

## **DATA PACKAGE VOLATILE ORGANICS**

**PROJECT NAME : FORMER SCHLUMBERGER SITE PRINCETON NJ**

**JACOBS ENGINEERING GROUP, INC.**

**412 Mt. Kemble Ave**

**Downtown Building**

**Morristown, NJ - 07960**

**Phone No: 9732670555**

**ORDER ID : P3609**

**ATTENTION : Mary I. Murphy**



**Laboratory Certification ID # 20012**



|                                             |     |
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## Cover Page

**Order ID :** P3609

**Project ID :** Former Schlumberger Site Princeton NJ

**Client :** JACOBS Engineering Group, Inc.

**Lab Sample Number**

P3609-01  
P3609-02  
P3609-03

**Client Sample Number**

915-J-WS-081424  
920-J-WS-081424  
TB-01-081424

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 : N. N. Pandya

NYDOH CERTIFICATION NO - 11376

**APPROVED**

Nimisha Pandya, QA/QC Supervisor , 10/30/2024, 10:56:12 AM

NJDEP CERTIFICATION NO - 20012



## **CASE NARRATIVE**

**JACOBS Engineering Group, Inc.**

**Project Name: Former Schlumberger Site Princeton NJ**

**Project # N/A**

**Chemtech Project # P3609**

**Test Name: VOCMS Group6**

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

3 Water samples were received on 08/14/2024.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Hexavalent Chromium, Mercury, Metals Group4, SVOCMS Group3, SVOCMS Group6 and VOCMS Group6. This data package contains results for VOCMS Group6.

### **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 VOCMS Group6 was based on method 8260D.

### **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:**

This data package has been revised due to parameter list changed.

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

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 <15% 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 > 15% for the Initial Calibration curve for SW-846 analysis.



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

**F. Manual Integration Comments:**

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

---

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

Signature N. N. Pandya



## DATA REPORTING QUALIFIERS- ORGANIC

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

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

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

CHEMTECH PROJECT NUMBER: P3609

MATRIX: Water

METHOD: 8260D

|     |                                                                                                                                                                                                                                                                                                     | 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:                                                                                                                                                                                                          |    |    | ✓   |

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

NA NO YES

ADDITIONAL COMMENTS:

This data package has been revised due to parameter list changed.

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

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 <15% 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 > 15% for the Initial Calibration curve for SW-846 analysis.

S. M. Jodhani  
QA REVIEW

**REVIEWED**

By Sohil Jodhani, QA/QC Director at 10:02 am, Oct 30, 2024

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P3609

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: 10/15/2024

LAB CHRONICLE

|          |                                |            |                                       |
|----------|--------------------------------|------------|---------------------------------------|
| OrderID: | P3609                          | OrderDate: | 8/14/2024 12:48:00 PM                 |
| Client:  | JACOBS Engineering Group, Inc. | Project:   | Former Schlumberger Site Princeton NJ |
| Contact: | Mary I. Murphy                 | Location:  | D21,VOA Ref. #3 Water                 |

| LabID    | ClientID        | Matrix | Test         | Method   | Sample Date | Prep Date | Anal Date | Received |
|----------|-----------------|--------|--------------|----------|-------------|-----------|-----------|----------|
| P3609-01 | 915-J-WS-081424 | Water  | VOCMS Group6 | 8260-Low | 08/14/24    |           | 08/14/24  | 08/14/24 |
| P3609-02 | 920-J-WS-081424 | Water  | VOCMS Group6 | 8260-Low | 08/14/24    |           | 08/14/24  | 08/14/24 |
| P3609-03 | TB-01-081424    | Water  | VOCMS Group6 | 8260-Low | 08/14/24    |           | 08/14/24  | 08/14/24 |

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

**SDG No.:** P3609  
**Client:** JACOBS Engineering Group, Inc.

| Sample ID                     | Client ID                                 | Matrix | Parameter                   | Concentration | C | MDL  | RDL  | Units |
|-------------------------------|-------------------------------------------|--------|-----------------------------|---------------|---|------|------|-------|
| <b>Client ID:</b><br>P3609-01 | <b>915-J-WS-081424</b><br>915-J-WS-081424 | Water  | Acetone                     | 3.70          | J | 1.40 | 5.00 | ug/L  |
|                               |                                           |        | <b>Total Voc :</b>          | 3.70          |   |      |      |       |
|                               |                                           |        | <b>Total Concentration:</b> | 3.70          |   |      |      |       |
| <b>Client ID:</b><br>P3609-02 | <b>920-J-WS-081424</b><br>920-J-WS-081424 | Water  | Acetone                     | 3.70          | J | 1.40 | 5.00 | ug/L  |
|                               |                                           |        | <b>Total Voc :</b>          | 3.70          |   |      |      |       |
|                               |                                           |        | <b>Total Concentration:</b> | 3.70          |   |      |      |       |
| <b>Client ID:</b><br>P3609-03 | <b>TB-01-081424</b><br>TB-01-081424       | Water  | Acetone                     | 3.50          | J | 1.40 | 5.00 | ug/L  |
|                               |                                           |        | <b>Total Voc :</b>          | 3.50          |   |      |      |       |
|                               |                                           |        | <b>Total Concentration:</b> | 3.50          |   |      |      |       |





# QC SUMMARY

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### Surrogate Summary

SDG No.: **P3609**

Client: **JACOBS Engineering Group, Inc.**

Analytical Method: **SW8260-Low**

| Lab Sample ID | Client ID       | Parameter             | Spike | Result | RecoveryQual | Limits  |           |
|---------------|-----------------|-----------------------|-------|--------|--------------|---------|-----------|
|               |                 |                       |       |        |              | Low     | High      |
| P3609-01      | 915-J-WS-081424 | 1,2-Dichloroethane-d4 | 50    | 58.6   | 117          | 70 (74) | 130 (125) |
|               |                 | Dibromofluoromethane  | 50    | 54.0   | 108          | 70 (75) | 130 (124) |
|               |                 | Toluene-d8            | 50    | 53.6   | 107          | 70 (86) | 130 (113) |
|               |                 | 4-Bromofluorobenzene  | 50    | 57.3   | 115          | 70 (77) | 130 (121) |
| P3609-02      | 920-J-WS-081424 | 1,2-Dichloroethane-d4 | 50    | 60.0   | 120          | 70 (74) | 130 (125) |
|               |                 | Dibromofluoromethane  | 50    | 54.7   | 109          | 70 (75) | 130 (124) |
|               |                 | Toluene-d8            | 50    | 55.0   | 110          | 70 (86) | 130 (113) |
|               |                 | 4-Bromofluorobenzene  | 50    | 56.5   | 113          | 70 (77) | 130 (121) |
| P3609-03      | TB-01-081424    | 1,2-Dichloroethane-d4 | 50    | 56.9   | 114          | 70 (74) | 130 (125) |
|               |                 | Dibromofluoromethane  | 50    | 53.4   | 107          | 70 (75) | 130 (124) |
|               |                 | Toluene-d8            | 50    | 53.6   | 107          | 70 (86) | 130 (113) |
|               |                 | 4-Bromofluorobenzene  | 50    | 57.0   | 114          | 70 (77) | 130 (121) |
| VN0814WBL01   | VN0814WBL01     | 1,2-Dichloroethane-d4 | 50    | 55.6   | 111          | 70 (74) | 130 (125) |
|               |                 | Dibromofluoromethane  | 50    | 53.1   | 106          | 70 (75) | 130 (124) |
|               |                 | Toluene-d8            | 50    | 54.2   | 108          | 70 (86) | 130 (113) |
|               |                 | 4-Bromofluorobenzene  | 50    | 56.3   | 113          | 70 (77) | 130 (121) |
| VN0814WBS01   | VN0814WBS01     | 1,2-Dichloroethane-d4 | 50    | 56.3   | 113          | 70 (74) | 130 (125) |
|               |                 | Dibromofluoromethane  | 50    | 54.0   | 108          | 70 (75) | 130 (124) |
|               |                 | Toluene-d8            | 50    | 53.1   | 106          | 70 (86) | 130 (113) |
|               |                 | 4-Bromofluorobenzene  | 50    | 52.3   | 105          | 70 (77) | 130 (121) |
| VN0814WBSD01  | VN0814WBSD01    | 1,2-Dichloroethane-d4 | 50    | 58.7   | 117          | 70 (74) | 130 (125) |
|               |                 | Dibromofluoromethane  | 50    | 54.0   | 108          | 70 (75) | 130 (124) |
|               |                 | Toluene-d8            | 50    | 53.0   | 106          | 70 (86) | 130 (113) |
|               |                 | 4-Bromofluorobenzene  | 50    | 53.0   | 106          | 70 (77) | 130 (121) |

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P3609

Client: JACOBS Engineering Group, Inc.

Analytical Method: SW8260-Low

Datafile : VN083298.D

| Lab Sample ID | Parameter                      | Spike | Result | Unit | Rec | RPD | Qual | Low     | Limits<br>High | RPD |
|---------------|--------------------------------|-------|--------|------|-----|-----|------|---------|----------------|-----|
| VN0814WBS01   | Dichlorodifluoromethane        | 20    | 18.6   | ug/L | 93  |     |      | 40 (69) | 160 (116)      |     |
|               | Chloromethane                  | 20    | 19.1   | ug/L | 96  |     |      | 40 (65) | 160 (116)      |     |
|               | Vinyl chloride                 | 20    | 20.2   | ug/L | 101 |     |      | 70 (65) | 130 (117)      |     |
|               | Bromomethane                   | 20    | 18.6   | ug/L | 93  |     |      | 40 (58) | 160 (125)      |     |
|               | Chloroethane                   | 20    | 20.4   | ug/L | 102 |     |      | 40 (56) | 160 (128)      |     |
|               | 1,1,2-Trichlorotrifluoroethane | 20    | 20.8   | ug/L | 104 |     |      | 70 (80) | 130 (112)      |     |
|               | 1,1-Dichloroethene             | 20    | 18.8   | ug/L | 94  |     |      | 70 (74) | 130 (110)      |     |
|               | Acetone                        | 100   | 100    | ug/L | 100 |     |      | 40 (60) | 160 (125)      |     |
|               | Carbon disulfide               | 20    | 16.3   | ug/L | 81  |     |      | 40 (64) | 160 (112)      |     |
|               | Methyl tert-butyl Ether        | 20    | 20.0   | ug/L | 100 |     |      | 70 (78) | 130 (114)      |     |
|               | Methylene Chloride             | 20    | 19.0   | ug/L | 95  |     |      | 70 (72) | 130 (114)      |     |
|               | trans-1,2-Dichloroethene       | 20    | 18.7   | ug/L | 94  |     |      | 70 (75) | 130 (108)      |     |
|               | 1,1-Dichloroethane             | 20    | 20.5   | ug/L | 103 |     |      | 70 (78) | 130 (112)      |     |
|               | Cyclohexane                    | 20    | 18.5   | ug/L | 93  |     |      | 70 (75) | 130 (110)      |     |
|               | 2-Butanone                     | 100   | 100    | ug/L | 100 |     |      | 40 (65) | 160 (122)      |     |
|               | Carbon Tetrachloride           | 20    | 20.1   | ug/L | 101 |     |      | 70 (77) | 130 (113)      |     |
|               | cis-1,2-Dichloroethene         | 20    | 19.6   | ug/L | 98  |     |      | 70 (77) | 130 (110)      |     |
|               | Chloroform                     | 20    | 21.3   | ug/L | 106 |     |      | 70 (79) | 130 (113)      |     |
|               | 1,1,1-Trichloroethane          | 20    | 20.7   | ug/L | 104 |     |      | 70 (80) | 130 (108)      |     |
|               | Methylcyclohexane              | 20    | 18.2   | ug/L | 91  |     |      | 70 (72) | 130 (115)      |     |
|               | Benzene                        | 20    | 20.4   | ug/L | 102 |     |      | 70 (82) | 130 (109)      |     |
|               | 1,2-Dichloroethane             | 20    | 21.5   | ug/L | 108 |     |      | 70 (80) | 130 (115)      |     |
|               | Trichloroethene                | 20    | 20.1   | ug/L | 101 |     |      | 70 (77) | 130 (113)      |     |
|               | Bromodichloromethane           | 20    | 20.7   | ug/L | 104 |     |      | 70 (83) | 130 (110)      |     |
|               | Toluene                        | 20    | 20.3   | ug/L | 102 |     |      | 70 (82) | 130 (110)      |     |
|               | 1,1,2-Trichloroethane          | 20    | 21.5   | ug/L | 108 |     |      | 70 (83) | 130 (112)      |     |
|               | Dibromochloromethane           | 20    | 20.6   | ug/L | 103 |     |      | 70 (82) | 130 (110)      |     |
|               | Tetrachloroethene              | 20    | 19.6   | ug/L | 98  |     |      | 70 (67) | 130 (123)      |     |
|               | Chlorobenzene                  | 20    | 19.8   | ug/L | 99  |     |      | 70 (82) | 130 (109)      |     |
|               | Ethyl Benzene                  | 20    | 19.6   | ug/L | 98  |     |      | 70 (83) | 130 (109)      |     |
|               | m/p-Xylenes                    | 40    | 38.6   | ug/L | 97  |     |      | 70 (82) | 130 (110)      |     |
|               | o-Xylene                       | 20    | 19.5   | ug/L | 98  |     |      | 70 (83) | 130 (109)      |     |
|               | Isopropylbenzene               | 20    | 19.3   | ug/L | 97  |     |      | 70 (83) | 130 (112)      |     |
|               | 1,4-Dichlorobenzene            | 20    | 19.1   | ug/L | 96  |     |      | 70 (82) | 130 (107)      |     |
|               | 1,2-Dichlorobenzene            | 20    | 19.1   | ug/L | 96  |     |      | 70 (82) | 130 (109)      |     |

() = LABORATORY INHOUSE LIMIT

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P3609

Client: JACOBS Engineering Group, Inc.

Analytical Method: SW8260-Low

Datafile : VN083300.D

| Lab Sample ID | Parameter                      | Spike | Result | Unit | Rec | RPD | Qual | Low     | Limits<br>High | RPD     |
|---------------|--------------------------------|-------|--------|------|-----|-----|------|---------|----------------|---------|
| VN0814WBSD01  | Dichlorodifluoromethane        | 20    | 18.9   | ug/L | 95  | 2   |      | 40 (69) | 160 (116)      | 20 (20) |
|               | Chloromethane                  | 20    | 19.1   | ug/L | 96  | 0   |      | 40 (65) | 160 (116)      | 20 (20) |
|               | Vinyl chloride                 | 20    | 19.9   | ug/L | 100 | 1   |      | 70 (65) | 130 (117)      | 20 (20) |
|               | Bromomethane                   | 20    | 19.1   | ug/L | 96  | 3   |      | 40 (58) | 160 (125)      | 20 (20) |
|               | Chloroethane                   | 20    | 21.1   | ug/L | 106 | 4   |      | 40 (56) | 160 (128)      | 20 (20) |
|               | 1,1,2-Trichlorotrifluoroethane | 20    | 20.5   | ug/L | 103 | 1   |      | 70 (80) | 130 (112)      | 20 (20) |
|               | 1,1-Dichloroethene             | 20    | 18.7   | ug/L | 94  | 0   |      | 70 (74) | 130 (110)      | 20 (20) |
|               | Acetone                        | 100   | 110    | ug/L | 110 | 10  |      | 40 (60) | 160 (125)      | 20 (20) |
|               | Carbon disulfide               | 20    | 16.2   | ug/L | 81  | 0   |      | 40 (64) | 160 (112)      | 20 (20) |
|               | Methyl tert-butyl Ether        | 20    | 21.7   | ug/L | 109 | 9   |      | 70 (78) | 130 (114)      | 20 (20) |
|               | Methylene Chloride             | 20    | 19.9   | ug/L | 100 | 5   |      | 70 (72) | 130 (114)      | 20 (20) |
|               | trans-1,2-Dichloroethene       | 20    | 19.2   | ug/L | 96  | 2   |      | 70 (75) | 130 (108)      | 20 (20) |
|               | 1,1-Dichloroethane             | 20    | 21.3   | ug/L | 106 | 3   |      | 70 (78) | 130 (112)      | 20 (20) |
|               | Cyclohexane                    | 20    | 18.7   | ug/L | 94  | 1   |      | 70 (75) | 130 (110)      | 20 (20) |
|               | 2-Butanone                     | 100   | 110    | ug/L | 110 | 10  |      | 40 (65) | 160 (122)      | 20 (20) |
|               | Carbon Tetrachloride           | 20    | 19.6   | ug/L | 98  | 3   |      | 70 (77) | 130 (113)      | 20 (20) |
|               | cis-1,2-Dichloroethene         | 20    | 20.9   | ug/L | 104 | 6   |      | 70 (77) | 130 (110)      | 20 (20) |
|               | Chloroform                     | 20    | 22.4   | ug/L | 112 | 6   |      | 70 (79) | 130 (113)      | 20 (20) |
|               | 1,1,1-Trichloroethane          | 20    | 20.9   | ug/L | 104 | 0   |      | 70 (80) | 130 (108)      | 20 (20) |
|               | Methylcyclohexane              | 20    | 17.8   | ug/L | 89  | 2   |      | 70 (72) | 130 (115)      | 20 (20) |
|               | Benzene                        | 20    | 20.2   | ug/L | 101 | 1   |      | 70 (82) | 130 (109)      | 20 (20) |
|               | 1,2-Dichloroethane             | 20    | 22.6   | ug/L | 113 | 5   |      | 70 (80) | 130 (115)      | 20 (20) |
|               | Trichloroethene                | 20    | 19.9   | ug/L | 100 | 1   |      | 70 (77) | 130 (113)      | 20 (20) |
|               | Bromodichloromethane           | 20    | 21.0   | ug/L | 105 | 1   |      | 70 (83) | 130 (110)      | 20 (20) |
|               | Toluene                        | 20    | 20.2   | ug/L | 101 | 1   |      | 70 (82) | 130 (110)      | 20 (20) |
|               | 1,1,2-Trichloroethane          | 20    | 22.7   | ug/L | 114 | 5   |      | 70 (83) | 130 (112)      | 20 (20) |
|               | Dibromochloromethane           | 20    | 20.8   | ug/L | 104 | 1   |      | 70 (82) | 130 (110)      | 20 (20) |
|               | Tetrachloroethene              | 20    | 19.8   | ug/L | 99  | 1   |      | 70 (67) | 130 (123)      | 20 (20) |
|               | Chlorobenzene                  | 20    | 20.0   | ug/L | 100 | 1   |      | 70 (82) | 130 (109)      | 20 (20) |
|               | Ethyl Benzene                  | 20    | 19.5   | ug/L | 98  | 0   |      | 70 (83) | 130 (109)      | 20 (20) |
|               | m/p-Xylenes                    | 40    | 39.2   | ug/L | 98  | 1   |      | 70 (82) | 130 (110)      | 20 (20) |
|               | o-Xylene                       | 20    | 19.8   | ug/L | 99  | 1   |      | 70 (83) | 130 (109)      | 20 (20) |
|               | Isopropylbenzene               | 20    | 19.3   | ug/L | 97  | 0   |      | 70 (83) | 130 (112)      | 20 (20) |
|               | 1,4-Dichlorobenzene            | 20    | 19.3   | ug/L | 97  | 1   |      | 70 (82) | 130 (107)      | 20 (20) |
|               | 1,2-Dichlorobenzene            | 20    | 19.4   | ug/L | 97  | 1   |      | 70 (82) | 130 (109)      | 20 (20) |

() = LABORATORY INHOUSE LIMIT

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0814WBL01

Lab Name: CHEMTECH

Contract: JACO05

Lab Code: CHEM Case No.: P3609

SAS No.: P3609 SDG NO.: P3609

Lab File ID: VN083297.D

Lab Sample ID: VN0814WBL01

Date Analyzed: 08/14/2024

Time Analyzed: 13:39

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 |
|-------------------|------------------|----------------|------------------|
| VN0814WBS01       | VN0814WBS01      | VN083298.D     | 08/14/2024       |
| VN0814WBSD01      | VN0814WBSD01     | VN083300.D     | 08/14/2024       |
| TB-01-081424      | P3609-03         | VN083315.D     | 08/14/2024       |
| 915-J-WS-081424   | P3609-01         | VN083316.D     | 08/14/2024       |
| 920-J-WS-081424   | P3609-02         | VN083317.D     | 08/14/2024       |

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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
 BROMOFLUOROBENZENE (BFB)

|                |                   |                     |                   |
|----------------|-------------------|---------------------|-------------------|
| Lab Name:      | <u>CHEMTECH</u>   | Contract:           | <u>JACO05</u>     |
| Lab Code:      | <u>CHEM</u>       | Case No.:           | <u>P3609</u>      |
| Lab File ID:   | <u>VN083134.D</u> | SAS No.:            | <u>P3609</u>      |
| Instrument ID: | <u>MSVOA_N</u>    | SDG NO.:            | <u>P3609</u>      |
| GC Column:     | <u>RXI-624</u>    | BFB Injection Date: | <u>08/07/2024</u> |
| ID:            | <u>0.25</u>       | BFB Injection Time: | <u>10:09</u>      |
| (mm)           |                   | Heated Purge:       | <u>Y/N</u>        |
|                |                   |                     | <u>N</u>          |

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50  | 15.0 - 40.0% of mass 95            | 19.7                 |
| 75  | 30.0 - 60.0% of mass 95            | 52.6                 |
| 95  | Base Peak, 100% relative abundance | 100                  |
| 96  | 5.0 - 9.0% of mass 95              | 7.5                  |
| 173 | Less than 2.0% of mass 174         | 0.2 ( 0.3 ) 1        |
| 174 | 50.0 - 100.0% of mass 95           | 66.5                 |
| 175 | 5.0 - 9.0% of mass 174             | 4.9 ( 7.4 ) 1        |
| 176 | 95.0 - 101.0% of mass 174          | 64.4 ( 96.9 ) 1      |
| 177 | 5.0 - 9.0% of mass 176             | 4.1 ( 6.3 ) 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 |
|-------------------|------------------|----------------|------------------|------------------|
| VSTDICC100        | VSTDICC100       | VN083135.D     | 08/07/2024       | 10:33            |
| VSTDICCC050       | VSTDICCC050      | VN083136.D     | 08/07/2024       | 10:58            |
| VSTDICC020        | VSTDICC020       | VN083137.D     | 08/07/2024       | 11:22            |
| VSTDICC010        | VSTDICC010       | VN083138.D     | 08/07/2024       | 11:46            |
| VSTDICC005        | VSTDICC005       | VN083139.D     | 08/07/2024       | 12:10            |
| VSTDICC001        | VSTDICC001       | VN083140.D     | 08/07/2024       | 12:34            |



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: JACO05  
Lab Code: CHEM Case No.: P3609 SAS No.: P3609 SDG NO.: P3609  
Lab File ID: VN083294.D BFB Injection Date: 08/14/2024  
Instrument ID: MSVOA\_N BFB Injection Time: 12:07  
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            | 20.6                 |
| 75  | 30.0 - 60.0% of mass 95            | 54.1                 |
| 95  | Base Peak, 100% relative abundance | 100                  |
| 96  | 5.0 - 9.0% of mass 95              | 7.1                  |
| 173 | Less than 2.0% of mass 174         | 0.5 ( 0.8 ) 1        |
| 174 | 50.0 - 100.0% of mass 95           | 70.5                 |
| 175 | 5.0 - 9.0% of mass 174             | 5.2 ( 7.4 ) 1        |
| 176 | 95.0 - 101.0% of mass 174          | 67.6 ( 95.9 ) 1      |
| 177 | 5.0 - 9.0% of mass 176             | 4.7 ( 6.9 ) 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       | VN083295.D     | 08/14/2024       | 12:41            |
| VN0814WBL01       | VN0814WBL01      | VN083297.D     | 08/14/2024       | 13:39            |
| VN0814WBS01       | VN0814WBS01      | VN083298.D     | 08/14/2024       | 14:03            |
| VN0814WBSD01      | VN0814WBSD01     | VN083300.D     | 08/14/2024       | 14:51            |
| TB-01-081424      | P3609-03         | VN083315.D     | 08/14/2024       | 20:55            |
| 915-J-WS-081424   | P3609-01         | VN083316.D     | 08/14/2024       | 21:19            |
| 920-J-WS-081424   | P3609-02         | VN083317.D     | 08/14/2024       | 21:43            |

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: JACO05  
Lab Code: CHEM Case No.: P3609 SAS No.: P3609 SDG NO.: P3609  
Lab File ID: VN083295.D Date Analyzed: 08/14/2024  
Instrument ID: MSVOA\_N Time Analyzed: 12:41  
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     | 165534        | 8.22  | 282606        | 9.10 | 250996        | 11.87  |
| UPPER LIMIT     | 331068        | 8.724 | 565212        | 9.6  | 501992        | 12.365 |
| LOWER LIMIT     | 82767         | 7.724 | 141303        | 8.6  | 125498        | 11.365 |
| EPA SAMPLE NO.  |               |       |               |      |               |        |
| 915-J-WS-081424 | 123251        | 8.22  | 241969        | 9.10 | 252623        | 11.87  |
| 920-J-WS-081424 | 120820        | 8.22  | 238487        | 9.11 | 244841        | 11.87  |
| TB-01-081424    | 130232        | 8.22  | 253989        | 9.10 | 263608        | 11.87  |
| VN0814WBL01     | 145129        | 8.23  | 276647        | 9.10 | 286871        | 11.87  |
| VN0814WBS01     | 164632        | 8.22  | 284346        | 9.10 | 250581        | 11.87  |
| VN0814WBSD01    | 148957        | 8.22  | 263108        | 9.10 | 232246        | 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: JACO05  
Lab Code: CHEM Case No.: P3609 SAS No.: P3609 SDG NO.: P3609  
Lab File ID: VN083295.D Date Analyzed: 08/14/2024  
Instrument ID: MSVOA\_N Time Analyzed: 12:41  
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

|                 | IS4<br>AREA # | RT #   |  |  |  |  |
|-----------------|---------------|--------|--|--|--|--|
| 12 HOUR STD     | 122669        | 13.794 |  |  |  |  |
| UPPER LIMIT     | 245338        | 14.294 |  |  |  |  |
| LOWER LIMIT     | 61334.5       | 13.294 |  |  |  |  |
| EPA SAMPLE NO.  |               |        |  |  |  |  |
| 915-J-WS-081424 | 111058        | 13.79  |  |  |  |  |
| 920-J-WS-081424 | 106288        | 13.79  |  |  |  |  |
| TB-01-081424    | 116466        | 13.79  |  |  |  |  |
| VN0814WBL01     | 128230        | 13.79  |  |  |  |  |
| VN0814WBS01     | 117869        | 13.79  |  |  |  |  |
| VN0814WBSD01    | 107371        | 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

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

## Report of Analysis

|                    |                                       |                 |          |
|--------------------|---------------------------------------|-----------------|----------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: | 08/14/24 |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  | 08/14/24 |
| Client Sample ID:  | 915-J-WS-081424                       | SDG No.:        | P3609    |
| Lab Sample ID:     | P3609-01                              | Matrix:         | Water    |
| Analytical Method: | SW8260                                | % Solid:        | 0        |
| Sample Wt/Vol:     | 5                                     | Units:          | mL       |
| Soil Aliquot Vol:  |                                       |                 | uL       |
| GC Column:         | RXI-624                               | ID :            | 0.25     |
| Prep Method :      |                                       | Level :         | LOW      |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
|-------------------|-----------|-----------|----------------|---------------|
| VN083316.D        | 1         |           | 08/14/24 21:19 | VN081424      |

| CAS Number | Parameter                      | Conc. | Qualifier | MDL  | LOQ / CRQL | Units |
|------------|--------------------------------|-------|-----------|------|------------|-------|
| TARGETS    |                                |       |           |      |            |       |
| 75-71-8    | Dichlorodifluoromethane        | 0.21  | U         | 0.21 | 1.00       | ug/L  |
| 74-87-3    | Chloromethane                  | 0.35  | U         | 0.35 | 1.00       | ug/L  |
| 75-01-4    | Vinyl Chloride                 | 0.34  | U         | 0.34 | 1.00       | ug/L  |
| 74-83-9    | Bromomethane                   | 1.40  | U         | 1.40 | 5.00       | ug/L  |
| 75-00-3    | Chloroethane                   | 0.56  | U         | 0.56 | 1.00       | ug/L  |
| 76-13-1    | 1,1,2-Trichlorotrifluoroethane | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 75-35-4    | 1,1-Dichloroethene             | 0.26  | U         | 0.26 | 1.00       | ug/L  |
| 67-64-1    | Acetone                        | 3.70  | J         | 1.40 | 5.00       | ug/L  |
| 75-15-0    | Carbon Disulfide               | 0.32  | U         | 0.32 | 1.00       | ug/L  |
| 1634-04-4  | Methyl tert-butyl Ether        | 0.16  | U         | 0.16 | 1.00       | ug/L  |
| 75-09-2    | Methylene Chloride             | 0.32  | U         | 0.32 | 1.00       | ug/L  |
| 156-60-5   | trans-1,2-Dichloroethene       | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 75-34-3    | 1,1-Dichloroethane             | 0.23  | U         | 0.23 | 1.00       | ug/L  |
| 110-82-7   | Cyclohexane                    | 1.60  | U         | 1.60 | 5.00       | ug/L  |
| 78-93-3    | 2-Butanone                     | 1.30  | U         | 1.30 | 5.00       | ug/L  |
| 56-23-5    | Carbon Tetrachloride           | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 156-59-2   | cis-1,2-Dichloroethene         | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 67-66-3    | Chloroform                     | 0.26  | U         | 0.26 | 1.00       | ug/L  |
| 71-55-6    | 1,1,1-Trichloroethane          | 0.19  | U         | 0.19 | 1.00       | ug/L  |
| 108-87-2   | Methylcyclohexane              | 0.19  | U         | 0.19 | 1.00       | ug/L  |
| 71-43-2    | Benzene                        | 0.16  | U         | 0.16 | 1.00       | ug/L  |
| 107-06-2   | 1,2-Dichloroethane             | 0.24  | U         | 0.24 | 1.00       | ug/L  |
| 79-01-6    | Trichloroethene                | 0.32  | U         | 0.32 | 1.00       | ug/L  |
| 75-27-4    | Bromodichloromethane           | 0.24  | U         | 0.24 | 1.00       | ug/L  |
| 108-88-3   | Toluene                        | 0.18  | U         | 0.18 | 1.00       | ug/L  |
| 79-00-5    | 1,1,2-Trichloroethane          | 0.21  | U         | 0.21 | 1.00       | ug/L  |
| 124-48-1   | Dibromochloromethane           | 0.18  | U         | 0.18 | 1.00       | ug/L  |
| 127-18-4   | Tetrachloroethene              | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 108-90-7   | Chlorobenzene                  | 0.13  | U         | 0.13 | 1.00       | ug/L  |
| 100-41-4   | Ethyl Benzene                  | 0.16  | U         | 0.16 | 1.00       | ug/L  |

## Report of Analysis

|                    |                                       |                 |          |
|--------------------|---------------------------------------|-----------------|----------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: | 08/14/24 |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  | 08/14/24 |
| Client Sample ID:  | 915-J-WS-081424                       | SDG No.:        | P3609    |
| Lab Sample ID:     | P3609-01                              | Matrix:         | Water    |
| Analytical Method: | SW8260                                | % Solid:        | 0        |
| Sample Wt/Vol:     | 5                                     | Units:          | mL       |
| Soil Aliquot Vol:  |                                       |                 | uL       |
| GC Column:         | RXI-624                               | ID :            | 0.25     |
| Prep Method :      |                                       | Level :         | LOW      |
|                    |                                       |                 |          |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
|-------------------|-----------|-----------|----------------|---------------|
| VN083316.D        | 1         |           | 08/14/24 21:19 | VN081424      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| 179601-23-1               | m/p-Xylenes            | 0.31   | U         | 0.31                | 2.00       | ug/L    |
| 1330-20-7                 | Total Xylenes          | 0.45   | U         | 0.45                | 3.00       | ug/L    |
| 95-47-6                   | o-Xylene               | 0.14   | U         | 0.14                | 1.00       | ug/L    |
| 98-82-8                   | Isopropylbenzene       | 0.13   | U         | 0.13                | 1.00       | ug/L    |
| 106-46-7                  | 1,4-Dichlorobenzene    | 0.27   | U         | 0.27                | 1.00       | ug/L    |
| 95-50-1                   | 1,2-Dichlorobenzene    | 0.19   | U         | 0.19                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 58.6   |           | 70 (74) - 130 (125) | 117%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 54.0   |           | 70 (75) - 130 (124) | 108%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 53.6   |           | 70 (86) - 130 (113) | 107%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 57.3   |           | 70 (77) - 130 (121) | 115%       | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 123000 | 8.224     |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 242000 | 9.1       |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 253000 | 11.865    |                     |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 111000 | 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\VN081424\  
Data File : VN083316.D  
Acq On : 14 Aug 2024 21:19  
Operator : JC\MD  
Sample : P3609-01  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
915-J-WS-081424

Quant Time: Aug 14 23:27:56 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
Response via : Initial Calibration

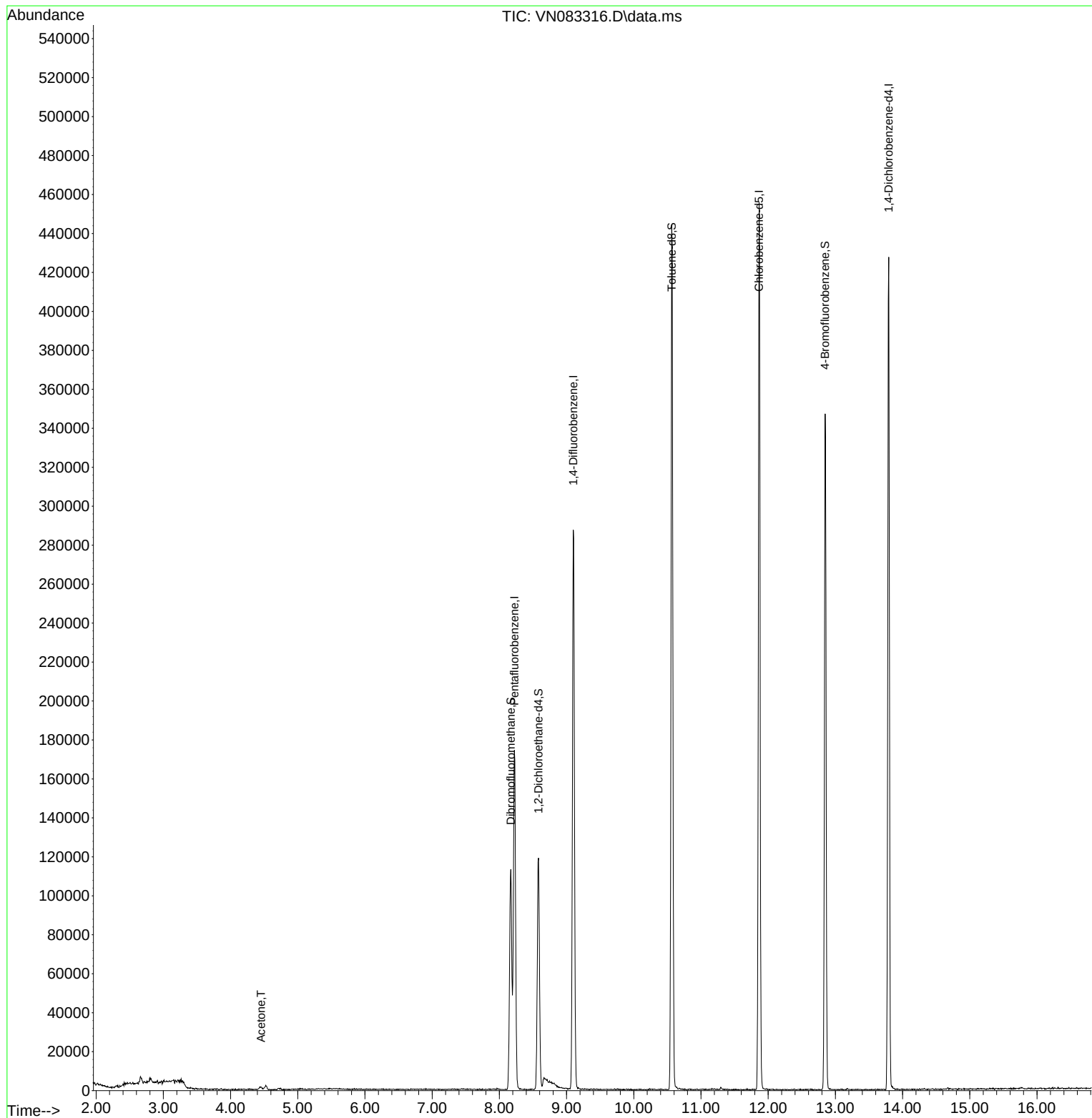
| Compound                    | R.T.   | QIon           | Response | Conc   | Units    | Dev(Min)    |
|-----------------------------|--------|----------------|----------|--------|----------|-------------|
| -----                       |        |                |          |        |          |             |
| Internal Standards          |        |                |          |        |          |             |
| 1) Pentafluorobenzene       | 8.224  | 168            | 123251   | 50.000 | ug/l     | 0.00        |
| 34) 1,4-Difluorobenzene     | 9.100  | 114            | 241969   | 50.000 | ug/l     | 0.00        |
| 63) Chlorobenzene-d5        | 11.865 | 117            | 252623   | 50.000 | ug/l     | 0.00        |
| 72) 1,4-Dichlorobenzene-d4  | 13.794 | 152            | 111058   | 50.000 | ug/l     | 0.00        |
| System Monitoring Compounds |        |                |          |        |          |             |
| 33) 1,2-Dichloroethane-d4   | 8.582  | 65             | 102801   | 58.598 | ug/l     | 0.00        |
| Spiked Amount               | 50.000 | Range 74 - 125 | Recovery | =      | 117.200% |             |
| 35) Dibromofluoromethane    | 8.171  | 113            | 81558    | 54.001 | ug/l     | 0.00        |
| Spiked Amount               | 50.000 | Range 75 - 124 | Recovery | =      | 108.000% |             |
| 50) Toluene-d8              | 10.565 | 98             | 302168   | 53.634 | ug/l     | 0.00        |
| Spiked Amount               | 50.000 | Range 86 - 113 | Recovery | =      | 107.260% |             |
| 62) 4-Bromofluorobenzene    | 12.847 | 95             | 125840   | 57.294 | ug/l     | 0.00        |
| Spiked Amount               | 50.000 | Range 77 - 121 | Recovery | =      | 114.580% |             |
| Target Compounds            |        |                |          |        |          |             |
| 16) Acetone                 | 4.453  | 43             | 2556     | 3.723  | ug/l     | Qvalue # 87 |

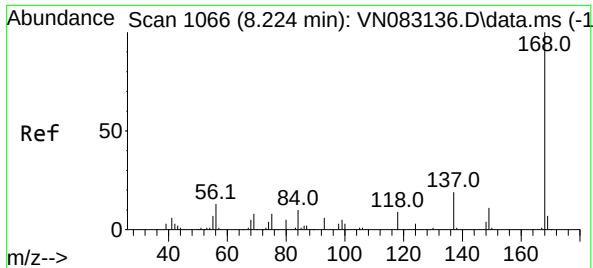
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083316.D  
Acq On : 14 Aug 2024 21:19  
Operator : JC\MD  
Sample : P3609-01  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
915-J-WS-081424

Quant Time: Aug 14 23:27:56 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
Response via : Initial Calibration

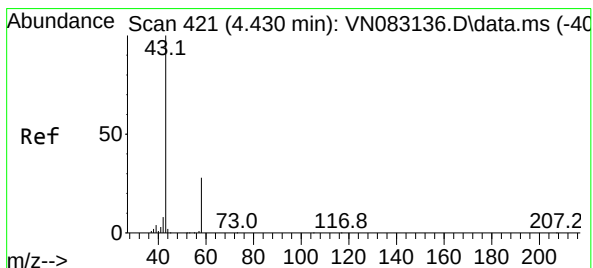
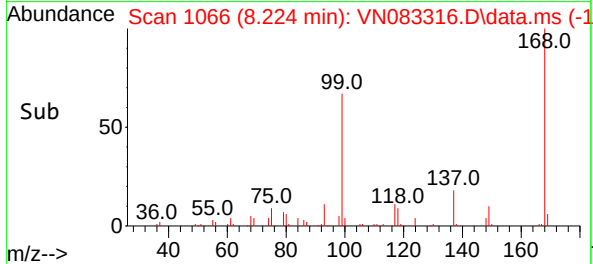
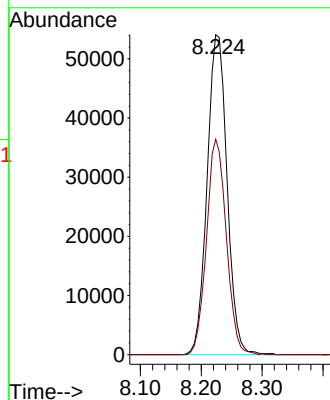
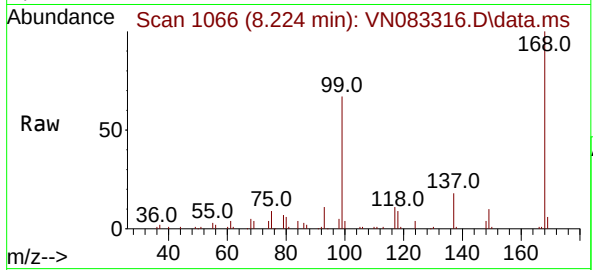




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN083316.D  
Acq: 14 Aug 2024 21:19

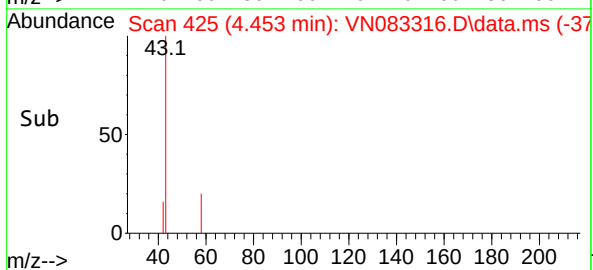
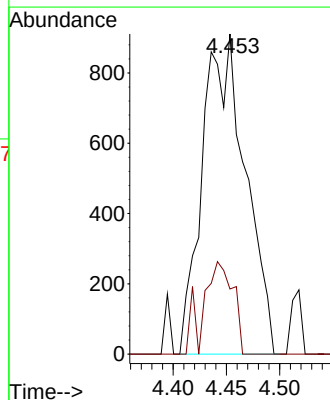
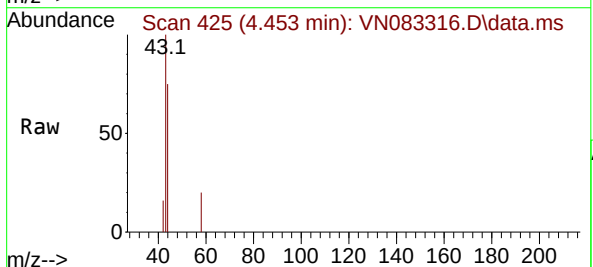
Instrument :  
MSVOA\_N  
ClientSampleId :  
915-J-WS-081424

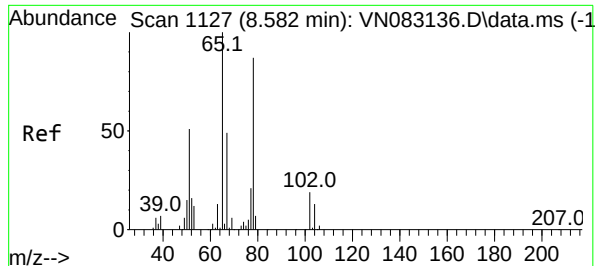
Tgt Ion:168 Resp: 123251  
Ion Ratio Lower Upper  
168 100  
99 67.3 48.2 72.4



#16  
Acetone  
Concen: 3.723 ug/l  
RT: 4.453 min Scan# 425  
Delta R.T. 0.024 min  
Lab File: VN083316.D  
Acq: 14 Aug 2024 21:19

Tgt Ion: 43 Resp: 2556  
Ion Ratio Lower Upper  
43 100  
58 20.3 21.8 32.6#





#33

1,2-Dichloroethane-d4

Concen: 58.598 ug/l

RT: 8.582 min Scan# 1127

Delta R.T. 0.000 min

Lab File: VN083316.D

Acq: 14 Aug 2024 21:19

Instrument :

MSVOA\_N

ClientSampleId :

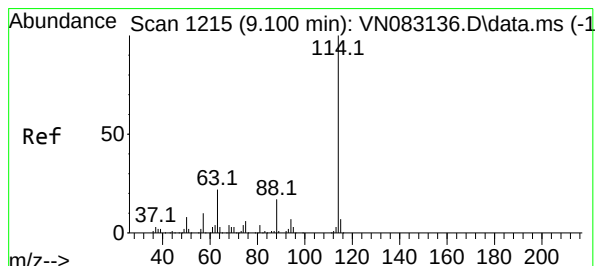
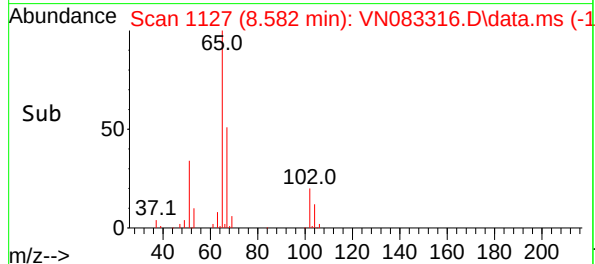
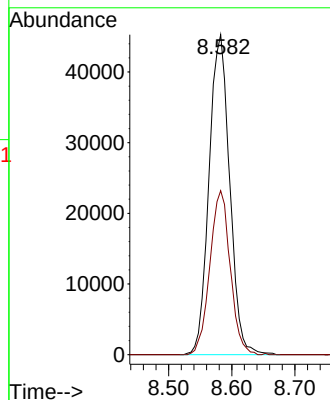
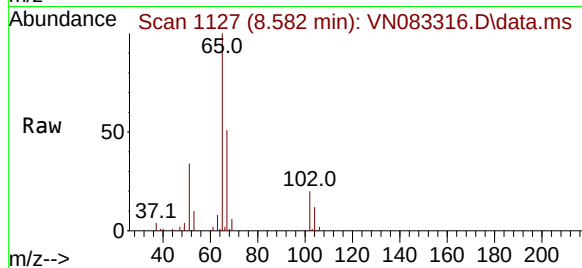
915-J-WS-081424

Tgt Ion: 65 Resp: 102801

Ion Ratio Lower Upper

65 100

67 50.5 0.0 104.4



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. 0.000 min

Lab File: VN083316.D

Acq: 14 Aug 2024 21:19

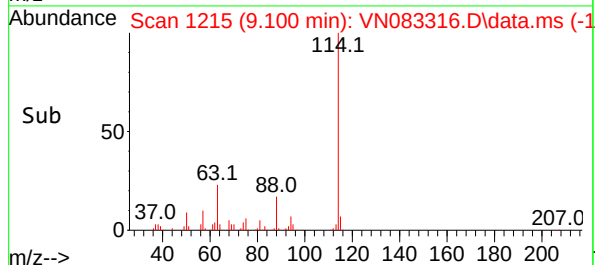
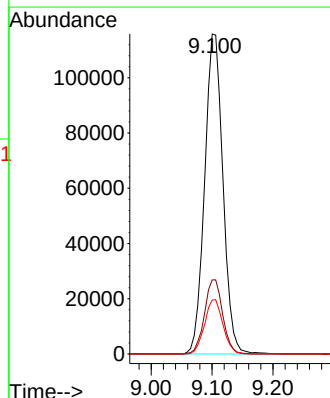
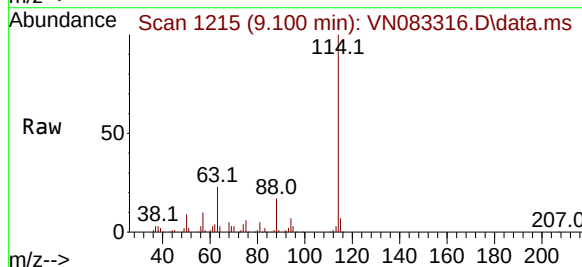
Tgt Ion: 114 Resp: 241969

Ion Ratio Lower Upper

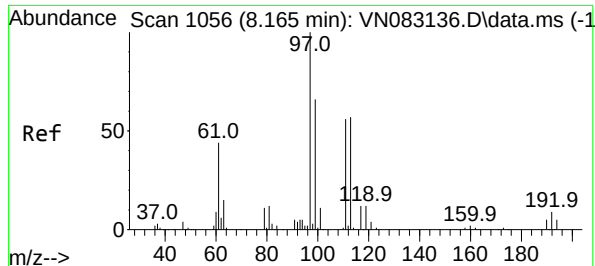
114 100

63 23.2 0.0 44.6

88 16.8 0.0 31.4







#35

Dibromofluoromethane

Concen: 54.001 ug/l

RT: 8.171 min Scan# 1057

Delta R.T. 0.006 min

Lab File: VN083316.D

Acq: 14 Aug 2024 21:19

Instrument :

MSVOA\_N

ClientSampleId :

915-J-WS-081424

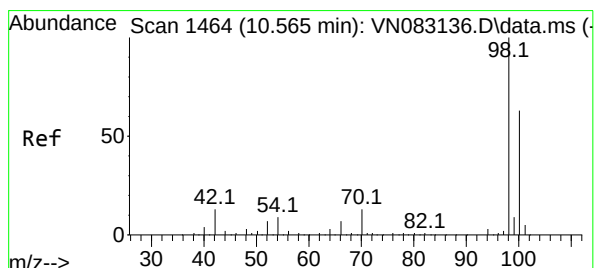
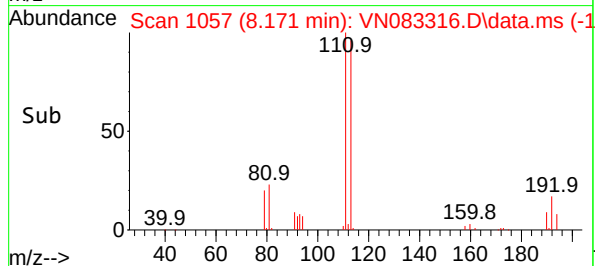
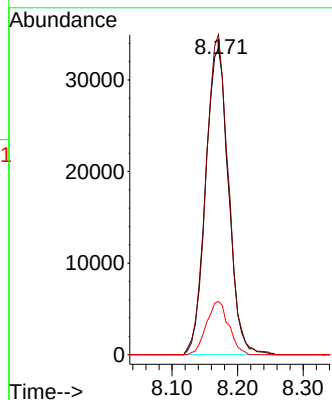
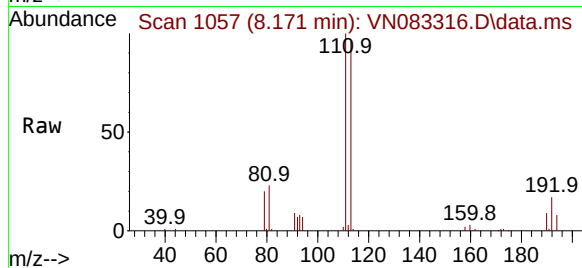
Tgt Ion:113 Resp: 81558

Ion Ratio Lower Upper

113 100

111 101.6 82.4 123.6

192 16.8 14.9 22.3



#50

Toluene-d8

Concen: 53.634 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. -0.000 min

Lab File: VN083316.D

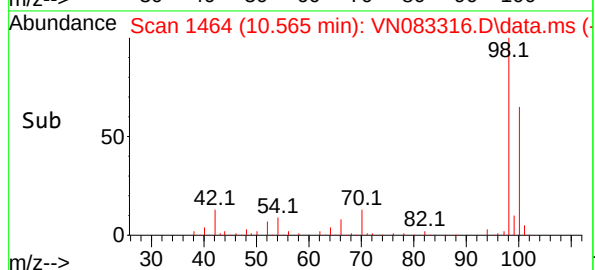
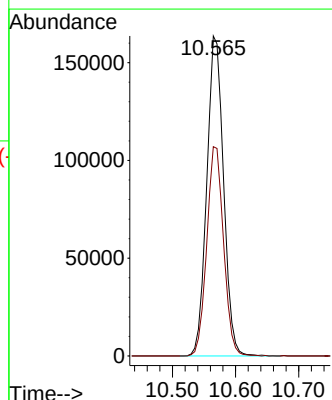
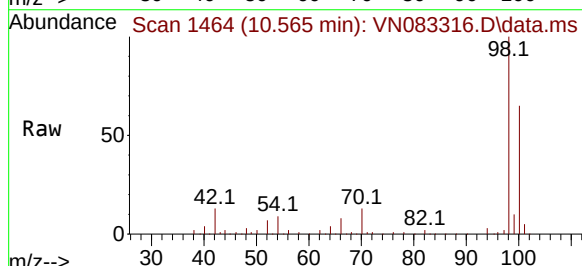
Acq: 14 Aug 2024 21:19

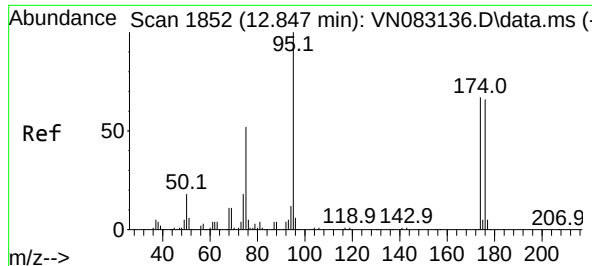
Tgt Ion: 98 Resp: 302168

Ion Ratio Lower Upper

98 100

100 65.5 51.5 77.3





#62

4-Bromofluorobenzene

Concen: 57.294 ug/l

RT: 12.847 min Scan# 1852

Delta R.T. -0.000 min

Lab File: VN083316.D

Acq: 14 Aug 2024 21:19

Instrument :

MSVOA\_N

ClientSampleId :

915-J-WS-081424

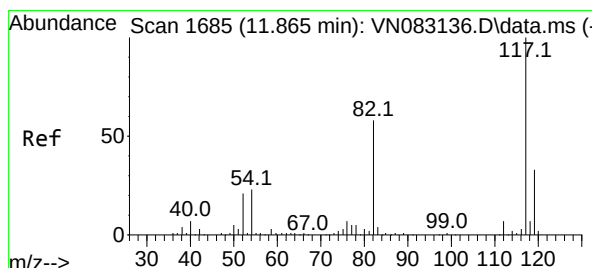
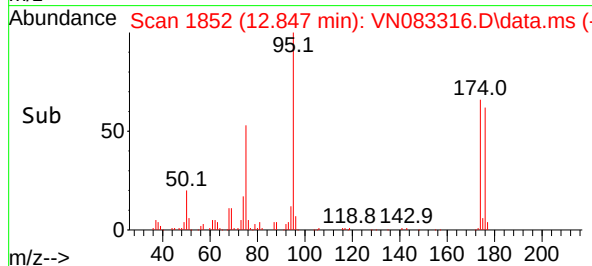
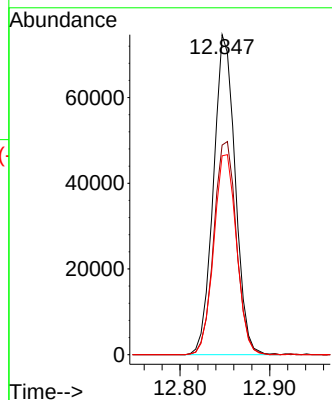
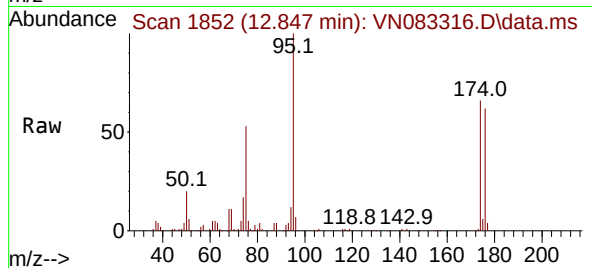
Tgt Ion: 95 Resp: 125840

