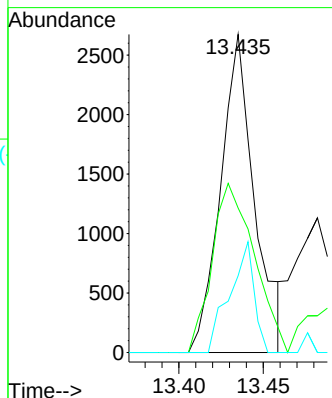
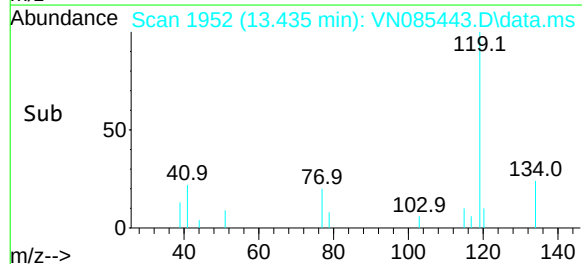
VSTDIC001



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 119   | Resp: | 3753  |
| Ion      | Ratio | Lower | Upper |
| 119      | 100   |       |       |
| 91       | 65.9  | 35.1  | 105.3 |
| 134      | 24.9  | 12.0  | 36.1  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#84

1,2,4-Trimethylbenzene

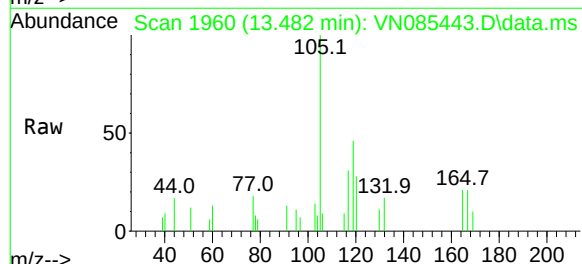
Concen: 0.679 ug/l

RT: 13.482 min Scan# 1960

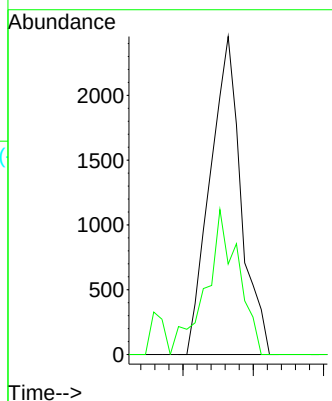
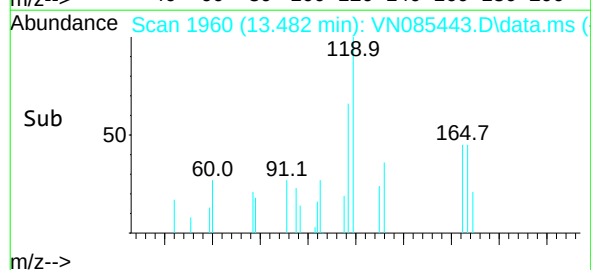
Delta R.T. 0.006 min

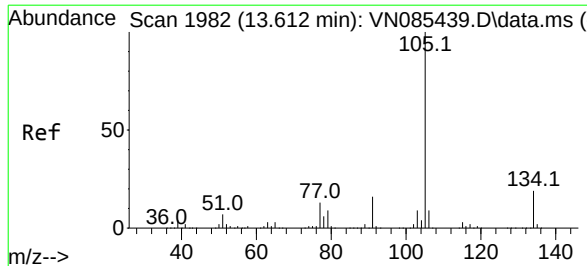
Lab File: VN085443.D

Acq: 14 Jan 2025 17:19



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 105   | Resp: | 3758  |
| Ion      | Ratio | Lower | Upper |
| 105      | 100   |       |       |
| 120      | 47.7  | 21.6  | 65.0  |





#85

sec-Butylbenzene

Concen: 0.714 ug/l

RT: 13.612 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN085443.D

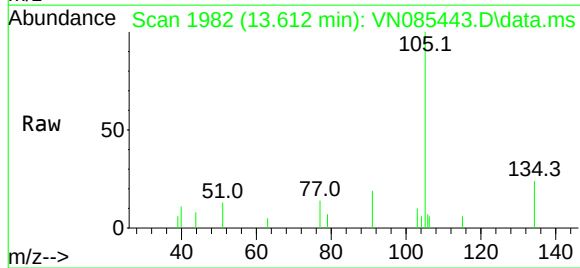
Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

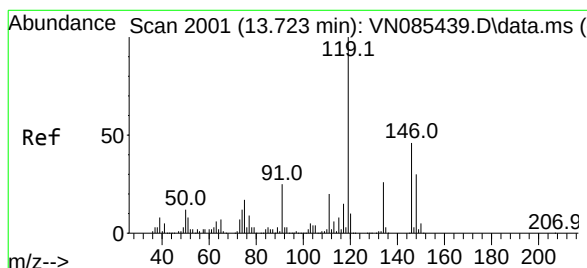
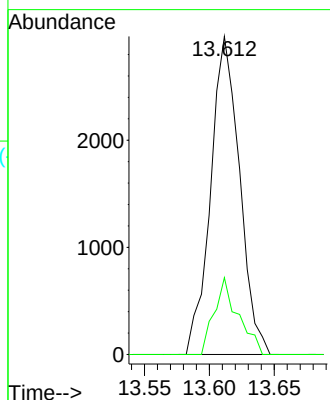
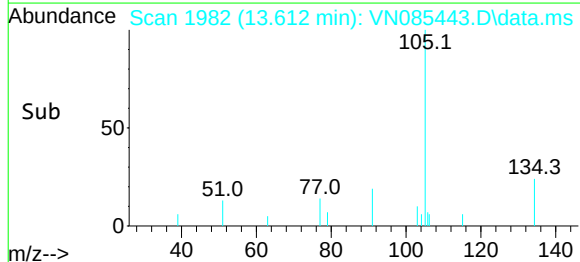
VSTDICC001



Tgt Ion:105 Resp: 4614  
Ion Ratio Lower Upper  
105 100  
134 19.9 9.7 28.9

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#86

p-Isopropyltoluene

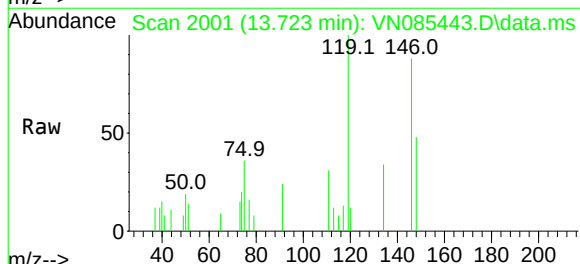
Concen: 0.716 ug/l

RT: 13.723 min Scan# 2001

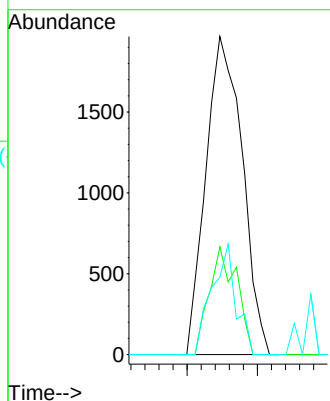
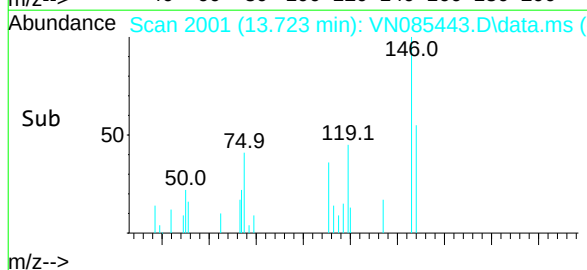
Delta R.T. 0.000 min

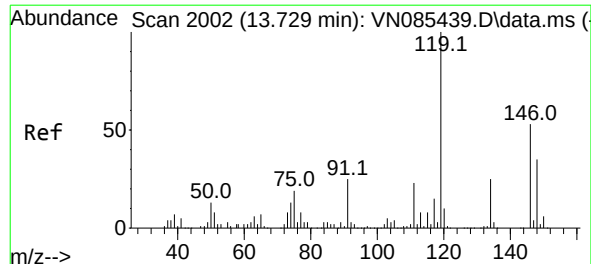
Lab File: VN085443.D

Acq: 14 Jan 2025 17:19



Tgt Ion:119 Resp: 3538  
Ion Ratio Lower Upper  
119 100  
134 25.6 12.7 38.0  
91 23.2 12.7 38.1





#87

1,3-Dichlorobenzene

Concen: 0.940 ug/l

RT: 13.723 min Scan# 20

Delta R.T. -0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

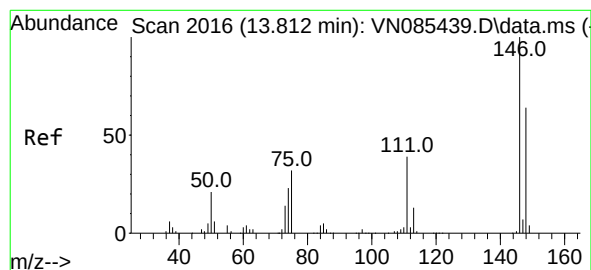
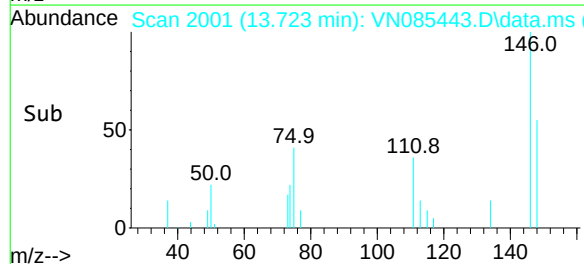
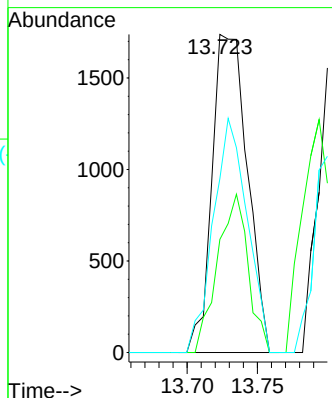
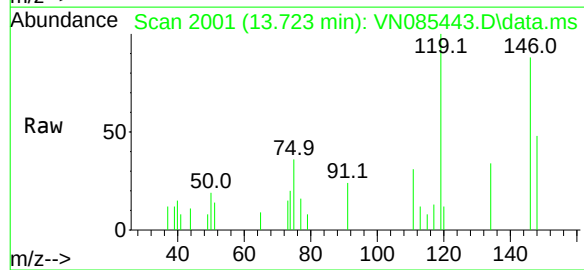
ClientSampleId :

VSTDICC001

|     |         |       |       |
|-----|---------|-------|-------|
| Tgt | Ion:146 | Resp: | 3038  |
| Ion | Ratio   | Lower | Upper |
| 146 | 100     |       |       |
| 111 | 43.0    | 21.4  | 64.3  |
| 148 | 70.9    | 32.3  | 96.9  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#88

1,4-Dichlorobenzene

Concen: 1.050 ug/l m

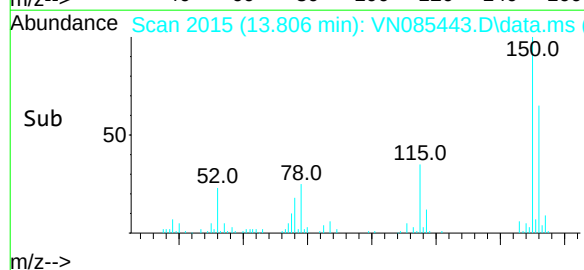
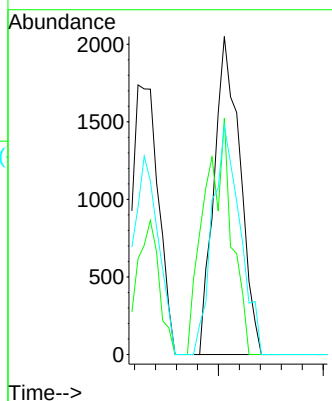
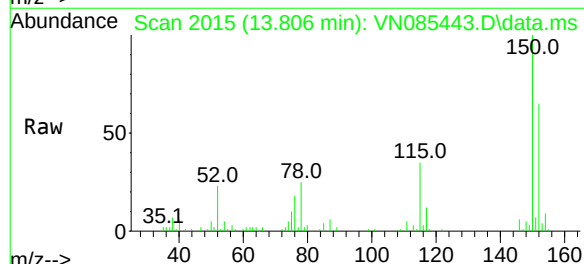
RT: 13.806 min Scan# 2015

Delta R.T. -0.006 min

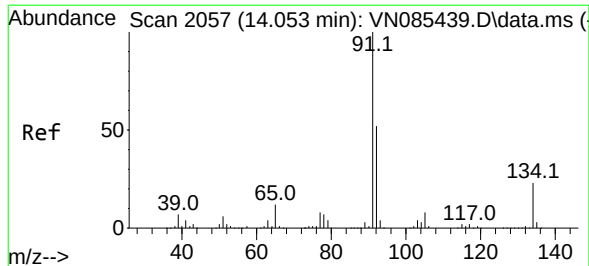
Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

|     |         |       |       |
|-----|---------|-------|-------|
| Tgt | Ion:146 | Resp: | 3517  |
| Ion | Ratio   | Lower | Upper |
| 146 | 100     |       |       |
| 111 | 37.2    | 21.3  | 63.7  |
| 148 | 61.2    | 32.4  | 97.0  |







#89

n-Butylbenzene

Concen: 0.761 ug/l

RT: 14.053 min Scan# 2057

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

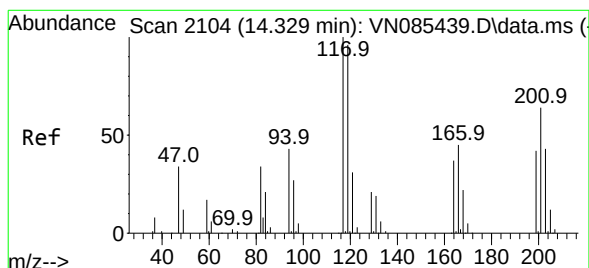
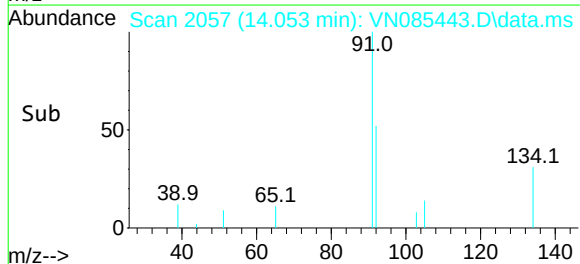
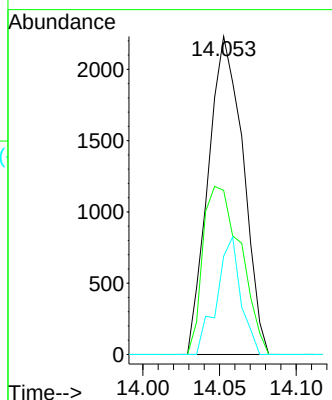
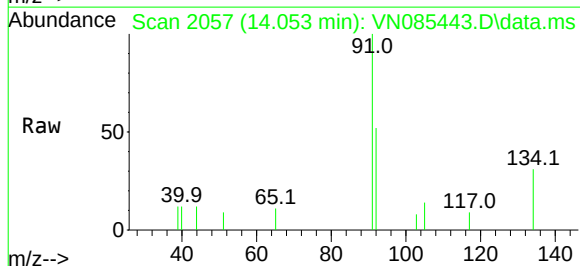
ClientSampleId :

VSTDIC001

|     |       |       |       |      |
|-----|-------|-------|-------|------|
| Tgt | Ion   | 91    | Resp: | 3527 |
| Ion | Ratio | Lower | Upper |      |
| 91  | 100   |       |       |      |
| 92  | 57.2  | 25.8  | 77.3  |      |
| 134 | 25.5  | 11.7  | 35.1  |      |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#90

Hexachloroethane

Concen: 1.102 ug/l

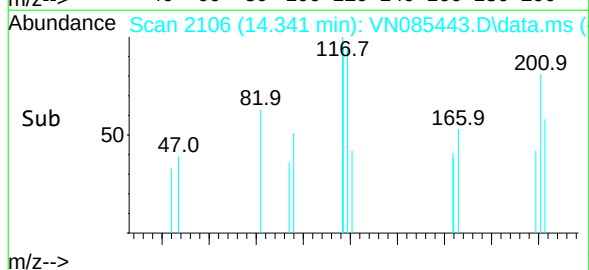
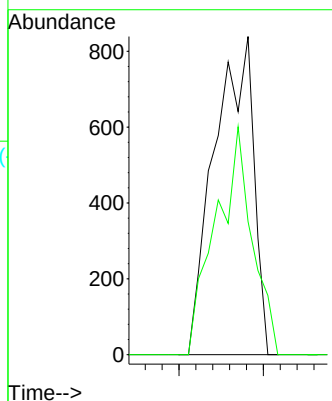
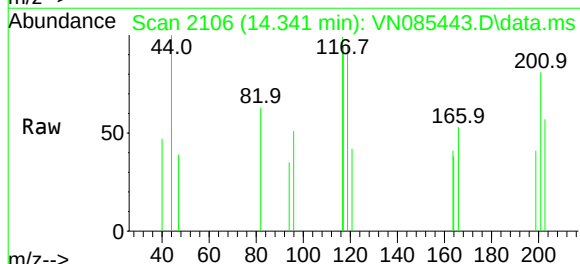
RT: 14.341 min Scan# 2106

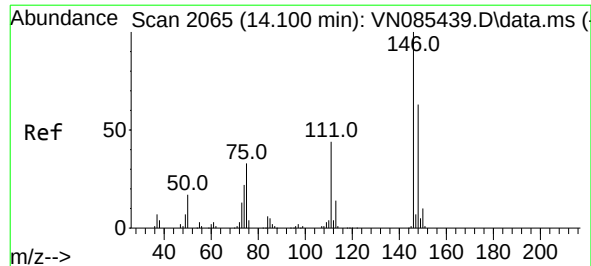
Delta R.T. 0.012 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

|     |       |       |       |      |
|-----|-------|-------|-------|------|
| Tgt | Ion   | 117   | Resp: | 1355 |
| Ion | Ratio | Lower | Upper |      |
| 117 | 100   |       |       |      |
| 201 | 66.5  | 33.7  | 101.0 |      |





#91

1,2-Dichlorobenzene

Concen: 1.090 ug/l

RT: 14.106 min Scan# 2065

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

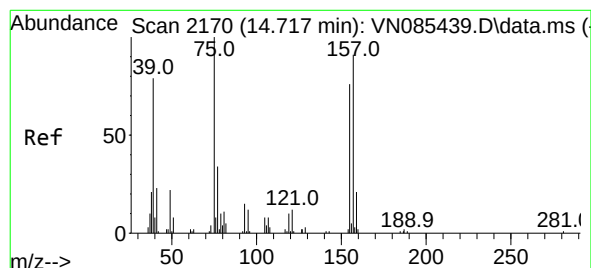
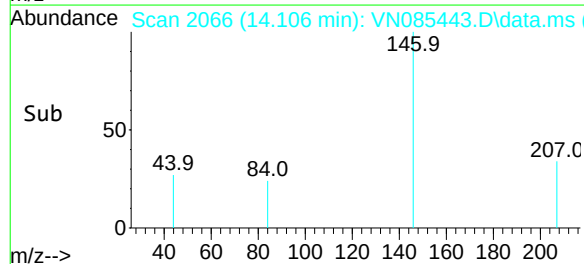
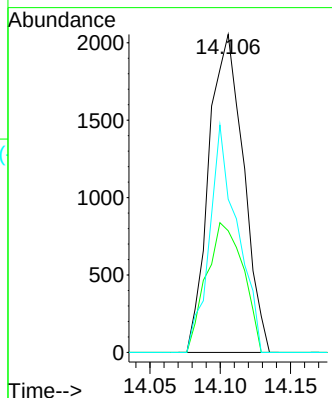
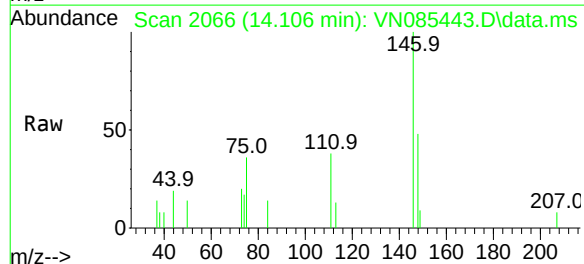
VSTDIC001

|     |       |       |       |      |
|-----|-------|-------|-------|------|
| Tgt | Ion   | 146   | Resp: | 3515 |
| Ion | Ratio | Lower | Upper |      |
| 146 | 100   |       |       |      |
| 111 | 43.4  | 21.7  | 65.1  |      |
| 148 | 57.8  | 31.4  | 94.2  |      |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#92

1,2-Dibromo-3-Chloropropane

Concen: 0.928 ug/l

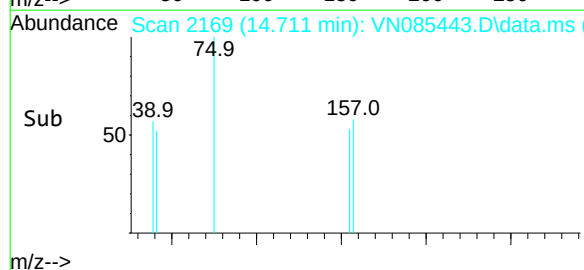
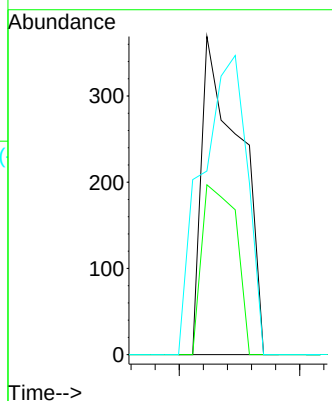
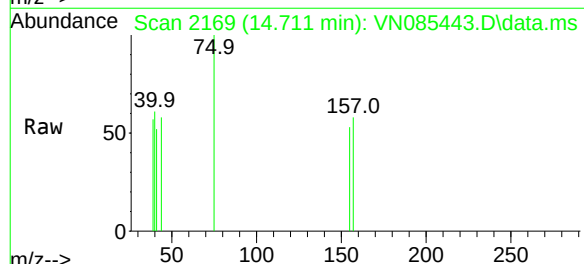
RT: 14.711 min Scan# 2169

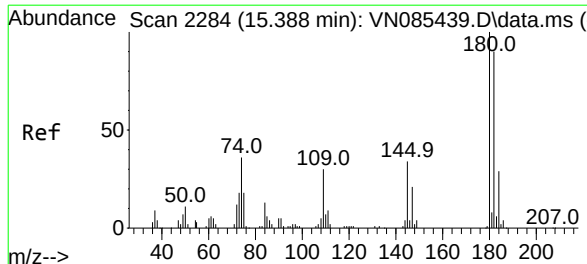
Delta R.T. -0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

|     |       |       |       |     |
|-----|-------|-------|-------|-----|
| Tgt | Ion   | 75    | Resp: | 402 |
| Ion | Ratio | Lower | Upper |     |
| 75  | 100   |       |       |     |
| 155 | 48.0  | 36.4  | 109.2 |     |
| 157 | 112.7 | 45.4  | 136.1 |     |





#93

1,2,4-Trichlorobenzene

Concen: 0.874 ug/l

RT: 15.394 min Scan# 2284

Delta R.T. 0.006 min

Lab File: VN085443.D

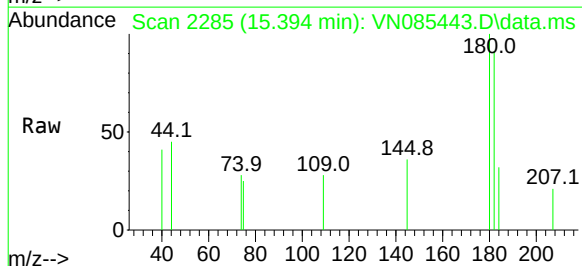
Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001



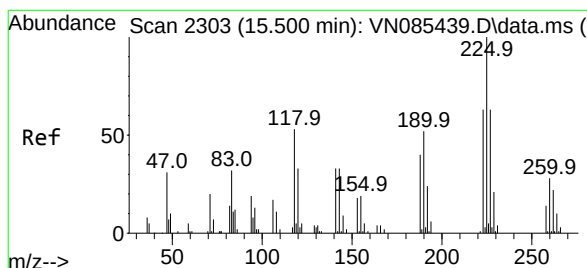
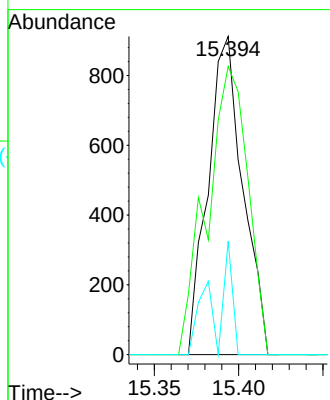
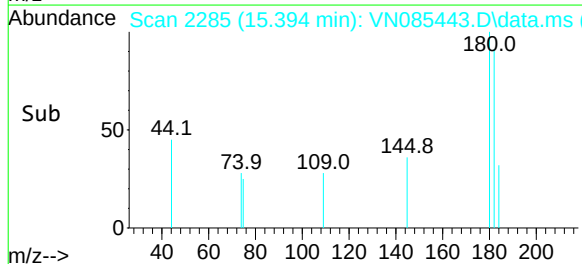
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 180   | Resp: | 1310  |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 106.3 | 46.8  | 140.3 |
| 145      | 9.7   | 16.0  | 48.0  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#94

Hexachlorobutadiene

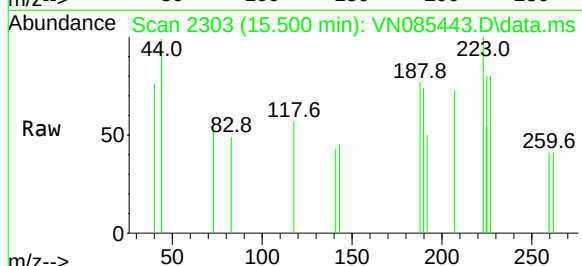
Concen: 1.033 ug/l

RT: 15.500 min Scan# 2303

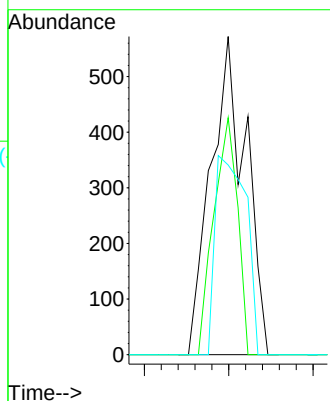
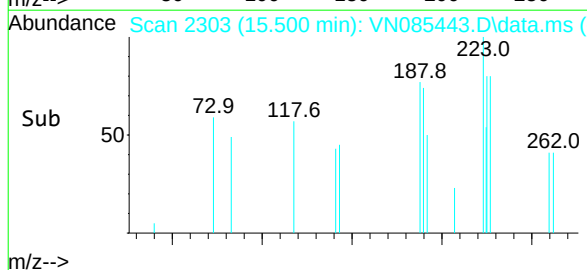
Delta R.T. -0.000 min

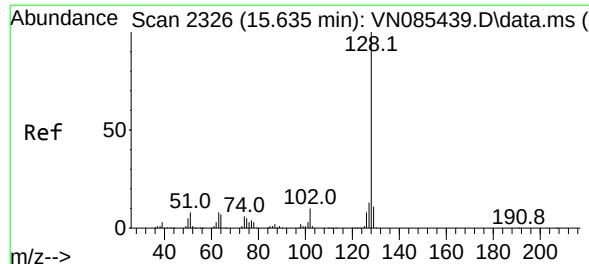
Lab File: VN085443.D

Acq: 14 Jan 2025 17:19



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 225   | Resp: | 822   |
| Ion      | Ratio | Lower | Upper |
| 225      | 100   |       |       |
| 223      | 50.7  | 30.7  | 92.1  |
| 227      | 55.7  | 30.9  | 92.5  |





#95

Naphthalene

Concen: 0.941 ug/l

RT: 15.641 min Scan# 2326

Delta R.T. 0.006 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

Instrument :

MSVOA\_N

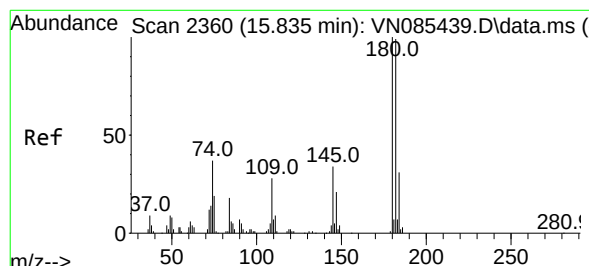
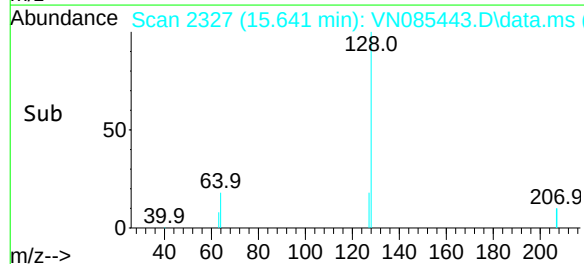
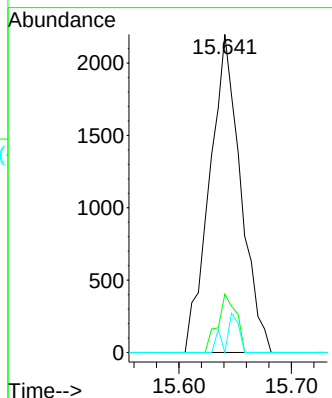
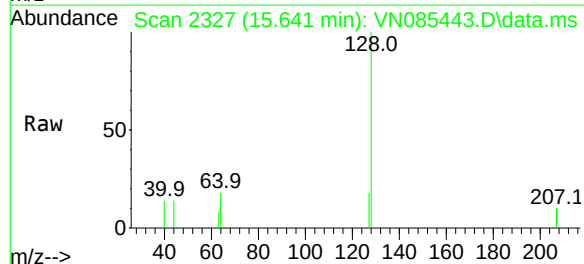
ClientSampleId :

VSTDIC001

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 128   | Resp: | 4210  |
| Ion      | Ratio | Lower | Upper |
| 128      | 100   |       |       |
| 127      | 11.1  | 10.6  | 16.0  |
| 129      | 5.3   | 8.8   | 13.2  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#96

1,2,3-Trichlorobenzene

Concen: 0.985 ug/l

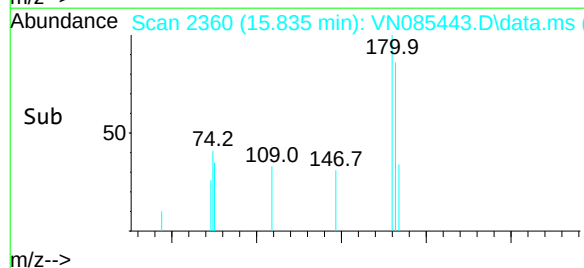
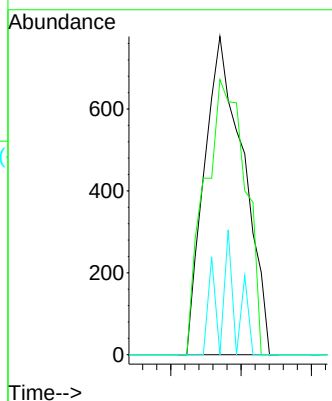
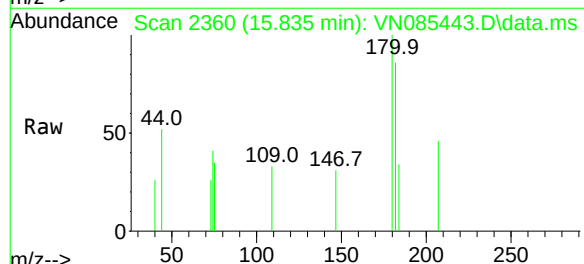
RT: 15.835 min Scan# 2360

Delta R.T. -0.000 min

Lab File: VN085443.D

Acq: 14 Jan 2025 17:19

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 180   | Resp: | 1494  |
| Ion      | Ratio | Lower | Upper |
| 180      | 100   |       |       |
| 182      | 90.2  | 47.4  | 142.2 |
| 145      | 11.8  | 16.9  | 50.7  |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085445.D  
 Acq On : 14 Jan 2025 18:06  
 Operator : JC\MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN011425

Quant Time: Jan 15 02:20:47 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.218  | 168  | 219757   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.094  | 114  | 370487   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 320948   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.788 | 152  | 158525   | 50.000 | ug/l  | 0.00     |

|                             |        |       |          |          |      |          |
|-----------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds |        |       |          |          |      |          |
| 33) 1,2-Dichloroethane-d4   | 8.571  | 65    | 176594   | 49.782   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 74 - 125 | Recovery | =    | 99.560%  |
| 35) Dibromofluoromethane    | 8.165  | 113   | 130487   | 50.768   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =    | 101.540% |
| 50) Toluene-d8              | 10.565 | 98    | 477630   | 52.302   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 86 - 113 | Recovery | =    | 104.600% |
| 62) 4-Bromofluorobenzene    | 12.847 | 95    | 165249   | 52.899   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 77 - 121 | Recovery | =    | 105.800% |

|                              |       |     |         |         |        |     |
|------------------------------|-------|-----|---------|---------|--------|-----|
| Target Compounds             |       |     |         |         | Qvalue |     |
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 130242  | 43.772  | ug/l   | 100 |
| 3) Chloromethane             | 2.360 | 50  | 138152  | 42.883  | ug/l   | 99  |
| 4) Vinyl Chloride            | 2.513 | 62  | 138316  | 42.715  | ug/l   | 99  |
| 5) Bromomethane              | 2.954 | 94  | 80019   | 40.910  | ug/l   | 91  |
| 6) Chloroethane              | 3.124 | 64  | 86837   | 42.299  | ug/l   | 99  |
| 7) Trichlorofluoromethane    | 3.501 | 101 | 206526  | 43.956  | ug/l   | 99  |
| 8) Diethyl Ether             | 3.959 | 74  | 69545   | 42.846  | ug/l   | 100 |
| 9) 1,1,2-Trichlorotrifluo... | 4.371 | 101 | 118310  | 44.706  | ug/l   | 98  |
| 10) Methyl Iodide            | 4.595 | 142 | 140190  | 46.259  | ug/l   | 98  |
| 11) Tert butyl alcohol       | 5.518 | 59  | 83933   | 206.633 | ug/l   | 99  |
| 12) 1,1-Dichloroethene       | 4.342 | 96  | 106880  | 45.317  | ug/l   | 98  |
| 13) Acrolein                 | 4.177 | 56  | 135720  | 244.765 | ug/l   | 99  |
| 14) Allyl chloride           | 5.024 | 41  | 170308  | 44.501  | ug/l   | 99  |
| 15) Acrylonitrile            | 5.712 | 53  | 294062  | 227.920 | ug/l   | 99  |
| 16) Acetone                  | 4.418 | 43  | 245248  | 213.971 | ug/l   | 98  |
| 17) Carbon Disulfide         | 4.712 | 76  | 300215  | 41.342  | ug/l   | 100 |
| 18) Methyl Acetate           | 5.018 | 43  | 156938  | 45.028  | ug/l   | 100 |
| 19) Methyl tert-butyl Ether  | 5.795 | 73  | 365819  | 47.768  | ug/l   | 100 |
| 20) Methylene Chloride       | 5.271 | 84  | 122059  | 43.017  | ug/l   | 98  |
| 21) trans-1,2-Dichloroethene | 5.783 | 96  | 112597  | 44.672  | ug/l   | 93  |
| 22) Diisopropyl ether        | 6.665 | 45  | 399206  | 46.996  | ug/l   | 99  |
| 23) Vinyl Acetate            | 6.601 | 43  | 1471068 | 247.459 | ug/l   | 100 |
| 24) 1,1-Dichloroethane       | 6.571 | 63  | 228489  | 44.114  | ug/l   | 98  |
| 25) 2-Butanone               | 7.477 | 43  | 386125  | 228.924 | ug/l   | 100 |
| 26) 2,2-Dichloropropane      | 7.489 | 77  | 199303  | 47.593  | ug/l   | 99  |
| 27) cis-1,2-Dichloroethene   | 7.483 | 96  | 134920  | 45.446  | ug/l   | 98  |
| 28) Bromochloromethane       | 7.812 | 49  | 106323  | 44.122  | ug/l   | 100 |
| 29) Tetrahydrofuran          | 7.836 | 42  | 255650  | 239.065 | ug/l   | 99  |
| 30) Chloroform               | 7.965 | 83  | 235923  | 44.071  | ug/l   | 98  |
| 31) Cyclohexane              | 8.253 | 56  | 193034  | 42.878  | ug/l   | 93  |
| 32) 1,1,1-Trichloroethane    | 8.165 | 97  | 208172  | 44.332  | ug/l   | 99  |
| 36) 1,1-Dichloropropene      | 8.365 | 75  | 161834  | 44.863  | ug/l   | 98  |
| 37) Ethyl Acetate            | 7.559 | 43  | 160656  | 44.123  | ug/l   | 97  |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 183592  | 44.456  | ug/l   | 99  |
| 39) Methylcyclohexane        | 9.600 | 83  | 168431  | 49.687  | ug/l   | 98  |
| 40) Benzene                  | 8.600 | 78  | 494871  | 45.657  | ug/l   | 99  |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085445.D  
 Acq On : 14 Jan 2025 18:06  
 Operator : JC\MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN011425

Quant Time: Jan 15 02:20:47 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/15/2025  
 Supervised By : Mahesh Dadoda 01/15/2025

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 89326    | 47.155  | ug/l   | 99       |
| 42) 1,2-Dichloroethane        | 8.665  | 62   | 185663   | 45.481  | ug/l   | 100      |
| 43) Isopropyl Acetate         | 8.683  | 43   | 265107   | 45.440  | ug/l   | 99       |
| 44) Trichloroethene           | 9.347  | 130  | 110058   | 43.622  | ug/l   | 96       |
| 45) 1,2-Dichloropropane       | 9.618  | 63   | 123876   | 44.744  | ug/l   | 97       |
| 46) Dibromomethane            | 9.700  | 93   | 88325    | 44.214  | ug/l   | 98       |
| 47) Bromodichloromethane      | 9.889  | 83   | 185808   | 45.655  | ug/l   | 99       |
| 48) Methyl methacrylate       | 9.677  | 41   | 131142   | 49.948  | ug/l   | 97       |
| 49) 1,4-Dioxane               | 9.689  | 88   | 35051    | 792.760 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone      | 10.441 | 43   | 832426   | 245.877 | ug/l   | 99       |
| 52) Toluene                   | 10.630 | 92   | 301911   | 48.073  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 10.830 | 75   | 183680   | 47.757  | ug/l   | 94       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 196307   | 47.783  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane     | 11.012 | 97   | 114757   | 46.173  | ug/l   | 97       |
| 56) Ethyl methacrylate        | 10.871 | 69   | 182170   | 43.762  | ug/l   | 98       |
| 57) 1,3-Dichloropropane       | 11.159 | 76   | 202583   | 46.877  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 403949   | 256.116 | ug/l   | 99       |
| 59) 2-Hexanone                | 11.194 | 43   | 598433   | 251.213 | ug/l   | 100      |
| 60) Dibromochloromethane      | 11.353 | 129  | 137831   | 45.935  | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 11.465 | 107  | 110926   | 44.837  | ug/l   | 100      |
| 64) Tetrachloroethene         | 11.100 | 164  | 98211    | 44.886  | ug/l   | 96       |
| 65) Chlorobenzene             | 11.888 | 112  | 322723   | 45.901  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 115379   | 44.712  | ug/l   | 99       |
| 67) Ethyl Benzene             | 11.959 | 91   | 577059   | 50.391  | ug/l   | 97       |
| 68) m/p-Xylenes               | 12.071 | 106  | 437367   | 103.341 | ug/l   | 100      |
| 69) o-Xylene                  | 12.394 | 106  | 210698   | 52.093  | ug/l   | 99       |
| 70) Styrene                   | 12.406 | 104  | 355459   | 53.103  | ug/l   | 100      |
| 71) Bromoform                 | 12.577 | 173  | 90693    | 49.119  | ug/l # | 100      |
| 73) Isopropylbenzene          | 12.694 | 105  | 534428   | 49.951  | ug/l   | 99       |
| 74) N-ethyl acetate           | 12.488 | 43   | 234342   | 48.730  | ug/l   | 100      |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 164882   | 43.627  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane    | 12.988 | 75   | 134976m  | 41.891  | ug/l   |          |
| 77) Bromobenzene              | 12.977 | 156  | 128968   | 46.138  | ug/l   | 97       |
| 78) n-propylbenzene           | 13.029 | 91   | 645977   | 51.001  | ug/l   | 100      |
| 79) 2-Chlorotoluene           | 13.124 | 91   | 392404   | 47.870  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene    | 13.171 | 105  | 456048   | 51.604  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 58623m   | 49.226  | ug/l   |          |
| 82) 4-Chlorotoluene           | 13.218 | 91   | 398110   | 48.776  | ug/l   | 100      |
| 83) tert-Butylbenzene         | 13.435 | 119  | 378478   | 50.997  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene    | 13.477 | 105  | 457340   | 51.922  | ug/l   | 100      |
| 85) sec-Butylbenzene          | 13.612 | 105  | 532578   | 51.777  | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 440284   | 47.795  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene       | 13.729 | 146  | 236387   | 45.920  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 13.806 | 146  | 235319   | 44.102  | ug/l   | 99       |
| 89) n-Butylbenzene            | 14.053 | 91   | 373227   | 50.578  | ug/l   | 99       |
| 90) Hexachloroethane          | 14.329 | 117  | 88538    | 45.215  | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene       | 14.100 | 146  | 231646   | 45.113  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.718 | 75   | 31899    | 46.221  | ug/l   | 97       |
| 93) 1,2,4-Trichlorobenzene    | 15.388 | 180  | 109157   | 45.739  | ug/l   | 98       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 53358    | 42.112  | ug/l   | 99       |
| 95) Naphthalene               | 15.641 | 128  | 335535   | 47.116  | ug/l   | 100      |
| 96) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 107583   | 44.551  | ug/l   | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
Data File : VN085445.D  
Acq On : 14 Jan 2025 18:06  
Operator : JC\MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN011425

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 02:20:47 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

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

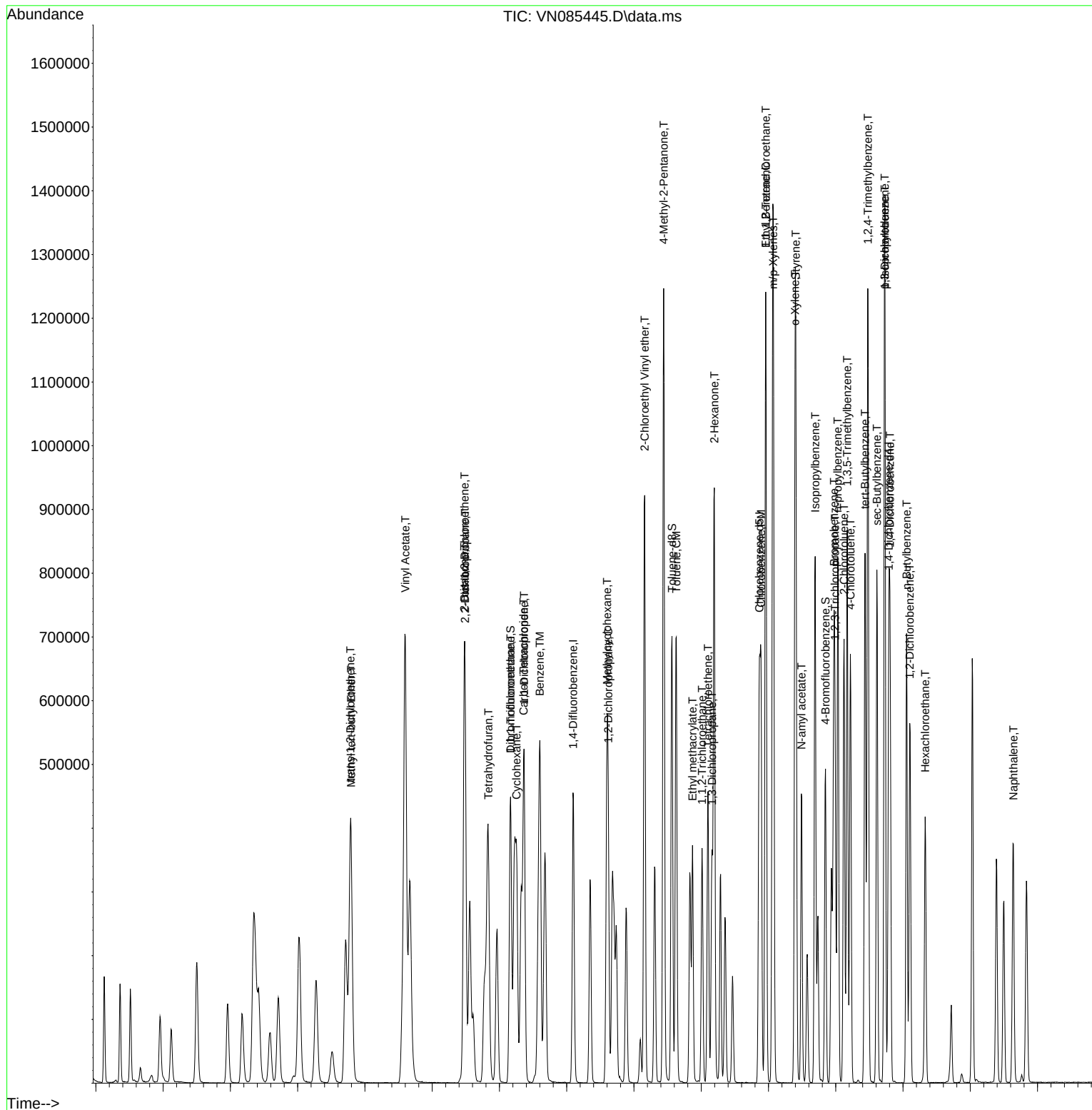
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
Data File : VN085445.D  
Acq On : 14 Jan 2025 18:06  
Operator : JC\MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN011425

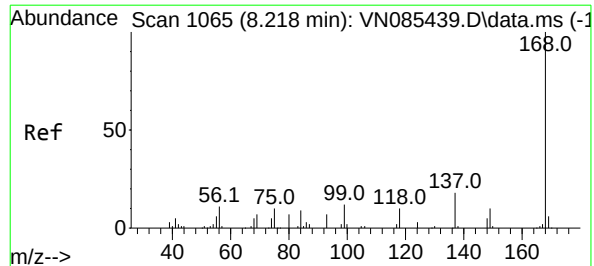
Manual Integrations  
APPROVED

Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025

Quant Time: Jan 15 02:20:47 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration

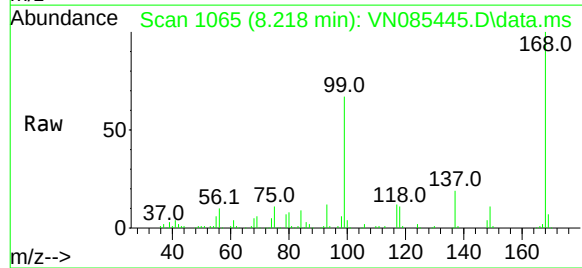






#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.218 min Scan# 1065  
Delta R.T. 0.000 min  
Lab File: VN085445.D  
Acq: 14 Jan 2025 18:06

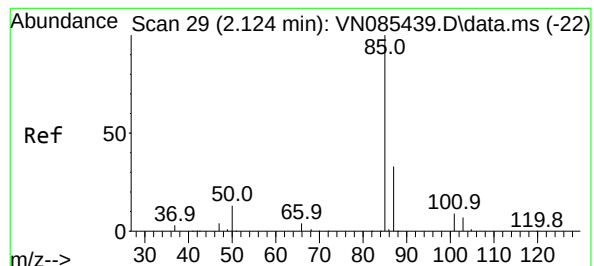
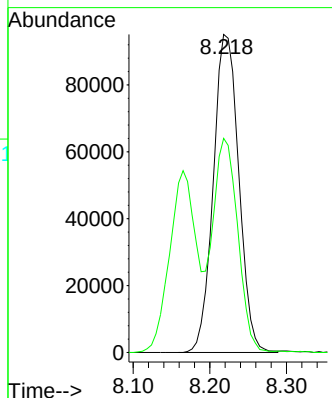
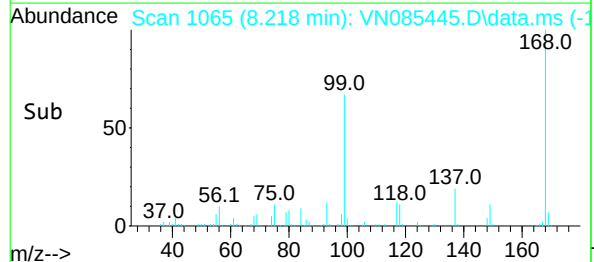
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN011425



Tgt Ion:168 Resp: 219757  
Ion Ratio Lower Upper  
168 100  
99 66.9 53.6 80.4

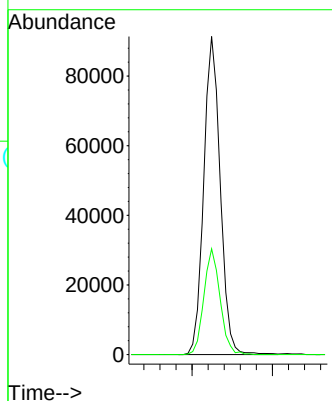
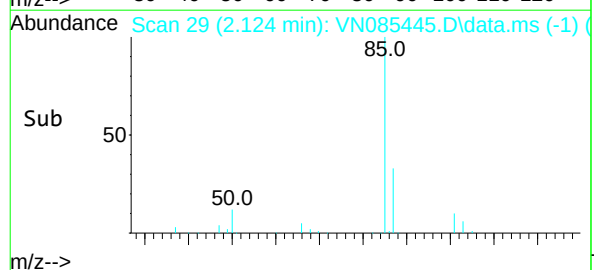
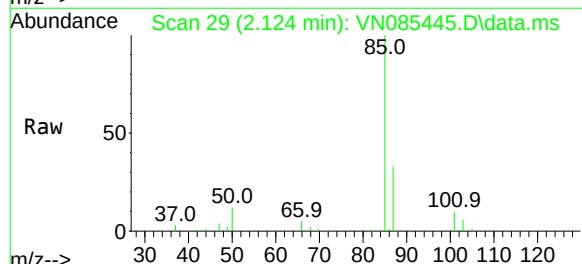
Manual Integrations  
APPROVED

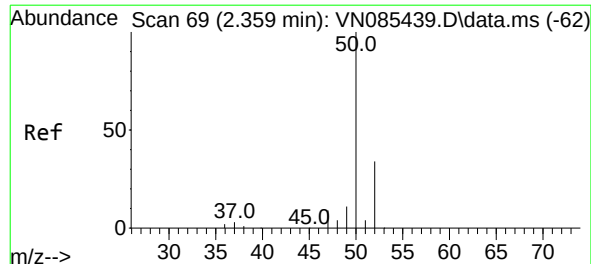
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#2  
Dichlorodifluoromethane  
Concen: 43.772 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. 0.000 min  
Lab File: VN085445.D  
Acq: 14 Jan 2025 18:06

Tgt Ion: 85 Resp: 130242  
Ion Ratio Lower Upper  
85 100  
87 33.2 16.7 50.1





#3

Chloromethane

Concen: 42.883 ug/l

RT: 2.360 min Scan# 69

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 50 Resp: 138152

Ion Ratio Lower Upper

50 100

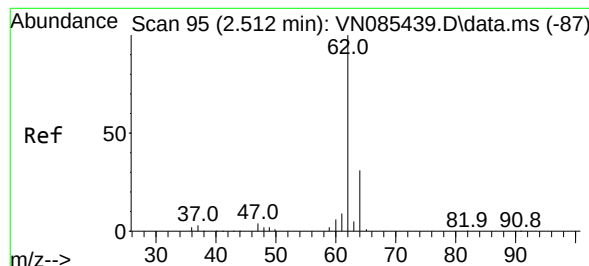
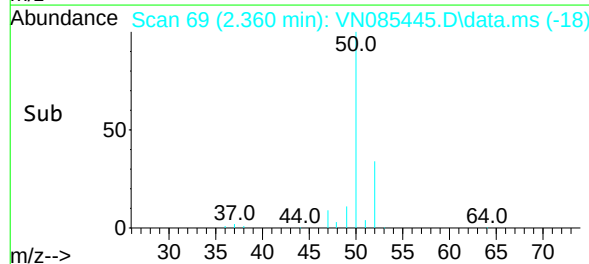
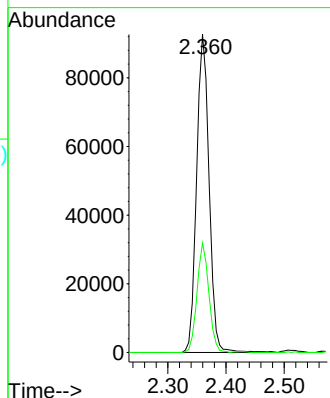
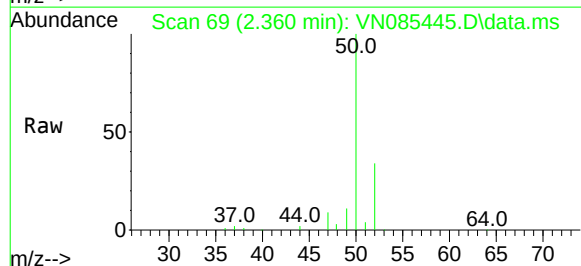
52 34.4 27.0 40.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#4

Vinyl Chloride

Concen: 42.715 ug/l

RT: 2.513 min Scan# 95

Delta R.T. 0.000 min

Lab File: VN085445.D

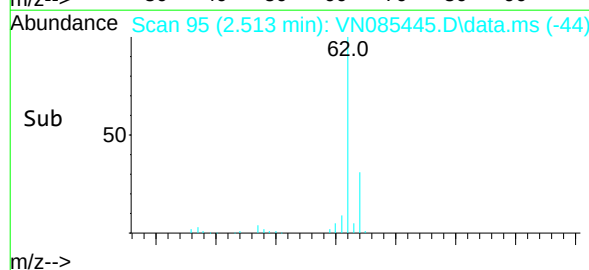
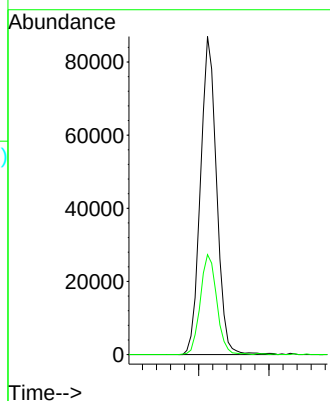
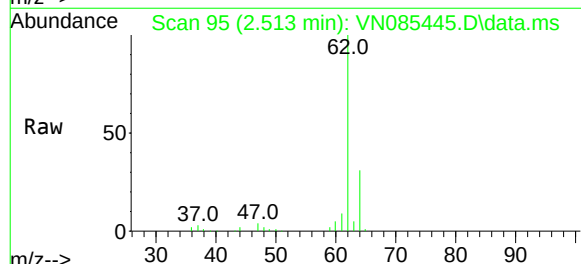
Acq: 14 Jan 2025 18:06

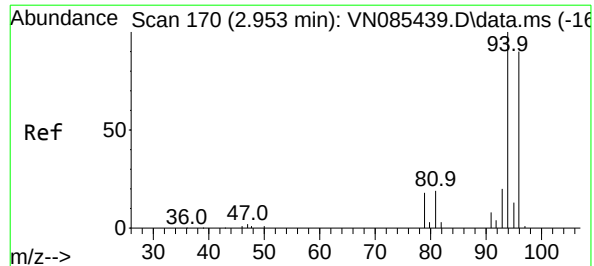
Tgt Ion: 62 Resp: 138316

Ion Ratio Lower Upper

62 100

64 31.4 24.8 37.2





#5

Bromomethane

Concen: 40.910 ug/l

RT: 2.954 min Scan# 170

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 94 Resp: 80019

Ion Ratio Lower Upper

94 100

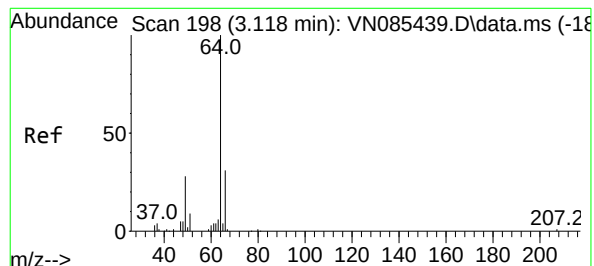
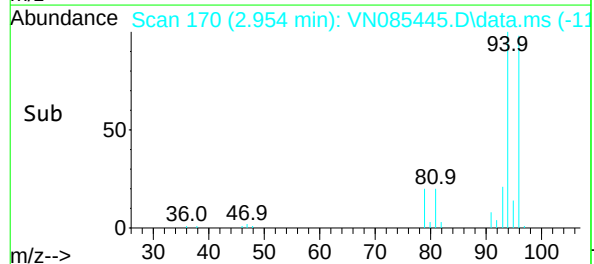
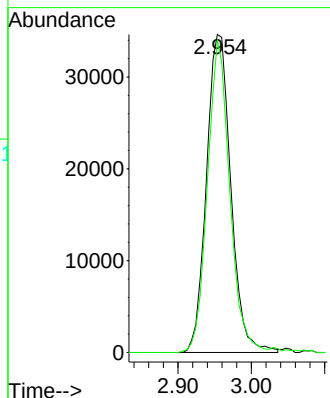
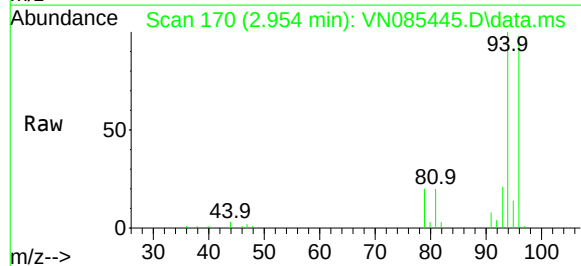
96 98.2 71.8 107.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#6

Chloroethane

Concen: 42.299 ug/l

RT: 3.124 min Scan# 199

Delta R.T. 0.006 min

Lab File: VN085445.D

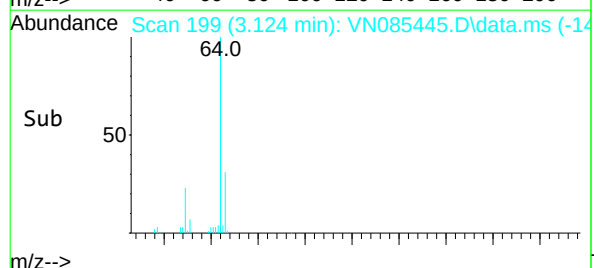
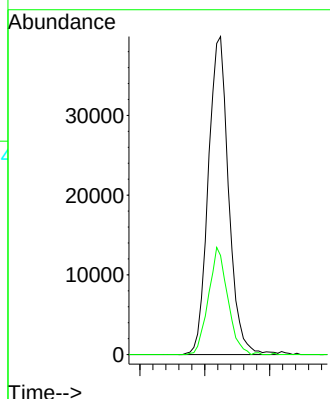
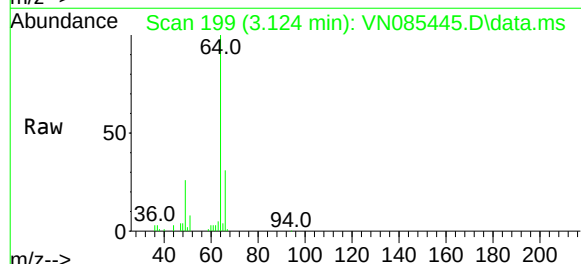
Acq: 14 Jan 2025 18:06

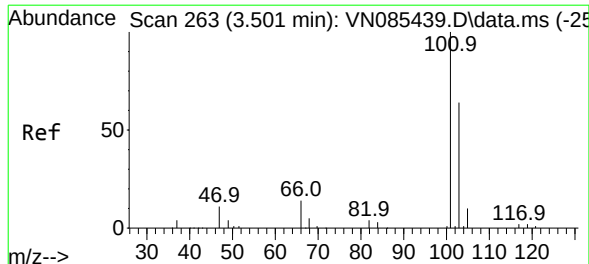
Tgt Ion: 64 Resp: 86837

Ion Ratio Lower Upper

64 100

66 31.1 24.6 36.8





#7

Trichlorofluoromethane

Concen: 43.956 ug/l

RT: 3.501 min Scan# 26

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion:101 Resp: 206526

Ion Ratio Lower Upper

101 100

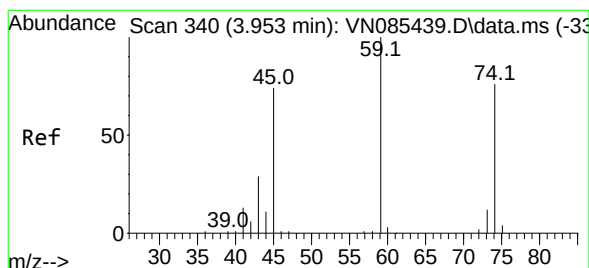
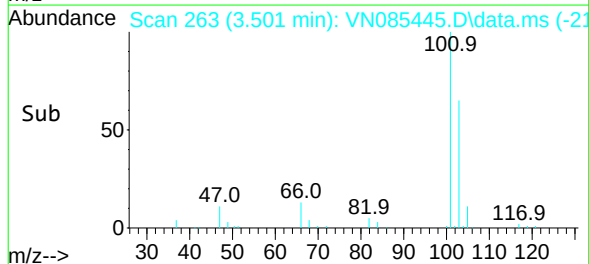
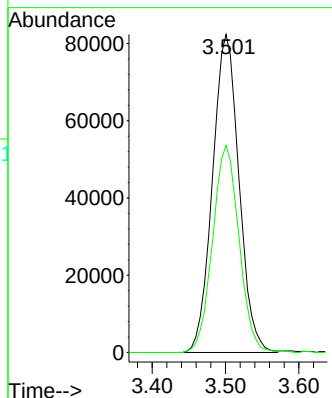
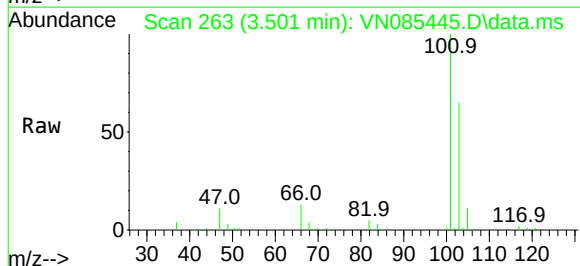
103 65.1 51.4 77.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#8

Diethyl Ether

Concen: 42.846 ug/l

RT: 3.959 min Scan# 341

Delta R.T. 0.006 min

Lab File: VN085445.D

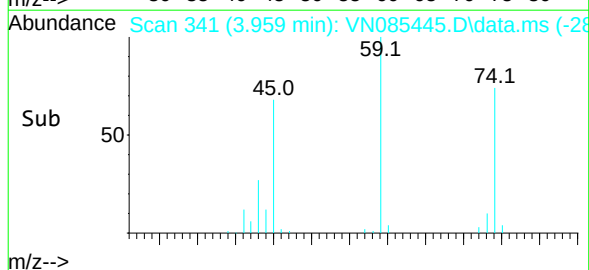
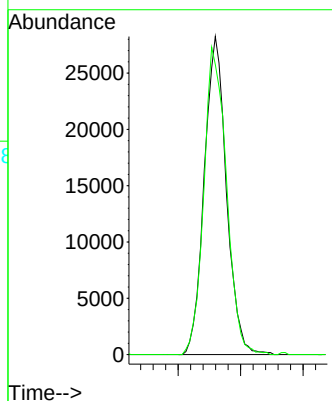
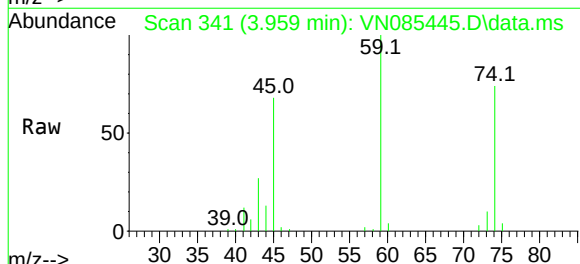
Acq: 14 Jan 2025 18:06

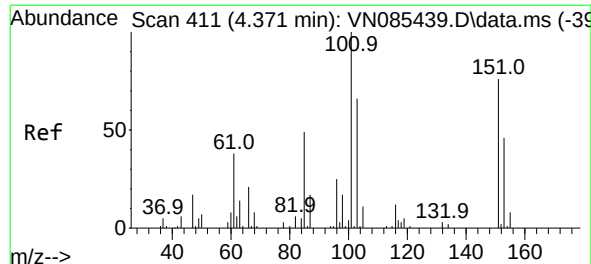
Tgt Ion: 74 Resp: 69545

Ion Ratio Lower Upper

74 100

45 99.0 49.7 149.1





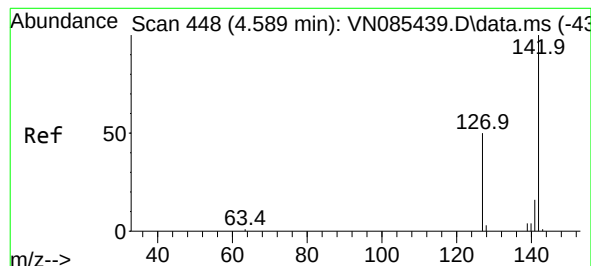
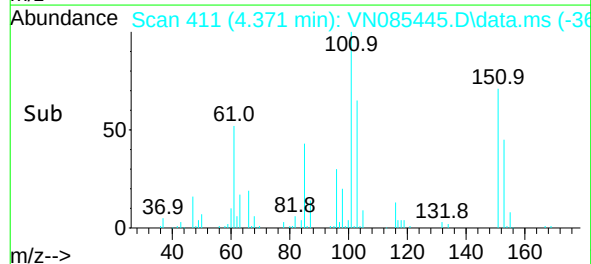
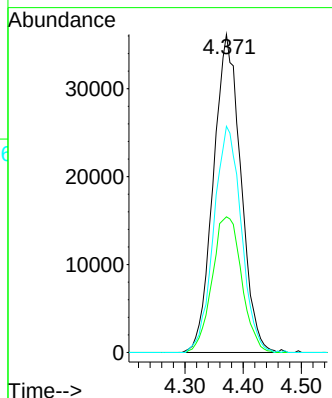
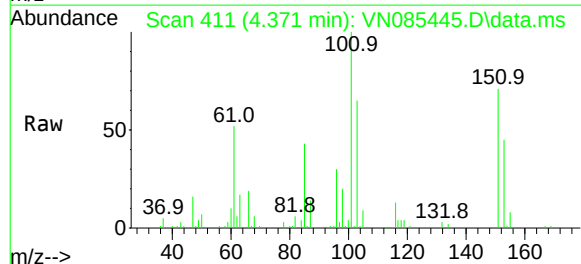
#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 44.706 ug/l  
RT: 4.371 min Scan# 411  
Delta R.T. 0.000 min  
Lab File: VN085445.D  
Acq: 14 Jan 2025 18:06

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN011425

Tgt Ion:101 Resp: 118310  
Ion Ratio Lower Upper  
101 100  
85 45.9 37.8 56.8  
151 71.5 58.8 88.2

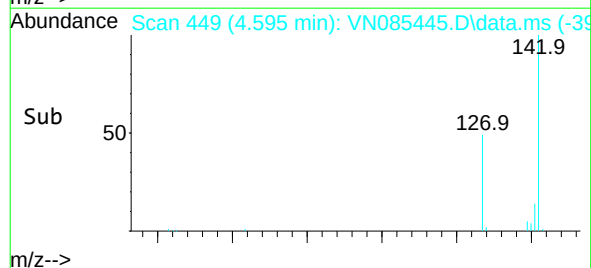
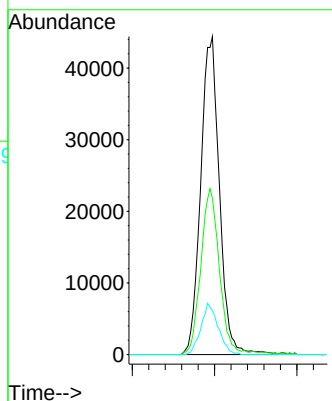
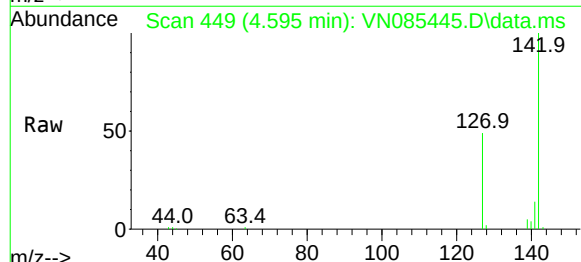
Manual Integrations  
APPROVED

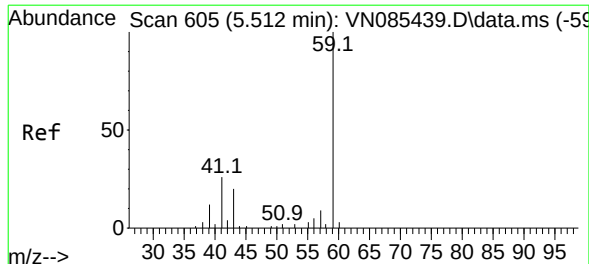
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#10  
Methyl Iodide  
Concen: 46.259 ug/l  
RT: 4.595 min Scan# 449  
Delta R.T. 0.006 min  
Lab File: VN085445.D  
Acq: 14 Jan 2025 18:06

Tgt Ion:142 Resp: 140190  
Ion Ratio Lower Upper  
142 100  
127 49.2 40.3 60.5  
141 13.9 12.8 19.2





#11

Tert butyl alcohol

Concen: 206.633 ug/l

RT: 5.518 min Scan# 605

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 59 Resp: 83933

Ion Ratio Lower Upper

59 100

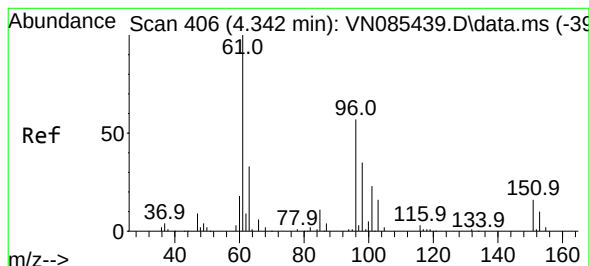
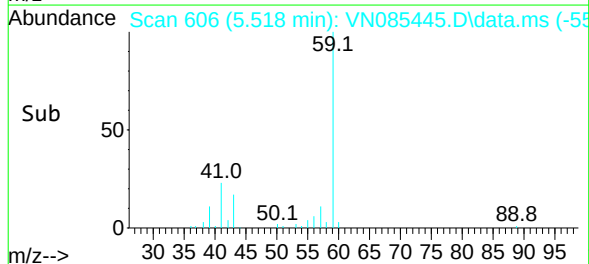
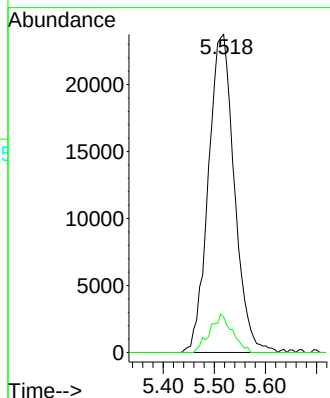
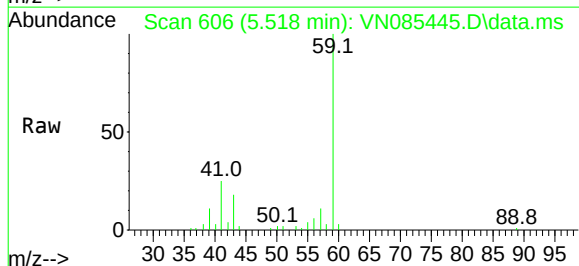
57 10.4 8.6 13.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#12

1,1-Dichloroethene

Concen: 45.317 ug/l

RT: 4.342 min Scan# 406

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

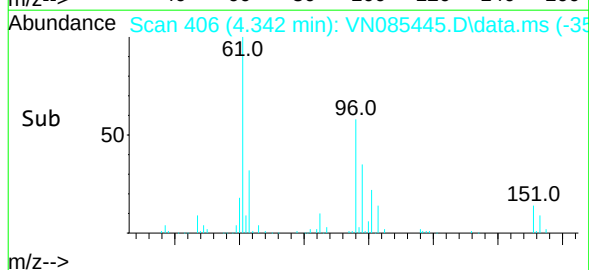
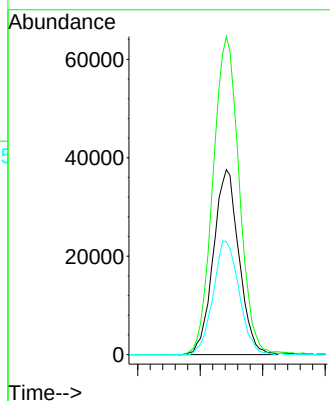
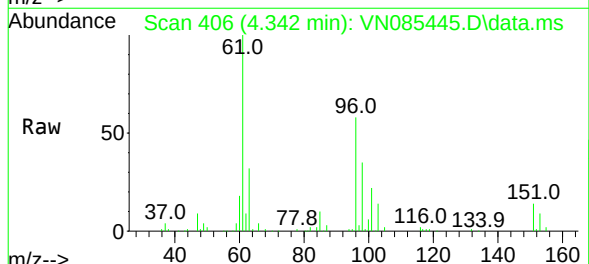
Tgt Ion: 96 Resp: 106880

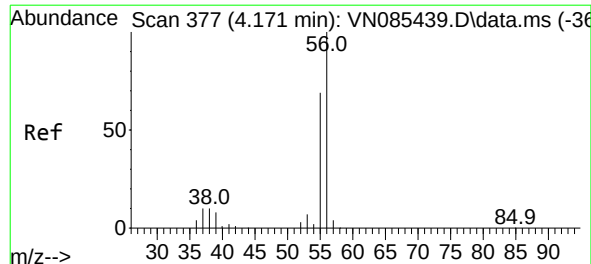
Ion Ratio Lower Upper

96 100

61 171.9 141.0 211.4

98 61.0 49.0 73.6





#13

Acrolein

Concen: 244.765 ug/l

RT: 4.177 min Scan# 37

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 56 Resp: 135720

Ion Ratio Lower Upper

56 100

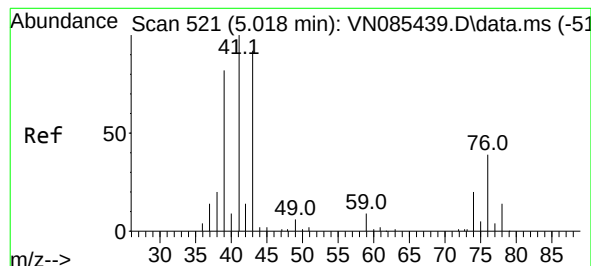
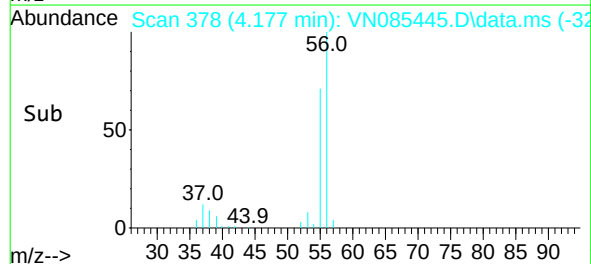
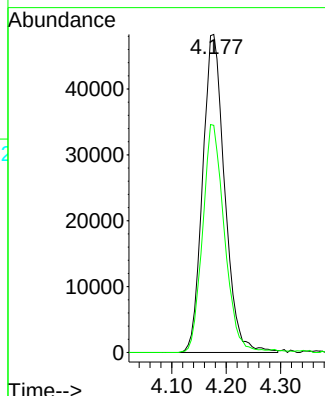
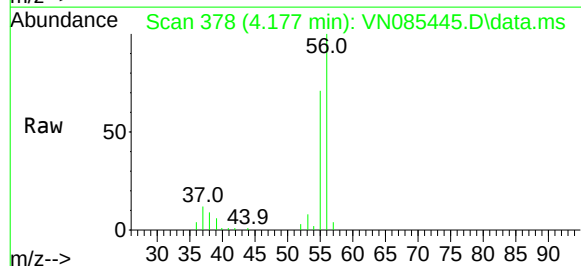
55 70.9 56.3 84.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#14

Allyl chloride

Concen: 44.501 ug/l

RT: 5.024 min Scan# 522

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

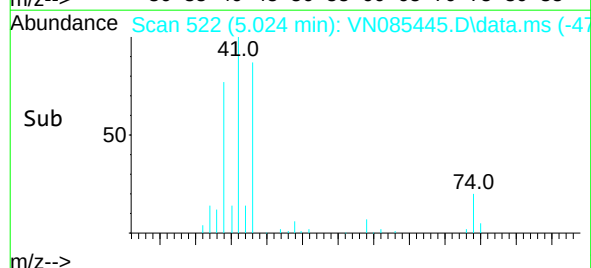
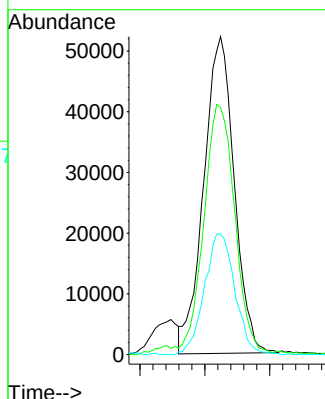
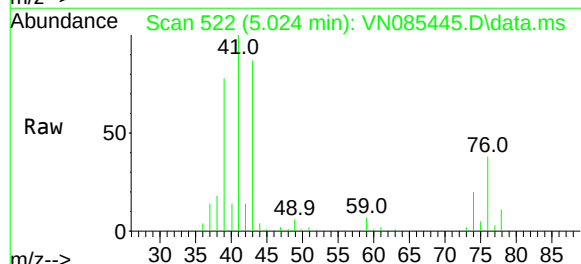
Tgt Ion: 41 Resp: 170308

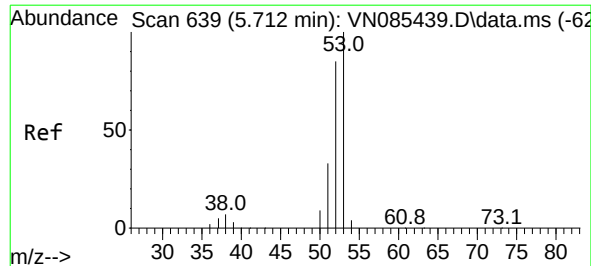
Ion Ratio Lower Upper

41 100

39 78.9 64.4 96.6

76 38.2 30.5 45.7





#15

Acrylonitrile

Concen: 227.920 ug/l

RT: 5.712 min Scan# 639

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 53 Resp: 294062

Ion Ratio Lower Upper

53 100

52 82.7 65.5 98.3

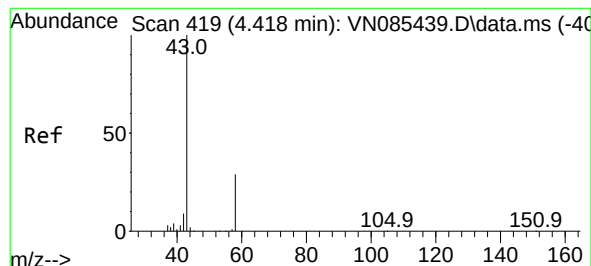
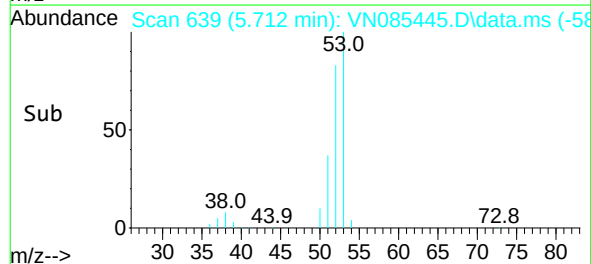
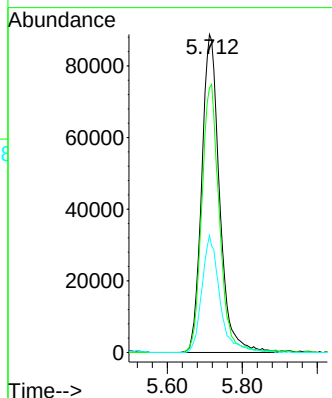
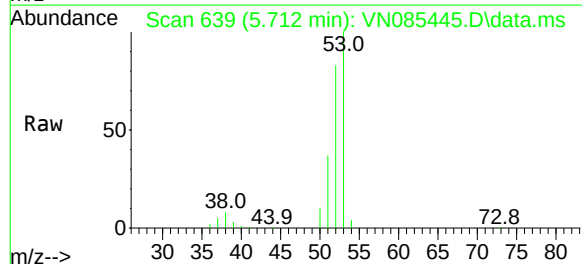
51 36.8 29.8 44.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#16

Acetone

Concen: 213.971 ug/l

RT: 4.418 min Scan# 419

Delta R.T. 0.000 min

Lab File: VN085445.D

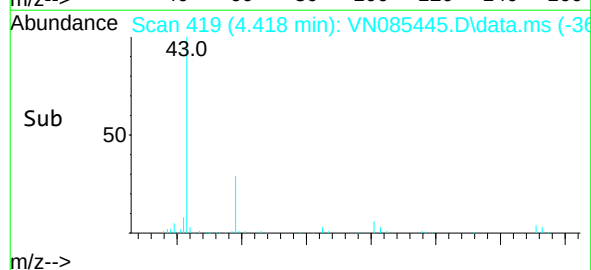
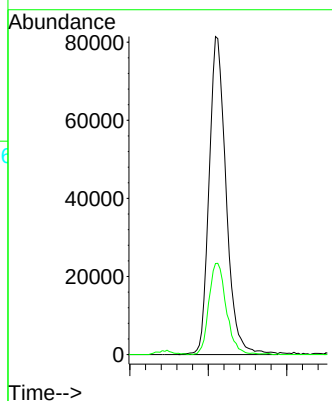
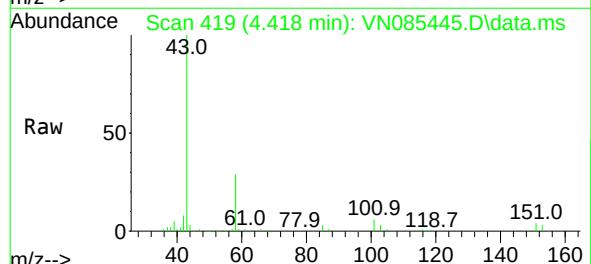
Acq: 14 Jan 2025 18:06

Tgt Ion: 43 Resp: 245248

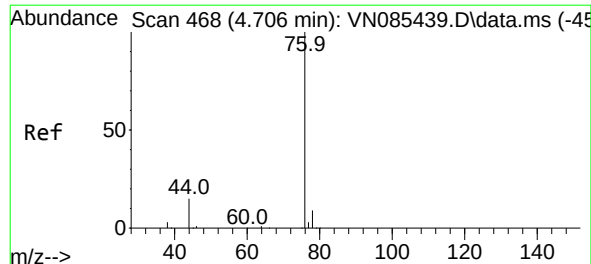
Ion Ratio Lower Upper

43 100

58 28.4 23.8 35.6







#17

Carbon Disulfide

Concen: 41.342 ug/l

RT: 4.712 min Scan# 468

Delta R.T. 0.006 min

Lab File: VN085445.D

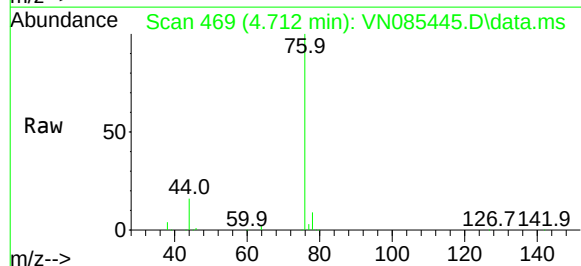
Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425



Tgt Ion: 76 Resp: 300215

Ion Ratio Lower Upper

76 100

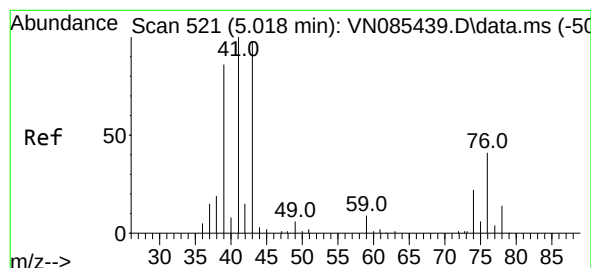
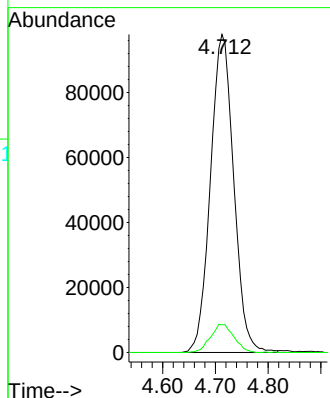
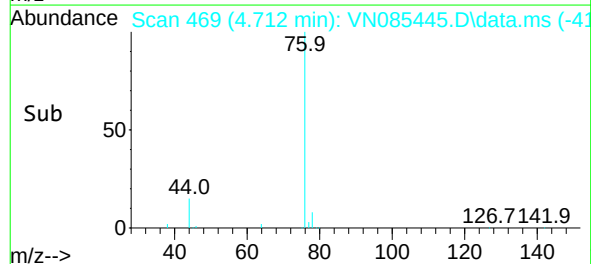
78 8.7 6.9 10.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#18

Methyl Acetate

Concen: 45.028 ug/l

RT: 5.018 min Scan# 521

Delta R.T. 0.000 min

Lab File: VN085445.D

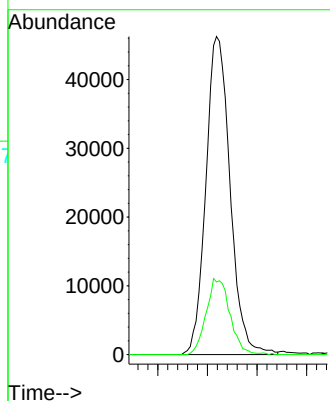
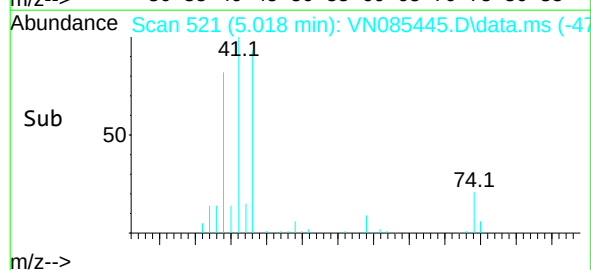
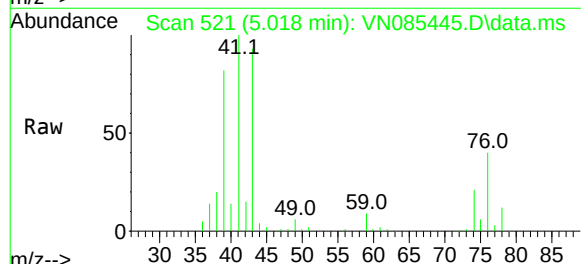
Acq: 14 Jan 2025 18:06

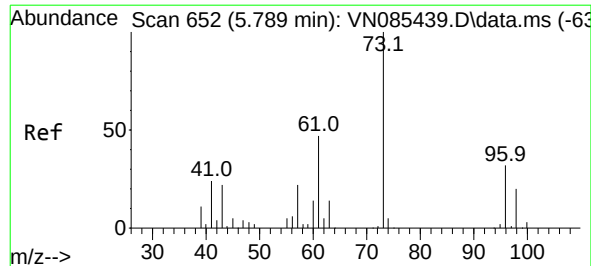
Tgt Ion: 43 Resp: 156938

Ion Ratio Lower Upper

43 100

74 23.4 18.6 28.0





#19

Methyl tert-butyl Ether

Concen: 47.768 ug/l

RT: 5.795 min Scan# 65

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 73 Resp: 365819

Ion Ratio Lower Upper

73 100

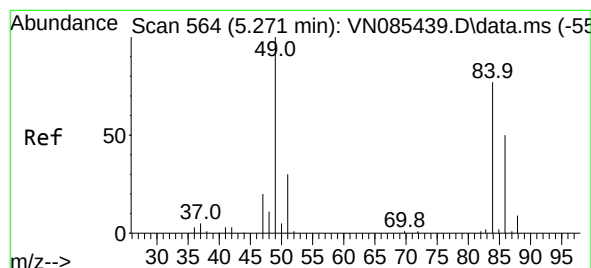
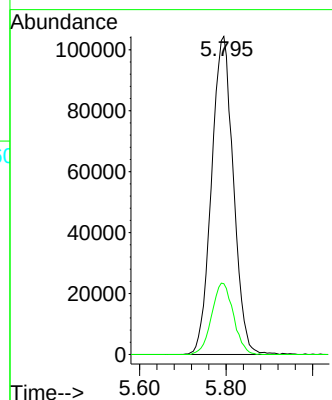
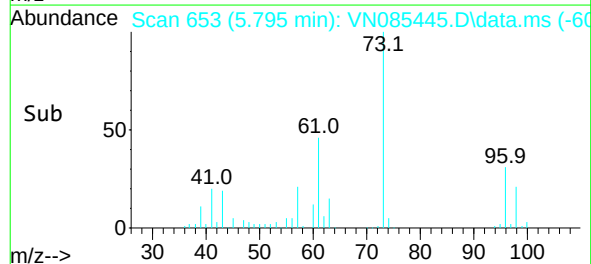
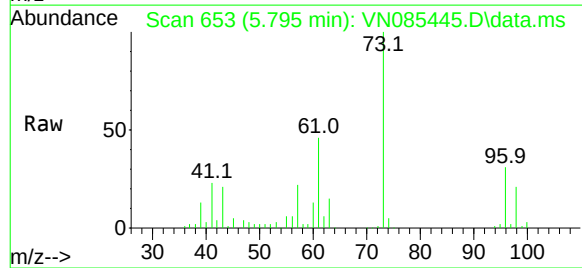
57 22.3 17.8 26.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#20

Methylene Chloride

Concen: 43.017 ug/l

RT: 5.271 min Scan# 564

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Tgt Ion: 84 Resp: 122059

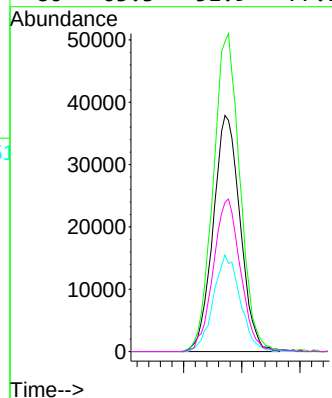
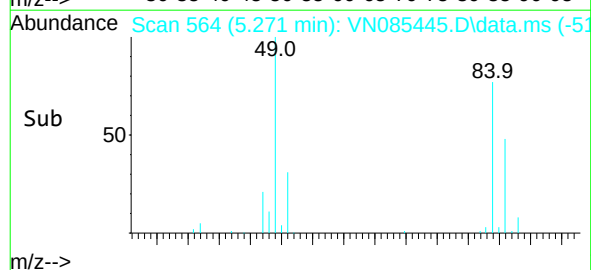
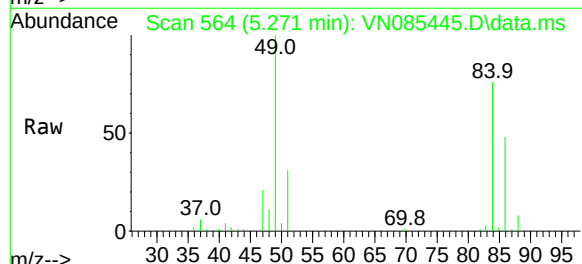
Ion Ratio Lower Upper

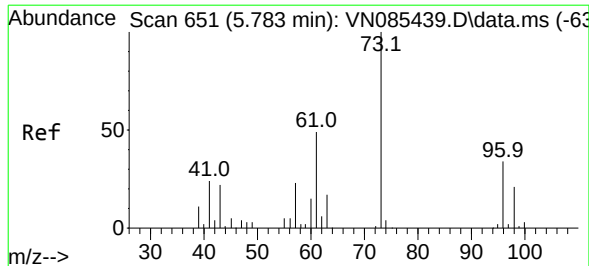
84 100

49 131.3 104.1 156.1

51 41.0 31.0 46.4

86 63.3 51.9 77.9





#21

trans-1,2-Dichloroethene

Concen: 44.672 ug/l

RT: 5.783 min Scan# 651

Delta R.T. 0.000 min

Lab File: VN085445.D

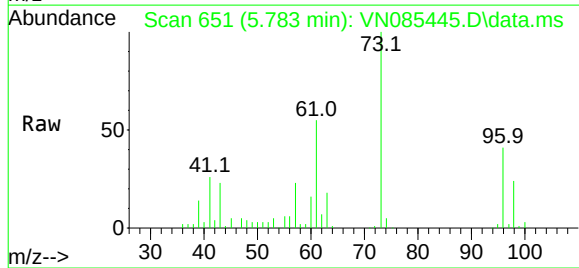
Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425



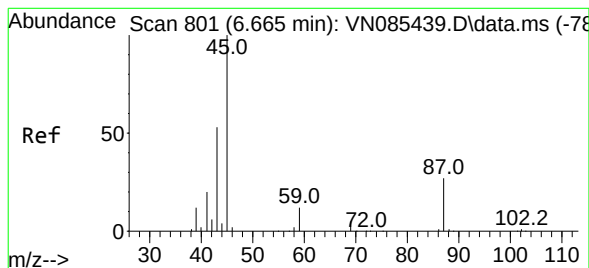
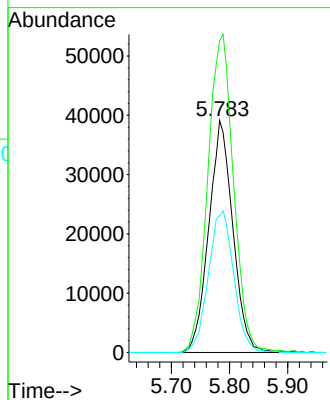
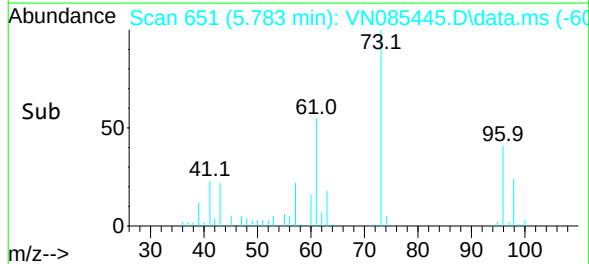
| Tgt Ion: | 96    | Resp: | 112597 |
|----------|-------|-------|--------|
| Ion      | Ratio | Lower | Upper  |
| 96       | 100   |       |        |
| 61       | 134.3 | 115.7 | 173.5  |
| 98       | 59.1  | 49.8  | 74.8   |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#22

Diisopropyl ether

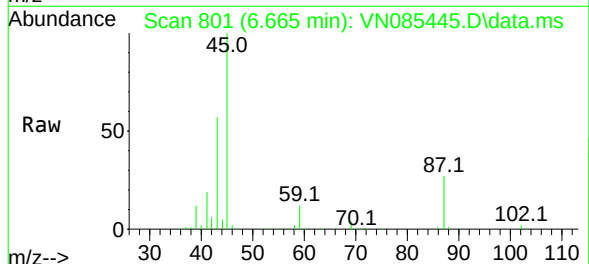
Concen: 46.996 ug/l

RT: 6.665 min Scan# 801

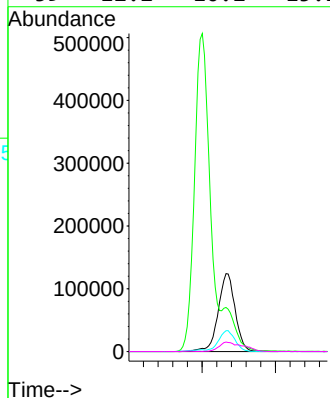
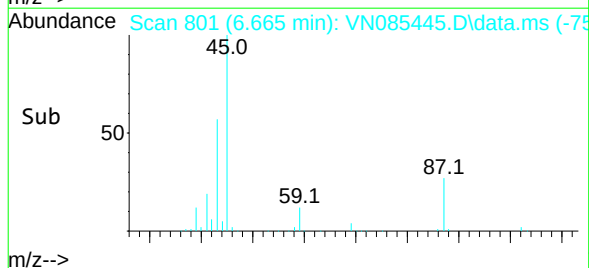
Delta R.T. 0.000 min

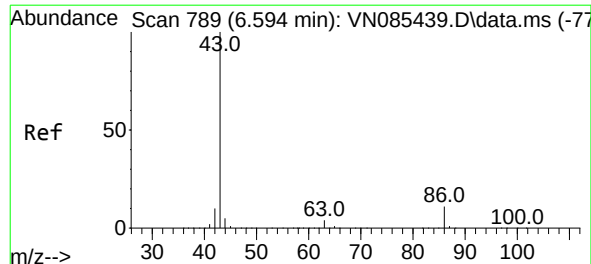
Lab File: VN085445.D

Acq: 14 Jan 2025 18:06



| Tgt Ion: | 45    | Resp: | 399206 |
|----------|-------|-------|--------|
| Ion      | Ratio | Lower | Upper  |
| 45       | 100   |       |        |
| 43       | 56.0  | 45.0  | 67.6   |
| 87       | 26.8  | 21.8  | 32.8   |
| 59       | 12.2  | 10.2  | 15.2   |





#23

Vinyl Acetate

Concen: 247.459 ug/l

RT: 6.601 min Scan# 790

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 43 Resp: 1471068

Ion Ratio Lower Upper

43 100

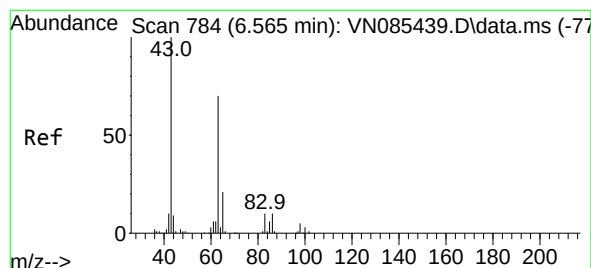
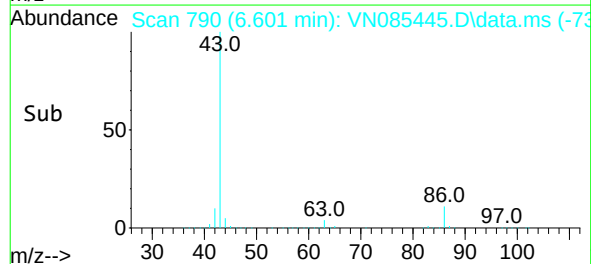
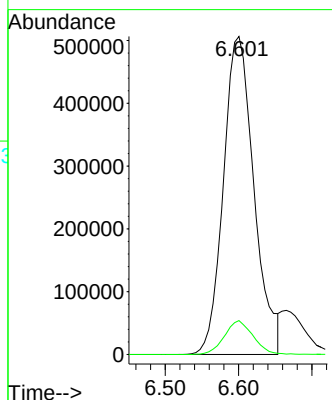
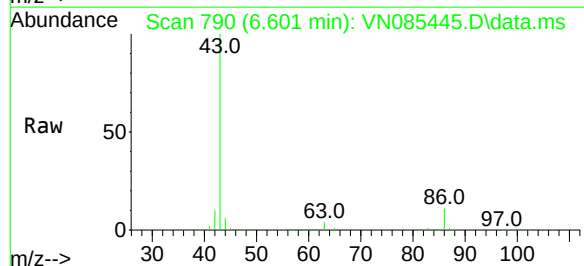
86 10.7 8.4 12.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#24

1,1-Dichloroethane

Concen: 44.114 ug/l

RT: 6.571 min Scan# 785

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

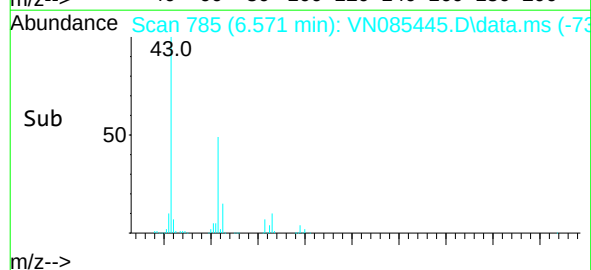
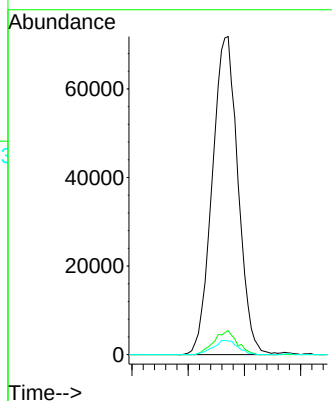
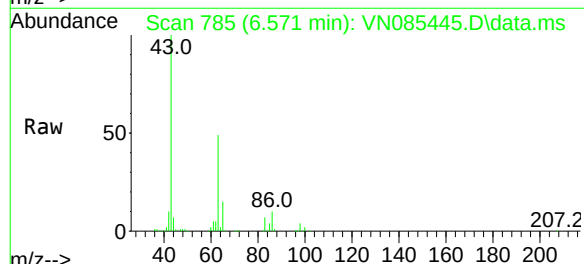
Tgt Ion: 63 Resp: 228489

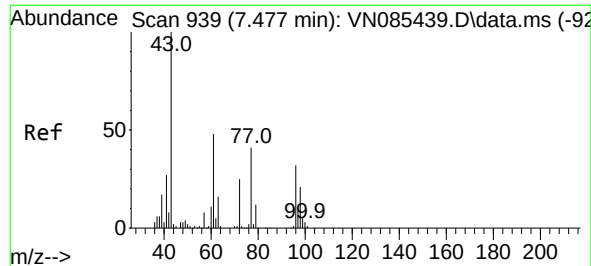
Ion Ratio Lower Upper

63 100

98 7.5 3.3 9.8

100 4.2 2.0 6.0





#25

2-Butanone

Concen: 228.924 ug/l

RT: 7.477 min Scan# 939

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 43 Resp: 386125

Ion Ratio Lower Upper

43 100

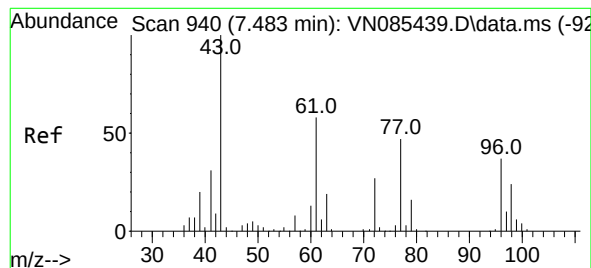
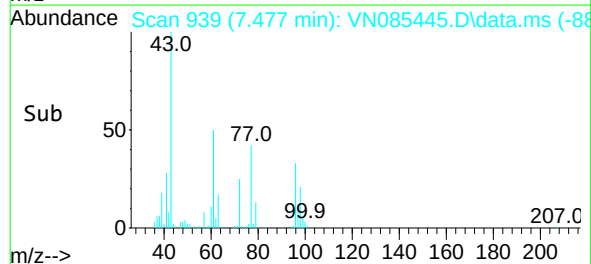
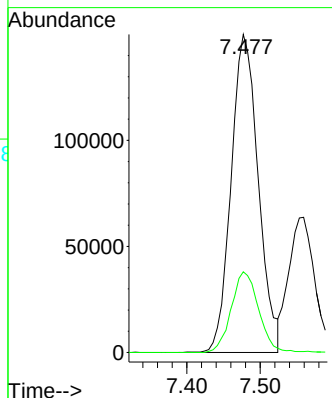
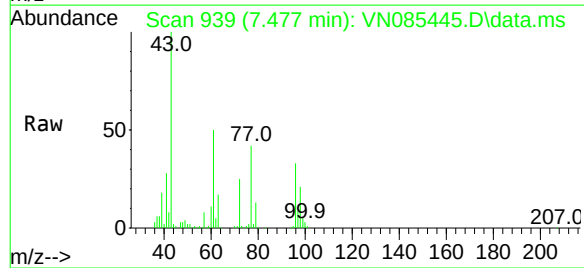
72 25.4 20.2 30.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#26

2,2-Dichloropropane

Concen: 47.593 ug/l

RT: 7.489 min Scan# 941

Delta R.T. 0.006 min

Lab File: VN085445.D

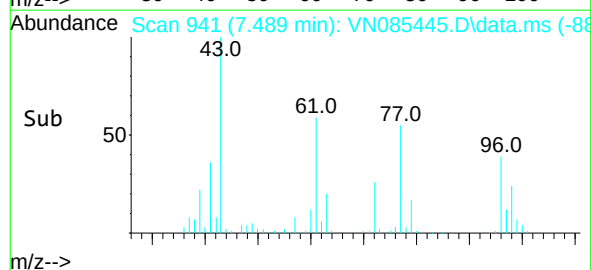
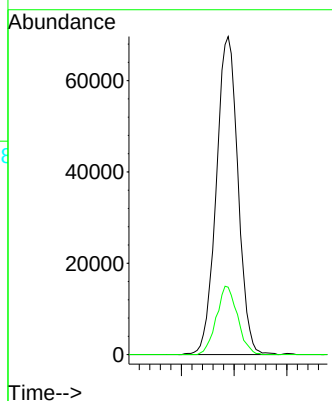
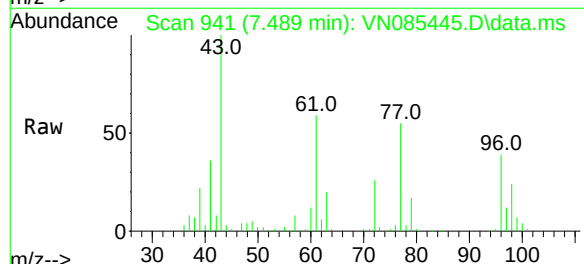
Acq: 14 Jan 2025 18:06

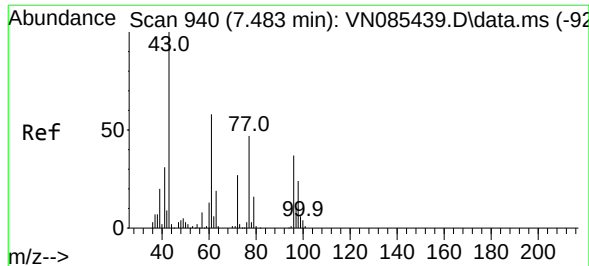
Tgt Ion: 77 Resp: 199303

Ion Ratio Lower Upper

77 100

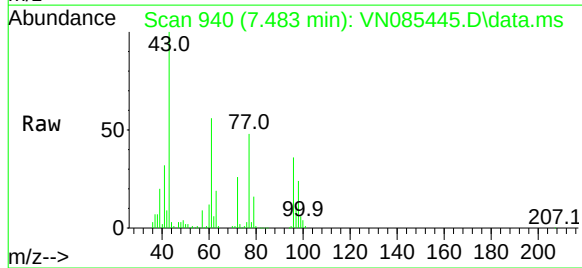
97 20.9 10.7 32.1





#27  
cis-1,2-Dichloroethene  
Concen: 45.446 ug/l  
RT: 7.483 min Scan# 940  
Delta R.T. 0.000 min  
Lab File: VN085445.D  
Acq: 14 Jan 2025 18:06

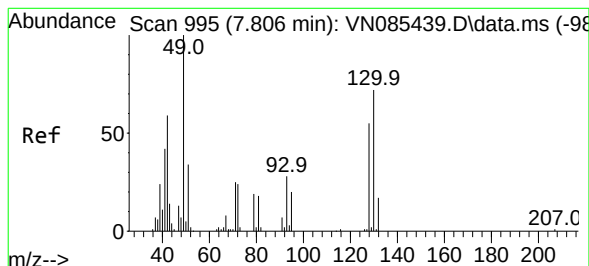
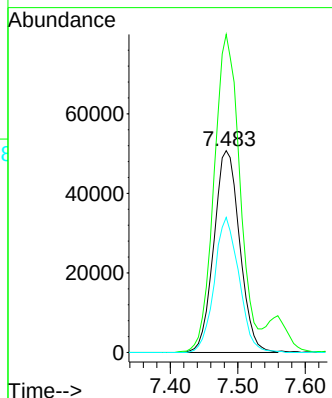
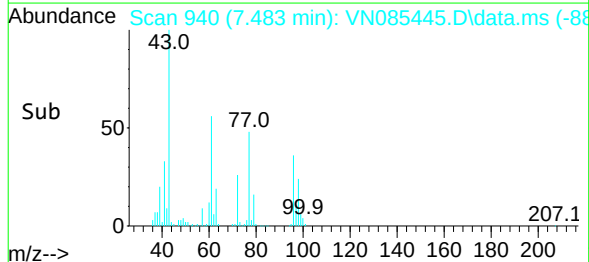
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN011425



Tgt Ion: 96 Resp: 134920  
Ion Ratio Lower Upper  
96 100  
61 158.0 0.0 311.8  
98 64.1 0.0 126.0

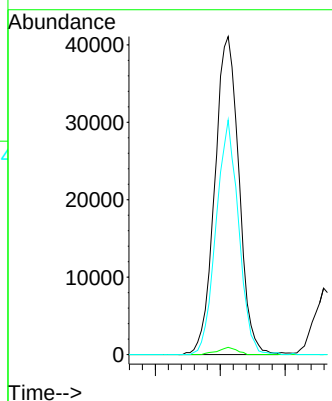
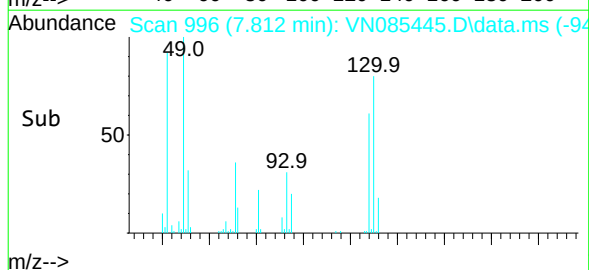
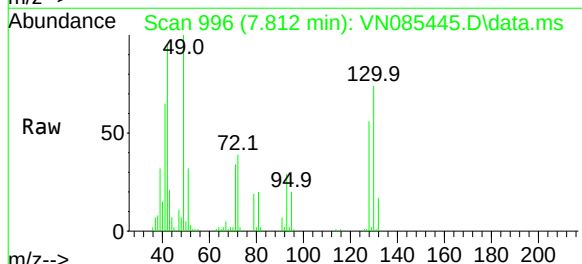
Manual Integrations  
APPROVED

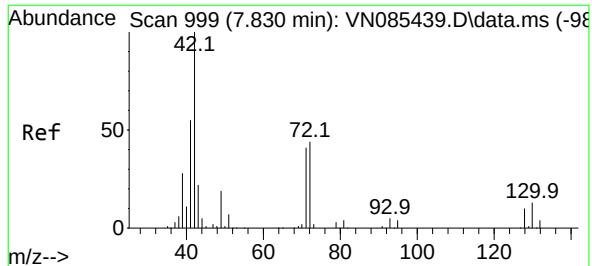
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#28  
Bromochloromethane  
Concen: 44.122 ug/l  
RT: 7.812 min Scan# 996  
Delta R.T. 0.006 min  
Lab File: VN085445.D  
Acq: 14 Jan 2025 18:06

Tgt Ion: 49 Resp: 106323  
Ion Ratio Lower Upper  
49 100  
129 1.8 0.0 4.4  
130 68.6 55.0 82.4





#29

Tetrahydrofuran

Concen: 239.065 ug/l

RT: 7.836 min Scan# 10

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 42 Resp: 255650

Ion Ratio Lower Upper

42 100

72 42.5 34.2 51.2

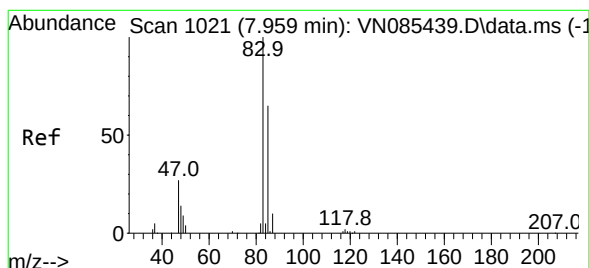
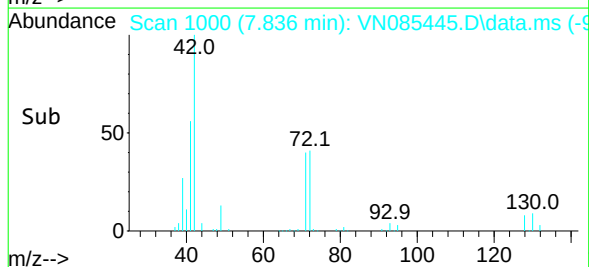
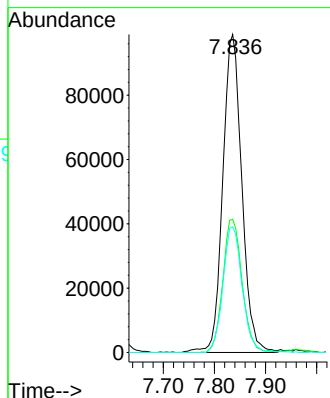
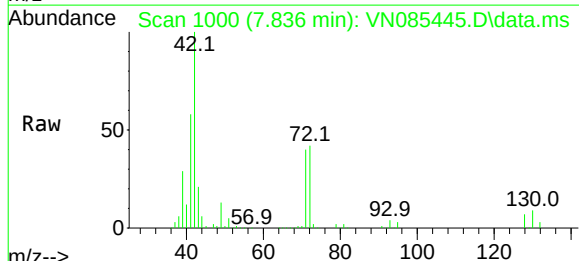
71 39.9 32.5 48.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#30

Chloroform

Concen: 44.071 ug/l

RT: 7.965 min Scan# 1022

Delta R.T. 0.006 min

Lab File: VN085445.D

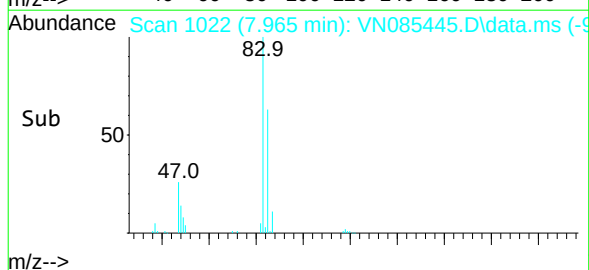
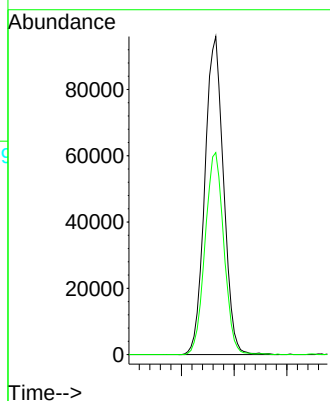
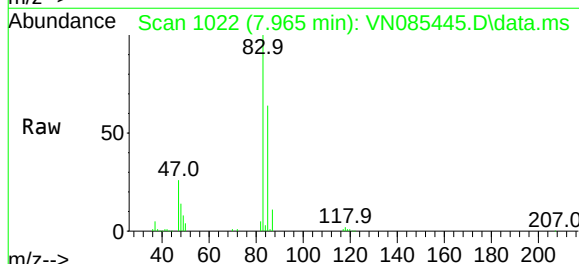
Acq: 14 Jan 2025 18:06

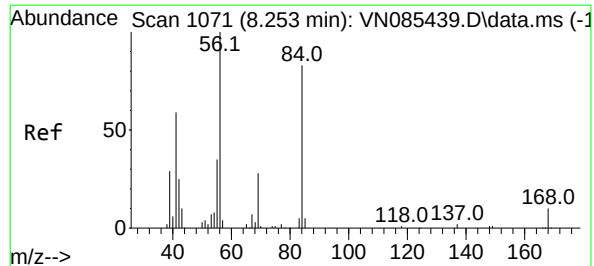
Tgt Ion: 83 Resp: 235923

Ion Ratio Lower Upper

83 100

85 63.5 51.8 77.6





#31

Cyclohexane

Concen: 42.878 ug/l

RT: 8.253 min Scan# 1071

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 56 Resp: 193034

Ion Ratio Lower Upper

56 100

69 30.5 22.2 33.4

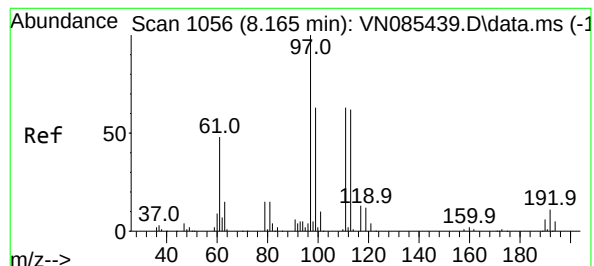
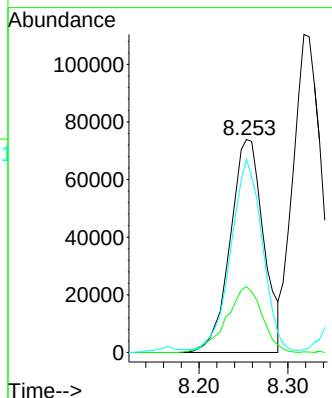
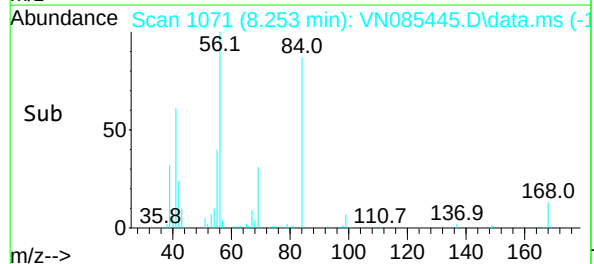
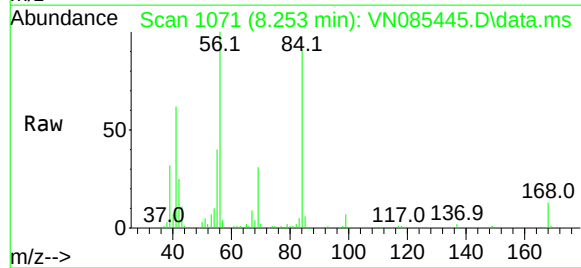
84 89.4 66.4 99.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#32

1,1,1-Trichloroethane

Concen: 44.332 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

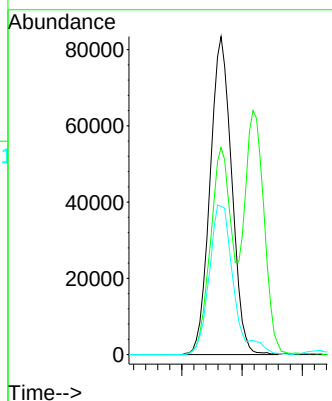
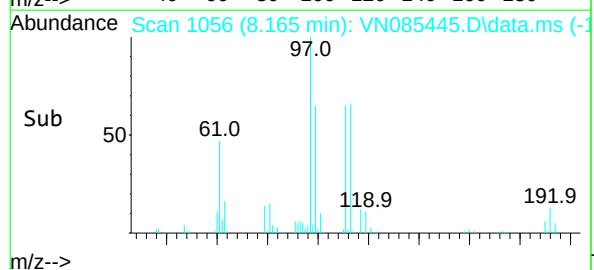
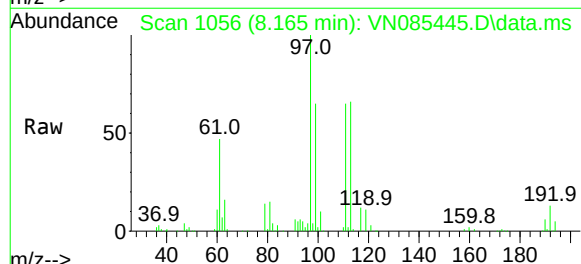
Tgt Ion: 97 Resp: 208172

Ion Ratio Lower Upper

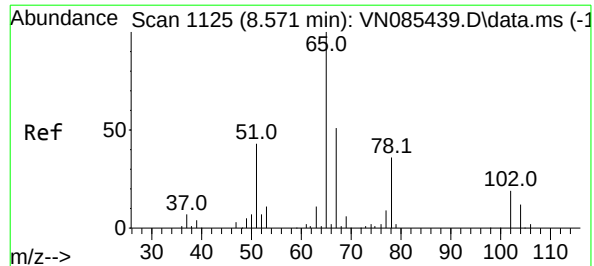
97 100

99 61.8 49.8 74.6

61 52.8 41.4 62.2







#33

1,2-Dichloroethane-d4

Concen: 49.782 ug/l

RT: 8.571 min Scan# 1125

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 65 Resp: 176594

Ion Ratio Lower Upper

65 100

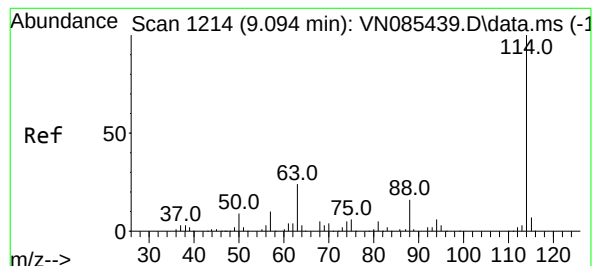
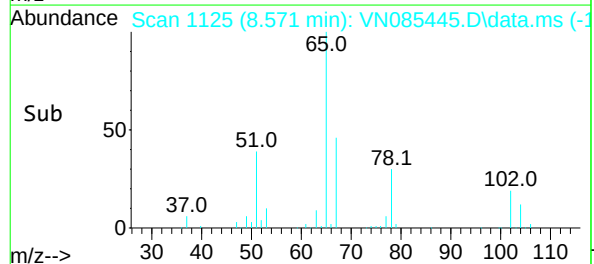
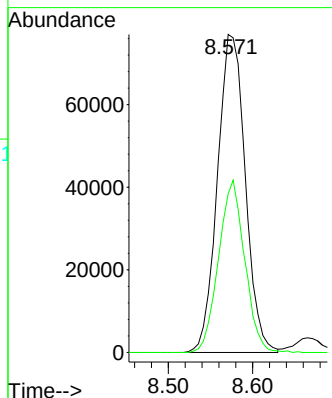
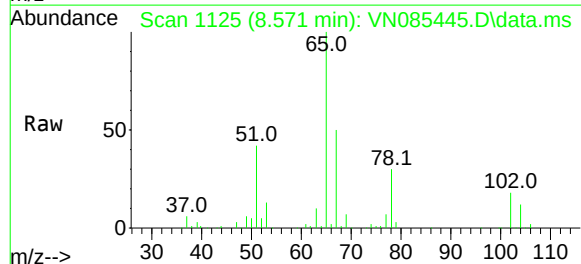
67 50.9 0.0 101.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.094 min Scan# 1214

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

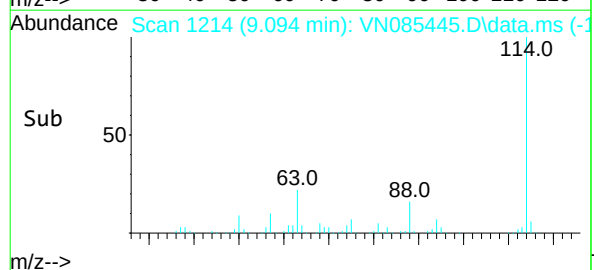
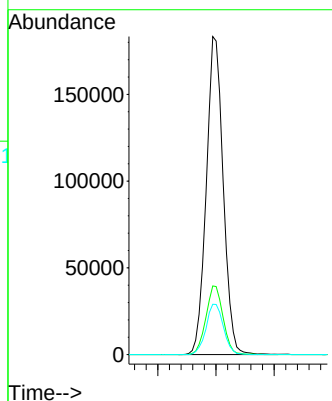
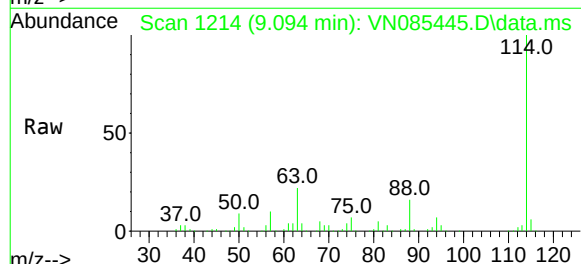
Tgt Ion:114 Resp: 370487

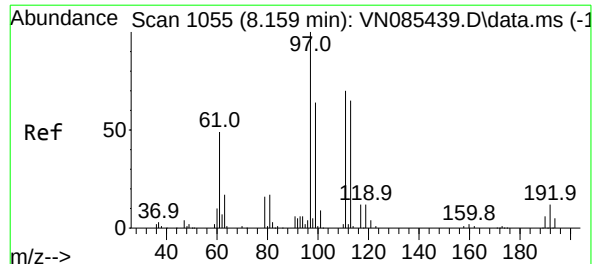
Ion Ratio Lower Upper

114 100

63 21.6 0.0 47.6

88 15.8 0.0 32.6





#35

Dibromofluoromethane

Concen: 50.768 ug/l

RT: 8.165 min Scan# 1055

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion:113 Resp: 130487

Ion Ratio Lower Upper

113 100

111 102.5 82.7 124.1

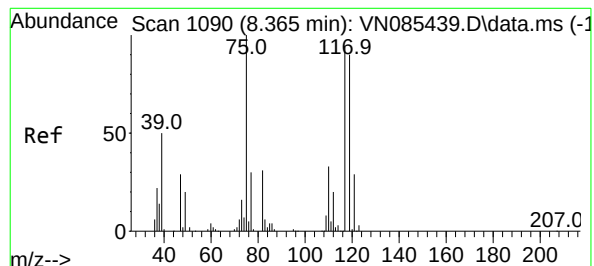
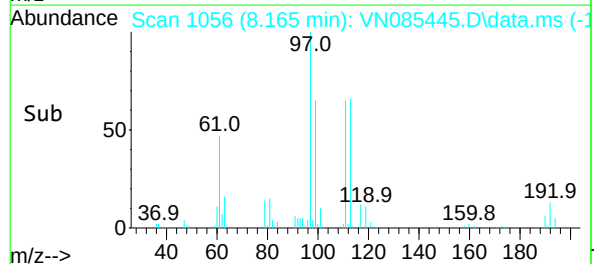
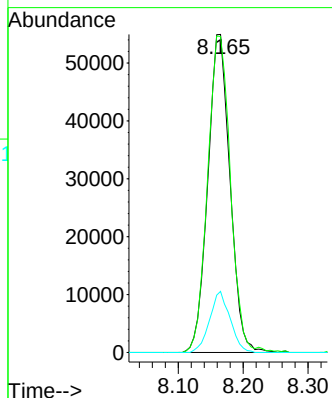
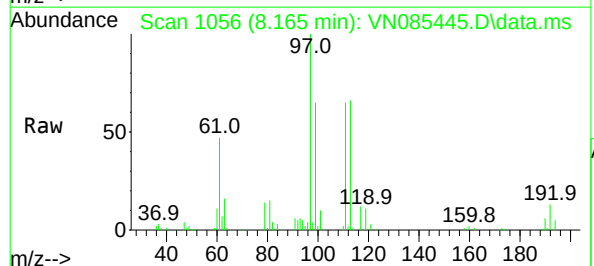
192 17.7 14.3 21.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#36

1,1-Dichloropropene

Concen: 44.863 ug/l

RT: 8.365 min Scan# 1090

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

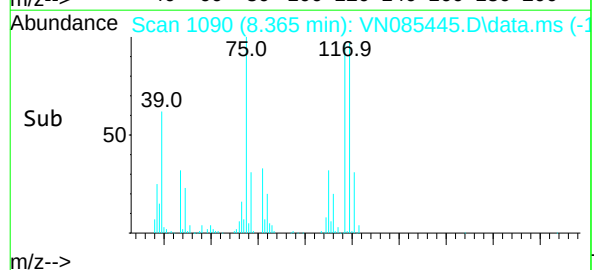
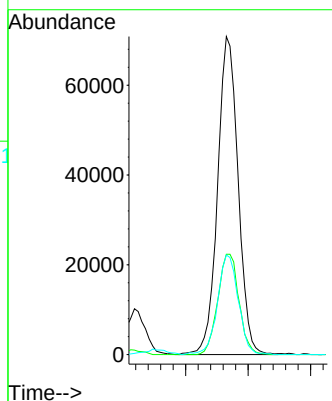
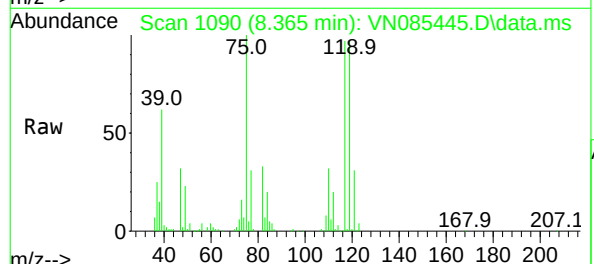
Tgt Ion: 75 Resp: 161834

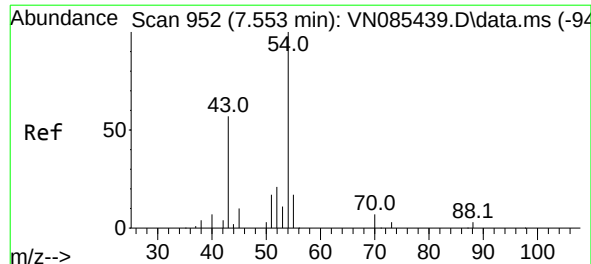
Ion Ratio Lower Upper

75 100

110 32.4 16.5 49.5

77 31.8 24.4 36.6





#37

Ethyl Acetate

Concen: 44.123 ug/l

RT: 7.559 min Scan# 95

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

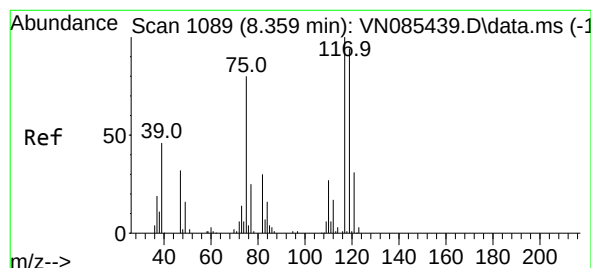
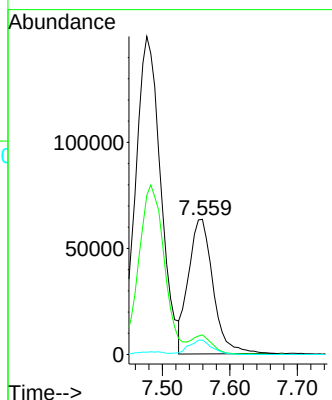
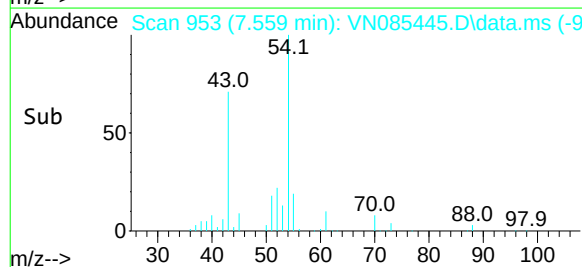
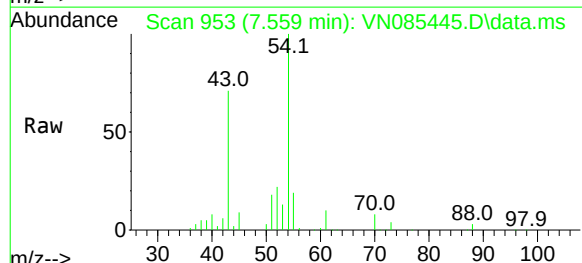
ClientSampleId :

ICVVN011425

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 160656 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 61       | 11.9  | 10.9  | 16.3   |
| 70       | 10.2  | 7.5   | 11.3   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#38

Carbon Tetrachloride

Concen: 44.456 ug/l

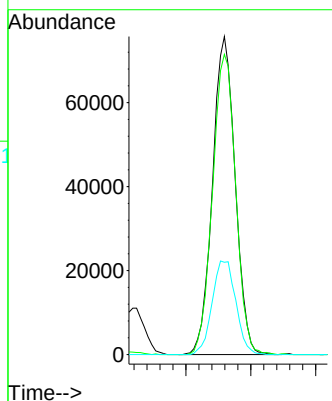
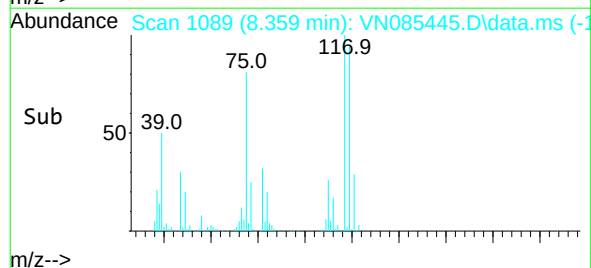
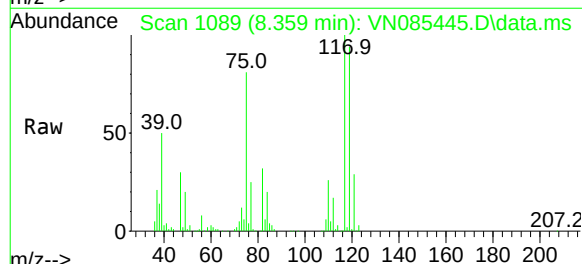
RT: 8.359 min Scan# 1089

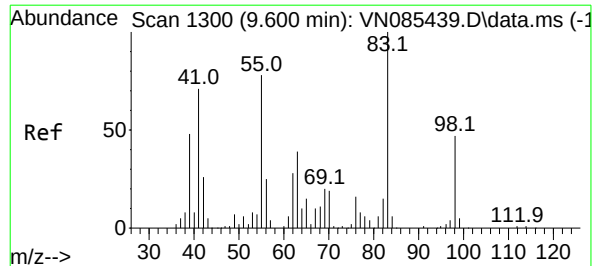
Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 117   | Resp: | 183592 |
| Ion      | Ratio | Lower | Upper  |
| 117      | 100   |       |        |
| 119      | 94.4  | 75.4  | 113.2  |
| 121      | 29.0  | 24.6  | 37.0   |





#39

Methylcyclohexane

Concen: 49.687 ug/l

RT: 9.600 min Scan# 13

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 83 Resp: 168431

Ion Ratio Lower Upper

83 100

55 80.9 62.6 94.0

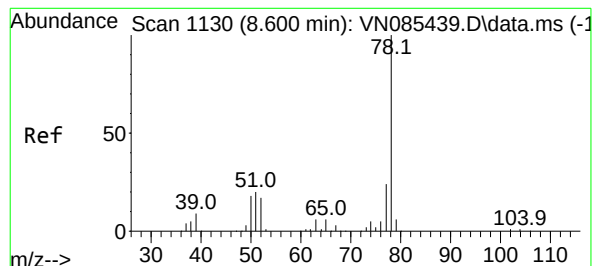
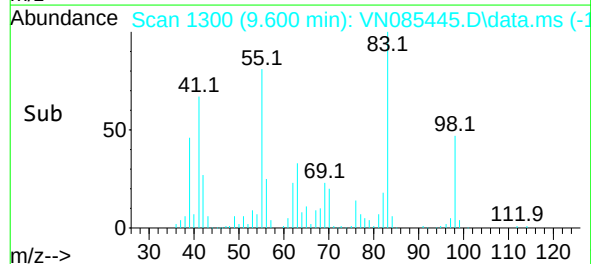
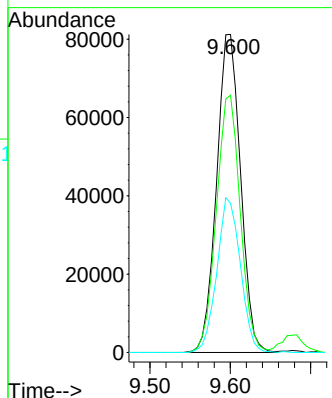
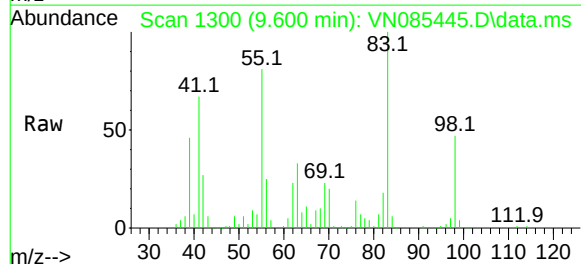
98 46.9 37.7 56.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#40

Benzene

Concen: 45.657 ug/l

RT: 8.600 min Scan# 1130

Delta R.T. 0.000 min

Lab File: VN085445.D

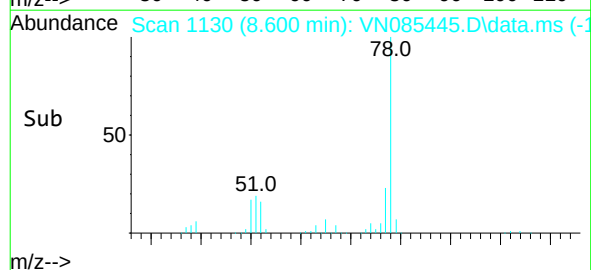
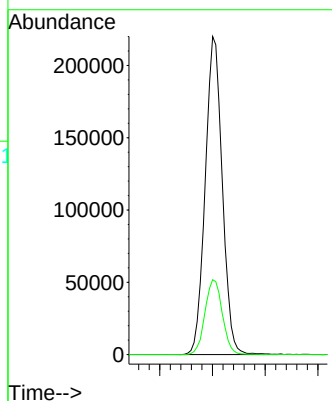
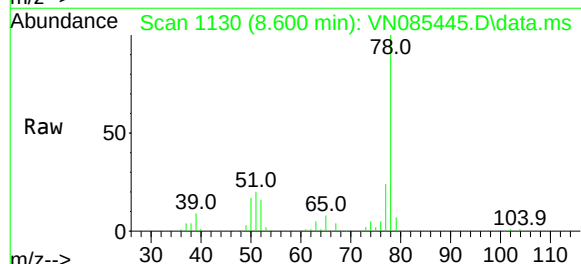
Acq: 14 Jan 2025 18:06

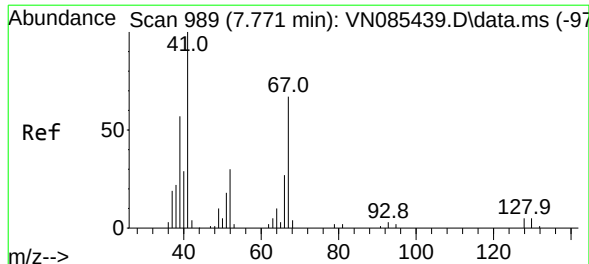
Tgt Ion: 78 Resp: 494871

Ion Ratio Lower Upper

78 100

77 23.5 19.0 28.6





#41

Methacrylonitrile

Concen: 47.155 ug/l

RT: 7.777 min Scan# 99

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 41 Resp: 89326

Ion Ratio Lower Upper

41 100

39 56.6 46.0 69.0

67 70.9 57.4 86.2

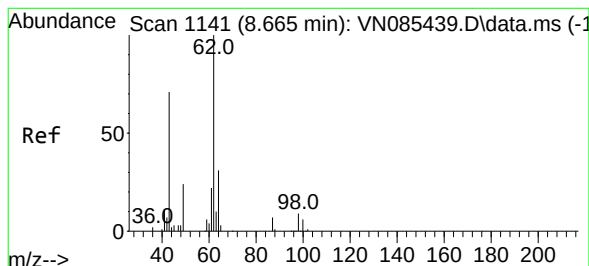
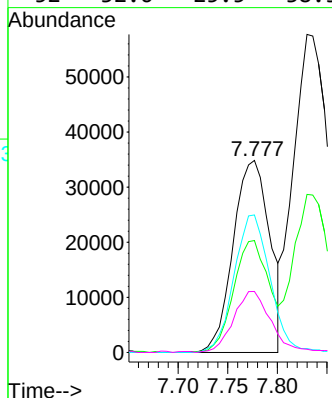
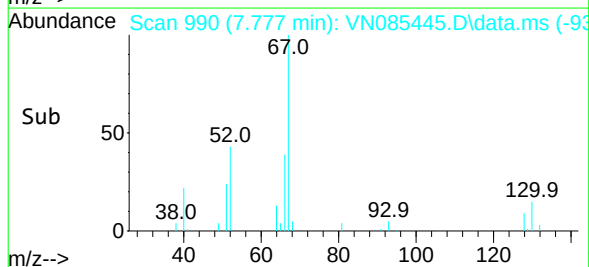
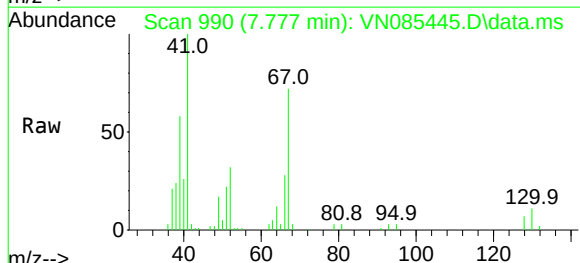
52 32.6 25.5 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#42

1,2-Dichloroethane

Concen: 45.481 ug/l

RT: 8.665 min Scan# 1141

Delta R.T. 0.000 min

Lab File: VN085445.D

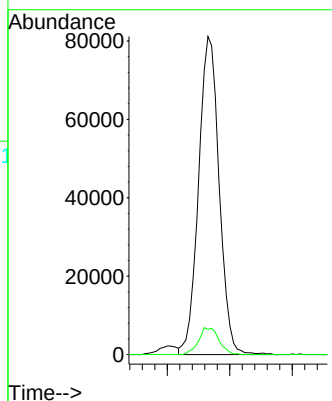
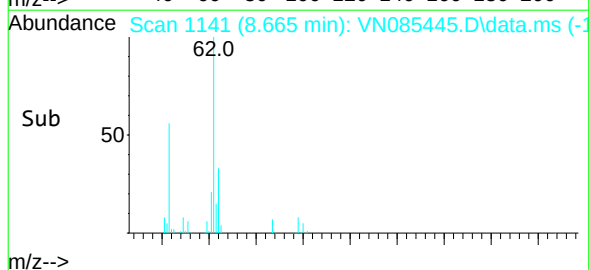
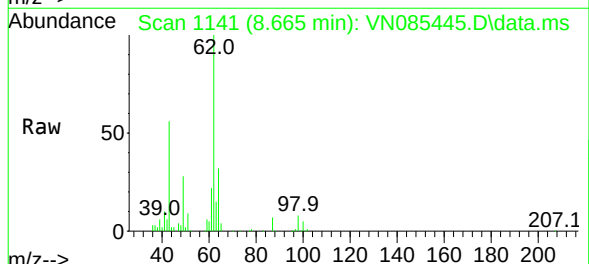
Acq: 14 Jan 2025 18:06

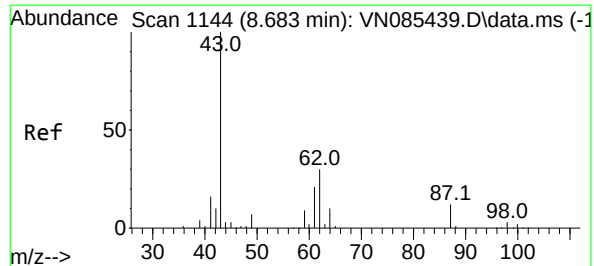
Tgt Ion: 62 Resp: 185663

Ion Ratio Lower Upper

62 100

98 8.3 0.0 17.0





#43

Isopropyl Acetate

Concen: 45.440 ug/l

RT: 8.683 min Scan# 1144

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

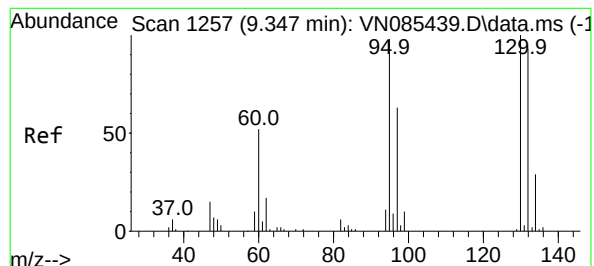
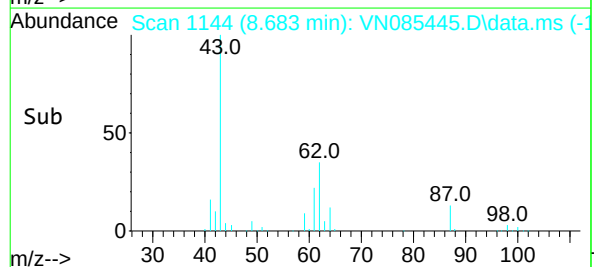
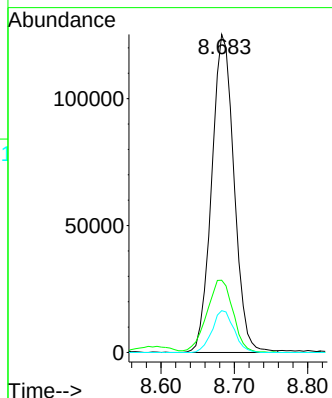
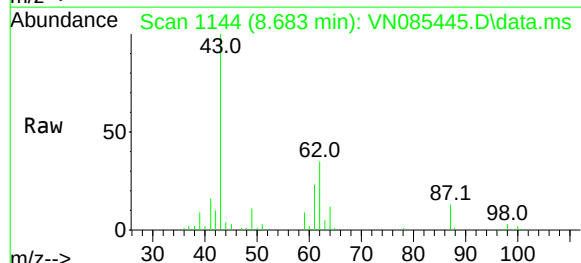
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 265107 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 61       | 26.7  | 20.7  | 31.1   |
| 87       | 12.9  | 9.8   | 14.8   |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#44

Trichloroethene

Concen: 43.622 ug/l

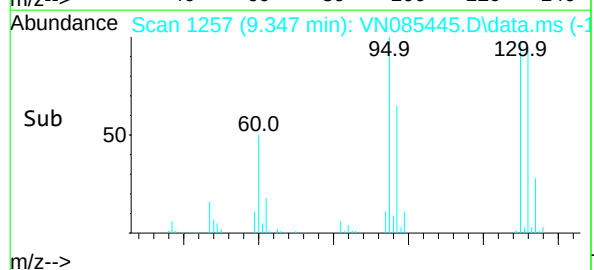
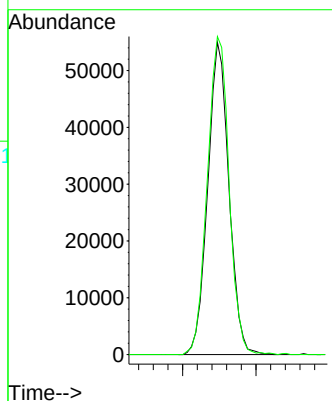
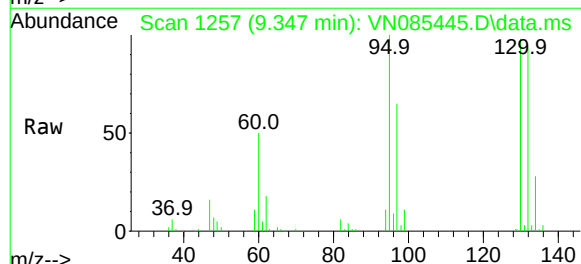
RT: 9.347 min Scan# 1257

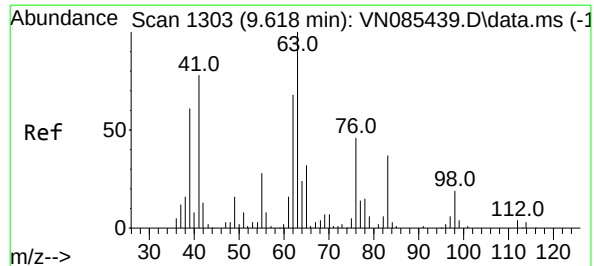
Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 130   | Resp: | 110058 |
| Ion      | Ratio | Lower | Upper  |
| 130      | 100   |       |        |
| 95       | 101.9 | 0.0   | 195.8  |





#45

1,2-Dichloropropane

Concen: 44.744 ug/l

RT: 9.618 min Scan# 13

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 63 Resp: 123876

Ion Ratio Lower Upper

63 100

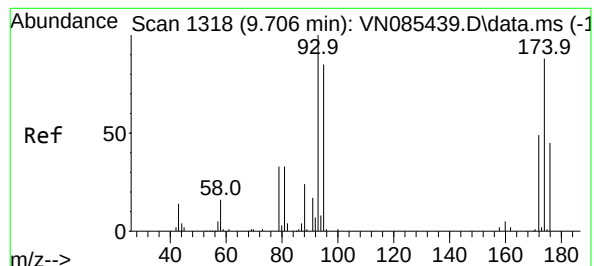
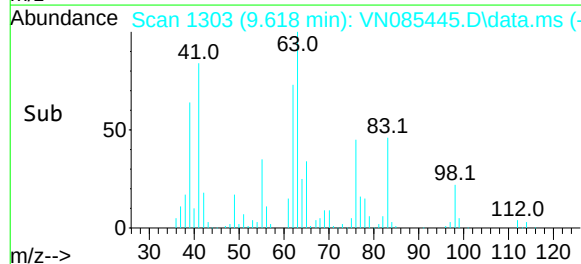
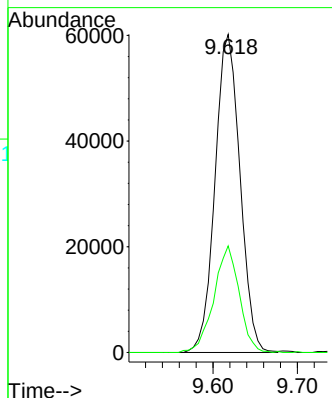
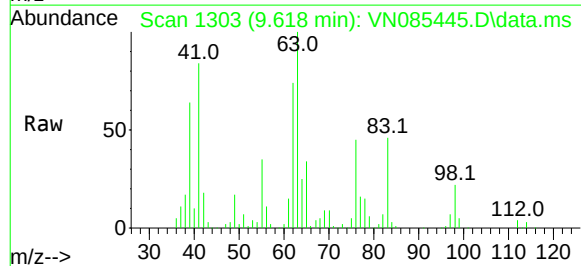
65 33.5 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#46

Dibromomethane

Concen: 44.214 ug/l

RT: 9.700 min Scan# 1317

Delta R.T. -0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

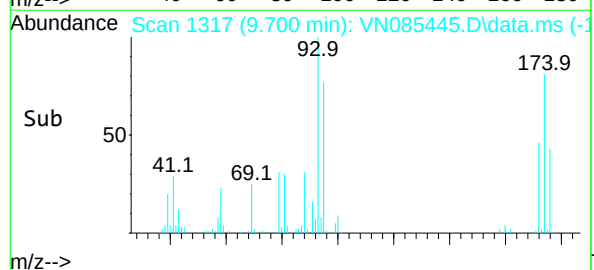
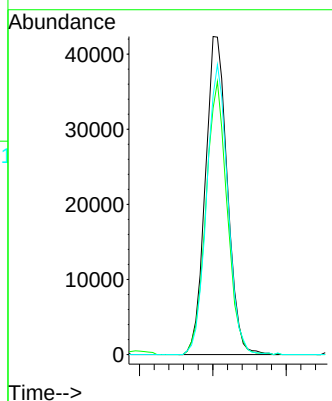
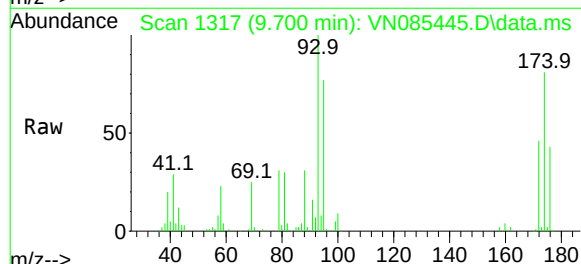
Tgt Ion: 93 Resp: 88325

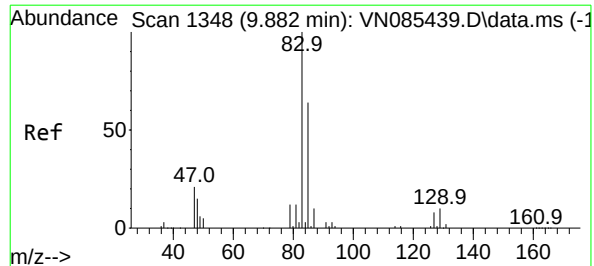
Ion Ratio Lower Upper

93 100

95 82.9 64.7 97.1

174 88.0 69.0 103.4





#47

Bromodichloromethane

Concen: 45.655 ug/l

RT: 9.889 min Scan# 1348

Delta R.T. 0.007 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 83 Resp: 185808

Ion Ratio Lower Upper

83 100

85 63.5 51.2 76.8

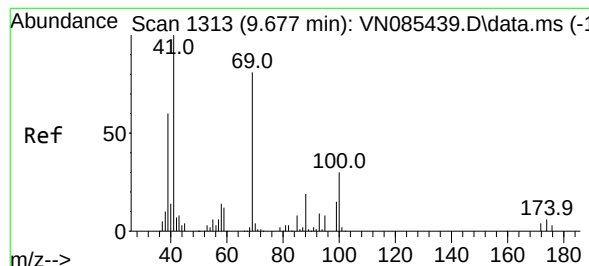
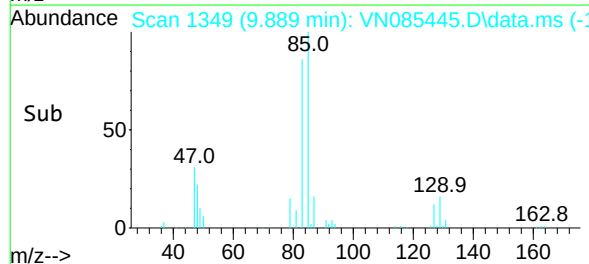
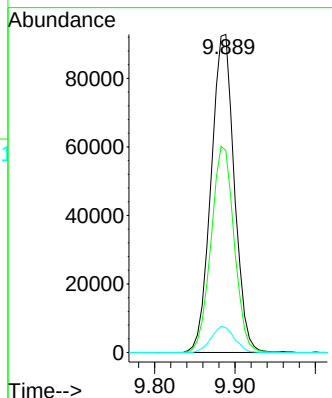
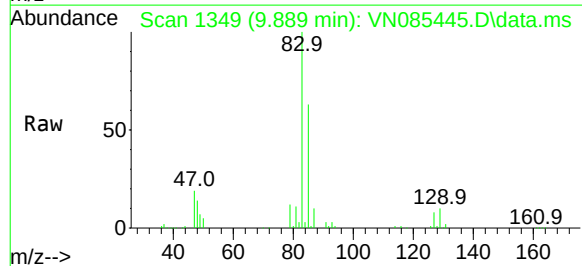
127 7.8 6.5 9.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#48

Methyl methacrylate

Concen: 49.948 ug/l

RT: 9.677 min Scan# 1313

Delta R.T. -0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

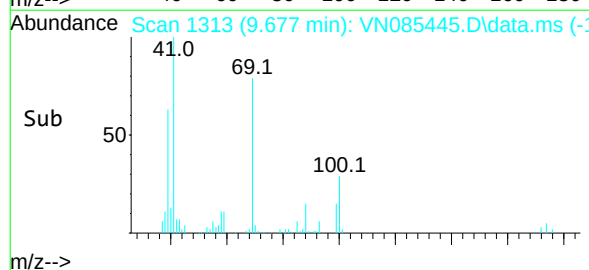
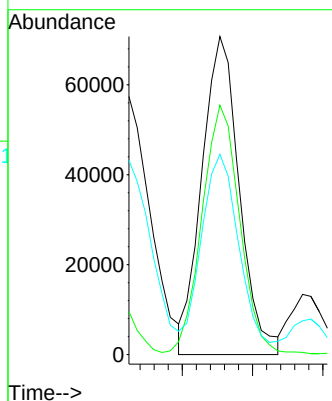
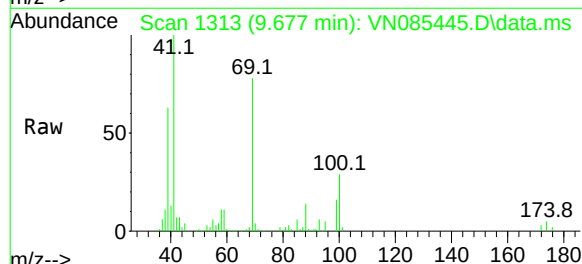
Tgt Ion: 41 Resp: 131142

Ion Ratio Lower Upper

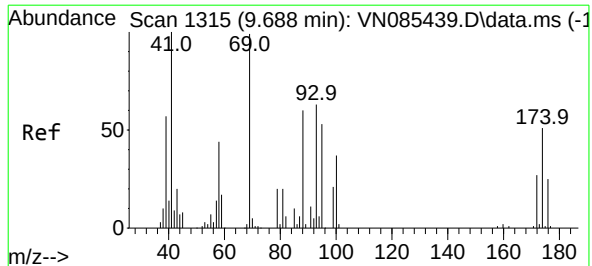
41 100

69 78.6 64.7 97.1

39 63.3 49.0 73.6







#49

1,4-Dioxane

Concen: 792.760 ug/l

RT: 9.689 min Scan# 1315

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 88 Resp: 35051

Ion Ratio Lower Upper

88 100

43 33.8 26.6 39.8

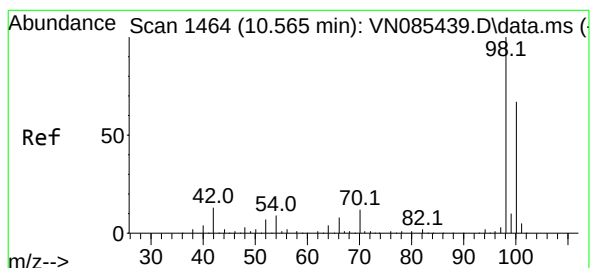
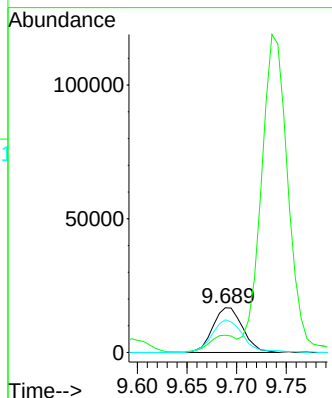
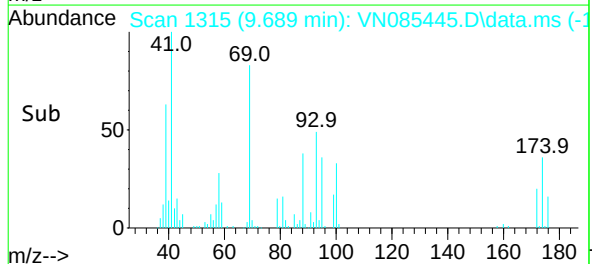
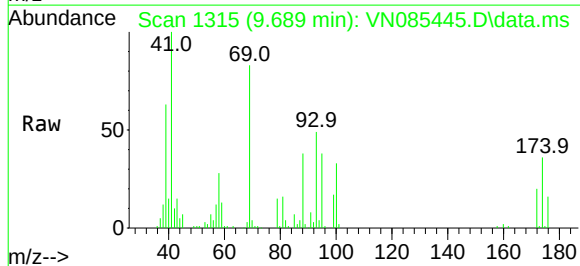
58 76.1 59.5 89.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#50