Ion Ratio Lower Upper

95 100

174 69.2 0.0 159.2

176 65.6 0.0 147.6



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. -0.000 min

Lab File: VN083316.D

Acq: 14 Aug 2024 21:19

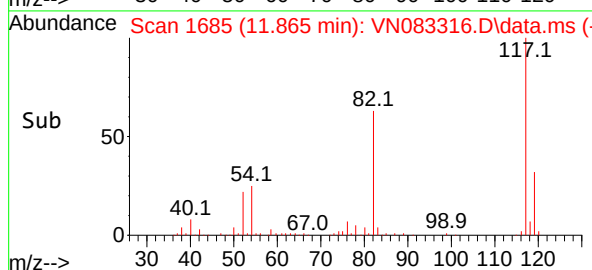
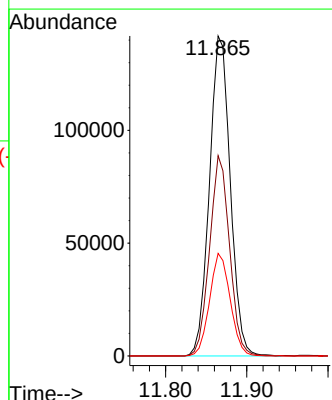
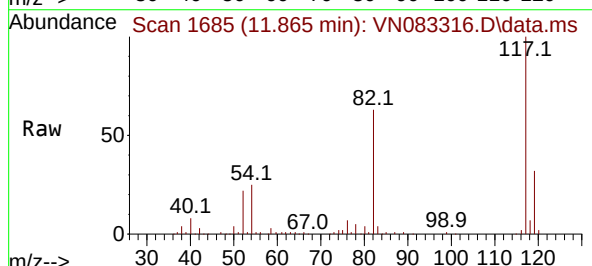
Tgt Ion: 117 Resp: 252623

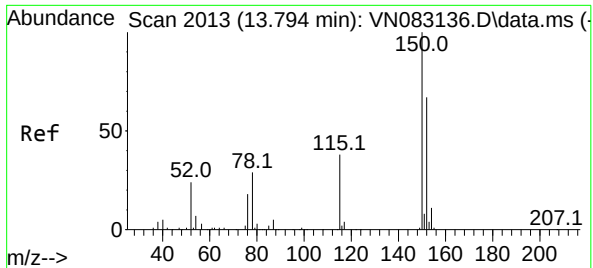
Ion Ratio Lower Upper

117 100

82 62.6 47.5 71.3

119 32.1 25.6 38.4





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.794 min Scan# 20

Delta R.T. -0.000 min

Lab File: VN083316.D

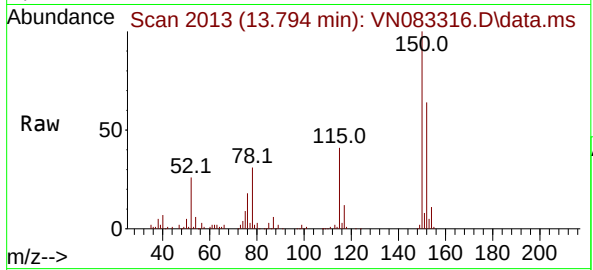
Acq: 14 Aug 2024 21:19

Instrument :

MSVOA\_N

ClientSampleId :

915-J-WS-081424



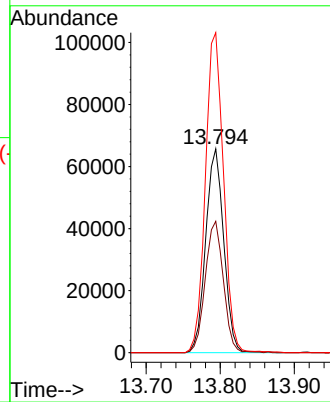
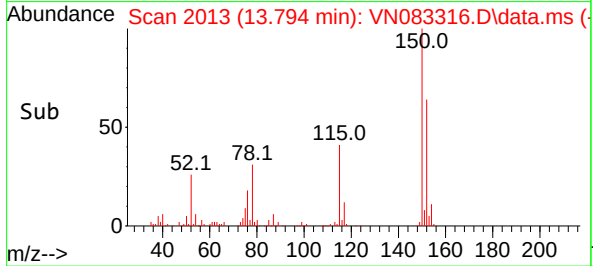
Tgt Ion:152 Resp: 111058

Ion Ratio Lower Upper

152 100

115 64.8 30.6 91.6

150 157.6 0.0 348.6



### Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: | 08/14/24     |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  | 08/14/24     |
| Client Sample ID:  | 920-J-WS-081424                       | SDG No.:        | P3609        |
| Lab Sample ID:     | P3609-02                              | Matrix:         | Water        |
| Analytical Method: | SW8260                                | % Solid:        | 0            |
| Sample Wt/Vol:     | 5      Units:    mL                   | Final Vol:      | 5000      uL |
| Soil Aliquot Vol:  | uL                                    | Test:           | VOCMS Group6 |
| GC Column:         | RXI-624      ID :    0.25             | Level :         | LOW          |
| Prep Method :      |                                       |                 |              |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN083317.D        | 1         |           | 08/14/24 21:43 | VN081424      |

| CAS Number     | Parameter                      | Conc. | Qualifier | MDL  | LOQ / CRQL | Units |
|----------------|--------------------------------|-------|-----------|------|------------|-------|
| <b>TARGETS</b> |                                |       |           |      |            |       |
| 75-71-8        | Dichlorodifluoromethane        | 0.21  | U         | 0.21 | 1.00       | ug/L  |
| 74-87-3        | Chloromethane                  | 0.35  | U         | 0.35 | 1.00       | ug/L  |
| 75-01-4        | Vinyl Chloride                 | 0.34  | U         | 0.34 | 1.00       | ug/L  |
| 74-83-9        | Bromomethane                   | 1.40  | U         | 1.40 | 5.00       | ug/L  |
| 75-00-3        | Chloroethane                   | 0.56  | U         | 0.56 | 1.00       | ug/L  |
| 76-13-1        | 1,1,2-Trichlorotrifluoroethane | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 75-35-4        | 1,1-Dichloroethene             | 0.26  | U         | 0.26 | 1.00       | ug/L  |
| 67-64-1        | Acetone                        | 3.70  | J         | 1.40 | 5.00       | ug/L  |
| 75-15-0        | Carbon Disulfide               | 0.32  | U         | 0.32 | 1.00       | ug/L  |
| 1634-04-4      | Methyl tert-butyl Ether        | 0.16  | U         | 0.16 | 1.00       | ug/L  |
| 75-09-2        | Methylene Chloride             | 0.32  | U         | 0.32 | 1.00       | ug/L  |
| 156-60-5       | trans-1,2-Dichloroethene       | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 75-34-3        | 1,1-Dichloroethane             | 0.23  | U         | 0.23 | 1.00       | ug/L  |
| 110-82-7       | Cyclohexane                    | 1.60  | U         | 1.60 | 5.00       | ug/L  |
| 78-93-3        | 2-Butanone                     | 1.30  | U         | 1.30 | 5.00       | ug/L  |
| 56-23-5        | Carbon Tetrachloride           | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 156-59-2       | cis-1,2-Dichloroethene         | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 67-66-3        | Chloroform                     | 0.26  | U         | 0.26 | 1.00       | ug/L  |
| 71-55-6        | 1,1,1-Trichloroethane          | 0.19  | U         | 0.19 | 1.00       | ug/L  |
| 108-87-2       | Methylcyclohexane              | 0.19  | U         | 0.19 | 1.00       | ug/L  |
| 71-43-2        | Benzene                        | 0.16  | U         | 0.16 | 1.00       | ug/L  |
| 107-06-2       | 1,2-Dichloroethane             | 0.24  | U         | 0.24 | 1.00       | ug/L  |
| 79-01-6        | Trichloroethene                | 0.32  | U         | 0.32 | 1.00       | ug/L  |
| 75-27-4        | Bromodichloromethane           | 0.24  | U         | 0.24 | 1.00       | ug/L  |
| 108-88-3       | Toluene                        | 0.18  | U         | 0.18 | 1.00       | ug/L  |
| 79-00-5        | 1,1,2-Trichloroethane          | 0.21  | U         | 0.21 | 1.00       | ug/L  |
| 124-48-1       | Dibromochloromethane           | 0.18  | U         | 0.18 | 1.00       | ug/L  |
| 127-18-4       | Tetrachloroethene              | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 108-90-7       | Chlorobenzene                  | 0.13  | U         | 0.13 | 1.00       | ug/L  |
| 100-41-4       | Ethyl Benzene                  | 0.16  | U         | 0.16 | 1.00       | ug/L  |

## Report of Analysis

|                    |                                       |                 |          |
|--------------------|---------------------------------------|-----------------|----------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: | 08/14/24 |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  | 08/14/24 |
| Client Sample ID:  | 920-J-WS-081424                       | SDG No.:        | P3609    |
| Lab Sample ID:     | P3609-02                              | Matrix:         | Water    |
| Analytical Method: | SW8260                                | % Solid:        | 0        |
| Sample Wt/Vol:     | 5                                     | Units:          | mL       |
| Soil Aliquot Vol:  |                                       |                 | uL       |
| GC Column:         | RXI-624                               | ID :            | 0.25     |
| Prep Method :      |                                       | Level :         | LOW      |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
|-------------------|-----------|-----------|----------------|---------------|
| VN083317.D        | 1         |           | 08/14/24 21:43 | VN081424      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| 179601-23-1               | m/p-Xylenes            | 0.31   | U         | 0.31                | 2.00       | ug/L    |
| 1330-20-7                 | Total Xylenes          | 0.45   | U         | 0.45                | 3.00       | ug/L    |
| 95-47-6                   | o-Xylene               | 0.14   | U         | 0.14                | 1.00       | ug/L    |
| 98-82-8                   | Isopropylbenzene       | 0.13   | U         | 0.13                | 1.00       | ug/L    |
| 106-46-7                  | 1,4-Dichlorobenzene    | 0.27   | U         | 0.27                | 1.00       | ug/L    |
| 95-50-1                   | 1,2-Dichlorobenzene    | 0.19   | U         | 0.19                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 60.1   |           | 70 (74) - 130 (125) | 120%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 54.7   |           | 70 (75) - 130 (124) | 109%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 55.0   |           | 70 (86) - 130 (113) | 110%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 56.5   |           | 70 (77) - 130 (121) | 113%       | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 121000 | 8.224     |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 238000 | 9.106     |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 245000 | 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\VN081424\  
 Data File : VN083317.D  
 Acq On : 14 Aug 2024 21:43  
 Operator : JC\MD  
 Sample : P3609-02  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 25 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 920-J-WS-081424

Quant Time: Aug 14 23:28:19 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 06:30:41 2024  
 Response via : Initial Calibration

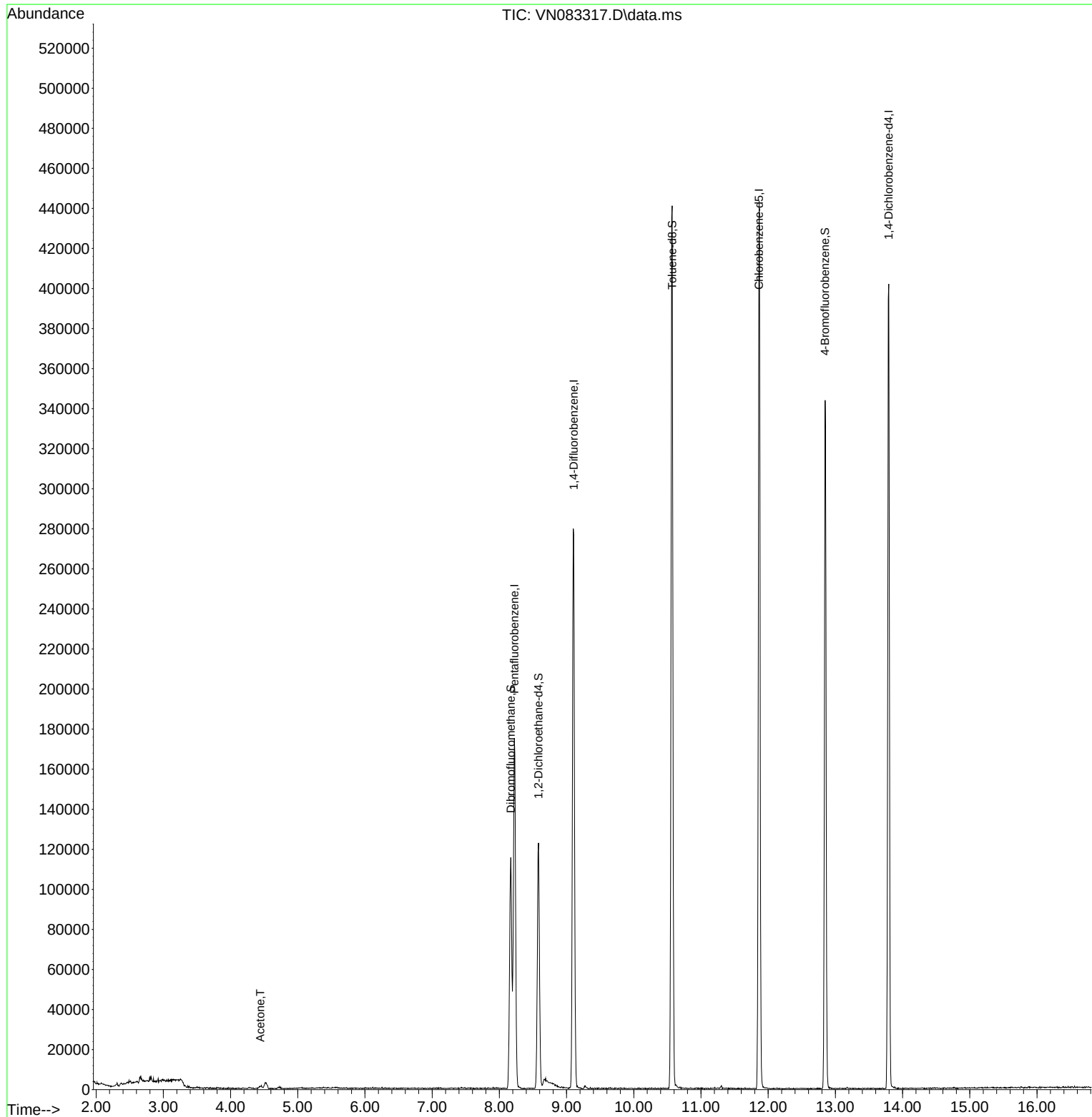
| Compound                    | R.T.   | QIon  | Response | Conc     | Units      | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|------------|----------|
| -----                       |        |       |          |          |            |          |
| Internal Standards          |        |       |          |          |            |          |
| 1) Pentafluorobenzene       | 8.224  | 168   | 120820   | 50.000   | ug/l       | 0.00     |
| 34) 1,4-Difluorobenzene     | 9.106  | 114   | 238487   | 50.000   | ug/l       | 0.00     |
| 63) Chlorobenzene-d5        | 11.865 | 117   | 244841   | 50.000   | ug/l       | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 13.794 | 152   | 106288   | 50.000   | ug/l       | 0.00     |
| System Monitoring Compounds |        |       |          |          |            |          |
| 33) 1,2-Dichloroethane-d4   | 8.583  | 65    | 103273   | 60.052   | ug/l       | 0.00     |
| Spiked Amount               | 50.000 | Range | 74 - 125 | Recovery | = 120.100% |          |
| 35) Dibromofluoromethane    | 8.171  | 113   | 81464    | 54.726   | ug/l       | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | = 109.460% |          |
| 50) Toluene-d8              | 10.571 | 98    | 305149   | 54.954   | ug/l       | 0.00     |
| Spiked Amount               | 50.000 | Range | 86 - 113 | Recovery | = 109.900% |          |
| 62) 4-Bromofluorobenzene    | 12.847 | 95    | 122364   | 56.525   | ug/l       | 0.00     |
| Spiked Amount               | 50.000 | Range | 77 - 121 | Recovery | = 113.040% |          |
| Target Compounds            |        |       |          |          |            |          |
|                             |        |       |          |          | Qvalue     |          |
| 16) Acetone                 | 4.442  | 43    | 2519     | 3.743    | ug/l #     | 73       |
| -----                       |        |       |          |          |            |          |

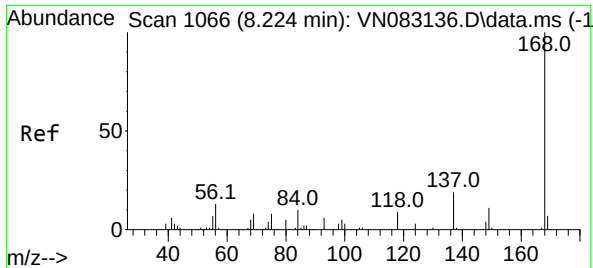
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083317.D  
Acq On : 14 Aug 2024 21:43  
Operator : JC\MD  
Sample : P3609-02  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 25 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
920-J-WS-081424

Quant Time: Aug 14 23:28:19 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
Response via : Initial Calibration

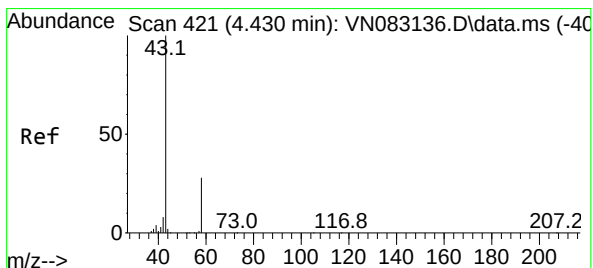
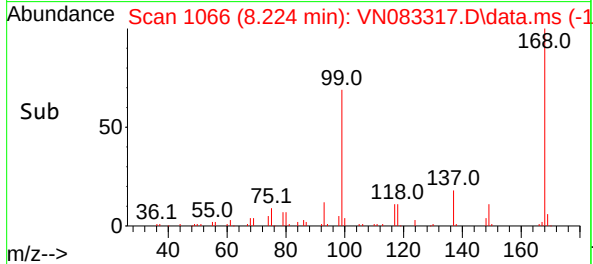
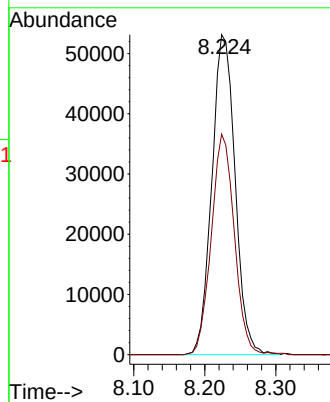
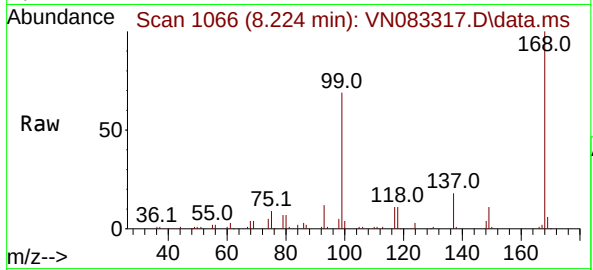




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN083317.D  
Acq: 14 Aug 2024 21:43

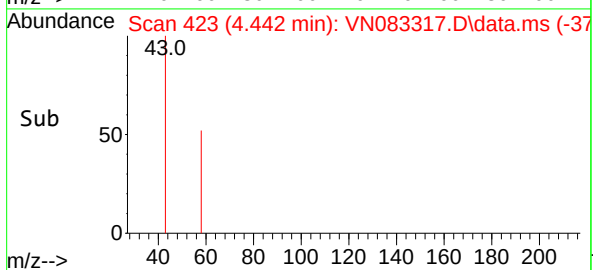
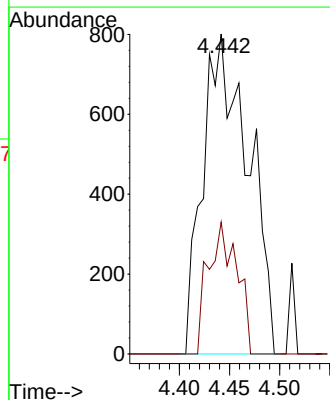
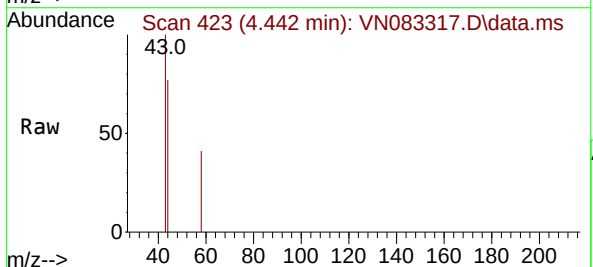
Instrument :  
MSVOA\_N  
ClientSampleId :  
920-J-WS-081424

Tgt Ion:168 Resp: 120820  
Ion Ratio Lower Upper  
168 100  
99 68.9 48.2 72.4

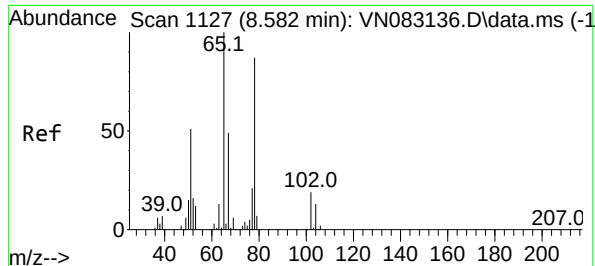


#16  
Acetone  
Concen: 3.743 ug/l  
RT: 4.442 min Scan# 423  
Delta R.T. 0.012 min  
Lab File: VN083317.D  
Acq: 14 Aug 2024 21:43

Tgt Ion: 43 Resp: 2519  
Ion Ratio Lower Upper  
43 100  
58 41.2 21.8 32.6#







#33

1,2-Dichloroethane-d4

Concen: 60.052 ug/l

RT: 8.583 min Scan# 1127

Delta R.T. 0.001 min

Lab File: VN083317.D

Acq: 14 Aug 2024 21:43

Instrument :

MSVOA\_N

ClientSampleId :

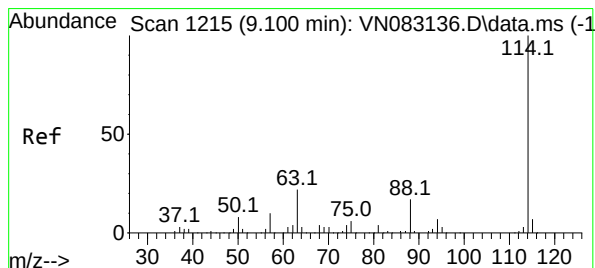
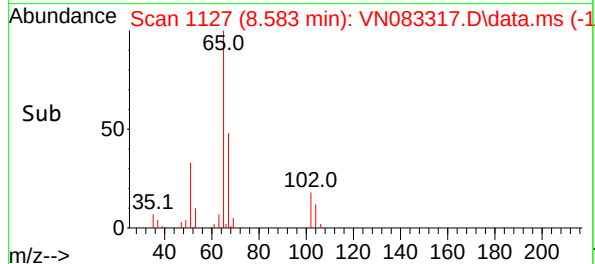
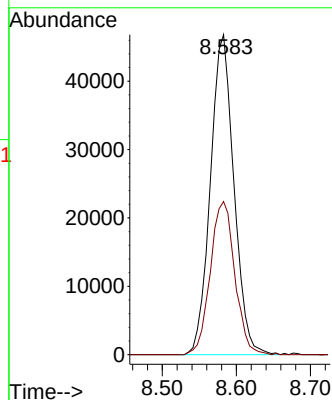
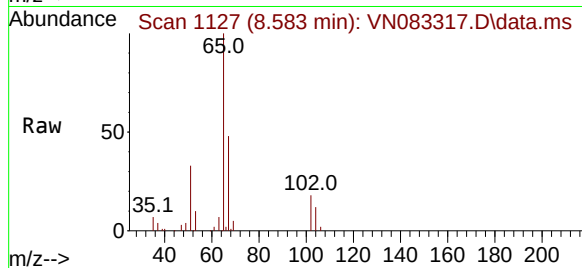
920-J-WS-081424

Tgt Ion: 65 Resp: 103273

Ion Ratio Lower Upper

65 100

67 49.9 0.0 104.4



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.106 min Scan# 1216

Delta R.T. 0.006 min

Lab File: VN083317.D

Acq: 14 Aug 2024 21:43

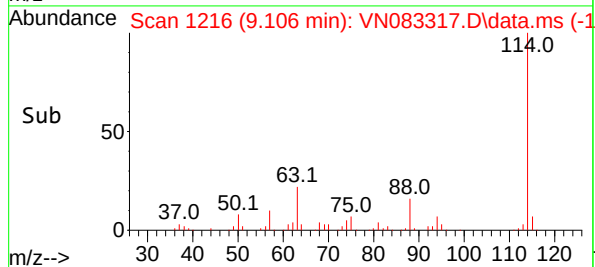
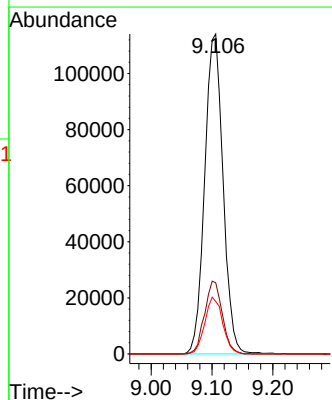
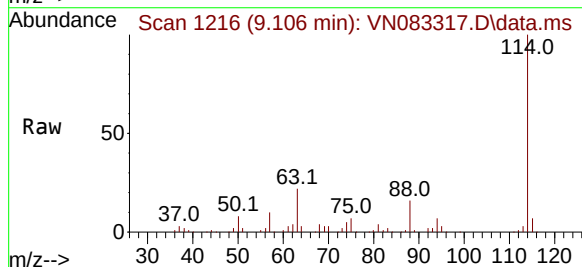
Tgt Ion: 114 Resp: 238487

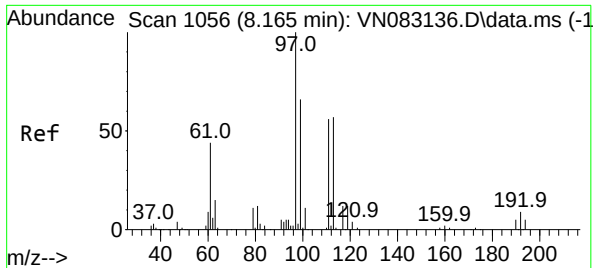
Ion Ratio Lower Upper

114 100

63 22.2 0.0 44.6

88 16.4 0.0 31.4





#35

Dibromofluoromethane

Concen: 54.726 ug/l

RT: 8.171 min Scan# 1057

Delta R.T. 0.006 min

Lab File: VN083317.D

Acq: 14 Aug 2024 21:43

Instrument :

MSVOA\_N

ClientSampleId :

920-J-WS-081424

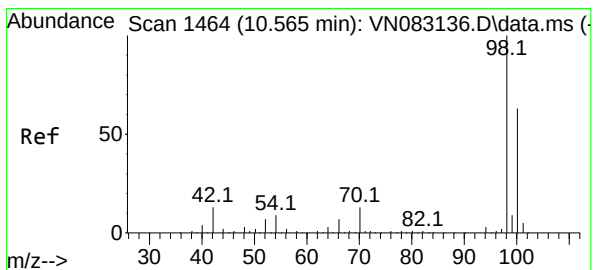
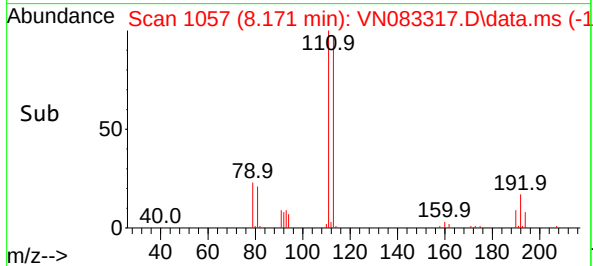
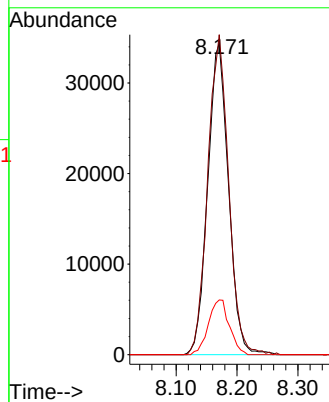
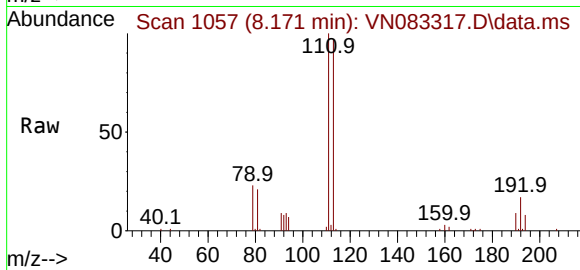
Tgt Ion:113 Resp: 81464

Ion Ratio Lower Upper

113 100

111 103.2 82.4 123.6

192 17.7 14.9 22.3



#50

Toluene-d8

Concen: 54.954 ug/l

RT: 10.571 min Scan# 1465

Delta R.T. 0.006 min

Lab File: VN083317.D

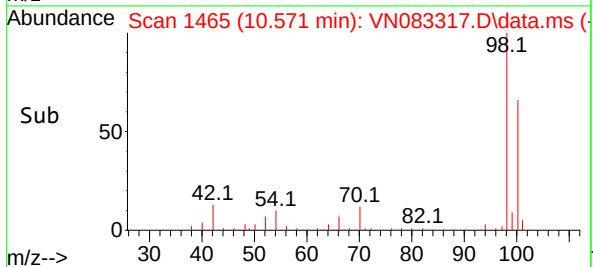
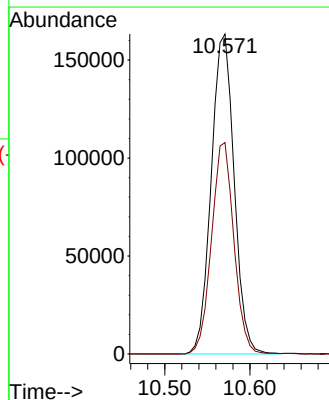
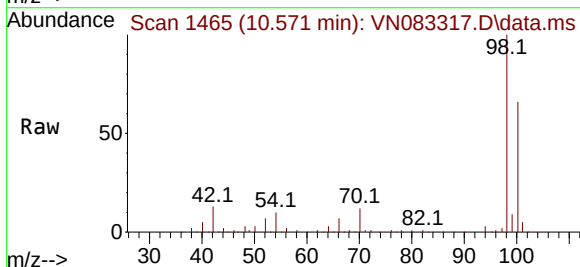
Acq: 14 Aug 2024 21:43

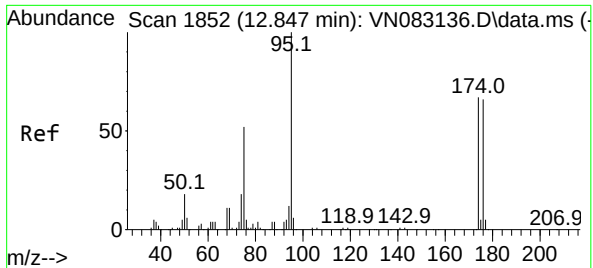
Tgt Ion: 98 Resp: 305149

Ion Ratio Lower Upper

98 100

100 64.6 51.5 77.3

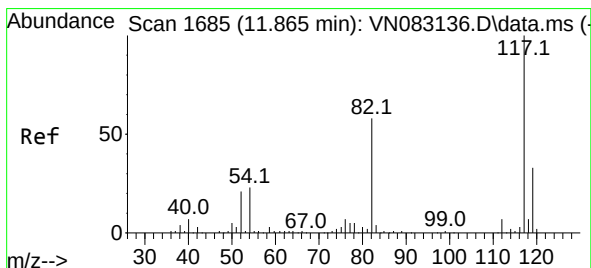
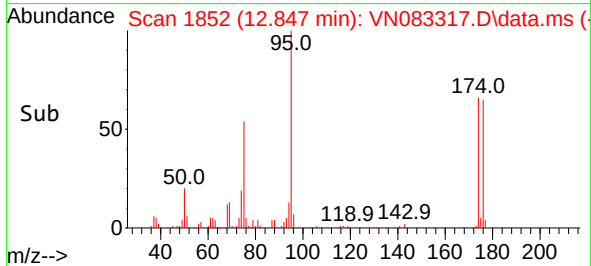
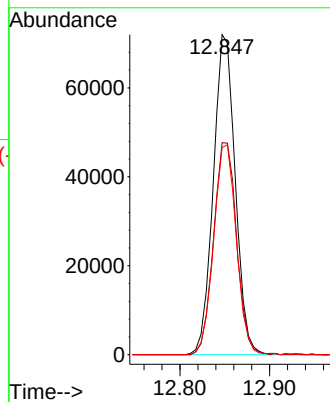
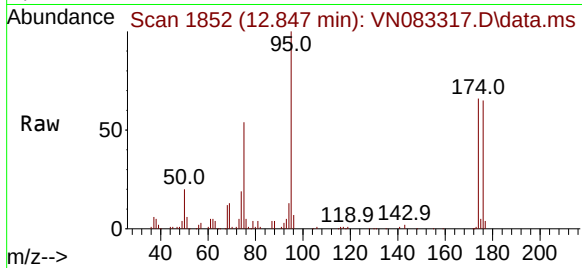




#62  
4-Bromofluorobenzene  
Concen: 56.525 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN083317.D  
Acq: 14 Aug 2024 21:43

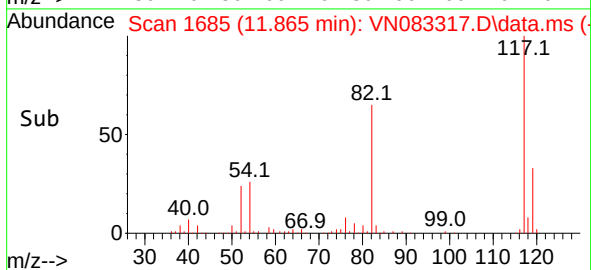
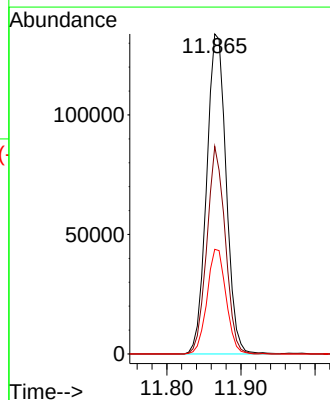
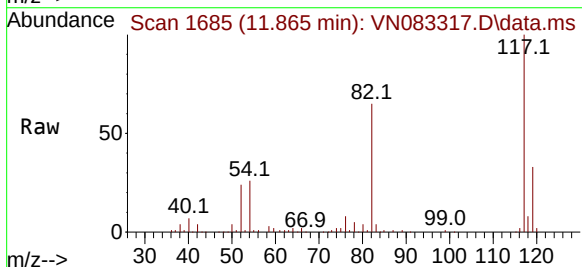
Instrument :  
MSVOA\_N  
ClientSampleId :  
920-J-WS-081424

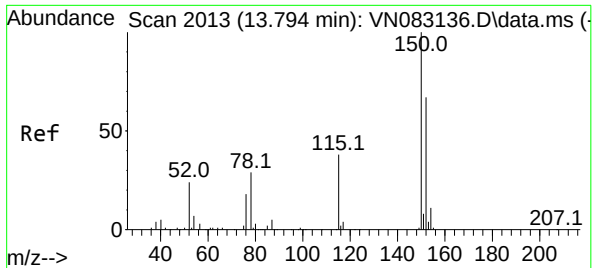
| Tgt Ion:  | 95    | Resp: | 122364 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 95        | 100   |       |        |
| 174       | 69.5  | 0.0   | 159.2  |
| 176       | 67.6  | 0.0   | 147.6  |



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. 0.000 min  
Lab File: VN083317.D  
Acq: 14 Aug 2024 21:43

| Tgt Ion:  | 117   | Resp: | 244841 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 82        | 64.8  | 47.5  | 71.3   |
| 119       | 32.7  | 25.6  | 38.4   |





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.794 min Scan# 20

Delta R.T. 0.000 min

Lab File: VN083317.D

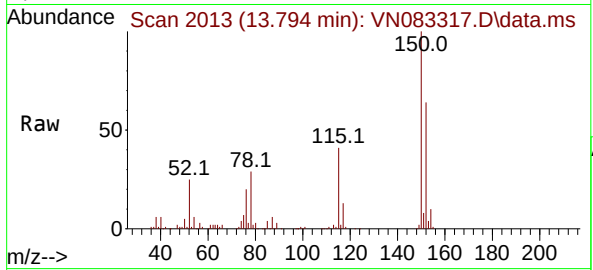
Acq: 14 Aug 2024 21:43

Instrument :

MSVOA\_N

ClientSampleId :

920-J-WS-081424



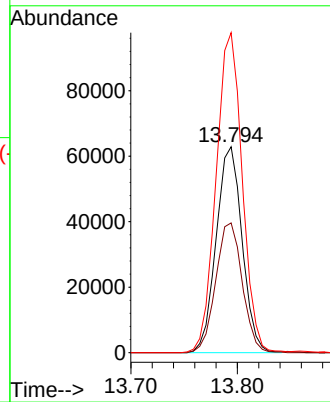
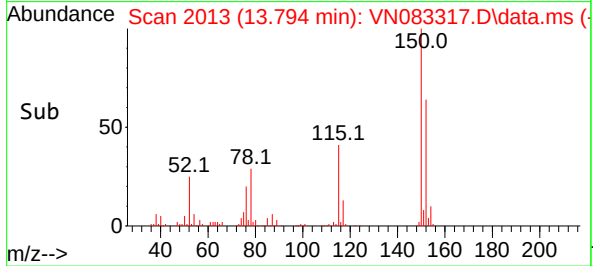
Tgt Ion:152 Resp: 106288

Ion Ratio Lower Upper

152 100

115 64.4 30.6 91.6

150 156.5 0.0 348.6



### Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: | 08/14/24     |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  | 08/14/24     |
| Client Sample ID:  | TB-01-081424                          | SDG No.:        | P3609        |
| Lab Sample ID:     | P3609-03                              | Matrix:         | Water        |
| Analytical Method: | SW8260                                | % Solid:        | 0            |
| Sample Wt/Vol:     | 5      Units:    mL                   | Final Vol:      | 5000      uL |
| Soil Aliquot Vol:  | uL                                    | Test:           | VOCMS Group6 |
| GC Column:         | RXI-624      ID :    0.25             | Level :         | LOW          |
| Prep Method :      |                                       |                 |              |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN083315.D        | 1         |           | 08/14/24 20:55 | VN081424      |

| CAS Number     | Parameter                      | Conc. | Qualifier | MDL  | LOQ / CRQL | Units |
|----------------|--------------------------------|-------|-----------|------|------------|-------|
| <b>TARGETS</b> |                                |       |           |      |            |       |
| 75-71-8        | Dichlorodifluoromethane        | 0.21  | U         | 0.21 | 1.00       | ug/L  |
| 74-87-3        | Chloromethane                  | 0.35  | U         | 0.35 | 1.00       | ug/L  |
| 75-01-4        | Vinyl Chloride                 | 0.34  | U         | 0.34 | 1.00       | ug/L  |
| 74-83-9        | Bromomethane                   | 1.40  | U         | 1.40 | 5.00       | ug/L  |
| 75-00-3        | Chloroethane                   | 0.56  | U         | 0.56 | 1.00       | ug/L  |
| 76-13-1        | 1,1,2-Trichlorotrifluoroethane | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 75-35-4        | 1,1-Dichloroethene             | 0.26  | U         | 0.26 | 1.00       | ug/L  |
| 67-64-1        | Acetone                        | 3.50  | J         | 1.40 | 5.00       | ug/L  |
| 75-15-0        | Carbon Disulfide               | 0.32  | U         | 0.32 | 1.00       | ug/L  |
| 1634-04-4      | Methyl tert-butyl Ether        | 0.16  | U         | 0.16 | 1.00       | ug/L  |
| 75-09-2        | Methylene Chloride             | 0.32  | U         | 0.32 | 1.00       | ug/L  |
| 156-60-5       | trans-1,2-Dichloroethene       | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 75-34-3        | 1,1-Dichloroethane             | 0.23  | U         | 0.23 | 1.00       | ug/L  |
| 110-82-7       | Cyclohexane                    | 1.60  | U         | 1.60 | 5.00       | ug/L  |
| 78-93-3        | 2-Butanone                     | 1.30  | U         | 1.30 | 5.00       | ug/L  |
| 56-23-5        | Carbon Tetrachloride           | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 156-59-2       | cis-1,2-Dichloroethene         | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 67-66-3        | Chloroform                     | 0.26  | U         | 0.26 | 1.00       | ug/L  |
| 71-55-6        | 1,1,1-Trichloroethane          | 0.19  | U         | 0.19 | 1.00       | ug/L  |
| 108-87-2       | Methylcyclohexane              | 0.19  | U         | 0.19 | 1.00       | ug/L  |
| 71-43-2        | Benzene                        | 0.16  | U         | 0.16 | 1.00       | ug/L  |
| 107-06-2       | 1,2-Dichloroethane             | 0.24  | U         | 0.24 | 1.00       | ug/L  |
| 79-01-6        | Trichloroethene                | 0.32  | U         | 0.32 | 1.00       | ug/L  |
| 75-27-4        | Bromodichloromethane           | 0.24  | U         | 0.24 | 1.00       | ug/L  |
| 108-88-3       | Toluene                        | 0.18  | U         | 0.18 | 1.00       | ug/L  |
| 79-00-5        | 1,1,2-Trichloroethane          | 0.21  | U         | 0.21 | 1.00       | ug/L  |
| 124-48-1       | Dibromochloromethane           | 0.18  | U         | 0.18 | 1.00       | ug/L  |
| 127-18-4       | Tetrachloroethene              | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 108-90-7       | Chlorobenzene                  | 0.13  | U         | 0.13 | 1.00       | ug/L  |
| 100-41-4       | Ethyl Benzene                  | 0.16  | U         | 0.16 | 1.00       | ug/L  |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083315.D  
Acq On : 14 Aug 2024 20:55  
Operator : JC\MD  
Sample : P3609-03  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 23 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
TB-01-081424

Quant Time: Aug 14 23:27:34 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
Response via : Initial Calibration

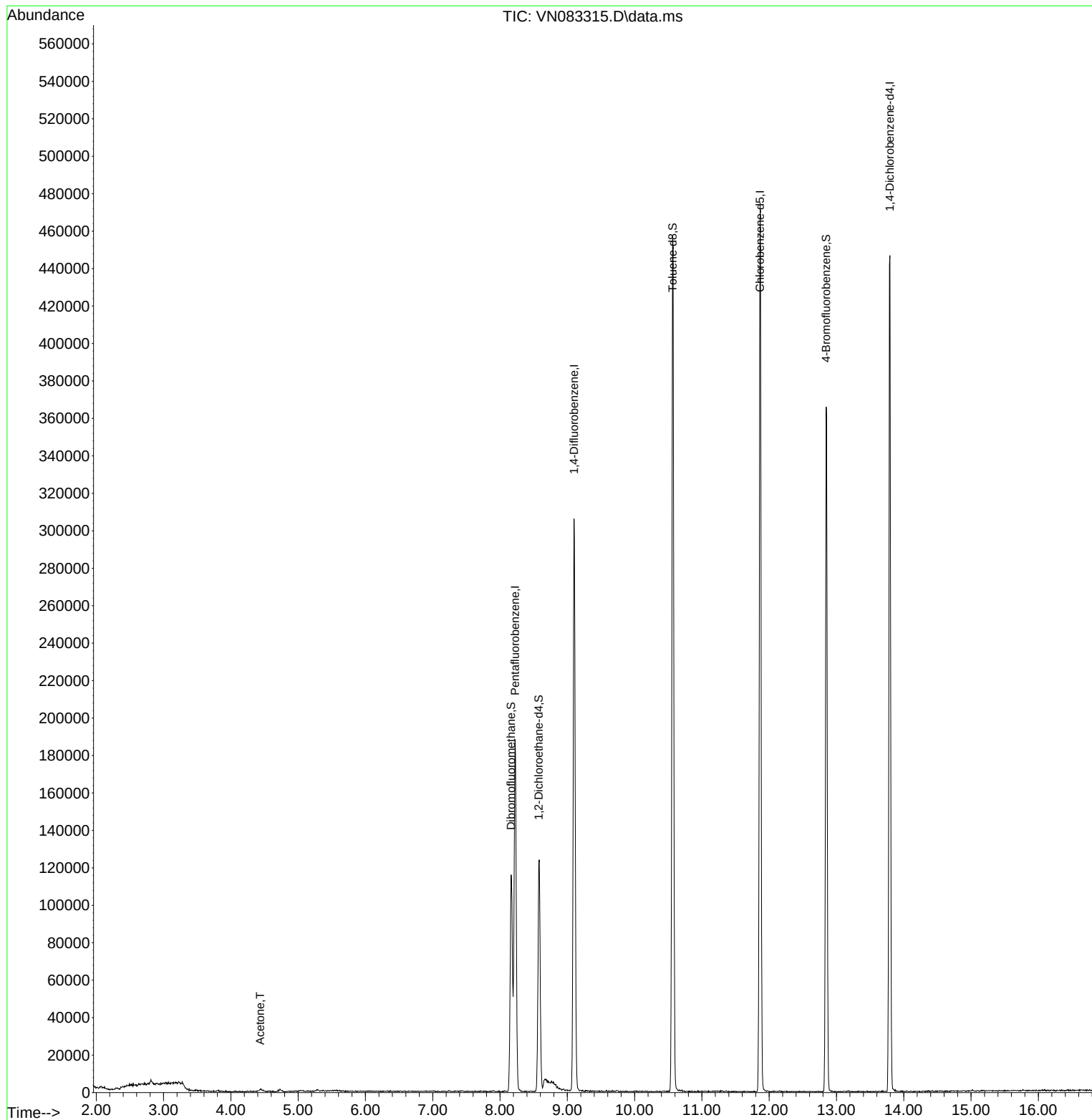
| Compound                    | R.T.   | QIon           | Response | Conc       | Units | Dev(Min)  |
|-----------------------------|--------|----------------|----------|------------|-------|-----------|
| -----                       |        |                |          |            |       |           |
| Internal Standards          |        |                |          |            |       |           |
| 1) Pentafluorobenzene       | 8.224  | 168            | 130232   | 50.000     | ug/l  | 0.00      |
| 34) 1,4-Difluorobenzene     | 9.100  | 114            | 253989   | 50.000     | ug/l  | 0.00      |
| 63) Chlorobenzene-d5        | 11.865 | 117            | 263608   | 50.000     | ug/l  | 0.00      |
| 72) 1,4-Dichlorobenzene-d4  | 13.794 | 152            | 116466   | 50.000     | ug/l  | 0.00      |
| System Monitoring Compounds |        |                |          |            |       |           |
| 33) 1,2-Dichloroethane-d4   | 8.577  | 65             | 105497   | 56.911     | ug/l  | 0.00      |
| Spiked Amount               | 50.000 | Range 74 - 125 | Recovery | = 113.820% |       |           |
| 35) Dibromofluoromethane    | 8.165  | 113            | 84684    | 53.417     | ug/l  | 0.00      |
| Spiked Amount               | 50.000 | Range 75 - 124 | Recovery | = 106.840% |       |           |
| 50) Toluene-d8              | 10.565 | 98             | 316755   | 53.563     | ug/l  | 0.00      |
| Spiked Amount               | 50.000 | Range 86 - 113 | Recovery | = 107.120% |       |           |
| 62) 4-Bromofluorobenzene    | 12.847 | 95             | 131440   | 57.011     | ug/l  | 0.00      |
| Spiked Amount               | 50.000 | Range 77 - 121 | Recovery | = 114.020% |       |           |
| Target Compounds            |        |                |          |            |       |           |
| 16) Acetone                 | 4.436  | 43             | 2516     | 3.469      | ug/l  | Qvalue 99 |

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

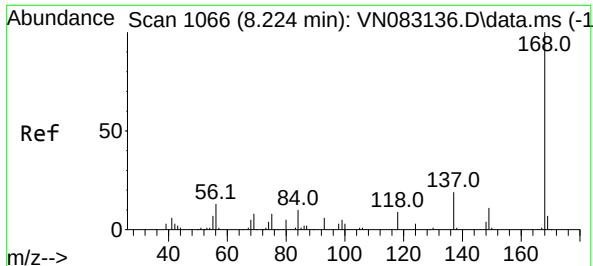
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Data File : VN083315.D  
Acq On : 14 Aug 2024 20:55  
Operator : JC\MD  
Sample : P3609-03  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 23 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
TB-01-081424

Quant Time: Aug 14 23:27:34 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
Response via : Initial Calibration



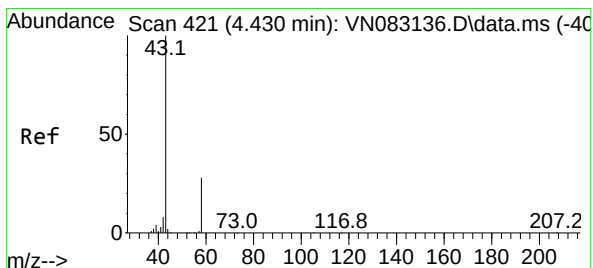
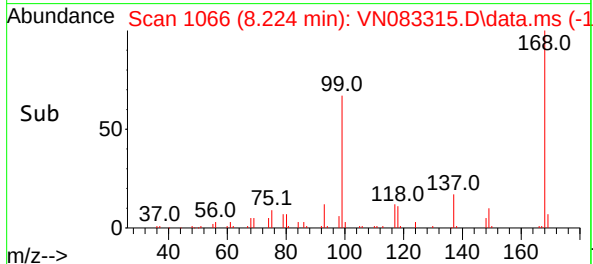
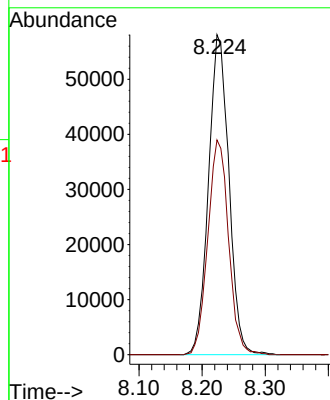
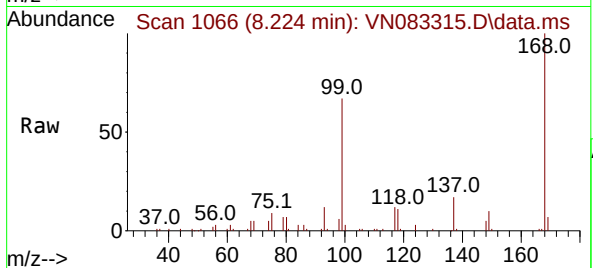




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN083315.D  
Acq: 14 Aug 2024 20:55

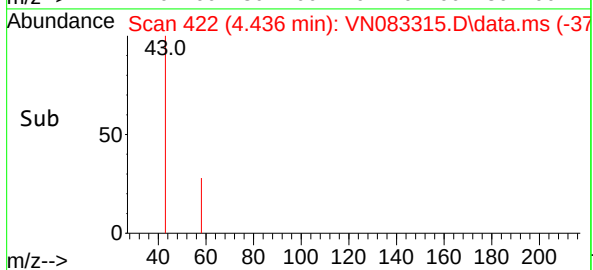
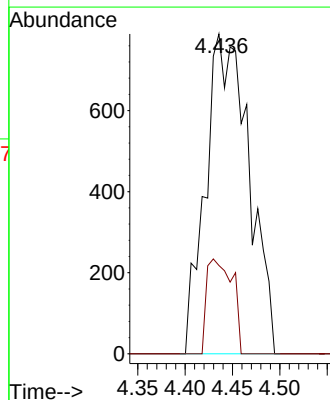
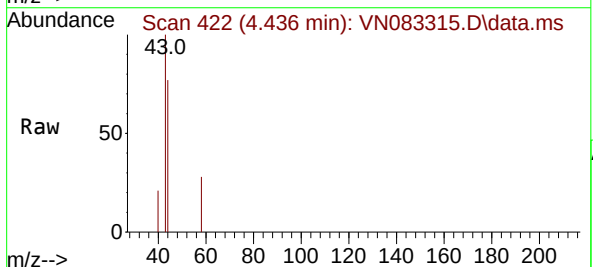
Instrument :  
MSVOA\_N  
ClientSampleId :  
TB-01-081424

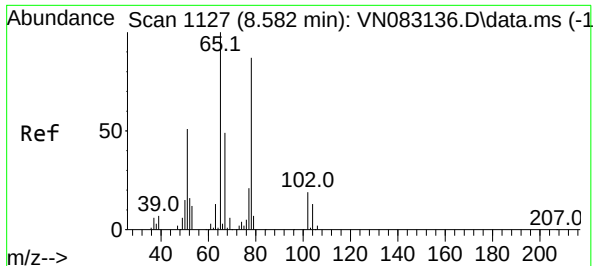
Tgt Ion:168 Resp: 130232  
Ion Ratio Lower Upper  
168 100  
99 67.1 48.2 72.4



#16  
Acetone  
Concen: 3.469 ug/l  
RT: 4.436 min Scan# 422  
Delta R.T. 0.006 min  
Lab File: VN083315.D  
Acq: 14 Aug 2024 20:55

Tgt Ion: 43 Resp: 2516  
Ion Ratio Lower Upper  
43 100  
58 27.6 21.8 32.6





#33

1,2-Dichloroethane-d4

Concen: 56.911 ug/l

RT: 8.577 min Scan# 1126

Delta R.T. -0.005 min

Lab File: VN083315.D

Acq: 14 Aug 2024 20:55

Instrument :

MSVOA\_N

ClientSampleId :

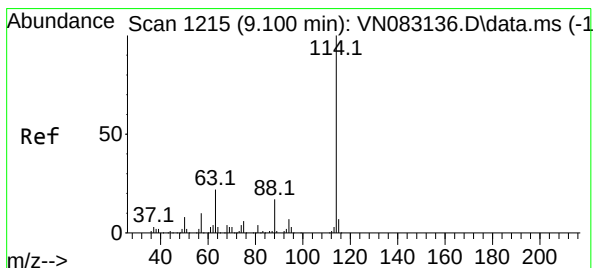
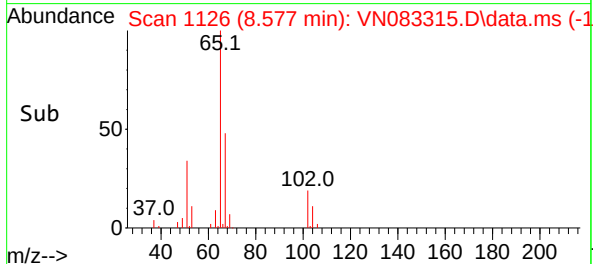
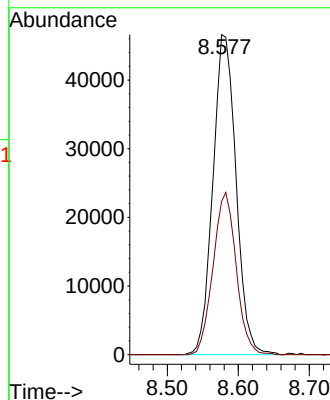
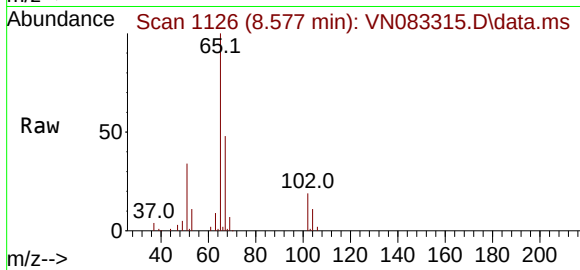
TB-01-081424

Tgt Ion: 65 Resp: 105497

Ion Ratio Lower Upper

65 100

67 50.6 0.0 104.4



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. -0.000 min

Lab File: VN083315.D

Acq: 14 Aug 2024 20:55

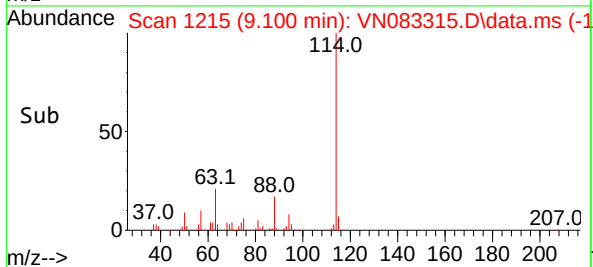
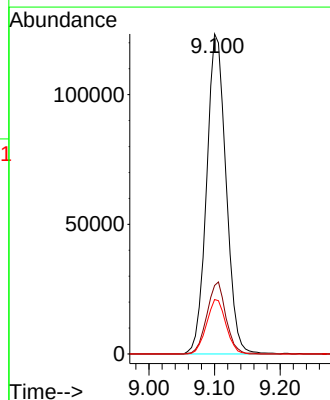
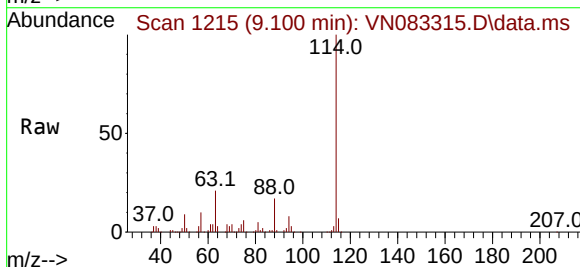
Tgt Ion: 114 Resp: 253989

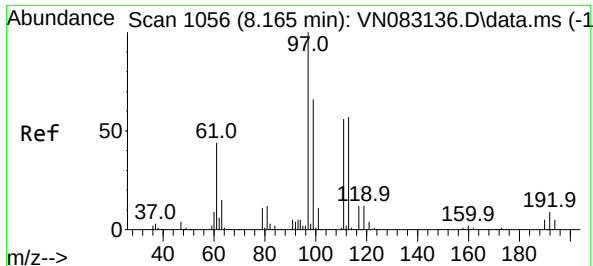
Ion Ratio Lower Upper

114 100

63 21.4 0.0 44.6

88 17.0 0.0 31.4





#35

Dibromofluoromethane

Concen: 53.417 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. -0.000 min

Lab File: VN083315.D

Acq: 14 Aug 2024 20:55

Instrument :

MSVOA\_N

ClientSampleId :

TB-01-081424

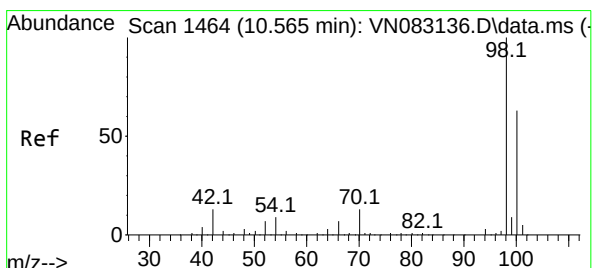
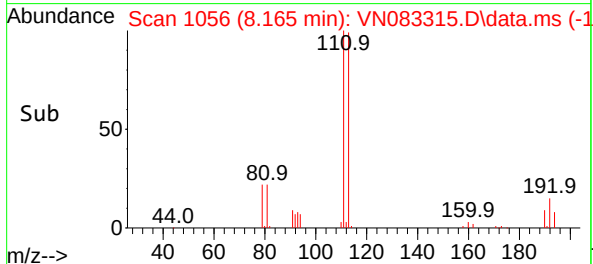
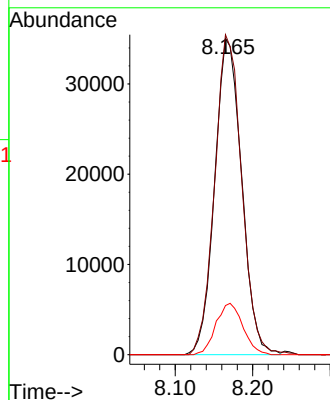
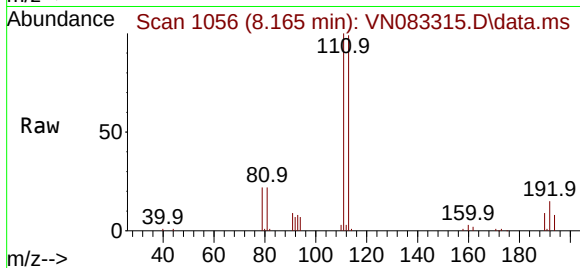
Tgt Ion:113 Resp: 84684

Ion Ratio Lower Upper

113 100

111 101.5 82.4 123.6

192 16.3 14.9 22.3



#50

Toluene-d8

Concen: 53.563 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. -0.000 min

Lab File: VN083315.D

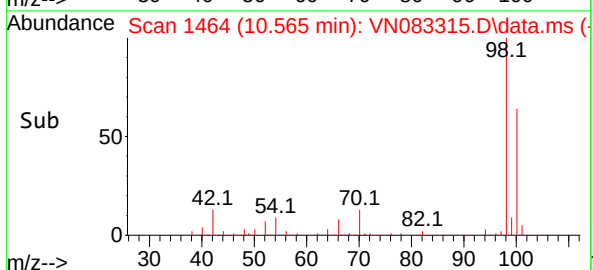
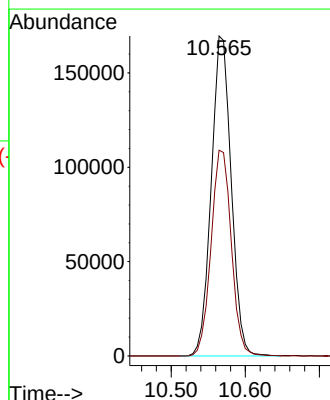
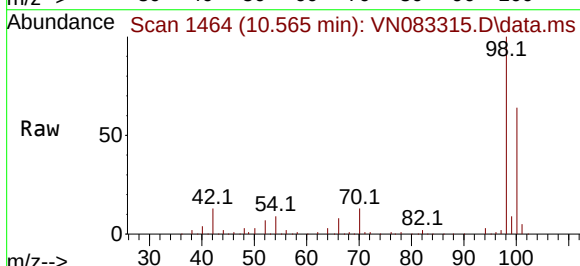
Acq: 14 Aug 2024 20:55

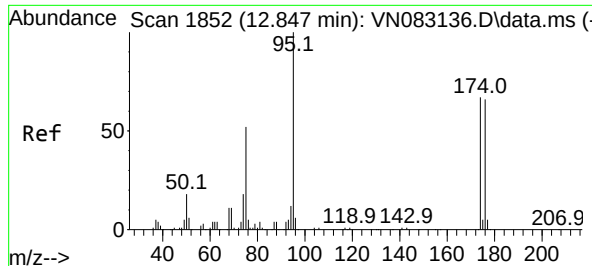
Tgt Ion: 98 Resp: 316755

Ion Ratio Lower Upper

98 100

100 65.2 51.5 77.3





#62

4-Bromofluorobenzene

Concen: 57.011 ug/l

RT: 12.847 min Scan# 1852

Delta R.T. -0.000 min

Lab File: VN083315.D

Acq: 14 Aug 2024 20:55

Instrument :

MSVOA\_N

ClientSampleId :

TB-01-081424

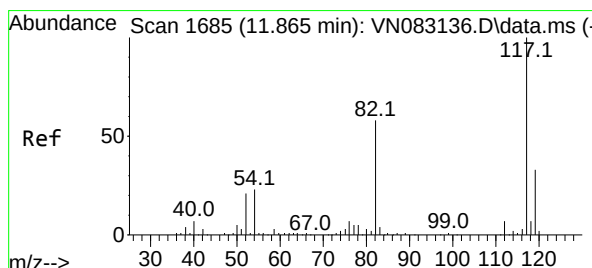
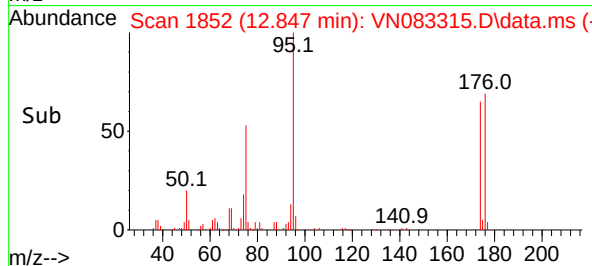
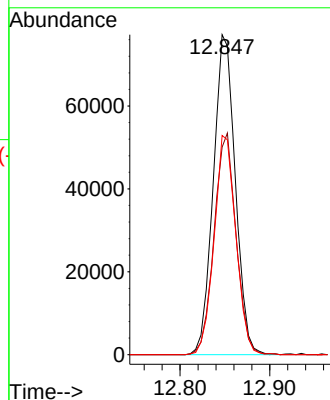
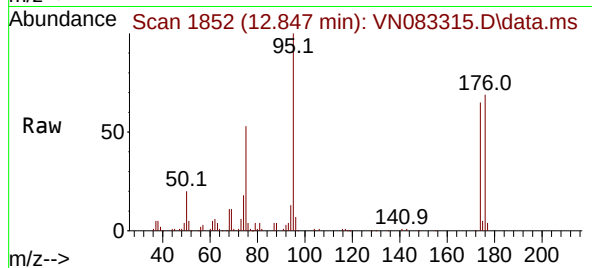
Tgt Ion: 95 Resp: 131440

Ion Ratio Lower Upper

95 100

174 69.1 0.0 159.2

176 67.7 0.0 147.6



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. -0.000 min

Lab File: VN083315.D

Acq: 14 Aug 2024 20:55

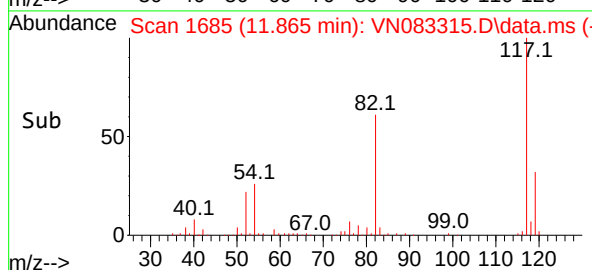
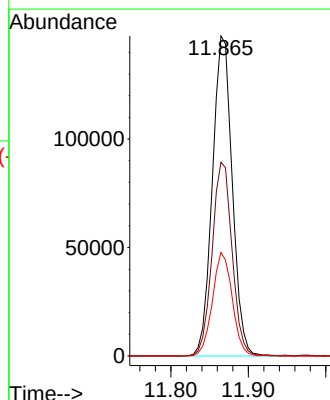
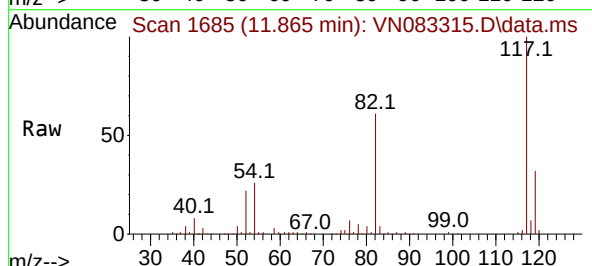
Tgt Ion: 117 Resp: 263608

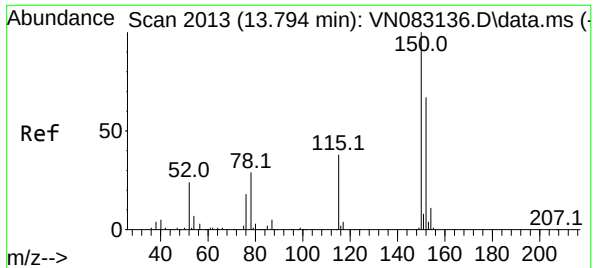
Ion Ratio Lower Upper

117 100

82 60.6 47.5 71.3

119 32.4 25.6 38.4





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.794 min Scan# 20

Delta R.T. -0.000 min

Lab File: VN083315.D

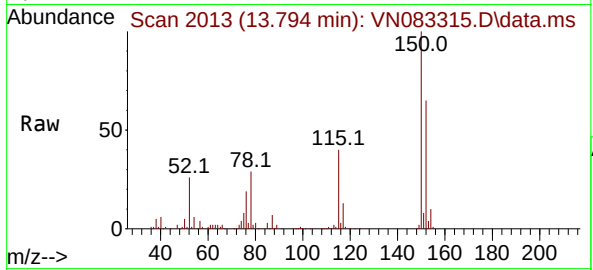
Acq: 14 Aug 2024 20:55

Instrument :

MSVOA\_N

ClientSampleId :

TB-01-081424



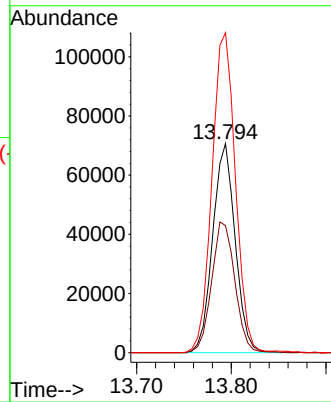
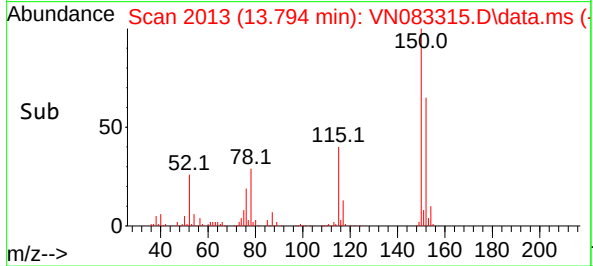
Tgt Ion:152 Resp: 116466

Ion Ratio Lower Upper

152 100

115 64.6 30.6 91.6

150 159.0 0.0 348.6





# CALIBRATION SUMMARY

|    |
|----|
| 1  |
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284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,  
Fax : 908 789 8922

### VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: JACO05  
 Lab Code: CHEM Case No.: P3609 SAS No.: P3609 SDG No.: P3609  
 Instrument ID: MSVOA\_N Calibration Date(s): 08/07/2024 08/07/2024  
 Heated Purge: (Y/N) N Calibration Time(s): 10:33 12:34  
 GC Column: RXI-624 ID: 0.25 (mm)

|                                |  |                     |        |                     |        |                     |        |                     |       |                     |  |                     |  |
|--------------------------------|--|---------------------|--------|---------------------|--------|---------------------|--------|---------------------|-------|---------------------|--|---------------------|--|
| LAB FILE ID:                   |  | RRF100 = VN083135.D |        | RRF050 = VN083136.D |        | RRF020 = VN083137.D |        | RRF010 = VN083138.D |       | RRF005 = VN083139.D |  | RRF001 = VN083140.D |  |
| COMPOUND                       |  | RRF100              | RRF050 | RRF020              | RRF010 | RRF005              | RRF001 | RRF                 | % RSD |                     |  |                     |  |
| Dichlorodifluoromethane        |  | 0.548               | 0.571  | 0.566               | 0.579  | 0.597               | 0.542  | 0.567               | 3.6   |                     |  |                     |  |
| Chloromethane                  |  | 0.547               | 0.591  | 0.584               | 0.589  | 0.595               | 0.576  | 0.581               | 3.1   |                     |  |                     |  |
| Vinyl Chloride                 |  | 0.562               | 0.598  | 0.588               | 0.612  | 0.586               | 0.607  | 0.592               | 3     |                     |  |                     |  |
| Bromomethane                   |  | 0.313               | 0.357  | 0.370               | 0.385  | 0.413               |        | 0.368               | 10.1  |                     |  |                     |  |
| Chloroethane                   |  | 0.340               | 0.356  | 0.356               | 0.355  | 0.381               | 0.436  | 0.371               | 9.3   |                     |  |                     |  |
| 1,1,2-Trichlorotrifluoroethane |  | 0.524               | 0.548  | 0.548               | 0.550  | 0.558               | 0.510  | 0.539               | 3.4   |                     |  |                     |  |
| 1,1-Dichloroethene             |  | 0.524               | 0.544  | 0.538               | 0.564  | 0.581               | 0.575  | 0.554               | 4.1   |                     |  |                     |  |
| Acetone                        |  | 0.302               | 0.286  | 0.260               | 0.284  | 0.274               | 0.265  | 0.278               | 5.5   |                     |  |                     |  |
| Carbon Disulfide               |  | 1.466               | 1.560  | 1.596               | 1.599  | 1.630               | 1.879  | 1.622               | 8.5   |                     |  |                     |  |
| Methyl tert-butyl Ether        |  | 1.927               | 2.028  | 2.028               | 2.015  | 2.053               | 1.953  | 2.001               | 2.5   |                     |  |                     |  |
| Methylene Chloride             |  | 0.569               | 0.599  | 0.619               | 0.614  | 0.640               | 0.805  | 0.641               | 13    |                     |  |                     |  |
| trans-1,2-Dichloroethene       |  | 0.533               | 0.574  | 0.577               | 0.586  | 0.568               | 0.599  | 0.573               | 3.9   |                     |  |                     |  |
| 1,1-Dichloroethane             |  | 1.038               | 1.084  | 1.093               | 1.096  | 1.093               | 1.035  | 1.073               | 2.7   |                     |  |                     |  |
| Cyclohexane                    |  | 0.933               | 0.982  | 1.010               | 1.110  | 1.238               |        | 1.055               | 11.5  |                     |  |                     |  |
| 2-Butanone                     |  | 0.418               | 0.427  | 0.424               | 0.430  | 0.414               | 0.453  | 0.428               | 3.2   |                     |  |                     |  |
| Carbon Tetrachloride           |  | 0.524               | 0.546  | 0.548               | 0.541  | 0.539               | 0.493  | 0.532               | 3.9   |                     |  |                     |  |
| cis-1,2-Dichloroethene         |  | 0.658               | 0.689  | 0.691               | 0.701  | 0.687               | 0.721  | 0.691               | 3     |                     |  |                     |  |
| Chloroform                     |  | 1.087               | 1.137  | 1.110               | 1.132  | 1.122               | 1.102  | 1.115               | 1.7   |                     |  |                     |  |
| 1,1,1-Trichloroethane          |  | 1.027               | 1.075  | 1.066               | 1.076  | 1.081               | 1.007  | 1.055               | 2.9   |                     |  |                     |  |
| Methylcyclohexane              |  | 0.565               | 0.597  | 0.587               | 0.583  | 0.575               | 0.572  | 0.580               | 2     |                     |  |                     |  |
| Benzene                        |  | 1.386               | 1.447  | 1.431               | 1.429  | 1.403               | 1.343  | 1.406               | 2.7   |                     |  |                     |  |
| 1,2-Dichloroethane             |  | 0.494               | 0.520  | 0.514               | 0.524  | 0.524               | 0.498  | 0.512               | 2.6   |                     |  |                     |  |
| Trichloroethene                |  | 0.331               | 0.344  | 0.343               | 0.341  | 0.340               | 0.310  | 0.335               | 3.9   |                     |  |                     |  |
| Bromodichloromethane           |  | 0.521               | 0.539  | 0.540               | 0.533  | 0.541               | 0.544  | 0.537               | 1.6   |                     |  |                     |  |
| Toluene                        |  | 0.892               | 0.926  | 0.905               | 0.900  | 0.885               | 0.824  | 0.889               | 3.9   |                     |  |                     |  |
| 1,1,2-Trichloroethane          |  | 0.322               | 0.334  | 0.331               | 0.327  | 0.314               | 0.283  | 0.318               | 6     |                     |  |                     |  |
| Dibromochloromethane           |  | 0.400               | 0.413  | 0.397               | 0.388  | 0.383               | 0.329  | 0.385               | 7.7   |                     |  |                     |  |
| Tetrachloroethene              |  | 0.319               | 0.343  | 0.338               | 0.343  | 0.324               | 0.320  | 0.331               | 3.5   |                     |  |                     |  |
| Chlorobenzene                  |  | 1.070               | 1.142  | 1.101               | 1.153  | 1.094               | 1.069  | 1.105               | 3.2   |                     |  |                     |  |
| Ethyl Benzene                  |  | 1.967               | 2.075  | 2.061               | 2.070  | 2.032               | 1.957  | 2.027               | 2.6   |                     |  |                     |  |

\* 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.



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

### VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: JAC005  
 Lab Code: CHEM Case No.: P3609 SAS No.: P3609 SDG No.: P3609  
 Instrument ID: MSVOA\_N Calibration Date(s): 08/07/2024 08/07/2024  
 Heated Purge: (Y/N) N Calibration Time(s): 10:33 12:34  
 GC Column: RXI-624 ID: 0.25 (mm)

|                       |        |                     |        |                     |        |                     |       |       |  |
|-----------------------|--------|---------------------|--------|---------------------|--------|---------------------|-------|-------|--|
| LAB FILE ID:          |        | RRF100 = VN083135.D |        | RRF050 = VN083136.D |        | RRF020 = VN083137.D |       |       |  |
|                       |        | RRF010 = VN083138.D |        | RRF005 = VN083139.D |        | RRF001 = VN083140.D |       |       |  |
| COMPOUND              | RRF100 | RRF050              | RRF020 | RRF010              | RRF005 | RRF001              | RRF   | % RSD |  |
| m/p-Xylenes           | 0.747  | 0.787               | 0.771  | 0.785               | 0.759  | 0.706               | 0.759 | 4     |  |
| o-Xylene              | 0.735  | 0.773               | 0.759  | 0.773               | 0.750  | 0.703               | 0.749 | 3.6   |  |
| Isopropylbenzene      | 3.822  | 4.249               | 4.133  | 4.386               | 4.249  | 4.254               | 4.182 | 4.6   |  |
| 1,4-Dichlorobenzene   | 1.655  | 1.783               | 1.728  | 1.751               | 1.795  | 1.862               | 1.762 | 4     |  |
| 1,2-Dichlorobenzene   | 1.571  | 1.704               | 1.664  | 1.739               | 1.731  | 1.741               | 1.692 | 3.9   |  |
| 1,2-Dichloroethane-d4 | 0.717  | 0.745               | 0.601  | 0.710               | 0.786  |                     | 0.712 | 9.7   |  |
| Dibromofluoromethane  | 0.311  | 0.332               | 0.264  | 0.307               | 0.346  |                     | 0.312 | 10    |  |
| Toluene-d8            | 1.201  | 1.261               | 0.985  | 1.133               | 1.240  |                     | 1.164 | 9.6   |  |
| 4-Bromofluorobenzene  | 0.473  | 0.492               | 0.390  | 0.432               | 0.483  |                     | 0.454 | 9.4   |  |

\* 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 : 82N080724W.M  
 Title : SW846 8260  
 Last Update : Thu Aug 08 06:30:41 2024  
 Response Via : Initial Calibration

## Calibration Files

1 =VN083140.D 5 =VN083139.D 10 =VN083138.D 20 =VN083137.D 50 =VN083136.D 100 =VN083135.D

|        | Compound            | 1              | 5     | 10    | 20    | 50    | 100   | Avg   | %RSD  |
|--------|---------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 1) I   | Pentafluorobenzene  | -----ISTD----- |       |       |       |       |       |       |       |
| 2) T   | Dichlorodifluo...   | 0.542          | 0.597 | 0.579 | 0.566 | 0.571 | 0.548 | 0.567 | 3.55  |
| 3) P   | Chloromethane       | 0.576          | 0.595 | 0.589 | 0.584 | 0.591 | 0.547 | 0.581 | 3.06  |
| 4) C   | Vinyl Chloride      | 0.607          | 0.586 | 0.612 | 0.588 | 0.598 | 0.562 | 0.592 | 3.02# |
| 5) T   | Bromomethane        |                | 0.413 | 0.385 | 0.370 | 0.357 | 0.313 | 0.368 | 10.07 |
| 6) T   | Chloroethane        | 0.436          | 0.381 | 0.355 | 0.356 | 0.356 | 0.340 | 0.371 | 9.33  |
| 7) T   | Trichlorofluor...   | 0.901          | 1.003 | 1.013 | 1.005 | 0.995 | 0.955 | 0.979 | 4.42  |
| 8) T   | Diethyl Ether       | 0.338          | 0.380 | 0.385 | 0.367 | 0.366 | 0.348 | 0.364 | 4.97  |
| 9) T   | 1,1,2-Trichlor...   | 0.510          | 0.558 | 0.550 | 0.548 | 0.548 | 0.524 | 0.539 | 3.41  |
| 10) T  | Methyl Iodide       |                | 0.688 | 0.710 | 0.703 | 0.740 | 0.707 | 0.710 | 2.72  |
| 11) T  | Tert butyl alc...   |                | 0.155 | 0.155 | 0.146 | 0.147 | 0.136 | 0.148 | 5.22  |
| 12) CM | 1,1-Dichloroet...   | 0.575          | 0.581 | 0.564 | 0.538 | 0.544 | 0.524 | 0.554 | 4.08# |
| 13) T  | Acrolein            |                | 0.095 | 0.101 | 0.083 | 0.102 | 0.100 | 0.096 | 7.99  |
| 14) T  | Allyl chloride      | 1.210          | 1.099 | 1.083 | 1.063 | 0.933 | 0.896 | 1.047 | 11.00 |
| 15) T  | Acrylonitrile       | 0.306          | 0.311 | 0.306 | 0.304 | 0.306 | 0.293 | 0.304 | 1.95  |
| 16) T  | Acetone             | 0.265          | 0.274 | 0.284 | 0.260 | 0.286 | 0.302 | 0.278 | 5.51  |
| 17) T  | Carbon Disulfide    | 1.879          | 1.630 | 1.599 | 1.596 | 1.560 | 1.466 | 1.622 | 8.52  |
| 18) T  | Methyl Acetate      | 0.985          | 0.844 | 0.842 | 0.773 | 0.776 | 0.758 | 0.830 | 10.20 |
| 19) T  | Methyl tert-bu...   | 1.953          | 2.053 | 2.015 | 2.028 | 2.028 | 1.927 | 2.001 | 2.46  |
| 20) T  | Methylene Chlo...   | 0.805          | 0.640 | 0.614 | 0.619 | 0.599 | 0.569 | 0.641 | 13.03 |
| 21) T  | trans-1,2-Dich...   | 0.599          | 0.568 | 0.586 | 0.577 | 0.574 | 0.533 | 0.573 | 3.93  |
| 22) T  | Diisopropyl ether   | 1.945          | 1.966 | 2.009 | 1.976 | 2.008 | 1.909 | 1.969 | 1.94  |
| 23) T  | Vinyl Acetate       | 1.930          | 2.006 | 2.040 | 2.046 | 2.096 | 1.990 | 2.018 | 2.80  |
| 24) P  | 1,1-Dichloroet...   | 1.035          | 1.093 | 1.096 | 1.093 | 1.084 | 1.038 | 1.073 | 2.65  |
| 25) T  | 2-Butanone          | 0.453          | 0.414 | 0.430 | 0.424 | 0.427 | 0.418 | 0.428 | 3.22  |
| 26) T  | 2,2-Dichloropr...   | 0.925          | 0.984 | 1.032 | 1.019 | 1.023 | 0.997 | 0.997 | 3.95  |
| 27) T  | cis-1,2-Dichlo...   | 0.721          | 0.687 | 0.701 | 0.691 | 0.689 | 0.658 | 0.691 | 2.99  |
| 28) T  | Bromochloromet...   | 0.465          | 0.489 | 0.391 | 0.420 | 0.439 | 0.427 | 0.439 | 7.91  |
| 29) T  | Tetrahydrofuran     | 0.271          | 0.280 | 0.286 | 0.272 | 0.279 | 0.270 | 0.276 | 2.24  |
| 30) C  | Chloroform          | 1.102          | 1.122 | 1.132 | 1.110 | 1.137 | 1.087 | 1.115 | 1.71# |
| 31) T  | Cyclohexane         |                | 1.238 | 1.110 | 1.010 | 0.982 | 0.933 | 1.055 | 11.50 |
| 32) T  | 1,1,1-Trichlor...   | 1.007          | 1.081 | 1.076 | 1.066 | 1.075 | 1.027 | 1.055 | 2.89  |
| 33) S  | 1,2-Dichloroet...   |                | 0.786 | 0.710 | 0.601 | 0.745 | 0.717 | 0.712 | 9.68  |
| 34) I  | 1,4-Difluorobenzene | -----ISTD----- |       |       |       |       |       |       |       |
| 35) S  | Dibromofluorom...   |                | 0.346 | 0.307 | 0.264 | 0.332 | 0.311 | 0.312 | 9.99  |
| 36) T  | 1,1-Dichloropr...   | 0.488          | 0.463 | 0.477 | 0.472 | 0.475 | 0.457 | 0.472 | 2.33  |
| 37) T  | Ethyl Acetate       | 0.665          | 0.515 | 0.512 | 0.502 | 0.499 | 0.479 | 0.529 | 12.83 |
| 38) T  | Carbon Tetrach...   | 0.493          | 0.539 | 0.541 | 0.548 | 0.546 | 0.524 | 0.532 | 3.93  |
| 39) T  | Methylcyclohexane   | 0.572          | 0.575 | 0.583 | 0.587 | 0.597 | 0.565 | 0.580 | 1.96  |
| 40) TM | Benzene             | 1.343          | 1.403 | 1.429 | 1.431 | 1.447 | 1.386 | 1.406 | 2.68  |
| 41) T  | Methacrylonitrile   | 0.377          | 0.290 | 0.277 | 0.300 | 0.283 | 0.276 | 0.301 | 12.78 |
| 42) TM | 1,2-Dichloroet...   | 0.498          | 0.524 | 0.524 | 0.514 | 0.520 | 0.494 | 0.512 | 2.63  |
| 43) T  | Isopropyl Acetate   | 2.156          | 1.289 | 1.075 | 0.956 | 0.921 | 0.869 | 1.211 | 40.18 |
| 44) TM | Trichloroethene     | 0.310          | 0.340 | 0.341 | 0.343 | 0.344 | 0.331 | 0.335 | 3.94  |
| 45) C  | 1,2-Dichloropr...   | 0.316          | 0.326 | 0.341 | 0.344 | 0.346 | 0.331 | 0.334 | 3.50# |
| 46) T  | Dibromomethane      | 0.218          | 0.243 | 0.240 | 0.245 | 0.251 | 0.238 | 0.239 | 4.73  |
| 47) T  | Bromodichlorom...   | 0.544          | 0.541 | 0.533 | 0.540 | 0.539 | 0.521 | 0.537 | 1.55  |
| 48) T  | Methyl methacr...   | 0.506          | 0.423 | 0.432 | 0.421 | 0.425 | 0.415 | 0.437 | 7.88  |
| 49) T  | 1,4-Dioxane         | 0.008          | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 2.64  |
| 50) S  | Toluene-d8          |                | 1.240 | 1.133 | 0.985 | 1.261 | 1.201 | 1.164 | 9.56  |
| 51) T  | 4-Methyl-2-Pen...   | 0.457          | 0.499 | 0.516 | 0.516 | 0.517 | 0.495 | 0.500 | 4.62  |
| 52) CM | Toluene             | 0.824          | 0.885 | 0.900 | 0.905 | 0.926 | 0.892 | 0.889 | 3.91# |
| 53) T  | t-1,3-Dichloro...   | 0.469          | 0.546 | 0.552 | 0.573 | 0.597 | 0.569 | 0.551 | 7.99  |
| 54) T  | cis-1,3-Dichlo...   | 0.546          | 0.588 | 0.595 | 0.597 | 0.606 | 0.586 | 0.586 | 3.54  |
| 55) T  | 1,1,2-Trichlor...   | 0.283          | 0.314 | 0.327 | 0.331 | 0.334 | 0.322 | 0.318 | 5.95  |
| 56) T  | Ethyl methacry...   | 0.553          | 0.594 | 0.612 | 0.617 | 0.624 | 0.601 | 0.600 | 4.24  |

Method Path : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\  
 Method File : 82N080724W.M

|     |    |                       |                |       |       |       |       |       |       |       |
|-----|----|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 57) | T  | 1,3-Dichloropr...     | 0.552          | 0.545 | 0.575 | 0.581 | 0.592 | 0.561 | 0.568 | 3.17  |
| 58) | T  | 2-Chloroethyl ...     | 0.243          | 0.250 | 0.262 | 0.242 | 0.261 | 0.264 | 0.254 | 3.91  |
| 59) | T  | 2-Hexanone            | 0.367          | 0.385 | 0.389 | 0.395 | 0.397 | 0.388 | 0.387 | 2.70  |
| 60) | T  | Dibromochlorom...     | 0.329          | 0.383 | 0.388 | 0.397 | 0.413 | 0.400 | 0.385 | 7.68  |
| 61) | T  | 1,2-Dibromoethane     | 0.317          | 0.332 | 0.342 | 0.336 | 0.347 | 0.334 | 0.335 | 3.13  |
| 62) | S  | 4-Bromofluorob...     | 0.483          | 0.432 | 0.390 | 0.492 | 0.473 | 0.454 |       | 9.36  |
| 63) | I  | Chlorobenzene-d5      | -----ISTD----- |       |       |       |       |       |       |       |
| 64) | T  | Tetrachloroethene     | 0.320          | 0.324 | 0.343 | 0.338 | 0.343 | 0.319 | 0.331 | 3.46  |
| 65) | PM | Chlorobenzene         | 1.069          | 1.094 | 1.153 | 1.101 | 1.142 | 1.070 | 1.105 | 3.23  |
| 66) | T  | 1,1,1,2-Tetrac...     | 0.370          | 0.401 | 0.403 | 0.385 | 0.399 | 0.380 | 0.390 | 3.37  |
| 67) | C  | Ethyl Benzene         | 1.957          | 2.032 | 2.070 | 2.061 | 2.075 | 1.967 | 2.027 | 2.59# |
| 68) | T  | m/p-Xylenes           | 0.706          | 0.759 | 0.785 | 0.771 | 0.787 | 0.747 | 0.759 | 3.99  |
| 69) | T  | o-Xylene              | 0.703          | 0.750 | 0.773 | 0.759 | 0.773 | 0.735 | 0.749 | 3.60  |
| 70) | T  | Styrene               | 1.100          | 1.261 | 1.300 | 1.288 | 1.336 | 1.261 | 1.258 | 6.51  |
| 71) | P  | Bromoform             | 0.267          | 0.275 | 0.292 | 0.309 | 0.318 | 0.310 | 0.295 | 7.01  |
| 72) | I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |
| 73) | T  | Isopropylbenzene      | 4.254          | 4.249 | 4.386 | 4.133 | 4.249 | 3.822 | 4.182 | 4.63  |
| 74) | T  | N-amyl acetate        | 2.341          | 2.051 | 2.108 | 1.945 | 2.003 | 1.826 | 2.046 | 8.50  |
| 75) | P  | 1,1,2,2-Tetrac...     | 1.234          | 1.237 | 1.210 | 1.163 | 1.167 | 1.085 | 1.183 | 4.85  |
| 76) | T  | 1,2,3-Trichlor...     | 1.233          | 1.083 | 1.128 | 1.094 | 1.063 | 0.984 | 1.097 | 7.47  |
| 77) | T  | Bromobenzene          | 0.900          | 0.975 | 0.946 | 0.927 | 0.959 | 0.868 | 0.929 | 4.27  |
| 78) | T  | n-propylbenzene       | 4.800          | 4.849 | 4.998 | 4.753 | 4.968 | 4.526 | 4.816 | 3.55  |
| 79) | T  | 2-Chlorotoluene       | 3.146          | 3.083 | 3.184 | 3.027 | 3.076 | 2.802 | 3.053 | 4.42  |
| 80) | T  | 1,3,5-Trimethy...     | 3.479          | 3.563 | 3.641 | 3.490 | 3.589 | 3.245 | 3.501 | 3.98  |
| 81) | T  | trans-1,4-Dich...     | 0.530          | 0.468 | 0.524 | 0.493 | 0.508 | 0.504 |       | 4.97  |
| 82) | T  | 4-Chlorotoluene       | 3.261          | 3.081 | 3.116 | 3.014 | 3.104 | 2.799 | 3.062 | 4.99  |
| 83) | T  | tert-Butylbenzene     | 3.103          | 3.199 | 3.192 | 3.098 | 3.162 | 2.850 | 3.101 | 4.19  |
| 84) | T  | 1,2,4-Trimethy...     | 3.416          | 3.592 | 3.679 | 3.526 | 3.654 | 3.305 | 3.529 | 4.10  |
| 85) | T  | sec-Butylbenzene      | 4.235          | 4.265 | 4.325 | 4.202 | 4.384 | 3.976 | 4.231 | 3.33  |
| 86) | T  | p-Isopropyltol...     | 3.355          | 3.569 | 3.510 | 3.491 | 3.682 | 3.354 | 3.493 | 3.62  |
| 87) | T  | 1,3-Dichlorobe...     | 1.870          | 1.708 | 1.757 | 1.739 | 1.771 | 1.643 | 1.748 | 4.29  |
| 88) | T  | 1,4-Dichlorobe...     | 1.862          | 1.795 | 1.751 | 1.728 | 1.783 | 1.655 | 1.762 | 3.96  |
| 89) | T  | n-Butylbenzene        | 2.851          | 3.017 | 3.045 | 3.023 | 3.216 | 3.011 | 3.027 | 3.84  |
| 90) | T  | Hexachloroethane      | 0.620          | 0.696 | 0.708 | 0.686 | 0.689 | 0.650 | 0.675 | 4.92  |
| 91) | T  | 1,2-Dichlorobe...     | 1.741          | 1.731 | 1.739 | 1.664 | 1.704 | 1.571 | 1.692 | 3.90  |
| 92) | T  | 1,2-Dibromo-3-...     | 0.310          | 0.307 | 0.289 | 0.277 | 0.281 | 0.258 | 0.287 | 6.84  |
| 93) | T  | 1,2,4-Trichlor...     | 1.014          | 0.893 | 0.938 | 0.943 | 0.984 | 0.914 | 0.948 | 4.72  |
| 94) | T  | Hexachlorobuta...     | 0.480          | 0.445 | 0.429 | 0.397 | 0.409 | 0.368 | 0.421 | 9.32  |
| 95) | T  | Naphthalene           | 3.429          | 3.230 | 3.435 | 3.365 | 3.481 | 3.202 | 3.357 | 3.44  |
| 96) | T  | 1,2,3-Trichlor...     | 0.972          | 0.920 | 0.974 | 0.920 | 0.963 | 0.877 | 0.938 | 4.09  |

(#) = Out of Range

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083135.D  
Acq On : 07 Aug 2024 10:33  
Operator : JC\MD  
Sample : VSTDICC100  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100

Quant Time: Aug 08 06:14:38 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 05:50:26 2024  
Response via : Initial Calibration

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

| Compound                     | R.T.   | QIon  | Response | Conc     | Units       | Dev(Min) |
|------------------------------|--------|-------|----------|----------|-------------|----------|
| Internal Standards           |        |       |          |          |             |          |
| 1) Pentafluorobenzene        | 8.224  | 168   | 217317   | 50.000   | ug/l        | 0.00     |
| 34) 1,4-Difluorobenzene      | 9.100  | 114   | 373033   | 50.000   | ug/l        | 0.00     |
| 63) Chlorobenzene-d5         | 11.865 | 117   | 329850   | 50.000   | ug/l        | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 13.794 | 152   | 162834   | 50.000   | ug/l        | 0.00     |
| System Monitoring Compounds  |        |       |          |          |             |          |
| 33) 1,2-Dichloroethane-d4    | 8.577  | 65    | 311531   | 100.713  | ug/l        | 0.00     |
| Spiked Amount                | 50.000 | Range | 74 - 125 | Recovery | = 201.420%# |          |
| 35) Dibromofluoromethane     | 8.165  | 113   | 231805   | 99.556   | ug/l        | 0.00     |
| Spiked Amount                | 50.000 | Range | 75 - 124 | Recovery | = 199.120%# |          |
| 50) Toluene-d8               | 10.565 | 98    | 896022   | 103.163  | ug/l        | 0.00     |
| Spiked Amount                | 50.000 | Range | 86 - 113 | Recovery | = 206.320%# |          |
| 62) 4-Bromofluorobenzene     | 12.847 | 95    | 352947   | 104.234  | ug/l        | 0.00     |
| Spiked Amount                | 50.000 | Range | 64 - 133 | Recovery | = 208.460%# |          |
| Target Compounds             |        |       |          |          |             | Qvalue   |
| 2) Dichlorodifluoromethane   | 2.124  | 85    | 238119   | 96.624   | ug/l        | 99       |
| 3) Chloromethane             | 2.359  | 50    | 237633   | 94.185   | ug/l        | 98       |
| 4) Vinyl Chloride            | 2.512  | 62    | 244329   | 94.904   | ug/l        | 100      |
| 5) Bromomethane              | 2.924  | 94    | 135920   | 85.085   | ug/l        | 96       |
| 6) Chloroethane              | 3.100  | 64    | 147611   | 91.645   | ug/l        | 99       |
| 7) Trichlorofluoromethane    | 3.489  | 101   | 414913   | 97.558   | ug/l        | 96       |
| 8) Diethyl Ether             | 3.959  | 74    | 151291   | 95.597   | ug/l        | 83       |
| 9) 1,1,2-Trichlorotrifluo... | 4.365  | 101   | 227550   | 97.044   | ug/l        | 98       |
| 10) Methyl Iodide            | 4.583  | 142   | 307476   | 99.686   | ug/l        | 97       |
| 11) Tert butyl alcohol       | 5.524  | 59    | 296420   | 461.112  | ug/l        | 98       |
| 12) 1,1-Dichloroethene       | 4.336  | 96    | 227537   | 94.453   | ug/l        | 90       |
| 13) Acrolein                 | 4.177  | 56    | 218130   | 520.640  | ug/l        | 98       |
| 14) Allyl chloride           | 5.018  | 41    | 389580   | 85.577   | ug/l        | 93       |
| 15) Acrylonitrile            | 5.718  | 53    | 636894   | 481.734  | ug/l        | 99       |
| 16) Acetone                  | 4.424  | 43    | 656348   | 542.264  | ug/l        | 95       |
| 17) Carbon Disulfide         | 4.712  | 76    | 637255   | 90.406   | ug/l        | 99       |
| 18) Methyl Acetate           | 5.024  | 43    | 329457   | 91.357   | ug/l        | 92       |
| 19) Methyl tert-butyl Ether  | 5.794  | 73    | 837562   | 96.324   | ug/l        | 99       |
| 20) Methylene Chloride       | 5.277  | 84    | 247283   | 88.771   | ug/l        | 88       |
| 21) trans-1,2-Dichloroethene | 5.783  | 96    | 231530   | 92.991   | ug/l        | 95       |
| 22) Diisopropyl ether        | 6.671  | 45    | 829706   | 96.959   | ug/l        | 96       |
| 23) Vinyl Acetate            | 6.600  | 43    | 4324915  | 493.177  | ug/l        | 95       |
| 24) 1,1-Dichloroethane       | 6.571  | 63    | 451253   | 96.746   | ug/l        | 99       |
| 25) 2-Butanone               | 7.482  | 43    | 908992   | 489.098  | ug/l        | 91       |
| 26) 2,2-Dichloropropane      | 7.488  | 77    | 433489   | 100.075  | ug/l        | 98       |
| 27) cis-1,2-Dichloroethene   | 7.488  | 96    | 286100   | 95.225   | ug/l        | 93       |
| 28) Bromochloromethane       | 7.812  | 49    | 185533   | 97.333   | ug/l        | 85       |
| 29) Tetrahydrofuran          | 7.841  | 42    | 587324   | 488.865  | ug/l        | 88       |
| 30) Chloroform               | 7.965  | 83    | 472257   | 97.456   | ug/l        | 99       |
| 31) Cyclohexane              | 8.259  | 56    | 405666   | 88.496   | ug/l        | 98       |
| 32) 1,1,1-Trichloroethane    | 8.171  | 97    | 446446   | 97.332   | ug/l        | 95       |
| 36) 1,1-Dichloropropene      | 8.371  | 75    | 340980   | 96.808   | ug/l        | 98       |
| 37) Ethyl Acetate            | 7.559  | 43    | 357308   | 90.602   | ug/l        | # 93     |
| 38) Carbon Tetrachloride     | 8.359  | 117   | 391148   | 98.597   | ug/l        | 96       |
| 39) Methylcyclohexane        | 9.600  | 83    | 421743   | 97.486   | ug/l        | 97       |
| 40) Benzene                  | 8.606  | 78    | 1034059  | 98.550   | ug/l        | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
 Data File : VN083135.D  
 Acq On : 07 Aug 2024 10:33  
 Operator : JC\MD  
 Sample : VSTDICC100  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

## Instrument :

MSVOA\_N

## ClientSampleId :

VSTDICC100

## Manual Integrations

## APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:14:38 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M

Quant Title : SW846 8260

QLast Update : Thu Aug 08 05:50:26 2024

Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 205844   | 91.799   | ug/l   | 95       |
| 42) 1,2-Dichloroethane        | 8.671  | 62   | 368412   | 96.385   | ug/l   | 97       |
| 43) Isopropyl Acetate         | 8.688  | 43   | 648582   | 99.962   | ug/l # | 93       |
| 44) Trichloroethene           | 9.353  | 130  | 246689   | 98.774   | ug/l   | 93       |
| 45) 1,2-Dichloropropane       | 9.624  | 63   | 247262   | 99.275   | ug/l   | 98       |
| 46) Dibromomethane            | 9.712  | 93   | 177294   | 99.449   | ug/l   | 98       |
| 47) Bromodichloromethane      | 9.888  | 83   | 389020   | 97.184   | ug/l   | 100      |
| 48) Methyl methacrylate       | 9.682  | 41   | 309367   | 94.886   | ug/l   | 91       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 117342   | 1994.879 | ug/l   | 94       |
| 51) 4-Methyl-2-Pentanone      | 10.447 | 43   | 1846346  | 495.091  | ug/l   | 92       |
| 52) Toluene                   | 10.629 | 92   | 665274   | 100.347  | ug/l   | 97       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 424825   | 103.317  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 436928   | 99.903   | ug/l   | 90       |
| 55) 1,1,2-Trichloroethane     | 11.018 | 97   | 240237   | 101.114  | ug/l   | 96       |
| 56) Ethyl methacrylate        | 10.876 | 69   | 448632   | 100.164  | ug/l # | 84       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 418505   | 98.824   | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 984478   | 519.987  | ug/l   | 96       |
| 59) 2-Hexanone                | 11.194 | 43   | 1447307  | 501.642  | ug/l   | 92       |
| 60) Dibromochloromethane      | 11.359 | 129  | 298498   | 103.914  | ug/l   | 98       |
| 61) 1,2-Dibromoethane         | 11.470 | 107  | 249072   | 99.794   | ug/l   | 96       |
| 64) Tetrachloroethene         | 11.106 | 164  | 210334   | 96.284   | ug/l   | 96       |
| 65) Chlorobenzene             | 11.894 | 112  | 705635   | 96.805   | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 250772   | 97.546   | ug/l   | 99       |
| 67) Ethyl Benzene             | 11.965 | 91   | 1297632  | 97.041   | ug/l   | 99       |
| 68) m/p-Xylenes               | 12.070 | 106  | 984984   | 196.641  | ug/l   | 99       |
| 69) o-Xylene                  | 12.400 | 106  | 484673   | 98.107   | ug/l   | 97       |
| 70) Styrene                   | 12.412 | 104  | 831903   | 100.261  | ug/l   | 99       |
| 71) Bromoform                 | 12.576 | 173  | 204380   | 104.942  | ug/l # | 99       |
| 73) Isopropylbenzene          | 12.694 | 105  | 1244845  | 91.399   | ug/l   | 100      |
| 74) N-amyl acetate            | 12.494 | 43   | 594797   | 89.282   | ug/l   | 94       |
| 75) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 353346   | 91.727   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 320302m  | 89.478   | ug/l   |          |
| 77) Bromobenzene              | 12.982 | 156  | 282676   | 93.431   | ug/l   | 96       |
| 78) n-propylbenzene           | 13.035 | 91   | 1473868  | 93.979   | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 912618   | 91.785   | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 1056912  | 92.690   | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 165326   | 100.628  | ug/l   | 89       |
| 82) 4-Chlorotoluene           | 13.223 | 91   | 911384   | 91.381   | ug/l   | 98       |
| 83) tert-Butylbenzene         | 13.441 | 119  | 928195   | 91.918   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 1076449  | 93.675   | ug/l   | 99       |
| 85) sec-Butylbenzene          | 13.617 | 105  | 1294900  | 93.978   | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 1092439  | 96.022   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 13.735 | 146  | 535193   | 94.009   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 13.811 | 146  | 538924   | 93.900   | ug/l   | 99       |
| 89) n-Butylbenzene            | 14.059 | 91   | 980482   | 99.461   | ug/l   | 98       |
| 90) Hexachloroethane          | 14.335 | 117  | 211710   | 96.320   | ug/l   | 95       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 511584   | 92.863   | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.723 | 75   | 83930    | 89.788   | ug/l   | 98       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 297699   | 96.456   | ug/l   | 99       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 119783   | 87.268   | ug/l   | 98       |
| 95) Naphthalene               | 15.641 | 128  | 1042864  | 95.391   | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 285769   | 93.575   | ug/l   | 97       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083135.D  
Acq On : 07 Aug 2024 10:33  
Operator : JC\MD  
Sample : VSTDICC100  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:14:38 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 05:50:26 2024  
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\VN080724\  
 Data File : VN083135.D  
 Acq On : 07 Aug 2024 10:33  
 Operator : JC\MD  
 Sample : VSTDICC100  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

## Instrument :

MSVOA\_N

## Client SampleId :

VSTDICC100

## Manual Integrations

## APPROVED

Reviewed By : John Carlone 08/08/2024

Supervised By : Mahesh Dadoda 08/09/2024

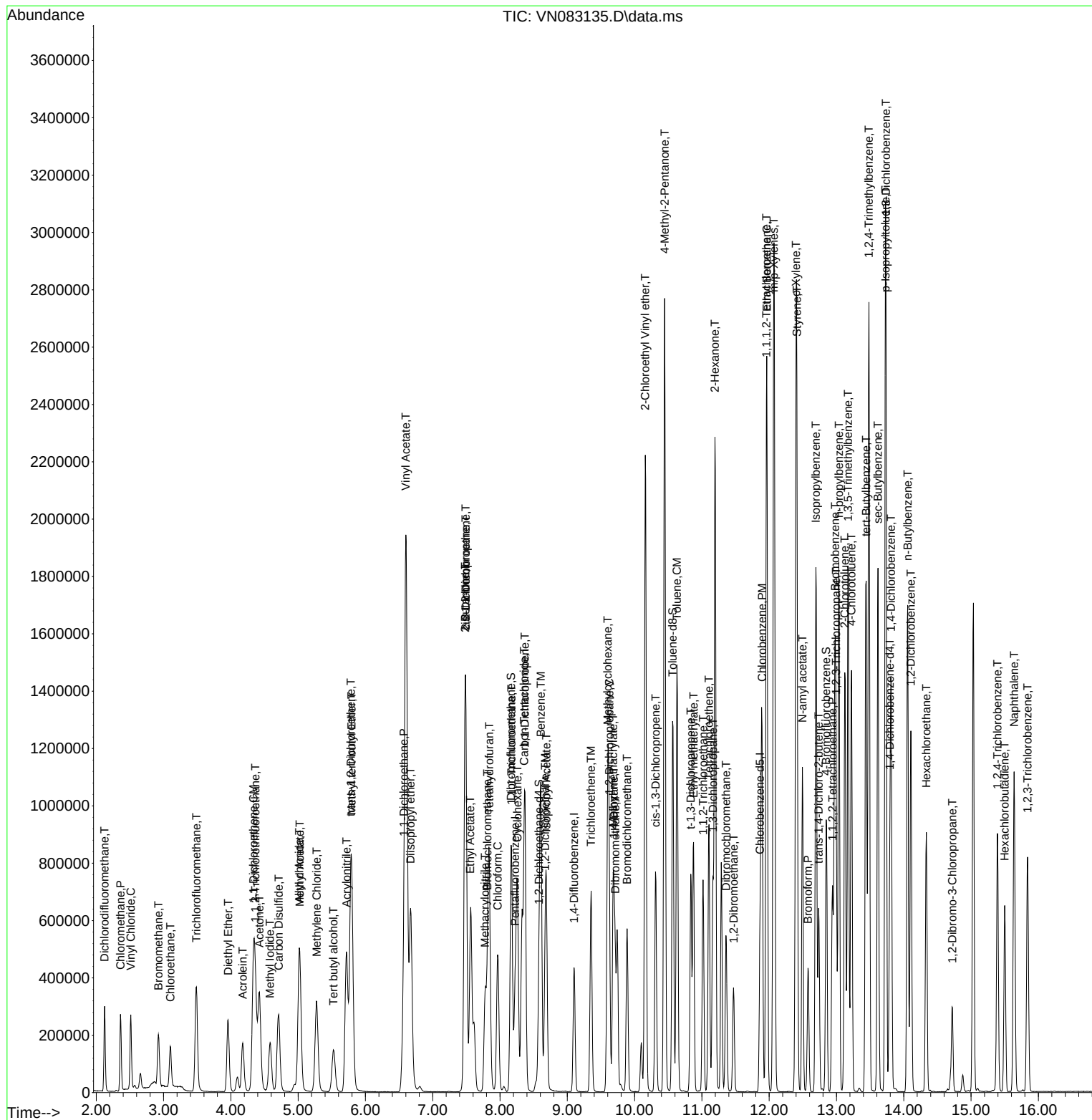
Quant Time: Aug 08 06:14:38 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M

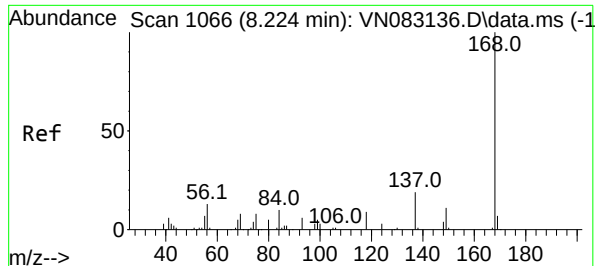
Quant Title : SW846 8260

QLast Update : Thu Aug 08 05:50:26 2024

Response via : Initial Calibration

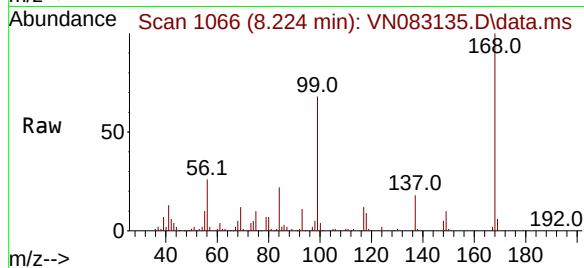






#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

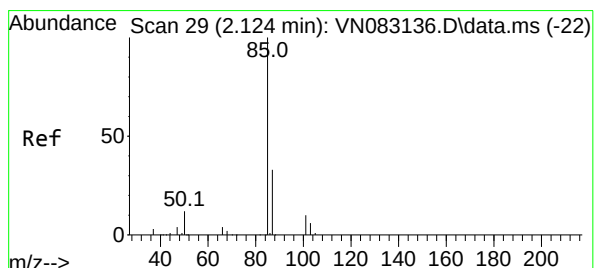
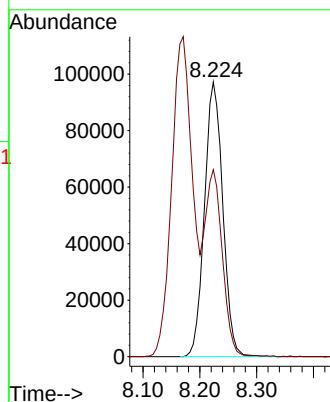
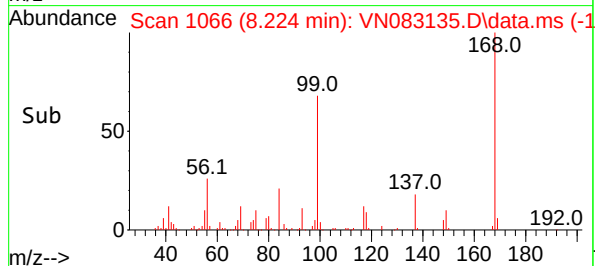
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion:168 Resp: 21731  
Ion Ratio Lower Upper  
168 100  
99 68.1 48.2 72.4