Toluene-d8

Concen: 52.302 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. 0.000 min

Lab File: VN085445.D

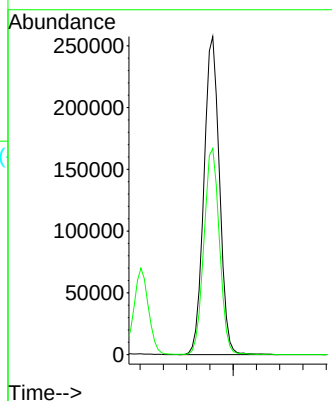
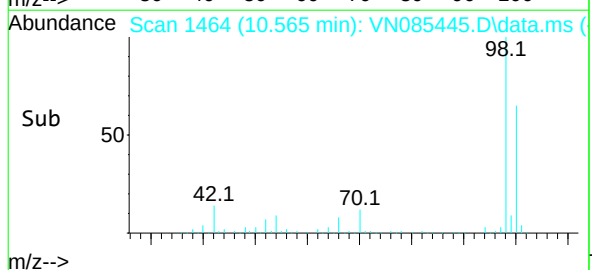
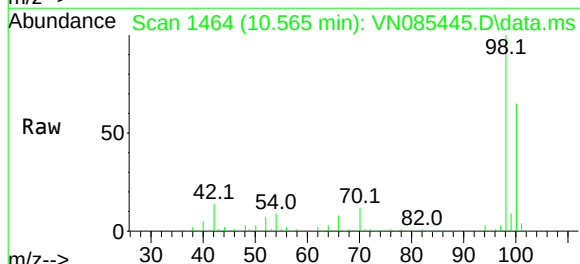
Acq: 14 Jan 2025 18:06

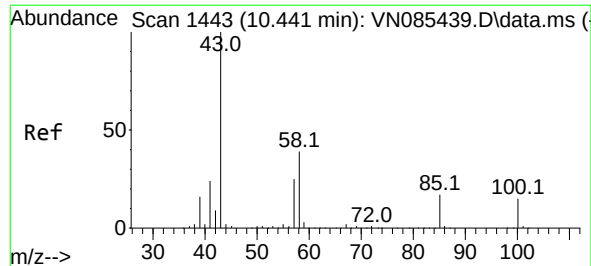
Tgt Ion: 98 Resp: 477630

Ion Ratio Lower Upper

98 100

100 64.7 52.2 78.4





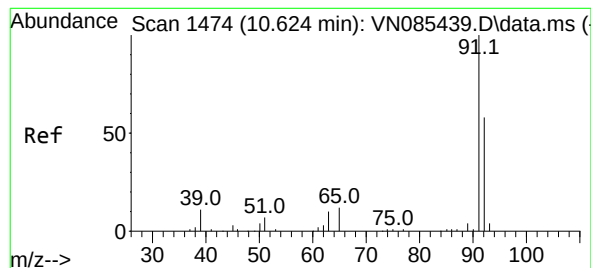
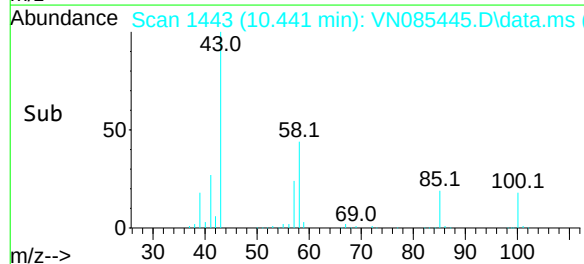
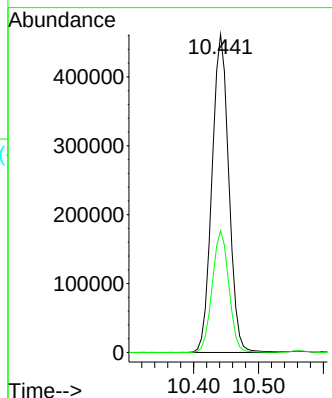
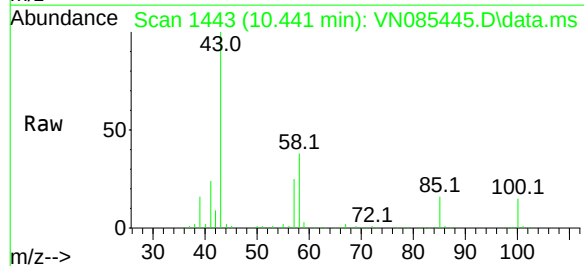
#51  
4-Methyl-2-Pentanone  
Concen: 245.877 ug/l  
RT: 10.441 min Scan# 1443  
Delta R.T. 0.000 min  
Lab File: VN085445.D  
Acq: 14 Jan 2025 18:06

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN011425

Tgt Ion: 43 Resp: 832426  
Ion Ratio Lower Upper  
43 100  
58 37.8 30.5 45.7

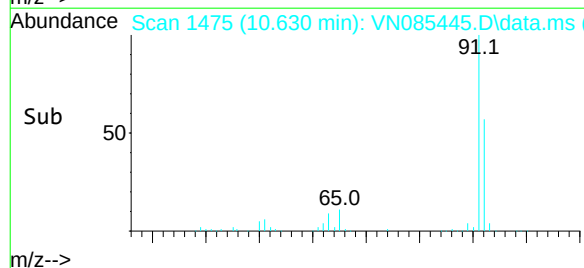
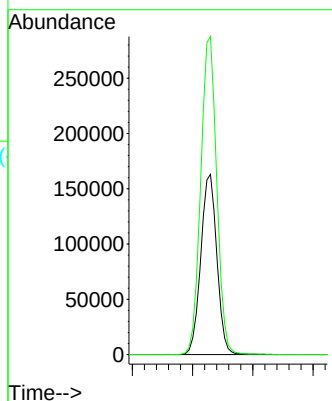
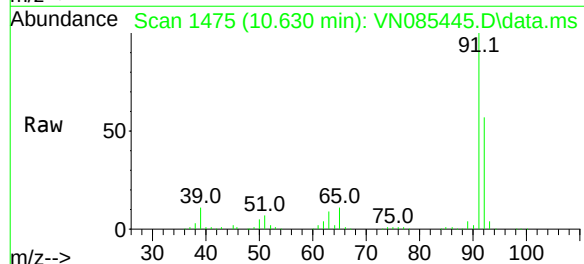
Manual Integrations  
APPROVED

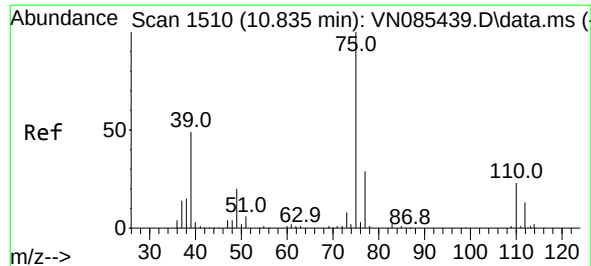
Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#52  
Toluene  
Concen: 48.073 ug/l  
RT: 10.630 min Scan# 1475  
Delta R.T. 0.006 min  
Lab File: VN085445.D  
Acq: 14 Jan 2025 18:06

Tgt Ion: 92 Resp: 301911  
Ion Ratio Lower Upper  
92 100  
91 175.7 139.2 208.8





#53

t-1,3-Dichloropropene

Concen: 47.757 ug/l

RT: 10.830 min Scan# 1510

Delta R.T. -0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 75 Resp: 183680

Ion Ratio Lower Upper

75 100

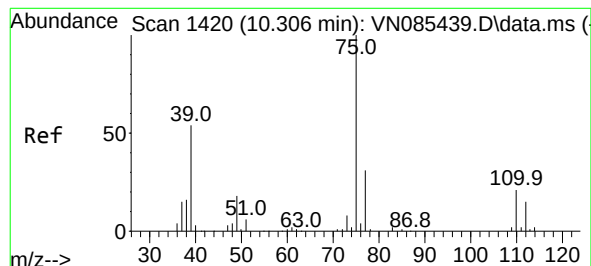
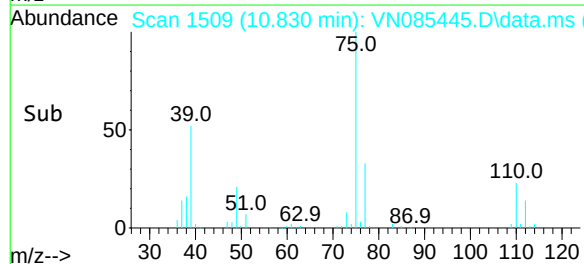
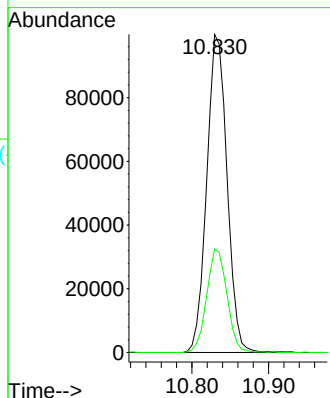
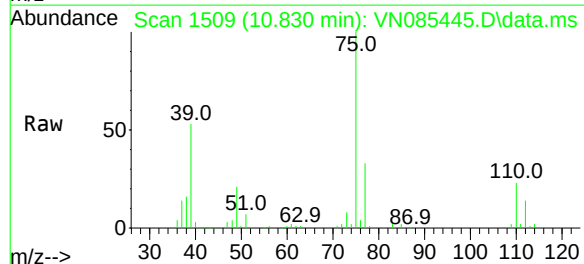
77 32.6 23.5 35.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#54

cis-1,3-Dichloropropene

Concen: 47.783 ug/l

RT: 10.312 min Scan# 1421

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

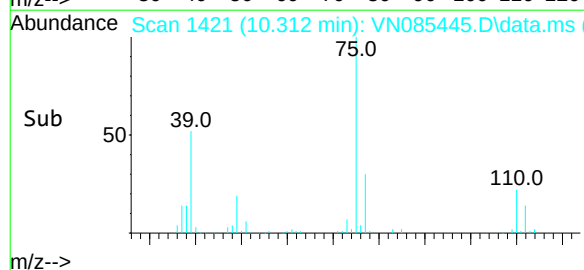
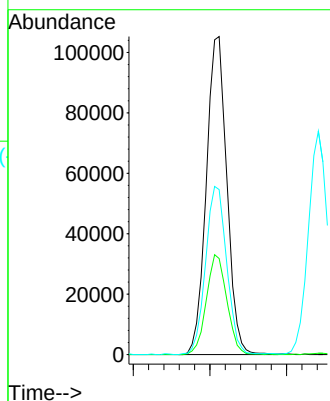
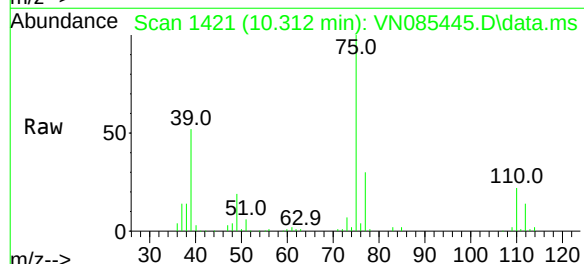
Tgt Ion: 75 Resp: 196307

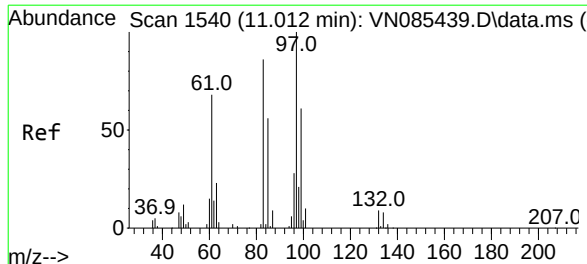
Ion Ratio Lower Upper

75 100

77 30.2 25.0 37.4

39 51.9 43.1 64.7





#55

1,1,2-Trichloroethane

Concen: 46.173 ug/l

RT: 11.012 min Scan# 1540

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 97 Resp: 114757

Ion Ratio Lower Upper

97 100

83 83.7 69.0 103.6

85 53.2 44.6 66.8

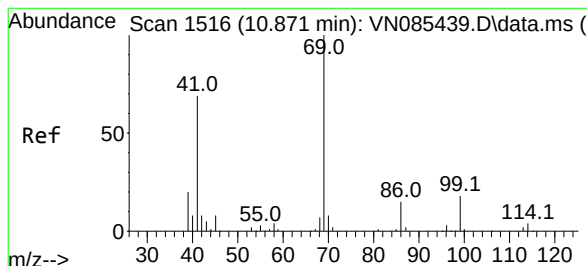
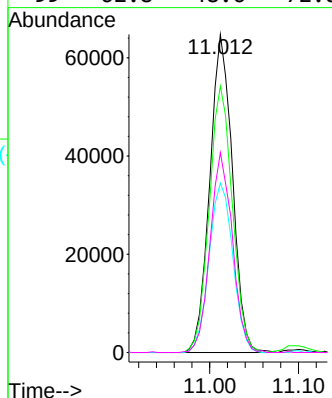
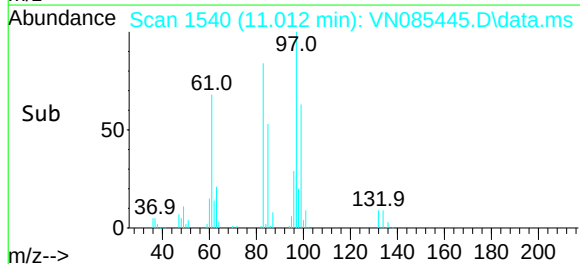
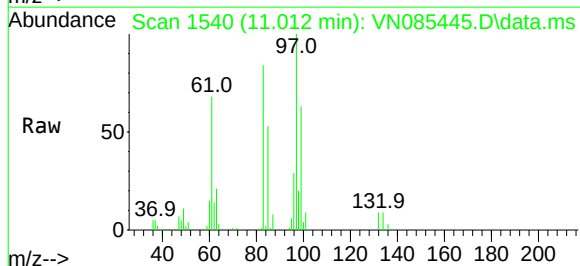
99 62.8 48.6 72.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#56

Ethyl methacrylate

Concen: 43.762 ug/l

RT: 10.871 min Scan# 1516

Delta R.T. -0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

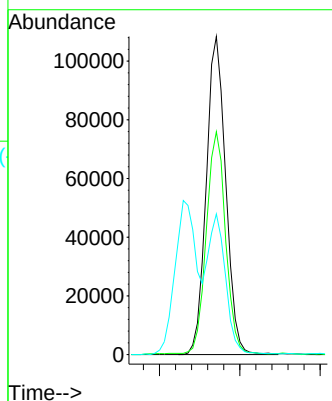
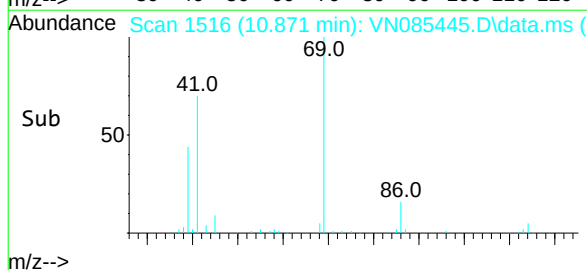
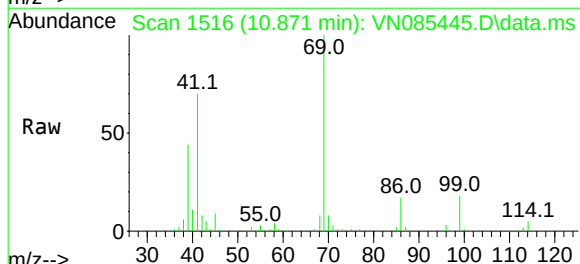
Tgt Ion: 69 Resp: 182170

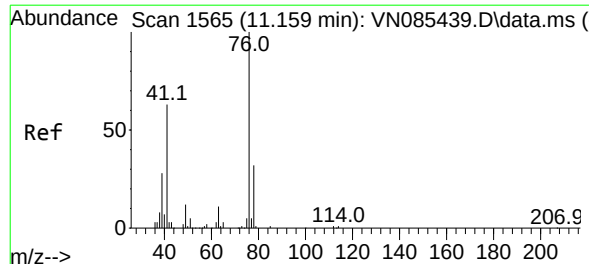
Ion Ratio Lower Upper

69 100

41 70.4 54.6 82.0

39 40.2 32.4 48.6





#57

1,3-Dichloropropane

Concen: 46.877 ug/l

RT: 11.159 min Scan# 1565

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 76 Resp: 202583

Ion Ratio Lower Upper

76 100

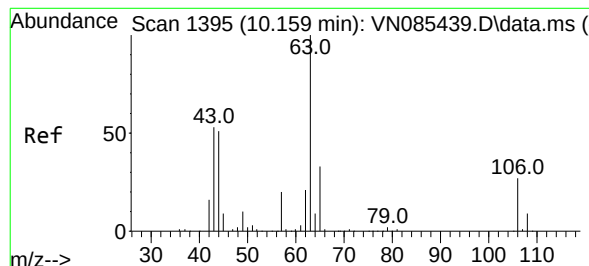
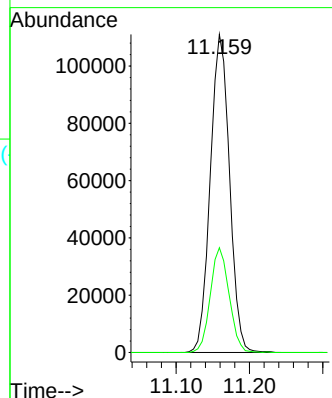
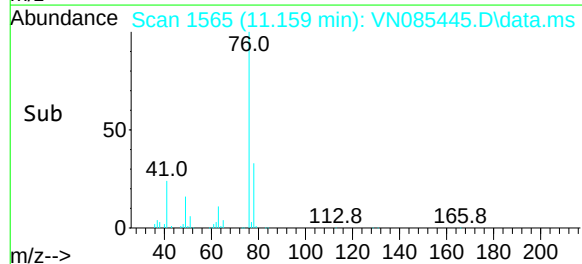
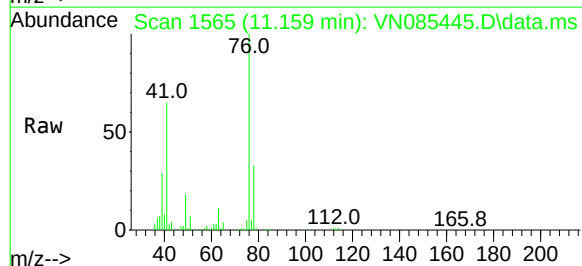
78 32.1 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#58

2-Chloroethyl Vinyl ether

Concen: 256.116 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. 0.000 min

Lab File: VN085445.D

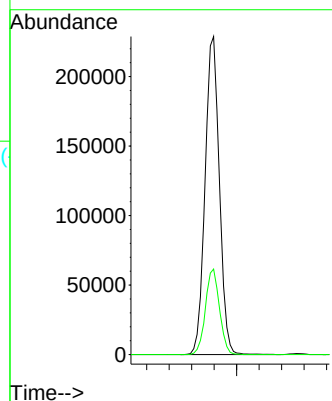
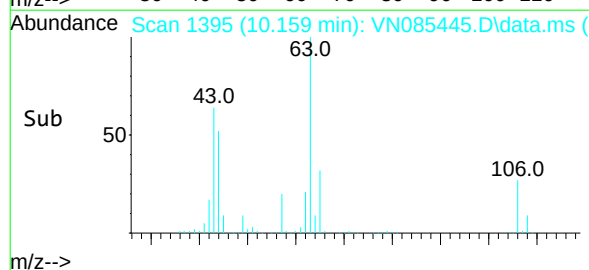
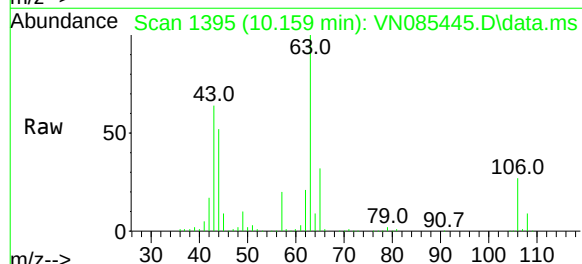
Acq: 14 Jan 2025 18:06

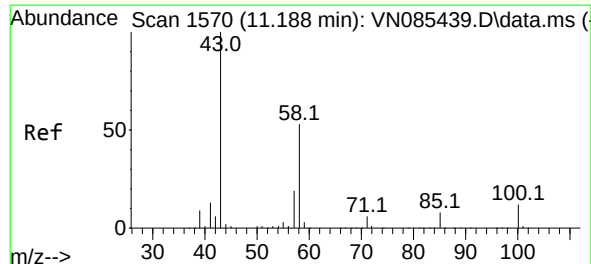
Tgt Ion: 63 Resp: 403949

Ion Ratio Lower Upper

63 100

106 26.4 21.6 32.4





#59

2-Hexanone

Concen: 251.213 ug/l

RT: 11.194 min Scan# 1571

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 43 Resp: 598433

Ion Ratio Lower Upper

43 100

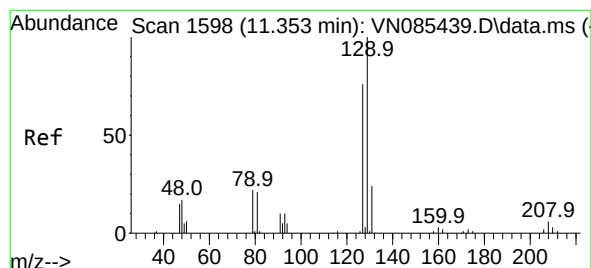
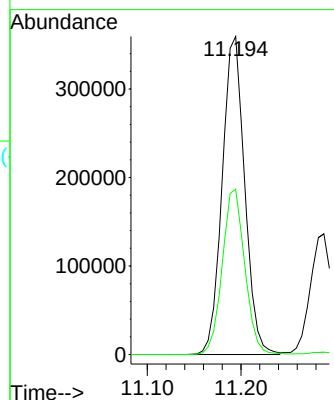
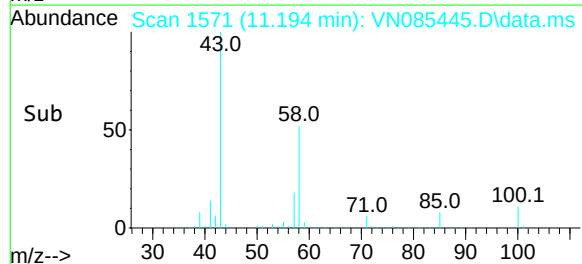
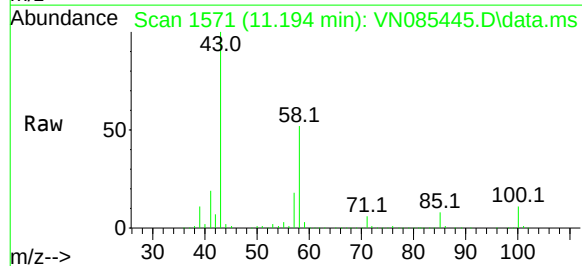
58 52.1 26.2 78.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#60

Dibromochloromethane

Concen: 45.935 ug/l

RT: 11.353 min Scan# 1598

Delta R.T. 0.000 min

Lab File: VN085445.D

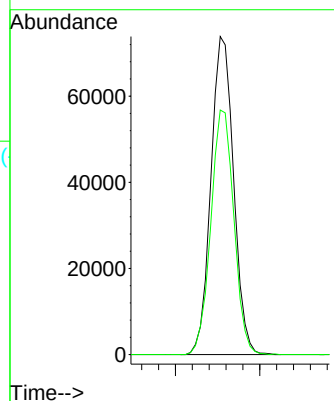
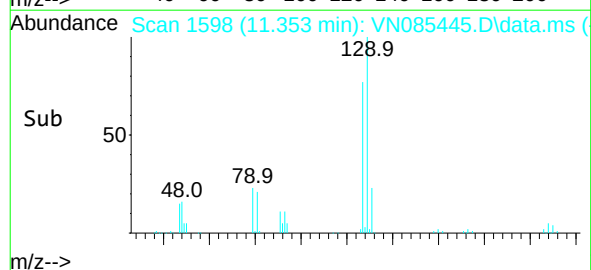
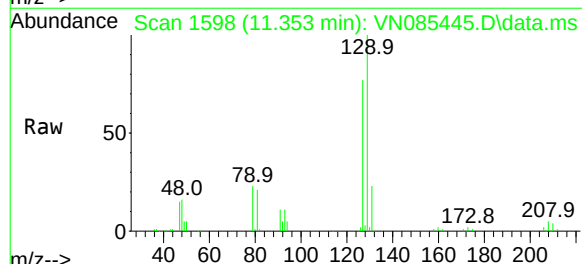
Acq: 14 Jan 2025 18:06

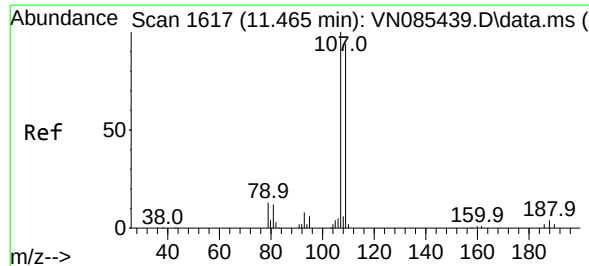
Tgt Ion:129 Resp: 137831

Ion Ratio Lower Upper

129 100

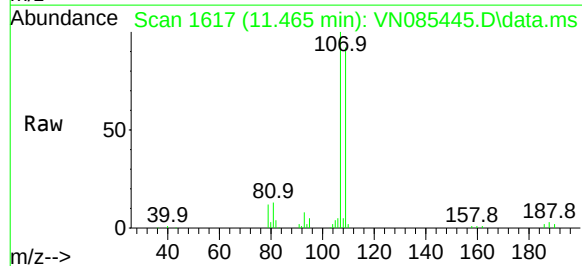
127 78.1 38.6 115.8





#61  
1,2-Dibromoethane  
Concen: 44.837 ug/l  
RT: 11.465 min Scan# 1617  
Delta R.T. 0.000 min  
Lab File: VN085445.D  
Acq: 14 Jan 2025 18:06

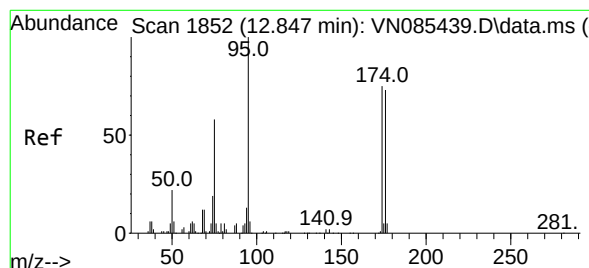
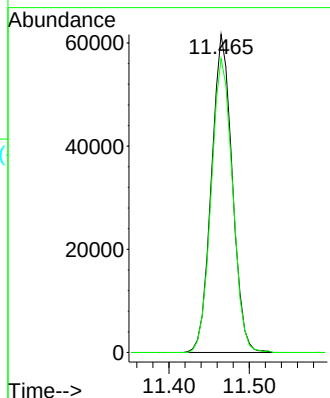
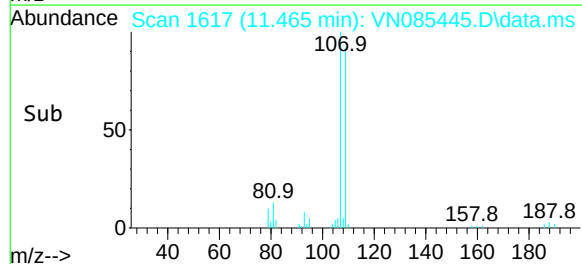
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN011425



Tgt Ion: 107 Resp: 110926  
Ion Ratio Lower Upper  
107 100  
109 94.7 75.9 113.9

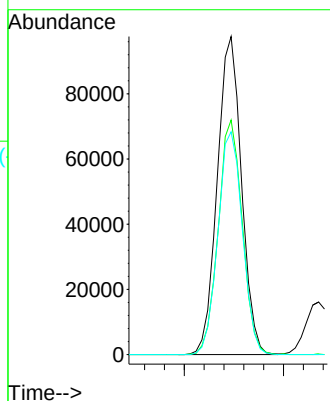
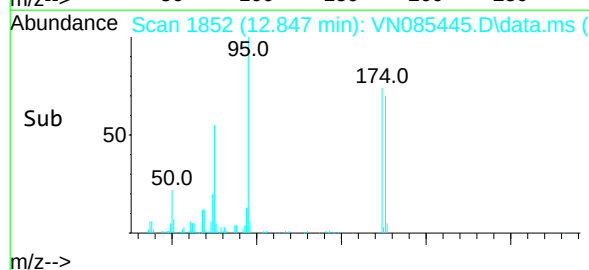
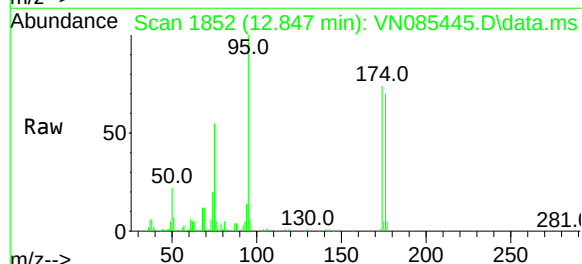
Manual Integrations  
APPROVED

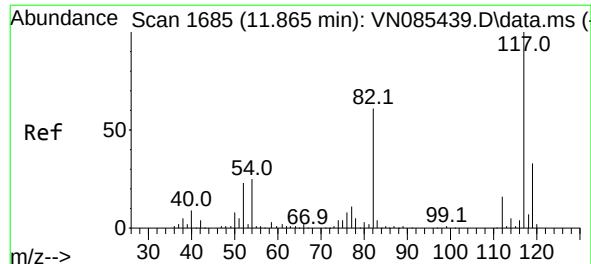
Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025



#62  
4-Bromofluorobenzene  
Concen: 52.899 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN085445.D  
Acq: 14 Jan 2025 18:06

Tgt Ion: 95 Resp: 165249  
Ion Ratio Lower Upper  
95 100  
174 73.1 0.0 145.0  
176 70.8 0.0 142.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion:117 Resp: 320948

Ion Ratio Lower Upper

117 100

82 60.1 48.6 72.8

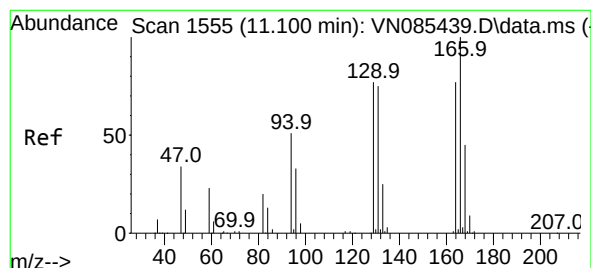
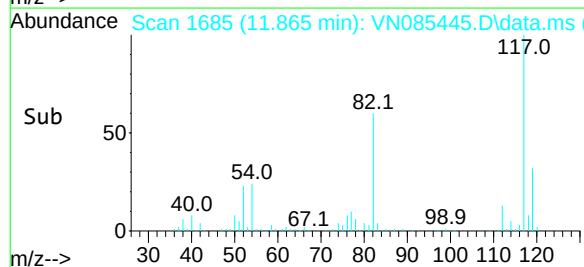
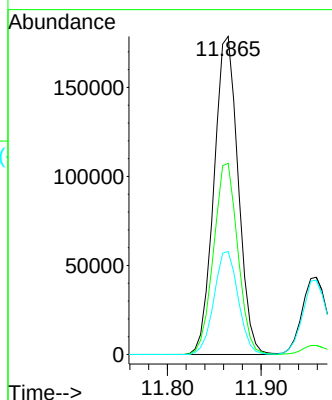
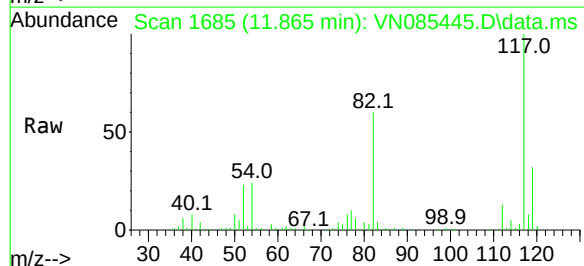
119 32.4 26.6 39.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#64

Tetrachloroethene

Concen: 44.886 ug/l

RT: 11.100 min Scan# 1555

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Tgt Ion:164 Resp: 98211

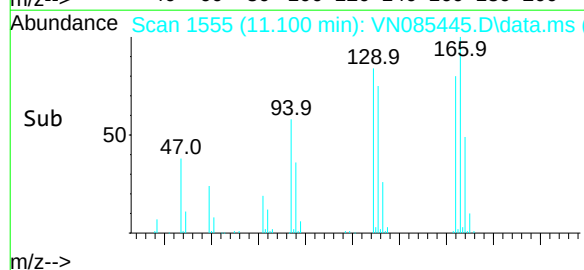
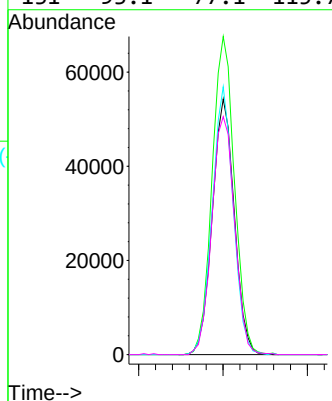
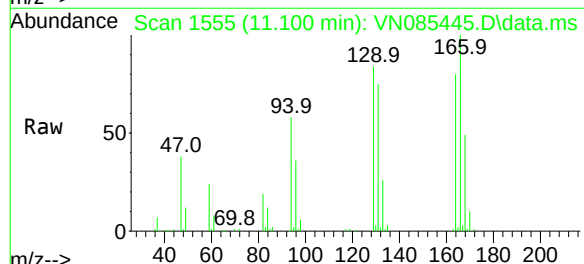
Ion Ratio Lower Upper

164 100

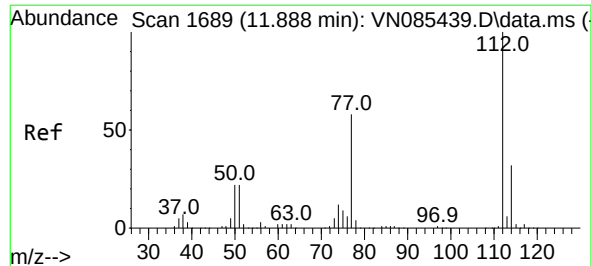
166 124.4 103.4 155.2

129 104.8 79.2 118.8

131 93.1 77.1 115.7







#65

Chlorobenzene

Concen: 45.901 ug/l

RT: 11.888 min Scan# 1689

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion:112 Resp: 322723

Ion Ratio Lower Upper

112 100

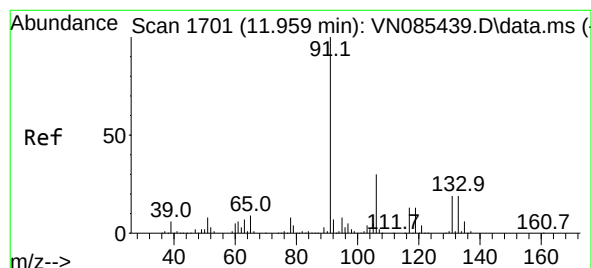
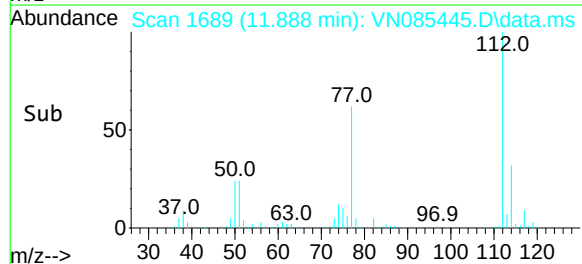
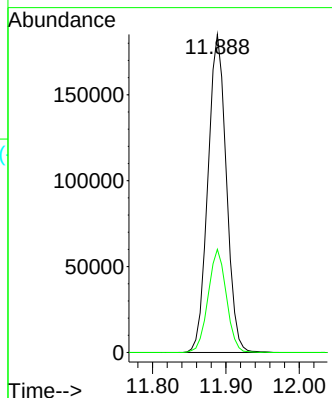
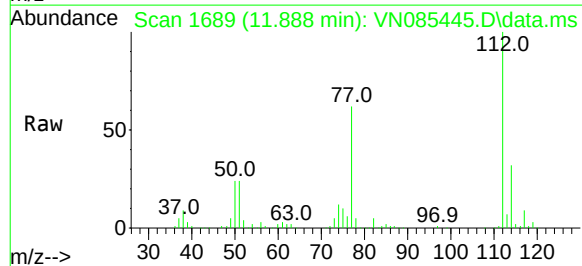
114 32.4 25.3 37.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#66

1,1,1,2-Tetrachloroethane

Concen: 44.712 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

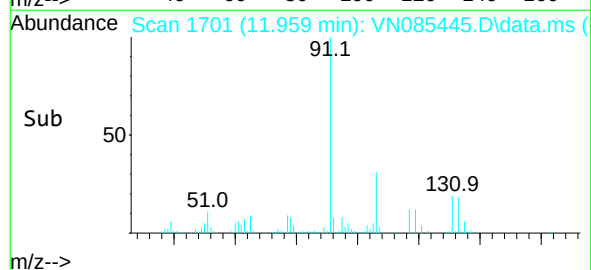
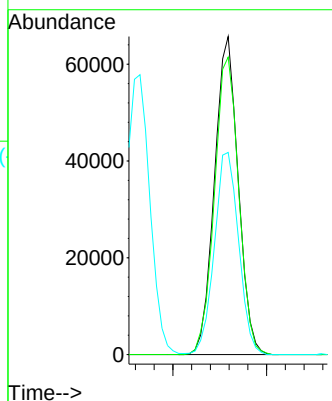
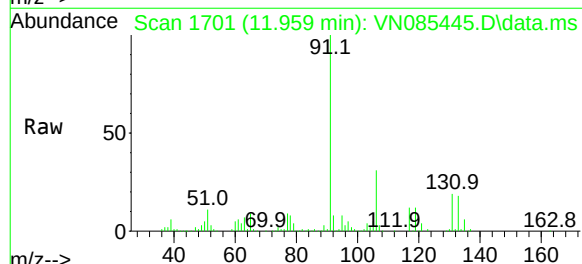
Tgt Ion:131 Resp: 115379

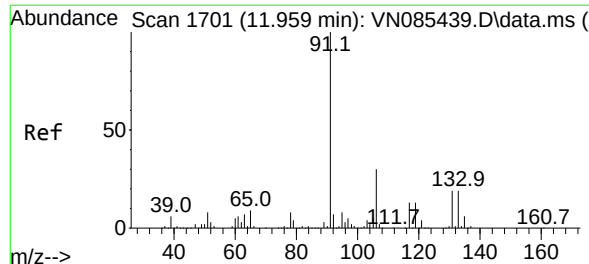
Ion Ratio Lower Upper

131 100

133 95.8 47.4 142.3

119 65.2 33.1 99.5





#67

Ethyl Benzene

Concen: 50.391 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 91 Resp: 577059

Ion Ratio Lower Upper

91 100

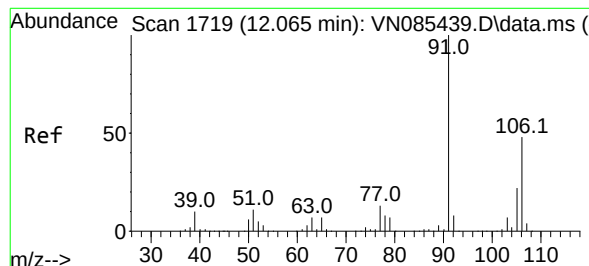
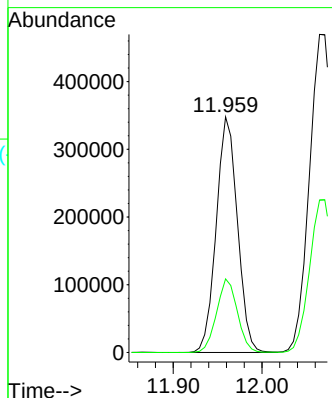
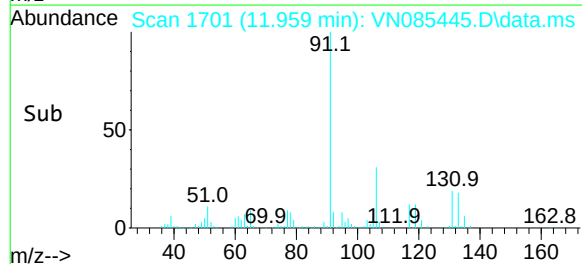
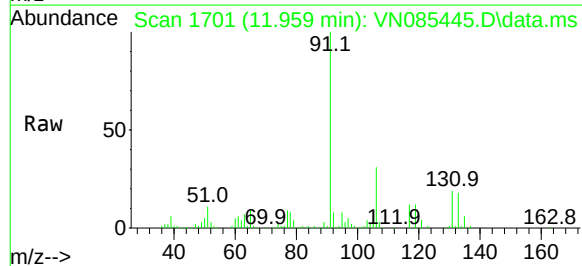
106 31.2 23.8 35.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#68

m/p-Xylenes

Concen: 103.341 ug/l

RT: 12.071 min Scan# 1720

Delta R.T. 0.006 min

Lab File: VN085445.D

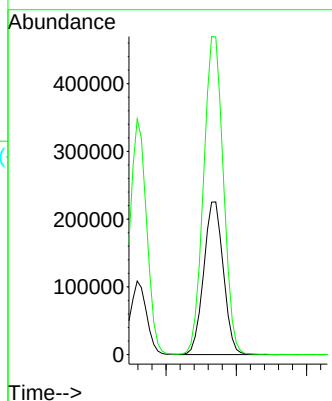
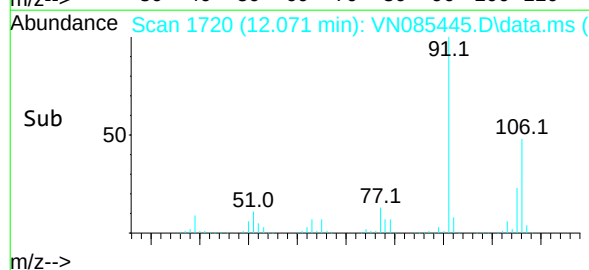
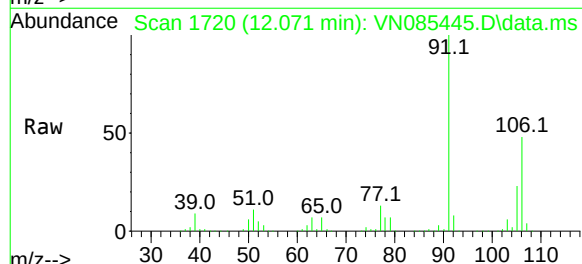
Acq: 14 Jan 2025 18:06

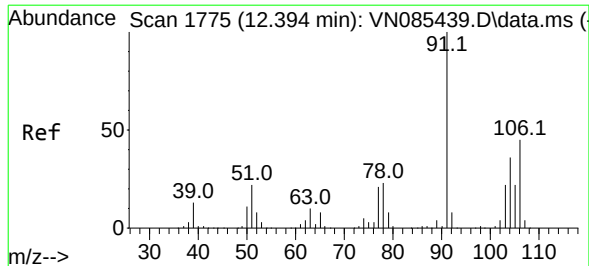
Tgt Ion:106 Resp: 437367

Ion Ratio Lower Upper

106 100

91 210.1 167.7 251.5





#69

o-Xylene

Concen: 52.093 ug/l

RT: 12.394 min Scan# 1775

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion:106 Resp: 210698

Ion Ratio Lower Upper

106 100

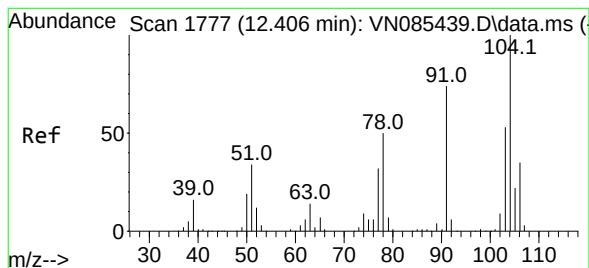
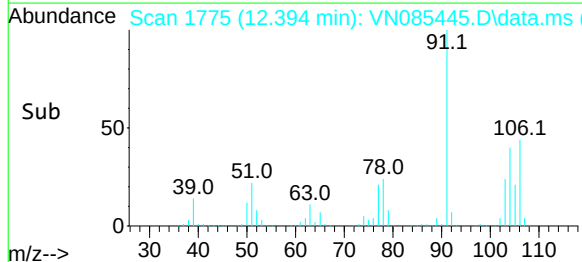
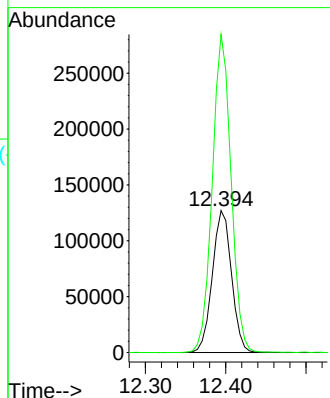
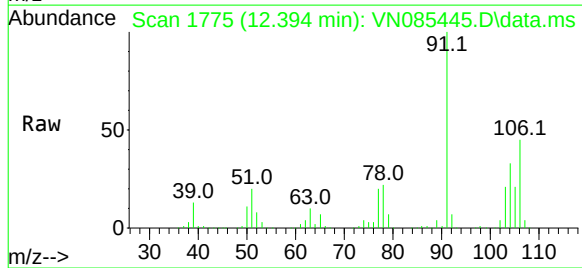
91 219.9 110.4 331.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#70

Styrene

Concen: 53.103 ug/l

RT: 12.406 min Scan# 1777

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

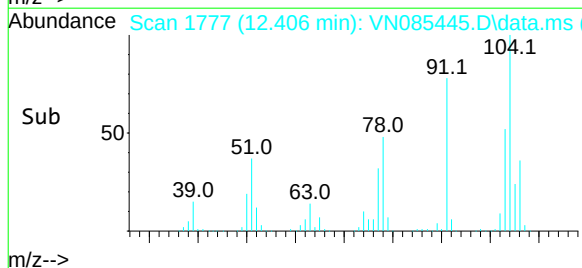
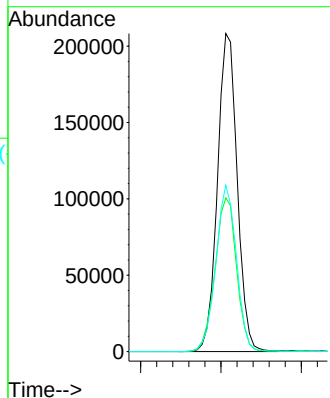
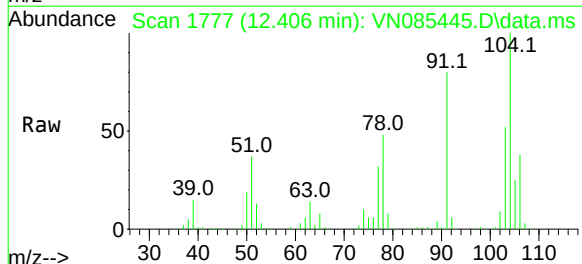
Tgt Ion:104 Resp: 355459

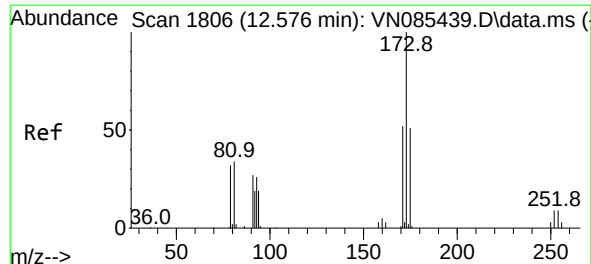
Ion Ratio Lower Upper

104 100

78 52.8 42.5 63.7

103 54.5 43.8 65.8





#71

Bromoform

Concen: 49.119 ug/l

RT: 12.577 min Scan# 1806

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

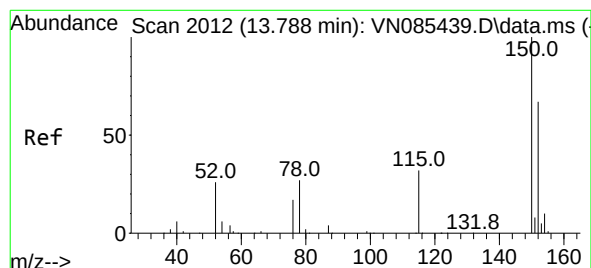
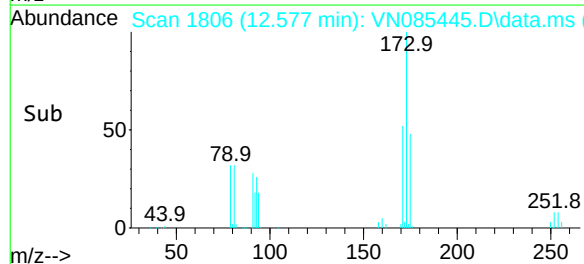
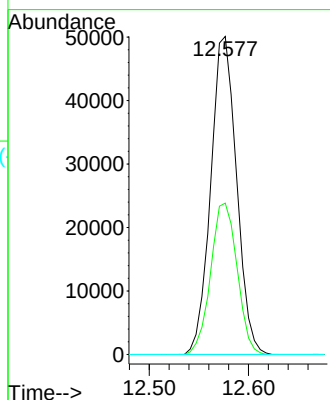
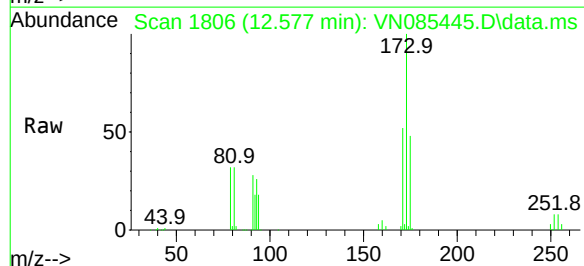
ClientSampleId :

ICVVN011425

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 173   | Resp: | 90693 |
| Ion Ratio | Lower | Upper |       |
| 173       | 100   |       |       |
| 175       | 48.7  | 24.4  | 73.2  |
| 254       | 0.0   | 0.0   | 0.0   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

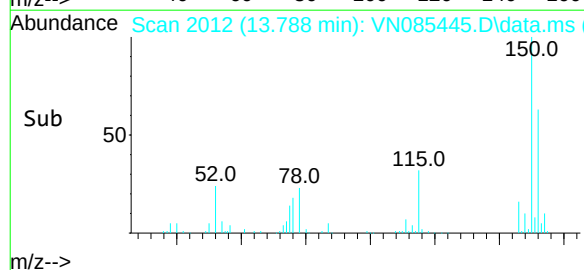
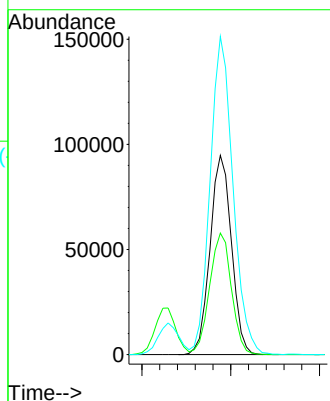
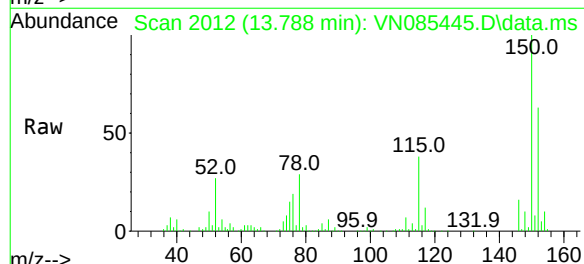
RT: 13.788 min Scan# 2012

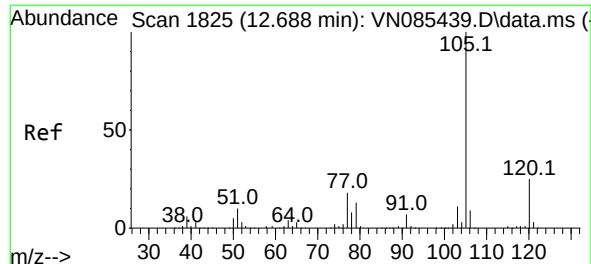
Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 152   | Resp: | 158525 |
| Ion Ratio | Lower | Upper |        |
| 152       | 100   |       |        |
| 115       | 62.2  | 31.1  | 93.3   |
| 150       | 171.0 | 0.0   | 343.6  |





#73

Isopropylbenzene

Concen: 49.951 ug/l

RT: 12.694 min Scan# 1825

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Tgt Ion: 105 Resp: 534428

Ion Ratio Lower Upper

105 100

120 25.2 12.8 38.3

Instrument :

MSVOA\_N

ClientSampleId :

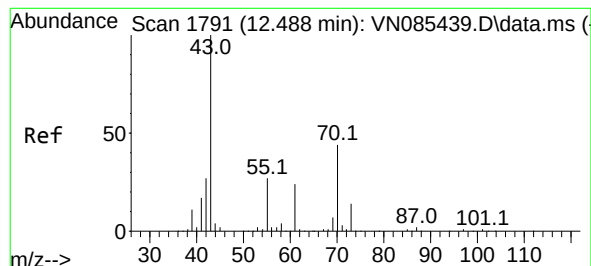
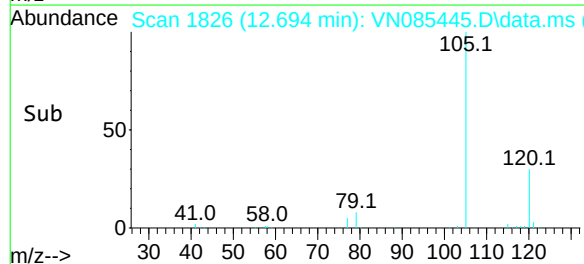
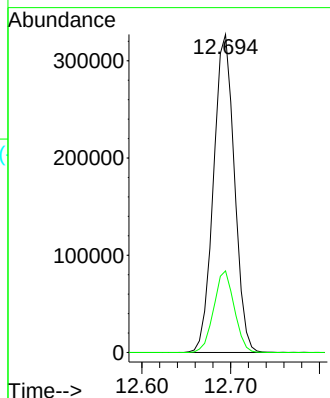
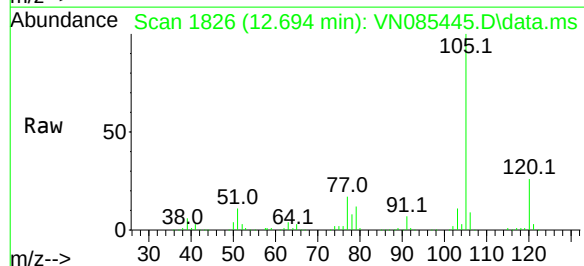
ICVVN011425

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#74

N-ethyl acetate

Concen: 48.730 ug/l

RT: 12.488 min Scan# 1791

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Tgt Ion: 43 Resp: 234342

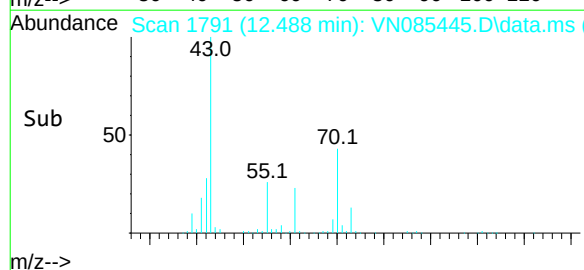
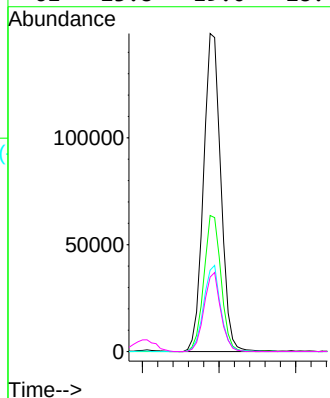
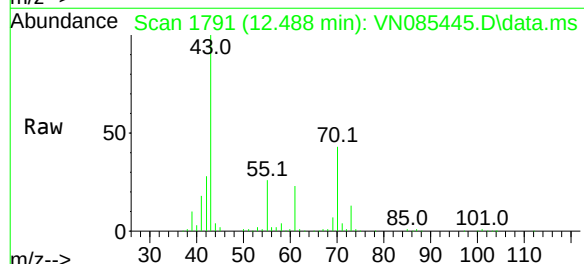
Ion Ratio Lower Upper

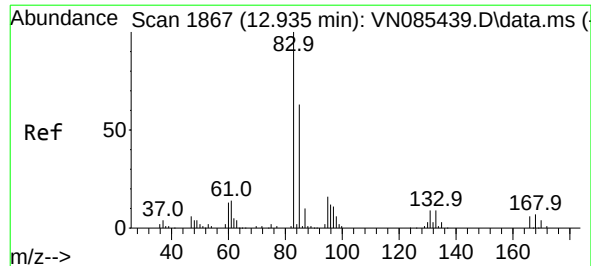
43 100

70 42.2 34.0 51.0

55 26.5 21.4 32.2

61 23.8 19.0 28.4





#75

1,1,2,2-Tetrachloroethane

Concen: 43.627 ug/l

RT: 12.935 min Scan# 1867

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

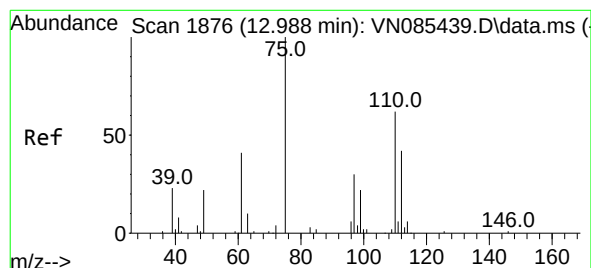
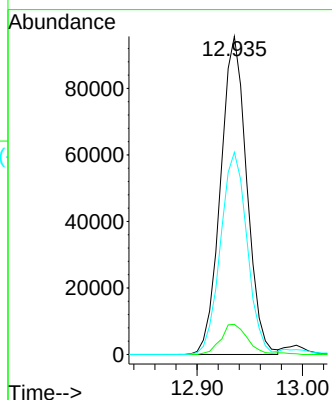
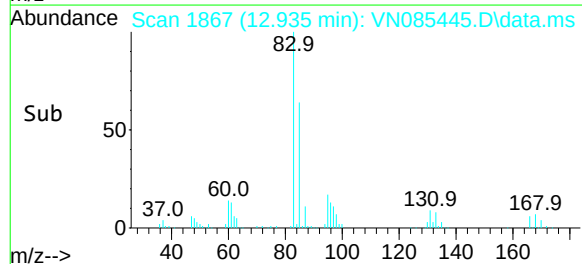
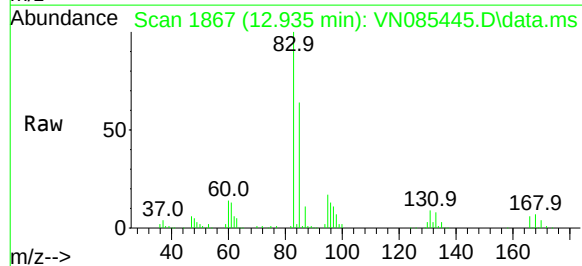
ICVVN011425

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 164882 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 131      | 9.9   | 4.8   | 14.4   |
| 85       | 64.6  | 32.2  | 96.6   |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#76

1,2,3-Trichloropropane

Concen: 41.891 ug/l m

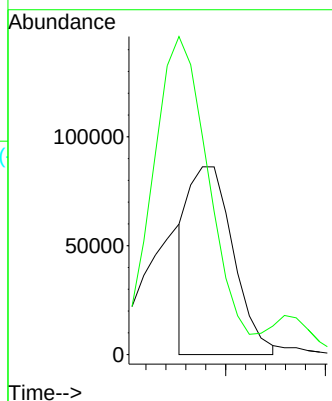
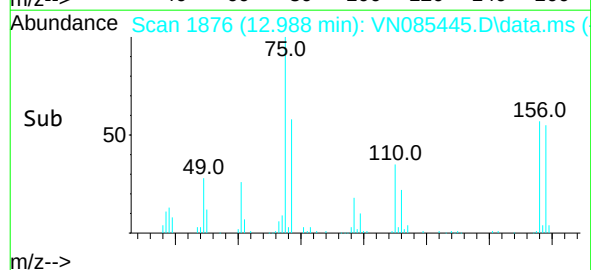
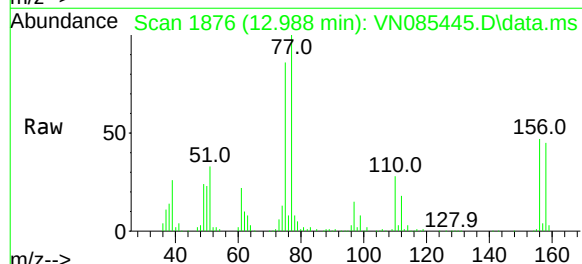
RT: 12.988 min Scan# 1876

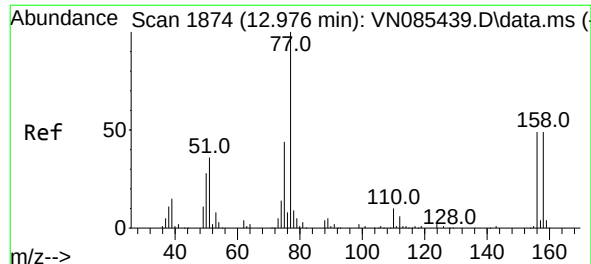
Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 75    | Resp: | 134976 |
| Ion      | Ratio | Lower | Upper  |
| 75       | 100   |       |        |
| 77       | 213.9 | 109.7 | 329.2  |





#77

Bromobenzene

Concen: 46.138 ug/l

RT: 12.977 min Scan# 1874

Delta R.T. 0.000 min

Lab File: VN085445.D

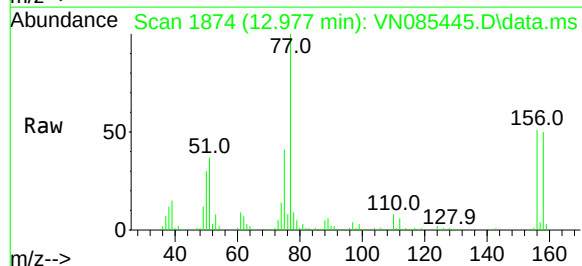
Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

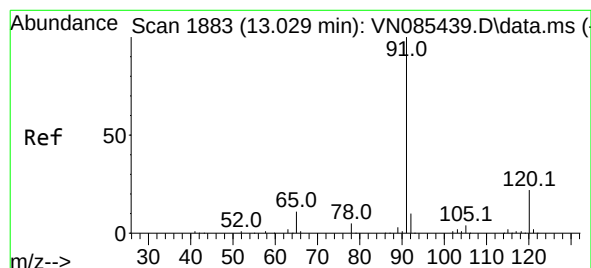
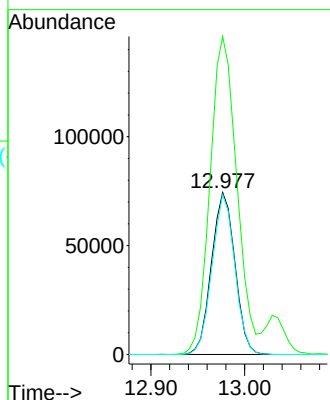
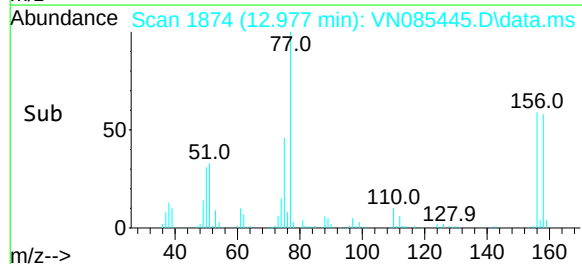
ICVVN011425



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 156   | Resp: | 128968 |
| Ion Ratio | Lower | Upper |        |
| 156       | 100   |       |        |
| 77        | 223.8 | 114.1 | 342.4  |
| 158       | 95.7  | 48.9  | 146.8  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#78

n-propylbenzene

Concen: 51.001 ug/l

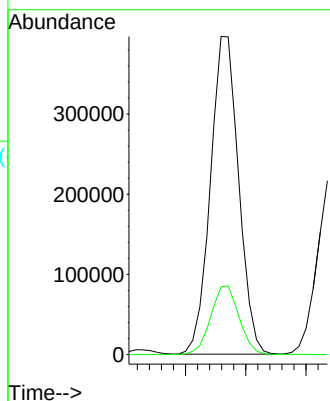
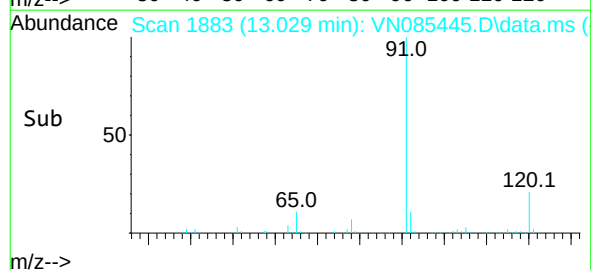
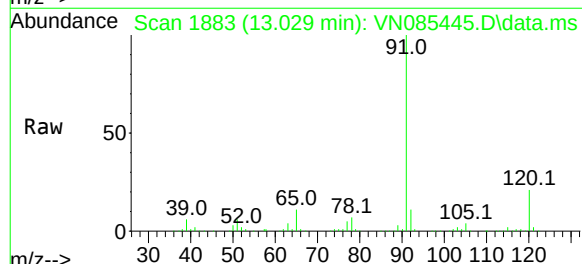
RT: 13.029 min Scan# 1883

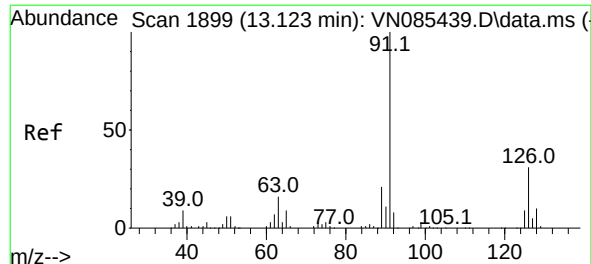
Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 91    | Resp: | 645977 |
| Ion Ratio | Lower | Upper |        |
| 91        | 100   |       |        |
| 120       | 21.7  | 10.9  | 32.6   |





#79

2-Chlorotoluene

Concen: 47.870 ug/l

RT: 13.124 min Scan# 1899

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion: 91 Resp: 392404

Ion Ratio Lower Upper

91 100

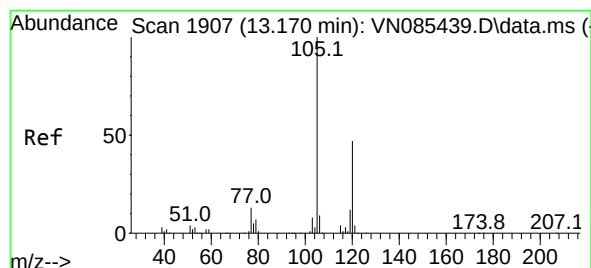
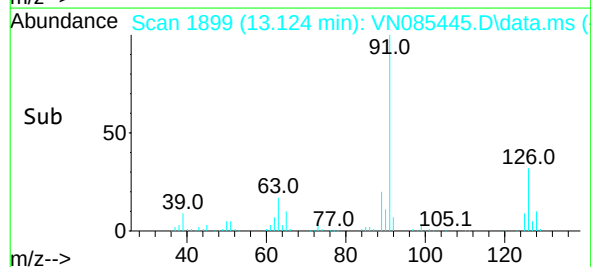
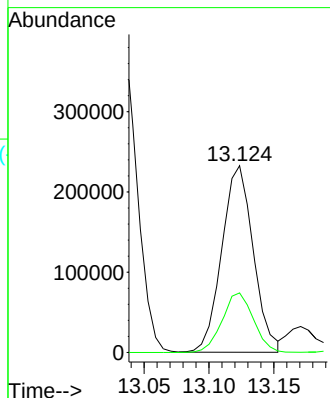
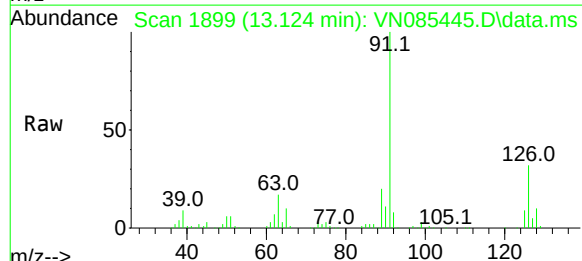
126 31.8 15.7 47.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#80

1,3,5-Trimethylbenzene

Concen: 51.604 ug/l

RT: 13.171 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VN085445.D

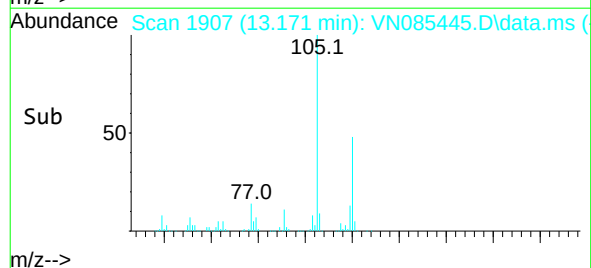
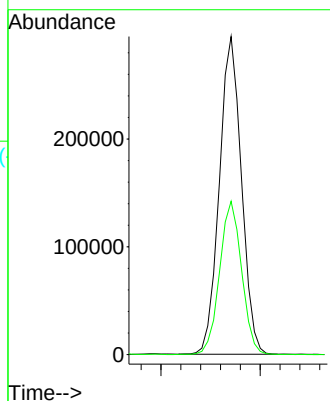
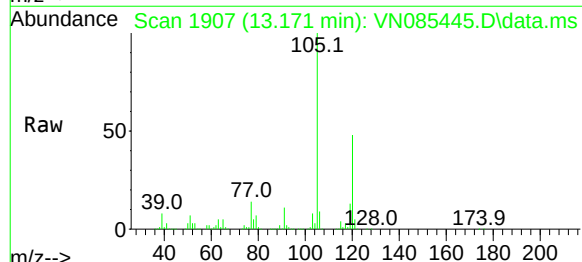
Acq: 14 Jan 2025 18:06

Tgt Ion:105 Resp: 456048

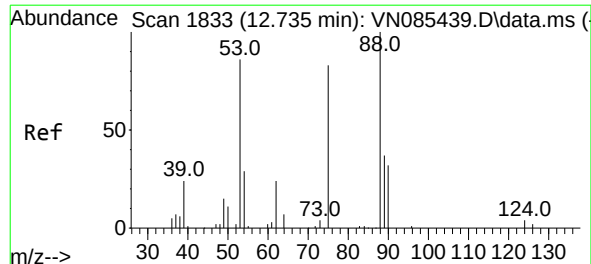
Ion Ratio Lower Upper

105 100

120 48.1 23.9 71.7







#81

trans-1,4-Dichloro-2-butene

Concen: 49.226 ug/l m

RT: 12.735 min Scan# 1833

Delta R.T. 0.000 min

Lab File: VN085445.D

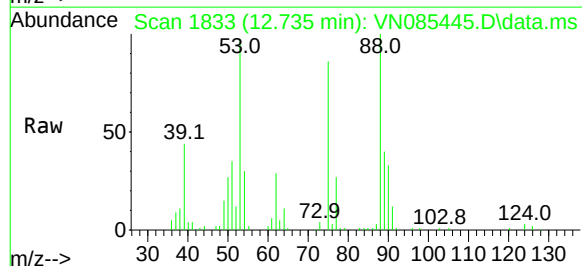
Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

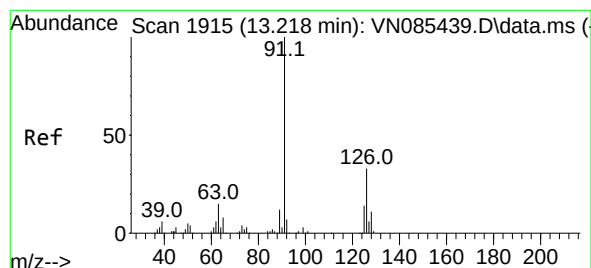
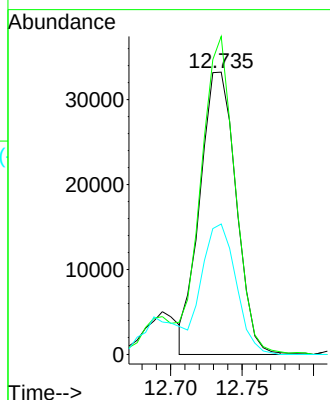
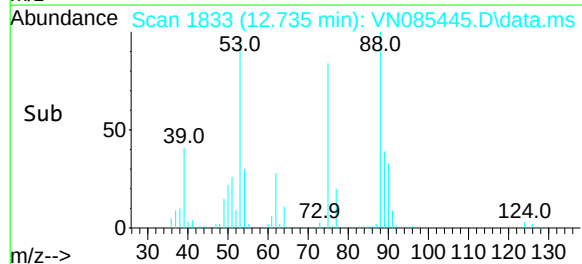
ICVVN011425



| Tgt Ion: | 75    | Resp: | 58623 |
|----------|-------|-------|-------|
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 53       | 118.0 | 95.6  | 143.4 |
| 89       | 43.3  | 37.0  | 55.6  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#82

4-Chlorotoluene

Concen: 48.776 ug/l

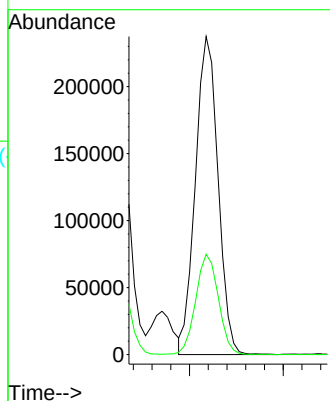
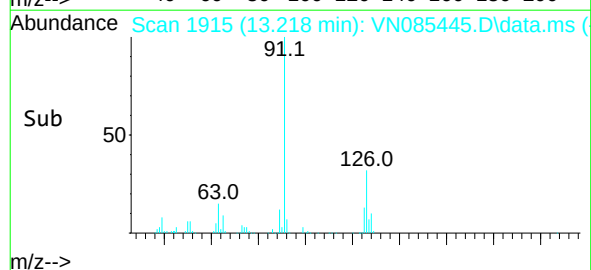
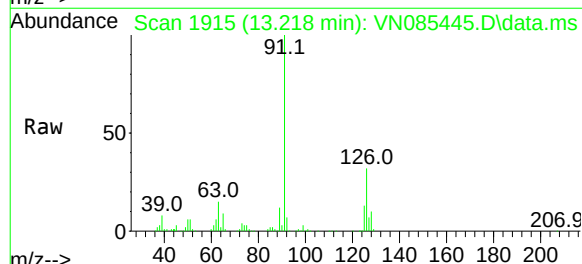
RT: 13.218 min Scan# 1915

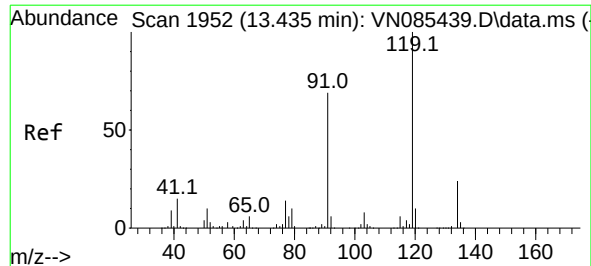
Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

| Tgt Ion: | 91    | Resp: | 398110 |
|----------|-------|-------|--------|
| Ion      | Ratio | Lower | Upper  |
| 91       | 100   |       |        |
| 126      | 31.6  | 15.9  | 47.7   |





#83

tert-Butylbenzene

Concen: 50.997 ug/l

RT: 13.435 min Scan# 19

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion:119 Resp: 378478

Ion Ratio Lower Upper

119 100

91 70.6 35.1 105.3

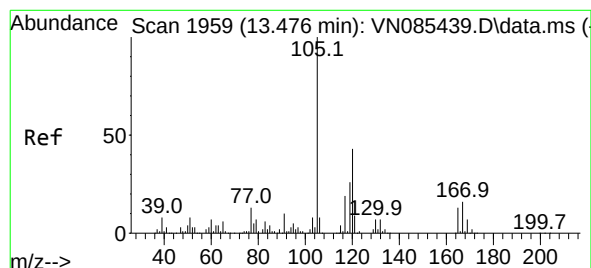
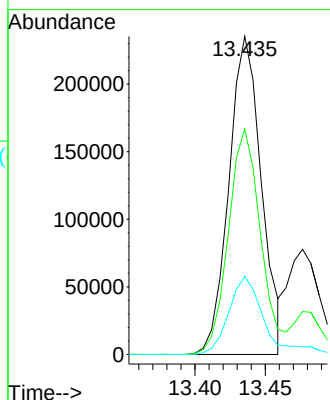
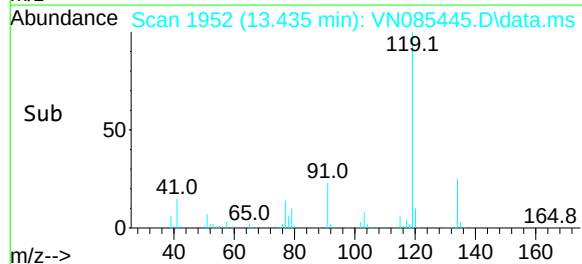
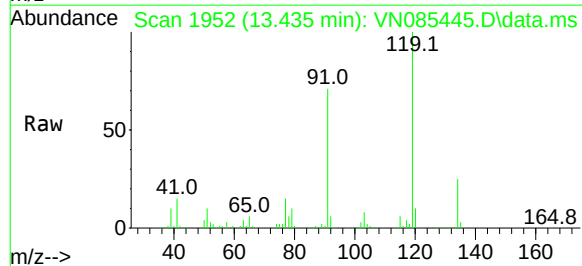
134 26.7 12.0 36.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#84

1,2,4-Trimethylbenzene

Concen: 51.922 ug/l

RT: 13.477 min Scan# 1959

Delta R.T. 0.000 min

Lab File: VN085445.D

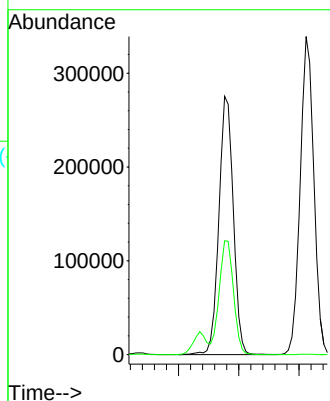
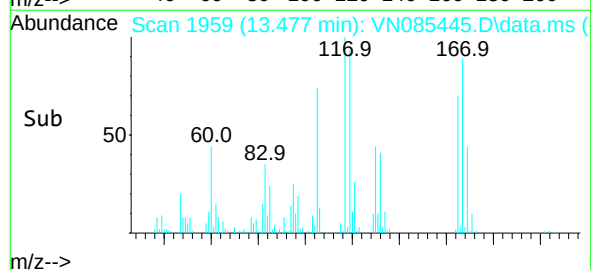
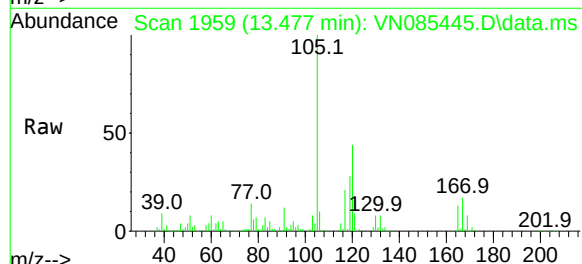
Acq: 14 Jan 2025 18:06

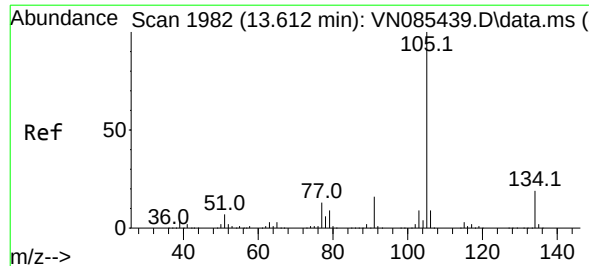
Tgt Ion:105 Resp: 457340

Ion Ratio Lower Upper

105 100

120 43.6 21.6 65.0





#85

sec-Butylbenzene

Concen: 51.777 ug/l

RT: 13.612 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN011425

Tgt Ion:105 Resp: 532578

Ion Ratio Lower Upper

105 100

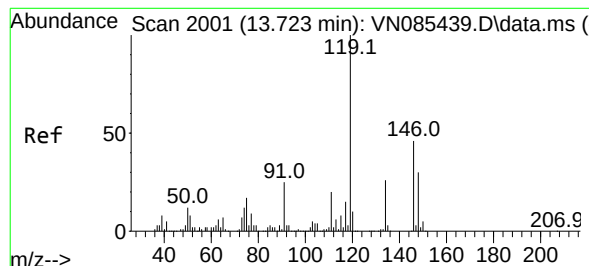
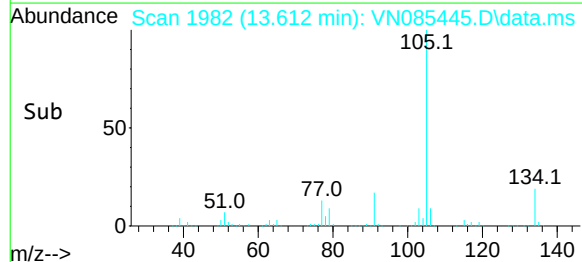
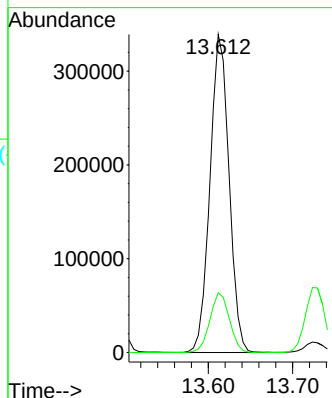
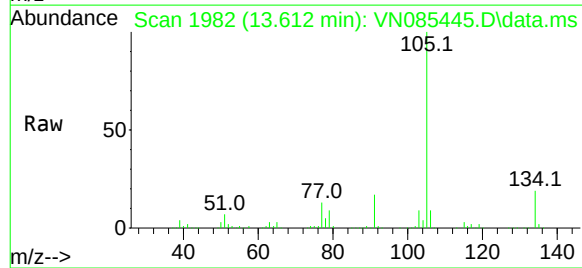
134 19.2 9.7 28.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025

Supervised By :Mahesh Dadoda 01/15/2025



#86

p-Isopropyltoluene

Concen: 47.795 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

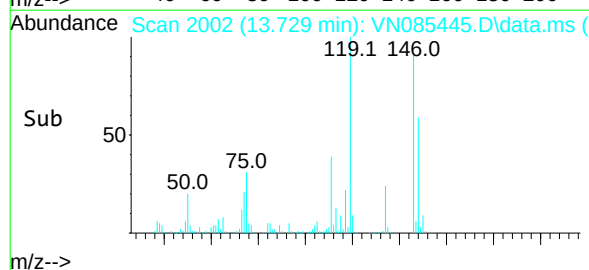
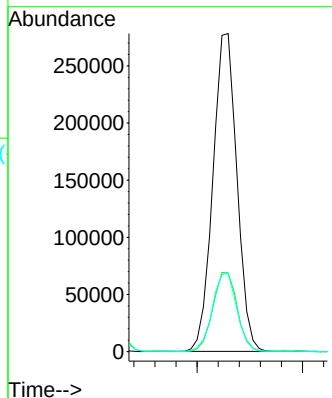
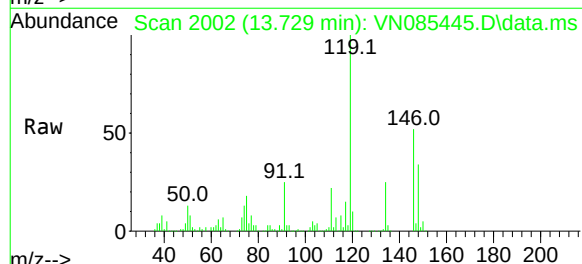
Tgt Ion:119 Resp: 440284

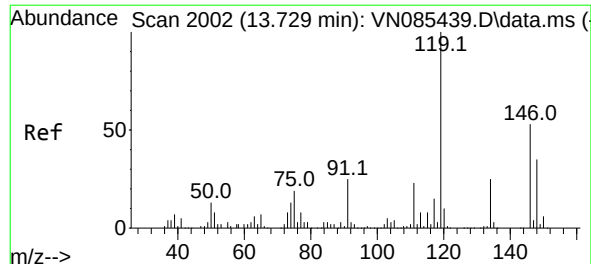
Ion Ratio Lower Upper

119 100

134 25.3 12.7 38.0

91 25.0 12.7 38.1





#87

1,3-Dichlorobenzene

Concen: 45.920 ug/l

RT: 13.729 min Scan# 20

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

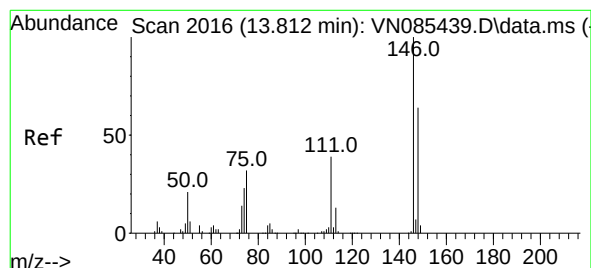
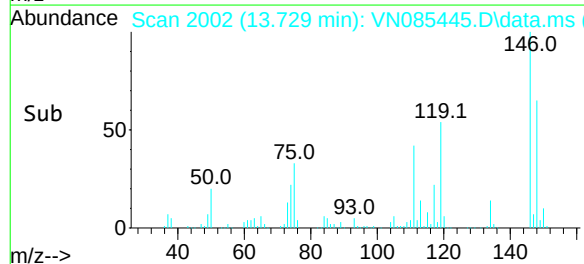
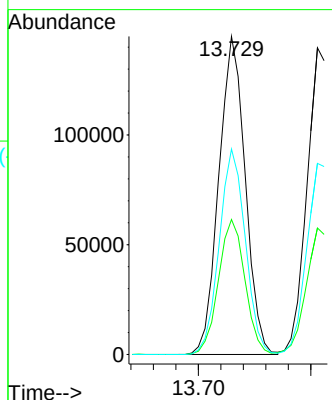
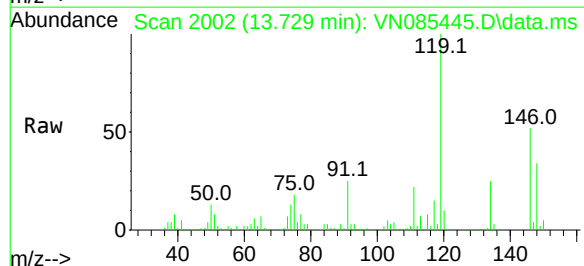
ClientSampleId :

ICVVN011425

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 146   | Resp: | 236387 |
| Ion      | Ratio | Lower | Upper  |
| 146      | 100   |       |        |
| 111      | 42.6  | 21.4  | 64.3   |
| 148      | 63.8  | 32.3  | 96.9   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#88

1,4-Dichlorobenzene

Concen: 44.102 ug/l

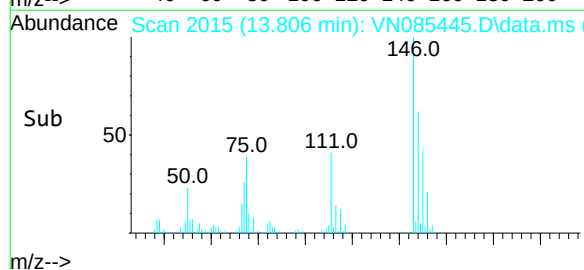
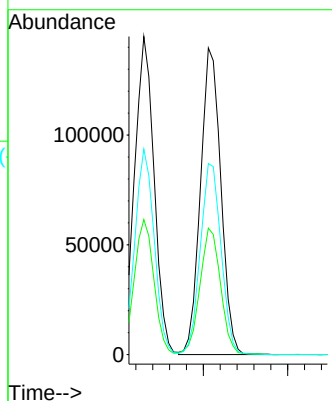
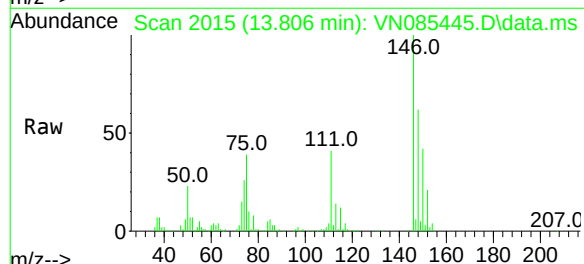
RT: 13.806 min Scan# 2015

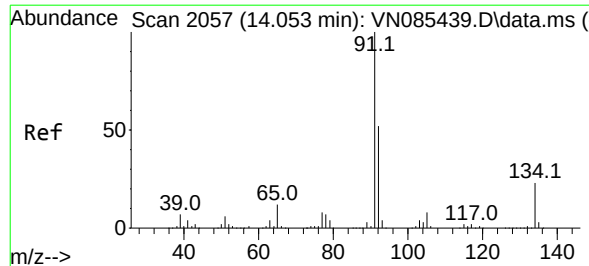
Delta R.T. -0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 146   | Resp: | 235319 |
| Ion      | Ratio | Lower | Upper  |
| 146      | 100   |       |        |
| 111      | 41.9  | 21.3  | 63.7   |
| 148      | 63.5  | 32.4  | 97.0   |





#89

n-Butylbenzene

Concen: 50.578 ug/l

RT: 14.053 min Scan# 2057

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

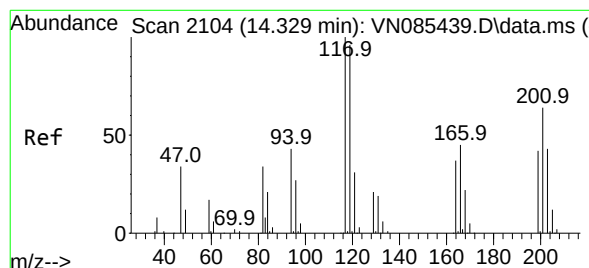
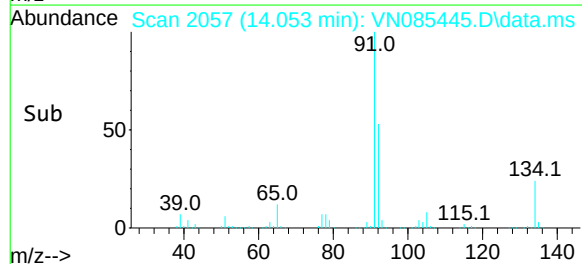
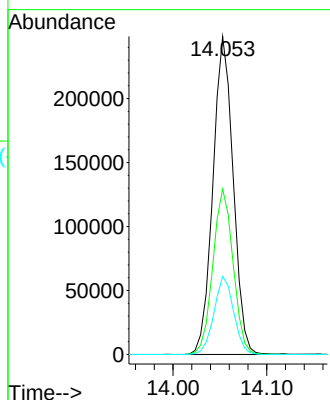
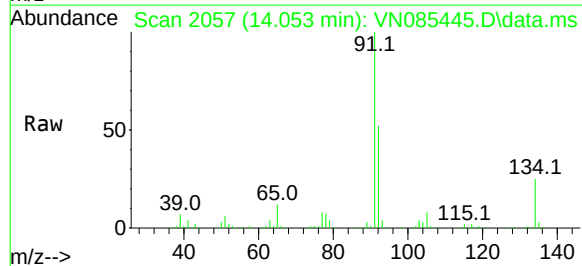
ClientSampleId :

ICVVN011425

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 91    | Resp: | 373227 |
| Ion      | Ratio | Lower | Upper  |
| 91       | 100   |       |        |
| 92       | 51.9  | 25.8  | 77.3   |
| 134      | 23.8  | 11.7  | 35.1   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#90

Hexachloroethane

Concen: 45.215 ug/l

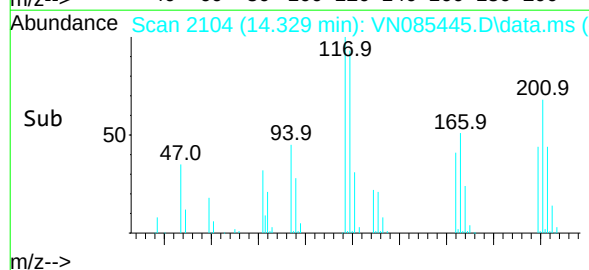
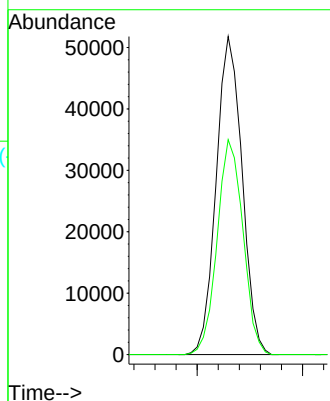
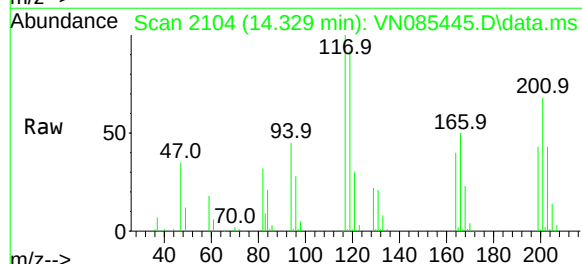
RT: 14.329 min Scan# 2104

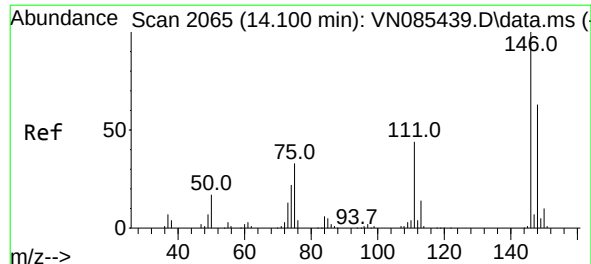
Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

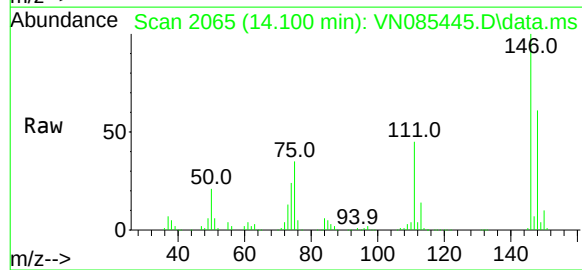
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 88538 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 201      | 67.2  | 33.7  | 101.0 |





#91  
1,2-Dichlorobenzene  
Concen: 45.113 ug/l  
RT: 14.100 min Scan# 2065  
Delta R.T. 0.000 min  
Lab File: VN085445.D  
Acq: 14 Jan 2025 18:06

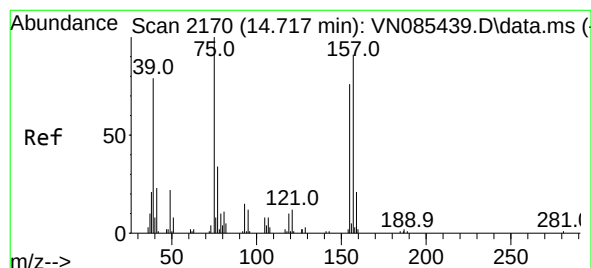
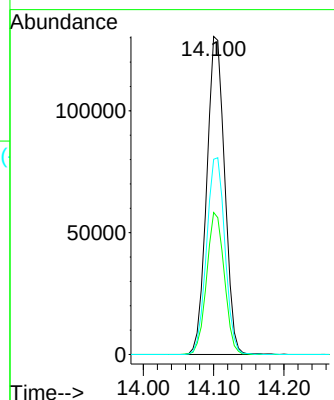
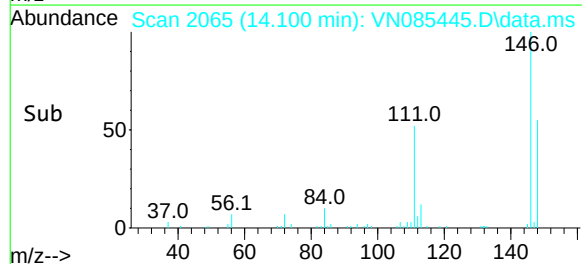
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN011425



Tgt Ion: 146 Resp: 231646  
Ion Ratio Lower Upper  
146 100  
111 43.9 21.7 65.1  
148 63.1 31.4 94.2

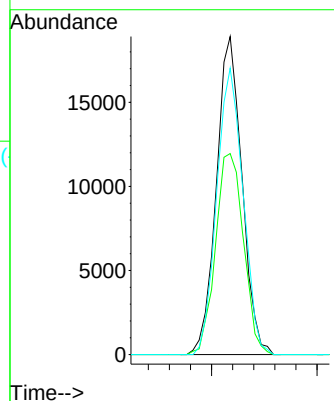
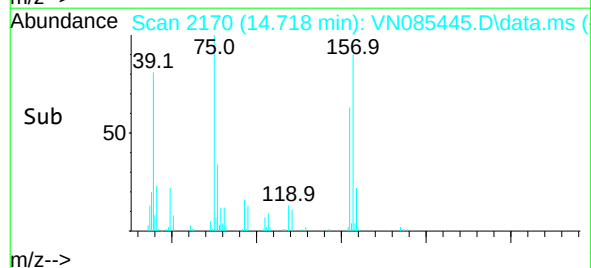
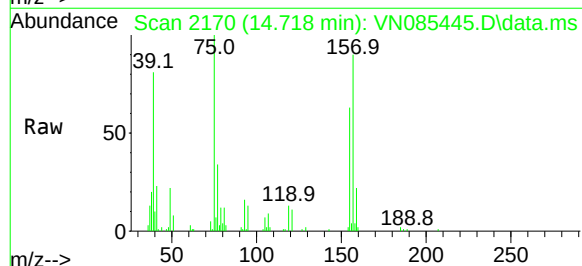
Manual Integrations  
APPROVED

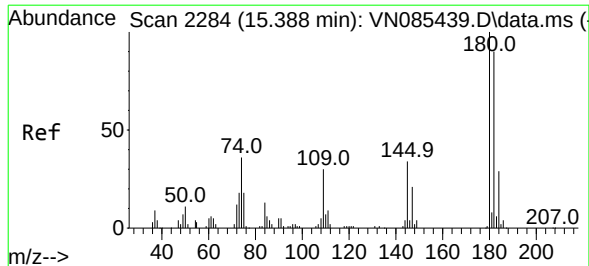
Reviewed By : John Carlone 01/15/2025  
Supervised By : Mahesh Dadoda 01/15/2025



#92  
1,2-Dibromo-3-Chloropropane  
Concen: 46.221 ug/l  
RT: 14.718 min Scan# 2170  
Delta R.T. 0.000 min  
Lab File: VN085445.D  
Acq: 14 Jan 2025 18:06

Tgt Ion: 75 Resp: 31899  
Ion Ratio Lower Upper  
75 100  
155 69.0 36.4 109.2  
157 92.3 45.4 136.1





#93

1,2,4-Trichlorobenzene

Concen: 45.739 ug/l

RT: 15.388 min Scan# 2284

Delta R.T. 0.000 min

Lab File: VN085445.D

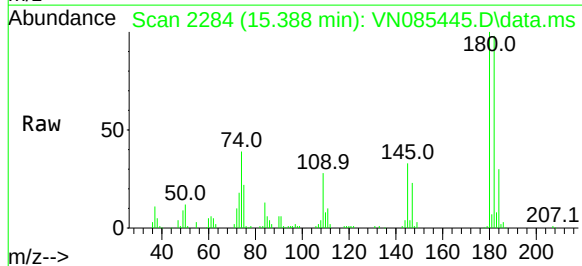
Acq: 14 Jan 2025 18:06

Instrument :

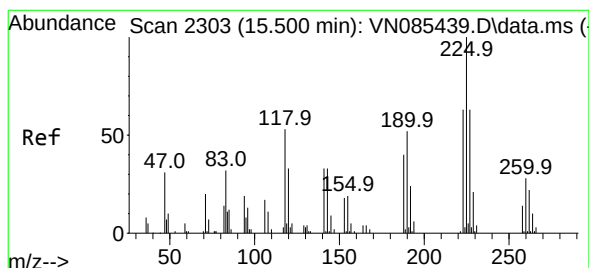
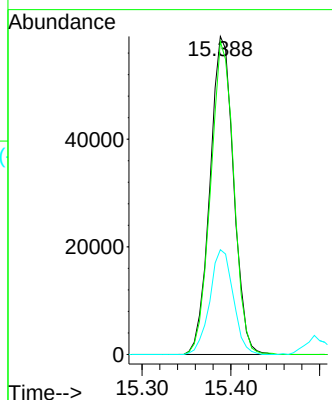
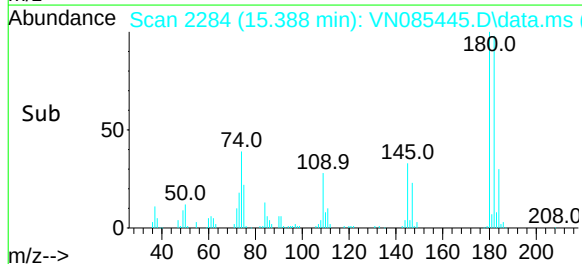
MSVOA\_N

ClientSampleId :

ICVVN011425



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 180   | Resp: | 109157 |
| Ion Ratio | Lower | Upper |        |
| 180       | 100   |       |        |
| 182       | 96.3  | 46.8  | 140.3  |
| 145       | 32.7  | 16.0  | 48.0   |

Manual Integrations  
APPROVEDReviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025

#94

Hexachlorobutadiene

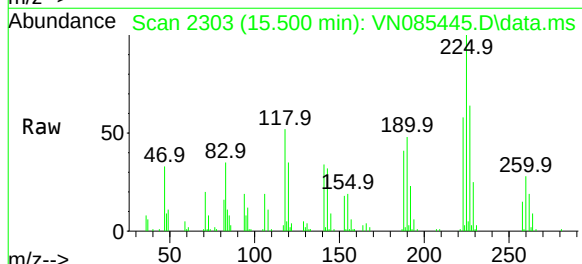
Concen: 42.112 ug/l

RT: 15.500 min Scan# 2303

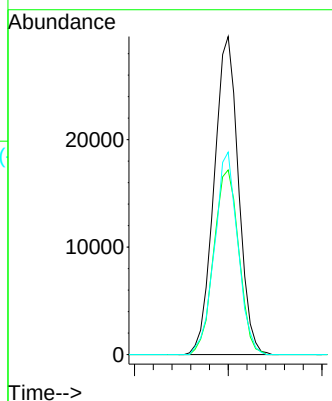
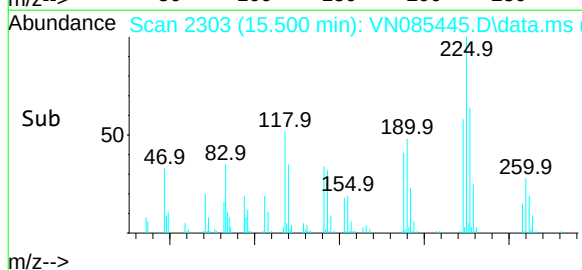
Delta R.T. 0.000 min

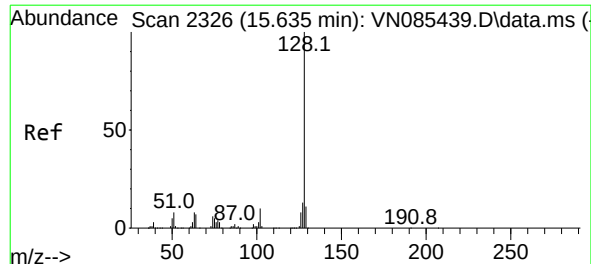
Lab File: VN085445.D

Acq: 14 Jan 2025 18:06



|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 225   | Resp: | 53358 |
| Ion Ratio | Lower | Upper |       |
| 225       | 100   |       |       |
| 223       | 59.8  | 30.7  | 92.1  |
| 227       | 61.2  | 30.9  | 92.5  |





#95

Naphthalene

Concen: 47.116 ug/l

RT: 15.641 min Scan# 2326

Delta R.T. 0.006 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

Instrument :

MSVOA\_N

ClientSampleId :

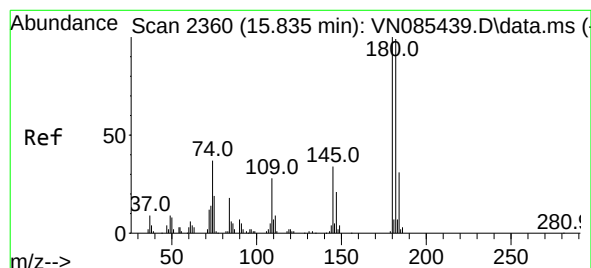
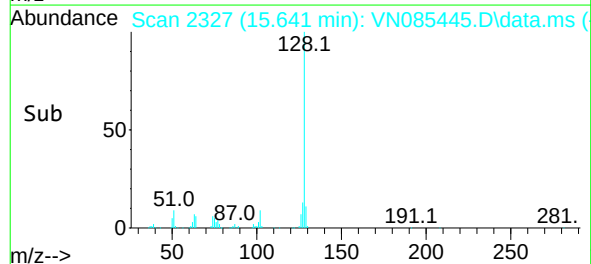
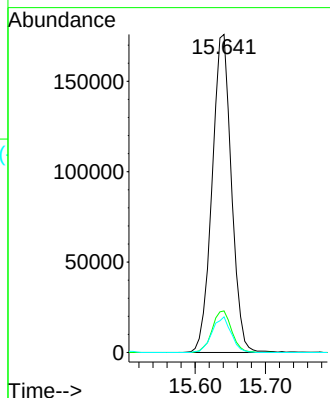
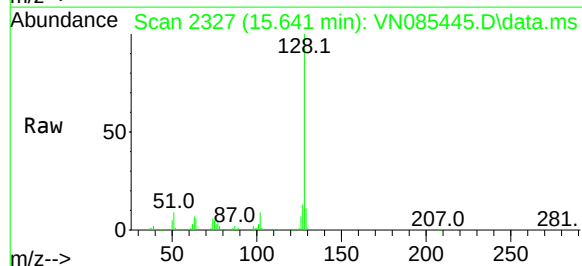
ICVVN011425

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 128   | Resp: | 335535 |
| Ion Ratio | Lower | Upper |        |
| 128       | 100   |       |        |
| 127       | 13.2  | 10.6  | 16.0   |
| 129       | 11.1  | 8.8   | 13.2   |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/15/2025  
Supervised By :Mahesh Dadoda 01/15/2025



#96

1,2,3-Trichlorobenzene

Concen: 44.551 ug/l

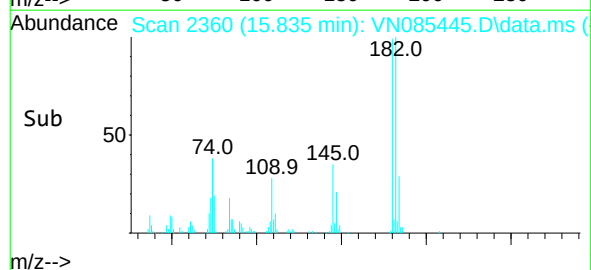
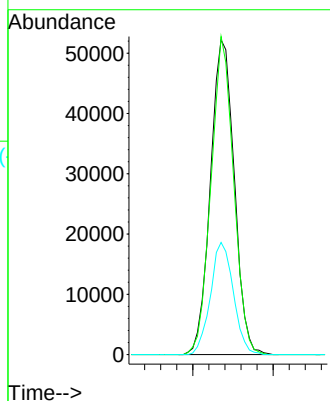
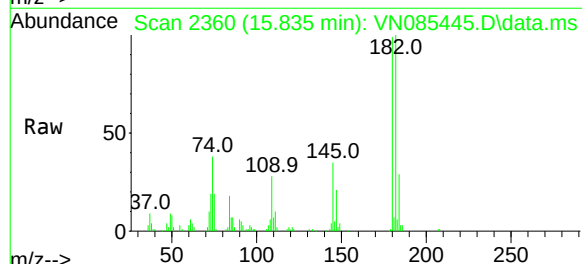
RT: 15.835 min Scan# 2360

Delta R.T. 0.000 min

Lab File: VN085445.D

Acq: 14 Jan 2025 18:06

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 180   | Resp: | 107583 |
| Ion Ratio | Lower | Upper |        |
| 180       | 100   |       |        |
| 182       | 95.6  | 47.4  | 142.2  |
| 145       | 34.3  | 16.9  | 50.7   |





Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085445.D  
 Acq On : 14 Jan 2025 18:06  
 Operator : JC\MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICSVN011425

Quant Time: Jan 15 02:20:47 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 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   | Pentafluorobenzene          | 1.000 | 1.000 | 0.0   | 110   | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 0.677 | 0.593 | 12.4  | 104   | 0.00     |
| 3 P   | Chloromethane               | 0.733 | 0.629 | 14.2  | 102   | 0.00     |
| 4 C   | Vinyl Chloride              | 0.737 | 0.629 | 14.7# | 101   | 0.00     |
| 5 T   | Bromomethane                | 0.445 | 0.364 | 18.2  | 96    | 0.00     |
| 6 T   | Chloroethane                | 0.467 | 0.395 | 15.4  | 103   | 0.00     |
| 7 T   | Trichlorofluoromethane      | 1.069 | 0.940 | 12.1  | 104   | 0.00     |
| 8 T   | Diethyl Ether               | 0.369 | 0.316 | 14.4  | 97    | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 0.602 | 0.538 | 10.6  | 109   | 0.00     |
| 10 T  | Methyl Iodide               | 0.690 | 0.638 | 7.5   | 98    | 0.00     |
| 11 T  | Tert butyl alcohol          | 0.092 | 0.076 | 17.4  | 90    | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 0.537 | 0.486 | 9.5#  | 101   | 0.00     |
| 13 T  | Acrolein                    | 0.126 | 0.124 | 1.6   | 97    | 0.00     |
| 14 T  | Allyl chloride              | 0.871 | 0.775 | 11.0  | 101   | 0.00     |
| 15 T  | Acrylonitrile               | 0.294 | 0.268 | 8.8   | 99    | 0.00     |
| 16 T  | Acetone                     | 0.261 | 0.223 | 14.6  | 98    | 0.00     |
| 17 T  | Carbon Disulfide            | 1.652 | 1.366 | 17.3  | 102   | 0.00     |
| 18 T  | Methyl Acetate              | 0.793 | 0.714 | 10.0  | 100   | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 1.742 | 1.665 | 4.4   | 98    | 0.00     |
| 20 T  | Methylene Chloride          | 0.646 | 0.555 | 14.1  | 97    | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 0.573 | 0.512 | 10.6  | 102   | 0.00     |
| 22 T  | Diisopropyl ether           | 1.933 | 1.817 | 6.0   | 98    | 0.00     |
| 23 T  | Vinyl Acetate               | 1.353 | 1.339 | 1.0   | 99    | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 1.178 | 1.040 | 11.7  | 98    | 0.00     |
| 25 T  | 2-Butanone                  | 0.384 | 0.351 | 8.6   | 99    | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 0.953 | 0.907 | 4.8   | 107   | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 0.675 | 0.614 | 9.0   | 99    | 0.00     |
| 28 T  | Bromochloromethane          | 0.548 | 0.484 | 11.7  | 98    | 0.00     |
| 29 T  | Tetrahydrofuran             | 0.243 | 0.233 | 4.1   | 98    | 0.00     |
| 30 C  | Chloroform                  | 1.218 | 1.074 | 11.8# | 101   | 0.00     |
| 31 T  | Cyclohexane                 | 1.024 | 0.878 | 14.3  | 110   | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 1.068 | 0.947 | 11.3  | 103   | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 0.807 | 0.804 | 0.4   | 107   | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 1.000 | 1.000 | 0.0   | 109   | 0.00     |
| 35 S  | Dibromofluoromethane        | 0.347 | 0.352 | -1.4  | 107   | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 0.487 | 0.437 | 10.3  | 103   | 0.00     |
| 37 T  | Ethyl Acetate               | 0.491 | 0.434 | 11.6  | 97    | 0.00     |
| 38 T  | Carbon Tetrachloride        | 0.557 | 0.496 | 11.0  | 102   | 0.00     |
| 39 T  | Methylcyclohexane           | 0.457 | 0.455 | 0.4   | 107   | 0.00     |
| 40 TM | Benzene                     | 1.463 | 1.336 | 8.7   | 100   | 0.00     |
| 41 T  | Methacrylonitrile           | 0.256 | 0.241 | 5.9   | 97    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 0.551 | 0.501 | 9.1   | 100   | 0.00     |
| 43 T  | Isopropyl Acetate           | 0.787 | 0.716 | 9.0   | 96    | 0.00     |
| 44 TM | Trichloroethene             | 0.341 | 0.297 | 12.9  | 100   | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 0.374 | 0.334 | 10.7# | 98    | 0.00     |
| 46 T  | Dibromomethane              | 0.270 | 0.238 | 11.9  | 97    | 0.00     |
| 47 T  | Bromodichloromethane        | 0.549 | 0.502 | 8.6   | 98    | 0.00     |
| 48 T  | Methyl methacrylate         | 0.354 | 0.354 | 0.0   | 98    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085445.D  
 Acq On : 14 Jan 2025 18:06  
 Operator : JC\MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN011425

Quant Time: Jan 15 02:20:47 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 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) |
|-------|-----------------------------|-------|-------|-------|-------|----------|
| 49 T  | 1,4-Dioxane                 | 0.006 | 0.005 | 16.7  | 81    | 0.00     |
| 50 S  | Toluene-d8                  | 1.232 | 1.289 | -4.6  | 111   | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 0.457 | 0.449 | 1.8   | 99    | 0.00     |
| 52 CM | Toluene                     | 0.848 | 0.815 | 3.9#  | 102   | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 0.519 | 0.496 | 4.4   | 98    | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 0.554 | 0.530 | 4.3   | 98    | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 0.335 | 0.310 | 7.5   | 99    | 0.00     |
| 56 T  | Ethyl methacrylate          | 0.469 | 0.492 | -4.9  | 99    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 0.583 | 0.547 | 6.2   | 99    | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 0.213 | 0.218 | -2.3  | 99    | 0.00     |
| 59 T  | 2-Hexanone                  | 0.321 | 0.323 | -0.6  | 99    | 0.00     |
| 60 T  | Dibromochloromethane        | 0.405 | 0.372 | 8.1   | 98    | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 0.334 | 0.299 | 10.5  | 98    | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 0.422 | 0.446 | -5.7  | 108   | 0.00     |
| 63 I  | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0   | 108   | 0.00     |
| 64 T  | Tetrachloroethene           | 0.341 | 0.306 | 10.3  | 102   | 0.00     |
| 65 PM | Chlorobenzene               | 1.095 | 1.006 | 8.1   | 101   | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 0.402 | 0.359 | 10.7  | 99    | 0.00     |
| 67 C  | Ethyl Benzene               | 1.784 | 1.798 | -0.8# | 104   | 0.00     |
| 68 T  | m/p-Xylenes                 | 0.659 | 0.681 | -3.3  | 104   | 0.00     |
| 69 T  | o-Xylene                    | 0.630 | 0.656 | -4.1  | 104   | 0.00     |
| 70 T  | Styrene                     | 1.043 | 1.108 | -6.2  | 102   | 0.00     |
| 71 P  | Bromoform                   | 0.288 | 0.283 | 1.7   | 98    | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0   | 108   | 0.00     |
| 73 T  | Isopropylbenzene            | 3.375 | 3.371 | 0.1   | 106   | 0.00     |
| 74 T  | N-amyl acetate              | 1.517 | 1.478 | 2.6   | 99    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 1.192 | 1.040 | 12.8  | 98    | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 1.016 | 0.851 | 16.2  | 103   | 0.00     |
| 77 T  | Bromobenzene                | 0.882 | 0.814 | 7.7   | 103   | 0.00     |
| 78 T  | n-propylbenzene             | 3.995 | 4.075 | -2.0  | 106   | 0.00     |
| 79 T  | 2-Chlorotoluene             | 2.586 | 2.475 | 4.3   | 104   | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 2.787 | 2.877 | -3.2  | 106   | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 0.376 | 0.370 | 1.6   | 103   | 0.00     |
| 82 T  | 4-Chlorotoluene             | 2.574 | 2.511 | 2.4   | 105   | 0.00     |
| 83 T  | tert-Butylbenzene           | 2.341 | 2.387 | -2.0  | 106   | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 2.778 | 2.885 | -3.9  | 103   | 0.00     |
| 85 T  | sec-Butylbenzene            | 3.244 | 3.360 | -3.6  | 106   | 0.00     |
| 86 T  | p-Isopropyltoluene          | 2.631 | 2.777 | -5.5  | 105   | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 1.624 | 1.491 | 8.2   | 103   | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 1.683 | 1.484 | 11.8  | 103   | 0.00     |
| 89 T  | n-Butylbenzene              | 2.327 | 2.354 | -1.2  | 103   | 0.00     |
| 90 T  | Hexachloroethane            | 0.618 | 0.559 | 9.5   | 105   | 0.00     |
| 91 T  | 1,2-Dichlorobenzene         | 1.620 | 1.461 | 9.8   | 102   | 0.00     |
| 92 T  | 1,2-Dibromo-3-Chloropropane | 0.218 | 0.201 | 7.8   | 98    | 0.00     |
| 93 T  | 1,2,4-Trichlorobenzene      | 0.753 | 0.689 | 8.5   | 95    | 0.00     |
| 94 T  | Hexachlorobutadiene         | 0.400 | 0.337 | 15.8  | 99    | 0.00     |
| 95 T  | Naphthalene                 | 2.246 | 2.117 | 5.7   | 92    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
Data File : VN085445.D  
Acq On : 14 Jan 2025 18:06  
Operator : JC\MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN011425

Quant Time: Jan 15 02:20:47 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 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) |
|------|------------------------|-------|-------|------|-------|----------|
| 96 T | 1,2,3-Trichlorobenzene | 0.762 | 0.679 | 10.9 | 93    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085445.D  
 Acq On : 14 Jan 2025 18:06  
 Operator : JC\MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICSVN011425

Quant Time: Jan 15 02:20:47 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 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   | Pentafluorobenzene          | 50.000  | 50.000  | 0.0   | 110   | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 50.000  | 43.772  | 12.5  | 104   | 0.00     |
| 3 P   | Chloromethane               | 50.000  | 42.883  | 14.2  | 102   | 0.00     |
| 4 C   | Vinyl Chloride              | 50.000  | 42.715  | 14.6# | 101   | 0.00     |
| 5 T   | Bromomethane                | 50.000  | 40.910  | 18.2  | 96    | 0.00     |
| 6 T   | Chloroethane                | 50.000  | 42.299  | 15.4  | 103   | 0.00     |
| 7 T   | Trichlorofluoromethane      | 50.000  | 43.956  | 12.1  | 104   | 0.00     |
| 8 T   | Diethyl Ether               | 50.000  | 42.846  | 14.3  | 97    | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 50.000  | 44.706  | 10.6  | 109   | 0.00     |
| 10 T  | Methyl Iodide               | 50.000  | 46.259  | 7.5   | 98    | 0.00     |
| 11 T  | Tert butyl alcohol          | 250.000 | 206.633 | 17.3  | 90    | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 50.000  | 45.317  | 9.4#  | 101   | 0.00     |
| 13 T  | Acrolein                    | 250.000 | 244.765 | 2.1   | 97    | 0.00     |
| 14 T  | Allyl chloride              | 50.000  | 44.501  | 11.0  | 101   | 0.00     |
| 15 T  | Acrylonitrile               | 250.000 | 227.920 | 8.8   | 99    | 0.00     |
| 16 T  | Acetone                     | 250.000 | 213.971 | 14.4  | 98    | 0.00     |
| 17 T  | Carbon Disulfide            | 50.000  | 41.342  | 17.3  | 102   | 0.00     |
| 18 T  | Methyl Acetate              | 50.000  | 45.028  | 9.9   | 100   | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 50.000  | 47.768  | 4.5   | 98    | 0.00     |
| 20 T  | Methylene Chloride          | 50.000  | 43.017  | 14.0  | 97    | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 50.000  | 44.672  | 10.7  | 102   | 0.00     |
| 22 T  | Diisopropyl ether           | 50.000  | 46.996  | 6.0   | 98    | 0.00     |
| 23 T  | Vinyl Acetate               | 250.000 | 247.459 | 1.0   | 99    | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 50.000  | 44.114  | 11.8  | 98    | 0.00     |
| 25 T  | 2-Butanone                  | 250.000 | 228.924 | 8.4   | 99    | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 50.000  | 47.593  | 4.8   | 107   | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 50.000  | 45.446  | 9.1   | 99    | 0.00     |
| 28 T  | Bromochloromethane          | 50.000  | 44.122  | 11.8  | 98    | 0.00     |
| 29 T  | Tetrahydrofuran             | 250.000 | 239.065 | 4.4   | 98    | 0.00     |
| 30 C  | Chloroform                  | 50.000  | 44.071  | 11.9# | 101   | 0.00     |
| 31 T  | Cyclohexane                 | 50.000  | 42.878  | 14.2  | 110   | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 50.000  | 44.332  | 11.3  | 103   | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 50.000  | 49.782  | 0.4   | 107   | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 50.000  | 50.000  | 0.0   | 109   | 0.00     |
| 35 S  | Dibromofluoromethane        | 50.000  | 50.768  | -1.5  | 107   | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 50.000  | 44.863  | 10.3  | 103   | 0.00     |
| 37 T  | Ethyl Acetate               | 50.000  | 44.123  | 11.8  | 97    | 0.00     |
| 38 T  | Carbon Tetrachloride        | 50.000  | 44.456  | 11.1  | 102   | 0.00     |
| 39 T  | Methylcyclohexane           | 50.000  | 49.687  | 0.6   | 107   | 0.00     |
| 40 TM | Benzene                     | 50.000  | 45.657  | 8.7   | 100   | 0.00     |
| 41 T  | Methacrylonitrile           | 50.000  | 47.155  | 5.7   | 97    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 50.000  | 45.481  | 9.0   | 100   | 0.00     |
| 43 T  | Isopropyl Acetate           | 50.000  | 45.440  | 9.1   | 96    | 0.00     |
| 44 TM | Trichloroethene             | 50.000  | 43.622  | 12.8  | 100   | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 50.000  | 44.744  | 10.5# | 98    | 0.00     |
| 46 T  | Dibromomethane              | 50.000  | 44.214  | 11.6  | 97    | 0.00     |
| 47 T  | Bromodichloromethane        | 50.000  | 45.655  | 8.7   | 98    | 0.00     |
| 48 T  | Methyl methacrylate         | 50.000  | 49.948  | 0.1   | 98    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
 Data File : VN085445.D  
 Acq On : 14 Jan 2025 18:06  
 Operator : JC\MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICSVN011425

Quant Time: Jan 15 02:20:47 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 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) |
|-------|-----------------------------|----------|---------|-------|-------|----------|
| 49 T  | 1,4-Dioxane                 | 1000.000 | 792.760 | 20.7  | 81    | 0.00     |
| 50 S  | Toluene-d8                  | 50.000   | 52.302  | -4.6  | 111   | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 250.000  | 245.877 | 1.6   | 99    | 0.00     |
| 52 CM | Toluene                     | 50.000   | 48.073  | 3.9#  | 102   | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 50.000   | 47.757  | 4.5   | 98    | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 50.000   | 47.783  | 4.4   | 98    | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 50.000   | 46.173  | 7.7   | 99    | 0.00     |
| 56 T  | Ethyl methacrylate          | 50.000   | 43.762  | 12.5  | 99    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 50.000   | 46.877  | 6.2   | 99    | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 250.000  | 256.116 | -2.4  | 99    | 0.00     |
| 59 T  | 2-Hexanone                  | 250.000  | 251.213 | -0.5  | 99    | 0.00     |
| 60 T  | Dibromochloromethane        | 50.000   | 45.935  | 8.1   | 98    | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 50.000   | 44.837  | 10.3  | 98    | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 50.000   | 52.899  | -5.8  | 108   | 0.00     |
| 63 I  | Chlorobenzene-d5            | 50.000   | 50.000  | 0.0   | 108   | 0.00     |
| 64 T  | Tetrachloroethene           | 50.000   | 44.886  | 10.2  | 102   | 0.00     |
| 65 PM | Chlorobenzene               | 50.000   | 45.901  | 8.2   | 101   | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 50.000   | 44.712  | 10.6  | 99    | 0.00     |
| 67 C  | Ethyl Benzene               | 50.000   | 50.391  | -0.8# | 104   | 0.00     |
| 68 T  | m/p-Xylenes                 | 100.000  | 103.341 | -3.3  | 104   | 0.00     |
| 69 T  | o-Xylene                    | 50.000   | 52.093  | -4.2  | 104   | 0.00     |
| 70 T  | Styrene                     | 50.000   | 53.103  | -6.2  | 102   | 0.00     |
| 71 P  | Bromoform                   | 50.000   | 49.119  | 1.8   | 98    | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 50.000   | 50.000  | 0.0   | 108   | 0.00     |
| 73 T  | Isopropylbenzene            | 50.000   | 49.951  | 0.1   | 106   | 0.00     |
| 74 T  | N-amyl acetate              | 50.000   | 48.730  | 2.5   | 99    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 50.000   | 43.627  | 12.7  | 98    | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 50.000   | 41.891  | 16.2  | 103   | 0.00     |
| 77 T  | Bromobenzene                | 50.000   | 46.138  | 7.7   | 103   | 0.00     |
| 78 T  | n-propylbenzene             | 50.000   | 51.001  | -2.0  | 106   | 0.00     |
| 79 T  | 2-Chlorotoluene             | 50.000   | 47.870  | 4.3   | 104   | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 50.000   | 51.604  | -3.2  | 106   | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 50.000   | 49.226  | 1.5   | 103   | 0.00     |
| 82 T  | 4-Chlorotoluene             | 50.000   | 48.776  | 2.4   | 105   | 0.00     |
| 83 T  | tert-Butylbenzene           | 50.000   | 50.997  | -2.0  | 106   | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 50.000   | 51.922  | -3.8  | 103   | 0.00     |
| 85 T  | sec-Butylbenzene            | 50.000   | 51.777  | -3.6  | 106   | 0.00     |
| 86 T  | p-Isopropyltoluene          | 50.000   | 47.795  | 4.4   | 105   | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 50.000   | 45.920  | 8.2   | 103   | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 50.000   | 44.102  | 11.8  | 103   | 0.00     |
| 89 T  | n-Butylbenzene              | 50.000   | 50.578  | -1.2  | 103   | 0.00     |
| 90 T  | Hexachloroethane            | 50.000   | 45.215  | 9.6   | 105   | 0.00     |
| 91 T  | 1,2-Dichlorobenzene         | 50.000   | 45.113  | 9.8   | 102   | 0.00     |
| 92 T  | 1,2-Dibromo-3-Chloropropane | 50.000   | 46.221  | 7.6   | 98    | 0.00     |
| 93 T  | 1,2,4-Trichlorobenzene      | 50.000   | 45.739  | 8.5   | 95    | 0.00     |
| 94 T  | Hexachlorobutadiene         | 50.000   | 42.112  | 15.8  | 99    | 0.00     |
| 95 T  | Naphthalene                 | 50.000   | 47.116  | 5.8   | 92    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
Data File : VN085445.D  
Acq On : 14 Jan 2025 18:06  
Operator : JC\MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN011425

Quant Time: Jan 15 02:20:47 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 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) |
|------|------------------------|--------|--------|------|-------|----------|
| 96 T | 1,2,3-Trichlorobenzene | 50.000 | 44.551 | 10.9 | 93    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 6



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

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207 SDG No.: Q1207

Instrument ID: MSVOA\_N Calibration Date/Time: 01/29/2025 11:08

Lab File ID: VN085548.D Init. Calib. Date(s): 01/14/2025 01/14/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:56 17:19

GC Column: RXI-624 ID: 0.25 (mm)

| COMPOUND              | RRF   | RRF050 | MIN<br>RRF | %D     | MAX%D |
|-----------------------|-------|--------|------------|--------|-------|
| Vinyl Chloride        | 0.737 | 0.641  |            | -13.03 | 20    |
| 1,1-Dichloroethene    | 0.537 | 0.511  |            | -4.84  | 20    |
| 2-Butanone            | 0.384 | 0.403  |            | 4.95   | 20    |
| Carbon Tetrachloride  | 0.557 | 0.568  |            | 1.98   | 20    |
| Chloroform            | 1.218 | 1.236  |            | 1.48   | 20    |
| Benzene               | 1.463 | 1.501  |            | 2.6    | 20    |
| 1,2-Dichloroethane    | 0.551 | 0.584  |            | 5.99   | 20    |
| Trichloroethene       | 0.341 | 0.338  |            | -0.88  | 20    |
| Tetrachloroethene     | 0.341 | 0.339  |            | -0.59  | 20    |
| Chlorobenzene         | 1.095 | 1.109  | 0.3        | 1.28   | 20    |
| 1,2-Dichloroethane-d4 | 0.807 | 0.877  |            | 8.67   | 20    |
| Dibromofluoromethane  | 0.347 | 0.387  |            | 11.53  | 20    |
| Toluene-d8            | 1.232 | 1.409  |            | 14.37  | 20    |
| 4-Bromofluorobenzene  | 0.422 | 0.503  |            | 19.19  | 20    |

All other compounds must meet a minimum RRF of 0.010.  
RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085548.D  
 Acq On : 29 Jan 2025 11:08  
 Operator : JC\MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/30/2025  
 Supervised By : Mahesh Dadoda 01/30/2025

Quant Time: Jan 30 00:29:17 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 190920   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 314840   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 285899   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.788 | 152  | 149148   | 50.000 | ug/l  | 0.00     |

|                             |        |       |          |          |      |           |
|-----------------------------|--------|-------|----------|----------|------|-----------|
| System Monitoring Compounds |        |       |          |          |      |           |
| 33) 1,2-Dichloroethane-d4   | 8.571  | 65    | 167442   | 54.332   | ug/l | 0.00      |
| Spiked Amount               | 50.000 | Range | 74 - 125 | Recovery | =    | 108.660%  |
| 35) Dibromofluoromethane    | 8.165  | 113   | 121796   | 55.762   | ug/l | 0.00      |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =    | 111.520%  |
| 50) Toluene-d8              | 10.565 | 98    | 443525   | 57.152   | ug/l | 0.00      |
| Spiked Amount               | 50.000 | Range | 86 - 113 | Recovery | =    | 114.300%# |
| 62) 4-Bromofluorobenzene    | 12.847 | 95    | 158301   | 59.631   | ug/l | 0.00      |
| Spiked Amount               | 50.000 | Range | 77 - 121 | Recovery | =    | 119.260%  |

|                              |       |     |         |         |          |
|------------------------------|-------|-----|---------|---------|----------|
| Target Compounds             |       |     |         |         | Qvalue   |
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 111940  | 43.304  | ug/l 99  |
| 3) Chloromethane             | 2.359 | 50  | 115154  | 41.143  | ug/l 99  |
| 4) Vinyl Chloride            | 2.512 | 62  | 122379  | 43.501  | ug/l 99  |
| 5) Bromomethane              | 2.948 | 94  | 72032   | 42.389  | ug/l 100 |
| 6) Chloroethane              | 3.112 | 64  | 79983   | 44.845  | ug/l 95  |
| 7) Trichlorofluoromethane    | 3.495 | 101 | 195725  | 47.949  | ug/l 99  |
| 8) Diethyl Ether             | 3.959 | 74  | 64556   | 45.779  | ug/l 99  |
| 9) 1,1,2-Trichlorotrifluo... | 4.371 | 101 | 115688  | 50.319  | ug/l 98  |
| 10) Methyl Iodide            | 4.589 | 142 | 124815  | 47.406  | ug/l 99  |
| 11) Tert butyl alcohol       | 5.512 | 59  | 102889  | 291.560 | ug/l 99  |
| 12) 1,1-Dichloroethene       | 4.342 | 96  | 97641   | 47.653  | ug/l 98  |
| 13) Acrolein                 | 4.177 | 56  | 107614  | 223.391 | ug/l 97  |
| 14) Allyl chloride           | 5.024 | 41  | 154662  | 46.516  | ug/l 98  |
| 15) Acrylonitrile            | 5.718 | 53  | 295011  | 263.192 | ug/l 100 |
| 16) Acetone                  | 4.424 | 43  | 251588  | 252.657 | ug/l 99  |
| 17) Carbon Disulfide         | 4.712 | 76  | 247182  | 39.180  | ug/l 98  |
| 18) Methyl Acetate           | 5.018 | 43  | 167018  | 55.159  | ug/l 99  |
| 19) Methyl tert-butyl Ether  | 5.794 | 73  | 352742  | 53.017  | ug/l 99  |
| 20) Methylene Chloride       | 5.271 | 84  | 118086  | 47.903  | ug/l 99  |
| 21) trans-1,2-Dichloroethene | 5.789 | 96  | 103461  | 47.247  | ug/l 99  |
| 22) Diisopropyl ether        | 6.665 | 45  | 389107  | 52.726  | ug/l 98  |
| 23) Vinyl Acetate            | 6.600 | 43  | 1384915 | 268.154 | ug/l 100 |
| 24) 1,1-Dichloroethane       | 6.565 | 63  | 224264  | 49.838  | ug/l 98  |
| 25) 2-Butanone               | 7.483 | 43  | 384379  | 262.309 | ug/l 99  |
| 26) 2,2-Dichloropropane      | 7.483 | 77  | 201856  | 55.483  | ug/l 99  |
| 27) cis-1,2-Dichloroethene   | 7.483 | 96  | 130967  | 50.778  | ug/l 100 |
| 28) Bromochloromethane       | 7.806 | 49  | 93940   | 44.872  | ug/l 98  |
| 29) Tetrahydrofuran          | 7.835 | 42  | 255872  | 275.413 | ug/l 100 |
| 30) Chloroform               | 7.965 | 83  | 235995  | 50.743  | ug/l 97  |
| 31) Cyclohexane              | 8.253 | 56  | 171079  | 43.741  | ug/l 98  |
| 32) 1,1,1-Trichloroethane    | 8.165 | 97  | 206001  | 50.496  | ug/l 98  |
| 36) 1,1-Dichloropropene      | 8.365 | 75  | 152490  | 49.744  | ug/l 99  |
| 37) Ethyl Acetate            | 7.553 | 43  | 156704  | 50.645  | ug/l 98  |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 178752  | 50.934  | ug/l 98  |
| 39) Methylcyclohexane        | 9.600 | 83  | 146134  | 50.729  | ug/l 98  |
| 40) Benzene                  | 8.606 | 78  | 472467  | 51.295  | ug/l 100 |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085548.D  
 Acq On : 29 Jan 2025 11:08  
 Operator : JC\MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

Reviewed By :John Carlone 01/30/2025  
 Supervised By :Mahesh Dadoda 01/30/2025

Quant Time: Jan 30 00:29:17 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| 41) Methacrylonitrile         | 7.771  | 41   | 87947    | 54.633   | ug/l   | 100      |
| 42) 1,2-Dichloroethane        | 8.665  | 62   | 183786   | 52.978   | ug/l   | 99       |
| 43) Isopropyl Acetate         | 8.682  | 43   | 265698   | 53.590   | ug/l   | 100      |
| 44) Trichloroethene           | 9.347  | 130  | 106402   | 49.626   | ug/l   | 93       |
| 45) 1,2-Dichloropropane       | 9.618  | 63   | 123931   | 52.676   | ug/l   | 98       |
| 46) Dibromomethane            | 9.706  | 93   | 86251    | 50.807   | ug/l   | 96       |
| 47) Bromodichloromethane      | 9.882  | 83   | 190286   | 55.019   | ug/l   | 99       |
| 48) Methyl methacrylate       | 9.677  | 41   | 126123   | 56.527   | ug/l   | 98       |
| 49) 1,4-Dioxane               | 9.688  | 88   | 42044    | 1118.996 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone      | 10.441 | 43   | 841478   | 292.481  | ug/l   | 100      |
| 52) Toluene                   | 10.629 | 92   | 291059   | 54.537   | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 180662   | 55.275   | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 192761   | 55.213   | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane     | 11.012 | 97   | 115225   | 54.555   | ug/l   | 97       |
| 56) Ethyl methacrylate        | 10.871 | 69   | 177132   | 49.794   | ug/l   | 100      |
| 57) 1,3-Dichloropropane       | 11.159 | 76   | 200617   | 54.627   | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 373597   | 278.738  | ug/l   | 100      |
| 59) 2-Hexanone                | 11.194 | 43   | 602196   | 297.473  | ug/l   | 99       |
| 60) Dibromochloromethane      | 11.359 | 129  | 140958   | 55.280   | ug/l   | 100      |
| 61) 1,2-Dibromoethane         | 11.465 | 107  | 112734   | 53.622   | ug/l   | 98       |
| 64) Tetrachloroethene         | 11.100 | 164  | 97060    | 49.798   | ug/l   | 98       |
| 65) Chlorobenzene             | 11.888 | 112  | 317067   | 50.625   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 119011   | 51.774   | ug/l   | 98       |
| 67) Ethyl Benzene             | 11.959 | 91   | 558184   | 54.719   | ug/l   | 100      |
| 68) m/p-Xylenes               | 12.070 | 106  | 428359   | 113.620  | ug/l   | 99       |
| 69) o-Xylene                  | 12.394 | 106  | 201478   | 55.920   | ug/l   | 100      |
| 70) Styrene                   | 12.412 | 104  | 353248   | 59.242   | ug/l   | 99       |
| 71) Bromoform                 | 12.576 | 173  | 92365    | 56.158   | ug/l # | 99       |
| 73) Isopropylbenzene          | 12.694 | 105  | 520261   | 51.684   | ug/l   | 100      |
| 74) N-amyl acetate            | 12.488 | 43   | 232634   | 51.416   | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 171790   | 48.312   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane    | 12.988 | 75   | 138709m  | 45.756   | ug/l   |          |
| 77) Bromobenzene              | 12.976 | 156  | 129223   | 49.135   | ug/l   | 99       |
| 78) n-propylbenzene           | 13.035 | 91   | 634672   | 53.259   | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 384203   | 49.816   | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 448974   | 53.997   | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 60833    | 54.293   | ug/l   | 96       |
| 82) 4-Chlorotoluene           | 13.217 | 91   | 395084   | 51.449   | ug/l   | 99       |
| 83) tert-Butylbenzene         | 13.435 | 119  | 358511   | 51.344   | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene    | 13.476 | 105  | 455009   | 54.905   | ug/l   | 99       |
| 85) sec-Butylbenzene          | 13.612 | 105  | 521784   | 53.917   | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 434224   | 49.847   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 13.729 | 146  | 244334   | 50.447   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 243977   | 48.599   | ug/l   | 98       |
| 89) n-Butylbenzene            | 14.053 | 91   | 371878   | 53.564   | ug/l   | 99       |
| 90) Hexachloroethane          | 14.335 | 117  | 87853    | 47.686   | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 235437   | 48.734   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 32314    | 49.766   | ug/l   | 98       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 112668   | 50.178   | ug/l   | 99       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 56387    | 47.301   | ug/l   | 98       |
| 95) Naphthalene               | 15.641 | 128  | 334098   | 49.863   | ug/l   | 100      |
| 96) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 111153   | 48.924   | ug/l   | 100      |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085548.D  
Acq On : 29 Jan 2025 11:08  
Operator : JC\MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

Quant Time: Jan 30 00:29:17 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

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

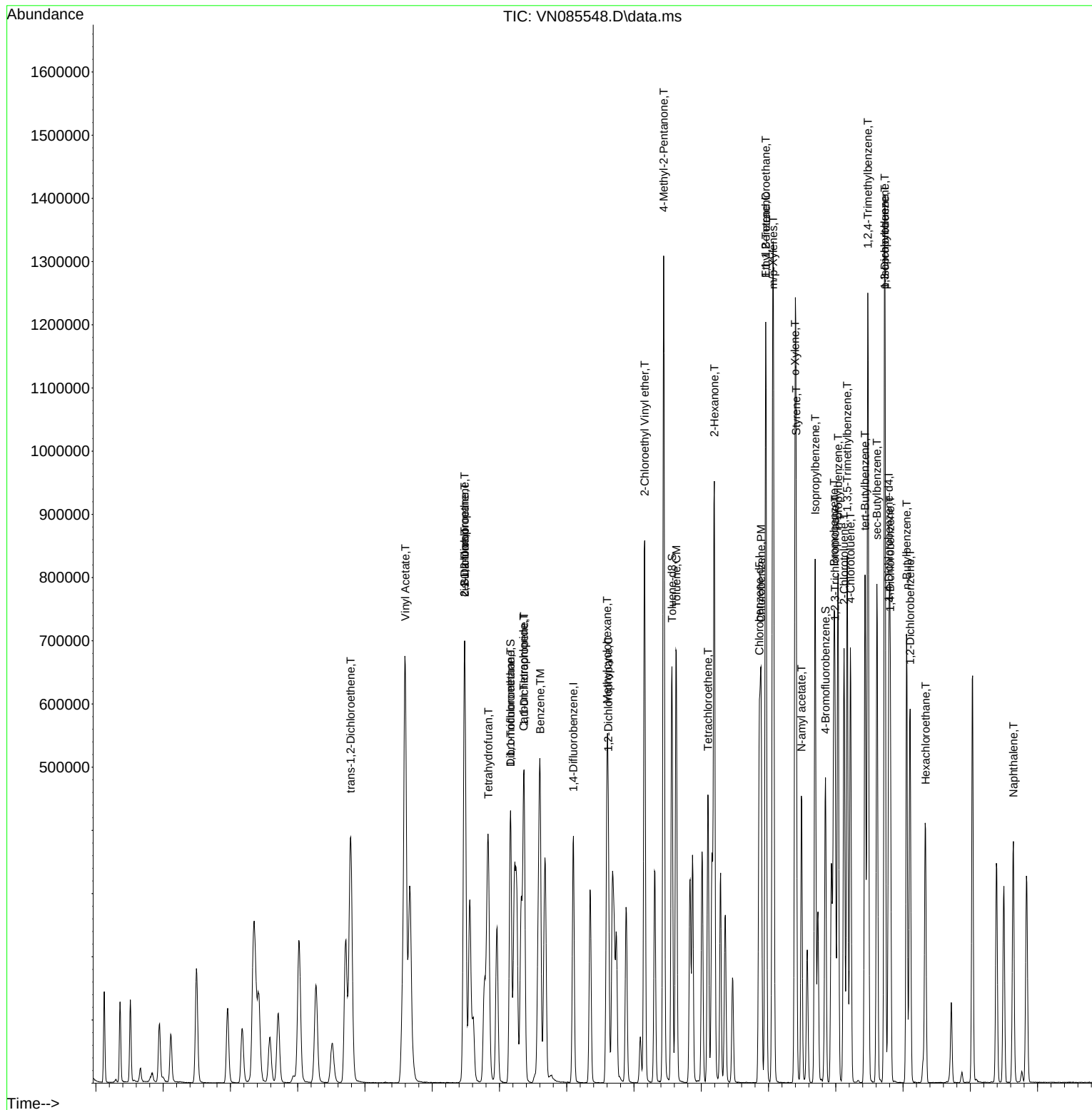
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Data File : VN085548.D  
Acq On    : 29 Jan 2025  11:08  
Operator  : JC\MD  
Sample    : VSTDCCC050  
Misc      : 5.0mL/MSVOA_N/WATER  
ALS Vial  : 3    Sample Multiplier: 1
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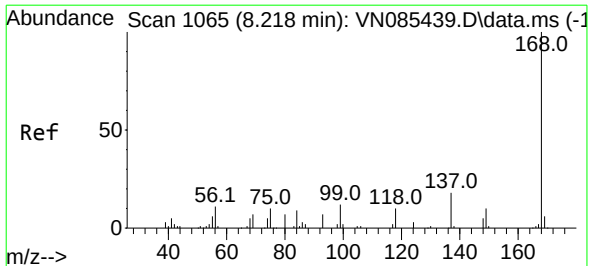
**Instrument :**  
MSVOA\_N  
**ClientSampleId :**  
VSTDCCC050

## Manual Integrations APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

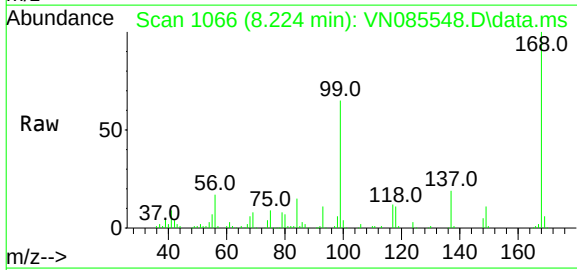
Quant Time: Jan 30 00:29:17 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. 0.006 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

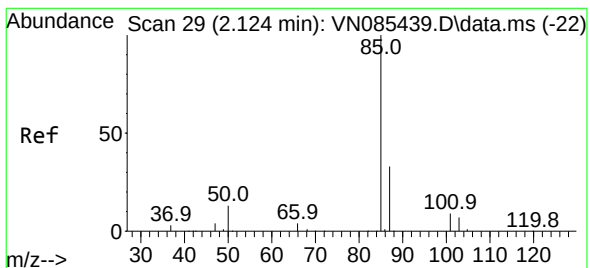
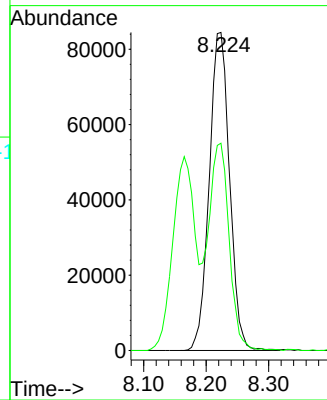
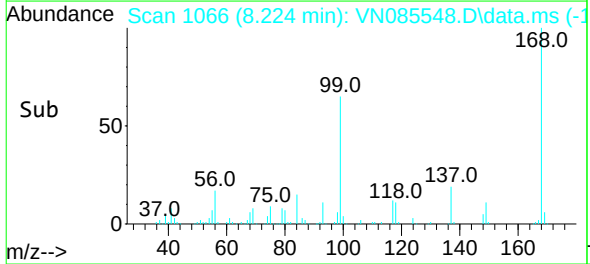
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 168 Resp: 190920  
Ion Ratio Lower Upper  
168 100  
99 65.0 53.6 80.4

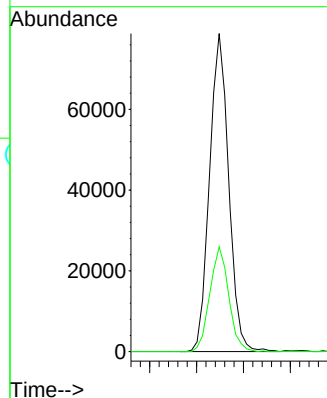
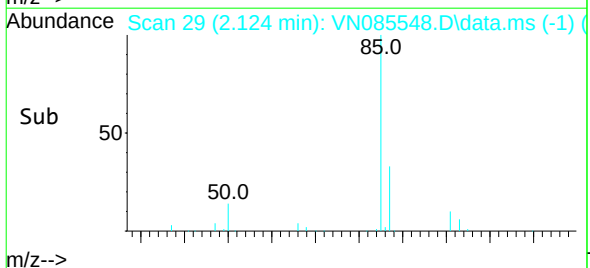
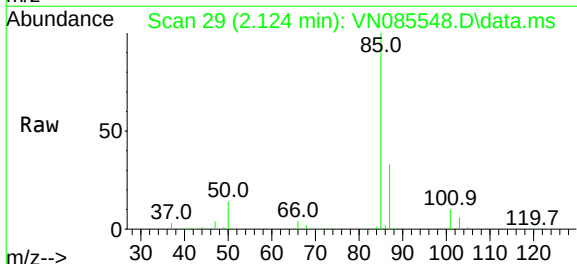
Manual Integrations  
APPROVED

Reviewed By : John Carlone 01/30/2025  
Supervised By : Mahesh Dadoda 01/30/2025

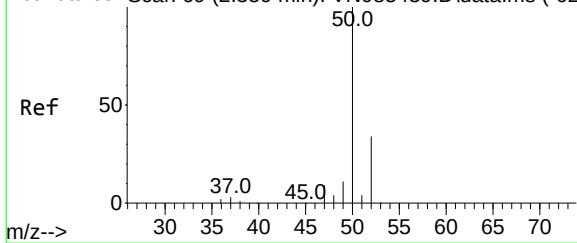


#2  
Dichlorodifluoromethane  
Concen: 43.304 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Tgt Ion: 85 Resp: 111940  
Ion Ratio Lower Upper  
85 100  
87 32.9 16.7 50.1



Abundance Scan 69 (2.359 min): VN085439.D\data.ms (-62)



#3

Chloromethane

Concen: 41.143 ug/l

RT: 2.359 min Scan# 69

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 50 Resp: 115154

Ion Ratio Lower Upper

50 100

52 34.6 27.0 40.6

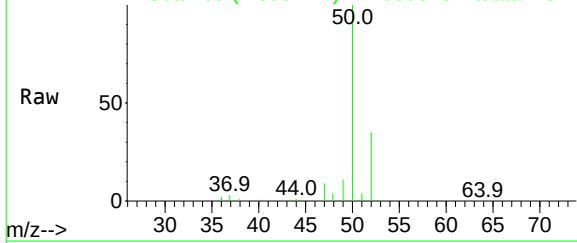
Manual Integrations

APPROVED

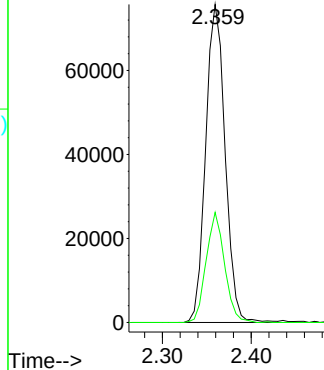
Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025

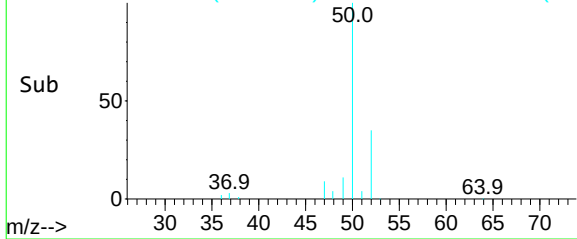
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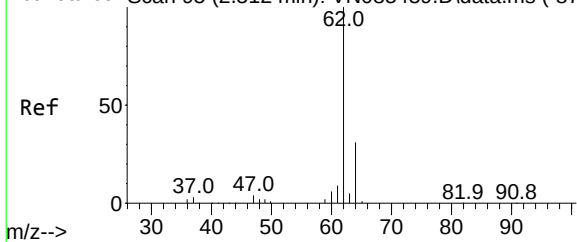
Abundance



Abundance Scan 69 (2.359 min): VN085548.D\data.ms (-18)



Abundance Scan 95 (2.512 min): VN085439.D\data.ms (-87)



#4

Vinyl Chloride

Concen: 43.501 ug/l

RT: 2.512 min Scan# 95

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

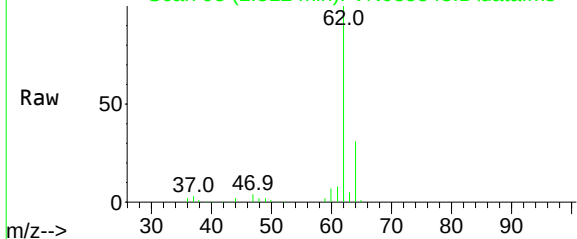
Tgt Ion: 62 Resp: 122379

Ion Ratio Lower Upper

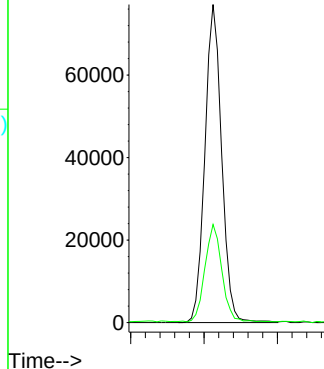
62 100

64 30.6 24.8 37.2

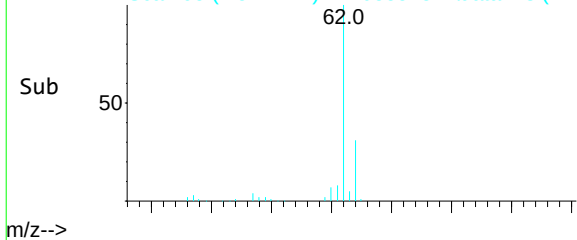
Abundance Scan 95 (2.512 min): VN085548.D\data.ms

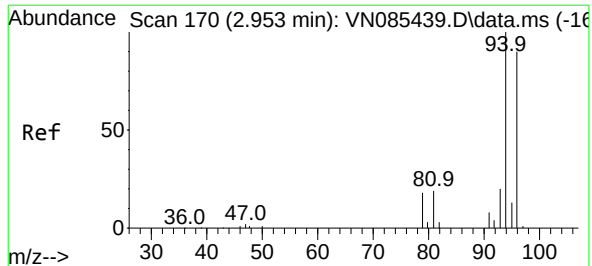


Abundance



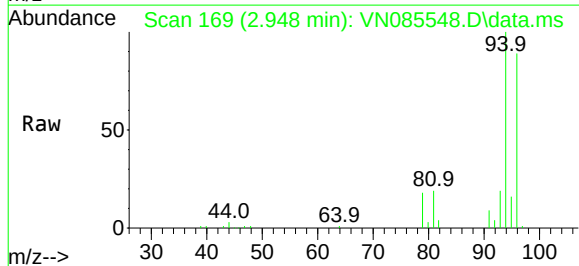
Abundance Scan 95 (2.512 min): VN085548.D\data.ms (-44)





#5  
Bromomethane  
Concen: 42.389 ug/l  
RT: 2.948 min Scan# 16  
Delta R.T. -0.006 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

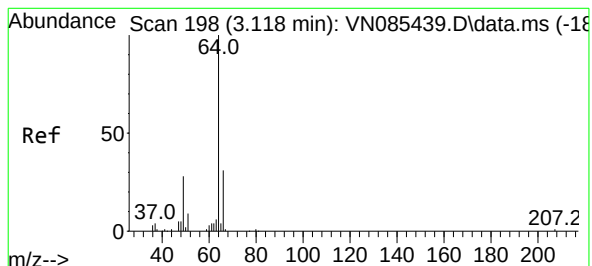
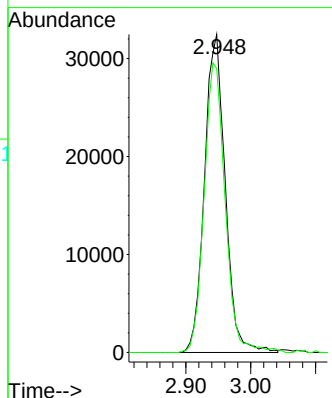
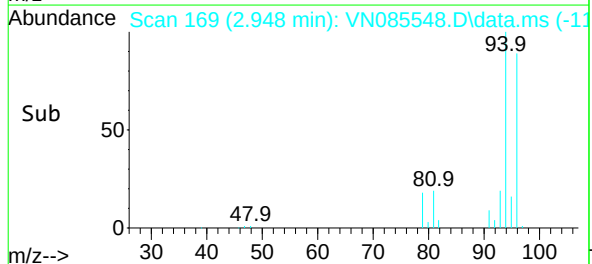
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 94 Resp: 72032  
Ion Ratio Lower Upper  
94 100  
96 89.3 71.8 107.6

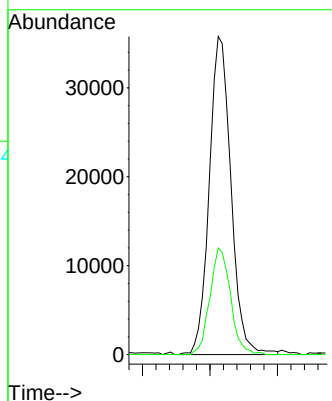
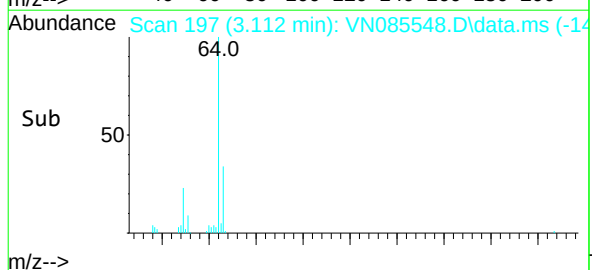
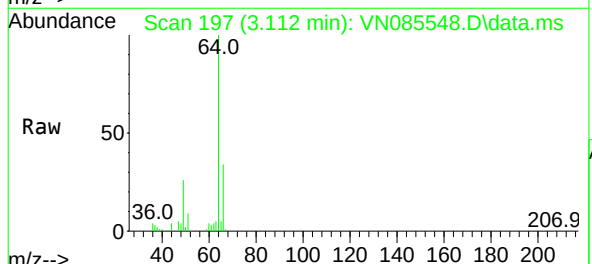
Manual Integrations  
APPROVED

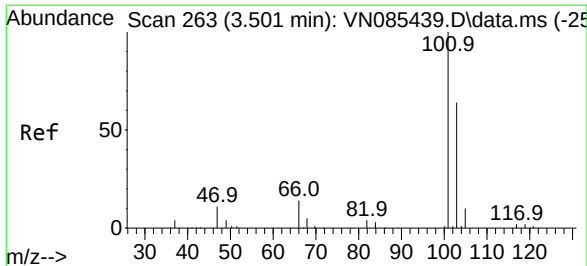
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#6  
Chloroethane  
Concen: 44.845 ug/l  
RT: 3.112 min Scan# 197  
Delta R.T. -0.006 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Tgt Ion: 64 Resp: 79983  
Ion Ratio Lower Upper  
64 100  
66 33.5 24.6 36.8





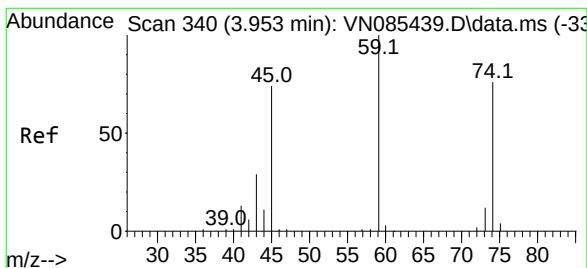
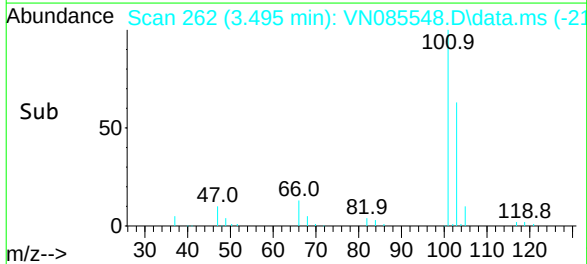
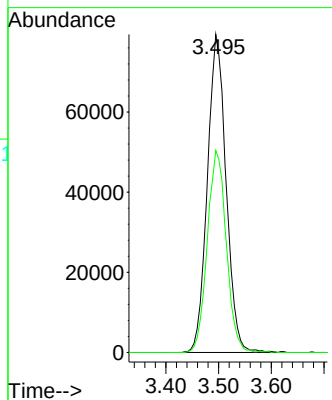
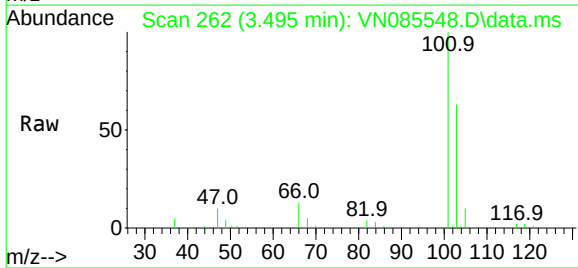
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 Trichlorofluoromethane  
 Concen: 47.949 ug/l  
 RT: 3.495 min Scan# 263  
 Delta R.T. -0.006 min  
 Lab File: VN085548.D  
 Acq: 29 Jan 2025 11:08