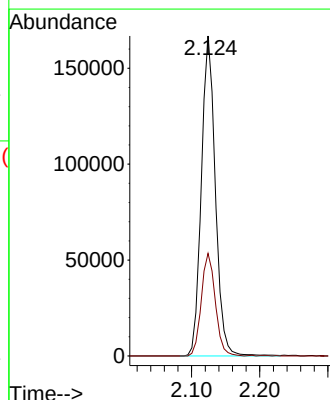
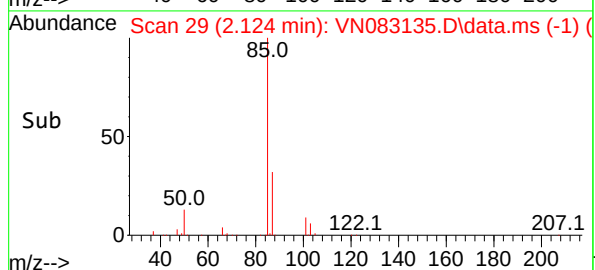
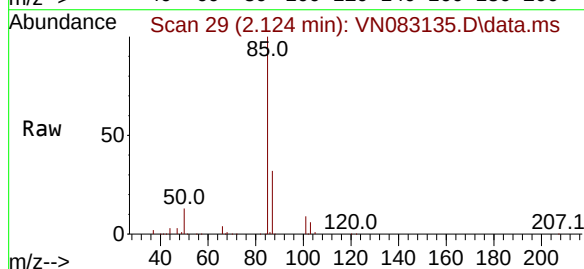
Manual Integrations  
APPROVED

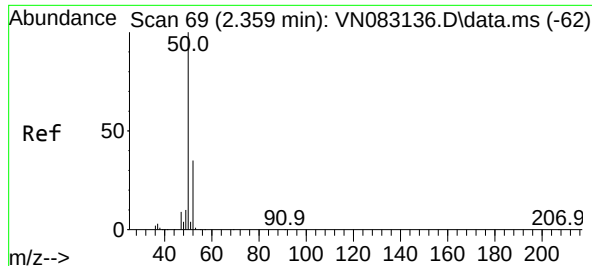
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#2  
Dichlorodifluoromethane  
Concen: 96.624 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

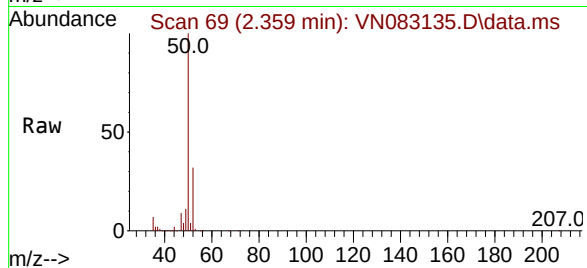
Tgt Ion: 85 Resp: 238119  
Ion Ratio Lower Upper  
85 100  
87 32.1 15.7 47.0





#3  
Chloromethane  
Concen: 94.185 ug/l  
RT: 2.359 min Scan# 69  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

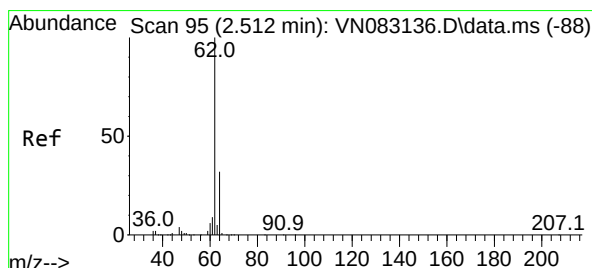
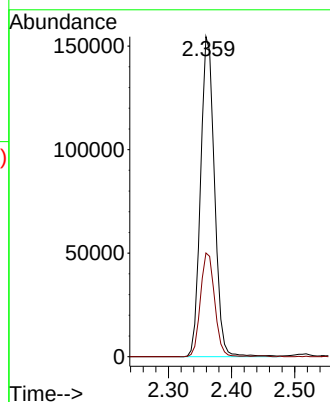
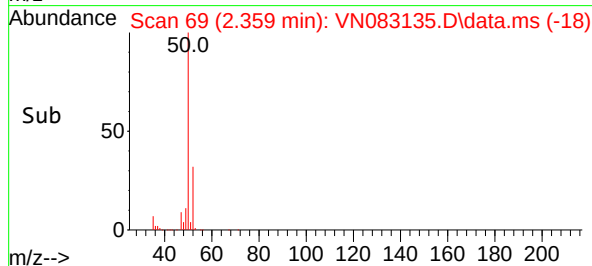
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



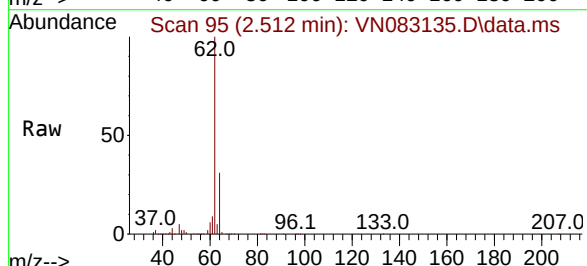
Tgt Ion: 50 Resp: 23763  
Ion Ratio Lower Upper  
50 100  
52 32.4 25.0 37.4

Manual Integrations  
APPROVED

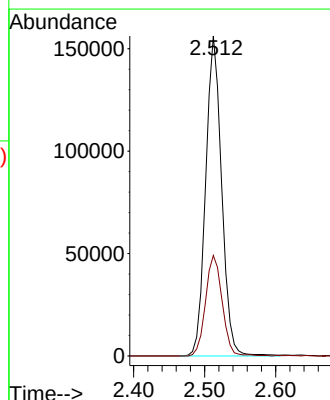
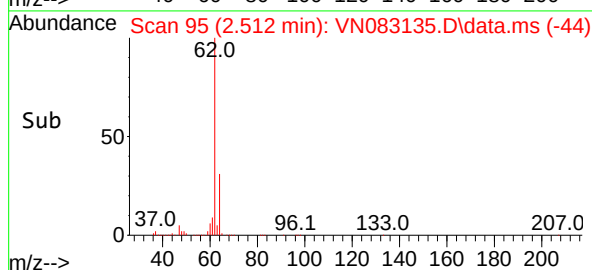
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



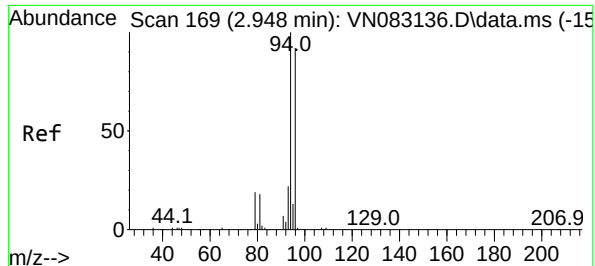
#4  
Vinyl Chloride  
Concen: 94.904 ug/l  
RT: 2.512 min Scan# 95  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33



Tgt Ion: 62 Resp: 244329  
Ion Ratio Lower Upper  
62 100  
64 31.4 25.0 37.6

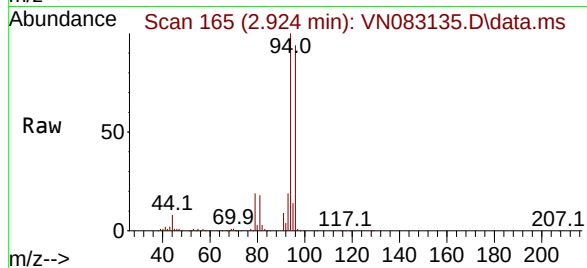






#5  
Bromomethane  
Concen: 85.085 ug/l  
RT: 2.924 min Scan# 11  
Delta R.T. -0.024 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

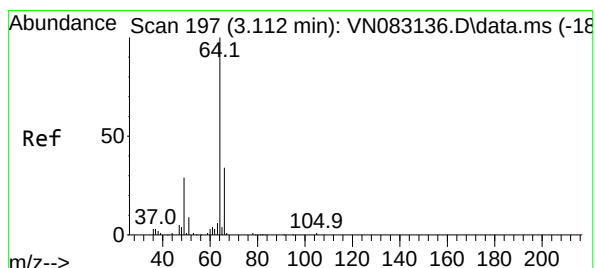
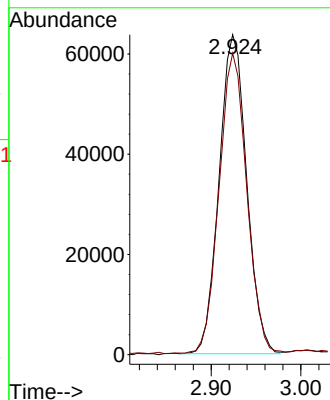
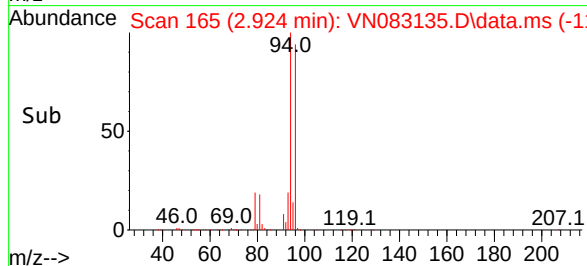
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion: 94 Resp: 135920  
Ion Ratio Lower Upper  
94 100  
96 94.0 78.0 117.0

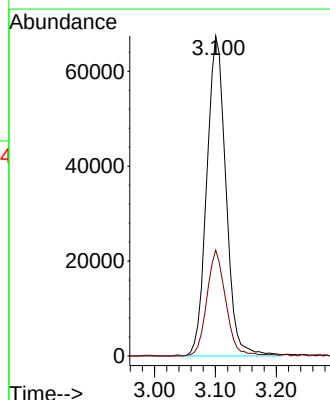
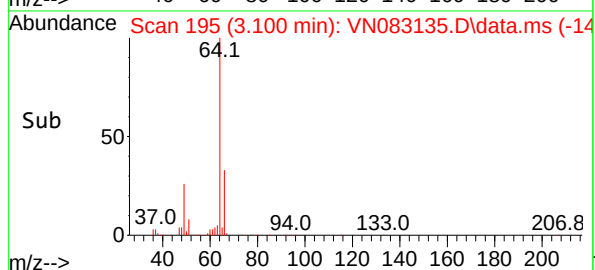
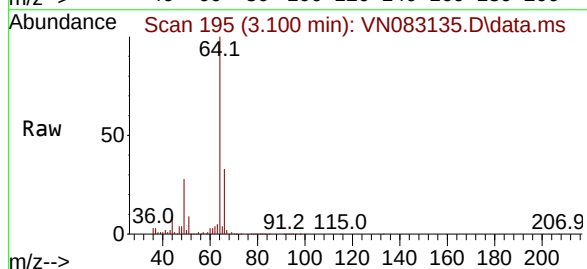
Manual Integrations  
APPROVED

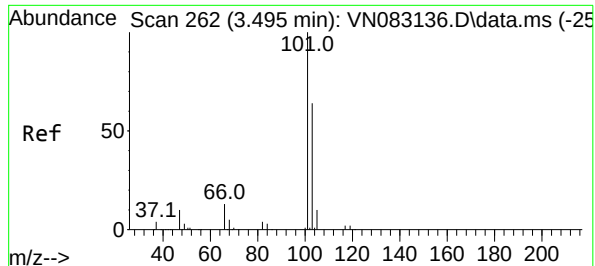
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#6  
Chloroethane  
Concen: 91.645 ug/l  
RT: 3.100 min Scan# 195  
Delta R.T. -0.012 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Tgt Ion: 64 Resp: 147611  
Ion Ratio Lower Upper  
64 100  
66 32.9 26.6 40.0





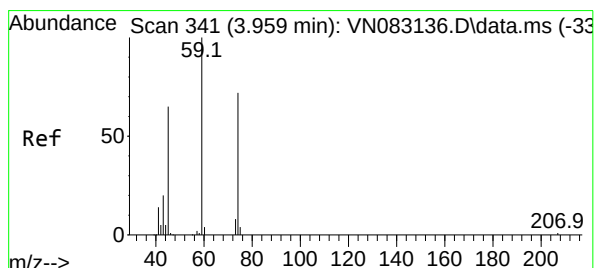
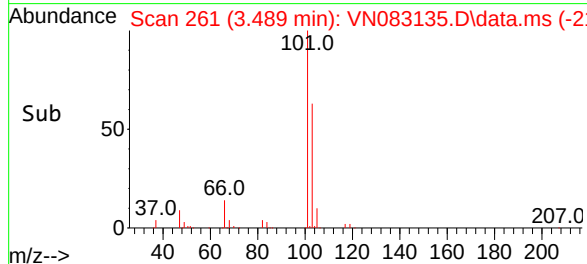
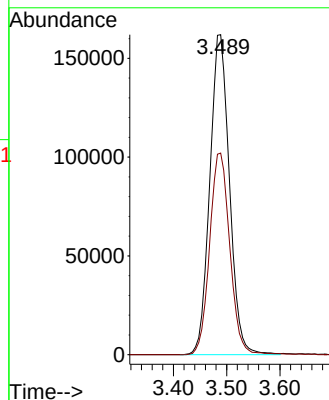
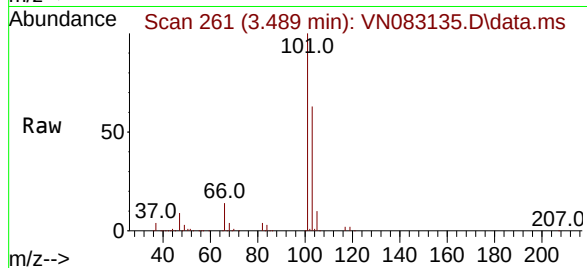
#7  
Trichlorofluoromethane  
Concen: 97.558 ug/l  
RT: 3.489 min Scan# 262  
Delta R.T. -0.006 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100

Tgt Ion:101 Resp: 41491  
Ion Ratio Lower Upper  
101 100  
103 63.0 52.7 79.1

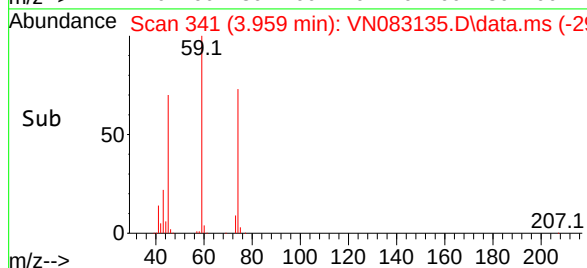
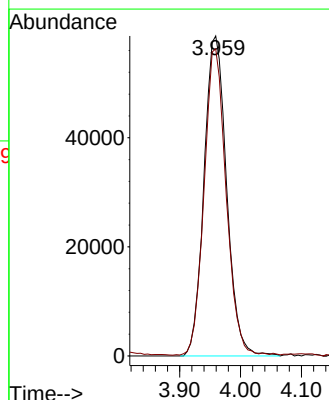
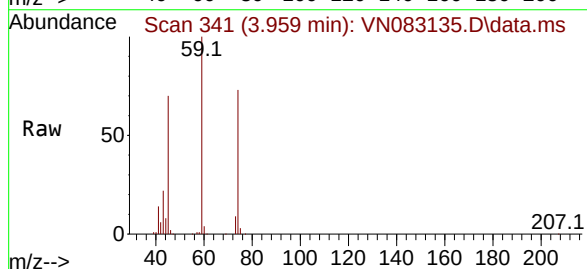
Manual Integrations  
APPROVED

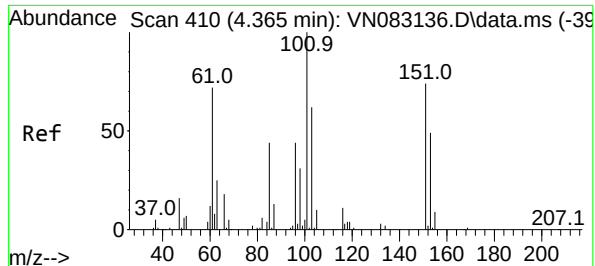
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#8  
Diethyl Ether  
Concen: 95.597 ug/l  
RT: 3.959 min Scan# 341  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Tgt Ion: 74 Resp: 151291  
Ion Ratio Lower Upper  
74 100  
45 93.4 55.5 166.3





#9

1,1,2-Trichlorotrifluoroethane

Concen: 97.044 ug/l

RT: 4.365 min Scan# 410

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

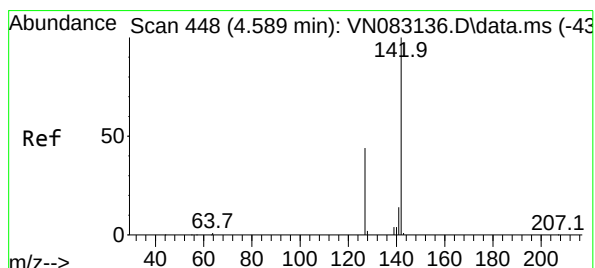
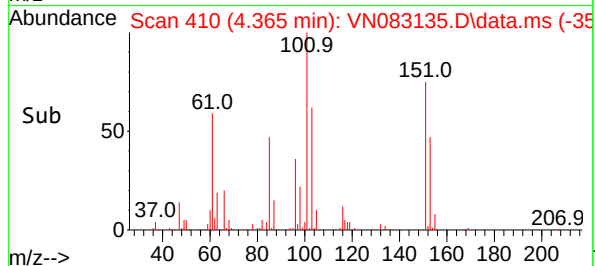
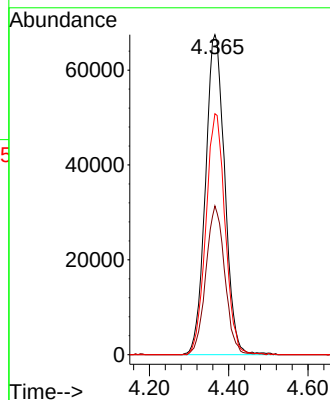
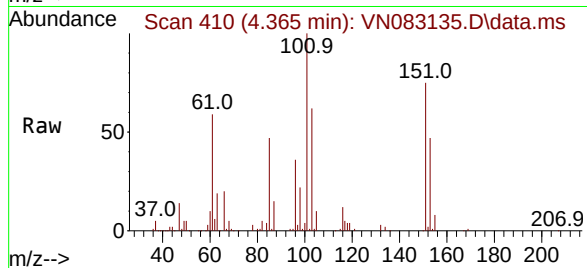
VSTDICC100

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 101   | Resp: | 227550 |
| Ion      | Ratio | Lower | Upper  |
| 101      | 100   |       |        |
| 85       | 45.6  | 38.3  | 57.5   |
| 151      | 75.2  | 59.3  | 88.9   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#10

Methyl Iodide

Concen: 99.686 ug/l

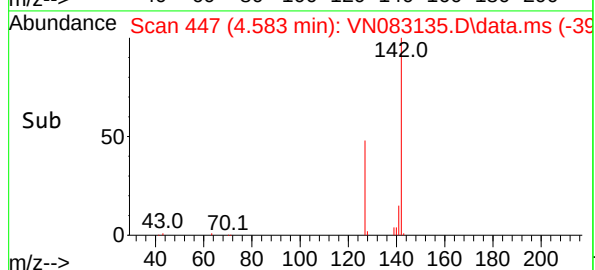
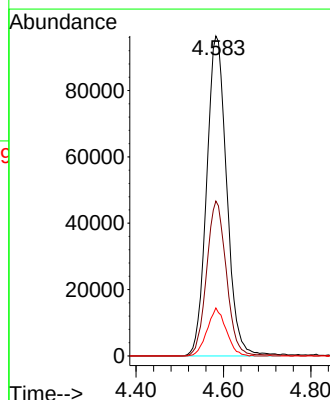
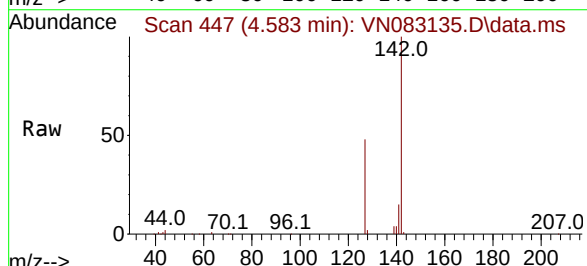
RT: 4.583 min Scan# 447

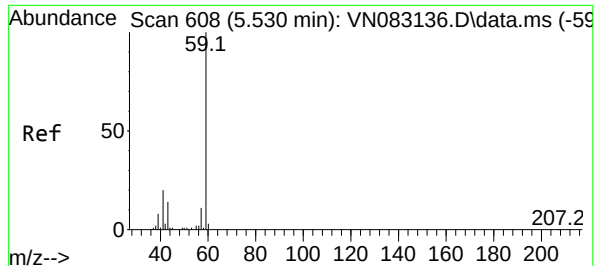
Delta R.T. -0.006 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 142   | Resp: | 307476 |
| Ion      | Ratio | Lower | Upper  |
| 142      | 100   |       |        |
| 127      | 48.4  | 37.5  | 56.3   |
| 141      | 15.0  | 13.1  | 19.7   |





#11

Tert butyl alcohol

Concen: 461.112 ug/l

RT: 5.524 min Scan# 608

Delta R.T. -0.006 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 59 Resp: 296420

Ion Ratio Lower Upper

59 100

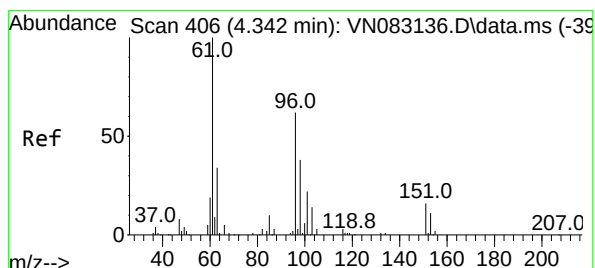
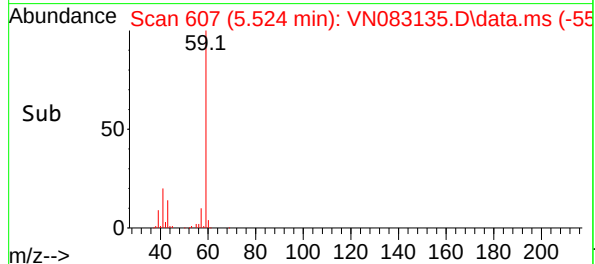
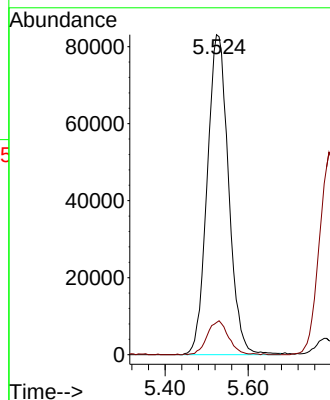
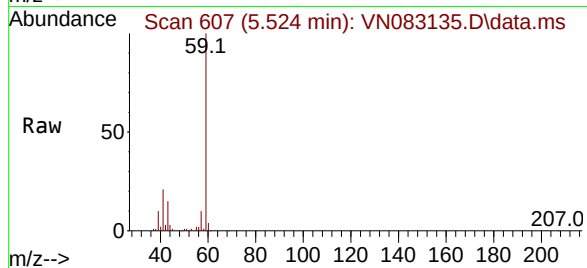
57 10.5 8.9 13.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#12

1,1-Dichloroethene

Concen: 94.453 ug/l

RT: 4.336 min Scan# 405

Delta R.T. -0.006 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

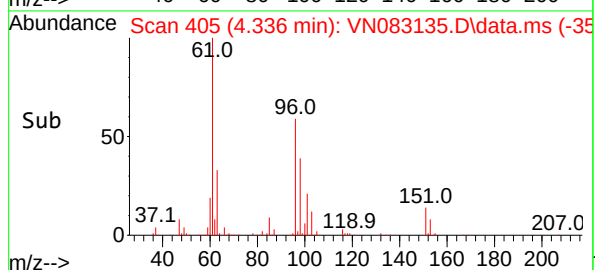
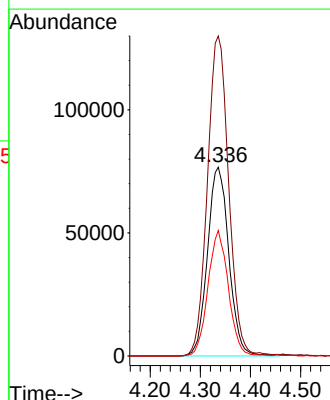
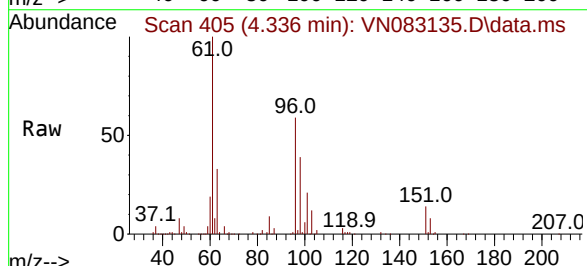
Tgt Ion: 96 Resp: 227537

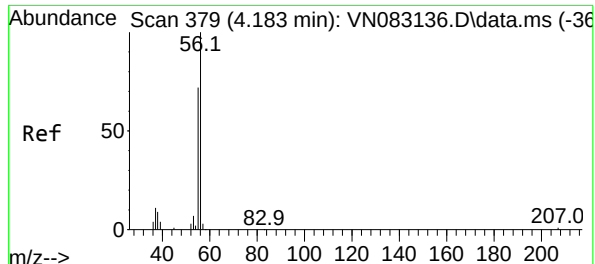
Ion Ratio Lower Upper

96 100

61 169.4 149.7 224.5

98 66.5 50.1 75.1





#13

Acrolein

Concen: 520.640 ug/l

RT: 4.177 min Scan# 31

Delta R.T. -0.006 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 56 Resp: 218130

Ion Ratio Lower Upper

56 100

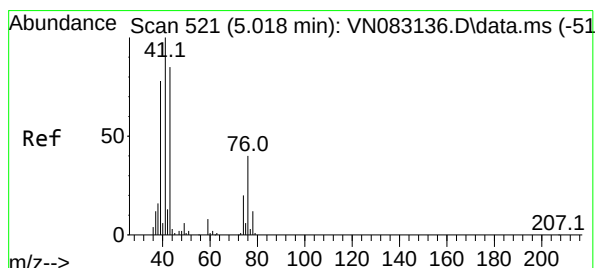
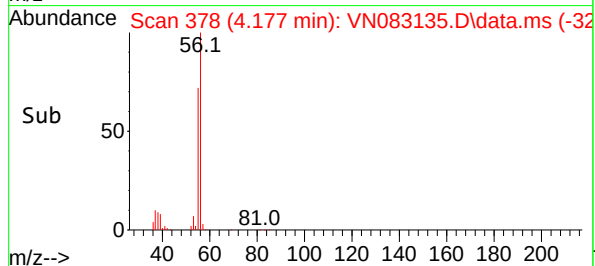
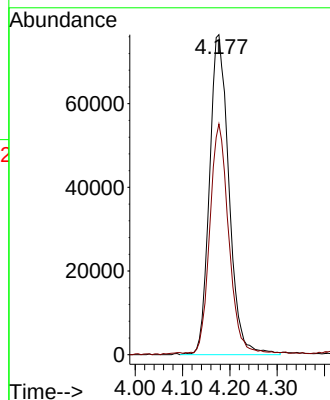
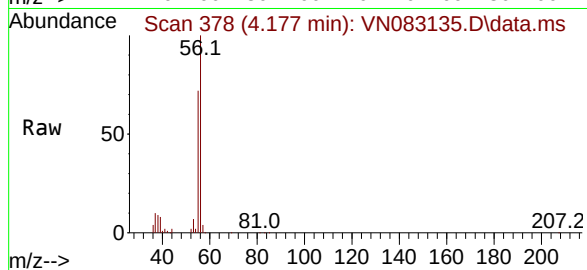
55 68.5 56.4 84.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#14

Allyl chloride

Concen: 85.577 ug/l

RT: 5.018 min Scan# 521

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

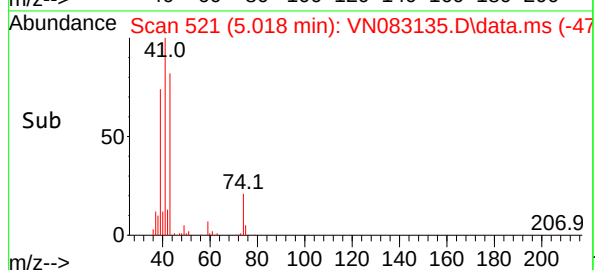
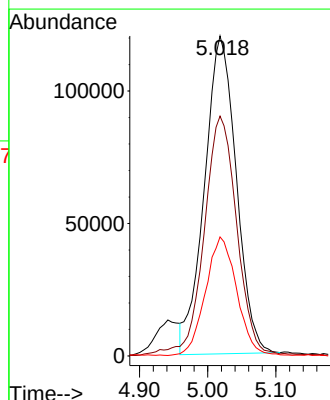
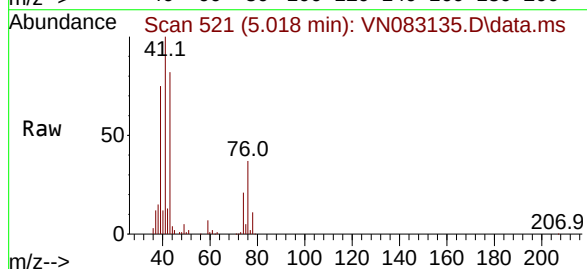
Tgt Ion: 41 Resp: 389580

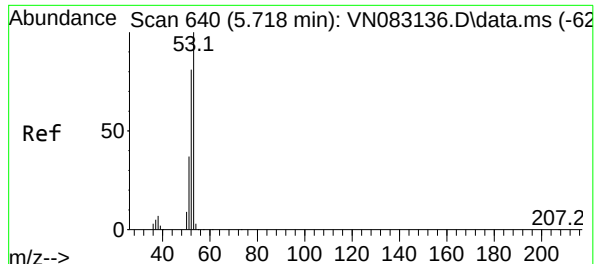
Ion Ratio Lower Upper

41 100

39 78.4 67.8 101.6

76 36.6 25.8 38.8





#15

Acrylonitrile

Concen: 481.734 ug/l

RT: 5.718 min Scan# 64

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

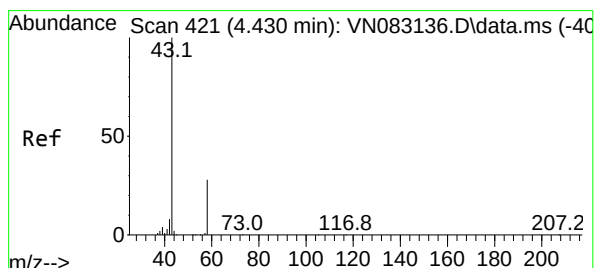
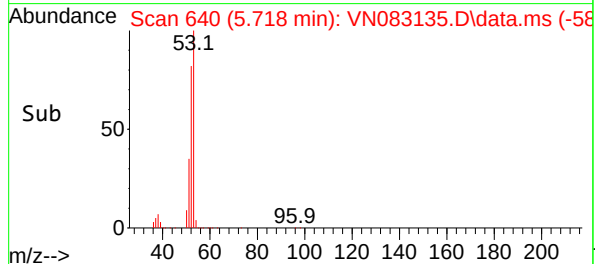
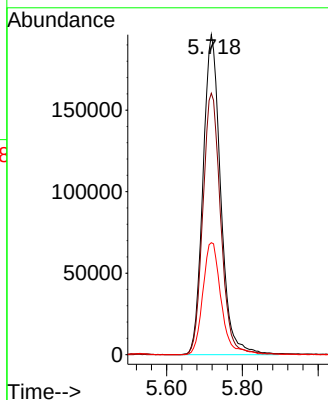
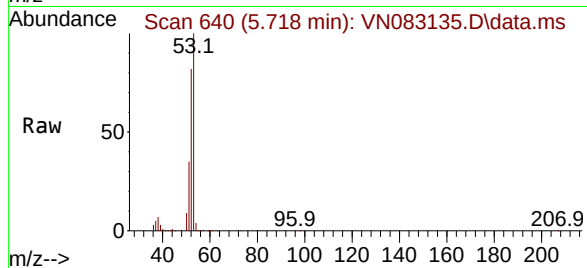
VSTDICC100

|             |              |
|-------------|--------------|
| Tgt Ion: 53 | Resp: 636894 |
| Ion Ratio   | Lower Upper  |
| 53 100      |              |
| 52 82.5     | 66.6 100.0   |
| 51 36.4     | 30.1 45.1    |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#16

Acetone

Concen: 542.264 ug/l

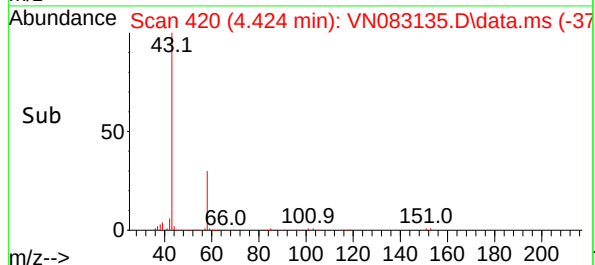
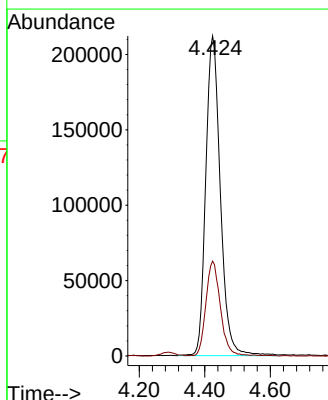
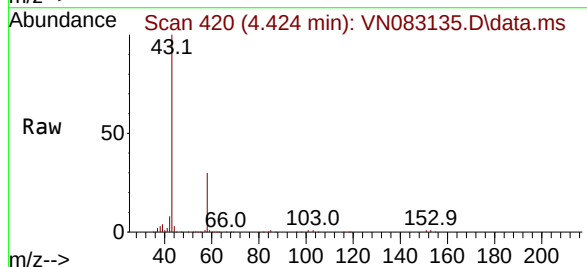
RT: 4.424 min Scan# 420

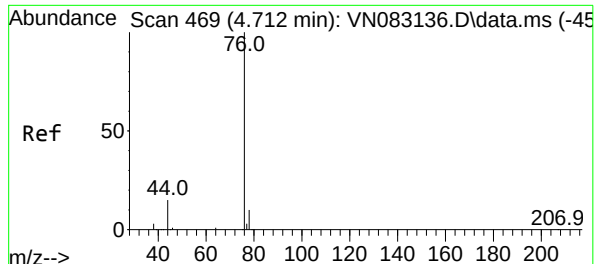
Delta R.T. -0.006 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

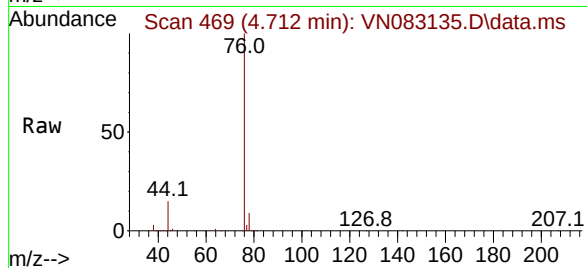
|             |              |
|-------------|--------------|
| Tgt Ion: 43 | Resp: 656348 |
| Ion Ratio   | Lower Upper  |
| 43 100      |              |
| 58 29.7     | 21.8 32.6    |





#17  
Carbon Disulfide  
Concen: 90.406 ug/l  
RT: 4.712 min Scan# 469  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

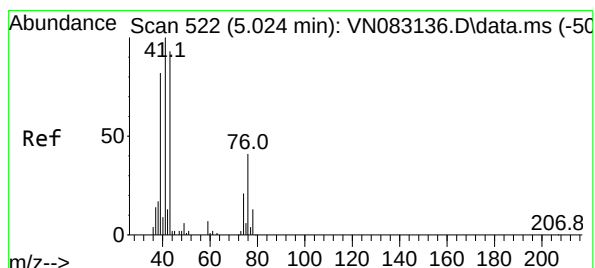
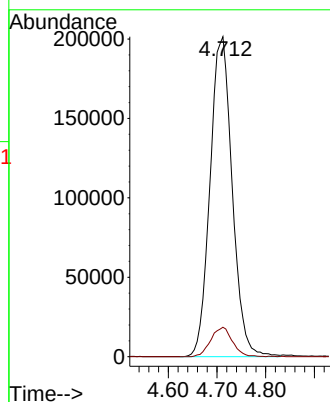
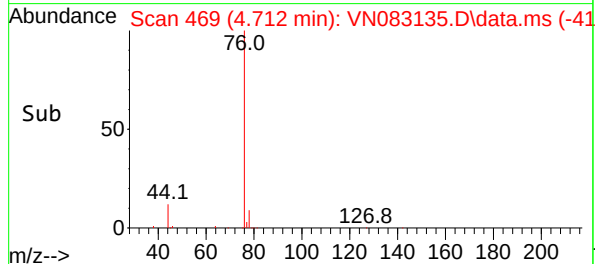
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion: 76 Resp: 63725  
Ion Ratio Lower Upper  
76 100  
78 9.2 7.2 10.8

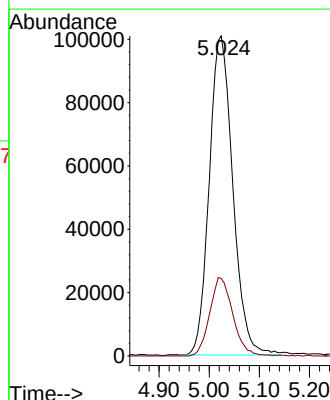
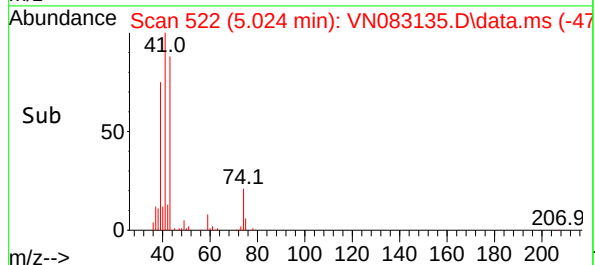
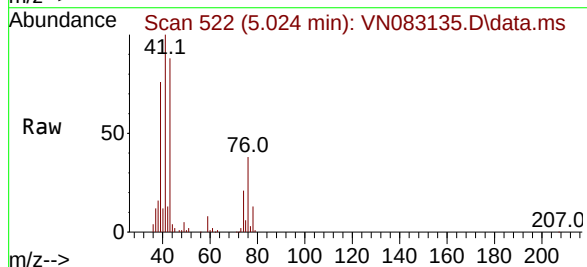
Manual Integrations  
APPROVED

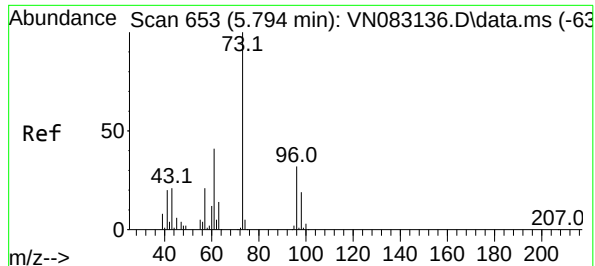
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#18  
Methyl Acetate  
Concen: 91.357 ug/l  
RT: 5.024 min Scan# 522  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Tgt Ion: 43 Resp: 329457  
Ion Ratio Lower Upper  
43 100  
74 24.0 16.3 24.5





#19

Methyl tert-butyl Ether

Concen: 96.324 ug/l

RT: 5.794 min Scan# 653

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 73 Resp: 837562

Ion Ratio Lower Upper

73 100

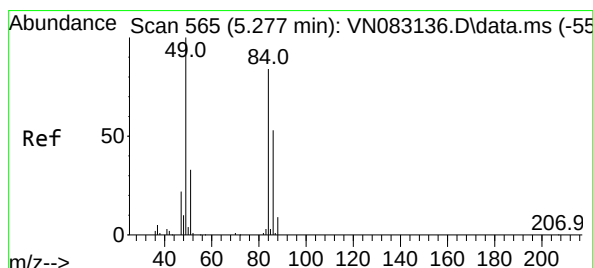
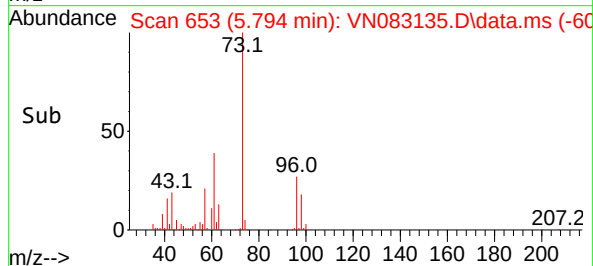
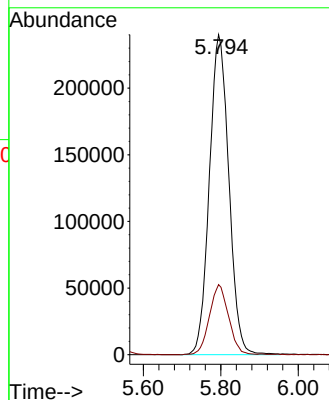
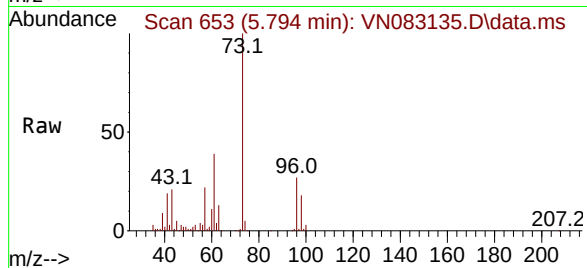
57 21.9 17.9 26.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#20

Methylene Chloride

Concen: 88.771 ug/l

RT: 5.277 min Scan# 565

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Tgt Ion: 84 Resp: 247283

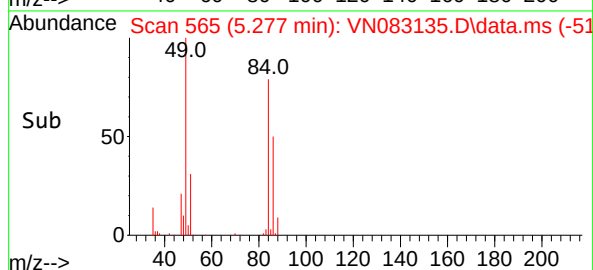
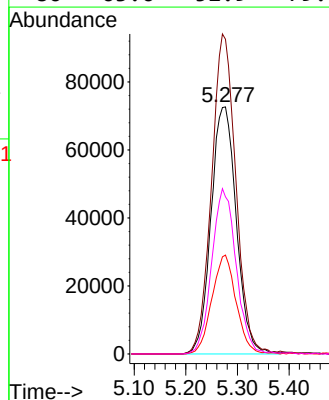
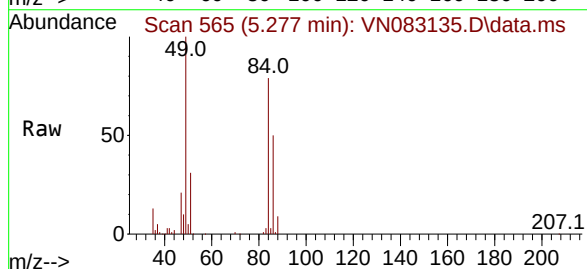
Ion Ratio Lower Upper

84 100

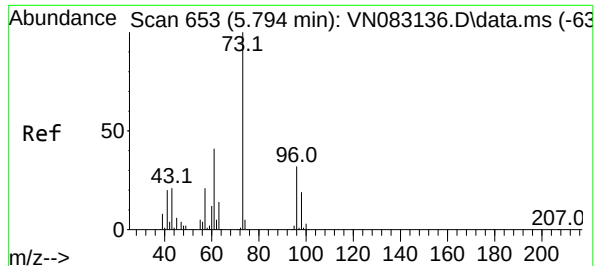
49 127.4 119.6 179.4

51 40.0 34.8 52.2

86 63.6 52.9 79.3

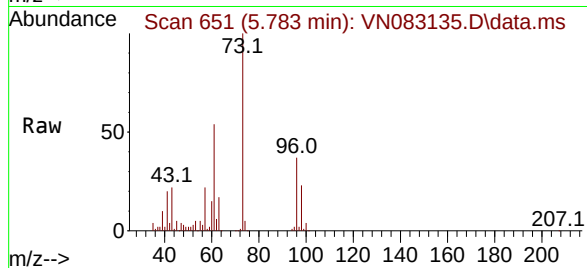






#21  
trans-1,2-Dichloroethene  
Concen: 92.991 ug/l  
RT: 5.783 min Scan# 651  
Delta R.T. -0.012 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

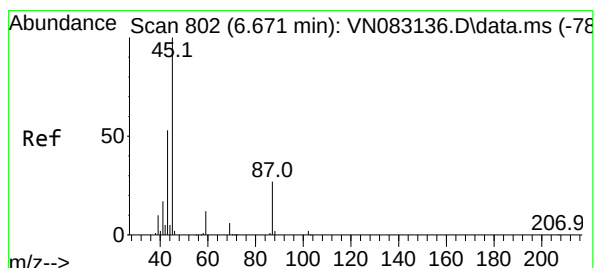
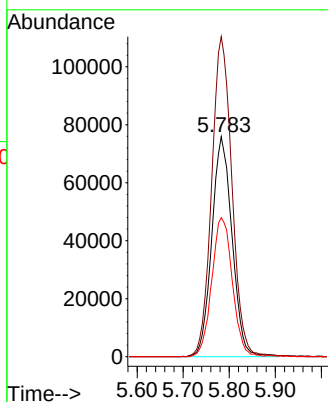
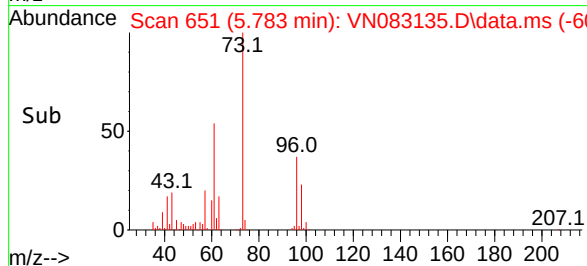
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion: 96 Resp: 231530  
Ion Ratio Lower Upper  
96 100  
61 145.4 123.4 185.2  
98 63.2 49.3 73.9

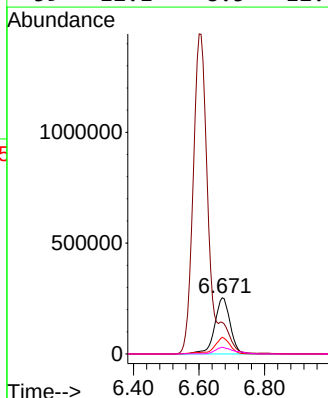
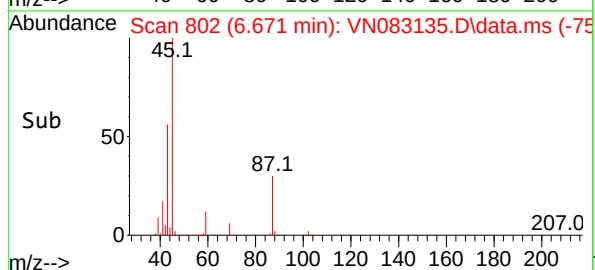
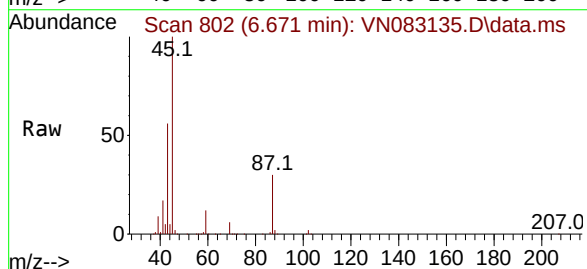
Manual Integrations  
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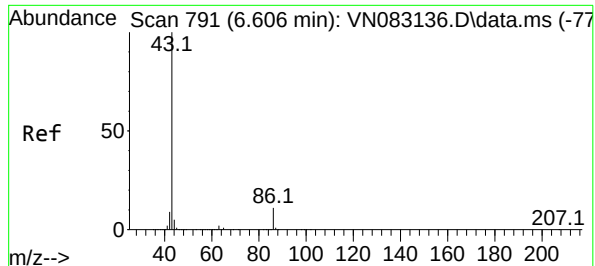
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#22  
Diisopropyl ether  
Concen: 96.959 ug/l  
RT: 6.671 min Scan# 802  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Tgt Ion: 45 Resp: 829706  
Ion Ratio Lower Upper  
45 100  
43 55.8 44.0 66.0  
87 29.5 19.7 29.5  
59 12.1 8.5 12.7





#23

Vinyl Acetate

Concen: 493.177 ug/l

RT: 6.600 min Scan# 791

Delta R.T. -0.006 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 43 Resp: 432491

Ion Ratio Lower Upper

43 100

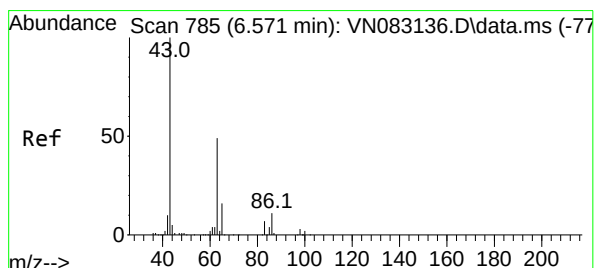
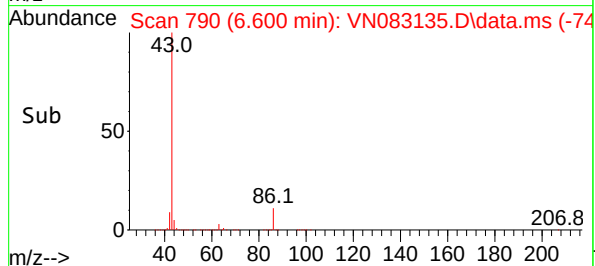
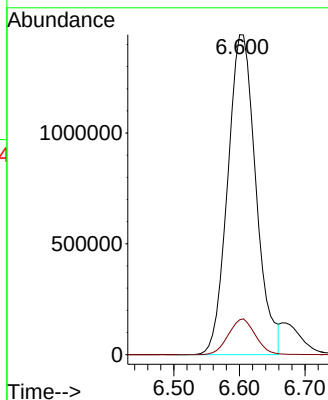
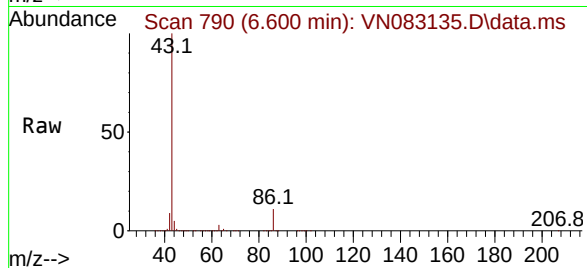
86 10.9 7.3 10.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#24

1,1-Dichloroethane

Concen: 96.746 ug/l

RT: 6.571 min Scan# 785

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

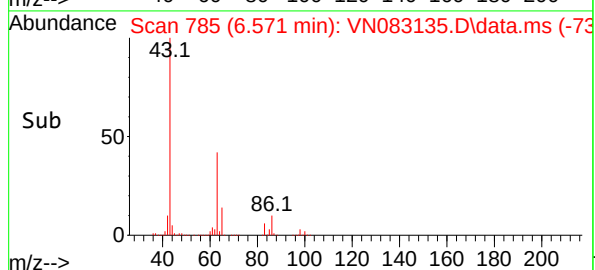
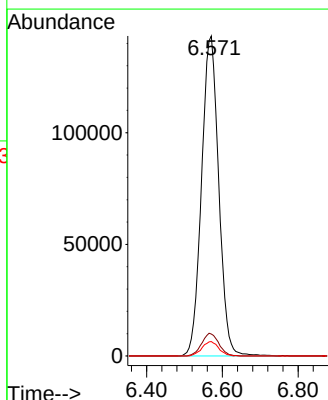
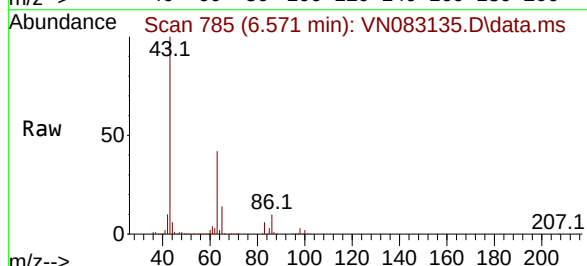
Tgt Ion: 63 Resp: 451253

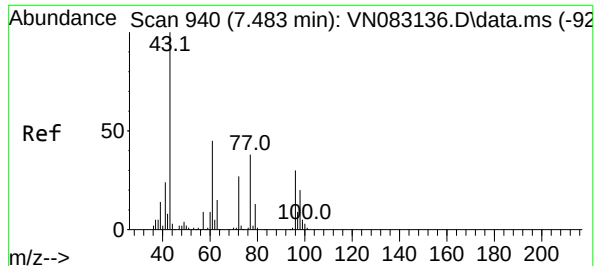
Ion Ratio Lower Upper

63 100

98 6.8 3.3 9.9

100 4.5 2.0 6.0





#25

2-Butanone

Concen: 489.098 ug/l

RT: 7.482 min Scan# 940

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 43 Resp: 908992

Ion Ratio Lower Upper

43 100

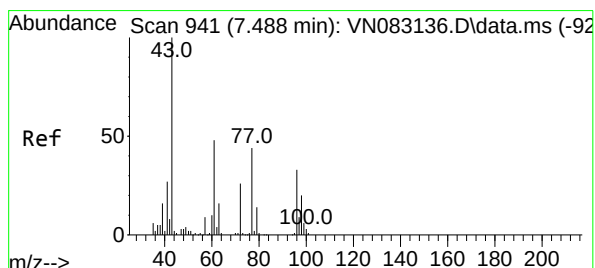
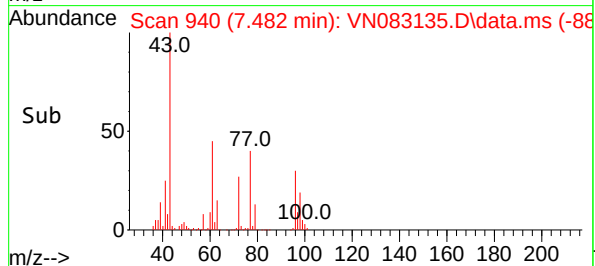
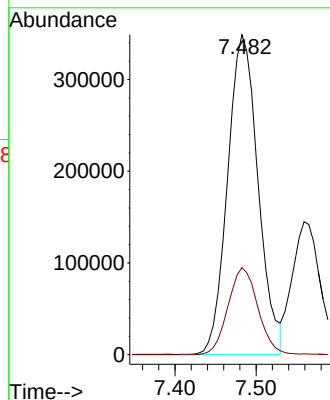
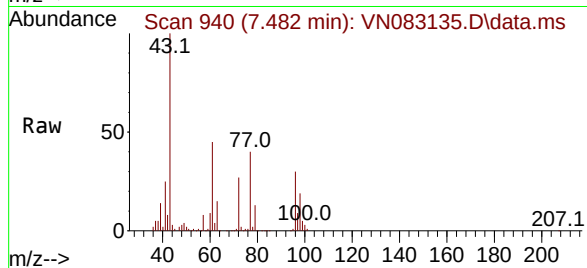
72 27.2 18.2 27.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#26

2,2-Dichloropropane

Concen: 100.075 ug/l

RT: 7.488 min Scan# 941

Delta R.T. -0.000 min

Lab File: VN083135.D

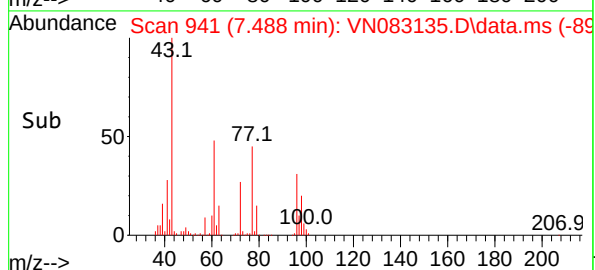
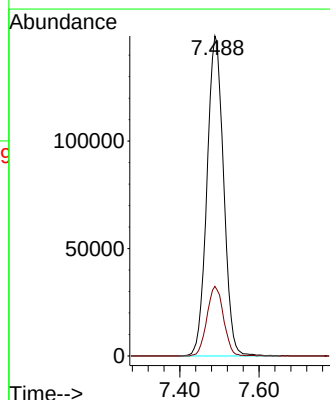
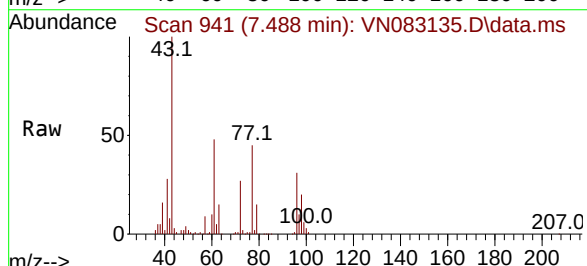
Acq: 07 Aug 2024 10:33