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050

Tgt Ion: 101 Resp: 195725  
 Ion Ratio Lower Upper  
 101 100  
 103 63.5 51.4 77.2

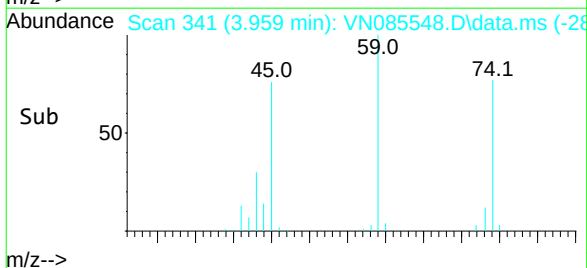
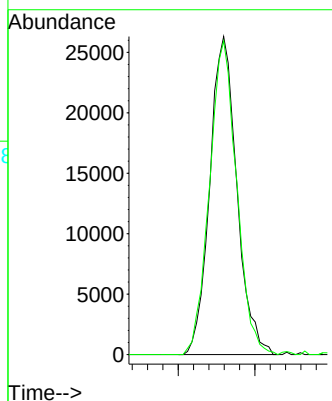
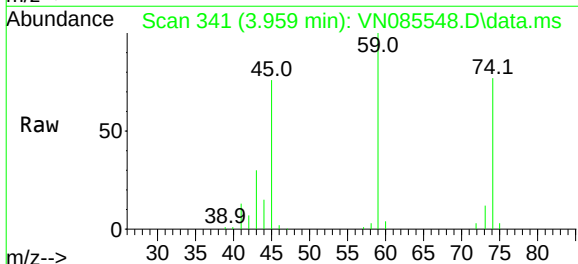
Manual Integrations  
 APPROVED

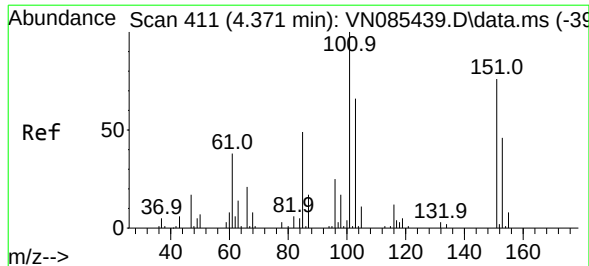
Reviewed By : John Carlone 01/30/2025  
 Supervised By : Mahesh Dadoda 01/30/2025



#8  
 Diethyl Ether  
 Concen: 45.779 ug/l  
 RT: 3.959 min Scan# 341  
 Delta R.T. 0.006 min  
 Lab File: VN085548.D  
 Acq: 29 Jan 2025 11:08

Tgt Ion: 74 Resp: 64556  
 Ion Ratio Lower Upper  
 74 100  
 45 98.8 49.7 149.1





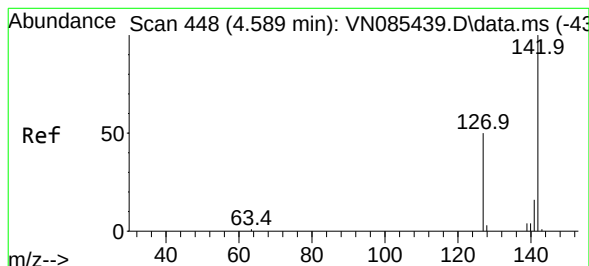
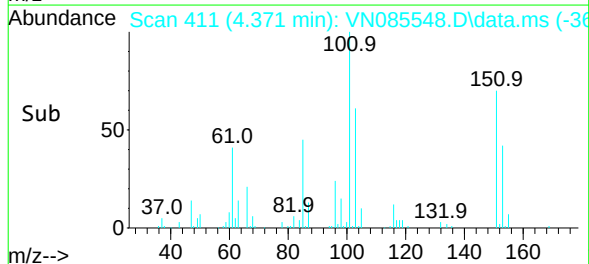
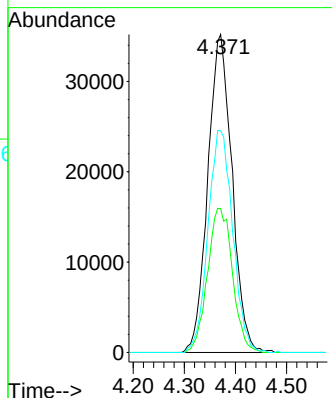
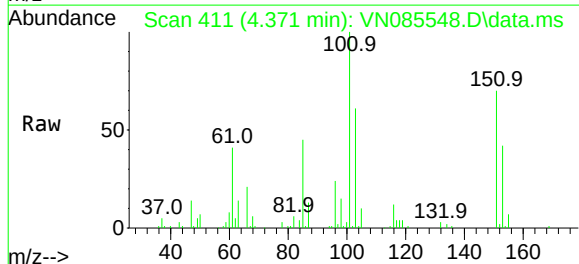
#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 50.319 ug/l  
RT: 4.371 min Scan# 411  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050

Tgt Ion:101 Resp: 115688  
Ion Ratio Lower Upper  
101 100  
85 46.8 37.8 56.8  
151 71.5 58.8 88.2

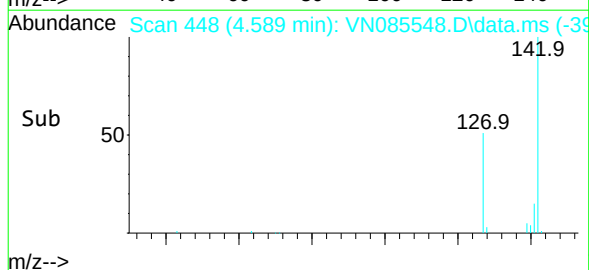
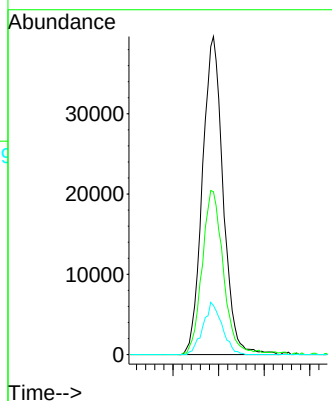
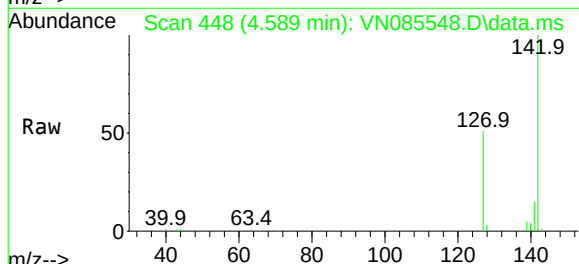
Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

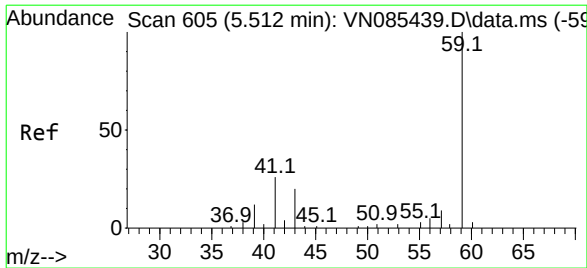


#10  
Methyl Iodide  
Concen: 47.406 ug/l  
RT: 4.589 min Scan# 448  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Tgt Ion:142 Resp: 124815  
Ion Ratio Lower Upper  
142 100  
127 51.2 40.3 60.5  
141 15.5 12.8 19.2







#11

Tert butyl alcohol

Concen: 291.560 ug/l

RT: 5.512 min Scan# 605

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 59 Resp: 102889

Ion Ratio Lower Upper

59 100

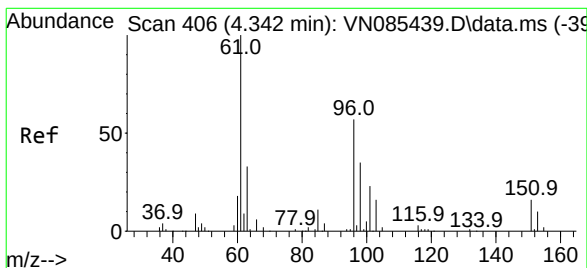
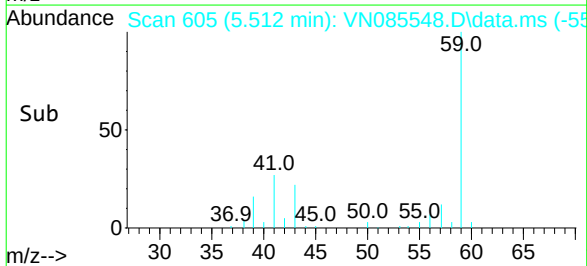
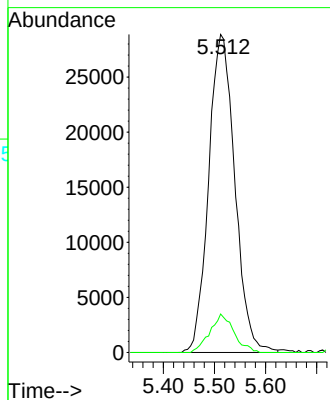
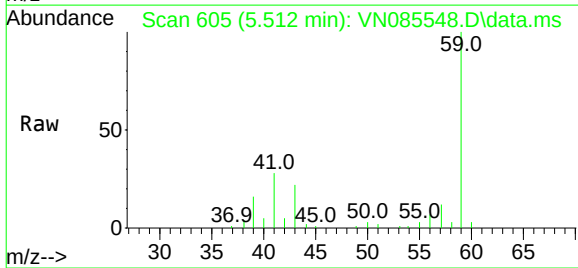
57 11.1 8.6 13.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#12

1,1-Dichloroethene

Concen: 47.653 ug/l

RT: 4.342 min Scan# 406

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

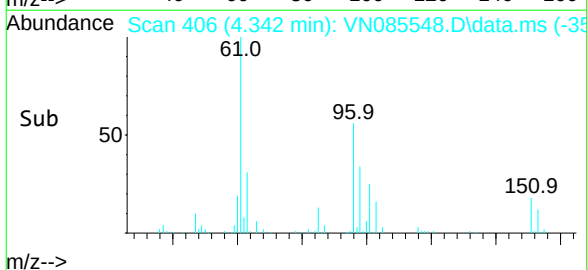
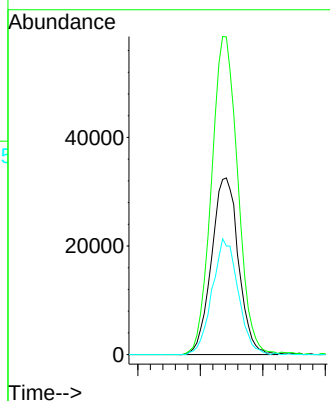
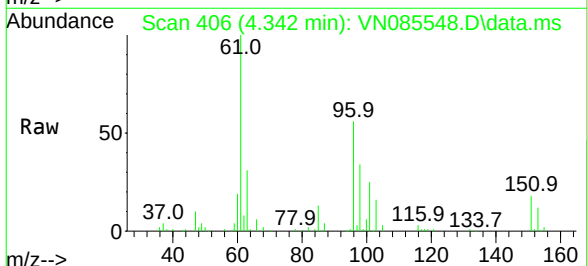
Tgt Ion: 96 Resp: 97641

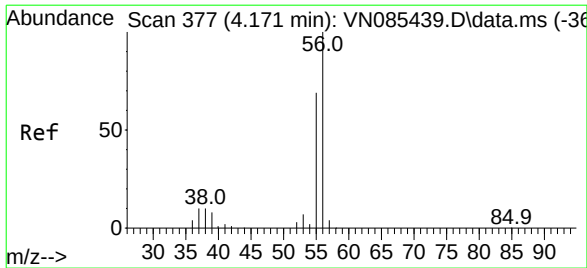
Ion Ratio Lower Upper

96 100

61 179.8 141.0 211.4

98 61.5 49.0 73.6





#13

Acrolein

Concen: 223.391 ug/l

RT: 4.177 min Scan# 377

Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 56 Resp: 107614

Ion Ratio Lower Upper

56 100

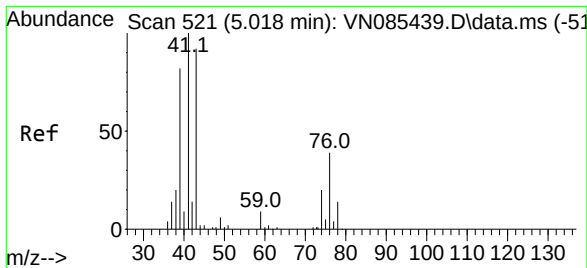
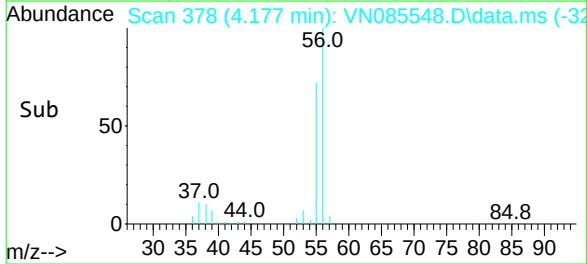
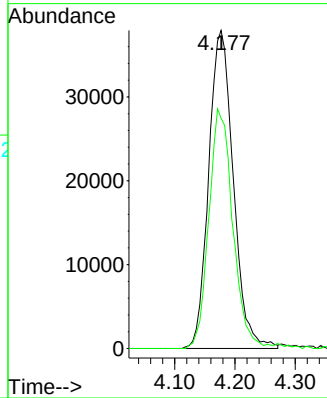
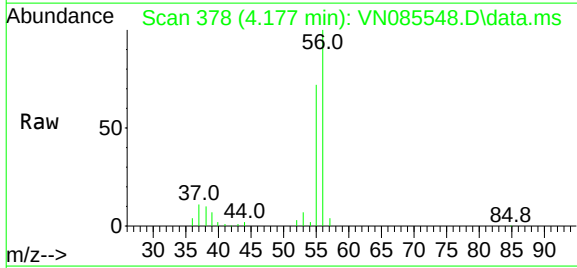
55 73.1 56.3 84.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#14

Allyl chloride

Concen: 46.516 ug/l

RT: 5.024 min Scan# 522

Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

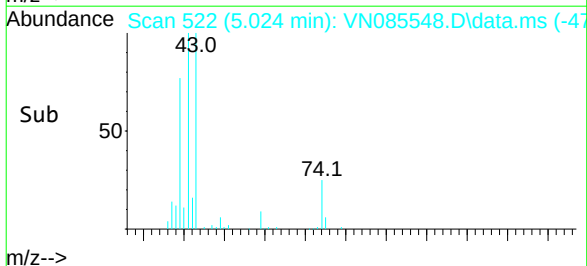
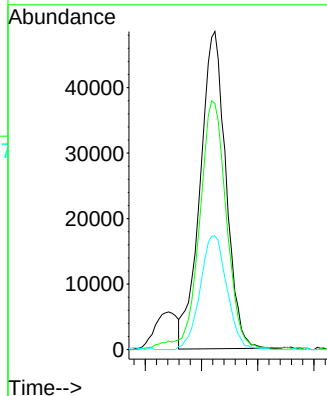
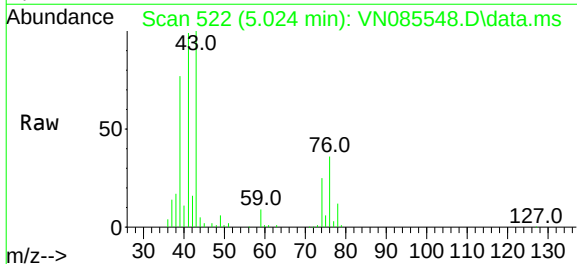
Tgt Ion: 41 Resp: 154662

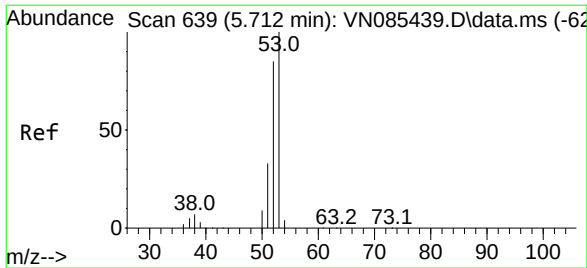
Ion Ratio Lower Upper

41 100

39 82.3 64.4 96.6

76 37.2 30.5 45.7





#15

Acrylonitrile

Concen: 263.192 ug/l

RT: 5.718 min Scan# 64

Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

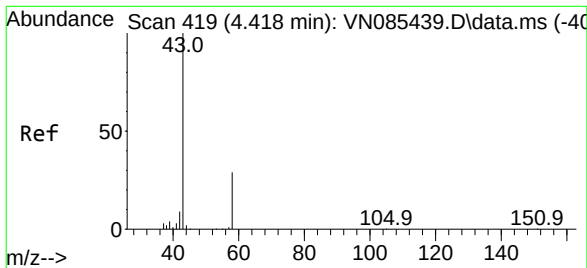
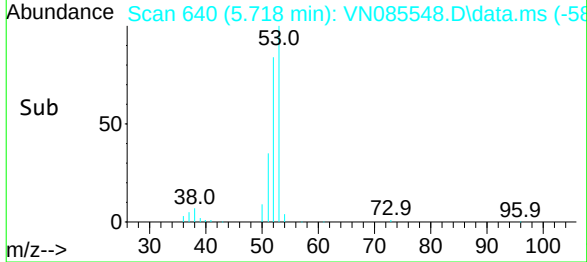
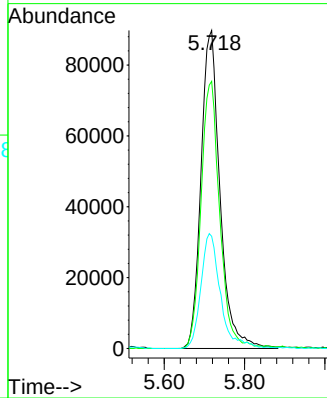
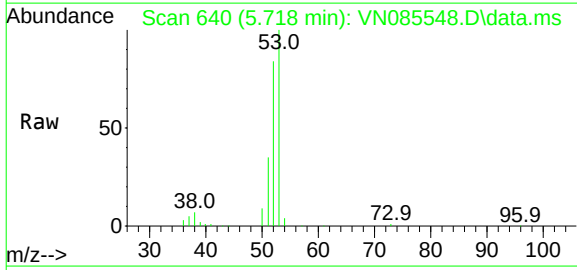
ClientSampleId :

VSTDCCC050

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 53    | Resp: | 295011 |
| Ion      | Ratio | Lower | Upper  |
| 53       | 100   |       |        |
| 52       | 82.5  | 65.5  | 98.3   |
| 51       | 37.2  | 29.8  | 44.8   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#16

Acetone

Concen: 252.657 ug/l

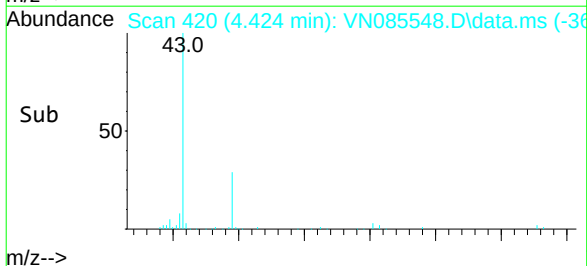
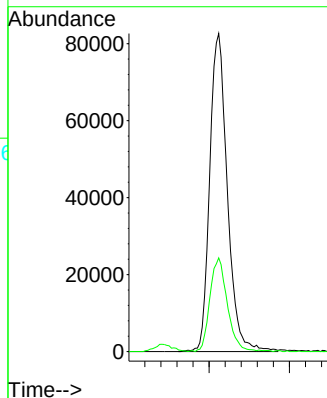
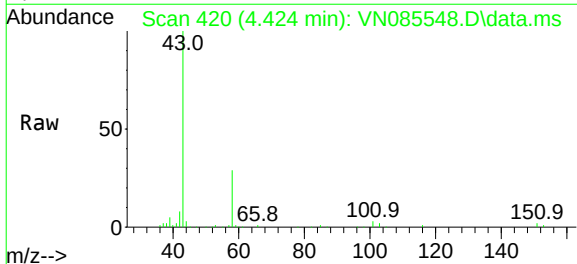
RT: 4.424 min Scan# 420

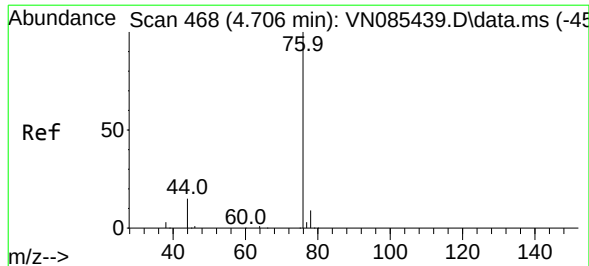
Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 251588 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 29.2  | 23.8  | 35.6   |





#17

Carbon Disulfide

Concen: 39.180 ug/l

RT: 4.712 min Scan# 468

Delta R.T. 0.006 min

Lab File: VN085548.D

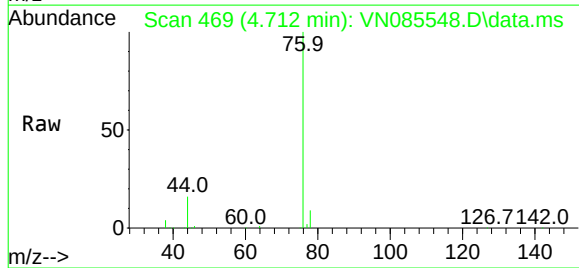
Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050



Tgt Ion: 76 Resp: 247182

Ion Ratio Lower Upper

76 100

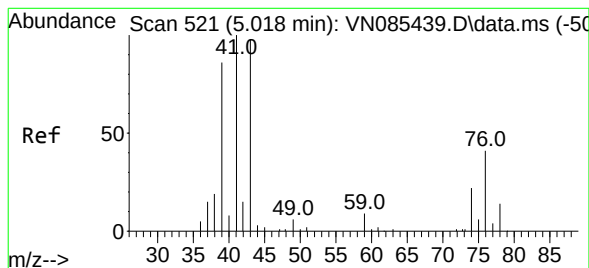
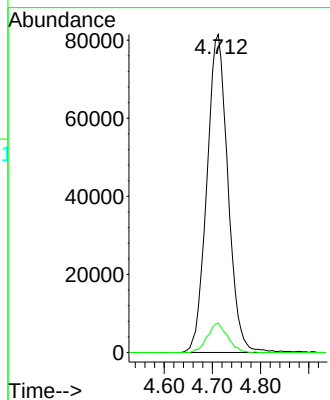
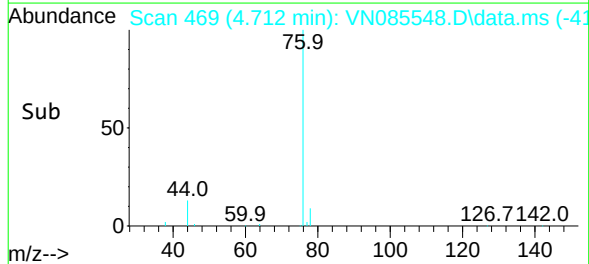
78 9.2 6.9 10.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#18

Methyl Acetate

Concen: 55.159 ug/l

RT: 5.018 min Scan# 521

Delta R.T. -0.000 min

Lab File: VN085548.D

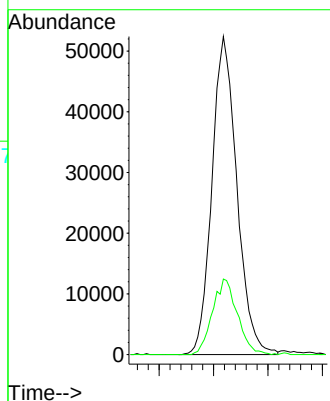
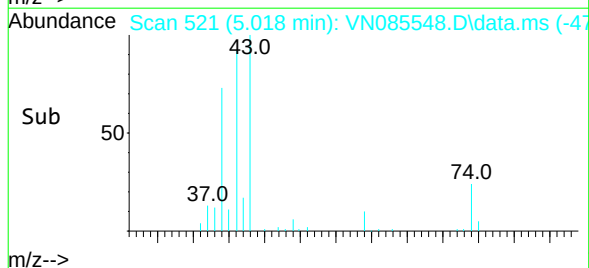
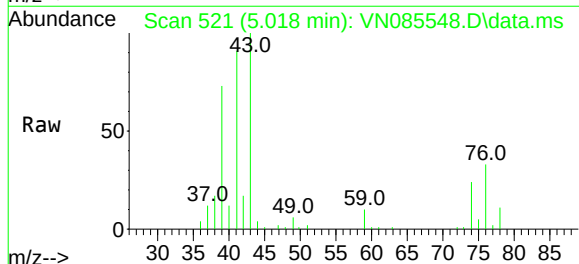
Acq: 29 Jan 2025 11:08

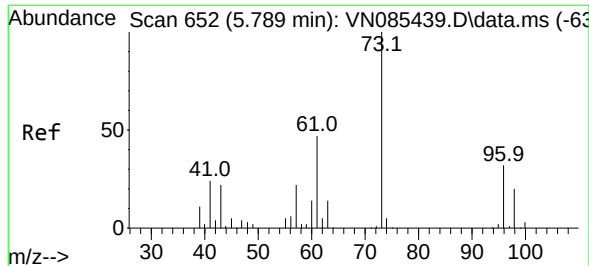
Tgt Ion: 43 Resp: 167018

Ion Ratio Lower Upper

43 100

74 23.7 18.6 28.0





#19

Methyl tert-butyl Ether

Concen: 53.017 ug/l

RT: 5.794 min Scan# 65

Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 73 Resp: 352742

Ion Ratio Lower Upper

73 100

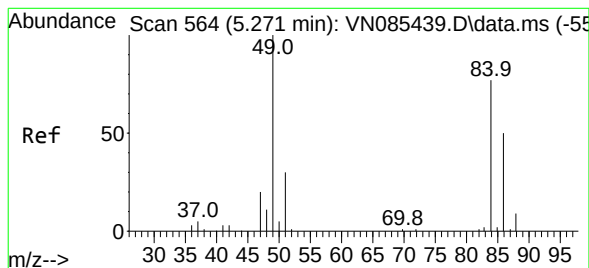
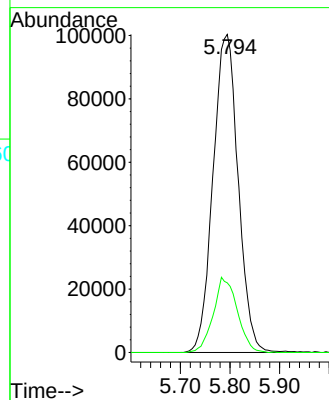
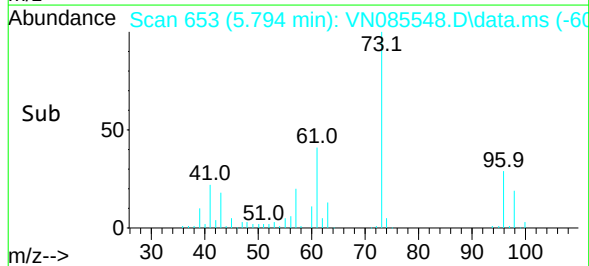
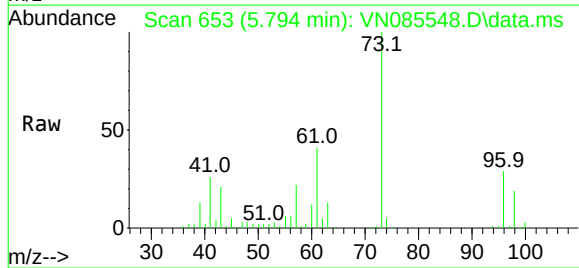
57 21.9 17.8 26.8

Manual Integrations

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Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#20

Methylene Chloride

Concen: 47.903 ug/l

RT: 5.271 min Scan# 564

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Tgt Ion: 84 Resp: 118086

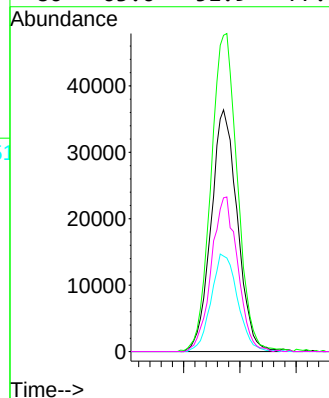
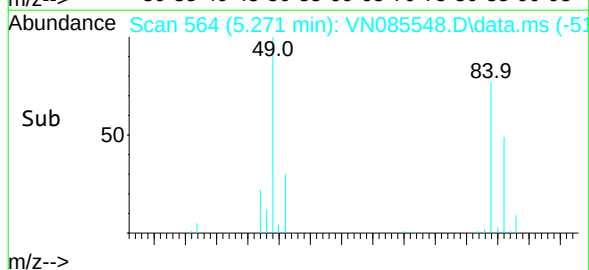
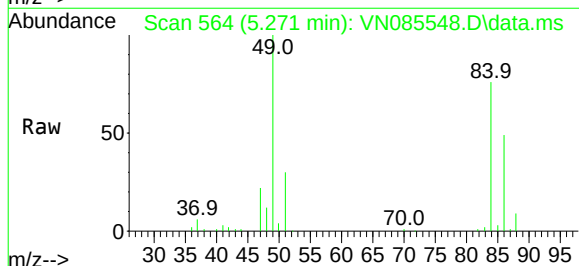
Ion Ratio Lower Upper

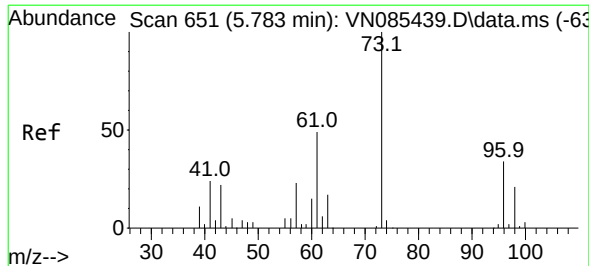
84 100

49 130.2 104.1 156.1

51 39.5 31.0 46.4

86 63.6 51.9 77.9





#21

trans-1,2-Dichloroethene

Concen: 47.247 ug/l

RT: 5.789 min Scan# 651

Delta R.T. 0.006 min

Lab File: VN085548.D

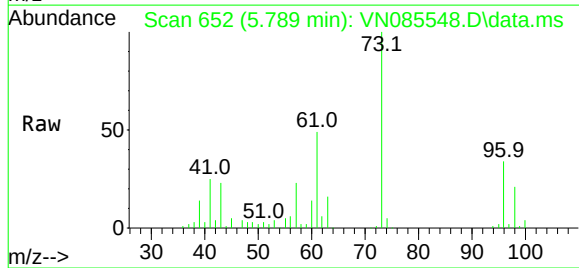
Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050



Tgt Ion: 96 Resp: 103461

Ion Ratio Lower Upper

96 100

61 145.6 115.7 173.5

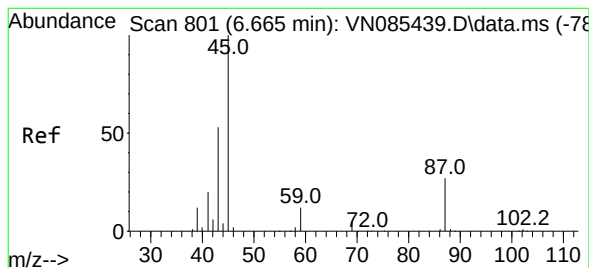
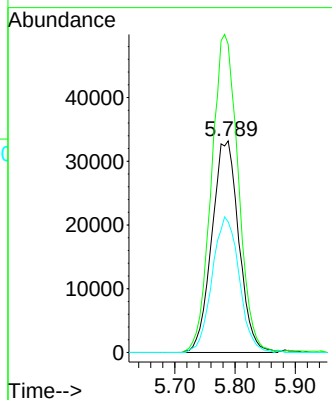
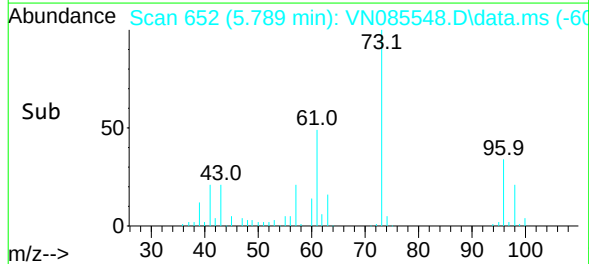
98 61.8 49.8 74.8

Manual Integrations

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Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#22

Diisopropyl ether

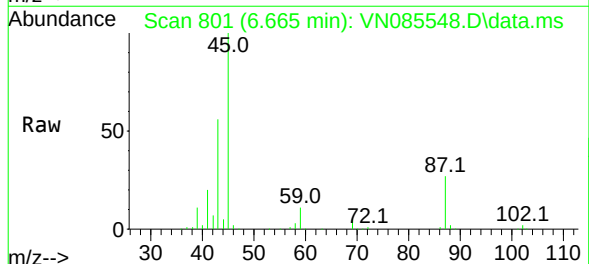
Concen: 52.726 ug/l

RT: 6.665 min Scan# 801

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08



Tgt Ion: 45 Resp: 389107

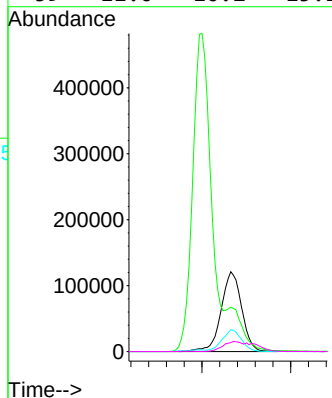
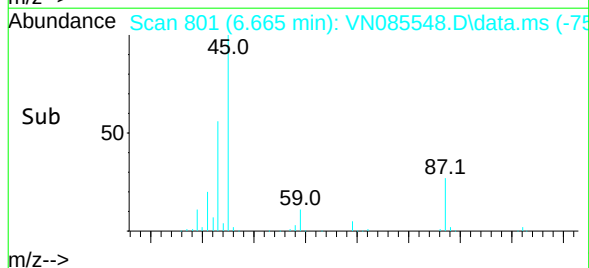
Ion Ratio Lower Upper

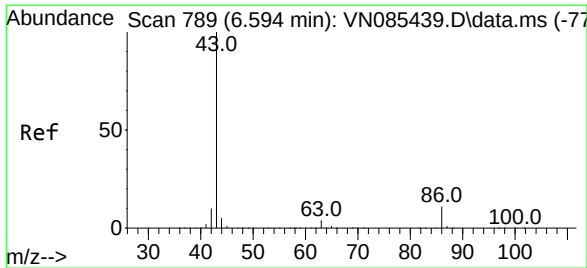
45 100

43 54.3 45.0 67.6

87 27.2 21.8 32.8

59 11.0 10.2 15.2





#23

Vinyl Acetate

Concen: 268.154 ug/l

RT: 6.600 min Scan# 790

Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 43 Resp: 1384915

Ion Ratio Lower Upper

43 100

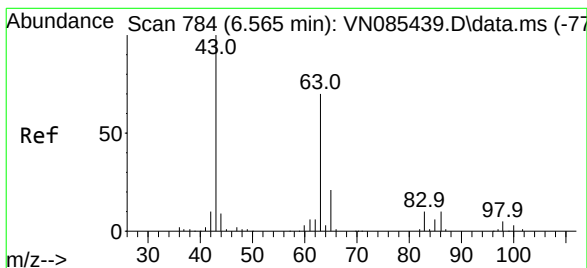
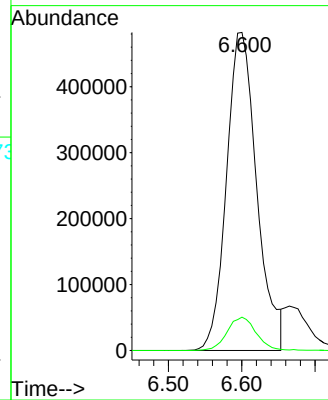
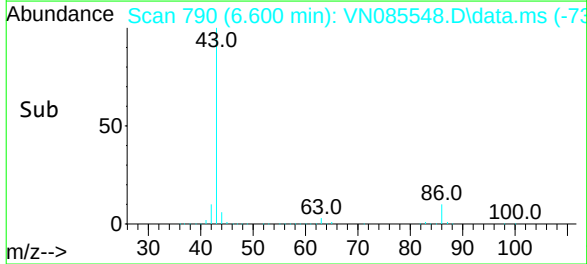
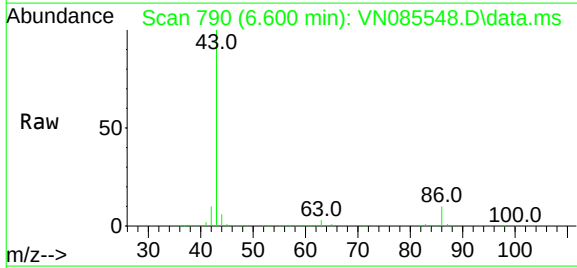
86 10.5 8.4 12.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#24

1,1-Dichloroethane

Concen: 49.838 ug/l

RT: 6.565 min Scan# 784

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

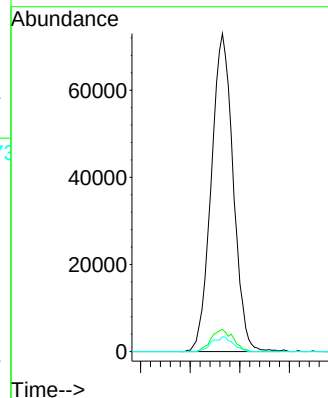
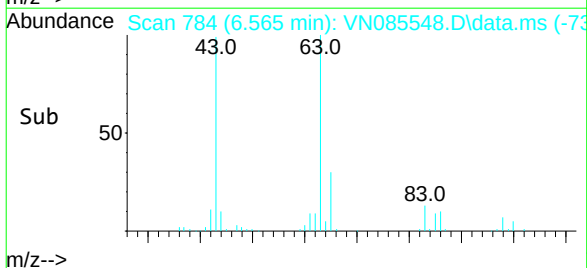
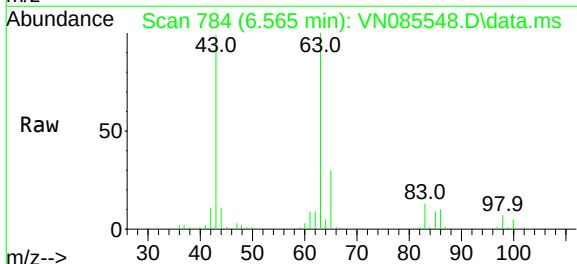
Tgt Ion: 63 Resp: 224264

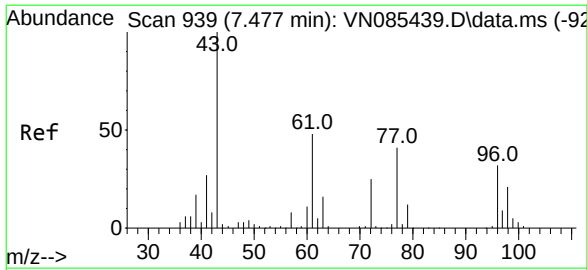
Ion Ratio Lower Upper

63 100

98 7.0 3.3 9.8

100 4.7 2.0 6.0





#25

2-Butanone

Concen: 262.309 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 43 Resp: 384379

Ion Ratio Lower Upper

43 100

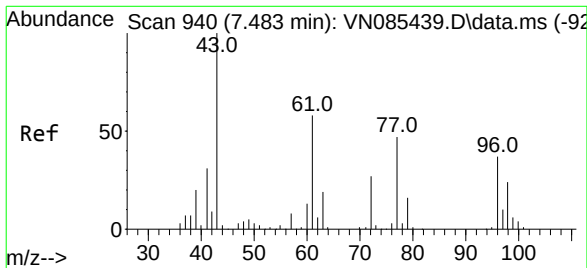
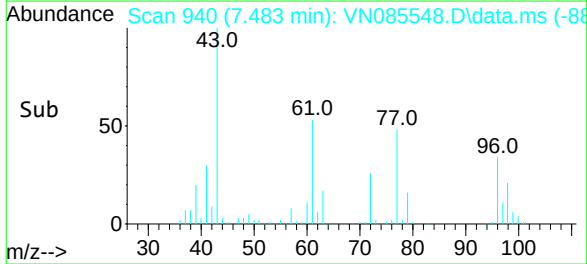
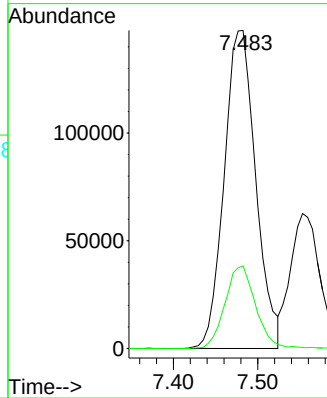
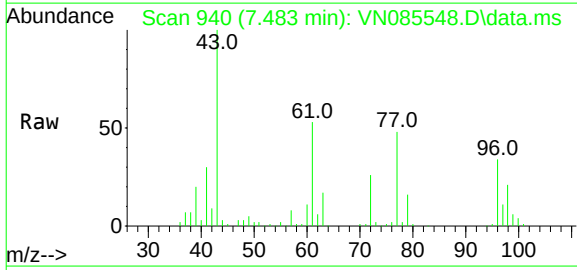
72 26.0 20.2 30.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#26

2,2-Dichloropropane

Concen: 55.483 ug/l

RT: 7.483 min Scan# 940

Delta R.T. -0.000 min

Lab File: VN085548.D

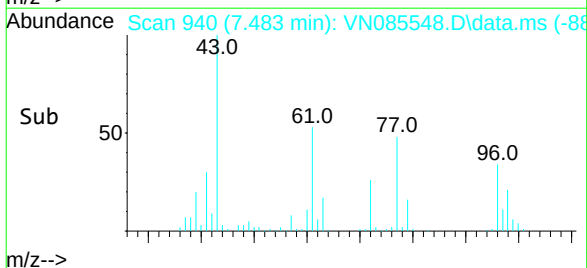
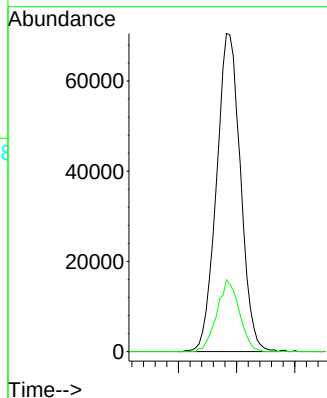
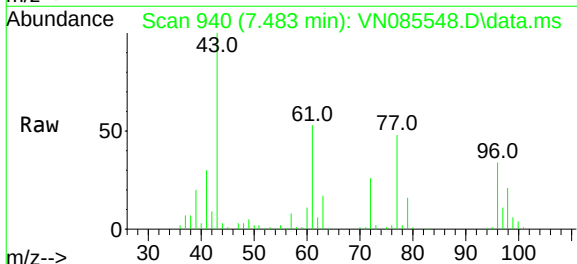
Acq: 29 Jan 2025 11:08

Tgt Ion: 77 Resp: 201856

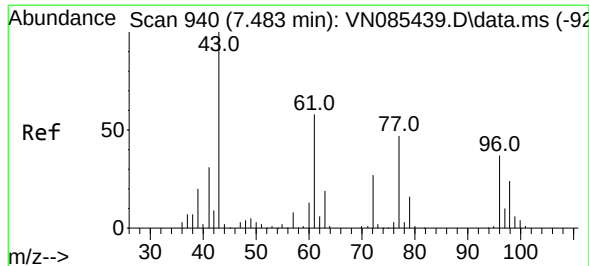
Ion Ratio Lower Upper

77 100

97 21.1 10.7 32.1







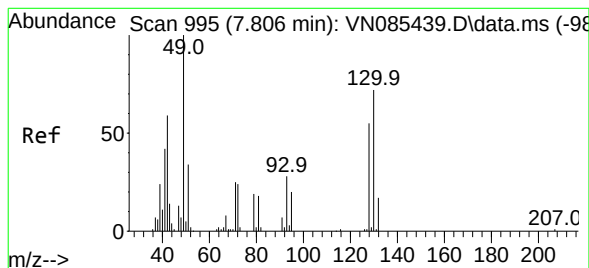
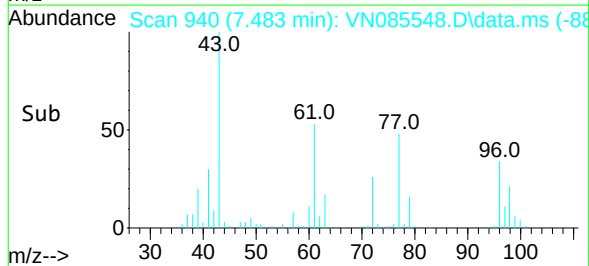
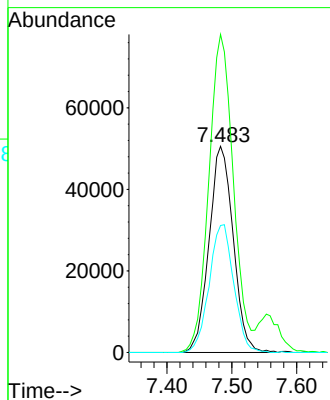
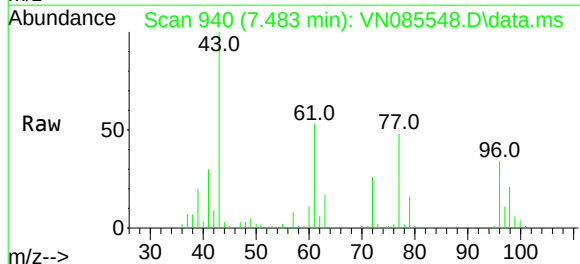
#27  
cis-1,2-Dichloroethene  
Concen: 50.778 ug/l  
RT: 7.483 min Scan# 940  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050

Tgt Ion: 96 Resp: 130967  
Ion Ratio Lower Upper  
96 100  
61 155.7 0.0 311.8  
98 63.1 0.0 126.0

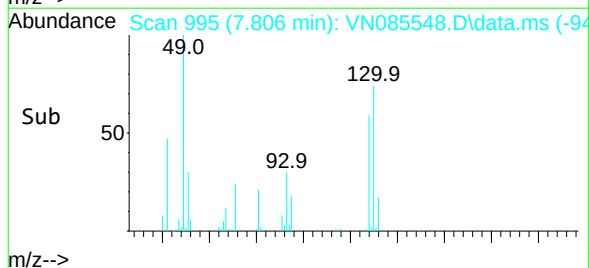
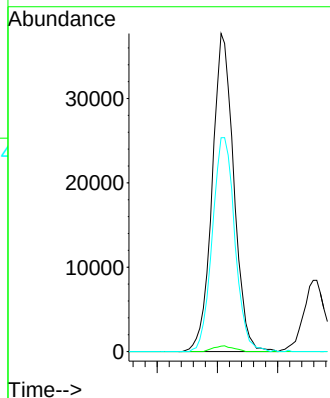
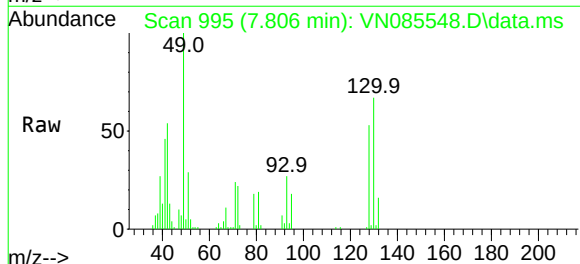
Manual Integrations  
APPROVED

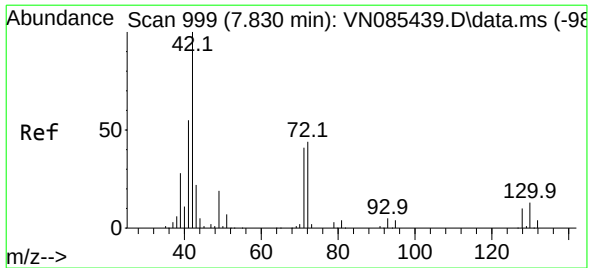
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#28  
Bromochloromethane  
Concen: 44.872 ug/l  
RT: 7.806 min Scan# 995  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Tgt Ion: 49 Resp: 93940  
Ion Ratio Lower Upper  
49 100  
129 1.7 0.0 4.4  
130 70.1 55.0 82.4





#29

Tetrahydrofuran

Concen: 275.413 ug/l

RT: 7.835 min Scan# 10

Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 42 Resp: 255872

Ion Ratio Lower Upper

42 100

72 43.1 34.2 51.2

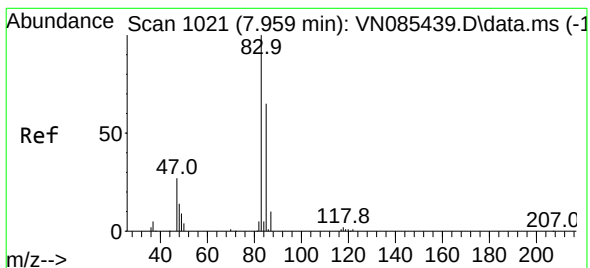
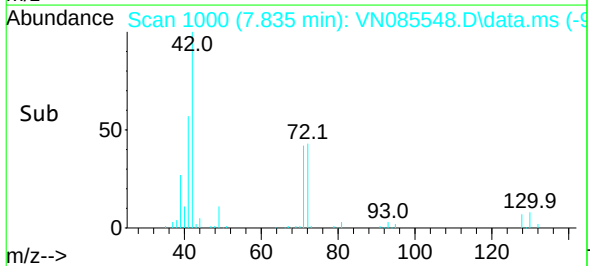
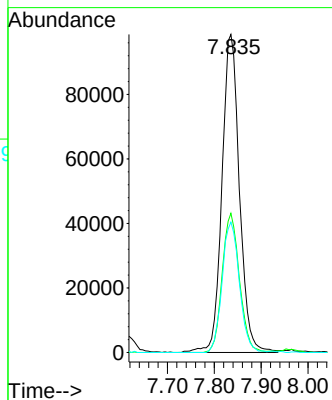
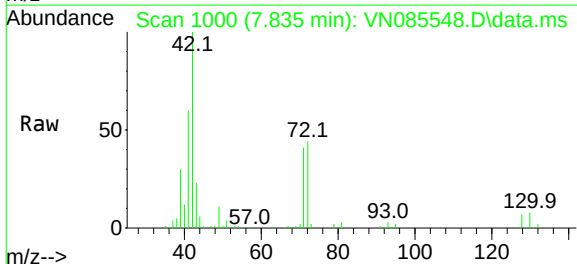
71 40.5 32.5 48.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#30

Chloroform

Concen: 50.743 ug/l

RT: 7.965 min Scan# 1022

Delta R.T. 0.006 min

Lab File: VN085548.D

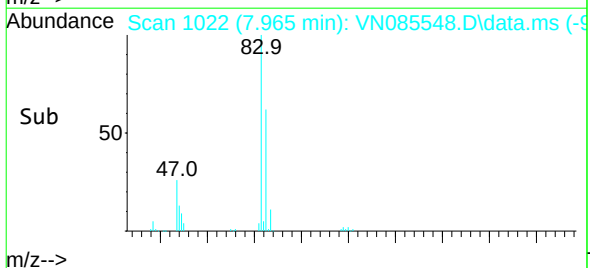
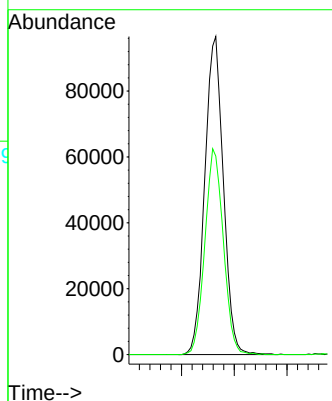
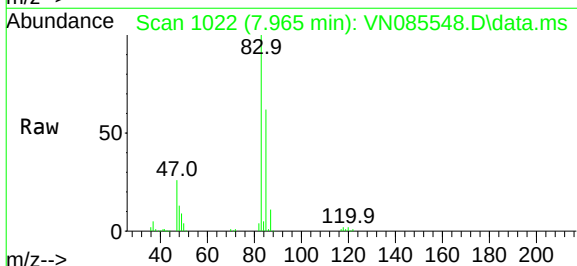
Acq: 29 Jan 2025 11:08

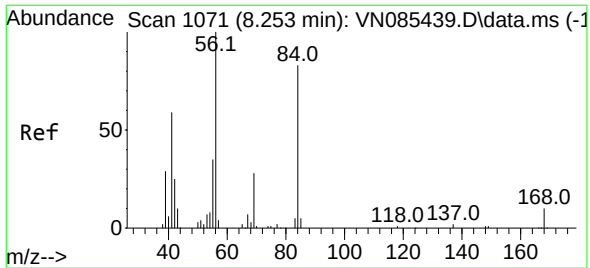
Tgt Ion: 83 Resp: 235995

Ion Ratio Lower Upper

83 100

85 62.4 51.8 77.6





#31

Cyclohexane

Concen: 43.741 ug/l

RT: 8.253 min Scan# 1071

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 56 Resp: 171079

Ion Ratio Lower Upper

56 100

69 30.0 22.2 33.4

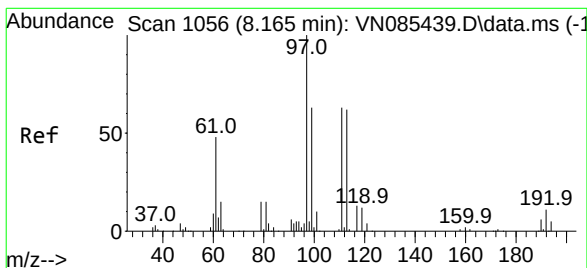
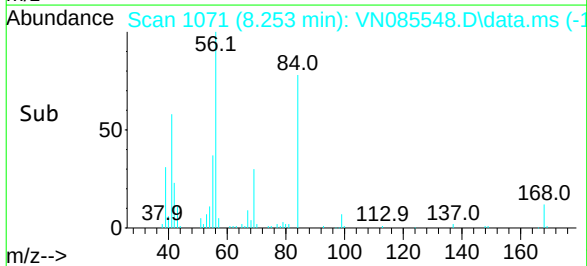
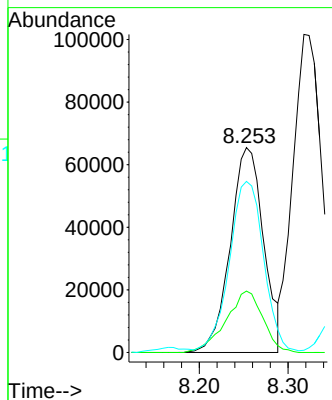
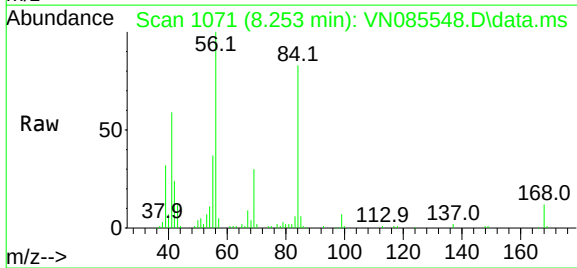
84 81.9 66.4 99.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#32

1,1,1-Trichloroethane

Concen: 50.496 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

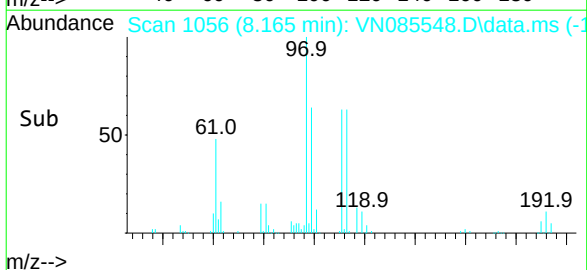
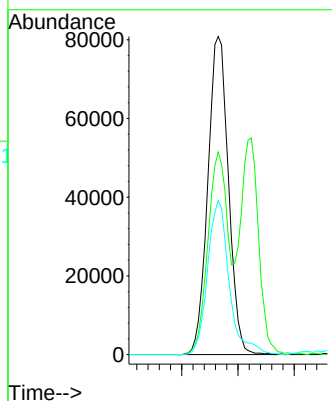
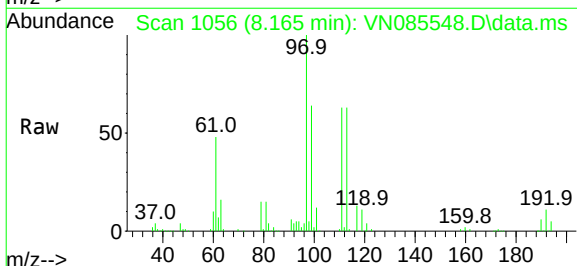
Tgt Ion: 97 Resp: 206001

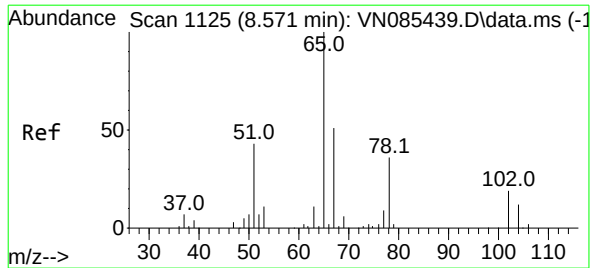
Ion Ratio Lower Upper

97 100

99 60.7 49.8 74.6

61 50.7 41.4 62.2





#33

1,2-Dichloroethane-d4

Concen: 54.332 ug/l

RT: 8.571 min Scan# 11

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 65 Resp: 167442

Ion Ratio Lower Upper

65 100

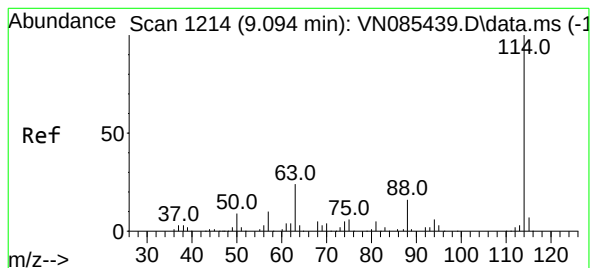
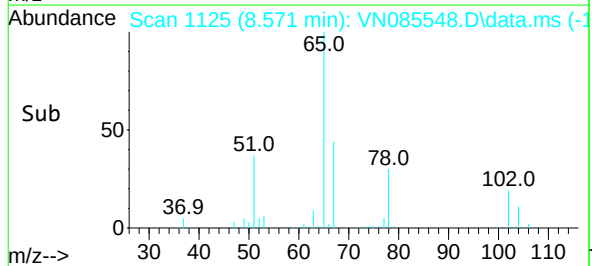
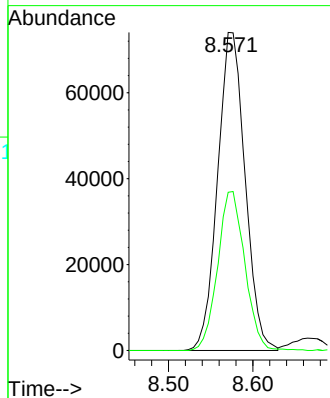
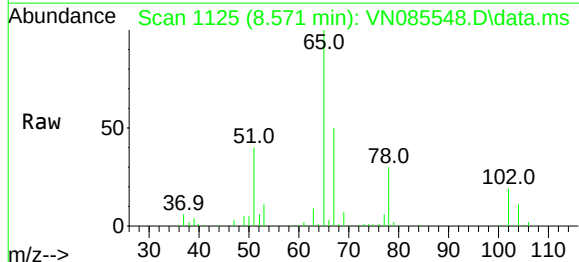
67 49.6 0.0 101.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

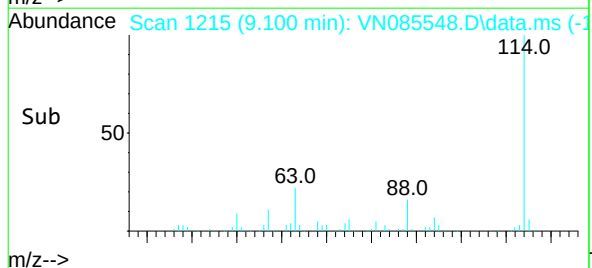
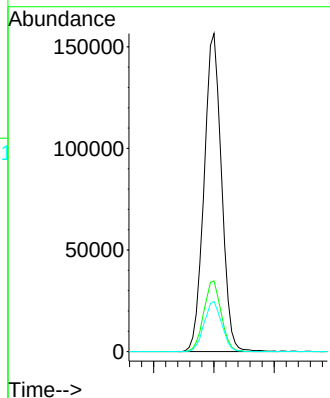
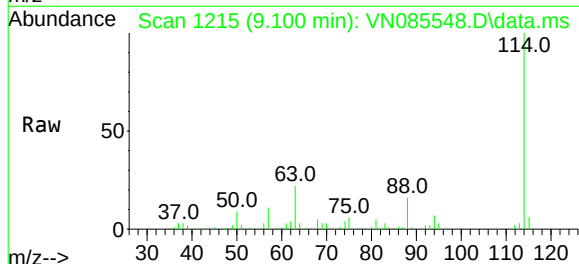
Tgt Ion:114 Resp: 314840

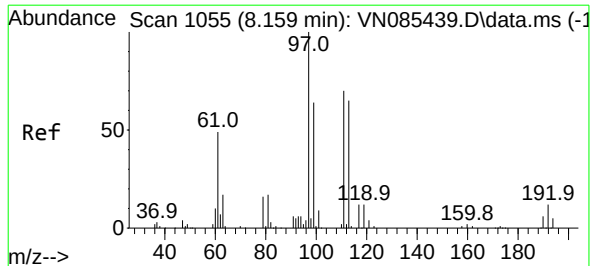
Ion Ratio Lower Upper

114 100

63 22.2 0.0 47.6

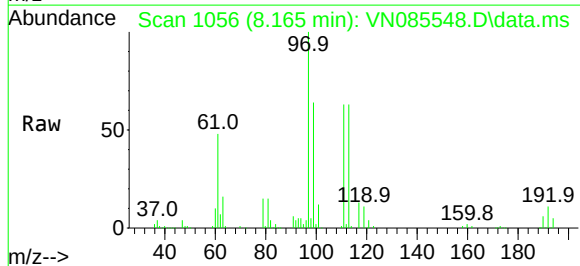
88 15.8 0.0 32.6





#35  
Dibromofluoromethane  
Concen: 55.762 ug/l  
RT: 8.165 min Scan# 1055  
Delta R.T. 0.006 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

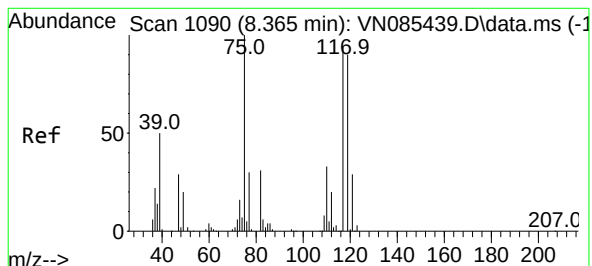
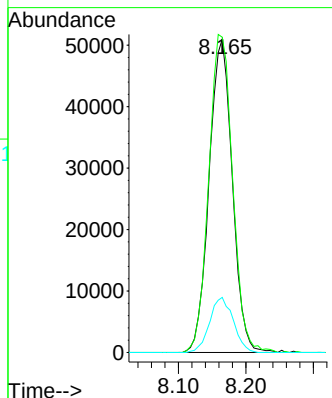
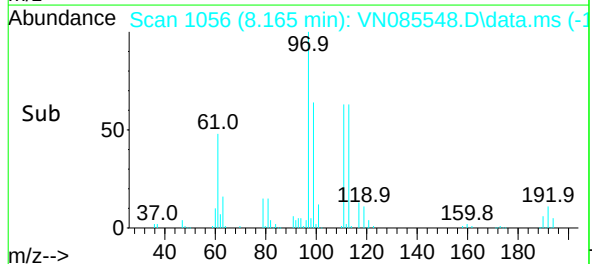
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 113 Resp: 121796  
Ion Ratio Lower Upper  
113 100  
111 104.4 82.7 124.1  
192 18.0 14.3 21.5

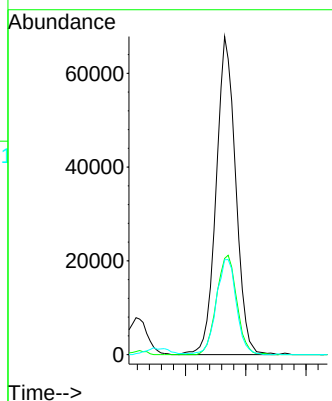
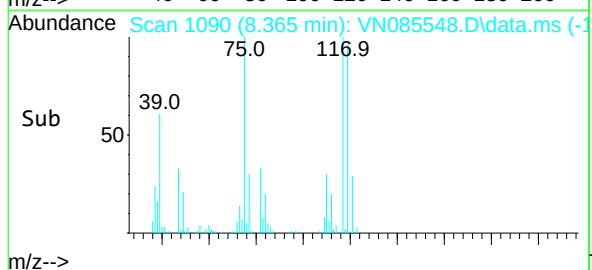
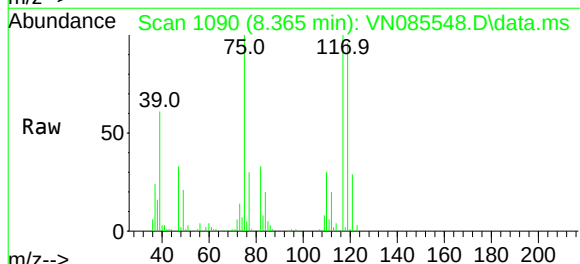
Manual Integrations  
APPROVED

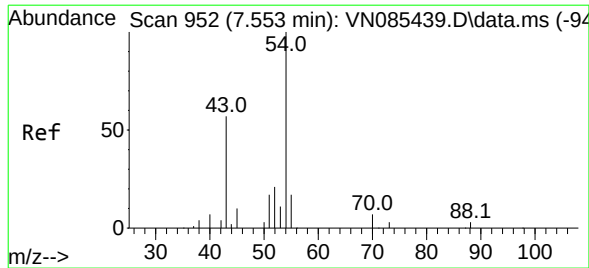
Reviewed By : John Carlone 01/30/2025  
Supervised By : Mahesh Dadoda 01/30/2025



#36  
1,1-Dichloropropene  
Concen: 49.744 ug/l  
RT: 8.365 min Scan# 1090  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Tgt Ion: 75 Resp: 152490  
Ion Ratio Lower Upper  
75 100  
110 32.4 16.5 49.5  
77 31.0 24.4 36.6





#37

Ethyl Acetate

Concen: 50.645 ug/l

RT: 7.553 min Scan# 952

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 43 Resp: 156704

Ion Ratio Lower Upper

43 100

61 13.1 10.9 16.3

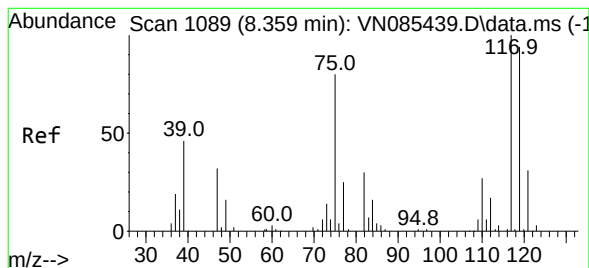
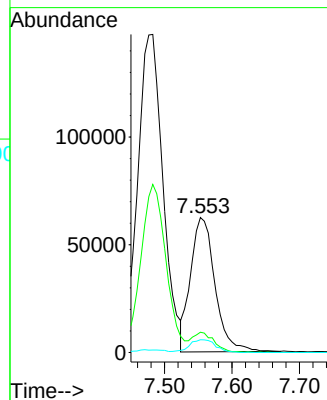
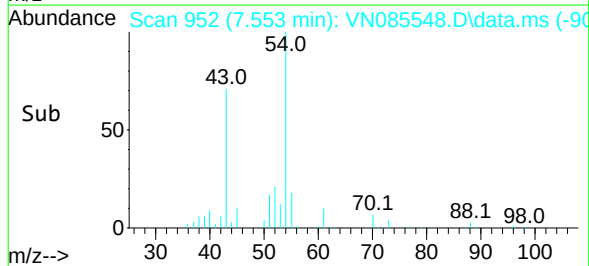
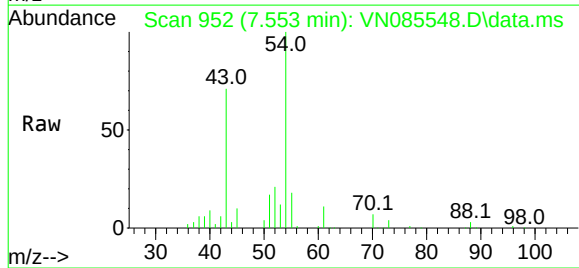
70 10.1 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#38

Carbon Tetrachloride

Concen: 50.934 ug/l

RT: 8.359 min Scan# 1089

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

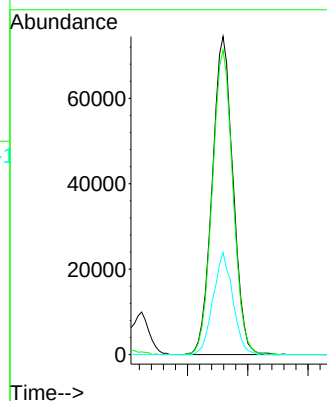
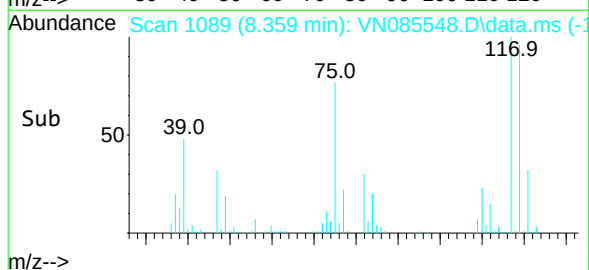
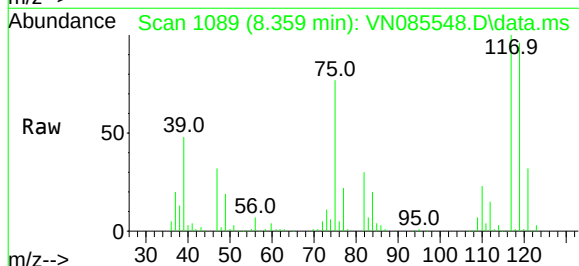
Tgt Ion:117 Resp: 178752

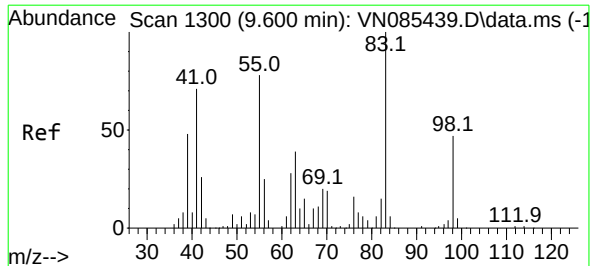
Ion Ratio Lower Upper

117 100

119 95.7 75.4 113.2

121 32.1 24.6 37.0





#39

Methylcyclohexane

Concen: 50.729 ug/l

RT: 9.600 min Scan# 13

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

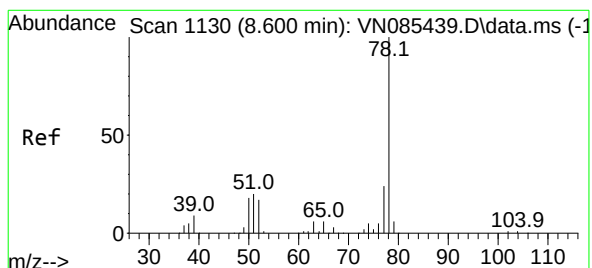
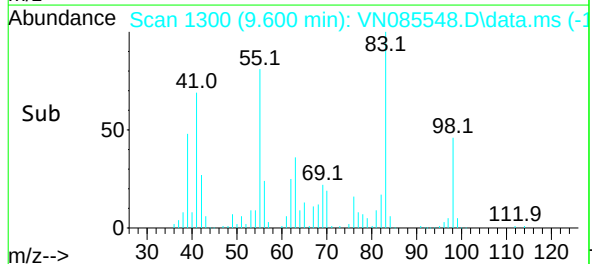
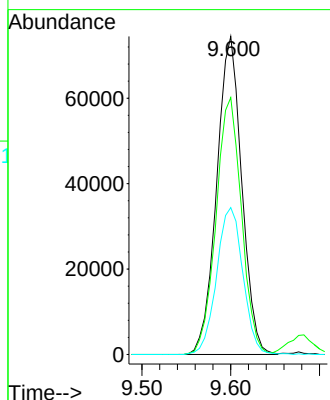
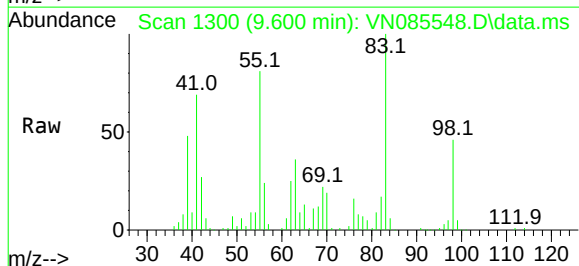
ClientSampleId :

VSTDCCC050

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 146134 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 55       | 80.8  | 62.6  | 94.0   |
| 98       | 46.2  | 37.7  | 56.5   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#40

Benzene

Concen: 51.295 ug/l

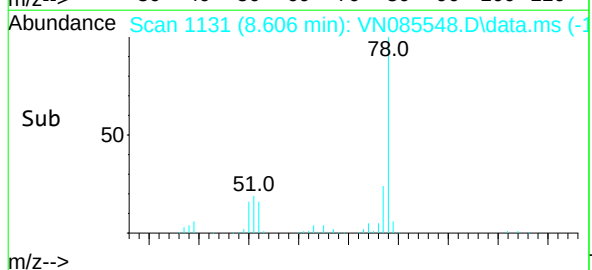
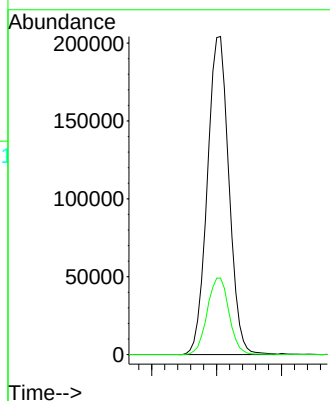
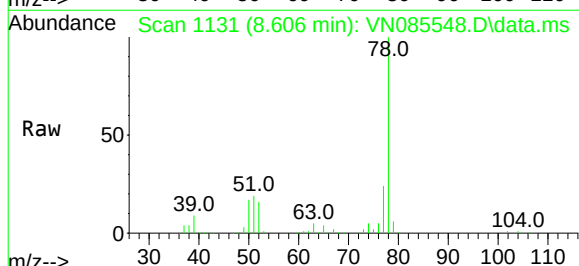
RT: 8.606 min Scan# 1131

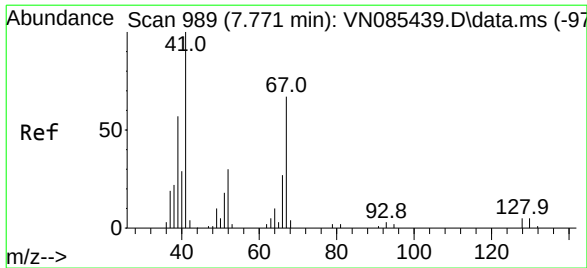
Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 78    | Resp: | 472467 |
| Ion      | Ratio | Lower | Upper  |
| 78       | 100   |       |        |
| 77       | 24.0  | 19.0  | 28.6   |





#41

Methacrylonitrile

Concen: 54.633 ug/l

RT: 7.771 min Scan# 989

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 41 Resp: 87947

Ion Ratio Lower Upper

41 100

39 57.3 46.0 69.0

67 71.5 57.4 86.2

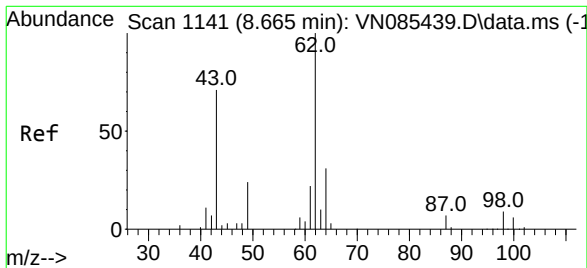
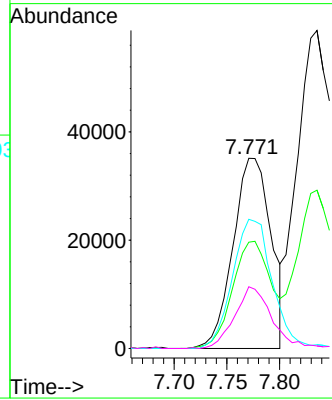
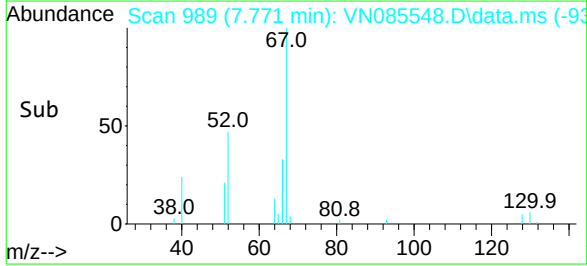
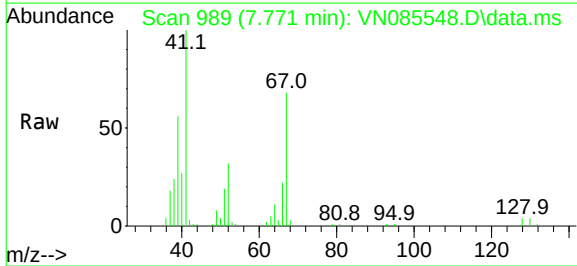
52 31.9 25.5 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#42

1,2-Dichloroethane

Concen: 52.978 ug/l

RT: 8.665 min Scan# 1141

Delta R.T. -0.000 min

Lab File: VN085548.D

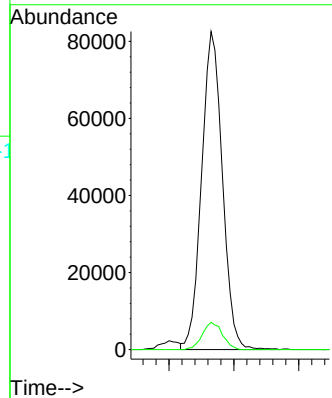
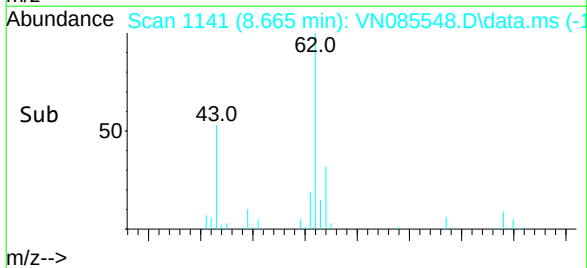
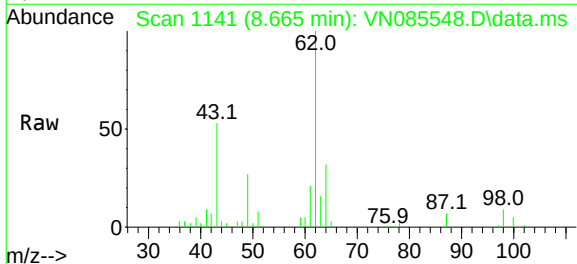
Acq: 29 Jan 2025 11:08

Tgt Ion: 62 Resp: 183786

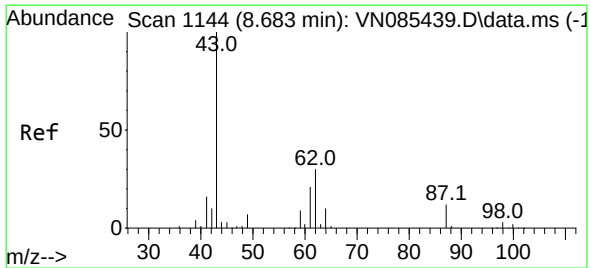
Ion Ratio Lower Upper

62 100

98 8.3 0.0 17.0







#43

Isopropyl Acetate

Concen: 53.590 ug/l

RT: 8.682 min Scan# 1144

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 43 Resp: 265698

Ion Ratio Lower Upper

43 100

61 26.0 20.7 31.1

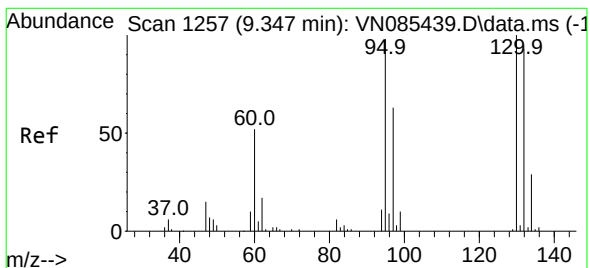
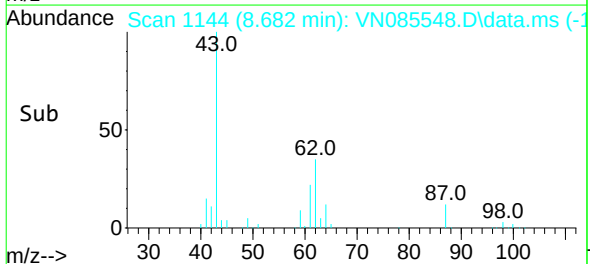
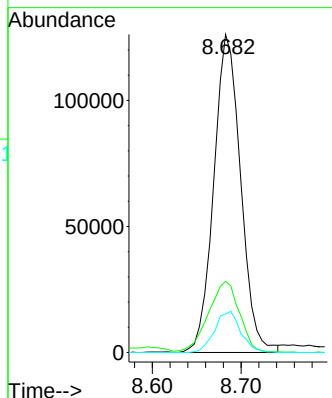
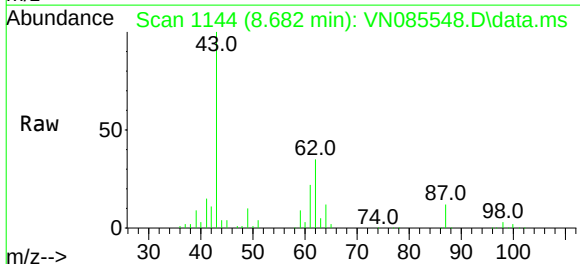
87 12.5 9.8 14.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#44

Trichloroethene

Concen: 49.626 ug/l

RT: 9.347 min Scan# 1257

Delta R.T. -0.000 min

Lab File: VN085548.D

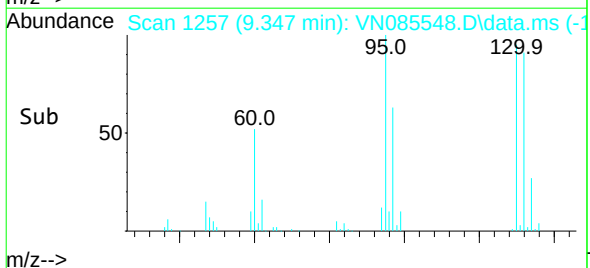
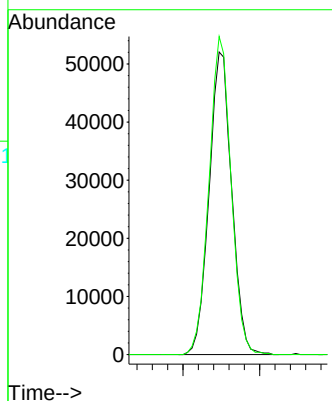
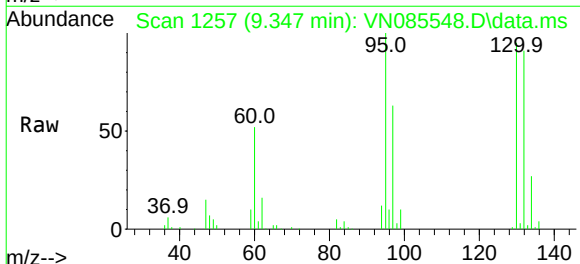
Acq: 29 Jan 2025 11:08

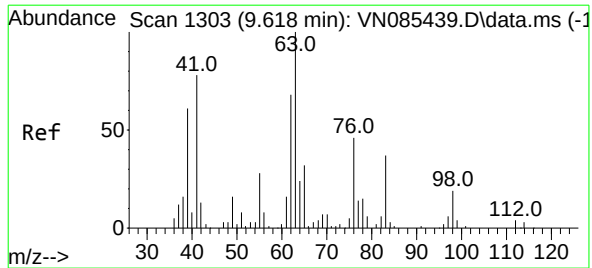
Tgt Ion:130 Resp: 106402

Ion Ratio Lower Upper

130 100

95 105.1 0.0 195.8





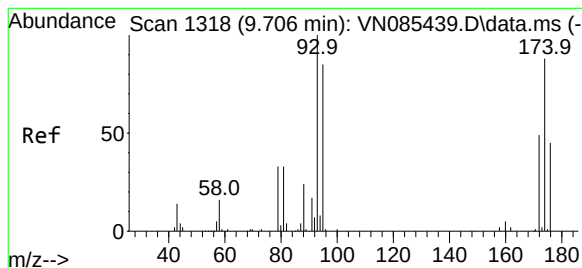
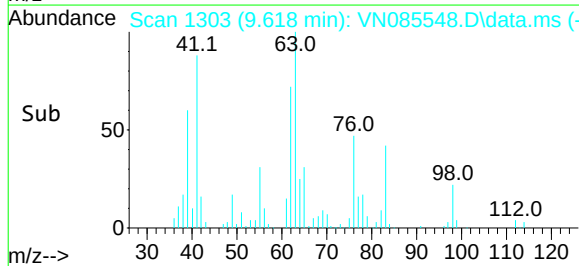
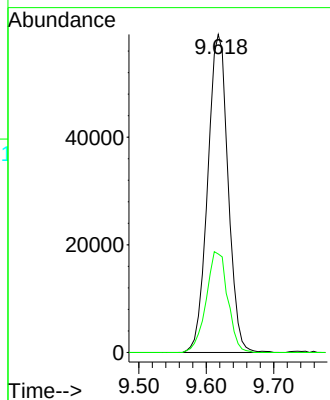
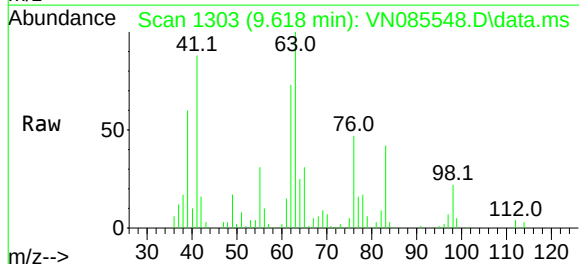
#45  
1,2-Dichloropropane  
Concen: 52.676 ug/l  
RT: 9.618 min Scan# 1303  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050

Tgt Ion: 63 Resp: 123931  
Ion Ratio Lower Upper  
63 100  
65 31.0 25.6 38.4

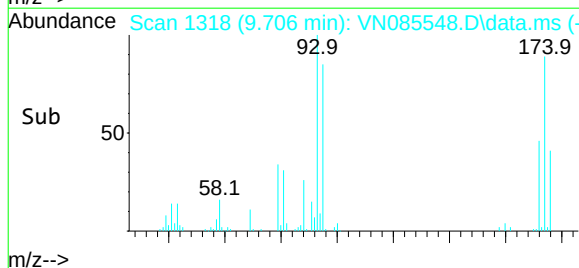
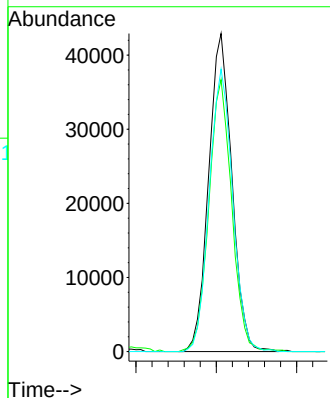
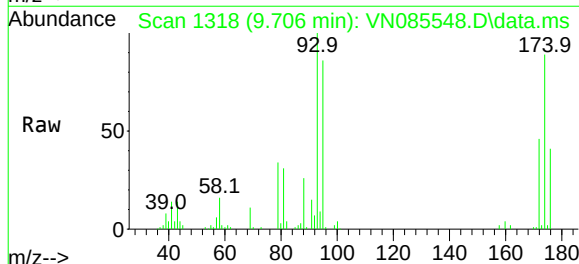
Manual Integrations  
APPROVED

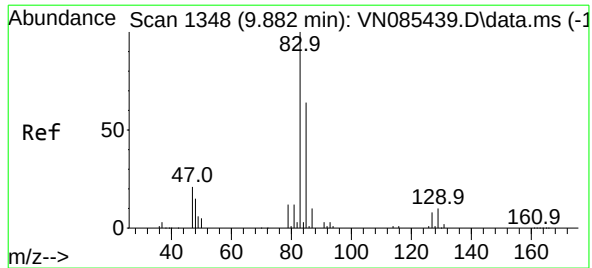
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#46  
Dibromomethane  
Concen: 50.807 ug/l  
RT: 9.706 min Scan# 1318  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Tgt Ion: 93 Resp: 86251  
Ion Ratio Lower Upper  
93 100  
95 84.1 64.7 97.1  
174 89.7 69.0 103.4





#47

Bromodichloromethane

Concen: 55.019 ug/l

RT: 9.882 min Scan# 13

Delta R.T. 0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 83 Resp: 190286

Ion Ratio Lower Upper

83 100

85 64.9 51.2 76.8

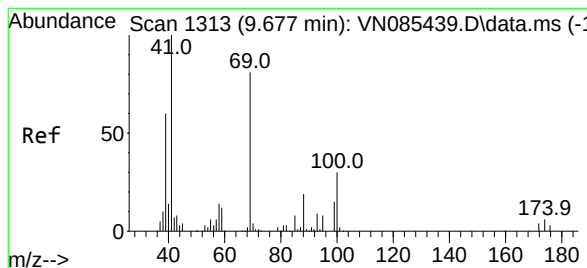
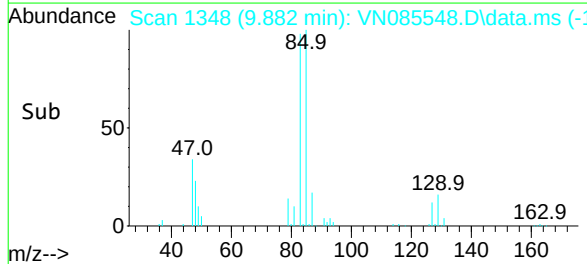
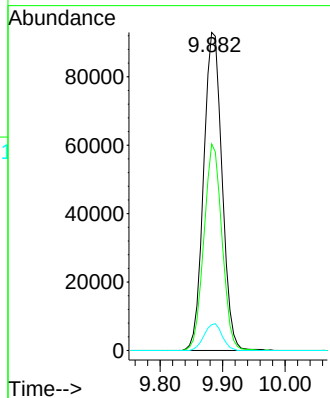
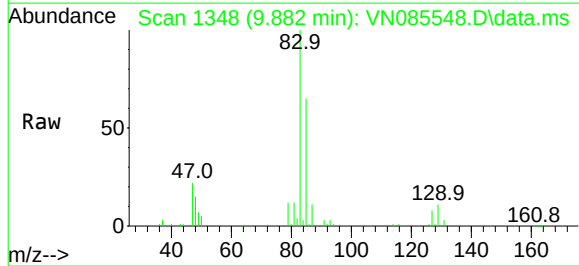
127 8.1 6.5 9.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#48

Methyl methacrylate

Concen: 56.527 ug/l

RT: 9.677 min Scan# 1313

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

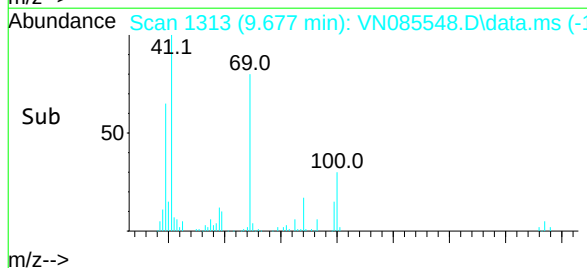
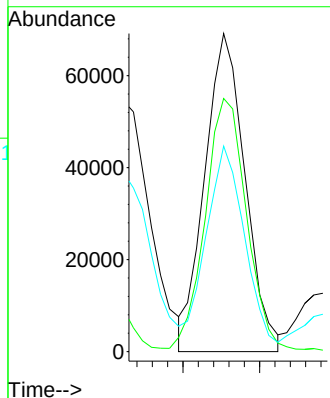
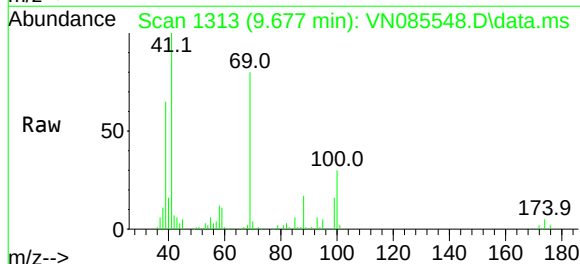
Tgt Ion: 41 Resp: 126123

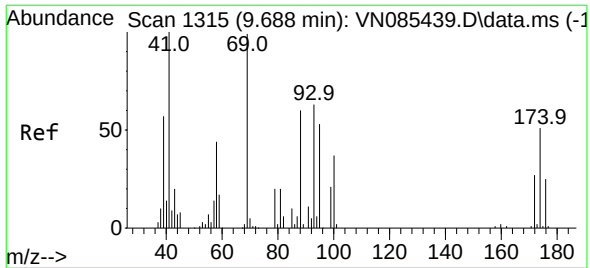
Ion Ratio Lower Upper

41 100

69 82.6 64.7 97.1

39 62.8 49.0 73.6





#49

1,4-Dioxane

Concen: 1118.996 ug/l

RT: 9.688 min Scan# 1315

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 88 Resp: 42044

Ion Ratio Lower Upper

88 100

43 29.9 26.6 39.8

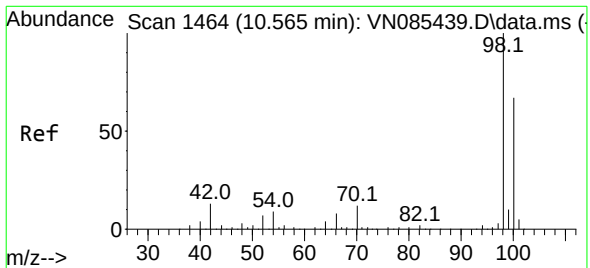
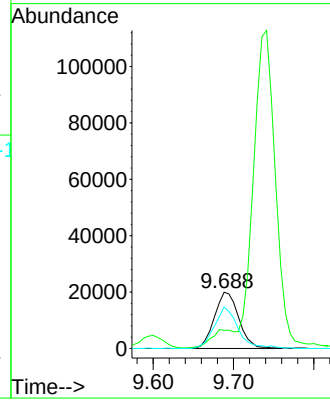
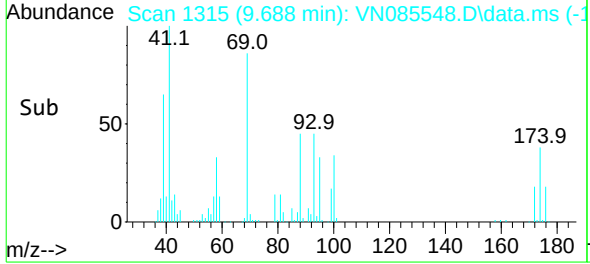
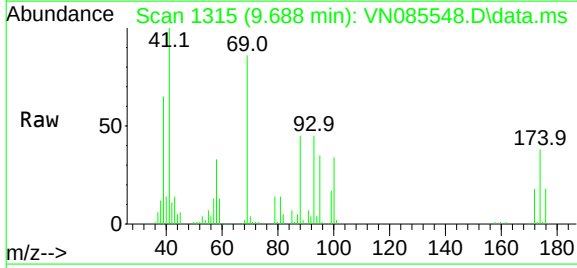
58 72.6 59.5 89.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#50

Toluene-d8

Concen: 57.152 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. -0.000 min

Lab File: VN085548.D

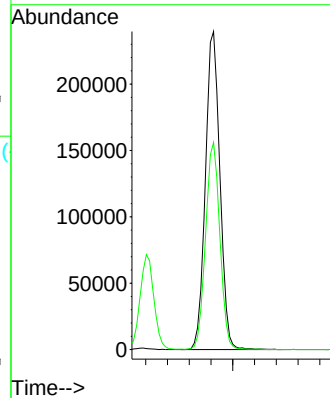
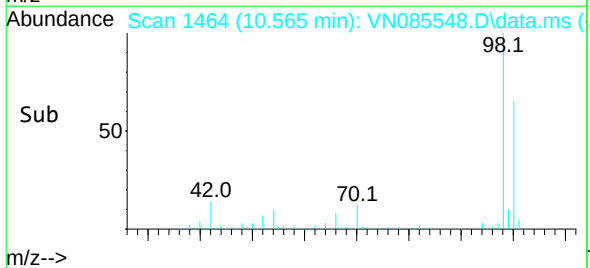
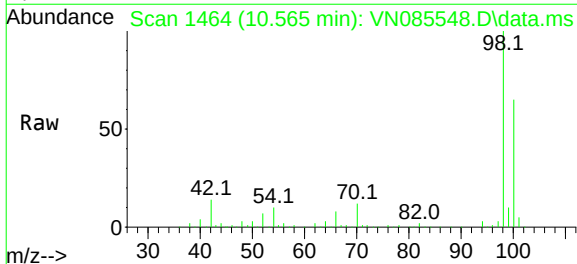
Acq: 29 Jan 2025 11:08

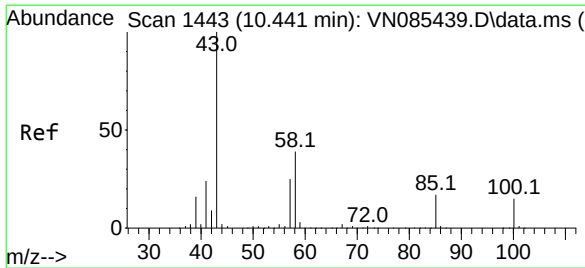
Tgt Ion: 98 Resp: 443525

Ion Ratio Lower Upper

98 100

100 64.0 52.2 78.4





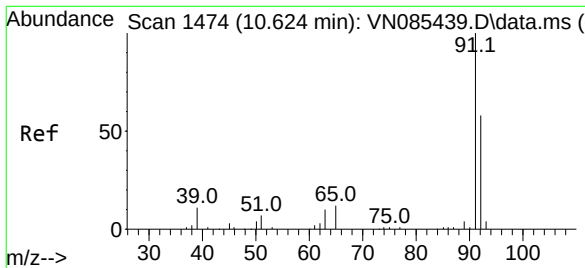
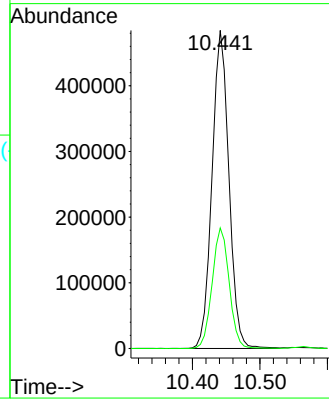
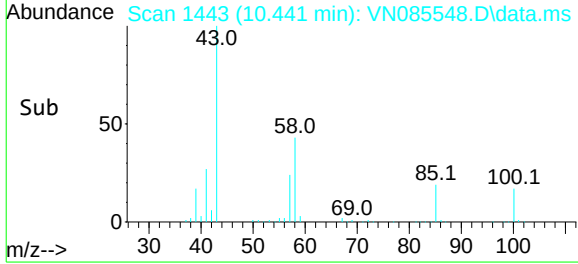
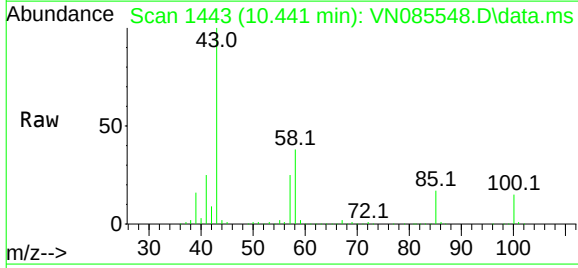
#51  
4-Methyl-2-Pentanone  
Concen: 292.481 ug/l  
RT: 10.441 min Scan# 1443  
Delta R.T. 0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050

Tgt Ion: 43 Resp: 841478  
Ion Ratio Lower Upper  
43 100  
58 38.2 30.5 45.7

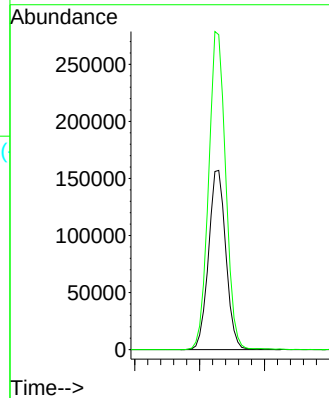
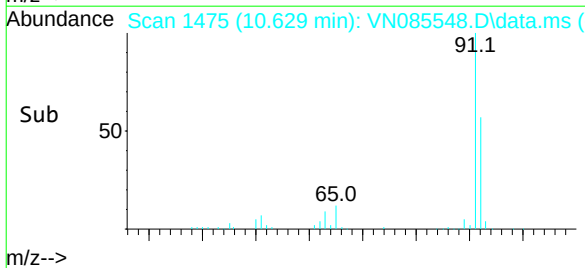
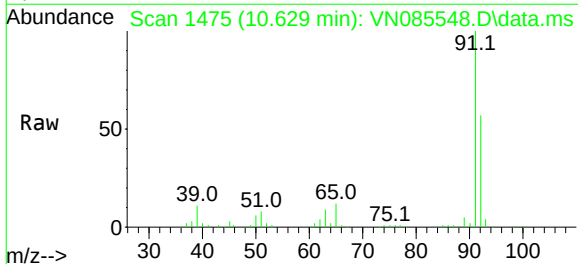
Manual Integrations  
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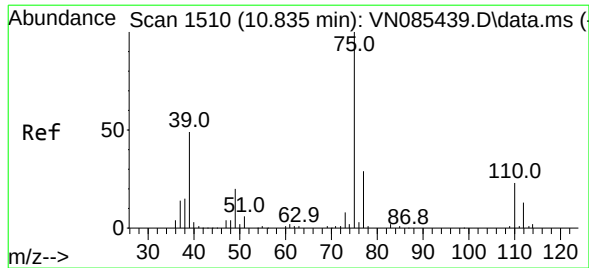
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#52  
Toluene  
Concen: 54.537 ug/l  
RT: 10.629 min Scan# 1475  
Delta R.T. 0.005 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

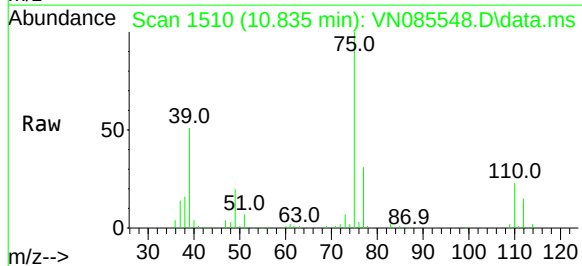
Tgt Ion: 92 Resp: 291059  
Ion Ratio Lower Upper  
92 100  
91 175.7 139.2 208.8





#53  
t-1,3-Dichloropropene  
Concen: 55.275 ug/l  
RT: 10.835 min Scan# 1510  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

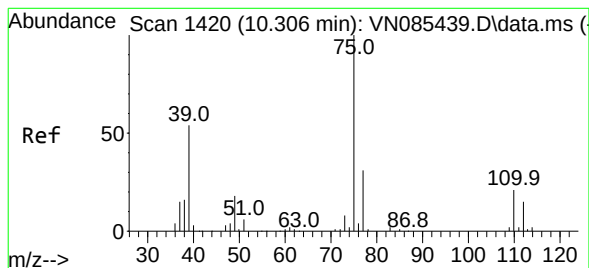
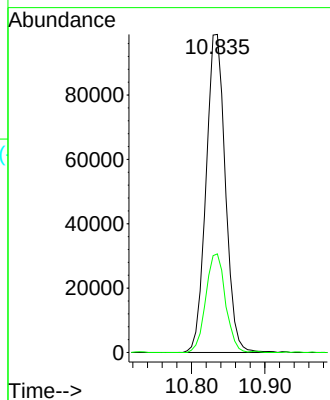
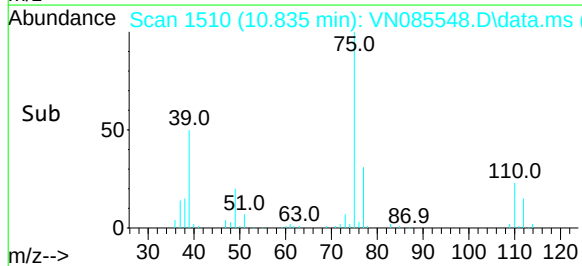
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 75 Resp: 180662  
Ion Ratio Lower Upper  
75 100  
77 31.0 23.5 35.3

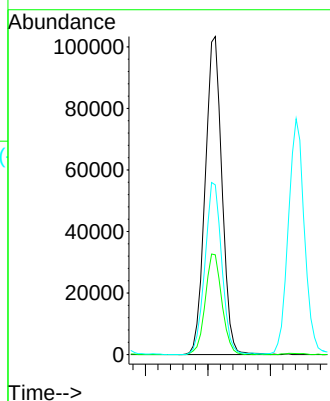
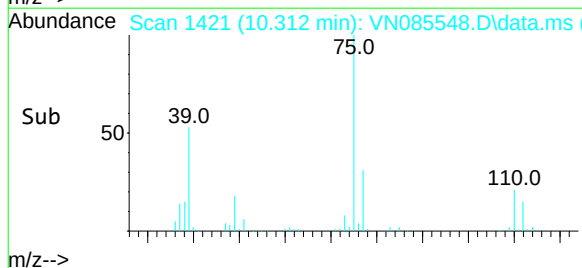
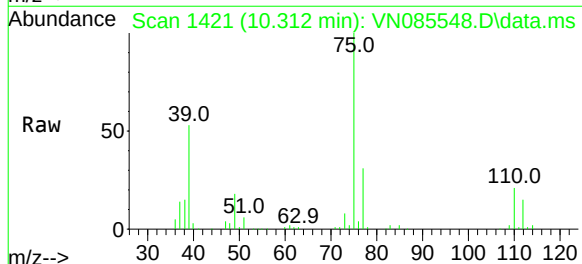
Manual Integrations  
APPROVED

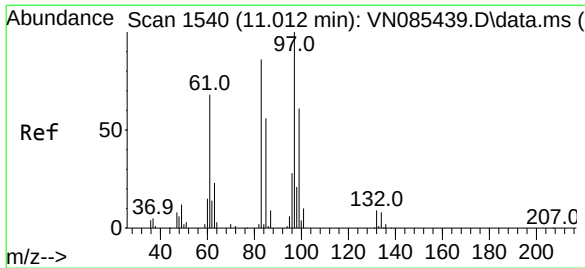
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#54  
cis-1,3-Dichloropropene  
Concen: 55.213 ug/l  
RT: 10.312 min Scan# 1421  
Delta R.T. 0.006 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Tgt Ion: 75 Resp: 192761  
Ion Ratio Lower Upper  
75 100  
77 31.4 25.0 37.4  
39 53.4 43.1 64.7





#55

1,1,2-Trichloroethane

Concen: 54.555 ug/l

RT: 11.012 min Scan# 1540

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 97 Resp: 115225

Ion Ratio Lower Upper

97 100

83 85.5 69.0 103.6

85 59.3 44.6 66.8

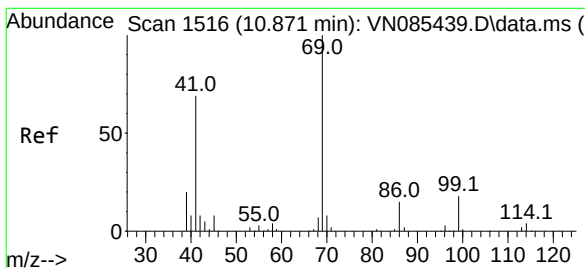
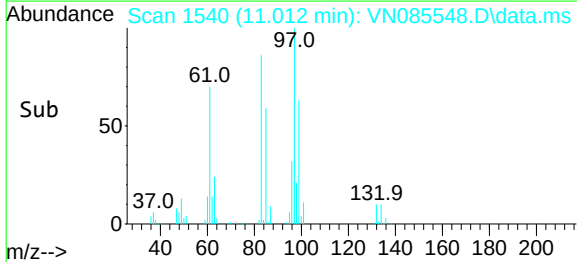
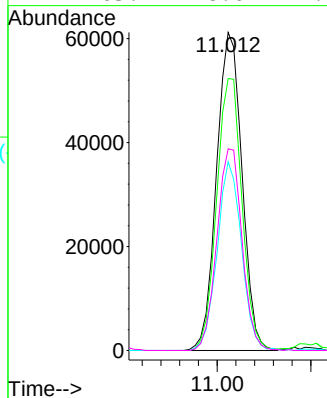
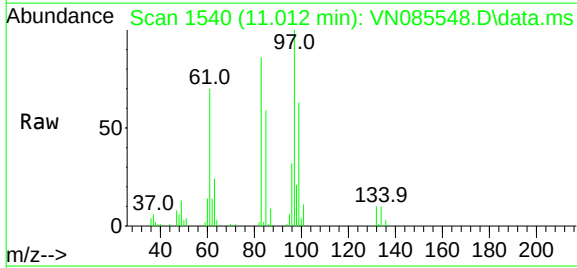
99 63.4 48.6 72.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#56

Ethyl methacrylate

Concen: 49.794 ug/l

RT: 10.871 min Scan# 1516

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

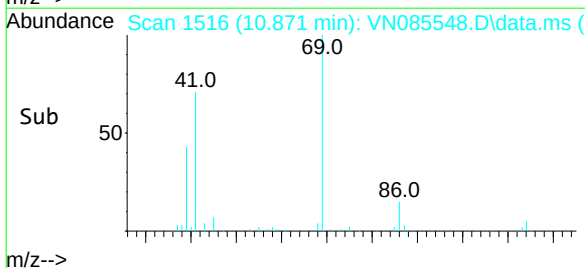
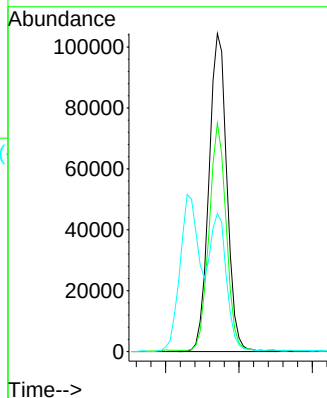
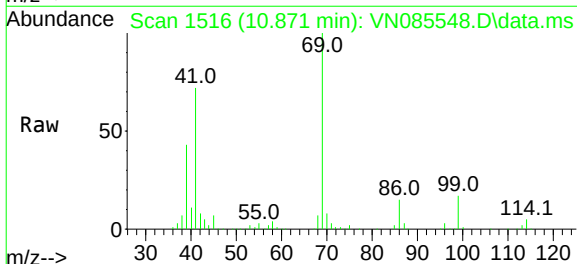
Tgt Ion: 69 Resp: 177132

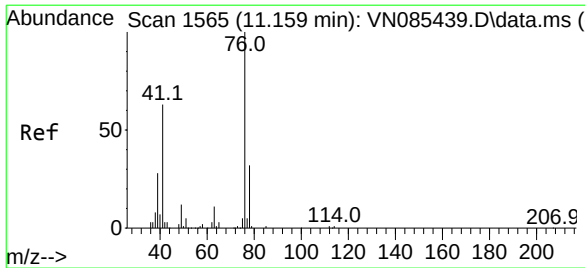
Ion Ratio Lower Upper

69 100

41 67.8 54.6 82.0

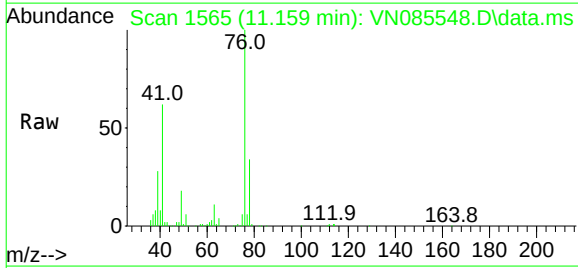
39 40.6 32.4 48.6





#57  
1,3-Dichloropropane  
Concen: 54.627 ug/l  
RT: 11.159 min Scan# 1565  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

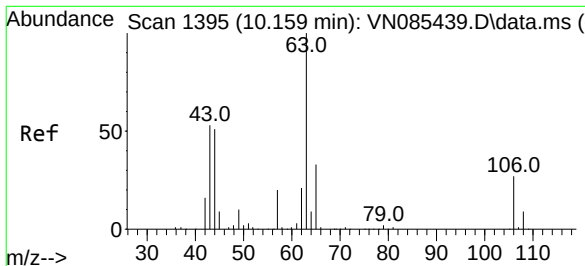
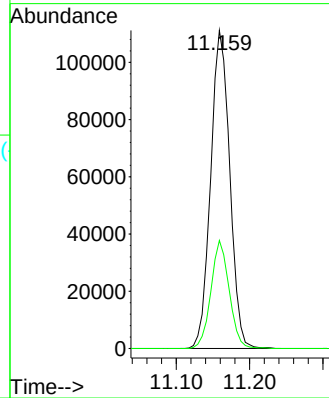
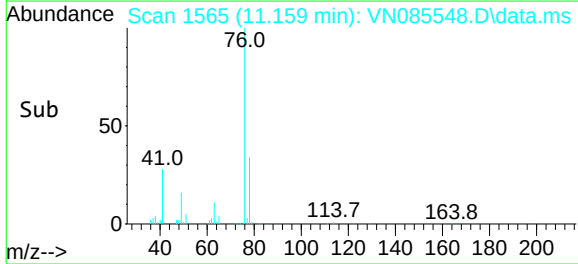
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 76 Resp: 200617  
Ion Ratio Lower Upper  
76 100  
78 32.6 25.6 38.4

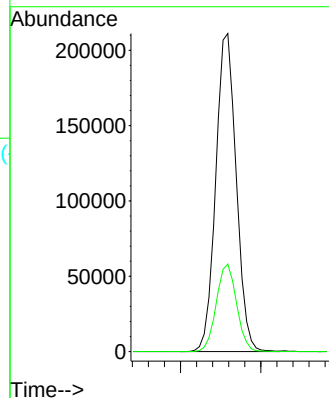
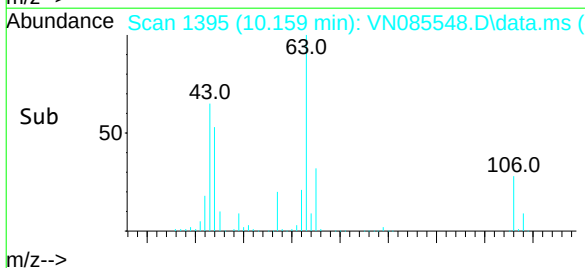
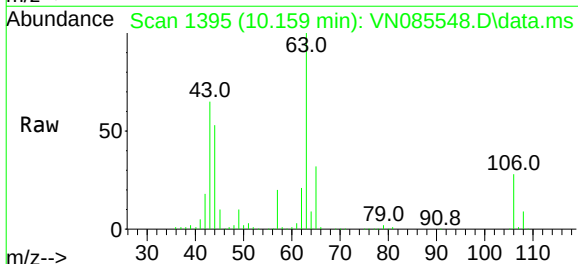
Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

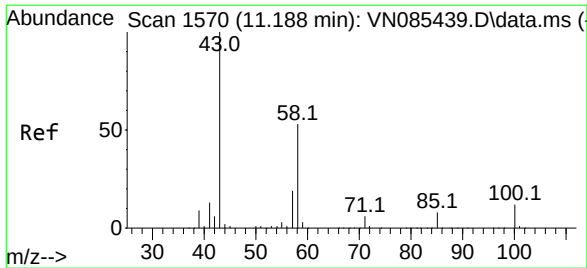


#58  
2-Chloroethyl Vinyl ether  
Concen: 278.738 ug/l  
RT: 10.159 min Scan# 1395  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Tgt Ion: 63 Resp: 373597  
Ion Ratio Lower Upper  
63 100  
106 27.2 21.6 32.4







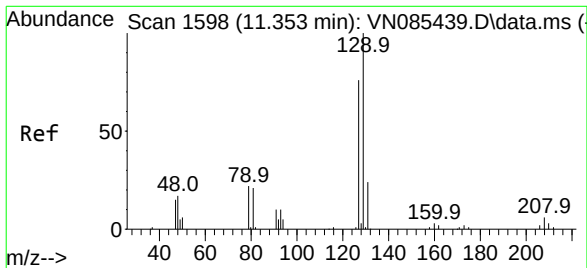
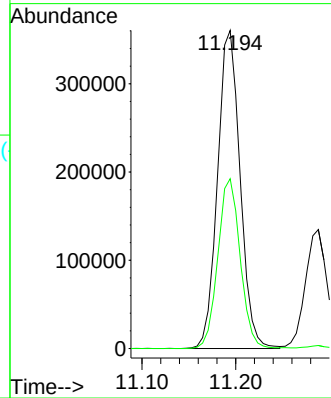
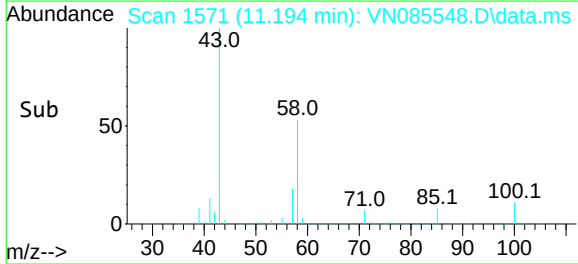
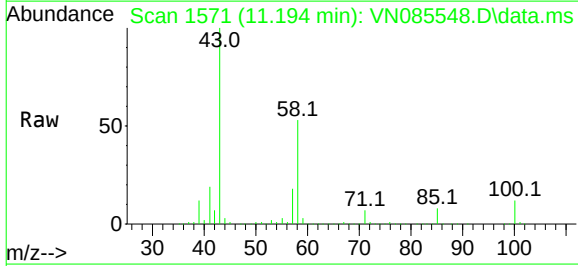
#59  
2-Hexanone  
Concen: 297.473 ug/l  
RT: 11.194 min Scan# 1571  
Delta R.T. 0.006 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050

Tgt Ion: 43 Resp: 602196  
Ion Ratio Lower Upper  
43 100  
58 52.9 26.2 78.6

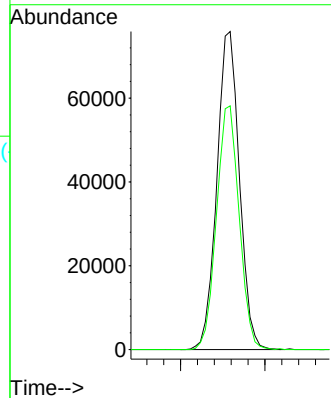
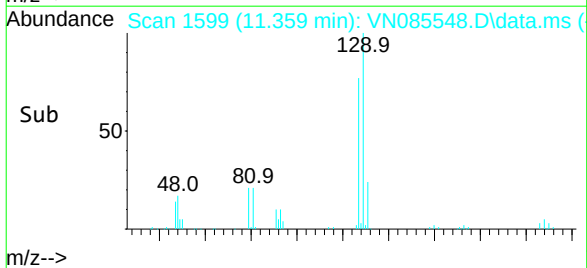
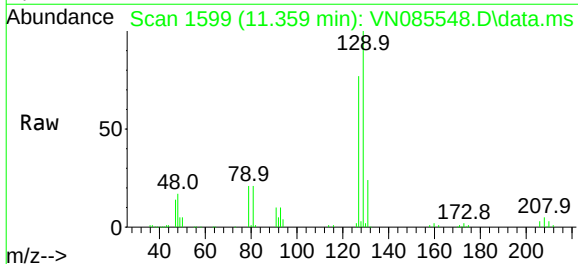
Manual Integrations  
APPROVED

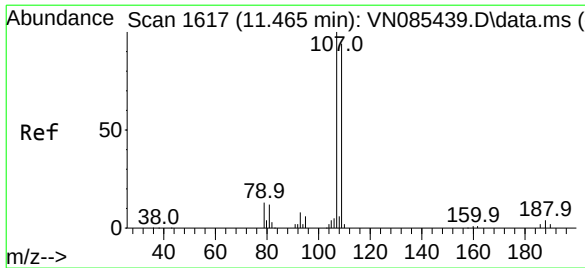
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#60  
Dibromochloromethane  
Concen: 55.280 ug/l  
RT: 11.359 min Scan# 1599  
Delta R.T. 0.006 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Tgt Ion:129 Resp: 140958  
Ion Ratio Lower Upper  
129 100  
127 77.0 38.6 115.8





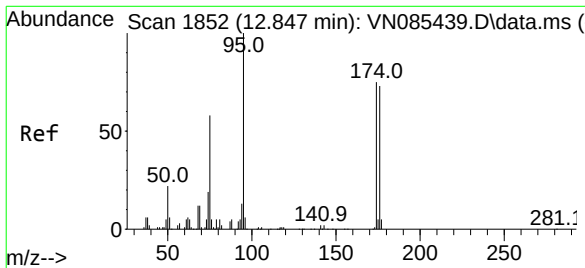
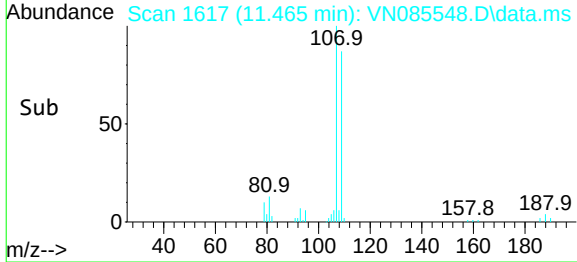
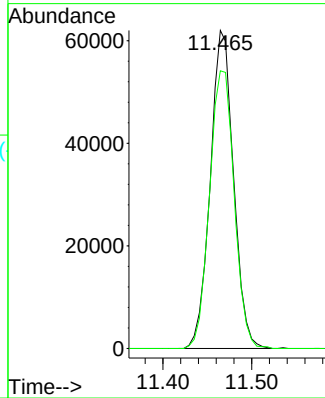
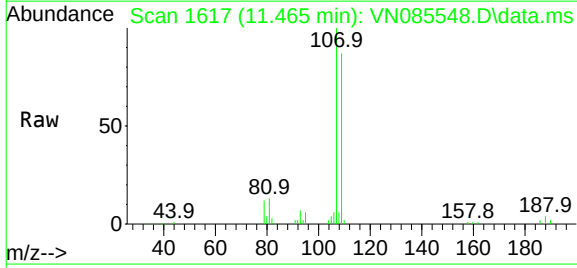
#61  
1,2-Dibromoethane  
Concen: 53.622 ug/l  
RT: 11.465 min Scan# 1617  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050

Tgt Ion: 107 Resp: 112734  
Ion Ratio Lower Upper  
107 100  
109 92.7 75.9 113.9

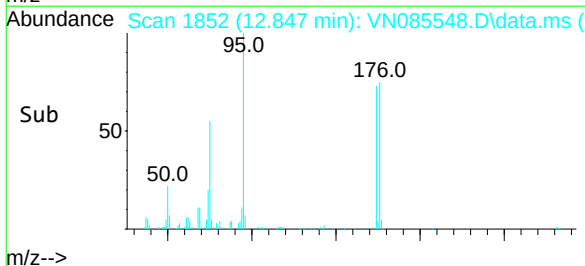
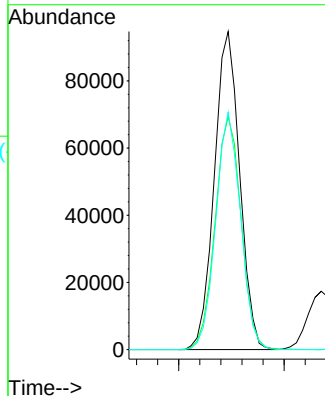
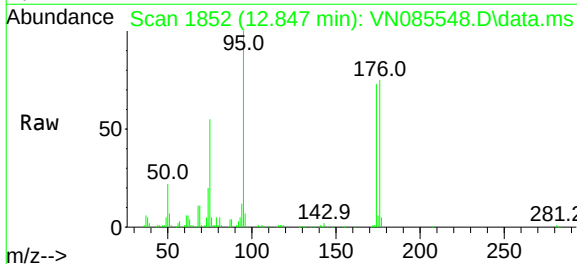
Manual Integrations  
APPROVED

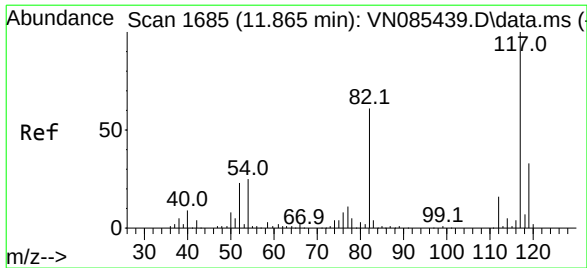
Reviewed By : John Carlone 01/30/2025  
Supervised By : Mahesh Dadoda 01/30/2025



#62  
4-Bromofluorobenzene  
Concen: 59.631 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

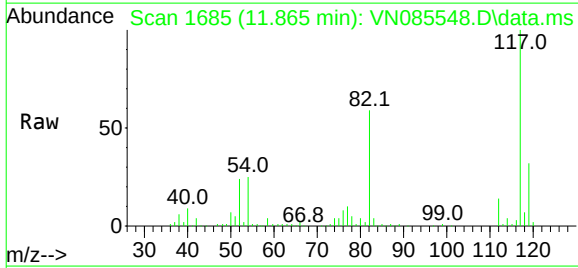
Tgt Ion: 95 Resp: 158301  
Ion Ratio Lower Upper  
95 100  
174 74.9 0.0 145.0  
176 72.9 0.0 142.4





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

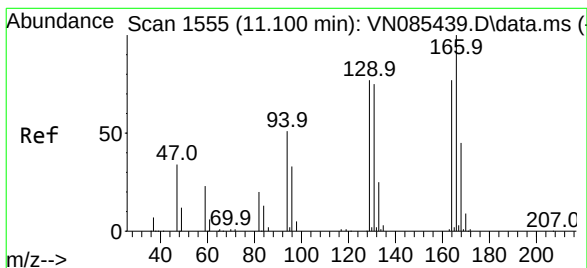
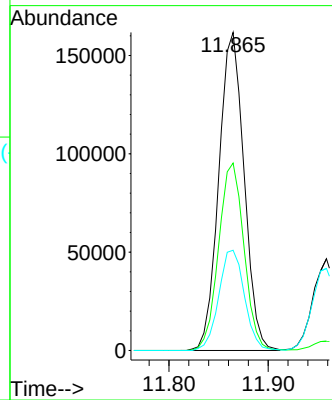
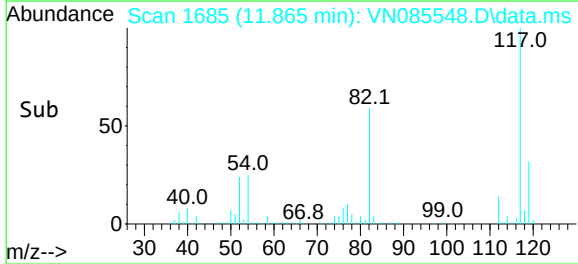
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion:117 Resp: 285899  
Ion Ratio Lower Upper  
117 100  
82 58.9 48.6 72.8  
119 31.5 26.6 39.8

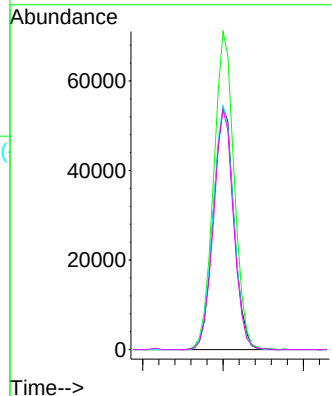
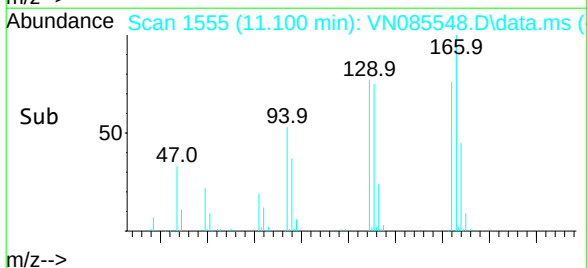
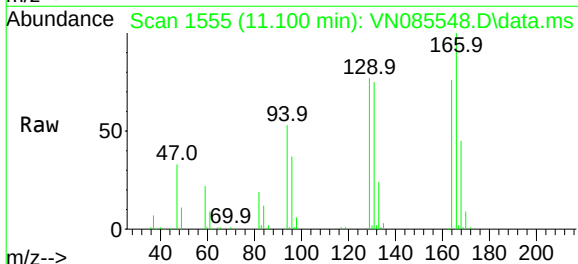
Manual Integrations  
APPROVED

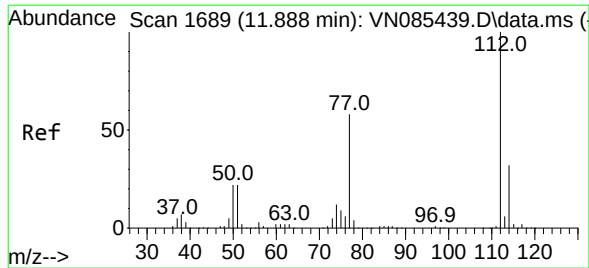
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#64  
Tetrachloroethene  
Concen: 49.798 ug/l  
RT: 11.100 min Scan# 1555  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Tgt Ion:164 Resp: 97060  
Ion Ratio Lower Upper  
164 100  
166 131.3 103.4 155.2  
129 100.7 79.2 118.8  
131 98.9 77.1 115.7





#65

Chlorobenzene

Concen: 50.625 ug/l

RT: 11.888 min Scan# 1689

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:112 Resp: 317067

Ion Ratio Lower Upper

112 100

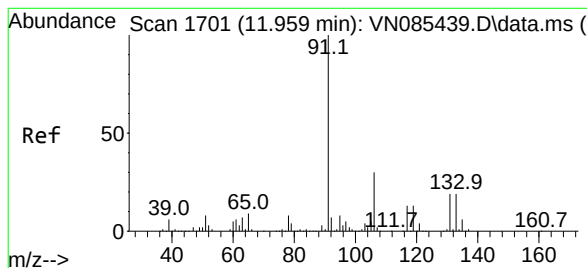
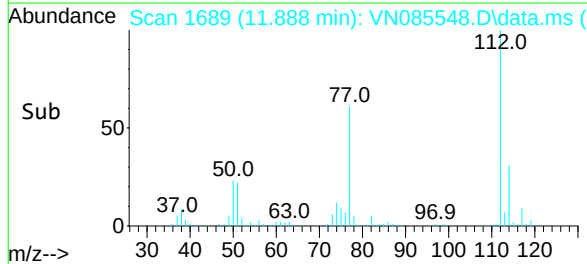
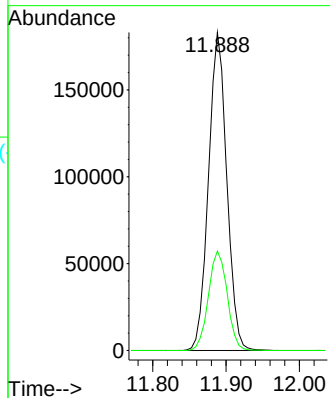
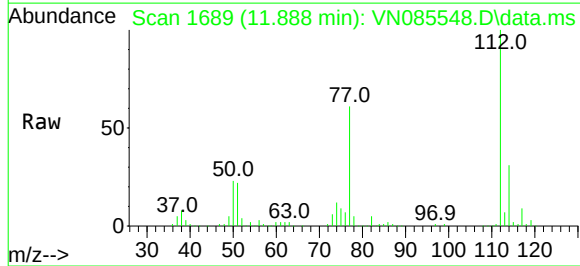
114 31.3 25.3 37.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#66

1,1,1,2-Tetrachloroethane

Concen: 51.774 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

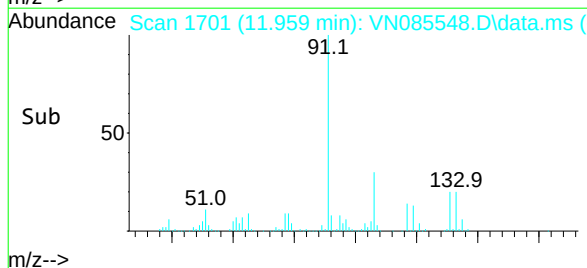
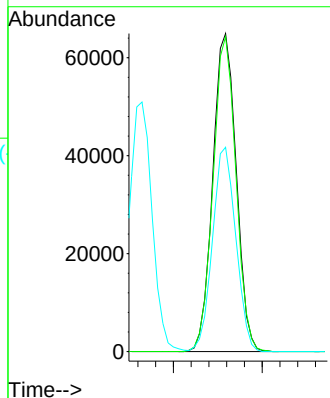
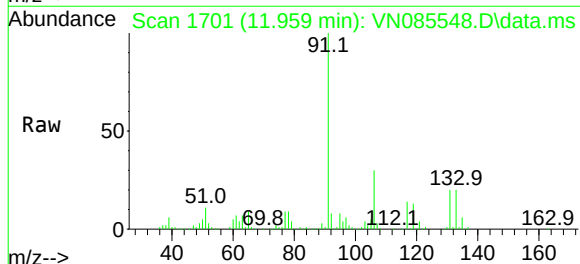
Tgt Ion:131 Resp: 119011

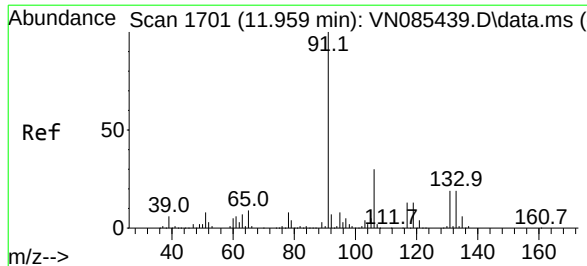
Ion Ratio Lower Upper

131 100

133 96.7 47.4 142.3

119 63.9 33.1 99.5





#67

Ethyl Benzene

Concen: 54.719 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 91 Resp: 558184

Ion Ratio Lower Upper

91 100

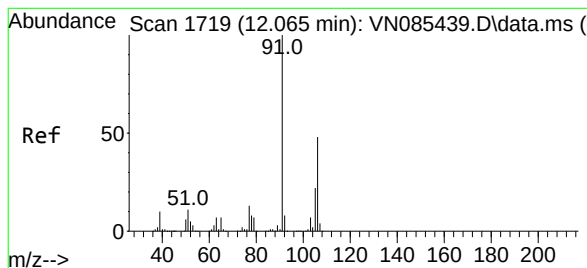
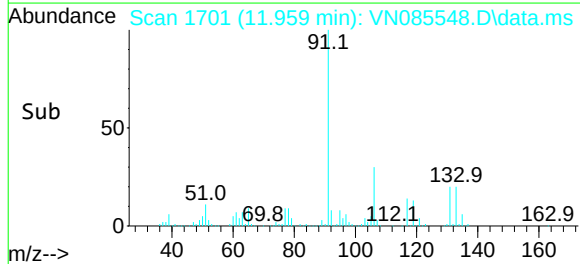
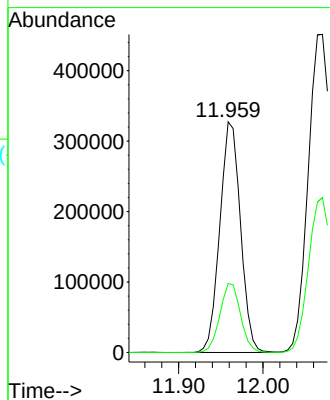
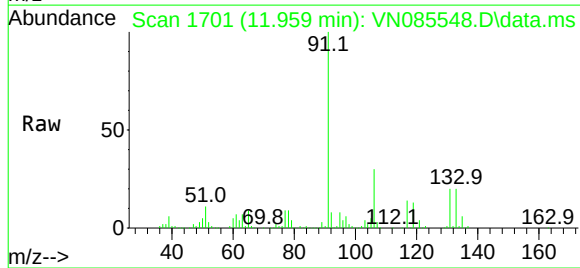
106 29.9 23.8 35.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#68

m/p-Xylenes

Concen: 113.620 ug/l

RT: 12.070 min Scan# 1720

Delta R.T. 0.006 min

Lab File: VN085548.D

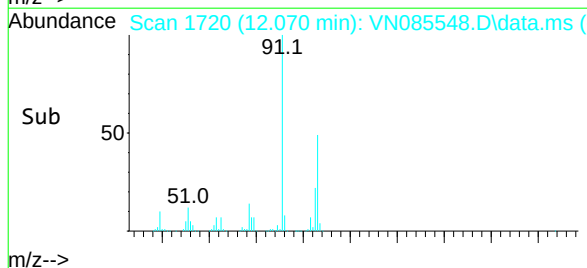
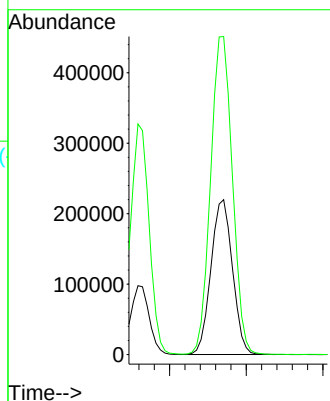
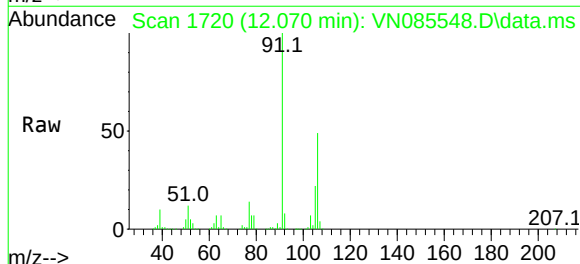
Acq: 29 Jan 2025 11:08

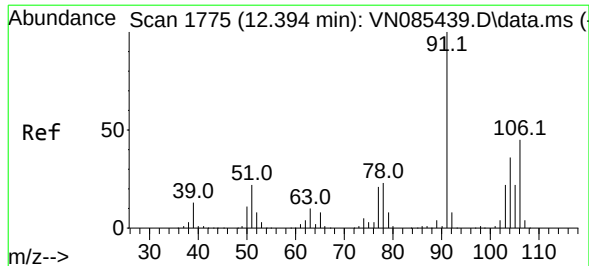
Tgt Ion:106 Resp: 428359

Ion Ratio Lower Upper

106 100

91 208.1 167.7 251.5





#69

o-Xylene

Concen: 55.920 ug/l

RT: 12.394 min Scan# 1775

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:106 Resp: 201478

Ion Ratio Lower Upper

106 100

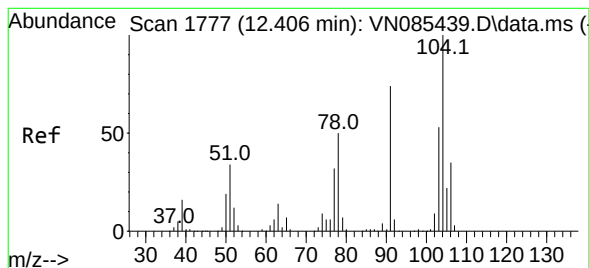
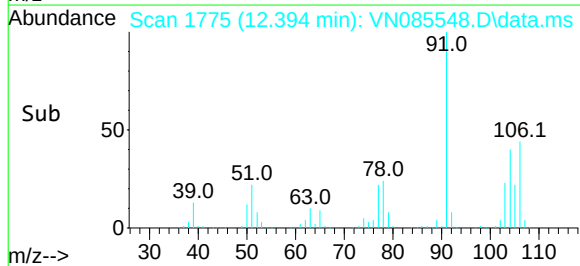
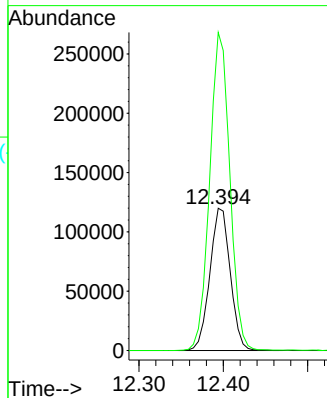
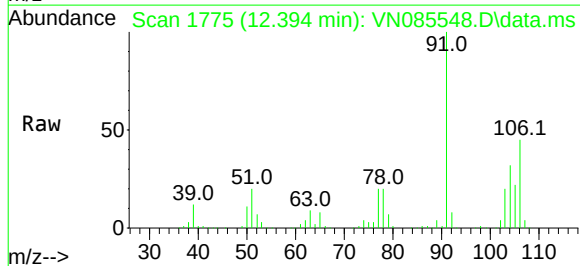
91 221.0 110.4 331.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#70

Styrene

Concen: 59.242 ug/l

RT: 12.412 min Scan# 1778

Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

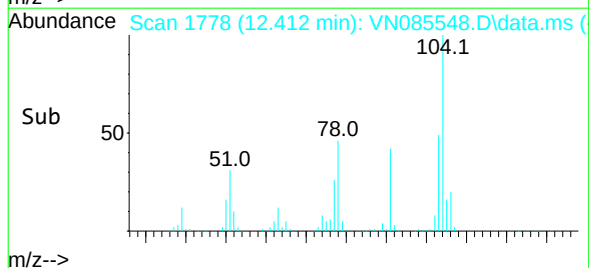
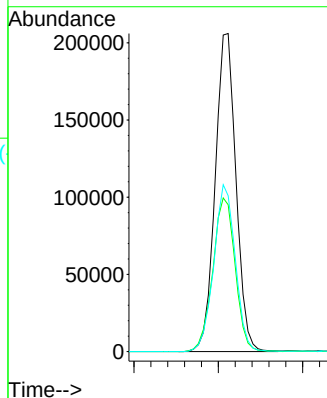
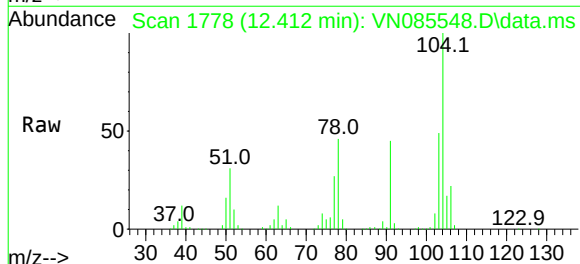
Tgt Ion:104 Resp: 353248

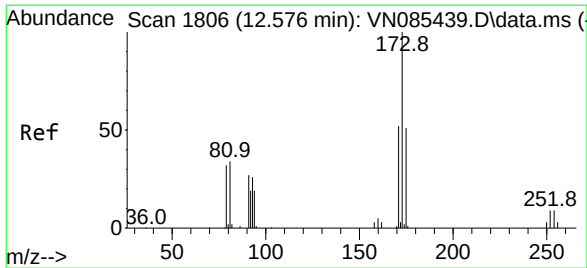
Ion Ratio Lower Upper

104 100

78 52.0 42.5 63.7

103 54.4 43.8 65.8





#71

Bromoform

Concen: 56.158 ug/l

RT: 12.576 min Scan# 1806

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:173 Resp: 92365

Ion Ratio Lower Upper

173 100

175 49.4 24.4 73.2

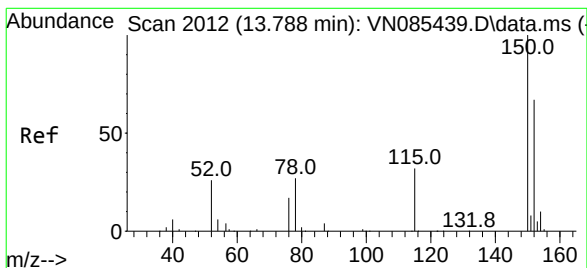
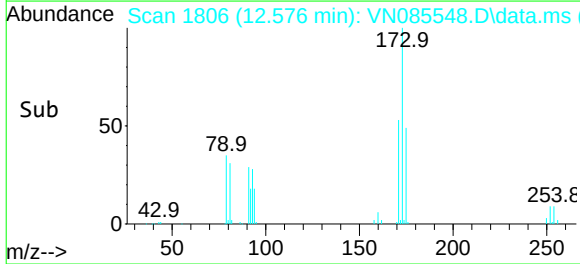
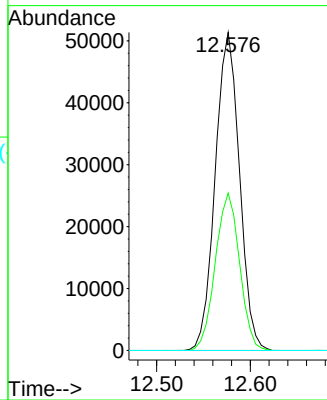
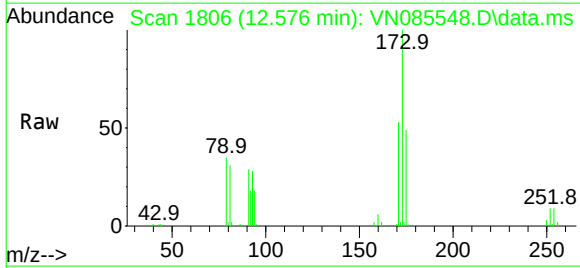
254 0.0 0.0 0.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.788 min Scan# 2012

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

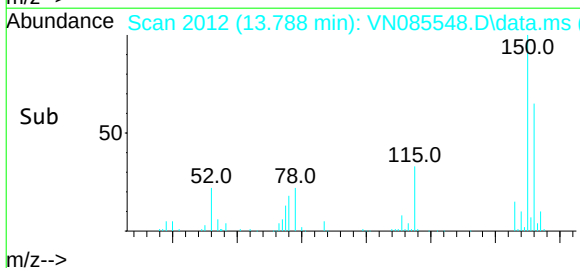
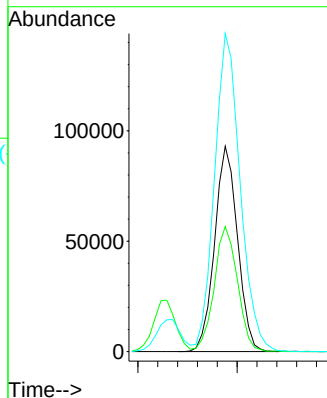
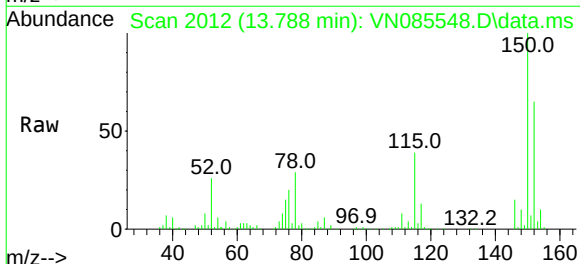
Tgt Ion:152 Resp: 149148

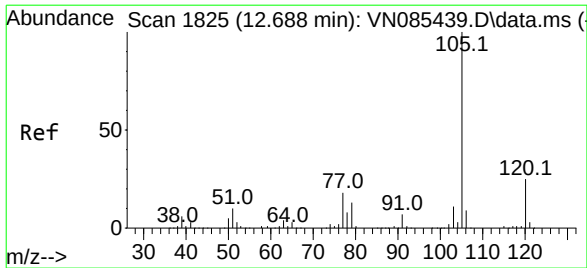
Ion Ratio Lower Upper

152 100

115 62.0 31.1 93.3

150 174.0 0.0 343.6





#73

Isopropylbenzene

Concen: 51.684 ug/l

RT: 12.694 min Scan# 1825

Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Tgt Ion: 105 Resp: 520261

Ion Ratio Lower Upper

105 100

120 25.3 12.8 38.3

Instrument :

MSVOA\_N

ClientSampleId :

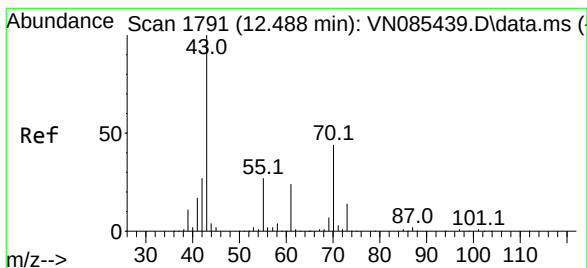
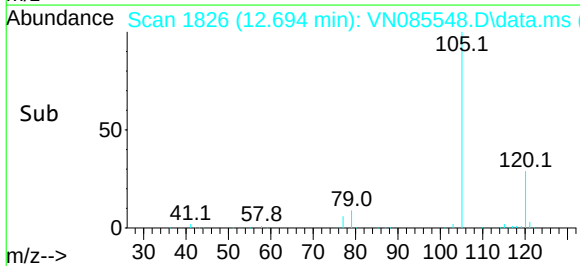
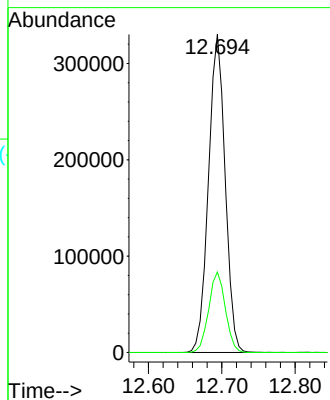
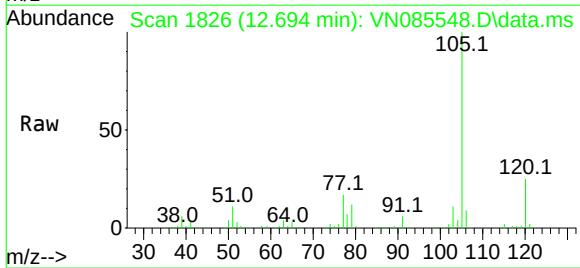
VSTDCCC050

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#74

N-ethyl acetate

Concen: 51.416 ug/l

RT: 12.488 min Scan# 1791

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Tgt Ion: 43 Resp: 232634

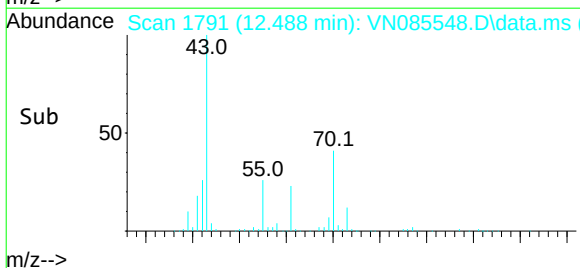
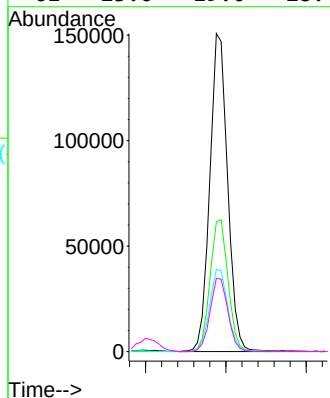
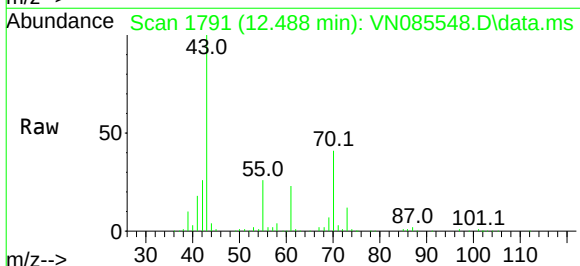
Ion Ratio Lower Upper

43 100

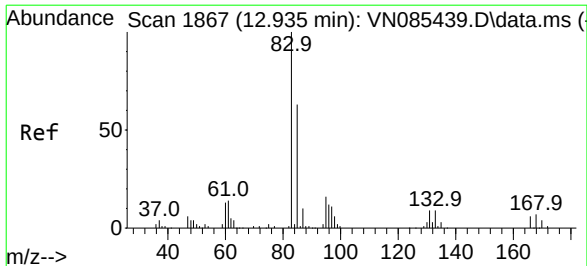
70 42.0 34.0 51.0

55 26.6 21.4 32.2

61 23.0 19.0 28.4







#75

1,1,2,2-Tetrachloroethane

Concen: 48.312 ug/l

RT: 12.935 min Scan# 1867

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

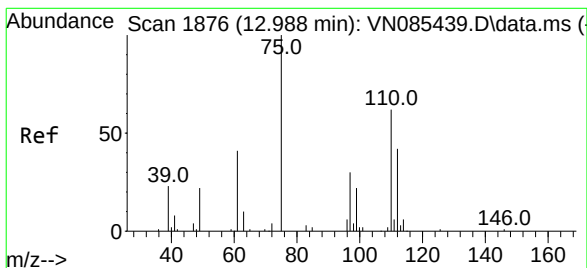
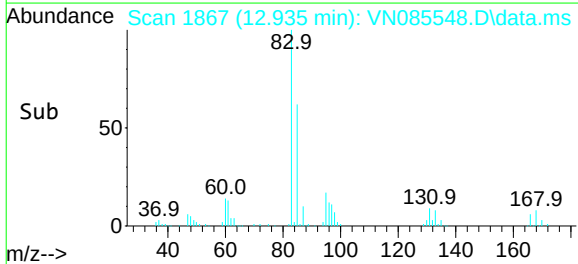
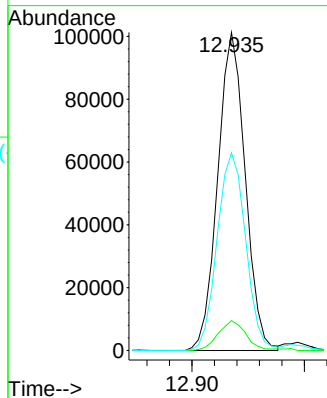
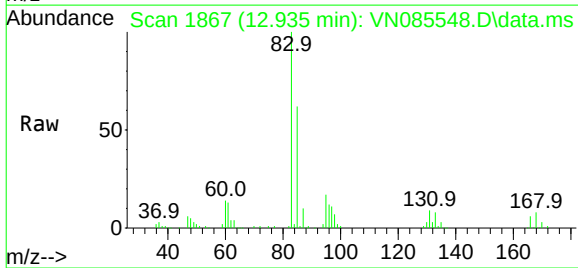
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 171790 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 131      | 9.4   | 4.8   | 14.4   |
| 85       | 64.5  | 32.2  | 96.6   |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#76

1,2,3-Trichloropropane

Concen: 45.756 ug/l m

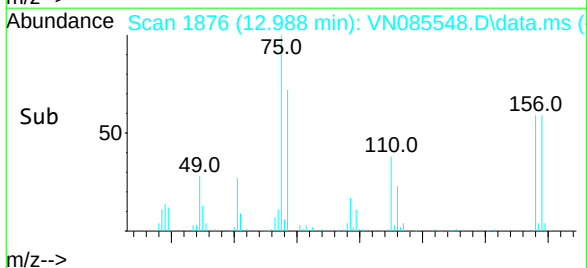
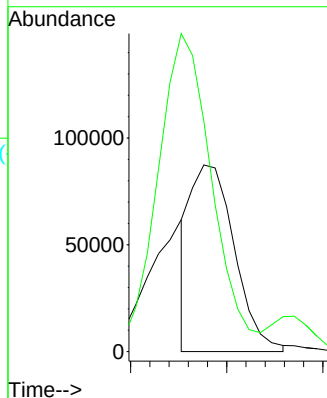
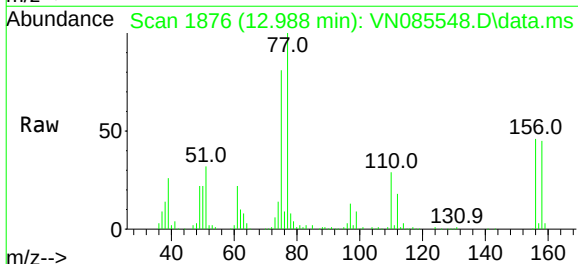
RT: 12.988 min Scan# 1876

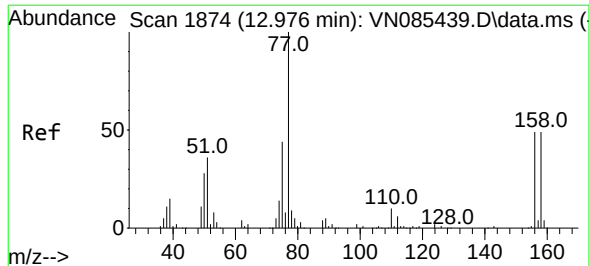
Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

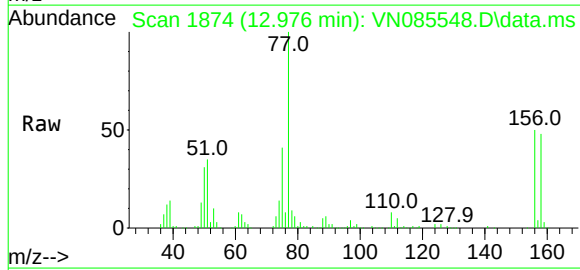
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 75    | Resp: | 138709 |
| Ion      | Ratio | Lower | Upper  |
| 75       | 100   |       |        |
| 77       | 211.4 | 109.7 | 329.2  |





Bromobenzene  
 Concen: 49.135 ug/l  
 RT: 12.976 min Scan# 1874  
 Delta R.T. -0.000 min  
 Lab File: VN085548.D  
 Acq: 29 Jan 2025 11:08

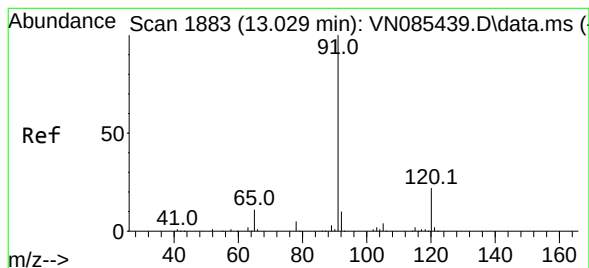
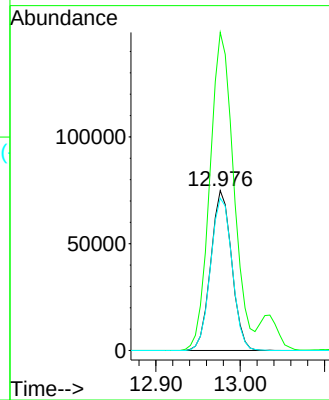
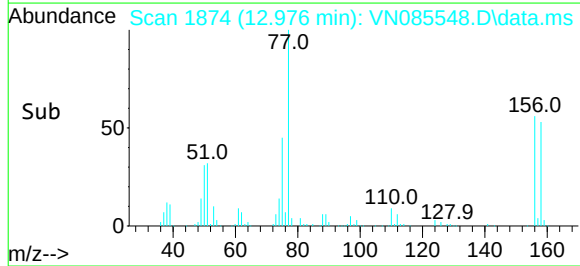
Instrument : MSVOA\_N  
 ClientSampleId : VSTDCCC050



Tgt Ion: 156 Resp: 129223  
 Ion Ratio Lower Upper  
 156 100  
 77 226.9 114.1 342.4  
 158 97.8 48.9 146.8

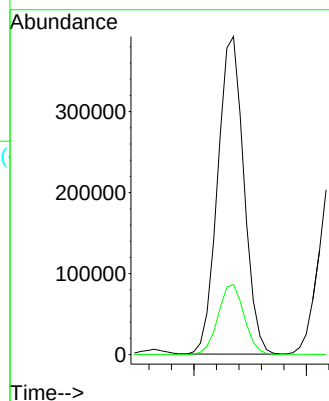
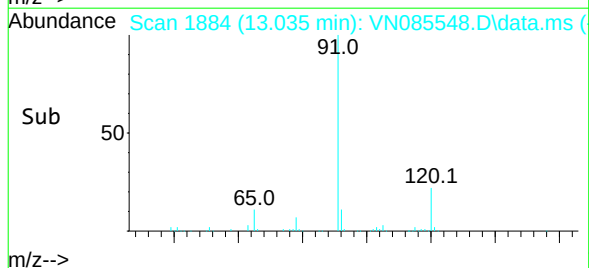
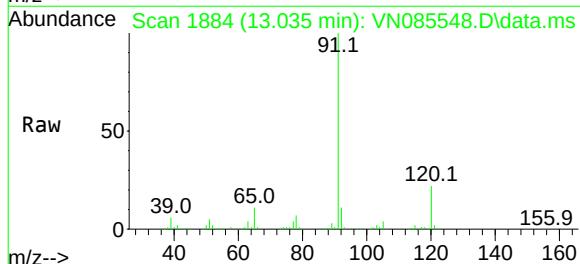
Manual Integrations  
 APPROVED

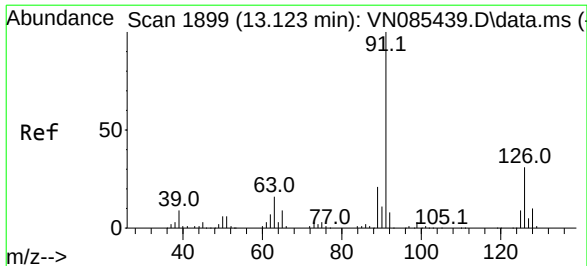
Reviewed By :John Carlone 01/30/2025  
 Supervised By :Mahesh Dadoda 01/30/2025



n-propylbenzene  
 Concen: 53.259 ug/l  
 RT: 13.035 min Scan# 1884  
 Delta R.T. 0.006 min  
 Lab File: VN085548.D  
 Acq: 29 Jan 2025 11:08

Tgt Ion: 91 Resp: 634672  
 Ion Ratio Lower Upper  
 91 100  
 120 21.9 10.9 32.6





#79

2-Chlorotoluene

Concen: 49.816 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 91 Resp: 384203

Ion Ratio Lower Upper

91 100

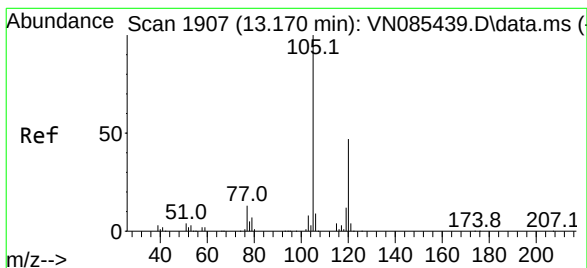
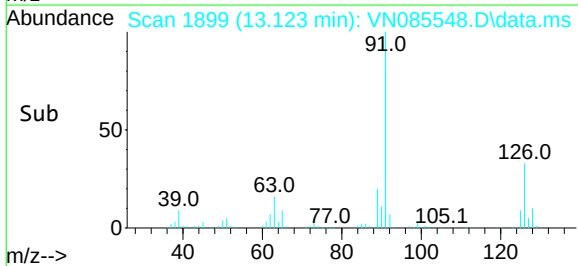
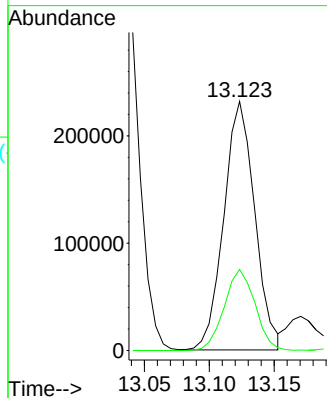
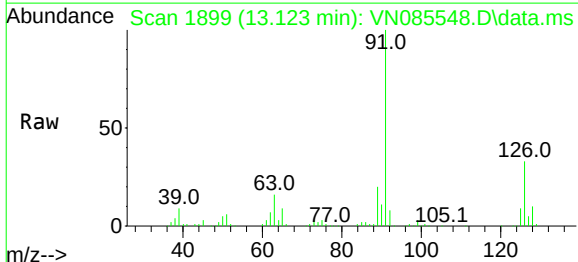
126 32.4 15.7 47.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#80

1,3,5-Trimethylbenzene

Concen: 53.997 ug/l

RT: 13.170 min Scan# 1907

Delta R.T. -0.000 min

Lab File: VN085548.D

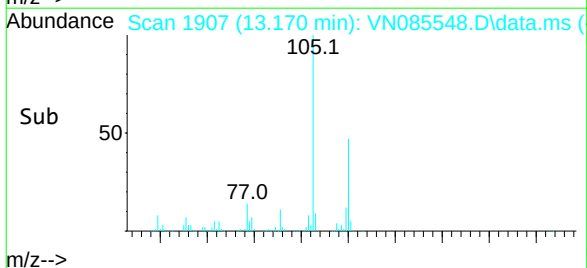
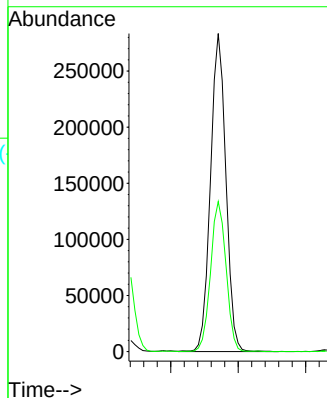
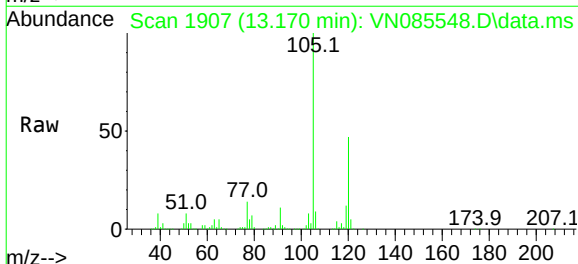
Acq: 29 Jan 2025 11:08

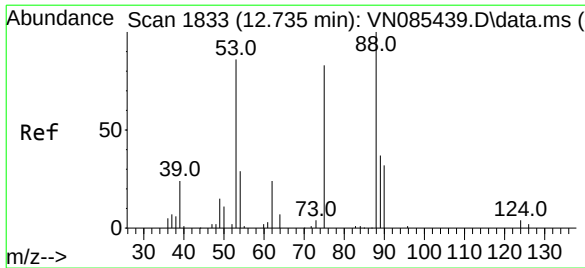
Tgt Ion:105 Resp: 448974

Ion Ratio Lower Upper

105 100

120 47.5 23.9 71.7





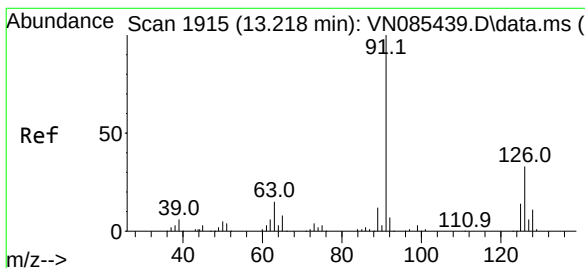
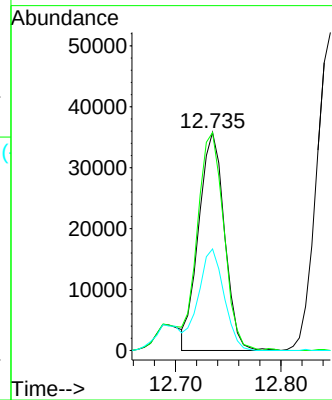
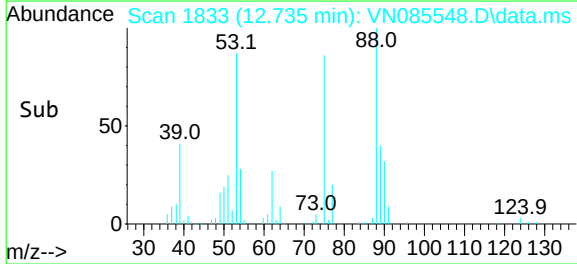
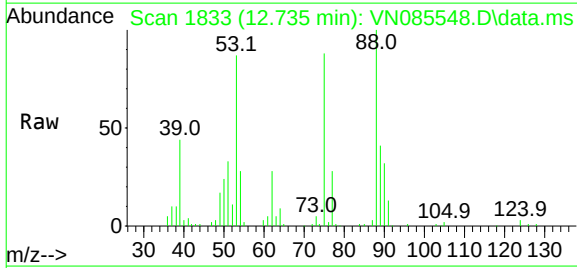
#81  
trans-1,4-Dichloro-2-butene  
Concen: 54.293 ug/l  
RT: 12.735 min Scan# 1833  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050

| Tgt Ion: | 75    | Resp: | 60833 |
|----------|-------|-------|-------|
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 53       | 114.0 | 95.6  | 143.4 |
| 89       | 46.5  | 37.0  | 55.6  |

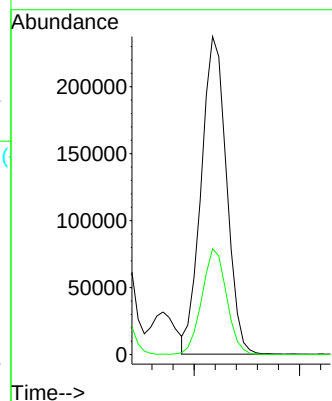
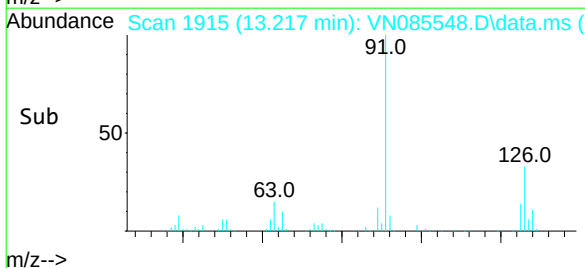
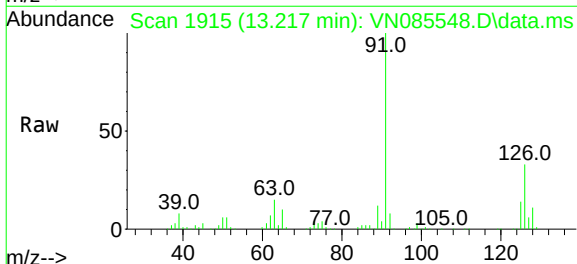
Manual Integrations  
APPROVED

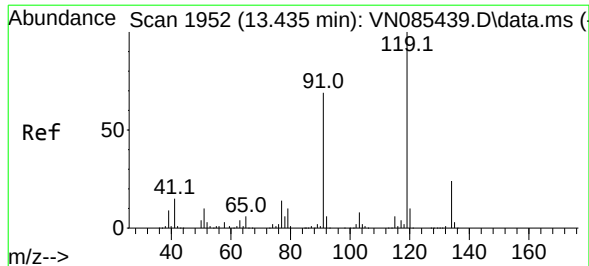
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#82  
4-Chlorotoluene  
Concen: 51.449 ug/l  
RT: 13.217 min Scan# 1915  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

| Tgt Ion: | 91    | Resp: | 395084 |
|----------|-------|-------|--------|
| Ion      | Ratio | Lower | Upper  |
| 91       | 100   |       |        |
| 126      | 32.6  | 15.9  | 47.7   |





#83

tert-Butylbenzene

Concen: 51.344 ug/l

RT: 13.435 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:119 Resp: 358511

Ion Ratio Lower Upper

119 100

91 71.5 35.1 105.3

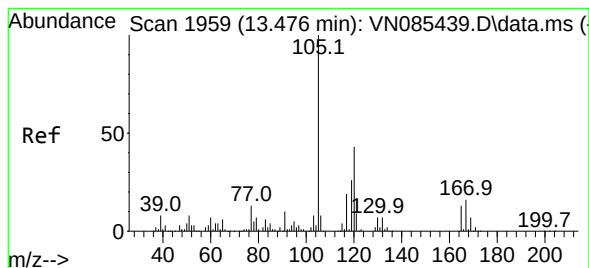
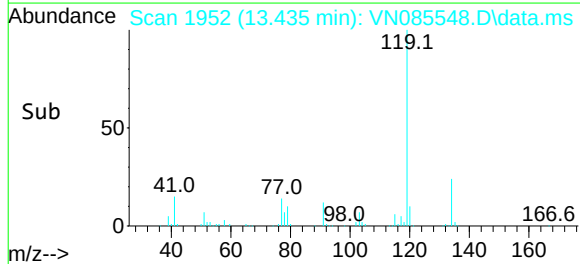
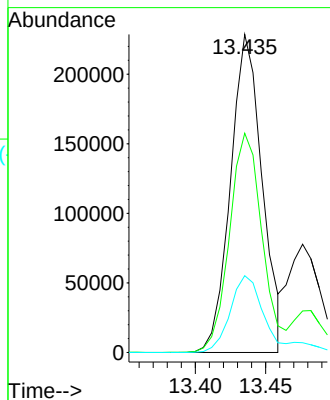
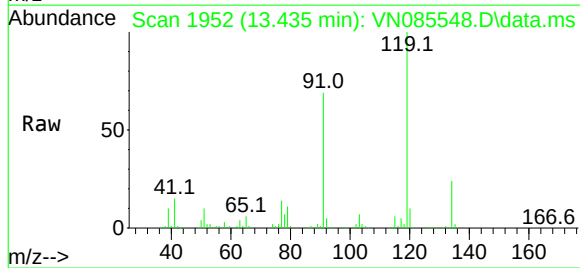
134 24.8 12.0 36.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#84

1,2,4-Trimethylbenzene

Concen: 54.905 ug/l

RT: 13.476 min Scan# 1959

Delta R.T. -0.000 min

Lab File: VN085548.D

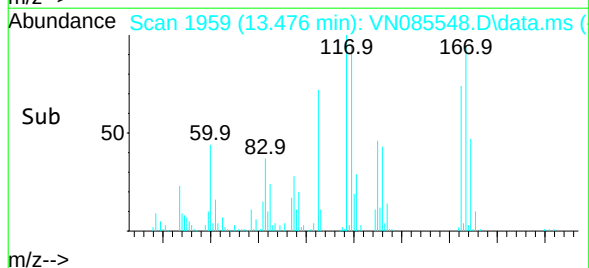
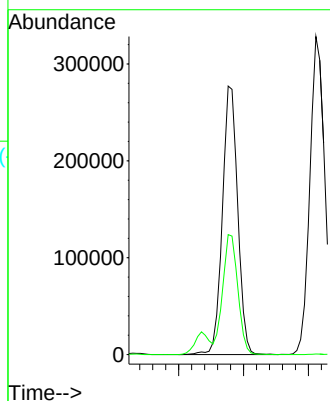
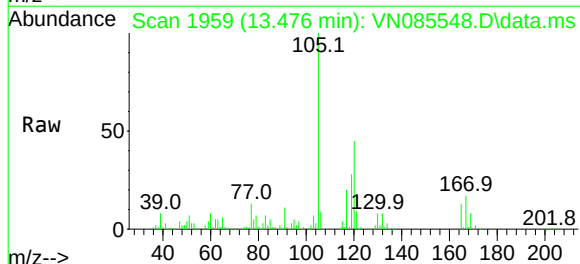
Acq: 29 Jan 2025 11:08

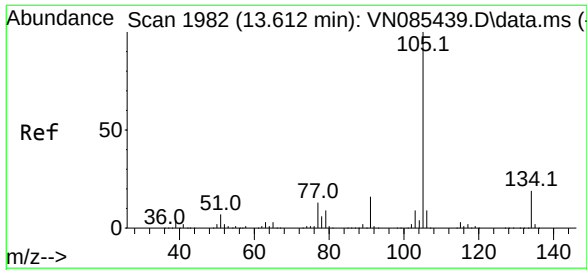
Tgt Ion:105 Resp: 455009

Ion Ratio Lower Upper

105 100

120 44.2 21.6 65.0





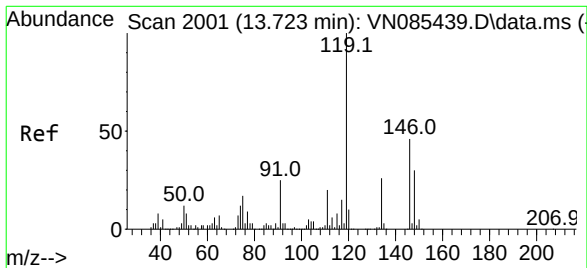
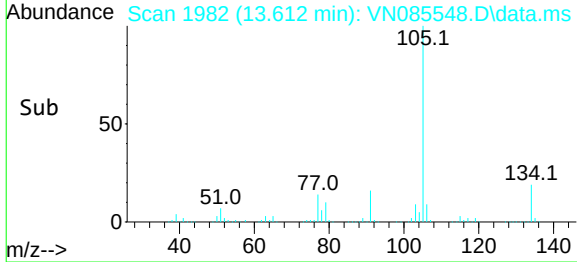
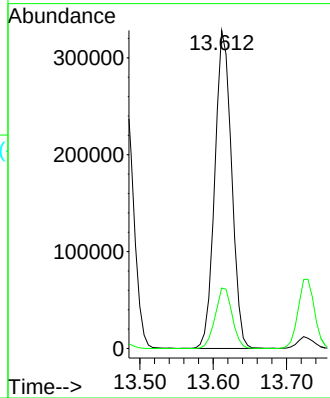
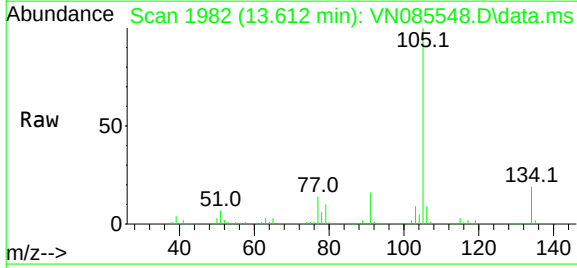
#85  
sec-Butylbenzene  
Concen: 53.917 ug/l  
RT: 13.612 min Scan# 1982  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050

Tgt Ion:105 Resp: 521784  
Ion Ratio Lower Upper  
105 100  
134 19.2 9.7 28.9

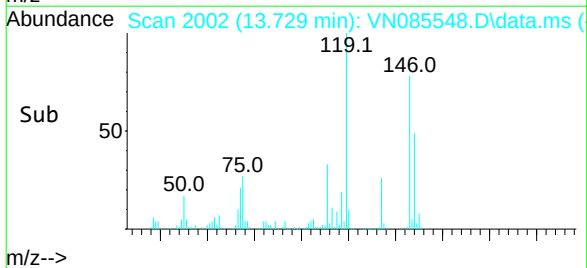
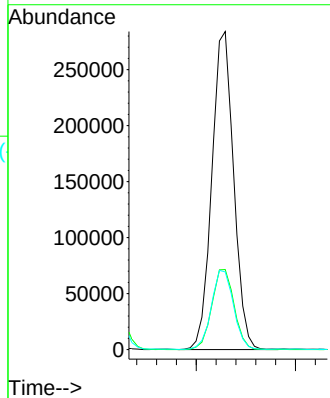
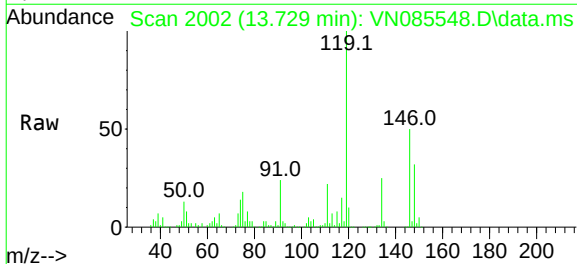
Manual Integrations  
APPROVED

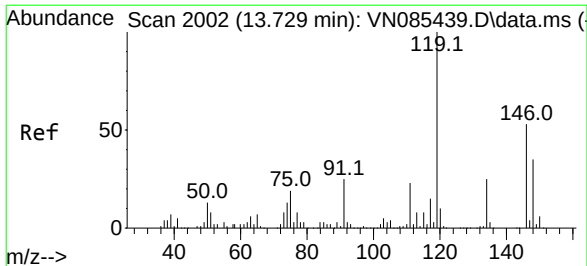
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#86  
p-Isopropyltoluene  
Concen: 49.847 ug/l  
RT: 13.729 min Scan# 2002  
Delta R.T. 0.006 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

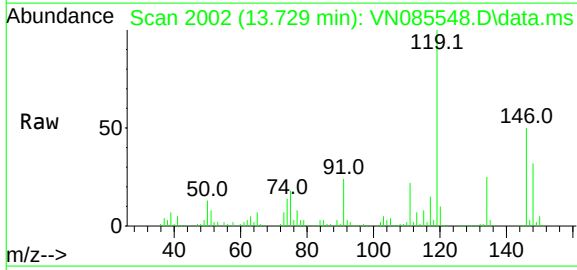
Tgt Ion:119 Resp: 434224  
Ion Ratio Lower Upper  
119 100  
134 25.7 12.7 38.0  
91 25.2 12.7 38.1





1,3-Dichlorobenzene  
Concen: 50.447 ug/l  
RT: 13.729 min Scan# 2002  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

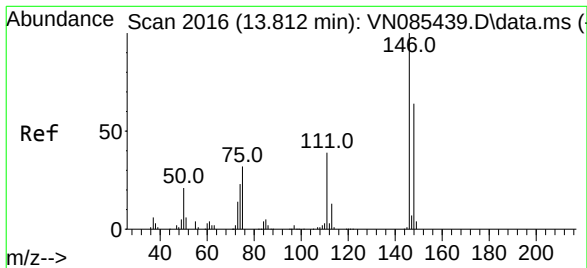
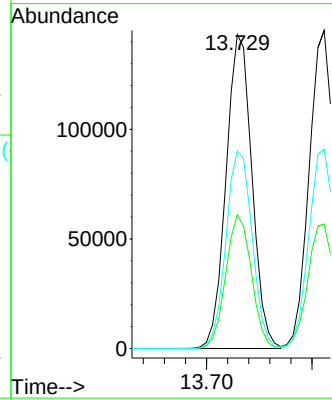
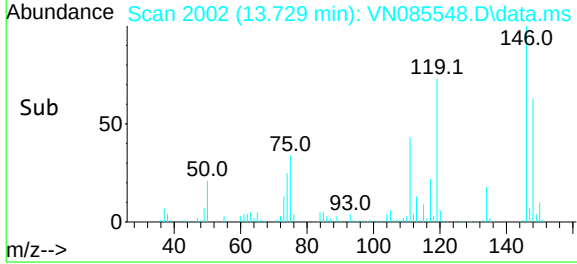
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion:146 Resp: 244334  
Ion Ratio Lower Upper  
146 100  
111 42.1 21.4 64.3  
148 63.9 32.3 96.9

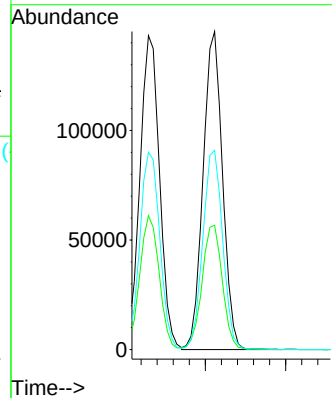
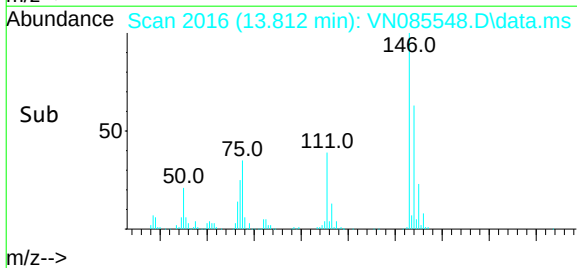
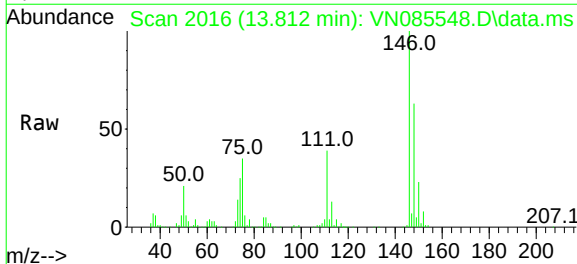
Manual Integrations  
APPROVED

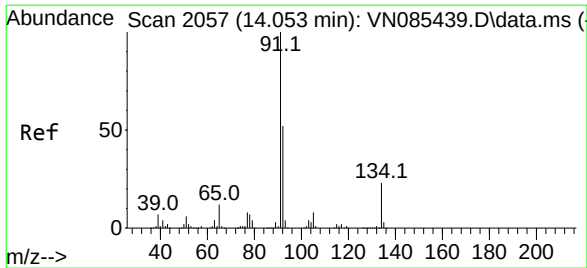
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



1,4-Dichlorobenzene  
Concen: 48.599 ug/l  
RT: 13.812 min Scan# 2016  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Tgt Ion:146 Resp: 243977  
Ion Ratio Lower Upper  
146 100  
111 40.5 21.3 63.7  
148 64.2 32.4 97.0





#89

n-Butylbenzene

Concen: 53.564 ug/l

RT: 14.053 min Scan# 2057

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 91 Resp: 371878

Ion Ratio Lower Upper

91 100

92 51.0 25.8 77.3

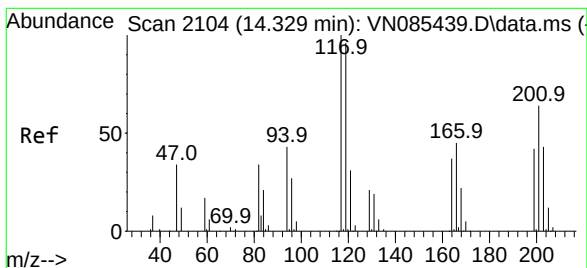
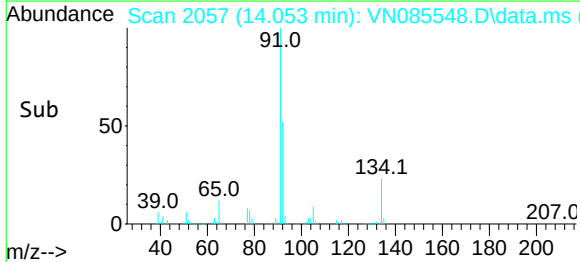
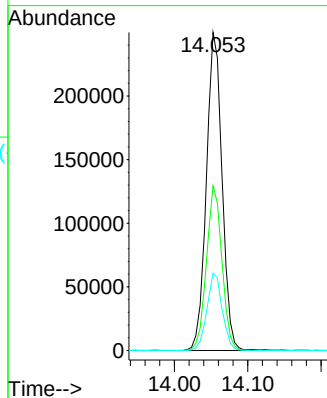
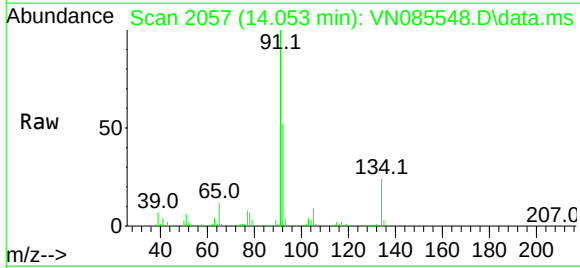
134 23.7 11.7 35.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#90

Hexachloroethane

Concen: 47.686 ug/l

RT: 14.335 min Scan# 2105

Delta R.T. 0.006 min

Lab File: VN085548.D

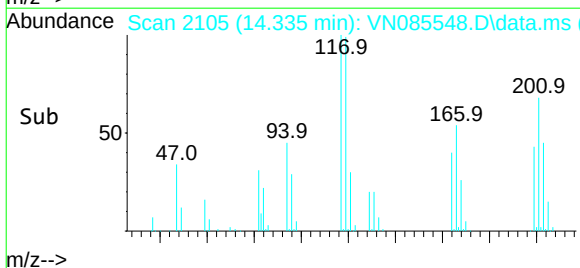
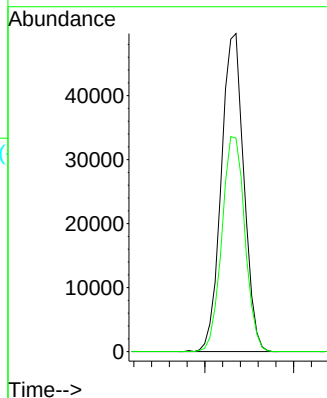
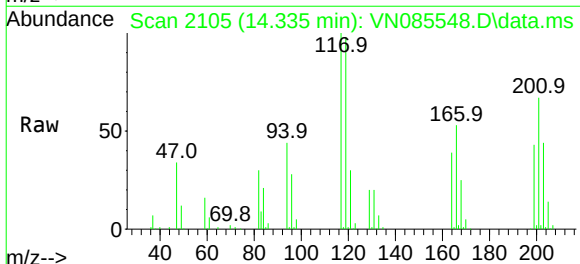
Acq: 29 Jan 2025 11:08

Tgt Ion:117 Resp: 87853

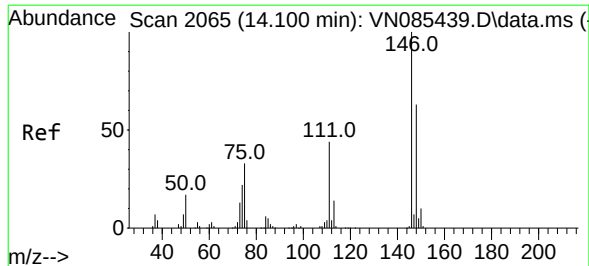
Ion Ratio Lower Upper

117 100

201 68.6 33.7 101.0

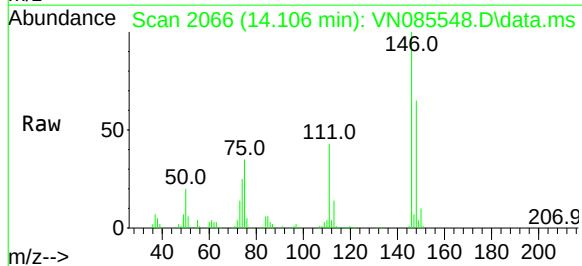






#91  
1,2-Dichlorobenzene  
Concen: 48.734 ug/l  
RT: 14.106 min Scan# 2065  
Delta R.T. 0.006 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

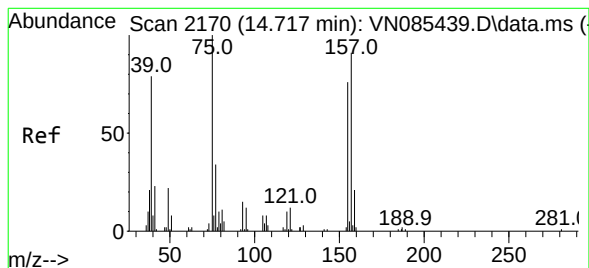
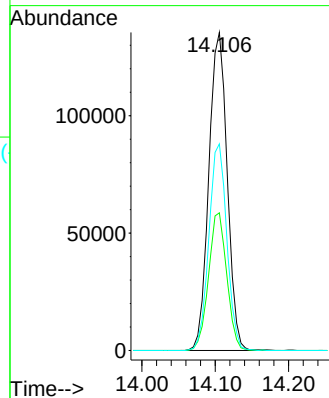
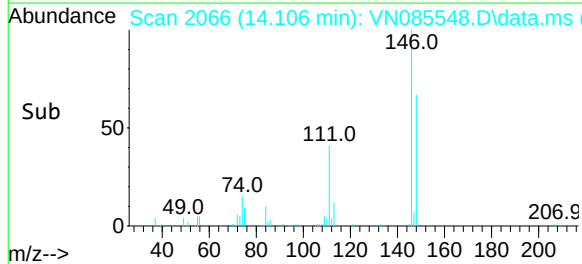
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 146 Resp: 235437  
Ion Ratio Lower Upper  
146 100  
111 43.0 21.7 65.1  
148 63.5 31.4 94.2

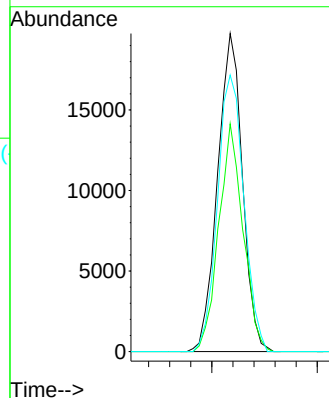
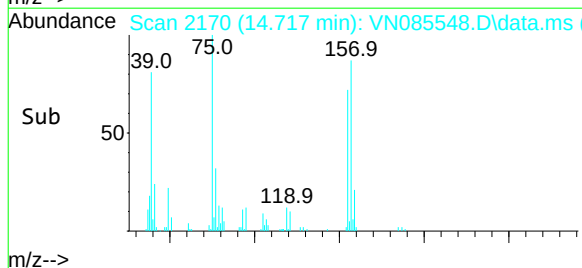
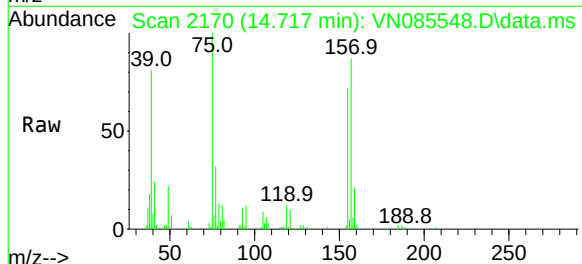
Manual Integrations  
APPROVED

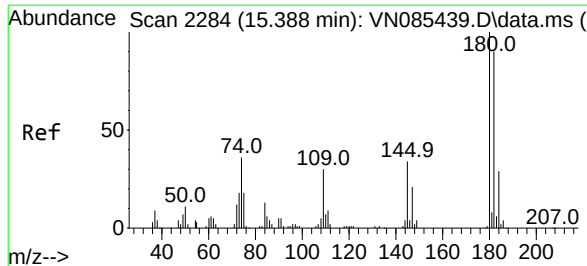
Reviewed By : John Carlone 01/30/2025  
Supervised By : Mahesh Dadoda 01/30/2025



#92  
1,2-Dibromo-3-Chloropropane  
Concen: 49.766 ug/l  
RT: 14.717 min Scan# 2170  
Delta R.T. -0.000 min  
Lab File: VN085548.D  
Acq: 29 Jan 2025 11:08

Tgt Ion: 75 Resp: 32314  
Ion Ratio Lower Upper  
75 100  
155 70.0 36.4 109.2  
157 92.2 45.4 136.1





#93

1,2,4-Trichlorobenzene

Concen: 50.178 ug/l

RT: 15.394 min Scan# 2284

Delta R.T. 0.006 min

Lab File: VN085548.D

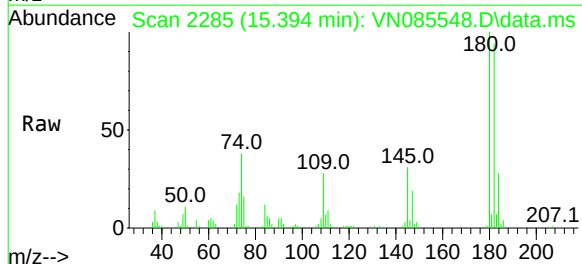
Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050



Tgt Ion:180 Resp: 112668

Ion Ratio Lower Upper

180 100

182 93.1 46.8 140.3

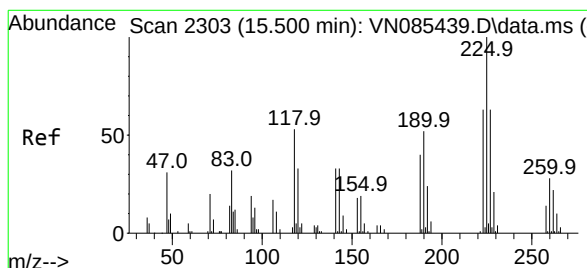
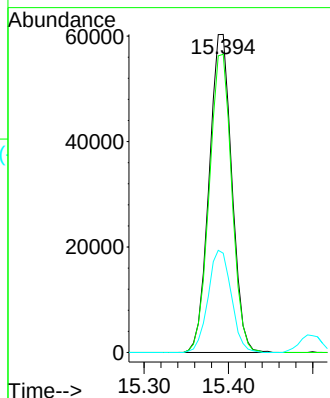
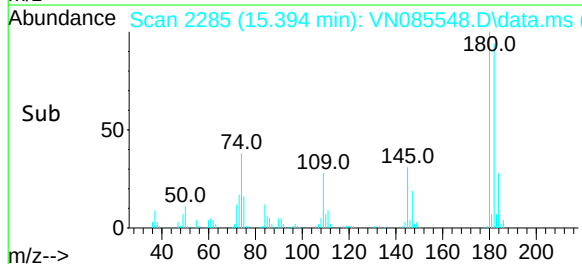
145 32.9 16.0 48.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#94

Hexachlorobutadiene

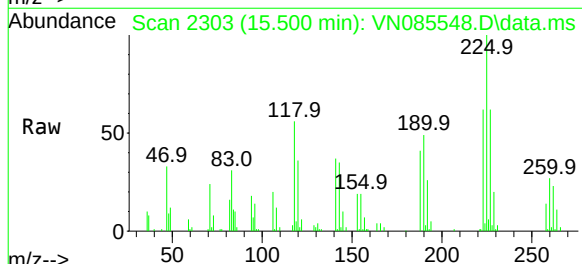
Concen: 47.301 ug/l

RT: 15.500 min Scan# 2303

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08



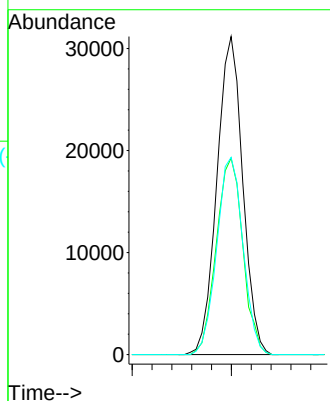
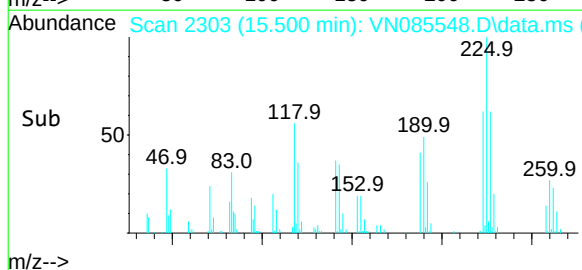
Tgt Ion:225 Resp: 56387

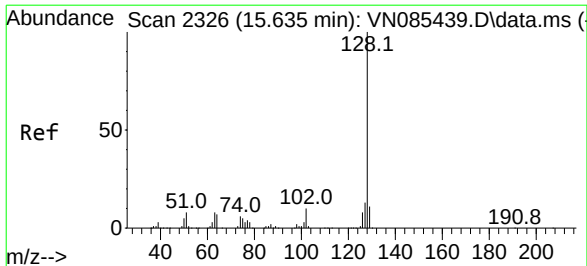
Ion Ratio Lower Upper

225 100

223 63.3 30.7 92.1

227 62.9 30.9 92.5





#95

Naphthalene

Concen: 49.863 ug/l

RT: 15.641 min Scan# 2326

Delta R.T. 0.006 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:128 Resp: 334098

Ion Ratio Lower Upper

128 100

127 13.3 10.6 16.0

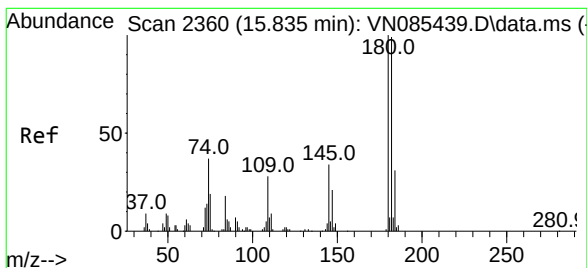
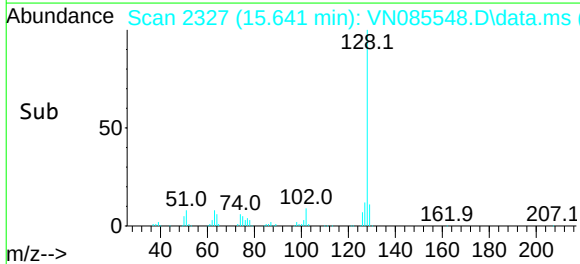
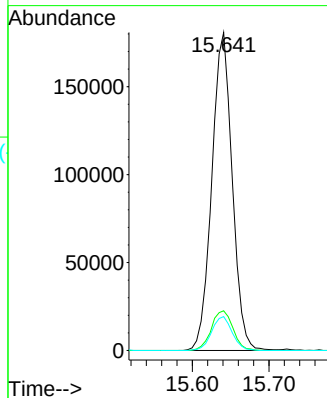
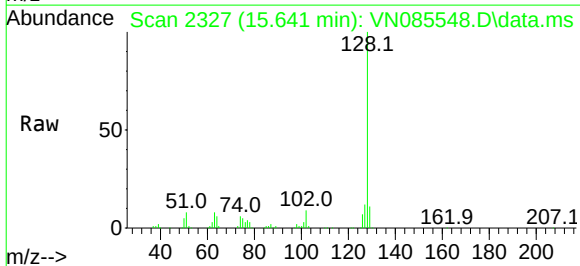
129 10.7 8.8 13.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#96

1,2,3-Trichlorobenzene

Concen: 48.924 ug/l

RT: 15.835 min Scan# 2360

Delta R.T. -0.000 min

Lab File: VN085548.D

Acq: 29 Jan 2025 11:08

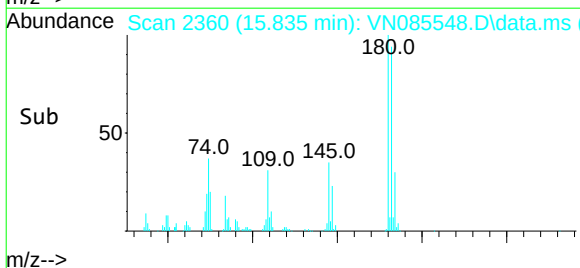
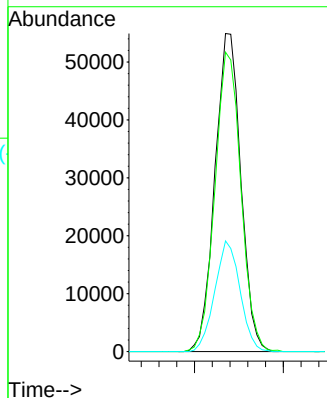
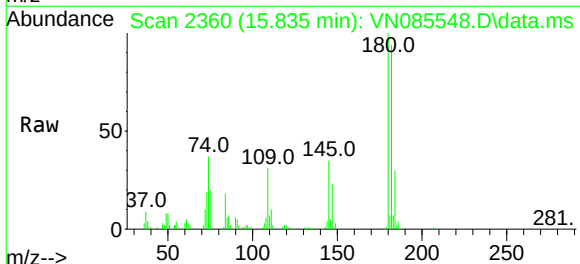
Tgt Ion:180 Resp: 111153

Ion Ratio Lower Upper

180 100

182 94.6 47.4 142.2

145 33.9 16.9 50.7



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085548.D  
 Acq On : 29 Jan 2025 11:08  
 Operator : JC\MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 LabSampleId :  
 VSTDCCC050

Quant Time: Jan 30 00:29:17 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 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   | Pentafluorobenzene          | 1.000 | 1.000 | 0.0   | 96    | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 0.677 | 0.586 | 13.4  | 89    | 0.00     |
| 3 P   | Chloromethane               | 0.733 | 0.603 | 17.7  | 85    | 0.00     |
| 4 C   | Vinyl Chloride              | 0.737 | 0.641 | 13.0# | 89    | 0.00     |
| 5 T   | Bromomethane                | 0.445 | 0.377 | 15.3  | 87    | 0.00     |
| 6 T   | Chloroethane                | 0.467 | 0.419 | 10.3  | 95    | 0.00     |
| 7 T   | Trichlorofluoromethane      | 1.069 | 1.025 | 4.1   | 98    | 0.00     |
| 8 T   | Diethyl Ether               | 0.369 | 0.338 | 8.4   | 90    | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 0.602 | 0.606 | -0.7  | 107   | 0.00     |
| 10 T  | Methyl Iodide               | 0.690 | 0.654 | 5.2   | 87    | 0.00     |
| 11 T  | Tert butyl alcohol          | 0.092 | 0.108 | -17.4 | 111   | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 0.537 | 0.511 | 4.8#  | 92    | 0.00     |
| 13 T  | Acrolein                    | 0.126 | 0.113 | 10.3  | 77    | 0.00     |
| 14 T  | Allyl chloride              | 0.871 | 0.810 | 7.0   | 92    | 0.00     |
| 15 T  | Acrylonitrile               | 0.294 | 0.309 | -5.1  | 99    | 0.00     |
| 16 T  | Acetone                     | 0.261 | 0.264 | -1.1  | 100   | 0.00     |
| 17 T  | Carbon Disulfide            | 1.652 | 1.295 | 21.6  | 84    | 0.00     |
| 18 T  | Methyl Acetate              | 0.793 | 0.875 | -10.3 | 106   | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 1.742 | 1.848 | -6.1  | 94    | 0.00     |
| 20 T  | Methylene Chloride          | 0.646 | 0.619 | 4.2   | 94    | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 0.573 | 0.542 | 5.4   | 93    | 0.00     |
| 22 T  | Diisopropyl ether           | 1.933 | 2.038 | -5.4  | 96    | 0.00     |
| 23 T  | Vinyl Acetate               | 1.353 | 1.451 | -7.2  | 93    | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 1.178 | 1.175 | 0.3   | 96    | 0.00     |
| 25 T  | 2-Butanone                  | 0.384 | 0.403 | -4.9  | 99    | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 0.953 | 1.057 | -10.9 | 108   | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 0.675 | 0.686 | -1.6  | 96    | 0.00     |
| 28 T  | Bromochloromethane          | 0.548 | 0.492 | 10.2  | 87    | 0.00     |
| 29 T  | Tetrahydrofuran             | 0.243 | 0.268 | -10.3 | 99    | 0.00     |
| 30 C  | Chloroform                  | 1.218 | 1.236 | -1.5# | 101   | 0.00     |
| 31 T  | Cyclohexane                 | 1.024 | 0.896 | 12.5  | 97    | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 1.068 | 1.079 | -1.0  | 102   | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 0.807 | 0.877 | -8.7  | 101   | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 1.000 | 1.000 | 0.0   | 93    | 0.00     |
| 35 S  | Dibromofluoromethane        | 0.347 | 0.387 | -11.5 | 100   | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 0.487 | 0.484 | 0.6   | 97    | 0.00     |
| 37 T  | Ethyl Acetate               | 0.491 | 0.498 | -1.4  | 94    | 0.00     |
| 38 T  | Carbon Tetrachloride        | 0.557 | 0.568 | -2.0  | 99    | 0.00     |
| 39 T  | Methylcyclohexane           | 0.457 | 0.464 | -1.5  | 93    | 0.00     |
| 40 TM | Benzene                     | 1.463 | 1.501 | -2.6  | 96    | 0.00     |
| 41 T  | Methacrylonitrile           | 0.256 | 0.279 | -9.0  | 96    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 0.551 | 0.584 | -6.0  | 99    | 0.00     |
| 43 T  | Isopropyl Acetate           | 0.787 | 0.844 | -7.2  | 96    | 0.00     |
| 44 TM | Trichloroethene             | 0.341 | 0.338 | 0.9   | 97    | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 0.374 | 0.394 | -5.3# | 98    | 0.00     |
| 46 T  | Dibromomethane              | 0.270 | 0.274 | -1.5  | 95    | 0.00     |
| 47 T  | Bromodichloromethane        | 0.549 | 0.604 | -10.0 | 100   | 0.00     |
| 48 T  | Methyl methacrylate         | 0.354 | 0.401 | -13.3 | 95    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085548.D  
 Acq On : 29 Jan 2025 11:08  
 Operator : JC\MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 LabSampleId :  
 VSTDCCC050

Quant Time: Jan 30 00:29:17 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 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) |
|-------|-----------------------------|-------|-------|-------|-------|----------|
| 49 T  | 1,4-Dioxane                 | 0.006 | 0.007 | -16.7 | 98    | 0.00     |
| 50 S  | Toluene-d8                  | 1.232 | 1.409 | -14.4 | 103   | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 0.457 | 0.535 | -17.1 | 101   | 0.00     |
| 52 CM | Toluene                     | 0.848 | 0.924 | -9.0# | 98    | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 0.519 | 0.574 | -10.6 | 96    | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 0.554 | 0.612 | -10.5 | 96    | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 0.335 | 0.366 | -9.3  | 100   | 0.00     |
| 56 T  | Ethyl methacrylate          | 0.469 | 0.563 | -20.0 | 96    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 0.583 | 0.637 | -9.3  | 98    | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 0.213 | 0.237 | -11.3 | 91    | 0.00     |
| 59 T  | 2-Hexanone                  | 0.321 | 0.383 | -19.3 | 99    | 0.00     |
| 60 T  | Dibromochloromethane        | 0.405 | 0.448 | -10.6 | 100   | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 0.334 | 0.358 | -7.2  | 99    | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 0.422 | 0.503 | -19.2 | 104   | 0.00     |
| 63 I  | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0   | 96    | 0.00     |
| 64 T  | Tetrachloroethene           | 0.341 | 0.339 | 0.6   | 101   | 0.00     |
| 65 PM | Chlorobenzene               | 1.095 | 1.109 | -1.3  | 99    | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 0.402 | 0.416 | -3.5  | 102   | 0.00     |
| 67 C  | Ethyl Benzene               | 1.784 | 1.952 | -9.4# | 101   | 0.00     |
| 68 T  | m/p-Xylenes                 | 0.659 | 0.749 | -13.7 | 102   | 0.00     |
| 69 T  | o-Xylene                    | 0.630 | 0.705 | -11.9 | 99    | 0.00     |
| 70 T  | Styrene                     | 1.043 | 1.236 | -18.5 | 101   | 0.00     |
| 71 P  | Bromoform                   | 0.288 | 0.323 | -12.2 | 100   | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0   | 102   | 0.00     |
| 73 T  | Isopropylbenzene            | 3.375 | 3.488 | -3.3  | 103   | 0.00     |
| 74 T  | N-amyl acetate              | 1.517 | 1.560 | -2.8  | 98    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 1.192 | 1.152 | 3.4   | 102   | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 1.016 | 0.930 | 8.5   | 106   | 0.00     |
| 77 T  | Bromobenzene                | 0.882 | 0.866 | 1.8   | 103   | 0.00     |
| 78 T  | n-propylbenzene             | 3.995 | 4.255 | -6.5  | 104   | 0.00     |
| 79 T  | 2-Chlorotoluene             | 2.586 | 2.576 | 0.4   | 101   | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 2.787 | 3.010 | -8.0  | 104   | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 0.376 | 0.408 | -8.5  | 106   | 0.00     |
| 82 T  | 4-Chlorotoluene             | 2.574 | 2.649 | -2.9  | 104   | 0.00     |
| 83 T  | tert-Butylbenzene           | 2.341 | 2.404 | -2.7  | 100   | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 2.778 | 3.051 | -9.8  | 103   | 0.00     |
| 85 T  | sec-Butylbenzene            | 3.244 | 3.498 | -7.8  | 104   | 0.00     |
| 86 T  | p-Isopropyltoluene          | 2.631 | 2.911 | -10.6 | 103   | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 1.624 | 1.638 | -0.9  | 106   | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 1.683 | 1.636 | 2.8   | 107   | 0.00     |
| 89 T  | n-Butylbenzene              | 2.327 | 2.493 | -7.1  | 102   | 0.00     |
| 90 T  | Hexachloroethane            | 0.618 | 0.589 | 4.7   | 104   | 0.00     |
| 91 T  | 1,2-Dichlorobenzene         | 1.620 | 1.579 | 2.5   | 103   | 0.00     |
| 92 T  | 1,2-Dibromo-3-Chloropropane | 0.218 | 0.217 | 0.5   | 99    | 0.00     |
| 93 T  | 1,2,4-Trichlorobenzene      | 0.753 | 0.755 | -0.3  | 98    | 0.00     |
| 94 T  | Hexachlorobutadiene         | 0.400 | 0.378 | 5.5   | 105   | 0.00     |
| 95 T  | Naphthalene                 | 2.246 | 2.240 | 0.3   | 92    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085548.D  
Acq On : 29 Jan 2025 11:08  
Operator : JC\MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
LabSampleId :  
VSTDCCC050

Quant Time: Jan 30 00:29:17 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 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) |
|------|------------------------|-------|-------|------|-------|----------|
| 96 T | 1,2,3-Trichlorobenzene | 0.762 | 0.745 | 2.2  | 96    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085548.D  
 Acq On : 29 Jan 2025 11:08  
 Operator : JC\MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 LabSampleId :  
 VSTDCCC050

Quant Time: Jan 30 00:29:17 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 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   | Pentafluorobenzene          | 50.000  | 50.000  | 0.0   | 96    | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 50.000  | 43.304  | 13.4  | 89    | 0.00     |
| 3 P   | Chloromethane               | 50.000  | 41.143  | 17.7  | 85    | 0.00     |
| 4 C   | Vinyl Chloride              | 50.000  | 43.501  | 13.0# | 89    | 0.00     |
| 5 T   | Bromomethane                | 50.000  | 42.389  | 15.2  | 87    | 0.00     |
| 6 T   | Chloroethane                | 50.000  | 44.845  | 10.3  | 95    | 0.00     |
| 7 T   | Trichlorofluoromethane      | 50.000  | 47.949  | 4.1   | 98    | 0.00     |
| 8 T   | Diethyl Ether               | 50.000  | 45.779  | 8.4   | 90    | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 50.000  | 50.319  | -0.6  | 107   | 0.00     |
| 10 T  | Methyl Iodide               | 50.000  | 47.406  | 5.2   | 87    | 0.00     |
| 11 T  | Tert butyl alcohol          | 250.000 | 291.560 | -16.6 | 111   | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 50.000  | 47.653  | 4.7#  | 92    | 0.00     |
| 13 T  | Acrolein                    | 250.000 | 223.391 | 10.6  | 77    | 0.00     |
| 14 T  | Allyl chloride              | 50.000  | 46.516  | 7.0   | 92    | 0.00     |
| 15 T  | Acrylonitrile               | 250.000 | 263.192 | -5.3  | 99    | 0.00     |
| 16 T  | Acetone                     | 250.000 | 252.657 | -1.1  | 100   | 0.00     |
| 17 T  | Carbon Disulfide            | 50.000  | 39.180  | 21.6  | 84    | 0.00     |
| 18 T  | Methyl Acetate              | 50.000  | 55.159  | -10.3 | 106   | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 50.000  | 53.017  | -6.0  | 94    | 0.00     |
| 20 T  | Methylene Chloride          | 50.000  | 47.903  | 4.2   | 94    | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 50.000  | 47.247  | 5.5   | 93    | 0.00     |
| 22 T  | Diisopropyl ether           | 50.000  | 52.726  | -5.5  | 96    | 0.00     |
| 23 T  | Vinyl Acetate               | 250.000 | 268.154 | -7.3  | 93    | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 50.000  | 49.838  | 0.3   | 96    | 0.00     |
| 25 T  | 2-Butanone                  | 250.000 | 262.309 | -4.9  | 99    | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 50.000  | 55.483  | -11.0 | 108   | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 50.000  | 50.778  | -1.6  | 96    | 0.00     |
| 28 T  | Bromochloromethane          | 50.000  | 44.872  | 10.3  | 87    | 0.00     |
| 29 T  | Tetrahydrofuran             | 250.000 | 275.413 | -10.2 | 99    | 0.00     |
| 30 C  | Chloroform                  | 50.000  | 50.743  | -1.5# | 101   | 0.00     |
| 31 T  | Cyclohexane                 | 50.000  | 43.741  | 12.5  | 97    | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 50.000  | 50.496  | -1.0  | 102   | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 50.000  | 54.332  | -8.7  | 101   | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 50.000  | 50.000  | 0.0   | 93    | 0.00     |
| 35 S  | Dibromofluoromethane        | 50.000  | 55.762  | -11.5 | 100   | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 50.000  | 49.744  | 0.5   | 97    | 0.00     |
| 37 T  | Ethyl Acetate               | 50.000  | 50.645  | -1.3  | 94    | 0.00     |
| 38 T  | Carbon Tetrachloride        | 50.000  | 50.934  | -1.9  | 99    | 0.00     |
| 39 T  | Methylcyclohexane           | 50.000  | 50.729  | -1.5  | 93    | 0.00     |
| 40 TM | Benzene                     | 50.000  | 51.295  | -2.6  | 96    | 0.00     |
| 41 T  | Methacrylonitrile           | 50.000  | 54.633  | -9.3  | 96    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 50.000  | 52.978  | -6.0  | 99    | 0.00     |
| 43 T  | Isopropyl Acetate           | 50.000  | 53.590  | -7.2  | 96    | 0.00     |
| 44 TM | Trichloroethene             | 50.000  | 49.626  | 0.7   | 97    | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 50.000  | 52.676  | -5.4# | 98    | 0.00     |
| 46 T  | Dibromomethane              | 50.000  | 50.807  | -1.6  | 95    | 0.00     |
| 47 T  | Bromodichloromethane        | 50.000  | 55.019  | -10.0 | 100   | 0.00     |
| 48 T  | Methyl methacrylate         | 50.000  | 56.527  | -13.1 | 95    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085548.D  
 Acq On : 29 Jan 2025 11:08  
 Operator : JC\MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 LabSampleId :  
 VSTDCCC050

Quant Time: Jan 30 00:29:17 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 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) |
|-------|-----------------------------|----------|----------|-------|-------|----------|
| 49 T  | 1,4-Dioxane                 | 1000.000 | 1118.996 | -11.9 | 98    | 0.00     |
| 50 S  | Toluene-d8                  | 50.000   | 57.152   | -14.3 | 103   | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 250.000  | 292.481  | -17.0 | 101   | 0.00     |
| 52 CM | Toluene                     | 50.000   | 54.537   | -9.1# | 98    | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 50.000   | 55.275   | -10.5 | 96    | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 50.000   | 55.213   | -10.4 | 96    | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 50.000   | 54.555   | -9.1  | 100   | 0.00     |
| 56 T  | Ethyl methacrylate          | 50.000   | 49.794   | 0.4   | 96    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 50.000   | 54.627   | -9.3  | 98    | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 250.000  | 278.738  | -11.5 | 91    | 0.00     |
| 59 T  | 2-Hexanone                  | 250.000  | 297.473  | -19.0 | 99    | 0.00     |
| 60 T  | Dibromochloromethane        | 50.000   | 55.280   | -10.6 | 100   | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 50.000   | 53.622   | -7.2  | 99    | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 50.000   | 59.631   | -19.3 | 104   | 0.00     |
| 63 I  | Chlorobenzene-d5            | 50.000   | 50.000   | 0.0   | 96    | 0.00     |
| 64 T  | Tetrachloroethene           | 50.000   | 49.798   | 0.4   | 101   | 0.00     |
| 65 PM | Chlorobenzene               | 50.000   | 50.625   | -1.3  | 99    | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 50.000   | 51.774   | -3.5  | 102   | 0.00     |
| 67 C  | Ethyl Benzene               | 50.000   | 54.719   | -9.4# | 101   | 0.00     |
| 68 T  | m/p-Xylenes                 | 100.000  | 113.620  | -13.6 | 102   | 0.00     |
| 69 T  | o-Xylene                    | 50.000   | 55.920   | -11.8 | 99    | 0.00     |
| 70 T  | Styrene                     | 50.000   | 59.242   | -18.5 | 101   | 0.00     |
| 71 P  | Bromoform                   | 50.000   | 56.158   | -12.3 | 100   | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 50.000   | 50.000   | 0.0   | 102   | 0.00     |
| 73 T  | Isopropylbenzene            | 50.000   | 51.684   | -3.4  | 103   | 0.00     |
| 74 T  | N-amyl acetate              | 50.000   | 51.416   | -2.8  | 98    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 50.000   | 48.312   | 3.4   | 102   | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 50.000   | 45.756   | 8.5   | 106   | 0.00     |
| 77 T  | Bromobenzene                | 50.000   | 49.135   | 1.7   | 103   | 0.00     |
| 78 T  | n-propylbenzene             | 50.000   | 53.259   | -6.5  | 104   | 0.00     |
| 79 T  | 2-Chlorotoluene             | 50.000   | 49.816   | 0.4   | 101   | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 50.000   | 53.997   | -8.0  | 104   | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 50.000   | 54.293   | -8.6  | 106   | 0.00     |
| 82 T  | 4-Chlorotoluene             | 50.000   | 51.449   | -2.9  | 104   | 0.00     |
| 83 T  | tert-Butylbenzene           | 50.000   | 51.344   | -2.7  | 100   | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 50.000   | 54.905   | -9.8  | 103   | 0.00     |
| 85 T  | sec-Butylbenzene            | 50.000   | 53.917   | -7.8  | 104   | 0.00     |
| 86 T  | p-Isopropyltoluene          | 50.000   | 49.847   | 0.3   | 103   | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 50.000   | 50.447   | -0.9  | 106   | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 50.000   | 48.599   | 2.8   | 107   | 0.00     |
| 89 T  | n-Butylbenzene              | 50.000   | 53.564   | -7.1  | 102   | 0.00     |
| 90 T  | Hexachloroethane            | 50.000   | 47.686   | 4.6   | 104   | 0.00     |
| 91 T  | 1,2-Dichlorobenzene         | 50.000   | 48.734   | 2.5   | 103   | 0.00     |
| 92 T  | 1,2-Dibromo-3-Chloropropane | 50.000   | 49.766   | 0.5   | 99    | 0.00     |
| 93 T  | 1,2,4-Trichlorobenzene      | 50.000   | 50.178   | -0.4  | 98    | 0.00     |
| 94 T  | Hexachlorobutadiene         | 50.000   | 47.301   | 5.4   | 105   | 0.00     |
| 95 T  | Naphthalene                 | 50.000   | 49.863   | 0.3   | 92    | 0.00     |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085548.D  
Acq On : 29 Jan 2025 11:08  
Operator : JC\MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
LabSampleId :  
VSTDCCC050

Quant Time: Jan 30 00:29:17 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 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) |
|------|------------------------|--------|--------|------|-------|----------|
| 96 T | 1,2,3-Trichlorobenzene | 50.000 | 48.924 | 2.2  | 96    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 6



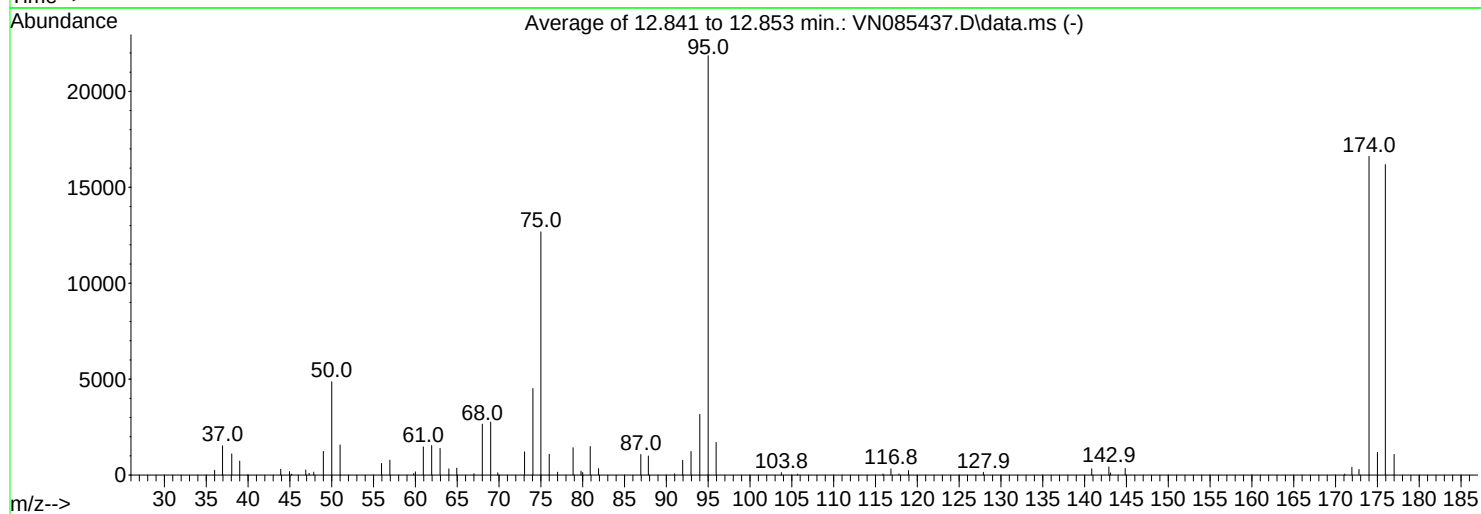
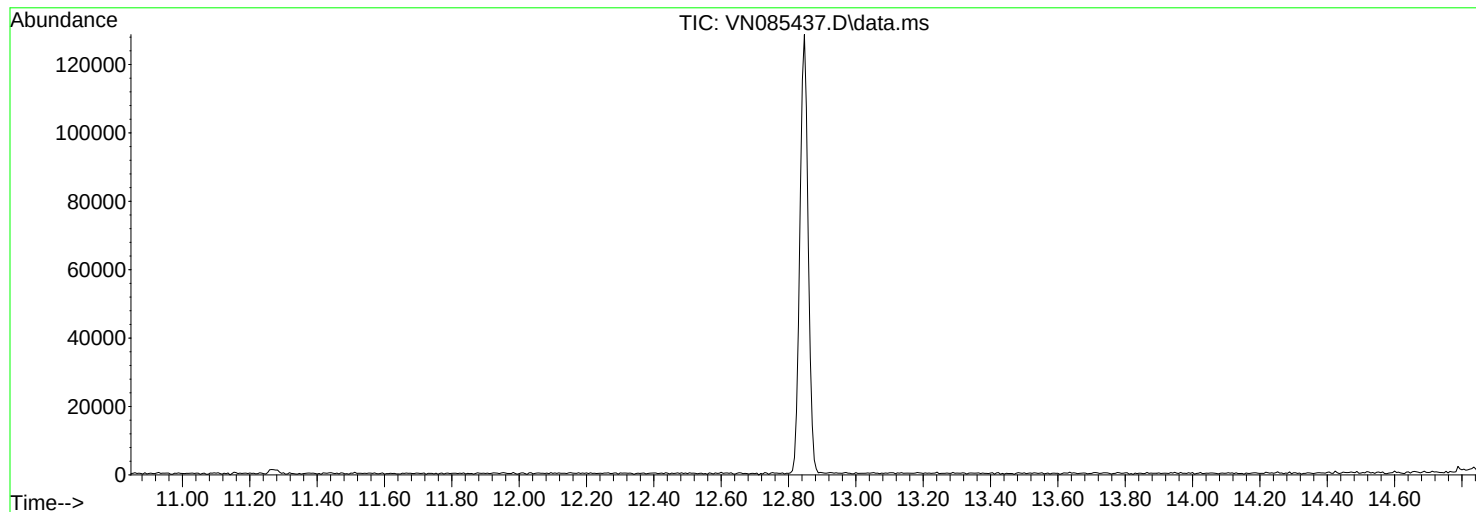
# QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN011425\  
Data File : VN085437.D  
Acq On : 14 Jan 2025 14:22  
Operator : JC\MD  
Sample : BFB  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Title : SW846 8260  
Last Update : Wed Jan 15 02:16:08 2025



AutoFind: Scans 1851, 1852, 1853; Background Corrected with Scan 1843

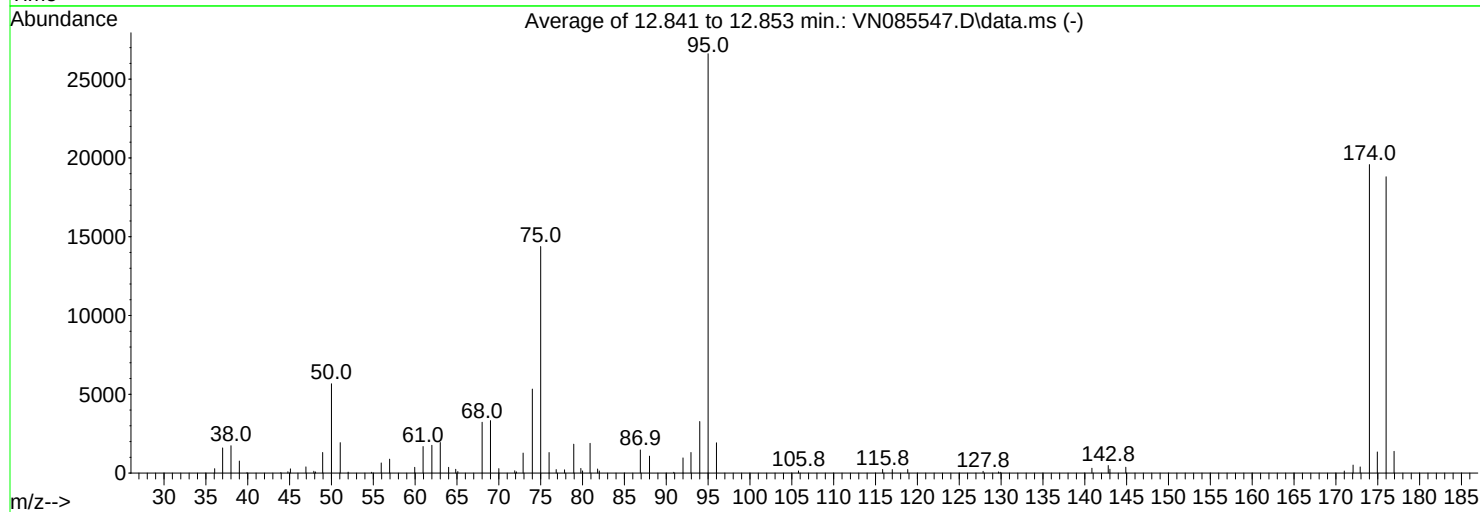
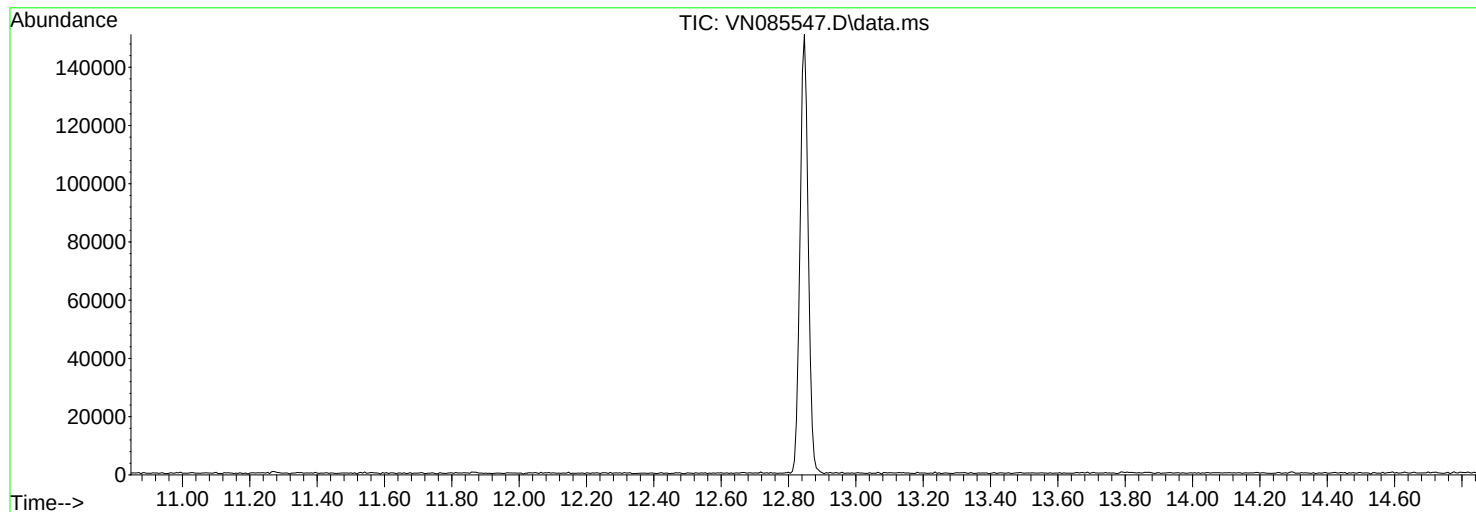
| Target<br>Mass | Rel. to<br>Mass | Lower<br>Limit% | Upper<br>Limit% | Rel.<br>Abn% | Raw<br>Abn | Result<br>Pass/Fail |
|----------------|-----------------|-----------------|-----------------|--------------|------------|---------------------|
| 50             | 95              | 15              | 40              | 22.3         | 4864       | PASS                |
| 75             | 95              | 30              | 60              | 58.0         | 12679      | PASS                |
| 95             | 95              | 100             | 100             | 100.0        | 21856      | PASS                |
| 96             | 95              | 5               | 9               | 7.8          | 1703       | PASS                |
| 173            | 174             | 0.00            | 2               | 1.8          | 296        | PASS                |
| 174            | 95              | 50              | 100             | 76.0         | 16613      | PASS                |
| 175            | 174             | 5               | 9               | 7.1          | 1179       | PASS                |
| 176            | 174             | 95              | 101             | 97.4         | 16185      | PASS                |
| 177            | 176             | 5               | 9               | 6.7          | 1079       | PASS                |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085547.D  
Acq On : 29 Jan 2025 10:35  
Operator : JC\MD  
Sample : BFB  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Title : SW846 8260  
Last Update : Wed Jan 15 02:16:08 2025



AutoFind: Scans 1851, 1852, 1853; Background Corrected with Scan 1843

| Target<br>Mass | Rel. to<br>Mass | Lower<br>Limit% | Upper<br>Limit% | Rel.<br>Abn% | Raw<br>Abn | Result<br>Pass/Fail |
|----------------|-----------------|-----------------|-----------------|--------------|------------|---------------------|
| 50             | 95              | 15              | 40              | 21.3         | 5669       | PASS                |
| 75             | 95              | 30              | 60              | 54.0         | 14378      | PASS                |
| 95             | 95              | 100             | 100             | 100.0        | 26613      | PASS                |
| 96             | 95              | 5               | 9               | 7.2          | 1922       | PASS                |
| 173            | 174             | 0.00            | 2               | 2.0          | 389        | PASS                |
| 174            | 95              | 50              | 100             | 73.6         | 19579      | PASS                |
| 175            | 174             | 5               | 9               | 6.8          | 1340       | PASS                |
| 176            | 174             | 95              | 101             | 96.0         | 18805      | PASS                |
| 177            | 176             | 5               | 9               | 7.3          | 1380       | PASS                |

## Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | RU2 Engineering, LLC                  | Date Collected: |              |
| Project:           | NYCDDC SANTWOBR Brooklyn Bridge BBMCR | Date Received:  |              |
| Client Sample ID:  | VN0129WBL01                           | SDG No.:        | Q1207        |
| Lab Sample ID:     | VN0129WBL01                           | Matrix:         | TCLP         |
| Analytical Method: | SW8260                                | % Solid:        | 0            |
| Sample Wt/Vol:     | 5      Units:    mL                   | Final Vol:      | 5000      uL |
| Soil Aliquot Vol:  | uL                                    | Test:           | TCLP VOA     |
| GC Column:         | RXI-624      ID :    0.25             | Level :         | LOW          |
| Prep Method :      |                                       |                 |              |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN085550.D        | 1         |           | 01/29/25 12:06 | VN012925      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL      | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|----------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |          |            |         |
| 75-01-4                   | Vinyl Chloride         | 5.00   | U         | 0.34     | 5.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 5.00   | U         | 0.26     | 5.00       | ug/L    |
| 78-93-3                   | 2-Butanone             | 25.0   | U         | 1.30     | 25.0       | ug/L    |
| 56-23-5                   | Carbon Tetrachloride   | 5.00   | U         | 0.25     | 5.00       | ug/L    |
| 67-66-3                   | Chloroform             | 5.00   | U         | 0.26     | 5.00       | ug/L    |
| 71-43-2                   | Benzene                | 5.00   | U         | 0.16     | 5.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 5.00   | U         | 0.24     | 5.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 5.00   | U         | 0.32     | 5.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 5.00   | U         | 0.25     | 5.00       | ug/L    |
| 108-90-7                  | Chlorobenzene          | 5.00   | U         | 0.13     | 5.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |          |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 57.3   |           | 74 - 125 | 115%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 53.7   |           | 75 - 124 | 107%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 50.2   |           | 86 - 113 | 100%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 48.3   |           | 77 - 121 | 97%        | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |          |            |         |
| 363-72-4                  | Pentafluorobenzene     | 181000 | 8.224     |          |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 341000 | 9.1       |          |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 306000 | 11.865    |          |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 123000 | 13.788    |          |            |         |

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:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085550.D  
Acq On : 29 Jan 2025 12:06  
Operator : JC\MD  
Sample : VN0129WBL01  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBL01

Quant Time: Jan 30 01:17:57 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 180587   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 341456   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 305749   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.788 | 152  | 123478   | 50.000 | ug/l  | 0.00     |

|                             |        |                |          |        |          |      |
|-----------------------------|--------|----------------|----------|--------|----------|------|
| System Monitoring Compounds |        |                |          |        |          |      |
| 33) 1,2-Dichloroethane-d4   | 8.577  | 65             | 167019   | 57.295 | ug/l     | 0.00 |
| Spiked Amount               | 50.000 | Range 74 - 125 | Recovery | =      | 114.600% |      |
| 35) Dibromofluoromethane    | 8.165  | 113            | 127269   | 53.726 | ug/l     | 0.00 |
| Spiked Amount               | 50.000 | Range 75 - 124 | Recovery | =      | 107.460% |      |
| 50) Toluene-d8              | 10.565 | 98             | 422891   | 50.245 | ug/l     | 0.00 |
| Spiked Amount               | 50.000 | Range 86 - 113 | Recovery | =      | 100.500% |      |
| 62) 4-Bromofluorobenzene    | 12.847 | 95             | 139125   | 48.323 | ug/l     | 0.00 |
| Spiked Amount               | 50.000 | Range 77 - 121 | Recovery | =      | 96.640%  |      |

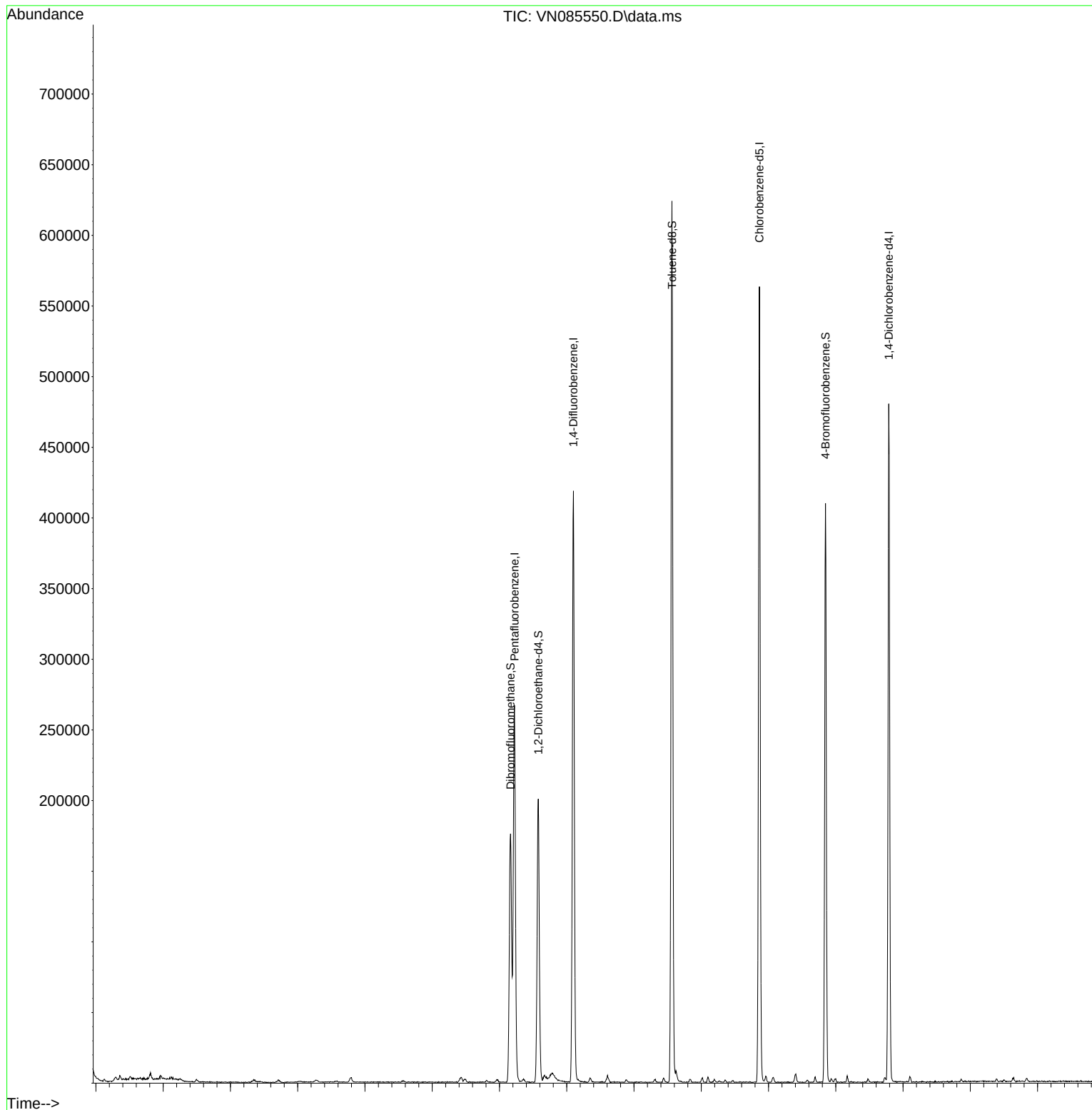
| Target Compounds | Qvalue |
|------------------|--------|
| -----            |        |

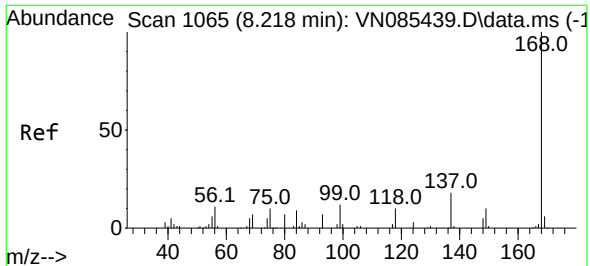
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085550.D  
Acq On : 29 Jan 2025 12:06  
Operator : JC\MD  
Sample : VN0129WBL01  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBL01

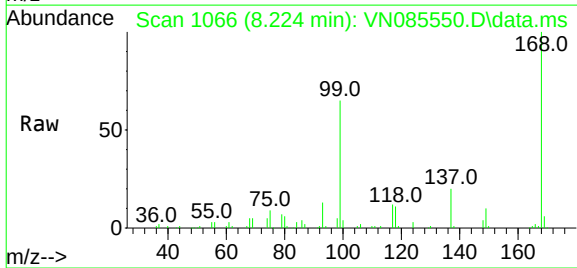
Quant Time: Jan 30 01:17:57 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration



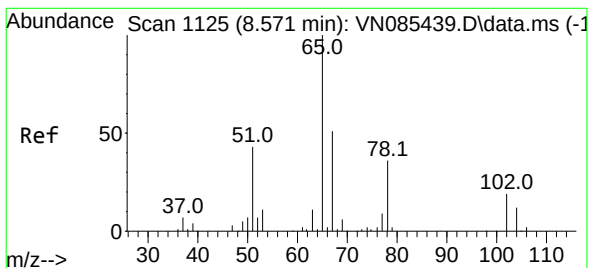
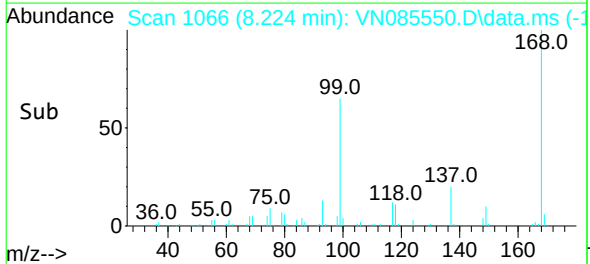
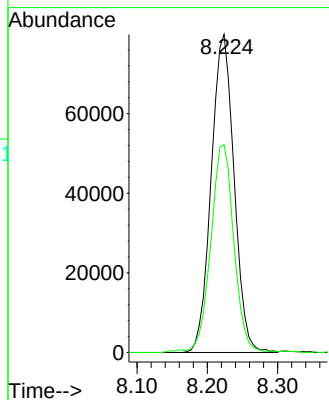


#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. 0.006 min  
Lab File: VN085550.D  
Acq: 29 Jan 2025 12:06

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBL01

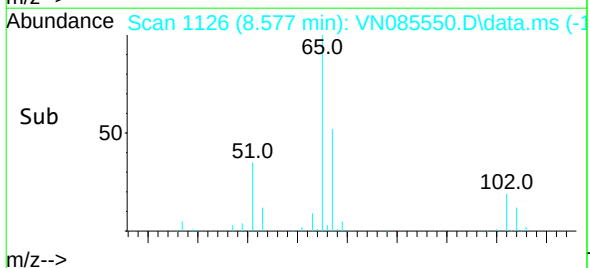
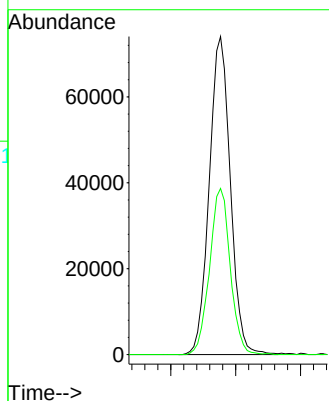
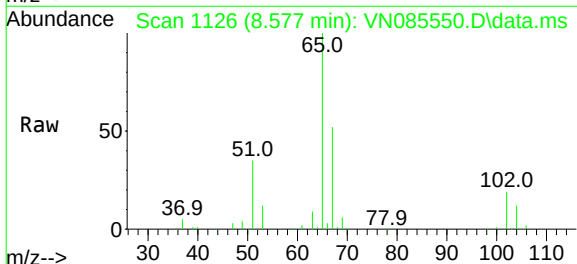


Tgt Ion:168 Resp: 180587  
Ion Ratio Lower Upper  
168 100  
99 65.1 53.6 80.4

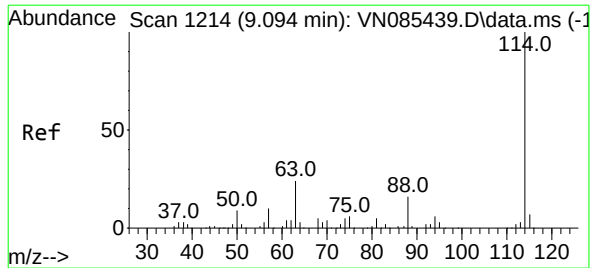


#33  
1,2-Dichloroethane-d4  
Concen: 57.295 ug/l  
RT: 8.577 min Scan# 1126  
Delta R.T. 0.006 min  
Lab File: VN085550.D  
Acq: 29 Jan 2025 12:06

Tgt Ion: 65 Resp: 167019  
Ion Ratio Lower Upper  
65 100  
67 51.1 0.0 101.6







#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1214

Delta R.T. 0.006 min

Lab File: VN085550.D

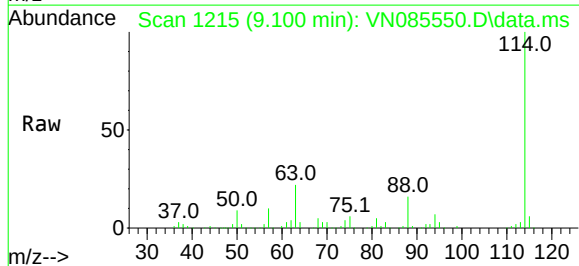
Acq: 29 Jan 2025 12:06

Instrument :

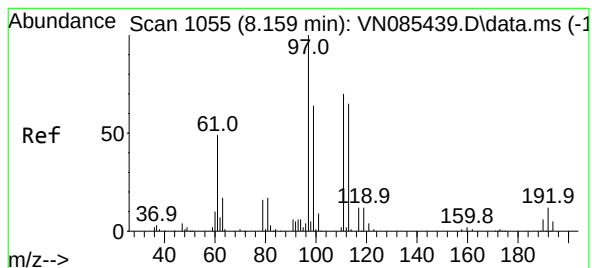
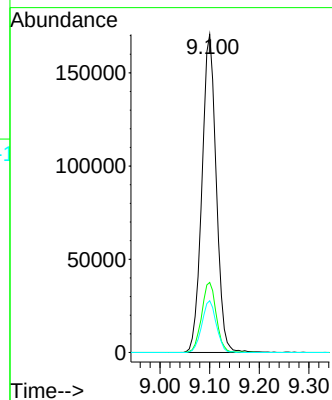
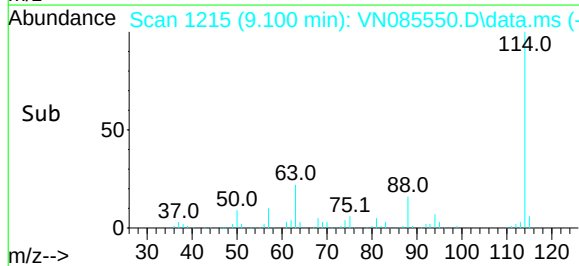
MSVOA\_N

ClientSampleId :

VN0129WBL01



|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 114   | Resp: | 341456 |
| Ion      | Ratio | Lower | Upper  |
| 114      | 100   |       |        |
| 63       | 22.0  | 0.0   | 47.6   |
| 88       | 16.3  | 0.0   | 32.6   |



#35

Dibromofluoromethane

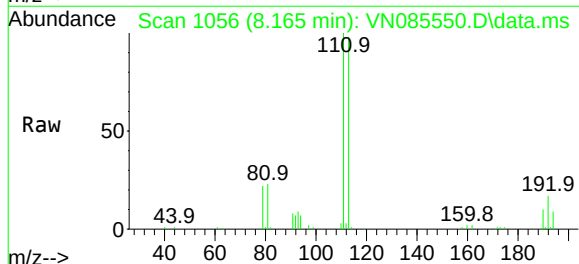
Concen: 53.726 ug/l

RT: 8.165 min Scan# 1056

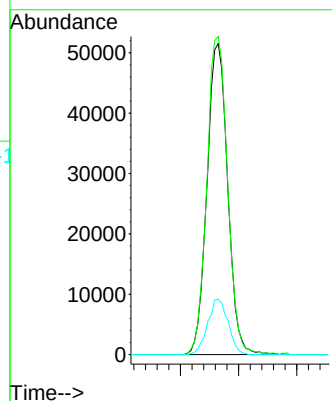
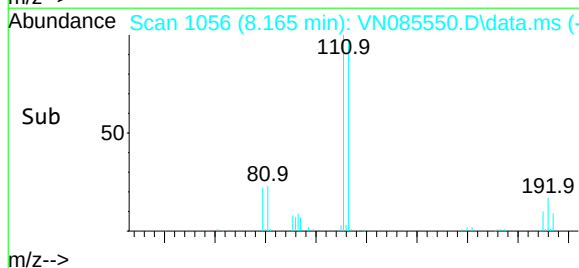
Delta R.T. 0.006 min

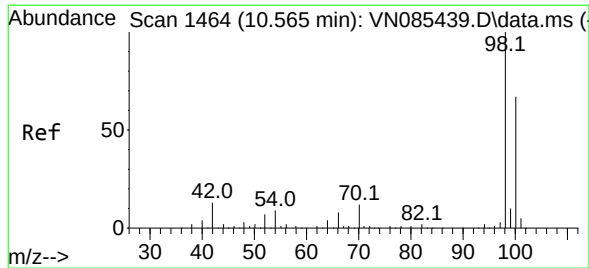
Lab File: VN085550.D

Acq: 29 Jan 2025 12:06



|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 113   | Resp: | 127269 |
| Ion      | Ratio | Lower | Upper  |
| 113      | 100   |       |        |
| 111      | 102.7 | 82.7  | 124.1  |
| 192      | 17.6  | 14.3  | 21.5   |





#50

Toluene-d8

Concen: 50.245 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. 0.000 min

Lab File: VN085550.D

Acq: 29 Jan 2025 12:06

Instrument :

MSVOA\_N

ClientSampleId :

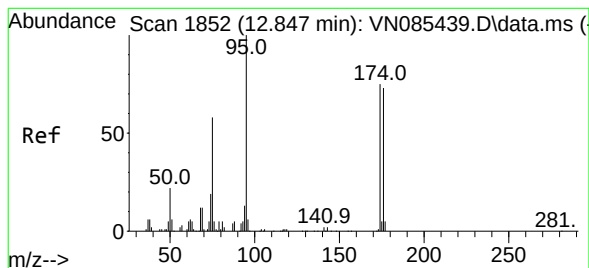
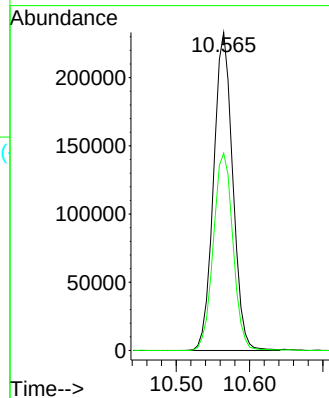
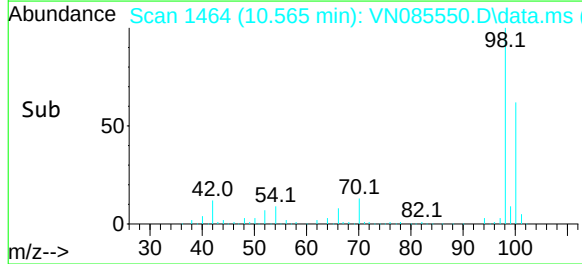
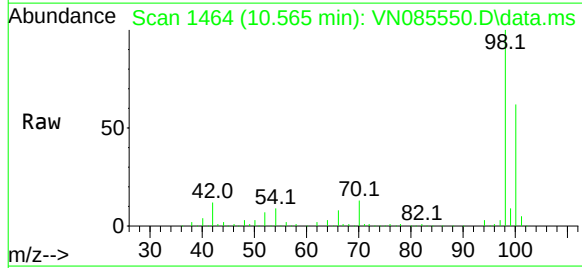
VN0129WBL01

Tgt Ion: 98 Resp: 422891

Ion Ratio Lower Upper

98 100

100 63.6 52.2 78.4



#62

4-Bromofluorobenzene

Concen: 48.323 ug/l

RT: 12.847 min Scan# 1852

Delta R.T. 0.000 min

Lab File: VN085550.D

Acq: 29 Jan 2025 12:06

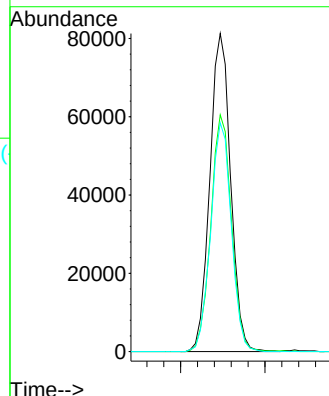
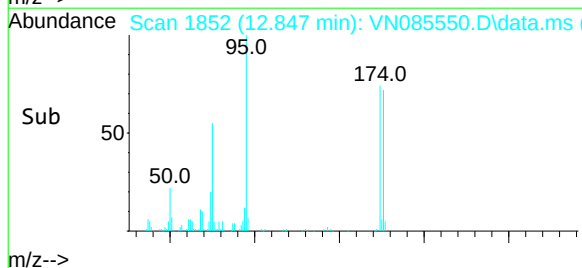
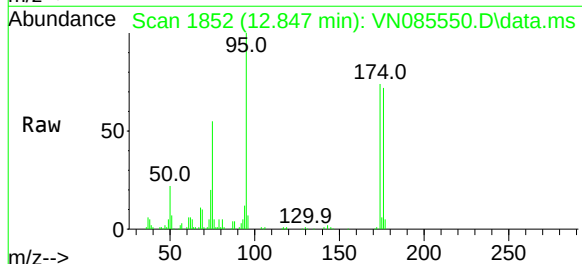
Tgt Ion: 95 Resp: 139125

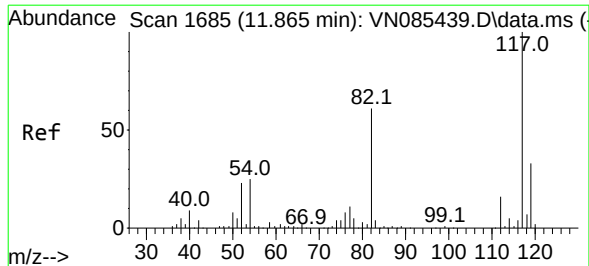
Ion Ratio Lower Upper

95 100

174 74.1 0.0 145.0

176 71.1 0.0 142.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. 0.000 min

Lab File: VN085550.D

Acq: 29 Jan 2025 12:06

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBL01

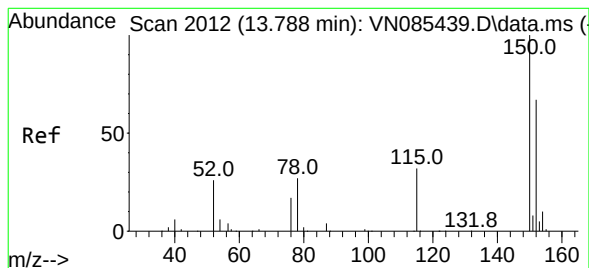
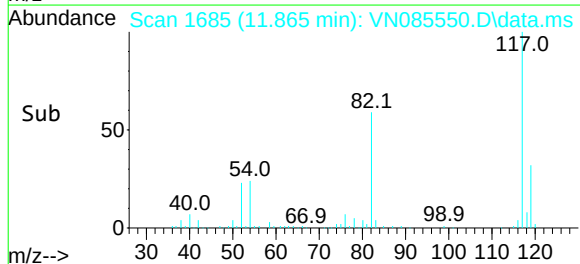
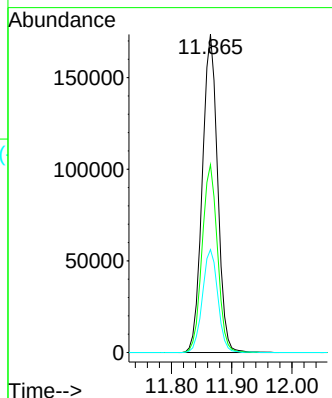
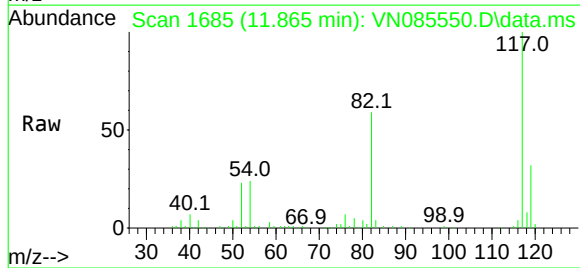
Tgt Ion:117 Resp: 305749

Ion Ratio Lower Upper

117 100

82 59.0 48.6 72.8

119 32.3 26.6 39.8



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.788 min Scan# 2012

Delta R.T. 0.000 min

Lab File: VN085550.D

Acq: 29 Jan 2025 12:06

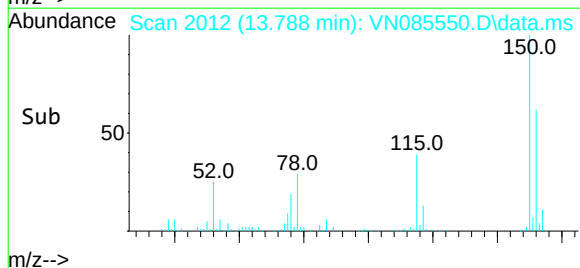
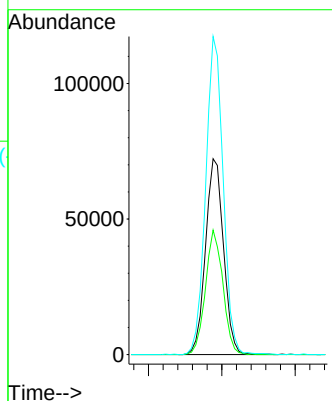
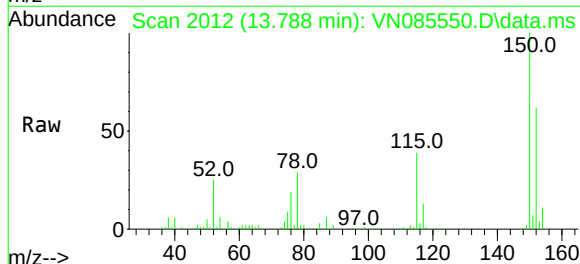
Tgt Ion:152 Resp: 123478

Ion Ratio Lower Upper

152 100

115 61.4 31.1 93.3

150 157.6 0.0 343.6



## Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | RU2 Engineering, LLC                  | Date Collected: |              |
| Project:           | NYCDDC SANTWOBR Brooklyn Bridge BBMCR | Date Received:  |              |
| Client Sample ID:  | VN0129WBS01                           | SDG No.:        | Q1207        |
| Lab Sample ID:     | VN0129WBS01                           | Matrix:         | TCLP         |
| Analytical Method: | SW8260                                | % Solid:        | 0            |
| Sample Wt/Vol:     | 5      Units:    mL                   | Final Vol:      | 5000      uL |
| Soil Aliquot Vol:  | uL                                    | Test:           | TCLP VOA     |
| GC Column:         | RXI-624      ID :    0.25             | Level :         | LOW          |
| Prep Method :      |                                       |                 |              |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN085551.D        | 1         |           | 01/29/25 12:30 | VN012925      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL      | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|----------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |          |            |         |
| 75-01-4                   | Vinyl Chloride         | 16.6   |           | 0.34     | 5.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 18.0   |           | 0.26     | 5.00       | ug/L    |
| 78-93-3                   | 2-Butanone             | 100    |           | 1.30     | 25.0       | ug/L    |
| 56-23-5                   | Carbon Tetrachloride   | 19.5   |           | 0.25     | 5.00       | ug/L    |
| 67-66-3                   | Chloroform             | 19.2   |           | 0.26     | 5.00       | ug/L    |
| 71-43-2                   | Benzene                | 19.4   |           | 0.16     | 5.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 20.0   |           | 0.24     | 5.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 18.9   |           | 0.32     | 5.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 19.4   |           | 0.25     | 5.00       | ug/L    |
| 108-90-7                  | Chlorobenzene          | 19.3   |           | 0.13     | 5.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |          |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 50.8   |           | 74 - 125 | 102%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 52.1   |           | 75 - 124 | 104%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 53.0   |           | 86 - 113 | 106%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 55.3   |           | 77 - 121 | 111%       | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |          |            |         |
| 363-72-4                  | Pentafluorobenzene     | 210000 | 8.224     |          |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 351000 | 9.1       |          |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 313000 | 11.865    |          |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 157000 | 13.788    |          |            |         |

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:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085551.D  
 Acq On : 29 Jan 2025 12:30  
 Operator : JC\MD  
 Sample : VN0129WBS01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0129WBS01

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/30/2025  
 Supervised By : Mahesh Dadoda 01/30/2025

Quant Time: Jan 30 00:31:44 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 209601   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 351459   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 313028   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.788 | 152  | 156507   | 50.000 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |          |
|---------------------------|--------|-------|----------|----------|------|----------|
| 33) 1,2-Dichloroethane-d4 | 8.577  | 65    | 171860   | 50.795   | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 74 - 125 | Recovery | =    | 101.600% |
| 35) Dibromofluoromethane  | 8.165  | 113   | 126996   | 52.085   | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 75 - 124 | Recovery | =    | 104.160% |
| 50) Toluene-d8            | 10.565 | 98    | 459113   | 52.996   | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 86 - 113 | Recovery | =    | 106.000% |
| 62) 4-Bromofluorobenzene  | 12.847 | 95    | 163742   | 55.254   | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 77 - 121 | Recovery | =    | 110.500% |

## Target Compounds

|                              |       |     |        |         |        | Qvalue |
|------------------------------|-------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 46350  | 16.332  | ug/l   | 97     |
| 3) Chloromethane             | 2.360 | 50  | 51817  | 16.864  | ug/l   | 96     |
| 4) Vinyl Chloride            | 2.513 | 62  | 51296  | 16.609  | ug/l   | 97     |
| 5) Bromomethane              | 2.954 | 94  | 31079  | 16.659  | ug/l   | 99     |
| 6) Chloroethane              | 3.124 | 64  | 35147  | 17.950  | ug/l   | 99     |
| 7) Trichlorofluoromethane    | 3.495 | 101 | 82270  | 18.358  | ug/l   | 99     |
| 8) Diethyl Ether             | 3.959 | 74  | 26961  | 17.415  | ug/l   | 97     |
| 9) 1,1,2-Trichlorotrifluo... | 4.371 | 101 | 46918  | 18.588  | ug/l   | 99     |
| 10) Methyl Iodide            | 4.589 | 142 | 50486  | 17.466  | ug/l   | 97     |
| 11) Tert butyl alcohol       | 5.512 | 59  | 44455  | 114.746 | ug/l # | 83     |
| 12) 1,1-Dichloroethene       | 4.336 | 96  | 40485  | 17.997  | ug/l   | 89     |
| 13) Acrolein                 | 4.177 | 56  | 38470  | 72.741  | ug/l   | 100    |
| 14) Allyl chloride           | 5.024 | 41  | 62533  | 17.131  | ug/l   | 99     |
| 15) Acrylonitrile            | 5.712 | 53  | 126967 | 103.177 | ug/l   | 100    |
| 16) Acetone                  | 4.424 | 43  | 112019 | 102.469 | ug/l   | 99     |
| 17) Carbon Disulfide         | 4.712 | 76  | 104424 | 15.077  | ug/l   | 99     |
| 18) Methyl Acetate           | 5.024 | 43  | 72461  | 21.798  | ug/l   | 99     |
| 19) Methyl tert-butyl Ether  | 5.795 | 73  | 141193 | 19.330  | ug/l   | 98     |
| 20) Methylene Chloride       | 5.271 | 84  | 49750  | 18.383  | ug/l   | 99     |
| 21) trans-1,2-Dichloroethene | 5.783 | 96  | 43039  | 17.903  | ug/l   | 94     |
| 22) Diisopropyl ether        | 6.671 | 45  | 159448 | 19.680  | ug/l   | 97     |
| 23) Vinyl Acetate            | 6.600 | 43  | 537237 | 94.751  | ug/l   | 99     |
| 24) 1,1-Dichloroethane       | 6.565 | 63  | 93875  | 19.002  | ug/l   | 98     |
| 25) 2-Butanone               | 7.483 | 43  | 166690 | 103.615 | ug/l   | 100    |
| 26) 2,2-Dichloropropane      | 7.483 | 77  | 85168  | 21.323  | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene   | 7.483 | 96  | 51851  | 18.312  | ug/l   | 98     |
| 28) Bromochloromethane       | 7.812 | 49  | 36776  | 16.001  | ug/l   | 95     |
| 29) Tetrahydrofuran          | 7.836 | 42  | 108650 | 106.525 | ug/l   | 99     |
| 30) Chloroform               | 7.959 | 83  | 97953  | 19.184  | ug/l   | 99     |
| 31) Cyclohexane              | 8.253 | 56  | 70853  | 16.501  | ug/l   | 97     |
| 32) 1,1,1-Trichloroethane    | 8.165 | 97  | 86797  | 19.380  | ug/l   | 97     |
| 36) 1,1-Dichloropropene      | 8.371 | 75  | 62579  | 18.287  | ug/l   | 99     |
| 37) Ethyl Acetate            | 7.553 | 43  | 69495  | 20.120  | ug/l   | 97     |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 76352  | 19.489  | ug/l   | 99     |
| 39) Methylcyclohexane        | 9.594 | 83  | 55093  | 17.132  | ug/l   | 96     |
| 40) Benzene                  | 8.600 | 78  | 199602 | 19.413  | ug/l   | 98     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085551.D  
 Acq On : 29 Jan 2025 12:30  
 Operator : JC\MD  
 Sample : VN0129WBS01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0129WBS01

Manual Integrations  
 APPROVED

Reviewed By :John Carlone 01/30/2025  
 Supervised By :Mahesh Dadoda 01/30/2025

Quant Time: Jan 30 00:31:44 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 35881    | 19.967  | ug/l   | 98       |
| 42) 1,2-Dichloroethane        | 8.665  | 62   | 77457    | 20.002  | ug/l   | 99       |
| 43) Isopropyl Acetate         | 8.689  | 43   | 114457   | 20.680  | ug/l   | 98       |
| 44) Trichloroethene           | 9.347  | 130  | 45202    | 18.886  | ug/l   | 98       |
| 45) 1,2-Dichloropropane       | 9.624  | 63   | 51454    | 19.591  | ug/l   | 97       |
| 46) Dibromomethane            | 9.706  | 93   | 35894    | 18.941  | ug/l   | 96       |
| 47) Bromodichloromethane      | 9.883  | 83   | 79684    | 20.639  | ug/l   | 96       |
| 48) Methyl methacrylate       | 9.677  | 41   | 49608    | 19.917  | ug/l   | 98       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 19127    | 456.023 | ug/l   | 96       |
| 51) 4-Methyl-2-Pentanone      | 10.441 | 43   | 355666   | 110.742 | ug/l   | 99       |
| 52) Toluene                   | 10.630 | 92   | 121981   | 20.475  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 10.836 | 75   | 73781    | 20.222  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 76573    | 19.648  | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane     | 11.012 | 97   | 48573    | 20.602  | ug/l   | 95       |
| 56) Ethyl methacrylate        | 10.871 | 69   | 66949    | 18.136  | ug/l   | 98       |
| 57) 1,3-Dichloropropane       | 11.159 | 76   | 83319    | 20.323  | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 131853   | 88.125  | ug/l   | 100      |
| 59) 2-Hexanone                | 11.194 | 43   | 257774   | 114.068 | ug/l   | 99       |
| 60) Dibromochloromethane      | 11.353 | 129  | 57964    | 20.364  | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 11.465 | 107  | 47182    | 20.104  | ug/l   | 96       |
| 64) Tetrachloroethene         | 11.100 | 164  | 41303    | 19.355  | ug/l   | 96       |
| 65) Chlorobenzene             | 11.888 | 112  | 132226   | 19.282  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 50102    | 19.907  | ug/l   | 99       |
| 67) Ethyl Benzene             | 11.959 | 91   | 213467   | 19.113  | ug/l   | 98       |
| 68) m/p-Xylenes               | 12.071 | 106  | 164888   | 39.945  | ug/l   | 100      |
| 69) o-Xylene                  | 12.394 | 106  | 76089    | 19.288  | ug/l   | 97       |
| 70) Styrene                   | 12.406 | 104  | 131635   | 20.163  | ug/l   | 99       |
| 71) Bromoform                 | 12.577 | 173  | 38916    | 21.610  | ug/l # | 97       |
| 73) Isopropylbenzene          | 12.694 | 105  | 195492   | 18.507  | ug/l   | 100      |
| 74) N-ethyl acetate           | 12.488 | 43   | 89626    | 18.877  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 72950    | 19.551  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane    | 12.988 | 75   | 68563m   | 21.554  | ug/l   |          |
| 77) Bromobenzene              | 12.977 | 156  | 51702    | 18.735  | ug/l   | 98       |
| 78) n-propylbenzene           | 13.035 | 91   | 236875   | 18.943  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.124 | 91   | 152450   | 18.837  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 13.171 | 105  | 170270   | 19.515  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 23443m   | 19.939  | ug/l   |          |
| 82) 4-Chlorotoluene           | 13.218 | 91   | 155061   | 19.243  | ug/l   | 100      |
| 83) tert-Butylbenzene         | 13.435 | 119  | 134399   | 18.343  | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 171306   | 19.699  | ug/l   | 97       |
| 85) sec-Butylbenzene          | 13.612 | 105  | 191783   | 18.886  | ug/l   | 98       |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 157547   | 18.681  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 13.729 | 146  | 97536    | 19.191  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 95449    | 18.119  | ug/l   | 99       |
| 89) n-Butylbenzene            | 14.053 | 91   | 127980   | 17.567  | ug/l   | 99       |
| 90) Hexachloroethane          | 14.329 | 117  | 35454    | 18.339  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene       | 14.100 | 146  | 93880    | 18.519  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.718 | 75   | 14729    | 21.617  | ug/l   | 97       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 41183    | 17.479  | ug/l   | 99       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 22674    | 18.126  | ug/l   | 98       |
| 95) Naphthalene               | 15.641 | 128  | 119085   | 16.937  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 41222    | 17.291  | ug/l   | 98       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085551.D  
Acq On : 29 Jan 2025 12:30  
Operator : JC\MD  
Sample : VN0129WBS01  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBS01

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

Quant Time: Jan 30 00:31:44 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

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

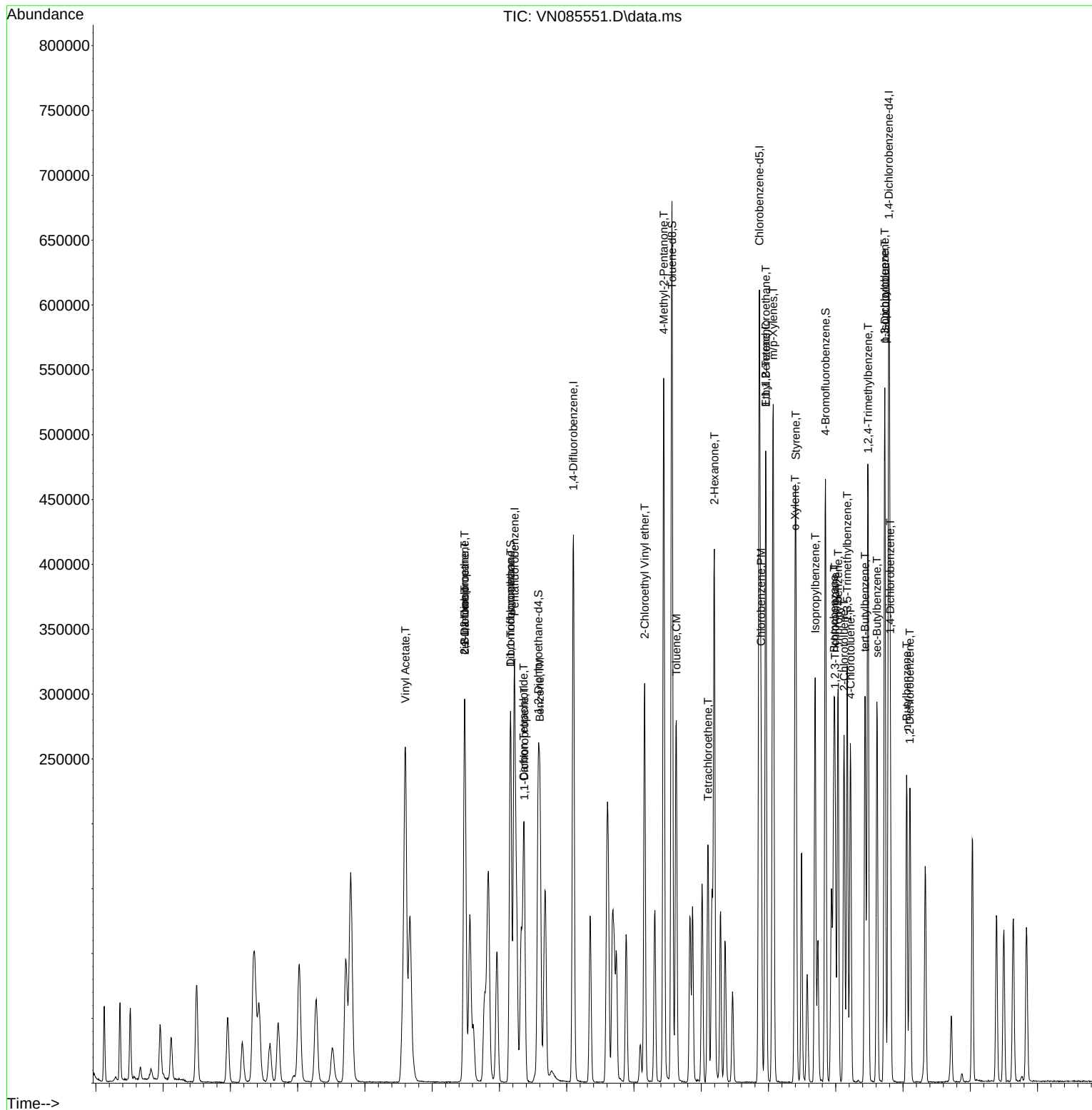
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Operator  : JC\MD  
Sample    : VN0129WBS01  
Misc      : 5.0mL/MSVOA_N/WATER  
ALS Vial  : 6      Sample Multiplier: 1
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**Instrument :**  
MSVOA\_N  
**ClientSampleId :**  
VN0129WBS01

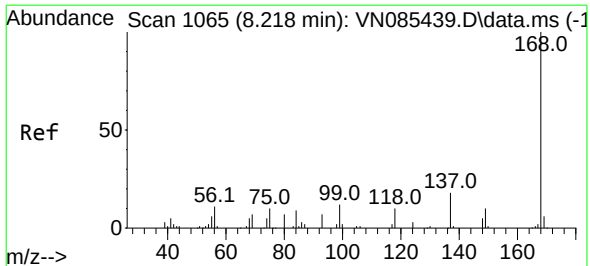
## Manual Integrations APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

Quant Time: Jan 30 00:31:44 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration

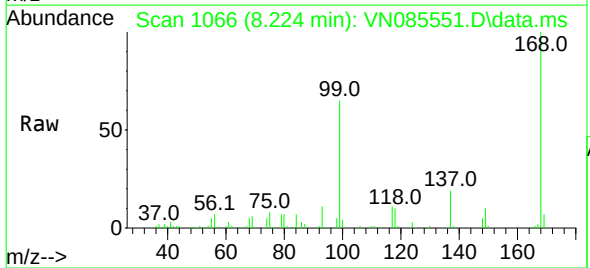






#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1065  
Delta R.T. 0.006 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

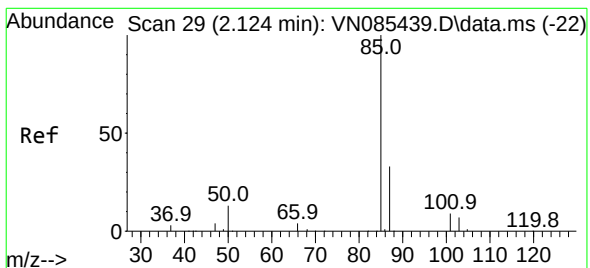
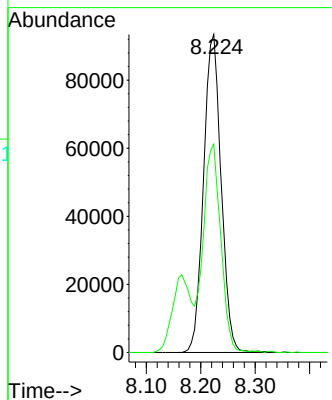
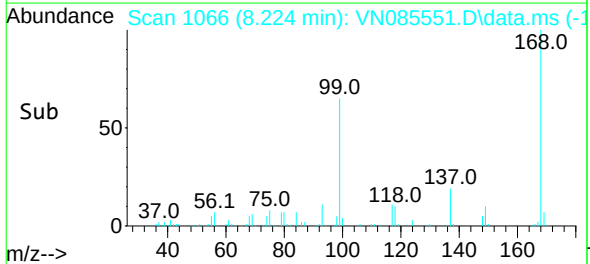
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBS01



Tgt Ion: 168 Resp: 209601  
Ion Ratio Lower Upper  
168 100  
99 65.5 53.6 80.4

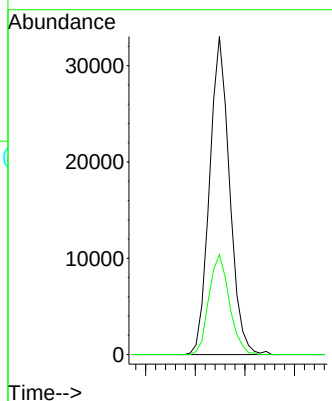
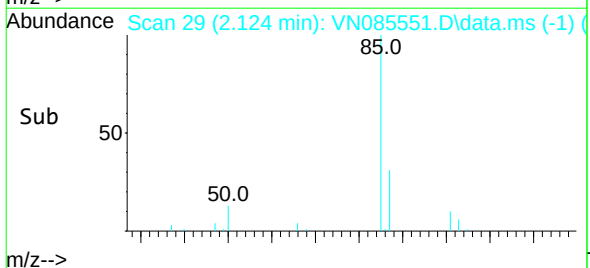
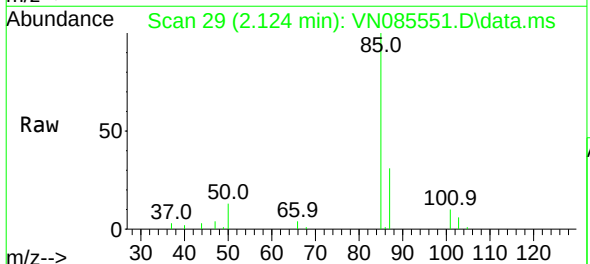
Manual Integrations  
APPROVED

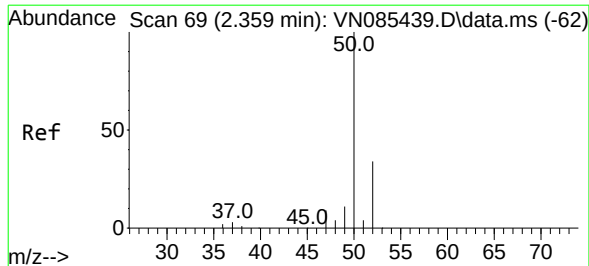
Reviewed By : John Carlone 01/30/2025  
Supervised By : Mahesh Dadoda 01/30/2025



#2  
Dichlorodifluoromethane  
Concen: 16.332 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

Tgt Ion: 85 Resp: 46350  
Ion Ratio Lower Upper  
85 100  
87 31.4 16.7 50.1





#3

Chloromethane

Concen: 16.864 ug/l

RT: 2.360 min Scan# 69

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 50 Resp: 51817

Ion Ratio Lower Upper

50 100

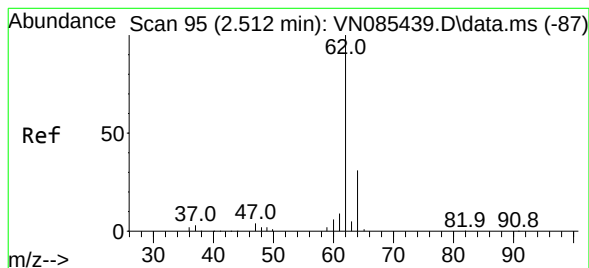
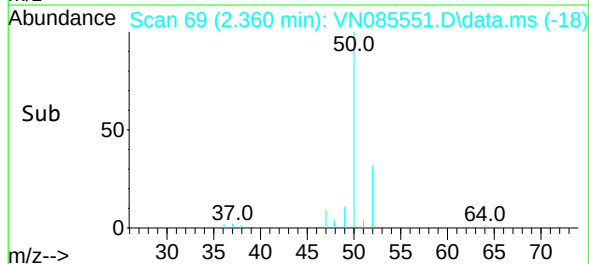
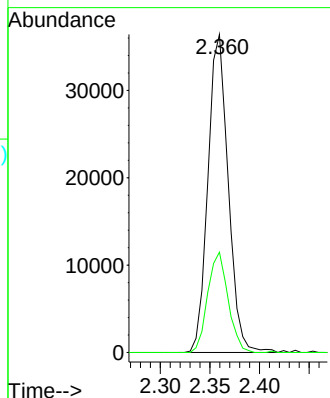
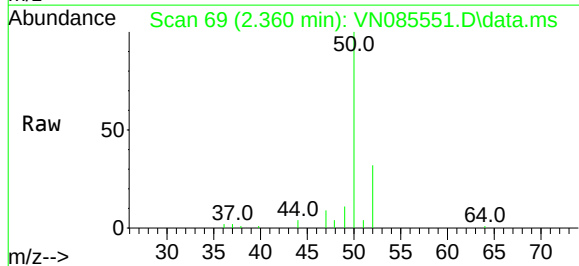
52 31.6 27.0 40.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#4

Vinyl Chloride

Concen: 16.609 ug/l

RT: 2.513 min Scan# 95

Delta R.T. 0.000 min

Lab File: VN085551.D

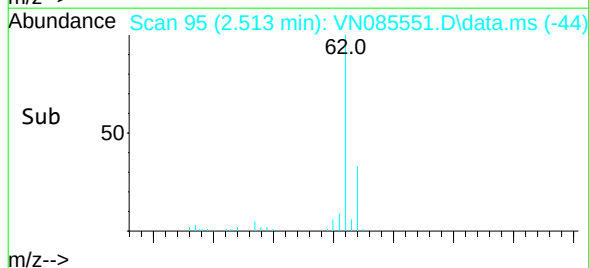
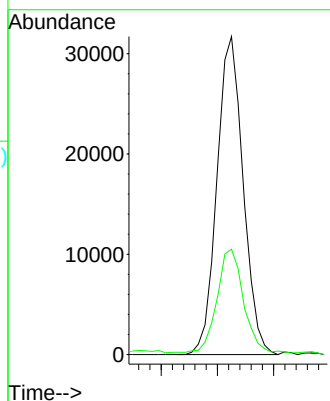
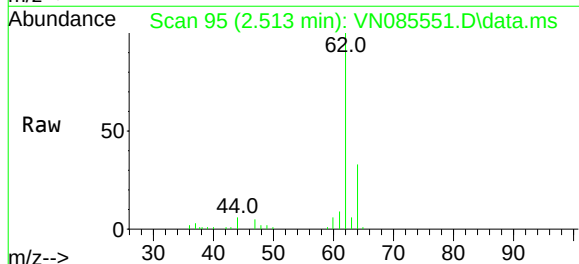
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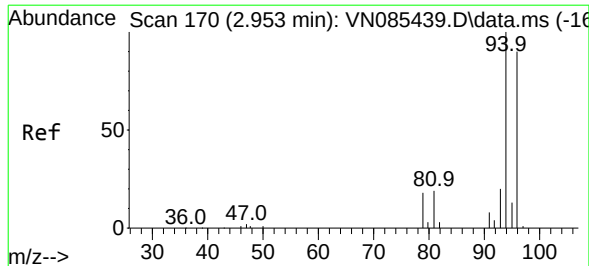
Tgt Ion: 62 Resp: 51296

Ion Ratio Lower Upper

62 100

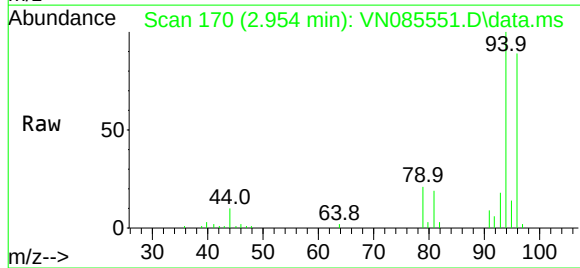
64 32.4 24.8 37.2





#5  
Bromomethane  
Concen: 16.659 ug/l  
RT: 2.954 min Scan# 170  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

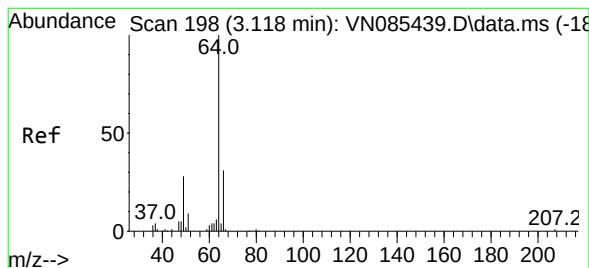
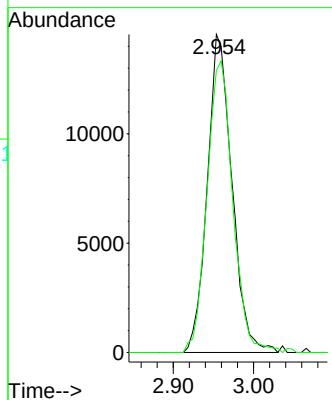
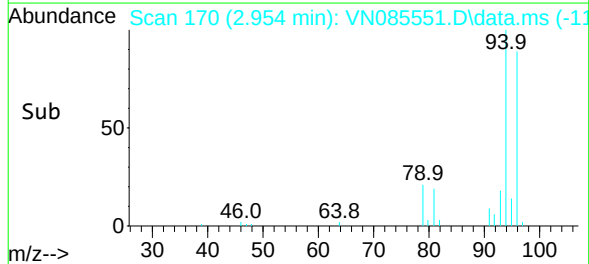
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBS01



Tgt Ion: 94 Resp: 31079  
Ion Ratio Lower Upper  
94 100  
96 88.7 71.8 107.6

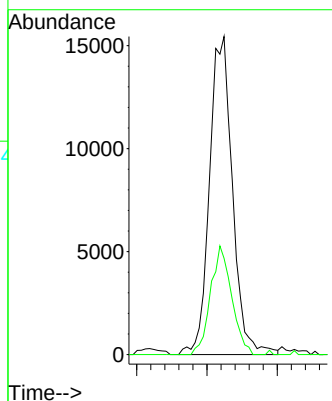
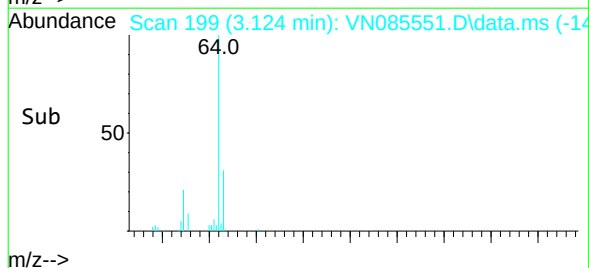
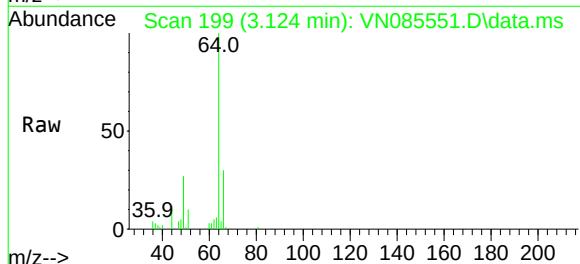
Manual Integrations  
APPROVED

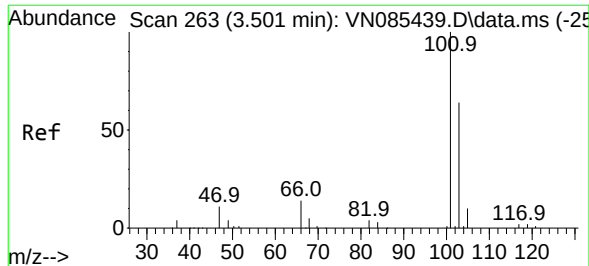
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#6  
Chloroethane  
Concen: 17.950 ug/l  
RT: 3.124 min Scan# 199  
Delta R.T. 0.006 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

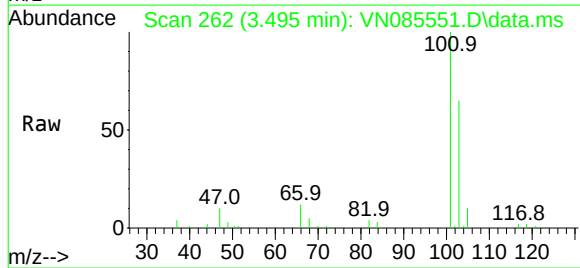
Tgt Ion: 64 Resp: 35147  
Ion Ratio Lower Upper  
64 100  
66 30.3 24.6 36.8





#7  
 Trichlorofluoromethane  
 Concen: 18.358 ug/l  
 RT: 3.495 min Scan# 263  
 Delta R.T. -0.006 min  
 Lab File: VN085551.D  
 Acq: 29 Jan 2025 12:30

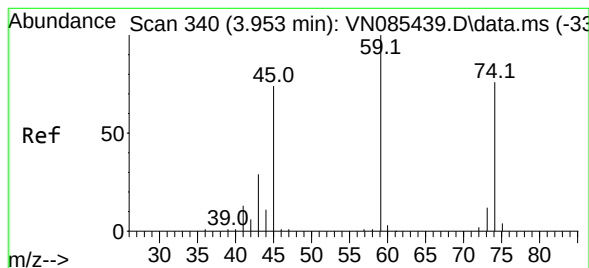
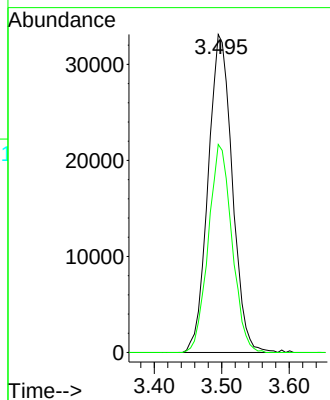
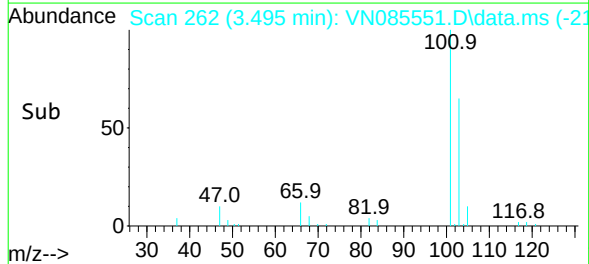
Instrument :  
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 ClientSampleId :  
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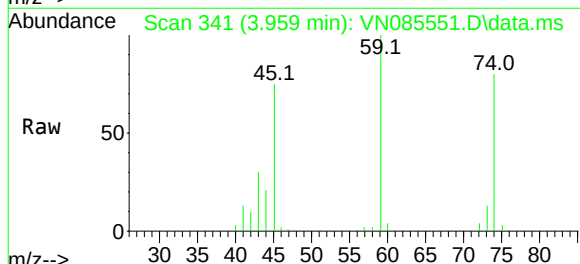
Tgt Ion: 101 Resp: 82270  
 Ion Ratio Lower Upper  
 101 100  
 103 65.4 51.4 77.2

Manual Integrations  
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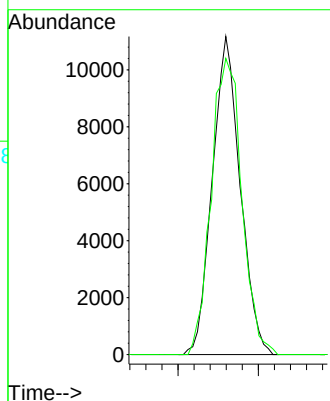
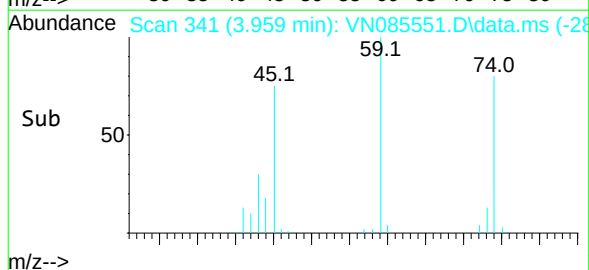
Reviewed By : John Carlone 01/30/2025  
 Supervised By : Mahesh Dadoda 01/30/2025

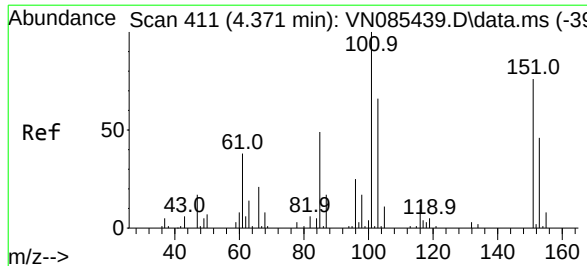


#8  
 Diethyl Ether  
 Concen: 17.415 ug/l  
 RT: 3.959 min Scan# 341  
 Delta R.T. 0.006 min  
 Lab File: VN085551.D  
 Acq: 29 Jan 2025 12:30



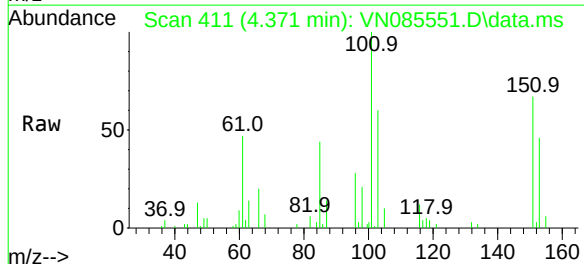
Tgt Ion: 74 Resp: 26961  
 Ion Ratio Lower Upper  
 74 100  
 45 102.3 49.7 149.1





#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 18.588 ug/l  
RT: 4.371 min Scan# 411  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

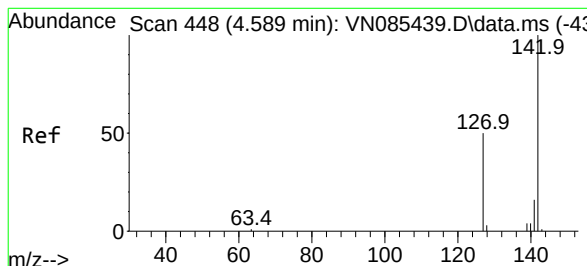
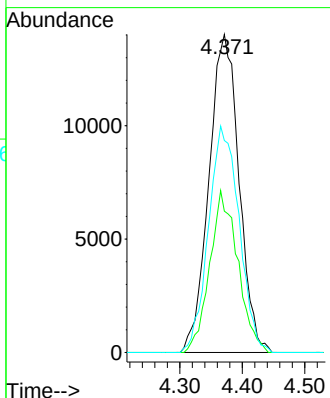
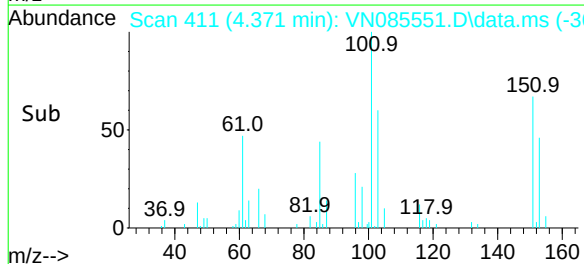
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MSVOA\_N  
ClientSampleId :  
VN0129WBS01



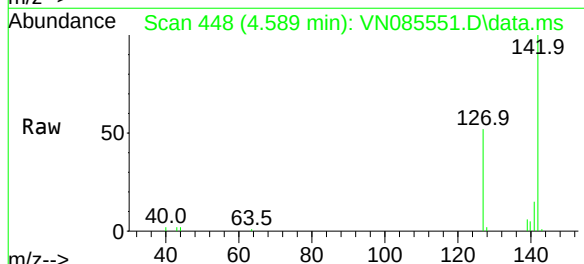
Tgt Ion:101 Resp: 46918  
Ion Ratio Lower Upper  
101 100  
85 47.4 37.8 56.8  
151 72.6 58.8 88.2

Manual Integrations  
APPROVED

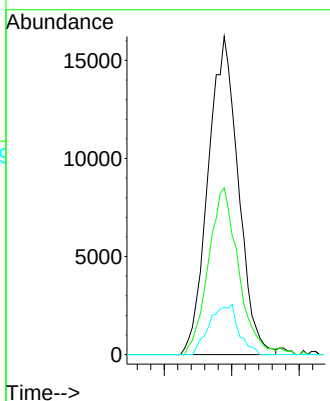
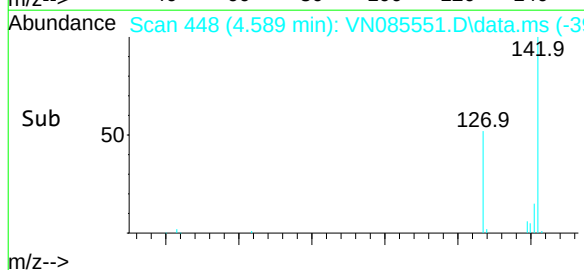
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

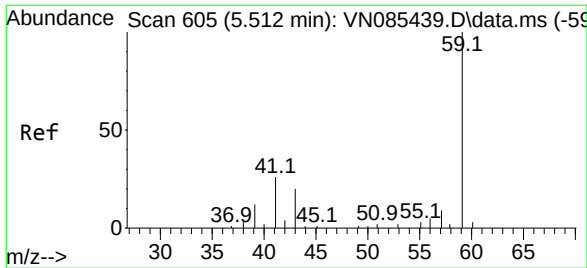


#10  
Methyl Iodide  
Concen: 17.466 ug/l  
RT: 4.589 min Scan# 448  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30



Tgt Ion:142 Resp: 50486  
Ion Ratio Lower Upper  
142 100  
127 52.4 40.3 60.5  
141 14.8 12.8 19.2





#11

Tert butyl alcohol

Concen: 114.746 ug/l

RT: 5.512 min Scan# 605

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 59 Resp: 44455

Ion Ratio Lower Upper

59 100

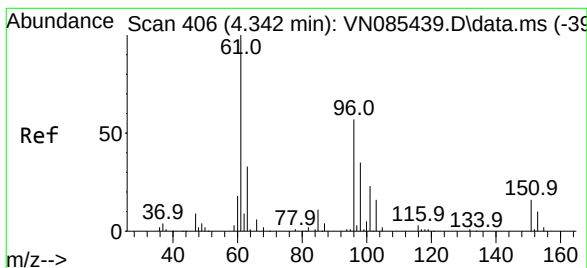
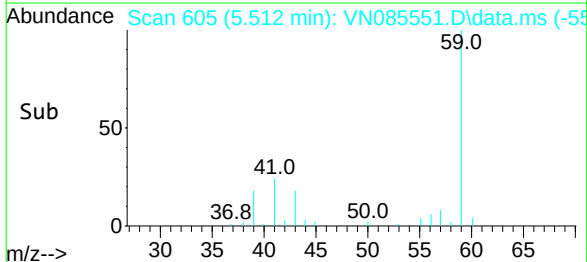
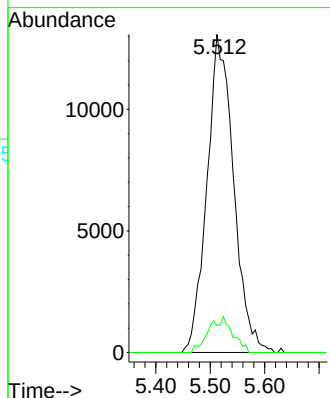
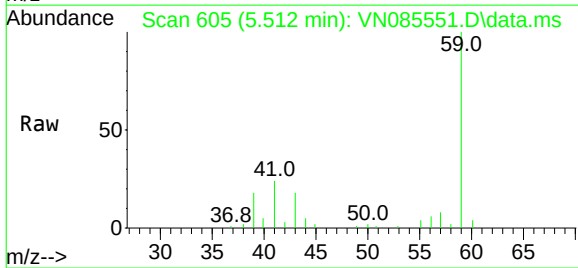
57 4.5 8.6 13.0#

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#12

1,1-Dichloroethene

Concen: 17.997 ug/l

RT: 4.336 min Scan# 405

Delta R.T. -0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

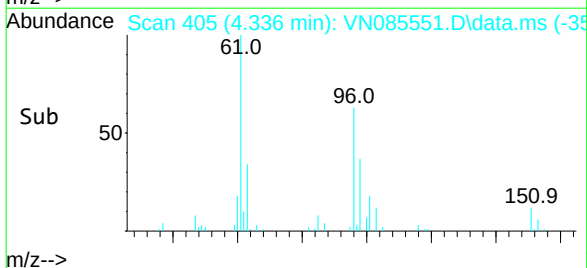
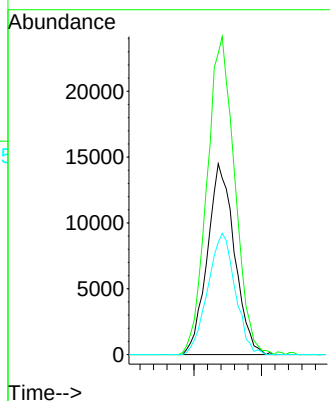
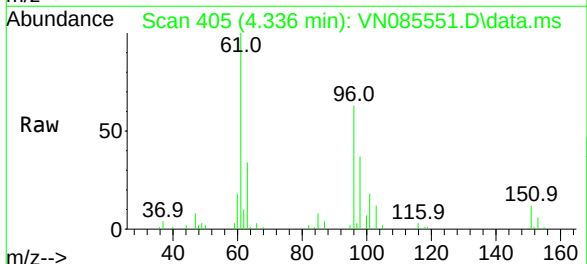
Tgt Ion: 96 Resp: 40485

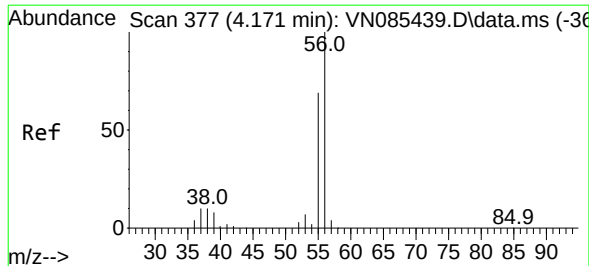
Ion Ratio Lower Upper

96 100

61 157.8 141.0 211.4

98 58.7 49.0 73.6





#13

Acrolein

Concen: 72.741 ug/l

RT: 4.177 min Scan# 377

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 56 Resp: 38470

Ion Ratio Lower Upper

56 100

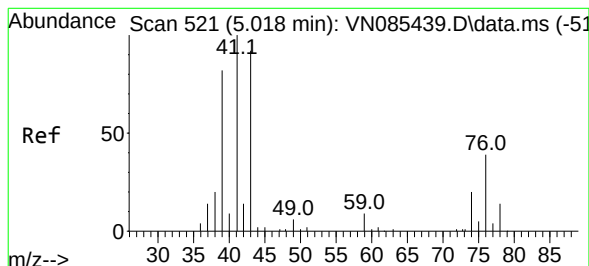
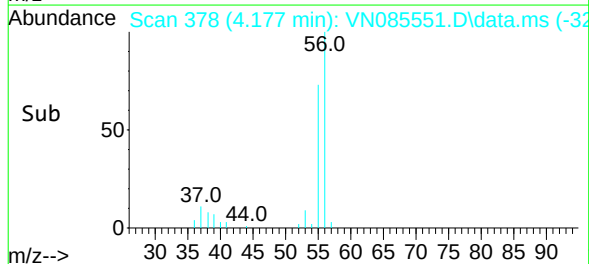
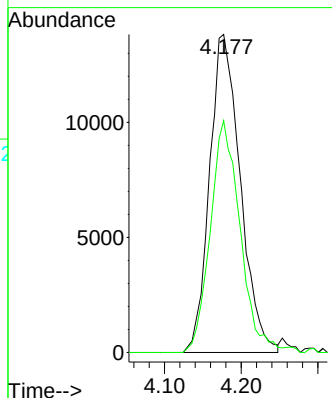
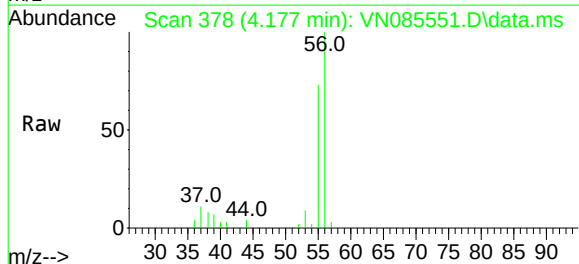
55 70.4 56.3 84.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#14

Allyl chloride

Concen: 17.131 ug/l

RT: 5.024 min Scan# 522

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

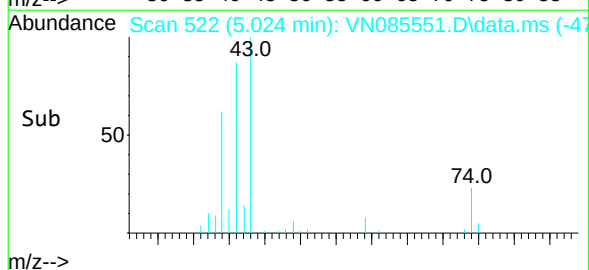
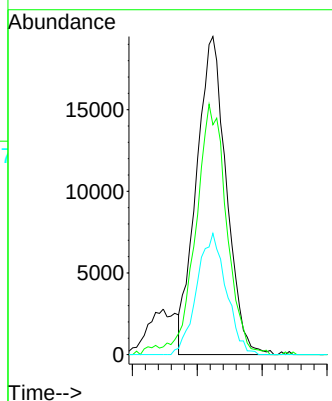
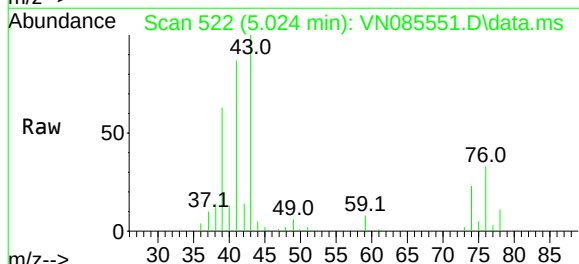
Tgt Ion: 41 Resp: 62533

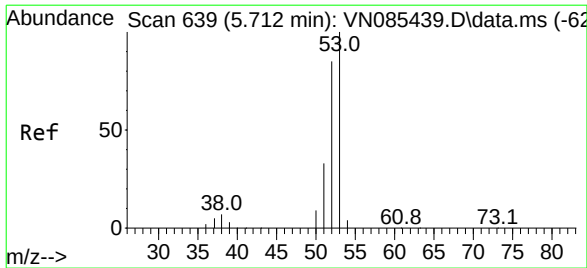
Ion Ratio Lower Upper

41 100

39 81.9 64.4 96.6

76 37.3 30.5 45.7





#15

Acrylonitrile

Concen: 103.177 ug/l

RT: 5.712 min Scan# 639

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 53 Resp: 126967

Ion Ratio Lower Upper

53 100

52 81.9 65.5 98.3

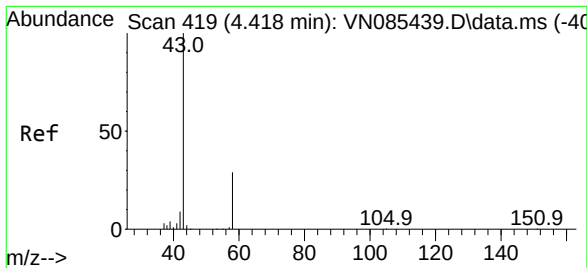
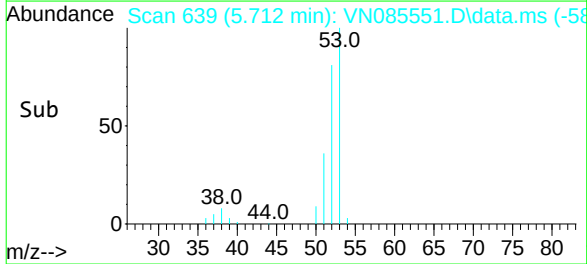
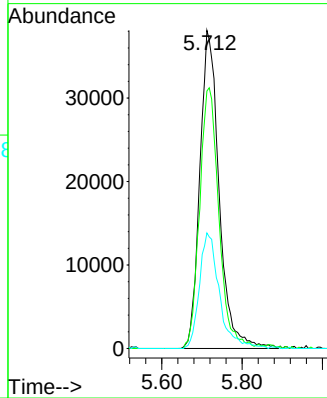
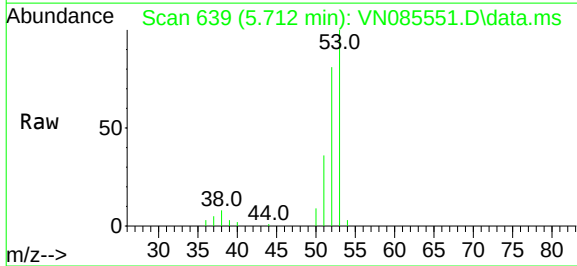
51 37.7 29.8 44.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#16

Acetone

Concen: 102.469 ug/l

RT: 4.424 min Scan# 420

Delta R.T. 0.006 min

Lab File: VN085551.D

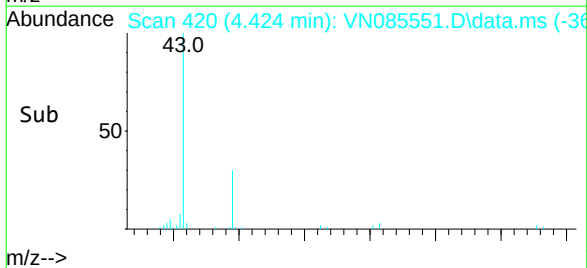
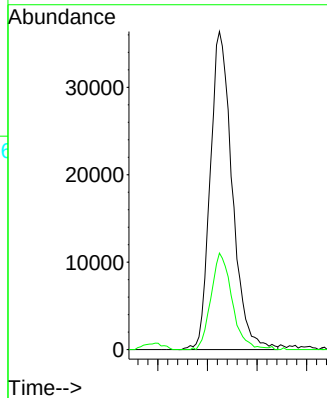
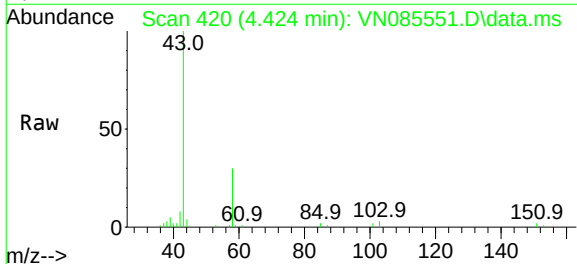
Acq: 29 Jan 2025 12:30

Tgt Ion: 43 Resp: 112019

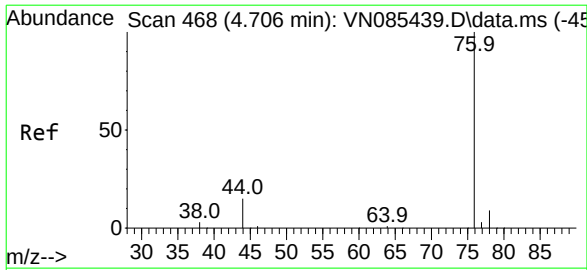
Ion Ratio Lower Upper

43 100

58 30.3 23.8 35.6







#17

Carbon Disulfide

Concen: 15.077 ug/l

RT: 4.712 min Scan# 469

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 76 Resp: 104424

Ion Ratio Lower Upper

76 100

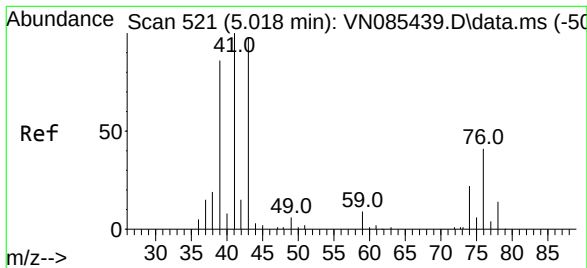
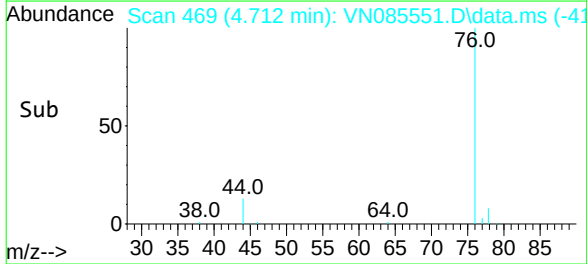
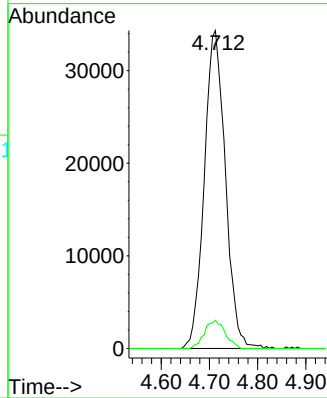
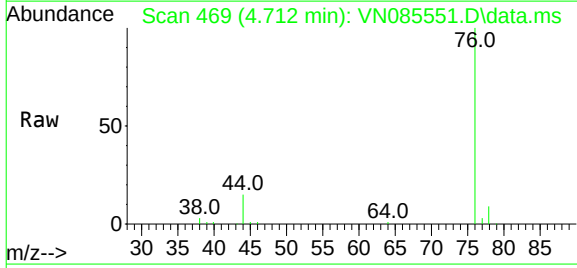
78 8.9 6.9 10.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#18

Methyl Acetate

Concen: 21.798 ug/l

RT: 5.024 min Scan# 522

Delta R.T. 0.006 min

Lab File: VN085551.D

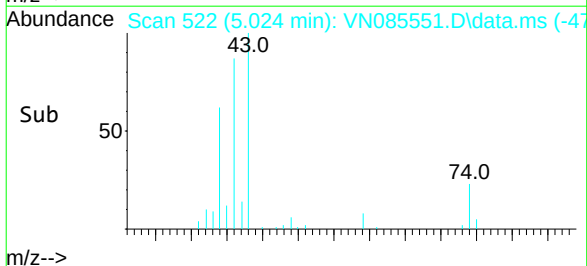
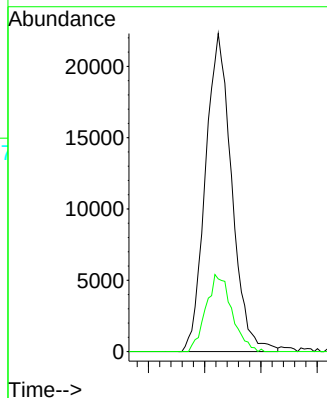
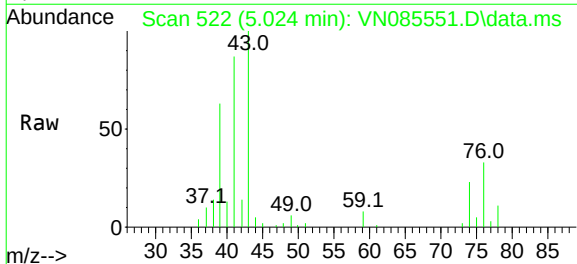
Acq: 29 Jan 2025 12:30

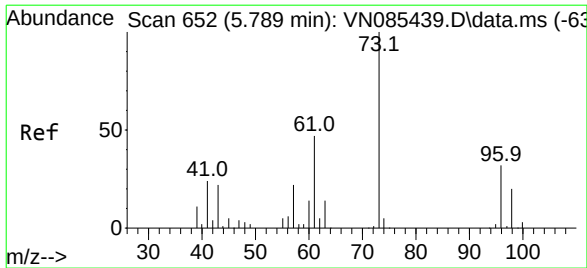
Tgt Ion: 43 Resp: 72461

Ion Ratio Lower Upper

43 100

74 23.8 18.6 28.0





#19

Methyl tert-butyl Ether

Concen: 19.330 ug/l

RT: 5.795 min Scan# 65

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 73 Resp: 141193

Ion Ratio Lower Upper

73 100

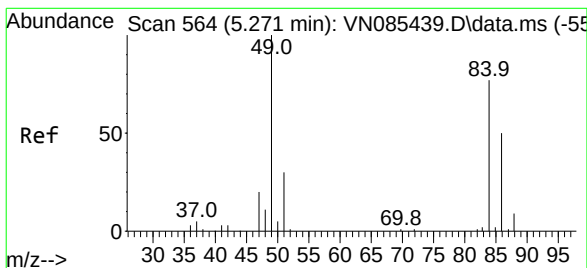
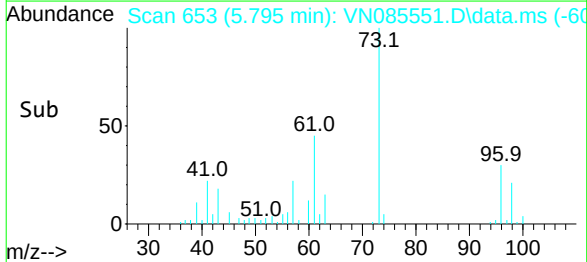
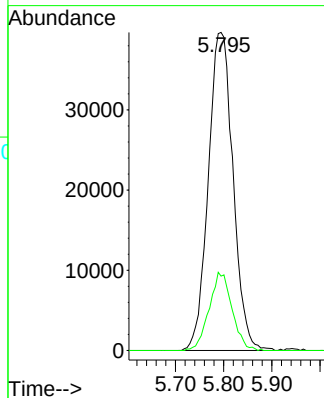
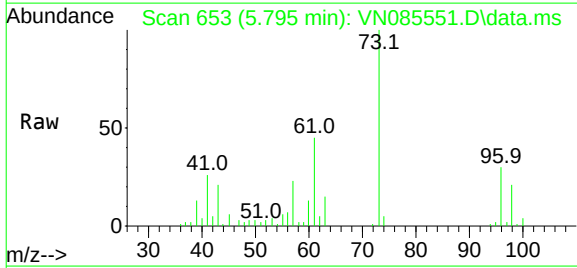
57 23.4 17.8 26.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#20