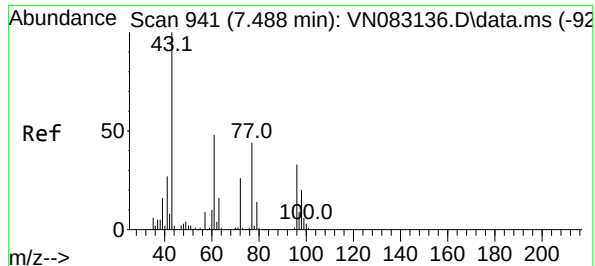
Tgt Ion: 77 Resp: 433489

Ion Ratio Lower Upper

77 100

97 21.7 10.3 30.9





#27

cis-1,2-Dichloroethene

Concen: 95.225 ug/l

RT: 7.488 min Scan# 941

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 96 Resp: 286100

Ion Ratio Lower Upper

96 100

61 151.6 0.0 329.6

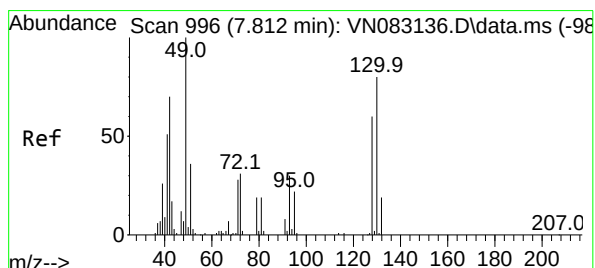
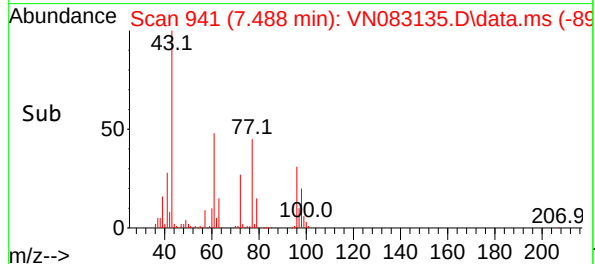
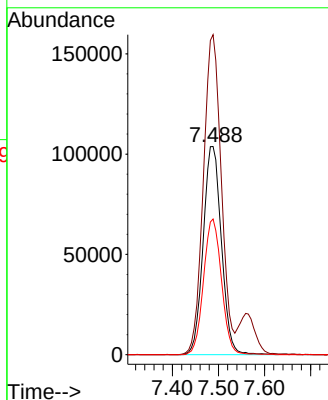
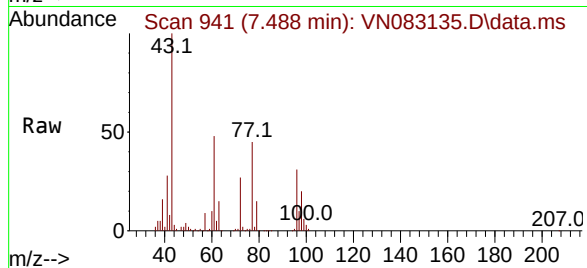
98 64.3 0.0 128.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#28

Bromochloromethane

Concen: 97.333 ug/l

RT: 7.812 min Scan# 996

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

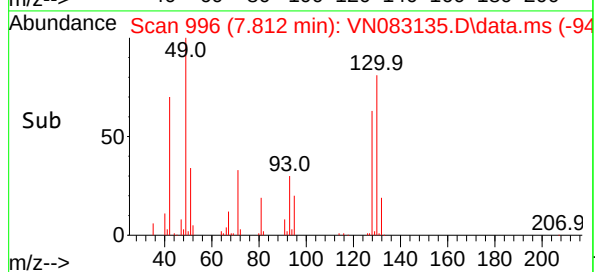
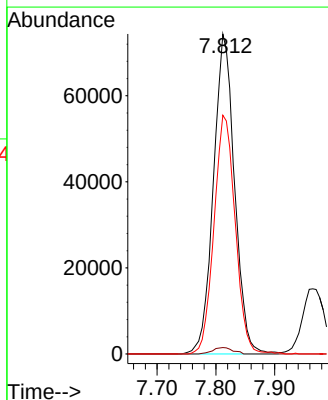
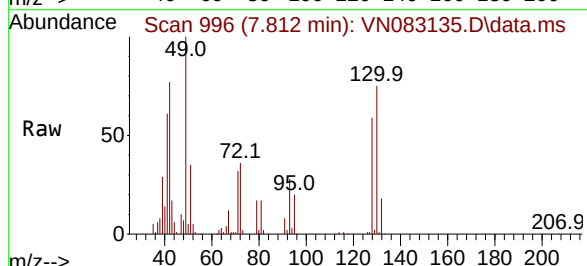
Tgt Ion: 49 Resp: 185533

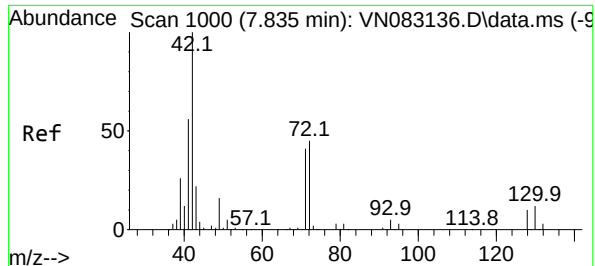
Ion Ratio Lower Upper

49 100

129 1.9 0.0 3.8

130 74.9 50.5 75.7





#29

Tetrahydrofuran

Concen: 488.865 ug/l

RT: 7.841 min Scan# 1000

Delta R.T. 0.006 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 42 Resp: 587324

Ion Ratio Lower Upper

42 100

72 44.6 30.0 45.0

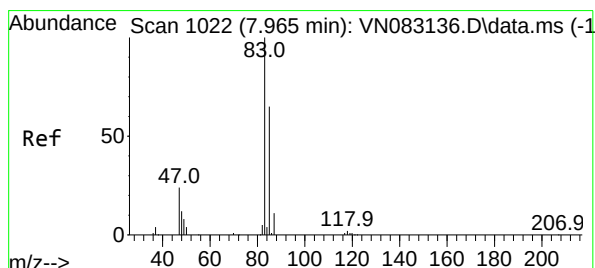
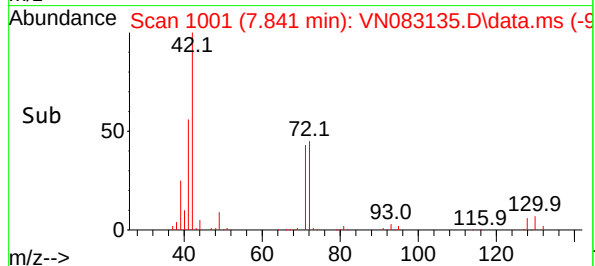
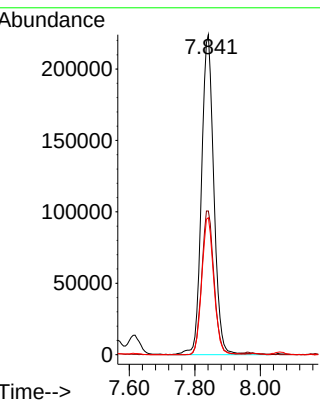
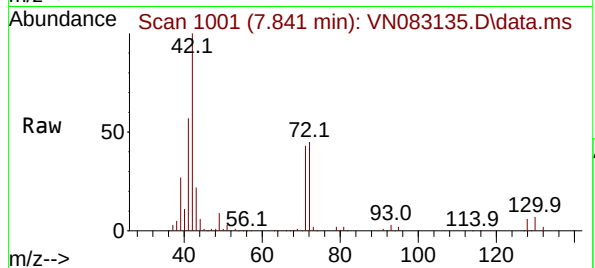
71 41.9 28.3 42.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#30

Chloroform

Concen: 97.456 ug/l

RT: 7.965 min Scan# 1022

Delta R.T. -0.000 min

Lab File: VN083135.D

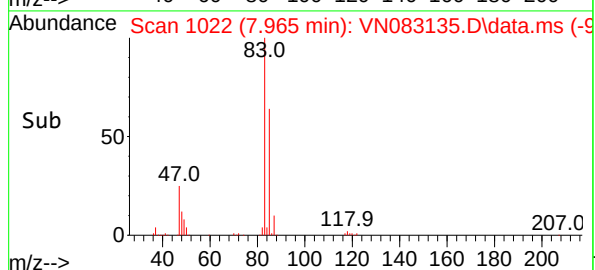
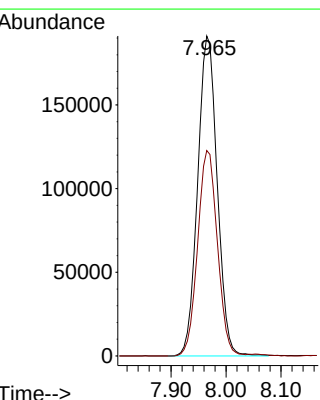
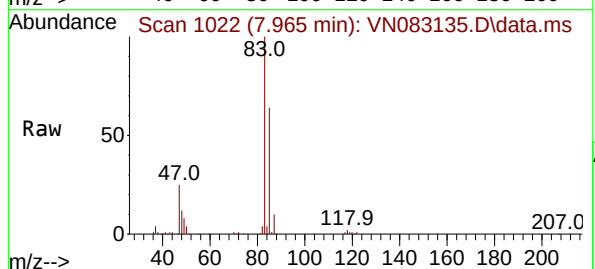
Acq: 07 Aug 2024 10:33

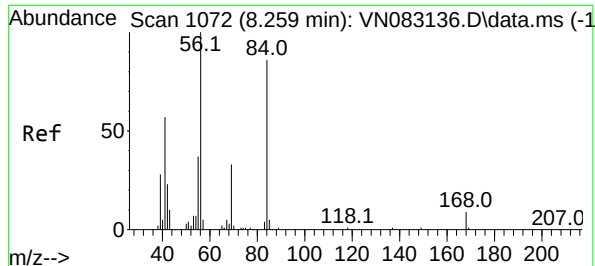
Tgt Ion: 83 Resp: 472257

Ion Ratio Lower Upper

83 100

85 64.2 50.9 76.3





#31

Cyclohexane

Concen: 88.496 ug/l

RT: 8.259 min Scan# 1072

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 56 Resp: 40566

Ion Ratio Lower Upper

56 100

69 29.7 24.5 36.7

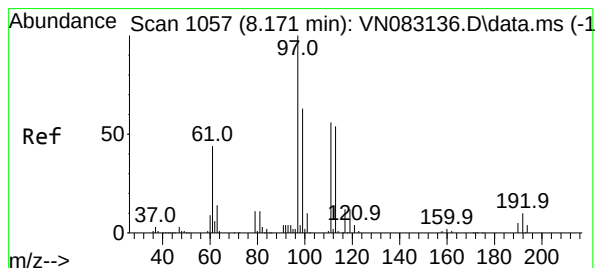
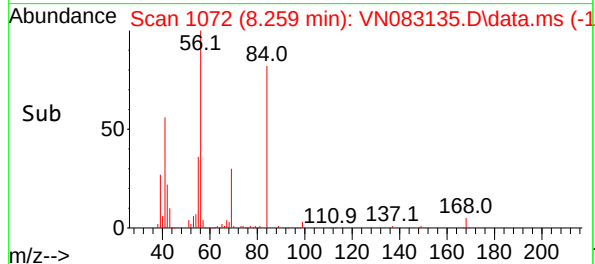
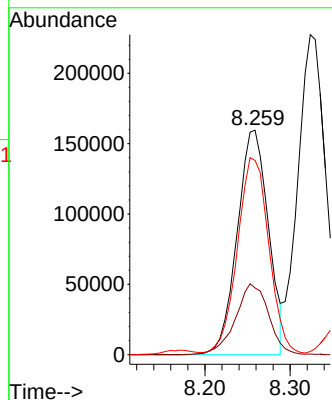
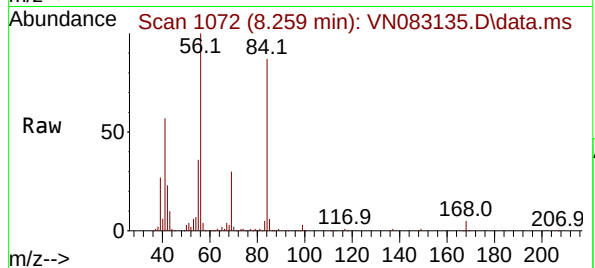
84 84.5 66.0 99.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#32

1,1,1-Trichloroethane

Concen: 97.332 ug/l

RT: 8.171 min Scan# 1057

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

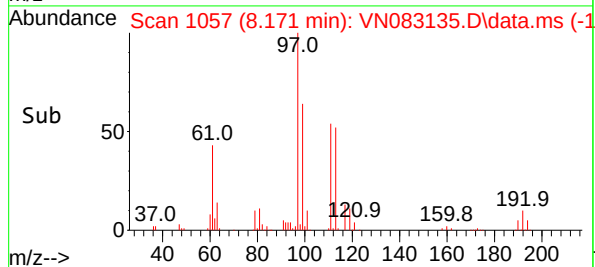
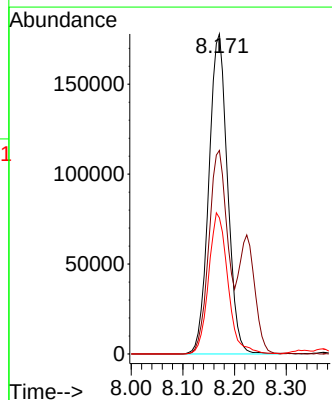
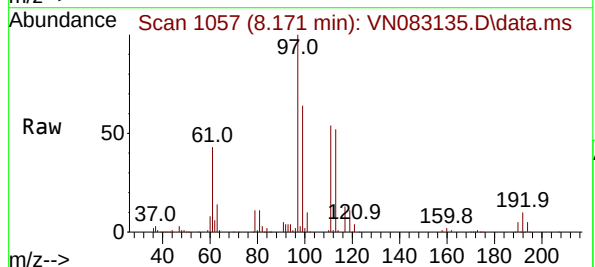
Tgt Ion: 97 Resp: 446446

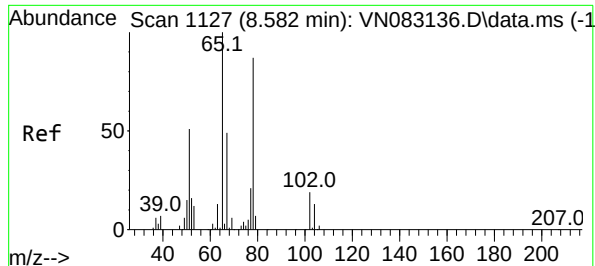
Ion Ratio Lower Upper

97 100

99 64.7 52.0 78.0

61 45.7 42.1 63.1





#33

1,2-Dichloroethane-d4

Concen: 100.713 ug/l

RT: 8.577 min Scan# 1126

Delta R.T. -0.006 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 65 Resp: 31153

Ion Ratio Lower Upper

65 100

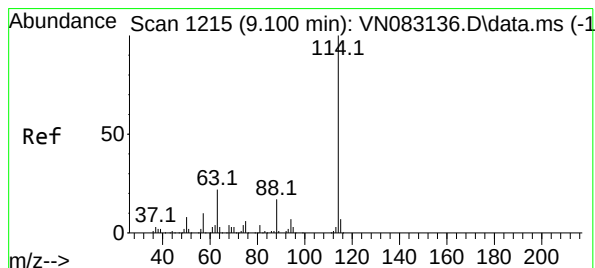
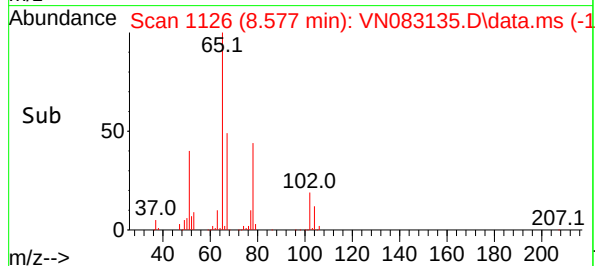
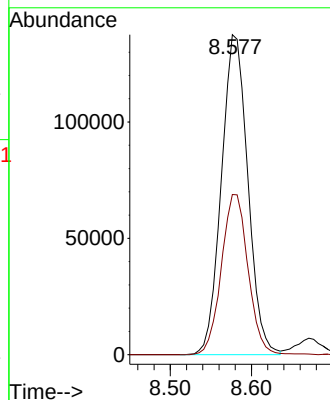
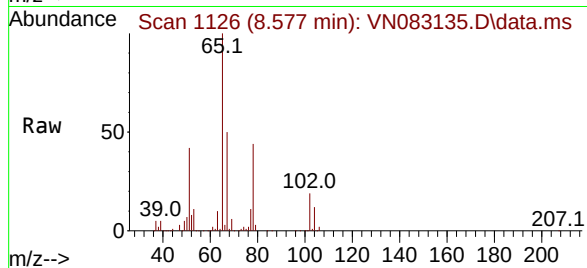
67 50.6 0.0 104.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

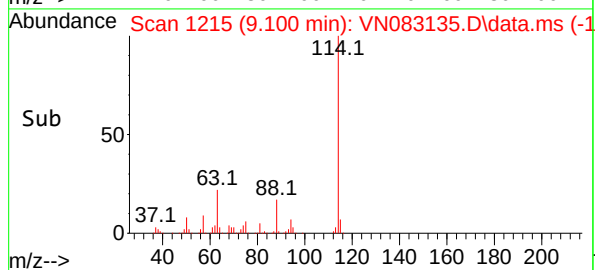
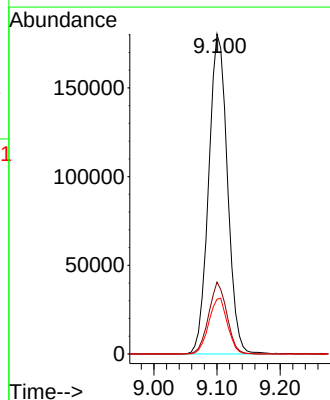
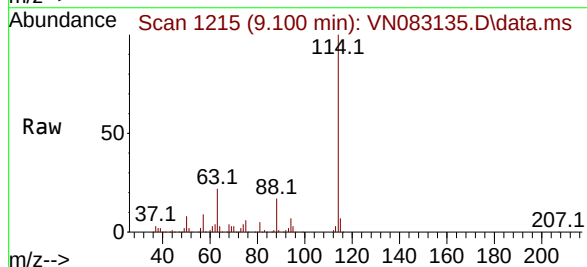
Tgt Ion:114 Resp: 373033

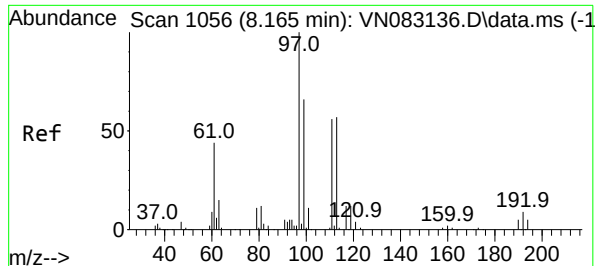
Ion Ratio Lower Upper

114 100

63 22.5 0.0 44.6

88 17.1 0.0 31.4





#35

Dibromofluoromethane

Concen: 99.556 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion:113 Resp: 23180

Ion Ratio Lower Upper

113 100

111 103.7 82.4 123.6

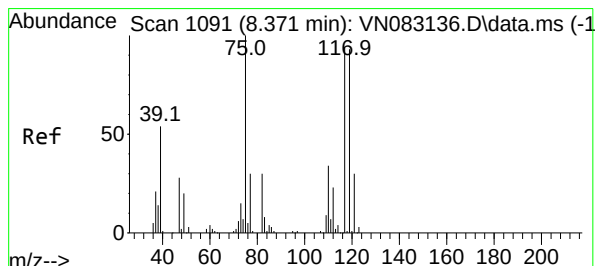
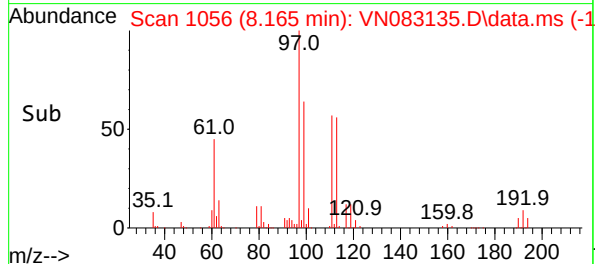
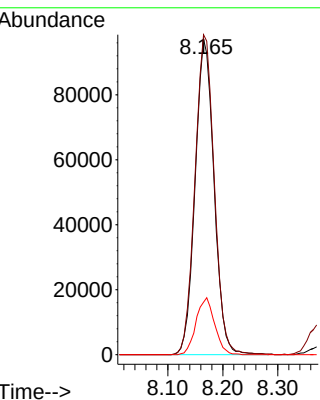
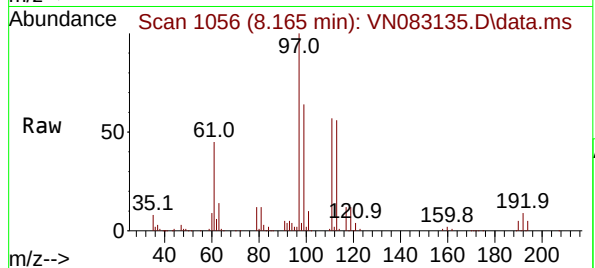
192 17.7 14.9 22.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#36

1,1-Dichloropropene

Concen: 96.808 ug/l

RT: 8.371 min Scan# 1091

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

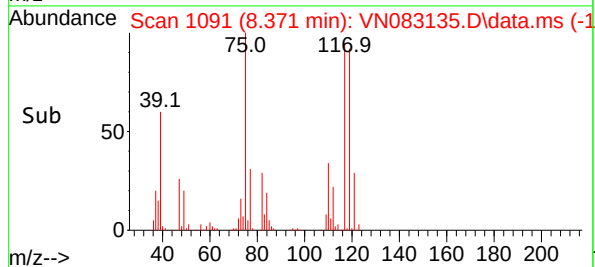
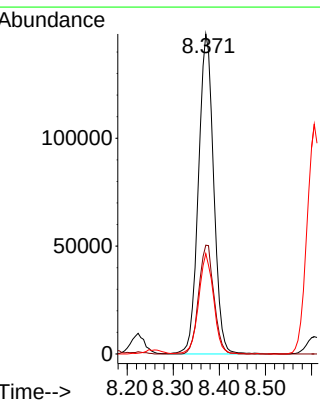
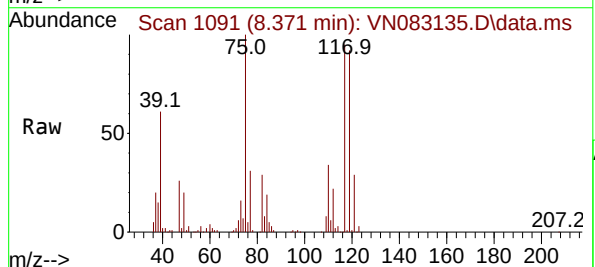
Tgt Ion: 75 Resp: 340980

Ion Ratio Lower Upper

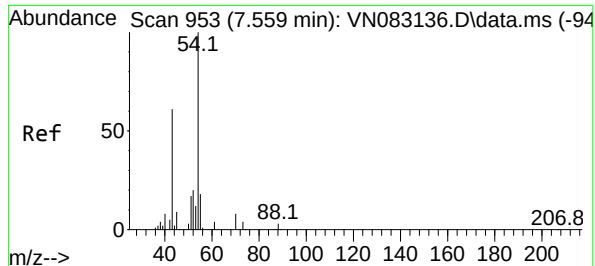
75 100

110 34.1 16.3 48.9

77 30.6 24.6 37.0







#37

Ethyl Acetate

Concen: 90.602 ug/l

RT: 7.559 min Scan# 91

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 43 Resp: 357308

Ion Ratio Lower Upper

43 100

61 14.4 9.3 13.9

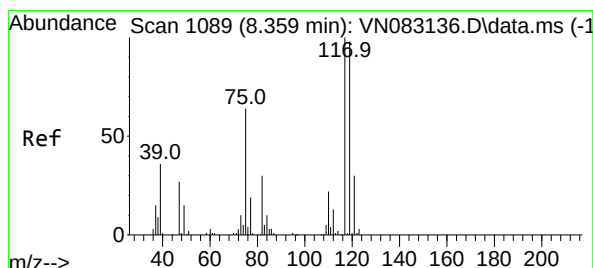
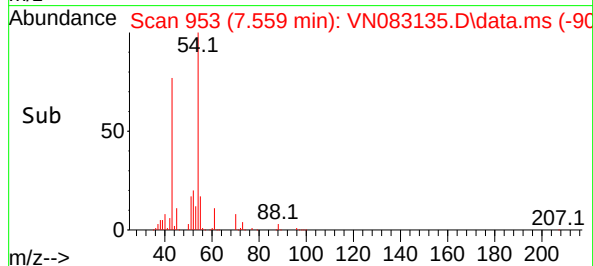
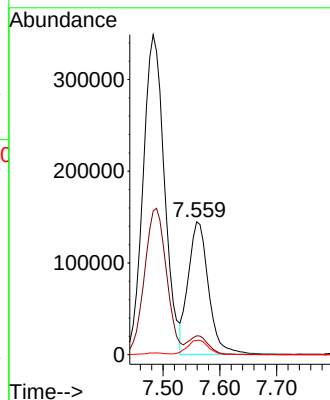
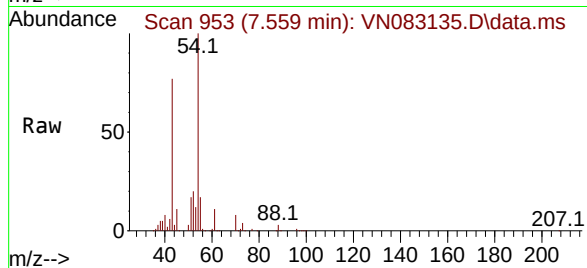
70 11.4 7.0 10.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#38

Carbon Tetrachloride

Concen: 98.597 ug/l

RT: 8.359 min Scan# 1089

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

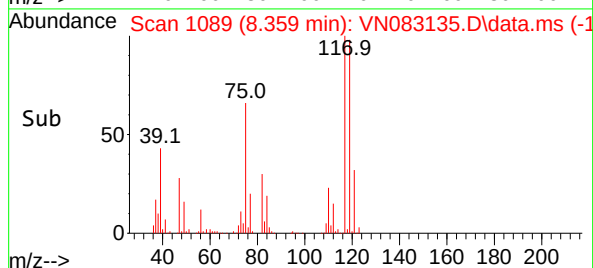
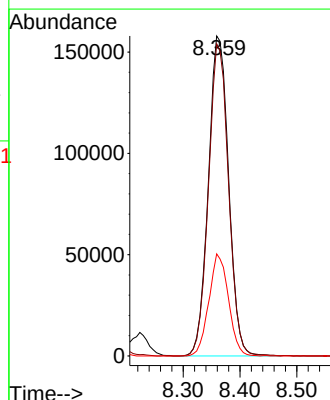
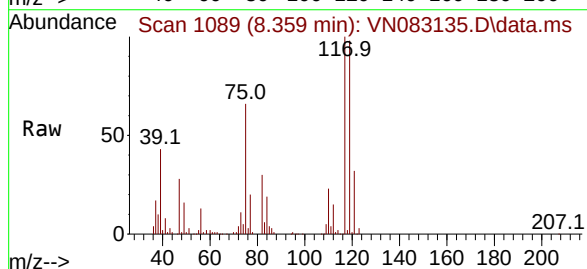
Tgt Ion:117 Resp: 391148

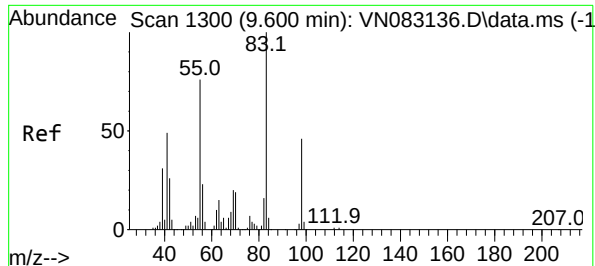
Ion Ratio Lower Upper

117 100

119 97.5 74.9 112.3

121 31.9 24.3 36.5





#39

Methylcyclohexane

Concen: 97.486 ug/l

RT: 9.600 min Scan# 1130

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

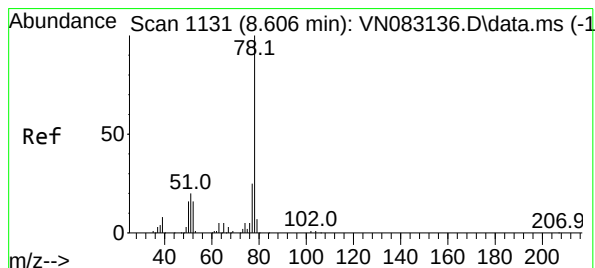
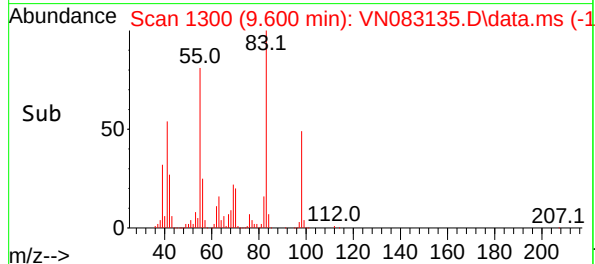
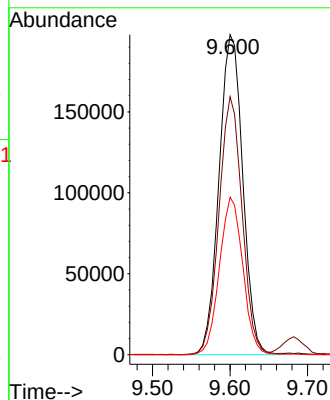
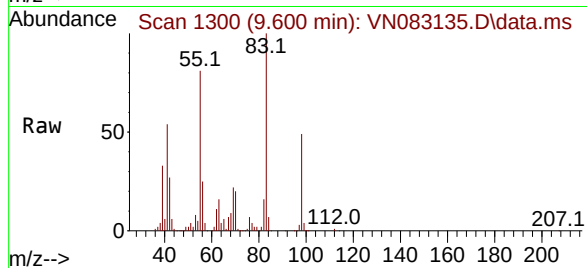
VSTDICC100

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 42174 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 55       | 80.6  | 66.4  | 99.6  |
| 98       | 49.2  | 40.7  | 61.1  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#40

Benzene

Concen: 98.550 ug/l

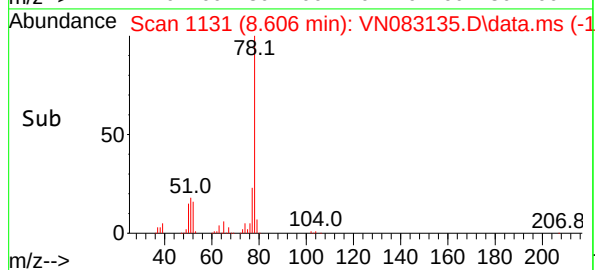
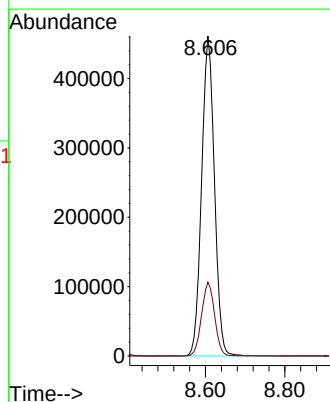
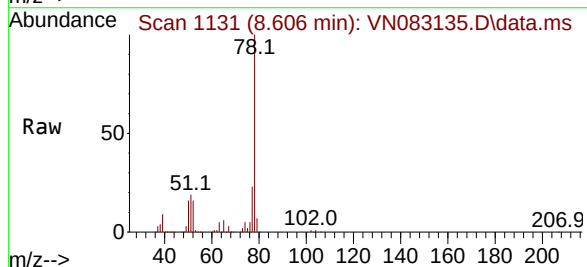
RT: 8.606 min Scan# 1131

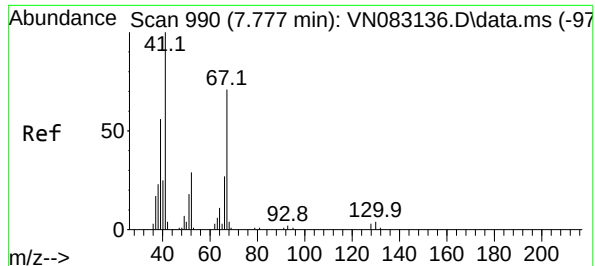
Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 78    | Resp: | 1034059 |
| Ion      | Ratio | Lower | Upper   |
| 78       | 100   |       |         |
| 77       | 23.1  | 19.0  | 28.4    |





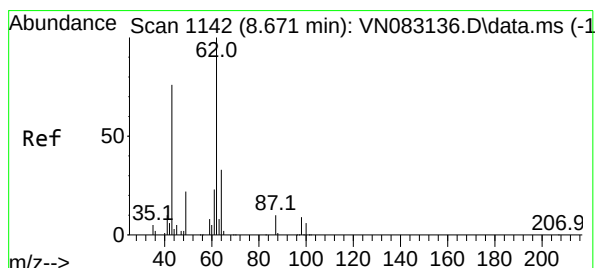
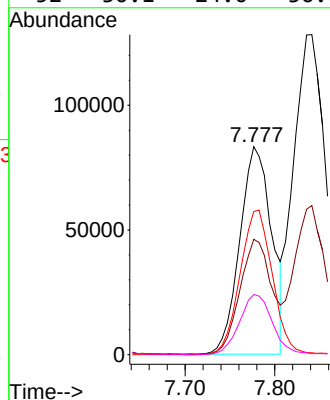
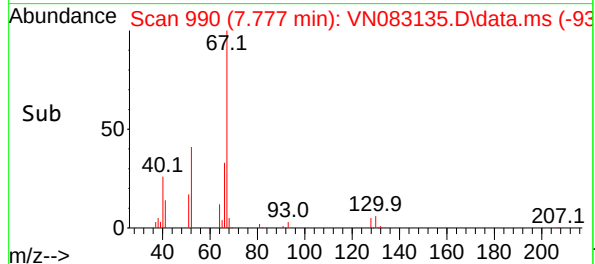
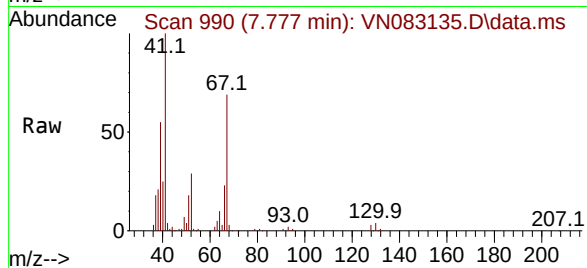
#41  
Methacrylonitrile  
Concen: 91.799 ug/l  
RT: 7.777 min Scan# 91  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100

Tgt Ion: 41 Resp: 20584  
Ion Ratio Lower Upper  
41 100  
39 55.7 45.5 68.3  
67 70.9 50.5 75.7  
52 30.1 24.0 36.0

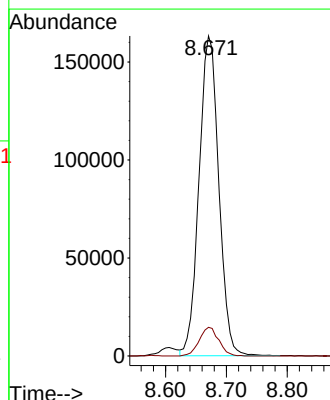
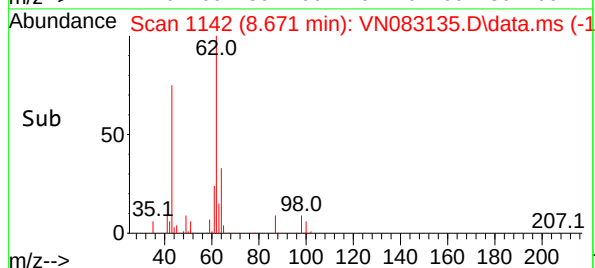
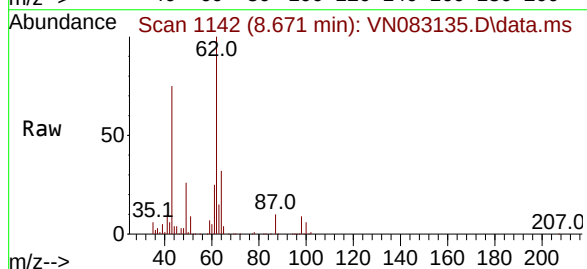
Manual Integrations  
APPROVED

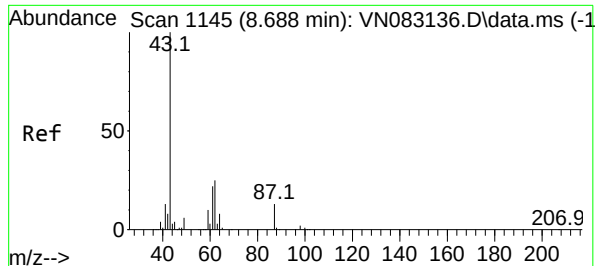
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#42  
1,2-Dichloroethane  
Concen: 96.385 ug/l  
RT: 8.671 min Scan# 1142  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Tgt Ion: 62 Resp: 368412  
Ion Ratio Lower Upper  
62 100  
98 8.8 0.0 15.8





#43

Isopropyl Acetate

Concen: 99.962 ug/l

RT: 8.688 min Scan# 1145

Delta R.T. 0.000 min

Lab File: VN083135.D

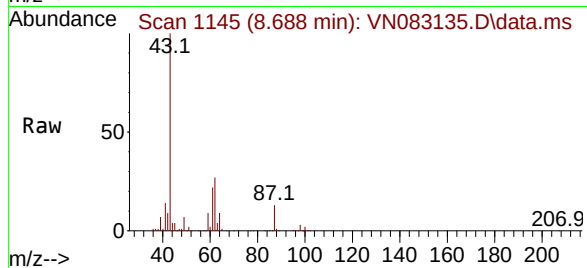
Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

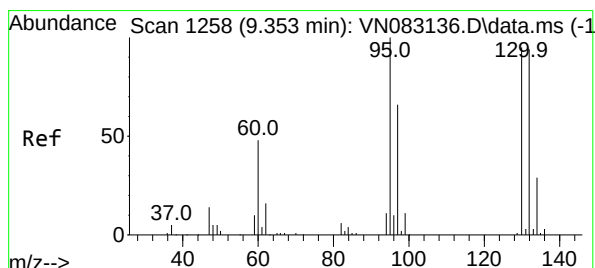
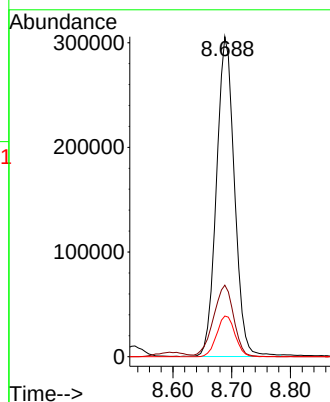
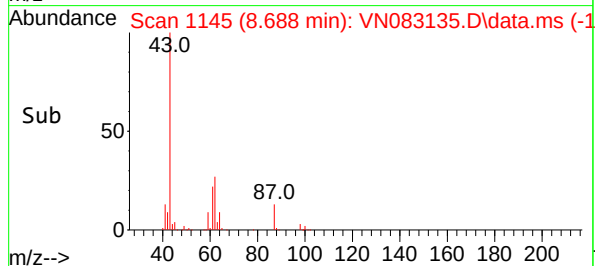


|             |                |
|-------------|----------------|
| Tgt Ion: 43 | Resp: 64858    |
| Ion Ratio   | Lower Upper    |
| 43          | 100            |
| 61          | 25.2 17.8 26.6 |
| 87          | 13.0 8.2 12.2  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#44

Trichloroethene

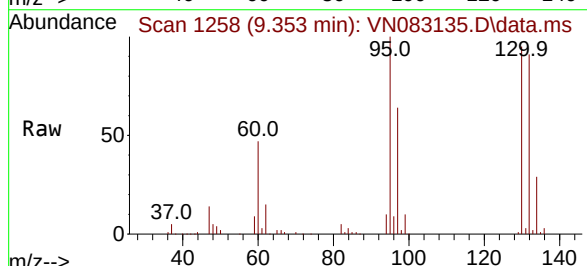
Concen: 98.774 ug/l

RT: 9.353 min Scan# 1258

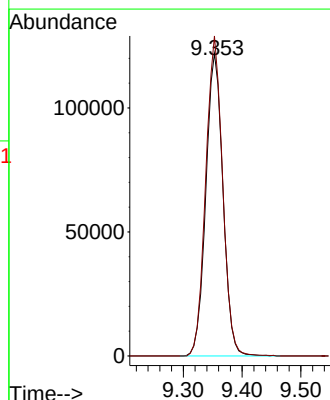
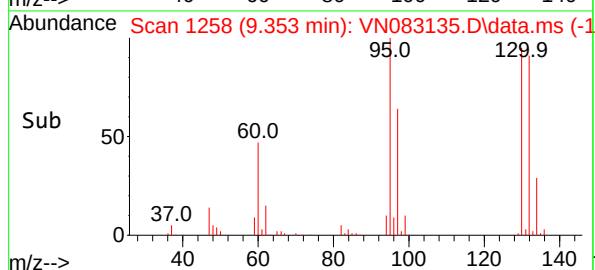
Delta R.T. -0.000 min

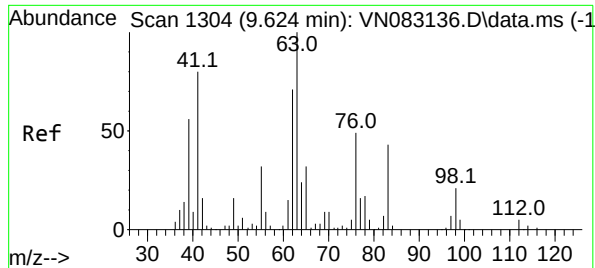
Lab File: VN083135.D

Acq: 07 Aug 2024 10:33



|             |                 |
|-------------|-----------------|
| Tgt Ion:130 | Resp: 246689    |
| Ion Ratio   | Lower Upper     |
| 130         | 100             |
| 95          | 105.7 0.0 197.8 |





#45

1,2-Dichloropropane

Concen: 99.275 ug/l

RT: 9.624 min Scan# 1304

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 63 Resp: 24726

Ion Ratio Lower Upper

63 100

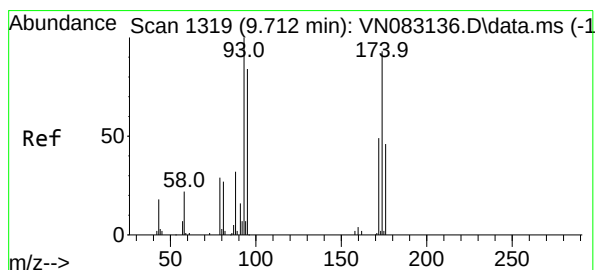
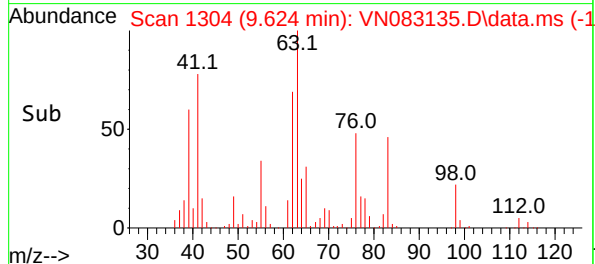
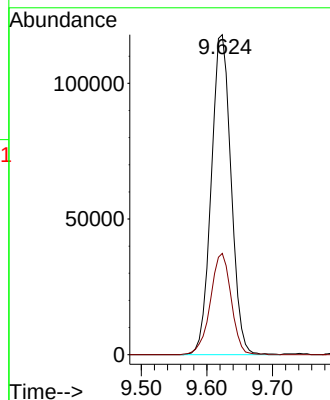
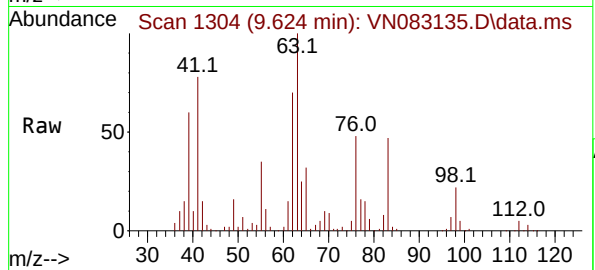
65 31.6 24.4 36.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#46

Dibromomethane

Concen: 99.449 ug/l

RT: 9.712 min Scan# 1319

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

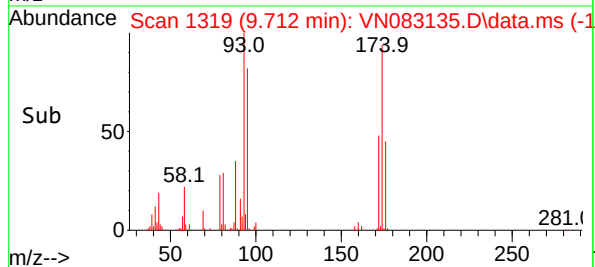
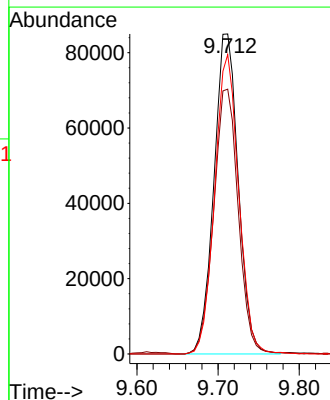
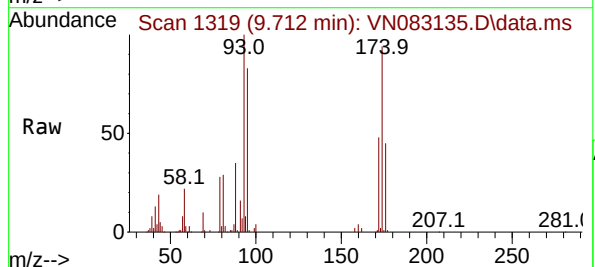
Tgt Ion: 93 Resp: 177294

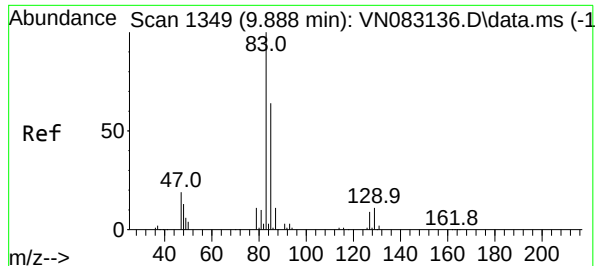
Ion Ratio Lower Upper

93 100

95 83.4 65.8 98.6

174 92.1 71.7 107.5





#47

Bromodichloromethane

Concen: 97.184 ug/l

RT: 9.888 min Scan# 1349

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

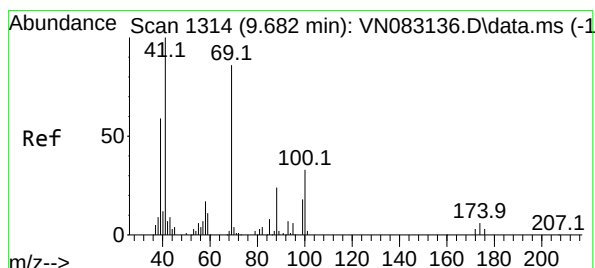
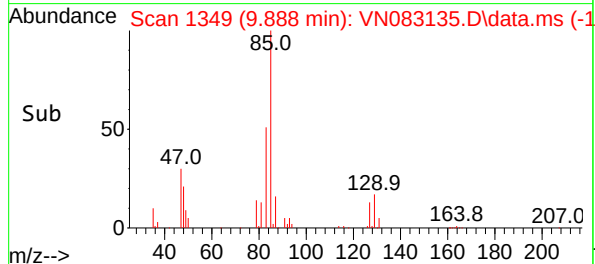
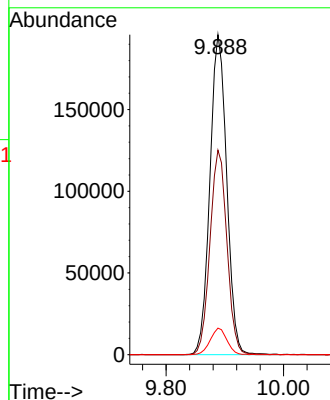
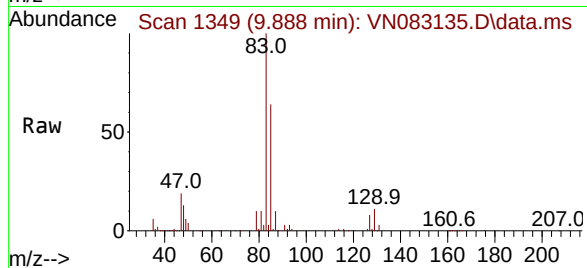
VSTDICC100

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 389020 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 85       | 63.9  | 51.1  | 76.7   |
| 127      | 8.3   | 7.2   | 10.8   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#48

Methyl methacrylate

Concen: 94.886 ug/l

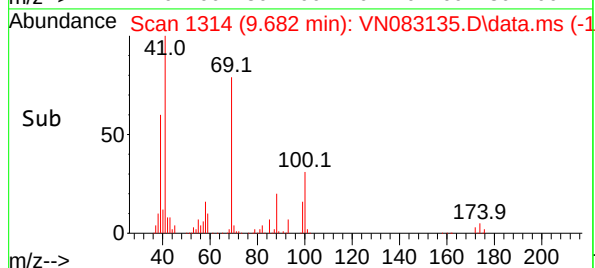
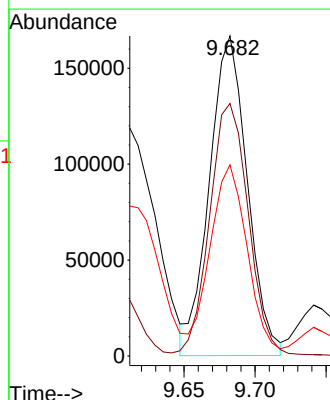
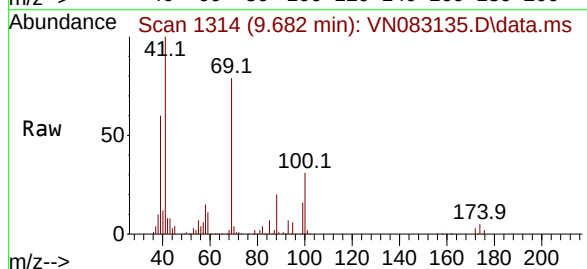
RT: 9.682 min Scan# 1314

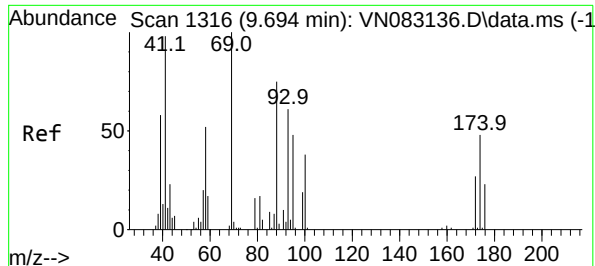
Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 41    | Resp: | 309367 |
| Ion      | Ratio | Lower | Upper  |
| 41       | 100   |       |        |
| 69       | 81.0  | 56.3  | 84.5   |
| 39       | 58.7  | 50.3  | 75.5   |





#49

1,4-Dioxane

Concen: 1994.879 ug/l

RT: 9.694 min Scan# 11

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 88 Resp: 11734

Ion Ratio Lower Upper

88 100

43 28.2 27.8 41.8

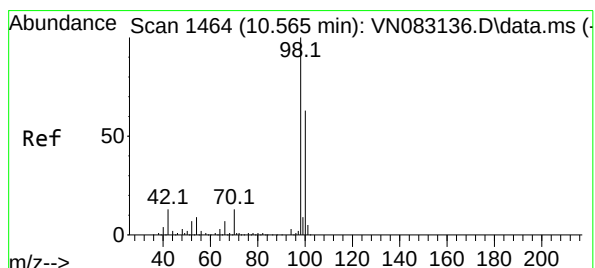
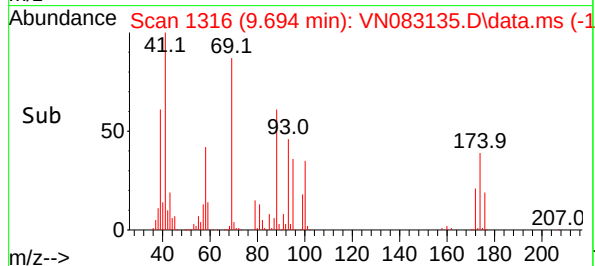
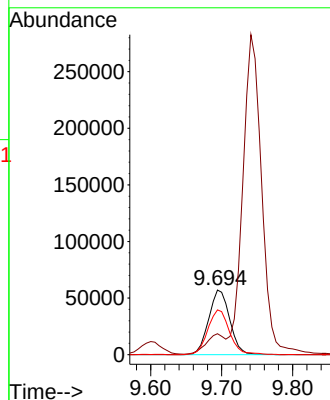
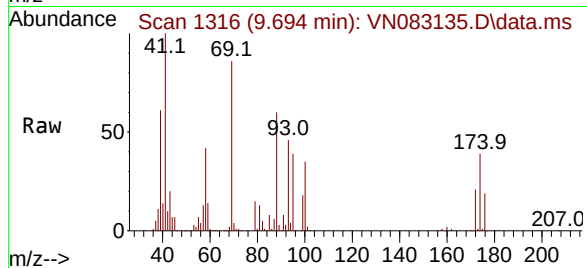
58 71.8 59.4 89.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#50

Toluene-d8

Concen: 103.163 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. -0.000 min

Lab File: VN083135.D

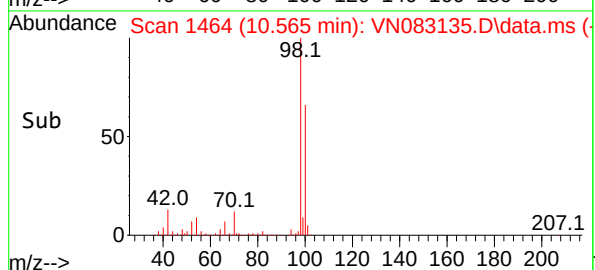
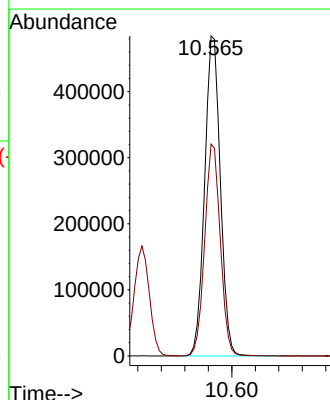
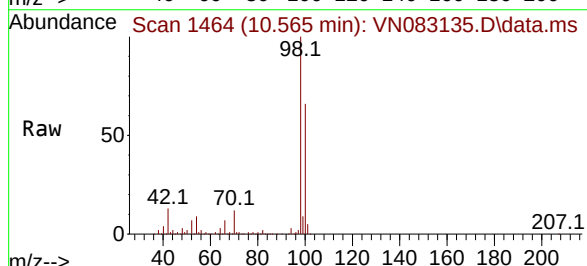
Acq: 07 Aug 2024 10:33