Methylene Chloride

Concen: 18.383 ug/l

RT: 5.271 min Scan# 564

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Tgt Ion: 84 Resp: 49750

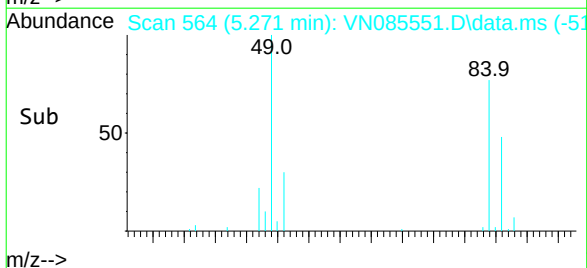
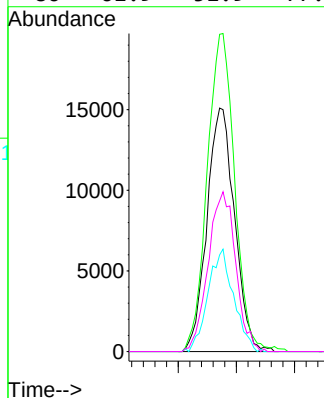
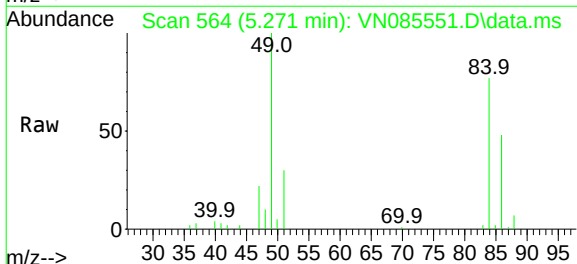
Ion Ratio Lower Upper

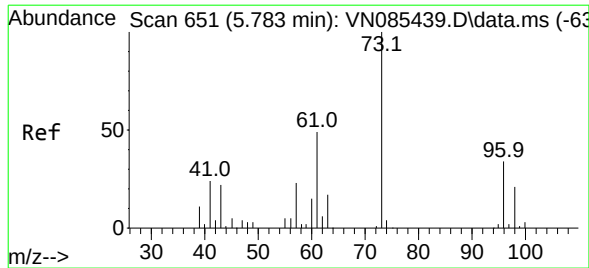
84 100

49 130.3 104.1 156.1

51 39.7 31.0 46.4

86 61.9 51.9 77.9





#21

trans-1,2-Dichloroethene

Concen: 17.903 ug/l

RT: 5.783 min Scan# 651

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 96 Resp: 43039

Ion Ratio Lower Upper

96 100

61 141.5 115.7 173.5

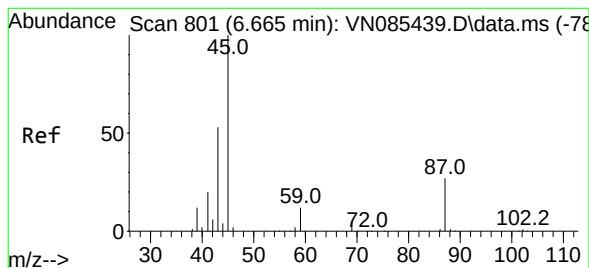
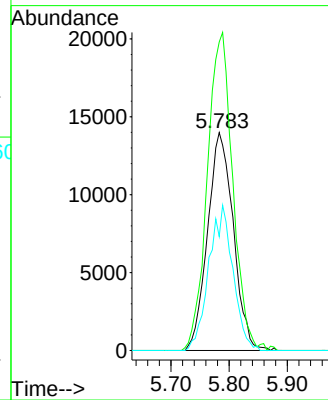
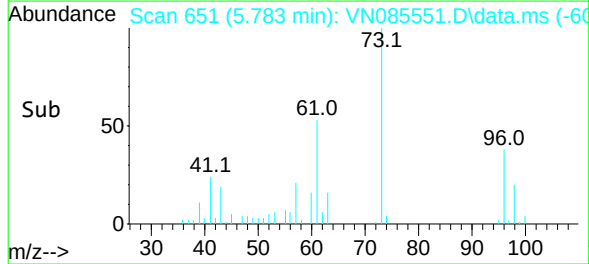
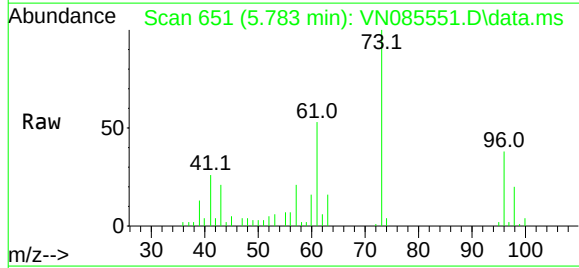
98 52.3 49.8 74.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#22

Diisopropyl ether

Concen: 19.680 ug/l

RT: 6.671 min Scan# 802

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Tgt Ion: 45 Resp: 159448

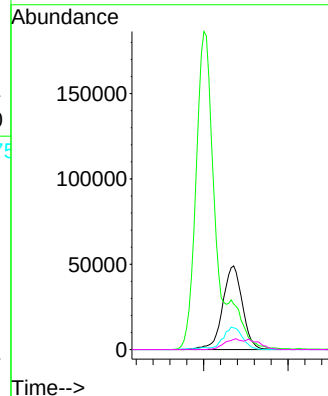
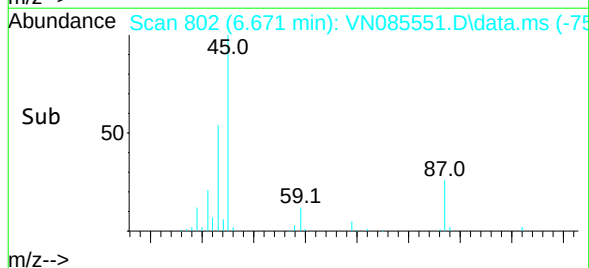
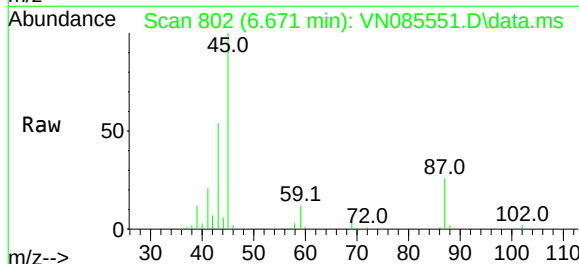
Ion Ratio Lower Upper

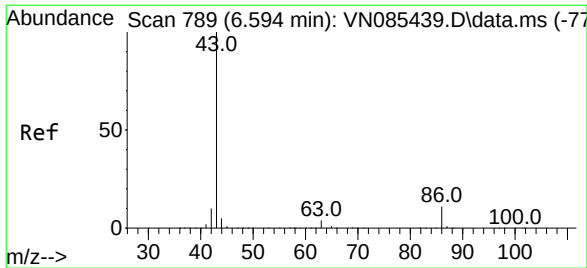
45 100

43 53.4 45.0 67.6

87 25.9 21.8 32.8

59 12.2 10.2 15.2





#23

Vinyl Acetate

Concen: 94.751 ug/l

RT: 6.600 min Scan# 790

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 43 Resp: 537237

Ion Ratio Lower Upper

43 100

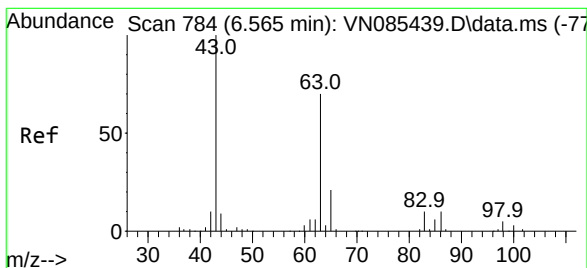
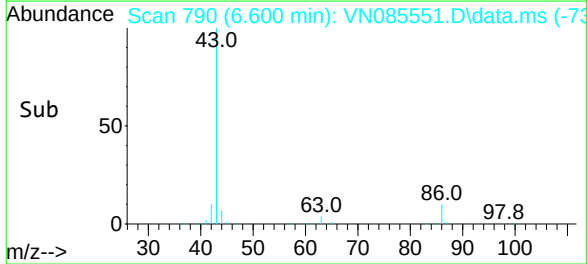
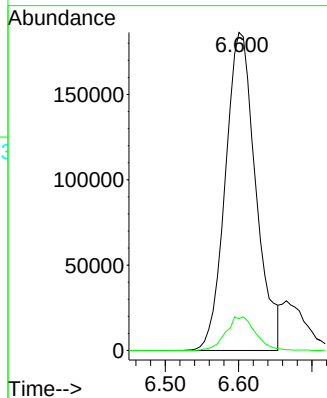
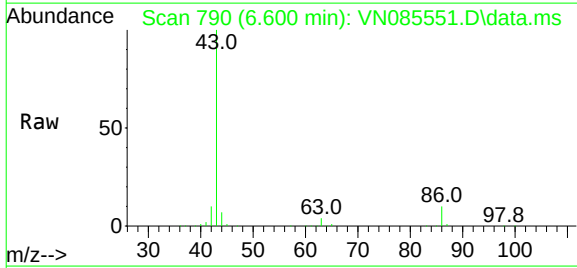
86 10.0 8.4 12.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#24

1,1-Dichloroethane

Concen: 19.002 ug/l

RT: 6.565 min Scan# 784

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

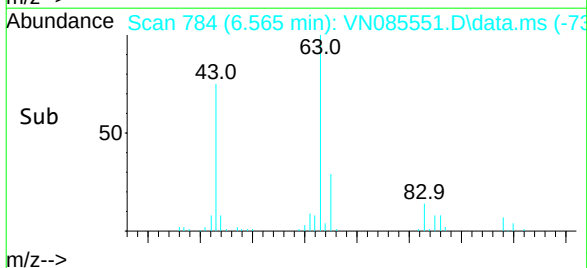
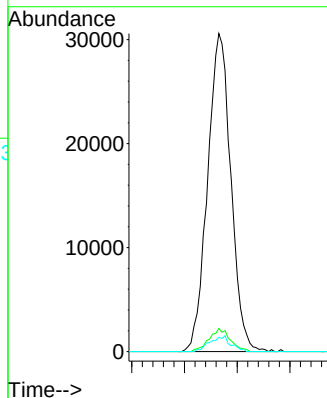
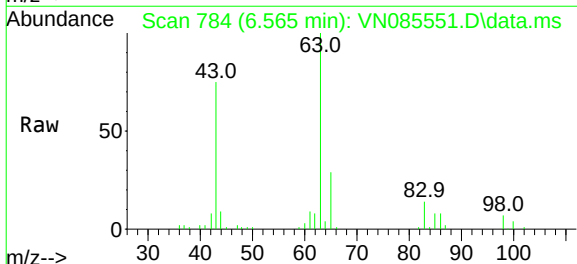
Tgt Ion: 63 Resp: 93875

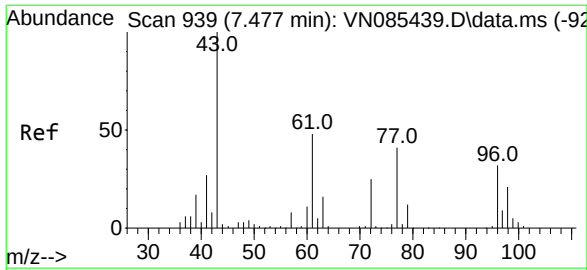
Ion Ratio Lower Upper

63 100

98 7.3 3.3 9.8

100 4.5 2.0 6.0





#25

2-Butanone

Concen: 103.615 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 43 Resp: 166690

Ion Ratio Lower Upper

43 100

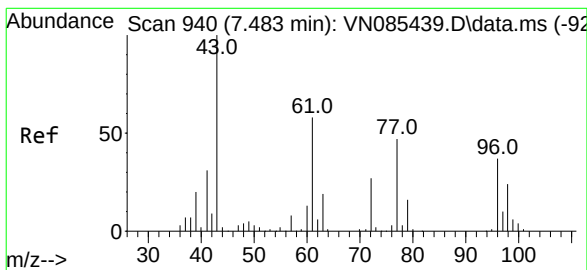
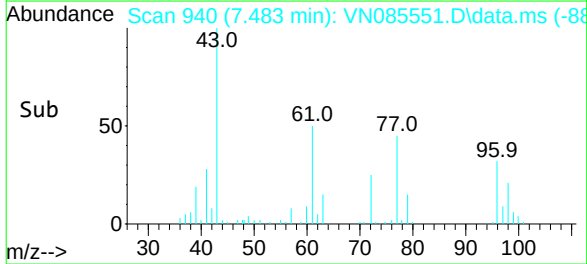
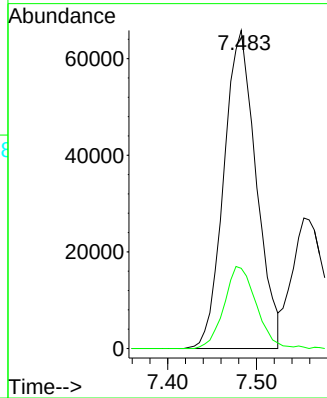
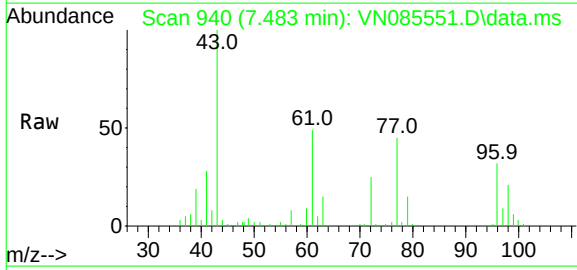
72 25.2 20.2 30.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#26

2,2-Dichloropropane

Concen: 21.323 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.000 min

Lab File: VN085551.D

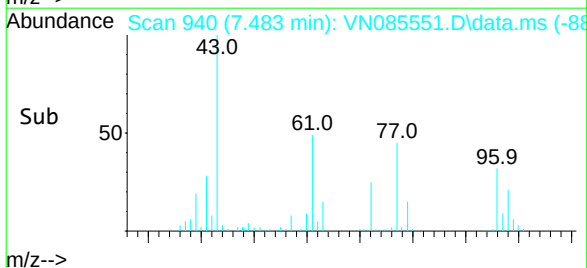
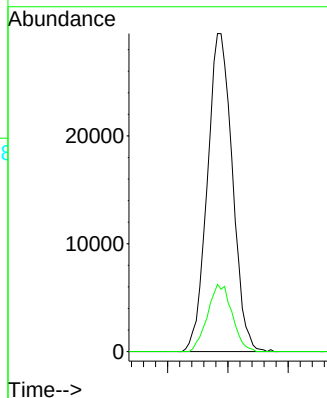
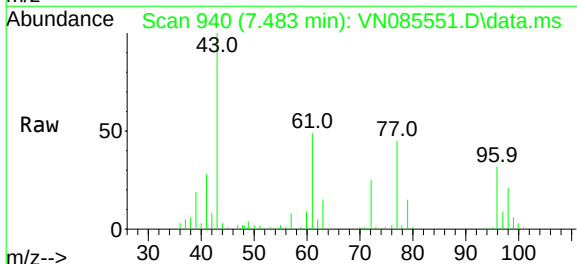
Acq: 29 Jan 2025 12:30

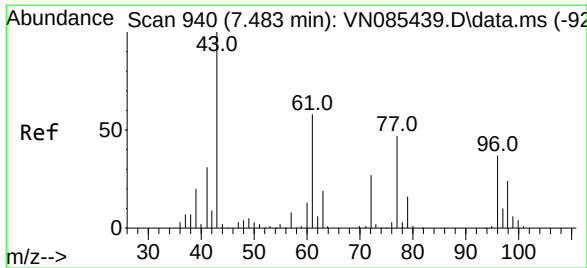
Tgt Ion: 77 Resp: 85168

Ion Ratio Lower Upper

77 100

97 20.7 10.7 32.1





#27

cis-1,2-Dichloroethene

Concen: 18.312 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 96 Resp: 51851

Ion Ratio Lower Upper

96 100

61 157.9 0.0 311.8

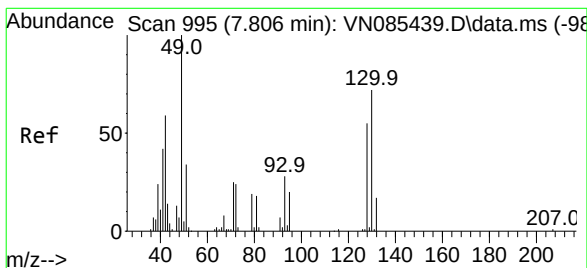
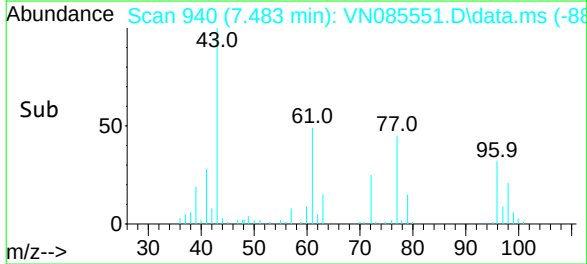
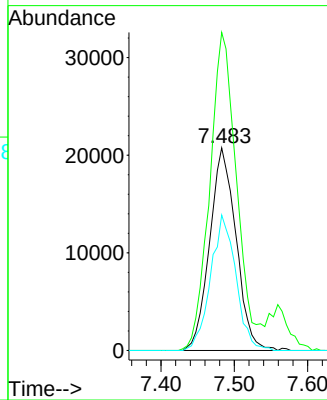
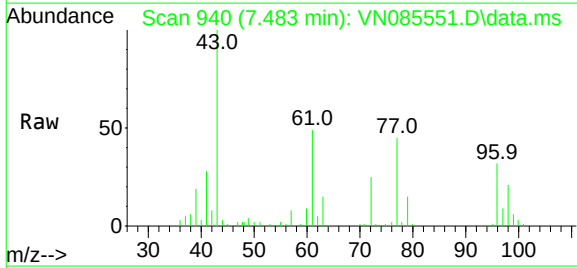
98 64.2 0.0 126.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#28

Bromochloromethane

Concen: 16.001 ug/l

RT: 7.812 min Scan# 996

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

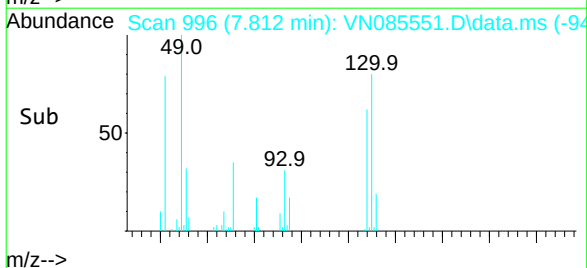
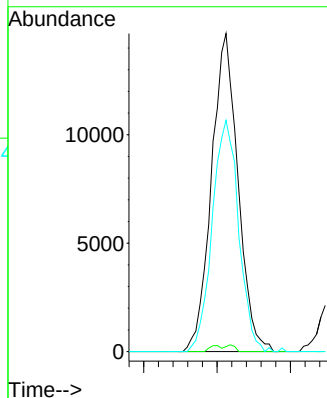
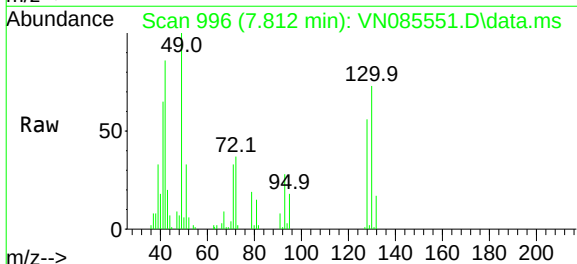
Tgt Ion: 49 Resp: 36776

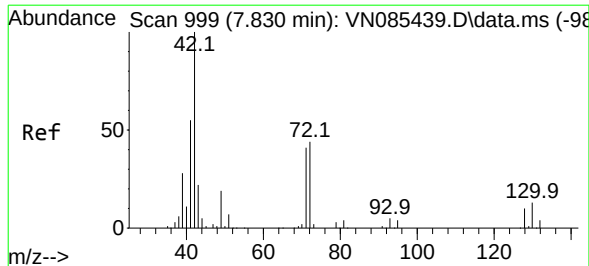
Ion Ratio Lower Upper

49 100

129 0.7 0.0 4.4

130 72.5 55.0 82.4





#29

Tetrahydrofuran

Concen: 106.525 ug/l

RT: 7.836 min Scan# 10

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 42 Resp: 108650

Ion Ratio Lower Upper

42 100

72 42.2 34.2 51.2

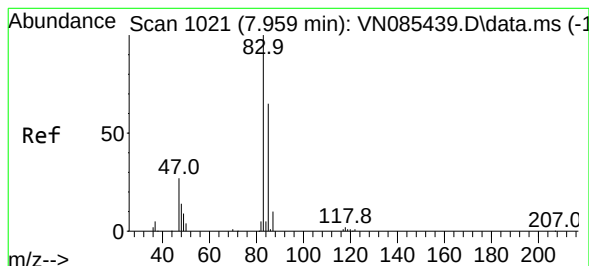
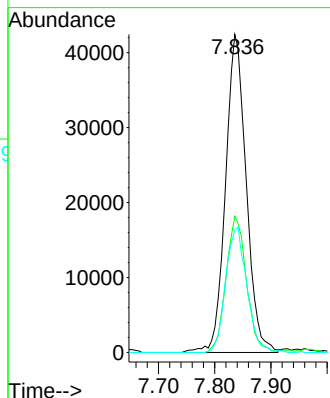
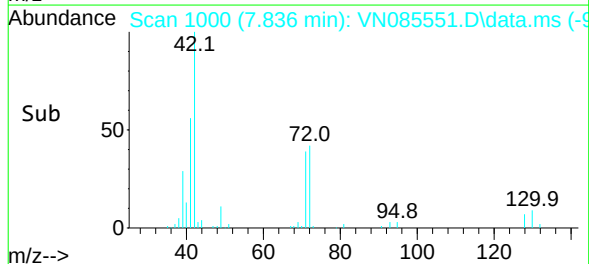
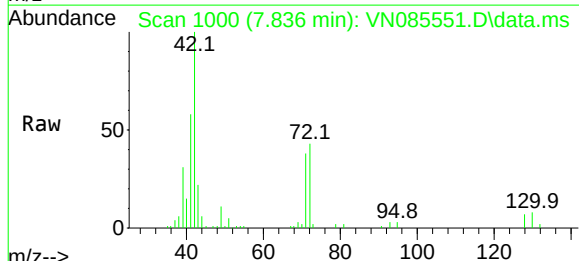
71 40.0 32.5 48.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#30

Chloroform

Concen: 19.184 ug/l

RT: 7.959 min Scan# 1021

Delta R.T. 0.000 min

Lab File: VN085551.D

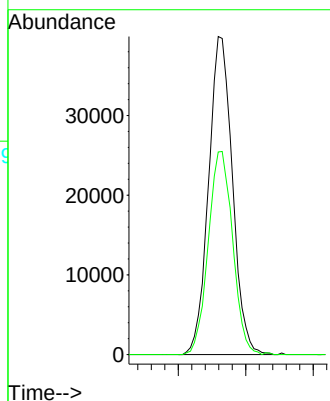
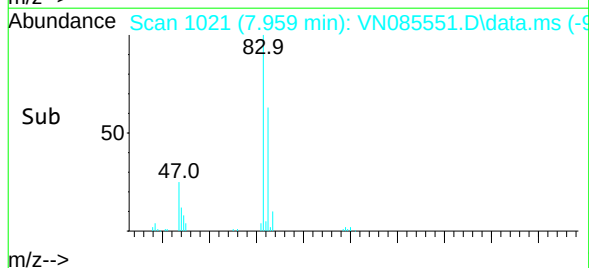
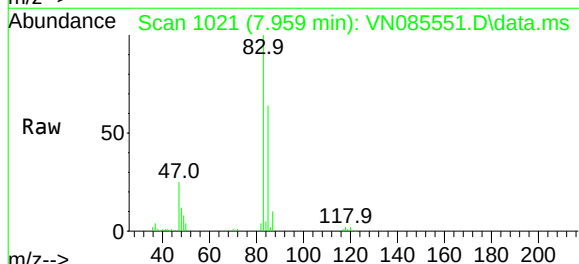
Acq: 29 Jan 2025 12:30

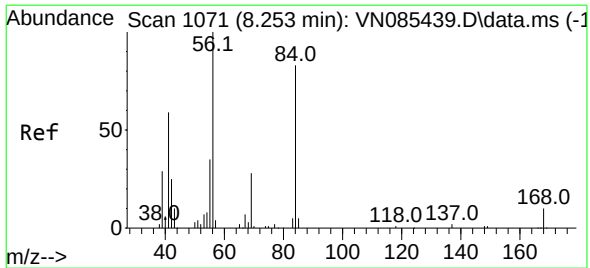
Tgt Ion: 83 Resp: 97953

Ion Ratio Lower Upper

83 100

85 63.7 51.8 77.6





#31

Cyclohexane

Concen: 16.501 ug/l

RT: 8.253 min Scan# 1071

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 56 Resp: 70853

Ion Ratio Lower Upper

56 100

69 24.6 22.2 33.4

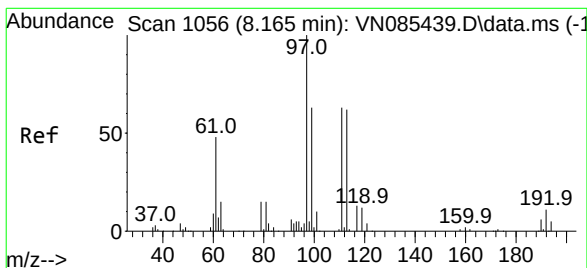
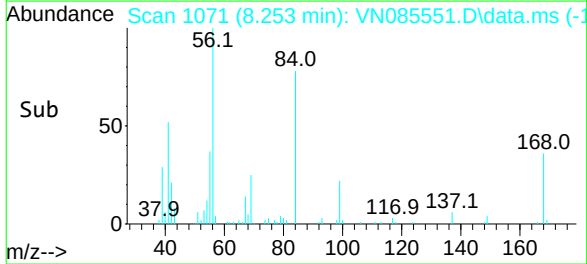
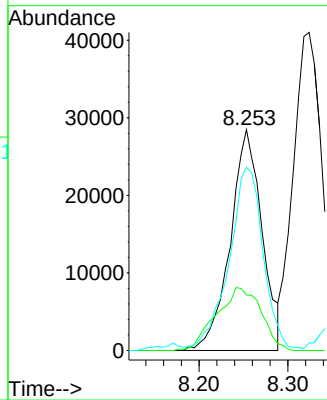
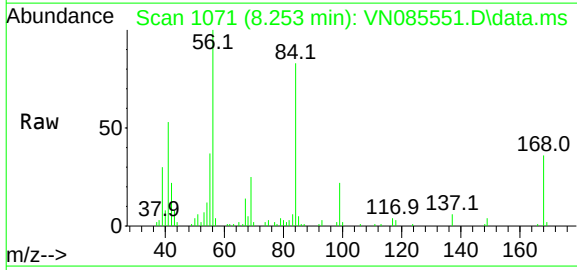
84 81.1 66.4 99.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#32

1,1,1-Trichloroethane

Concen: 19.380 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

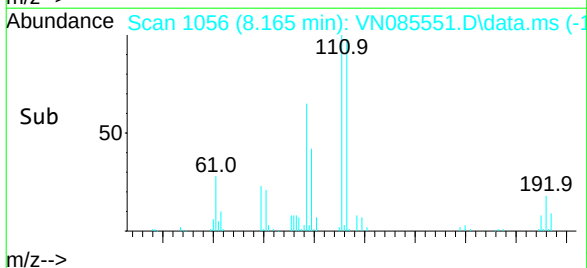
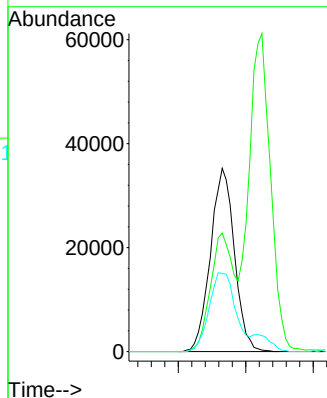
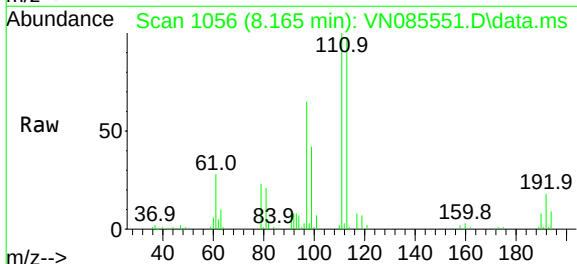
Tgt Ion: 97 Resp: 86797

Ion Ratio Lower Upper

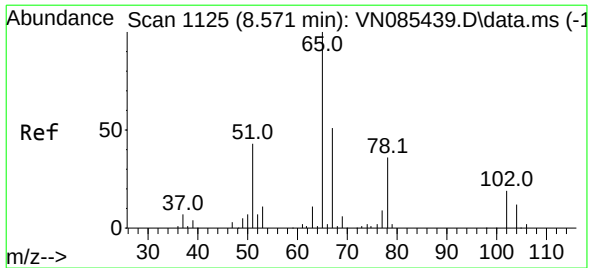
97 100

99 63.5 49.8 74.6

61 47.9 41.4 62.2

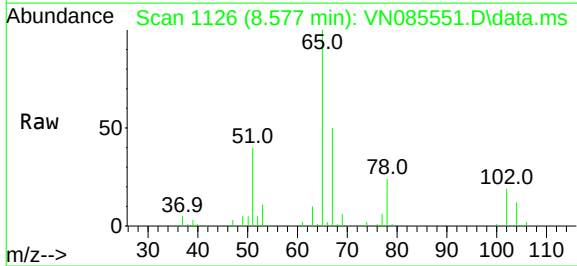






#33  
1,2-Dichloroethane-d4  
Concen: 50.795 ug/l  
RT: 8.577 min Scan# 1125  
Delta R.T. 0.006 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

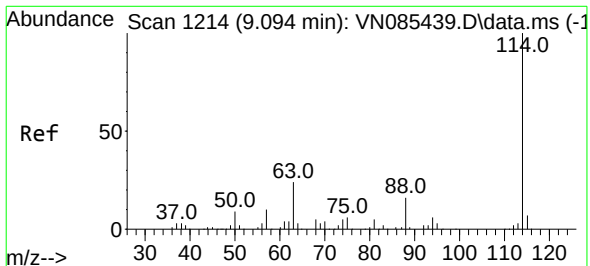
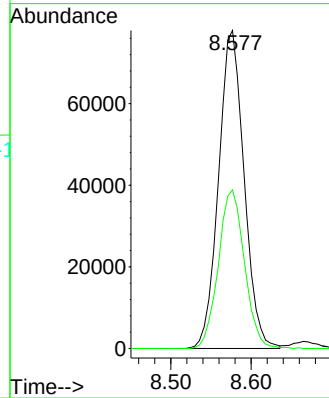
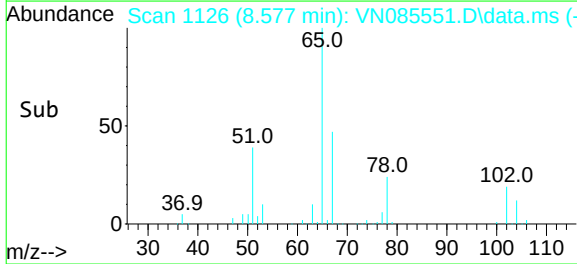
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBS01



Tgt Ion: 65 Resp: 171860  
Ion Ratio Lower Upper  
65 100  
67 51.0 0.0 101.6

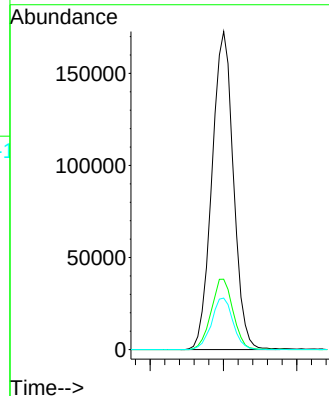
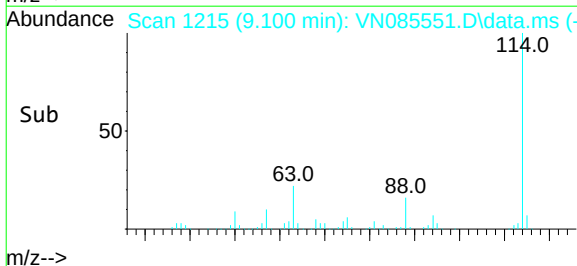
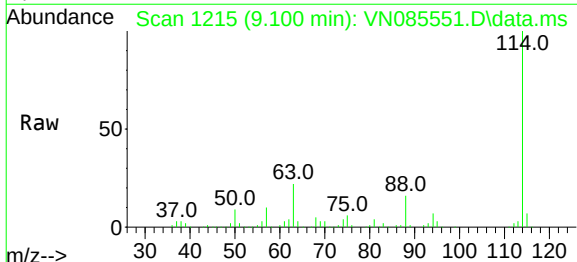
Manual Integrations  
APPROVED

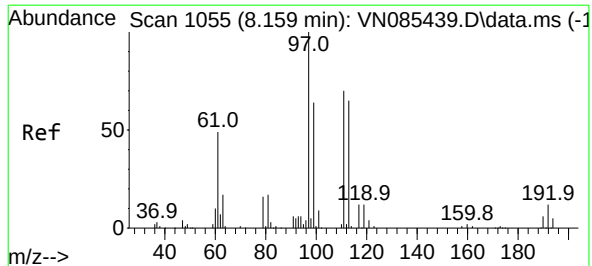
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 9.100 min Scan# 1215  
Delta R.T. 0.006 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

Tgt Ion:114 Resp: 351459  
Ion Ratio Lower Upper  
114 100  
63 22.1 0.0 47.6  
88 16.2 0.0 32.6





#35

Dibromofluoromethane

Concen: 52.085 ug/l

RT: 8.165 min Scan# 1055

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 113 Resp: 126996

Ion Ratio Lower Upper

113 100

111 102.5 82.7 124.1

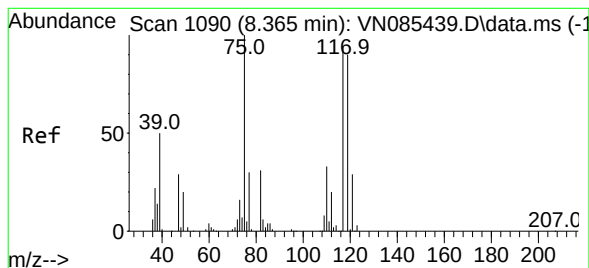
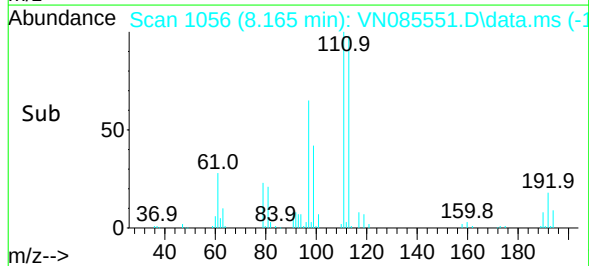
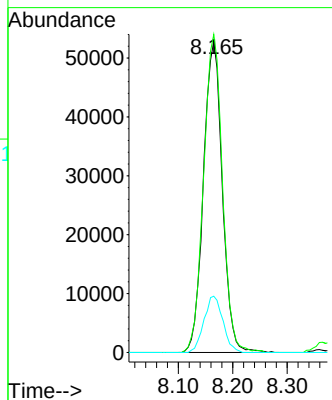
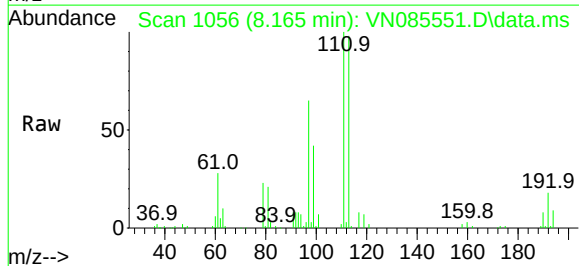
192 18.2 14.3 21.5

Manual Integrations

APPROVED

Reviewed By : John Carlone 01/30/2025

Supervised By : Mahesh Dadoda 01/30/2025



#36

1,1-Dichloropropene

Concen: 18.287 ug/l

RT: 8.371 min Scan# 1091

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

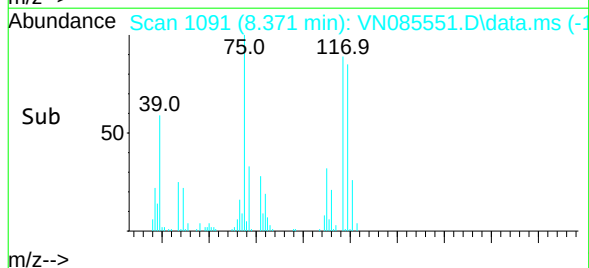
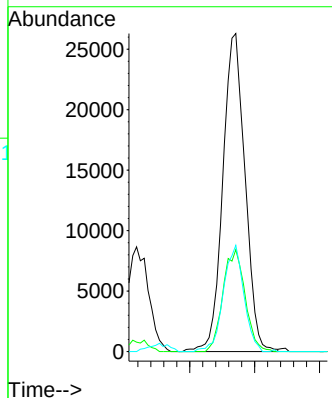
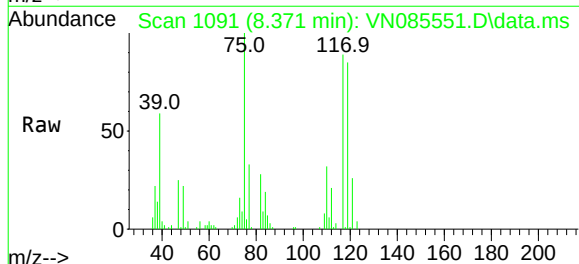
Tgt Ion: 75 Resp: 62579

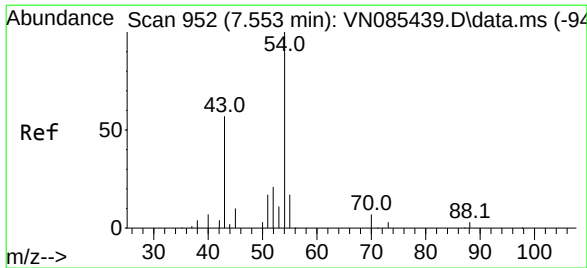
Ion Ratio Lower Upper

75 100

110 31.9 16.5 49.5

77 30.9 24.4 36.6





#37

Ethyl Acetate

Concen: 20.120 ug/l

RT: 7.553 min Scan# 95

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 43 Resp: 69495

Ion Ratio Lower Upper

43 100

61 12.0 10.9 16.3

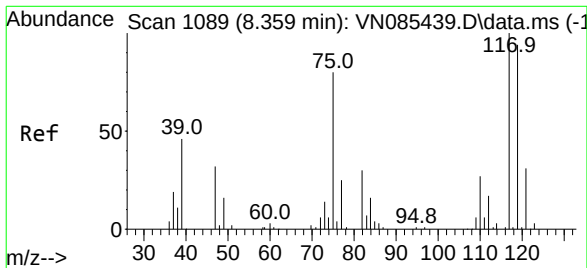
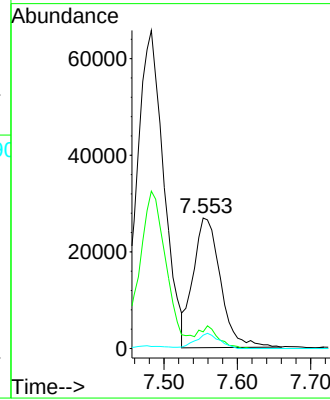
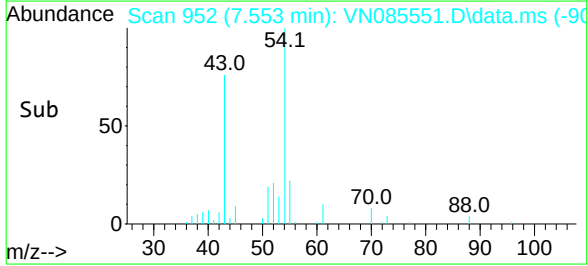
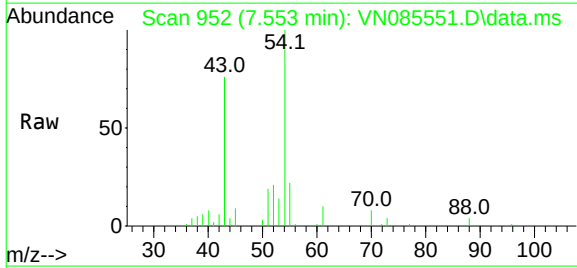
70 10.1 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#38

Carbon Tetrachloride

Concen: 19.489 ug/l

RT: 8.359 min Scan# 1089

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

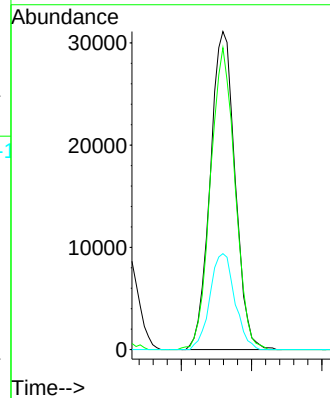
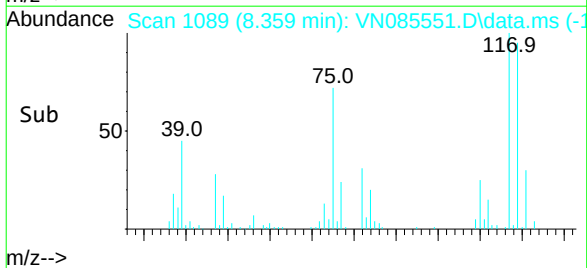
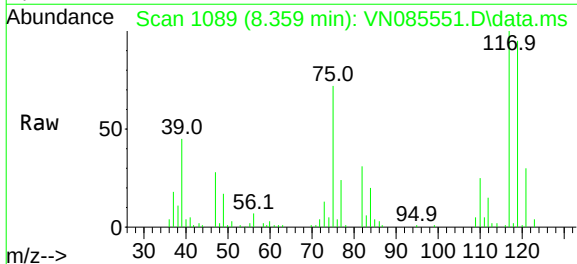
Tgt Ion:117 Resp: 76352

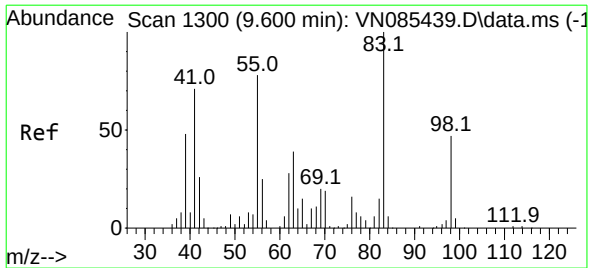
Ion Ratio Lower Upper

117 100

119 94.9 75.4 113.2

121 30.2 24.6 37.0





#39

Methylcyclohexane

Concen: 17.132 ug/l

RT: 9.594 min Scan# 1299

Delta R.T. -0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

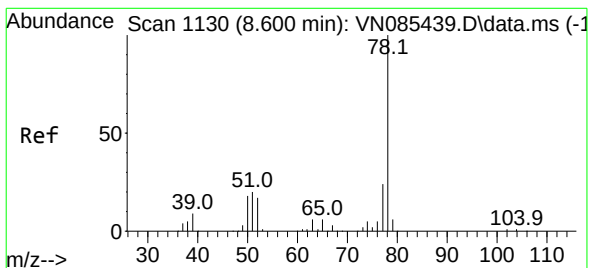
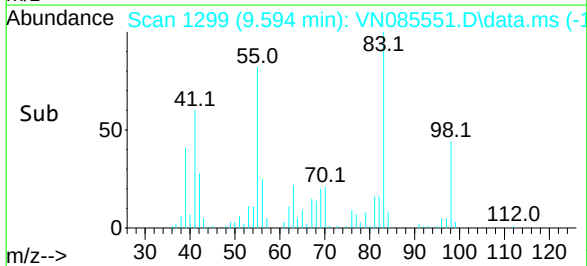
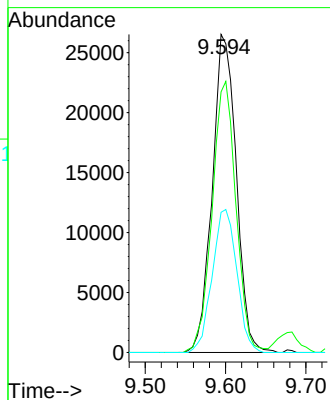
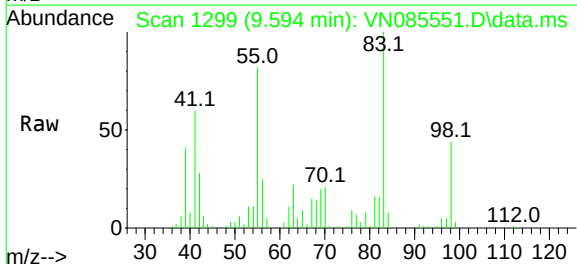
ClientSampleId :

VN0129WBS01

| Tgt Ion | 83    | Resp  | 55093 |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 83      | 100   |       |       |
| 55      | 81.9  | 62.6  | 94.0  |
| 98      | 44.1  | 37.7  | 56.5  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#40

Benzene

Concen: 19.413 ug/l

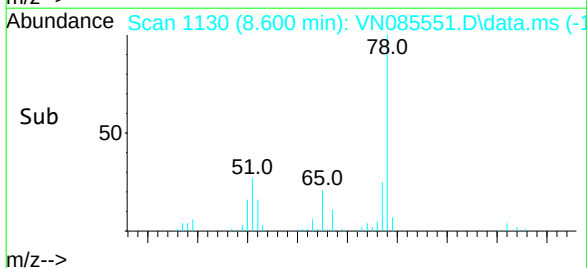
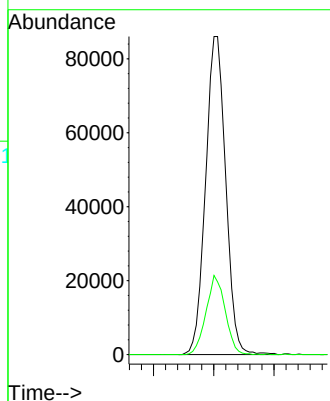
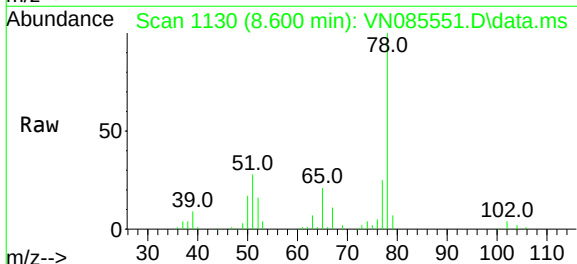
RT: 8.600 min Scan# 1130

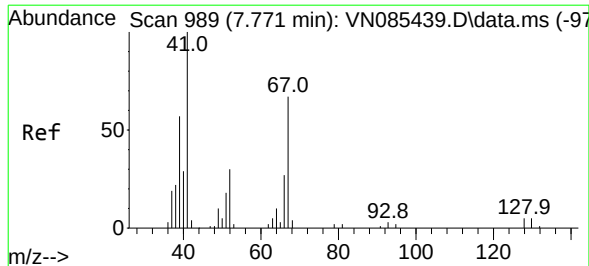
Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

| Tgt Ion | 78    | Resp  | 199602 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 78      | 100   |       |        |
| 77      | 24.9  | 19.0  | 28.6   |





#41

Methacrylonitrile

Concen: 19.967 ug/l

RT: 7.777 min Scan# 99

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 41 Resp: 35881

Ion Ratio Lower Upper

41 100

39 59.3 46.0 69.0

67 72.9 57.4 86.2

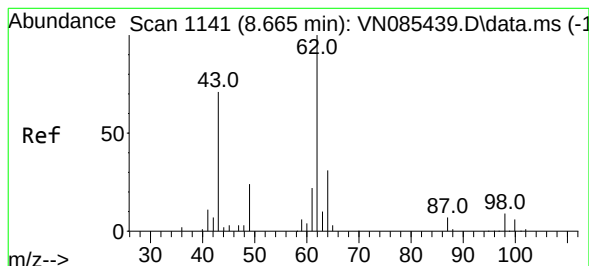
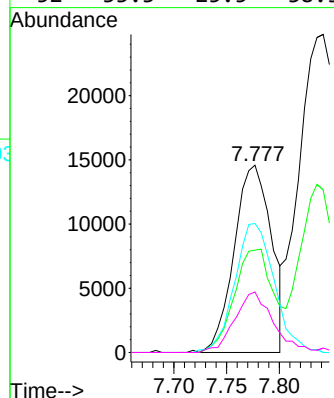
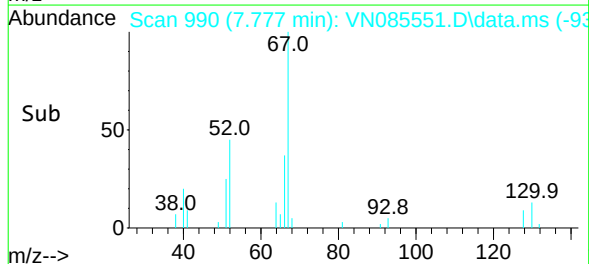
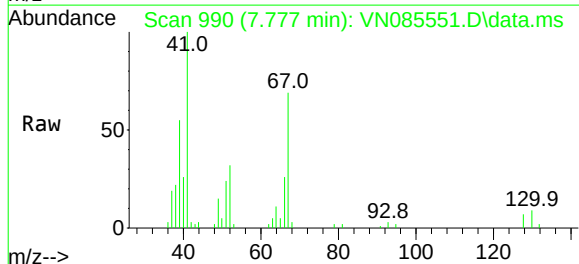
52 33.3 25.5 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#42

1,2-Dichloroethane

Concen: 20.002 ug/l

RT: 8.665 min Scan# 1141

Delta R.T. 0.000 min

Lab File: VN085551.D

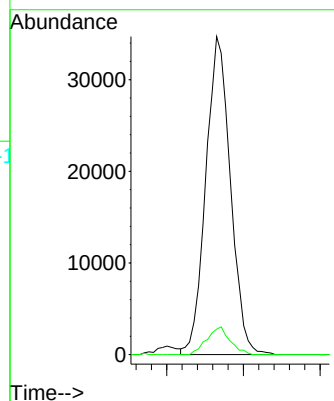
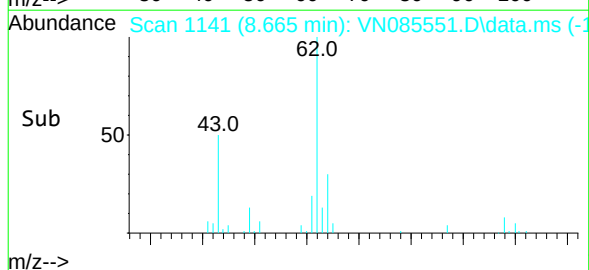
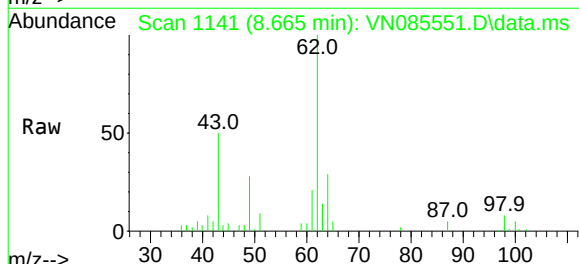
Acq: 29 Jan 2025 12:30

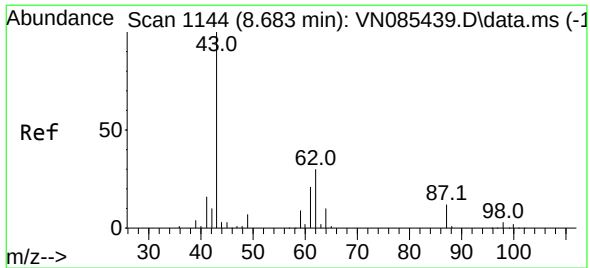
Tgt Ion: 62 Resp: 77457

Ion Ratio Lower Upper

62 100

98 8.2 0.0 17.0





#43

Isopropyl Acetate

Concen: 20.680 ug/l

RT: 8.689 min Scan# 1144

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

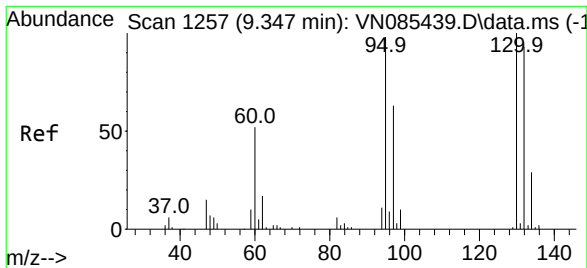
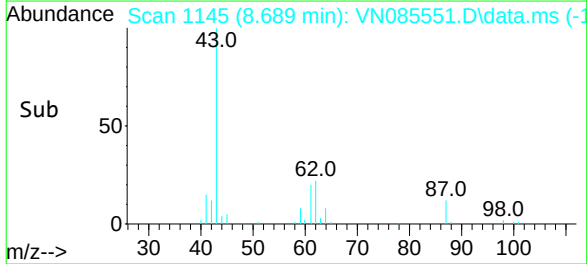
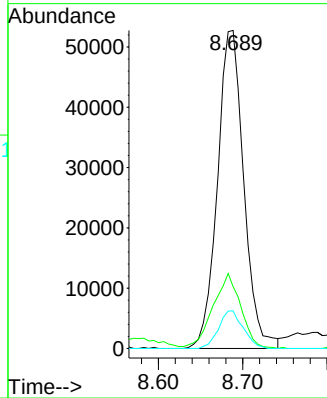
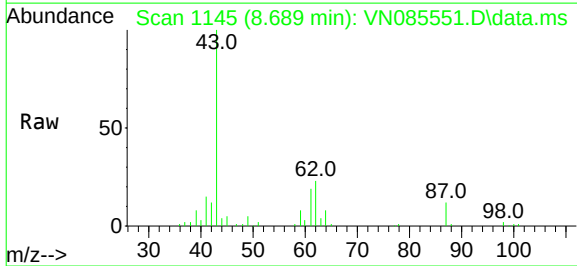
Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 114457 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 61       | 25.0  | 20.7  | 31.1   |
| 87       | 11.0  | 9.8   | 14.8   |

Manual Integrations  
APPROVEDReviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

#44

Trichloroethene

Concen: 18.886 ug/l

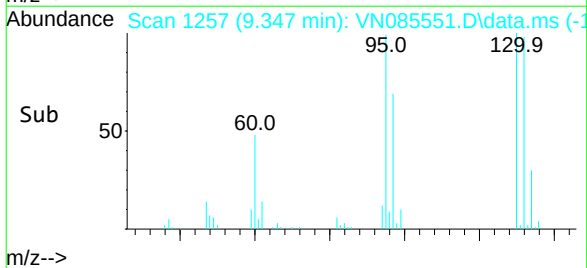
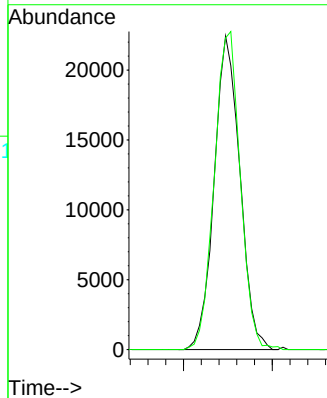
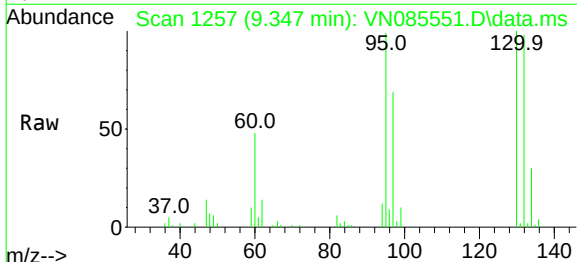
RT: 9.347 min Scan# 1257

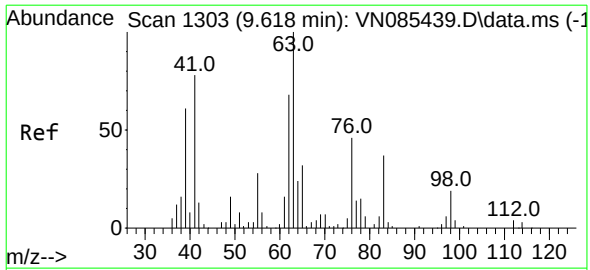
Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 130   | Resp: | 45202 |
| Ion      | Ratio | Lower | Upper |
| 130      | 100   |       |       |
| 95       | 99.4  | 0.0   | 195.8 |





#45

1,2-Dichloropropane

Concen: 19.591 ug/l

RT: 9.624 min Scan# 1303

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 63 Resp: 51454

Ion Ratio Lower Upper

63 100

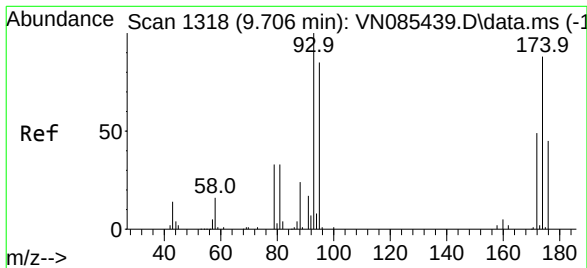
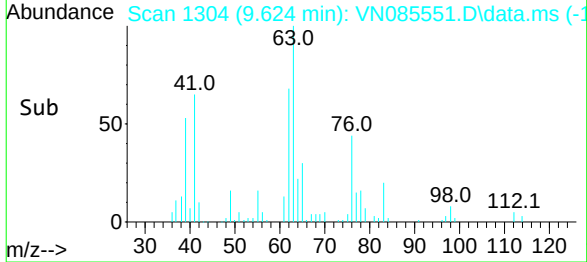
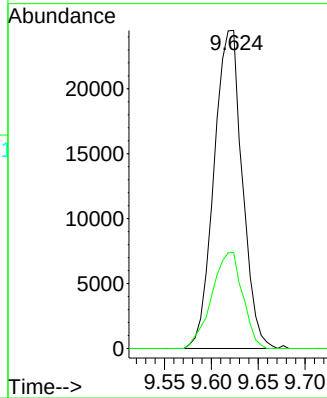
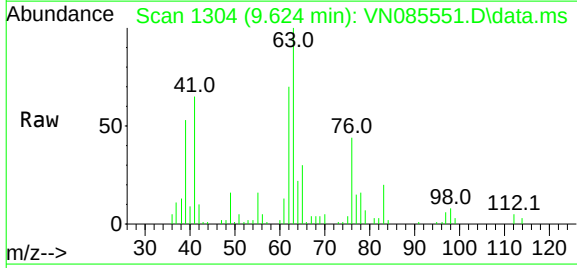
65 30.2 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#46

Dibromomethane

Concen: 18.941 ug/l

RT: 9.706 min Scan# 1318

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

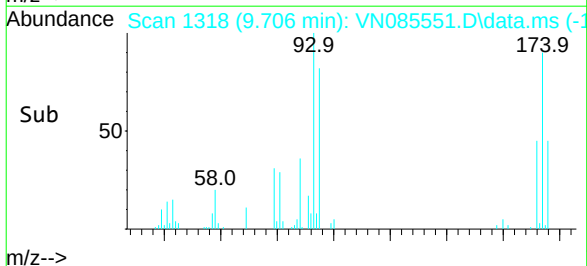
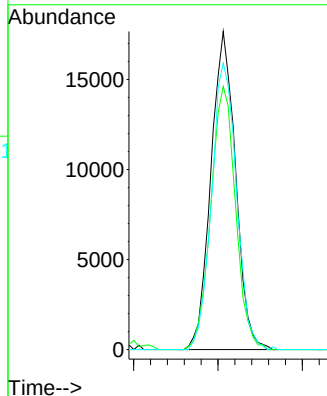
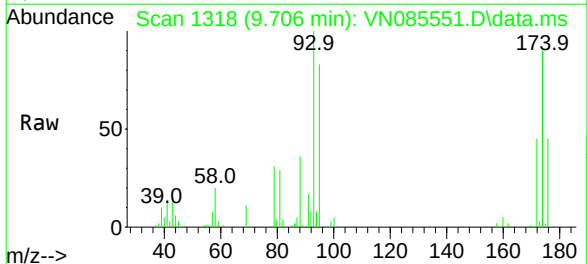
Tgt Ion: 93 Resp: 35894

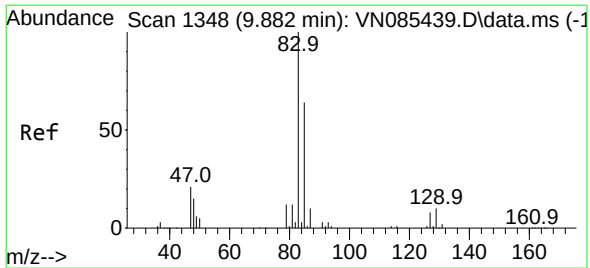
Ion Ratio Lower Upper

93 100

95 82.9 64.7 97.1

174 91.0 69.0 103.4





#47

Bromodichloromethane

Concen: 20.639 ug/l

RT: 9.883 min Scan# 1348

Delta R.T. 0.001 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

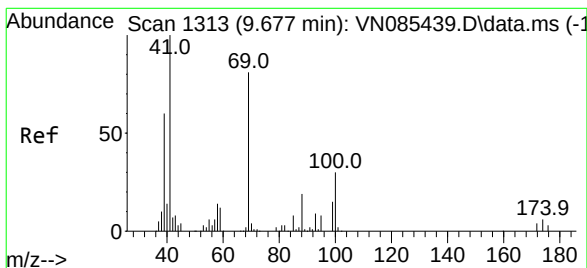
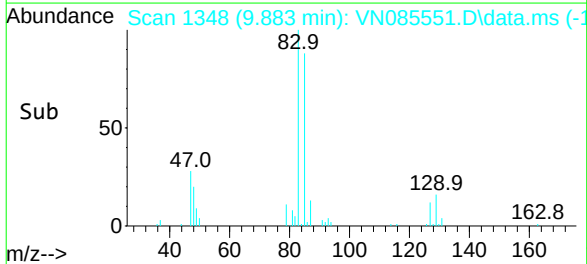
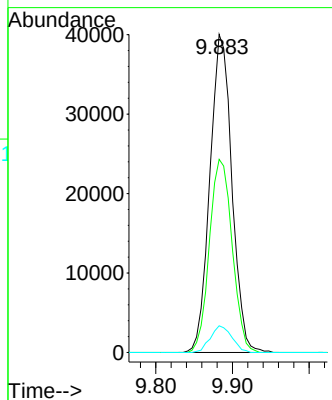
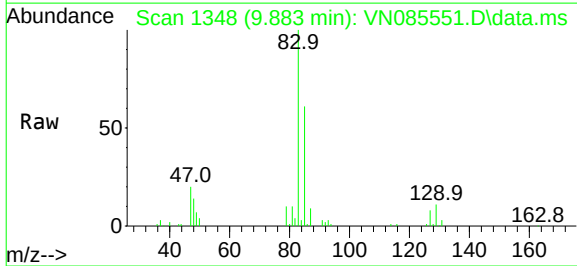
ClientSampleId :

VN0129WBS01

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 79684 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 60.7  | 51.2  | 76.8  |
| 127      | 8.4   | 6.5   | 9.7   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#48

Methyl methacrylate

Concen: 19.917 ug/l

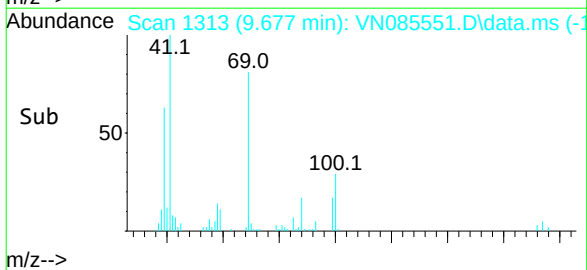
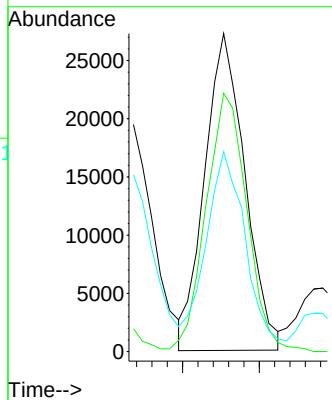
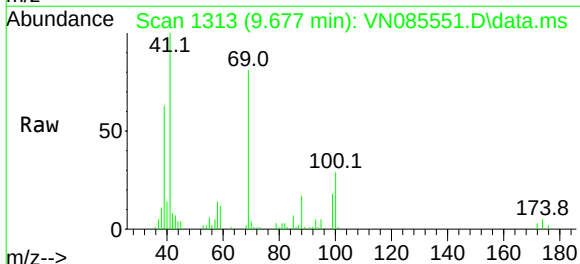
RT: 9.677 min Scan# 1313

Delta R.T. -0.000 min

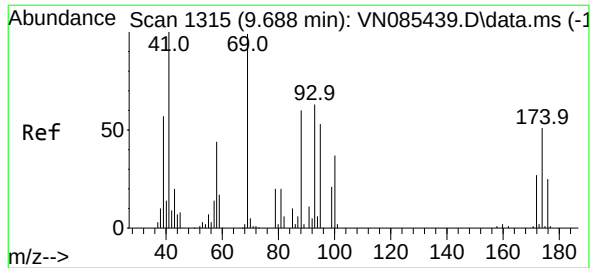
Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 49608 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 69       | 82.9  | 64.7  | 97.1  |
| 39       | 63.1  | 49.0  | 73.6  |







#49

1,4-Dioxane

Concen: 456.023 ug/l

RT: 9.694 min Scan# 1315

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 88 Resp: 19127

Ion Ratio Lower Upper

88 100

43 30.5 26.6 39.8

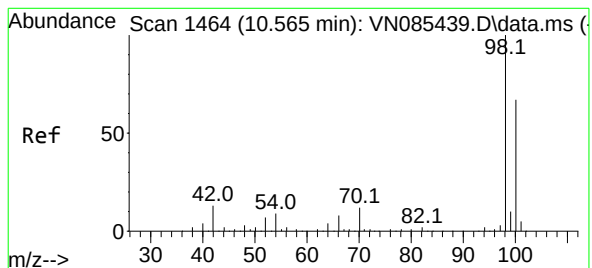
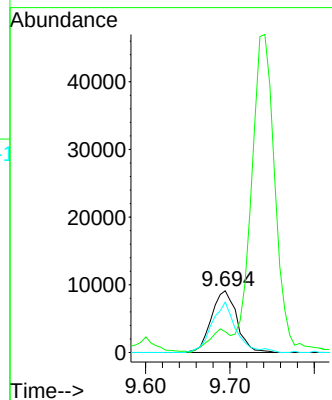
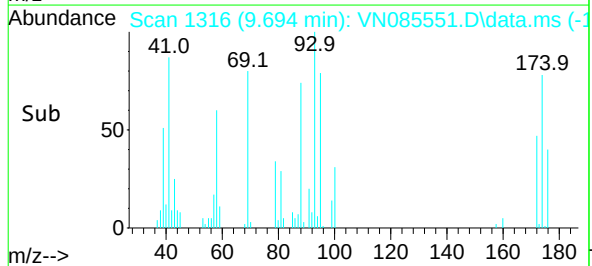
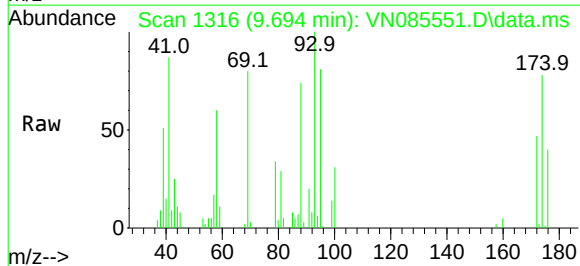
58 78.0 59.5 89.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#50

Toluene-d8

Concen: 52.996 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. 0.000 min

Lab File: VN085551.D

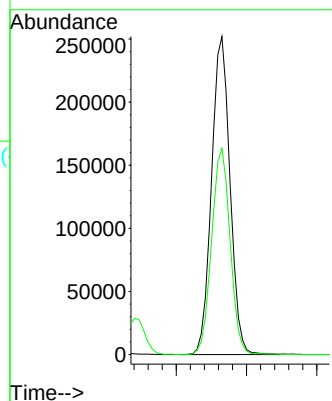
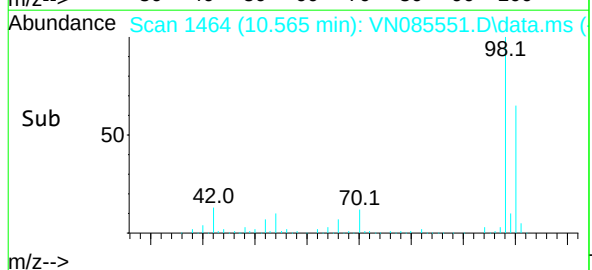
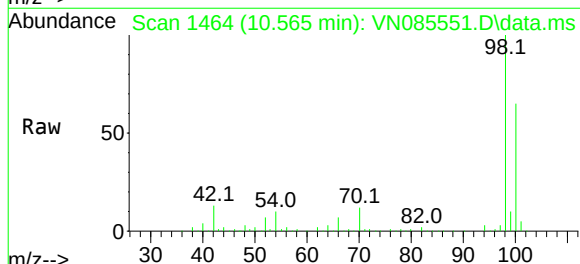
Acq: 29 Jan 2025 12:30

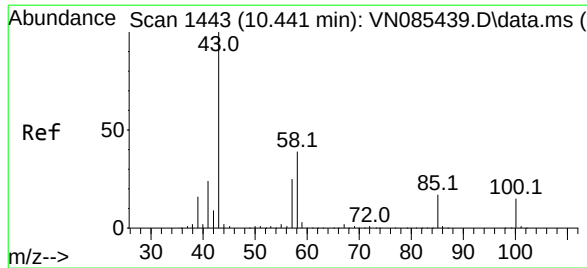
Tgt Ion: 98 Resp: 459113

Ion Ratio Lower Upper

98 100

100 65.2 52.2 78.4





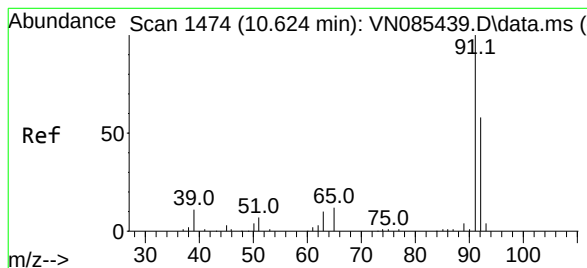
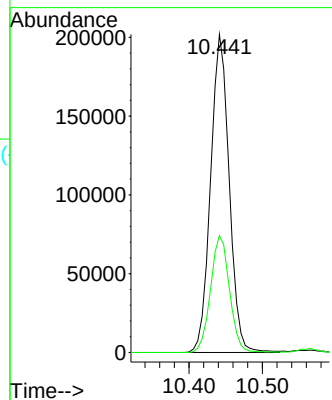
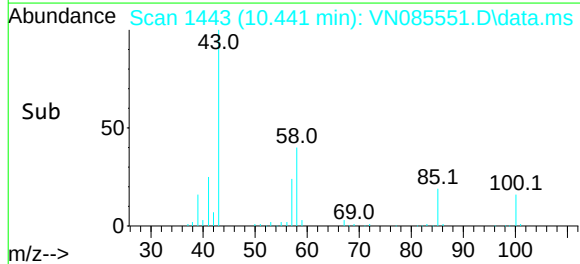
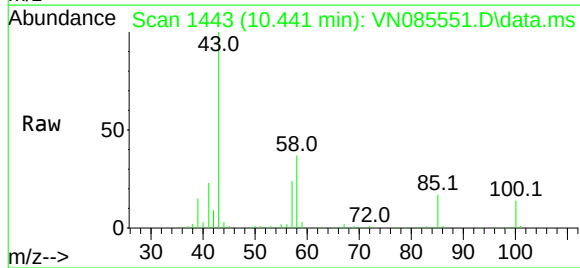
#51  
4-Methyl-2-Pentanone  
Concen: 110.742 ug/l  
RT: 10.441 min Scan# 1443  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBS01

Tgt Ion: 43 Resp: 355666  
Ion Ratio Lower Upper  
43 100  
58 37.5 30.5 45.7

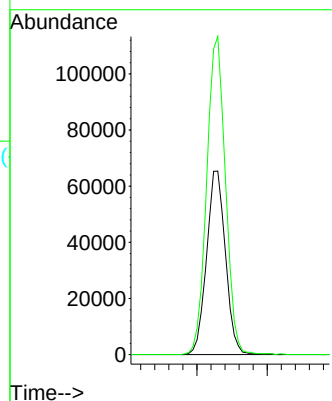
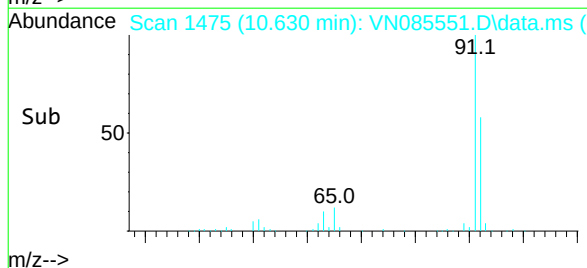
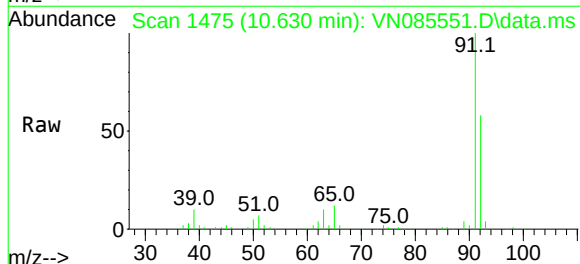
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APPROVED

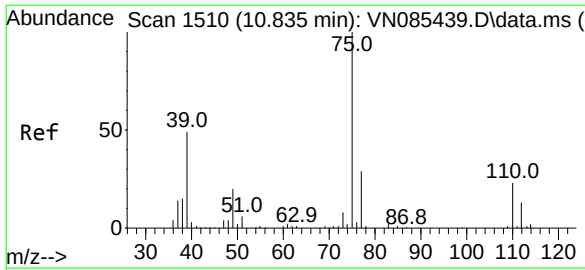
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#52  
Toluene  
Concen: 20.475 ug/l  
RT: 10.630 min Scan# 1475  
Delta R.T. 0.006 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

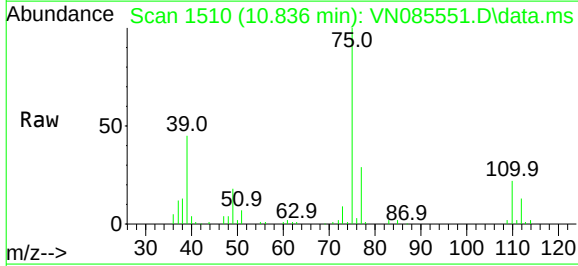
Tgt Ion: 92 Resp: 121981  
Ion Ratio Lower Upper  
92 100  
91 172.1 139.2 208.8





#53  
t-1,3-Dichloropropene  
Concen: 20.222 ug/l  
RT: 10.836 min Scan# 1510  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

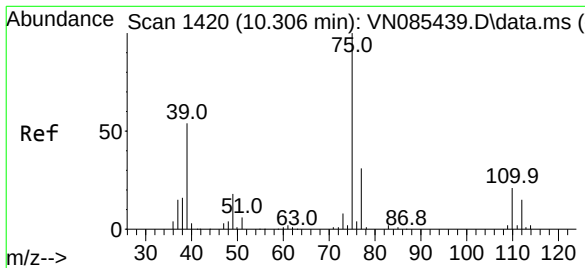
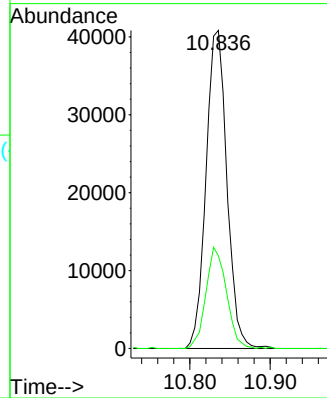
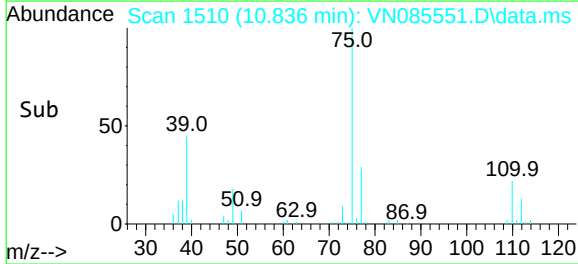
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBS01



Tgt Ion: 75 Resp: 73781  
Ion Ratio Lower Upper  
75 100  
77 29.1 23.5 35.3

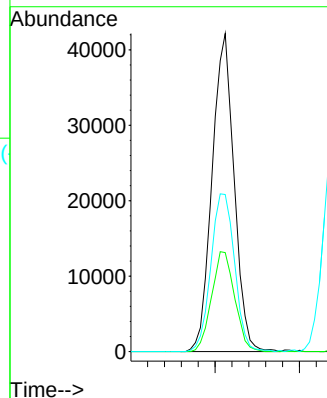
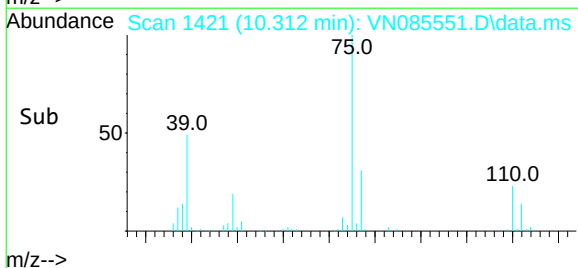
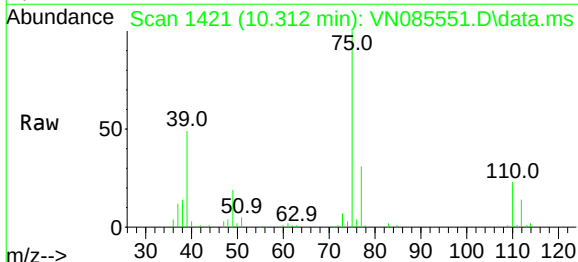
Manual Integrations  
APPROVED

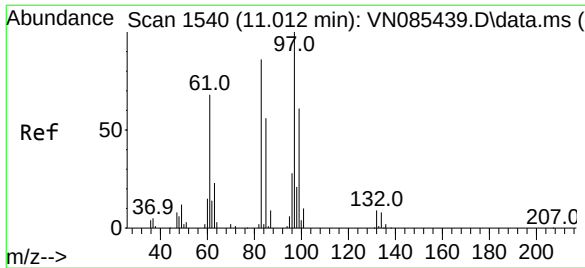
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#54  
cis-1,3-Dichloropropene  
Concen: 19.648 ug/l  
RT: 10.312 min Scan# 1421  
Delta R.T. 0.006 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

Tgt Ion: 75 Resp: 76573  
Ion Ratio Lower Upper  
75 100  
77 31.1 25.0 37.4  
39 49.4 43.1 64.7





#55

1,1,2-Trichloroethane

Concen: 20.602 ug/l

RT: 11.012 min Scan# 1540

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 97 Resp: 48573

Ion Ratio Lower Upper

97 100

83 90.6 69.0 103.6

85 57.6 44.6 66.8

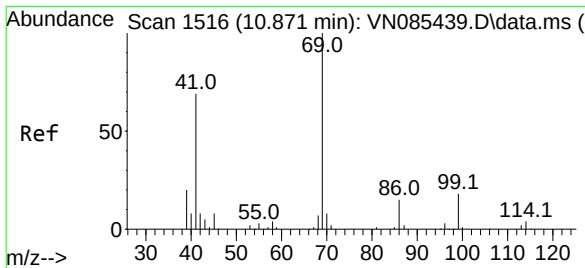
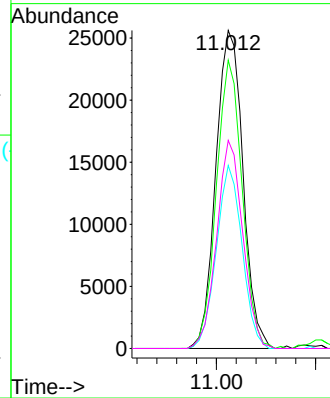
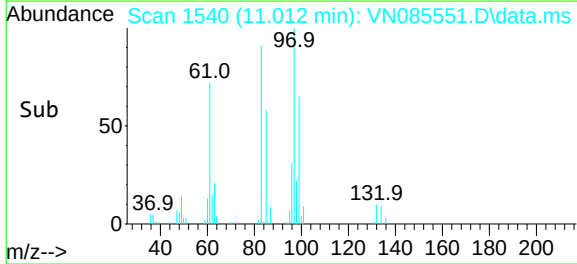
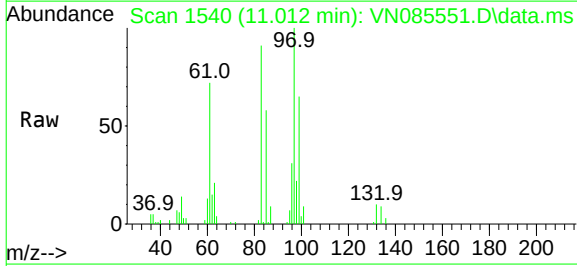
99 65.4 48.6 72.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#56

Ethyl methacrylate

Concen: 18.136 ug/l

RT: 10.871 min Scan# 1516

Delta R.T. -0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

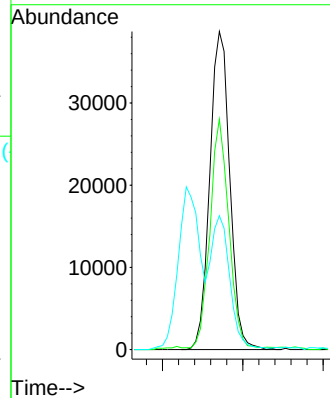
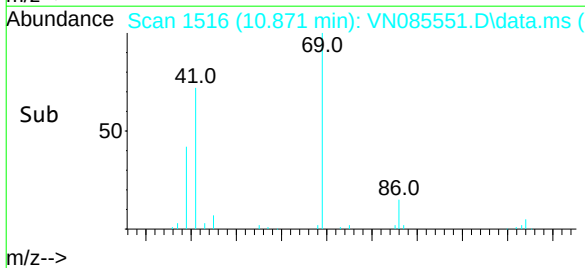
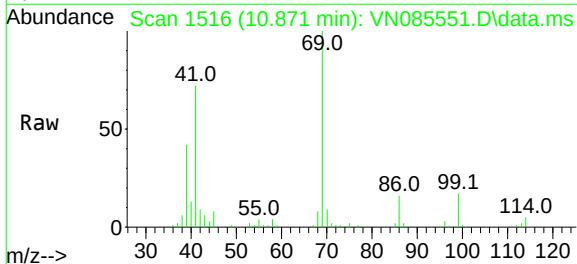
Tgt Ion: 69 Resp: 66949

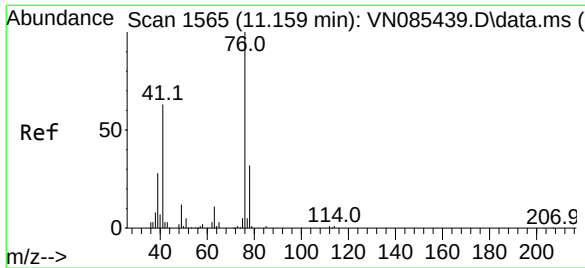
Ion Ratio Lower Upper

69 100

41 67.0 54.6 82.0

39 39.3 32.4 48.6





#57

1,3-Dichloropropane

Concen: 20.323 ug/l

RT: 11.159 min Scan# 1565

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 76 Resp: 83319

Ion Ratio Lower Upper

76 100

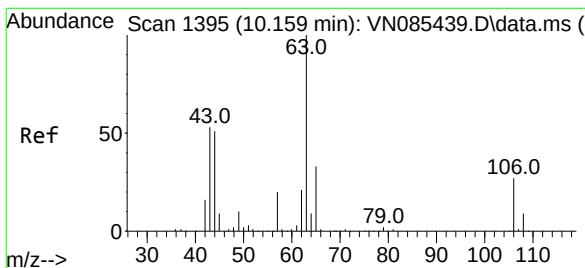
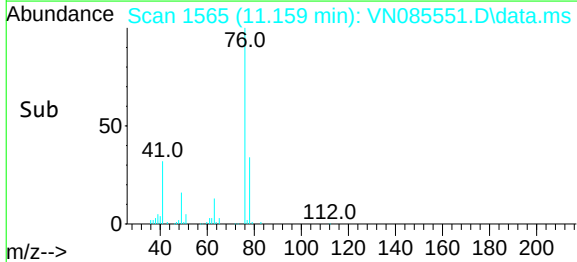
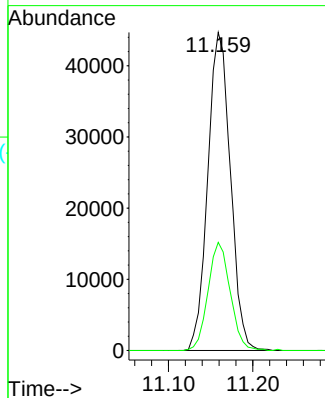
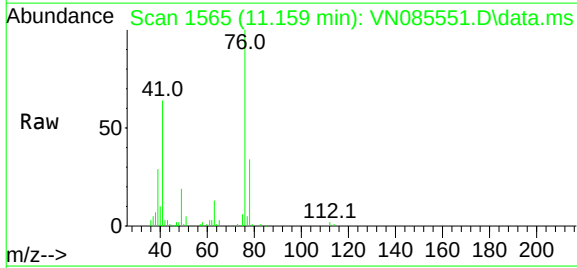
78 33.3 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#58

2-Chloroethyl Vinyl ether

Concen: 88.125 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. 0.000 min

Lab File: VN085551.D

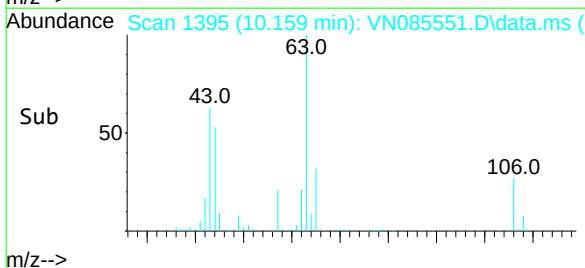
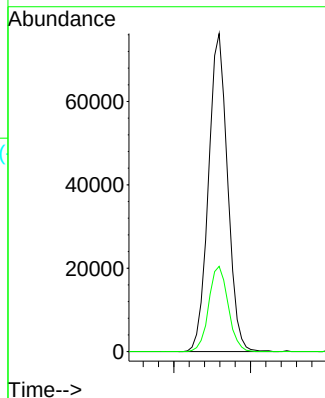
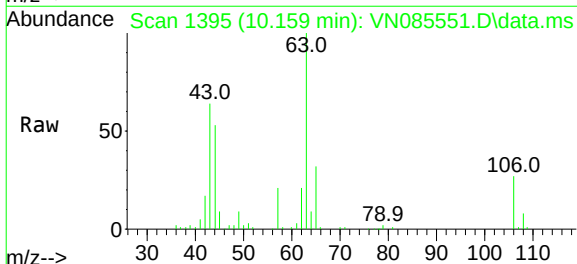
Acq: 29 Jan 2025 12:30

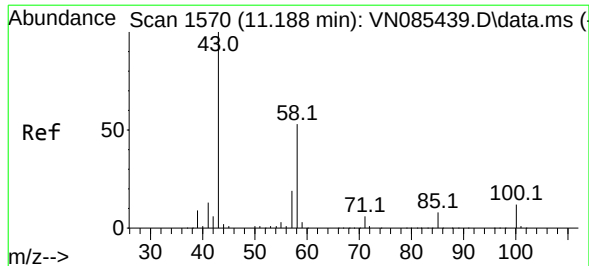
Tgt Ion: 63 Resp: 131853

Ion Ratio Lower Upper

63 100

106 27.2 21.6 32.4





#59

2-Hexanone

Concen: 114.068 ug/l

RT: 11.194 min Scan# 1570

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 43 Resp: 257774

Ion Ratio Lower Upper

43 100

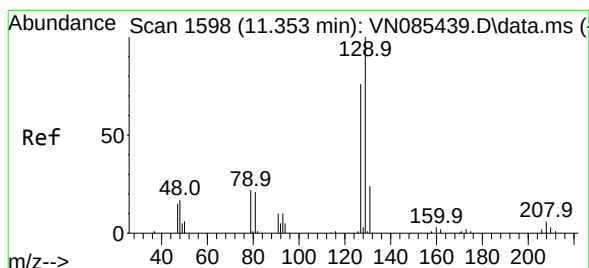
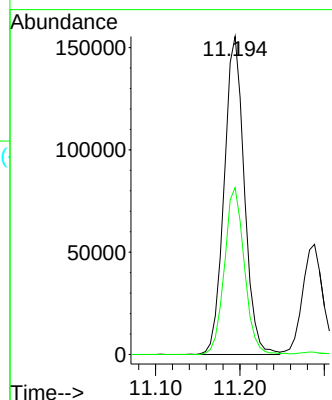
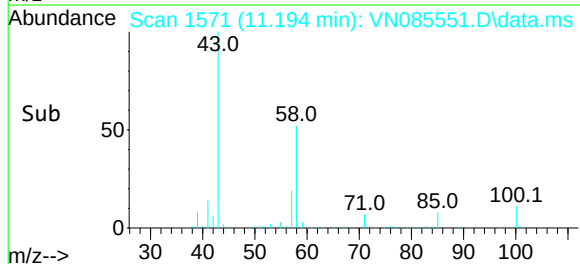
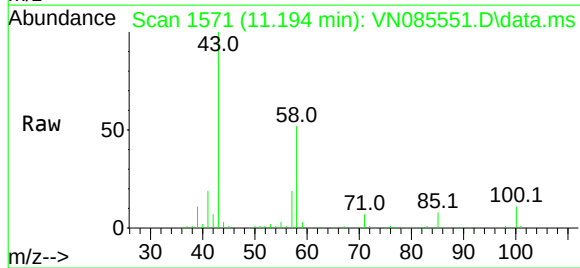
58 51.9 26.2 78.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#60

Dibromochloromethane

Concen: 20.364 ug/l

RT: 11.353 min Scan# 1598

Delta R.T. 0.000 min

Lab File: VN085551.D

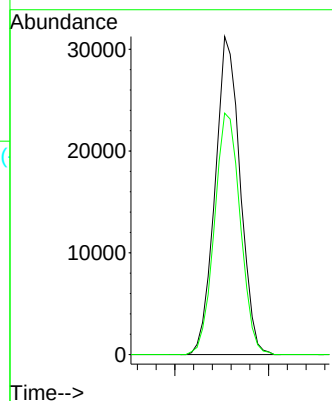
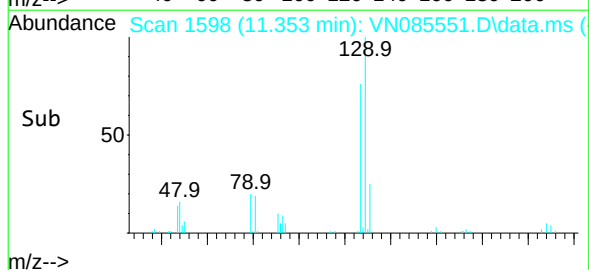
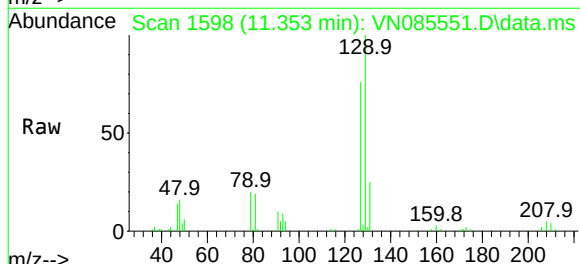
Acq: 29 Jan 2025 12:30

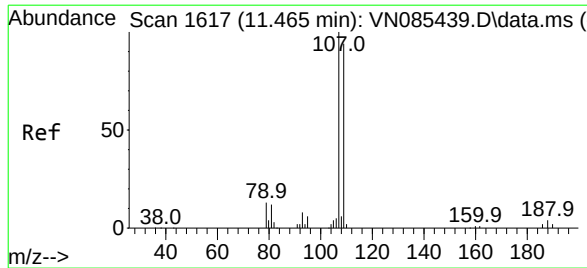
Tgt Ion:129 Resp: 57964

Ion Ratio Lower Upper

129 100

127 78.5 38.6 115.8





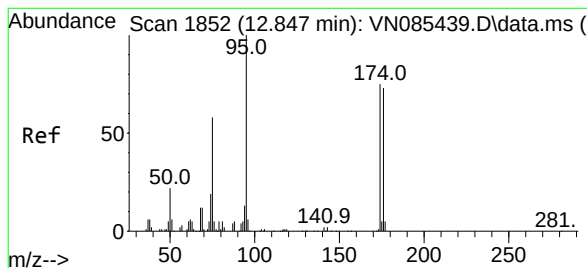
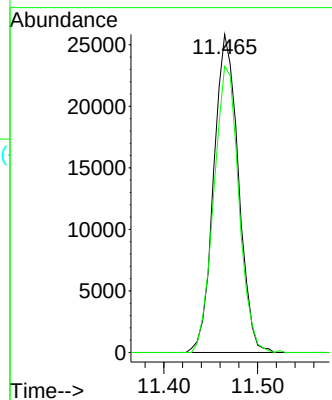
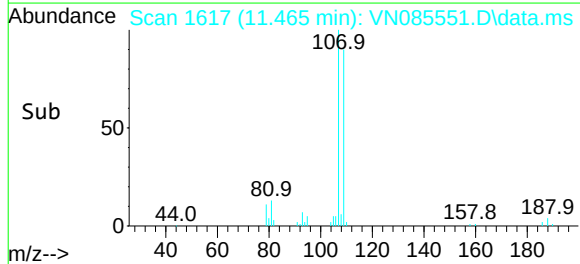
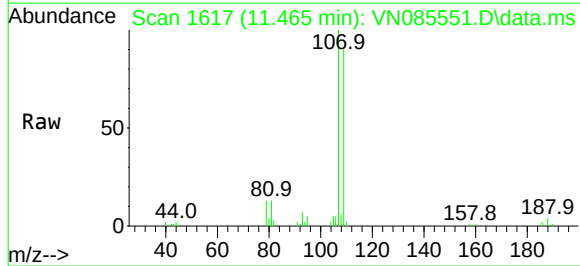
#61  
1,2-Dibromoethane  
Concen: 20.104 ug/l  
RT: 11.465 min Scan# 1617  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBS01

Tgt Ion: 107 Resp: 47182  
Ion Ratio Lower Upper  
107 100  
109 91.4 75.9 113.9

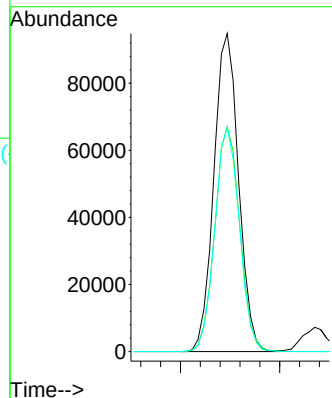
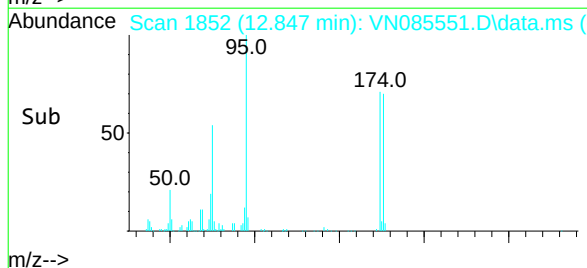
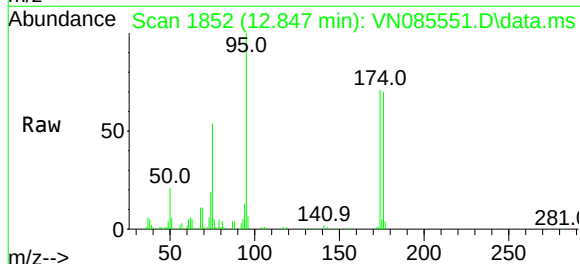
Manual Integrations  
APPROVED

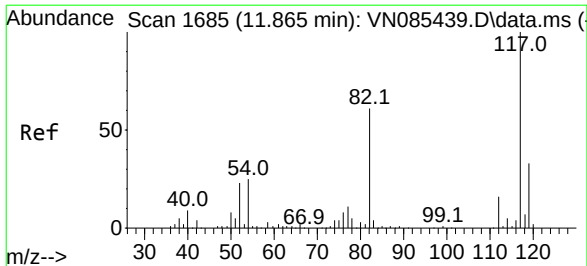
Reviewed By : John Carlone 01/30/2025  
Supervised By : Mahesh Dadoda 01/30/2025



#62  
4-Bromofluorobenzene  
Concen: 55.254 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

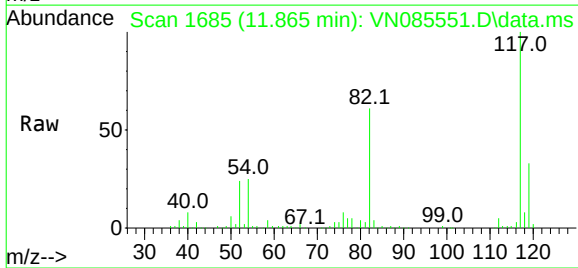
Tgt Ion: 95 Resp: 163742  
Ion Ratio Lower Upper  
95 100  
174 71.4 0.0 145.0  
176 70.0 0.0 142.4





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

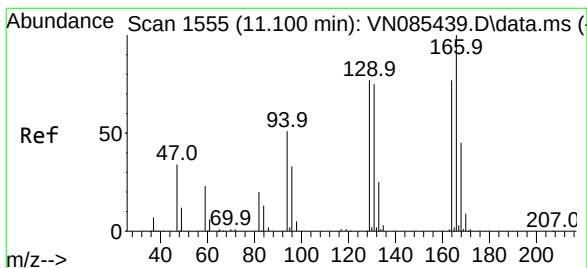
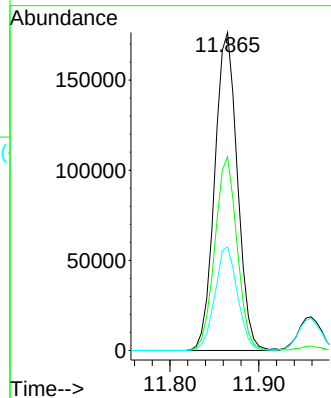
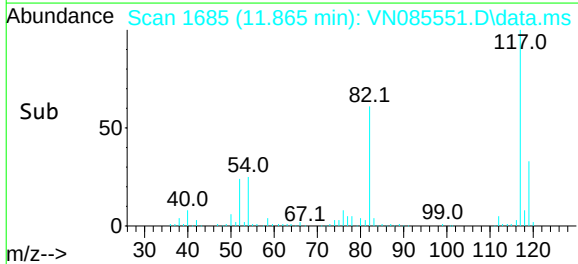
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBS01



Tgt Ion:117 Resp: 313028  
Ion Ratio Lower Upper  
117 100  
82 60.9 48.6 72.8  
119 32.6 26.6 39.8

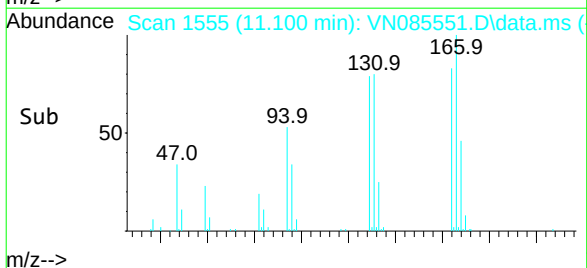
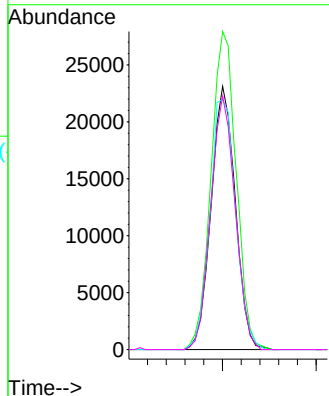
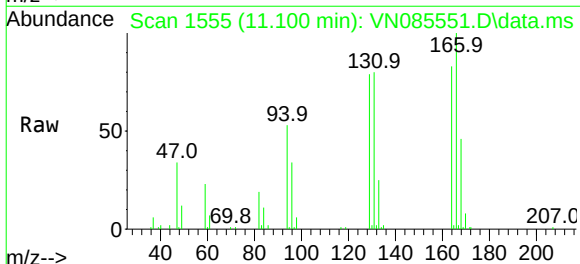
Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

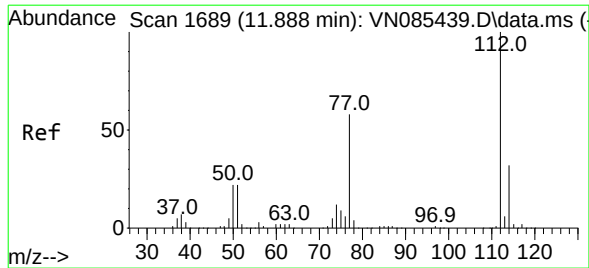


#64  
Tetrachloroethene  
Concen: 19.355 ug/l  
RT: 11.100 min Scan# 1555  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

Tgt Ion:164 Resp: 41303  
Ion Ratio Lower Upper  
164 100  
166 120.8 103.4 155.2  
129 94.9 79.2 118.8  
131 96.3 77.1 115.7







#65

Chlorobenzene

Concen: 19.282 ug/l

RT: 11.888 min Scan# 1689

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion:112 Resp: 132226

Ion Ratio Lower Upper

112 100

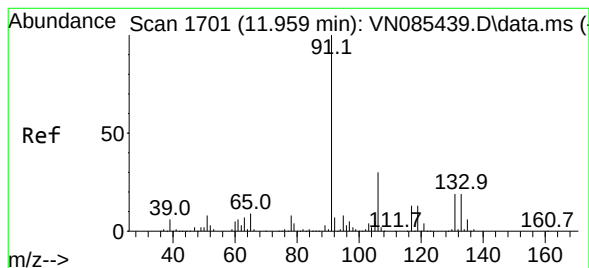
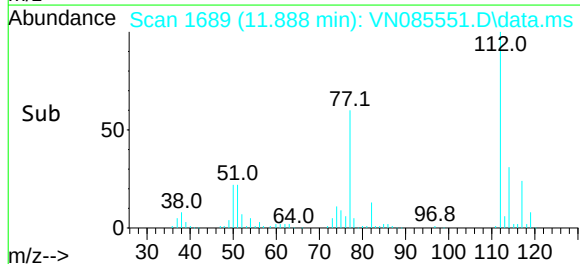
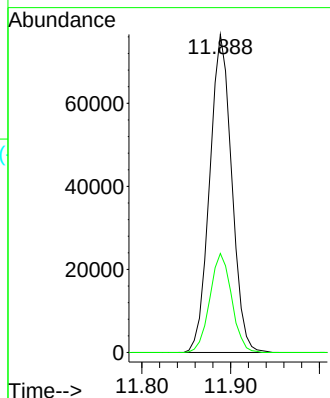
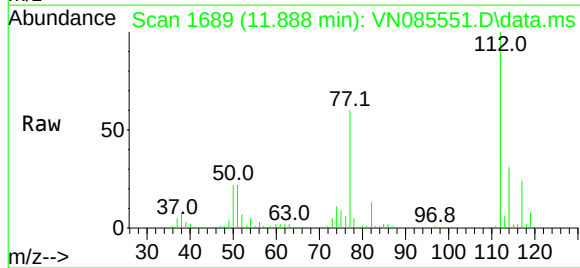
114 31.1 25.3 37.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#66

1,1,1,2-Tetrachloroethane

Concen: 19.907 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

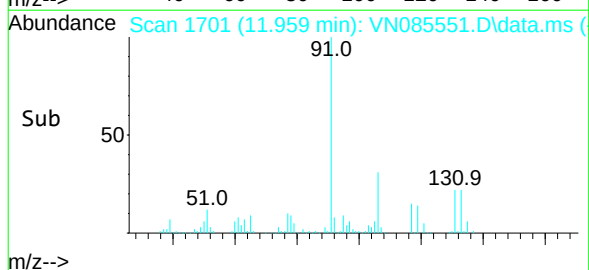
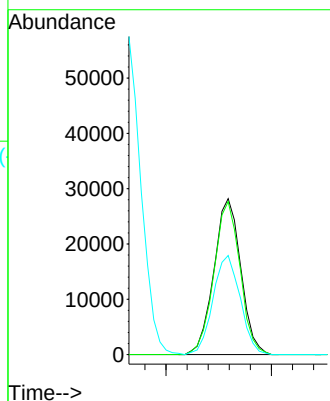
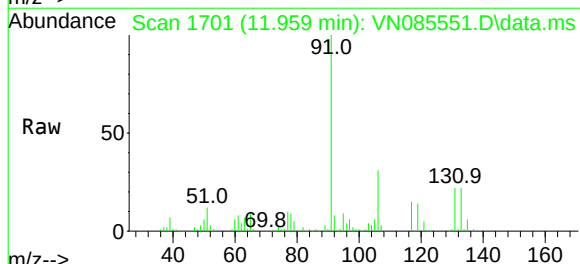
Tgt Ion:131 Resp: 50102

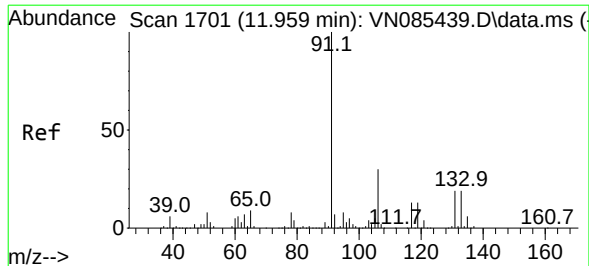
Ion Ratio Lower Upper

131 100

133 95.0 47.4 142.3

119 64.1 33.1 99.5





#67

Ethyl Benzene

Concen: 19.113 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 91 Resp: 213467

Ion Ratio Lower Upper

91 100

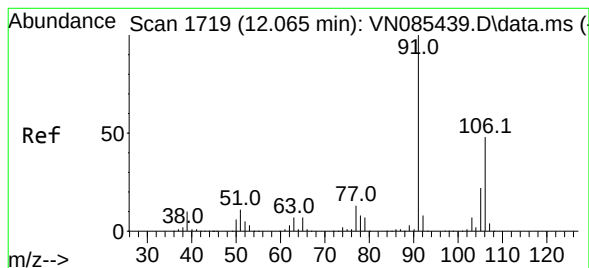
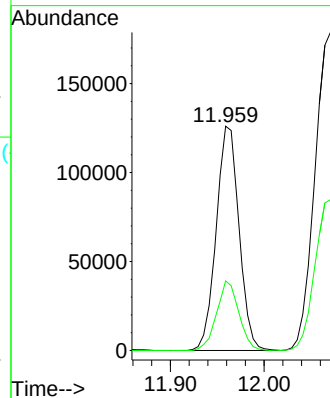
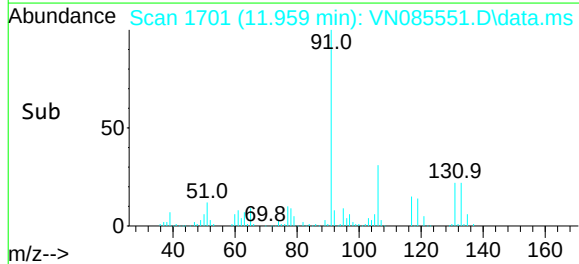
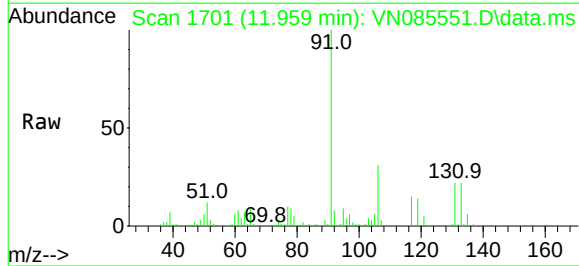
106 31.0 23.8 35.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#68

m/p-Xylenes

Concen: 39.945 ug/l

RT: 12.071 min Scan# 1720

Delta R.T. 0.006 min

Lab File: VN085551.D

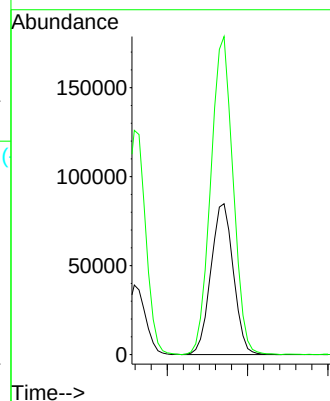
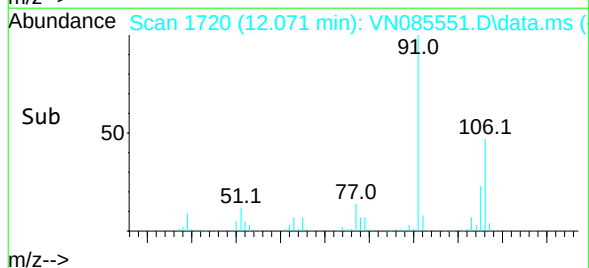
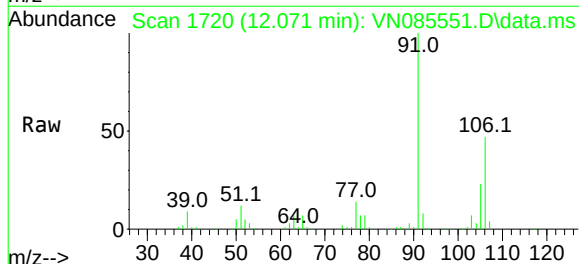
Acq: 29 Jan 2025 12:30

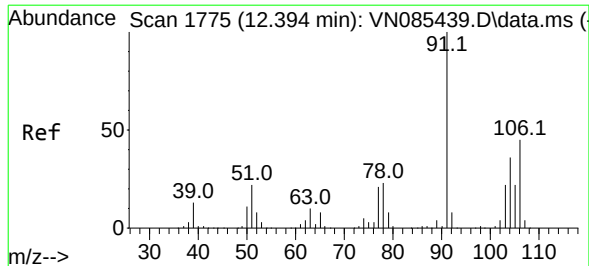
Tgt Ion:106 Resp: 164888

Ion Ratio Lower Upper

106 100

91 209.3 167.7 251.5





#69

o-Xylene

Concen: 19.288 ug/l

RT: 12.394 min Scan# 1775

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion:106 Resp: 76089

Ion Ratio Lower Upper

106 100

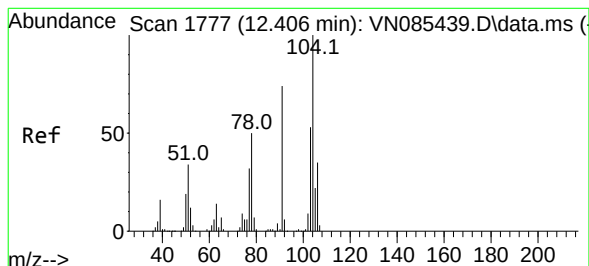
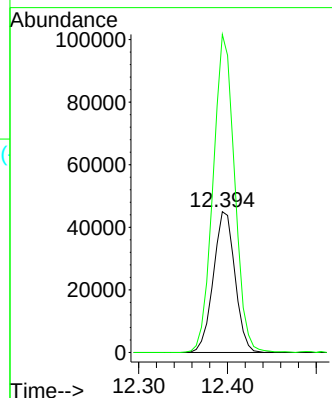
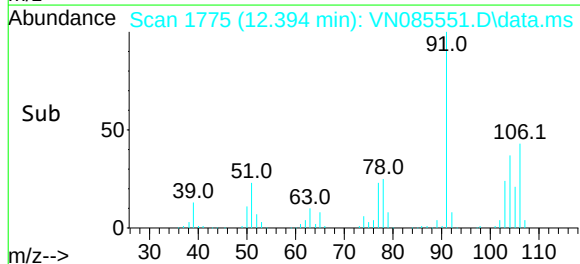
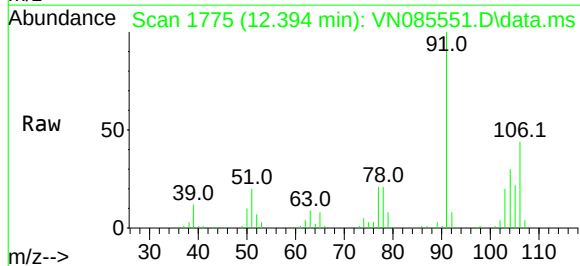
91 225.3 110.4 331.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#70

Styrene

Concen: 20.163 ug/l

RT: 12.406 min Scan# 1777

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

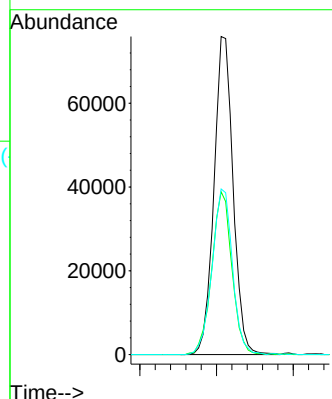
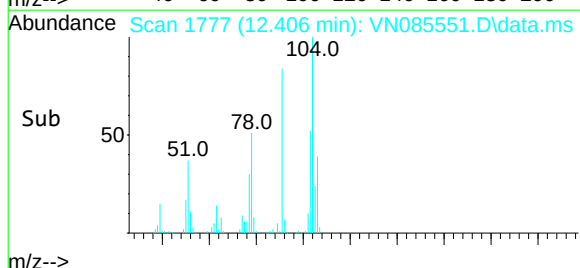
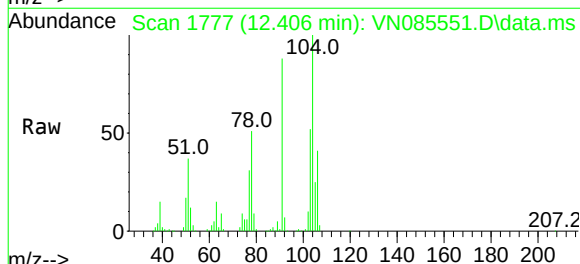
Tgt Ion:104 Resp: 131635

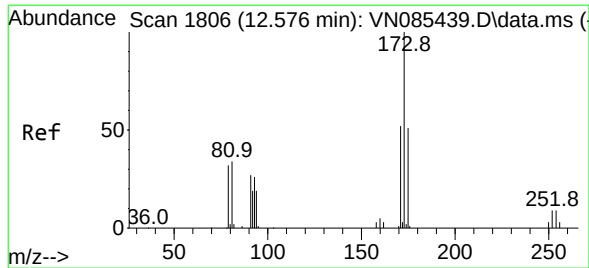
Ion Ratio Lower Upper

104 100

78 53.6 42.5 63.7

103 55.4 43.8 65.8





#71

Bromoform

Concen: 21.610 ug/l

RT: 12.577 min Scan# 1806

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion:173 Resp: 38916

Ion Ratio Lower Upper

173 100

175 47.1 24.4 73.2

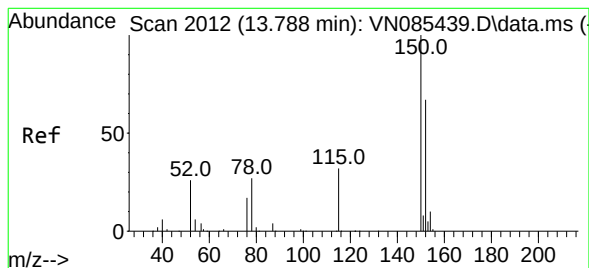
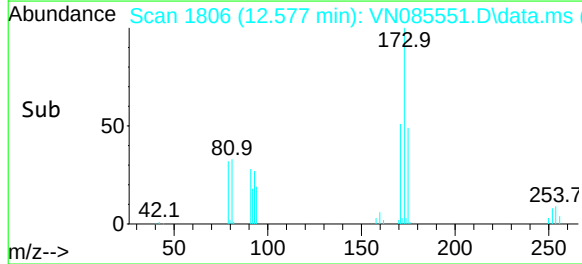
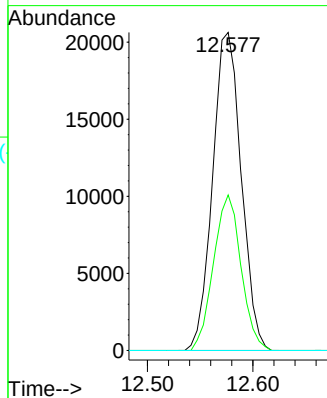
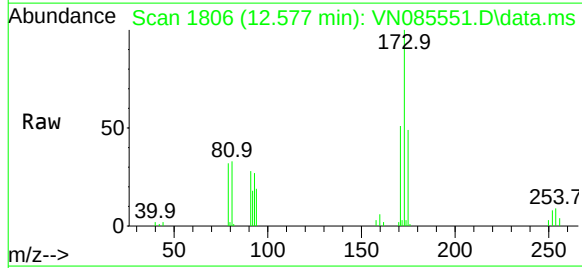
254 0.0 0.0 0.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.788 min Scan# 2012

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

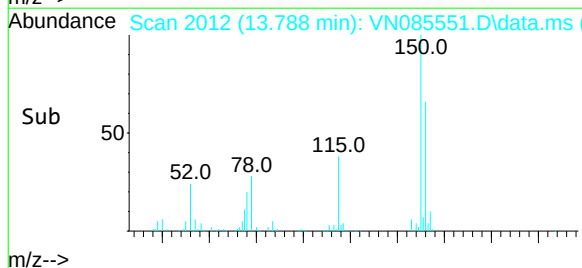
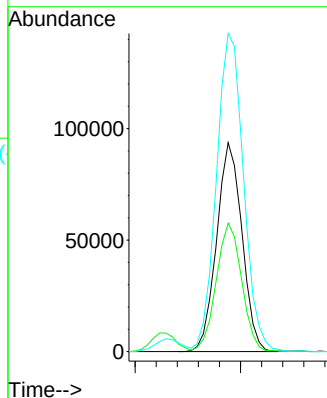
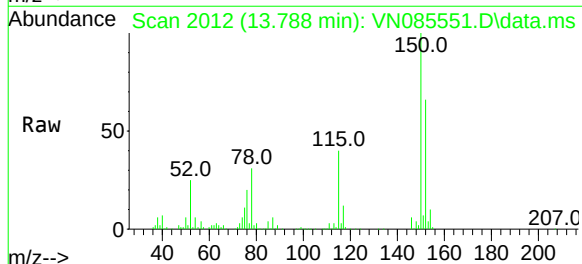
Tgt Ion:152 Resp: 156507

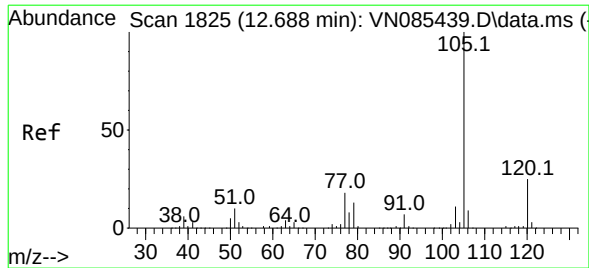
Ion Ratio Lower Upper

152 100

115 61.7 31.1 93.3

150 163.2 0.0 343.6





#73

Isopropylbenzene

Concen: 18.507 ug/l

RT: 12.694 min Scan# 1825

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 105 Resp: 195492

Ion Ratio Lower Upper

105 100

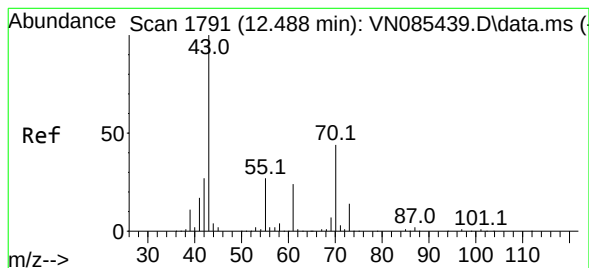
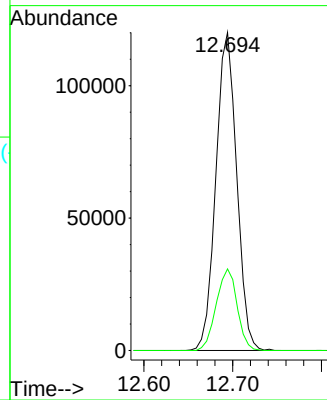
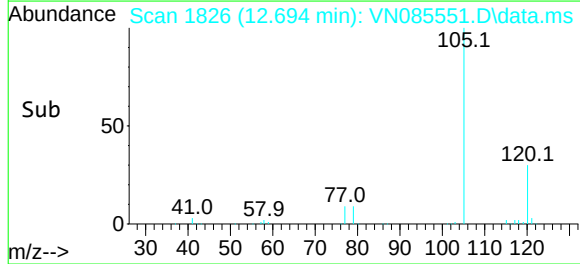
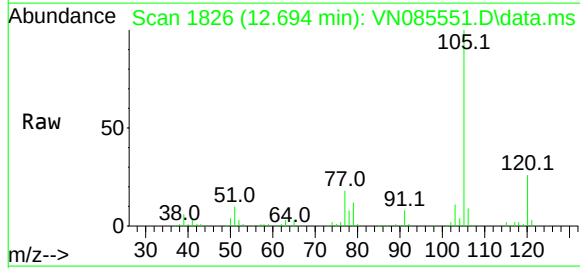
120 25.7 12.8 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#74

N-ethyl acetate

Concen: 18.877 ug/l

RT: 12.488 min Scan# 1791

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Tgt Ion: 43 Resp: 89626

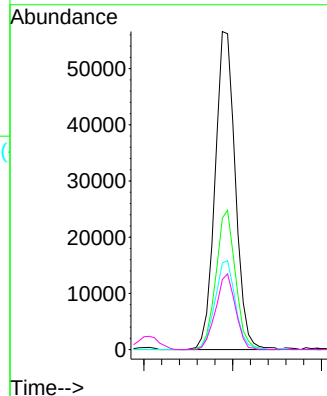
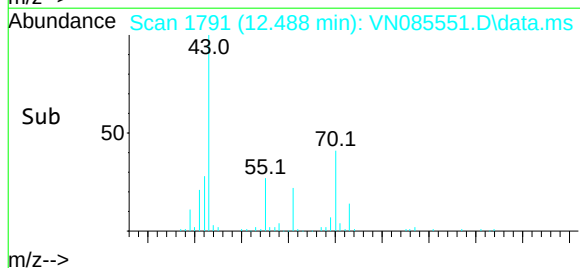
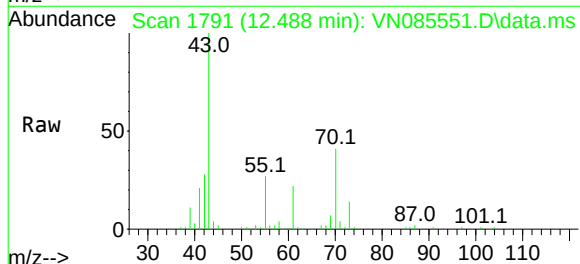
Ion Ratio Lower Upper

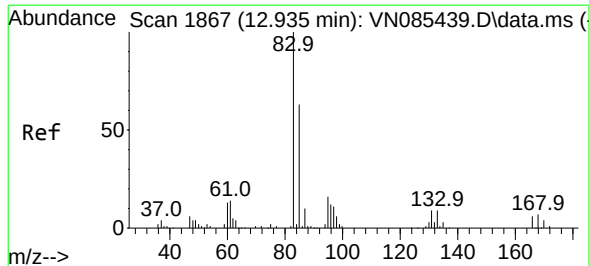
43 100

70 42.2 34.0 51.0

55 28.2 21.4 32.2

61 23.1 19.0 28.4





#75

1,1,2,2-Tetrachloroethane

Concen: 19.551 ug/l

RT: 12.935 min Scan# 1867

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

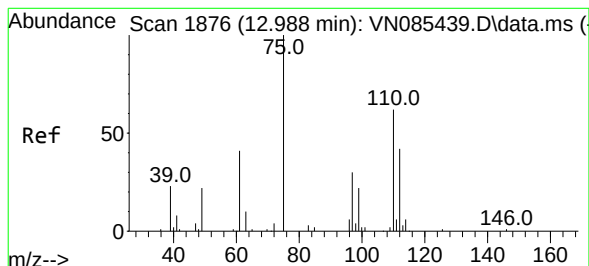
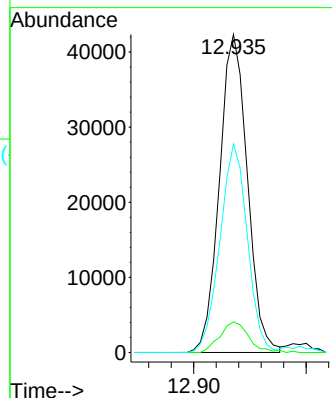
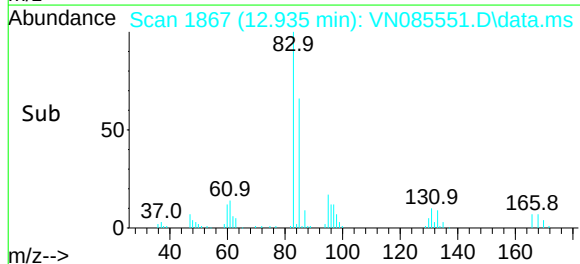
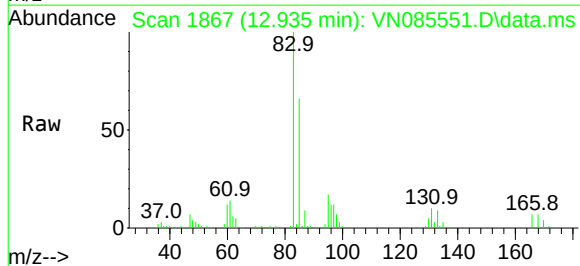
VN0129WBS01

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 72950 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 131      | 10.0  | 4.8   | 14.4  |
| 85       | 64.4  | 32.2  | 96.6  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#76

1,2,3-Trichloropropane

Concen: 21.554 ug/l m

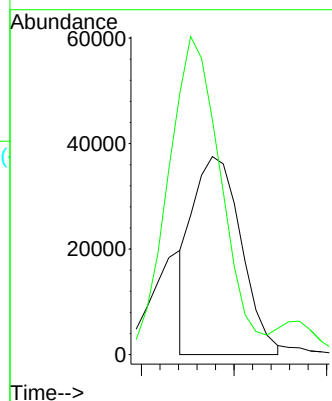
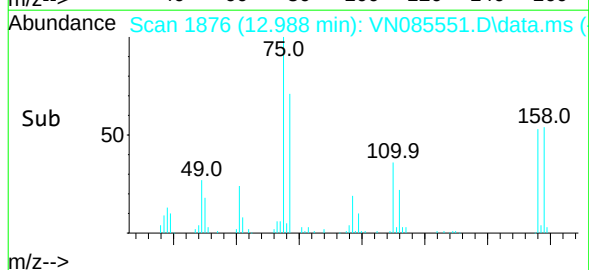
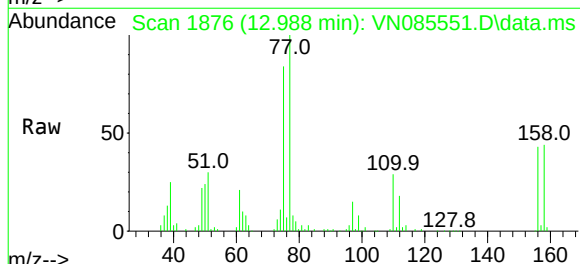
RT: 12.988 min Scan# 1876

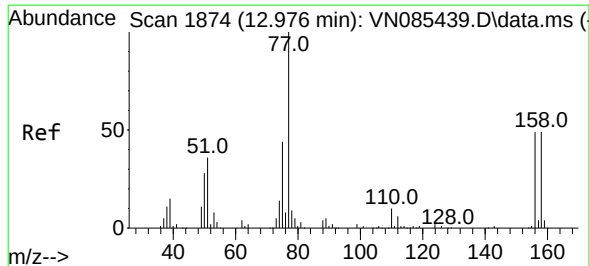
Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 68563 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 77       | 175.4 | 109.7 | 329.2 |





#77

Bromobenzene

Concen: 18.735 ug/l

RT: 12.977 min Scan# 1874

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion:156 Resp: 51702

Ion Ratio Lower Upper

156 100

77 232.6 114.1 342.4

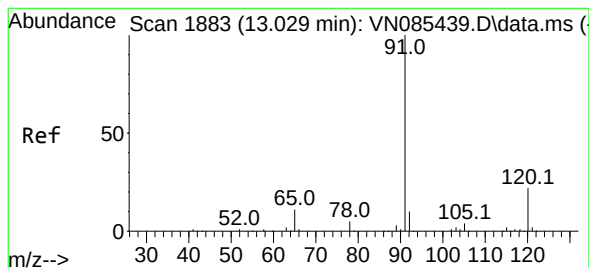
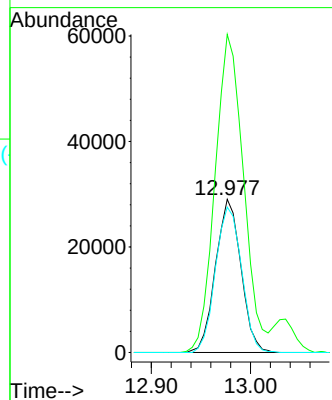
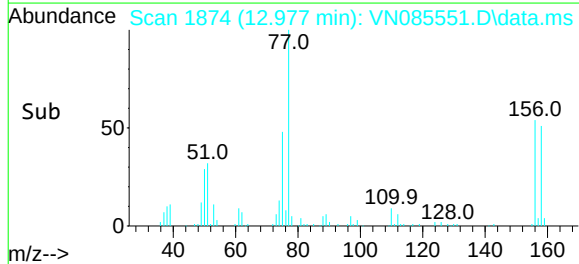
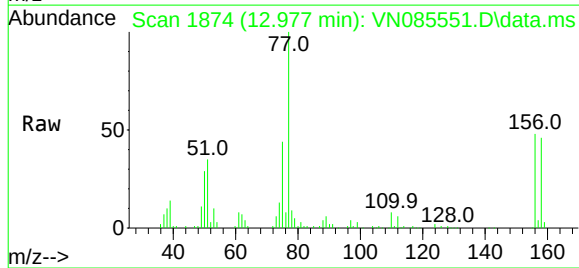
158 97.2 48.9 146.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#78

n-propylbenzene

Concen: 18.943 ug/l

RT: 13.035 min Scan# 1884

Delta R.T. 0.006 min

Lab File: VN085551.D

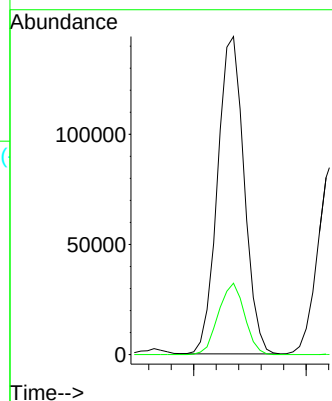
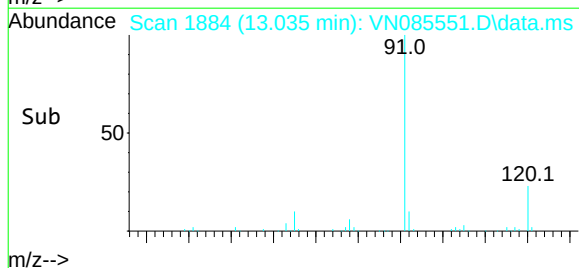
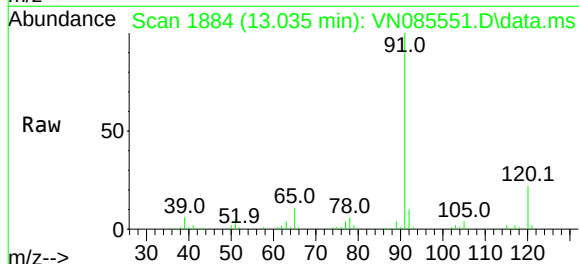
Acq: 29 Jan 2025 12:30

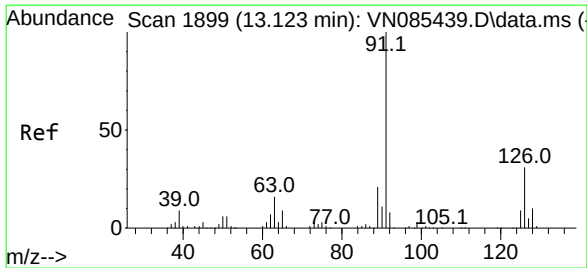
Tgt Ion: 91 Resp: 236875

Ion Ratio Lower Upper

91 100

120 22.0 10.9 32.6





#79

2-Chlorotoluene

Concen: 18.837 ug/l

RT: 13.124 min Scan# 1899

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 91 Resp: 152456

Ion Ratio Lower Upper

91 100

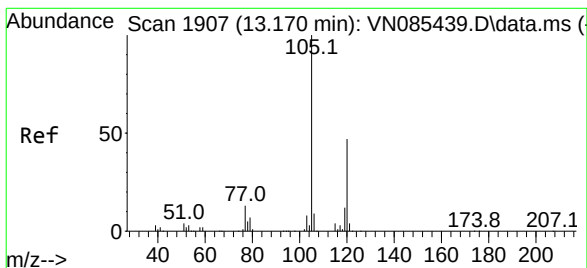
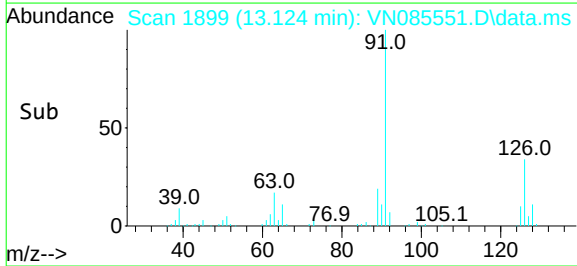
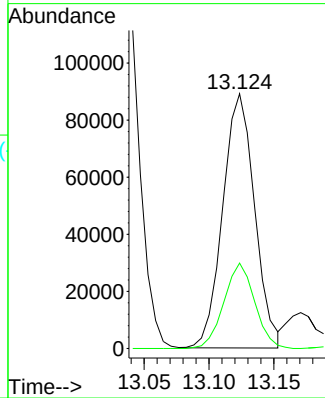
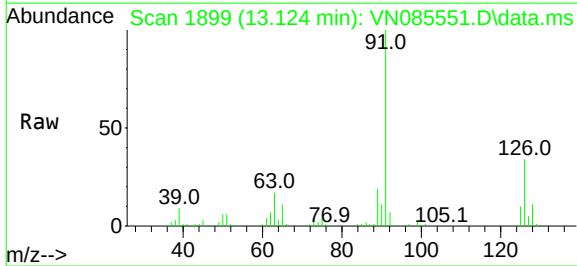
126 32.3 15.7 47.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#80

1,3,5-Trimethylbenzene

Concen: 19.515 ug/l

RT: 13.171 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VN085551.D

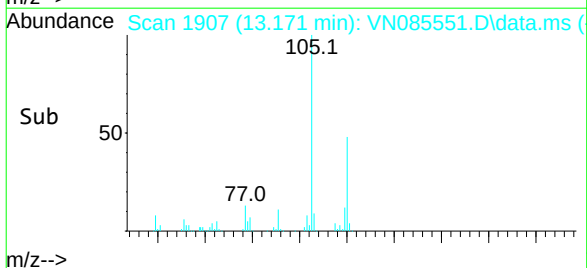
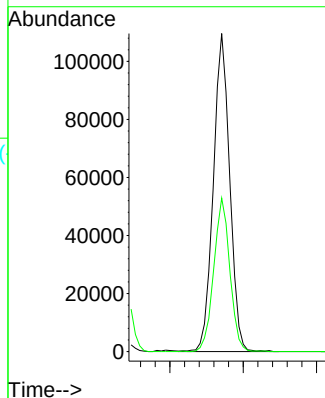
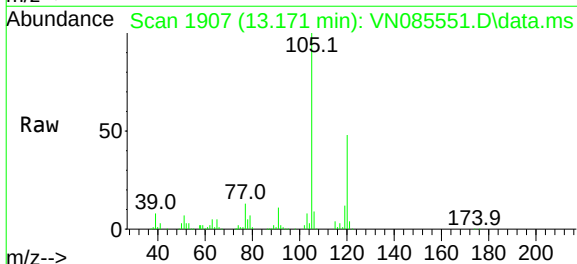
Acq: 29 Jan 2025 12:30

Tgt Ion:105 Resp: 170270

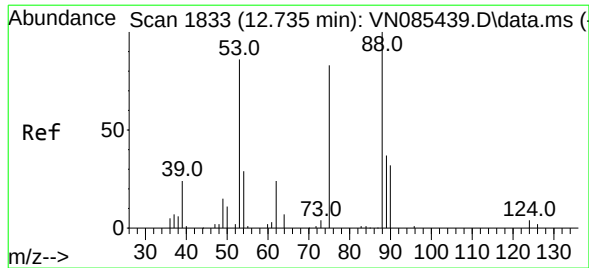
Ion Ratio Lower Upper

105 100

120 47.4 23.9 71.7







#81

trans-1,4-Dichloro-2-butene

Concen: 19.939 ug/l m

RT: 12.735 min Scan# 1833

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion: 75 Resp: 23443

Ion Ratio Lower Upper

75 100

53 118.0 95.6 143.4

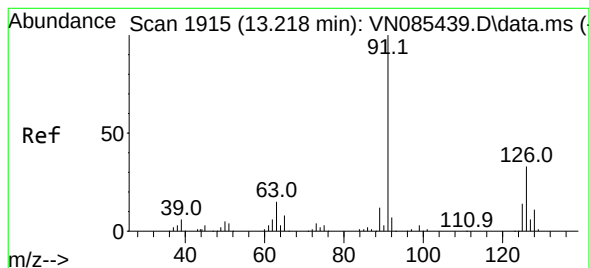
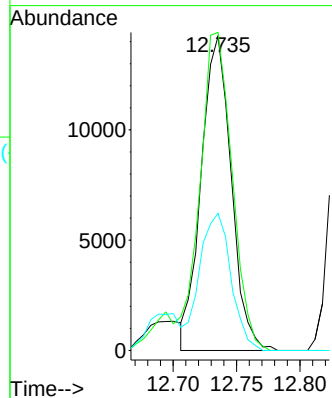
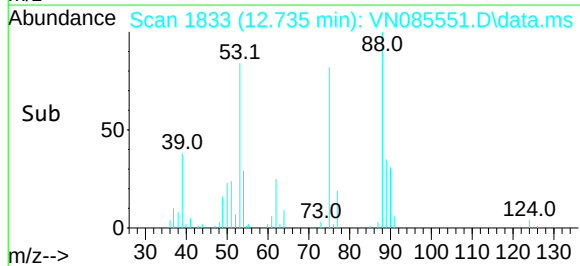
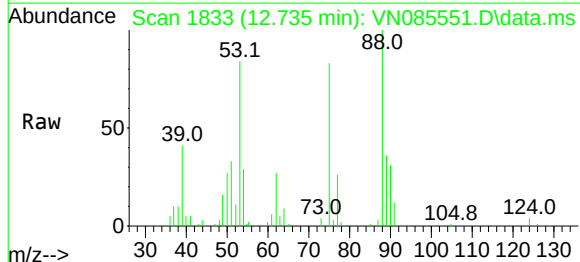
89 46.1 37.0 55.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#82

4-Chlorotoluene

Concen: 19.243 ug/l

RT: 13.218 min Scan# 1915

Delta R.T. 0.000 min

Lab File: VN085551.D

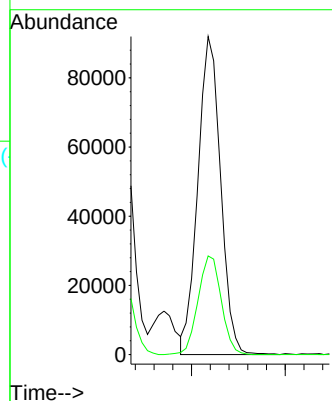
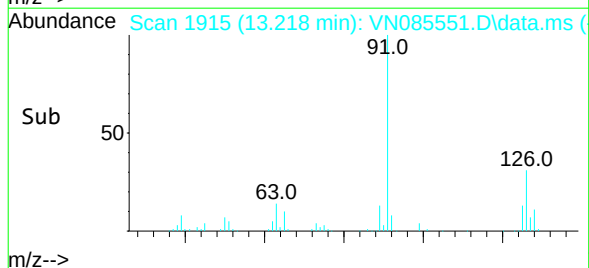
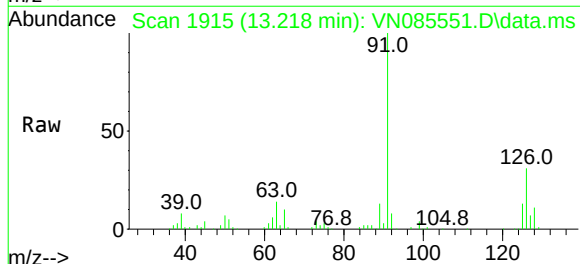
Acq: 29 Jan 2025 12:30

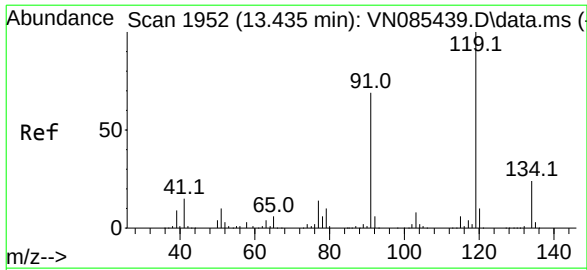
Tgt Ion: 91 Resp: 155061

Ion Ratio Lower Upper

91 100

126 31.6 15.9 47.7





#83

tert-Butylbenzene

Concen: 18.343 ug/l

RT: 13.435 min Scan# 19

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion:119 Resp: 134399

Ion Ratio Lower Upper

119 100

91 72.3 35.1 105.3

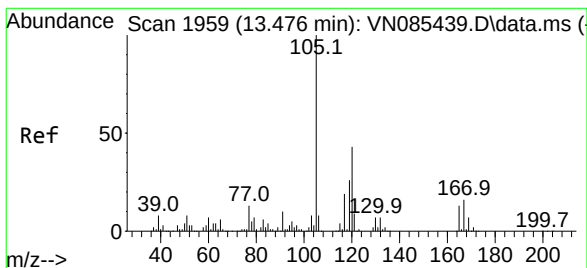
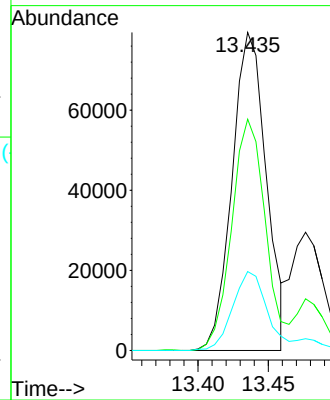
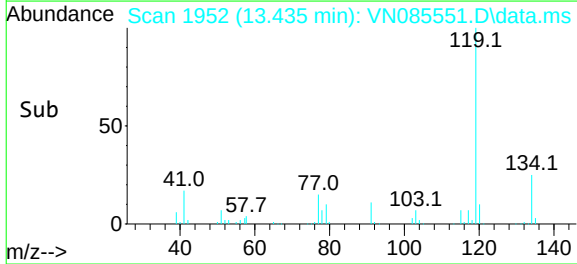
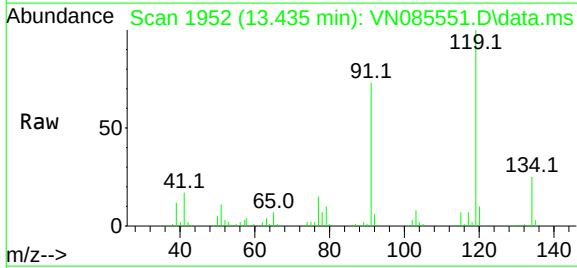
134 25.4 12.0 36.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#84

1,2,4-Trimethylbenzene

Concen: 19.699 ug/l

RT: 13.482 min Scan# 1960

Delta R.T. 0.006 min

Lab File: VN085551.D

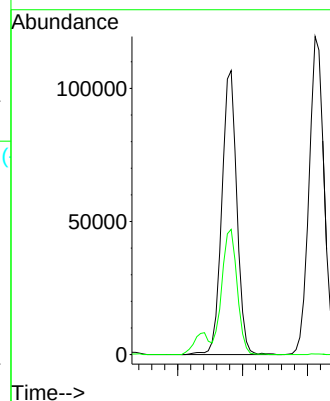
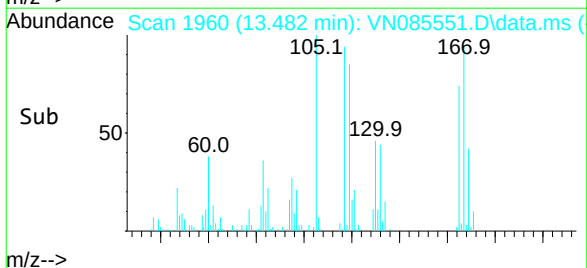
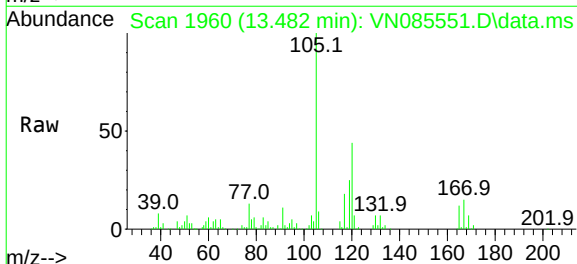
Acq: 29 Jan 2025 12:30

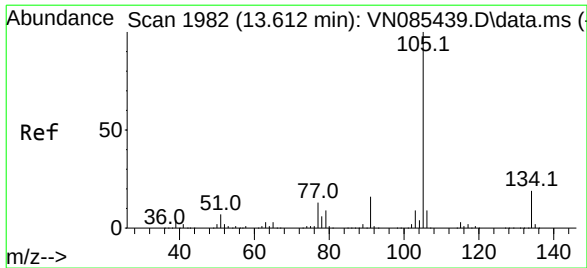
Tgt Ion:105 Resp: 171306

Ion Ratio Lower Upper

105 100

120 44.9 21.6 65.0





#85

sec-Butylbenzene

Concen: 18.886 ug/l

RT: 13.612 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion:105 Resp: 191783

Ion Ratio Lower Upper

105 100

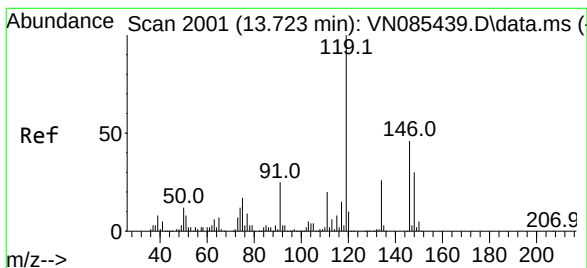
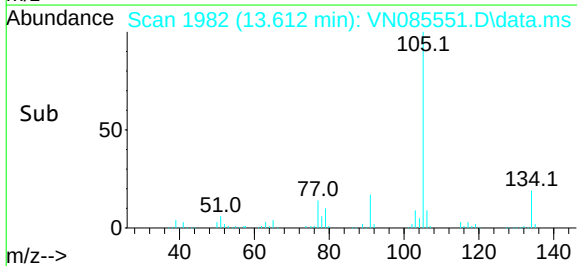
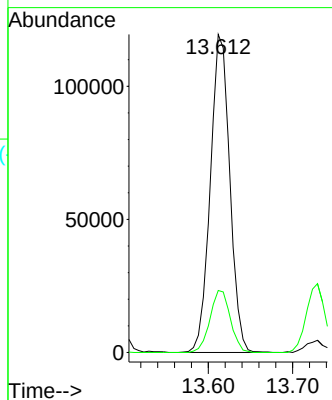
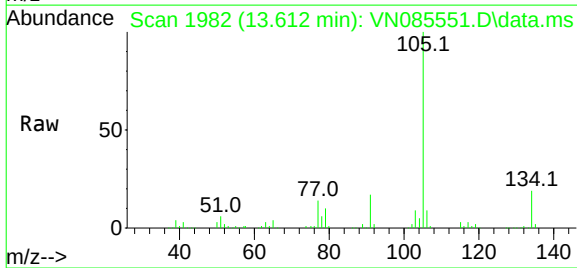
134 20.3 9.7 28.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#86

p-Isopropyltoluene

Concen: 18.681 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.006 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

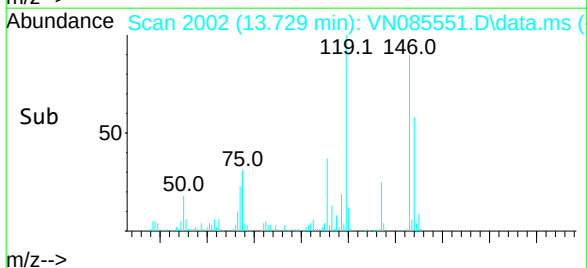
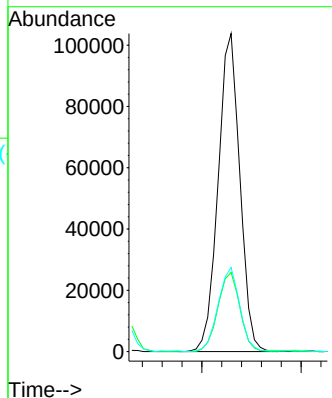
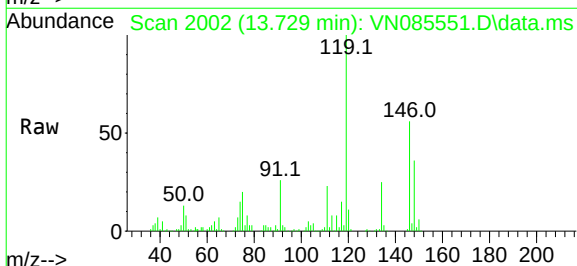
Tgt Ion:119 Resp: 157547

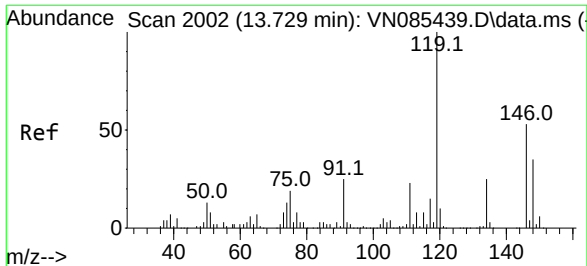
Ion Ratio Lower Upper

119 100

134 25.1 12.7 38.0

91 26.6 12.7 38.1





#87

1,3-Dichlorobenzene

Concen: 19.191 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01

Tgt Ion:146 Resp: 97536

Ion Ratio Lower Upper

146 100

111 41.0 21.4 64.3

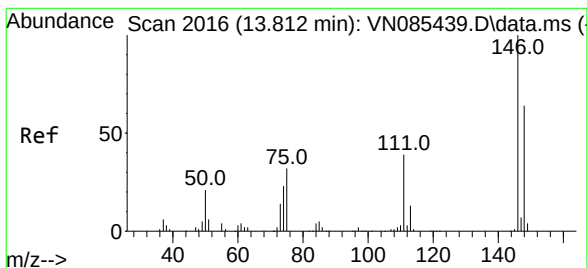
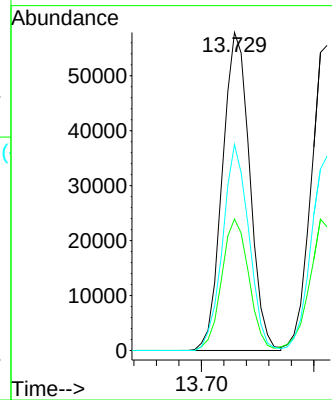
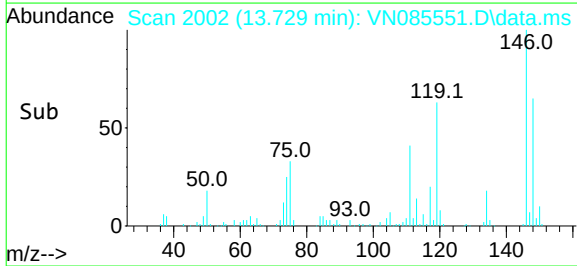
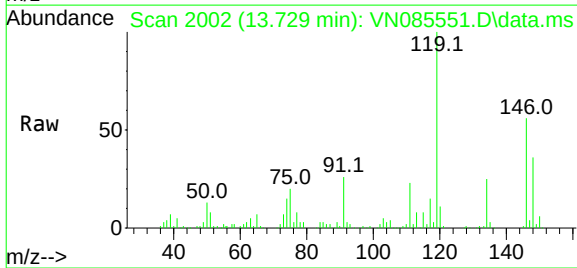
148 62.3 32.3 96.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#88

1,4-Dichlorobenzene

Concen: 18.119 ug/l

RT: 13.812 min Scan# 2016

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

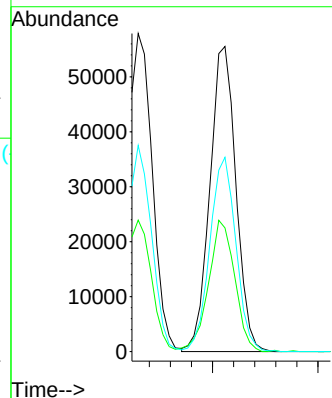
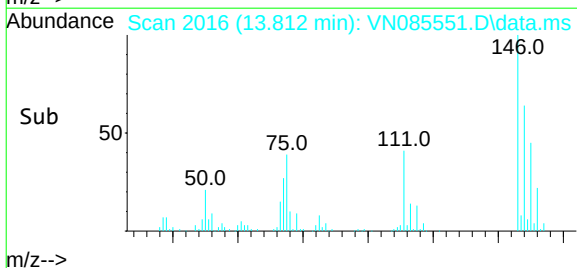
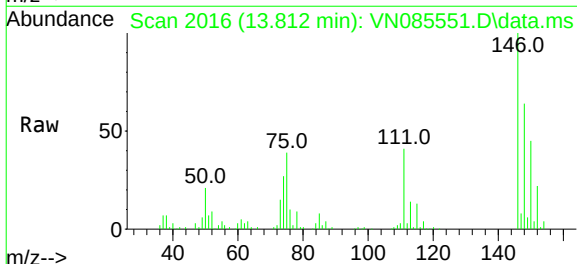
Tgt Ion:146 Resp: 95449

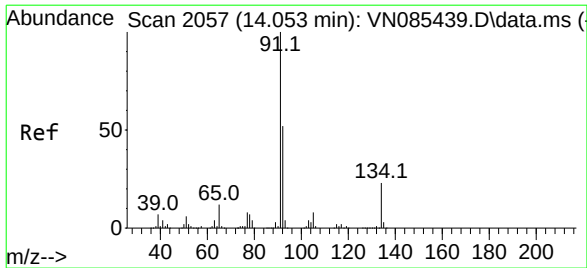
Ion Ratio Lower Upper

146 100

111 43.3 21.3 63.7

148 63.8 32.4 97.0





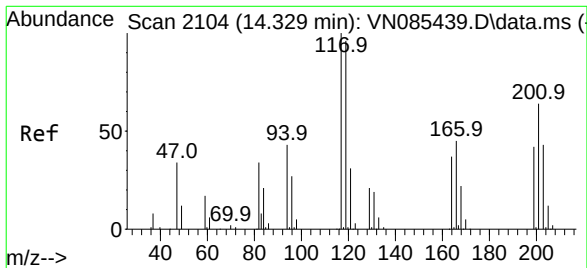
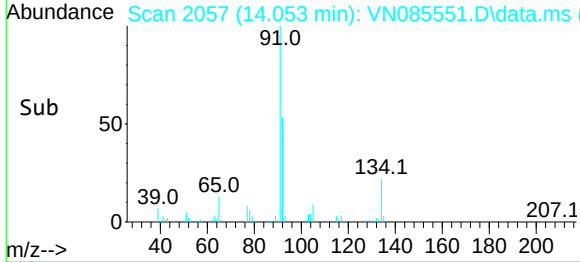
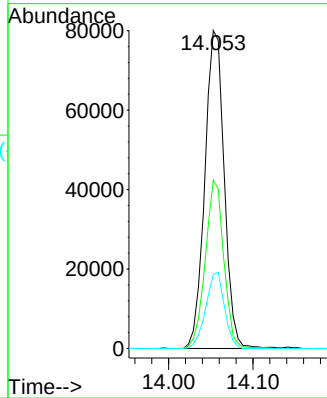
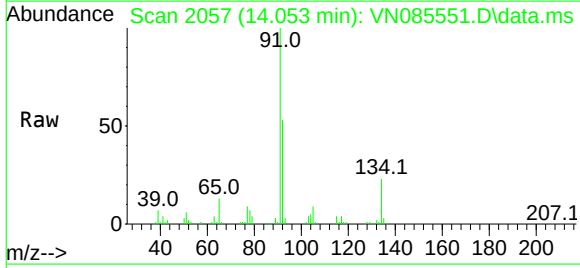
#89  
n-Butylbenzene  
Concen: 17.567 ug/l  
RT: 14.053 min Scan# 2057  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBS01

Tgt Ion: 91 Resp: 127980  
Ion Ratio Lower Upper  
91 100  
92 50.6 25.8 77.3  
134 23.1 11.7 35.1

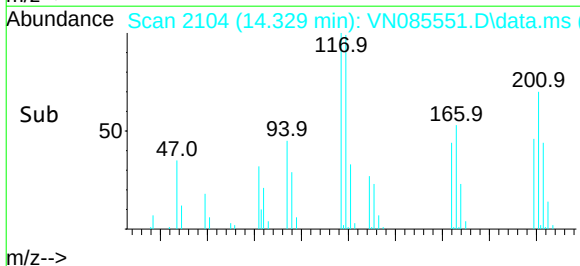
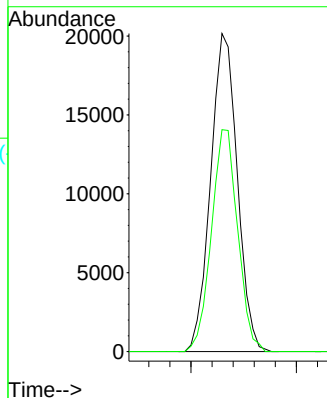
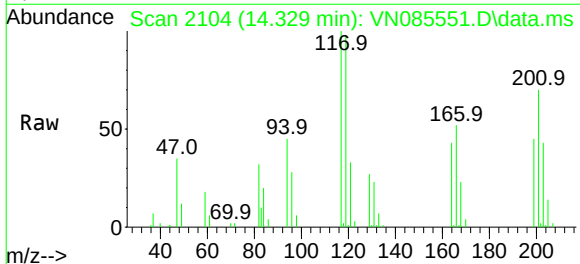
Manual Integrations  
APPROVED

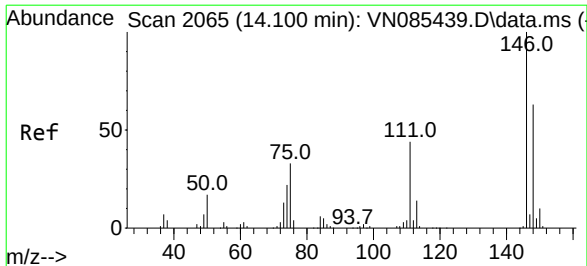
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#90  
Hexachloroethane  
Concen: 18.339 ug/l  
RT: 14.329 min Scan# 2104  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

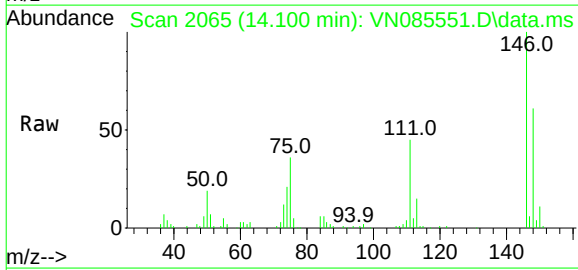
Tgt Ion:117 Resp: 35454  
Ion Ratio Lower Upper  
117 100  
201 68.7 33.7 101.0





#91  
1,2-Dichlorobenzene  
Concen: 18.519 ug/l  
RT: 14.100 min Scan# 2065  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

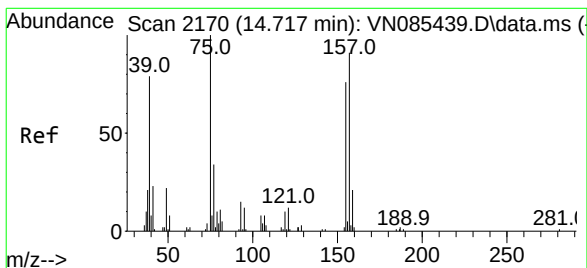
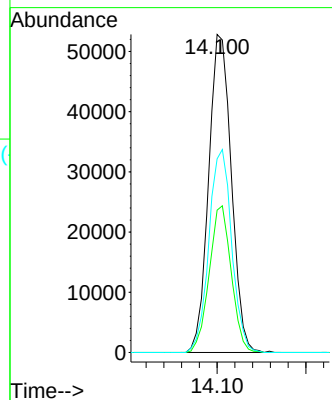
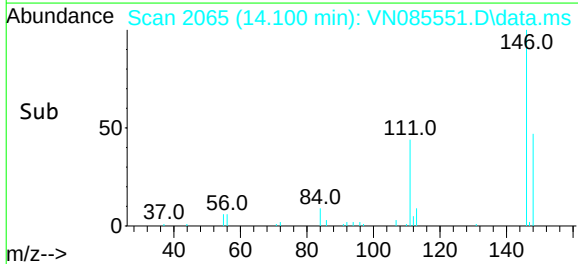
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBS01



Tgt Ion: 146 Resp: 93880  
Ion Ratio Lower Upper  
146 100  
111 44.7 21.7 65.1  
148 64.1 31.4 94.2

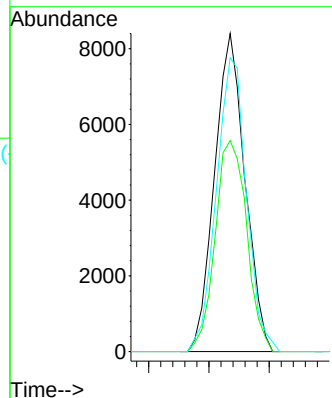
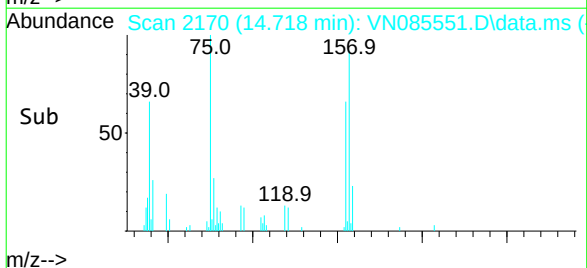
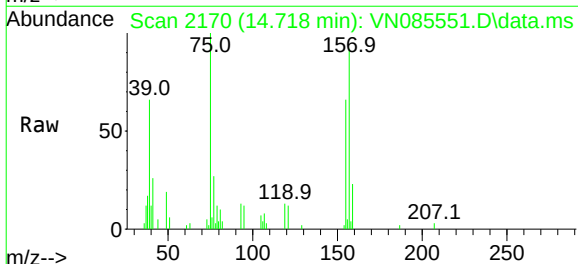
Manual Integrations  
APPROVED

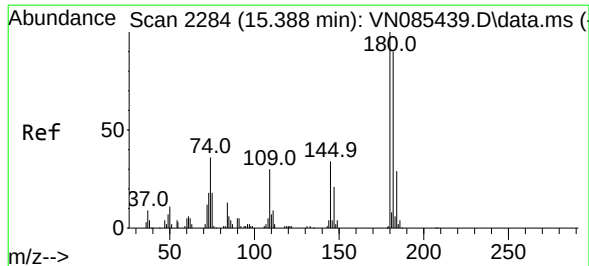
Reviewed By : John Carlone 01/30/2025  
Supervised By : Mahesh Dadoda 01/30/2025



#92  
1,2-Dibromo-3-Chloropropane  
Concen: 21.617 ug/l  
RT: 14.718 min Scan# 2170  
Delta R.T. 0.000 min  
Lab File: VN085551.D  
Acq: 29 Jan 2025 12:30

Tgt Ion: 75 Resp: 14729  
Ion Ratio Lower Upper  
75 100  
155 68.7 36.4 109.2  
157 91.5 45.4 136.1





#93

1,2,4-Trichlorobenzene

Concen: 17.479 ug/l

RT: 15.394 min Scan# 2284

Delta R.T. 0.006 min

Lab File: VN085551.D

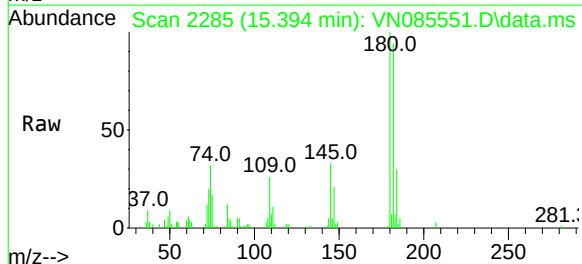
Acq: 29 Jan 2025 12:30

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBS01



Tgt Ion:180 Resp: 41183

Ion Ratio Lower Upper

180 100

182 94.1 46.8 140.3

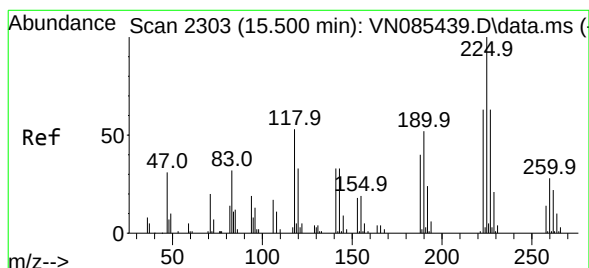
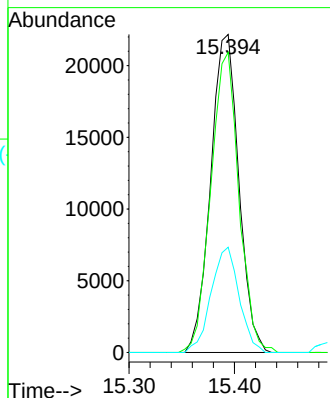
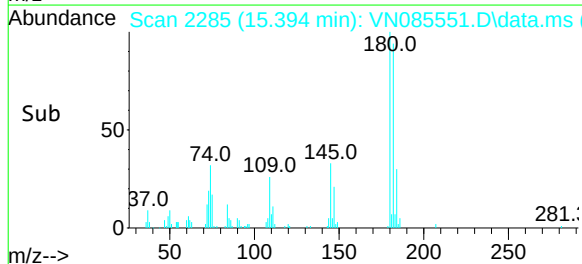
145 32.9 16.0 48.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#94

Hexachlorobutadiene

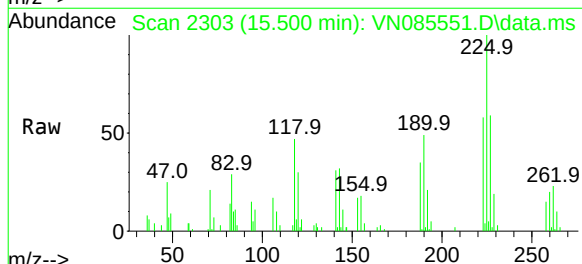
Concen: 18.126 ug/l

RT: 15.500 min Scan# 2303

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30



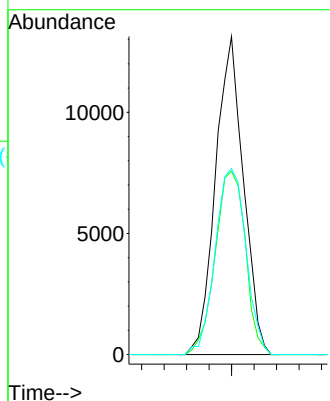
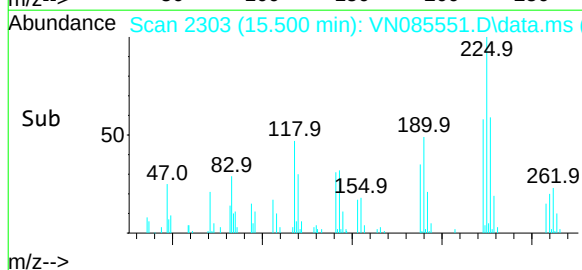
Tgt Ion:225 Resp: 22674

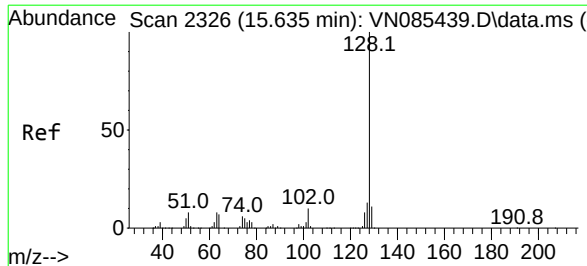
Ion Ratio Lower Upper

225 100

223 62.3 30.7 92.1

227 64.4 30.9 92.5





#95

Naphthalene

Concen: 16.937 ug/l

RT: 15.641 min Scan# 2326

Delta R.T. 0.006 min

Lab File: VN085551.D

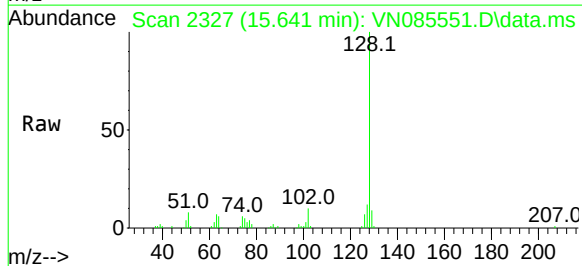
Acq: 29 Jan 2025 12:30

Instrument :

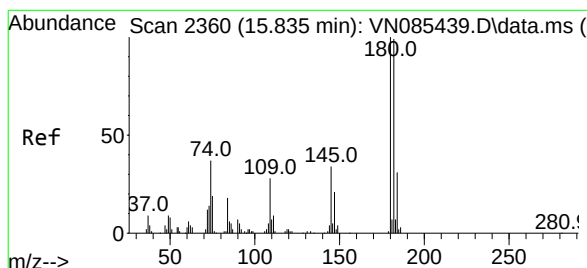
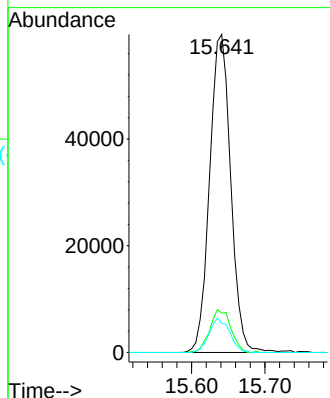
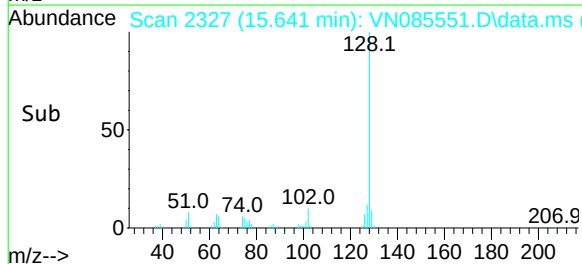
MSVOA\_N

ClientSampleId :

VN0129WBS01



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 128   | Resp: | 119085 |
| Ion Ratio | Lower | Upper |        |
| 128       | 100   |       |        |
| 127       | 13.4  | 10.6  | 16.0   |
| 129       | 10.5  | 8.8   | 13.2   |

Manual Integrations  
APPROVEDReviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

#96

1,2,3-Trichlorobenzene

Concen: 17.291 ug/l

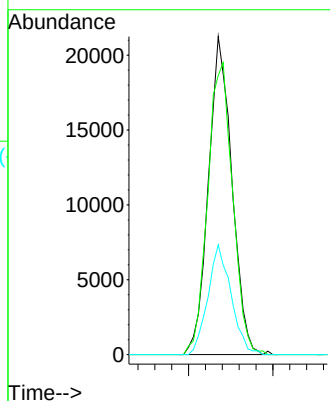
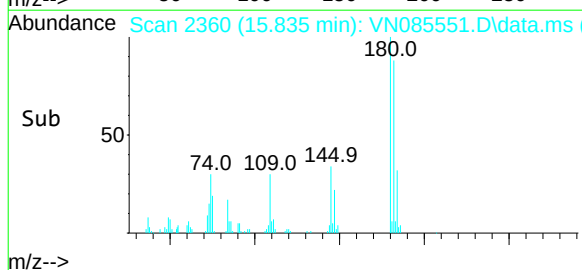
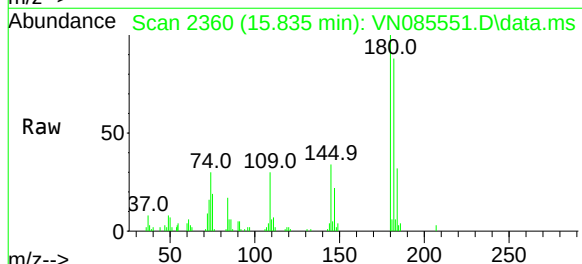
RT: 15.835 min Scan# 2360

Delta R.T. 0.000 min

Lab File: VN085551.D

Acq: 29 Jan 2025 12:30

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 180   | Resp: | 41222 |
| Ion Ratio | Lower | Upper |       |
| 180       | 100   |       |       |
| 182       | 97.3  | 47.4  | 142.2 |
| 145       | 34.0  | 16.9  | 50.7  |





## Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | RU2 Engineering, LLC                  | Date Collected: |              |
| Project:           | NYCDDC SANTWOBR Brooklyn Bridge BBMCR | Date Received:  |              |
| Client Sample ID:  | VN0129WBSD01                          | SDG No.:        | Q1207        |
| Lab Sample ID:     | VN0129WBSD01                          | Matrix:         | TCLP         |
| Analytical Method: | SW8260                                | % Solid:        | 0            |
| Sample Wt/Vol:     | 5      Units:    mL                   | Final Vol:      | 5000      uL |
| Soil Aliquot Vol:  | uL                                    | Test:           | TCLP VOA     |
| GC Column:         | RXI-624      ID :    0.25             | Level :         | LOW          |
| Prep Method :      |                                       |                 |              |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN085552.D        | 1         |           | 01/29/25 13:04 | VN012925      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL      | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|----------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |          |            |         |
| 75-01-4                   | Vinyl Chloride         | 16.3   |           | 0.34     | 5.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 17.9   |           | 0.26     | 5.00       | ug/L    |
| 78-93-3                   | 2-Butanone             | 110    |           | 1.30     | 25.0       | ug/L    |
| 56-23-5                   | Carbon Tetrachloride   | 18.8   |           | 0.25     | 5.00       | ug/L    |
| 67-66-3                   | Chloroform             | 19.4   |           | 0.26     | 5.00       | ug/L    |
| 71-43-2                   | Benzene                | 19.3   |           | 0.16     | 5.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 20.6   |           | 0.24     | 5.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 18.3   |           | 0.32     | 5.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 19.1   |           | 0.25     | 5.00       | ug/L    |
| 108-90-7                  | Chlorobenzene          | 19.2   |           | 0.13     | 5.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |          |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 51.9   |           | 74 - 125 | 104%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 52.8   |           | 75 - 124 | 106%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 53.2   |           | 86 - 113 | 106%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 54.8   |           | 77 - 121 | 110%       | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |          |            |         |
| 363-72-4                  | Pentafluorobenzene     | 200000 | 8.224     |          |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 334000 | 9.1       |          |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 301000 | 11.865    |          |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 150000 | 13.788    |          |            |         |

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:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085552.D  
 Acq On : 29 Jan 2025 13:04  
 Operator : JC\MD  
 Sample : VN0129WBSD01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0129WBSD01

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/30/2025  
 Supervised By : Mahesh Dadoda 01/30/2025

Quant Time: Jan 30 00:32:54 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 199890   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 334279   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 300606   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.788 | 152  | 149604   | 50.000 | ug/l  | 0.00     |

|                             |        |       |          |          |      |          |
|-----------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds |        |       |          |          |      |          |
| 33) 1,2-Dichloroethane-d4   | 8.577  | 65    | 167615   | 51.947   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 74 - 125 | Recovery | =    | 103.900% |
| 35) Dibromofluoromethane    | 8.165  | 113   | 122390   | 52.775   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =    | 105.560% |
| 50) Toluene-d8              | 10.565 | 98    | 437973   | 53.154   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 86 - 113 | Recovery | =    | 106.300% |
| 62) 4-Bromofluorobenzene    | 12.847 | 95    | 154451   | 54.798   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 77 - 121 | Recovery | =    | 109.600% |

|                              |       |     |        |         |        |     |
|------------------------------|-------|-----|--------|---------|--------|-----|
| Target Compounds             |       |     |        |         | Qvalue |     |
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 42805  | 15.816  | ug/l   | 97  |
| 3) Chloromethane             | 2.359 | 50  | 47501  | 16.210  | ug/l   | 97  |
| 4) Vinyl Chloride            | 2.512 | 62  | 47977  | 16.289  | ug/l   | 99  |
| 5) Bromomethane              | 2.953 | 94  | 30184  | 16.965  | ug/l   | 95  |
| 6) Chloroethane              | 3.118 | 64  | 33491  | 17.935  | ug/l   | 93  |
| 7) Trichlorofluoromethane    | 3.495 | 101 | 76946  | 18.004  | ug/l   | 96  |
| 8) Diethyl Ether             | 3.959 | 74  | 26661  | 18.058  | ug/l   | 99  |
| 9) 1,1,2-Trichlorotrifluo... | 4.365 | 101 | 45479  | 18.893  | ug/l   | 98  |
| 10) Methyl Iodide            | 4.589 | 142 | 49266  | 17.872  | ug/l   | 97  |
| 11) Tert butyl alcohol       | 5.518 | 59  | 44436  | 120.269 | ug/l   | 99  |
| 12) 1,1-Dichloroethene       | 4.342 | 96  | 38420  | 17.909  | ug/l   | 97  |
| 13) Acrolein                 | 4.177 | 56  | 40004  | 79.316  | ug/l   | 99  |
| 14) Allyl chloride           | 5.018 | 41  | 61417  | 17.643  | ug/l   | 97  |
| 15) Acrylonitrile            | 5.718 | 53  | 127045 | 108.256 | ug/l   | 99  |
| 16) Acetone                  | 4.430 | 43  | 114508 | 109.834 | ug/l   | 100 |
| 17) Carbon Disulfide         | 4.712 | 76  | 96222  | 14.567  | ug/l   | 98  |
| 18) Methyl Acetate           | 5.018 | 43  | 73000  | 23.027  | ug/l   | 98  |
| 19) Methyl tert-butyl Ether  | 5.800 | 73  | 142230 | 20.418  | ug/l   | 98  |
| 20) Methylene Chloride       | 5.277 | 84  | 49133  | 19.037  | ug/l   | 93  |
| 21) trans-1,2-Dichloroethene | 5.783 | 96  | 40021  | 17.456  | ug/l   | 97  |
| 22) Diisopropyl ether        | 6.671 | 45  | 154873 | 20.044  | ug/l   | 98  |
| 23) Vinyl Acetate            | 6.600 | 43  | 540007 | 99.867  | ug/l   | 99  |
| 24) 1,1-Dichloroethane       | 6.565 | 63  | 90121  | 19.129  | ug/l   | 96  |
| 25) 2-Butanone               | 7.483 | 43  | 167598 | 109.240 | ug/l   | 98  |
| 26) 2,2-Dichloropropane      | 7.488 | 77  | 77491  | 20.344  | ug/l   | 99  |
| 27) cis-1,2-Dichloroethene   | 7.488 | 96  | 50565  | 18.725  | ug/l   | 99  |
| 28) Bromochloromethane       | 7.812 | 49  | 36396  | 16.605  | ug/l   | 99  |
| 29) Tetrahydrofuran          | 7.835 | 42  | 110223 | 113.317 | ug/l   | 99  |
| 30) Chloroform               | 7.965 | 83  | 94675  | 19.443  | ug/l   | 98  |
| 31) Cyclohexane              | 8.253 | 56  | 65483  | 15.991  | ug/l   | 96  |
| 32) 1,1,1-Trichloroethane    | 8.165 | 97  | 82021  | 19.203  | ug/l   | 97  |
| 36) 1,1-Dichloropropene      | 8.371 | 75  | 58241  | 17.894  | ug/l   | 100 |
| 37) Ethyl Acetate            | 7.559 | 43  | 69349  | 21.109  | ug/l   | 98  |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 69887  | 18.756  | ug/l   | 95  |
| 39) Methylcyclohexane        | 9.600 | 83  | 52245  | 17.082  | ug/l   | 97  |
| 40) Benzene                  | 8.606 | 78  | 188989 | 19.325  | ug/l   | 99  |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
 Data File : VN085552.D  
 Acq On : 29 Jan 2025 13:04  
 Operator : JC\MD  
 Sample : VN0129WBSD01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0129WBSD01

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 01/30/2025  
 Supervised By : Mahesh Dadoda 01/30/2025

Quant Time: Jan 30 00:32:54 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 15 02:16:08 2025  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 36813    | 21.538  | ug/l   | 98       |
| 42) 1,2-Dichloroethane        | 8.665  | 62   | 75825    | 20.586  | ug/l   | 99       |
| 43) Isopropyl Acetate         | 8.688  | 43   | 113844   | 21.627  | ug/l   | 99       |
| 44) Trichloroethene           | 9.347  | 130  | 41582    | 18.266  | ug/l   | 89       |
| 45) 1,2-Dichloropropane       | 9.618  | 63   | 49009    | 19.620  | ug/l   | 97       |
| 46) Dibromomethane            | 9.706  | 93   | 35593    | 19.747  | ug/l   | 97       |
| 47) Bromodichloromethane      | 9.882  | 83   | 76456    | 20.821  | ug/l   | 98       |
| 48) Methyl methacrylate       | 9.677  | 41   | 52667    | 22.232  | ug/l   | 96       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 19418    | 486.754 | ug/l   | 99       |
| 51) 4-Methyl-2-Pentanone      | 10.441 | 43   | 356810   | 116.808 | ug/l   | 99       |
| 52) Toluene                   | 10.629 | 92   | 113656   | 20.058  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene     | 10.829 | 75   | 71237    | 20.528  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 76587    | 20.661  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane     | 11.012 | 97   | 47247    | 21.069  | ug/l   | 95       |
| 56) Ethyl methacrylate        | 10.871 | 69   | 67955    | 19.225  | ug/l   | 97       |
| 57) 1,3-Dichloropropane       | 11.159 | 76   | 81256    | 20.839  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 130784   | 91.903  | ug/l   | 99       |
| 59) 2-Hexanone                | 11.194 | 43   | 257517   | 119.811 | ug/l   | 99       |
| 60) Dibromochloromethane      | 11.359 | 129  | 56444    | 20.849  | ug/l   | 98       |
| 61) 1,2-Dibromoethane         | 11.465 | 107  | 45570    | 20.415  | ug/l   | 100      |
| 64) Tetrachloroethene         | 11.100 | 164  | 39105    | 19.082  | ug/l   | 96       |
| 65) Chlorobenzene             | 11.888 | 112  | 126744   | 19.247  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 48168    | 19.929  | ug/l   | 99       |
| 67) Ethyl Benzene             | 11.965 | 91   | 201511   | 18.788  | ug/l   | 99       |
| 68) m/p-Xylenes               | 12.071 | 106  | 158394   | 39.958  | ug/l   | 100      |
| 69) o-Xylene                  | 12.400 | 106  | 73062    | 19.286  | ug/l   | 96       |
| 70) Styrene                   | 12.412 | 104  | 126846   | 20.232  | ug/l   | 99       |
| 71) Bromoform                 | 12.576 | 173  | 38486    | 22.255  | ug/l # | 100      |
| 73) Isopropylbenzene          | 12.694 | 105  | 187874   | 18.607  | ug/l   | 100      |
| 74) N-amyl acetate            | 12.494 | 43   | 90352    | 19.908  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 71580    | 20.069  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 60557m   | 19.915  | ug/l   |          |
| 77) Bromobenzene              | 12.976 | 156  | 49656    | 18.824  | ug/l   | 98       |
| 78) n-propylbenzene           | 13.035 | 91   | 225452   | 18.861  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 145834   | 18.851  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 163587   | 19.614  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 22453    | 19.978  | ug/l   | 99       |
| 82) 4-Chlorotoluene           | 13.217 | 91   | 149335   | 19.387  | ug/l   | 99       |
| 83) tert-Butylbenzene         | 13.435 | 119  | 126982   | 18.130  | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 165028   | 19.853  | ug/l   | 100      |
| 85) sec-Butylbenzene          | 13.617 | 105  | 186480   | 19.211  | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 152530   | 18.909  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene       | 13.729 | 146  | 94099    | 19.369  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 92013    | 18.273  | ug/l   | 99       |
| 89) n-Butylbenzene            | 14.053 | 91   | 124199   | 17.835  | ug/l   | 100      |
| 90) Hexachloroethane          | 14.335 | 117  | 33768    | 18.273  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 89278    | 18.424  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.712 | 75   | 14040    | 21.557  | ug/l   | 96       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 40694    | 18.068  | ug/l   | 97       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 21387    | 17.886  | ug/l   | 95       |
| 95) Naphthalene               | 15.641 | 128  | 117949   | 17.550  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 41463    | 18.194  | ug/l   | 98       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN012925\  
Data File : VN085552.D  
Acq On : 29 Jan 2025 13:04  
Operator : JC\MD  
Sample : VN0129WBSD01  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

Quant Time: Jan 30 00:32:54 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

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

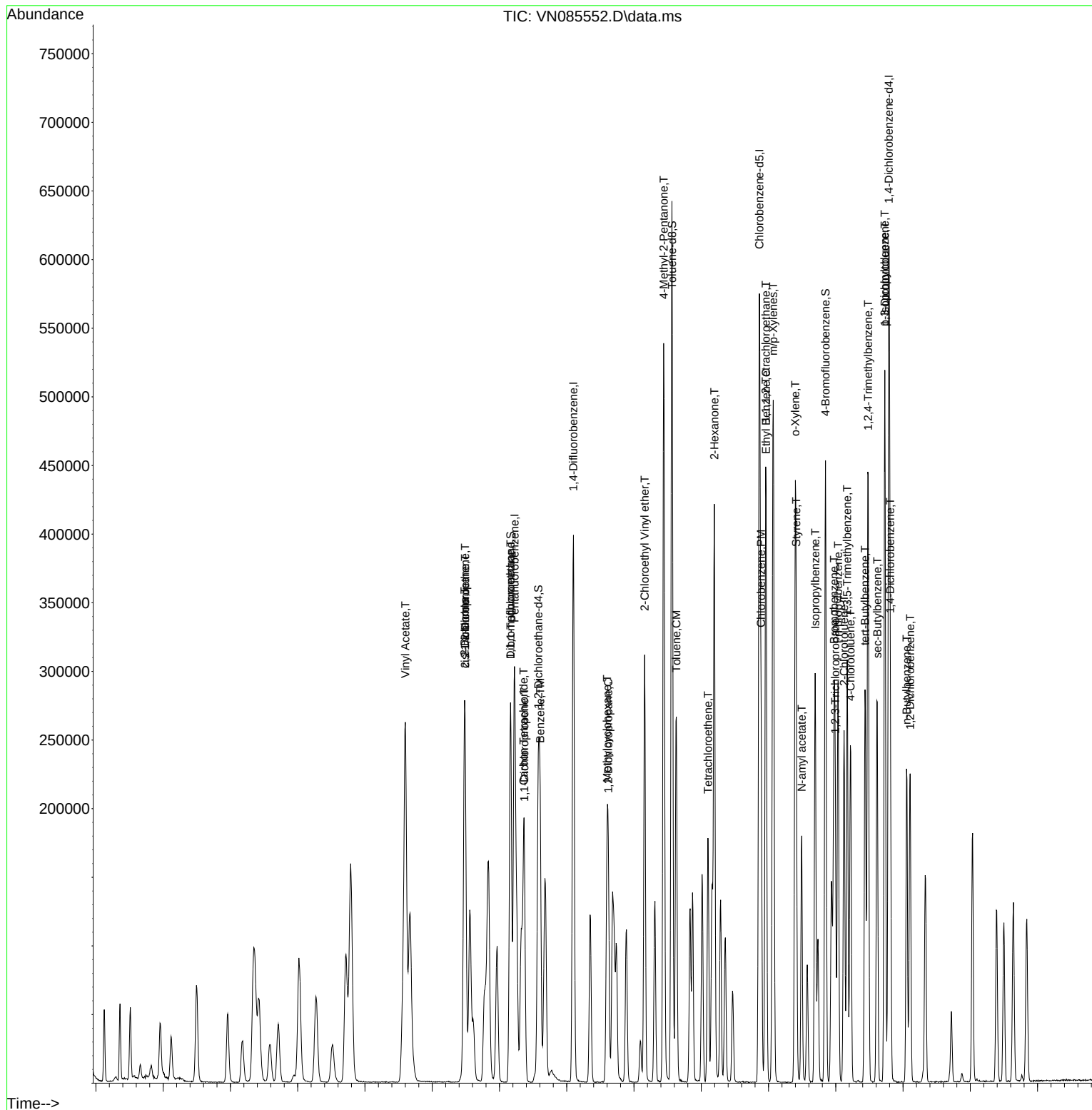
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Data File : VN085552.D  
Acq On : 29 Jan 2025 13:04  
Operator : JC\MD  
Sample : VN0129WBSD01  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 7 Sample Multiplier: 1

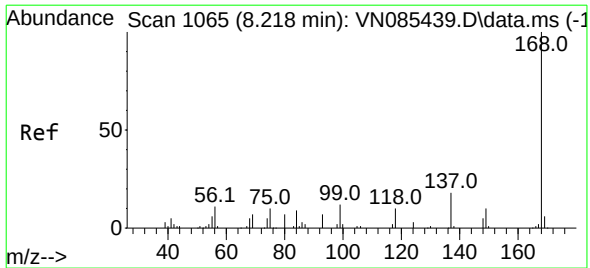
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01

Manual Integrations  
APPROVED

Reviewed By : John Carlone 01/30/2025  
Supervised By : Mahesh Dadoda 01/30/2025

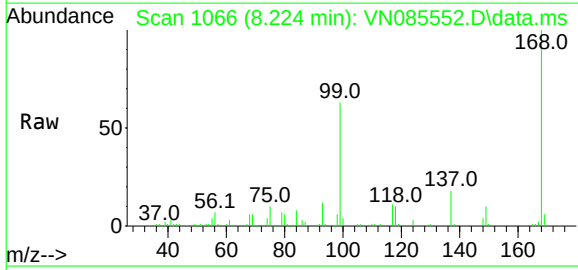
Quant Time: Jan 30 00:32:54 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N011425W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 15 02:16:08 2025  
Response via : Initial Calibration





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. 0.006 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

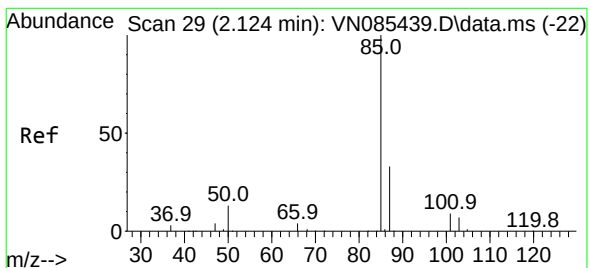
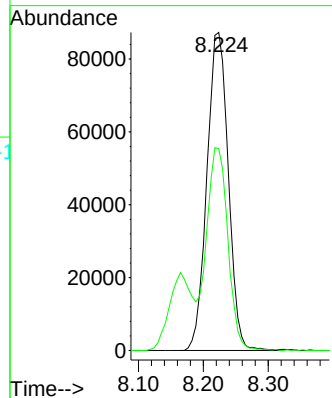
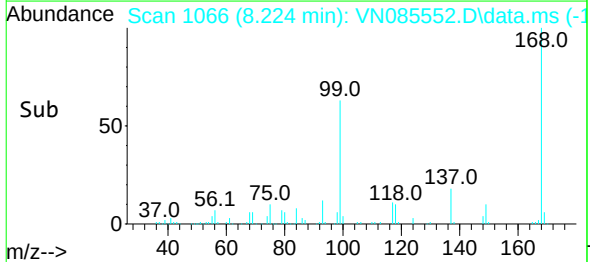
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01



Tgt Ion: 168 Resp: 199896  
Ion Ratio Lower Upper  
168 100  
99 63.4 53.6 80.4

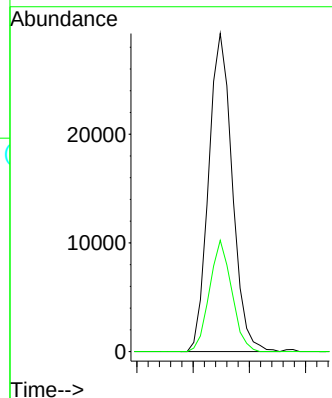
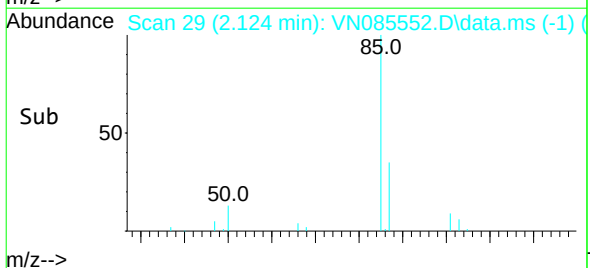
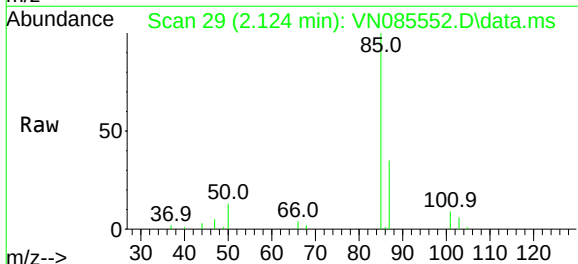
Manual Integrations  
APPROVED

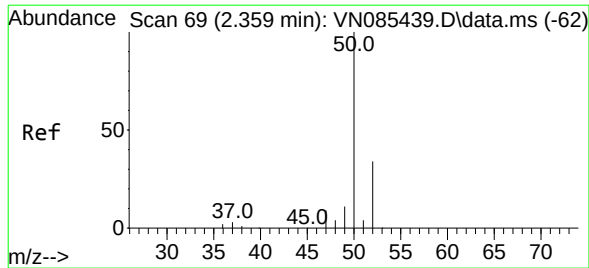
Reviewed By : John Carlone 01/30/2025  
Supervised By : Mahesh Dadoda 01/30/2025



#2  
Dichlorodifluoromethane  
Concen: 15.816 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

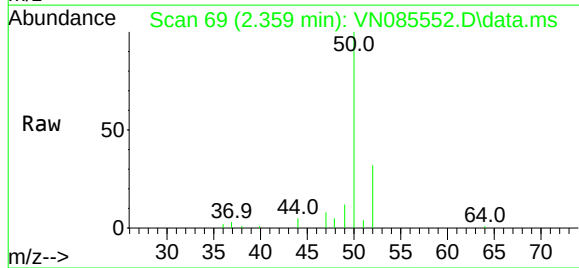
Tgt Ion: 85 Resp: 42805  
Ion Ratio Lower Upper  
85 100  
87 35.0 16.7 50.1





#3  
Chloromethane  
Concen: 16.210 ug/l  
RT: 2.359 min Scan# 69  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

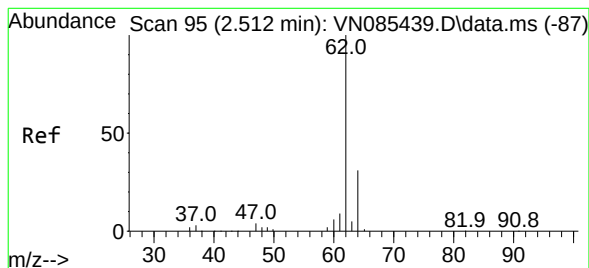
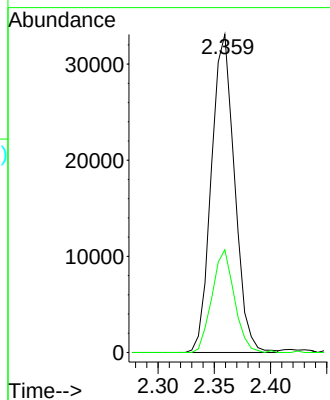
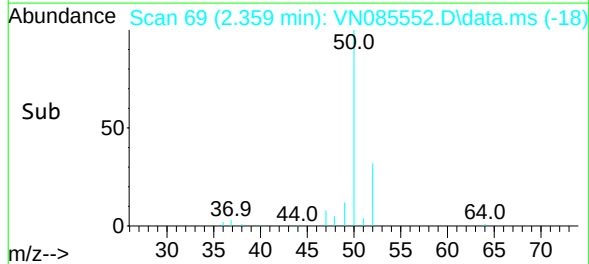
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01



Tgt Ion: 50 Resp: 47501  
Ion Ratio Lower Upper  
50 100  
52 32.3 27.0 40.6

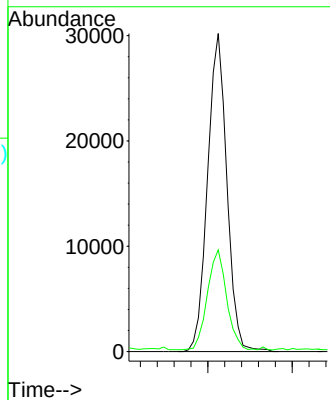
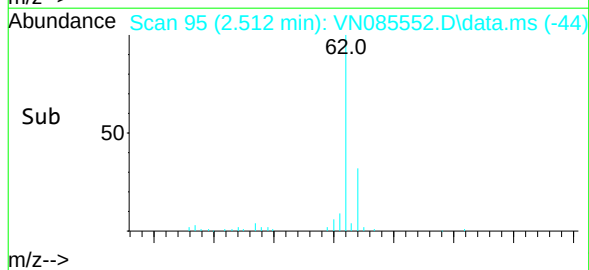
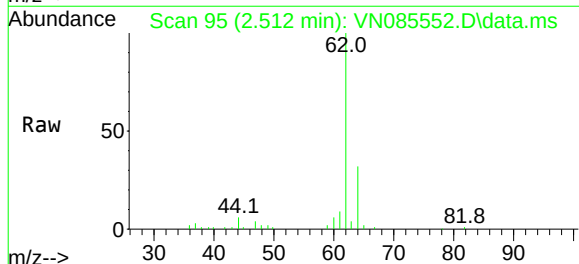
Manual Integrations  
APPROVED

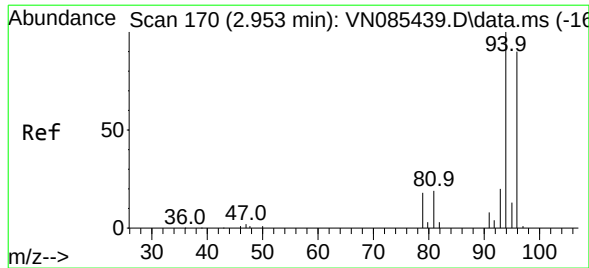
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#4  
Vinyl Chloride  
Concen: 16.289 ug/l  
RT: 2.512 min Scan# 95  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

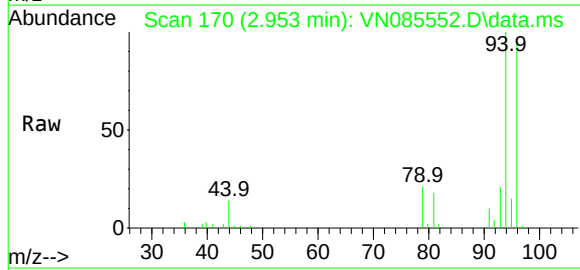
Tgt Ion: 62 Resp: 47977  
Ion Ratio Lower Upper  
62 100  
64 31.4 24.8 37.2





#5  
Bromomethane  
Concen: 16.965 ug/l  
RT: 2.953 min Scan# 170  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

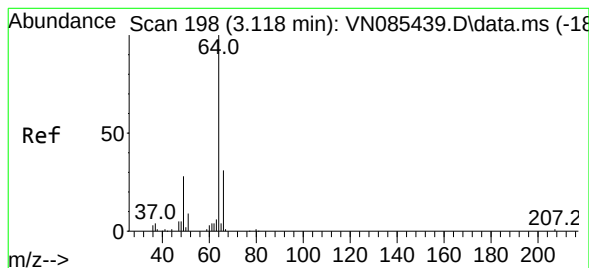
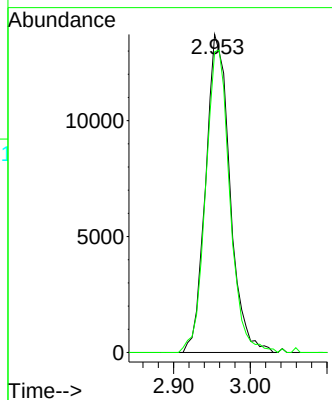
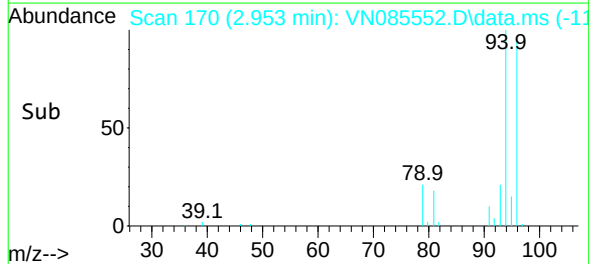
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01



Tgt Ion: 94 Resp: 30184  
Ion Ratio Lower Upper  
94 100  
96 94.5 71.8 107.6

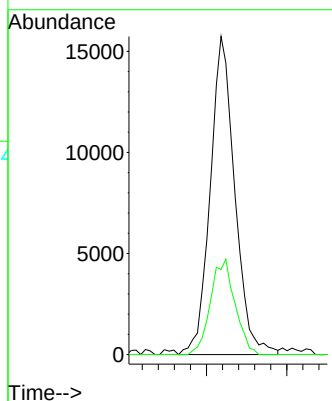
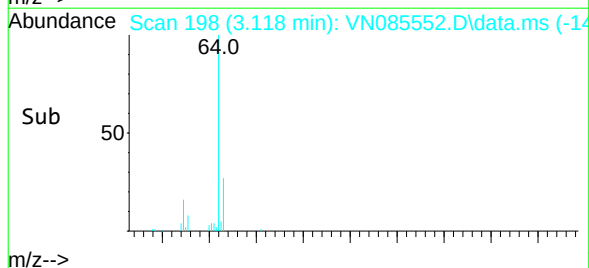
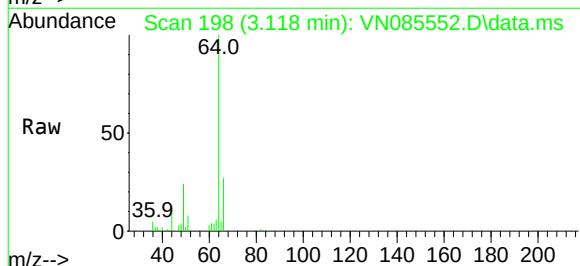
Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

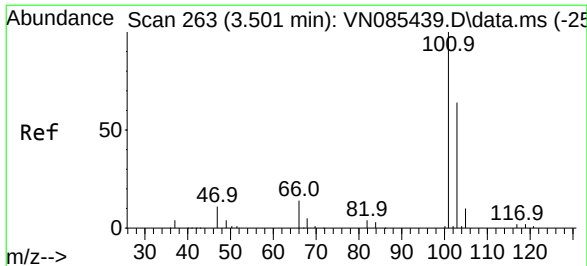


#6  
Chloroethane  
Concen: 17.935 ug/l  
RT: 3.118 min Scan# 198  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

Tgt Ion: 64 Resp: 33491  
Ion Ratio Lower Upper  
64 100  
66 26.8 24.6 36.8



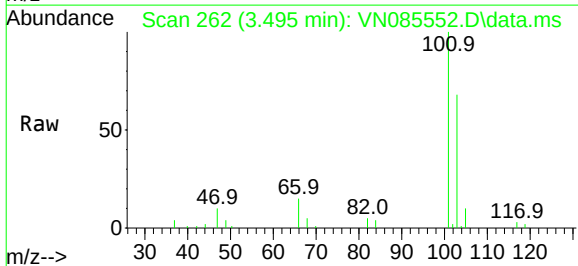




#7  
 Trichlorofluoromethane  
 Concen: 18.004 ug/l  
 RT: 3.495 min Scan# 263  
 Delta R.T. -0.006 min  
 Lab File: VN085552.D  
 Acq: 29 Jan 2025 13:04

Instrument : MSVOA\_N

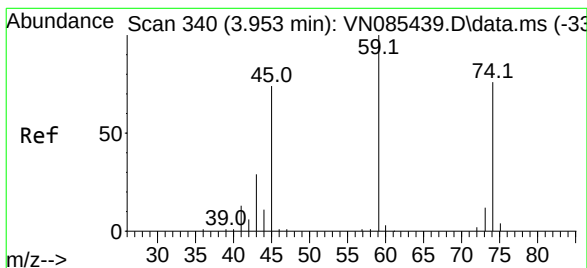
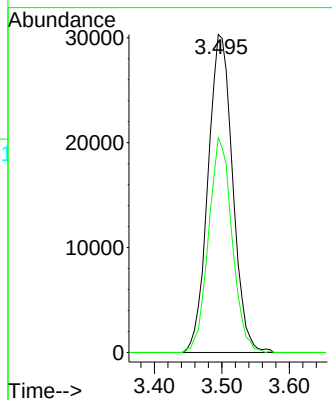
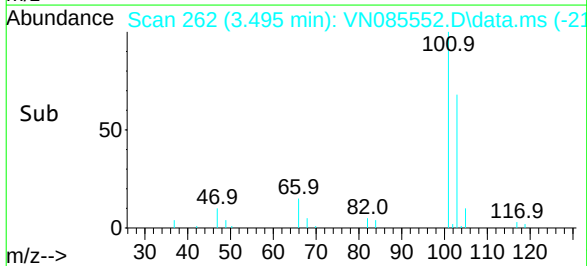
ClientSampleId :  
 VN0129WBSD01



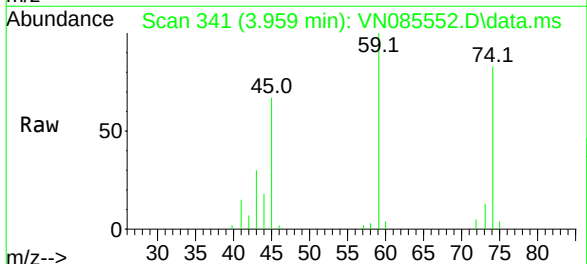
Tgt Ion: 101 Resp: 76946  
 Ion Ratio Lower Upper  
 101 100  
 103 67.5 51.4 77.2

Manual Integrations  
 APPROVED

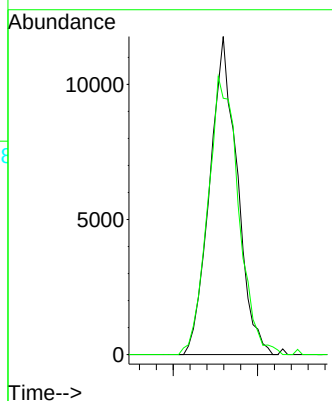
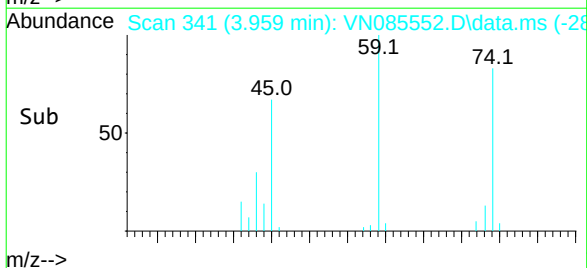
Reviewed By : John Carlone 01/30/2025  
 Supervised By : Mahesh Dadoda 01/30/2025

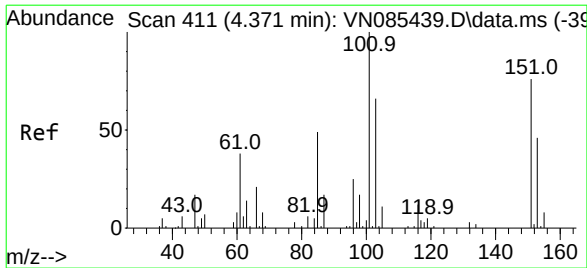


#8  
 Diethyl Ether  
 Concen: 18.058 ug/l  
 RT: 3.959 min Scan# 341  
 Delta R.T. 0.006 min  
 Lab File: VN085552.D  
 Acq: 29 Jan 2025 13:04



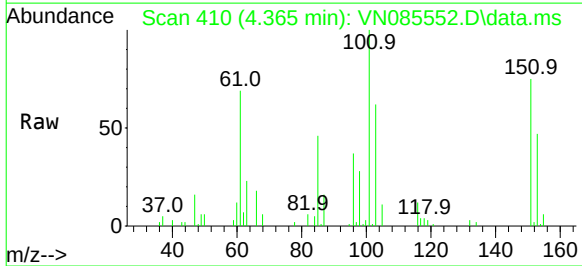
Tgt Ion: 74 Resp: 26661  
 Ion Ratio Lower Upper  
 74 100  
 45 97.9 49.7 149.1





#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 18.893 ug/l  
RT: 4.365 min Scan# 411  
Delta R.T. -0.006 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

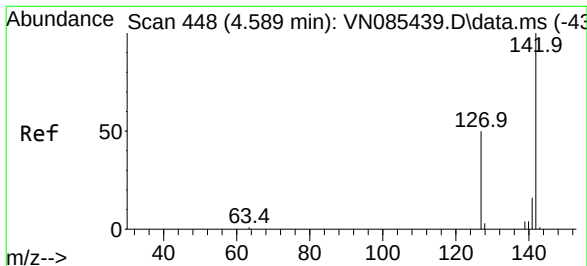
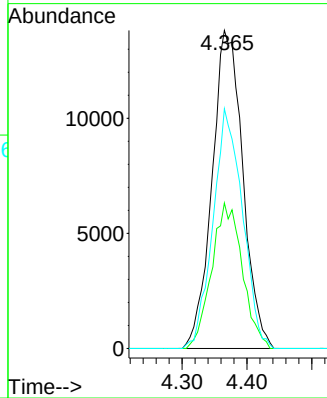
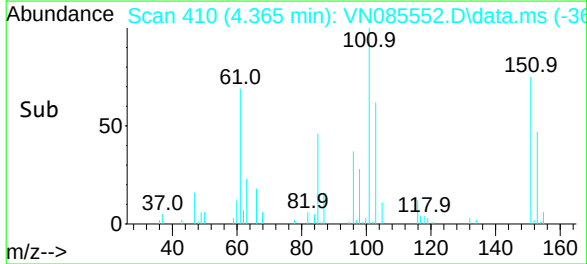
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01



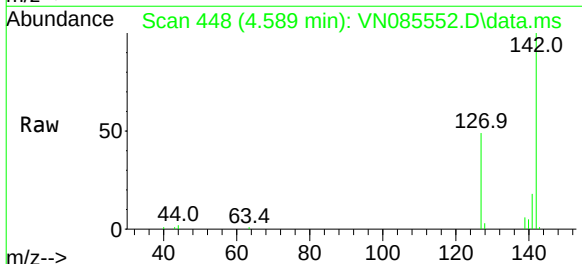
Tgt Ion:101 Resp: 45479  
Ion Ratio Lower Upper  
101 100  
85 45.6 37.8 56.8  
151 72.4 58.8 88.2

Manual Integrations  
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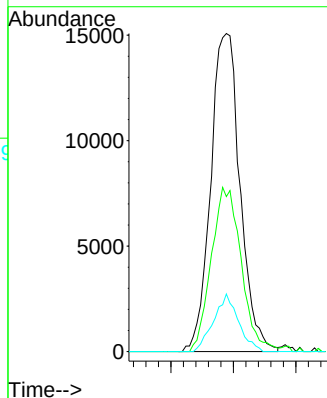
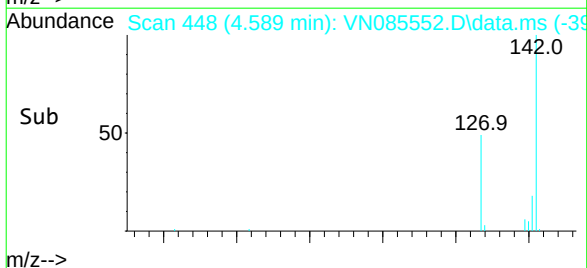
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

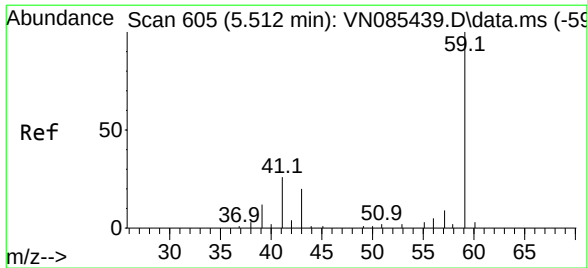


#10  
Methyl Iodide  
Concen: 17.872 ug/l  
RT: 4.589 min Scan# 448  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04



Tgt Ion:142 Resp: 49266  
Ion Ratio Lower Upper  
142 100  
127 48.7 40.3 60.5  
141 18.1 12.8 19.2





#11

Tert butyl alcohol

Concen: 120.269 ug/l

RT: 5.518 min Scan# 605

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 59 Resp: 44436

Ion Ratio Lower Upper

59 100

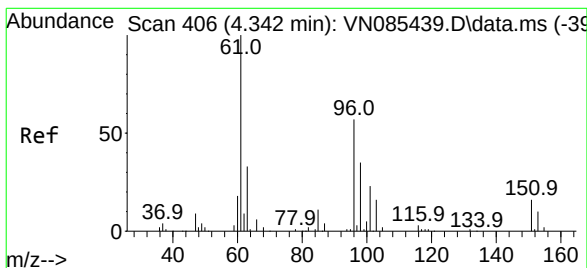
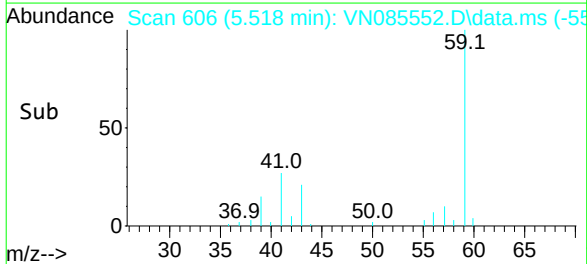
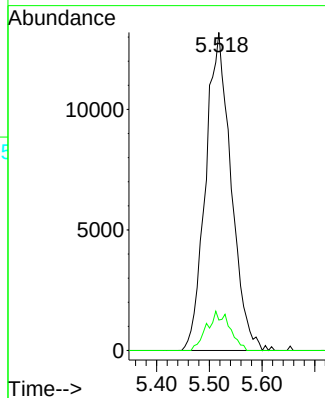
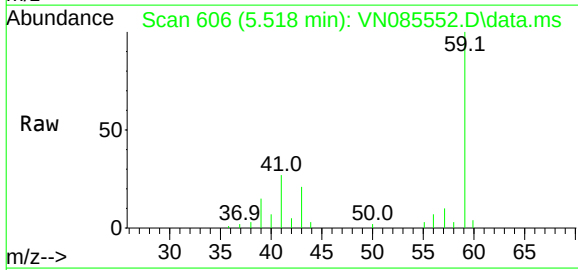
57 11.0 8.6 13.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#12

1,1-Dichloroethene

Concen: 17.909 ug/l

RT: 4.342 min Scan# 406

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

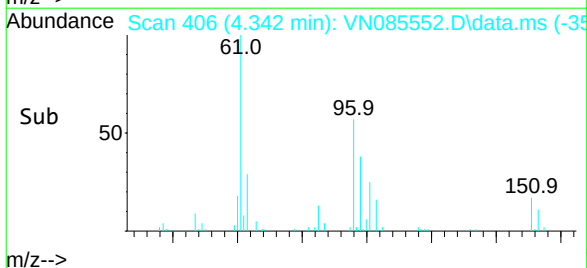
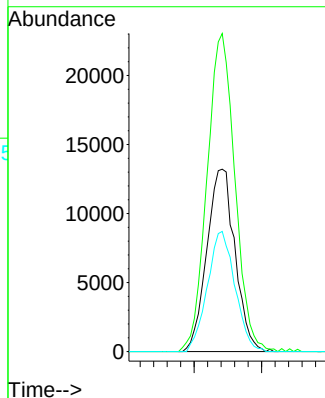
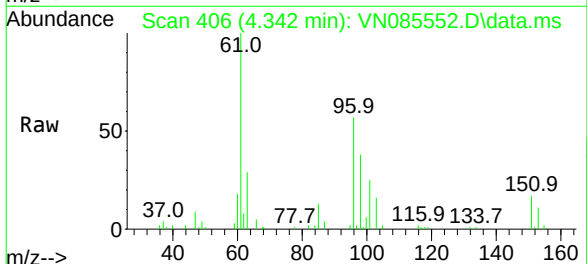
Tgt Ion: 96 Resp: 38420

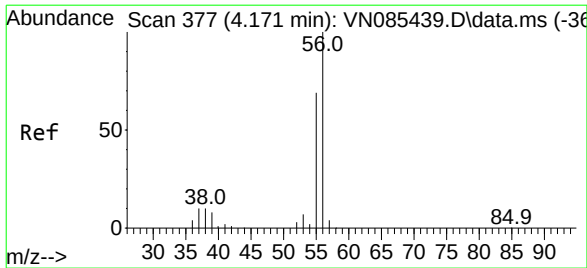
Ion Ratio Lower Upper

96 100

61 174.4 141.0 211.4

98 65.9 49.0 73.6





#13

Acrolein

Concen: 79.316 ug/l

RT: 4.177 min Scan# 377

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 56 Resp: 40004

Ion Ratio Lower Upper

56 100

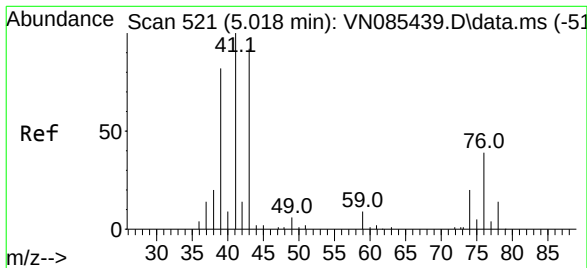
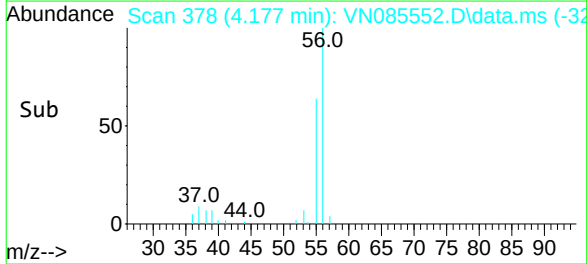
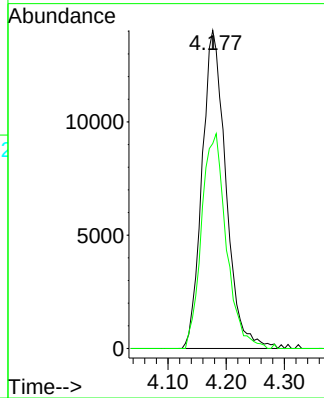
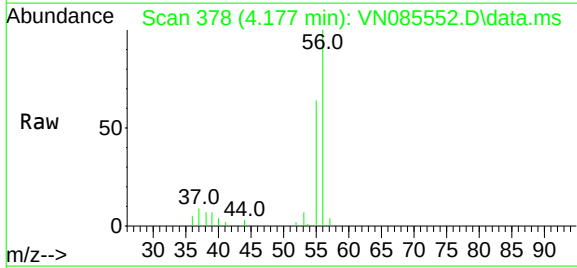
55 69.9 56.3 84.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#14

Allyl chloride

Concen: 17.643 ug/l

RT: 5.018 min Scan# 521

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

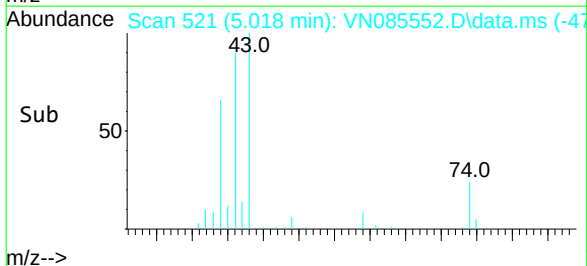
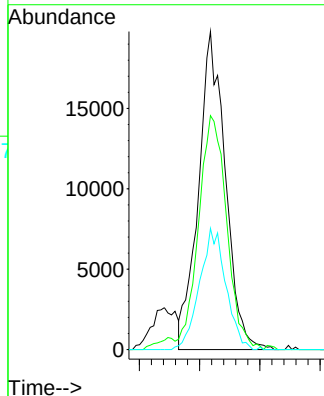
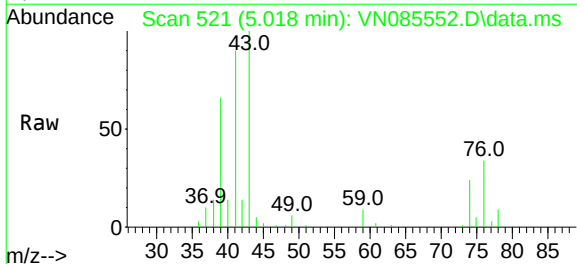
Tgt Ion: 41 Resp: 61417

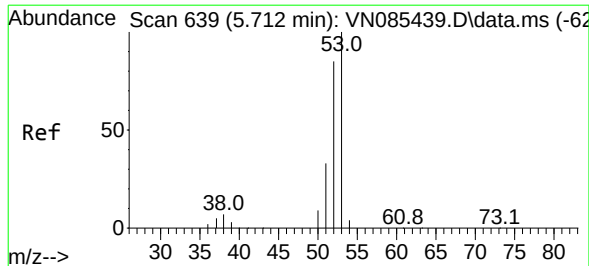
Ion Ratio Lower Upper

41 100

39 76.7 64.4 96.6

76 37.1 30.5 45.7





#15

Acrylonitrile

Concen: 108.256 ug/l

RT: 5.718 min Scan# 64

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 53 Resp: 127045

Ion Ratio Lower Upper

53 100

52 81.9 65.5 98.3

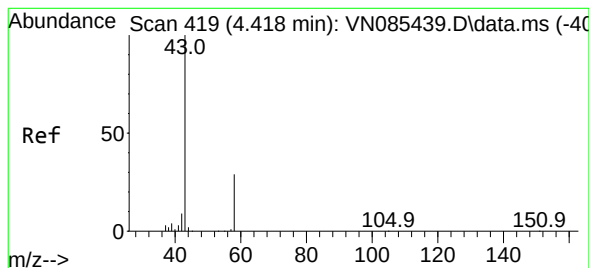
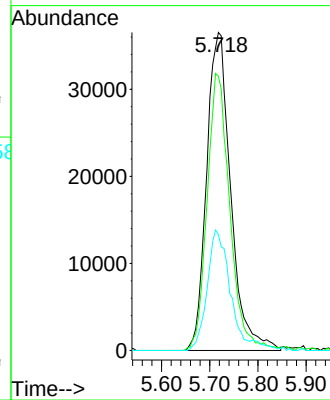
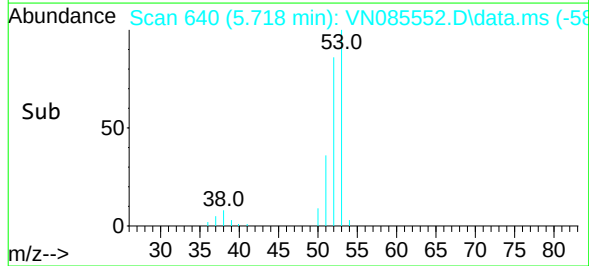
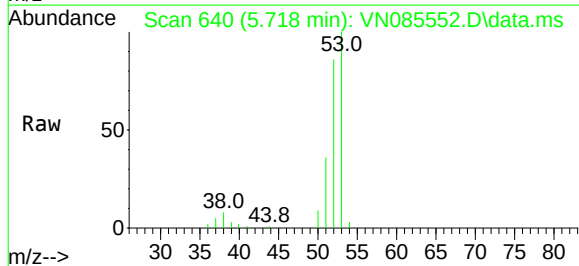
51 35.0 29.8 44.8

Manual Integrations

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Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#16

Acetone

Concen: 109.834 ug/l

RT: 4.430 min Scan# 421

Delta R.T. 0.012 min

Lab File: VN085552.D

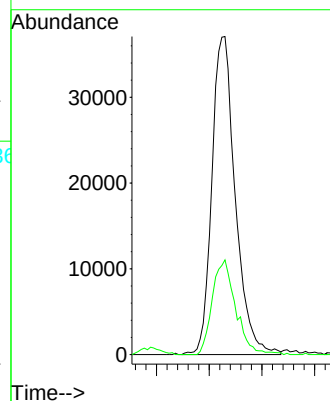
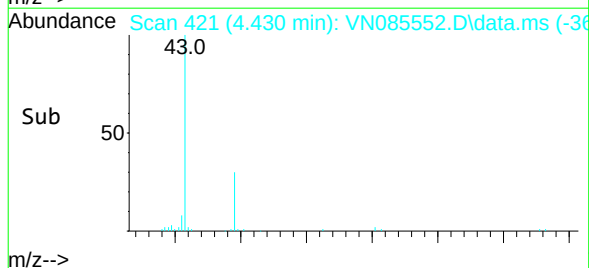
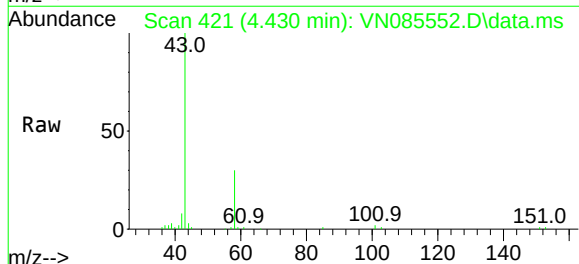
Acq: 29 Jan 2025 13:04

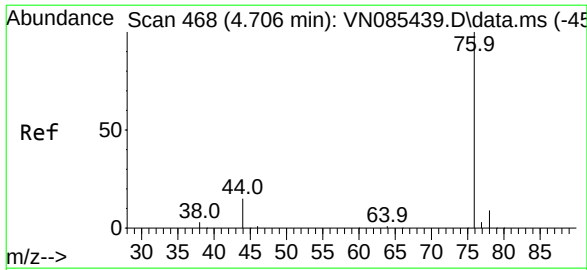
Tgt Ion: 43 Resp: 114508

Ion Ratio Lower Upper

43 100

58 29.8 23.8 35.6





#17

Carbon Disulfide

Concen: 14.567 ug/l

RT: 4.712 min Scan# 468

Delta R.T. 0.006 min

Lab File: VN085552.D

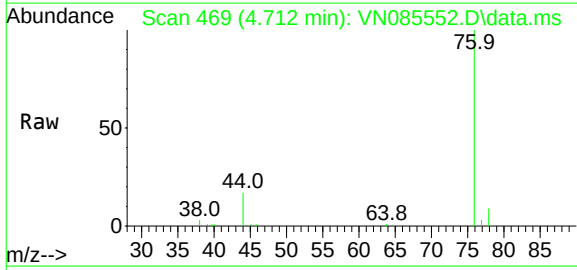
Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01



Tgt Ion: 76 Resp: 96222

Ion Ratio Lower Upper

76 100

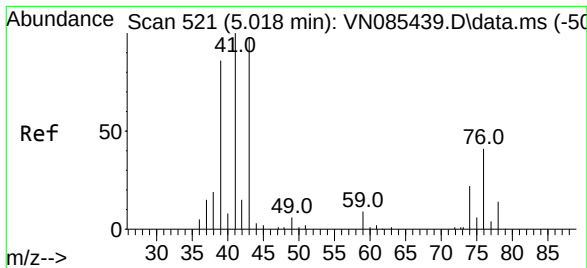
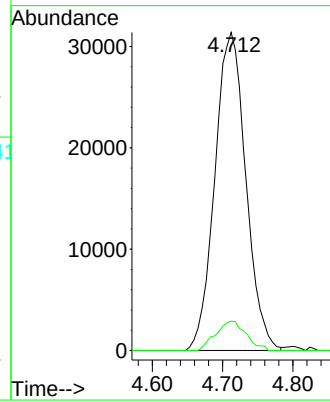
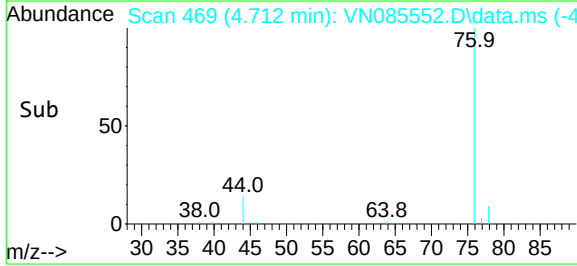
78 9.2 6.9 10.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#18

Methyl Acetate

Concen: 23.027 ug/l

RT: 5.018 min Scan# 521

Delta R.T. -0.000 min

Lab File: VN085552.D

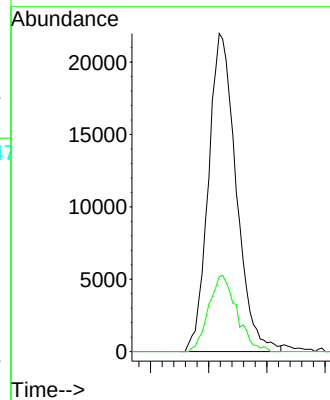
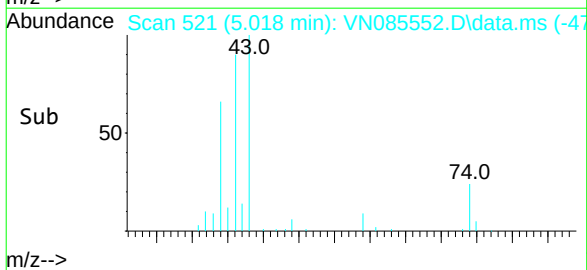
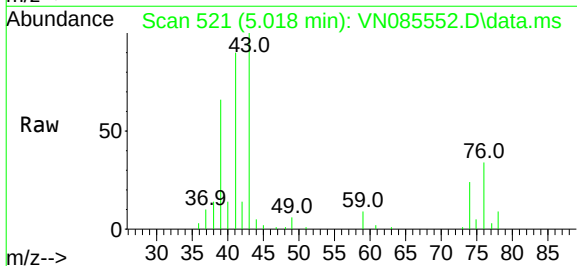
Acq: 29 Jan 2025 13:04

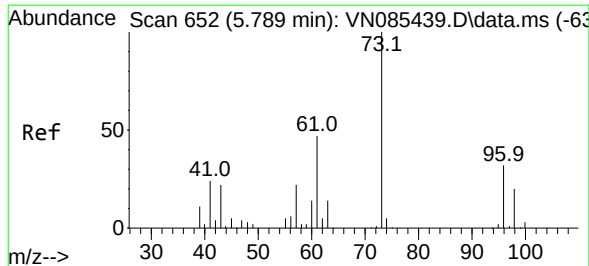
Tgt Ion: 43 Resp: 73000

Ion Ratio Lower Upper

43 100

74 24.2 18.6 28.0





#19

Methyl tert-butyl Ether

Concen: 20.418 ug/l

RT: 5.800 min Scan# 65

Delta R.T. 0.012 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 73 Resp: 142230

Ion Ratio Lower Upper

73 100

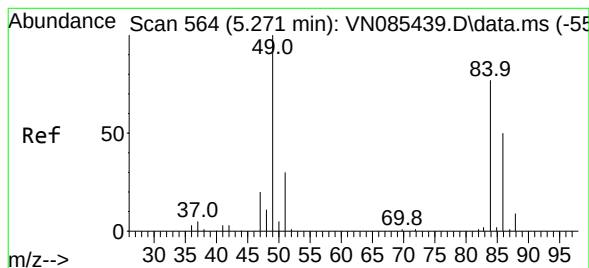
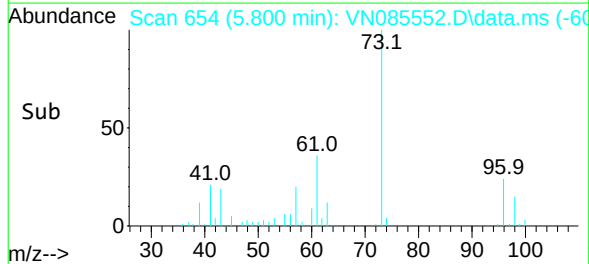
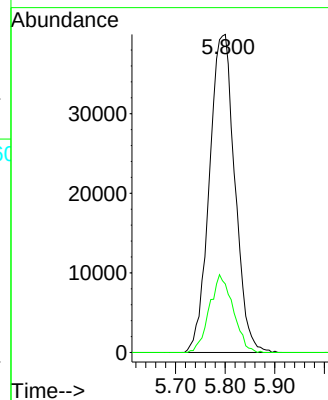
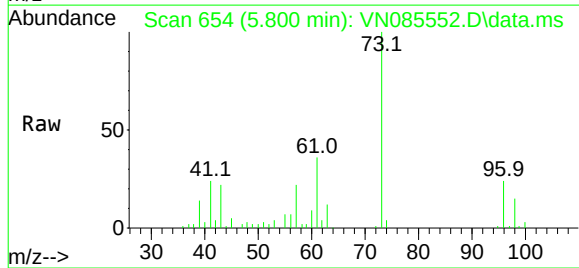
57 21.5 17.8 26.8

Manual Integrations

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Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#20

Methylene Chloride

Concen: 19.037 ug/l

RT: 5.277 min Scan# 565

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Tgt Ion: 84 Resp: 49133

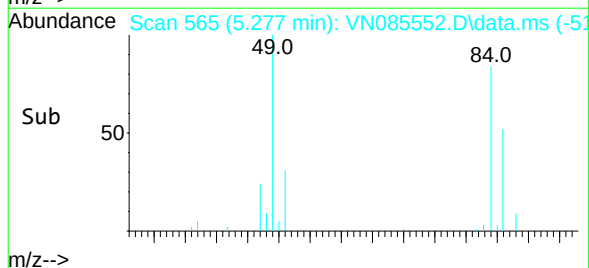
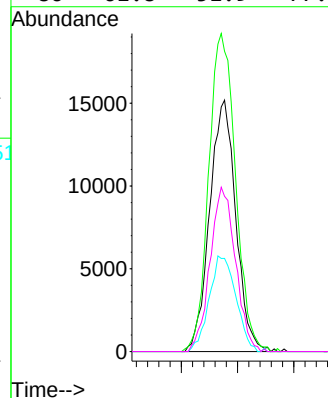
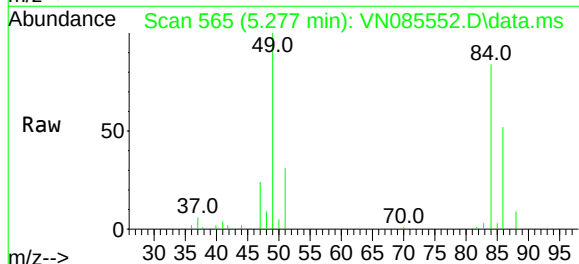
Ion Ratio Lower Upper

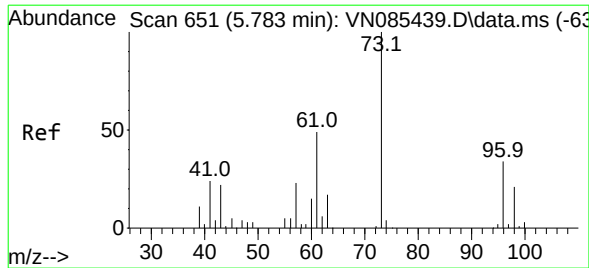
84 100

49 119.4 104.1 156.1

51 37.1 31.0 46.4

86 61.8 51.9 77.9





#21

trans-1,2-Dichloroethene

Concen: 17.456 ug/l

RT: 5.783 min Scan# 651

Delta R.T. -0.000 min

Lab File: VN085552.D

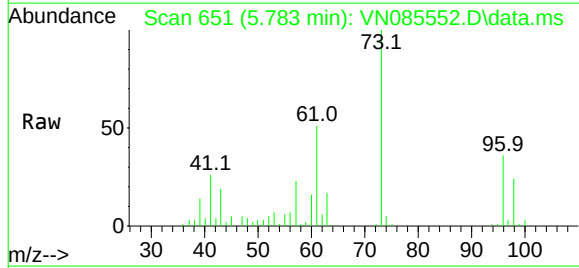
Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01



Tgt Ion: 96 Resp: 40021

Ion Ratio Lower Upper

96 100

61 141.4 115.7 173.5

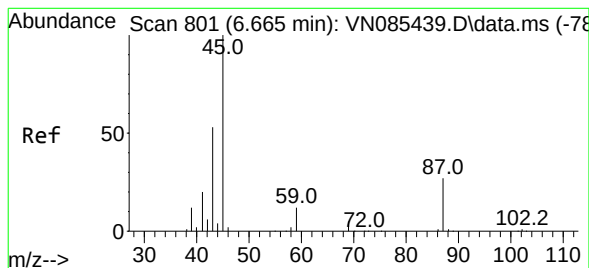
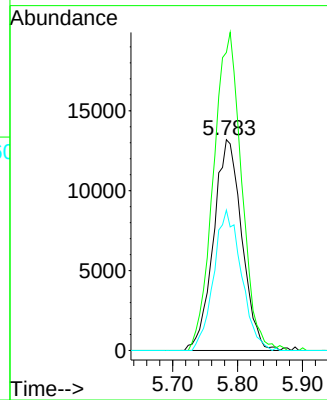
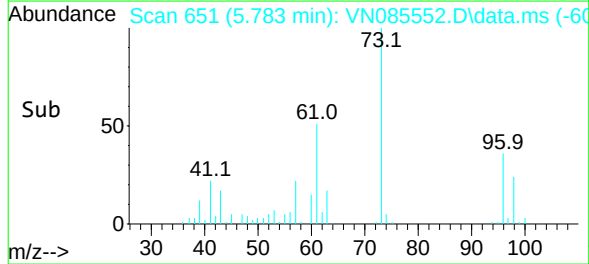
98 66.6 49.8 74.8

Manual Integrations

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Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#22

Diisopropyl ether

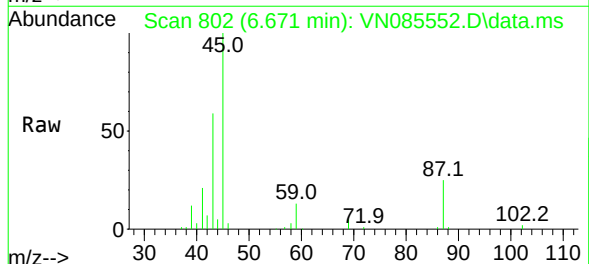
Concen: 20.044 ug/l

RT: 6.671 min Scan# 802

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04



Tgt Ion: 45 Resp: 154873

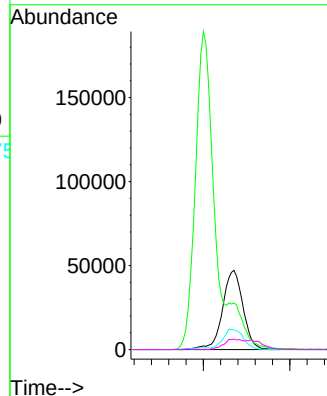
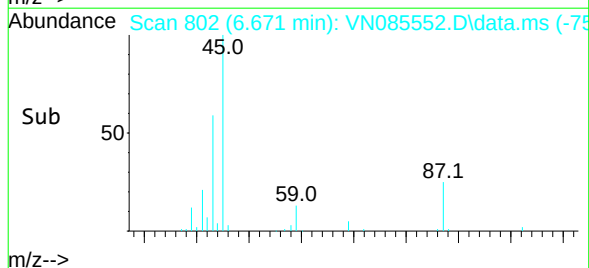
Ion Ratio Lower Upper

45 100

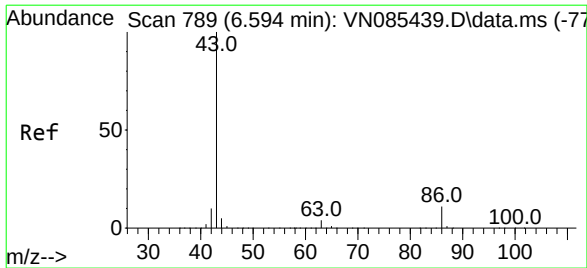
43 57.4 45.0 67.6

87 24.9 21.8 32.8

59 13.3 10.2 15.2







#23

Vinyl Acetate

Concen: 99.867 ug/l

RT: 6.600 min Scan# 790

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 43 Resp: 540007

Ion Ratio Lower Upper

43 100

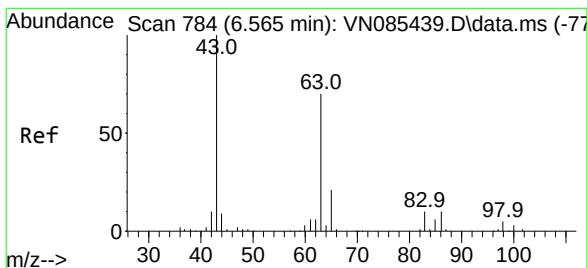
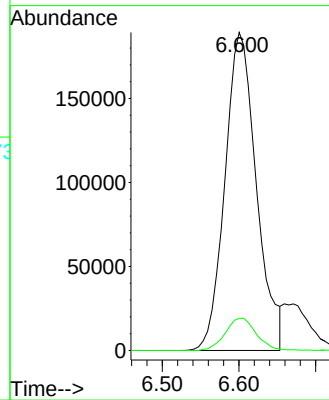
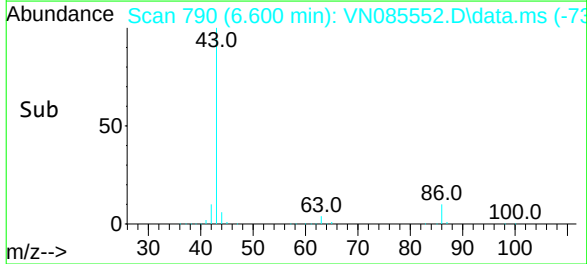
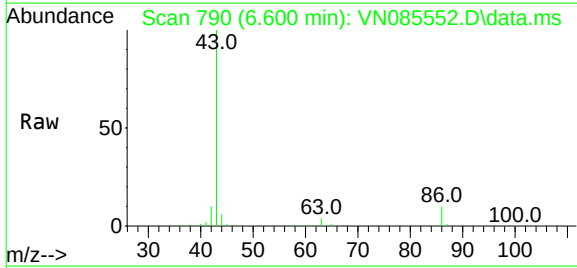
86 10.1 8.4 12.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#24

1,1-Dichloroethane

Concen: 19.129 ug/l

RT: 6.565 min Scan# 784

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

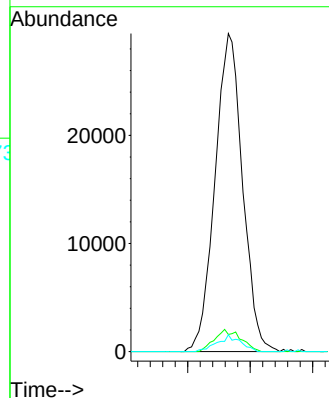
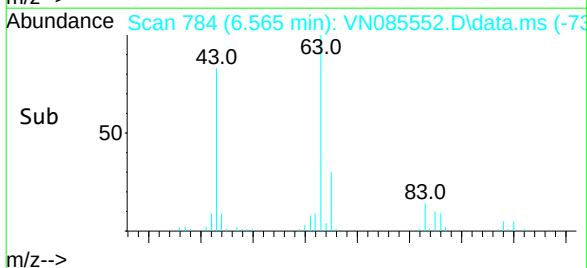
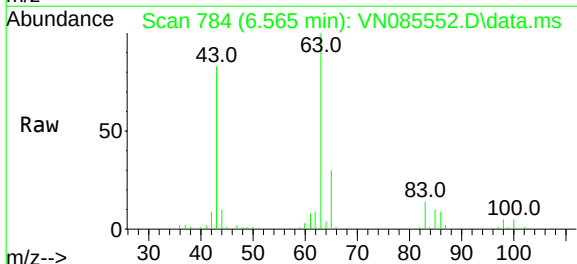
Tgt Ion: 63 Resp: 90121

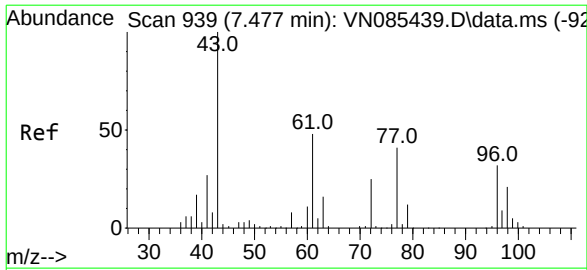
Ion Ratio Lower Upper

63 100

98 5.4 3.3 9.8

100 5.3 2.0 6.0





#25

2-Butanone

Concen: 109.240 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 43 Resp: 167598

Ion Ratio Lower Upper

43 100

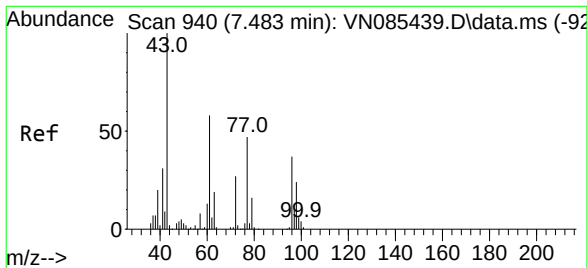
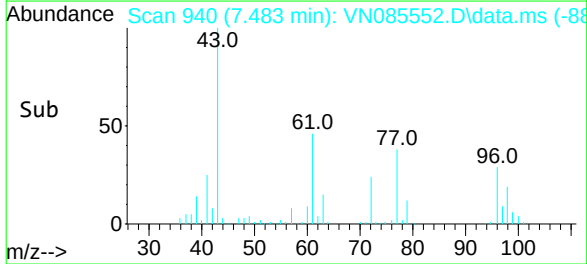
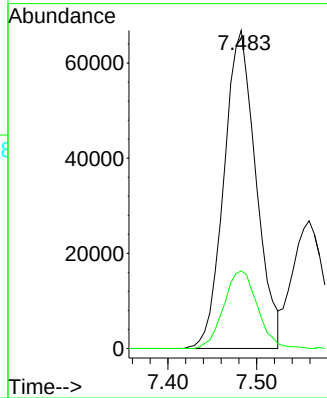
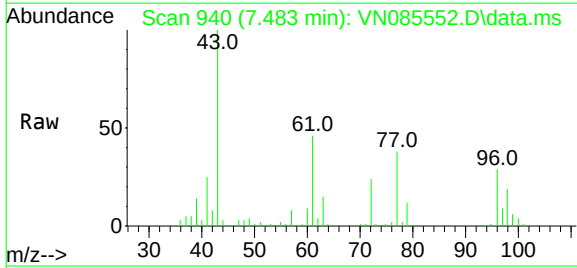
72 24.4 20.2 30.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#26

2,2-Dichloropropane

Concen: 20.344 ug/l

RT: 7.488 min Scan# 941

Delta R.T. 0.006 min

Lab File: VN085552.D

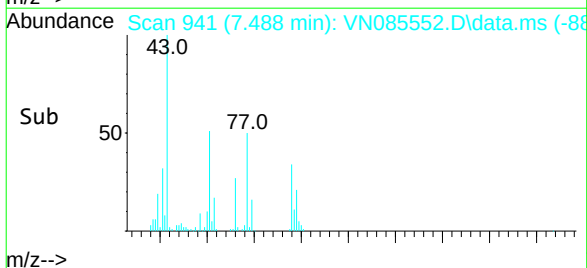
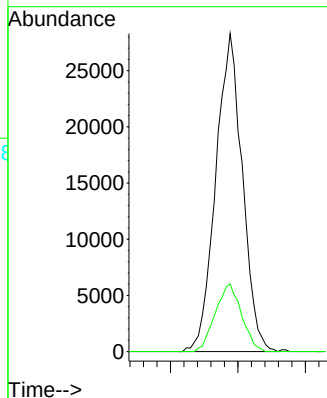
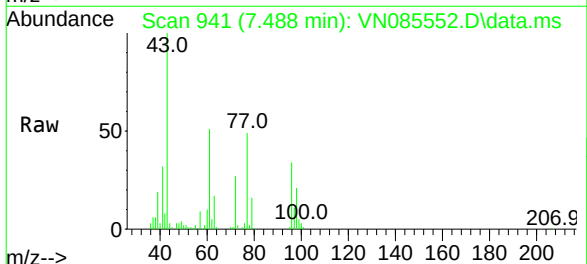
Acq: 29 Jan 2025 13:04

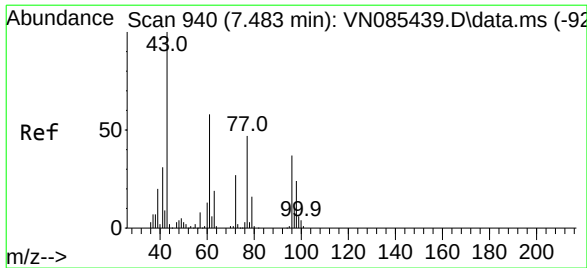
Tgt Ion: 77 Resp: 77491

Ion Ratio Lower Upper

77 100

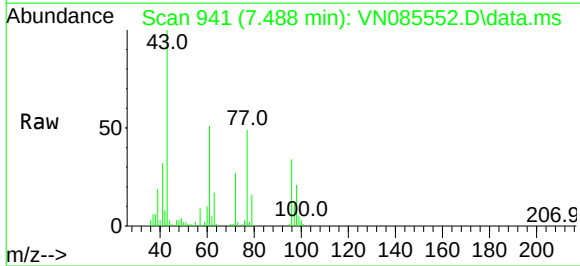
97 21.0 10.7 32.1





#27  
cis-1,2-Dichloroethene  
Concen: 18.725 ug/l  
RT: 7.488 min Scan# 941  
Delta R.T. 0.006 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

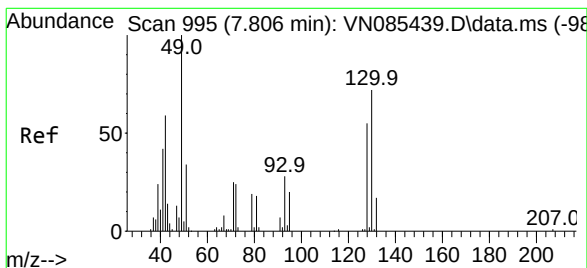
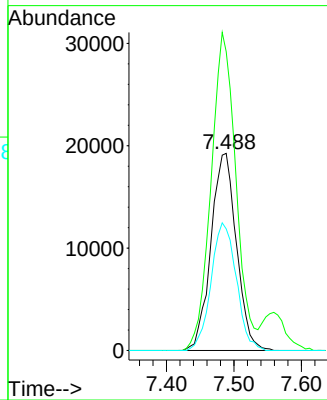
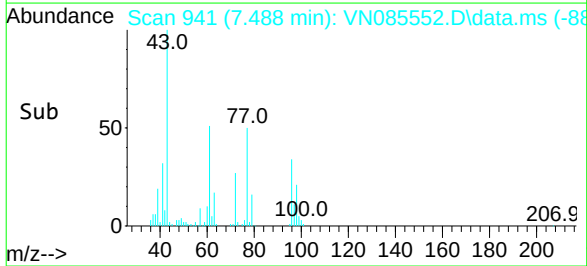
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01



Tgt Ion: 96 Resp: 50565  
Ion Ratio Lower Upper  
96 100  
61 157.7 0.0 311.8  
98 64.2 0.0 126.0

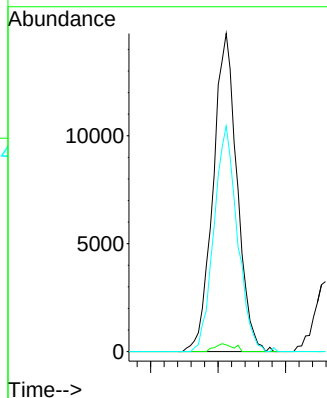
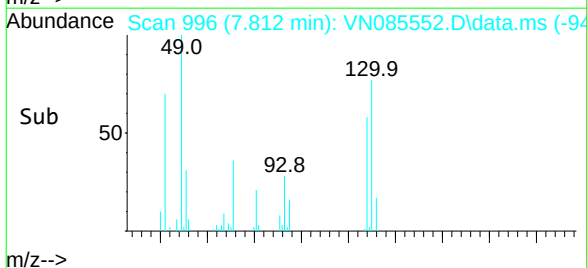
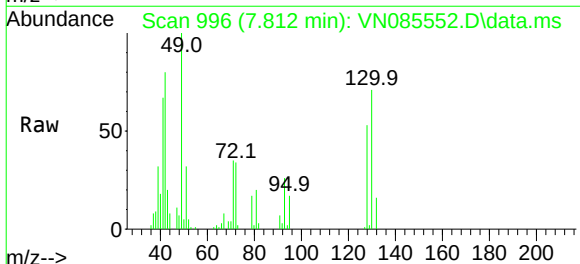
Manual Integrations  
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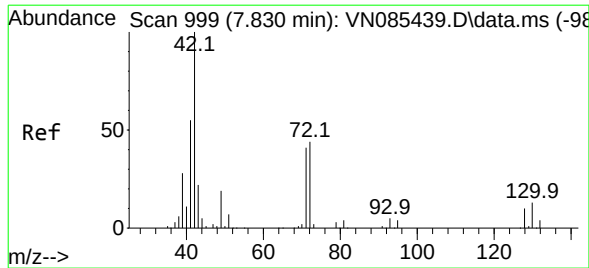
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#28  
Bromochloromethane  
Concen: 16.605 ug/l  
RT: 7.812 min Scan# 996  
Delta R.T. 0.006 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

Tgt Ion: 49 Resp: 36396  
Ion Ratio Lower Upper  
49 100  
129 1.9 0.0 4.4  
130 69.1 55.0 82.4





#29

Tetrahydrofuran

Concen: 113.317 ug/l

RT: 7.835 min Scan# 10

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 42 Resp: 110223

Ion Ratio Lower Upper

42 100

72 43.0 34.2 51.2

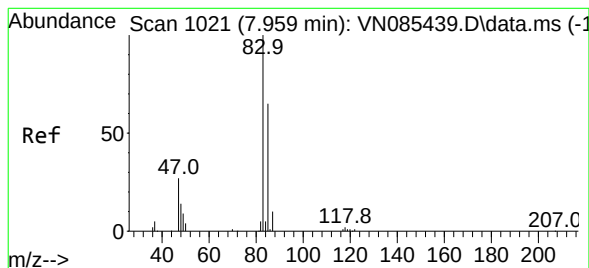
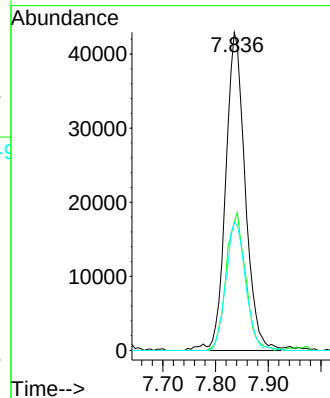
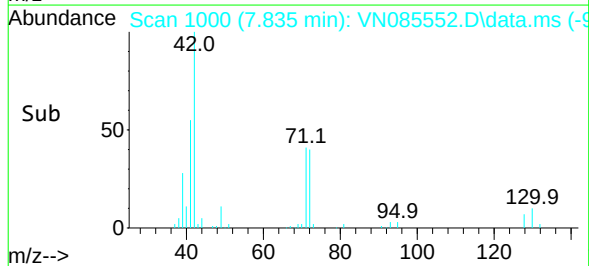
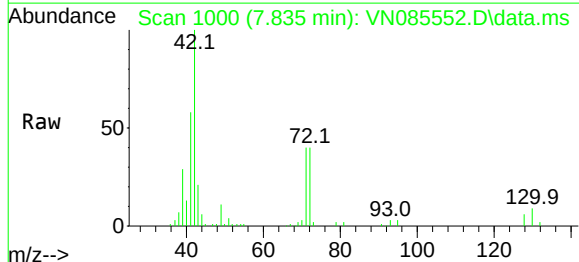
71 41.1 32.5 48.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#30

Chloroform

Concen: 19.443 ug/l

RT: 7.965 min Scan# 1022

Delta R.T. 0.006 min

Lab File: VN085552.D

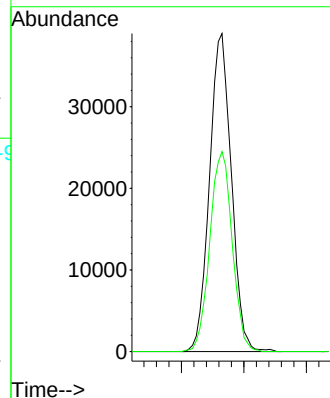
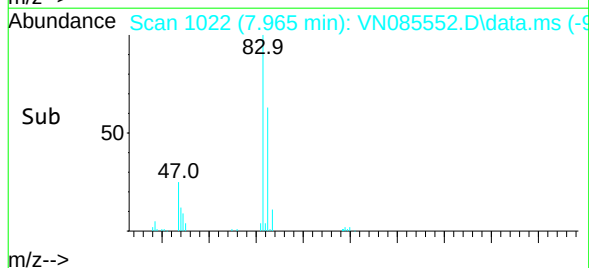
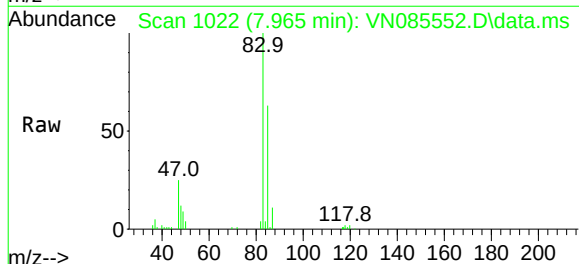
Acq: 29 Jan 2025 13:04

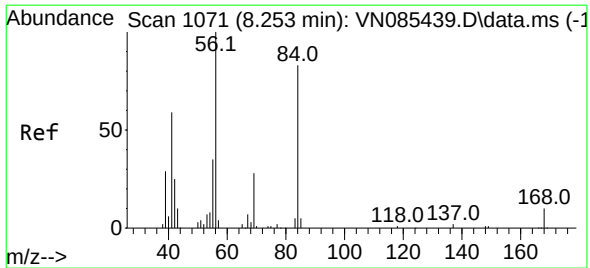
Tgt Ion: 83 Resp: 94675

Ion Ratio Lower Upper

83 100

85 62.9 51.8 77.6





#31

Cyclohexane

Concen: 15.991 ug/l

RT: 8.253 min Scan# 1071

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 56 Resp: 65483

Ion Ratio Lower Upper

56 100

69 29.8 22.2 33.4

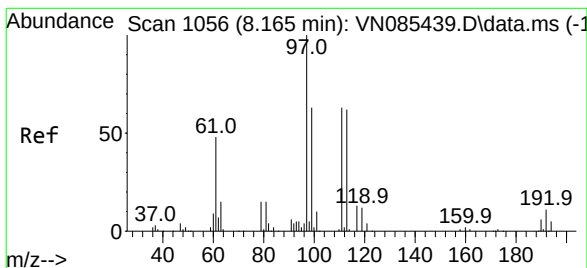
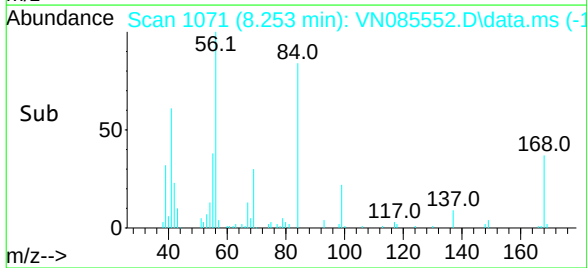
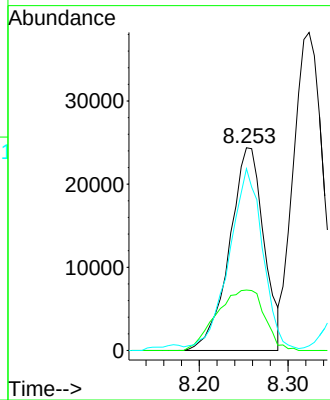
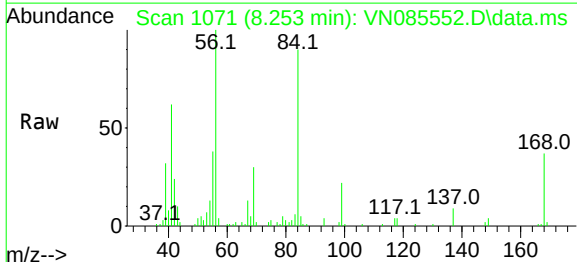
84 87.1 66.4 99.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#32

1,1,1-Trichloroethane

Concen: 19.203 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

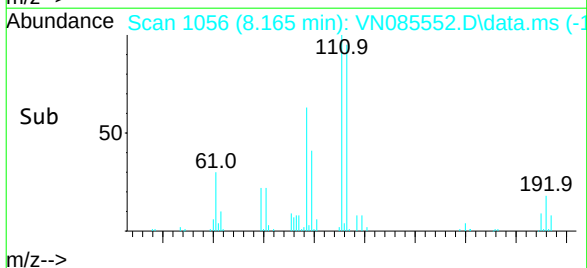
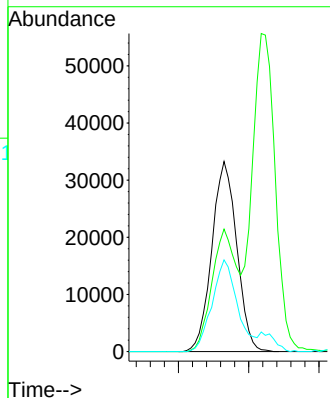
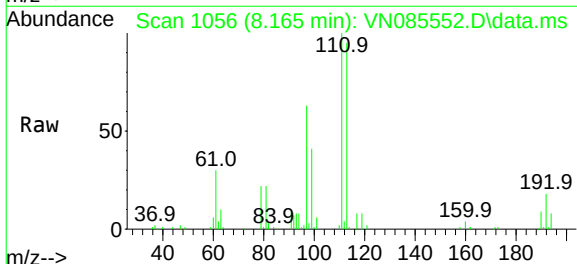
Tgt Ion: 97 Resp: 82021

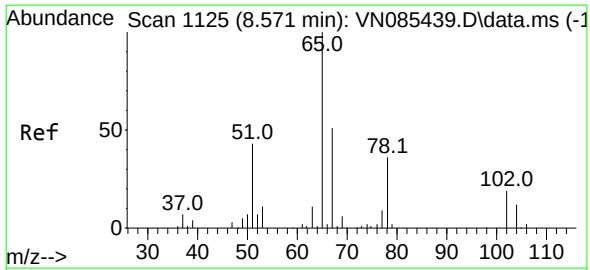
Ion Ratio Lower Upper

97 100

99 64.0 49.8 74.6

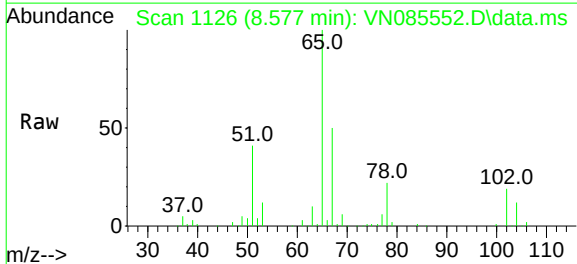
61 49.4 41.4 62.2





#33  
1,2-Dichloroethane-d4  
Concen: 51.947 ug/l  
RT: 8.577 min Scan# 1125  
Delta R.T. 0.006 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

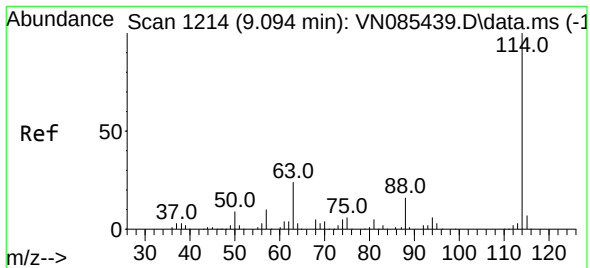
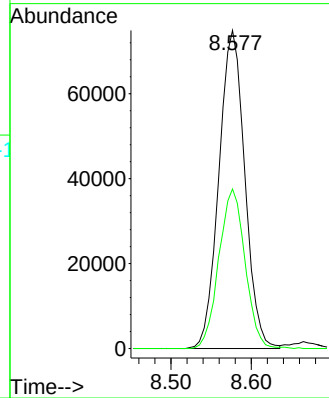
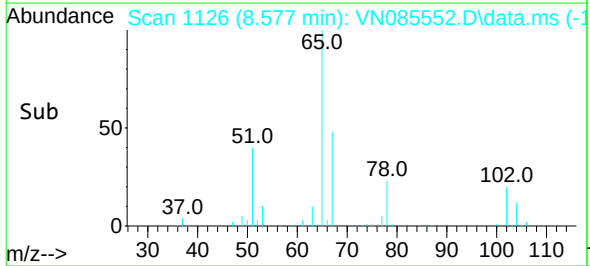
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01



Tgt Ion: 65 Resp: 167615  
Ion Ratio Lower Upper  
65 100  
67 50.7 0.0 101.6

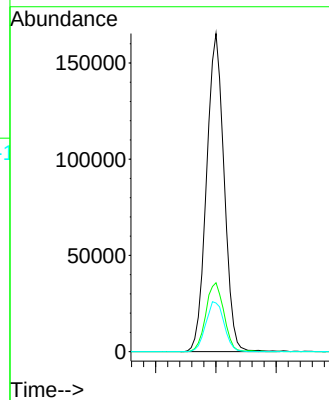
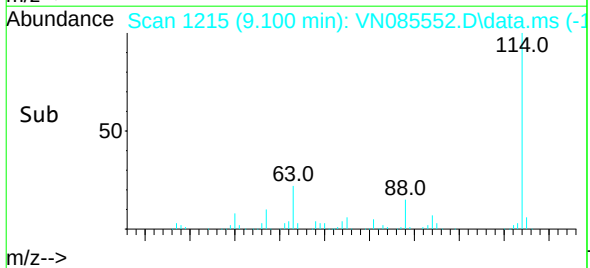
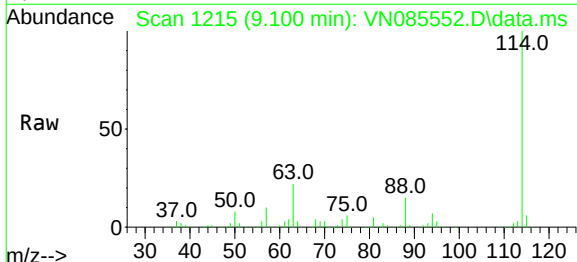
Manual Integrations  
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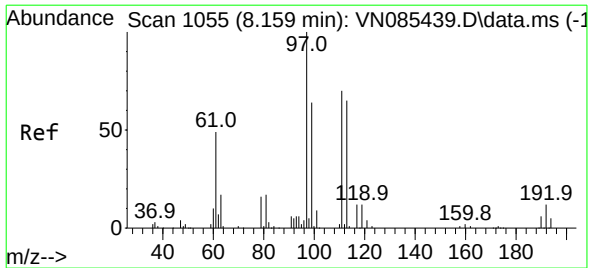
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 9.100 min Scan# 1215  
Delta R.T. 0.006 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

Tgt Ion:114 Resp: 334279  
Ion Ratio Lower Upper  
114 100  
63 21.6 0.0 47.6  
88 15.3 0.0 32.6





#35

Dibromofluoromethane

Concen: 52.775 ug/l

RT: 8.165 min Scan# 1055

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 113 Resp: 122396

Ion Ratio Lower Upper

113 100

111 103.0 82.7 124.1

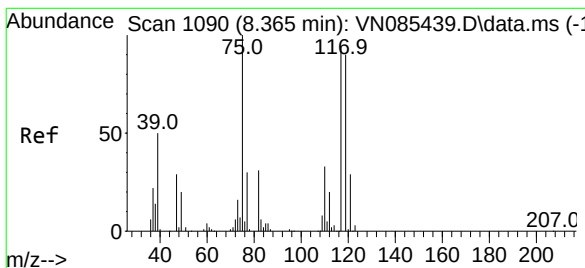
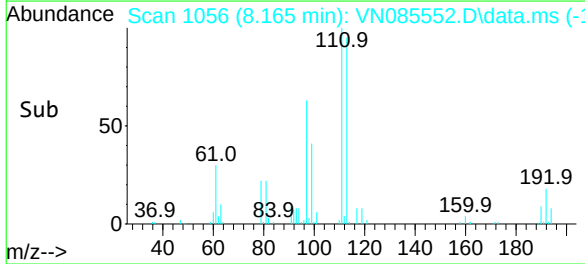
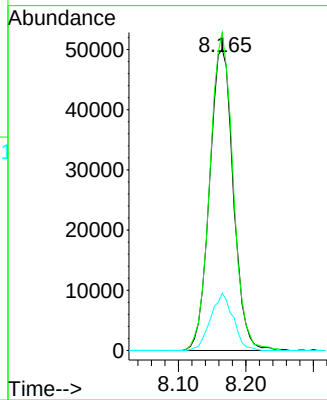
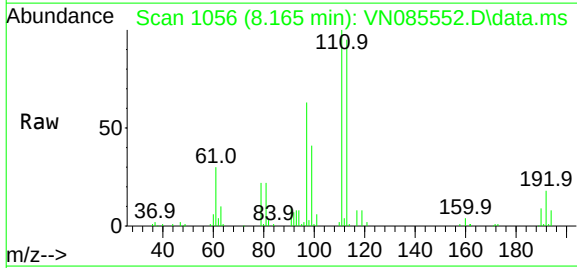
192 18.1 14.3 21.5

Manual Integrations

APPROVED

Reviewed By : John Carlone 01/30/2025

Supervised By : Mahesh Dadoda 01/30/2025



#36

1,1-Dichloropropene

Concen: 17.894 ug/l

RT: 8.371 min Scan# 1091

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

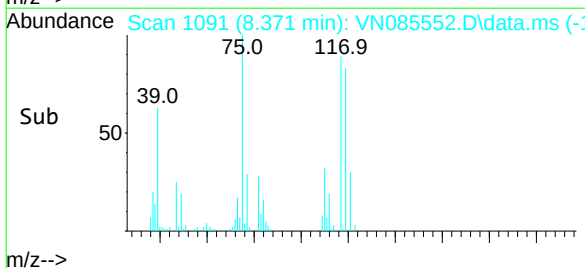
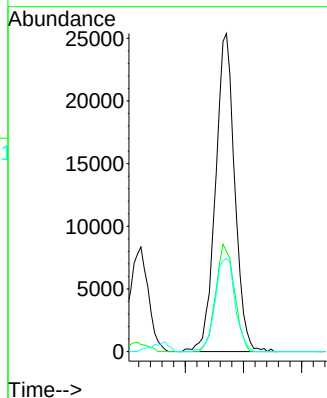
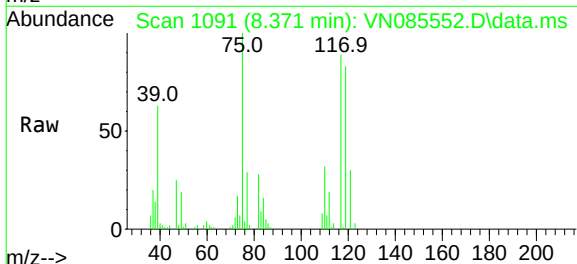
Tgt Ion: 75 Resp: 58241

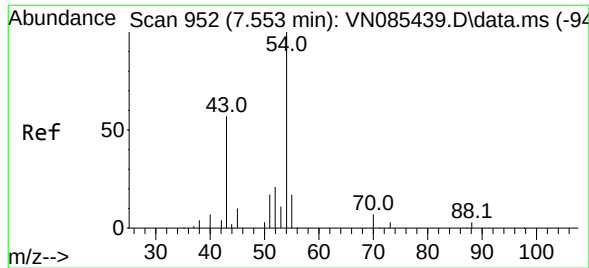
Ion Ratio Lower Upper

75 100

110 32.8 16.5 49.5

77 30.6 24.4 36.6





#37

Ethyl Acetate

Concen: 21.109 ug/l

RT: 7.559 min Scan# 952

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 43 Resp: 69349

Ion Ratio Lower Upper

43 100

61 12.6 10.9 16.3

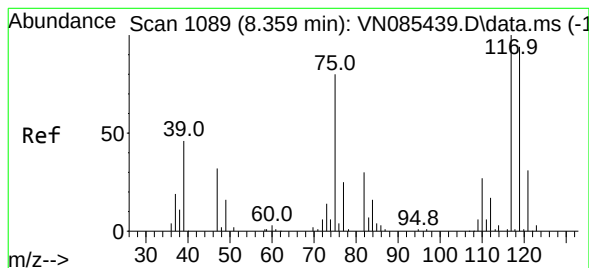
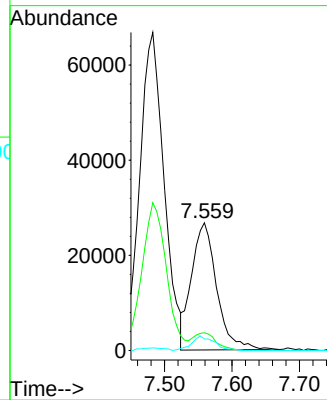
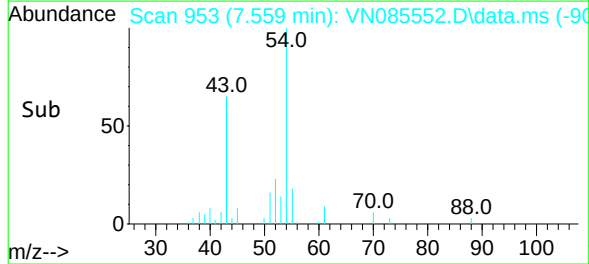
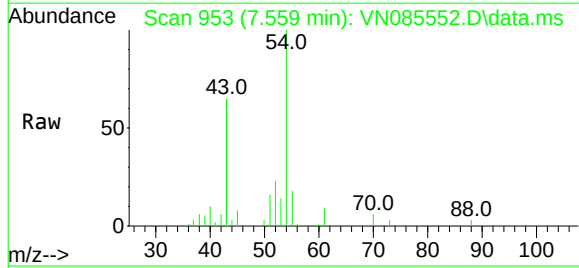
70 10.1 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#38

Carbon Tetrachloride

Concen: 18.756 ug/l

RT: 8.359 min Scan# 1089

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

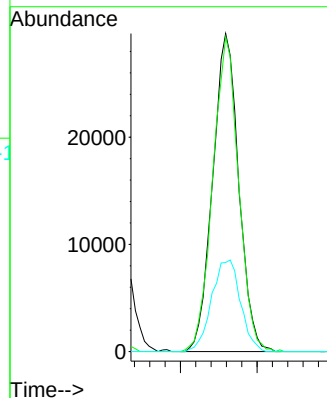
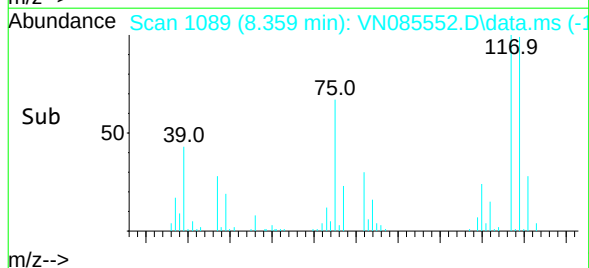
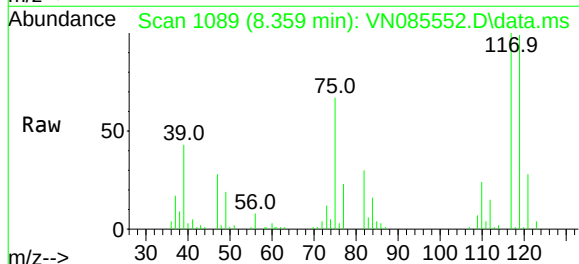
Tgt Ion:117 Resp: 69887

Ion Ratio Lower Upper

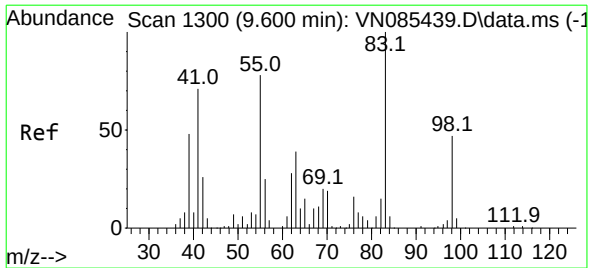
117 100

119 98.9 75.4 113.2

121 28.0 24.6 37.0







#39

Methylcyclohexane

Concen: 17.082 ug/l

RT: 9.600 min Scan# 1310

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

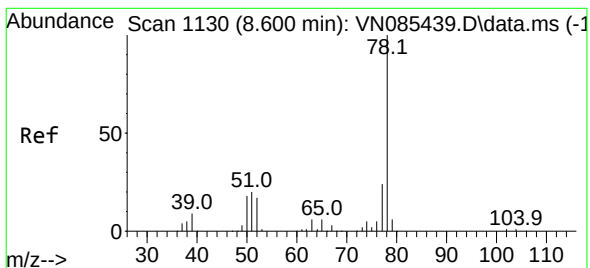
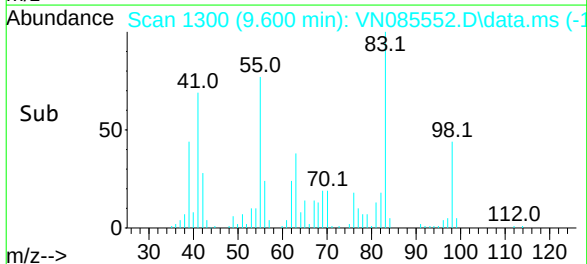
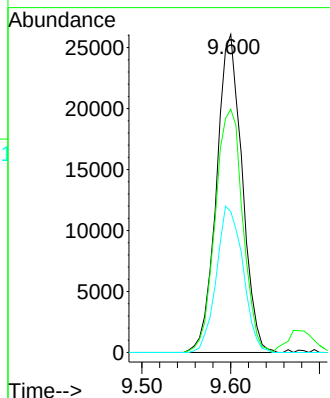
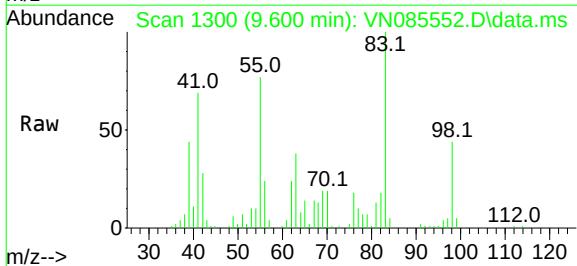
ClientSampleId :

VN0129WBSD01

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 52245 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 55       | 76.5  | 62.6  | 94.0  |
| 98       | 44.3  | 37.7  | 56.5  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#40

Benzene

Concen: 19.325 ug/l

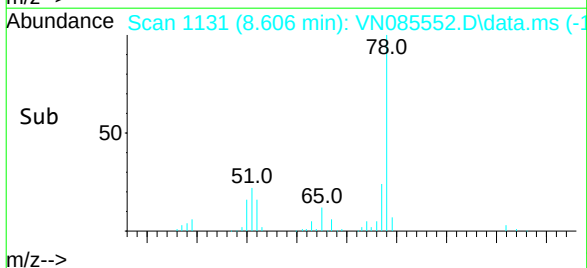
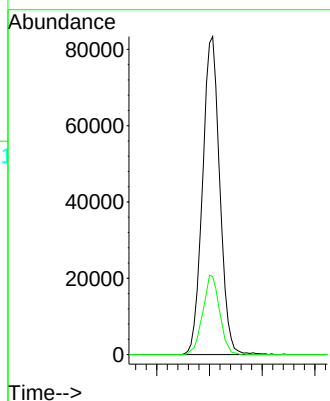
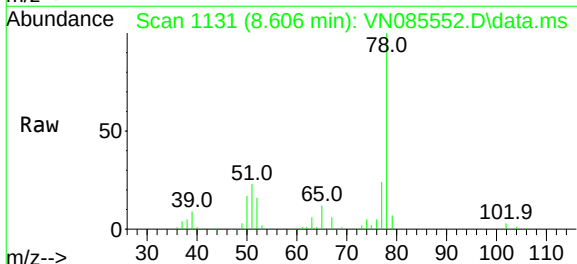
RT: 8.606 min Scan# 1131

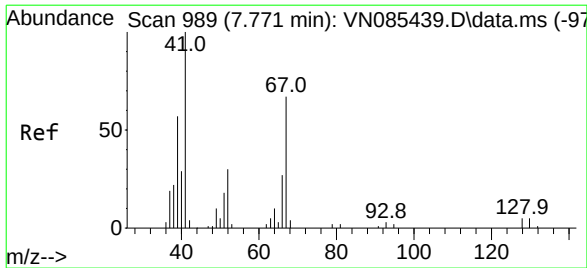
Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 78    | Resp: | 188989 |
| Ion      | Ratio | Lower | Upper  |
| 78       | 100   |       |        |
| 77       | 24.5  | 19.0  | 28.6   |





#41

Methacrylonitrile

Concen: 21.538 ug/l

RT: 7.777 min Scan# 990

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 41 Resp: 36813

Ion Ratio Lower Upper

41 100

39 60.9 46.0 69.0

67 71.2 57.4 86.2

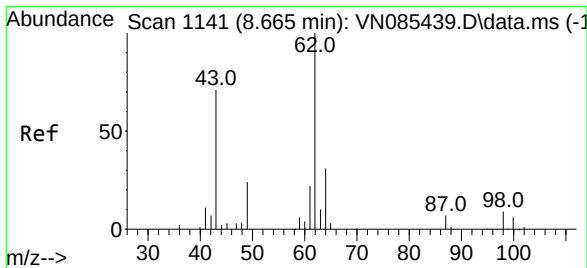
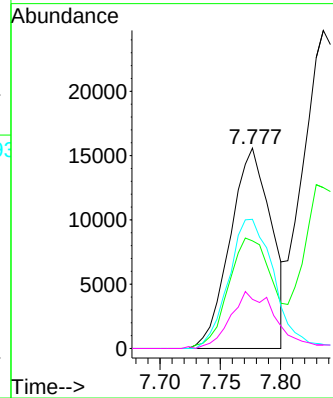
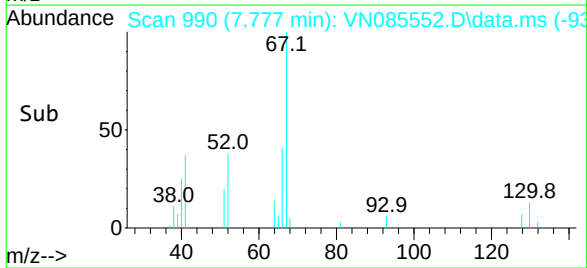
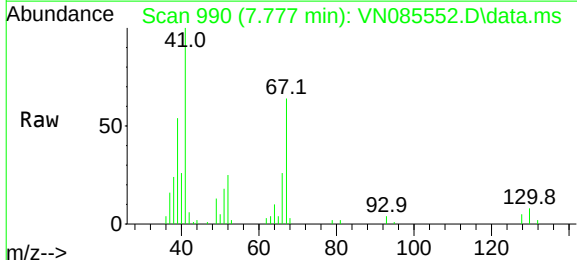
52 31.8 25.5 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#42

1,2-Dichloroethane

Concen: 20.586 ug/l

RT: 8.665 min Scan# 1141

Delta R.T. -0.000 min

Lab File: VN085552.D

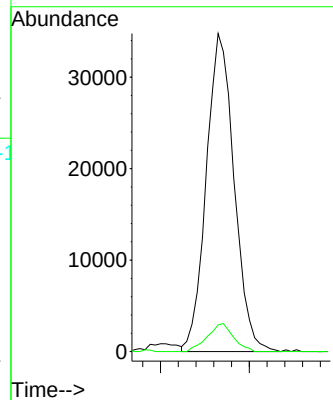
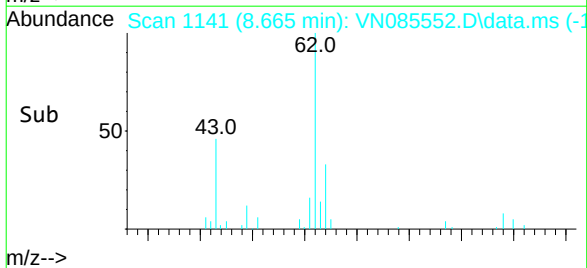
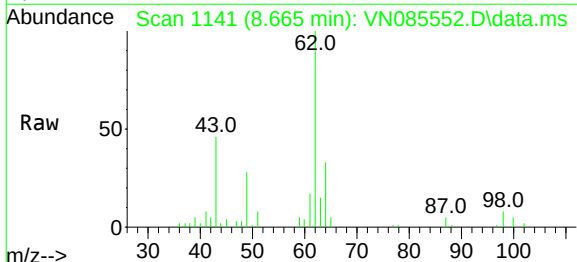
Acq: 29 Jan 2025 13:04

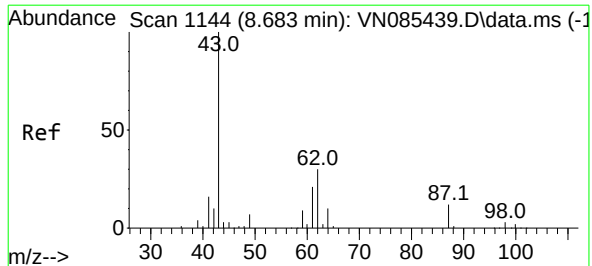
Tgt Ion: 62 Resp: 75825

Ion Ratio Lower Upper

62 100

98 8.2 0.0 17.0





#43

Isopropyl Acetate

Concen: 21.627 ug/l

RT: 8.688 min Scan# 1144

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 43 Resp: 113844

Ion Ratio Lower Upper

43 100

61 25.4 20.7 31.1

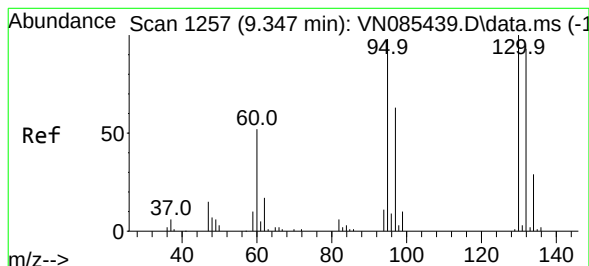
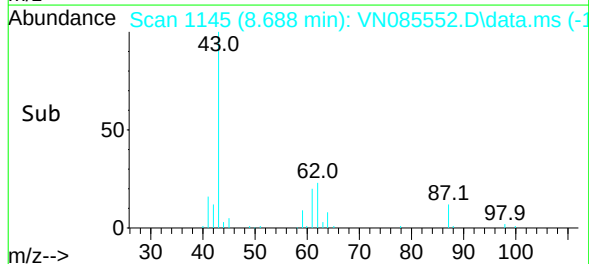
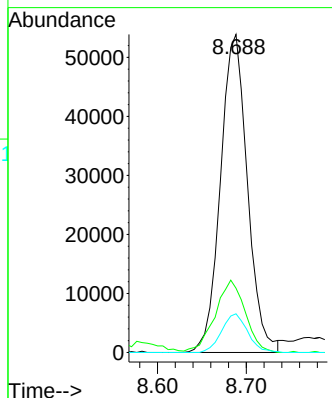
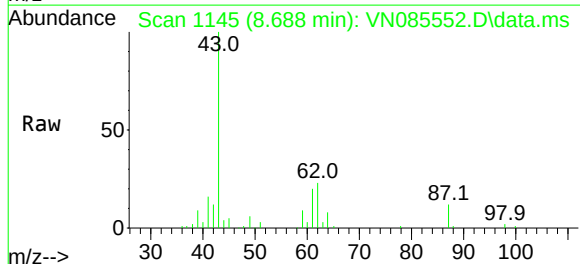
87 11.7 9.8 14.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#44

Trichloroethene

Concen: 18.266 ug/l

RT: 9.347 min Scan# 1257

Delta R.T. -0.000 min

Lab File: VN085552.D

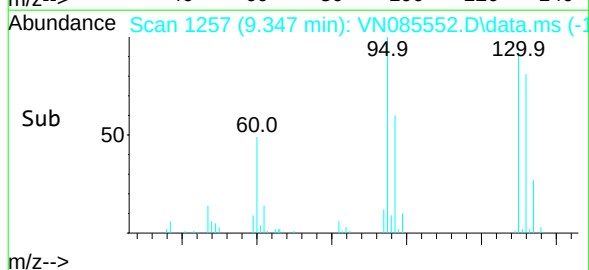
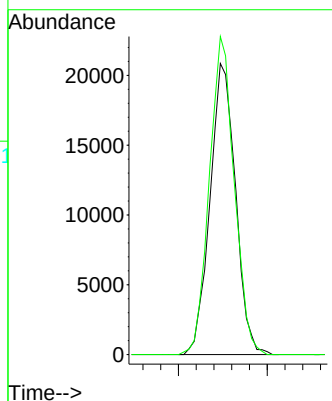
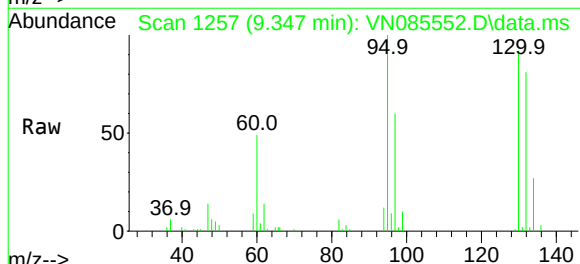
Acq: 29 Jan 2025 13:04

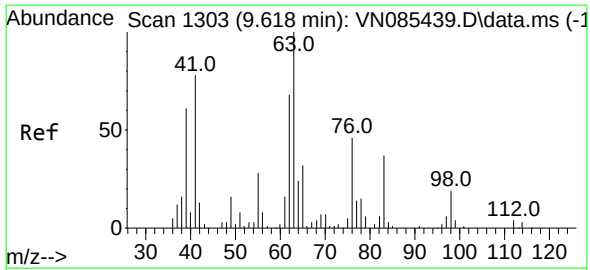
Tgt Ion:130 Resp: 41582

Ion Ratio Lower Upper

130 100

95 109.2 0.0 195.8





#45

1,2-Dichloropropane

Concen: 19.620 ug/l

RT: 9.618 min Scan# 1303

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 63 Resp: 49009

Ion Ratio Lower Upper

63 100

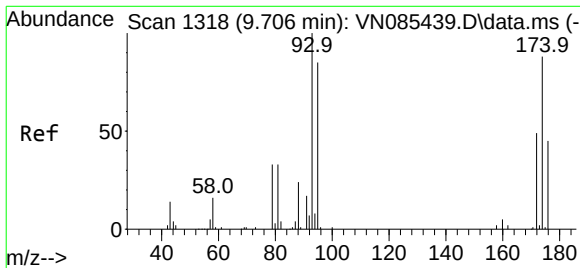
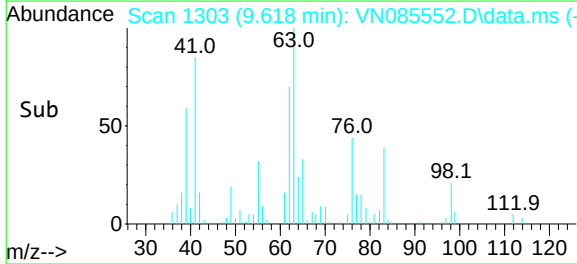
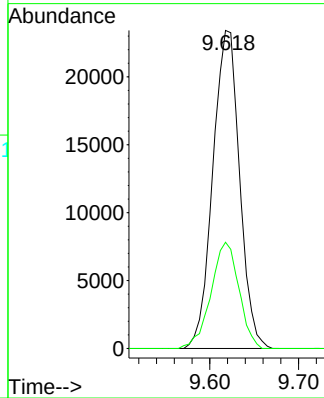
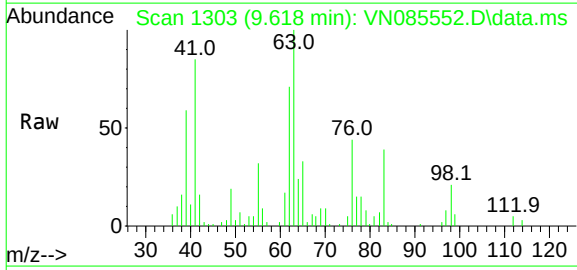
65 33.4 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#46

Dibromomethane

Concen: 19.747 ug/l

RT: 9.706 min Scan# 1318

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

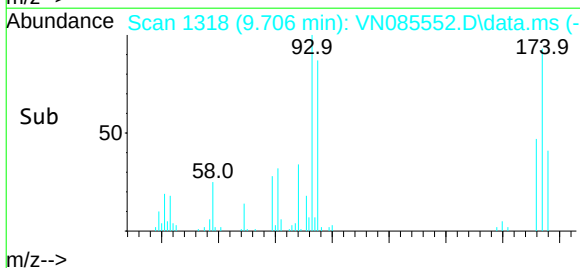
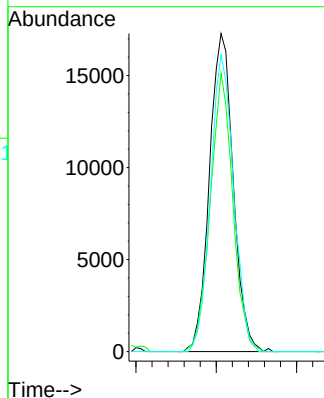
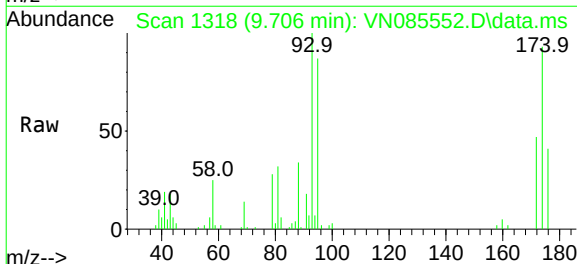
Tgt Ion: 93 Resp: 35593

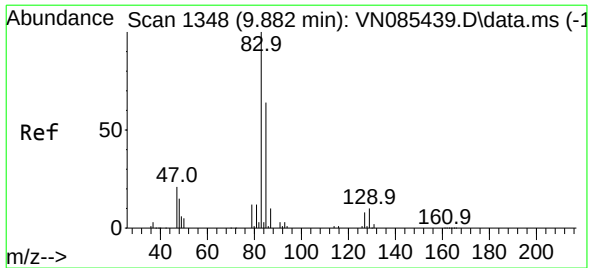
Ion Ratio Lower Upper

93 100

95 82.5 64.7 97.1

174 90.7 69.0 103.4





#47

Bromodichloromethane

Concen: 20.821 ug/l

RT: 9.882 min Scan# 1348

Delta R.T. 0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 83 Resp: 76456

Ion Ratio Lower Upper

83 100

85 62.2 51.2 76.8

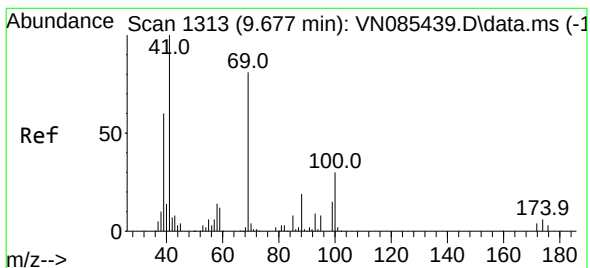
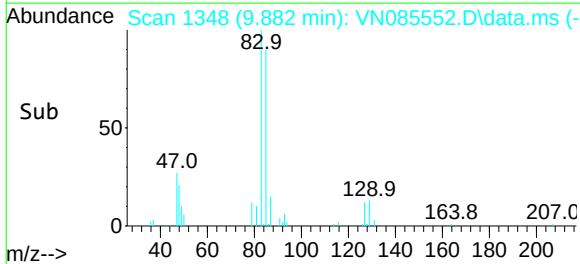
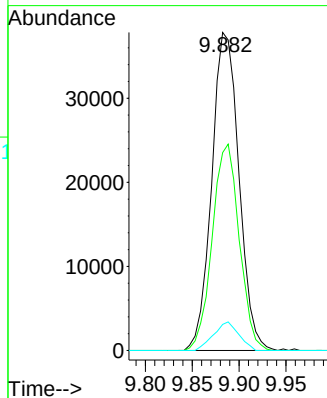
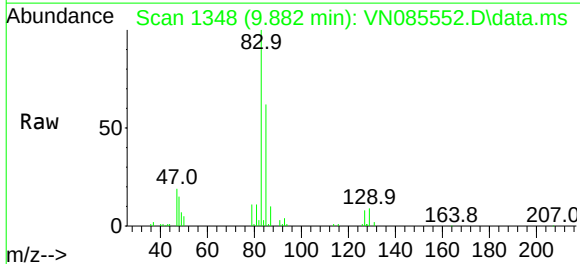
127 8.2 6.5 9.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#48

Methyl methacrylate

Concen: 22.232 ug/l

RT: 9.677 min Scan# 1313

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

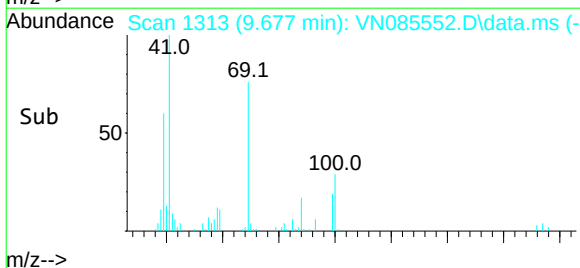
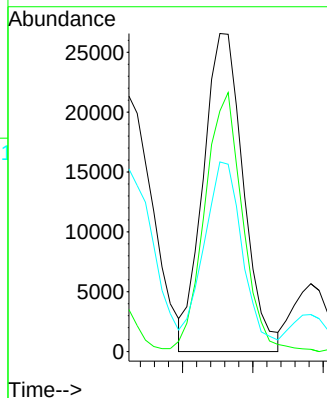
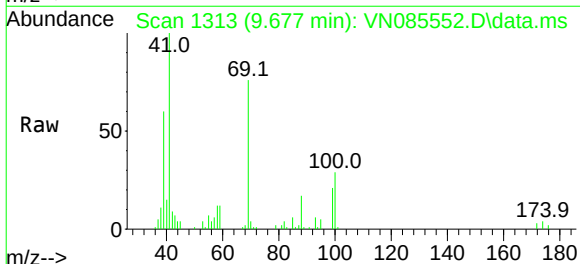
Tgt Ion: 41 Resp: 52667

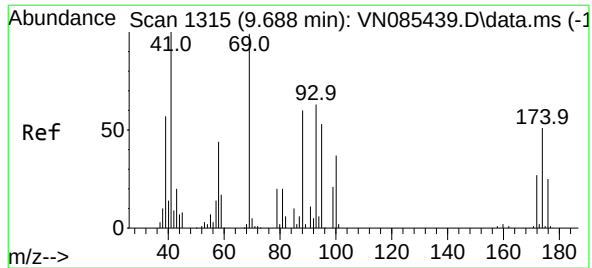
Ion Ratio Lower Upper

41 100

69 77.0 64.7 97.1

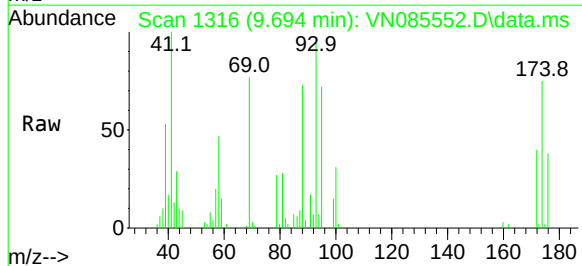
39 58.7 49.0 73.6





#49  
1,4-Dioxane  
Concen: 486.754 ug/l  
RT: 9.694 min Scan# 1315  
Delta R.T. 0.006 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

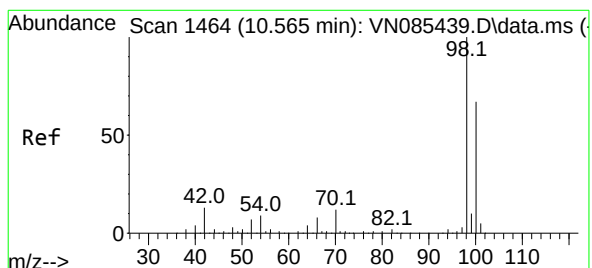
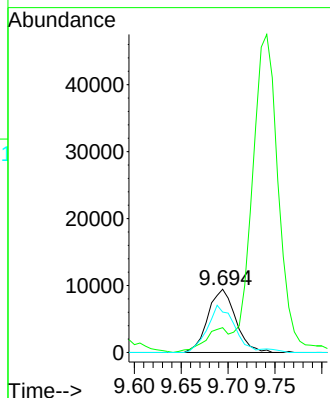
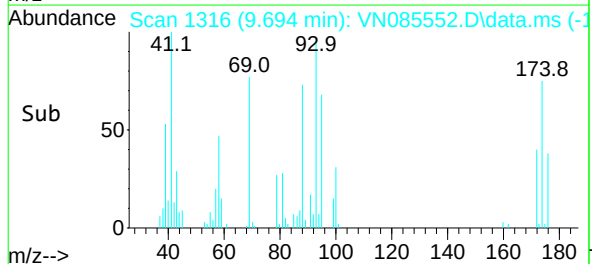
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01



Tgt Ion: 88 Resp: 19418  
Ion Ratio Lower Upper  
88 100  
43 32.9 26.6 39.8  
58 72.9 59.5 89.3

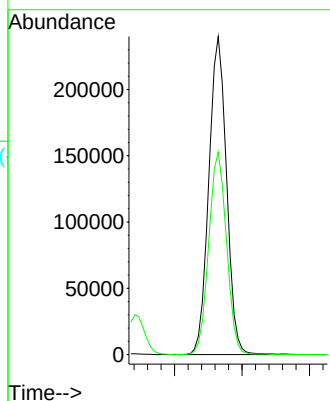
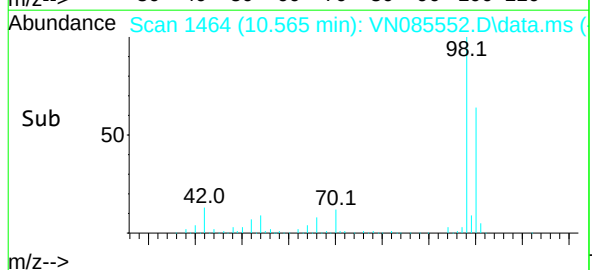
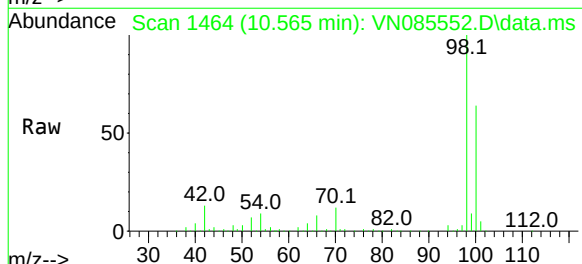
Manual Integrations  
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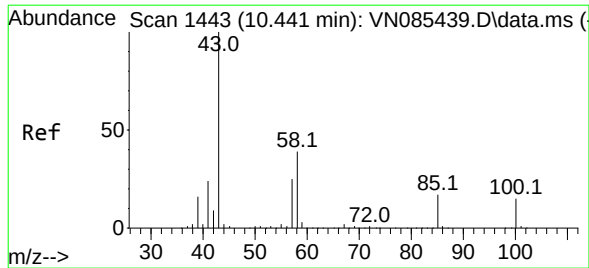
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#50  
Toluene-d8  
Concen: 53.154 ug/l  
RT: 10.565 min Scan# 1464  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

Tgt Ion: 98 Resp: 437973  
Ion Ratio Lower Upper  
98 100  
100 63.9 52.2 78.4





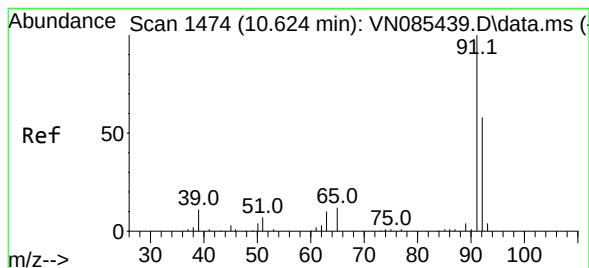
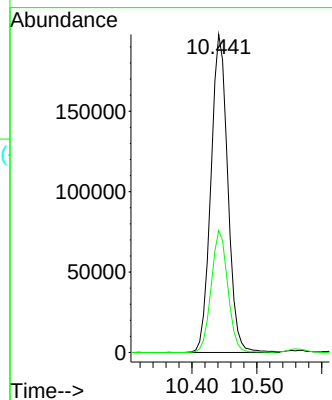
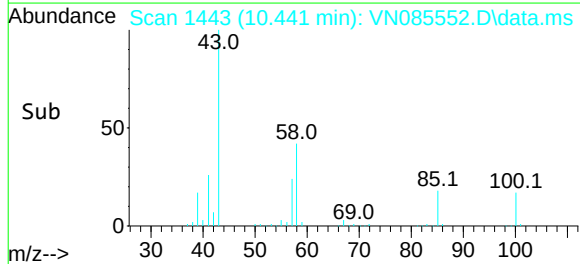
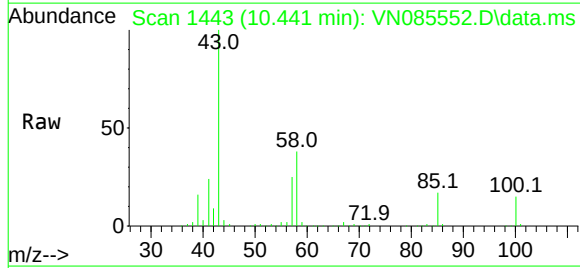
#51  
4-Methyl-2-Pentanone  
Concen: 116.808 ug/l  
RT: 10.441 min Scan# 1443  
Delta R.T. 0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01

Tgt Ion: 43 Resp: 356810  
Ion Ratio Lower Upper  
43 100  
58 37.6 30.5 45.7

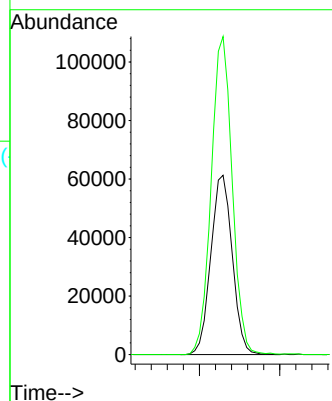
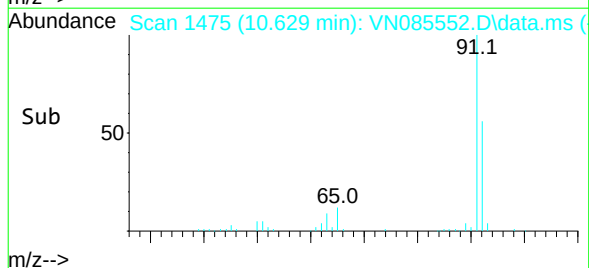
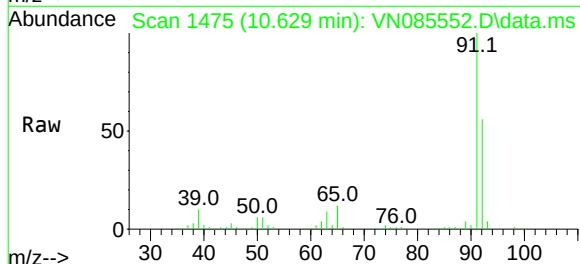
Manual Integrations  
APPROVED

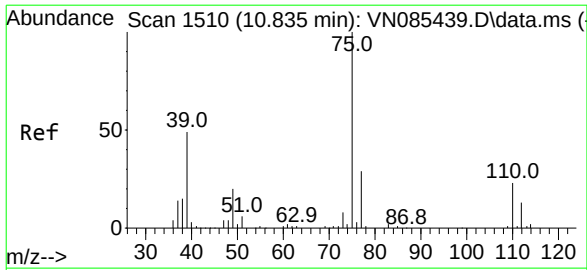
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#52  
Toluene  
Concen: 20.058 ug/l  
RT: 10.629 min Scan# 1475  
Delta R.T. 0.005 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

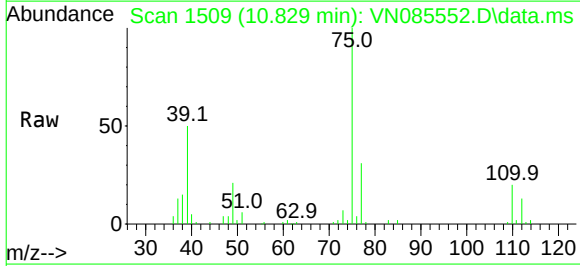
Tgt Ion: 92 Resp: 113656  
Ion Ratio Lower Upper  
92 100  
91 173.5 139.2 208.8





#53  
t-1,3-Dichloropropene  
Concen: 20.528 ug/l  
RT: 10.829 min Scan# 1510  
Delta R.T. -0.006 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

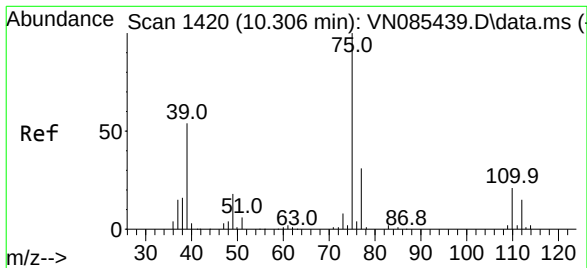
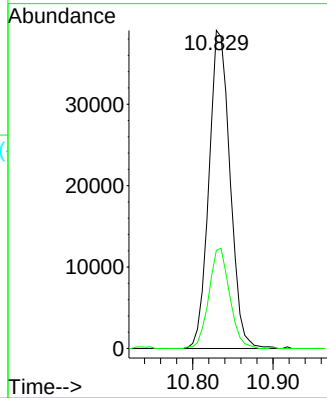
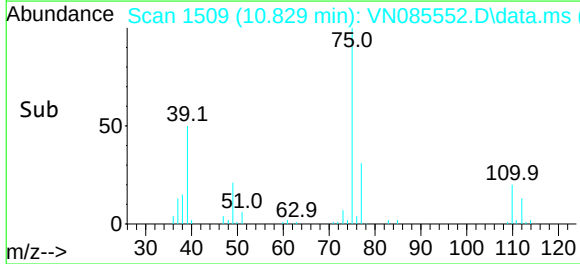
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01



Tgt Ion: 75 Resp: 71237  
Ion Ratio Lower Upper  
75 100  
77 30.9 23.5 35.3

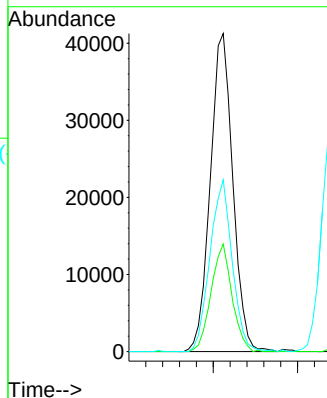
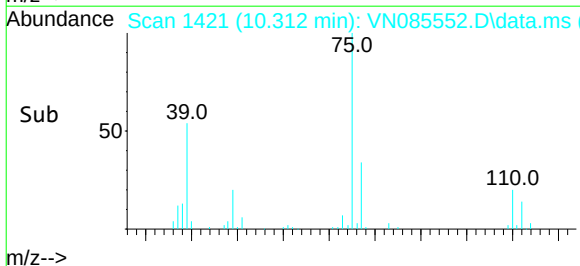
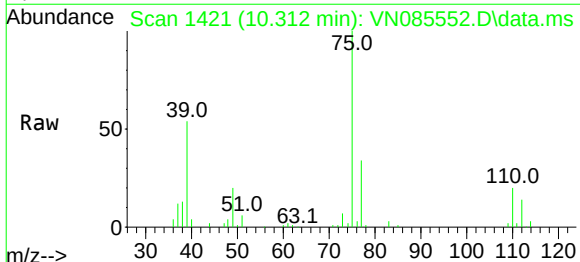
Manual Integrations  
APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025

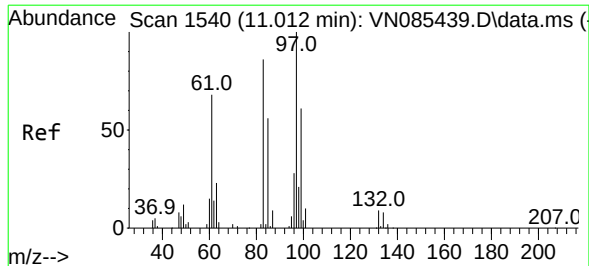


#54  
cis-1,3-Dichloropropene  
Concen: 20.661 ug/l  
RT: 10.312 min Scan# 1421  
Delta R.T. 0.006 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

Tgt Ion: 75 Resp: 76587  
Ion Ratio Lower Upper  
75 100  
77 33.8 25.0 37.4  
39 54.0 43.1 64.7







#55

1,1,2-Trichloroethane

Concen: 21.069 ug/l

RT: 11.012 min Scan# 1540

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 97 Resp: 47247

Ion Ratio Lower Upper

97 100

83 91.6 69.0 103.6

85 58.8 44.6 66.8

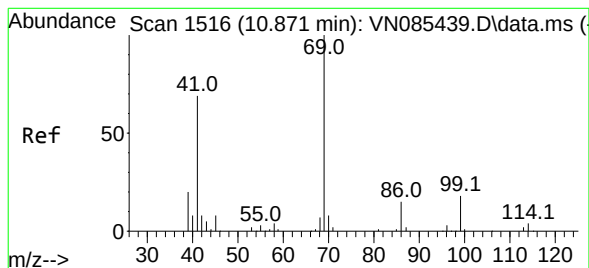
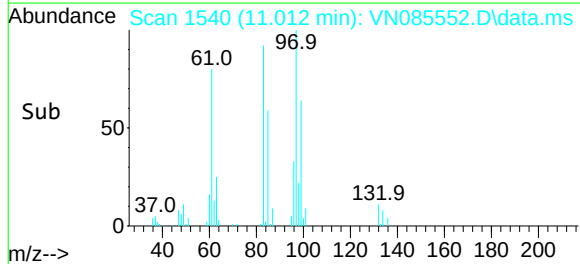
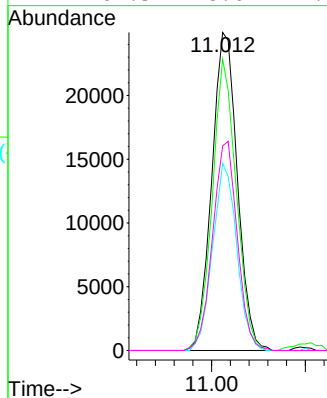
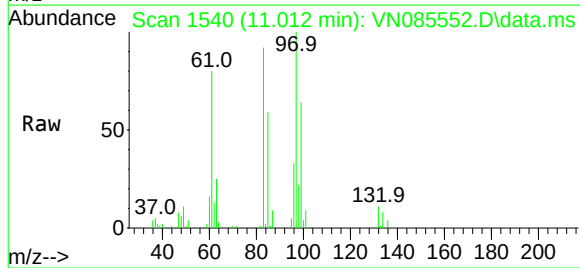
99 64.3 48.6 72.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#56

Ethyl methacrylate

Concen: 19.225 ug/l

RT: 10.871 min Scan# 1516

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

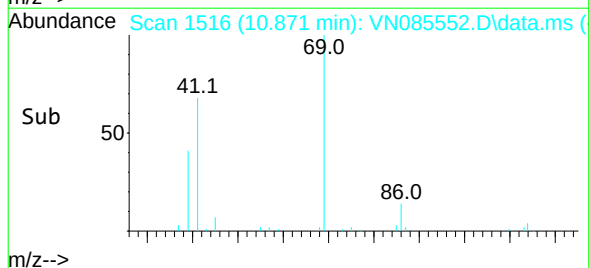
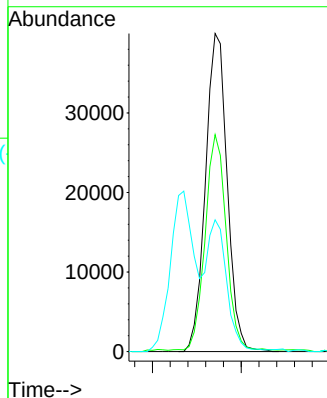
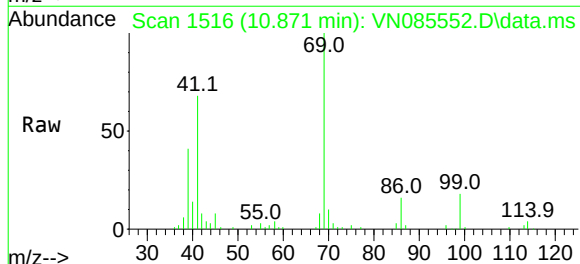
Tgt Ion: 69 Resp: 67955