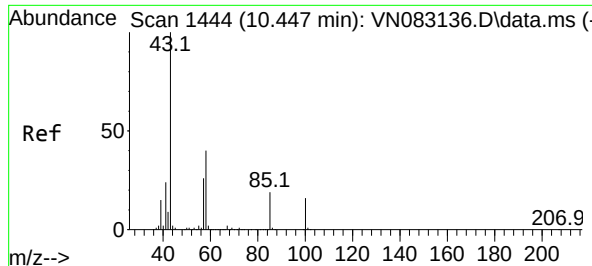
Tgt Ion: 98 Resp: 896022

Ion Ratio Lower Upper

98 100

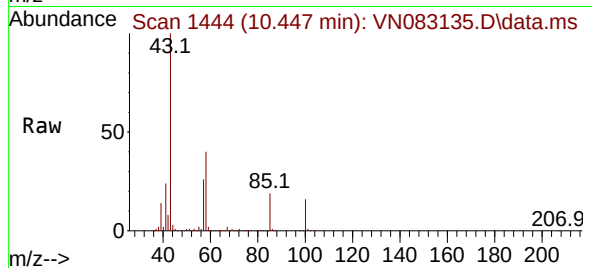
100 65.8 51.5 77.3





#51  
4-Methyl-2-Pentanone  
Concen: 495.091 ug/l  
RT: 10.447 min Scan# 1444  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

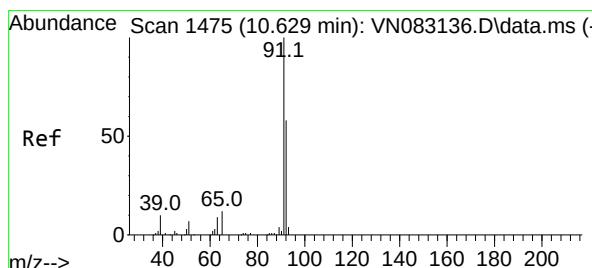
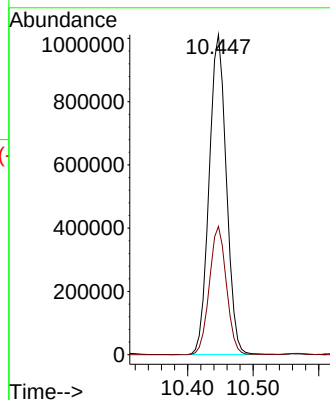
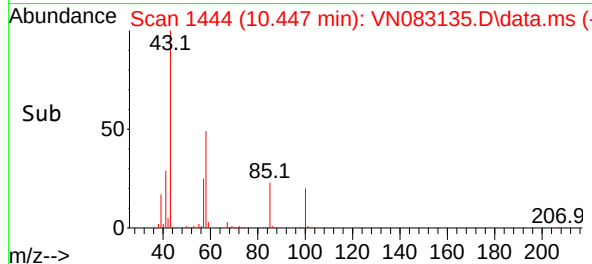
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion: 43 Resp: 1846340  
Ion Ratio Lower Upper  
43 100  
58 39.7 28.2 42.4

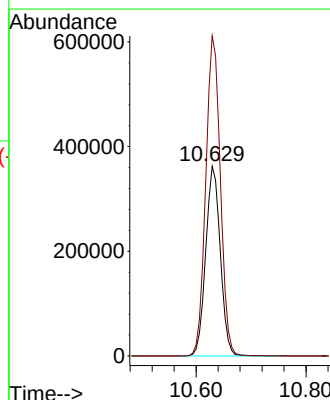
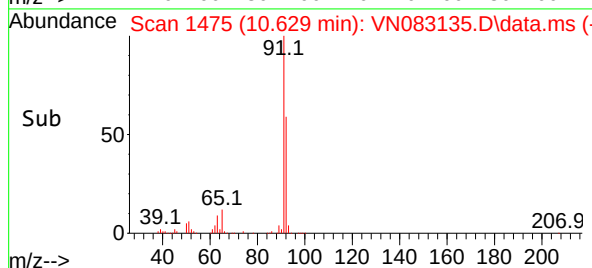
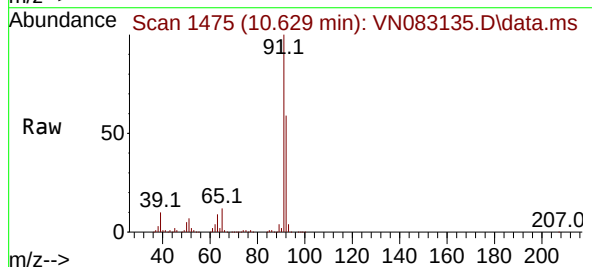
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

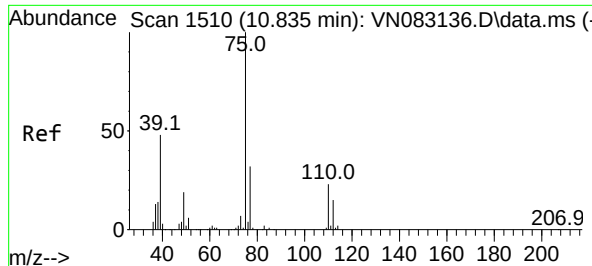


#52  
Toluene  
Concen: 100.347 ug/l  
RT: 10.629 min Scan# 1475  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Tgt Ion: 92 Resp: 665274  
Ion Ratio Lower Upper  
92 100  
91 169.4 139.4 209.0

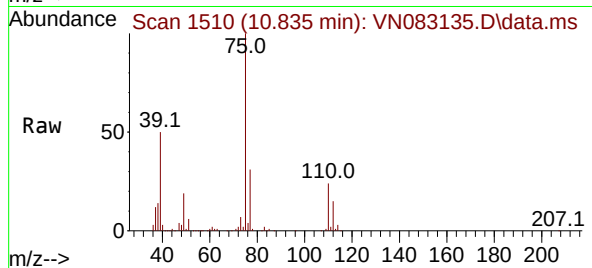






#53  
t-1,3-Dichloropropene  
Concen: 103.317 ug/l  
RT: 10.835 min Scan# 1510  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

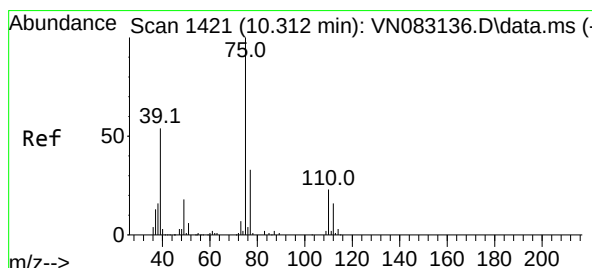
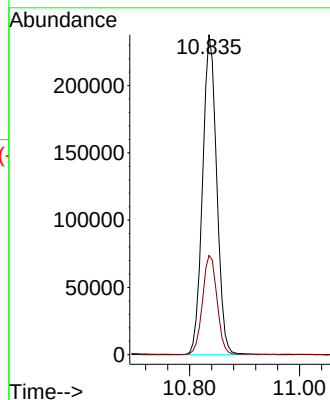
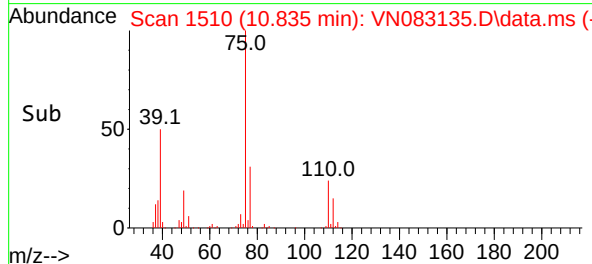
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion: 75 Resp: 424829  
Ion Ratio Lower Upper  
75 100  
77 30.9 25.7 38.5

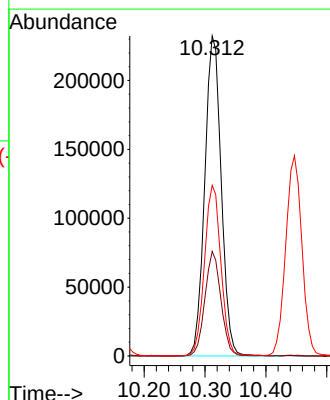
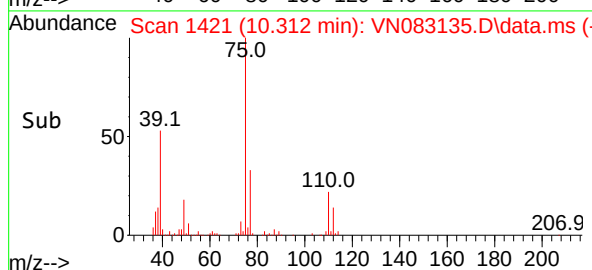
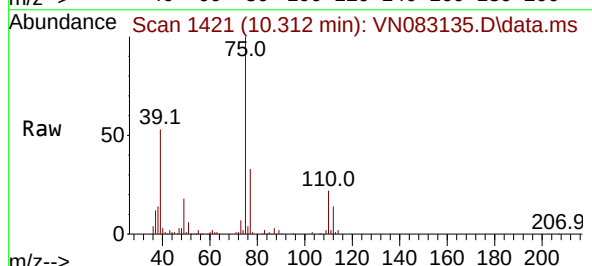
Manual Integrations  
APPROVED

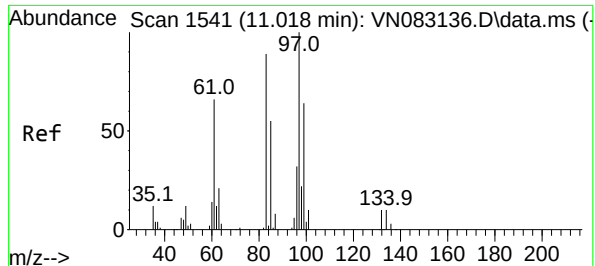
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#54  
cis-1,3-Dichloropropene  
Concen: 99.903 ug/l  
RT: 10.312 min Scan# 1421  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

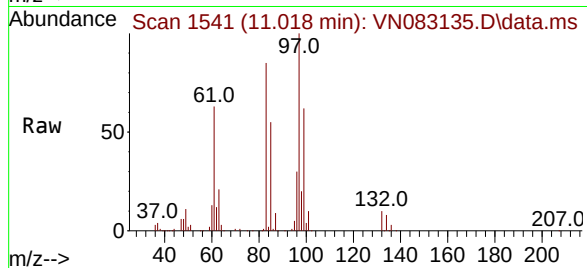
Tgt Ion: 75 Resp: 436928  
Ion Ratio Lower Upper  
75 100  
77 32.7 24.3 36.5  
39 53.2 50.5 75.7





#55  
1,1,2-Trichloroethane  
Concen: 101.114 ug/l  
RT: 11.018 min Scan# 1541  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

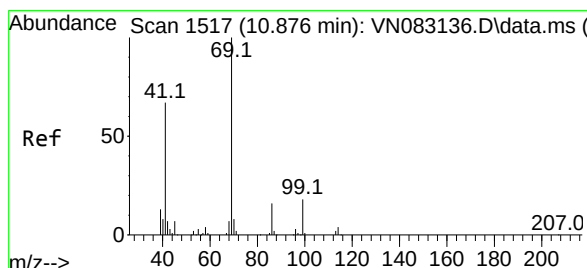
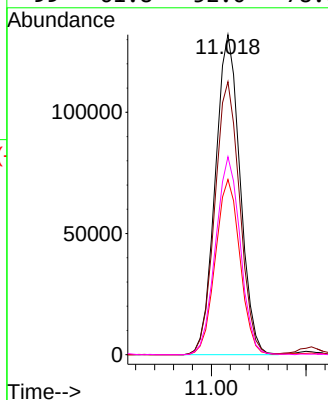
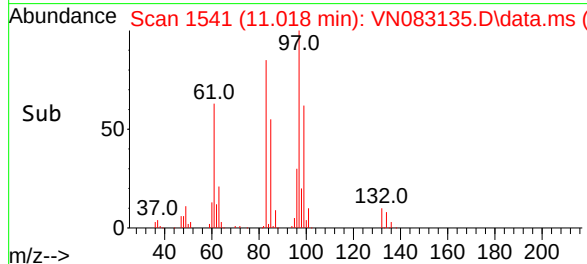
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



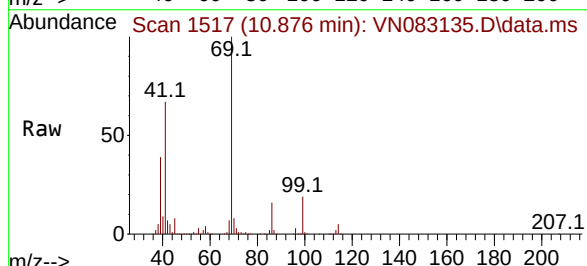
Tgt Ion: 97 Resp: 24023  
Ion Ratio Lower Upper  
97 100  
83 85.3 71.4 107.0  
85 54.8 45.8 68.6  
99 61.8 52.0 78.0

Manual Integrations  
APPROVED

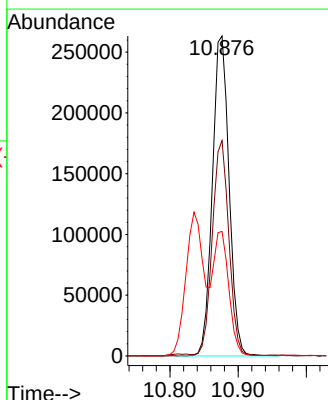
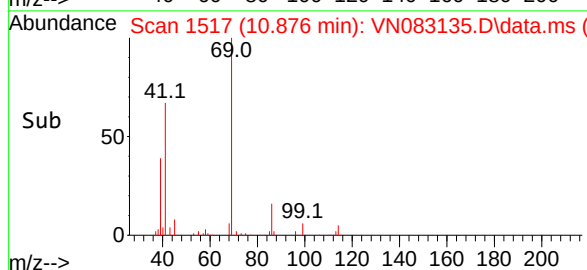
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

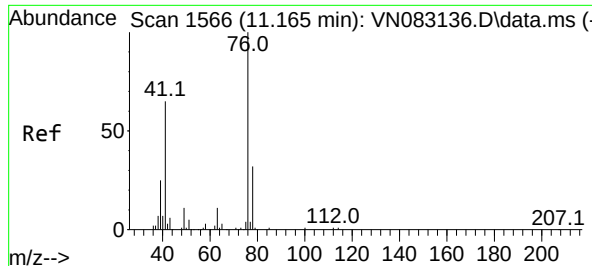


#56  
Ethyl methacrylate  
Concen: 100.164 ug/l  
RT: 10.876 min Scan# 1517  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33



Tgt Ion: 69 Resp: 448632  
Ion Ratio Lower Upper  
69 100  
41 66.4 63.4 95.2  
39 34.5 37.4 56.0#





#57

1,3-Dichloropropane

Concen: 98.824 ug/l

RT: 11.165 min Scan# 1566

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 76 Resp: 41850

Ion Ratio Lower Upper

76 100

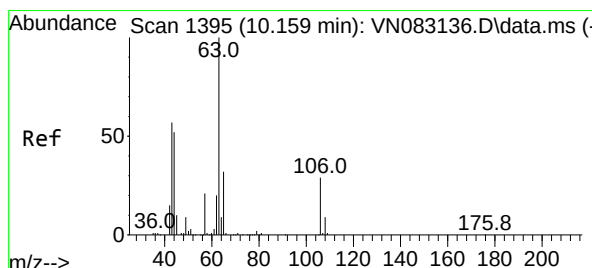
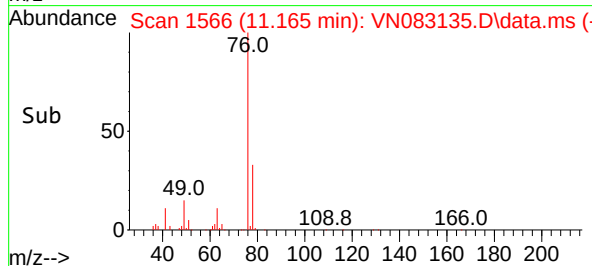
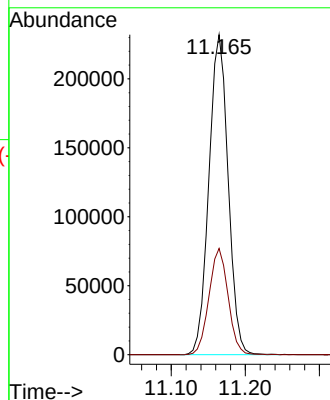
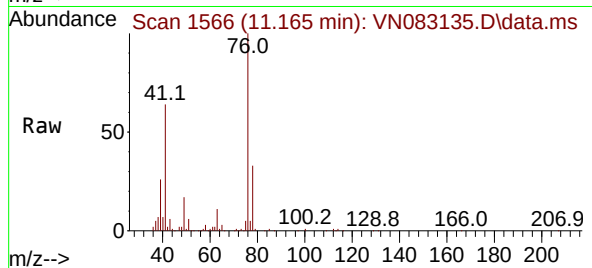
78 32.9 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#58

2-Chloroethyl Vinyl ether

Concen: 519.987 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. -0.000 min

Lab File: VN083135.D

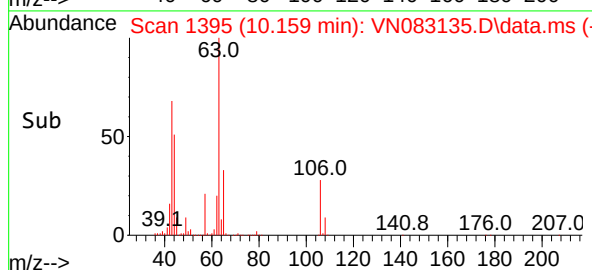
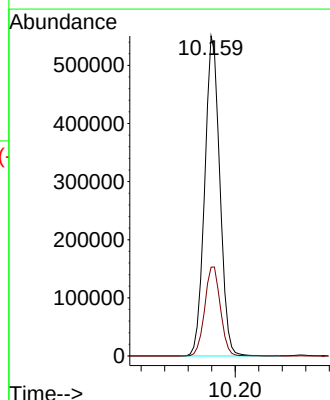
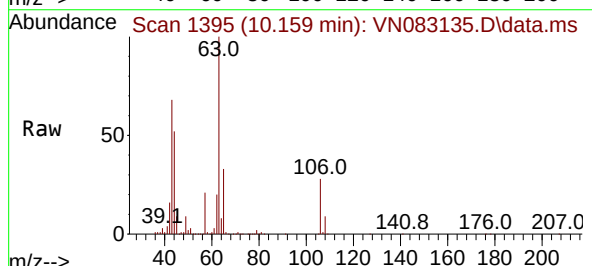
Acq: 07 Aug 2024 10:33

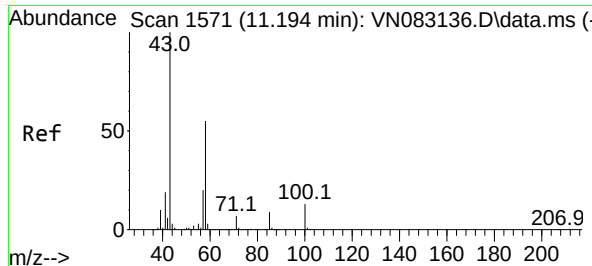
Tgt Ion: 63 Resp: 984478

Ion Ratio Lower Upper

63 100

106 28.8 21.4 32.0





#59

2-Hexanone

Concen: 501.642 ug/l

RT: 11.194 min Scan# 1571

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion: 43 Resp: 144730

Ion Ratio Lower Upper

43 100

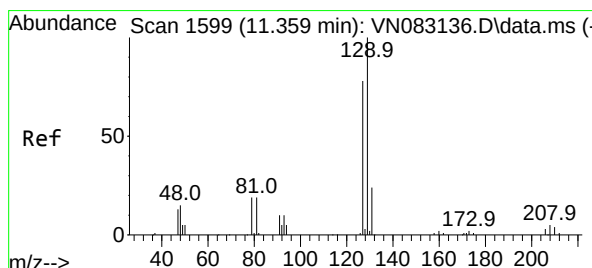
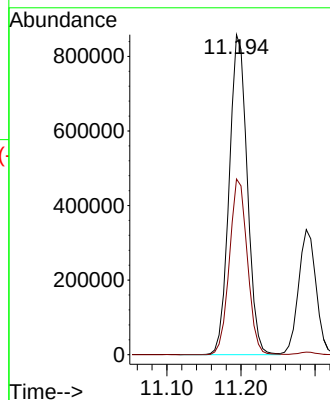
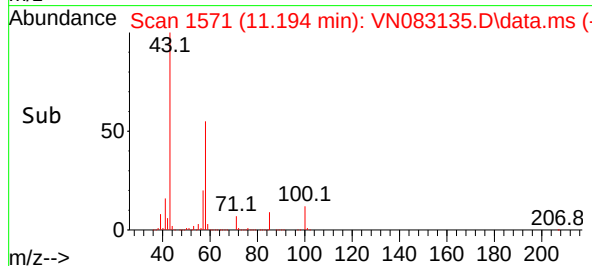
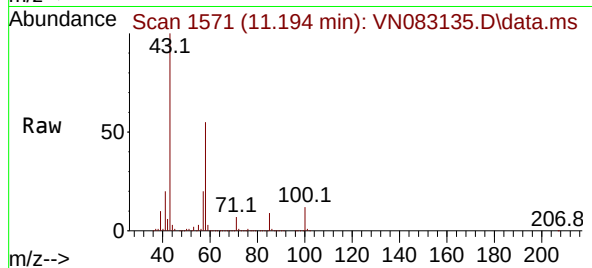
58 54.7 24.6 73.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#60

Dibromochloromethane

Concen: 103.914 ug/l

RT: 11.359 min Scan# 1599

Delta R.T. -0.000 min

Lab File: VN083135.D

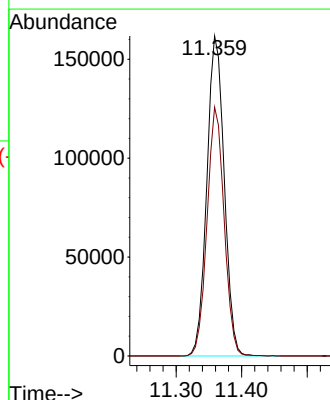
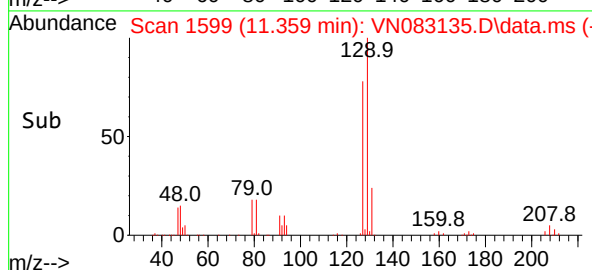
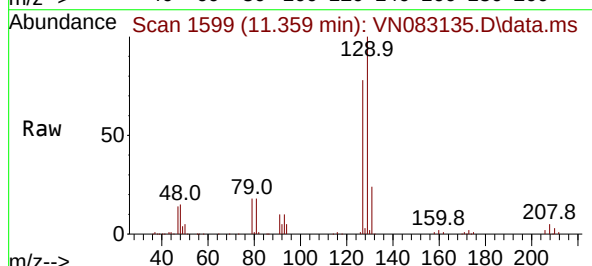
Acq: 07 Aug 2024 10:33

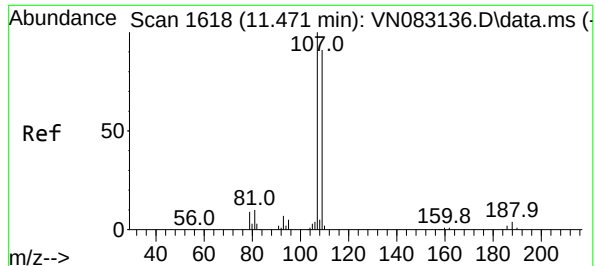
Tgt Ion:129 Resp: 298498

Ion Ratio Lower Upper

129 100

127 76.3 39.2 117.6





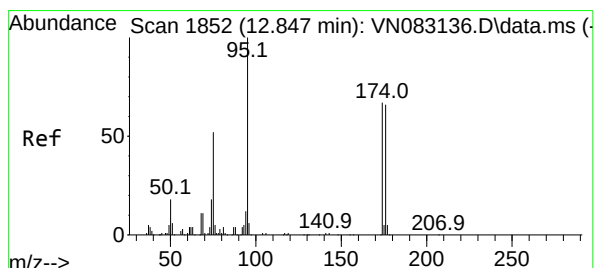
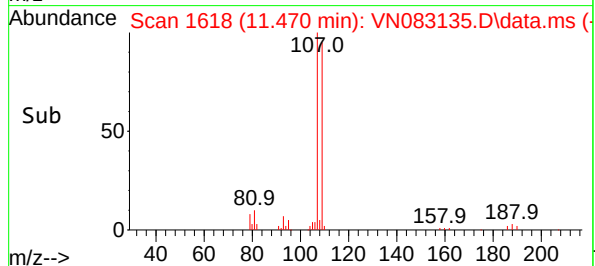
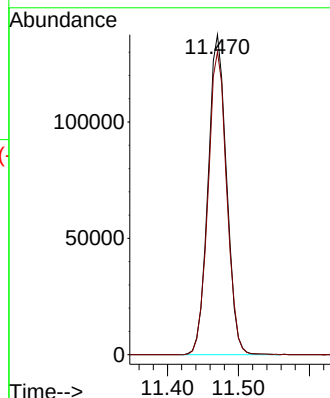
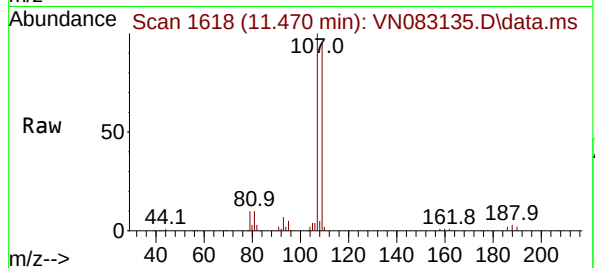
#61  
1,2-Dibromoethane  
Concen: 99.794 ug/l  
RT: 11.470 min Scan# 1618  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100

Tgt Ion:107 Resp: 249072  
Ion Ratio Lower Upper  
107 100  
109 95.5 73.7 110.5

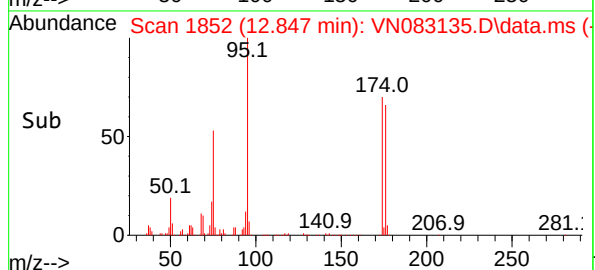
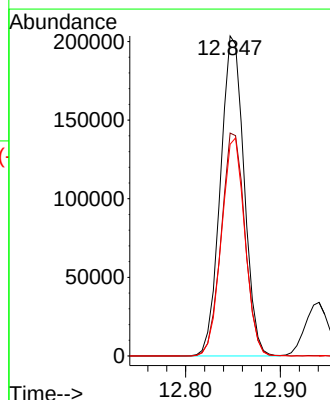
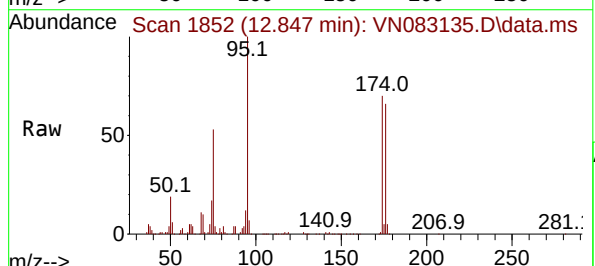
Manual Integrations  
APPROVED

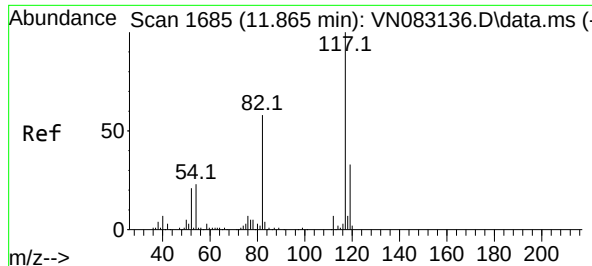
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#62  
4-Bromofluorobenzene  
Concen: 104.234 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

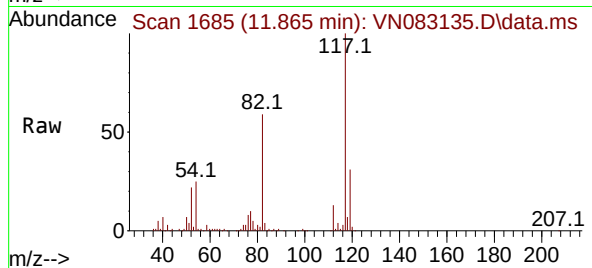
Tgt Ion: 95 Resp: 352947  
Ion Ratio Lower Upper  
95 100  
174 69.9 0.0 159.2  
176 67.6 0.0 147.6





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

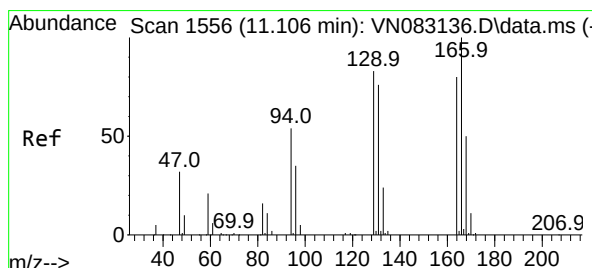
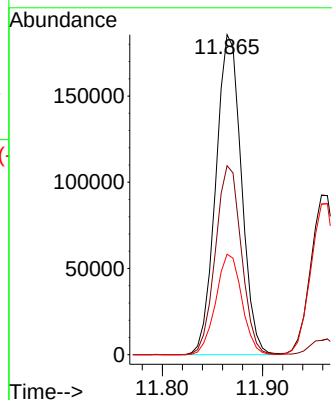
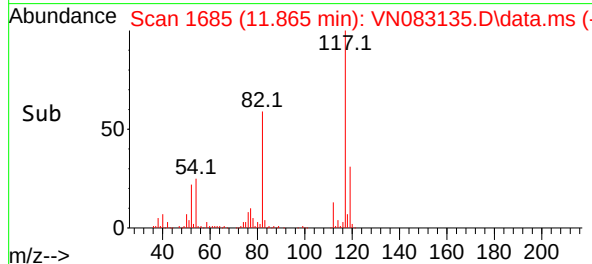
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



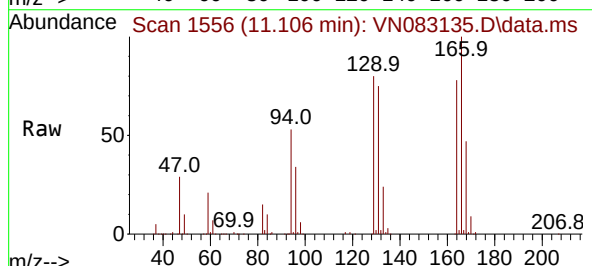
Tgt Ion:117 Resp: 329850  
Ion Ratio Lower Upper  
117 100  
82 59.0 47.5 71.3  
119 31.4 25.6 38.4

Manual Integrations  
APPROVED

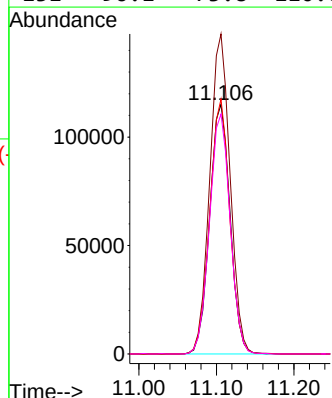
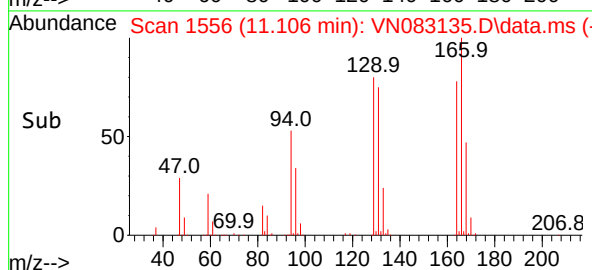
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

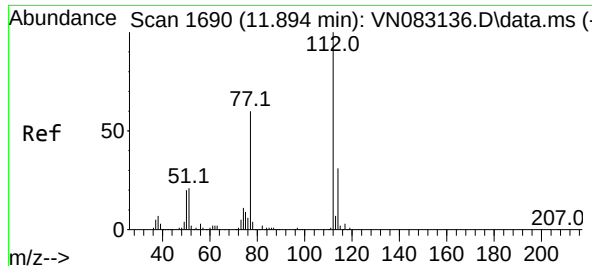


#64  
Tetrachloroethene  
Concen: 96.284 ug/l  
RT: 11.106 min Scan# 1556  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33



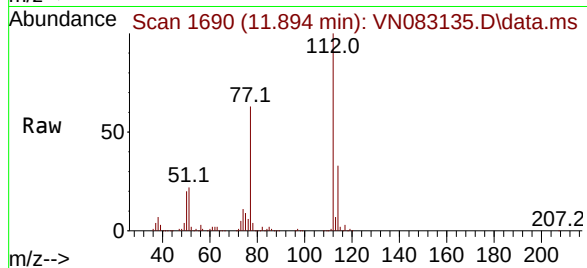
Tgt Ion:164 Resp: 210334  
Ion Ratio Lower Upper  
164 100  
166 128.2 101.4 152.0  
129 102.1 75.7 113.5  
131 96.1 73.8 110.6





#65  
Chlorobenzene  
Concen: 96.805 ug/l  
RT: 11.894 min Scan# 1690  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

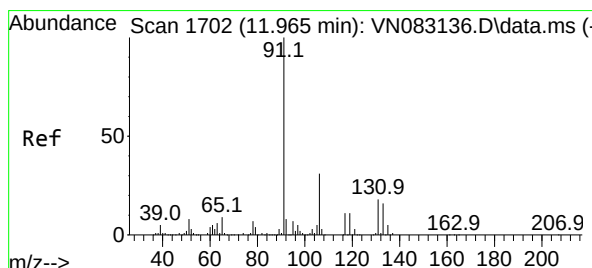
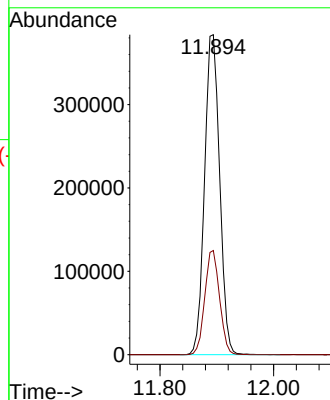
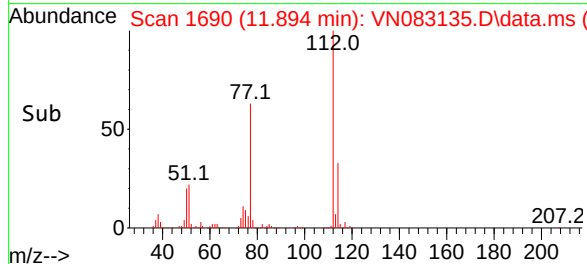
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



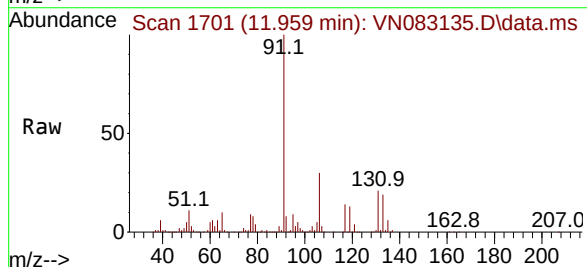
Tgt Ion:112 Resp: 705639  
Ion Ratio Lower Upper  
112 100  
114 32.5 26.2 39.2

Manual Integrations  
APPROVED

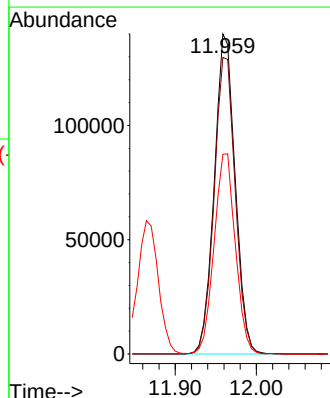
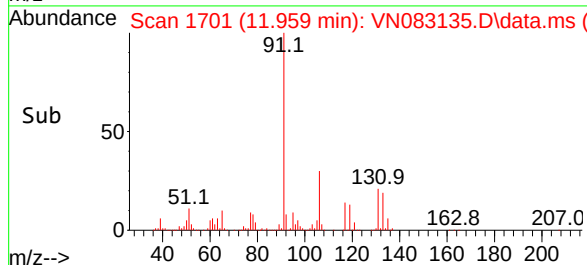
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

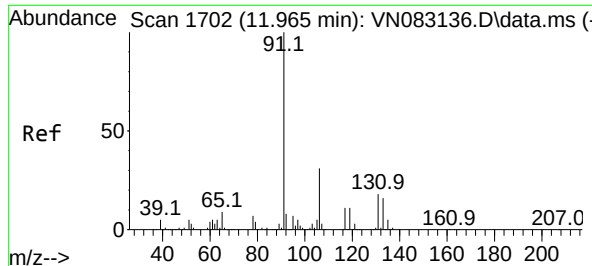


#66  
1,1,1,2-Tetrachloroethane  
Concen: 97.546 ug/l  
RT: 11.959 min Scan# 1701  
Delta R.T. -0.006 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33



Tgt Ion:131 Resp: 250772  
Ion Ratio Lower Upper  
131 100  
133 93.9 47.3 142.0  
119 63.6 32.5 97.4





#67

Ethyl Benzene

Concen: 97.041 ug/l

RT: 11.965 min Scan# 1702

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 91 Resp: 129763

Ion Ratio Lower Upper

91 100

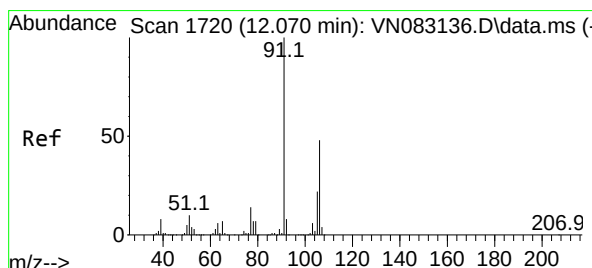
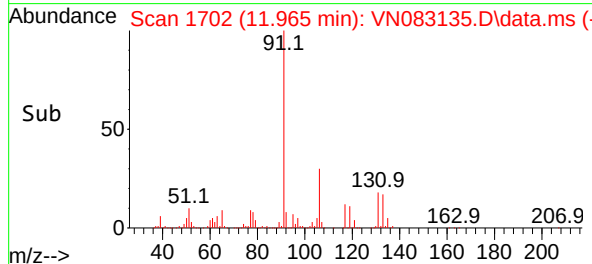
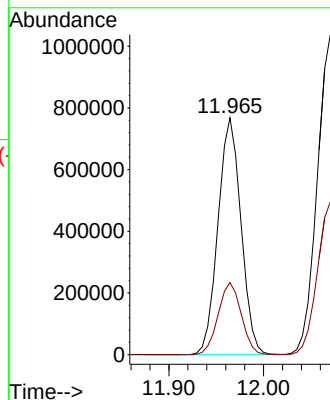
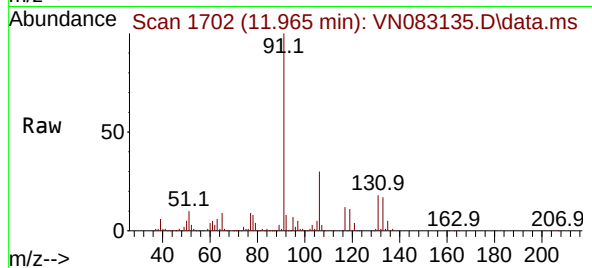
106 30.5 24.0 36.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#68

m/p-Xylenes

Concen: 196.641 ug/l

RT: 12.070 min Scan# 1720

Delta R.T. -0.000 min

Lab File: VN083135.D

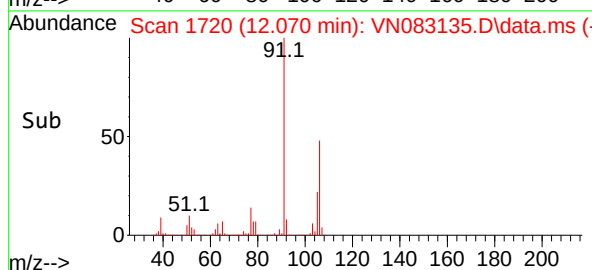
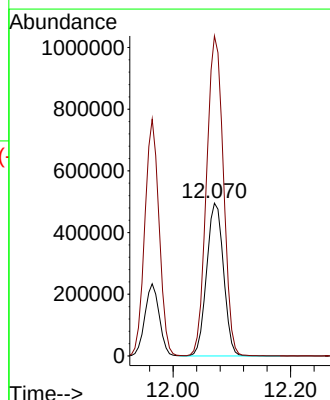
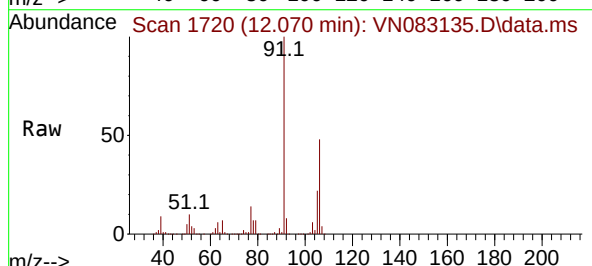
Acq: 07 Aug 2024 10:33

Tgt Ion:106 Resp: 984984

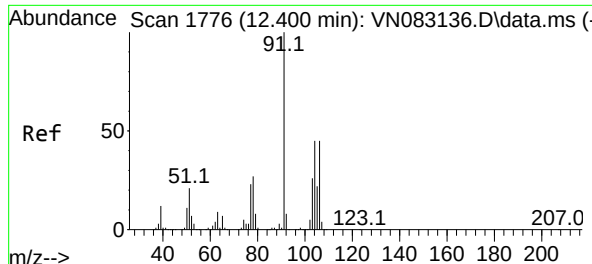
Ion Ratio Lower Upper

106 100

91 208.8 166.1 249.1







#69

o-Xylene

Concen: 98.107 ug/l

RT: 12.400 min Scan# 1776

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion:106 Resp: 48467

Ion Ratio Lower Upper

106 100

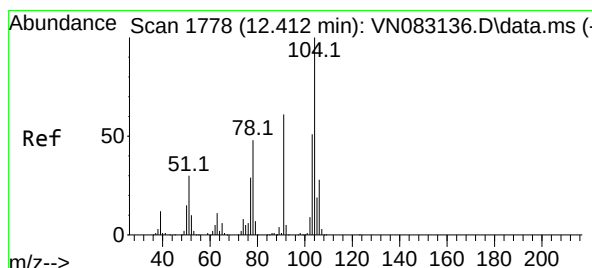
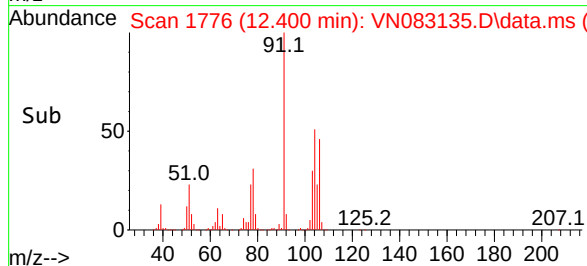
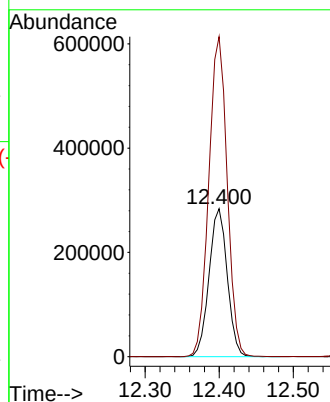
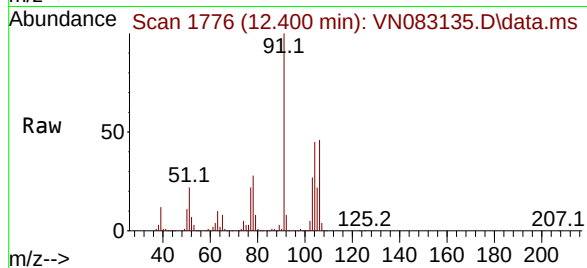
91 218.1 111.3 333.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#70

Styrene

Concen: 100.261 ug/l

RT: 12.412 min Scan# 1778

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

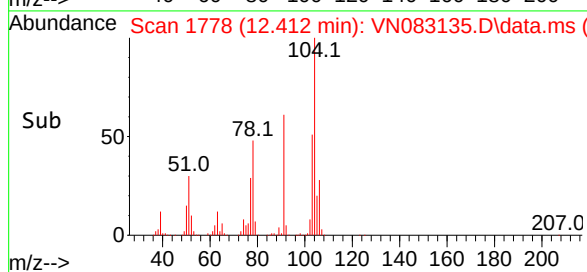
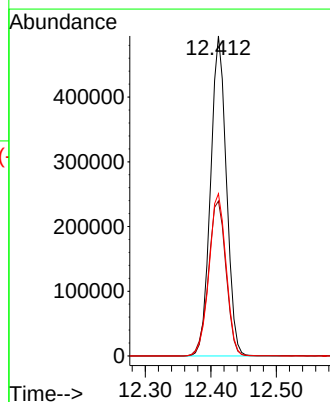
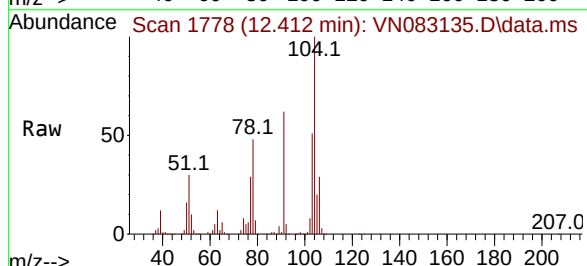
Tgt Ion:104 Resp: 831903

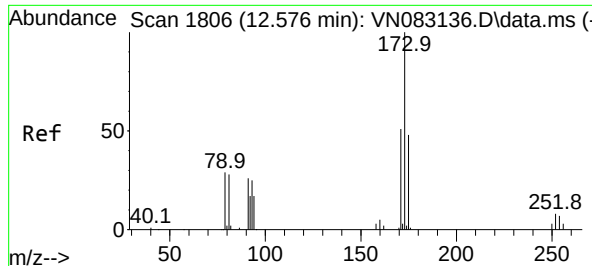
Ion Ratio Lower Upper

104 100

78 53.5 41.6 62.4

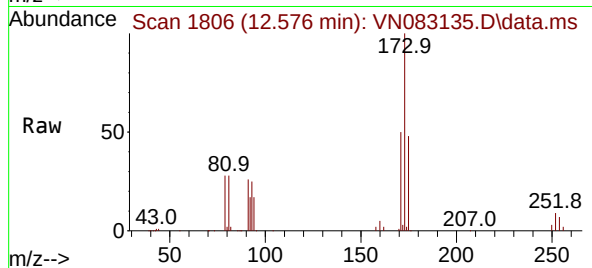
103 54.4 44.0 66.0





#71  
Bromoform  
Concen: 104.942 ug/l  
RT: 12.576 min Scan# 1806  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

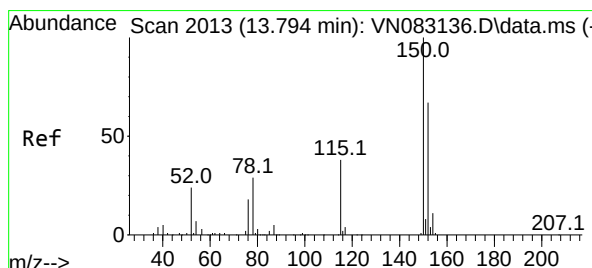
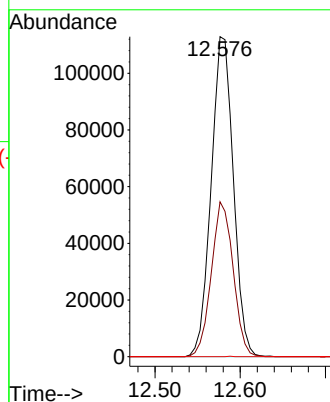
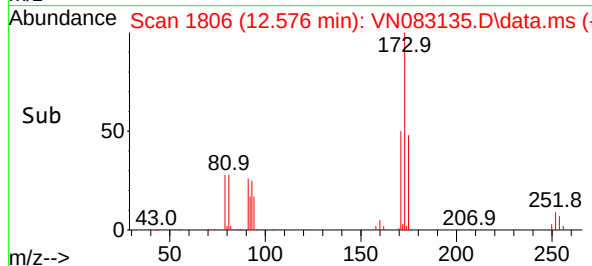
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



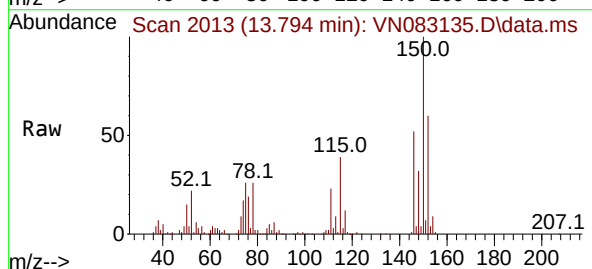
Tgt Ion:173 Resp: 204380  
Ion Ratio Lower Upper  
173 100  
175 47.6 24.0 72.0  
254 0.0 0.0 0.0

Manual Integrations  
APPROVED

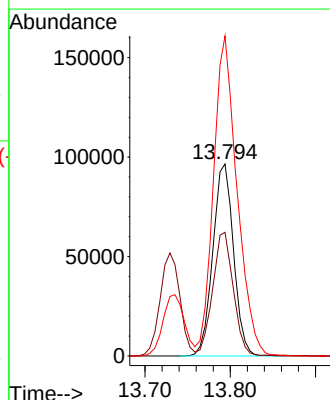
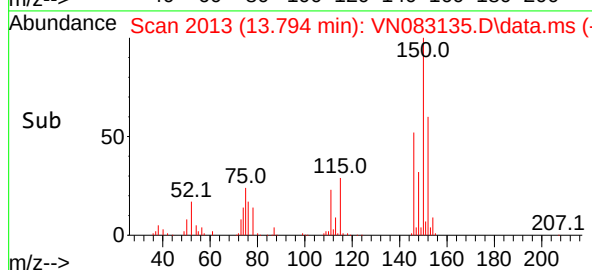
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

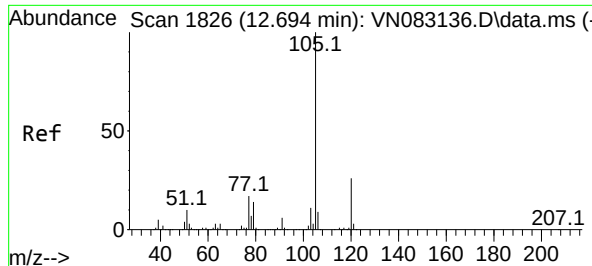


#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.794 min Scan# 1213  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33



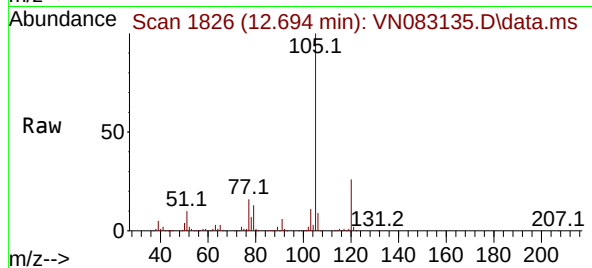
Tgt Ion:152 Resp: 162834  
Ion Ratio Lower Upper  
152 100  
115 63.9 30.6 91.6  
150 189.9 0.0 348.6





#73  
Isopropylbenzene  
Concen: 91.399 ug/l  
RT: 12.694 min Scan# 1826  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

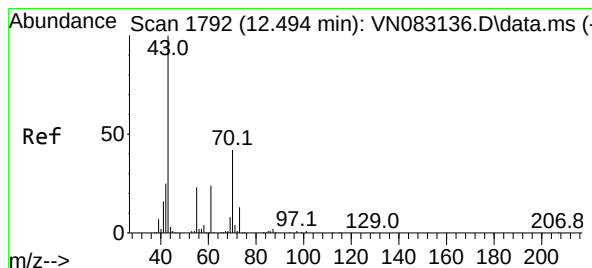
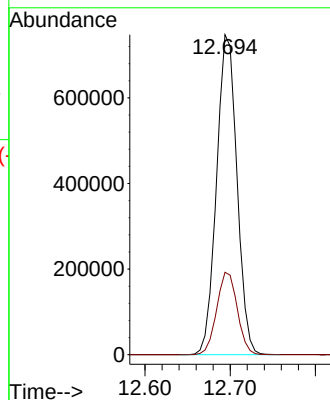
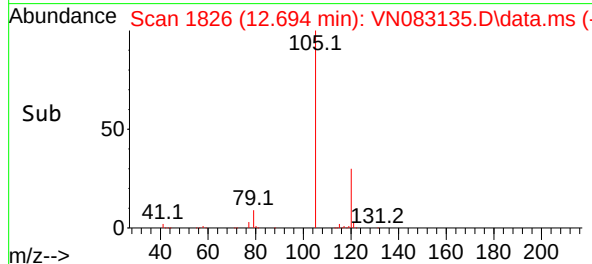
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion:105 Resp: 124484  
Ion Ratio Lower Upper  
105 100  
120 25.9 12.9 38.6

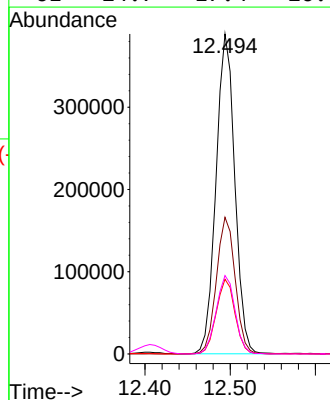
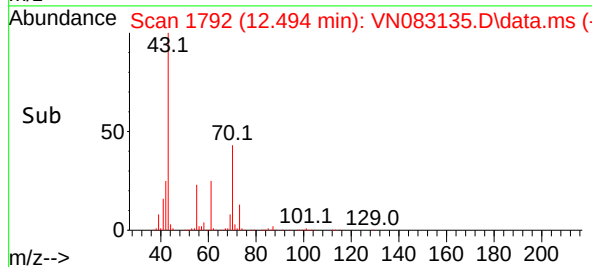
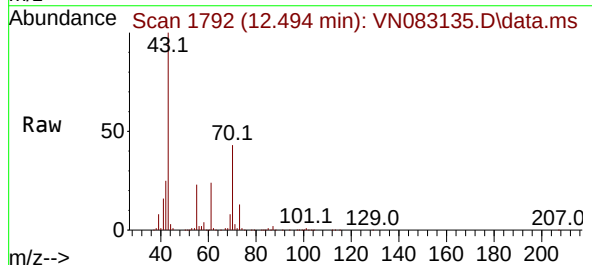
Manual Integrations  
APPROVED

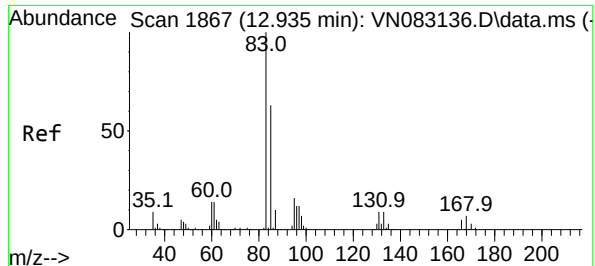
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#74  
N-ethyl acetate  
Concen: 89.282 ug/l  
RT: 12.494 min Scan# 1792  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Tgt Ion: 43 Resp: 594797  
Ion Ratio Lower Upper  
43 100  
70 42.7 29.8 44.6  
55 23.4 18.7 28.1  
61 24.7 17.4 26.0