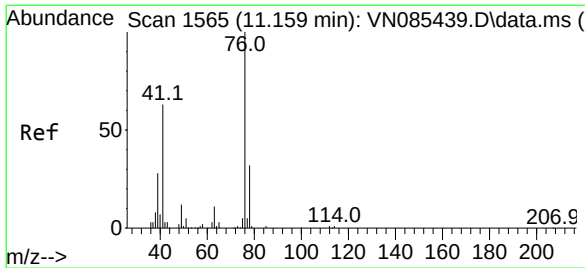
Ion Ratio Lower Upper

69 100

41 65.7 54.6 82.0

39 38.6 32.4 48.6





#57

1,3-Dichloropropane

Concen: 20.839 ug/l

RT: 11.159 min Scan# 1565

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 76 Resp: 81256

Ion Ratio Lower Upper

76 100

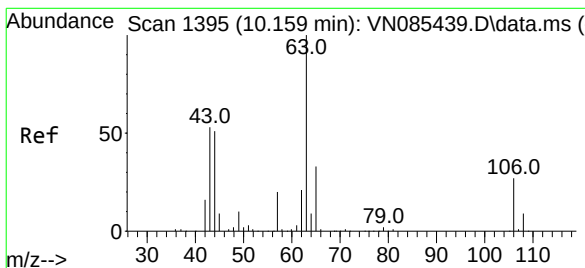
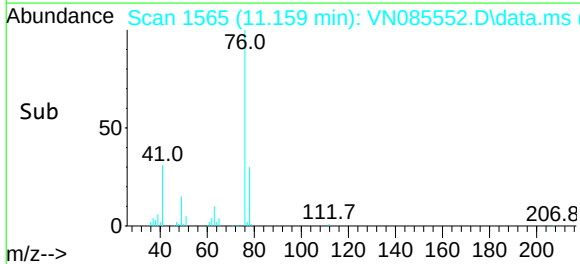
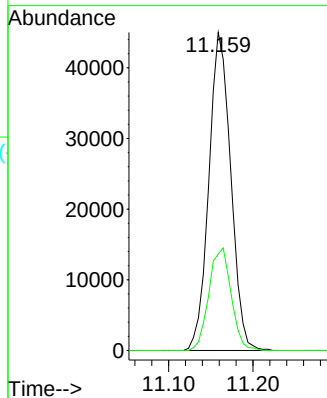
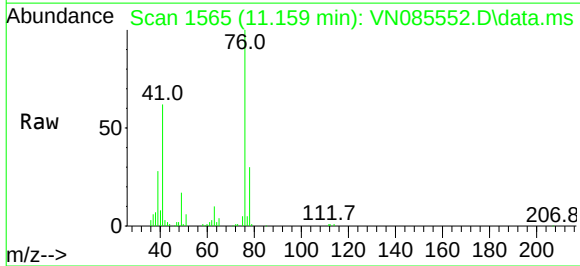
78 32.8 25.6 38.4

Manual Integrations

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Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#58

2-Chloroethyl Vinyl ether

Concen: 91.903 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. -0.000 min

Lab File: VN085552.D

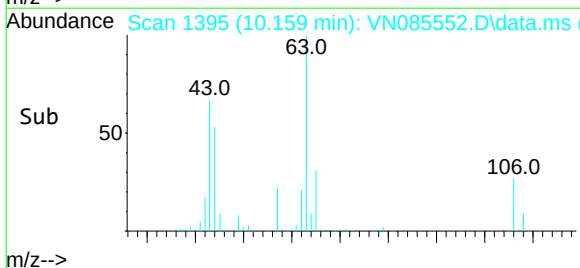
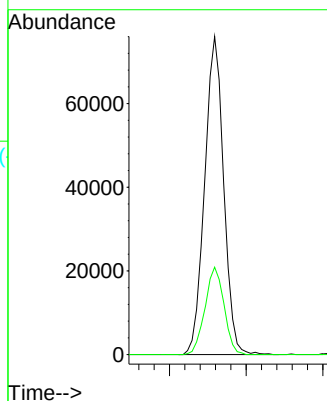
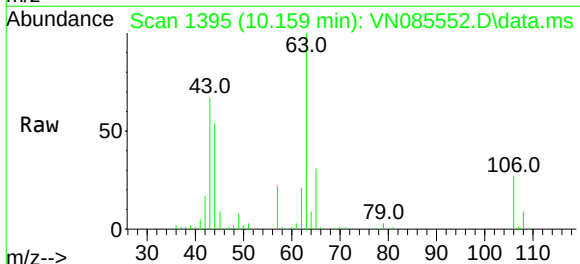
Acq: 29 Jan 2025 13:04

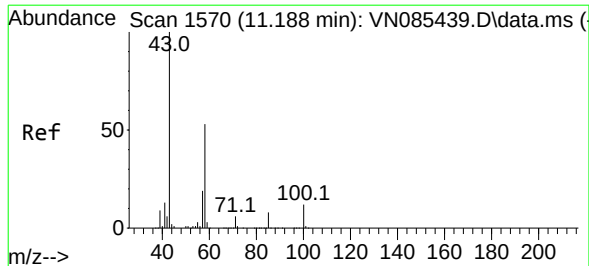
Tgt Ion: 63 Resp: 130784

Ion Ratio Lower Upper

63 100

106 27.5 21.6 32.4





#59

2-Hexanone

Concen: 119.811 ug/l

RT: 11.194 min Scan# 1570

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 43 Resp: 257517

Ion Ratio Lower Upper

43 100

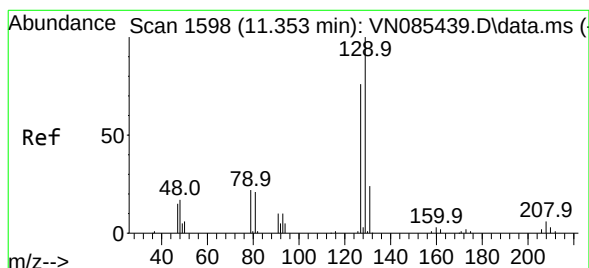
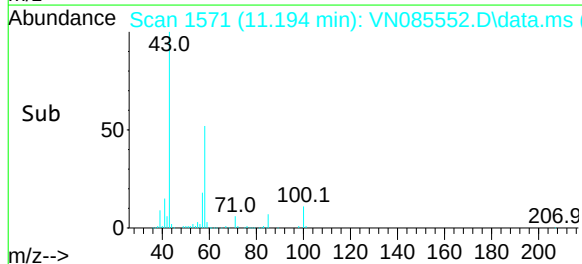
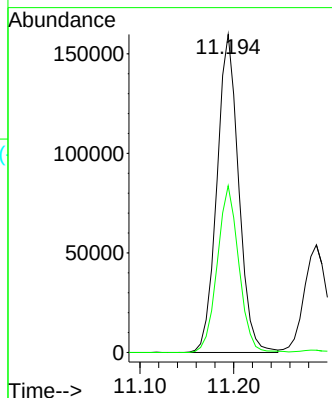
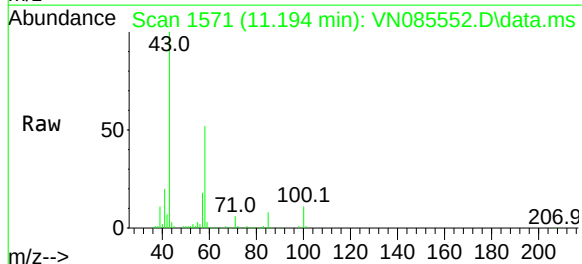
58 51.9 26.2 78.6

Manual Integrations

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Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#60

Dibromochloromethane

Concen: 20.849 ug/l

RT: 11.359 min Scan# 1599

Delta R.T. 0.006 min

Lab File: VN085552.D

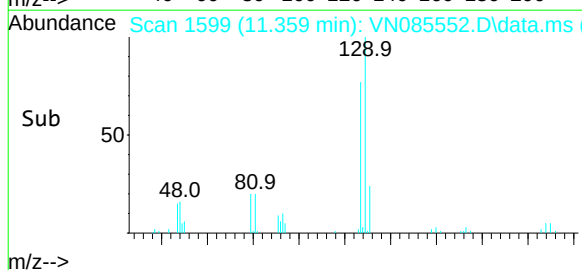
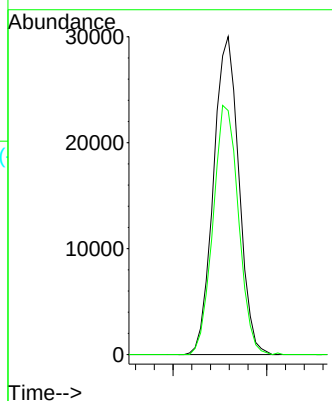
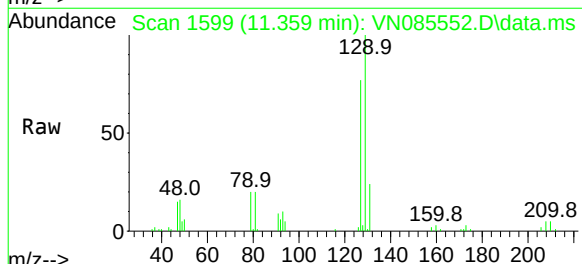
Acq: 29 Jan 2025 13:04

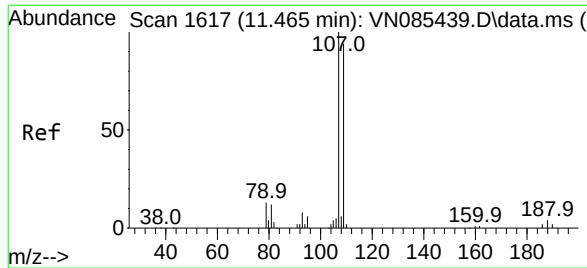
Tgt Ion:129 Resp: 56444

Ion Ratio Lower Upper

129 100

127 78.6 38.6 115.8





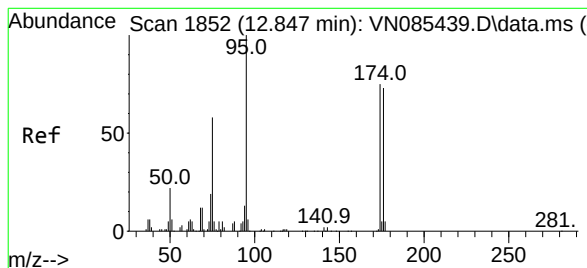
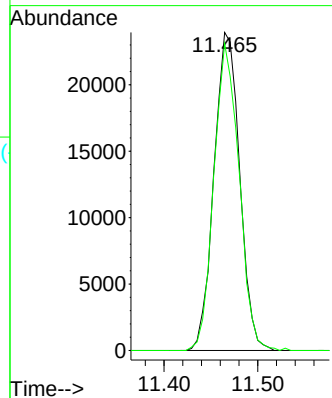
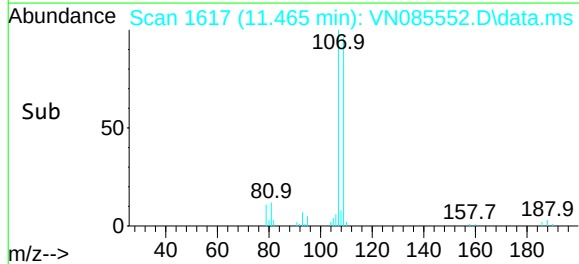
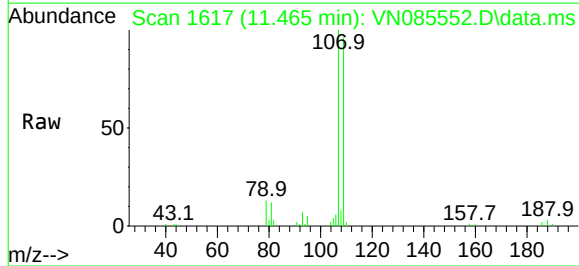
#61  
1,2-Dibromoethane  
Concen: 20.415 ug/l  
RT: 11.465 min Scan# 1617  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01

Tgt Ion: 107 Resp: 45570  
Ion Ratio Lower Upper  
107 100  
109 95.0 75.9 113.9

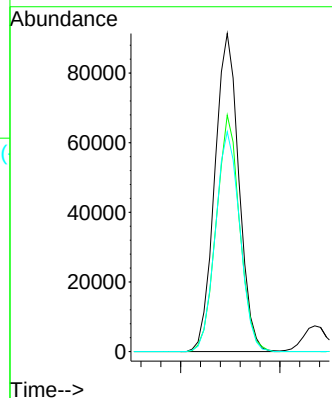
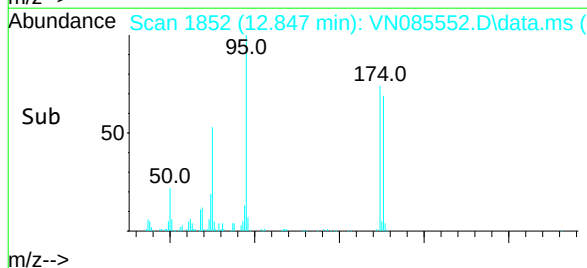
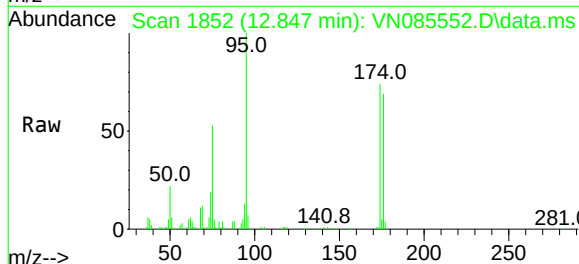
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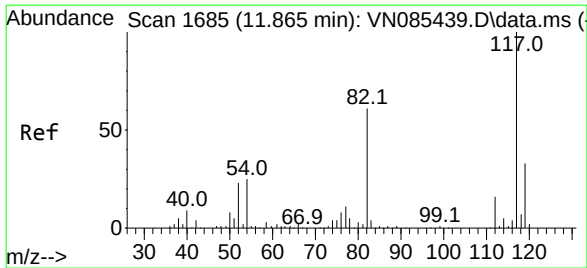
Reviewed By : John Carlone 01/30/2025  
Supervised By : Mahesh Dadoda 01/30/2025



#62  
4-Bromofluorobenzene  
Concen: 54.798 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

Tgt Ion: 95 Resp: 154451  
Ion Ratio Lower Upper  
95 100  
174 72.2 0.0 145.0  
176 69.8 0.0 142.4





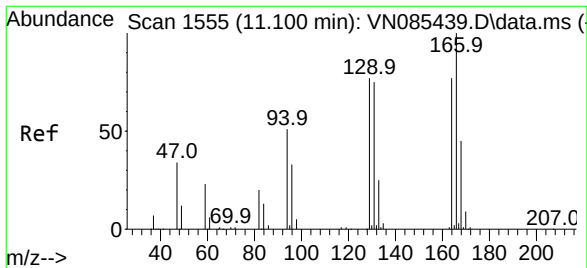
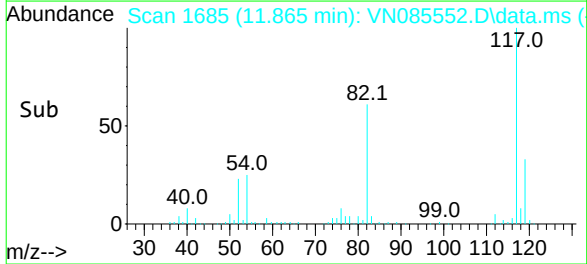
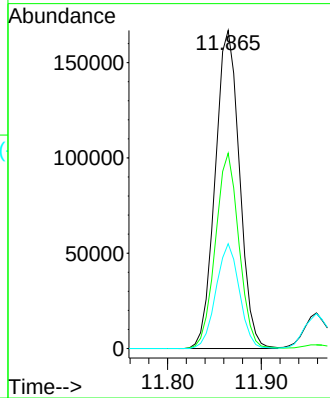
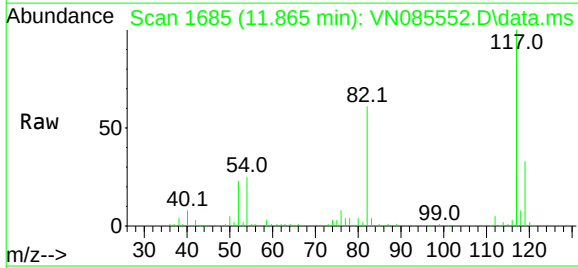
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01

Tgt Ion:117 Resp: 300606  
Ion Ratio Lower Upper  
117 100  
82 61.4 48.6 72.8  
119 32.9 26.6 39.8

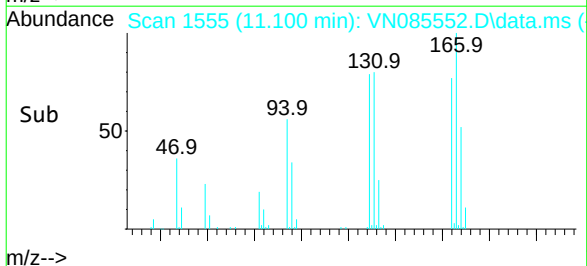
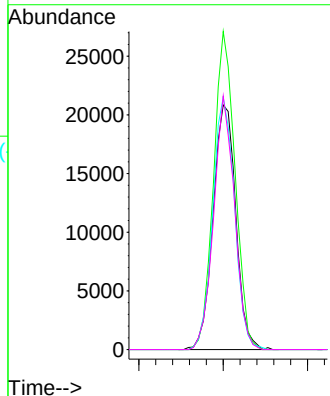
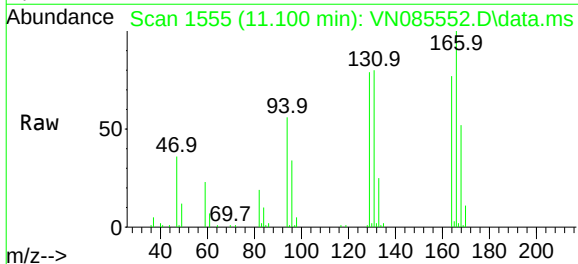
Manual Integrations  
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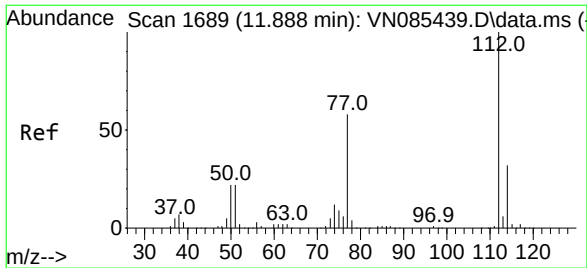
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#64  
Tetrachloroethene  
Concen: 19.082 ug/l  
RT: 11.100 min Scan# 1555  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

Tgt Ion:164 Resp: 39105  
Ion Ratio Lower Upper  
164 100  
166 130.0 103.4 155.2  
129 103.1 79.2 118.8  
131 103.6 77.1 115.7





#65

Chlorobenzene

Concen: 19.247 ug/l

RT: 11.888 min Scan# 1689

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion:112 Resp: 126744

Ion Ratio Lower Upper

112 100

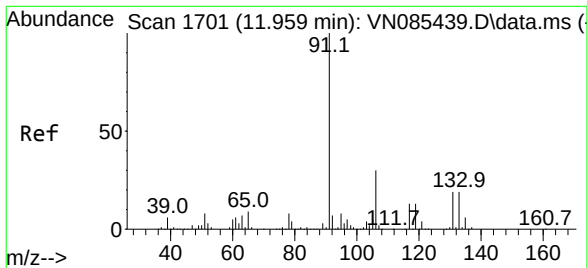
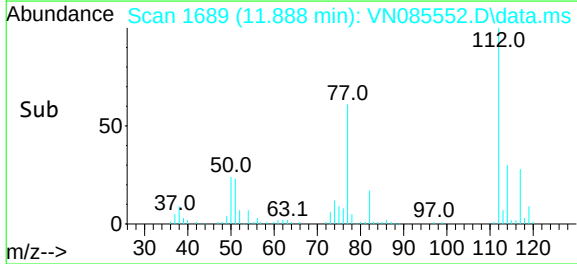
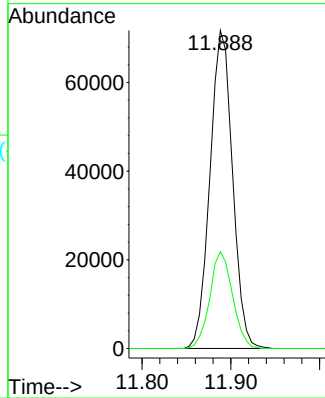
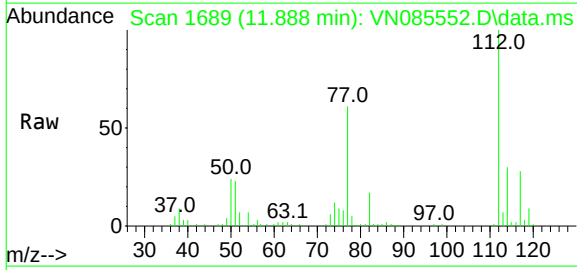
114 30.4 25.3 37.9

Manual Integrations

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Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#66

1,1,1,2-Tetrachloroethane

Concen: 19.929 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

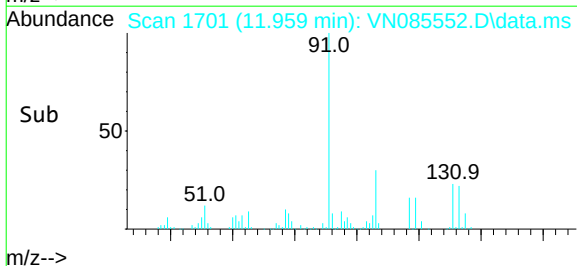
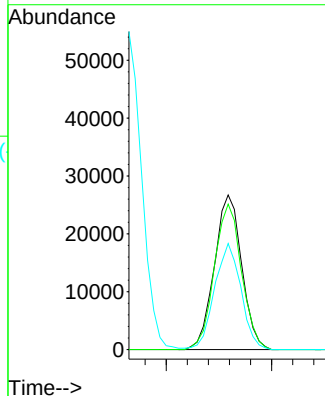
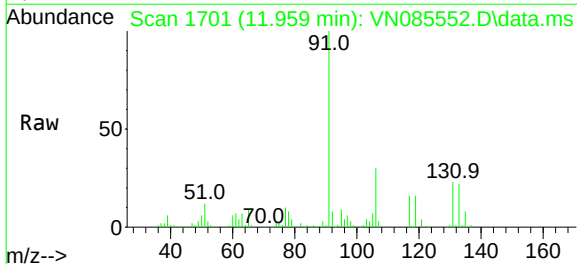
Tgt Ion:131 Resp: 48168

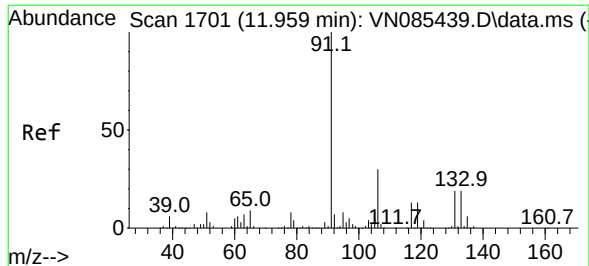
Ion Ratio Lower Upper

131 100

133 93.7 47.4 142.3

119 66.4 33.1 99.5





#67

Ethyl Benzene

Concen: 18.788 ug/l

RT: 11.965 min Scan# 17

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 91 Resp: 201511

Ion Ratio Lower Upper

91 100

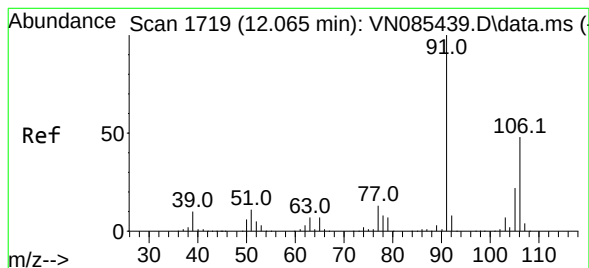
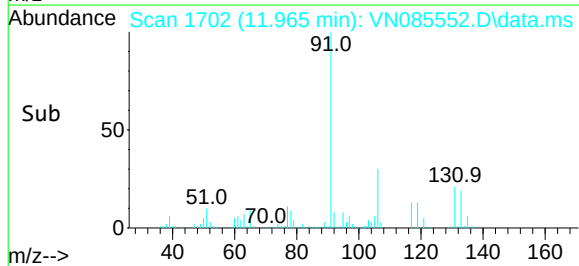
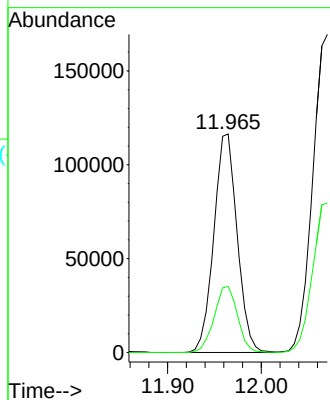
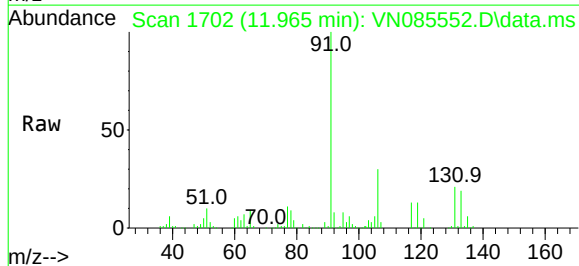
106 30.2 23.8 35.8

Manual Integrations

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Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#68

m/p-Xylenes

Concen: 39.958 ug/l

RT: 12.071 min Scan# 1720

Delta R.T. 0.006 min

Lab File: VN085552.D

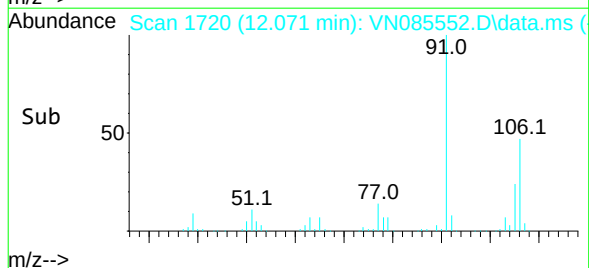
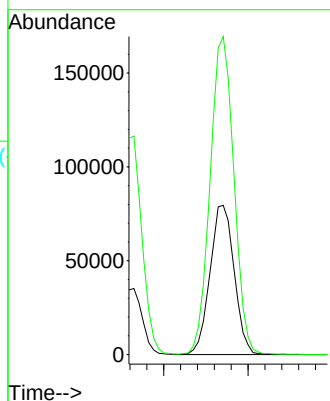
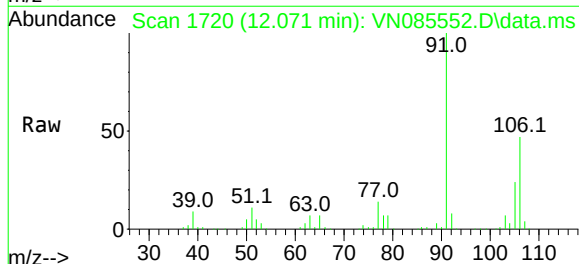
Acq: 29 Jan 2025 13:04

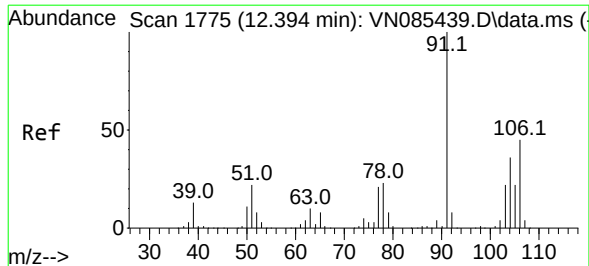
Tgt Ion:106 Resp: 158394

Ion Ratio Lower Upper

106 100

91 210.2 167.7 251.5





#69

o-Xylene

Concen: 19.286 ug/l

RT: 12.400 min Scan# 1775

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion:106 Resp: 73062

Ion Ratio Lower Upper

106 100

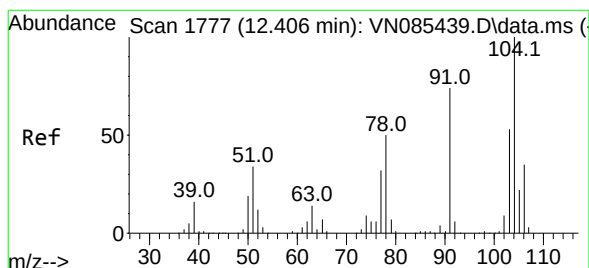
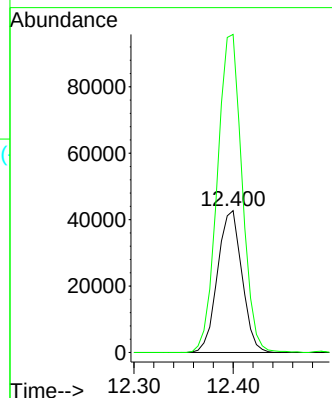
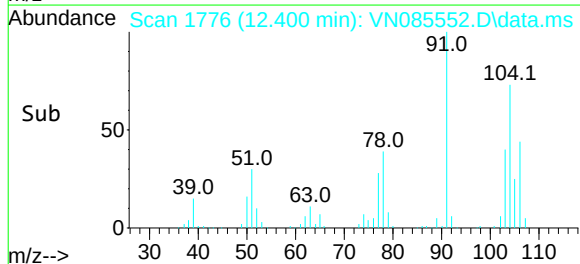
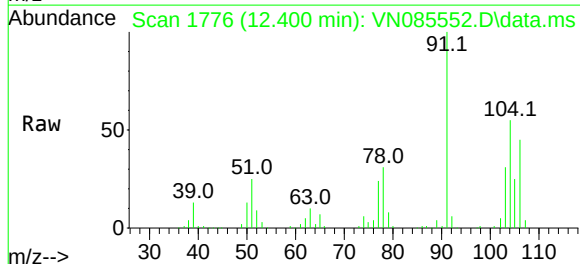
91 227.1 110.4 331.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#70

Styrene

Concen: 20.232 ug/l

RT: 12.412 min Scan# 1778

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

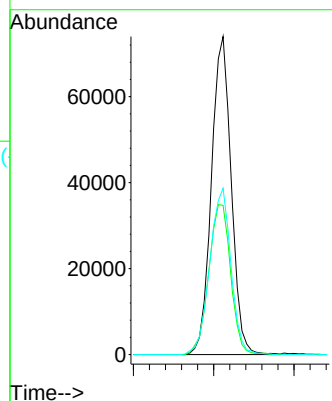
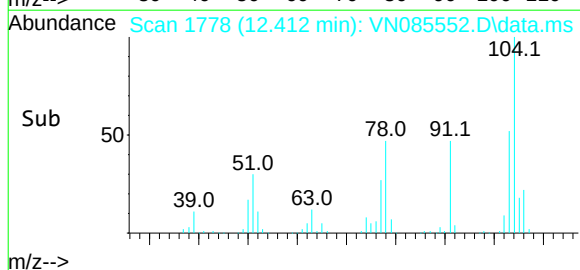
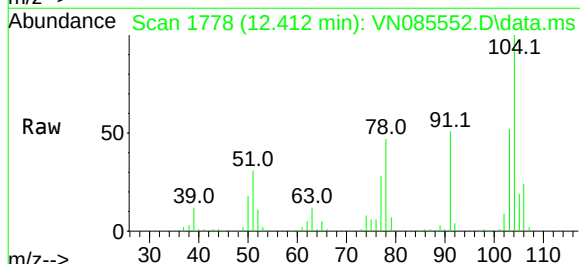
Tgt Ion:104 Resp: 126846

Ion Ratio Lower Upper

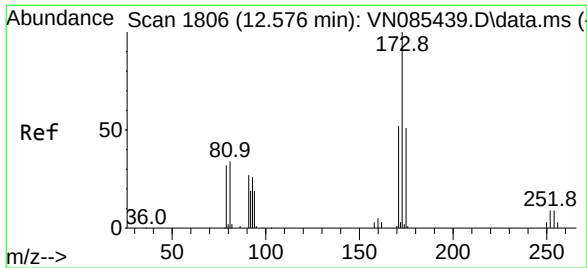
104 100

78 52.2 42.5 63.7

103 55.9 43.8 65.8







#71

Bromoform

Concen: 22.255 ug/l

RT: 12.576 min Scan# 1806

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion:173 Resp: 38486

Ion Ratio Lower Upper

173 100

175 48.5 24.4 73.2

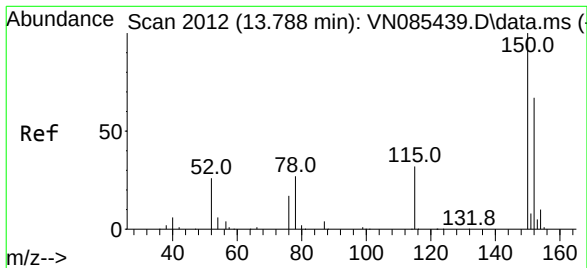
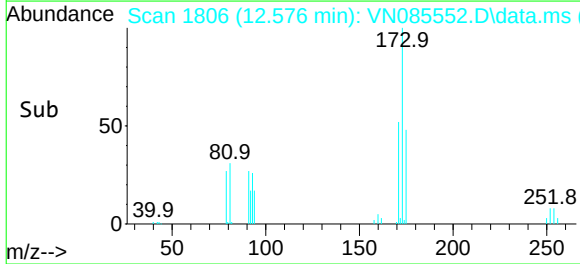
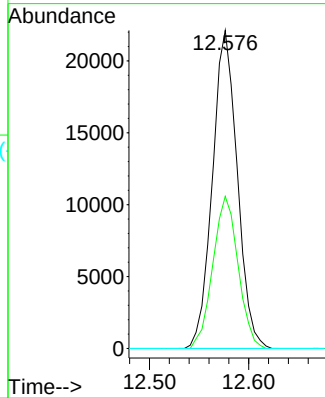
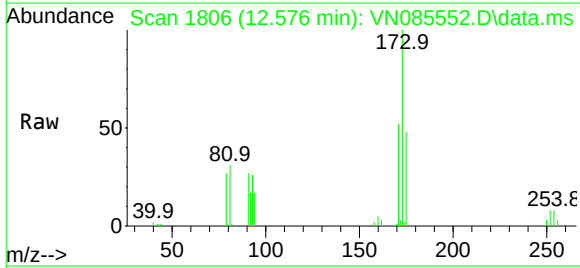
254 0.0 0.0 0.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.788 min Scan# 2012

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

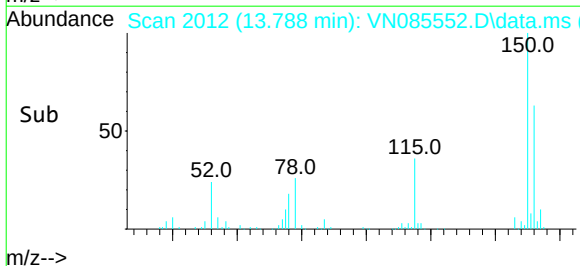
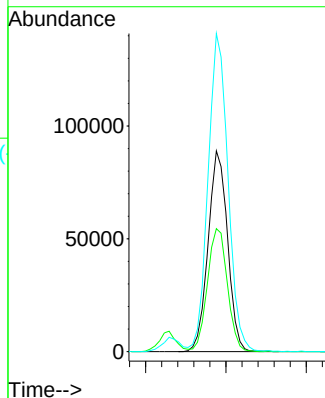
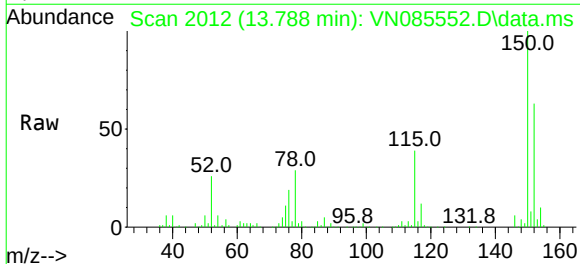
Tgt Ion:152 Resp: 149604

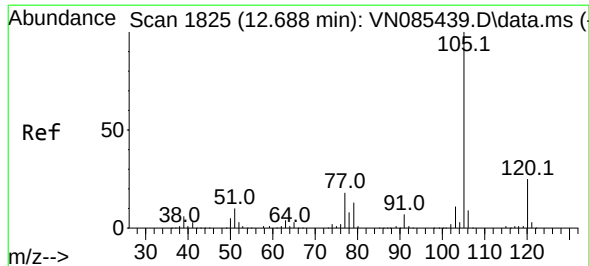
Ion Ratio Lower Upper

152 100

115 62.8 31.1 93.3

150 162.6 0.0 343.6





#73

Isopropylbenzene

Concen: 18.607 ug/l

RT: 12.694 min Scan# 18

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 105 Resp: 187874

Ion Ratio Lower Upper

105 100

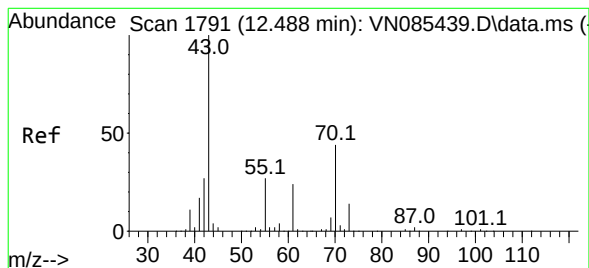
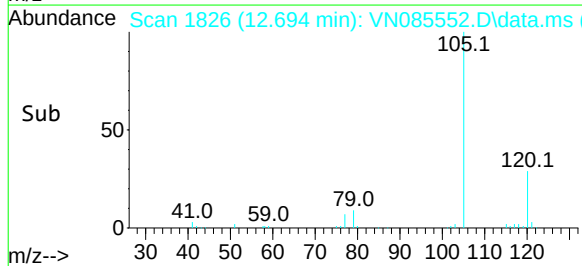
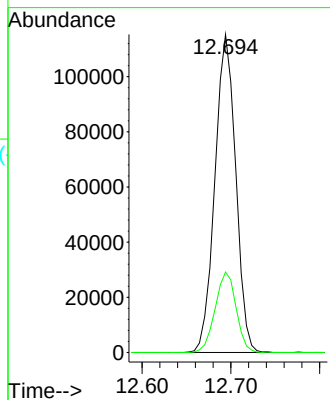
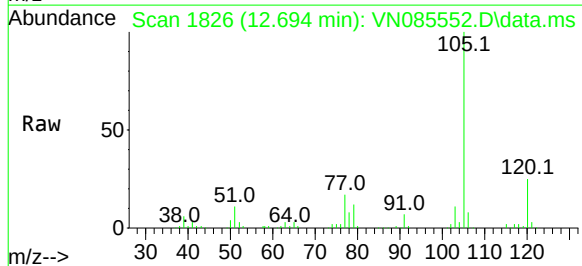
120 25.4 12.8 38.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#74

N-ethyl acetate

Concen: 19.908 ug/l

RT: 12.494 min Scan# 1792

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Tgt Ion: 43 Resp: 90352

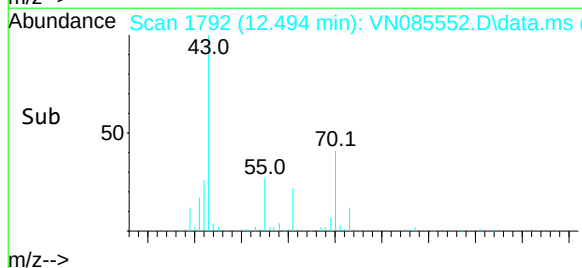
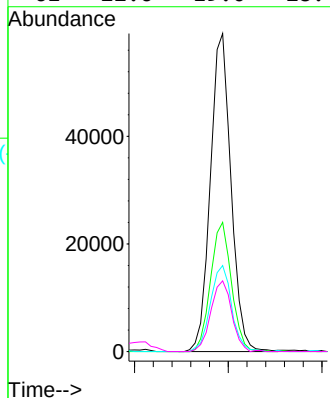
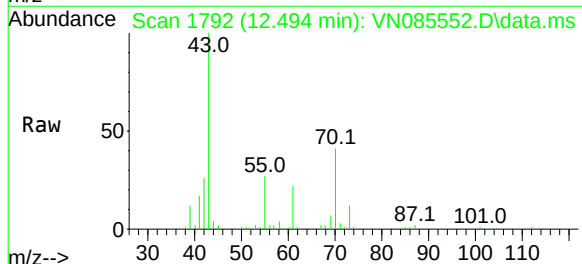
Ion Ratio Lower Upper

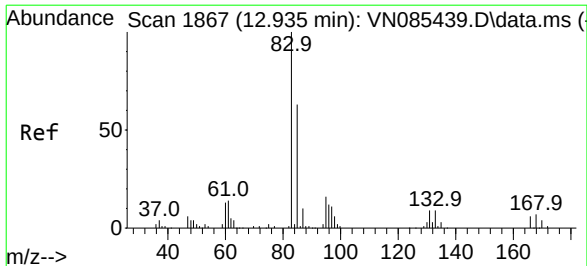
43 100

70 41.1 34.0 51.0

55 27.9 21.4 32.2

61 22.6 19.0 28.4





#75

1,1,2,2-Tetrachloroethane

Concen: 20.069 ug/l

RT: 12.935 min Scan# 18

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

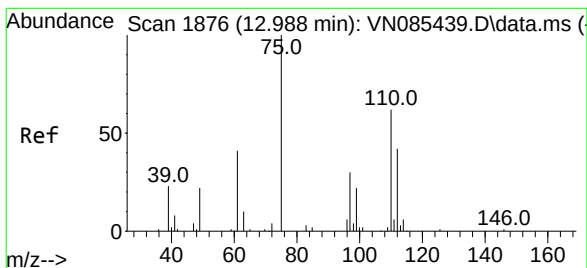
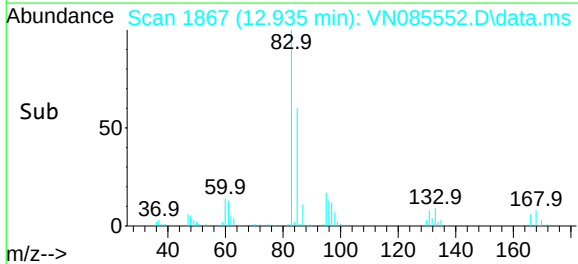
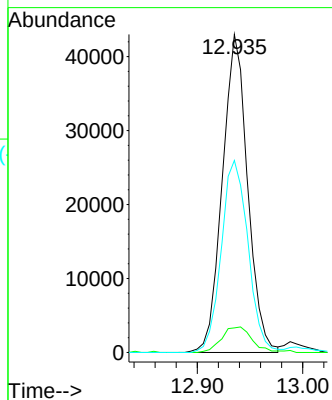
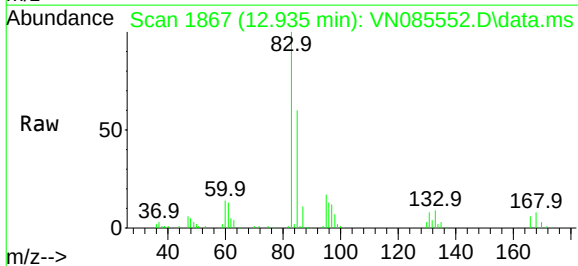
VN0129WBSD01

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 71580 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 131      | 9.9   | 4.8   | 14.4  |
| 85       | 64.1  | 32.2  | 96.6  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#76

1,2,3-Trichloropropane

Concen: 19.915 ug/l m

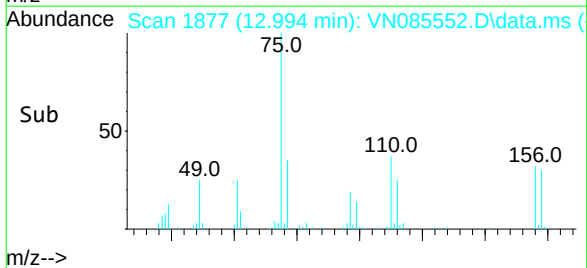
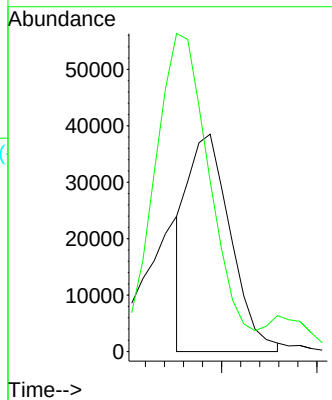
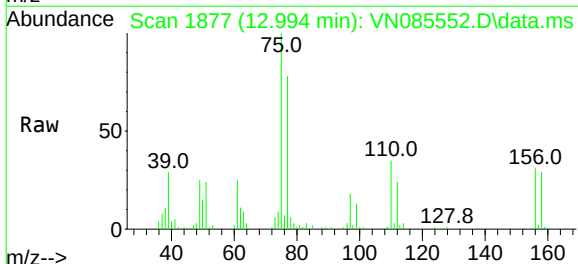
RT: 12.994 min Scan# 1877

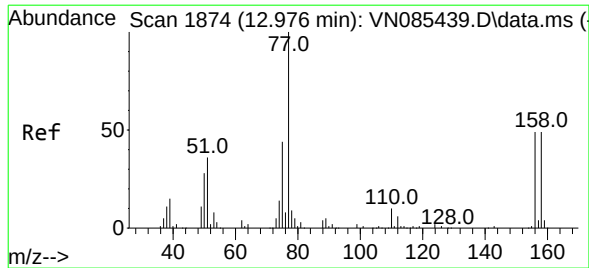
Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 60557 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 77       | 190.0 | 109.7 | 329.2 |





#77

Bromobenzene

Concen: 18.824 ug/l

RT: 12.976 min Scan# 1874

Delta R.T. -0.000 min

Lab File: VN085552.D

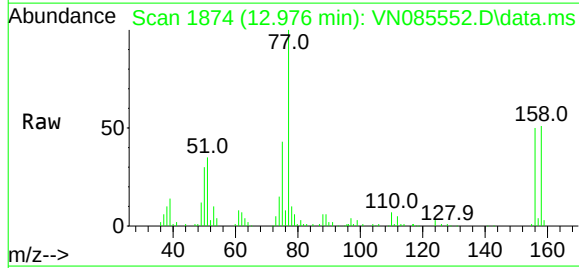
Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01



Tgt Ion: 156 Resp: 49656

Ion Ratio Lower Upper

156 100

77 231.7 114.1 342.4

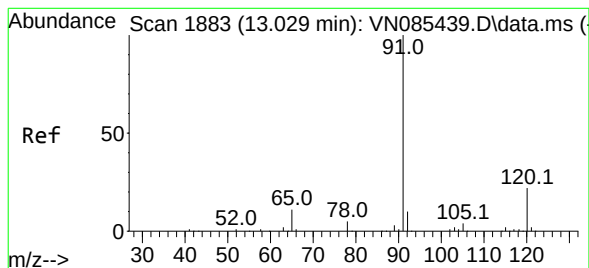
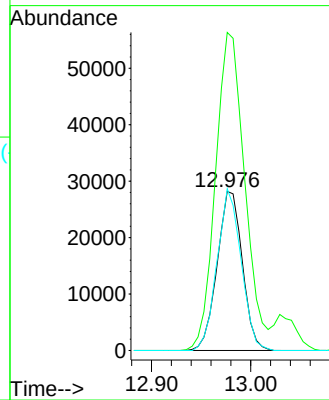
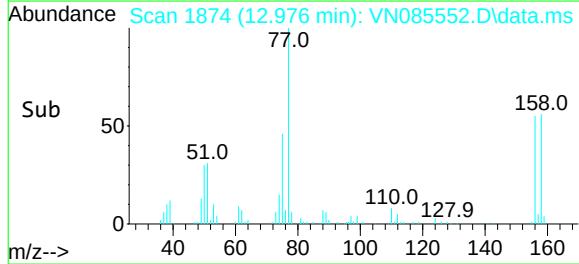
158 97.2 48.9 146.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#78

n-propylbenzene

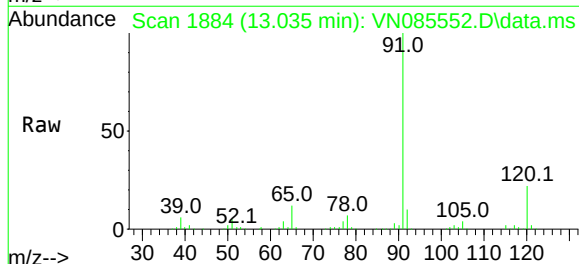
Concen: 18.861 ug/l

RT: 13.035 min Scan# 1884

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

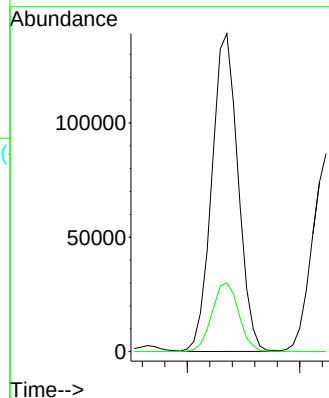
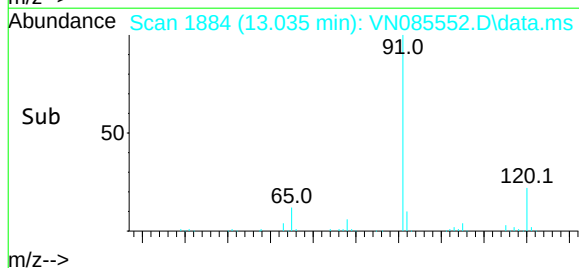


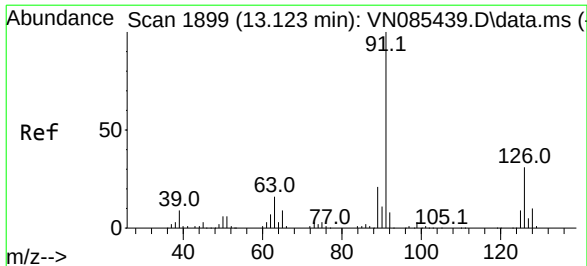
Tgt Ion: 91 Resp: 225452

Ion Ratio Lower Upper

91 100

120 22.1 10.9 32.6





#79

2-Chlorotoluene

Concen: 18.851 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion: 91 Resp: 145834

Ion Ratio Lower Upper

91 100

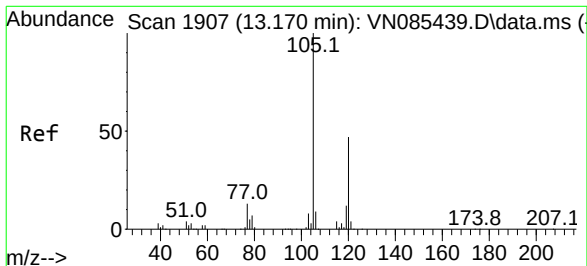
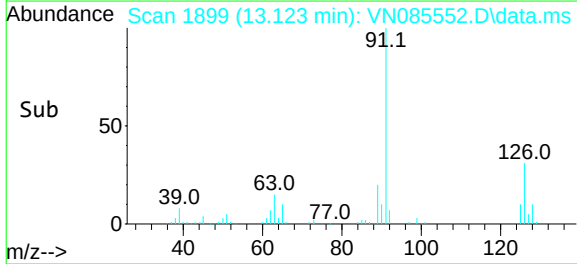
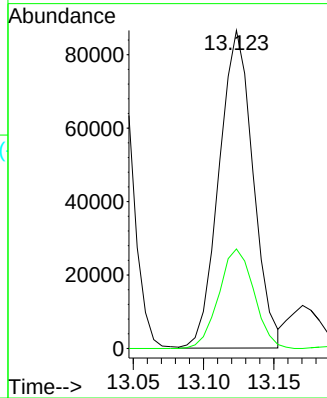
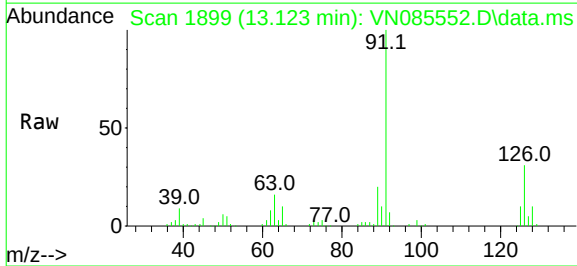
126 32.3 15.7 47.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#80

1,3,5-Trimethylbenzene

Concen: 19.614 ug/l

RT: 13.170 min Scan# 1907

Delta R.T. -0.000 min

Lab File: VN085552.D

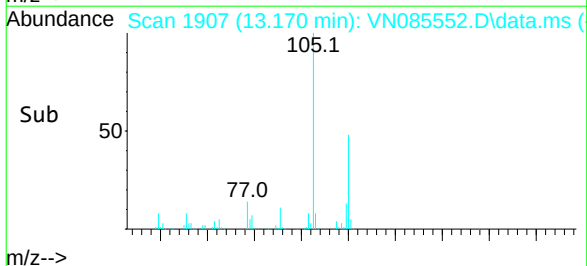
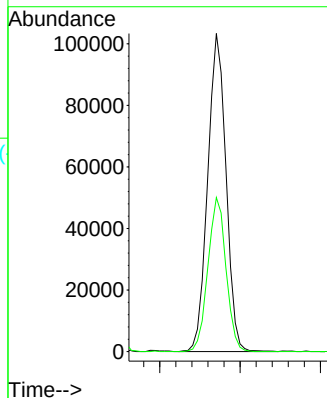
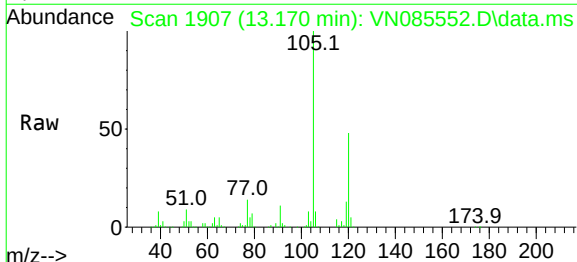
Acq: 29 Jan 2025 13:04

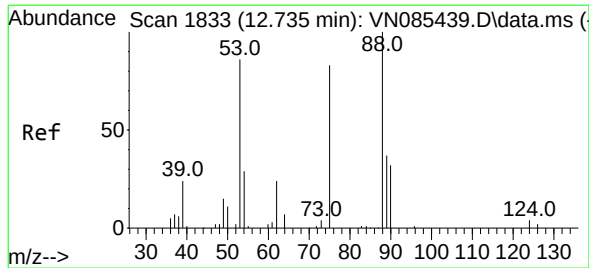
Tgt Ion:105 Resp: 163587

Ion Ratio Lower Upper

105 100

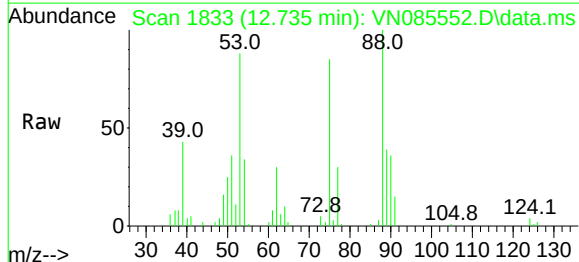
120 47.9 23.9 71.7





#81  
trans-1,4-Dichloro-2-butene  
Concen: 19.978 ug/l  
RT: 12.735 min Scan# 1833  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

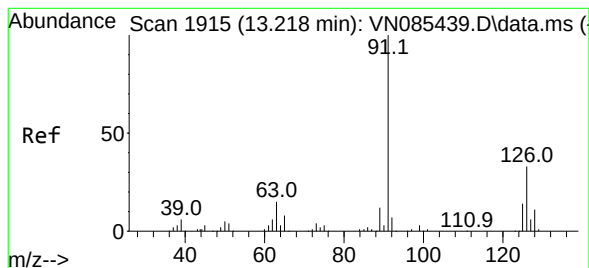
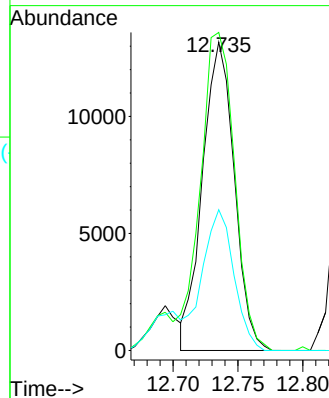
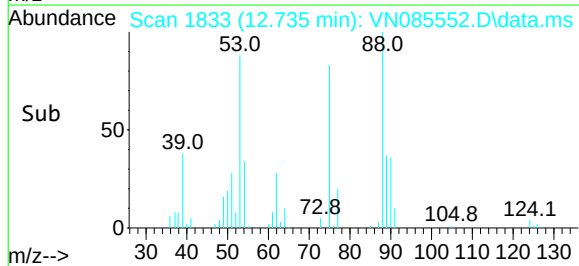
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01



Tgt Ion: 75 Resp: 22453  
Ion Ratio Lower Upper  
75 100  
53 121.3 95.6 143.4  
89 45.9 37.0 55.6

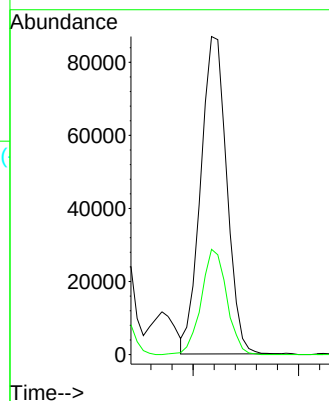
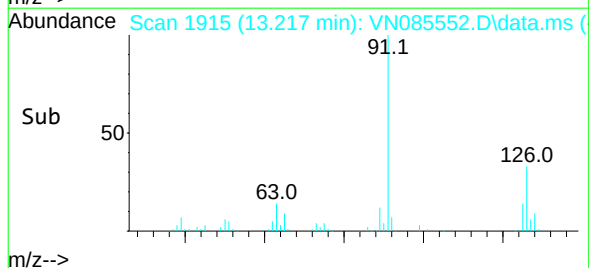
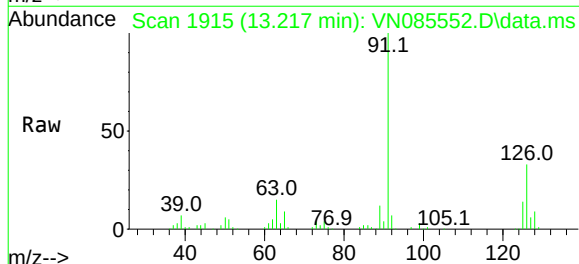
Manual Integrations  
APPROVED

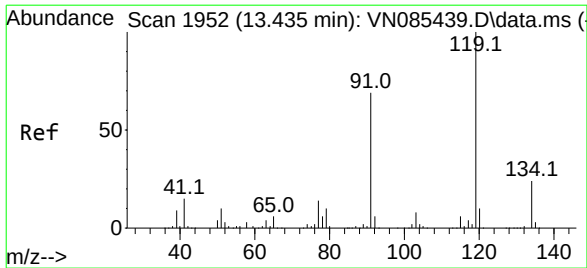
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#82  
4-Chlorotoluene  
Concen: 19.387 ug/l  
RT: 13.217 min Scan# 1915  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

Tgt Ion: 91 Resp: 149335  
Ion Ratio Lower Upper  
91 100  
126 32.3 15.9 47.7





#83

tert-Butylbenzene

Concen: 18.130 ug/l

RT: 13.435 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion:119 Resp: 126982

Ion Ratio Lower Upper

119 100

91 72.2 35.1 105.3

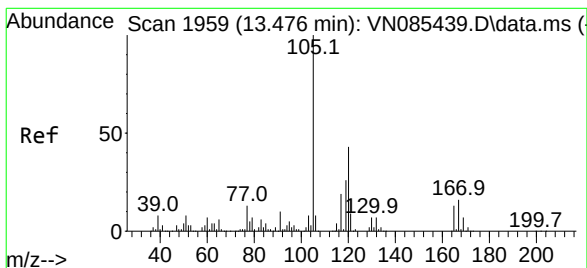
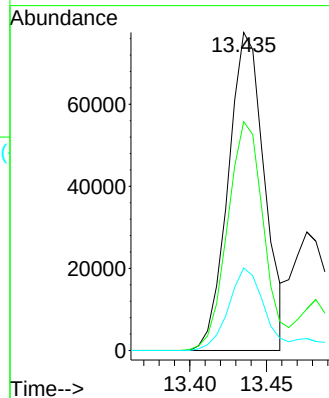
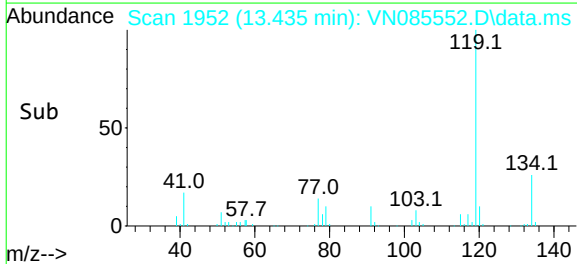
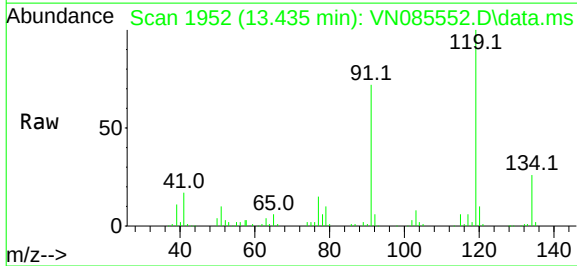
134 25.4 12.0 36.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#84

1,2,4-Trimethylbenzene

Concen: 19.853 ug/l

RT: 13.482 min Scan# 1960

Delta R.T. 0.006 min

Lab File: VN085552.D

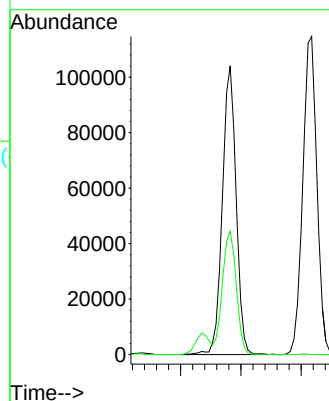
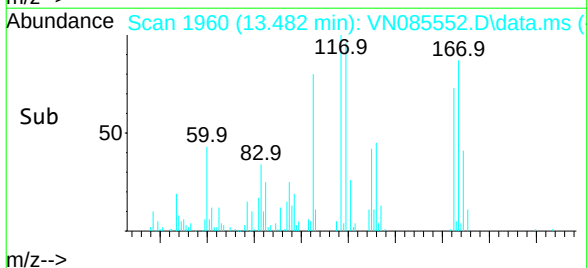
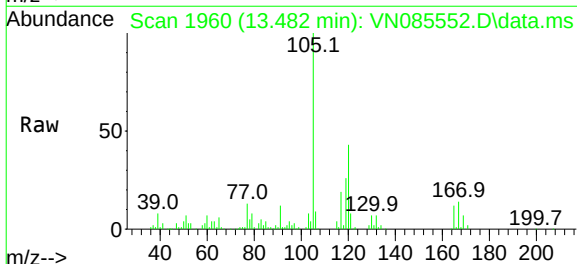
Acq: 29 Jan 2025 13:04

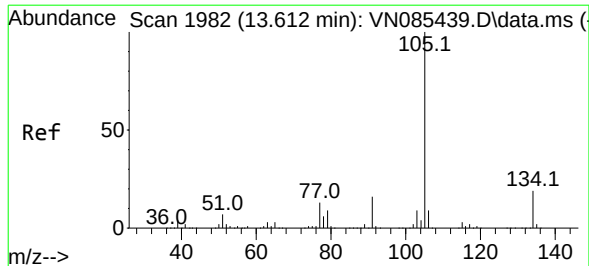
Tgt Ion:105 Resp: 165028

Ion Ratio Lower Upper

105 100

120 43.3 21.6 65.0





#85

sec-Butylbenzene

Concen: 19.211 ug/l

RT: 13.617 min Scan# 19

Delta R.T. 0.005 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion:105 Resp: 186480

Ion Ratio Lower Upper

105 100

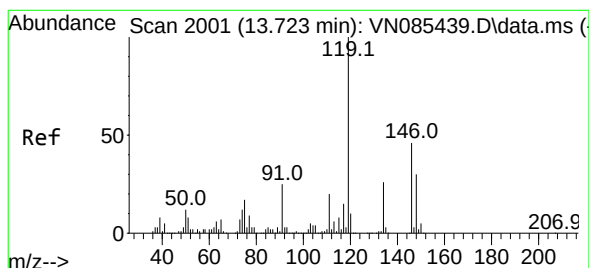
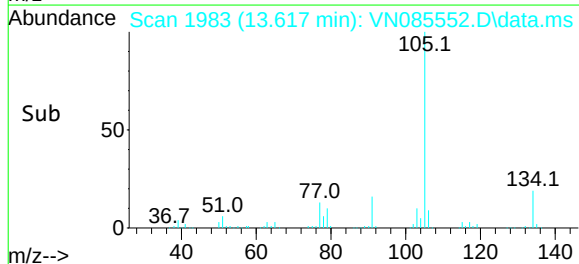
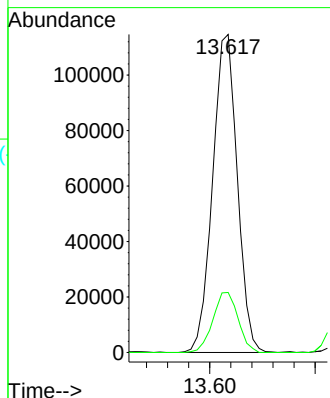
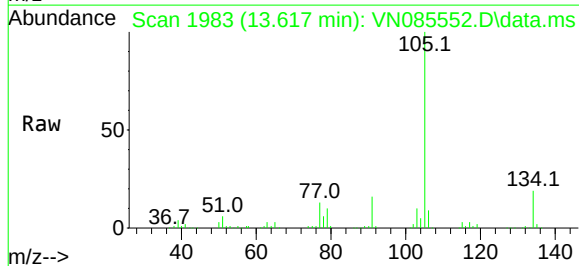
134 19.3 9.7 28.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#86

p-Isopropyltoluene

Concen: 18.909 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

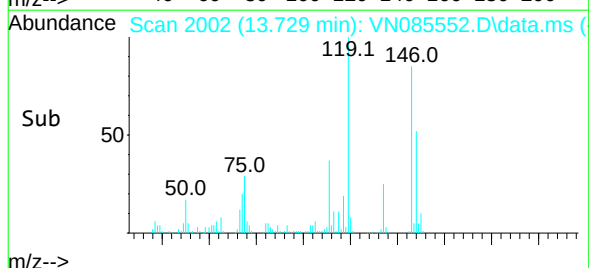
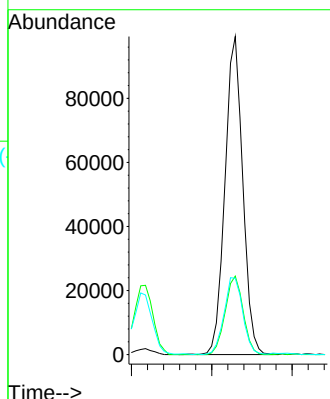
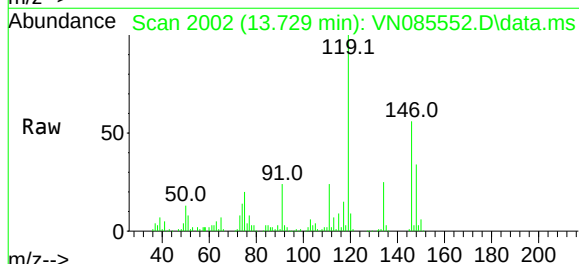
Tgt Ion:119 Resp: 152530

Ion Ratio Lower Upper

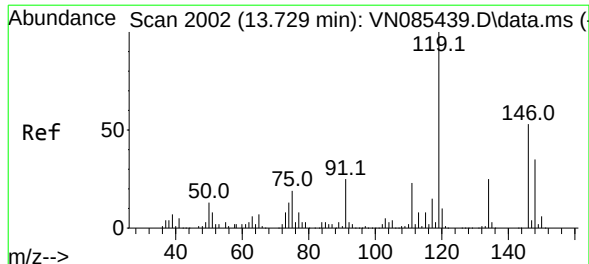
119 100

134 24.9 12.7 38.0

91 25.5 12.7 38.1

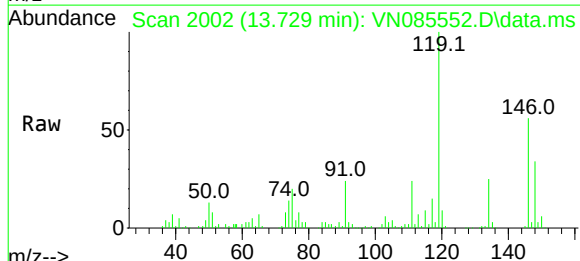






1,3-Dichlorobenzene  
Concen: 19.369 ug/l  
RT: 13.729 min Scan# 2002  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

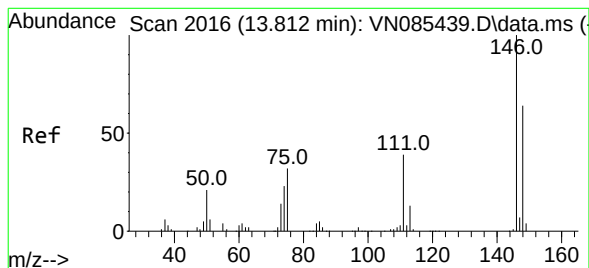
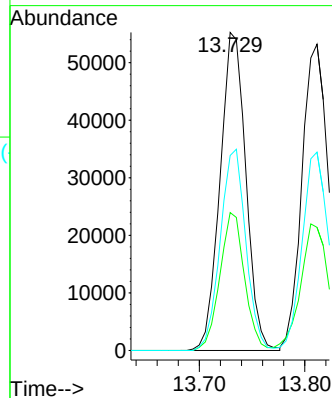
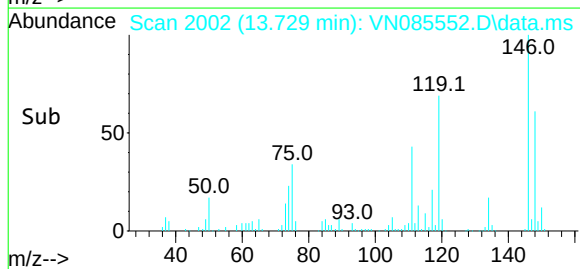
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01



Tgt Ion:146 Resp: 94099  
Ion Ratio Lower Upper  
146 100  
111 41.4 21.4 64.3  
148 62.6 32.3 96.9

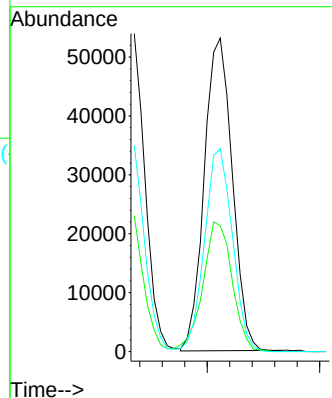
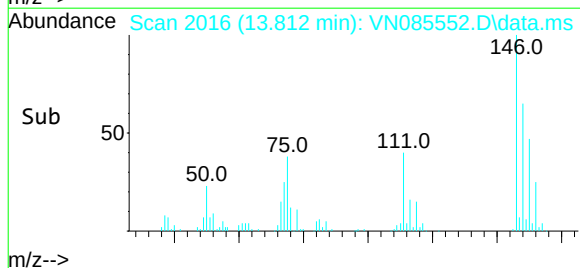
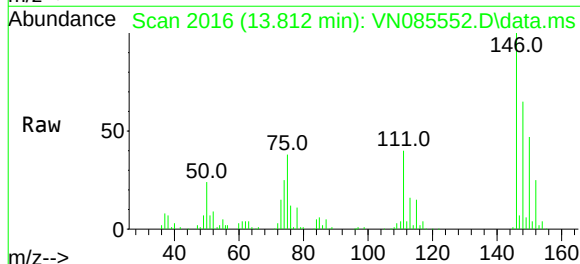
Manual Integrations  
APPROVED

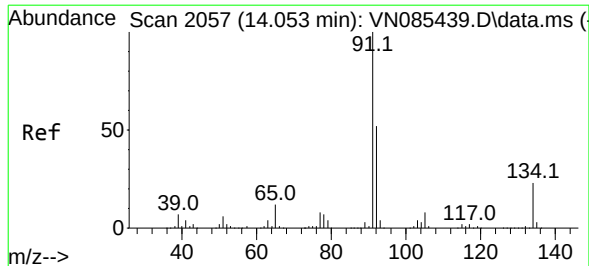
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



1,4-Dichlorobenzene  
Concen: 18.273 ug/l  
RT: 13.812 min Scan# 2016  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

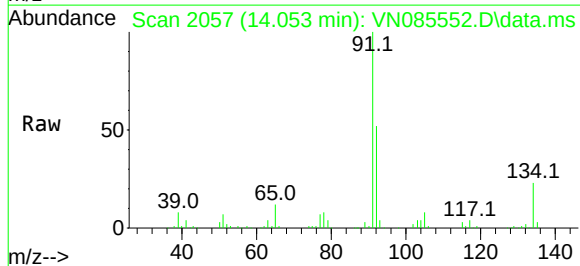
Tgt Ion:146 Resp: 92013  
Ion Ratio Lower Upper  
146 100  
111 43.5 21.3 63.7  
148 64.8 32.4 97.0





#89  
n-Butylbenzene  
Concen: 17.835 ug/l  
RT: 14.053 min Scan# 2057  
Delta R.T. -0.000 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

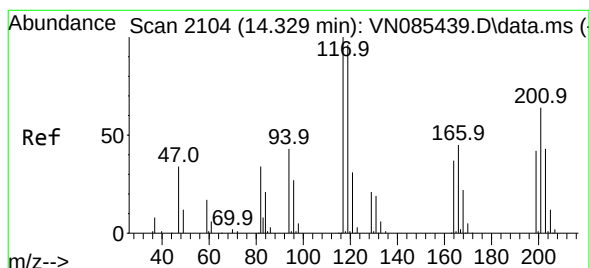
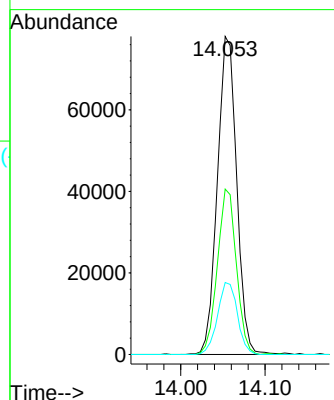
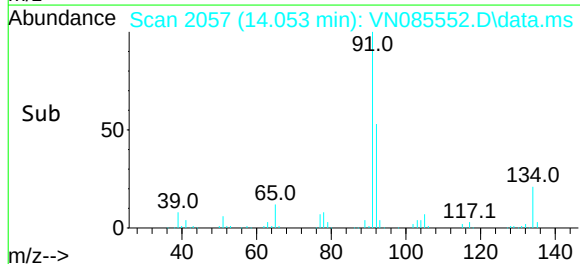
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01



Tgt Ion: 91 Resp: 124199  
Ion Ratio Lower Upper  
91 100  
92 51.1 25.8 77.3  
134 23.3 11.7 35.1

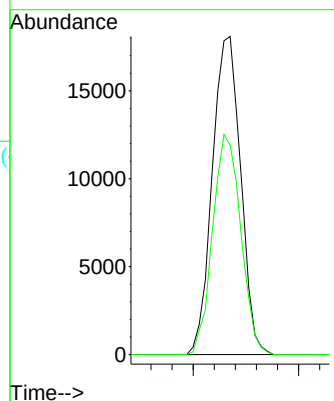
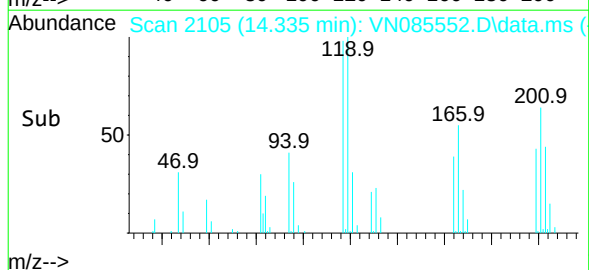
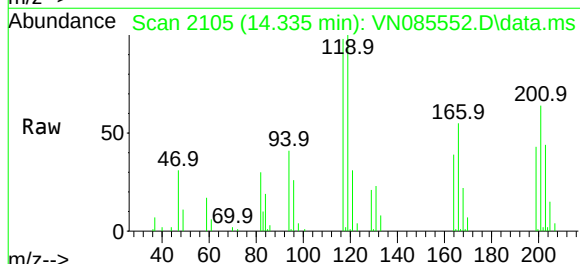
Manual Integrations  
APPROVED

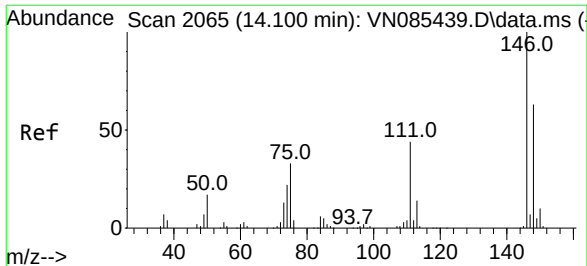
Reviewed By :John Carlone 01/30/2025  
Supervised By :Mahesh Dadoda 01/30/2025



#90  
Hexachloroethane  
Concen: 18.273 ug/l  
RT: 14.335 min Scan# 2105  
Delta R.T. 0.006 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

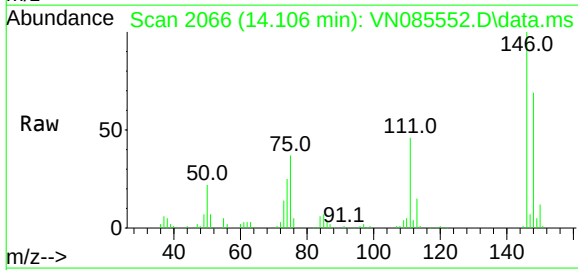
Tgt Ion:117 Resp: 33768  
Ion Ratio Lower Upper  
117 100  
201 68.9 33.7 101.0





#91  
1,2-Dichlorobenzene  
Concen: 18.424 ug/l  
RT: 14.106 min Scan# 2065  
Delta R.T. 0.006 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

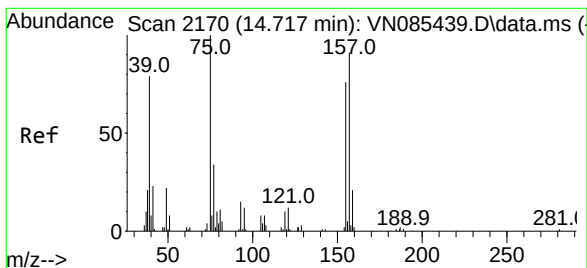
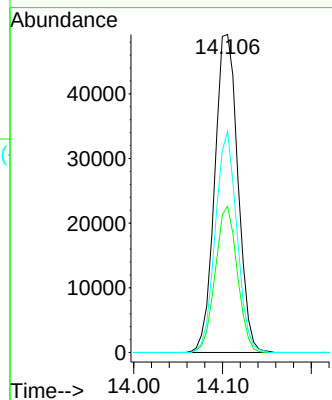
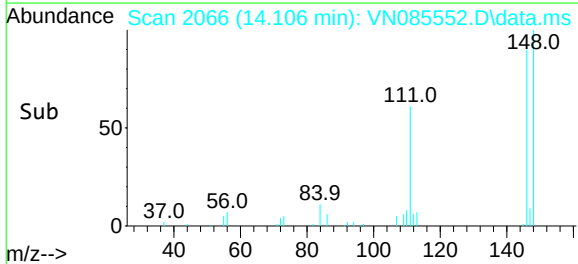
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0129WBSD01



Tgt Ion: 146 Resp: 89278  
Ion Ratio Lower Upper  
146 100  
111 43.7 21.7 65.1  
148 64.5 31.4 94.2

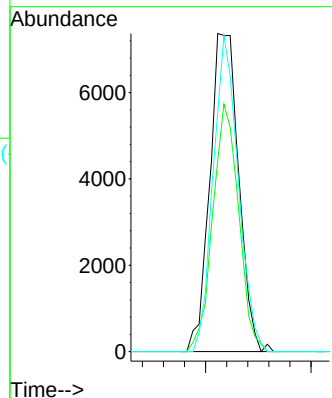
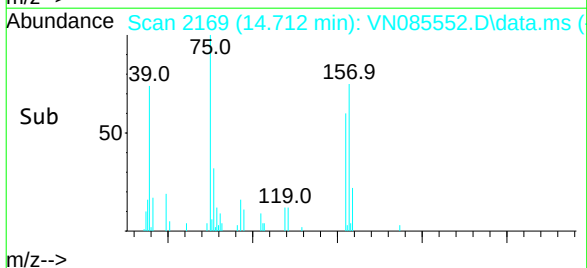
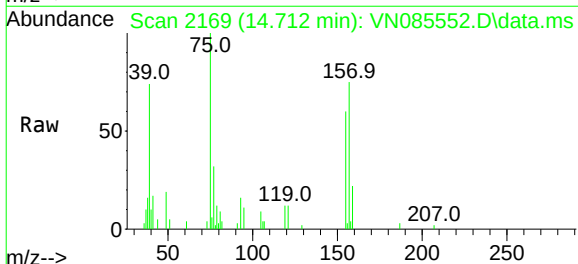
Manual Integrations  
APPROVED

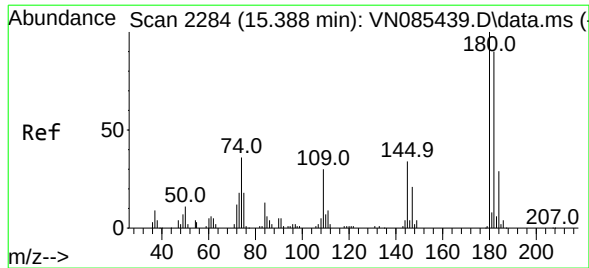
Reviewed By : John Carlone 01/30/2025  
Supervised By : Mahesh Dadoda 01/30/2025



#92  
1,2-Dibromo-3-Chloropropane  
Concen: 21.557 ug/l  
RT: 14.712 min Scan# 2169  
Delta R.T. -0.006 min  
Lab File: VN085552.D  
Acq: 29 Jan 2025 13:04

Tgt Ion: 75 Resp: 14040  
Ion Ratio Lower Upper  
75 100  
155 69.6 36.4 109.2  
157 86.1 45.4 136.1





#93

1,2,4-Trichlorobenzene

Concen: 18.068 ug/l

RT: 15.394 min Scan# 2284

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion:180 Resp: 40694

Ion Ratio Lower Upper

180 100

182 96.7 46.8 140.3

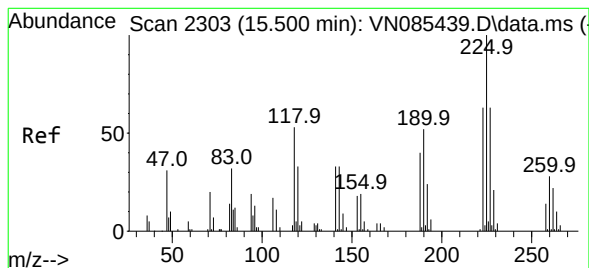
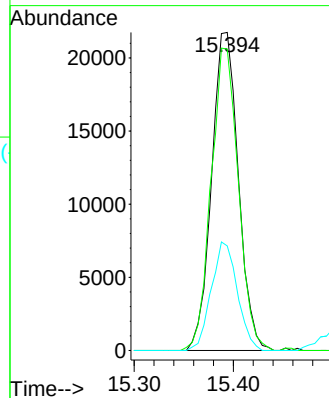
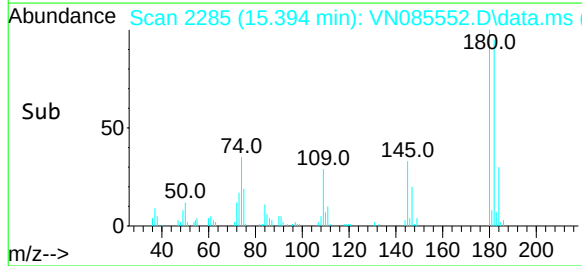
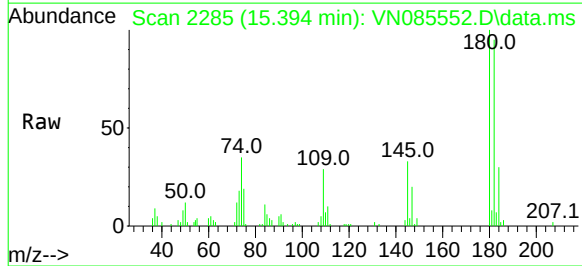
145 33.2 16.0 48.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#94

Hexachlorobutadiene

Concen: 17.886 ug/l

RT: 15.500 min Scan# 2303

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

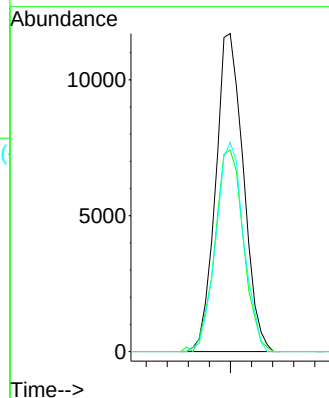
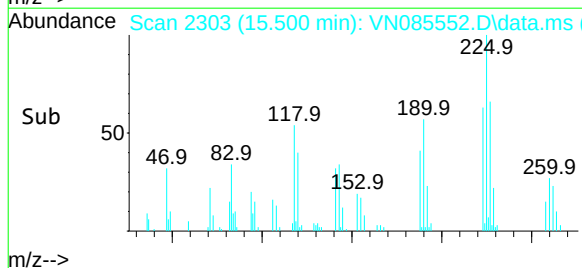
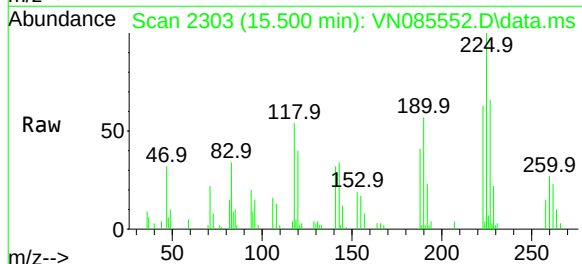
Tgt Ion:225 Resp: 21387

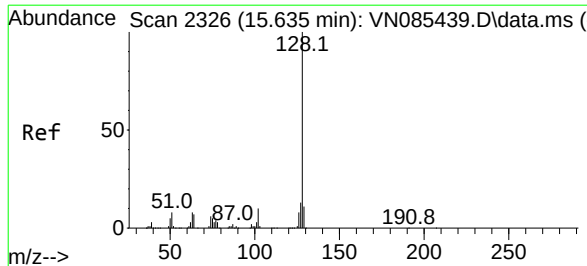
Ion Ratio Lower Upper

225 100

223 65.4 30.7 92.1

227 65.9 30.9 92.5





#95

Naphthalene

Concen: 17.550 ug/l

RT: 15.641 min Scan# 2326

Delta R.T. 0.006 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

Instrument :

MSVOA\_N

ClientSampleId :

VN0129WBSD01

Tgt Ion:128 Resp: 117949

Ion Ratio Lower Upper

128 100

127 13.8 10.6 16.0

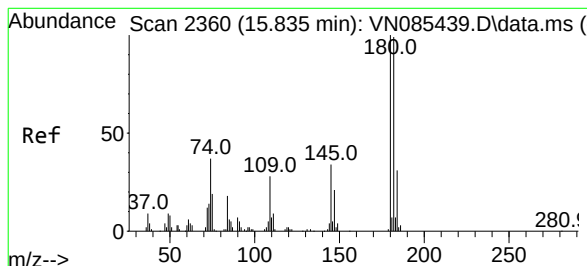
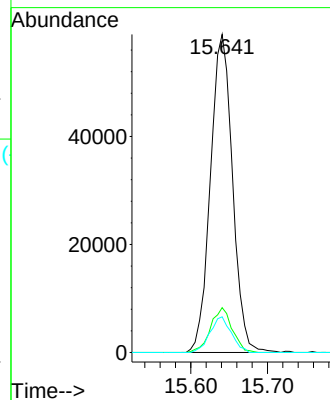
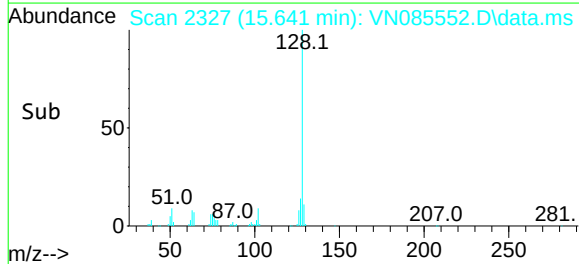
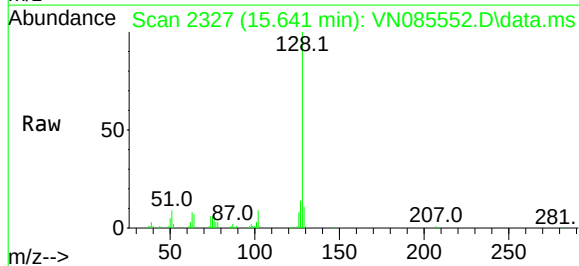
129 10.8 8.8 13.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 01/30/2025

Supervised By :Mahesh Dadoda 01/30/2025



#96

1,2,3-Trichlorobenzene

Concen: 18.194 ug/l

RT: 15.835 min Scan# 2360

Delta R.T. -0.000 min

Lab File: VN085552.D

Acq: 29 Jan 2025 13:04

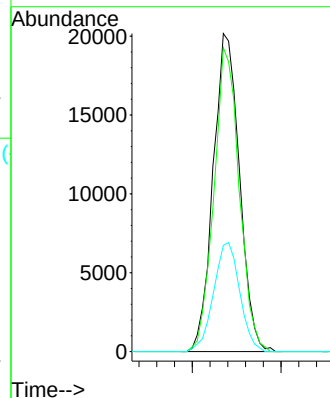
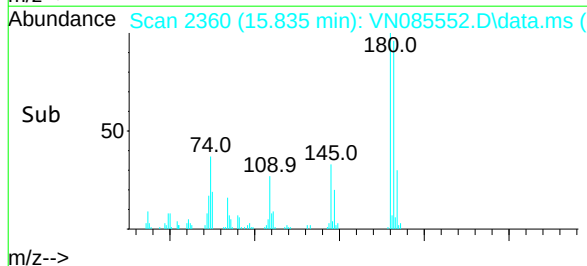
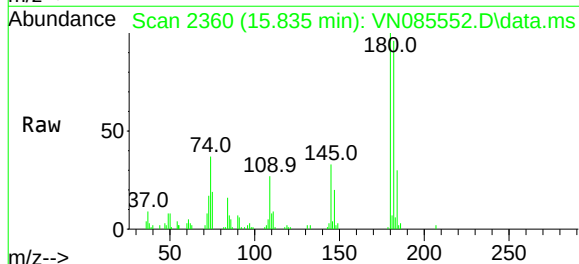
Tgt Ion:180 Resp: 41463

Ion Ratio Lower Upper

180 100

182 91.9 47.4 142.2

145 34.1 16.9 50.7



## Manual Integration Report

|           |          |            |         |
|-----------|----------|------------|---------|
| Sequence: | VN011425 | Instrument | MSVOA_n |
|-----------|----------|------------|---------|

| Sample ID   | File ID    | Parameter                      | Review By | Review On            | Supervised By | Supervised On         | Reason                      |
|-------------|------------|--------------------------------|-----------|----------------------|---------------|-----------------------|-----------------------------|
| VSTDICC100  | VN085438.D | 1,2,3-Trichloropropane         | JOHN      | 1/15/2025 9:31:09 AM | MMDadoda      | 1/15/2025 12:55:19 PM | Peak Integrated by Software |
| VSTDICCC050 | VN085439.D | 1,2,3-Trichloropropane         | JOHN      | 1/15/2025 9:31:14 AM | MMDadoda      | 1/15/2025 12:55:22 PM | Peak Integrated by Software |
| VSTDICC020  | VN085440.D | 1,2,3-Trichloropropane         | JOHN      | 1/15/2025 9:31:19 AM | MMDadoda      | 1/15/2025 12:55:25 PM | Peak Integrated by Software |
| VSTDICC020  | VN085440.D | trans-1,4-Dichloro-2-but ene   | JOHN      | 1/15/2025 9:31:19 AM | MMDadoda      | 1/15/2025 12:55:25 PM | Peak Integrated by Software |
| VSTDICC020  | VN085440.D | Vinyl Acetate                  | JOHN      | 1/15/2025 9:31:19 AM | MMDadoda      | 1/15/2025 12:55:25 PM | Peak Integrated by Software |
| VSTDICC010  | VN085441.D | 1,2,3-Trichloropropane         | JOHN      | 1/15/2025 9:31:23 AM | MMDadoda      | 1/15/2025 12:55:29 PM | Peak Integrated by Software |
| VSTDICC005  | VN085442.D | 1,2,3-Trichloropropane         | JOHN      | 1/15/2025 9:31:28 AM | MMDadoda      | 1/15/2025 12:55:34 PM | Peak Integrated by Software |
| VSTDICC005  | VN085442.D | Ethyl Acetate                  | JOHN      | 1/15/2025 9:31:28 AM | MMDadoda      | 1/15/2025 12:55:34 PM | Peak Integrated by Software |
| VSTDICC005  | VN085442.D | Vinyl Acetate                  | JOHN      | 1/15/2025 9:31:28 AM | MMDadoda      | 1/15/2025 12:55:34 PM | Peak Integrated by Software |
| VSTDICC001  | VN085443.D | 1,1,2-Trichlorotrifluoroethane | JOHN      | 1/15/2025 9:31:32 AM | MMDadoda      | 1/15/2025 12:55:39 PM | Peak Integrated by Software |
| VSTDICC001  | VN085443.D | 1,1-Dichloroethane             | JOHN      | 1/15/2025 9:31:32 AM | MMDadoda      | 1/15/2025 12:55:39 PM | Peak Integrated by Software |
| VSTDICC001  | VN085443.D | 1,2,3-Trichloropropane         | JOHN      | 1/15/2025 9:31:32 AM | MMDadoda      | 1/15/2025 12:55:39 PM | Peak Integrated by Software |
| VSTDICC001  | VN085443.D | 1,4-Dichlorobenzene            | JOHN      | 1/15/2025 9:31:32 AM | MMDadoda      | 1/15/2025 12:55:39 PM | Peak Integrated by Software |

## Manual Integration Report

Sequence:

VN011425

Instrument

MSVOA\_n

| Sample ID  | File ID    | Parameter                   | Review By | Review On            | Supervised By | Supervised On         | Reason                      |
|------------|------------|-----------------------------|-----------|----------------------|---------------|-----------------------|-----------------------------|
| VSTDICC001 | VN085443.D | 2-Butanone                  | JOHN      | 1/15/2025 9:31:32 AM | MMDadoda      | 1/15/2025 12:55:39 PM | Peak Integrated by Software |
| VSTDICC001 | VN085443.D | Ethyl Acetate               | JOHN      | 1/15/2025 9:31:32 AM | MMDadoda      | 1/15/2025 12:55:39 PM | Peak Integrated by Software |
| VSTDICC001 | VN085443.D | Vinyl Acetate               | JOHN      | 1/15/2025 9:31:32 AM | MMDadoda      | 1/15/2025 12:55:39 PM | Peak Integrated by Software |
| VSTDICV050 | VN085445.D | 1,2,3-Trichloropropane      | JOHN      | 1/15/2025 9:31:37 AM | MMDadoda      | 1/15/2025 12:55:43 PM | Peak Integrated by Software |
| VSTDICV050 | VN085445.D | trans-1,4-Dichloro-2-butene | JOHN      | 1/15/2025 9:31:37 AM | MMDadoda      | 1/15/2025 12:55:43 PM | Peak Integrated by Software |

## Manual Integration Report

Sequence:

VN012925

Instrument

MSVOA\_n

| Sample ID    | File ID    | Parameter                    | Review By | Review On            | Supervised By | Supervised On         | Reason                      |
|--------------|------------|------------------------------|-----------|----------------------|---------------|-----------------------|-----------------------------|
| VSTDCCC050   | VN085548.D | 1,2,3-Trichloropropane       | JOHN      | 1/30/2025 9:53:36 AM | MMDadoda      | 1/30/2025 11:55:49 AM | Peak Integrated by Software |
| VN0129WBS01  | VN085551.D | 1,2,3-Trichloropropane       | JOHN      | 1/30/2025 9:53:41 AM | MMDadoda      | 1/30/2025 11:55:51 AM | Peak Integrated by Software |
| VN0129WBS01  | VN085551.D | trans-1,4-Dichloro-2-but ene | JOHN      | 1/30/2025 9:53:41 AM | MMDadoda      | 1/30/2025 11:55:51 AM | Peak Integrated by Software |
| VN0129WBSD01 | VN085552.D | 1,2,3-Trichloropropane       | JOHN      | 1/30/2025 9:53:45 AM | MMDadoda      | 1/30/2025 11:55:54 AM | Peak Integrated by Software |
| VSTDCCC050   | VN085574.D | 1,2,3-Trichloropropane       | JOHN      | 1/30/2025 9:54:03 AM | MMDadoda      | 1/30/2025 11:56:02 AM | Peak Integrated by Software |
| VSTDCCC050   | VN085574.D | Isopropyl Acetate            | JOHN      | 1/30/2025 9:54:03 AM | MMDadoda      | 1/30/2025 11:56:02 AM | Peak Integrated by Software |



Instrument ID: **MSVOA\_N**

**Daily Analysis Runlog For Sequence/QC Batch ID # VN011425**

|                          |               |                                                       |                       |                      |              |
|--------------------------|---------------|-------------------------------------------------------|-----------------------|----------------------|--------------|
| Review By                | John Carlone  | Review On                                             | 1/15/2025 9:31:51 AM  |                      |              |
| Supervise By             | Maresh Dadoda | Supervise On                                          | 1/15/2025 12:55:51 PM |                      |              |
| SubDirectory             | VN011425      | HP Acquire Method                                     | MSVOA_N               | HP Processing Method | 82N011425W.M |
| STD. NAME                |               | STD REF.#                                             |                       |                      |              |
| Tune/Reschk              |               | VP132529                                              |                       |                      |              |
| Initial Calibration Stds |               | VP132530,VP132531,VP132532,VP132533,VP132534,VP132535 |                       |                      |              |
| CCC                      |               |                                                       |                       |                      |              |
| Internal Standard/PEM    |               |                                                       |                       |                      |              |
| ICV/I.BLK                |               | VP132544                                              |                       |                      |              |
| Surrogate Standard       |               |                                                       |                       |                      |              |
| MS/MSD Standard          |               |                                                       |                       |                      |              |
| LCS Standard             |               |                                                       |                       |                      |              |

| Sr# | SampleId    | Data File Name | Date-Time         | Operator | Status |
|-----|-------------|----------------|-------------------|----------|--------|
| 1   | BFB         | VN085437.D     | 14 Jan 2025 14:22 | JC\MD    | Ok     |
| 2   | VSTDICC100  | VN085438.D     | 14 Jan 2025 14:56 | JC\MD    | Ok,M   |
| 3   | VSTDICCC050 | VN085439.D     | 14 Jan 2025 15:19 | JC\MD    | Ok,M   |
| 4   | VSTDICC020  | VN085440.D     | 14 Jan 2025 15:43 | JC\MD    | Ok,M   |
| 5   | VSTDICC010  | VN085441.D     | 14 Jan 2025 16:07 | JC\MD    | Ok,M   |
| 6   | VSTDICC005  | VN085442.D     | 14 Jan 2025 16:31 | JC\MD    | Ok,M   |
| 7   | VSTDICC001  | VN085443.D     | 14 Jan 2025 17:19 | JC\MD    | Ok,M   |
| 8   | IBLK        | VN085444.D     | 14 Jan 2025 17:42 | JC\MD    | Ok     |
| 9   | VSTDICV050  | VN085445.D     | 14 Jan 2025 18:06 | JC\MD    | Ok,M   |

M : Manual Integration

Instrument ID: **MSVOA\_N**

**Daily Analysis Runlog For Sequence/QC Batch ID # VN012925**

|                                                                                                    |                   |                   |                                   |
|----------------------------------------------------------------------------------------------------|-------------------|-------------------|-----------------------------------|
| Review By                                                                                          | John Carlone      | Review On         | 1/30/2025 9:55:59 AM              |
| Supervise By                                                                                       | Maresh Dadoda     | Supervise On      | 1/30/2025 11:55:44 AM             |
| SubDirectory                                                                                       | VN012925          | HP Acquire Method | HP Processing Method 82N011425W.M |
| <b>STD. NAME</b>                                                                                   | <b>STD REF.#</b>  |                   |                                   |
| Tune/Reschk<br>Initial Calibration Stds                                                            | VP132753          |                   |                                   |
| CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | VP132754,VP132755 |                   |                                   |

| Sr# | SampleId       | Data File Name | Date-Time         | Operator | Status |
|-----|----------------|----------------|-------------------|----------|--------|
| 1   | BFB            | VN085547.D     | 29 Jan 2025 10:35 | JC\MD    | Ok     |
| 2   | VSTDCCC050     | VN085548.D     | 29 Jan 2025 11:08 | JC\MD    | Ok,M   |
| 3   | VN0129MBL01    | VN085549.D     | 29 Jan 2025 11:42 | JC\MD    | Ok     |
| 4   | VN0129WBL01    | VN085550.D     | 29 Jan 2025 12:06 | JC\MD    | Ok     |
| 5   | VN0129WBS01    | VN085551.D     | 29 Jan 2025 12:30 | JC\MD    | Ok,M   |
| 6   | VN0129WBSD01   | VN085552.D     | 29 Jan 2025 13:04 | JC\MD    | Ok,M   |
| 7   | PB166319TB     | VN085553.D     | 29 Jan 2025 13:28 | JC\MD    | Ok     |
| 8   | Q1205-02       | VN085554.D     | 29 Jan 2025 13:52 | JC\MD    | Ok     |
| 9   | Q1206-02       | VN085555.D     | 29 Jan 2025 14:16 | JC\MD    | Ok     |
| 10  | Q1206-06       | VN085556.D     | 29 Jan 2025 14:40 | JC\MD    | Ok     |
| 11  | Q1207-02       | VN085557.D     | 29 Jan 2025 15:04 | JC\MD    | Ok     |
| 12  | Q1207-06       | VN085558.D     | 29 Jan 2025 15:29 | JC\MD    | Ok     |
| 13  | Q1207-10       | VN085559.D     | 29 Jan 2025 15:53 | JC\MD    | Ok     |
| 14  | Q1207-14       | VN085560.D     | 29 Jan 2025 16:17 | JC\MD    | Ok     |
| 15  | Q1207-18       | VN085561.D     | 29 Jan 2025 16:41 | JC\MD    | Ok     |
| 16  | Q1209-04       | VN085562.D     | 29 Jan 2025 17:05 | JC\MD    | Ok     |
| 17  | Q1209-08       | VN085563.D     | 29 Jan 2025 17:29 | JC\MD    | Ok     |
| 18  | PB166319ZHE#01 | VN085564.D     | 29 Jan 2025 17:53 | JC\MD    | Ok     |
| 19  | PB166319ZHE#02 | VN085565.D     | 29 Jan 2025 18:18 | JC\MD    | Ok     |
| 20  | PB166319ZHE#03 | VN085566.D     | 29 Jan 2025 18:42 | JC\MD    | Ok     |
| 21  | PB166319ZHE#04 | VN085567.D     | 29 Jan 2025 19:06 | JC\MD    | Ok,M   |

Instrument ID: **MSVOA\_N**

**Daily Analysis Runlog For Sequence/QC Batch ID # VN012925**

| Review By                                                                                          | John Carlone      | Review On         | 1/30/2025 9:55:59 AM              |
|----------------------------------------------------------------------------------------------------|-------------------|-------------------|-----------------------------------|
| Supervise By                                                                                       | Mahesh Dadoda     | Supervise On      | 1/30/2025 11:55:44 AM             |
| SubDirectory                                                                                       | VN012925          | HP Acquire Method | HP Processing Method 82N011425W.M |
| STD. NAME                                                                                          | STD REF.#         |                   |                                   |
| Tune/Reschk<br>Initial Calibration Stds                                                            | VP132753          |                   |                                   |
| CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | VP132754,VP132755 |                   |                                   |

|    |                |            |                   |       |      |
|----|----------------|------------|-------------------|-------|------|
| 22 | PB166319ZHE#05 | VN085568.D | 29 Jan 2025 19:30 | JC\MD | Ok   |
| 23 | PB166319ZHE#06 | VN085569.D | 29 Jan 2025 19:54 | JC\MD | Ok   |
| 24 | PB166319ZHE#07 | VN085570.D | 29 Jan 2025 20:19 | JC\MD | Ok   |
| 25 | PB166319ZHE#08 | VN085571.D | 29 Jan 2025 20:43 | JC\MD | Ok,M |
| 26 | PB166319ZHE#09 | VN085572.D | 29 Jan 2025 21:07 | JC\MD | Ok,M |
| 27 | PB166319ZHE#10 | VN085573.D | 29 Jan 2025 21:31 | JC\MD | Ok   |
| 28 | VSTDCCC050     | VN085574.D | 29 Jan 2025 21:55 | JC\MD | Ok,M |

M : Manual Integration

Instrument ID: MSVOA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # VN011425**

|              |               |                   |                                           |
|--------------|---------------|-------------------|-------------------------------------------|
| Review By    | John Carlone  | Review On         | 1/15/2025 9:31:51 AM                      |
| Supervise By | Maresh Dadoda | Supervise On      | 1/15/2025 12:55:51 PM                     |
| SubDirectory | VN011425      | HP Acquire Method | MSVOA_N HP Processing Method 82N011425W.M |

| STD. NAME                                                                                                                                         | STD REF.#                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Tune/Reschk<br>Initial Calibration Stds<br><br>CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | VP132529<br>VP132530,VP132531,VP132532,VP132533,VP132534,VP132535<br><br><br><br><br>VP132544 |

| Sr# | SampleID    | ClientID    | Data File Name | Date-Time         | Comment                             | Operator | Status |
|-----|-------------|-------------|----------------|-------------------|-------------------------------------|----------|--------|
| 1   | BFB         | BFB         | VN085437.D     | 14 Jan 2025 14:22 |                                     | JC\MD    | Ok     |
| 2   | VSTDICC100  | VSTDICC100  | VN085438.D     | 14 Jan 2025 14:56 |                                     | JC\MD    | Ok,M   |
| 3   | VSTDICCC050 | VSTDICCC050 | VN085439.D     | 14 Jan 2025 15:19 | Comp.#56 is on Linear Regression    | JC\MD    | Ok,M   |
| 4   | VSTDICC020  | VSTDICC020  | VN085440.D     | 14 Jan 2025 15:43 | Comp.#86 is on Quadratic Regression | JC\MD    | Ok,M   |
| 5   | VSTDICC010  | VSTDICC010  | VN085441.D     | 14 Jan 2025 16:07 |                                     | JC\MD    | Ok,M   |
| 6   | VSTDICC005  | VSTDICC005  | VN085442.D     | 14 Jan 2025 16:31 |                                     | JC\MD    | Ok,M   |
| 7   | VSTDICC001  | VSTDICC001  | VN085443.D     | 14 Jan 2025 17:19 |                                     | JC\MD    | Ok,M   |
| 8   | IBLK        | IBLK        | VN085444.D     | 14 Jan 2025 17:42 |                                     | JC\MD    | Ok     |
| 9   | VSTDICV050  | ICVVN011425 | VN085445.D     | 14 Jan 2025 18:06 |                                     | JC\MD    | Ok,M   |

M : Manual Integration

Instrument ID: MSVOA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # VN012925**

|              |               |                   |                                   |
|--------------|---------------|-------------------|-----------------------------------|
| Review By    | John Carlone  | Review On         | 1/30/2025 9:55:59 AM              |
| Supervise By | Maresh Dadoda | Supervise On      | 1/30/2025 11:55:44 AM             |
| SubDirectory | VN012925      | HP Acquire Method | HP Processing Method 82N011425W.M |

| STD. NAME                                                                                          | STD REF.#         |
|----------------------------------------------------------------------------------------------------|-------------------|
| Tune/Reschk<br>Initial Calibration Stds                                                            | VP132753          |
| CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | VP132754,VP132755 |

| Sr# | SampleID       | ClientID        | Data File Name | Date-Time         | Comment       | Operator | Status |
|-----|----------------|-----------------|----------------|-------------------|---------------|----------|--------|
| 1   | BFB            | BFB             | VN085547.D     | 29 Jan 2025 10:35 |               | JC\MD    | Ok     |
| 2   | VSTDCCC050     | VSTDCCC050      | VN085548.D     | 29 Jan 2025 11:08 | V13516        | JC\MD    | Ok,M   |
| 3   | VN0129MBL01    | VN0129MBL01     | VN085549.D     | 29 Jan 2025 11:42 |               | JC\MD    | Ok     |
| 4   | VN0129WBL01    | VN0129WBL01     | VN085550.D     | 29 Jan 2025 12:06 |               | JC\MD    | Ok     |
| 5   | VN0129WBS01    | VN0129WBS01     | VN085551.D     | 29 Jan 2025 12:30 |               | JC\MD    | Ok,M   |
| 6   | VN0129WBSD01   | VN0129WBSD01    | VN085552.D     | 29 Jan 2025 13:04 |               | JC\MD    | Ok,M   |
| 7   | PB166319TB     | PB166319TB      | VN085553.D     | 29 Jan 2025 13:28 |               | JC\MD    | Ok     |
| 8   | Q1205-02       | VNJ-236         | VN085554.D     | 29 Jan 2025 13:52 | vial A pH#5.0 | JC\MD    | Ok     |
| 9   | Q1206-02       | JPP-20.1-012725 | VN085555.D     | 29 Jan 2025 14:16 | vial A pH#5.0 | JC\MD    | Ok     |
| 10  | Q1206-06       | JPP-16.3-012725 | VN085556.D     | 29 Jan 2025 14:40 | vial A pH#5.0 | JC\MD    | Ok     |
| 11  | Q1207-02       | JPP-2.1-012725  | VN085557.D     | 29 Jan 2025 15:04 | vial A pH#5.0 | JC\MD    | Ok     |
| 12  | Q1207-06       | JPP-5.1-012725  | VN085558.D     | 29 Jan 2025 15:29 | vial A pH#5.0 | JC\MD    | Ok     |
| 13  | Q1207-10       | JPP-4.5-012725  | VN085559.D     | 29 Jan 2025 15:53 | vial A pH#5.0 | JC\MD    | Ok     |
| 14  | Q1207-14       | JPP-16.2-012725 | VN085560.D     | 29 Jan 2025 16:17 | vial A pH#5.0 | JC\MD    | Ok     |
| 15  | Q1207-18       | JPP-20.2-012725 | VN085561.D     | 29 Jan 2025 16:41 | vial A pH#5.0 | JC\MD    | Ok     |
| 16  | Q1209-04       | WC-4            | VN085562.D     | 29 Jan 2025 17:05 | vial A pH#5.0 | JC\MD    | Ok     |
| 17  | Q1209-08       | WC-5            | VN085563.D     | 29 Jan 2025 17:29 | vial A pH#5.0 | JC\MD    | Ok     |
| 18  | PB166319ZHE#01 | PB166319ZHE#01  | VN085564.D     | 29 Jan 2025 17:53 |               | JC\MD    | Ok     |

Instrument ID: MSVOA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # VN012925**

|                                                                                                    |                   |                   |                                   |
|----------------------------------------------------------------------------------------------------|-------------------|-------------------|-----------------------------------|
| Review By                                                                                          | John Carlone      | Review On         | 1/30/2025 9:55:59 AM              |
| Supervise By                                                                                       | Maresh Dadoda     | Supervise On      | 1/30/2025 11:55:44 AM             |
| SubDirectory                                                                                       | VN012925          | HP Acquire Method | HP Processing Method 82N011425W.M |
| <b>STD. NAME</b>                                                                                   | <b>STD REF.#</b>  |                   |                                   |
| Tune/Reschk<br>Initial Calibration Stds                                                            | VP132753          |                   |                                   |
| CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | VP132754,VP132755 |                   |                                   |

|    |                |                |            |                   |  |       |      |
|----|----------------|----------------|------------|-------------------|--|-------|------|
| 19 | PB166319ZHE#02 | PB166319ZHE#02 | VN085565.D | 29 Jan 2025 18:18 |  | JC\MD | Ok   |
| 20 | PB166319ZHE#03 | PB166319ZHE#03 | VN085566.D | 29 Jan 2025 18:42 |  | JC\MD | Ok   |
| 21 | PB166319ZHE#04 | PB166319ZHE#04 | VN085567.D | 29 Jan 2025 19:06 |  | JC\MD | Ok,M |
| 22 | PB166319ZHE#05 | PB166319ZHE#05 | VN085568.D | 29 Jan 2025 19:30 |  | JC\MD | Ok   |
| 23 | PB166319ZHE#06 | PB166319ZHE#06 | VN085569.D | 29 Jan 2025 19:54 |  | JC\MD | Ok   |
| 24 | PB166319ZHE#07 | PB166319ZHE#07 | VN085570.D | 29 Jan 2025 20:19 |  | JC\MD | Ok   |
| 25 | PB166319ZHE#08 | PB166319ZHE#08 | VN085571.D | 29 Jan 2025 20:43 |  | JC\MD | Ok,M |
| 26 | PB166319ZHE#09 | PB166319ZHE#09 | VN085572.D | 29 Jan 2025 21:07 |  | JC\MD | Ok,M |
| 27 | PB166319ZHE#10 | PB166319ZHE#10 | VN085573.D | 29 Jan 2025 21:31 |  | JC\MD | Ok   |
| 28 | VSTDCCC050     | VSTDCCC050EC   | VN085574.D | 29 Jan 2025 21:55 |  | JC\MD | Ok,M |

M : Manual Integration

SOP ID : M1311-TCLP-15  
SDG No : N/A  
Weigh By : JP  
Balance ID : WC SC-7  
pH Meter ID : WC PH METER-1  
Extraction By : JP  
Filter By : JP  
Pipette ID : WC  
Tumbler ID : ZHE-1  
TCLP Filter ID : 50223706

Start Prep Date : 01/28/2025 Time : 16:30  
End Prep Date : 01/29/2025 Time : 09:20  
Combination Ratio : 20  
ZHE Cleaning Batch : ~~N/A~~ VN012925  
Initial Room Temperature: 23 °C  
Final Room Temperature: 22 °C  
TCLP Technician Signature : *JP*  
Supervisor By : *12*

| Standard Name | MLS USED | STD REF. # FROM LOG |
|---------------|----------|---------------------|
| 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                 |

| Chemical Used  | ML/SAMPLE U | Lot Number |
|----------------|-------------|------------|
| TCLP-FLUID-1   | N/A         | WP110801   |
| 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        |
| 40ml VOA Vials | 23237       | N/A        |

**Extraction Conformance/Non-Conformance Comments:**

ALL ZHE samples are extracted and given as vial A & B. Leak checked after 10 mintues of tumbling. TUMBLER  
ZHE-1 checked,30 rpm.

| Date / Time    | Prepped Sample Relinquished By/Location | Received By/Location      |
|----------------|-----------------------------------------|---------------------------|
| 01/29/25 11:00 | <i>JP</i> <i>1111D Room</i>             | <i>JP</i> <i>100C Lab</i> |
| 01/29/25       | Preparation Group                       | Analysis Group            |

| Sample ID  | ClientID        | ZHE Vessel ID | Sample Wt (g) | Volume Extraction Fluid #1 (mL) | Multi phasic | Phase Miscible | Phases Combined | Final Leachate PH | Metals Leachate Adj. PH | Prep Pos |
|------------|-----------------|---------------|---------------|---------------------------------|--------------|----------------|-----------------|-------------------|-------------------------|----------|
| PB166319TB | LEB319          | 11            | N/A           | 500                             | N/A          | N/A            | N/A             | 4.94              | N/A                     | ZHE-1    |
| Q1205-02   | VNJ-236         | 01            | 25.02         | 500                             | N/A          | N/A            | N/A             | N/A               | N/A                     | ZHE-1    |
| Q1206-02   | JPP-20.1-012725 | 02            | 25.01         | 500                             | N/A          | N/A            | N/A             | N/A               | N/A                     | ZHE-1    |
| Q1206-06   | JPP-16.3-012725 | 03            | 25.03         | 500                             | N/A          | N/A            | N/A             | N/A               | N/A                     | ZHE-1    |
| Q1207-02   | JPP-2.1-012725  | 04            | 25.03         | 500                             | N/A          | N/A            | N/A             | N/A               | N/A                     | ZHE-1    |
| Q1207-06   | JPP-5.1-012725  | 05            | 25.05         | 500                             | N/A          | N/A            | N/A             | N/A               | N/A                     | ZHE-1    |
| Q1207-10   | JPP-4.5-012725  | 06            | 25.03         | 500                             | N/A          | N/A            | N/A             | N/A               | N/A                     | ZHE-1    |
| Q1207-14   | JPP-16.2-012725 | 07            | 25.04         | 500                             | N/A          | N/A            | N/A             | N/A               | N/A                     | ZHE-1    |
| Q1207-18   | JPP-20.2-012725 | 08            | 25.03         | 500                             | N/A          | N/A            | N/A             | N/A               | N/A                     | ZHE-1    |
| Q1209-04   | WC-4            | 09            | 25.02         | 500                             | N/A          | N/A            | N/A             | N/A               | N/A                     | ZHE-1    |
| Q1209-08   | WC-5            | 10            | 25.03         | 500                             | N/A          | N/A            | N/A             | N/A               | N/A                     | ZHE-1    |



| <b>SampleID</b> | <b>ClientID</b> | <b>Sample Weight (g)</b> | <b>Filter Weight (g)</b> | <b>Filtrate (mL)</b> | <b>Filter + Solid (After 100°C)</b> | <b>% solids</b> | <b>% Dry Solids</b> |
|-----------------|-----------------|--------------------------|--------------------------|----------------------|-------------------------------------|-----------------|---------------------|
| PB166319TB      | LEB319          | N/A                      | N/A                      | N/A                  | N/A                                 | N/A             | N/A                 |
| Q1205-02        | VNJ-236         | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| Q1206-02        | JPP-20.1-012725 | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| Q1206-06        | JPP-16.3-012725 | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| Q1207-02        | JPP-2.1-012725  | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| Q1207-06        | JPP-5.1-012725  | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| Q1207-10        | JPP-4.5-012725  | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| Q1207-14        | JPP-16.2-012725 | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| Q1207-18        | JPP-20.2-012725 | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| Q1209-04        | WC-4            | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| Q1209-08        | WC-5            | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : tclp zhe q1109

WorkList ID : 187225

Department : TCLP Extraction

Date : 01-28-2025 14:22:11

| Sample   | Customer Sample | Matrix | Test                | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method   |
|----------|-----------------|--------|---------------------|--------------|----------|-----------------------------|--------------|----------|
| Q1205-02 | VNJ-236         | Solid  | TCLP ZHE Extraction | Cool 4 deg C | PSEG03   | N31                         | 01/28/2025   | 1311 ZHE |
| Q1206-02 | JPP-20.1-012725 | Solid  | TCLP ZHE Extraction | Cool 4 deg C | RUTW01   | E11                         | 01/27/2025   | 1311 ZHE |
| Q1206-06 | JPP-16.3-012725 | Solid  | TCLP ZHE Extraction | Cool 4 deg C | RUTW01   | E11                         | 01/27/2025   | 1311 ZHE |
| Q1207-02 | JPP-2.1-012725  | Solid  | TCLP ZHE Extraction | Cool 4 deg C | RUTW01   | E11                         | 01/27/2025   | 1311 ZHE |
| Q1207-06 | JPP-5.1-012725  | Solid  | TCLP ZHE Extraction | Cool 4 deg C | RUTW01   | E11                         | 01/27/2025   | 1311 ZHE |
| Q1207-10 | JPP-4.5-012725  | Solid  | TCLP ZHE Extraction | Cool 4 deg C | RUTW01   | E11                         | 01/27/2025   | 1311 ZHE |
| Q1207-14 | JPP-16.2-012725 | Solid  | TCLP ZHE Extraction | Cool 4 deg C | RUTW01   | E11                         | 01/27/2025   | 1311 ZHE |
| Q1207-18 | JPP-20.2-012725 | Solid  | TCLP ZHE Extraction | Cool 4 deg C | RUTW01   | E11                         | 01/27/2025   | 1311 ZHE |
| Q1209-04 | WC-4            | Solid  | TCLP ZHE Extraction | Cool 4 deg C | PSEG03   | N41                         | 01/28/2025   | 1311 ZHE |
| Q1209-08 | WC-5            | Solid  | TCLP ZHE Extraction | Cool 4 deg C | PSEG03   | N41                         | 01/28/2025   | 1311 ZHE |

Date/Time 01/28/25 14:30  
 Raw Sample Received by: SD 602C  
 Raw Sample Relinquished by: SD 602C

Date/Time 01/28/25 17:00  
 Raw Sample Received by: SD 602C  
 Raw Sample Relinquished by: SD 602C

## Prep Standard - Chemical Standard Summary

**Order ID :** Q1207

**Test :** TCLP VOA

**Prepbatch ID :**

**Sequence ID/Qc Batch ID:** VN012925,

**Standard ID :**

VP130430,VP131746,VP131767,VP132035,VP132096,VP132468,VP132613,VP132753,VP132754,VP132755,

**Chemical ID :**

V13391,V13446,V13457,V13460,V13465,V13466,V13707,V14145,V14154,V14175,V14176,V14289,V14433,V14439,V14521,V14522,V14614,V14624,V14627,V14630,V14631,V14632,V14633,V14722,V14723,V14724,V14754,V14756,V14801,V14814,V14830,V14831,V14832,W3112,

## VOC 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> |
|------------------|------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 617              | 8260 Surrogate, 400PPM | <a href="#">VP130430</a> | 09/20/2024       | 02/28/2025             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
|                  |                        |                          |                  |                        |                     |                |                  | 09/26/2024           |

**FROM** 0.40000ml of V13707 + 24.60000ml of V14145 = Final Quantity: 25.000 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> |
|------------------|--------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 247              | 8260 Internal Standard, 250PPM | <a href="#">VP131746</a> | 11/22/2024       | 05/18/2025             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
|                  |                                |                          |                  |                        |                     |                |                  | 11/23/2024           |

**FROM** 0.50000ml of V14289 + 49.50000ml of V14154 = Final Quantity: 50.000 ml

## VOC 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> |
|------------------|-------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 218              | BFB, 25PPM  | <a href="#">VP131767</a> | 11/22/2024       | 05/18/2025             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
|                  |             |                          |                  |                        |                     |                |                  | 11/27/2024           |

**FROM** 0.50000ml of V13391 + 49.50000ml of V14154 = Final Quantity: 50.000 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> |
|------------------|--------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 1810             | 8260 Working Std(2-CVE)-800ppm | <a href="#">VP132035</a> | 12/10/2024       | 06/10/2025             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
|                  |                                |                          |                  |                        |                     |                |                  | 12/12/2024           |

**FROM** 1.00000ml of V14630 + 1.00000ml of V14631 + 1.00000ml of V14632 + 1.00000ml of V14633 + 46.00000ml of V14614 = Final Quantity: 50.000 ml

# VOC 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>        |
|------------------|---------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|-----------------------------|
| 719              | 8260 Working STD (BCM)-First source, 400PPM | <a href="#">VP132096</a> | 12/12/2024       | 06/10/2025             | Semsettin Yesilyurt | None           | None             | Mahesh Dadoda<br>12/19/2024 |

**FROM** 1.00000ml of V13465 + 1.00000ml of V13466 + 1.50000ml of V13457 + 1.50000ml of V13460 + 20.00000ml of V14614 = Final  
Quantity: 25.000 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>        |
|------------------|---------------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|-----------------------------|
| 51               | 8260 Working STD (Acrolein) -first source, 800PPM | <a href="#">VP132468</a> | 01/08/2025       | 02/07/2025             | Semsettin Yesilyurt | None           | None             | Mahesh Dadoda<br>01/17/2025 |

**FROM** 1.00000ml of V14832 + 1.50000ml of V14830 + 1.50000ml of V14831 + 21.00000ml of V14627 = Final Quantity: 25.000 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>            |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------|------------------------|------------------------|----------------|------------------|---------------------------------|
| 257              | 8260 Calibration Working STD<br>Mix-First source, 160PPM                                                                                                                                                                                                                                                                                                                      | <a href="#">VP132613</a> | 01/20/2025       | 02/28/2025             | Semsettin<br>Yesilyurt | None           | None             | Mahesh Dadoda<br><br>01/29/2025 |
| <u>FROM</u>      | 0.40000ml of V13446 + 1.00000ml of V14175 + 1.00000ml of V14176 + 1.00000ml of V14433 + 1.00000ml of V14439 +<br>1.00000ml of V14521 + 1.00000ml of V14522 + 1.00000ml of V14722 + 1.00000ml of V14754 + 1.00000ml of V14756 +<br>1.00000ml of V14801 + 1.00000ml of V14814 + 1.50000ml of V14723 + 1.50000ml of V14724 + 10.60000ml of V14624 = Final<br>Quantity: 25.000 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>        |
|--------------------------------------------------------------------------------------------|----------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|-----------------------------|
| 589                                                                                        | BFB TUNE CHECK | <a href="#">VP132753</a> | 01/29/2025       | 01/30/2025             | John Carlone       | None           | None             | Mahesh Dadoda<br>01/29/2025 |
| <b><u>FROM</u></b> 39.98400ml of W3112 + 0.01600ml of VP131767 = Final Quantity: 40.000 ml |                |                          |                  |                        |                    |                |                  |                             |



## VOC 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>        |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|-----------------------------|
| 620              | 50 PPB CCC, 8260-Water                                                                                                                                                                          | <a href="#">VP132754</a> | 01/29/2025       | 01/30/2025             | John Carlone       | None           | None             | Mahesh Dadoda<br>01/29/2025 |
| <u>FROM</u>      | 39.94450ml of W3112 + 0.00500ml of VP130430 + 0.00500ml of VP132096 + 0.00800ml of VP131746 + 0.01250ml of VP132035 + 0.01250ml of VP132468 + 0.01250ml of VP132613 = Final Quantity: 40.000 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>        |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|-----------------------------|
| 620              | 50 PPB CCC, 8260-Water                                                                                                                                                                          | <a href="#">VP132755</a> | 01/29/2025       | 01/30/2025             | John Carlone       | None           | None             | Mahesh Dadoda<br>01/29/2025 |
| <u>FROM</u>      | 39.94450ml of W3112 + 0.00500ml of VP130430 + 0.00500ml of VP132096 + 0.00800ml of VP131746 + 0.01250ml of VP132035 + 0.01250ml of VP132468 + 0.01250ml of VP132613 = Final Quantity: 40.000 ml |                          |                  |                        |                    |                |                  |                             |



## CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName          | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30067 / BFB tuneing solution | A0191805 | 11/22/2025      | 11/22/2024 / SAM        | 01/13/2023 / SAM            | V13391         |

| Supplier | ItemCode / ItemName                                     | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|---------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM | A0181905 | 02/28/2025      | 01/10/2025 / SAM        | 01/23/2023 / SAM            | V13446         |

| Supplier | ItemCode / ItemName                                             | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-----------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul | A0193071 | 06/12/2025      | 12/12/2024 / SAM        | 01/27/2023 / SAM            | V13457         |

| Supplier | ItemCode / ItemName                                             | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-----------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul | A0193071 | 06/12/2025      | 12/12/2024 / SAM        | 01/27/2023 / SAM            | V13460         |

| Supplier | ItemCode / ItemName                                             | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-----------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul | A0193071 | 06/12/2025      | 12/12/2024 / SAM        | 01/27/2023 / SAM            | V13465         |

| Supplier | ItemCode / ItemName                                             | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-----------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul | A0193071 | 06/12/2025      | 12/12/2024 / SAM        | 01/27/2023 / SAM            | V13466         |

## CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName                                         | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2] | A0196865 | 06/10/2025      | 06/10/2024 / SAM        | 04/12/2023 / SAM            | V13707         |

| Supplier         | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|--------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA9077-02 / Methanol, Purge/Trap (cs=6x1L) | 22L0562016 | 02/28/2025      | 08/29/2024 / SAM        | 02/06/2024 / SAM            | V14145         |

| Supplier         | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|--------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA9077-02 / Methanol, Purge/Trap (cs=6x1L) | 22L0562016 | 05/18/2025      | 11/18/2024 / pedro      | 02/06/2024 / SAM            | V14154         |

| Supplier                 | ItemCode / ItemName                            | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 95317 / Universal VOA Mega Mix (Min order = 5) | 021624 | 07/10/2025      | 01/10/2025 / SAM        | 02/20/2024 / SAM            | V14175         |

| Supplier                 | ItemCode / ItemName                            | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 95317 / Universal VOA Mega Mix (Min order = 5) | 021624 | 07/10/2025      | 01/10/2025 / SAM        | 02/20/2024 / SAM            | V14176         |

| Supplier | ItemCode / ItemName                                     | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|---------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555581 / Custom Standard, 8260 Internal Std [CS 5179-1] | A0210184 | 11/22/2025      | 11/22/2024 / SAM        | 04/15/2024 / SAM            | V14289         |

## CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName                            | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL | A0209618 | 07/10/2025      | 01/10/2025 / SAM        | 08/15/2024 / SAM            | V14433         |

| Supplier | ItemCode / ItemName                            | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL | A0209618 | 07/10/2025      | 01/10/2025 / SAM        | 08/15/2024 / SAM            | V14439         |

| Supplier                 | ItemCode / ItemName                     | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-----------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 95319 / Revised Additions Mix (Min = 5) | 091724 | 07/10/2025      | 01/10/2025 / SAM        | 09/18/2024 / SAM            | V14521         |

| Supplier                 | ItemCode / ItemName                     | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-----------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 95319 / Revised Additions Mix (Min = 5) | 091724 | 07/10/2025      | 01/10/2025 / SAM        | 09/18/2024 / SAM            | V14522         |

| Supplier         | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|--------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA9077-02 / Methanol, Purge/Trap (cs=6x1L) | 22L0562016 | 06/10/2025      | 12/10/2024 / SAM        | 11/26/2024 / SAM            | V14614         |

| Supplier         | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|--------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA9077-02 / Methanol, Purge/Trap (cs=6x1L) | 23I0762004 | 07/13/2025      | 01/13/2025 / SAM        | 11/26/2024 / SAM            | V14624         |

## CHEMICAL RECEIPT LOG BOOK

| Supplier         | ItemCode / ItemName                        | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|--------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA9077-02 / Methanol, Purge/Trap (cs=6x1L) | 23I0762004 | 07/06/2025      | 01/06/2025 / SAM        | 11/26/2024 / SAM            | V14627         |

| Supplier                 | ItemCode / ItemName         | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-----------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | / 2-Chloroethyl vinyl ether | 120524 | 06/10/2025      | 12/10/2024 / SAM        | 12/06/2024 / SAM            | V14630         |

| Supplier                 | ItemCode / ItemName         | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-----------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | / 2-Chloroethyl vinyl ether | 120524 | 06/10/2025      | 12/10/2024 / SAM        | 12/06/2024 / SAM            | V14631         |

| Supplier                 | ItemCode / ItemName         | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-----------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | / 2-Chloroethyl vinyl ether | 120524 | 06/10/2025      | 12/10/2024 / SAM        | 12/06/2024 / SAM            | V14632         |

| Supplier                 | ItemCode / ItemName         | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-----------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | / 2-Chloroethyl vinyl ether | 120524 | 06/10/2025      | 12/10/2024 / SAM        | 12/06/2024 / SAM            | V14633         |

| Supplier | ItemCode / ItemName                                                        | Lot #     | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------------------------|-----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml | A02110618 | 07/10/2025      | 01/10/2025 / SAM        | 12/17/2024 / SAM            | V14722         |

## CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName                                                        | Lot #     | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------------------------|-----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml | A02110618 | 07/10/2025      | 01/10/2025 / SAM        | 12/17/2024 / SAM            | V14723         |

| Supplier | ItemCode / ItemName                                                        | Lot #     | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------------------------|-----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml | A02110618 | 07/10/2025      | 01/10/2025 / SAM        | 12/17/2024 / SAM            | V14724         |

| Supplier | ItemCode / ItemName                                                                    | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30042 / VOA Mix, 500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml | A0216826 | 05/31/2031      | 01/10/2025 / SAM        | 12/17/2024 / SAM            | V14754         |

| Supplier | ItemCode / ItemName                                                                    | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|----------------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30042 / VOA Mix, 500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml | A0216826 | 07/10/2025      | 01/10/2025 / SAM        | 12/17/2024 / SAM            | V14756         |

| Supplier | ItemCode / ItemName                                                               | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-----------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE | A0220563 | 06/30/2026      | 01/10/2025 / SAM        | 01/08/2025 / SAM            | V14801         |

LOTS

| Supplier | ItemCode / ItemName                                                               | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-----------------------------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE | A0220471 | 07/10/2025      | 01/10/2025 / SAM        | 01/08/2025 / SAM            | V14814         |

LOTS

## CHEMICAL RECEIPT LOG BOOK

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 010725 | 02/07/2025      | 01/08/2025 / SAM        | 01/08/2025 / SAM            | V14830         |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 010725 | 02/07/2025      | 01/08/2025 / SAM        | 01/08/2025 / SAM            | V14831         |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 010725 | 02/07/2025      | 01/08/2025 / SAM        | 01/08/2025 / SAM            | V14832         |

| 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 / lwona      | 07/03/2024 / lwona          | W3112          |

Methanol  
ULTRA RESI-ANALYZED  
For Purge and Trap Analysis



Material No.: 9077-02  
Batch No.: 23I0762004  
Manufactured Date: 2023-08-11  
Expiration Date: 2026-08-10  
Revision No.: 0

## Certificate of Analysis

| Test                                                    | Specification | Result   |
|---------------------------------------------------------|---------------|----------|
| Assay (CH <sub>3</sub> OH) (by GC, corrected for water) | ≥ 99.9 %      | 100.0 %  |
| Residue after Evaporation                               | ≤ 1.0 ppm     | 0.5 ppm  |
| Titration Acid (μeq/g)                                  | ≤ 0.3         | 0.2      |
| Titration Base (μeq/g)                                  | ≤ 0.10        | 0.01     |
| Water (by KF, coulometric)                              | ≤ 0.08 %      | < 0.01 % |
| Volatile Organic Trace Analysis – Below EPA 8260B CRQL  | Conforms      | Conforms |

For Laboratory, Research, or Manufacturing Use  
Performance Tested for Use in EPA Methods  
500 Series for Drinking Water  
600 Series for Wastewater  
846 for Solid Waste

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

Ken Koehnlein  
Sr. Manager, Quality Assurance

Methanol  
ULTRA RESI-ANALYZED  
For Purge and Trap Analysis



Material No.: 9077-02  
Batch No.: 23I0762004  
Manufactured Date: 2023-08-11  
Expiration Date: 2026-08-10  
Revision No.: 0

## Certificate of Analysis

| Test                                                    | Specification | Result   |
|---------------------------------------------------------|---------------|----------|
| Assay (CH <sub>3</sub> OH) (by GC, corrected for water) | ≥ 99.9 %      | 100.0 %  |
| Residue after Evaporation                               | ≤ 1.0 ppm     | 0.5 ppm  |
| Titration Acid (μeq/g)                                  | ≤ 0.3         | 0.2      |
| Titration Base (μeq/g)                                  | ≤ 0.10        | 0.01     |
| Water (by KF, coulometric)                              | ≤ 0.08 %      | < 0.01 % |
| Volatile Organic Trace Analysis – Below EPA 8260B CRQL  | Conforms      | Conforms |

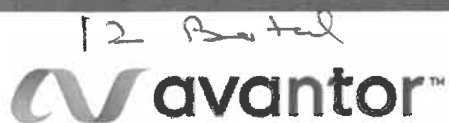
For Laboratory, Research, or Manufacturing Use  
Performance Tested for Use in EPA Methods  
500 Series for Drinking Water  
600 Series for Wastewater  
846 for Solid Waste

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

Ken Koehnlein  
Sr. Manager, Quality Assurance



Methanol  
ULTRA RESI-ANALYZED  
For Purge and Trap Analysis



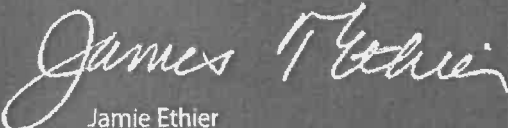
Material No.: 9077-02  
Batch No.: 22L0562016  
Manufactured Date: 2022-10-26  
Expiration Date: 2025-10-25  
Revision No.: 0

## Certificate of Analysis

| Test                                                    | Specification | Result   |
|---------------------------------------------------------|---------------|----------|
| Assay (CH <sub>3</sub> OH) (by GC, corrected for water) | ≥ 99.9 %      | 100.0 %  |
| Residue after Evaporation                               | ≤ 1.0 ppm     | 0.2 ppm  |
| Titration Acid (μeq/g)                                  | ≤ 0.3         | 0.2      |
| Titration Base (μeq/g)                                  | ≤ 0.10        | 0.03     |
| Water (by KF, coulometric)                              | ≤ 0.08 %      | < 0.01 % |
| Volatile Organic Trace Analysis – Below EPA 8260B CRQL  | Conforms      | Conforms |

For Laboratory, Research, or Manufacturing Use  
Performance Tested for Use in EPA Methods  
500 Series for Drinking Water  
600 Series for Wastewater  
846 for Solid Waste

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

  
Jamie Ethier  
Vice President Global Quality



## Certified Reference Material CRM



## CERTIFIED WEIGHT REPORT

Part Number: **91980**  
Lot Number: **010725**  
Description: **Acrolein**

Expiration Date: **020725**Recommended Storage: **Refrigerate (4 °C)**Nominal Concentration (µg/mL): **5000**NIST Test ID#: **6UTB**

Solvent(s): **Water** Lot# **072324Q**

5E-05 Balance Uncertainty

0.001 Flask Uncertainty

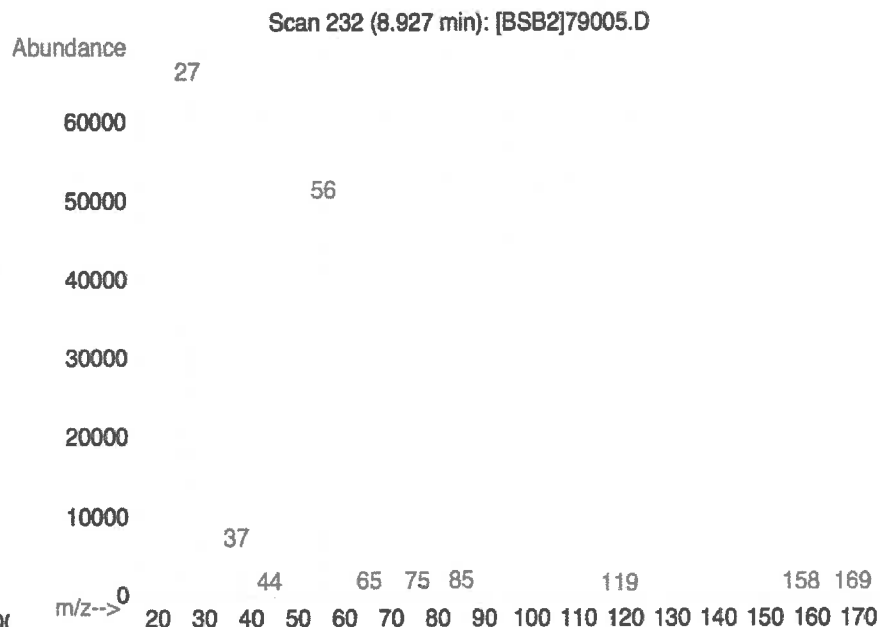
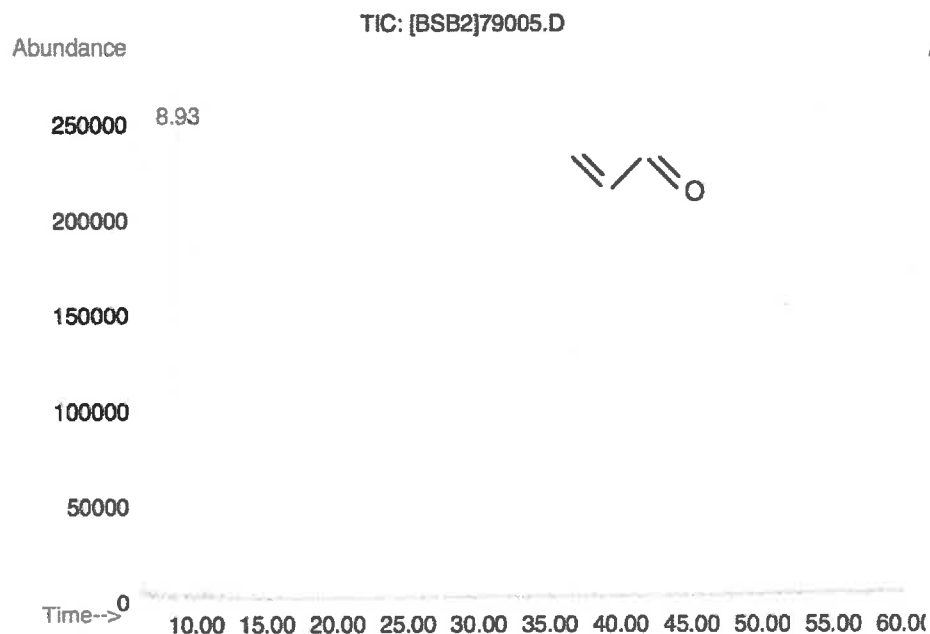
Weight(s) shown below were combined and diluted to (mL): **10.0**

|                        |                 |        |
|------------------------|-----------------|--------|
| <i>Anthony Mahoney</i> |                 | 010725 |
| Formulated By:         | Anthony Mahoney | DATE   |
| <i>Pedro L. Rentas</i> |                 | 010725 |
| Reviewed By:           | Pedro L. Rentas | DATE   |

*5 vial*  
*V 14823 to*  
*V 14829* *V 14827*

| Compound    | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) |                |                 |
|-------------|-----|------------|----------------------|------------|--------------------|------------------|------------------|---------------------|------------------------------------|--------------------------------------------------------|----------------|-----------------|
|             |     |            |                      |            |                    |                  |                  |                     |                                    | CAS#                                                   | OSHA PEL (TWA) | LD50            |
| 1. Acrolein | 5   | 103755V10F | 5000                 | 97         | 0.5                | 0.05166          | 0.05178          | 5011.8              | 52.6                               | 107-02-8                                               | 0.1 ppm        | ori-rat 46mg/kg |

Method: GC6MSD-1. Detector: Mass Selective Detector (Scan mode). Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Rentas. NOTE: Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.



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

## Safety Data Sheet (SDS)

GHS/OSHA Compliant

## Section I Product and Company Identification

## IDENTITY ANALYTICAL STANDARD DISSOLVED IN WATER

|                     |                        |                                   |                 |
|---------------------|------------------------|-----------------------------------|-----------------|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA  | 1-800-535-5053  |
| Address             | 44 Rossetto Dr.        | Emergency Telephone International | 1-352-323-3500  |
|                     | Hamden CT, 06514       | Date Prepared/Revised             | January 1, 2024 |

## Section II - Hazards Identification

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

|          |                                      |              |                                               |
|----------|--------------------------------------|--------------|-----------------------------------------------|
| P271     | Use in ventilated area               | H315         | Causes skin and eye irritation.               |
| P302,332 | If on skin, wash with soap and water | P280         | Use gloves, eye protection/face shield        |
|          |                                      | P305,351,338 | If in eyes, remove contacts, rinse with water |



Signal Word: DANGER

## Section III - Composition

Components (Specific Chemical Identity; Common Name(s))  
Water

CAS#: 7732-18-5

% (optional)  
> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

## Section IV. FIRST AID MEASURES

|                         |                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
| General advice          | Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.            |
| If inhaled              | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Wash with soap and water. Consult a physician.                                                              |
| In case of eye contact  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                      |
| If swallowed            | Do NOT induce vomiting. Rinse mouth with water. Consult a physician.                                        |

## Section V. FIREFIGHTING MEASURES

|                                  |                                                                          |
|----------------------------------|--------------------------------------------------------------------------|
| Suitable extinguishing media     | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Protective equipment for fire    | Wear self contained breathing apparatus for fire fighting if necessary.  |
| Hazardous Decomposition products | Carbon oxides                                                            |

## Section VI. ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                                                              |
| Clean up                  | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).                                                             |

## Section VII. HANDLING AND STORAGE

|                               |                                                                                                                                                               |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.                                                                                         |
|                               | Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.                                                |
| Storage Conditions            | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                                                                               |                        |                                                                            |
|-----------------------------------------------------------------------------------------------|------------------------|----------------------------------------------------------------------------|
| Water                                                                                         | CAS#: 7732-18-5        | TWA: 500 ppm                                                               |
| Personal protective equipment                                                                 | Respiratory protection | Handle with gloves. Gloves must be inspected prior to use. Eye protection. |
| Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product. |                        |                                                                            |

## Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

|                        |       |                            |   |
|------------------------|-------|----------------------------|---|
| Boiling Point          | 100°C | Specific Gravity (H2O = 1) | 1 |
| Vapor Pressure (mm Hg) |       | Melting Point              |   |

|                         |                                                    |                                         |     |
|-------------------------|----------------------------------------------------|-----------------------------------------|-----|
| Vapor Density (AIR = 1) | NA                                                 | Evaporation rate<br>(Butyl Acetate = 1) | 0°C |
| Solubility in Water     | Completely miscible                                |                                         | NA  |
| Appearance and Odor     | CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR. |                                         |     |

**Section X. STABILITY AND REACTIVITY**

|                                    |                                              |
|------------------------------------|----------------------------------------------|
| Chemical stability                 | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | NA                                           |
| Conditions to avoid                | NA                                           |
| Materials to avoid                 | NA                                           |
| Hazardous decomposition products - | No data available                            |

**Section XI. TOXICOLOGICAL INFORMATION**

|                          |    |
|--------------------------|----|
| LD50 Oral - Rat          | NA |
| LC50 Inhalation - Rat    | NA |
| LD50 Dermal - Guinea pig | NA |
| Causes skin irritation.  |    |
| Eye irritation           |    |

**Section XII. ECOLOGICAL INFORMATION**

|      |    |
|------|----|
| LC50 | NA |
| EC50 | NA |

**Section XIII. DISPOSAL CONSIDERATIONS**

Dispose with normal Laboratory Solvent Waste.

**Section XIV. TRANSPORT INFORMATION**

|                             |                             |
|-----------------------------|-----------------------------|
| DOT (US)                    | IATA                        |
| Not dangerous goods         | Not dangerous goods         |
| Proper shipping name: Water | Proper shipping name: Water |

**Section XV. REGULATORY INFORMATION**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Section XVI. Misc. INFORMATION**

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



## Certified Reference Material CRM



## CERTIFIED WEIGHT REPORT

Part Number: **91980**  
Lot Number: **010725**  
Description: **Acrolein**

Expiration Date: **020725**Recommended Storage: **Refrigerate (4 °C)**Nominal Concentration (µg/mL): **5000**NIST Test ID#: **6UTB**

Solvent(s): **Water** Lot# **072324Q**

5E-05 Balance Uncertainty

0.001 Flask Uncertainty

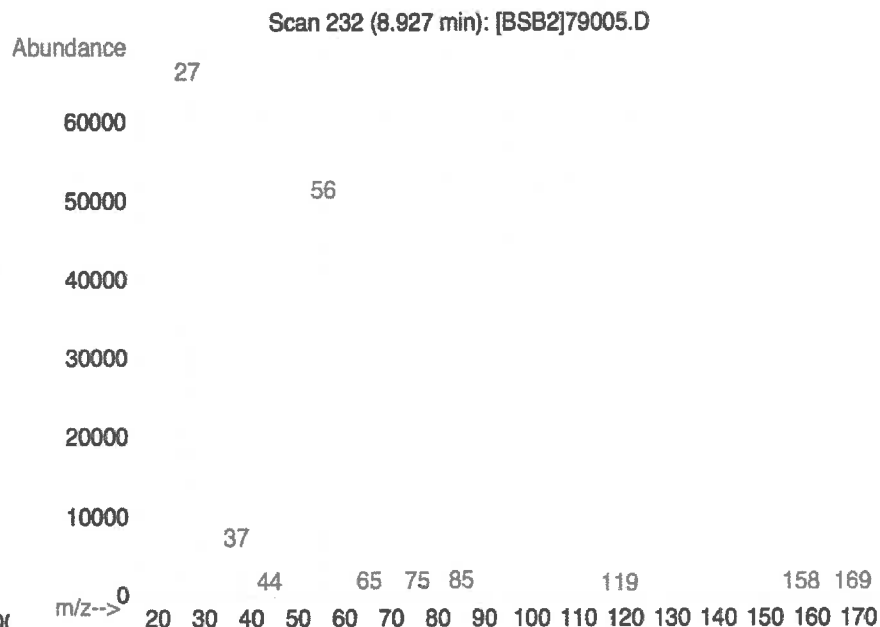
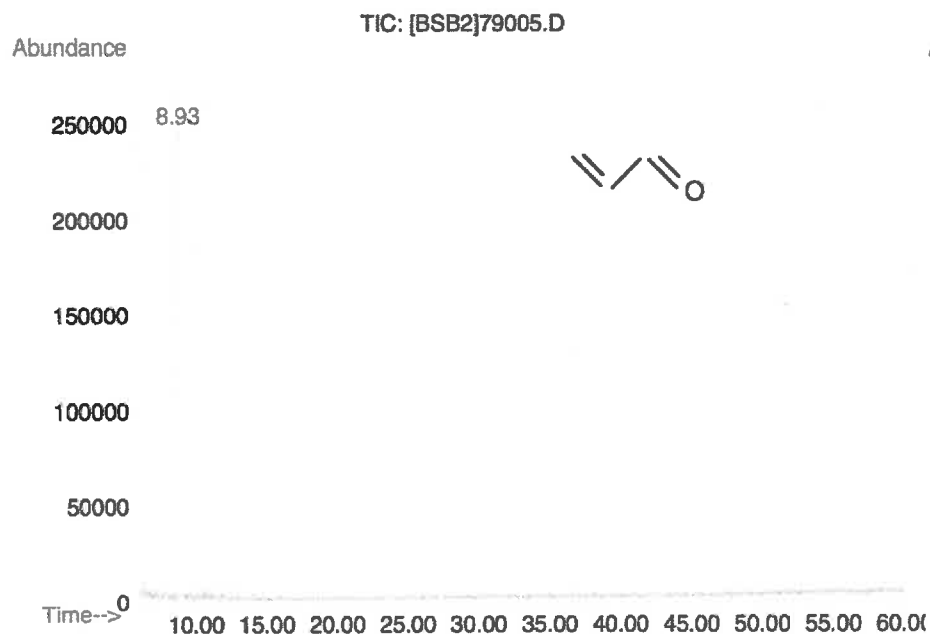
Weight(s) shown below were combined and diluted to (mL): **10.0**

|                        |                 |        |
|------------------------|-----------------|--------|
| <i>Anthony Mahoney</i> |                 | 010725 |
| Formulated By:         | Anthony Mahoney | DATE   |
| <i>Pedro L. Rentas</i> |                 | 010725 |
| Reviewed By:           | Pedro L. Rentas | DATE   |

*5 vial*  
*V 14823 to*  
*V 14829* *V 14827*

| Compound    | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) |                |                 |
|-------------|-----|------------|----------------------|------------|--------------------|------------------|------------------|---------------------|------------------------------------|--------------------------------------------------------|----------------|-----------------|
|             |     |            |                      |            |                    |                  |                  |                     |                                    | CAS#                                                   | OSHA PEL (TWA) | LD50            |
| 1. Acrolein | 5   | 103755V10F | 5000                 | 97         | 0.5                | 0.05166          | 0.05178          | 5011.8              | 52.6                               | 107-02-8                                               | 0.1 ppm        | ori-rat 46mg/kg |

Method: GC6MSD-1. Detector: Mass Selective Detector (Scan mode). Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Rentas. NOTE: Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.



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

## Safety Data Sheet (SDS)

GHS/OSHA Compliant

## Section I Product and Company Identification

## IDENTITY ANALYTICAL STANDARD DISSOLVED IN WATER

|                     |                        |                                   |                 |
|---------------------|------------------------|-----------------------------------|-----------------|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA  | 1-800-535-5053  |
| Address             | 44 Rossetto Dr.        | Emergency Telephone International | 1-352-323-3500  |
|                     | Hamden CT, 06514       | Date Prepared/Revised             | January 1, 2024 |

## Section II - Hazards Identification

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

|          |                                      |              |                                               |
|----------|--------------------------------------|--------------|-----------------------------------------------|
| P271     | Use in ventilated area               | H315         | Causes skin and eye irritation.               |
| P302,332 | If on skin, wash with soap and water | P280         | Use gloves, eye protection/face shield        |
|          |                                      | P305,351,338 | If in eyes, remove contacts, rinse with water |



Signal Word: DANGER

## Section III - Composition

|                                                         |                 |              |
|---------------------------------------------------------|-----------------|--------------|
| Components (Specific Chemical Identity; Common Name(s)) | CAS#: 7732-18-5 | % (optional) |
| Water                                                   |                 | > 97         |

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

## Section IV. FIRST AID MEASURES

|                         |                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
| General advice          | Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.            |
| If inhaled              | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Wash with soap and water. Consult a physician.                                                              |
| In case of eye contact  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                      |
| If swallowed            | Do NOT induce vomiting. Rinse mouth with water. Consult a physician.                                        |

## Section V. FIREFIGHTING MEASURES

|                                  |                                                                          |
|----------------------------------|--------------------------------------------------------------------------|
| Suitable extinguishing media     | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Protective equipment for fire    | Wear self contained breathing apparatus for fire fighting if necessary.  |
| Hazardous Decomposition products | Carbon oxides                                                            |

## Section VI. ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                                                              |
| Clean up                  | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).                                                             |

## Section VII. HANDLING AND STORAGE

|                               |                                                                                                                                                               |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.                                                                                         |
|                               | Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.                                                |
| Storage Conditions            | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                                                                               |                        |                                                                            |
|-----------------------------------------------------------------------------------------------|------------------------|----------------------------------------------------------------------------|
| Water                                                                                         | CAS#: 7732-18-5        | TWA: 500 ppm                                                               |
| Personal protective equipment                                                                 | Respiratory protection | Handle with gloves. Gloves must be inspected prior to use. Eye protection. |
| Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product. |                        |                                                                            |

## Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

|                        |       |                                         |   |
|------------------------|-------|-----------------------------------------|---|
| Boiling Point          | 100°C | Specific Gravity (H <sub>2</sub> O = 1) | 1 |
| Vapor Pressure (mm Hg) |       | Melting Point                           |   |

|                         |                                                                           |                                         |     |
|-------------------------|---------------------------------------------------------------------------|-----------------------------------------|-----|
| Vapor Density (AIR = 1) | NA                                                                        | Evaporation rate<br>(Butyl Acetate = 1) | 0°C |
| Solubility in Water     | NA                                                                        |                                         | NA  |
| Appearance and Odor     | Completely miscible<br>CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR. |                                         |     |

**Section X. STABILITY AND REACTIVITY**

|                                    |                                              |
|------------------------------------|----------------------------------------------|
| Chemical stability                 | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | NA                                           |
| Conditions to avoid                | NA                                           |
| Materials to avoid                 | NA                                           |
| Hazardous decomposition products - | No data available                            |

**Section XI. TOXICOLOGICAL INFORMATION**

|                          |    |
|--------------------------|----|
| LD50 Oral - Rat          | NA |
| LC50 Inhalation - Rat    | NA |
| LD50 Dermal - Guinea pig | NA |
| Causes skin irritation.  |    |
| Eye irritation           |    |

**Section XII. ECOLOGICAL INFORMATION**

|      |    |
|------|----|
| LC50 | NA |
| EC50 | NA |

**Section XIII. DISPOSAL CONSIDERATIONS**

Dispose with normal Laboratory Solvent Waste.

**Section XIV. TRANSPORT INFORMATION**

|                             |                             |
|-----------------------------|-----------------------------|
| DOT (US)                    | IATA                        |
| Not dangerous goods         | Not dangerous goods         |
| Proper shipping name: Water | Proper shipping name: Water |

**Section XV. REGULATORY INFORMATION**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Section XVI. Misc. INFORMATION**

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



## Certified Reference Material CRM



## CERTIFIED WEIGHT REPORT

Part Number: **91980**  
Lot Number: **010725**  
Description: **Acrolein**

Expiration Date: **020725**Recommended Storage: **Refrigerate (4 °C)**Nominal Concentration (µg/mL): **5000**NIST Test ID#: **6UTB**

Solvent(s): **Water** Lot# **072324Q**

5E-05 Balance Uncertainty

0.001 Flask Uncertainty

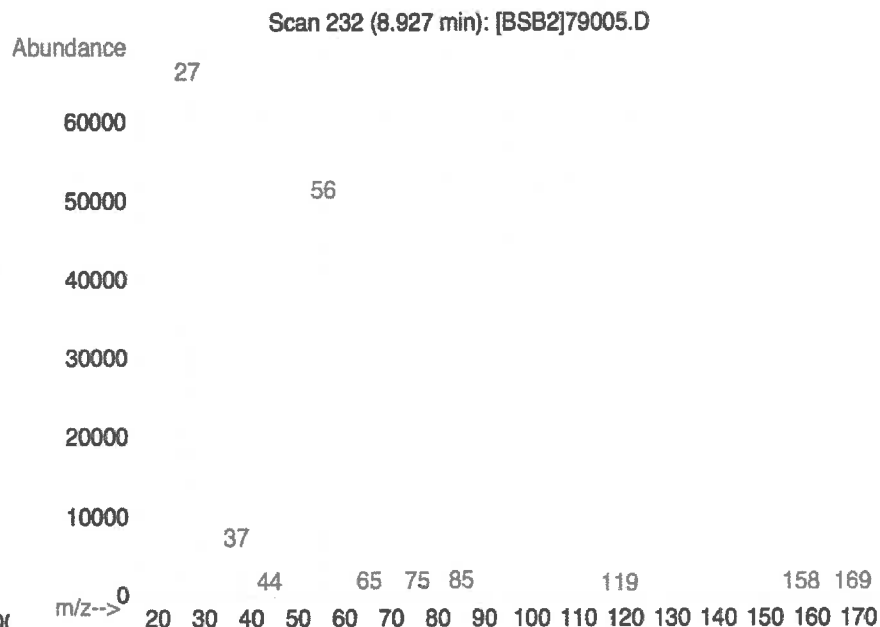
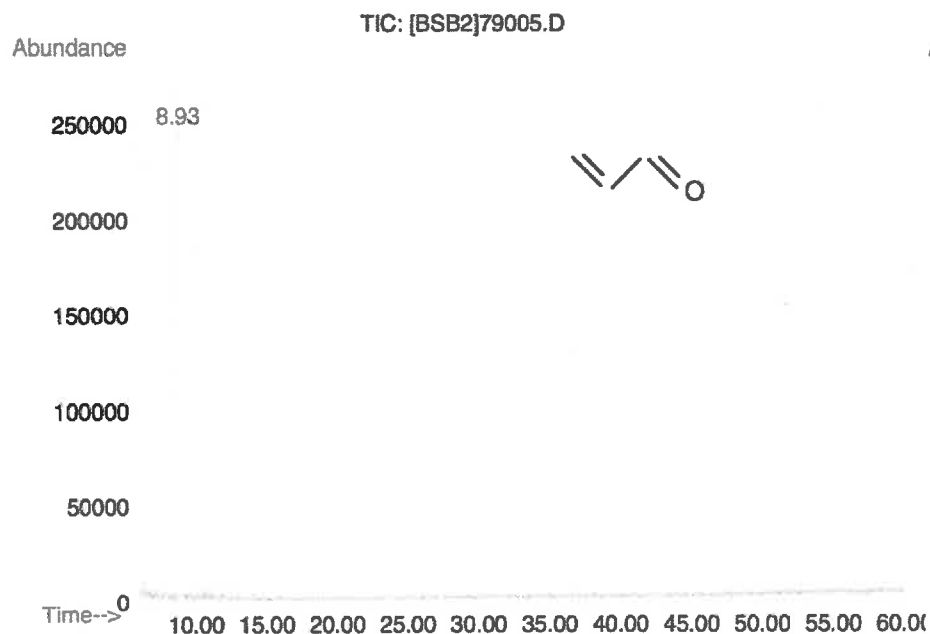
Weight(s) shown below were combined and diluted to (mL): **10.0**

|                        |                 |        |
|------------------------|-----------------|--------|
| <i>Anthony Mahoney</i> |                 | 010725 |
| Formulated By:         | Anthony Mahoney | DATE   |
| <i>Pedro L. Rentas</i> |                 | 010725 |
| Reviewed By:           | Pedro L. Rentas | DATE   |

*5 vial*  
*V 14823 to*  
*V 14829* *V 14827*

| Compound    | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) |                |                 |
|-------------|-----|------------|----------------------|------------|--------------------|------------------|------------------|---------------------|------------------------------------|--------------------------------------------------------|----------------|-----------------|
|             |     |            |                      |            |                    |                  |                  |                     |                                    | CAS#                                                   | OSHA PEL (TWA) | LD50            |
| 1. Acrolein | 5   | 103755V10F | 5000                 | 97         | 0.5                | 0.05166          | 0.05178          | 5011.8              | 52.6                               | 107-02-8                                               | 0.1 ppm        | ori-rat 46mg/kg |

Method: GC6MSD-1. Detector: Mass Selective Detector (Scan mode). Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Rentas. NOTE: Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.