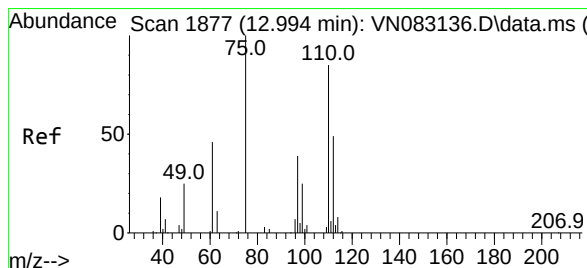
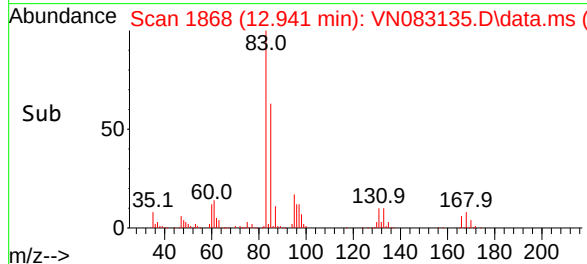
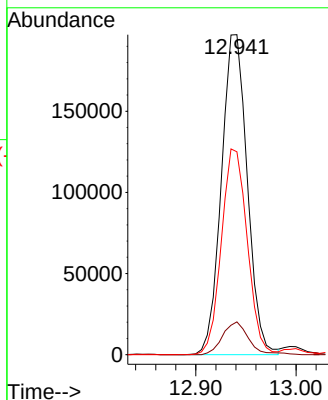
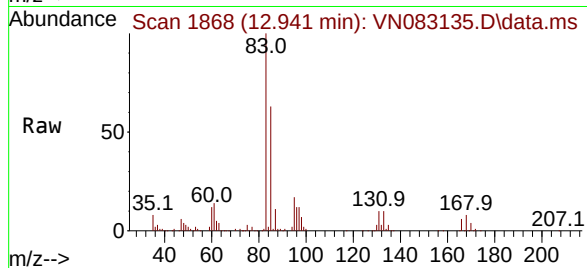
#75  
1,1,2,2-Tetrachloroethane  
Concen: 91.727 ug/l  
RT: 12.941 min Scan# 1868  
Delta R.T. 0.006 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100

Tgt Ion: 83 Resp: 353340  
Ion Ratio Lower Upper  
83 100  
131 10.3 5.0 14.9  
85 64.2 31.9 95.7

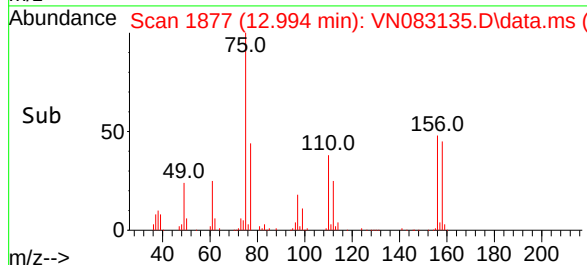
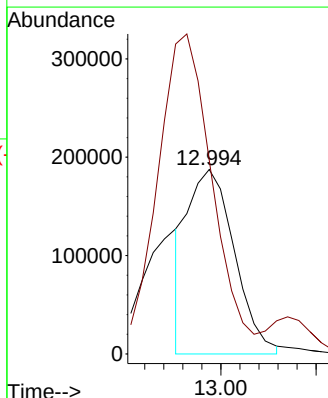
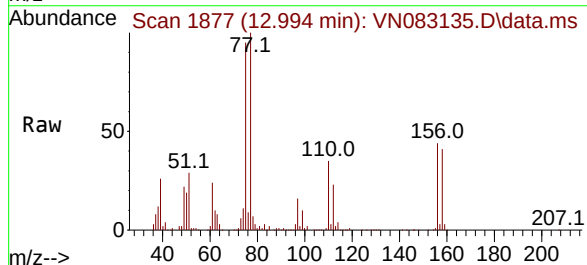
Manual Integrations  
APPROVED

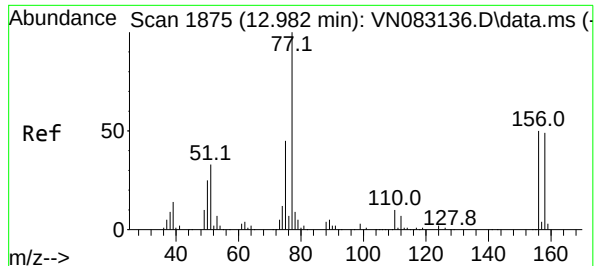
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#76  
1,2,3-Trichloropropane  
Concen: 89.478 ug/l m  
RT: 12.994 min Scan# 1877  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

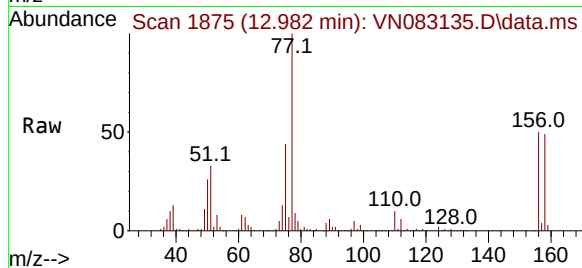
Tgt Ion: 75 Resp: 320302  
Ion Ratio Lower Upper  
75 100  
77 203.7 110.9 332.6





#77  
Bromobenzene  
Concen: 93.431 ug/l  
RT: 12.982 min Scan# 1875  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

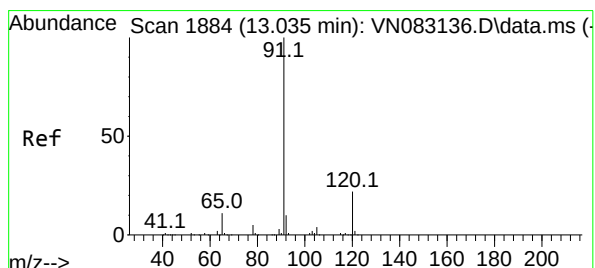
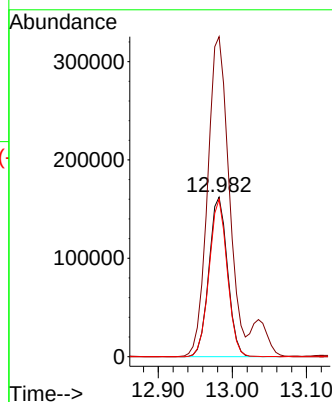
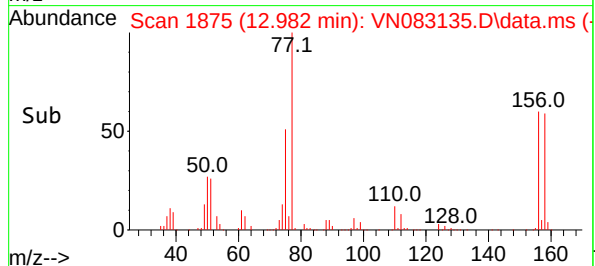
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion:156 Resp: 282670  
Ion Ratio Lower Upper  
156 100  
77 230.9 111.3 333.8  
158 96.4 48.3 144.9

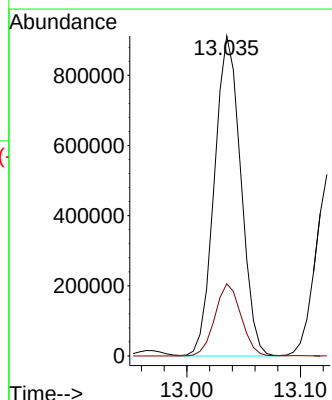
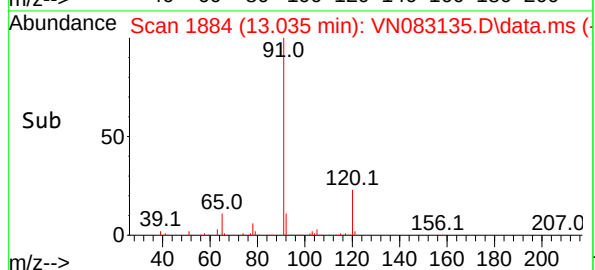
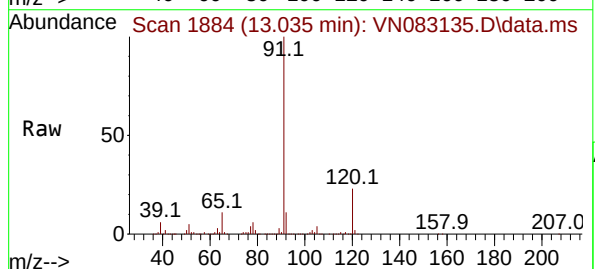
Manual Integrations  
APPROVED

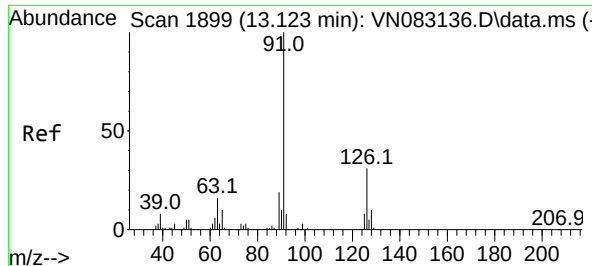
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#78  
n-propylbenzene  
Concen: 93.979 ug/l  
RT: 13.035 min Scan# 1884  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Tgt Ion: 91 Resp: 1473868  
Ion Ratio Lower Upper  
91 100  
120 22.3 10.9 32.9





#79

2-Chlorotoluene

Concen: 91.785 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion: 91 Resp: 912618

Ion Ratio Lower Upper

91 100

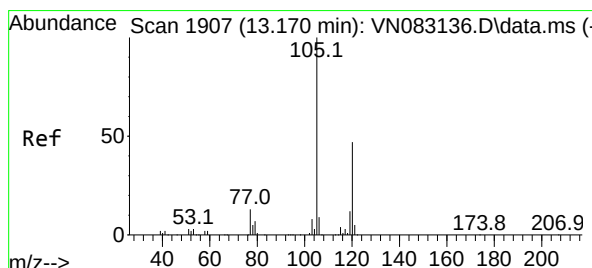
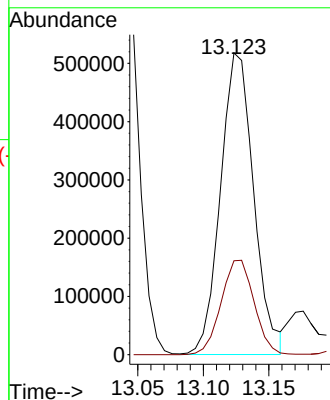
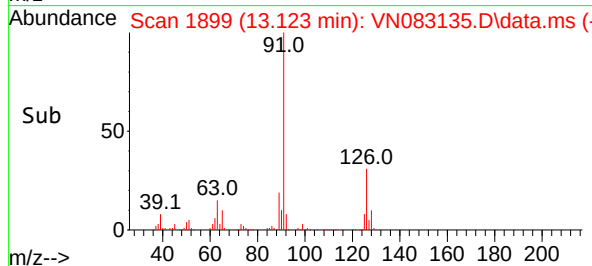
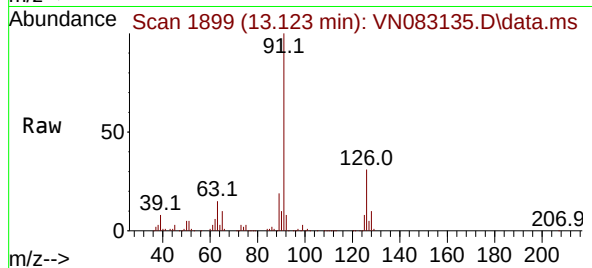
126 31.1 16.2 48.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#80

1,3,5-Trimethylbenzene

Concen: 92.690 ug/l

RT: 13.170 min Scan# 1907

Delta R.T. -0.000 min

Lab File: VN083135.D

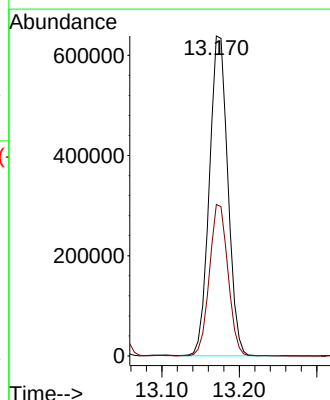
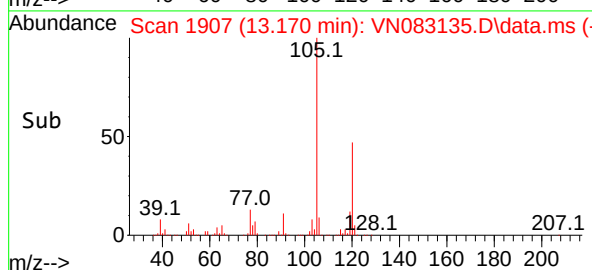
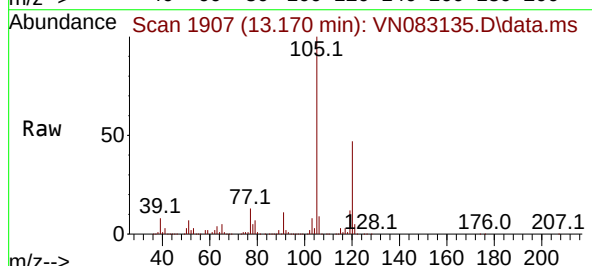
Acq: 07 Aug 2024 10:33

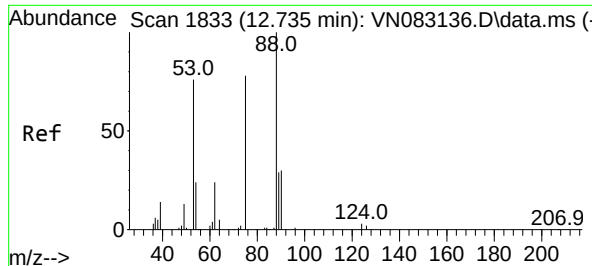
Tgt Ion:105 Resp: 1056912

Ion Ratio Lower Upper

105 100

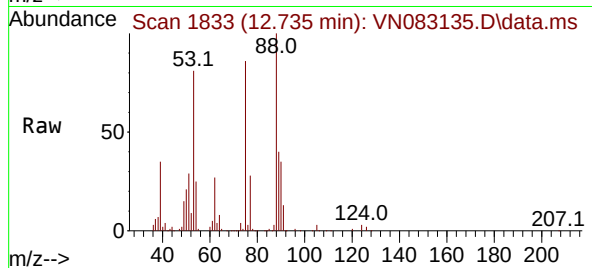
120 47.4 24.3 72.8





#81  
trans-1,4-Dichloro-2-butene  
Concen: 100.628 ug/l  
RT: 12.735 min Scan# 1833  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

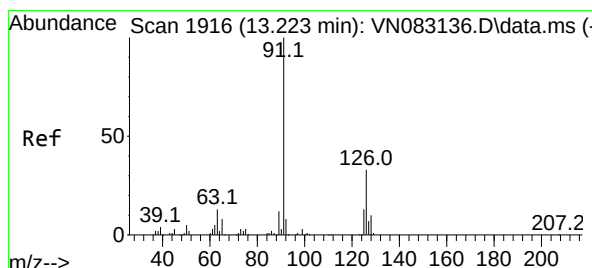
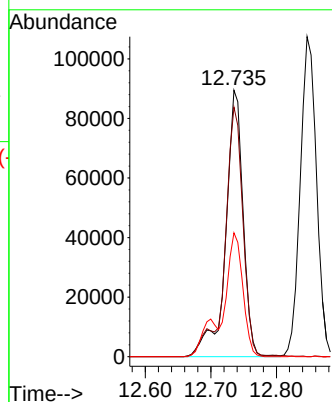
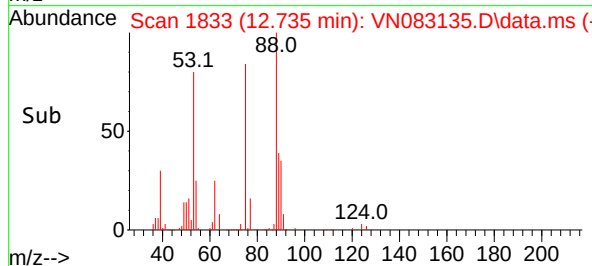
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion: 75 Resp: 165320  
Ion Ratio Lower Upper  
75 100  
53 96.5 88.4 132.6  
89 41.9 36.3 54.5

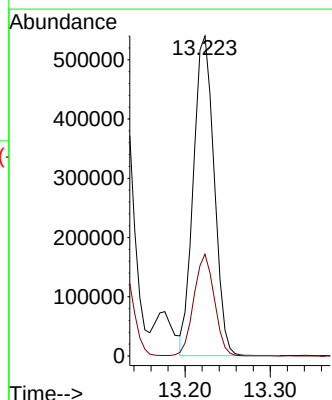
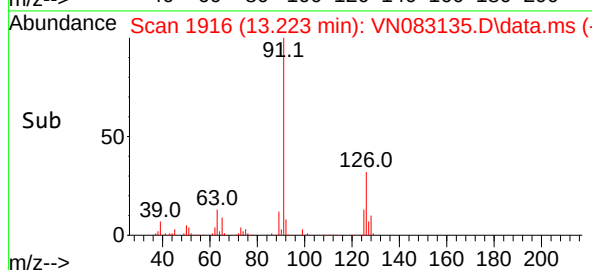
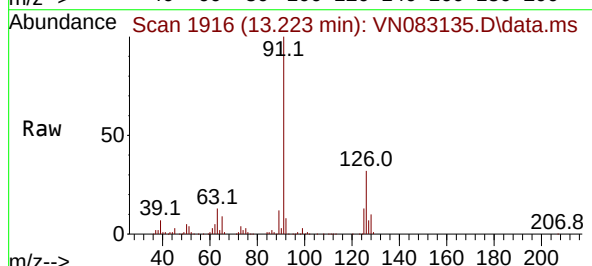
Manual Integrations  
APPROVED

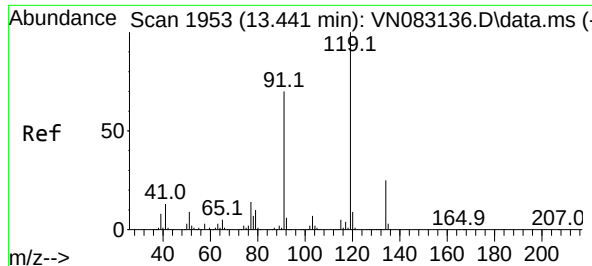
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#82  
4-Chlorotoluene  
Concen: 91.381 ug/l  
RT: 13.223 min Scan# 1916  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

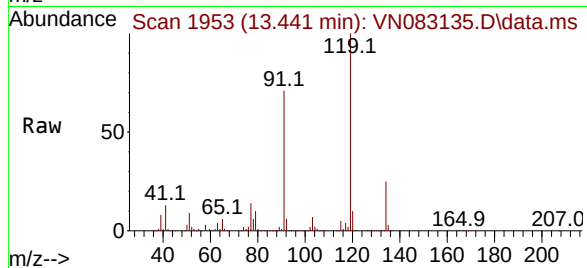
Tgt Ion: 91 Resp: 911384  
Ion Ratio Lower Upper  
91 100  
126 31.4 16.2 48.6





#83  
tert-Butylbenzene  
Concen: 91.918 ug/l  
RT: 13.441 min Scan# 1953  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

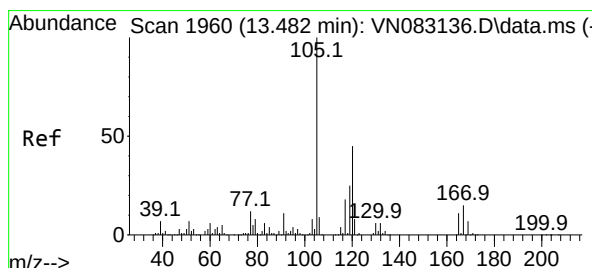
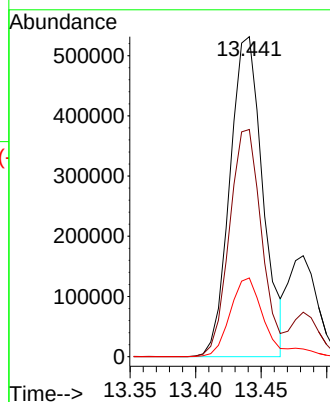
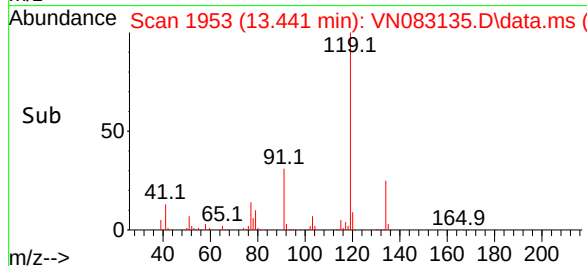
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion:119 Resp: 92819  
Ion Ratio Lower Upper  
119 100  
91 69.3 35.0 105.1  
134 26.1 13.3 39.8

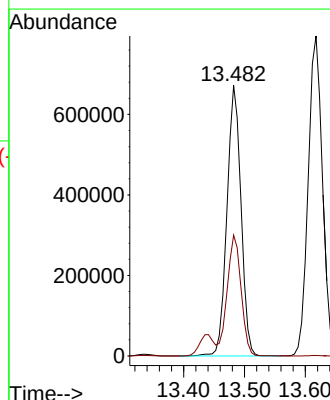
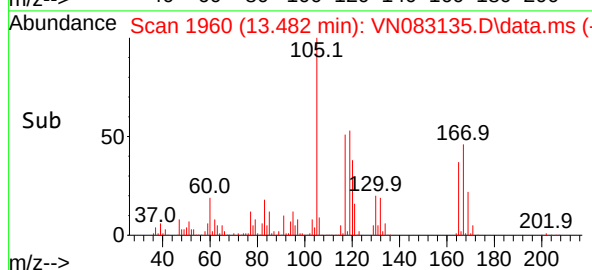
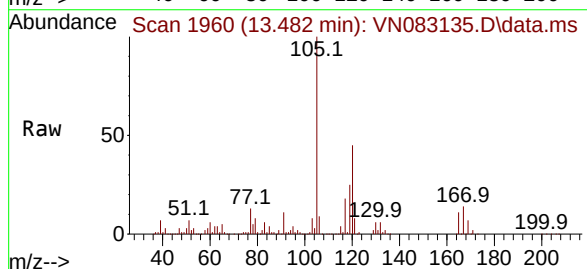
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

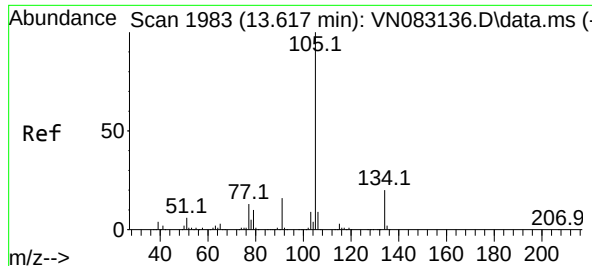


#84  
1,2,4-Trimethylbenzene  
Concen: 93.675 ug/l  
RT: 13.482 min Scan# 1960  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Tgt Ion:105 Resp: 1076449  
Ion Ratio Lower Upper  
105 100  
120 44.4 21.9 65.8







#85

sec-Butylbenzene

Concen: 93.978 ug/l

RT: 13.617 min Scan# 1983

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion:105 Resp: 1294900

Ion Ratio Lower Upper

105 100

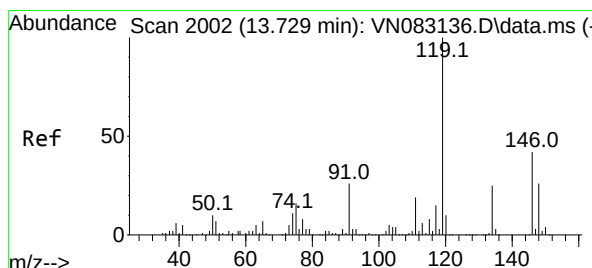
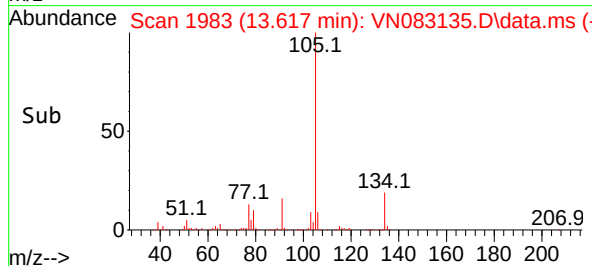
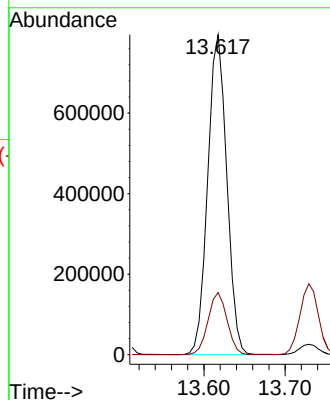
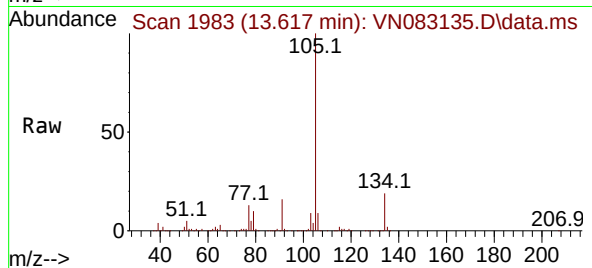
134 19.4 9.8 29.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#86

p-Isopropyltoluene

Concen: 96.022 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

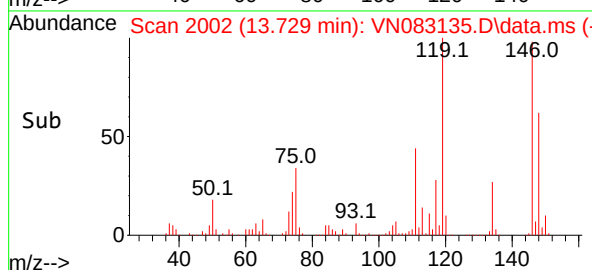
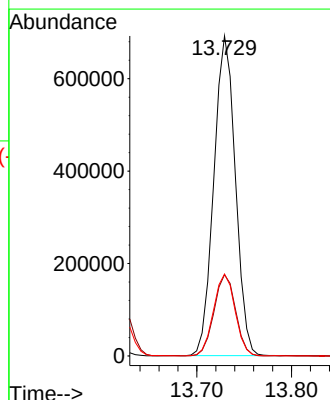
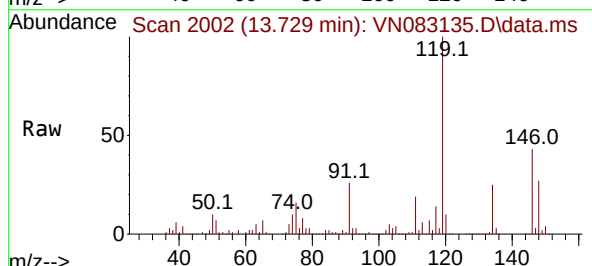
Tgt Ion:119 Resp: 1092439

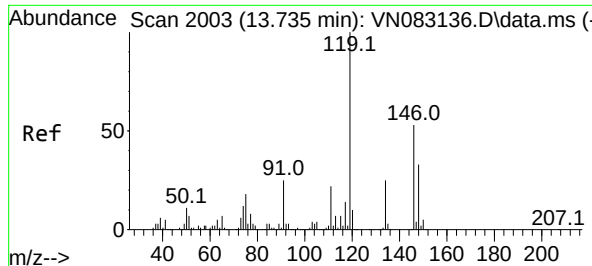
Ion Ratio Lower Upper

119 100

134 25.5 13.0 39.0

91 25.5 12.3 36.9





#87

1,3-Dichlorobenzene

Concen: 94.009 ug/l

RT: 13.735 min Scan# 2003

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion:146 Resp: 53519

Ion Ratio Lower Upper

146 100

111 43.5 20.6 61.9

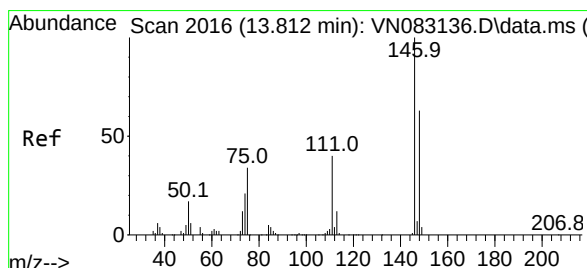
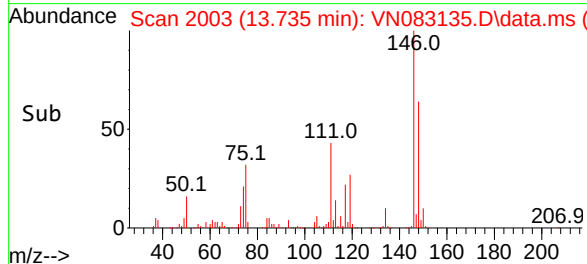
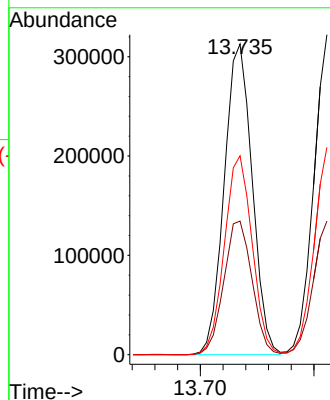
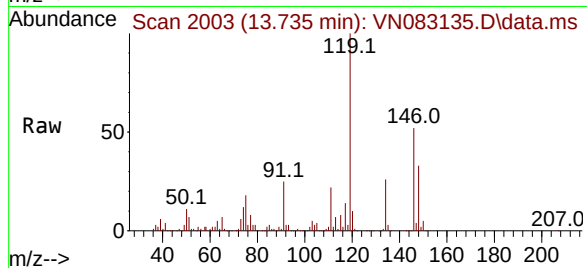
148 63.6 31.8 95.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#88

1,4-Dichlorobenzene

Concen: 93.900 ug/l

RT: 13.811 min Scan# 2016

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

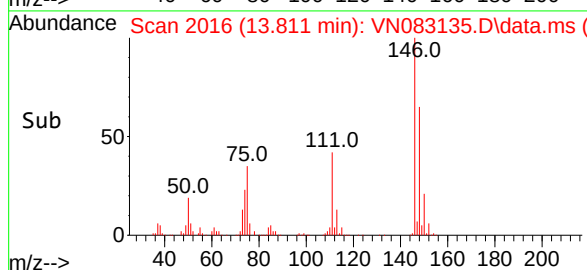
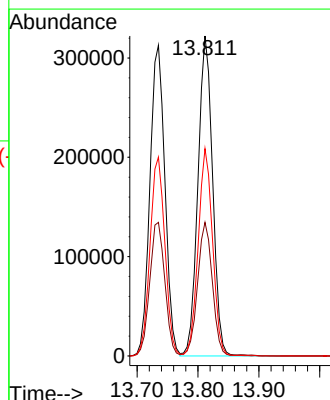
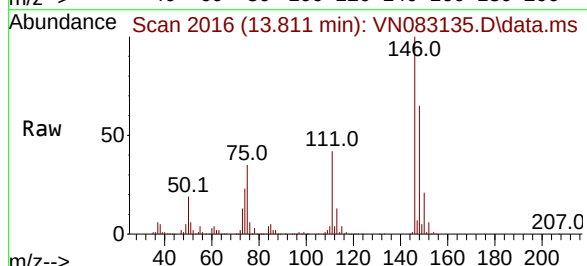
Tgt Ion:146 Resp: 538924

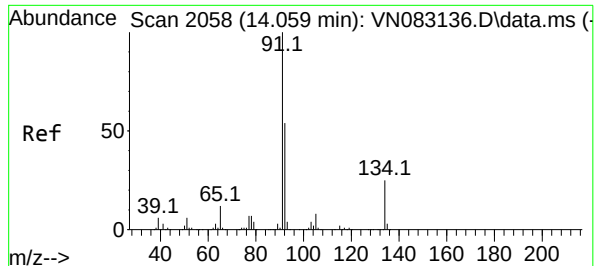
Ion Ratio Lower Upper

146 100

111 41.5 20.1 60.3

148 63.6 32.2 96.6





#89

n-Butylbenzene

Concen: 99.461 ug/l

RT: 14.059 min Scan# 2058

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

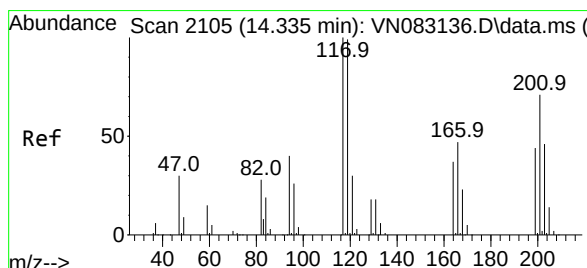
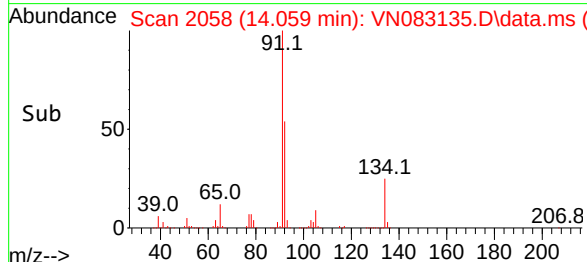
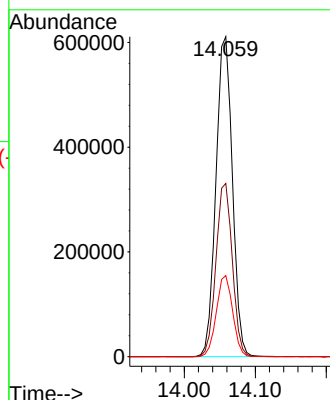
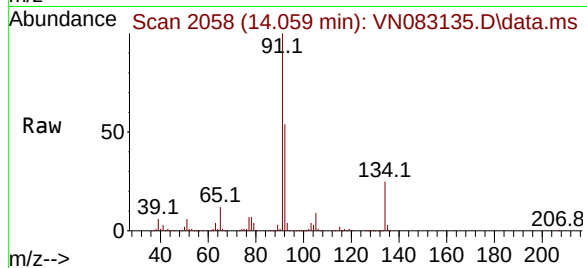
VSTDICC100

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 91    | Resp: | 98048 |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 92       | 53.8  | 26.1  | 78.3  |
| 134      | 25.2  | 12.1  | 36.3  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#90

Hexachloroethane

Concen: 96.320 ug/l

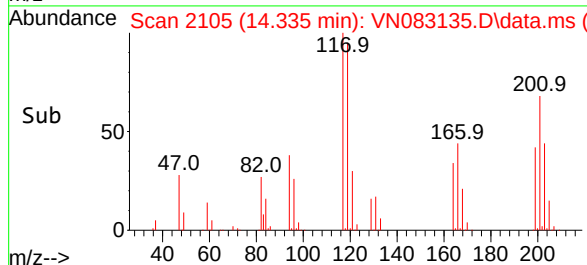
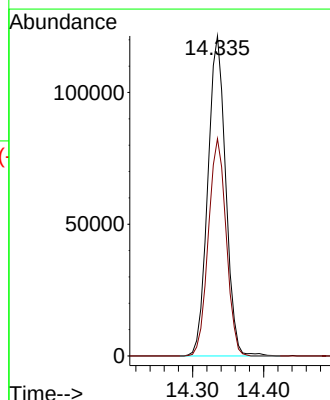
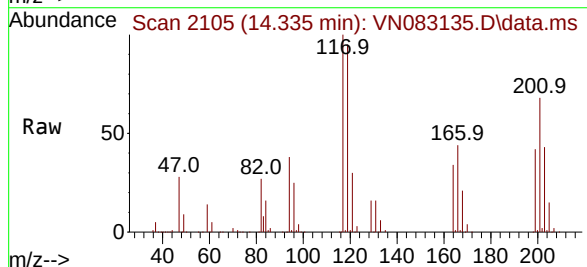
RT: 14.335 min Scan# 2105

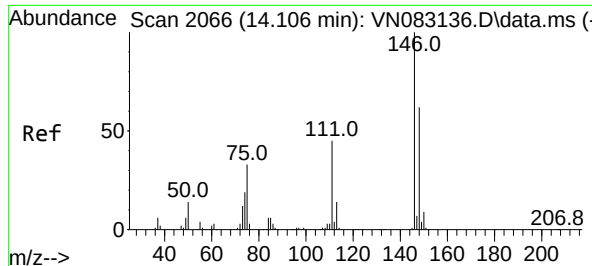
Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 117   | Resp: | 211710 |
| Ion      | Ratio | Lower | Upper  |
| 117      | 100   |       |        |
| 201      | 67.7  | 35.8  | 107.3  |





#91

1,2-Dichlorobenzene

Concen: 92.863 ug/l

RT: 14.106 min Scan# 2066

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC100

Tgt Ion:146 Resp: 511584

Ion Ratio Lower Upper

146 100

111 45.4 21.4 64.2

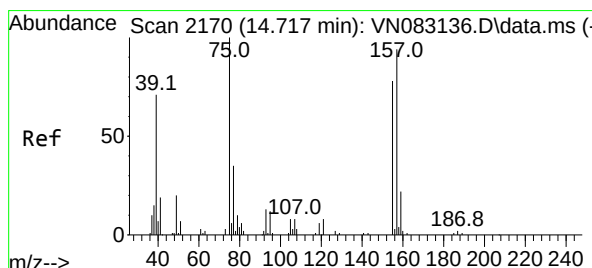
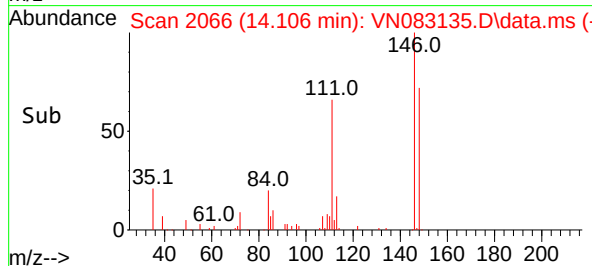
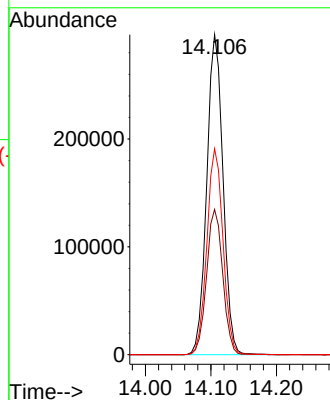
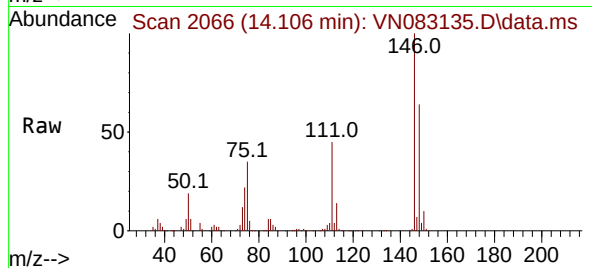
148 63.9 32.1 96.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#92

1,2-Dibromo-3-Chloropropane

Concen: 89.788 ug/l

RT: 14.723 min Scan# 2171

Delta R.T. 0.006 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

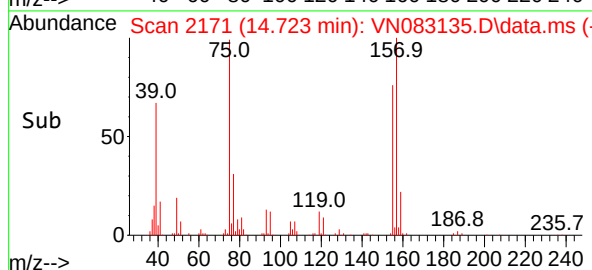
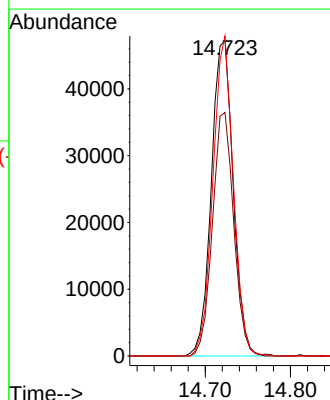
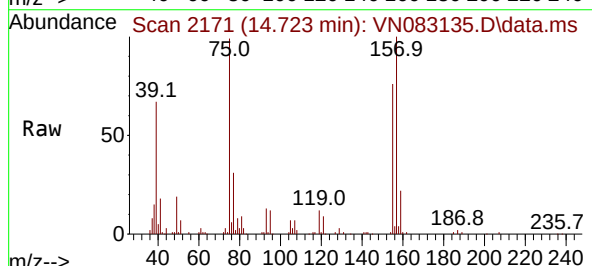
Tgt Ion: 75 Resp: 83930

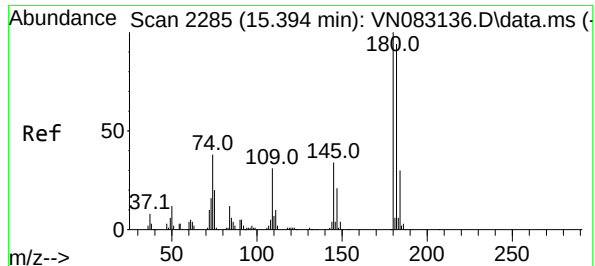
Ion Ratio Lower Upper

75 100

155 75.2 36.6 109.8

157 95.1 46.9 140.6





#93

1,2,4-Trichlorobenzene

Concen: 96.456 ug/l

RT: 15.394 min Scan# 2285

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC100

Tgt Ion:180 Resp: 297699

Ion Ratio Lower Upper

180 100

182 94.1 47.3 141.8

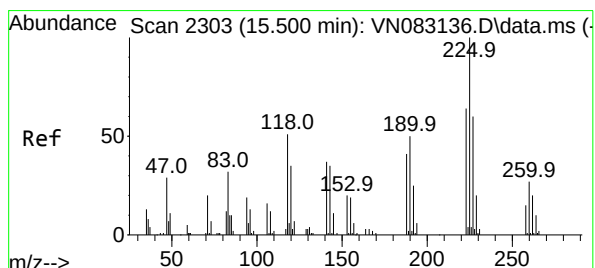
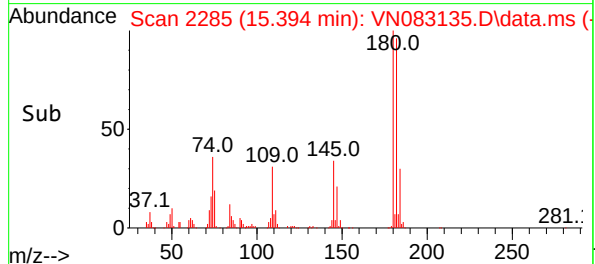
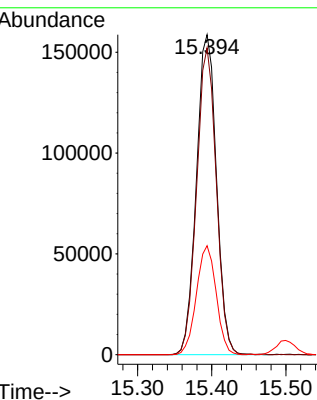
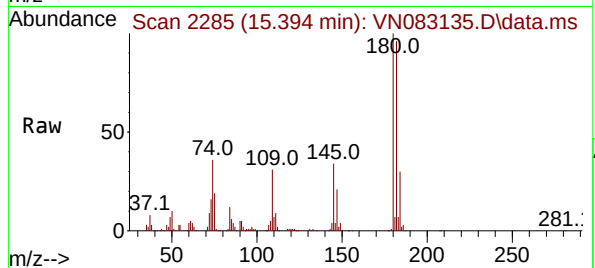
145 33.6 15.7 47.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#94

Hexachlorobutadiene

Concen: 87.268 ug/l

RT: 15.500 min Scan# 2303

Delta R.T. -0.000 min

Lab File: VN083135.D

Acq: 07 Aug 2024 10:33

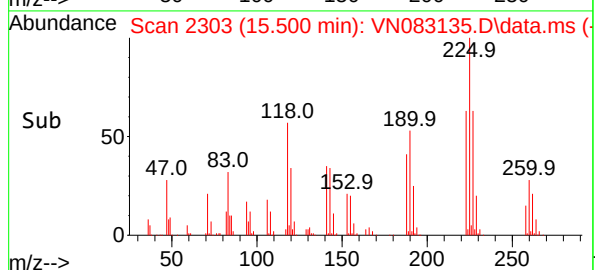
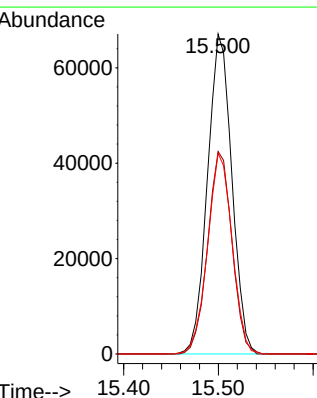
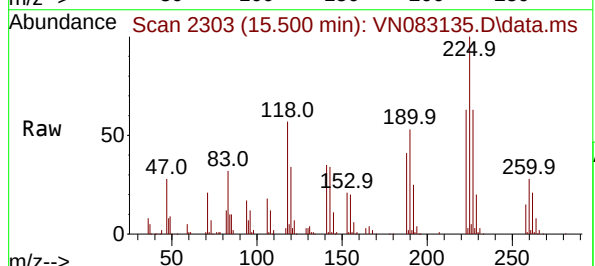
Tgt Ion:225 Resp: 119783

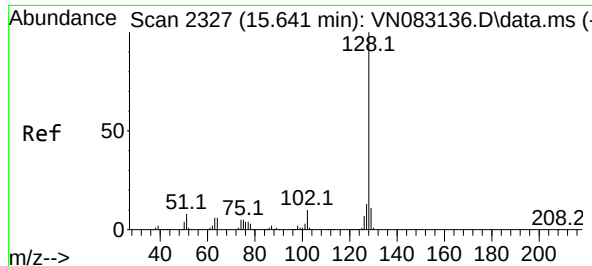
Ion Ratio Lower Upper

225 100

223 63.0 31.9 95.7

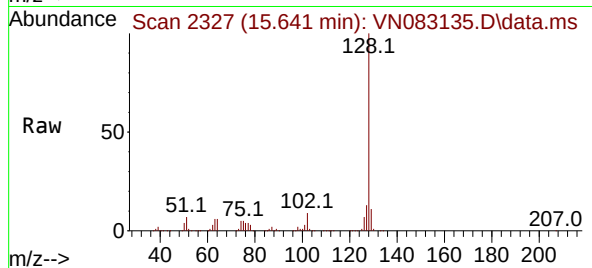
227 63.3 32.5 97.5





#95  
Naphthalene  
Concen: 95.391 ug/l  
RT: 15.641 min Scan# 2327  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

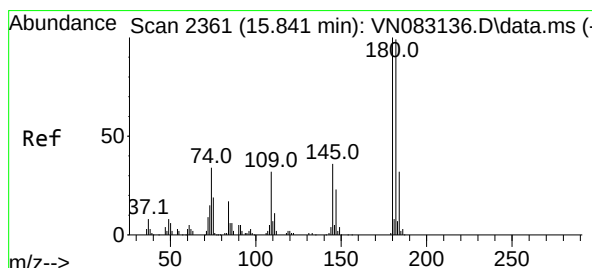
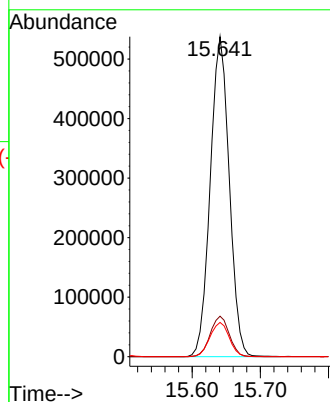
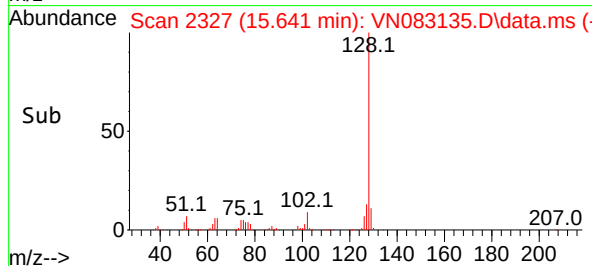
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC100



Tgt Ion:128 Resp: 1042864  
Ion Ratio Lower Upper  
128 100  
127 12.7 10.6 16.0  
129 10.9 8.6 12.8

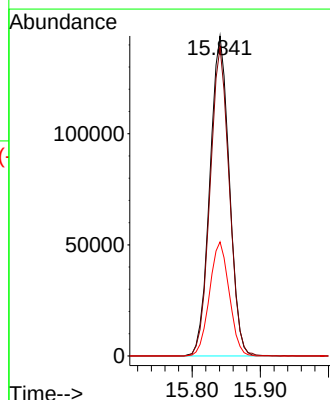
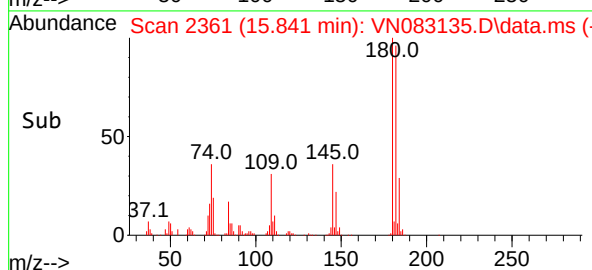
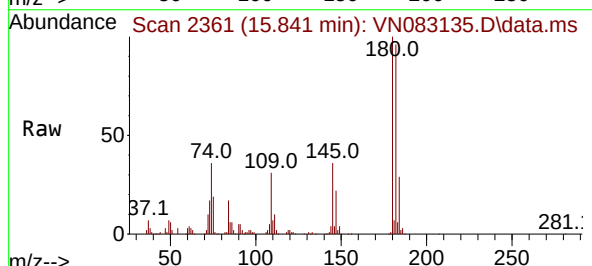
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#96  
1,2,3-Trichlorobenzene  
Concen: 93.575 ug/l  
RT: 15.841 min Scan# 2361  
Delta R.T. -0.000 min  
Lab File: VN083135.D  
Acq: 07 Aug 2024 10:33

Tgt Ion:180 Resp: 285769  
Ion Ratio Lower Upper  
180 100  
182 95.1 48.9 146.8  
145 36.0 16.8 50.4



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
 Data File : VN083136.D  
 Acq On : 07 Aug 2024 10:58  
 Operator : JC\MD  
 Sample : VSTDICCC050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICCC050

Quant Time: Aug 08 06:15:41 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 05:50:26 2024  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By : John Carlone 08/08/2024  
 Supervised By : Mahesh Dadoda 08/09/2024

| Compound                     | R.T.           | QIon | Response            | Conc    | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|---------|--------|----------|
| Internal Standards           |                |      |                     |         |        |          |
| 1) Pentafluorobenzene        | 8.224          | 168  | 204914              | 50.000  | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 9.100          | 114  | 348813              | 50.000  | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 11.865         | 117  | 303118              | 50.000  | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 13.794         | 152  | 143466              | 50.000  | ug/l   | 0.00     |
| System Monitoring Compounds  |                |      |                     |         |        |          |
| 33) 1,2-Dichloroethane-d4    | 8.582          | 65   | 152684              | 52.348  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 74 - 125 |      | Recovery = 104.700% |         |        |          |
| 35) Dibromofluoromethane     | 8.165          | 113  | 115863              | 53.216  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = 106.440% |         |        |          |
| 50) Toluene-d8               | 10.565         | 98   | 439976              | 54.174  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 86 - 113 |      | Recovery = 108.340% |         |        |          |
| 62) 4-Bromofluorobenzene     | 12.847         | 95   | 171524              | 54.173  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 64 - 133 |      | Recovery = 108.340% |         |        |          |
| Target Compounds             |                |      |                     |         |        |          |
|                              |                |      |                     |         | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.124          | 85   | 116913              | 50.312  | ug/l   | 97       |
| 3) Chloromethane             | 2.359          | 50   | 121130              | 50.915  | ug/l   | 93       |
| 4) Vinyl Chloride            | 2.512          | 62   | 122548              | 50.482  | ug/l   | 98       |
| 5) Bromomethane              | 2.948          | 94   | 73113               | 48.538  | ug/l   | 95       |
| 6) Chloroethane              | 3.112          | 64   | 72966               | 48.043  | ug/l   | 98       |
| 7) Trichlorofluoromethane    | 3.495          | 101  | 203848              | 50.832  | ug/l   | 98       |
| 8) Diethyl Ether             | 3.959          | 74   | 75087               | 50.318  | ug/l   | 84       |
| 9) 1,1,2-Trichlorotrifluo... | 4.365          | 101  | 112201              | 50.747  | ug/l   | 98       |
| 10) Methyl Iodide            | 4.589          | 142  | 151731              | 52.170  | ug/l   | 96       |
| 11) Tert butyl alcohol       | 5.530          | 59   | 150267              | 247.904 | ug/l   | 100      |
| 12) 1,1-Dichloroethene       | 4.342          | 96   | 111564              | 49.114  | ug/l   | 87       |
| 13) Acrolein                 | 4.183          | 56   | 104276              | 263.954 | ug/l   | 98       |
| 14) Allyl chloride           | 5.018          | 41   | 191195              | 44.541  | ug/l   | 93       |
| 15) Acrylonitrile            | 5.718          | 53   | 313090              | 251.149 | ug/l   | 98       |
| 16) Acetone                  | 4.430          | 43   | 293091              | 256.804 | ug/l   | 97       |
| 17) Carbon Disulfide         | 4.712          | 76   | 319654              | 48.094  | ug/l   | 98       |
| 18) Methyl Acetate           | 5.024          | 43   | 159022              | 46.765  | ug/l   | 91       |
| 19) Methyl tert-butyl Ether  | 5.794          | 73   | 415489              | 50.676  | ug/l   | 97       |
| 20) Methylene Chloride       | 5.277          | 84   | 122780              | 46.744  | ug/l   | 85       |
| 21) trans-1,2-Dichloroethene | 5.794          | 96   | 117685              | 50.127  | ug/l   | 85       |
| 22) Diisopropyl ether        | 6.671          | 45   | 411409              | 50.987  | ug/l   | 96       |
| 23) Vinyl Acetate            | 6.606          | 43   | 2147591m            | 259.716 | ug/l   |          |
| 24) 1,1-Dichloroethane       | 6.571          | 63   | 222071              | 50.493  | ug/l   | 99       |
| 25) 2-Butanone               | 7.483          | 43   | 437392              | 249.591 | ug/l   | 91       |
| 26) 2,2-Dichloropropane      | 7.488          | 77   | 209679              | 51.336  | ug/l   | 97       |
| 27) cis-1,2-Dichloroethene   | 7.488          | 96   | 141110              | 49.809  | ug/l   | 92       |
| 28) Bromochloromethane       | 7.812          | 49   | 89942               | 50.041  | ug/l # | 83       |
| 29) Tetrahydrofuran          | 7.835          | 42   | 285853              | 252.334 | ug/l   | 88       |
| 30) Chloroform               | 7.965          | 83   | 232933              | 50.978  | ug/l   | 99       |
| 31) Cyclohexane              | 8.259          | 56   | 201273              | 46.565  | ug/l   | 96       |
| 32) 1,1,1-Trichloroethane    | 8.171          | 97   | 220296              | 50.935  | ug/l   | 95       |
| 36) 1,1-Dichloropropene      | 8.371          | 75   | 165826              | 50.349  | ug/l   | 99       |
| 37) Ethyl Acetate            | 7.559          | 43   | 174105              | 47.213  | ug/l # | 92       |
| 38) Carbon Tetrachloride     | 8.359          | 117  | 190357              | 51.315  | ug/l   | 97       |
| 39) Methylcyclohexane        | 9.600          | 83   | 208177              | 51.461  | ug/l   | 93       |
| 40) Benzene                  | 8.606          | 78   | 504662              | 51.436  | ug/l   | 98       |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083136.D  
Acq On : 07 Aug 2024 10:58  
Operator : JC\MD  
Sample : VSTDICCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:15:41 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 05:50:26 2024  
Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 98869    | 47.154   | ug/l   | 94       |
| 42) 1,2-Dichloroethane        | 8.671  | 62   | 181440   | 50.765   | ug/l   | 98       |
| 43) Isopropyl Acetate         | 8.688  | 43   | 321088   | 50.219   | ug/l # | 93       |
| 44) Trichloroethene           | 9.353  | 130  | 119998   | 51.383   | ug/l   | 94       |
| 45) 1,2-Dichloropropane       | 9.624  | 63   | 120518   | 51.747   | ug/l   | 97       |
| 46) Dibromomethane            | 9.712  | 93   | 87411    | 52.436   | ug/l   | 99       |
| 47) Bromodichloromethane      | 9.888  | 83   | 188069   | 50.245   | ug/l   | 99       |
| 48) Methyl methacrylate       | 9.682  | 41   | 148264   | 48.631   | ug/l   | 91       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 57033    | 1036.917 | ug/l   | 95       |
| 51) 4-Methyl-2-Pentanone      | 10.447 | 43   | 901412   | 258.493  | ug/l   | 92       |
| 52) Toluene                   | 10.629 | 92   | 323148   | 52.127   | ug/l   | 98       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 208411   | 54.205   | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 211396   | 51.692   | ug/l   | 91       |
| 55) 1,1,2-Trichloroethane     | 11.018 | 97   | 116384   | 52.387   | ug/l   | 99       |
| 56) Ethyl methacrylate        | 10.876 | 69   | 217635   | 51.964   | ug/l # | 85       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 206442   | 52.133   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 454871   | 256.939  | ug/l   | 95       |
| 59) 2-Hexanone                | 11.194 | 43   | 691708   | 256.396  | ug/l   | 92       |
| 60) Dibromochloromethane      | 11.359 | 129  | 144208   | 53.688   | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 11.471 | 107  | 121153   | 51.912   | ug/l   | 98       |
| 64) Tetrachloroethene         | 11.106 | 164  | 103955   | 51.784   | ug/l   | 96       |
| 65) Chlorobenzene             | 11.894 | 112  | 346172   | 51.679   | ug/l   | 96       |
| 66) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 121057   | 51.242   | ug/l   | 100      |
| 67) Ethyl Benzene             | 11.965 | 91   | 628906   | 51.179   | ug/l   | 98       |
| 68) m/p-Xylenes               | 12.070 | 106  | 477261   | 103.683  | ug/l   | 99       |
| 69) o-Xylene                  | 12.400 | 106  | 234432   | 51.638   | ug/l   | 100      |
| 70) Styrene                   | 12.412 | 104  | 405002   | 53.115   | ug/l   | 98       |
| 71) Bromoform                 | 12.576 | 173  | 96377    | 53.850   | ug/l # | 99       |
| 73) Isopropylbenzene          | 12.694 | 105  | 609529   | 50.795   | ug/l   | 100      |
| 74) N-amyl acetate            | 12.494 | 43   | 287319   | 48.950   | ug/l   | 94       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 167489   | 49.349   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 152531m  | 48.363   | ug/l   |          |
| 77) Bromobenzene              | 12.982 | 156  | 137514   | 51.587   | ug/l   | 97       |
| 78) n-propylbenzene           | 13.035 | 91   | 712768   | 51.584   | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 441262   | 50.371   | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 514918   | 51.254   | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 70776    | 48.894   | ug/l   | 89       |
| 82) 4-Chlorotoluene           | 13.223 | 91   | 445369   | 50.684   | ug/l   | 99       |
| 83) tert-Butylbenzene         | 13.441 | 119  | 453597   | 50.983   | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 524226   | 51.778   | ug/l   | 100      |
| 85) sec-Butylbenzene          | 13.617 | 105  | 628959   | 51.809   | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 528236   | 52.699   | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene       | 13.735 | 146  | 254058   | 50.651   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 255814   | 50.589   | ug/l   | 99       |
| 89) n-Butylbenzene            | 14.059 | 91   | 461372   | 53.120   | ug/l   | 97       |
| 90) Hexachloroethane          | 14.335 | 117  | 98836    | 51.037   | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 244462   | 50.365   | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 40369    | 49.017   | ug/l   | 98       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 141229   | 51.937   | ug/l   | 99       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 58664    | 48.509   | ug/l   | 98       |
| 95) Naphthalene               | 15.641 | 128  | 499372   | 51.844   | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 138125   | 51.335   | ug/l   | 97       |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083136.D  
Acq On : 07 Aug 2024 10:58  
Operator : JC\MD  
Sample : VSTDICCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:15:41 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 05:50:26 2024  
Response via : Initial Calibration