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



## Safety Data Sheet (SDS)

GHS/OSHA Compliant

## Section I Product and Company Identification

## IDENTITY ANALYTICAL STANDARD DISSOLVED IN WATER

|                     |                        |                                   |                 |
|---------------------|------------------------|-----------------------------------|-----------------|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA  | 1-800-535-5053  |
| Address             | 44 Rossetto Dr.        | Emergency Telephone International | 1-352-323-3500  |
|                     | Hamden CT, 06514       | Date Prepared/Revised             | January 1, 2024 |

## Section II - Hazards Identification

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

|          |                                      |              |                                               |
|----------|--------------------------------------|--------------|-----------------------------------------------|
| P271     | Use in ventilated area               | H315         | Causes skin and eye irritation.               |
| P302,332 | If on skin, wash with soap and water | P280         | Use gloves, eye protection/face shield        |
|          |                                      | P305,351,338 | If in eyes, remove contacts, rinse with water |



Signal Word: DANGER

## Section III - Composition

|                                                         |                 |              |
|---------------------------------------------------------|-----------------|--------------|
| Components (Specific Chemical Identity; Common Name(s)) | CAS#: 7732-18-5 | % (optional) |
| Water                                                   |                 | > 97         |

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

## Section IV. FIRST AID MEASURES

|                         |                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
| General advice          | Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.            |
| If inhaled              | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Wash with soap and water. Consult a physician.                                                              |
| In case of eye contact  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                      |
| If swallowed            | Do NOT induce vomiting. Rinse mouth with water. Consult a physician.                                        |

## Section V. FIREFIGHTING MEASURES

|                                  |                                                                          |
|----------------------------------|--------------------------------------------------------------------------|
| Suitable extinguishing media     | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Protective equipment for fire    | Wear self contained breathing apparatus for fire fighting if necessary.  |
| Hazardous Decomposition products | Carbon oxides                                                            |

## Section VI. ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                                                              |
| Clean up                  | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).                                                             |

## Section VII. HANDLING AND STORAGE

|                               |                                                                                                                                                               |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.                                                                                         |
|                               | Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.                                                |
| Storage Conditions            | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                                                                               |                        |                                                                            |
|-----------------------------------------------------------------------------------------------|------------------------|----------------------------------------------------------------------------|
| Water                                                                                         | CAS#: 7732-18-5        | TWA: 500 ppm                                                               |
| Personal protective equipment                                                                 | Respiratory protection | Handle with gloves. Gloves must be inspected prior to use. Eye protection. |
| Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product. |                        |                                                                            |

## Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

|                        |       |                            |   |
|------------------------|-------|----------------------------|---|
| Boiling Point          | 100°C | Specific Gravity (H2O = 1) | 1 |
| Vapor Pressure (mm Hg) |       | Melting Point              |   |

|                         |                                                    |                                         |     |
|-------------------------|----------------------------------------------------|-----------------------------------------|-----|
| Vapor Density (AIR = 1) | NA                                                 | Evaporation rate<br>(Butyl Acetate = 1) | 0°C |
| Solubility in Water     | Completely miscible                                |                                         | NA  |
| Appearance and Odor     | CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR. |                                         |     |

**Section X. STABILITY AND REACTIVITY**

|                                    |                                              |
|------------------------------------|----------------------------------------------|
| Chemical stability                 | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | NA                                           |
| Conditions to avoid                | NA                                           |
| Materials to avoid                 | NA                                           |
| Hazardous decomposition products - | No data available                            |

**Section XI. TOXICOLOGICAL INFORMATION**

|                          |    |
|--------------------------|----|
| LD50 Oral - Rat          | NA |
| LC50 Inhalation - Rat    | NA |
| LD50 Dermal - Guinea pig | NA |
| Causes skin irritation.  |    |
| Eye irritation           |    |

**Section XII. ECOLOGICAL INFORMATION**

|      |    |
|------|----|
| LC50 | NA |
| EC50 | NA |

**Section XIII. DISPOSAL CONSIDERATIONS**

Dispose with normal Laboratory Solvent Waste.

**Section XIV. TRANSPORT INFORMATION**

|                             |                             |
|-----------------------------|-----------------------------|
| DOT (US)                    | IATA                        |
| Not dangerous goods         | Not dangerous goods         |
| Proper shipping name: Water | Proper shipping name: Water |

**Section XV. REGULATORY INFORMATION**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Section XVI. Misc. INFORMATION**

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



**CERTIFIED WEIGHT REPORT**

Part Number: **95317**  
Lot Number: **021624**  
Description: **Universal VOA Megamix**  
69 components  
Expiration Date: 021627  
Recommended Storage: Freezer (0 °C)  
Nominal Concentration (µg/mL): 2000  
NIST Test ID#: 8UTB

Solvent(s): **Methanol**  
Lot#: **EG359-USQ12**

Weight(s) shown below were combined and diluted to (mL): **100.0** **0.021** Balance Uncertainty: **5E-05** Flask Uncertainty: **0.021**

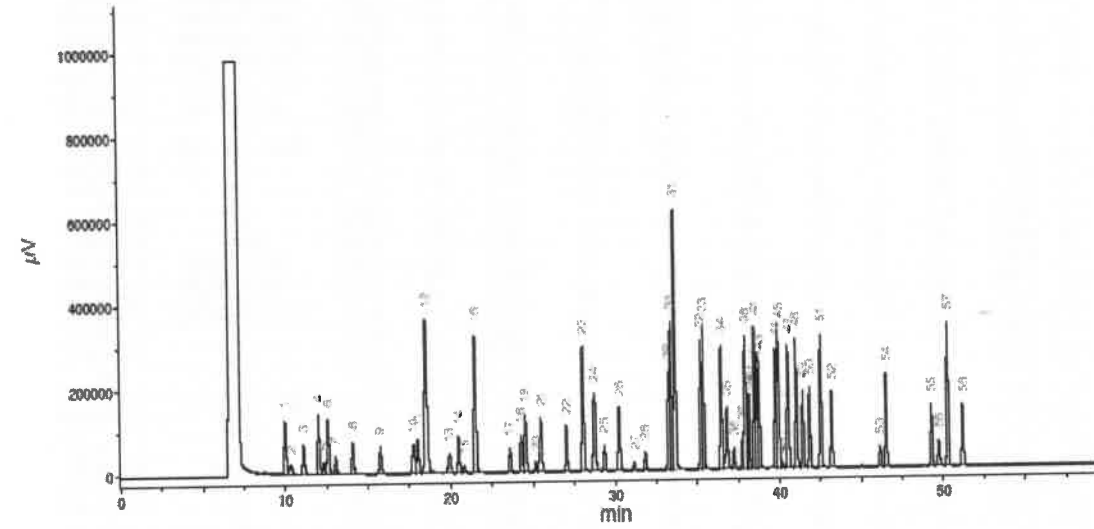
|                |                  |        |
|----------------|------------------|--------|
|                |                  | 021624 |
| Formulated By: | Prashant Chauhan | DATE   |
|                |                  | 021624 |
| Reviewed By:   | Pedro L. Rentes  | DATE   |

| Compound                         | (RM#)  | Lot         | Di.  | Initial | Initial | Nominal | Purity | Purity | Uncertainty | Target  | Actual  | Actual | Expanded    |            |                              | SDS Information   |               |               |            |             |              |           |           |              |      |                                        |      |
|----------------------------------|--------|-------------|------|---------|---------|---------|--------|--------|-------------|---------|---------|--------|-------------|------------|------------------------------|-------------------|---------------|---------------|------------|-------------|--------------|-----------|-----------|--------------|------|----------------------------------------|------|
|                                  |        |             |      |         |         |         |        |        |             |         |         |        | Part Number | Number     | Factor                       | Vol. (mL)         | Conc. (µg/mL) | Conc. (µg/mL) | Purity (%) | Uncertainty | Pipette (mL) | Weight(g) | Weight(g) | Conc (µg/mL) | CAS# | (Solvent Safety Info. On Attached pg.) |      |
|                                  |        |             |      |         |         |         |        |        |             |         |         |        |             |            |                              |                   |               |               |            |             |              |           |           |              |      | OSHA PEL (TWA)                         | LD50 |
| Acetonitrile                     | (0324) | 021644      | NA   | NA      | NA      | 2000    | 99.99  | 0.2    | NA          | 0.20007 | 0.20020 | 2001.3 | 8.1         | 75-05-8    | 40 ppm (70mg/m3/8H)          | or-rat 2400mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Allyl chloride (3-Chloropropene) | (0325) | 102396      | NA   | NA      | NA      | 2000    | 99     | 0.2    | NA          | 0.20207 | 0.20221 | 2001.4 | 8.2         | 107-05-1   | 1 ppm (3mg/m3/8H)            | or-rat 700mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| Carbon disulfide                 | (0060) | MKCR8581    | NA   | NA      | NA      | 2000    | 99.99  | 0.2    | NA          | 0.20007 | 0.20023 | 2001.6 | 8.1         | 75-15-0    | 4 ppm (12mg/m3) (skin)       | or-rat 1200mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| cis-1,4-Dichloro-2-butene        | (1198) | 14718EF     | NA   | NA      | NA      | 2000    | 95     | 0.2    | NA          | 0.21058 | 0.21069 | 2001.1 | 8.5         | 1476-11-5  | N/A                          | N/A               |               |               |            |             |              |           |           |              |      |                                        |      |
| trans-1,4-Dichloro-2-butene      | (0498) | MKBP6041V   | NA   | NA      | NA      | 2000    | 96.5   | 0.2    | NA          | 0.20731 | 0.20748 | 2001.7 | 8.4         | 110-57-6   | N/A                          | N/A               |               |               |            |             |              |           |           |              |      |                                        |      |
| Diethyl ether                    | (0153) | IK18CA5000K | NA   | NA      | NA      | 2000    | 99.9   | 0.2    | NA          | 0.20025 | 0.20040 | 2001.5 | 8.1         | 60-29-7    | N/A                          | N/A               |               |               |            |             |              |           |           |              |      |                                        |      |
| Ethyl methacrylate               | (0381) | 06126PK     | NA   | NA      | NA      | 2000    | 99     | 0.2    | NA          | 0.20207 | 0.20230 | 2002.3 | 8.2         | 97-63-2    | N/A                          | or-rat 14800mg/kg |               |               |            |             |              |           |           |              |      |                                        |      |
| Iodomethane                      | (0489) | 5HBF8718V   | NA   | NA      | NA      | 2000    | 99.5   | 0.2    | NA          | 0.20106 | 0.20121 | 2001.5 | 8.2         | 74-88-4    | 5 ppm (28mg/m3/8H) (skin)    | or-rat 70mg/kg    |               |               |            |             |              |           |           |              |      |                                        |      |
| 2-Methyl-1-propanol              | (0445) | 15241EB     | NA   | NA      | NA      | 2000    | 99.5   | 0.2    | NA          | 0.20106 | 0.20120 | 2001.4 | 8.1         | 78-83-1    | 50 ppm (150mg/m3/8H)         | or-rat 3480mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Methacrylonitrile                | (0442) | 00427ET     | NA   | NA      | NA      | 2000    | 99     | 0.2    | NA          | 0.20207 | 0.20221 | 2001.4 | 8.2         | 126-98-7   | 1 ppm (3mg/m3/8H) (skin)     | or-rat 1200mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Methyl acrylate                  | (1075) | SHBK0679    | NA   | NA      | NA      | 2000    | 99.9   | 0.2    | NA          | 0.20025 | 0.20040 | 2001.5 | 8.1         | 96-33-3    | 10 ppm (35mg/m3/8H) (skin)   | or-rat 277mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| Methyl methacrylate              | (0404) | MKBW5137V   | NA   | NA      | NA      | 2000    | 99.9   | 0.2    | NA          | 0.20025 | 0.20041 | 2001.6 | 8.1         | 80-62-6    | 100 ppm (410mg/m3/8H)        | or-rat 7872mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Nitrobenzene                     | (0228) | 01213TV     | NA   | NA      | NA      | 2000    | 99     | 0.2    | NA          | 0.20207 | 0.20220 | 2001.3 | 8.2         | 98-95-3    | 1 ppm (5mg/m3/8H) (skin)     | or-rat 700mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| 2-Nitropropane                   | (0461) | 14002JX     | NA   | NA      | NA      | 2000    | 97.3   | 0.2    | NA          | 0.20560 | 0.20577 | 2001.6 | 8.3         | 79-46-9    | 10 ppm (35mg/m3/8H)          | or-rat 720mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| Pentachloroethane                | (0450) | HGA01       | NA   | NA      | NA      | 2000    | 98     | 0.2    | NA          | 0.20413 | 0.20430 | 2001.6 | 8.3         | 76-01-7    | N/A                          | N/A               |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,1,2-Trichlorotrifluoroethane   | (0474) | 18930       | NA   | NA      | NA      | 2000    | 99     | 0.2    | NA          | 0.20207 | 0.20225 | 2001.8 | 8.2         | 76-13-1    | 1000 ppm (7800mg/m3/8H)      | or-rat 43g/kg     |               |               |            |             |              |           |           |              |      |                                        |      |
| Bromodichloromethane             | 35171  | 101623      | 0.05 | 5.00    | 40001.7 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.6 | 22.9        | 75-27-4    | N/A                          | or-rat 910mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| Dibromochloromethane             | 35171  | 101623      | 0.05 | 5.00    | 40002.1 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.6 | 23.0        | 124-48-1   | N/A                          | or-rat 840mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| cis-1,2-Dichloroethane           | 35171  | 101623      | 0.05 | 5.00    | 40003.1 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.7 | 22.9        | 156-59-2   | N/A                          | N/A               |               |               |            |             |              |           |           |              |      |                                        |      |
| trans-1,2-Dichloroethane         | 35171  | 101623      | 0.05 | 5.00    | 40002.4 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.6 | 23.0        | 156-60-5   | N/A                          | or-rat 1235mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Methylene chloride               | 35171  | 101623      | 0.05 | 5.00    | 40002.8 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.6 | 22.9        | 75-09-2    | 500 ppm                      | or-rat 820mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,1-Dichloroethene               | 32251  | 102023      | 0.10 | 10.00   | 20001.6 | 2000    | NA     | NA     | 0.042       | NA      | NA      | 1999.7 | 20.4        | 75-35-4    | 1 ppm (4mg/m3/8H)            | or-rat 200mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| Bromoform                        | 95321  | 020724      | 0.10 | 10.00   | 20003.2 | 2000    | NA     | NA     | 0.042       | NA      | NA      | 1999.8 | 20.5        | 75-25-2    | 0.5 ppm (5mg/m3) (skin)      | or-rat 930mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| Carbon tetrachloride             | 95321  | 020724      | 0.10 | 10.00   | 20003.4 | 2000    | NA     | NA     | 0.042       | NA      | NA      | 1999.8 | 20.4        | 56-23-5    | 2 ppm (12.6mg/m3/8H)         | or-rat 2350mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Chloroform                       | 95321  | 020724      | 0.10 | 10.00   | 20002.0 | 2000    | NA     | NA     | 0.042       | NA      | NA      | 1999.8 | 20.5        | 67-66-3    | 50 ppm (240mg/m3) (CL)       | or-rat 900mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| Dibromomethane                   | 95321  | 020724      | 0.10 | 10.00   | 20002.9 | 2000    | NA     | NA     | 0.042       | NA      | NA      | 1999.8 | 20.5        | 74-95-3    | N/A                          | or-rat 105mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,1-Dichloroethane               | 95321  | 020724      | 0.10 | 10.00   | 20003.4 | 2000    | NA     | NA     | 0.042       | NA      | NA      | 1999.8 | 20.5        | 75-34-3    | 100 ppm                      | or-rat 725mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| 2,2-Dichloropropane              | 95321  | 020724      | 0.10 | 10.00   | 20003.4 | 2000    | NA     | NA     | 0.042       | NA      | NA      | 1999.8 | 20.4        | 594-20-7   | N/A                          | N/A               |               |               |            |             |              |           |           |              |      |                                        |      |
| Tetrahydrofuran                  | 95321  | 020724      | 0.10 | 10.00   | 20201.1 | 2000    | NA     | NA     | 0.042       | NA      | NA      | 2019.6 | 20.8        | 127-18-4   | 25 ppm (170mg/m3/8H) (final) | or-rat 2629mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,1,1-Trichloroethane            | 95321  | 020724      | 0.10 | 10.00   | 20003.0 | 2000    | NA     | NA     | 0.042       | NA      | NA      | 1999.8 | 20.5        | 71-55-6    | 350 ppm (1900mg/m3/8H)       | or-rat 10300mg/kg |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,2-Dibromo-3-chloropropane      | 35161  | 112322      | 0.05 | 5.00    | 40016.5 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 2000.3 | 22.9        | 96-12-6    | 0.001 ppm                    | or-rat 170mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,2-Dibromomethane               | 35161  | 112322      | 0.05 | 5.00    | 40024.8 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 2000.7 | 22.9        | 106-93-4   | 20 ppm (8H)                  | or-rat 108mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,2-Dichloroethane               | 35161  | 112322      | 0.05 | 5.00    | 40018.0 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 2000.4 | 22.9        | 107-08-2   | 50 ppm (8H)                  | or-rat 870mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,2-Dichloropropane              | 35161  | 112322      | 0.05 | 5.00    | 40051.0 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 2000.2 | 22.9        | 78-57-5    | 75 ppm (350mg/m3/8H)         | or-rat 1947mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,3-Dichloropropane              | 35161  | 112322      | 0.05 | 5.00    | 40005.9 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.8 | 22.9        | 142-28-9   | N/A                          | un-rat 3600mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,1-Dichloropropane              | 35161  | 112322      | 0.05 | 5.00    | 40012.1 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 2000.1 | 29.7        | 563-56-6   | N/A                          | N/A               |               |               |            |             |              |           |           |              |      |                                        |      |
| cis-1,3-Dichloropropene          | 35161  | 112322      | 0.05 | 5.00    | 40010.0 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 2000.0 | 23.0        | 10061-01-5 | N/A                          | N/A               |               |               |            |             |              |           |           |              |      |                                        |      |
| trans-1,3-Dichloropropene        | 35161  | 112322      | 0.05 | 5.00    | 40017.8 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 2000.4 | 23.0        | 10061-02-6 | N/A                          | N/A               |               |               |            |             |              |           |           |              |      |                                        |      |
| Hexachloro-1,3-butadiene         | 35161  | 112322      | 0.05 | 5.00    | 40021.9 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 2000.6 | 29.7        | 87-68-3    | 0.02 ppm (0.24mg/m3/8H)      | or-rat 82mg/kg    |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,1,2-Tetrachloroethane          | 35161  | 112322      | 0.05 | 5.00    | 40011.9 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 2000.1 | 22.9        | 630-20-6   | N/A                          | or-rat 670mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,1,2,2-Tetrachloroethane        | 35161  | 112322      | 0.05 | 5.00    | 40007.5 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.9 | 22.9        | 79-34-5    | 5 ppm (35mg/m3/8H) (skin)    | or-rat 800mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,1,2-Trichloroethane            | 35161  | 112322      | 0.05 | 5.00    | 40006.6 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.8 | 23.0        | 79-00-5    | 10 ppm (46mg/m3/8H) (skin)   | or-rat 636mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| Trichloroethene                  | 35161  | 112322      | 0.05 | 5.00    | 40029.0 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 2000.9 | 22.9        | 79-01-6    | 80 ppm (270mg/m3/8H)         | or-rat 2400mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,2,3-Trichloropropane           | 35161  | 112322      | 0.05 | 5.00    | 40007.5 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.9 | 22.9        | 96-18-4    | 10 ppm (50mg/m3/8H)          | or-rat 4694mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Benzene                          | 35162  | 050823      | 0.05 | 5.00    | 40005.0 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.7 | 22.9        | 71-43-2    | 1 ppm                        | or-rat 4694mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Bromobenzene                     | 35162  | 050823      | 0.05 | 5.00    | 40006.9 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.7 | 22.9        | 104-51-8   | N/A                          | or-rat 2650mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| n-Butyl benzene                  | 35162  | 050823      | 0.05 | 5.00    | 40003.8 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.7 | 22.9        | 100-41-4   | 100 ppm (435mg/m3/8H)        | or-rat >2000mg/kg |               |               |            |             |              |           |           |              |      |                                        |      |
| Ethyl benzene                    | 35162  | 050823      | 0.05 | 5.00    | 40004.8 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.7 | 22.9        | 99-87-6    | N/A                          | or-rat 4750mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| p-Isopropyl toluene              | 35162  | 050823      | 0.05 | 5.00    | 40005.8 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.8 | 22.9        | 91-20-3    | 10 ppm (50mg/m3/8H)          | or-rat 490mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| Naphthalene                      | 35162  | 050823      | 0.05 | 5.00    | 40006.2 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.7 | 22.9        | 100-42-5   | 100 ppm                      | or-rat 5000mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Styrene                          | 35162  | 050823      | 0.05 | 5.00    | 40006.2 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.8 | 22.9        | 106-98-3   | 200 ppm                      | or-rat 5000mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Toluene                          | 35162  | 050823      | 0.05 | 5.00    | 40003.1 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.7 | 22.9        | 87-61-6    | N/A                          | or-rat 1390mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,2,3-Trichlorobenzene           | 35162  | 050823      | 0.05 | 5.00    | 40003.1 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.7 | 22.9        | 120-82-1   | 5 ppm (CL) (40mg/m3)         | or-rat 750mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,2,4-Trichlorobenzene           | 35162  | 050823      | 0.05 | 5.00    | 40006.8 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.8 | 23.0        | 95-63-6    | N/A                          | or-rat 5g/kg      |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,2,4-Trimethylbenzene           | 35162  | 050823      | 0.05 | 5.00    | 40001.6 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.8 | 22.9        | 106-57-8   | N/A                          | or-rat 5000mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,3,5-Trimethylbenzene           | 35162  | 050823      | 0.05 | 5.00    | 40006.7 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.8 | 22.9        | 108-38-3   | 100 ppm (435mg/m3/8H)        | or-rat 5g/kg      |               |               |            |             |              |           |           |              |      |                                        |      |
| m-Xylene                         | 35162  | 050823      | 0.05 | 5.00    | 40005.8 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.8 | 22.9        | 98-06-6    | N/A                          | N/A               |               |               |            |             |              |           |           |              |      |                                        |      |
| tert-Butyl benzene               | 35163  | 101923      | 0.05 | 5.00    | 40001.2 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.6 | 22.9        | 135-98-8   | N/A                          | or-rat 2240mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| sec-Butyl benzene                | 35163  | 101923      | 0.05 | 5.00    | 40002.4 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.7 | 22.9        | 108-90-7   | 75 ppm (350mg/m3/8H)         | or-rat 2290mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Chlorobenzene                    | 35163  | 101923      | 0.05 | 5.00    | 40003.8 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.5 | 22.9        | 95-49-8    | 80 ppm (250mg/m3/8H)         | or-rat 3900mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Chlorotoluene                    | 35163  | 101923      | 0.05 | 5.00    | 40003.3 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.7 | 22.9        | 106-43-4   | N/A                          | or-rat 2100mg/kg  |               |               |            |             |              |           |           |              |      |                                        |      |
| Chlorotoluene                    | 35163  | 101923      | 0.05 | 5.00    | 40003.3 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.7 | 22.9        | 95-50-1    | 50 ppm (300mg/m3) (CL)       | or-rat 500mg/kg   |               |               |            |             |              |           |           |              |      |                                        |      |
| 1,2-Dichlorobenzene              | 35163  | 101923      | 0.05 | 5.00    | 40003.8 | 2000    | NA     | NA     | 0.017       | NA      | NA      | 1999.6 | 23.0        | 541-73-1   | N/A                          |                   |               |               |            |             |              |           |           |              |      |                                        |      |

Run 16, "P95317 L021624 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35998 points at 10 points/second.  
Created: Sat, Feb 17, 2024 at 8:56:46 AM.  
Sampled: Sequence "021624-GC5M1", Method "GC5-M1".  
Analyzed using Method "GC5-M1".

**Comments**  
GC5-M1 Analysis by Candice Warren  
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness  
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,  
Helium(make-up)=10mL/min., Hydrogen(make-up)=40mL/min., Air(make-up)=230mL/min.  
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),  
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.  
FID Signal = Edaq Channel 1  
Standard injection = 0.5µL, Range=3



| Peak # | Name                                         | FID RT (min.) |
|--------|----------------------------------------------|---------------|
| 1      | Ether                                        | 9.97          |
| 2      | 1,1,2-Trichloro-1,2,2-trifluoroethane        | 10.33         |
| 3      | 1,1-Dichloroethane                           | 11.10         |
| 4      | Acetonitrile                                 | 12.00         |
| 5      | Iodomethane                                  | 12.31         |
| 6      | Allyl chloride                               | 12.56         |
| 7      | Carbon disulfide/Methylene chloride          | 13.04         |
| 8      | trans-1,2-Dichloroethane                     | 14.07         |
| 9      | 1,1-Dichloroethane                           | 15.74         |
| 10     | 2,2-Dichloropropane                          | 17.24         |
| 11     | cis-1,2-Dichloroethane                       | 18.00         |
| 12     | Methacrylonitrile/methyl acrylate/Chloroform | 18.46         |
| 13     | Isobutane/1,1,1-Trichloroethane              | 19.01         |
| 14     | 1,1-Dichloropropane                          | 20.46         |
| 15     | Carbon tetrachloride                         | 20.79         |
| 16     | Benzene/1,2-Dichloroethane                   | 21.49         |
| 17     | Trichloroethane                              | 23.58         |
| 18     | 1,2-Dichloropropane                          | 24.38         |
| 19     | Methyl methacrylate                          | 24.52         |
| 20     | Bromochloromethane                           | 25.13         |
| 21     | Dibromomethane/2-Hitropropane                | 25.46         |
| 22     | cis-1,3-Dichloropropane                      | 27.02         |
| 23     | Toluene                                      | 28.05         |
| 24     | Ethyl methacrylate/trans-1,3-Dichloropropane | 28.73         |
| 25     | 1,1,2-Trichloroethane                        | 29.34         |
| 26     | Tetrachloroethene/1,3-Dichloropropane        | 30.24         |
| 27     | Dibromochloromethane                         | 31.16         |
| 28     | 1,2-Dibromomethane                           | 31.84         |
| 29     | Chlorobenzene                                | 33.26         |
| 30     | Ethylbenzene/1,1,1,2-Tetrachloroethane       | 33.40         |
| 31     | m-Xylene/p-Xylene                            | 33.66         |
| 32     | o-Xylene                                     | 35.22         |
| 33     | Styrene                                      | 35.39         |
| 34     | Isopropylbenzene/Bromoforn                   | 36.18         |
| 35     | cis-1,4-Dichloro-3-butene                    | 36.80         |
| 36     | 1,1,2,2-Tetrachloroethane                    | 37.23         |
| 37     | 1,2,3-Trichloropropane                       | 37.77         |
| 38     | n-Propylbenzene                              | 37.93         |
| 39     | trans-1,4-Dichloro-3-butene                  | 38.05         |
| 40     | Bromobenzene                                 | 38.14         |
| 41     | 1,3,5-Trimethylbenzene                       | 38.80         |
| 42     | 2-Chlorotoluene                              | 38.82         |
| 43     | 4-Chlorotoluene                              | 38.77         |
| 44     | tert-Butylbenzene                            | 39.74         |
| 45     | 1,2,4-Trimethylbenzene                       | 39.91         |
| 46     | Pentachloroethane                            | 40.17         |
| 47     | sec-Butylbenzene                             | 40.52         |
| 48     | p-Isopropyltoluene                           | 41.02         |
| 49     | 1,3-Dichlorobenzene                          | 41.42         |
| 50     | 1,4-Dichlorobenzene                          | 41.83         |
| 51     | n-Butylbenzene                               | 42.53         |
| 52     | 1,2-Dichlorobenzene                          | 43.18         |
| 53     | 1,2-Dibromo-3-chloropropane                  | 46.12         |
| 54     | Nitrobenzene                                 | 46.46         |
| 55     | 1,2,4-Trichlorobenzene                       | 49.26         |
| 56     | Hexachlorobutadiene                          | 49.72         |
| 57     | Naphthalene                                  | 50.26         |
| 58     | 1,2,3-Trichlorobenzene                       | 51.16         |

## Safety Data Sheet (SDS)

GHS/OSHA Compliant

## Section I Product and Company Identification

## IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

|                     |                                     |                                   |                 |
|---------------------|-------------------------------------|-----------------------------------|-----------------|
| Manufacturer's Name | ABSOLUTE STANDARDS INC              | Emergency Telephone USA & CANADA  | 1-800-535-5053  |
| Address             | 44 Rossotto Dr.<br>Hamden CT, 06514 | Emergency Telephone International | 1-352-323-3500  |
|                     |                                     | Date Prepared/Revised             | January 1, 2023 |

## Section II - Hazards Identification

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

|          |                                      |                |                                               |
|----------|--------------------------------------|----------------|-----------------------------------------------|
| H225     | Highly Flammable Liquid and Vapor    | H301, 311, 331 | Toxic if swallowed, skin contact, inhaled     |
| H370     | Cause damage to organs               | H351           | Suspected of causing cancer                   |
| P271     | Use in ventilated area               | P280           | Use gloves, eye protection/face shield        |
| P302,332 | If on skin, wash with soap and water | P305,351,338   | If in eyes, remove contacts, rinse with water |



Signal Word: DANGER

## Section III - Composition

|                                                         |                |               |              |
|---------------------------------------------------------|----------------|---------------|--------------|
| Components (Specific Chemical Identity; Common Name(s)) |                |               | % (optional) |
| Methanol                                                | METHYL ALCOHOL | CAS#: 67-56-1 | > 97         |

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

## Section IV. FIRST AID MEASURES

|                         |                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
| General advice          | Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.            |
| If inhaled              | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Wash with soap and water. Consult a physician.                                                              |
| In case of eye contact  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                      |
| If swallowed            | Do NOT induce vomiting. Rinse mouth with water. Consult a physician.                                        |

## Section V. FIREFIGHTING MEASURES

|                               |                                                                                                                                                                 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammability                  | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| Suitable extinguishing media  | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.                                                                                        |
| Protective equipment for fire | Wear self contained breathing apparatus for fire fighting if necessary.                                                                                         |

## Section VI. ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                                                              |
| Clean up                  | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).                                                             |

## Section VII. HANDLING AND STORAGE

|                               |                                                                                                                                                                                                                                                                              |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.                                                                                                                                                                                                        |
| Storage Conditions            | Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                                                                               |                                                                                                    |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Methanol                                                                                      | 67-56-1 TWA 200 ppm                                                                                |
| Skin notation                                                                                 | TWA 200 ppm                                                                                        |
| Potential for skin absorption, ingestion and inhalation.                                      |                                                                                                    |
| Personal protective equipment                                                                 | Respiratory protection. Handle with gloves. Gloves must be inspected prior to use. Eye protection. |
| Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product. |                                                                                                    |

## Section IX - Physical/Chemical Characteristics

|                         |                                                           |                                         |       |
|-------------------------|-----------------------------------------------------------|-----------------------------------------|-------|
| Boiling Point           | 65°C                                                      | Specific Gravity (H <sub>2</sub> O = 1) | 0.79  |
| Vapor Pressure (mm Hg)  | 96                                                        | Melting Point                           | -98°C |
| Vapor Density (AIR = 1) | 1.11                                                      | Evaporation rate<br>(Butyl Acetate = 1) | 4.6   |
| Solubility in Water     | COMPLETE                                                  |                                         |       |
| Appearance and Odor     | CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR. |                                         |       |

**Section X. STABILITY AND REACTIVITY**

|                                                                |                                                                                          |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Chemical stability                                             | Stable under recommended storage conditions.                                             |
| Possibility of hazardous reactions                             | Vapours may form explosive mixture with air.                                             |
| Conditions to avoid                                            | Heat, flames, sparks, extreme temperature and sunlight.                                  |
| Materials to avoid                                             | Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids |
| Hazardous decomposition products formed under fire conditions. | - Carbon oxides                                                                          |

**Section XI. TOXICOLOGICAL INFORMATION**

LD50 Oral - rat - 5,628 mg/kg  
LC50 Inhalation - rat - 4 h - 64000 ppm  
LD50 Dermal - rabbit - 15,800 mg/kg  
Toxic if absorbed through skin. Causes skin irritation.  
Eye damage/eye irritation  
Toxic if inhaled. Causes respiratory tract irritation.  
Toxic if swallowed.

**Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.**

LC50 15,400 mg/l - 96 h  
EC50 24,500.00 mg/l - 48 h  
EC100 10,000.00 mg/l - 24 h

**Section XIII. DISPOSAL CONSIDERATIONS**

Dispose with normal Laboratory Solvent Waste.

**Section XIV. TRANSPORT INFORMATION**

|                                            |                                            |
|--------------------------------------------|--------------------------------------------|
| DOT (US)                                   | IATA                                       |
| UN number: 1230 Class: 3 Packing group: II | UN number: 1230 Class: 3 Packing group: II |
| Proper shipping name: Methanol             | Proper shipping name: Methanol             |

**Section XV. REGULATORY INFORMATION**

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Section XVI. Misc. INFORMATION**

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC. DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



**CERTIFIED WEIGHT REPORT**

Part Number: **95317**  
Lot Number: **021624**  
Description: **Universal VOA Megamix**  
69 components  
Expiration Date: 021627  
Recommended Storage: Freezer (0 °C)  
Nominal Concentration (µg/mL): 2000  
NIST Test ID#: 8UTB

Solvent(s): **Methanol**  
Lot#: **EG359-USQ12**

Weight(s) shown below were combined and diluted to (mL): **100.0** **0.021** Balance Uncertainty: **5E-05** Flask Uncertainty: **0.021**

|                |                  |        |
|----------------|------------------|--------|
|                |                  | 021624 |
| Formulated By: | Prashant Chauhan | DATE   |
|                |                  | 021624 |
| Reviewed By:   | Pedro L. Rentes  | DATE   |

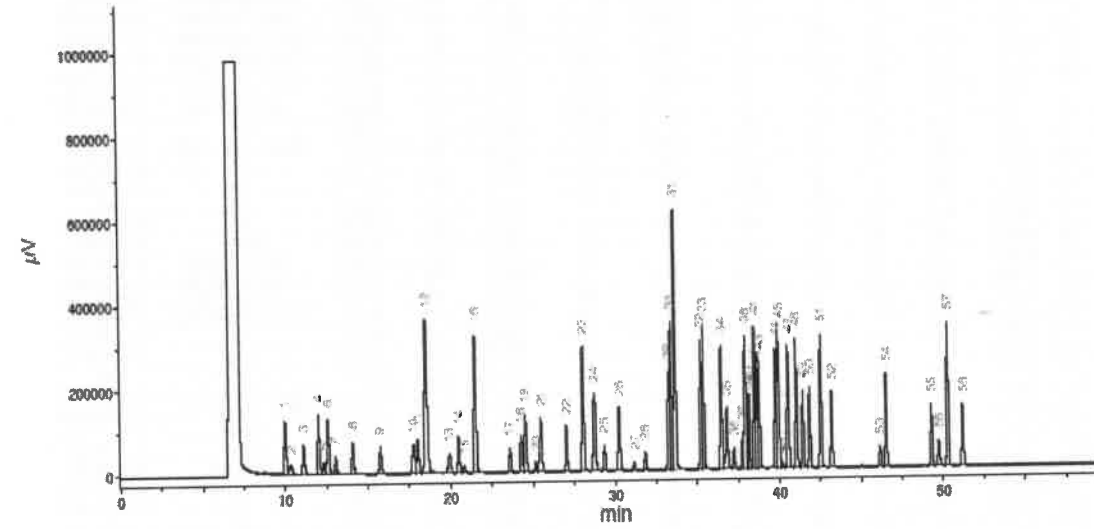
| Compound                         | (RM#)  | Lot         | Di.       | Initial       | Initial       | Nominal | Purity      | Purity       | Uncertainty | Target    | Actual       | Actual        | Expanded | SDS Information                        |                              |                   |      |
|----------------------------------|--------|-------------|-----------|---------------|---------------|---------|-------------|--------------|-------------|-----------|--------------|---------------|----------|----------------------------------------|------------------------------|-------------------|------|
|                                  |        |             |           |               |               |         |             |              |             |           |              |               |          | (Solvent Safety Info. On Attached pg.) | CAS#                         | OSHA PEL (TWA)    | LD50 |
|                                  |        |             |           |               |               |         |             |              |             |           |              |               |          |                                        |                              |                   |      |
| Part Number                      | Number | Factor      | Vol. (mL) | Conc. (µg/mL) | Conc. (µg/mL) | (%)     | Uncertainty | Pipette (mL) | Weight(g)   | Weight(g) | Conc (µg/mL) | (+/-) (µg/mL) |          |                                        |                              |                   |      |
| Acetonitrile                     | (0324) | 021644      | NA        | NA            | NA            | 2000    | 99.99       | 0.2          | NA          | 0.20007   | 0.20020      | 2001.3        | 8.1      | 75-05-8                                | 40 ppm (70mg/m3/8H)          | or-rat 2400mg/kg  |      |
| Allyl chloride (3-Chloropropene) | (0325) | 102396      | NA        | NA            | NA            | 2000    | 99          | 0.2          | NA          | 0.20207   | 0.20221      | 2001.4        | 8.2      | 107-05-1                               | 1 ppm (3mg/m3/8H)            | or-rat 700mg/kg   |      |
| Carbon disulfide                 | (0060) | MKCR8581    | NA        | NA            | NA            | 2000    | 99.99       | 0.2          | NA          | 0.20007   | 0.20023      | 2001.6        | 8.1      | 75-15-0                                | 4 ppm (12mg/m3) (skin)       | or-rat 1200mg/kg  |      |
| cis-1,4-Dichloro-2-butene        | (1198) | 14718EF     | NA        | NA            | NA            | 2000    | 95          | 0.2          | NA          | 0.21058   | 0.21069      | 2001.1        | 8.5      | 1476-11-5                              | N/A                          | N/A               |      |
| trans-1,4-Dichloro-2-butene      | (0486) | MKBP6041V   | NA        | NA            | NA            | 2000    | 96.5        | 0.2          | NA          | 0.20731   | 0.20748      | 2001.7        | 8.4      | 110-57-6                               | N/A                          | N/A               |      |
| Diethyl ether                    | (0153) | IK18CA5000K | NA        | NA            | NA            | 2000    | 99.9        | 0.2          | NA          | 0.20025   | 0.20040      | 2001.5        | 8.1      | 60-29-7                                | N/A                          | N/A               |      |
| Ethyl methacrylate               | (0381) | 06126PK     | NA        | NA            | NA            | 2000    | 99          | 0.2          | NA          | 0.20207   | 0.20230      | 2002.3        | 8.2      | 97-63-2                                | N/A                          | or-rat 14800mg/kg |      |
| Iodomethane                      | (0489) | 5HBF8718V   | NA        | NA            | NA            | 2000    | 99.5        | 0.2          | NA          | 0.20106   | 0.20121      | 2001.5        | 8.2      | 74-88-4                                | 5 ppm (28mg/m3/8H) (skin)    | or-rat 70mg/kg    |      |
| 2-Methyl-1-propanol              | (0445) | 15241EB     | NA        | NA            | NA            | 2000    | 99.5        | 0.2          | NA          | 0.20106   | 0.20120      | 2001.4        | 8.1      | 78-83-1                                | 50 ppm (150mg/m3/8H)         | or-rat 3480mg/kg  |      |
| Methacrylonitrile                | (0442) | 00427ET     | NA        | NA            | NA            | 2000    | 99          | 0.2          | NA          | 0.20207   | 0.20221      | 2001.4        | 8.2      | 126-98-7                               | 1 ppm (3mg/m3/8H) (skin)     | or-rat 1200mg/kg  |      |
| Methyl acrylate                  | (1075) | SHBK0679    | NA        | NA            | NA            | 2000    | 99.9        | 0.2          | NA          | 0.20025   | 0.20040      | 2001.5        | 8.1      | 96-33-3                                | 10 ppm (35mg/m3/8H) (skin)   | or-rat 277mg/kg   |      |
| Methyl methacrylate              | (0404) | MKBW5137V   | NA        | NA            | NA            | 2000    | 99.9        | 0.2          | NA          | 0.20025   | 0.20041      | 2001.6        | 8.1      | 80-62-6                                | 100 ppm (410mg/m3/8H)        | or-rat 7872mg/kg  |      |
| Nitrobenzene                     | (0228) | 01213TV     | NA        | NA            | NA            | 2000    | 99          | 0.2          | NA          | 0.20207   | 0.20220      | 2001.3        | 8.2      | 98-95-3                                | 1 ppm (5mg/m3/8H) (skin)     | or-rat 700mg/kg   |      |
| 2-Nitropropane                   | (0461) | 14002JK     | NA        | NA            | NA            | 2000    | 97.3        | 0.2          | NA          | 0.20560   | 0.20577      | 2001.6        | 8.3      | 79-46-9                                | 10 ppm (35mg/m3/8H)          | or-rat 720mg/kg   |      |
| Pentachloroethane                | (0450) | HGA01       | NA        | NA            | NA            | 2000    | 98          | 0.2          | NA          | 0.20413   | 0.20430      | 2001.6        | 8.3      | 76-01-7                                | N/A                          | N/A               |      |
| 1,1,2-Trichlorotrifluoroethane   | (0474) | 18930       | NA        | NA            | NA            | 2000    | 99          | 0.2          | NA          | 0.20207   | 0.20225      | 2001.8        | 8.2      | 76-13-1                                | 1000 ppm (7800mg/m3/8H)      | or-rat 43g/kg     |      |
| Bromodichloromethane             | 35171  | 101623      | 0.05      | 5.00          | 40001.7       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.6        | 22.9     | 75-27-4                                | N/A                          | or-rat 910mg/kg   |      |
| Dibromochloromethane             | 35171  | 101623      | 0.05      | 5.00          | 40002.1       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.6        | 23.0     | 124-48-1                               | N/A                          | or-rat 840mg/kg   |      |
| cis-1,2-Dichloroethane           | 35171  | 101623      | 0.05      | 5.00          | 40003.1       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.7        | 22.9     | 156-59-2                               | N/A                          | N/A               |      |
| trans-1,2-Dichloroethane         | 35171  | 101623      | 0.05      | 5.00          | 40002.4       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.6        | 23.0     | 156-60-5                               | N/A                          | or-rat 1235mg/kg  |      |
| Methylene chloride               | 35171  | 101623      | 0.05      | 5.00          | 40002.8       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.6        | 22.9     | 75-09-2                                | 500 ppm                      | or-rat 820mg/kg   |      |
| 1,1-Dichloroethene               | 32251  | 102023      | 0.10      | 10.00         | 20001.6       | 2000    | NA          | NA           | 0.042       | NA        | NA           | 1999.7        | 20.4     | 75-35-4                                | 1 ppm (4mg/m3/8H)            | or-rat 200mg/kg   |      |
| Bromoform                        | 95321  | 020724      | 0.10      | 10.00         | 20003.2       | 2000    | NA          | NA           | 0.042       | NA        | NA           | 1999.8        | 20.5     | 75-25-2                                | 0.5 ppm (5mg/m3) (skin)      | or-rat 930mg/kg   |      |
| Carbon tetrachloride             | 95321  | 020724      | 0.10      | 10.00         | 20003.4       | 2000    | NA          | NA           | 0.042       | NA        | NA           | 1999.8        | 20.4     | 56-23-5                                | 2 ppm (12.6mg/m3/8H)         | or-rat 2350mg/kg  |      |
| Chloroform                       | 95321  | 020724      | 0.10      | 10.00         | 20024.0       | 2000    | NA          | NA           | 0.042       | NA        | NA           | 2001.9        | 20.5     | 67-66-3                                | 50 ppm (240mg/m3) (CL)       | or-rat 900mg/kg   |      |
| Dibromomethane                   | 95321  | 020724      | 0.10      | 10.00         | 20002.9       | 2000    | NA          | NA           | 0.042       | NA        | NA           | 1999.8        | 20.5     | 74-95-3                                | N/A                          | or-rat 105mg/kg   |      |
| 1,1-Dichloroethane               | 95321  | 020724      | 0.10      | 10.00         | 20003.4       | 2000    | NA          | NA           | 0.042       | NA        | NA           | 1999.8        | 20.5     | 75-34-3                                | 100 ppm                      | or-rat 725mg/kg   |      |
| 2,2-Dichloropropane              | 95321  | 020724      | 0.10      | 10.00         | 20003.4       | 2000    | NA          | NA           | 0.042       | NA        | NA           | 1999.8        | 20.4     | 594-20-7                               | N/A                          | N/A               |      |
| Tetrachloroethane                | 95321  | 020724      | 0.10      | 10.00         | 20201.1       | 2000    | NA          | NA           | 0.042       | NA        | NA           | 2019.6        | 20.8     | 127-18-4                               | 25 ppm (170mg/m3/8H) (final) | or-rat 2629mg/kg  |      |
| 1,1,1-Trichloroethane            | 95321  | 020724      | 0.10      | 10.00         | 20003.0       | 2000    | NA          | NA           | 0.042       | NA        | NA           | 1999.8        | 20.5     | 71-55-6                                | 350 ppm (1900mg/m3/8H)       | or-rat 10300mg/kg |      |
| 1,2-Dibromo-3-chloropropane      | 35161  | 112322      | 0.05      | 5.00          | 40016.5       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 2000.3        | 22.9     | 96-12-6                                | 0.001 ppm                    | or-rat 170mg/kg   |      |
| 1,2-Dibromomethane               | 35161  | 112322      | 0.05      | 5.00          | 40024.8       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 2000.7        | 22.9     | 106-93-4                               | 20 ppm (8H)                  | or-rat 108mg/kg   |      |
| 1,2-Dichloroethane               | 35161  | 112322      | 0.05      | 5.00          | 40018.0       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 2000.4        | 22.9     | 107-08-2                               | 50 ppm (8H)                  | or-rat 870mg/kg   |      |
| 1,2-Dichloropropane              | 35161  | 112322      | 0.05      | 5.00          | 40051.0       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 2002.0        | 22.9     | 78-57-5                                | 75 ppm (350mg/m3/8H)         | or-rat 1947mg/kg  |      |
| 1,3-Dichloropropane              | 35161  | 112322      | 0.05      | 5.00          | 40005.9       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.8        | 22.9     | 142-28-9                               | N/A                          | un-rat 3600mg/kg  |      |
| 1,1-Dichloropropane              | 35161  | 112322      | 0.05      | 5.00          | 40012.1       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 2000.1        | 29.7     | 563-56-6                               | N/A                          | N/A               |      |
| cis-1,3-Dichloropropene          | 35161  | 112322      | 0.05      | 5.00          | 40010.0       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 2000.0        | 23.0     | 10061-01-5                             | N/A                          | N/A               |      |
| trans-1,3-Dichloropropene        | 35161  | 112322      | 0.05      | 5.00          | 40017.8       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 2000.4        | 23.0     | 10061-02-6                             | N/A                          | N/A               |      |
| Hexachloro-1,3-butadiene         | 35161  | 112322      | 0.05      | 5.00          | 40021.9       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 2000.6        | 29.7     | 87-68-3                                | 0.02 ppm (0.24mg/m3/8H)      | or-rat 82mg/kg    |      |
| 1,1,2-Tetrachloroethane          | 35161  | 112322      | 0.05      | 5.00          | 40011.9       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 2000.1        | 22.9     | 630-20-6                               | N/A                          | or-rat 670mg/kg   |      |
| 1,1,2,2-Tetrachloroethane        | 35161  | 112322      | 0.05      | 5.00          | 40007.5       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.9        | 22.9     | 79-34-5                                | 5 ppm (35mg/m3/8H) (skin)    | or-rat 800mg/kg   |      |
| 1,1,2-Trichloroethane            | 35161  | 112322      | 0.05      | 5.00          | 40006.6       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.8        | 23.0     | 79-00-5                                | 10 ppm (46mg/m3/8H) (skin)   | or-rat 836mg/kg   |      |
| Trichloroethene                  | 35161  | 112322      | 0.05      | 5.00          | 40029.0       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 2000.9        | 22.9     | 79-01-6                                | 50 ppm (270mg/m3/8H)         | or-rat 2400mg/kg  |      |
| 1,2,3-Trichloropropane           | 35161  | 112322      | 0.05      | 5.00          | 40007.5       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.9        | 22.9     | 96-18-4                                | 10 ppm (50mg/m3/8H)          | or-rat 149.6mg/kg |      |
| Benzene                          | 35162  | 050823      | 0.05      | 5.00          | 40005.0       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.7        | 22.9     | 71-43-2                                | 1 ppm                        | or-rat 4694mg/kg  |      |
| Bromobenzene                     | 35162  | 050823      | 0.05      | 5.00          | 40006.9       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.7        | 22.9     | 104-51-8                               | N/A                          | or-rat 2650mg/kg  |      |
| n-Butyl benzene                  | 35162  | 050823      | 0.05      | 5.00          | 40003.8       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.7        | 22.9     | 100-41-4                               | 100 ppm (435mg/m3/8H)        | or-rat >2000mg/kg |      |
| Ethyl benzene                    | 35162  | 050823      | 0.05      | 5.00          | 40004.8       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.7        | 22.9     | 99-87-6                                | N/A                          | or-rat 4750mg/kg  |      |
| p-Isopropyl toluene              | 35162  | 050823      | 0.05      | 5.00          | 40005.8       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.8        | 22.9     | 91-20-3                                | 10 ppm (50mg/m3/8H)          | or-rat 490mg/kg   |      |
| Naphthalene                      | 35162  | 050823      | 0.05      | 5.00          | 40006.2       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.7        | 22.9     | 100-42-5                               | 100 ppm                      | or-rat 5000mg/kg  |      |
| Styrene                          | 35162  | 050823      | 0.05      | 5.00          | 40006.2       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.8        | 22.9     | 106-98-3                               | 200 ppm                      | or-rat 5000mg/kg  |      |
| Toluene                          | 35162  | 050823      | 0.05      | 5.00          | 40003.1       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.7        | 22.9     | 87-61-6                                | N/A                          | or-rat 1390mg/kg  |      |
| 1,2,3-Trichlorobenzene           | 35162  | 050823      | 0.05      | 5.00          | 40003.1       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.7        | 22.9     | 120-82-1                               | 5 ppm (CL) (40mg/m3)         | or-rat 750mg/kg   |      |
| 1,2,4-Trichlorobenzene           | 35162  | 050823      | 0.05      | 5.00          | 40006.8       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.8        | 23.0     | 95-63-6                                | N/A                          | or-rat 5g/kg      |      |
| 1,2,4-Trimethylbenzene           | 35162  | 050823      | 0.05      | 5.00          | 40001.6       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.8        | 22.9     | 106-57-8                               | N/A                          | or-rat 5000mg/kg  |      |
| 1,3,5-Trimethylbenzene           | 35162  | 050823      | 0.05      | 5.00          | 40006.7       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.8        | 22.9     | 108-38-3                               | 100 ppm (435mg/m3/8H)        | or-rat 5g/kg      |      |
| m-Xylene                         | 35162  | 050823      | 0.05      | 5.00          | 40005.8       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.8        | 22.9     | 98-06-6                                | N/A                          | N/A               |      |
| tert-Butyl benzene               | 35163  | 101923      | 0.05      | 5.00          | 40001.2       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.6        | 22.9     | 135-98-8                               | N/A                          | or-rat 2240mg/kg  |      |
| sec-Butyl benzene                | 35163  | 101923      | 0.05      | 5.00          | 40002.4       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.7        | 22.9     | 108-90-7                               | 75 ppm (350mg/m3/8H)         | or-rat 2290mg/kg  |      |
| Chlorobenzene                    | 35163  | 101923      | 0.05      | 5.00          | 40003.8       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.5        | 22.9     | 95-49-8                                | 50 ppm (250mg/m3/8H)         | or-rat 3900mg/kg  |      |
| Chlorotoluene                    | 35163  | 101923      | 0.05      | 5.00          | 40003.3       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.7        | 22.9     | 106-43-4                               | N/A                          | or-rat 2100mg/kg  |      |
| Chlorotoluene                    | 35163  | 101923      | 0.05      | 5.00          | 40003.3       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.7        | 22.9     | 95-50-1                                | 50 ppm (300mg/m3) (CL)       | or-rat 500mg/kg   |      |
| 1,2-Dichlorobenzene              | 35163  | 101923      | 0.05      | 5.00          | 40003.8       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.6        | 23.0     | 541-73-1                               | N/A                          |                   |      |
| 1,3-Dichlorobenzene              | 35163  | 101923      | 0.05      | 5.00          | 40003.8       | 2000    | NA          | NA           | 0.017       | NA        | NA           | 1999.7        | 22.9     | 95-50-1                                | 50 ppm (300mg/m3) (CL)       | or-rat 500mg/kg   |      |
| 1,4-Dichlorobenzene              | 35163  | 101923      | 0.05      | 5.00          | 40001.7       | 2000    | NA          |              |             |           |              |               |          |                                        |                              |                   |      |



Run 16, "P95317 L021624 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35998 points at 10 points/second.  
Created: Sat, Feb 17, 2024 at 8:56:46 AM.  
Sampled: Sequence "021624-GC5M1", Method "GC5-M1".  
Analyzed using Method "GC5-M1".

**Comments**  
GC5-M1 Analysis by Candice Warren  
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness  
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,  
Helium(make-up)=10mL/min., Hydrogen(make-up)=40mL/min., Air(make-up)=230mL/min.  
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),  
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.  
FID Signal = Edaq Channel 1  
Standard injection = 0.5µL, Range=3



| Peak # | Name                                         | FID RT (min.) |
|--------|----------------------------------------------|---------------|
| 1      | Ether                                        | 9.97          |
| 2      | 1,1,2-Trichloro-1,2,2-trifluoroethane        | 10.33         |
| 3      | 1,1-Dichloroethane                           | 11.10         |
| 4      | Acetonitrile                                 | 12.00         |
| 5      | Iodomethane                                  | 12.31         |
| 6      | Allyl chloride                               | 12.56         |
| 7      | Carbon disulfide/Methylene chloride          | 13.04         |
| 8      | trans-1,2-Dichloroethane                     | 14.07         |
| 9      | 1,1-Dichloroethane                           | 15.74         |
| 10     | 2,2-Dichloropropane                          | 17.24         |
| 11     | cis-1,2-Dichloroethane                       | 18.00         |
| 12     | Methacrylonitrile/methyl acrylate/Chloroform | 18.46         |
| 13     | Isobutane/1,1,1-Trichloroethane              | 19.01         |
| 14     | 1,1-Dichloropropane                          | 20.46         |
| 15     | Carbon tetrachloride                         | 20.79         |
| 16     | Benzene/1,2-Dichloroethane                   | 21.49         |
| 17     | Trichloroethane                              | 23.58         |
| 18     | 1,2-Dichloropropane                          | 24.38         |
| 19     | Methyl methacrylate                          | 24.52         |
| 20     | Bromochloromethane                           | 25.13         |
| 21     | Dibromomethane/2-Hitropropane                | 25.46         |
| 22     | cis-1,3-Dichloropropane                      | 27.02         |
| 23     | Toluene                                      | 28.05         |
| 24     | Ethyl methacrylate/trans-1,3-Dichloropropane | 28.73         |
| 25     | 1,1,2-Trichloroethane                        | 29.34         |
| 26     | Tetrachloroethene/1,3-Dichloropropane        | 30.24         |
| 27     | Dibromochloromethane                         | 31.16         |
| 28     | 1,2-Dibromomethane                           | 31.84         |
| 29     | Chlorobenzene                                | 33.26         |
| 30     | Ethylbenzene/1,1,1,2-Tetrachloroethane       | 33.40         |
| 31     | m-Xylene/p-Xylene                            | 33.66         |
| 32     | o-Xylene                                     | 35.22         |
| 33     | Styrene                                      | 35.39         |
| 34     | Isopropylbenzene/Bromoforn                   | 36.18         |
| 35     | cis-1,4-Dichloro-3-butene                    | 36.48         |
| 36     | 1,1,2,2-Tetrachloroethane                    | 37.23         |
| 37     | 1,2,3-Trichloropropane                       | 37.77         |
| 38     | n-Propylbenzene                              | 37.93         |
| 39     | trans-1,4-Dichloro-3-butene                  | 38.05         |
| 40     | Bromobenzene                                 | 38.14         |
| 41     | 1,3,5-Trimethylbenzene                       | 38.80         |
| 42     | 2-Chlorotoluene                              | 38.82         |
| 43     | 4-Chlorotoluene                              | 38.77         |
| 44     | tert-Butylbenzene                            | 39.74         |
| 45     | 1,2,4-Trimethylbenzene                       | 39.91         |
| 46     | Pentachloroethane                            | 40.17         |
| 47     | sec-Butylbenzene                             | 40.52         |
| 48     | p-Isopropyltoluene                           | 41.02         |
| 49     | 1,3-Dichlorobenzene                          | 41.42         |
| 50     | 1,4-Dichlorobenzene                          | 41.83         |
| 51     | n-Butylbenzene                               | 42.53         |
| 52     | 1,2-Dichlorobenzene                          | 43.18         |
| 53     | 1,2-Dibromo-3-chloropropane                  | 46.12         |
| 54     | Nitrobenzene                                 | 46.46         |
| 55     | 1,2,4-Trichlorobenzene                       | 49.26         |
| 56     | Hexachlorobutadiene                          | 49.72         |
| 57     | Naphthalene                                  | 50.26         |
| 58     | 1,2,3-Trichlorobenzene                       | 51.16         |



## Safety Data Sheet (SDS)

GHS/OSHA Compliant

## Section I Product and Company Identification

## IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

|                     |                                     |                                   |                 |
|---------------------|-------------------------------------|-----------------------------------|-----------------|
| Manufacturer's Name | ABSOLUTE STANDARDS INC              | Emergency Telephone USA & CANADA  | 1-800-535-5053  |
| Address             | 44 Rossotto Dr.<br>Hamden CT, 06514 | Emergency Telephone International | 1-352-323-3500  |
|                     |                                     | Date Prepared/Revised             | January 1, 2023 |

## Section II - Hazards Identification

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

|          |                                      |                |                                               |
|----------|--------------------------------------|----------------|-----------------------------------------------|
| H225     | Highly Flammable Liquid and Vapor    | H301, 311, 331 | Toxic if swallowed, skin contact, inhaled     |
| H370     | Cause damage to organs               | H351           | Suspected of causing cancer                   |
| P271     | Use in ventilated area               | P280           | Use gloves, eye protection/face shield        |
| P302,332 | If on skin, wash with soap and water | P305,351,338   | If in eyes, remove contacts, rinse with water |



Signal Word: DANGER

## Section III - Composition

|                                                         |                |               |              |
|---------------------------------------------------------|----------------|---------------|--------------|
| Components (Specific Chemical Identity; Common Name(s)) |                |               | % (optional) |
| Methanol                                                | METHYL ALCOHOL | CAS#: 67-56-1 | > 97         |

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

## Section IV. FIRST AID MEASURES

|                         |                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
| General advice          | Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.            |
| If inhaled              | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Wash with soap and water. Consult a physician.                                                              |
| In case of eye contact  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                      |
| If swallowed            | Do NOT induce vomiting. Rinse mouth with water. Consult a physician.                                        |

## Section V. FIREFIGHTING MEASURES

|                               |                                                                                                                                                                 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammability                  | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| Suitable extinguishing media  | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.                                                                                        |
| Protective equipment for fire | Wear self contained breathing apparatus for fire fighting if necessary.                                                                                         |

## Section VI. ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                                                              |
| Clean up                  | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).                                                             |

## Section VII. HANDLING AND STORAGE

|                               |                                                                                                                                                                                                                                                                              |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.                                                                                                                                                                                                        |
| Storage Conditions            | Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                                                                               |                                                                                                   |
|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Methanol                                                                                      | 67-56-1 TWA 200 ppm                                                                               |
| Skin notation                                                                                 | TWA 200 ppm                                                                                       |
| Potential for skin absorption, ingestion and inhalation.                                      |                                                                                                   |
| Personal protective equipment                                                                 | Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection. |
| Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product. |                                                                                                   |

## Section IX - Physical/Chemical Characteristics

|                         |                                                           |                                         |       |
|-------------------------|-----------------------------------------------------------|-----------------------------------------|-------|
| Boiling Point           | 65°C                                                      | Specific Gravity (H <sub>2</sub> O = 1) | 0.79  |
| Vapor Pressure (mm Hg)  | 96                                                        | Melting Point                           | -98°C |
| Vapor Density (AIR = 1) | 1.11                                                      | Evaporation rate<br>(Butyl Acetate = 1) | 4.6   |
| Solubility in Water     | COMPLETE                                                  |                                         |       |
| Appearance and Odor     | CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR. |                                         |       |

**Section X. STABILITY AND REACTIVITY**

|                                                                |                                                                                          |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Chemical stability                                             | Stable under recommended storage conditions.                                             |
| Possibility of hazardous reactions                             | Vapours may form explosive mixture with air.                                             |
| Conditions to avoid                                            | Heat, flames, sparks, extreme temperature and sunlight.                                  |
| Materials to avoid                                             | Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids |
| Hazardous decomposition products formed under fire conditions. | - Carbon oxides                                                                          |

**Section XI. TOXICOLOGICAL INFORMATION**

LD50 Oral - rat - 5,628 mg/kg  
LC50 Inhalation - rat - 4 h - 64000 ppm  
LD50 Dermal - rabbit - 15,800 mg/kg  
Toxic if absorbed through skin. Causes skin irritation.  
Eye damage/eye irritation  
Toxic if inhaled. Causes respiratory tract irritation.  
Toxic if swallowed.

**Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.**

LC50 15,400 mg/l - 96 h  
EC50 24,500.00 mg/l - 48 h  
EC100 10,000.00 mg/l - 24 h

**Section XIII. DISPOSAL CONSIDERATIONS**

Dispose with normal Laboratory Solvent Waste.

**Section XIV. TRANSPORT INFORMATION**

|                                            |                                            |
|--------------------------------------------|--------------------------------------------|
| DOT (US)                                   | IATA                                       |
| UN number: 1230 Class: 3 Packing group: II | UN number: 1230 Class: 3 Packing group: II |
| Proper shipping name: Methanol             | Proper shipping name: Methanol             |

**Section XV. REGULATORY INFORMATION**

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Section XVI. Misc. INFORMATION**

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC. DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



## Certified Reference Material CRM

Dec 09/17/24

2 vial

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

## CERTIFIED WEIGHT REPORT

Part Number: **91980**  
Lot Number: **091424**  
Description: **Acrolein**Solvent(s):  
Water Lot#  
072324Q

|                        |                 |        |
|------------------------|-----------------|--------|
| <i>Justin Dippold</i>  |                 | 091424 |
| Formulated By:         | Justin Dippold  | DATE   |
| <i>Pedro L. Rentas</i> |                 | 091424 |
| Reviewed By:           | Pedro L. Rentas | DATE   |

Expiration Date: 101424

Recommended Storage: Refrigerate (4 °C)

Nominal Concentration (µg/mL): 5000

NIST Test ID#: 6UTB

5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

| Compound    | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) |                |                 |
|-------------|-----|------------|----------------------|------------|--------------------|------------------|------------------|---------------------|------------------------------------|--------------------------------------------------------|----------------|-----------------|
|             |     |            |                      |            |                    |                  |                  |                     |                                    | CAS#                                                   | OSHA PEL (TWA) | LD50            |
| 1. Acrolein | 5   | 103755V10F | 5000                 | 97         | 0.5                | 0.05166          | 0.05175          | 5008.9              | 52.5                               | 107-02-8                                               | 0.1 ppm        | ori-rat 46mg/kg |

Method: GC/MSD-1. Detector: Mass Selective Detector (Scan mode). Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2 = 200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Rentas. NOTE: Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

Abundance TIC: [BSB2]79005.D

Abundance

Scan 232 (8.927 min): [BSB2]79005.D

250000 8.93

200000

150000

100000

50000

Time--&gt; 0

10.00 15.00 20.00 25.00 30.00 35.00 40.00 45.00 50.00 55.00 60.00

m/z--&gt; 0

20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

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



## Certified Reference Material CRM

Dec 09/17/24

2 vials

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

## CERTIFIED WEIGHT REPORT

Part Number: **91980**  
Lot Number: **091424**  
Description: **Acrolein**Solvent(s):  
Water Lot#  
072324QExpiration Date: 101424  
Recommended Storage: Refrigerate (4 °C)  
Nominal Concentration (µg/mL): 5000  
NIST Test ID#: 6UTBWeight(s) shown below were combined and diluted to (mL): 10.0  
5E-05 Balance Uncertainty  
0.001 Flask Uncertainty

|                        |                 |        |
|------------------------|-----------------|--------|
| <i>Justin Dippold</i>  |                 | 091424 |
| Formulated By:         | Justin Dippold  | DATE   |
| <i>Pedro L. Rentas</i> |                 | 091424 |
| Reviewed By:           | Pedro L. Rentas | DATE   |

| Compound    | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) |                |                 |
|-------------|-----|------------|----------------------|------------|--------------------|------------------|------------------|---------------------|------------------------------------|--------------------------------------------------------|----------------|-----------------|
|             |     |            |                      |            |                    |                  |                  |                     |                                    | CAS#                                                   | OSHA PEL (TWA) | LD50            |
| 1. Acrolein | 5   | 103755V10F | 5000                 | 97         | 0.5                | 0.05166          | 0.05175          | 5008.9              | 52.5                               | 107-02-8                                               | 0.1 ppm        | ori-rat 46mg/kg |

Method: GC6MSD-1. Detector: Mass Selective Detector (Scan mode). Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Rentas. NOTE: Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

Abundance TIC: [BSB2]79005.D

Abundance Scan 232 (8.927 min): [BSB2]79005.D

250000 8.93

200000

150000

100000

50000

Time--&gt; 0

10.00 15.00 20.00 25.00 30.00 35.00 40.00 45.00 50.00 55.00 60.00



m/z--&gt; 0

20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

27

60000

50000

40000

30000

20000

10000

37

44

65 75 85

119

158 169

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



## CERTIFIED WEIGHT REPORT

Part Number: **95318**  
Lot Number: **120524**  
Description: **2-Chloroethyl vinyl ether**

Solvent(s):  
Methanol

Lot#  
EJ143-US

Expiration Date: **120527**  
Recommended Storage: **Refrigerate (4 °C)**  
Nominal Concentration (µg/mL): **10000**  
NIST Test ID#: **6UTB**

*See 1216124*  
*20 vial*  
*✓ 14630 to*  
*✓ 14649*

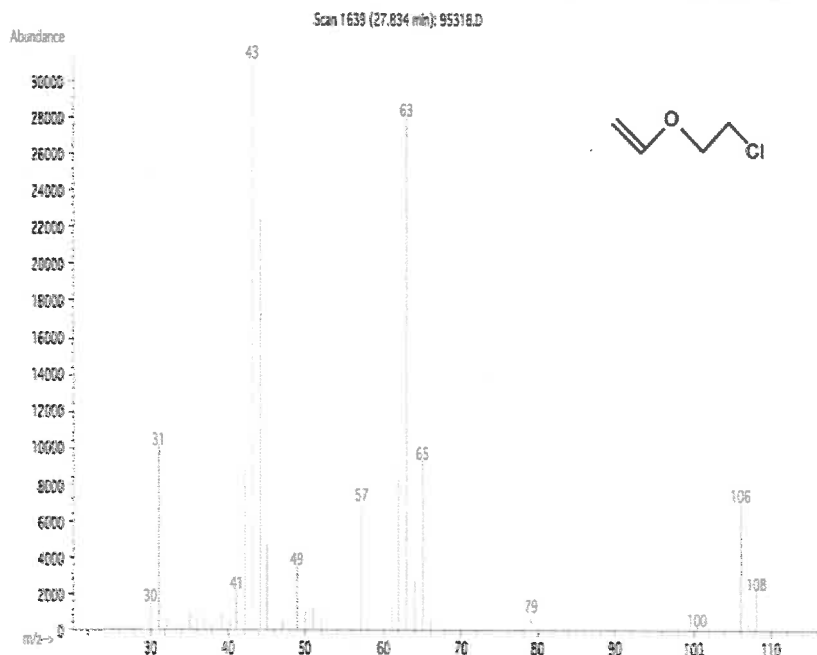
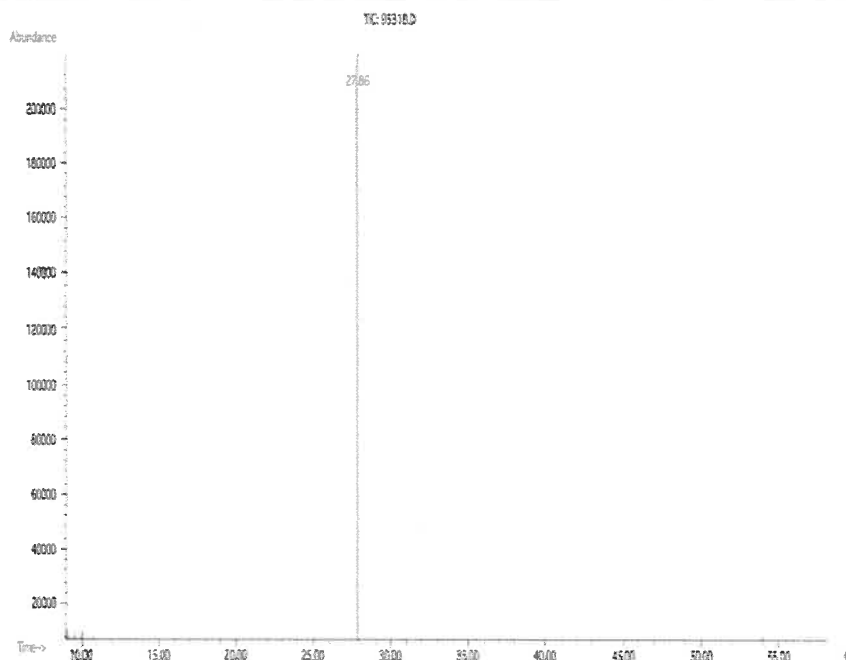
Weight(s) shown below were combined and diluted to (mL): **50.0**

5E-05 Balance Uncertainty  
0.001 Flask Uncertainty

|                         |                  |        |
|-------------------------|------------------|--------|
| <i>Prashant Chauhan</i> |                  | 120524 |
| Formulated By:          | Prashant Chauhan | DATE   |
| <i>Pedro L. Rentas</i>  |                  | 120524 |
| Reviewed By:            | Pedro L. Rentas  | DATE   |

| Compound                     | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight (g) | Actual Weight (g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) |                |                  |
|------------------------------|-----|------------|----------------------|------------|--------------------|-------------------|-------------------|---------------------|------------------------------------|--------------------------------------------------------|----------------|------------------|
|                              |     |            |                      |            |                    |                   |                   |                     |                                    | CAS#                                                   | OSHA PEL (TWA) | LD50             |
| 1. 2-Chloroethyl vinyl ether | 74  | MKCD0033   | 10000                | 99         | 0.2                | 0.50536           | 0.50550           | 10002.9             | 40.5                               | 110-75-8                                               | N/A            | ori-rat 250mg/kg |

Method: GC6MSD-1.M. Detector: MSD. Column: (60m X 0.25mm X 1.5 µm). Oven Profile: Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp = 200°C, Detector B Temp = 220°C. Analyst: Candice Warren.



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

GHS/OSHA Compliant

## Section I Product and Company Identification

## IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

|                     |                                    |                                                            |                                          |
|---------------------|------------------------------------|------------------------------------------------------------|------------------------------------------|
| Manufacturer's Name | ABSOLUTE STANDARDS INC             | Emergency Telephone USA & CANADA                           | <b>1-800-535-5053</b>                    |
| Address             | 44 Rosotto Dr.<br>Hamden CT. 06514 | Emergency Telephone International<br>Date Prepared/Revised | <b>1-352-323-3500</b><br>January 1, 2024 |

## Section II - Hazards Identification

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

|          |                                      |                |                                               |
|----------|--------------------------------------|----------------|-----------------------------------------------|
| H225     | Highly Flammable Liquid and Vapor    | H301, 311, 331 | Toxic if swallowed, skin contact, inhaled     |
| H370     | Cause damage to organs               | H351           | Suspected of causing cancer                   |
| P271     | Use in ventilated area               | P280           | Use gloves, eye protection/face shield        |
| P302+332 | If on skin, wash with soap and water | P305+351+338   | If in eyes, remove contacts, rinse with water |



**Signal Word: DANGER**

### Section III - Composition

| Components (Specific Chemical Identity; Common Name(s)) | CAS#           | % (optional)  |
|---------------------------------------------------------|----------------|---------------|
| Methanol                                                | METHYL ALCOHOL | CAS#: 67-56-1 |
|                                                         |                | > 97          |

**See Certified Weight Report For Other Analytes Present At Trace Quantities.**

**INTENDED USE: REFERENCE MATERIAL**

## Section IV. FIRST AID MEASURES

|                         |                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
| General advice          | Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.            |
| If inhaled              | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Wash with soap and water. Consult a physician.                                                              |
| In case of eye contact  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                      |
| If swallowed            | Do NOT induce vomiting. Rinse mouth with water. Consult a physician.                                        |

## Section V. FIREFIGHTING MEASURES

|                                      |                                                                                                                                                                 |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Flammability</b>                  | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| <b>Suitable extinguishing media</b>  | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.                                                                                        |
| <b>Protective equipment for fire</b> | Wear self contained breathing apparatus for fire fighting if necessary.                                                                                         |

## Section VI. ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                                                              |
| Clean up                  | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).                                                             |

## Section VII. HANDLING AND STORAGE

|                               |                                                                                                                                                                                        |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.<br>Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions            | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.                          |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                                                                               |                        |                                                            |                 |
|-----------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------|-----------------|
| Methanol                                                                                      | 67-56-1 TWA 200 ppm    |                                                            |                 |
| Skin notation                                                                                 | TWA 200 ppm            |                                                            |                 |
| Potential for skin absorption, ingestion and inhalation.                                      |                        |                                                            |                 |
| Personal protective equipment                                                                 | Respiratory protection | Handle with gloves. Gloves must be inspected prior to use. | Eye protection. |
| Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product. |                        |                                                            |                 |

## Section IX - Physical/Chemical Characteristics

|                         |                                                           |                                         |       |
|-------------------------|-----------------------------------------------------------|-----------------------------------------|-------|
| Boiling Point           | 65°C                                                      | Specific Gravity (H <sub>2</sub> O = 1) | 0.79  |
| Vapor Pressure (mm Hg)  | 96                                                        | Melting Point                           | -98°C |
| Vapor Density (AIR = 1) | 1.11                                                      | Evaporation rate<br>(Butyl Acetate = 1) | 4.6   |
| Solubility in Water     | COMPLETE                                                  |                                         |       |
| Appearance and Odor     | CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR. |                                         |       |

**Section X. STABILITY AND REACTIVITY**

|                                                                |                                                                                          |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Chemical stability                                             | Stable under recommended storage conditions.                                             |
| Possibility of hazardous reactions                             | Vapours may form explosive mixture with air.                                             |
| Conditions to avoid                                            | Heat, flames, sparks, extreme temperature and sunlight.                                  |
| Materials to avoid                                             | Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids |
| Hazardous decomposition products formed under fire conditions. | - Carbon oxides                                                                          |

**Section XI. TOXICOLOGICAL INFORMATION**

LD50 Oral - rat - 5,628 mg/kg  
LC50 Inhalation - rat - 4 h - 64000 ppm  
LD50 Dermal - rabbit - 15,800 mg/kg  
Toxic if absorbed through skin. Causes skin irritation.  
Eye damage/eye irritation  
Toxic if inhaled. Causes respiratory tract irritation.  
Toxic if swallowed.

**Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.**

LC50 15,400 mg/l - 96 h  
EC50 24,500.00 mg/l - 48 h  
EC100 10,000.00 mg/l - 24 h

**Section XIII. DISPOSAL CONSIDERATIONS**

Dispose with normal Laboratory Solvent Waste.

**Section XIV. TRANSPORT INFORMATION**

|                                            |                                            |
|--------------------------------------------|--------------------------------------------|
| DOT (US)                                   | IATA                                       |
| UN number: 1230 Class: 3 Packing group: II | UN number: 1230 Class: 3 Packing group: II |
| Proper shipping name: Methanol             | Proper shipping name: Methanol             |

**Section XV. REGULATORY INFORMATION**

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Section XVI. Misc. INFORMATION**

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



## Certified Reference Material CRM



## CERTIFIED WEIGHT REPORT

Part Number: **95318**  
Lot Number: **120524**  
Description: **2-Chloroethyl vinyl ether**

Solvent(s):  
Methanol

Lot#  
EJ143-US

Expiration Date: **120527**  
Recommended Storage: **Refrigerate (4 °C)**  
Nominal Concentration (µg/mL): **10000**  
NIST Test ID#: **6UTB**

*See 1216124*  
*20 vial*  
*✓ 14630 to*  
*✓ 14649*

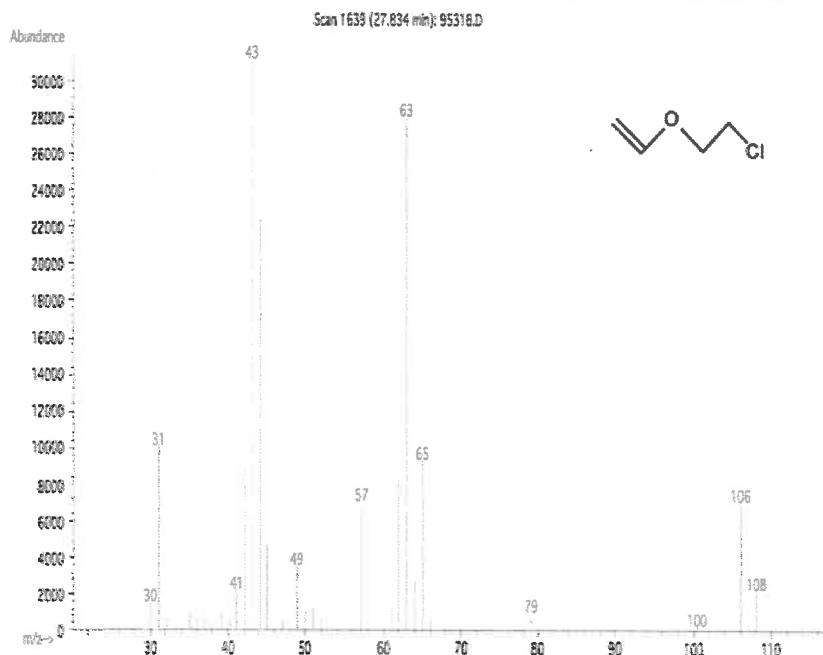
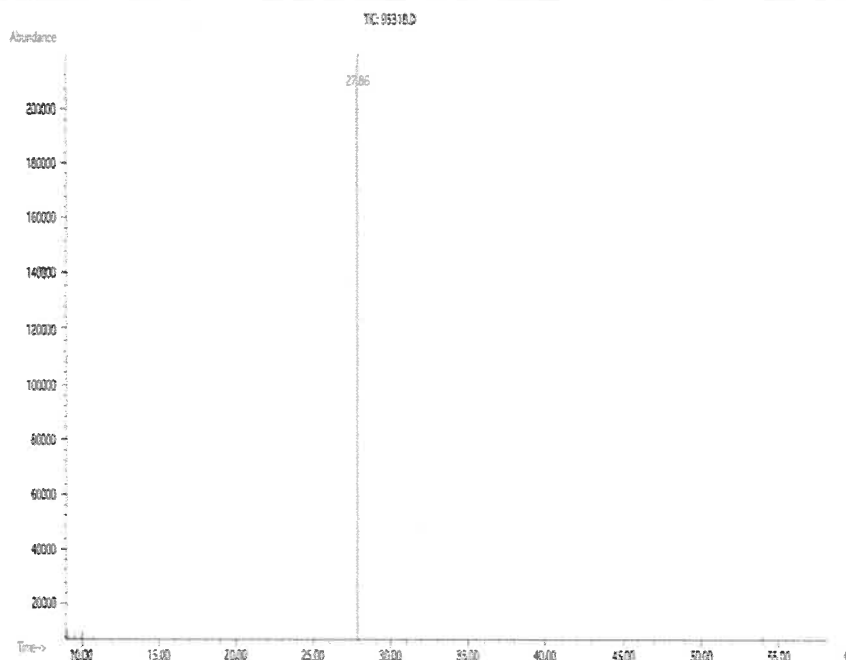
Weight(s) shown below were combined and diluted to (mL): **50.0**

5E-05 Balance Uncertainty  
0.001 Flask Uncertainty

|                         |                  |        |
|-------------------------|------------------|--------|
| <i>Prashant Chauhan</i> |                  | 120524 |
| Formulated By:          | Prashant Chauhan | DATE   |
| <i>Pedro L. Rentas</i>  |                  | 120524 |
| Reviewed By:            | Pedro L. Rentas  | DATE   |

| Compound                     | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight (g) | Actual Weight (g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) |                |                  |
|------------------------------|-----|------------|----------------------|------------|--------------------|-------------------|-------------------|---------------------|------------------------------------|--------------------------------------------------------|----------------|------------------|
|                              |     |            |                      |            |                    |                   |                   |                     |                                    | CAS#                                                   | OSHA PEL (TWA) | LD50             |
| 1. 2-Chloroethyl vinyl ether | 74  | MKCD0033   | 10000                | 99         | 0.2                | 0.50536           | 0.50550           | 10002.9             | 40.5                               | 110-75-8                                               | N/A            | ori-rat 250mg/kg |

Method: GC6MSD-1.M. Detector: MSD. Column: (60m X 0.25mm X 1.5 µm). Oven Profile: Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp = 200°C, Detector B Temp = 220°C. Analyst: Candice Warren.



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



GHS/OSHA Compliant

## Section I Product and Company Identification

## IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

|                     |                                    |                                                            |                                          |
|---------------------|------------------------------------|------------------------------------------------------------|------------------------------------------|
| Manufacturer's Name | ABSOLUTE STANDARDS INC             | Emergency Telephone USA & CANADA                           | <b>1-800-535-5053</b>                    |
| Address             | 44 Rosotto Dr.<br>Hamden CT. 06514 | Emergency Telephone International<br>Date Prepared/Revised | <b>1-352-323-3500</b><br>January 1, 2024 |

## Section II - Hazards Identification

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

|           |                                      |                |                                               |
|-----------|--------------------------------------|----------------|-----------------------------------------------|
| H225      | Highly Flammable Liquid and Vapor    | H301, 311, 331 | Toxic if swallowed, skin contact, inhaled     |
| H370      | Cause damage to organs               | H351           | Suspected of causing cancer                   |
| P271      | Use in ventilated area               | P280           | Use gloves, eye protection/face shield        |
| P302, 332 | If on skin, wash with soap and water | P305, 351, 338 | If in eyes, remove contacts, rinse with water |



**Signal Word: DANGER**

## Section III - Composition

| Components (Specific Chemical Identity; Common Name(s)) | CAS#    | % (optional) |
|---------------------------------------------------------|---------|--------------|
| Methanol                                                | 67-56-1 | > 97         |

**See Certified Weight Report For Other Analytes Present At Trace Quantities.**

**INTENDED USE: REFERENCE MATERIAL**

## Section IV. FIRST AID MEASURES

|                                |                                                                                                             |
|--------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>General advice</b>          | Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.            |
| <b>If inhaled</b>              | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| <b>In case of skin contact</b> | Wash with soap and water. Consult a physician.                                                              |
| <b>In case of eye contact</b>  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                      |
| <b>If swallowed</b>            | Do NOT induce vomiting. Rinse mouth with water. Consult a physician.                                        |

## Section V. FIREFIGHTING MEASURES

|                                      |                                                                                                                                                                 |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Flammability</b>                  | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| <b>Suitable extinguishing media</b>  | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.                                                                                        |
| <b>Protective equipment for fire</b> | Wear self contained breathing apparatus for fire fighting if necessary.                                                                                         |

## Section VI. ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                                                              |
| Clean up                  | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).                                                             |

## Section VII. HANDLING AND STORAGE

|                               |                                                                                                                                                                                         |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.<br>Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions            | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.                           |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                                                                               |                        |                                                            |                 |
|-----------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------|-----------------|
| Methanol                                                                                      | 67-56-1 TWA 200 ppm    |                                                            |                 |
| Skin notation                                                                                 | TWA 200 ppm            |                                                            |                 |
| Potential for skin absorption, ingestion and inhalation.                                      |                        |                                                            |                 |
| Personal protective equipment                                                                 | Respiratory protection | Handle with gloves. Gloves must be inspected prior to use. | Eye protection. |
| Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product. |                        |                                                            |                 |

## Section IX - Physical/Chemical Characteristics

|                         |                                                           |                                         |       |
|-------------------------|-----------------------------------------------------------|-----------------------------------------|-------|
| Boiling Point           | 65°C                                                      | Specific Gravity (H <sub>2</sub> O = 1) | 0.79  |
| Vapor Pressure (mm Hg)  | 96                                                        | Melting Point                           | -98°C |
| Vapor Density (AIR = 1) | 1.11                                                      | Evaporation rate<br>(Butyl Acetate = 1) | 4.6   |
| Solubility in Water     | COMPLETE                                                  |                                         |       |
| Appearance and Odor     | CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR. |                                         |       |

**Section X. STABILITY AND REACTIVITY**

|                                                                |                                                                                          |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Chemical stability                                             | Stable under recommended storage conditions.                                             |
| Possibility of hazardous reactions                             | Vapours may form explosive mixture with air.                                             |
| Conditions to avoid                                            | Heat, flames, sparks, extreme temperature and sunlight.                                  |
| Materials to avoid                                             | Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids |
| Hazardous decomposition products formed under fire conditions. | - Carbon oxides                                                                          |

**Section XI. TOXICOLOGICAL INFORMATION**

LD50 Oral - rat - 5,628 mg/kg  
LC50 Inhalation - rat - 4 h - 64000 ppm  
LD50 Dermal - rabbit - 15,800 mg/kg  
Toxic if absorbed through skin. Causes skin irritation.  
Eye damage/eye irritation  
Toxic if inhaled. Causes respiratory tract irritation.  
Toxic if swallowed.

**Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.**

LC50 15,400 mg/l - 96 h  
EC50 24,500.00 mg/l - 48 h  
EC100 10,000.00 mg/l - 24 h

**Section XIII. DISPOSAL CONSIDERATIONS**

Dispose with normal Laboratory Solvent Waste.

**Section XIV. TRANSPORT INFORMATION**

|                                            |                                            |
|--------------------------------------------|--------------------------------------------|
| DOT (US)                                   | IATA                                       |
| UN number: 1230 Class: 3 Packing group: II | UN number: 1230 Class: 3 Packing group: II |
| Proper shipping name: Methanol             | Proper shipping name: Methanol             |

**Section XV. REGULATORY INFORMATION**

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Section XVI. Misc. INFORMATION**

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



## Certified Reference Material CRM



## CERTIFIED WEIGHT REPORT

Part Number: **95318**  
Lot Number: **120524**  
Description: **2-Chloroethyl vinyl ether**

Solvent(s):  
Methanol

Lot#  
EJ143-US

Expiration Date: **120527**  
Recommended Storage: **Refrigerate (4 °C)**  
Nominal Concentration (µg/mL): **10000**  
NIST Test ID#: **6UTB**

*See 1216124*  
*20 vial*  
*✓ 14630 to*  
*✓ 14649*

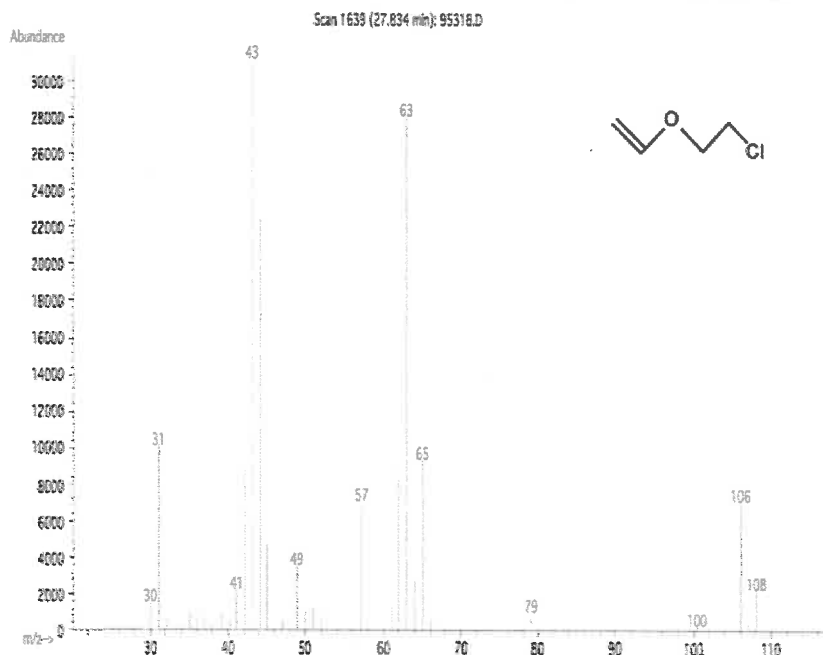
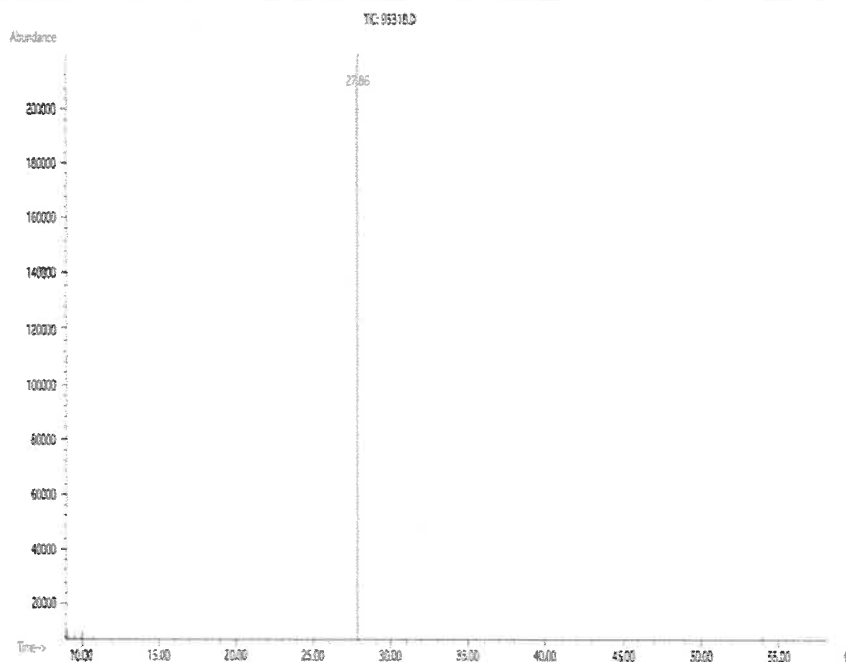
Weight(s) shown below were combined and diluted to (mL): **50.0**

5E-05 Balance Uncertainty  
0.001 Flask Uncertainty

|                         |                  |        |
|-------------------------|------------------|--------|
| <i>Prashant Chauhan</i> |                  | 120524 |
| Formulated By:          | Prashant Chauhan | DATE   |
| <i>Pedro L. Rentas</i>  |                  | 120524 |
| Reviewed By:            | Pedro L. Rentas  | DATE   |

| Compound                     | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight (g) | Actual Weight (g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) |                |                  |
|------------------------------|-----|------------|----------------------|------------|--------------------|-------------------|-------------------|---------------------|------------------------------------|--------------------------------------------------------|----------------|------------------|
|                              |     |            |                      |            |                    |                   |                   |                     |                                    | CAS#                                                   | OSHA PEL (TWA) | LD50             |
| 1. 2-Chloroethyl vinyl ether | 74  | MKCD0033   | 10000                | 99         | 0.2                | 0.50536           | 0.50550           | 10002.9             | 40.5                               | 110-75-8                                               | N/A            | ori-rat 250mg/kg |

Method: GC6MSD-1.M. Detector: MSD. Column: (60m X 0.25mm X 1.5 µm). Oven Profile: Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp = 200°C, Detector B Temp = 220°C. Analyst: Candice Warren.



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

## Safety Data Sheet (SDS)

GHS/OSHA Compliant

## Section I Product and Company Identification

## IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

|                     |                        |                                   |                 |
|---------------------|------------------------|-----------------------------------|-----------------|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA  | 1-800-535-5053  |
| Address             | 44 Rossotto Dr.        | Emergency Telephone International | 1-352-323-3500  |
|                     | Hamden CT, 06514       | Date Prepared/Revised             | January 1, 2024 |

## Section II - Hazards Identification

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

|          |                                      |                |                                               |
|----------|--------------------------------------|----------------|-----------------------------------------------|
| H225     | Highly Flammable Liquid and Vapor    | H301, 311, 331 | Toxic if swallowed, skin contact, inhaled     |
| H370     | Cause damage to organs               | H351           | Suspected of causing cancer                   |
| P271     | Use in ventilated area               | P280           | Use gloves, eye protection/face shield        |
| P302,332 | If on skin, wash with soap and water | P305,351,338   | If in eyes, remove contacts, rinse with water |



Signal Word: DANGER

## Section III - Composition

|                                                         |                |              |
|---------------------------------------------------------|----------------|--------------|
| Components (Specific Chemical Identity; Common Name(s)) |                | % (optional) |
| Methanol                                                | METHYL ALCOHOL | > 97         |

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

## Section IV. FIRST AID MEASURES

|                         |                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
| General advice          | Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.            |
| If inhaled              | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Wash with soap and water. Consult a physician.                                                              |
| In case of eye contact  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                      |
| If swallowed            | Do NOT induce vomiting. Rinse mouth with water. Consult a physician.                                        |

## Section V. FIREFIGHTING MEASURES

|                               |                                                                                                                                                                 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammability                  | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| Suitable extinguishing media  | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.                                                                                        |
| Protective equipment for fire | Wear self contained breathing apparatus for fire fighting if necessary.                                                                                         |

## Section VI. ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                                                              |
| Clean up                  | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).                                                             |

## Section VII. HANDLING AND STORAGE

|                               |                                                                                                                                                                                         |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.<br>Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions            | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.                           |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                                                                               |                        |                                                            |                 |
|-----------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------|-----------------|
| Methanol                                                                                      | 67-56-1                | 67-56-1                                                    | TWA 200 ppm     |
| Skin notation                                                                                 |                        |                                                            | TWA 200 ppm     |
| Potential for skin absorption, ingestion and inhalation.                                      |                        |                                                            |                 |
| Personal protective equipment                                                                 | Respiratory protection | Handle with gloves. Gloves must be inspected prior to use. | Eye protection. |
| Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product. |                        |                                                            |                 |

## Section IX - Physical/Chemical Characteristics

|                         |                                                           |                                         |       |
|-------------------------|-----------------------------------------------------------|-----------------------------------------|-------|
| Boiling Point           | 65°C                                                      | Specific Gravity (H <sub>2</sub> O = 1) | 0.79  |
| Vapor Pressure (mm Hg)  | 96                                                        | Melting Point                           | -98°C |
| Vapor Density (AIR = 1) | 1.11                                                      | Evaporation rate<br>(Butyl Acetate = 1) | 4.6   |
| Solubility in Water     | COMPLETE                                                  |                                         |       |
| Appearance and Odor     | CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR. |                                         |       |

**Section X. STABILITY AND REACTIVITY**

|                                                                |                                                                                          |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Chemical stability                                             | Stable under recommended storage conditions.                                             |
| Possibility of hazardous reactions                             | Vapours may form explosive mixture with air.                                             |
| Conditions to avoid                                            | Heat, flames, sparks, extreme temperature and sunlight.                                  |
| Materials to avoid                                             | Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids |
| Hazardous decomposition products formed under fire conditions. | - Carbon oxides                                                                          |

**Section XI. TOXICOLOGICAL INFORMATION**

LD50 Oral - rat - 5,628 mg/kg  
LC50 Inhalation - rat - 4 h - 64000 ppm  
LD50 Dermal - rabbit - 15,800 mg/kg  
Toxic if absorbed through skin. Causes skin irritation.  
Eye damage/eye irritation  
Toxic if inhaled. Causes respiratory tract irritation.  
Toxic if swallowed.

**Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.**

LC50 15,400 mg/l - 96 h  
EC50 24,500.00 mg/l - 48 h  
EC100 10,000.00 mg/l - 24 h

**Section XIII. DISPOSAL CONSIDERATIONS**

Dispose with normal Laboratory Solvent Waste.

**Section XIV. TRANSPORT INFORMATION**

|                                            |                                            |
|--------------------------------------------|--------------------------------------------|
| DOT (US)                                   | IATA                                       |
| UN number: 1230 Class: 3 Packing group: II | UN number: 1230 Class: 3 Packing group: II |
| Proper shipping name: Methanol             | Proper shipping name: Methanol             |

**Section XV. REGULATORY INFORMATION**

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Section XVI. Misc. INFORMATION**

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



## Certified Reference Material CRM



## CERTIFIED WEIGHT REPORT

Part Number: **95318**  
Lot Number: **120524**  
Description: **2-Chloroethyl vinyl ether**

Solvent(s):  
Methanol

Lot#  
EJ143-US

Expiration Date: **120527**  
Recommended Storage: **Refrigerate (4 °C)**  
Nominal Concentration (µg/mL): **10000**  
NIST Test ID#: **6UTB**

*See 1216124*  
*20 vial*  
*✓ 14630 to*  
*✓ 14649*

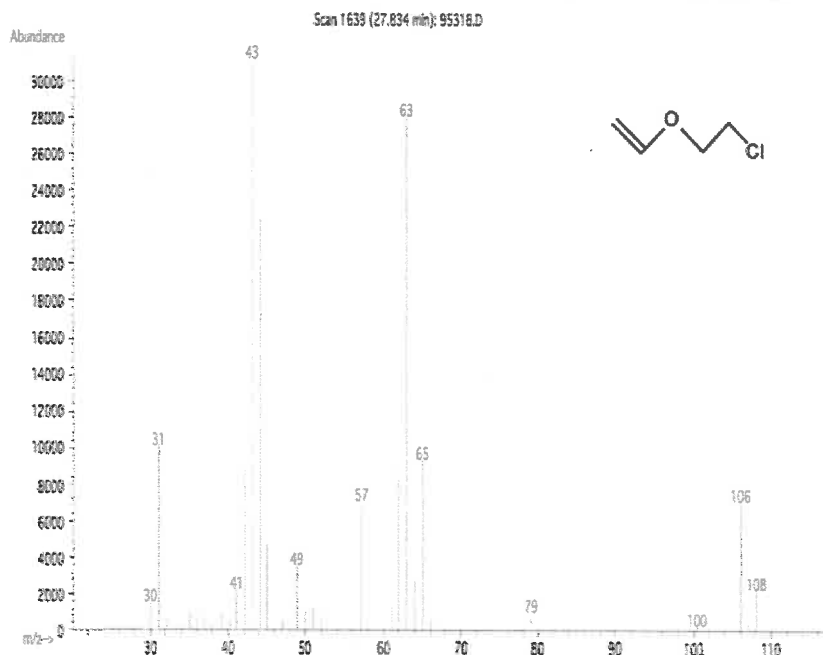
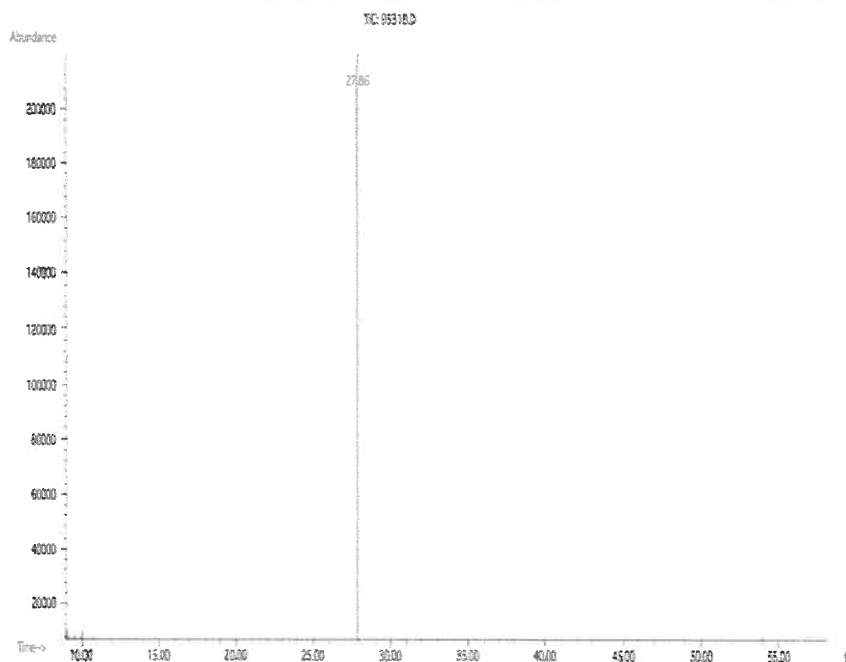
Weight(s) shown below were combined and diluted to (mL): **50.0**

5E-05 Balance Uncertainty  
0.001 Flask Uncertainty

|                         |                  |        |
|-------------------------|------------------|--------|
| <i>Prashant Chauhan</i> |                  | 120524 |
| Formulated By:          | Prashant Chauhan | DATE   |
| <i>Pedro L. Rentas</i>  |                  | 120524 |
| Reviewed By:            | Pedro L. Rentas  | DATE   |

| Compound                     | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight (g) | Actual Weight (g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) |                |                  |
|------------------------------|-----|------------|----------------------|------------|--------------------|-------------------|-------------------|---------------------|------------------------------------|--------------------------------------------------------|----------------|------------------|
|                              |     |            |                      |            |                    |                   |                   |                     |                                    | CAS#                                                   | OSHA PEL (TWA) | LD50             |
| 1. 2-Chloroethyl vinyl ether | 74  | MKCD0033   | 10000                | 99         | 0.2                | 0.50536           | 0.50550           | 10002.9             | 40.5                               | 110-75-8                                               | N/A            | ori-rat 250mg/kg |

Method: GC6MSD-1.M. Detector: MSD. Column: (60m X 0.25mm X 1.5 µm). Oven Profile: Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp = 200°C, Detector B Temp = 220°C. Analyst: Candice Warren.



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

## Safety Data Sheet (SDS)

GHS/OSHA Compliant

## Section I Product and Company Identification

## IDENTITY ANALYTICAL STANDARD DISSOLVED IN METHANOL

|                     |                        |                                   |                 |
|---------------------|------------------------|-----------------------------------|-----------------|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA  | 1-800-535-5053  |
| Address             | 44 Rossotto Dr.        | Emergency Telephone International | 1-352-323-3500  |
|                     | Hamden CT, 06514       | Date Prepared/Revised             | January 1, 2024 |

## Section II - Hazards Identification

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

|          |                                      |                |                                               |
|----------|--------------------------------------|----------------|-----------------------------------------------|
| H225     | Highly Flammable Liquid and Vapor    | H301, 311, 331 | Toxic if swallowed, skin contact, inhaled     |
| H370     | Cause damage to organs               | H351           | Suspected of causing cancer                   |
| P271     | Use in ventilated area               | P280           | Use gloves, eye protection/face shield        |
| P302,332 | If on skin, wash with soap and water | P305,351,338   | If in eyes, remove contacts, rinse with water |



Signal Word: DANGER

## Section III - Composition

|                                                         |                |              |
|---------------------------------------------------------|----------------|--------------|
| Components (Specific Chemical Identity; Common Name(s)) |                | % (optional) |
| Methanol                                                | METHYL ALCOHOL | > 97         |

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

## Section IV. FIRST AID MEASURES

|                         |                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
| General advice          | Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.            |
| If inhaled              | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Wash with soap and water. Consult a physician.                                                              |
| In case of eye contact  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                      |
| If swallowed            | Do NOT induce vomiting. Rinse mouth with water. Consult a physician.                                        |

## Section V. FIREFIGHTING MEASURES

|                               |                                                                                                                                                                 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammability                  | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| Suitable extinguishing media  | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.                                                                                        |
| Protective equipment for fire | Wear self contained breathing apparatus for fire fighting if necessary.                                                                                         |

## Section VI. ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                                                              |
| Clean up                  | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).                                                             |

## Section VII. HANDLING AND STORAGE

|                               |                                                                                                                                                                                         |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.<br>Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions            | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.                           |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                                                                               |                        |                                                            |                 |
|-----------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------|-----------------|
| Methanol                                                                                      | 67-56-1                | 67-56-1                                                    | TWA 200 ppm     |
| Skin notation                                                                                 |                        |                                                            | TWA 200 ppm     |
| Potential for skin absorption, ingestion and inhalation.                                      |                        |                                                            |                 |
| Personal protective equipment                                                                 | Respiratory protection | Handle with gloves. Gloves must be inspected prior to use. | Eye protection. |
| Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product. |                        |                                                            |                 |

## Section IX - Physical/Chemical Characteristics

|                         |                                                           |                                         |       |
|-------------------------|-----------------------------------------------------------|-----------------------------------------|-------|
| Boiling Point           | 65°C                                                      | Specific Gravity (H <sub>2</sub> O = 1) | 0.79  |
| Vapor Pressure (mm Hg)  | 96                                                        | Melting Point                           | -98°C |
| Vapor Density (AIR = 1) | 1.11                                                      | Evaporation rate<br>(Butyl Acetate = 1) | 4.6   |
| Solubility in Water     | COMPLETE                                                  |                                         |       |
| Appearance and Odor     | CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR. |                                         |       |

**Section X. STABILITY AND REACTIVITY**

|                                                                |                                                                                          |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Chemical stability                                             | Stable under recommended storage conditions.                                             |
| Possibility of hazardous reactions                             | Vapours may form explosive mixture with air.                                             |
| Conditions to avoid                                            | Heat, flames, sparks, extreme temperature and sunlight.                                  |
| Materials to avoid                                             | Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids |
| Hazardous decomposition products formed under fire conditions. | - Carbon oxides                                                                          |

**Section XI. TOXICOLOGICAL INFORMATION**

LD50 Oral - rat - 5,628 mg/kg  
LC50 Inhalation - rat - 4 h - 64000 ppm  
LD50 Dermal - rabbit - 15,800 mg/kg  
Toxic if absorbed through skin. Causes skin irritation.  
Eye damage/eye irritation  
Toxic if inhaled. Causes respiratory tract irritation.  
Toxic if swallowed.

**Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.**

LC50 15,400 mg/l - 96 h  
EC50 24,500.00 mg/l - 48 h  
EC100 10,000.00 mg/l - 24 h

**Section XIII. DISPOSAL CONSIDERATIONS**

Dispose with normal Laboratory Solvent Waste.

**Section XIV. TRANSPORT INFORMATION**

|                                            |                                            |
|--------------------------------------------|--------------------------------------------|
| DOT (US)                                   | IATA                                       |
| UN number: 1230 Class: 3 Packing group: II | UN number: 1230 Class: 3 Packing group: II |
| Proper shipping name: Methanol             | Proper shipping name: Methanol             |

**Section XV. REGULATORY INFORMATION**

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Section XVI. Misc. INFORMATION**

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.





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.*

Catalog No. : 30470 Lot No.: A0181905  
Description : tert-Butanol Standard  
tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : February 28, 2025 Storage: 0°C or colder  
Ship: Ambient

#### CERTIFIED VALUES

| Elution Order | Compound           |         | Grav. Conc.<br>(weight/volume) | Expanded Uncertainty<br>(95% C.L.; K=2) |            |       |             |
|---------------|--------------------|---------|--------------------------------|-----------------------------------------|------------|-------|-------------|
| 1             | tert-Butanol (TBA) |         | 50,126.0    µg/mL              | +/-                                     | 293.4988   | µg/mL | Gravimetric |
|               | CAS #              | 75-65-0 |                                | +/-                                     | 1,073.7654 | µg/mL | Unstressed  |
|               | Purity             | 99%     |                                | +/-                                     | 1,104.9494 | µg/mL | Stressed    |
|               | (Lot SHBM7694)     |         |                                |                                         |            |       |             |

Solvent: P&T Methanol  
CAS # 67-56-1  
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:**

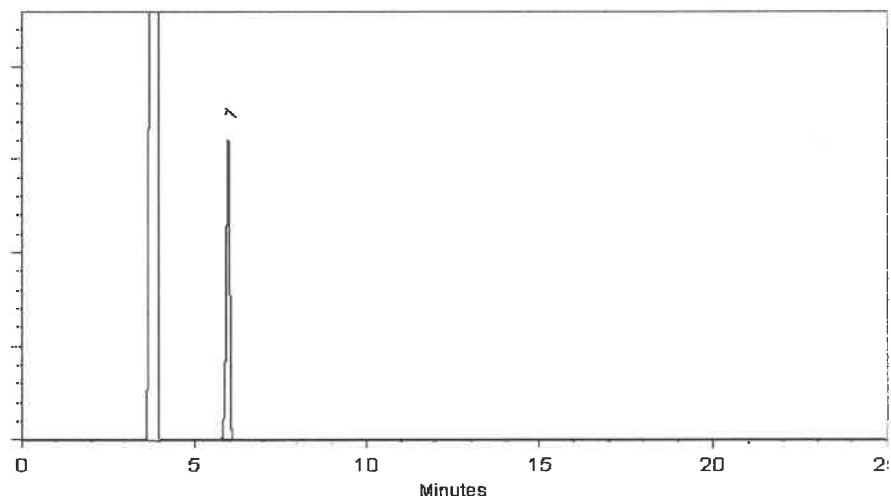
200°C

**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.

John Friedline - Operations Technician I

Date Mixed: 16-Feb-2022

Balance: B442140311

Marlene Cowan - Operations Tech I

Date Passed: 21-Feb-2022

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

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

### Certified Uncertainty Value Notes:

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

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

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

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

| Label Conditions                                          | Standard Conditions | Non-Standard Conditions |
|-----------------------------------------------------------|---------------------|-------------------------|
| 25°C Nominal (Room Temperature)                           | < 60°C              | ≥ 60°C up to 7 days     |
| 10°C or colder (Refrigerate)                              | < 40°C              | ≥ 40°C up to 7 days     |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C              | ≥ 25°C up to 7 days     |

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

### Manufacturing Notes:

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

### Handling Notes:

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



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. :** 30067 **Lot No.:** A0191805

**Description :** 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol,  
1mL/ampul

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

**Expiration Date :** November 30, 2027 **Storage:** 0°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound                      | CAS #    | Lot #  | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|-------------------------------|----------|--------|--------|-----------------------------|----------------------------------------|
| 1             | 1-Bromo-4-fluorobenzene (BFB) | 460-00-4 | 184975 | 99%    | 2,483.9 µg/mL               | +/- 139.5488                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

## Quality Confirmation Test

**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:**

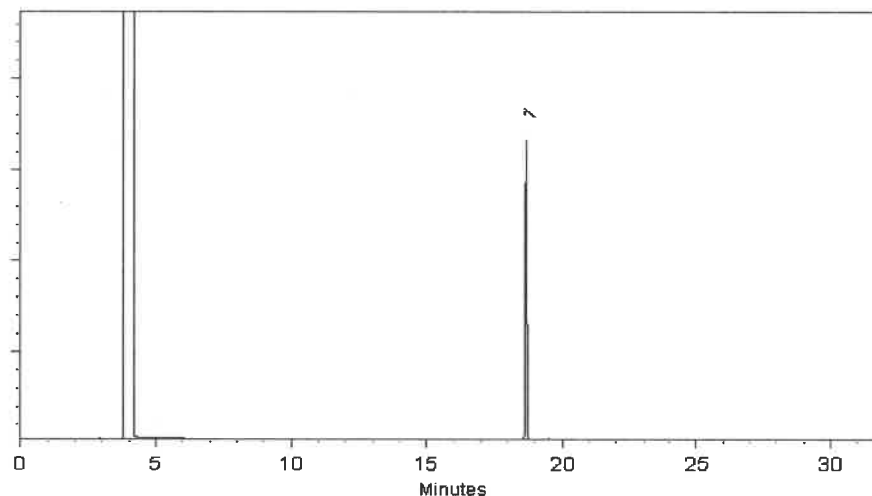
FID

**Split Vent:**

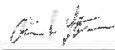
40 ml/min

**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.

  
Alicia Leathers - Operation Technician I

Date Mixed: 17-Nov-2022

Balance Serial # B251644995

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Nov-2022

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.



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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. :** 30225 **Lot No.:** A0193071  
**Description :** Bromochloromethane Standard  
Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** December 31, 2027 **Storage:** 0°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

| Elution Order | Compound           | CAS #   | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|--------------------|---------|----------|--------|-----------------------------|----------------------------------------|
| 1             | Bromochloromethane | 74-97-5 | 00008541 | 99%    | 2,018.0 µg/mL               | +/- 113.3890                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

## Quality Confirmation Test

**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:**

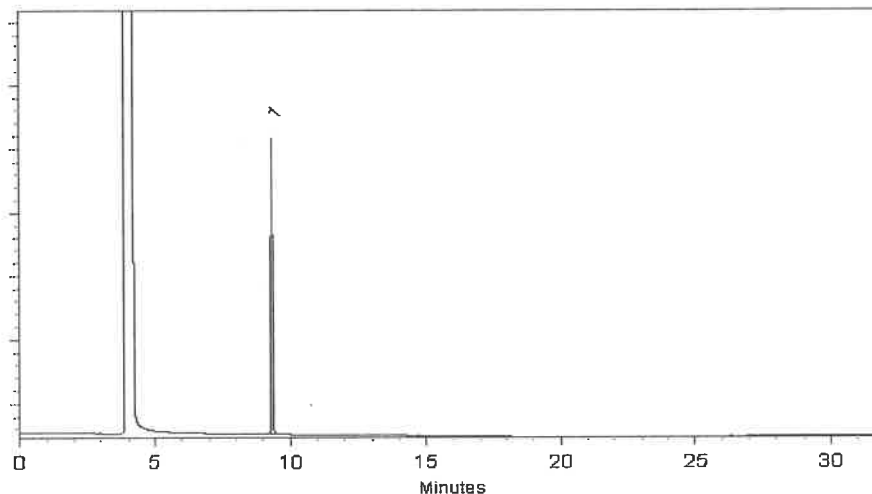
FID

**Split Vent:**

40 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.

  
Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2022      Balance Serial #      B707717271

  
Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-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.



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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. :** 30225 **Lot No.:** A0193071  
**Description :** Bromochloromethane Standard  
Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** December 31, 2027 **Storage:** 0°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

| Elution Order | Compound           | CAS #   | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|--------------------|---------|----------|--------|-----------------------------|----------------------------------------|
| 1             | Bromochloromethane | 74-97-5 | 00008541 | 99%    | 2,018.0 µg/mL               | +/- 113.3890                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

## Quality Confirmation Test

**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:**

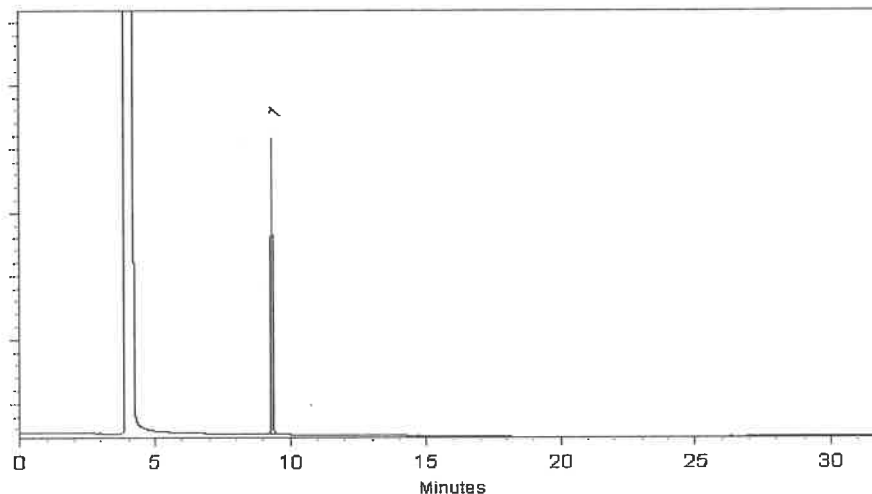
FID

**Split Vent:**

40 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.

  
Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2022      Balance Serial #      B707717271

  
Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-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.



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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. :** 30225 **Lot No.:** A0193071

**Description :** Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

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

**Expiration Date :** December 31, 2027 **Storage:** 0°C or colder

**Ship:** Ambient

CERTIFIED VALUES

| Elution Order | Compound           | CAS #   | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|--------------------|---------|----------|--------|-----------------------------|----------------------------------------|
| 1             | Bromochloromethane | 74-97-5 | 00008541 | 99%    | 2,018.0 µg/mL               | +/- 113.3890                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol

**CAS #** 67-56-1

**Purity** 99%

## Quality Confirmation Test

**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:**

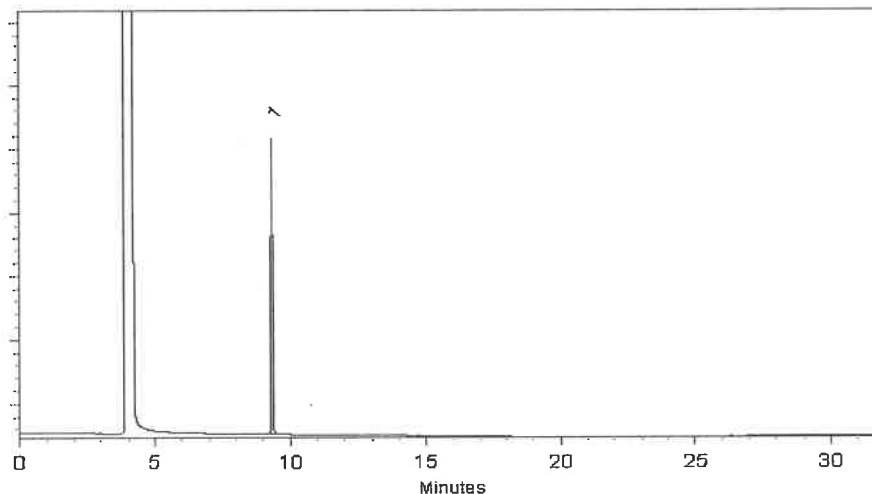
FID

**Split Vent:**

40 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.

  
Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2022      Balance Serial #      B707717271

  
Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-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:

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$k$  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:

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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. :** 30225 **Lot No.:** A0193071  
**Description :** Bromochloromethane Standard  
Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** December 31, 2027 **Storage:** 0°C or colder  
**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound           | CAS #   | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|--------------------|---------|----------|--------|-----------------------------|----------------------------------------|
| 1             | Bromochloromethane | 74-97-5 | 00008541 | 99%    | 2,018.0 µg/mL               | +/- 113.3890                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%



## Quality Confirmation Test

**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:**

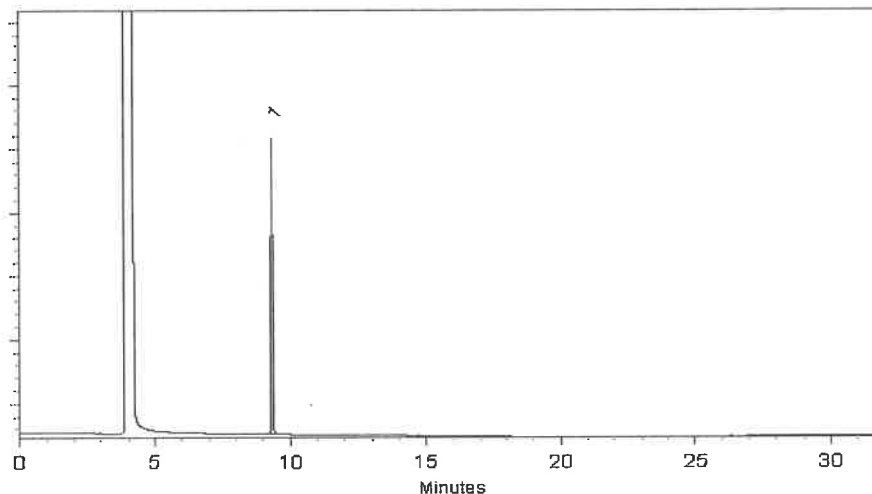
FID

**Split Vent:**

40 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.

  
Tom Suckar - Mix Technician

Date Mixed: 29-Dec-2022      Balance Serial #      B707717271

  
Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-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.
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### Purity Notes:

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$k$  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:

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### Handling Notes:

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## 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. :** 555582 **Lot No.:** A0196865

**Description :** Custom 8260A/B Surrogate Mix  
Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol,  
1mL/ampul

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

**Expiration Date :** April 30, 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-Dichloroethane-d4         | 17060-07-0 | PR-32845 | 99%    | 25,036.0 µg/mL              | +/- 1,417.9179                         |
| 2           | 1-Bromo-4-fluorobenzene (BFB) | 460-00-4   | 184975   | 99%    | 25,132.0 µg/mL              | +/- 1,423.3549                         |
| 3           | Dibromofluoromethane          | 1868-53-7  | 022013   | 99%    | 25,040.0 µg/mL              | +/- 1,418.1445                         |
| 4           | Toluene-d8                    | 2037-26-5  | PR-33397 | 99%    | 25,028.0 µg/mL              | +/- 1,417.4648                         |

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

Russ Bookhamer - Operations Technician I

**Date Mixed:** 11-Apr-2023

**Balance:** 1127510105

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:

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- 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:

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$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

*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:

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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. :** 30489 **Lot No.:** A0209618

**Description :** 8260B Acetates Mix  
8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

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

**Expiration Date :** September 30, 2025 **Storage:** -20°C or colder

**Handling:** This product is photosensitive. **Ship:** On Ice

## CERTIFIED VALUES

| Elution Order | Compound          | CAS #    | Lot #       | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|-------------------|----------|-------------|--------|-----------------------------|----------------------------------------|
| 1             | Methyl acetate    | 79-20-9  | SHBP3100    | 99%    | 2,019.3 µg/mL               | +/- 69.7974                            |
| 2             | Vinyl acetate     | 108-05-4 | RP231030CTH | 98%    | 2,016.8 µg/mL               | +/- 69.7112                            |
| 3             | Ethyl acetate     | 141-78-6 | SHBQ9682    | 99%    | 2,010.7 µg/mL               | +/- 69.4979                            |
| 4             | Isopropyl acetate | 108-21-4 | BCCG7069    | 99%    | 2,016.0 µg/mL               | +/- 69.6822                            |
| 5             | Propyl acetate    | 109-60-4 | P8XLN       | 99%    | 2,008.0 µg/mL               | +/- 69.4057                            |
| 6             | Butyl acetate     | 123-86-4 | SHBP6314    | 99%    | 2,007.3 µg/mL               | +/- 69.3826                            |
| 7             | Amyl acetate      | 628-63-7 | 41325/1     | 97%    | 2,004.7 µg/mL               | +/- 69.2905                            |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

### Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this

reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

## Quality Confirmation Test

**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:**

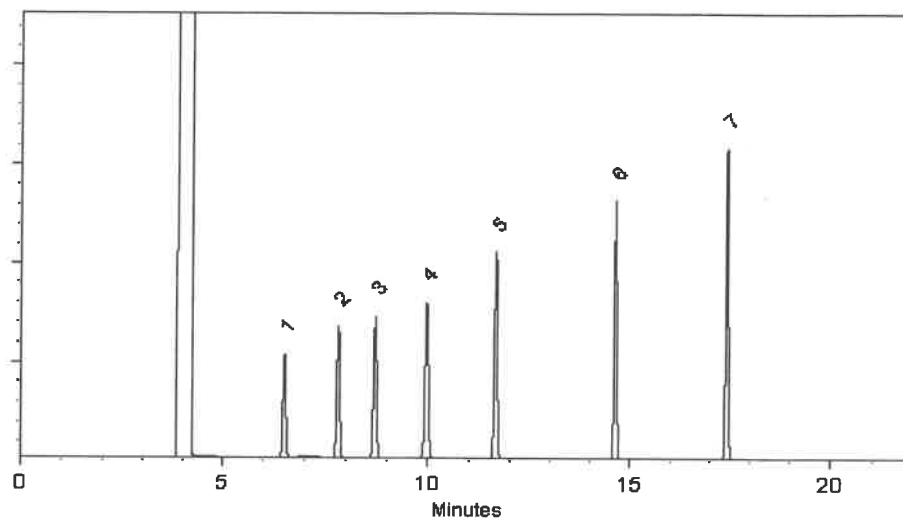
FID

**Split Vent:**

40 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: 28-Mar-2024

Balance Serial # B707717271

*Dillon Murphy*  
Dillon Murphy - Operations Technician I

Date Passed: 01-Apr-2024

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.
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- 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:

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### 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:

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CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

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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. :** 30489 **Lot No.:** A0209618

**Description :** 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

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

**Expiration Date :** September 30, 2025 **Storage:** -20°C or colder

**Handling:** This product is photosensitive. **Ship:** On Ice

## CERTIFIED VALUES

| Elution Order | Compound          | CAS #    | Lot #       | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|-------------------|----------|-------------|--------|-----------------------------|----------------------------------------|
| 1             | Methyl acetate    | 79-20-9  | SHBP3100    | 99%    | 2,019.3 µg/mL               | +/- 69.7974                            |
| 2             | Vinyl acetate     | 108-05-4 | RP231030CTH | 98%    | 2,016.8 µg/mL               | +/- 69.7112                            |
| 3             | Ethyl acetate     | 141-78-6 | SHBQ9682    | 99%    | 2,010.7 µg/mL               | +/- 69.4979                            |
| 4             | Isopropyl acetate | 108-21-4 | BCCG7069    | 99%    | 2,016.0 µg/mL               | +/- 69.6822                            |
| 5             | Propyl acetate    | 109-60-4 | P8XLN       | 99%    | 2,008.0 µg/mL               | +/- 69.4057                            |
| 6             | Butyl acetate     | 123-86-4 | SHBP6314    | 99%    | 2,007.3 µg/mL               | +/- 69.3826                            |
| 7             | Amyl acetate      | 628-63-7 | 41325/1     | 97%    | 2,004.7 µg/mL               | +/- 69.2905                            |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

### Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this



reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

## Quality Confirmation Test

**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:**

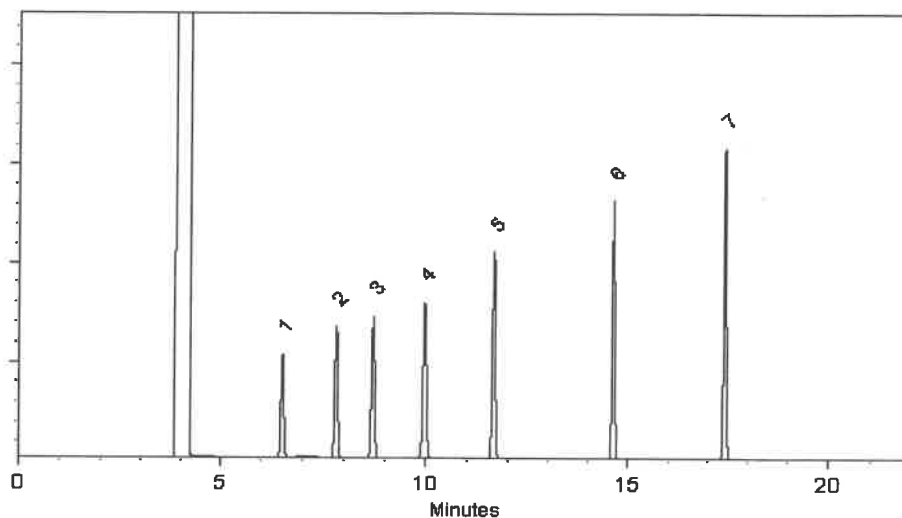
FID

**Split Vent:**

40 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: 28-Mar-2024

Balance Serial # B707717271

*Dillon Murphy*  
Dillon Murphy - Operations Technician I

Date Passed: 01-Apr-2024

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.



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## 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. :** 555581 **Lot No.:** A0210184

**Description :** Custom 8260 Internal Standard Mix

Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

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

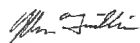
**Expiration Date :** April 30, 2027 **Storage:** 10°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Component # | Compound               | CAS #     | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|-------------|------------------------|-----------|----------|--------|-----------------------------|----------------------------------------|
| 1           | 1,4-Dichlorobenzene-d4 | 3855-82-1 | PR-30447 | 99%    | 25,212.0 µg/mL              | +/- 1,427.8857                         |
| 2           | 1,4-Difluorobenzene    | 540-36-3  | MKCS8657 | 99%    | 25,220.0 µg/mL              | +/- 1,428.3388                         |
| 3           | Chlorobenzene-d5       | 3114-55-4 | PR-31132 | 99%    | 25,116.0 µg/mL              | +/- 1,422.4487                         |
| 4           | Pentafluorobenzene     | 363-72-4  | MKCR9383 | 99%    | 25,180.0 µg/mL              | +/- 1,426.0734                         |

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

  
John Friedline - Operations Technician I

**Date Mixed:** 11-Apr-2024

**Balance:** 1127510105

REVISED  
By Restek Review of SDS per April 18, 2024

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.
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*chromatographic plus*  
V14697-to-14726



**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. :** 30006 **Lot No.:** A0210618  
**Description :** VOA Calibration Mix #1  
VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 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                    | CAS #    | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|-----------------------------|----------|----------|--------|-----------------------------|----------------------------------------|
| 1             | Acetone                     | 67-64-1  | SHBQ8504 | 99%    | 5,014.8 µg/mL               | +/- 173.2883                           |
| 2             | 2-Butanone (MEK)            | 78-93-3  | SHBQ4704 | 99%    | 5,012.4 µg/mL               | +/- 173.2054                           |
| 3             | 4-Methyl-2-pentanone (MIBK) | 108-10-1 | SHBP9200 | 99%    | 5,011.6 µg/mL               | +/- 173.1777                           |
| 4             | 2-Hexanone                  | 591-78-6 | MKCQ6663 | 99%    | 5,013.0 µg/mL               | +/- 173.2261                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol/Water (90:10)  
**CAS #** 67-56-1/7732-18-5  
**Purity** 99%

## Quality Confirmation Test

**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:**

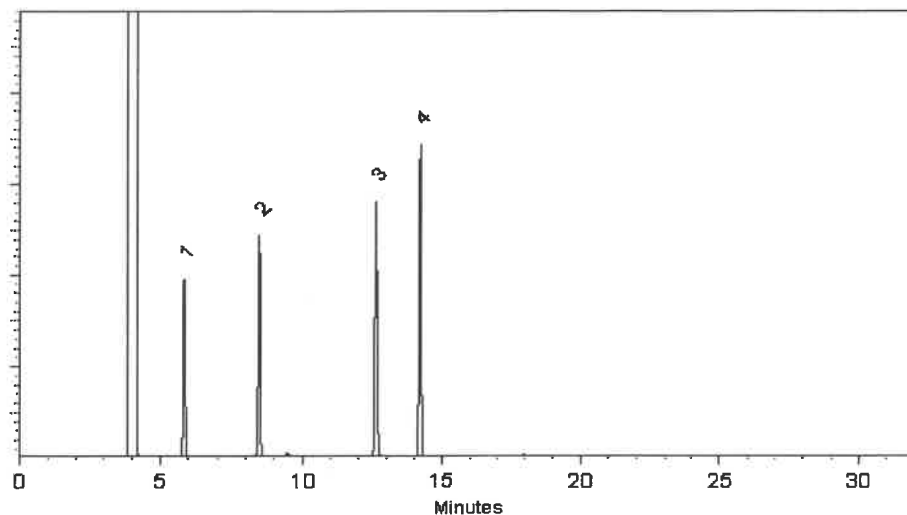
FID

**Split Vent:**

40 ml/min

**Inj. Vol**

1µl

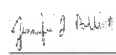


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024

Balance Serial # B707717271

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

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:

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$k$  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.
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**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. :** 30006 **Lot No.:** A0210618

**Description :** VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 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                    | CAS #    | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|-----------------------------|----------|----------|--------|-----------------------------|----------------------------------------|
| 1             | Acetone                     | 67-64-1  | SHBQ8504 | 99%    | 5,014.8 µg/mL               | +/- 173.2883                           |
| 2             | 2-Butanone (MEK)            | 78-93-3  | SHBQ4704 | 99%    | 5,012.4 µg/mL               | +/- 173.2054                           |
| 3             | 4-Methyl-2-pentanone (MIBK) | 108-10-1 | SHBP9200 | 99%    | 5,011.6 µg/mL               | +/- 173.1777                           |
| 4             | 2-Hexanone                  | 591-78-6 | MKCQ6663 | 99%    | 5,013.0 µg/mL               | +/- 173.2261                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol/Water (90:10)  
**CAS #** 67-56-1/7732-18-5  
**Purity** 99%



## Quality Confirmation Test

**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:**

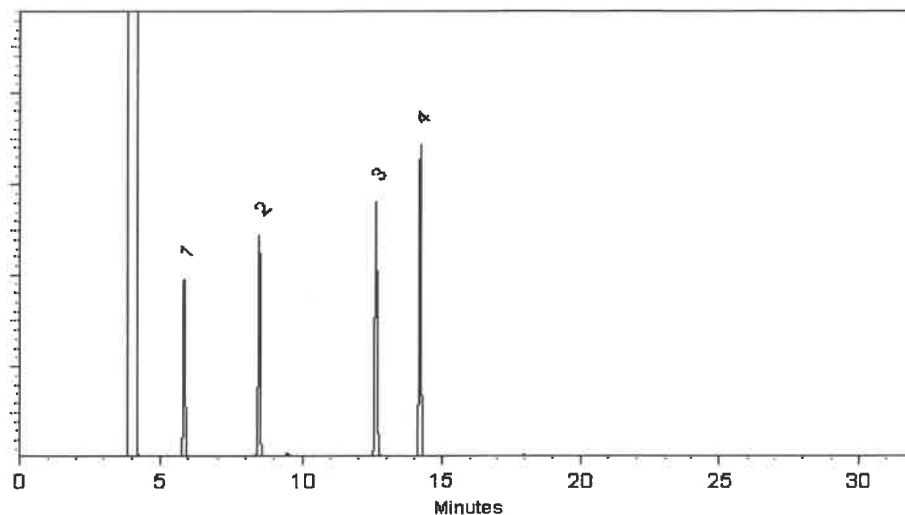
FID

**Split Vent:**

40 ml/min

**Inj. Vol**

1µl

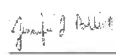


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024

Balance Serial # B707717271

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

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.
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**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. :** 30006 **Lot No.:** A0210618  
**Description :** VOA Calibration Mix #1  
VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 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                    | CAS #    | Lot #    | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|-----------------------------|----------|----------|--------|-----------------------------|----------------------------------------|
| 1             | Acetone                     | 67-64-1  | SHBQ8504 | 99%    | 5,014.8 µg/mL               | +/- 173.2883                           |
| 2             | 2-Butanone (MEK)            | 78-93-3  | SHBQ4704 | 99%    | 5,012.4 µg/mL               | +/- 173.2054                           |
| 3             | 4-Methyl-2-pentanone (MIBK) | 108-10-1 | SHBP9200 | 99%    | 5,011.6 µg/mL               | +/- 173.1777                           |
| 4             | 2-Hexanone                  | 591-78-6 | MKCQ6663 | 99%    | 5,013.0 µg/mL               | +/- 173.2261                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol/Water (90:10)  
**CAS #** 67-56-1/7732-18-5  
**Purity** 99%

## Quality Confirmation Test

**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:**

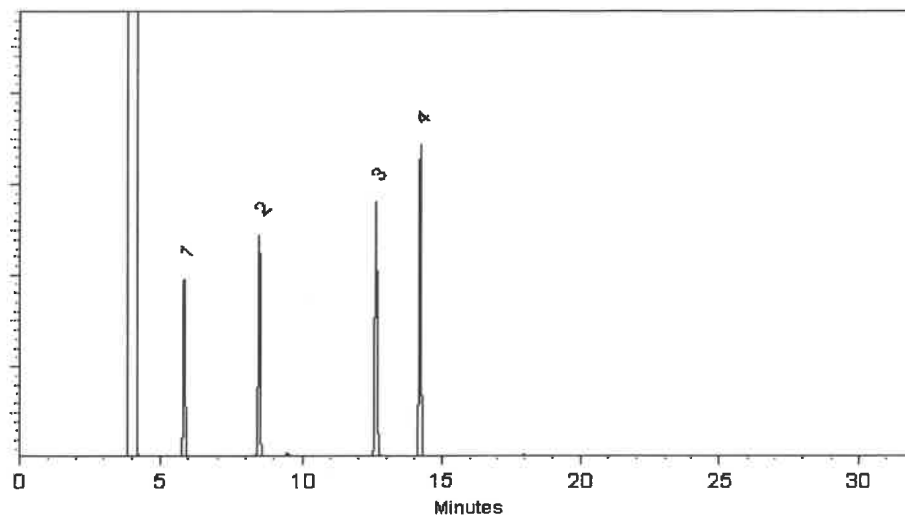
FID

**Split Vent:**

40 ml/min

**Inj. Vol**

1µl

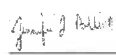


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024

Balance Serial # B707717271

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

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:

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- 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:

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V14756



**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. :** 30042 **Lot No.:** A0216826  
**Description :** 502.2 Calibration Mix #1  
502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** May 31, 2031 **Storage:** 0°C or colder  
**Ship:** Ambient

**CERTIFIED VALUES**

| Elution Order | Compound                         | CAS #   | Lot #           | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|----------------------------------|---------|-----------------|--------|-----------------------------|----------------------------------------|
| 1             | Dichlorodifluoromethane (CFC-12) | 75-71-8 | 00022922        | 99%    | 2,000.9 µg/mL               | +/- 112.4144                           |
| 2             | Chloromethane (methyl chloride)  | 74-87-3 | 00022694        | 99%    | 2,000.7 µg/mL               | +/- 112.3998                           |
| 3             | Vinyl chloride                   | 75-01-4 | 00015559        | 99%    | 2,000.3 µg/mL               | +/- 112.3779                           |
| 4             | Bromomethane (methyl bromide)    | 74-83-9 | 00017022        | 99%    | 2,001.8 µg/mL               | +/- 112.4650                           |
| 5             | Chloroethane (ethyl chloride)    | 75-00-3 | 107-401039114-1 | 99%    | 2,000.1 µg/mL               | +/- 112.3700                           |
| 6             | Trichlorofluoromethane (CFC-11)  | 75-69-4 | MKCJ8658        | 99%    | 2,000.7 µg/mL               | +/- 112.3992                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

# Quality Confirmation Test

**Column:**

60m x 0.25mm x 1.4µm  
Rtx-502.2 (cat.#10916)

**Carrier Gas:**

helium-constant flow 2.0 mL/min.

**Temp. Program:**

40°C (hold 6 min.) to 100°C  
@ 6°C/min.

**Inj. Temp:**

200°C

**Det. Temp:**

250°C

**Det. Type:**

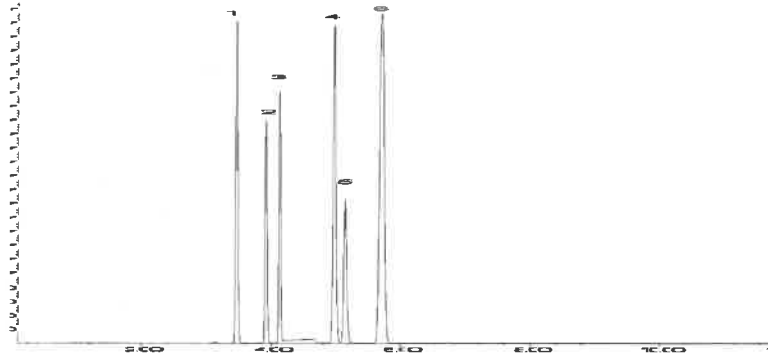
MSD

**Split Vent:**

Split ratio 10:1

**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.



Tom Suckal - Mix Technician

Date Mixed: 23-Sep-2024

Balance Serial # B707717271



Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

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

Rec 12/17/24  
30 ml  
CERTIFIED REFERENCE MATERIAL

**Certificate of Analysis**  
*chromatographic plus*

V14727 to  
V14756



**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. :** 30042 **Lot No.:** A0216826  
**Description :** 502.2 Calibration Mix #1  
502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** May 31, 2031 **Storage:** 0°C or colder  
**Ship:** Ambient

**CERTIFIED VALUES**

| Elution Order | Compound                         | CAS #   | Lot #           | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|----------------------------------|---------|-----------------|--------|-----------------------------|----------------------------------------|
| 1             | Dichlorodifluoromethane (CFC-12) | 75-71-8 | 00022922        | 99%    | 2,000.9 µg/mL               | +/- 112.4144                           |
| 2             | Chloromethane (methyl chloride)  | 74-87-3 | 00022694        | 99%    | 2,000.7 µg/mL               | +/- 112.3998                           |
| 3             | Vinyl chloride                   | 75-01-4 | 00015559        | 99%    | 2,000.3 µg/mL               | +/- 112.3779                           |
| 4             | Bromomethane (methyl bromide)    | 74-83-9 | 00017022        | 99%    | 2,001.8 µg/mL               | +/- 112.4650                           |
| 5             | Chloroethane (ethyl chloride)    | 75-00-3 | 107-401039114-1 | 99%    | 2,000.1 µg/mL               | +/- 112.3700                           |
| 6             | Trichlorofluoromethane (CFC-11)  | 75-69-4 | MKCJ8658        | 99%    | 2,000.7 µg/mL               | +/- 112.3992                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

# Quality Confirmation Test

**Column:**

60m x 0.25mm x 1.4µm  
Rtx-502.2 (cat.#10916)

**Carrier Gas:**

helium-constant flow 2.0 mL/min.

**Temp. Program:**

40°C (hold 6 min.) to 100°C  
@ 6°C/min.

**Inj. Temp:**

200°C

**Det. Temp:**

250°C

**Det. Type:**

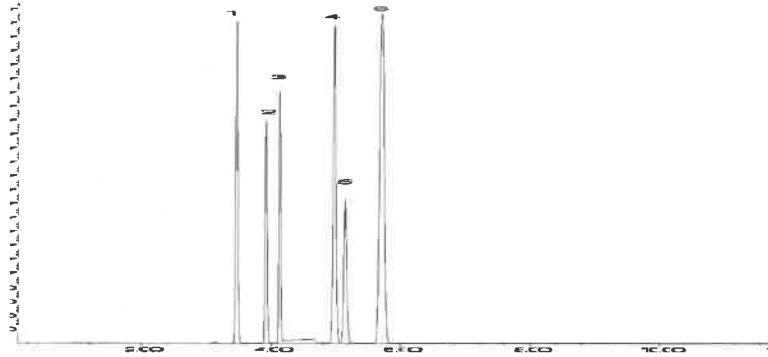
MSD

**Split Vent:**

Split ratio 10:1

**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.

Tom Suckal - Mix Technician

Date Mixed: 23-Sep-2024

Balance Serial # B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

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.



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Bellefonte, PA 16823-8812  
Tel: 1-814-353-1300  
Fax: 1-814-353-1309

www.restek.com

2014 Dec 01/08/21  
CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

chromatographic

V14803 - V14822



### 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. :** 555408-SL **Lot No.:** A0220471  
**Description :** Custom Vinyl Acetate Standard  
Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** June 30, 2026 **Storage:** -20°C or colder  
**Handling:** This product is photosensitive. **Ship:** On Ice

### CERTIFIED VALUES

| Elution Order | Compound      | CAS #    | Lot #       | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|---------------|----------|-------------|--------|-----------------------------|----------------------------------------|
| 1             | Vinyl acetate | 108-05-4 | RD240423RSR | 99%    | 8,066.0 µg/mL               | +/- 278.7979                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

### Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

## Quality Confirmation Test

**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:**

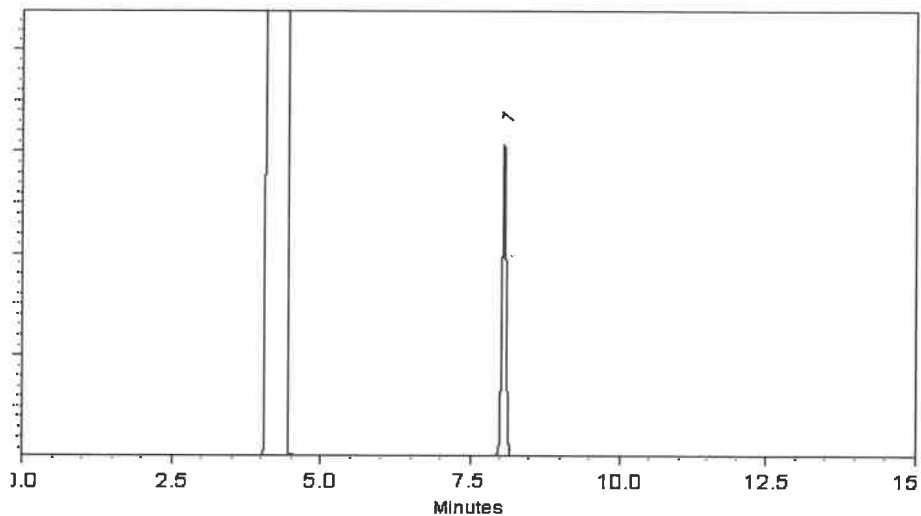
FID

**Split Vent:**

40 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.

Ethan Winiarski - Operations Tech I

Date Mixed: 24-Dec-2024

Balance Serial # 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED  
By Jennifer Pollock at 7:12 am, Jan 05, 2025

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/ $\mu$ ECD, 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.
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www.restek.com

10 vol Rec 01/08/25  
CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic

✓ 14793 to 14802



## 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. :** 555408-FL **Lot No.:** A0220563  
**Description :** Custom Vinyl Acetate Standard  
Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** June 30, 2026 **Storage:** -20°C or colder  
**Handling:** This product is photosensitive. **Ship:** On Ice

## CERTIFIED VALUES

| Elution Order | Compound      | CAS #    | Lot #       | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---------------|---------------|----------|-------------|--------|-----------------------------|----------------------------------------|
| 1             | Vinyl acetate | 108-05-4 | RD240423RSR | 99%    | 8,060.0 µg/mL               | +/- 278.5905                           |

\* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

### Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

# Quality Confirmation Test

**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:**

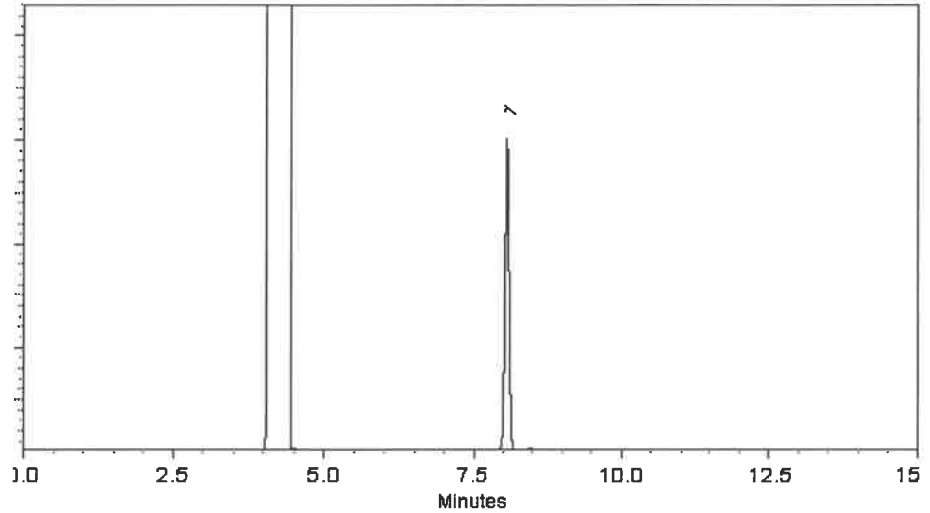
FID

**Split Vent:**

40 ml/min

**Inj. Vol**

1µl

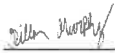


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Tom Suckal - Mix Technician

Date Mixed: 30-Dec-2024

Balance Serial # B345965662

  
Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED  
By Jennifer Pothos at 7:11 am, Jan 03, 2025

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/ $\mu$ ECD, 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.

Methanol  
ULTRA RESI-ANALYZED  
For Purge and Trap Analysis



Material No.: 9077-02  
Batch No.: 22L0562016  
Manufactured Date: 2022-10-26  
Expiration Date: 2025-10-25  
Revision No.: 0

## Certificate of Analysis

| Test                                                    | Specification | Result   |
|---------------------------------------------------------|---------------|----------|
| Assay (CH <sub>3</sub> OH) (by GC, corrected for water) | ≥ 99.9 %      | 100.0 %  |
| Residue after Evaporation                               | ≤ 1.0 ppm     | 0.2 ppm  |
| Titration Acid (μeq/g)                                  | ≤ 0.3         | 0.2      |
| Titration Base (μeq/g)                                  | ≤ 0.10        | 0.03     |
| Water (by KF, coulometric)                              | ≤ 0.08 %      | < 0.01 % |
| Volatile Organic Trace Analysis - Below EPA 8260B CRQL  | Conforms      | Conforms |

For Laboratory, Research, or Manufacturing Use  
Performance Tested for Use in EPA Methods  
500 Series for Drinking Water  
600 Series for Wastewater  
846 for Solid Waste

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Ethier  
Vice President Global Quality

Methanol  
ULTRA RESI-ANALYZED  
For Purge and Trap Analysis



Material No.: 9077-02  
Batch No.: 22L0562016  
Manufactured Date: 2022-10-26  
Expiration Date: 2025-10-25  
Revision No.: 0

## Certificate of Analysis

| Test                                                    | Specification | Result   |
|---------------------------------------------------------|---------------|----------|
| Assay (CH <sub>3</sub> OH) (by GC, corrected for water) | ≥ 99.9 %      | 100.0 %  |
| Residue after Evaporation                               | ≤ 1.0 ppm     | 0.2 ppm  |
| Titration Acid (µeq/g)                                  | ≤ 0.3         | 0.2      |
| Titration Base (µeq/g)                                  | ≤ 0.10        | 0.03     |
| Water (by KF, coulometric)                              | ≤ 0.08 %      | < 0.01 % |
| Volatile Organic Trace Analysis - Below EPA 8260B CRQL  | Conforms      | Conforms |

For Laboratory, Research, or Manufacturing Use  
Performance Tested for Use in EPA Methods  
500 Series for Drinking Water  
600 Series for Wastewater  
846 for Solid Waste

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Ethier  
Vice President Global Quality



# SHIPPING DOCUMENTS

# CHEMTECH

## CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 • Fax (908) 789-8922  
www.chemtech.net

CHEMTECH PROJECT NO. **Q1207**  
QUOTE NO.  
COC Number **2038583**

### CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: RU2 Engineering LLC  
ADDRESS: 2 Melinda Drive  
Monroe Twp, NJ 08831  
CITY: STATE: ZIP:  
ATTENTION: **Rutu Manani**  
PHONE: **609-409-4564** FAX:

### CLIENT PROJECT INFORMATION

PROJECT NAME: **SANDTWOOR BMLR Project**  
PROJECT NO.: LOCATION: **Brooklyn, NY**  
PROJECT MANAGER: **Rutu Manani**  
e-mail: **Rmanani@RU2eng.com**  
PHONE: FAX:

### CLIENT BILLING INFORMATION

BILL TO: **Same as company address** PO#:  
ADDRESS:  
CITY: STATE: ZIP:  
ATTENTION: PHONE:

### ANALYSIS

### DATA TURNAROUND INFORMATION

FAX (RUSH) **Standard 10 days** DAYS\*  
HARDCOPY (DATA PACKAGE): **Standard 10 days** DAYS\*  
EDD: **Standard 10 days** DAYS\*

\*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

### DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)  
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP  
☐ Level 3 (Results + QC) ☐ NYS ASP A ☒ NYS ASP B  
+ Raw Data ☐ Other  
☐ EDD FORMAT

1. TEL VOCs + TICS  
2. TEL VOCs  
3. TPH  
4. TEL GRO-DRO  
5. TAL SVOCs + TICS  
6. TAL Metals  
7. Pesticides, PCBs  
8. PCRA Characterization  
9. Paint Filter  
10. Full TELP

### PRESERVATIVES

### COMMENTS

| CHEMTECH<br>SAMPLE<br>ID | PROJECT<br>SAMPLE IDENTIFICATION | SAMPLE<br>MATRIX | SAMPLE<br>TYPE |      | SAMPLE<br>COLLECTION |       | # OF BOTTLES |   |   |   |   |   |   |   |   |   | Specify Preservatives<br>A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-OTHER |
|--------------------------|----------------------------------|------------------|----------------|------|----------------------|-------|--------------|---|---|---|---|---|---|---|---|---|--------------------------------------------------------------------|
|                          |                                  |                  | COMP           | GRAB | DATE                 | TIME  |              | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                                                                    |
| 1.                       | JPP-2.1-012725                   | Soil             |                | G    | 1/27/25              | 9:05  | 3            | X | X | X |   |   |   |   |   |   |                                                                    |
| 2.                       | JPP-2.1-012725                   | Soil             | C              |      | 1/27/25              | 9:08  | 7            |   |   | X | X | X | X | X | X | X |                                                                    |
| 3.                       | JPP-5.1-012725                   | Soil             |                | G    | 1/27/25              | 10:10 | 3            | X | X | X |   |   |   |   |   |   |                                                                    |
| 4.                       | JPP-5.1-012725                   | Soil             | C              |      | 1/27/25              | 10:10 | 7            |   |   | X | X | X | X | X | X | X |                                                                    |
| 5.                       | JPP-4.5-012725                   | Soil             |                | G    | 1/27/25              | 10:50 | 3            | X | X | X |   |   |   |   |   |   |                                                                    |
| 6.                       | JPP-4.5-012725                   | Soil             | C              |      | 1/27/25              | 10:50 | 7            |   |   | X | X | X | X | X | X | X |                                                                    |
| 7.                       | JPP-16.2-012725                  | Soil             |                | G    | 1/27/25              | 12:07 | 3            | X | X | X |   |   |   |   |   |   |                                                                    |
| 8.                       | JPP-16.2-012725                  | Soil             | C              |      | 1/27/25              | 12:09 | 7            |   |   | X | X | X | X | X | X | X |                                                                    |
| 9.                       | JPP-20.2-012725                  | Soil             |                | G    | 1/27/25              | 13:40 | 3            | X | X | X |   |   |   |   |   |   |                                                                    |
| 10.                      | JPP-20.2-012725                  | Soil             | C              |      | 1/27/25              | 13:40 | 7            |   |   | X | X | X | X | X | X | X |                                                                    |

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

|                                                   |                                          |                                                   |                                                                                                                                                                           |
|---------------------------------------------------|------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RELINQUISHED BY SAMPLER:<br>1. <b>RVM</b>         | DATE/TIME:<br><b>1/28/2025</b>           | RECEIVED BY:<br><b>[Signature]</b> <b>1-28-25</b> | Conditions of bottles or coolers at receipt: <input type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <input type="checkbox"/> COOLER TEMP <b>3-7</b> °C |
| RELINQUISHED BY SAMPLER:<br>2. <b>[Signature]</b> | DATE/TIME:                               | RECEIVED BY:                                      | Comments:<br><b>Preserve extra sample jar if additional analysis is required.</b>                                                                                         |
| RELINQUISHED BY SAMPLER:<br>3. <b>[Signature]</b> | DATE/TIME: <b>1259</b><br><b>1-28-25</b> | RECEIVED BY:                                      | Page ____ of ____                                                                                                                                                         |

CLIENT: ☐ Hand Delivered ☐ Other  
CHEMTECH: ☐ Picked Up ☐ Field Sampling

Shipment Complete  
☐ YES ☐ NO



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

### 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       |

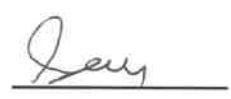
## LOGIN REPORT/SAMPLE TRANSFER

|                                            |               |                                                              |           |                                |
|--------------------------------------------|---------------|--------------------------------------------------------------|-----------|--------------------------------|
| <b>Order ID :</b> Q1207                    | <b>RUTW01</b> | <b>Order Date :</b> 1/28/2025 11:40:00 AM                    | <b>YG</b> | <b>Project Mgr :</b>           |
| <b>Client Name :</b> RU2 Engineering, LLC  |               | <b>Project Name :</b> <del>SANDTWOBR-BMCR Bro</del> 02/03/25 |           | <b>Report Type :</b> NYS ASP B |
| <b>Client Contact :</b> Rutu Manani        |               | <b>Receive DateTime :</b> 1/28/2025 12:59:00 PM              |           | <b>EDD Type :</b> Excel NY     |
| <b>Invoice Name :</b> RU2 Engineering, LLC |               | <b>Purchase Order :</b>                                      |           | <b>Hard Copy Date :</b>        |
| <b>Invoice Contact :</b> Rutu Manani       |               |                                                              |           | <b>Date Signoff :</b>          |

| LAB ID   | CLIENT ID       | MATRIX | SAMPLE DATE | SAMPLE TIME | TEST         | TEST GROUP | METHOD | FAX DATE | DUE DATES    |
|----------|-----------------|--------|-------------|-------------|--------------|------------|--------|----------|--------------|
| Q1207-01 | JPP-2.1-012725  | Solid  | 01/27/2025  | 09:05       |              |            |        |          |              |
|          |                 |        |             |             | VOCMS Group1 |            | 8260D  |          | 10 Bus. Days |
| Q1207-05 | JPP-5.1-012725  | Solid  | 01/27/2025  | 10:10       |              |            |        |          |              |
|          |                 |        |             |             | VOCMS Group1 |            | 8260D  |          | 10 Bus. Days |
| Q1207-09 | JPP-4.5-012725  | Solid  | 01/27/2025  | 10:50       |              |            |        |          |              |
|          |                 |        |             |             | VOCMS Group1 |            | 8260D  |          | 10 Bus. Days |
| Q1207-13 | JPP-16.2-012725 | Solid  | 01/27/2025  | 12:07       |              |            |        |          |              |
|          |                 |        |             |             | VOCMS Group1 |            | 8260D  |          | 10 Bus. Days |
| Q1207-17 | JPP-20.2-012725 | Solid  | 01/27/2025  | 13:40       |              |            |        |          |              |
|          |                 |        |             |             | VOCMS Group1 |            | 8260D  |          | 10 Bus. Days |

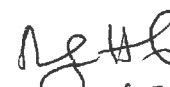
Relinquished By: 

Date / Time : 1-28-25 1447

Received By: 

Date / Time : 1/28/25 1447

Storage Area : VOA Refridgerator Room

  
#22