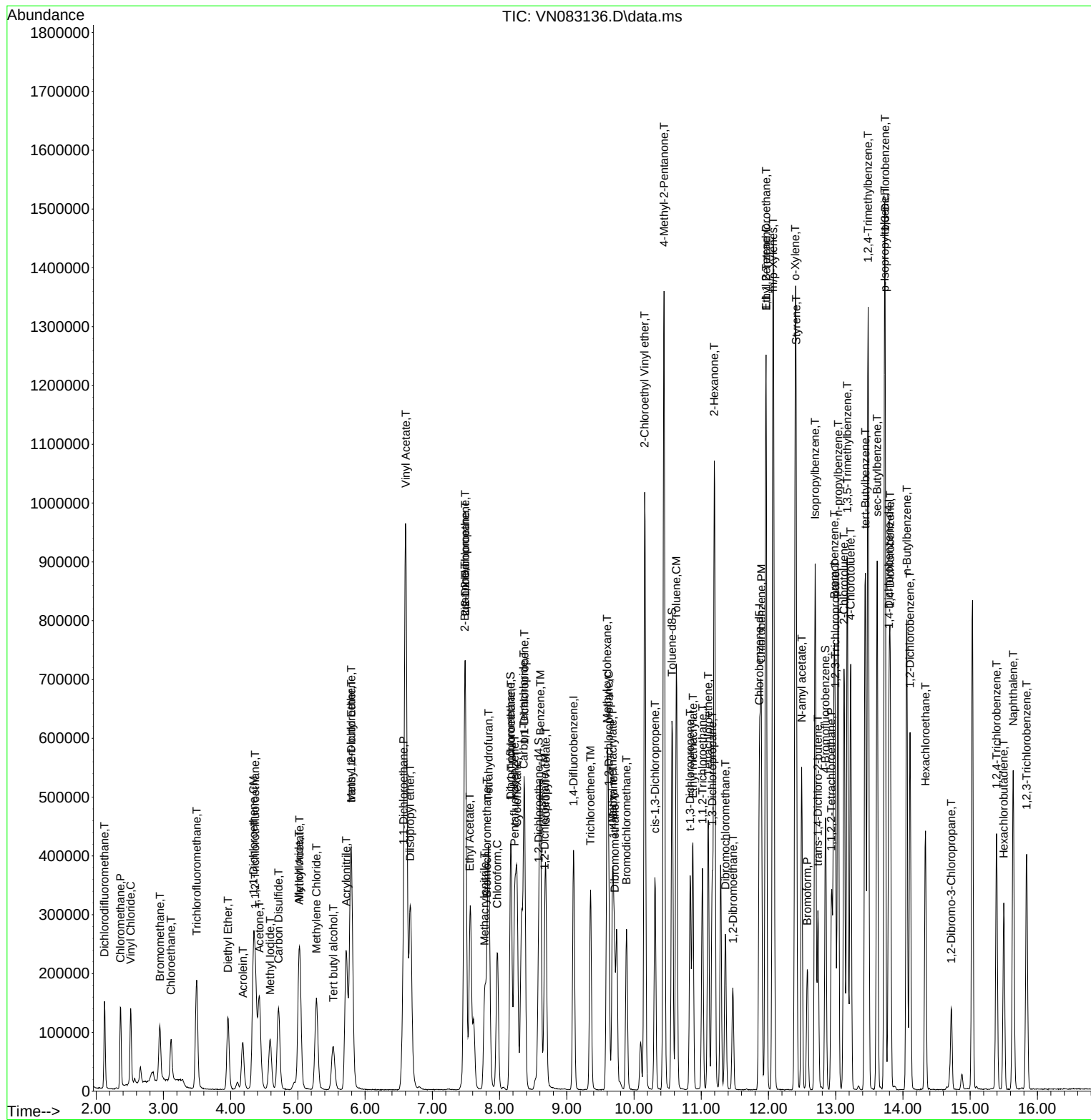
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|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

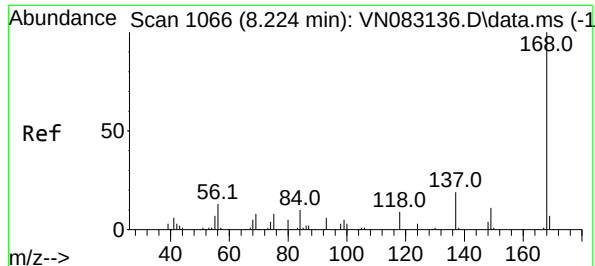
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**Instrument :**  
MSVOA\_N  
**ClientSampleId :**  
VSTDICCC050

## Manual Integrations

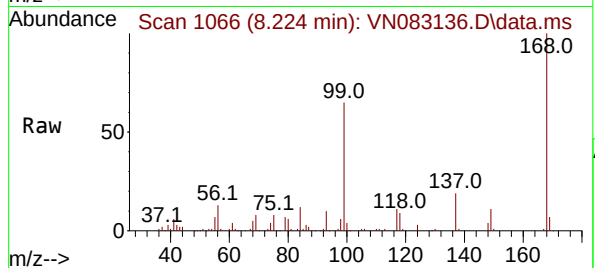
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

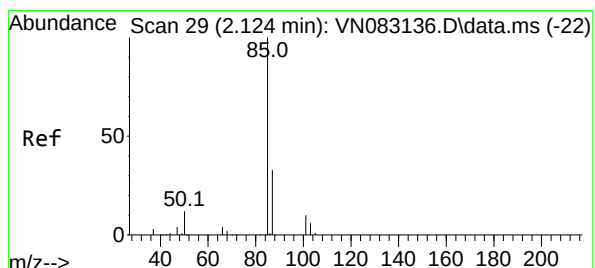
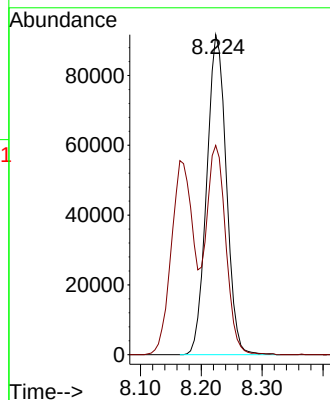
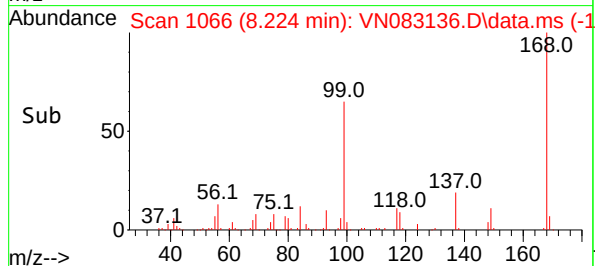
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050



Tgt Ion:168 Resp: 204914  
Ion Ratio Lower Upper  
168 100  
99 65.4 48.2 72.4

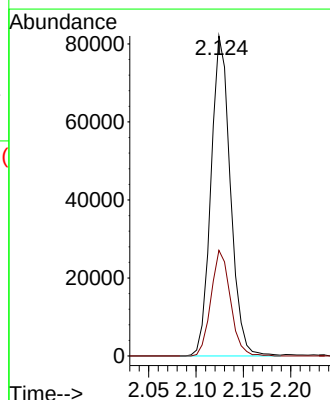
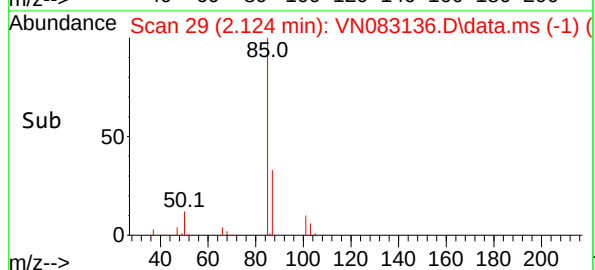
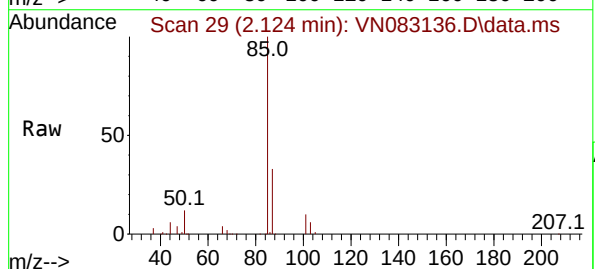
Manual Integrations  
APPROVED

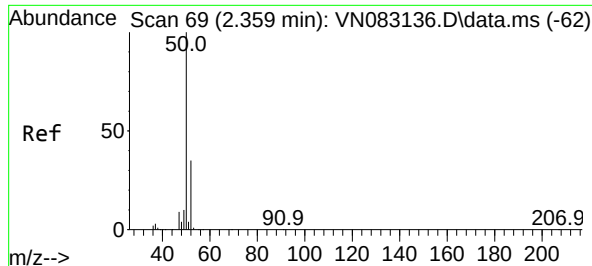
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#2  
Dichlorodifluoromethane  
Concen: 50.312 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 85 Resp: 116913  
Ion Ratio Lower Upper  
85 100  
87 33.0 15.7 47.0





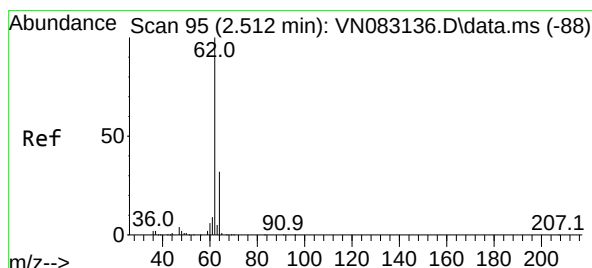
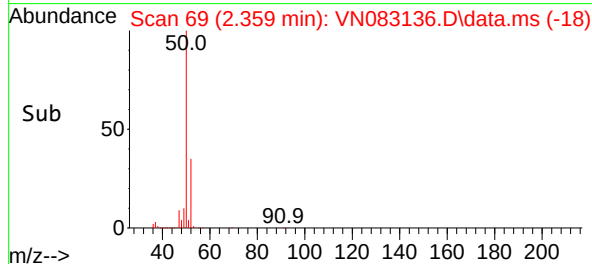
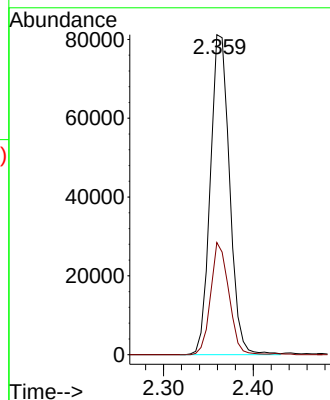
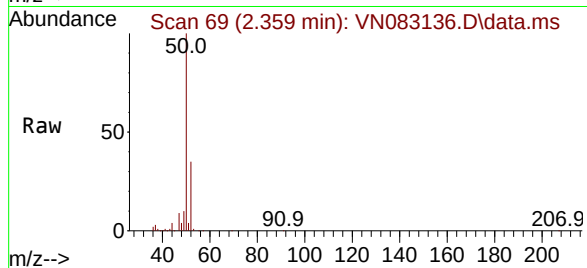
#3  
Chloromethane  
Concen: 50.915 ug/l  
RT: 2.359 min Scan# 69  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 50 Resp: 121130  
Ion Ratio Lower Upper  
50 100  
52 35.1 25.0 37.4

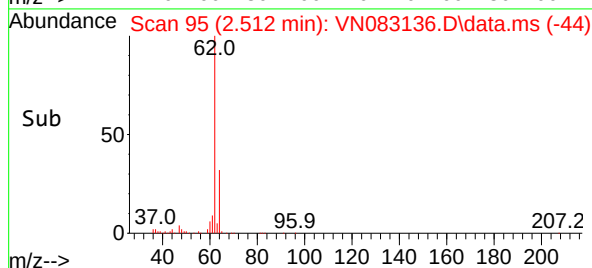
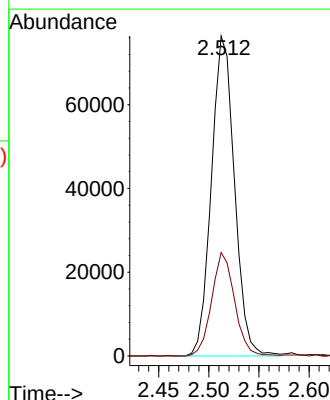
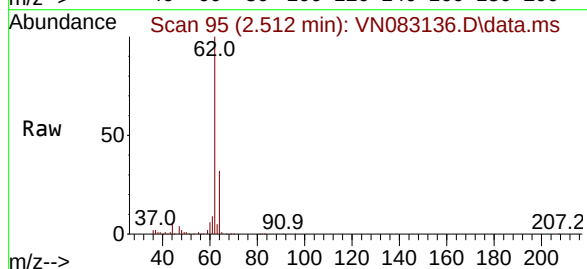
Manual Integrations  
APPROVED

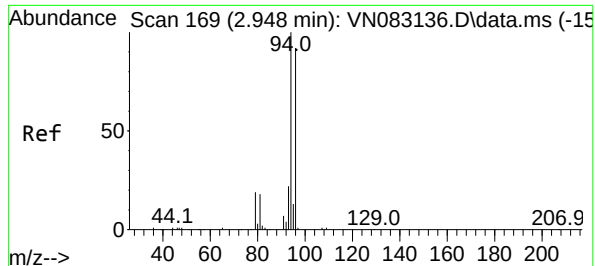
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#4  
Vinyl Chloride  
Concen: 50.482 ug/l  
RT: 2.512 min Scan# 95  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 62 Resp: 122548  
Ion Ratio Lower Upper  
62 100  
64 32.3 25.0 37.6





#5

Bromomethane

Concen: 48.538 ug/l

RT: 2.948 min Scan# 1

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 94 Resp: 7311

Ion Ratio Lower Upper

94 100

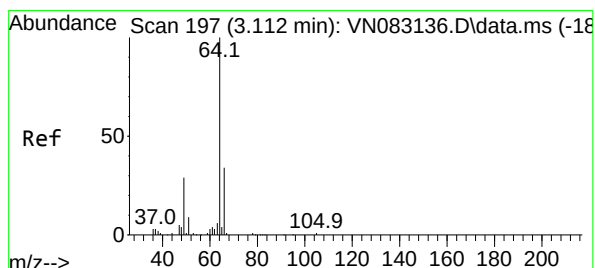
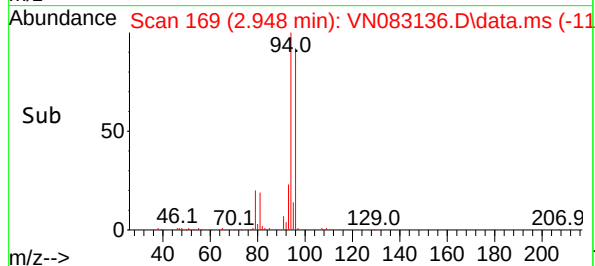
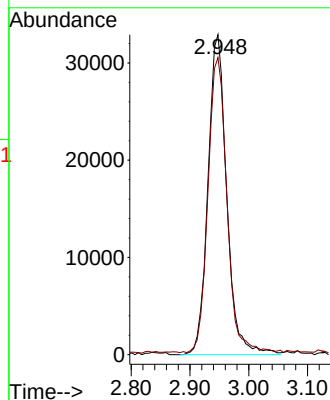
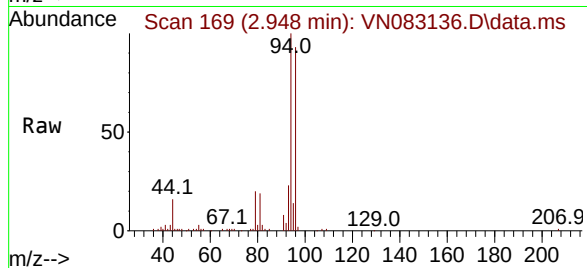
96 92.2 78.0 117.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#6

Chloroethane

Concen: 48.043 ug/l

RT: 3.112 min Scan# 197

Delta R.T. 0.000 min

Lab File: VN083136.D

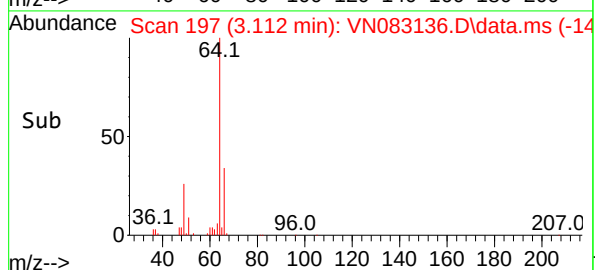
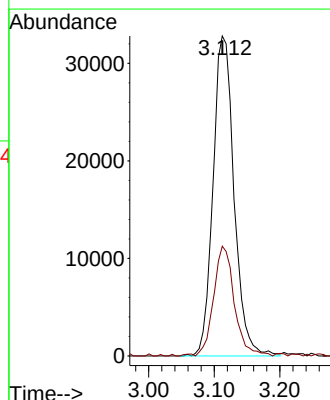
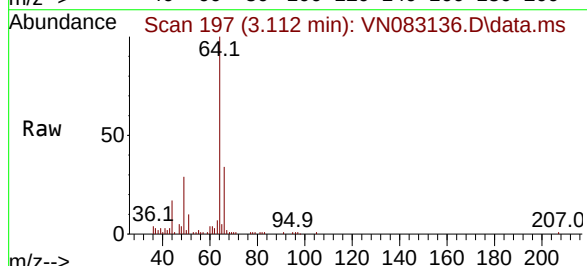
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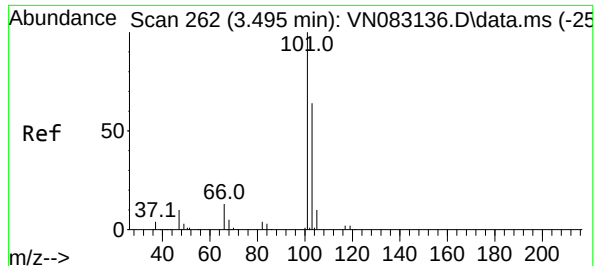
Tgt Ion: 64 Resp: 72966

Ion Ratio Lower Upper

64 100

66 34.3 26.6 40.0





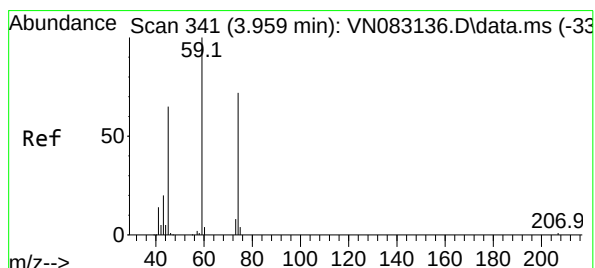
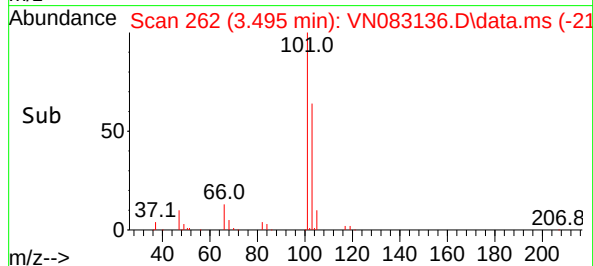
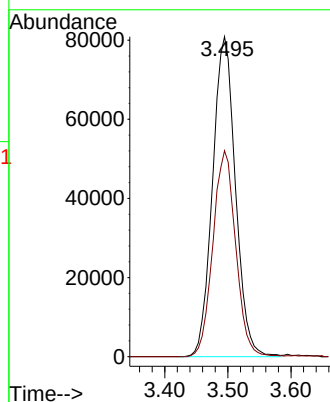
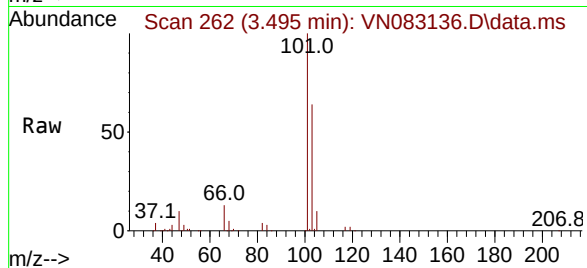
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Trichlorofluoromethane  
Concen: 50.832 ug/l  
RT: 3.495 min Scan# 262  
Delta R.T. -0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion:101 Resp: 20384  
Ion Ratio Lower Upper  
101 100  
103 64.3 52.7 79.1

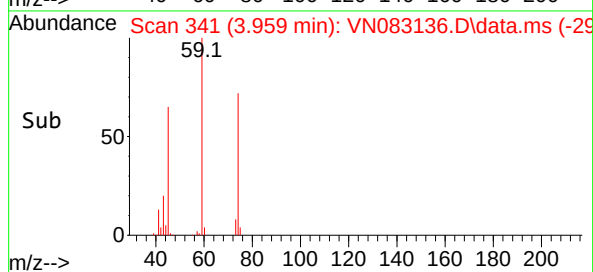
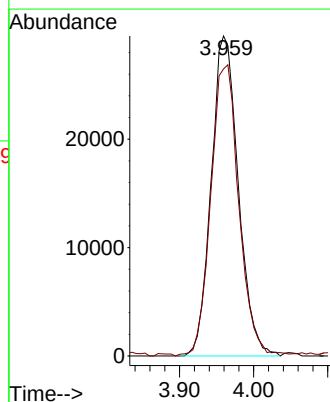
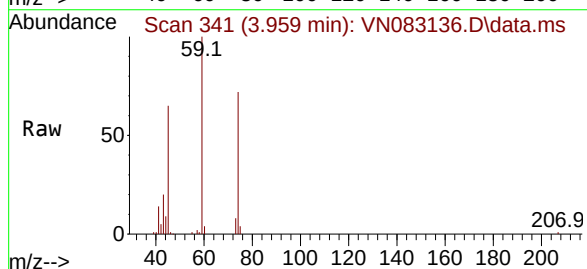
Manual Integrations  
APPROVED

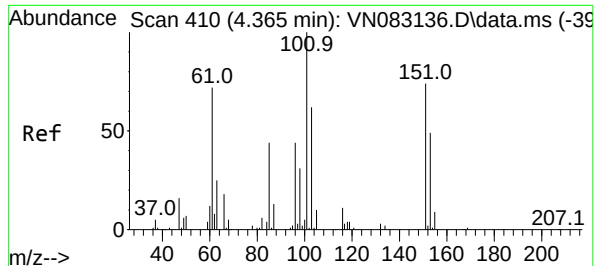
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#8  
Diethyl Ether  
Concen: 50.318 ug/l  
RT: 3.959 min Scan# 341  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 74 Resp: 75087  
Ion Ratio Lower Upper  
74 100  
45 94.0 55.5 166.3





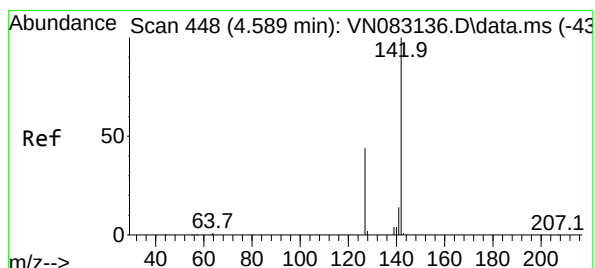
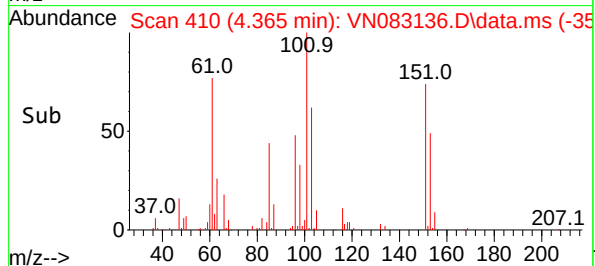
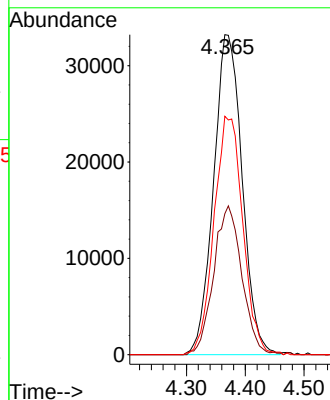
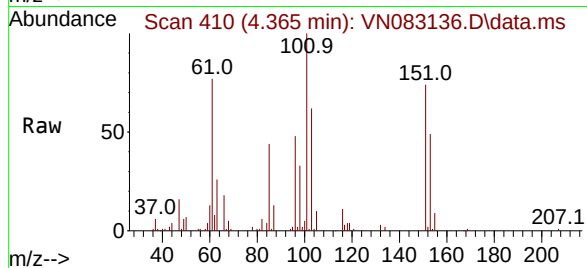
#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 50.747 ug/l  
RT: 4.365 min Scan# 410  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion:101 Resp: 11220  
Ion Ratio Lower Upper  
101 100  
85 45.9 38.3 57.5  
151 75.1 59.3 88.9

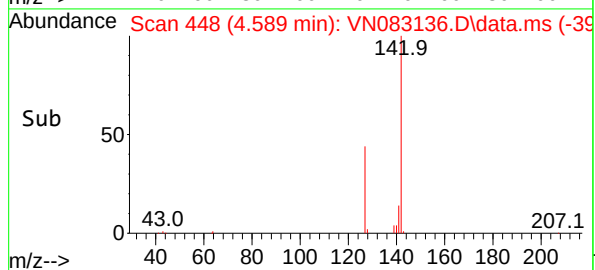
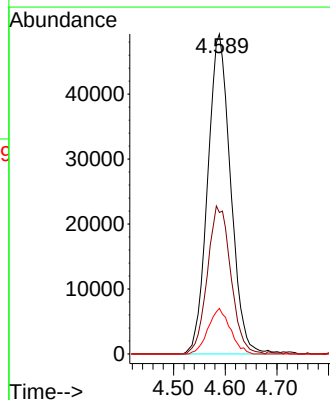
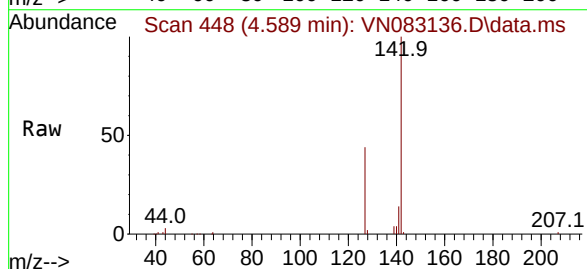
Manual Integrations  
APPROVED

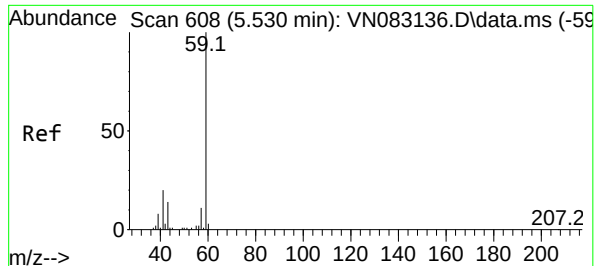
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#10  
Methyl Iodide  
Concen: 52.170 ug/l  
RT: 4.589 min Scan# 448  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion:142 Resp: 151731  
Ion Ratio Lower Upper  
142 100  
127 44.2 37.5 56.3  
141 14.3 13.1 19.7





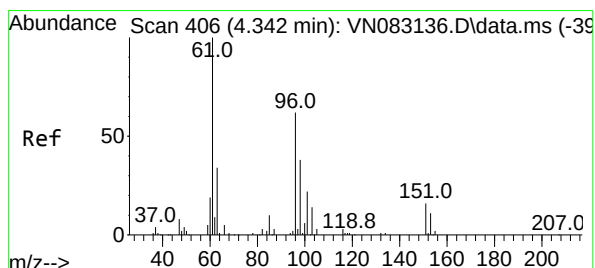
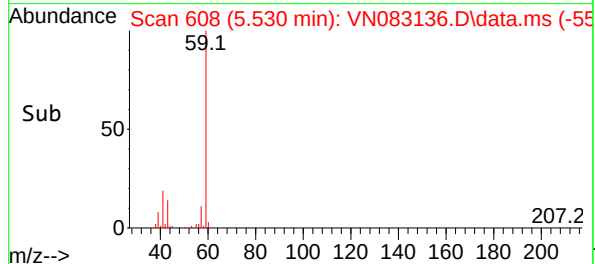
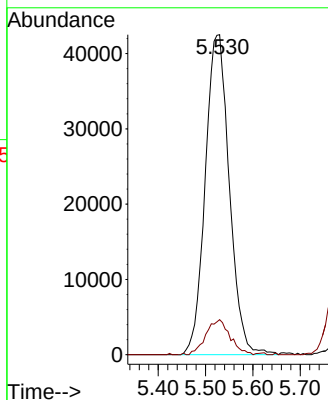
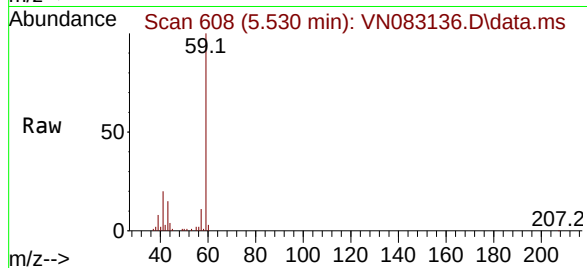
#11  
Tert butyl alcohol  
Concen: 247.904 ug/l  
RT: 5.530 min Scan# 608  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 59 Resp: 15026  
Ion Ratio Lower Upper  
59 100  
57 11.0 8.9 13.3

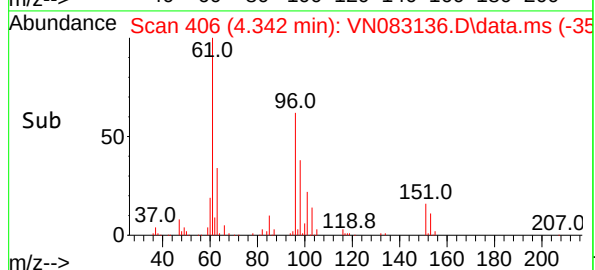
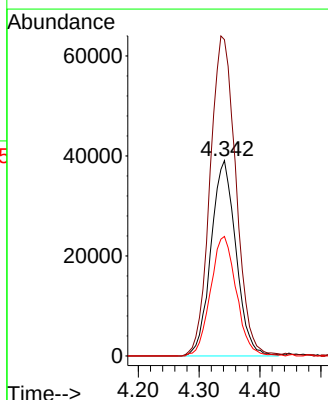
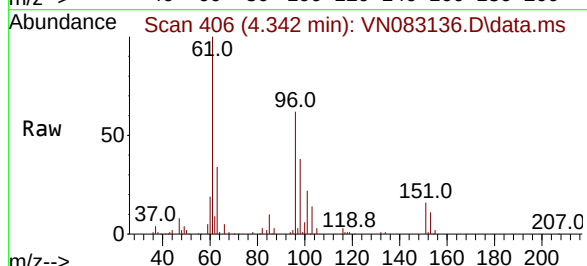
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

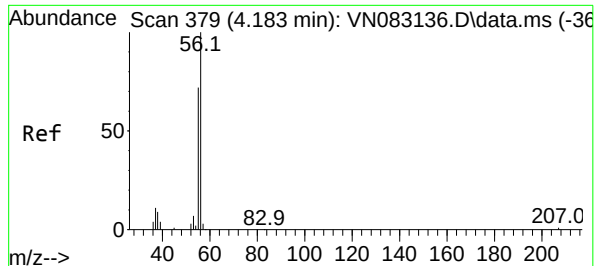


#12  
1,1-Dichloroethene  
Concen: 49.114 ug/l  
RT: 4.342 min Scan# 406  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 96 Resp: 111564  
Ion Ratio Lower Upper  
96 100  
61 162.0 149.7 224.5  
98 61.2 50.1 75.1







#13

Acrolein

Concen: 263.954 ug/l

RT: 4.183 min Scan# 379

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 56 Resp: 104270

Ion Ratio Lower Upper

56 100

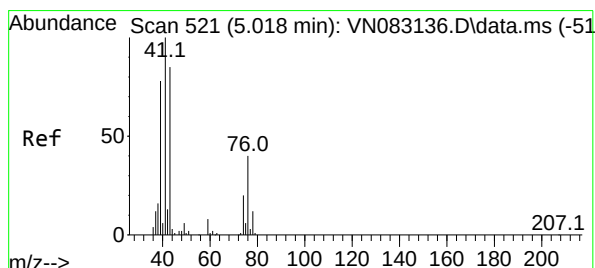
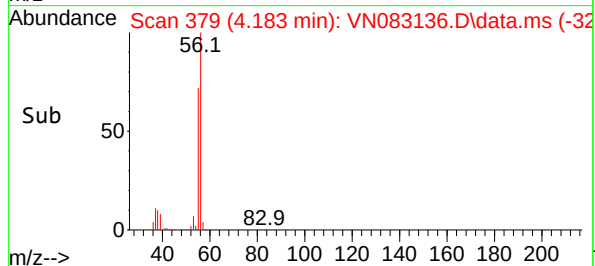
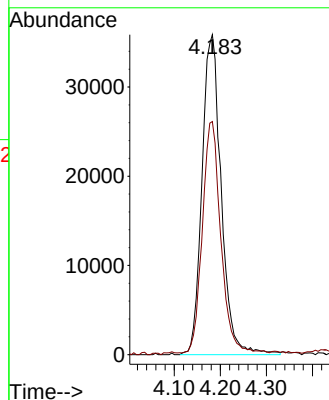
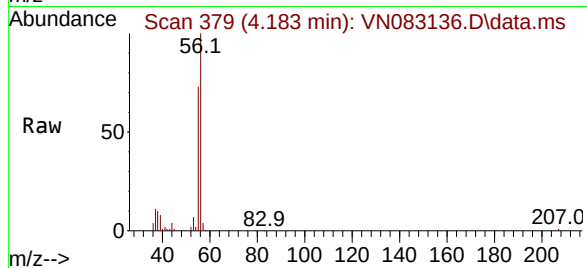
55 68.8 56.4 84.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#14

Allyl chloride

Concen: 44.541 ug/l

RT: 5.018 min Scan# 521

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

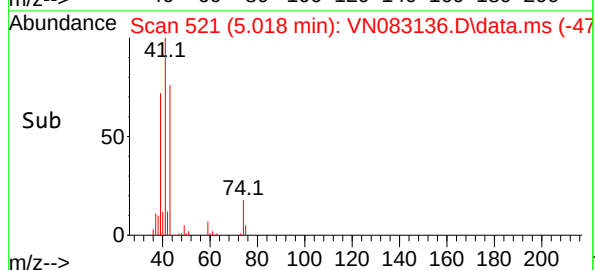
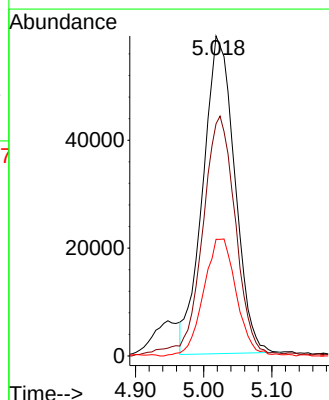
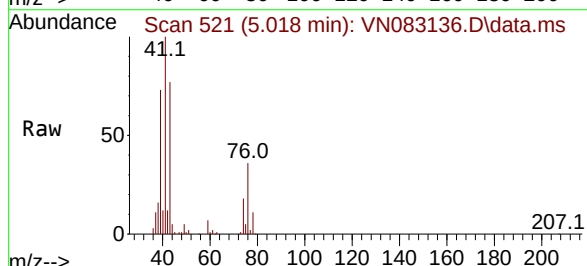
Tgt Ion: 41 Resp: 191195

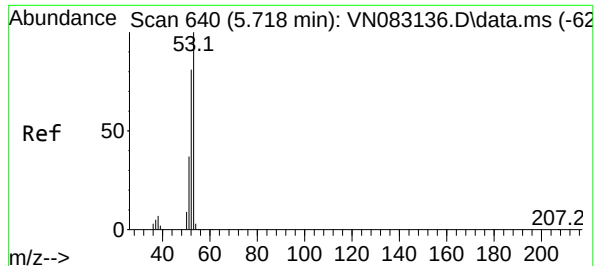
Ion Ratio Lower Upper

41 100

39 78.9 67.8 101.6

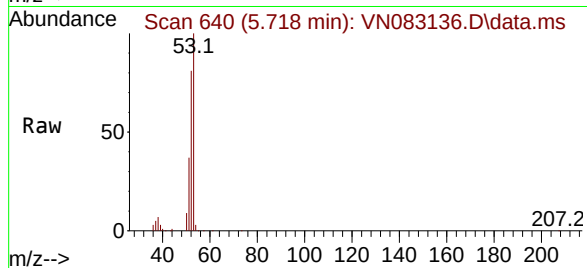
76 38.1 25.8 38.8





#15  
Acrylonitrile  
Concen: 251.149 ug/l  
RT: 5.718 min Scan# 640  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

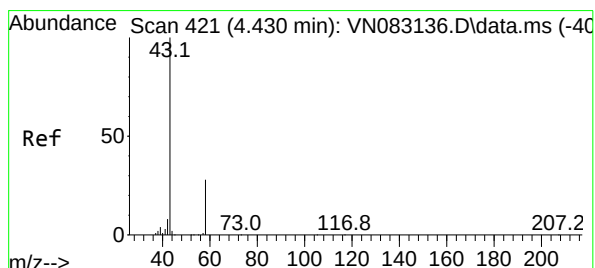
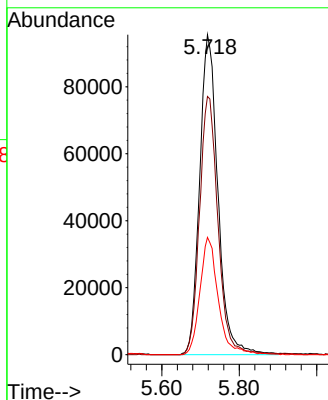
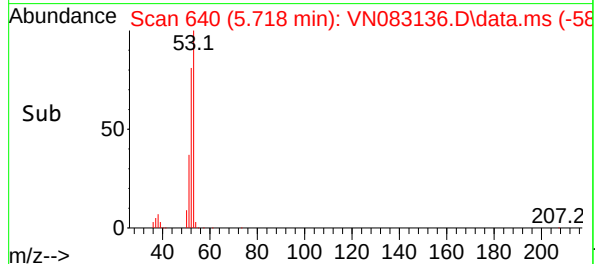
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050



Tgt Ion: 53 Resp: 313090  
Ion Ratio Lower Upper  
53 100  
52 81.2 66.6 100.0  
51 36.5 30.1 45.1

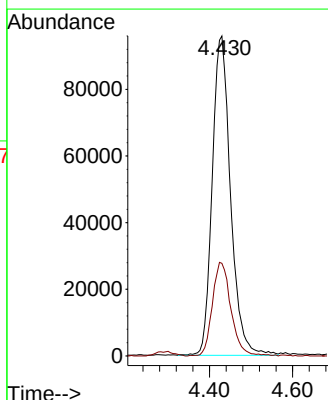
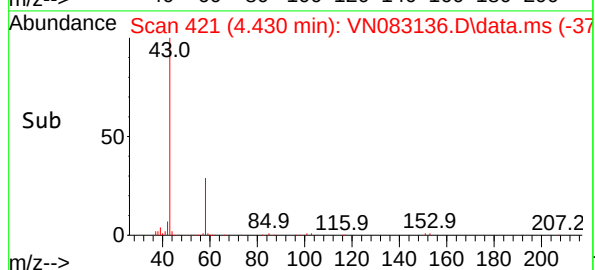
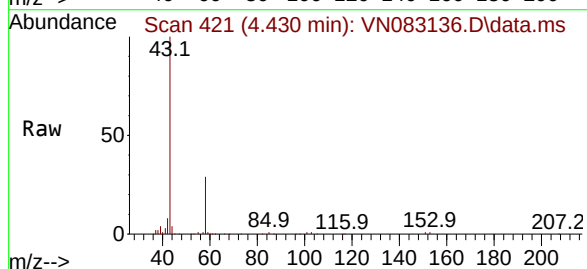
Manual Integrations  
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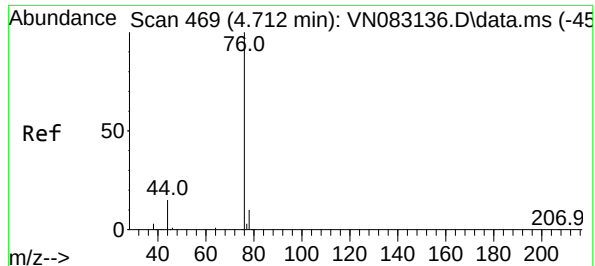
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#16  
Acetone  
Concen: 256.804 ug/l  
RT: 4.430 min Scan# 421  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 43 Resp: 293091  
Ion Ratio Lower Upper  
43 100  
58 29.0 21.8 32.6





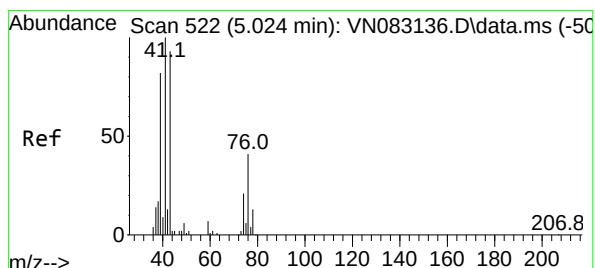
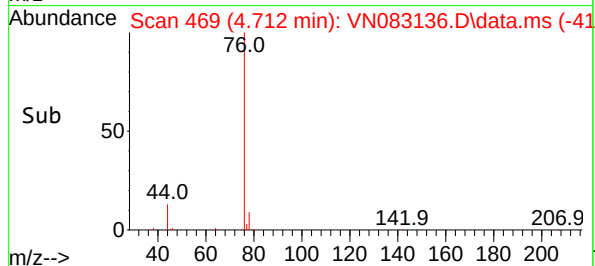
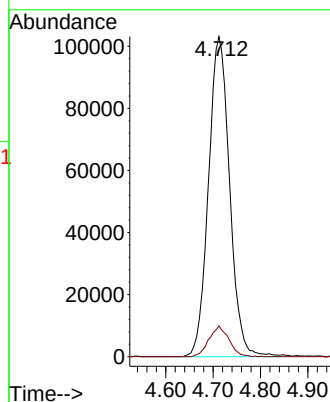
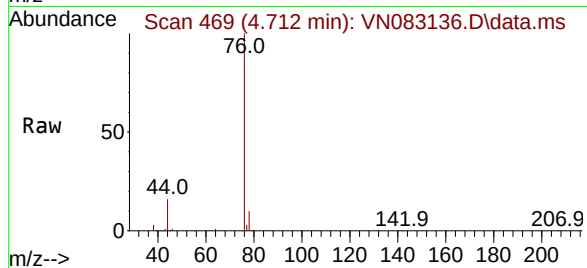
#17  
Carbon Disulfide  
Concen: 48.094 ug/l  
RT: 4.712 min Scan# 469  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 76 Resp: 319654  
Ion Ratio Lower Upper  
76 100  
78 9.6 7.2 10.8

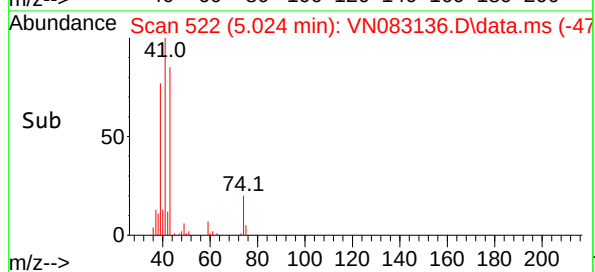
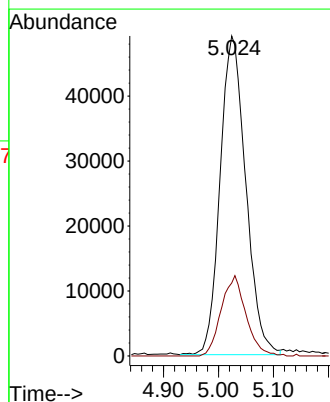
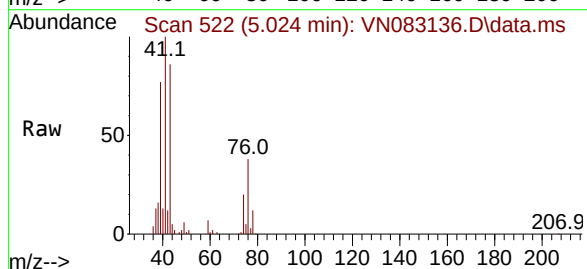
Manual Integrations  
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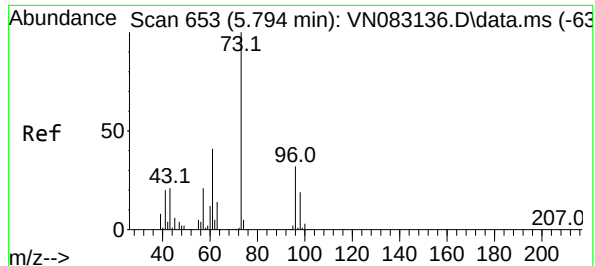
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#18  
Methyl Acetate  
Concen: 46.765 ug/l  
RT: 5.024 min Scan# 522  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 43 Resp: 159022  
Ion Ratio Lower Upper  
43 100  
74 24.3 16.3 24.5





#19

Methyl tert-butyl Ether

Concen: 50.676 ug/l

RT: 5.794 min Scan# 653

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 73 Resp: 415489

Ion Ratio Lower Upper

73 100

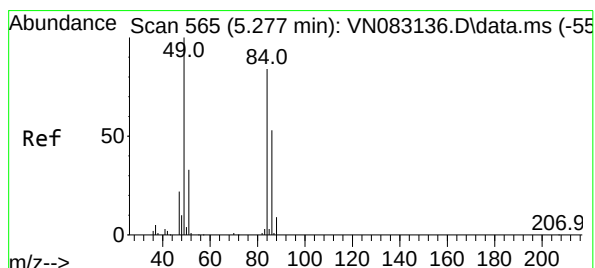
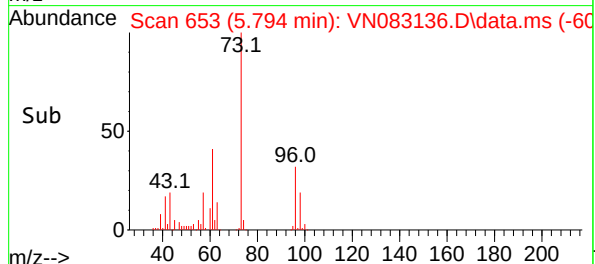
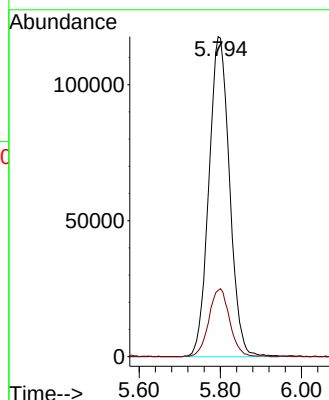
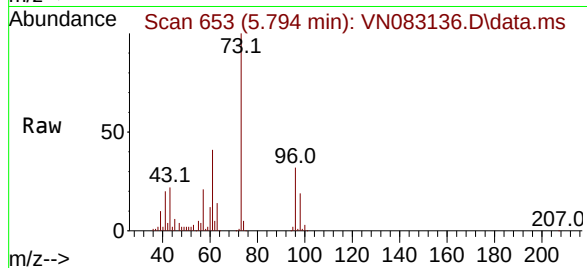
57 20.7 17.9 26.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#20

Methylene Chloride

Concen: 46.744 ug/l

RT: 5.277 min Scan# 565

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Tgt Ion: 84 Resp: 122780

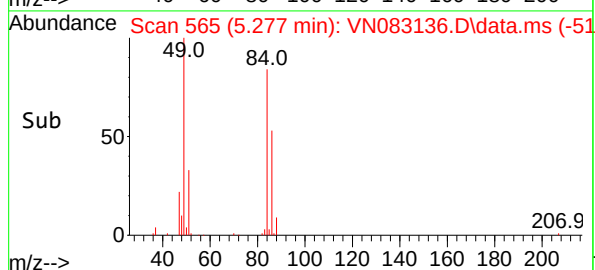
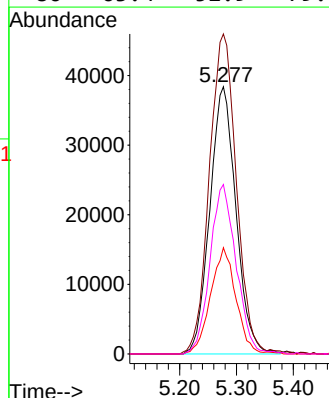
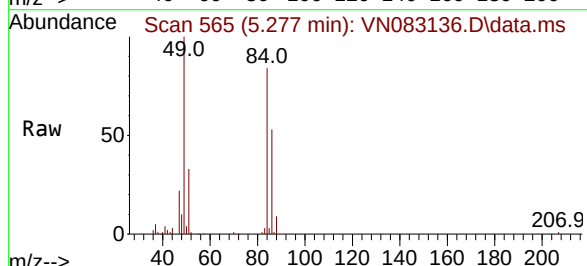
Ion Ratio Lower Upper

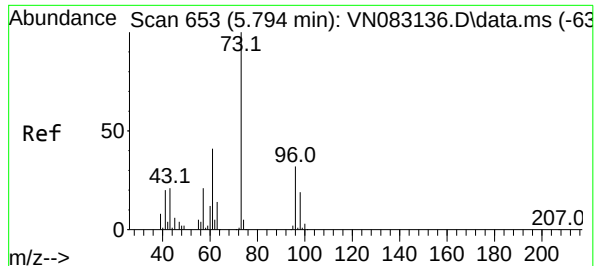
84 100

49 119.8 119.6 179.4

51 39.8 34.8 52.2

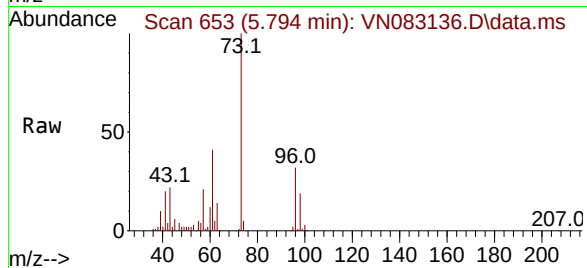
86 63.4 52.9 79.3





#21  
trans-1,2-Dichloroethene  
Concen: 50.127 ug/l  
RT: 5.794 min Scan# 61  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

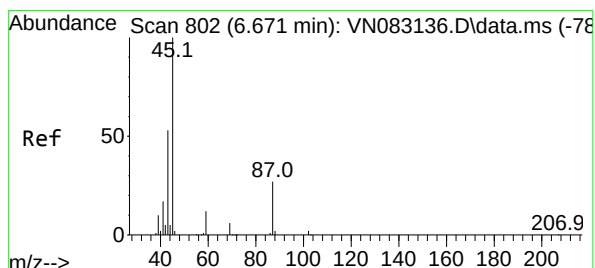
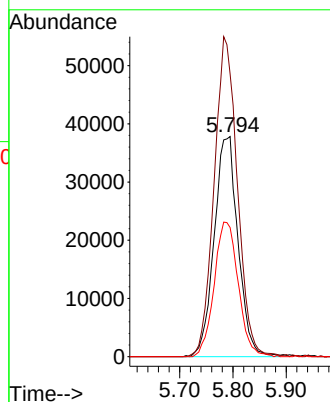
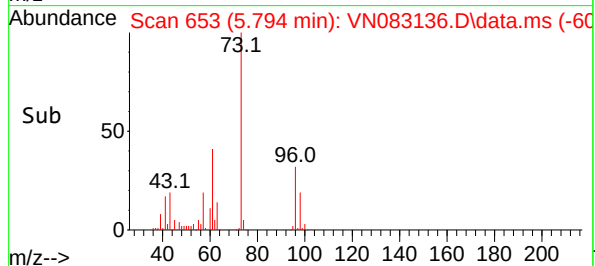
Instrument :  
MSVOA\_N  
Client Sample Id :  
VSTDICCC050



Tgt Ion: 96 Resp: 11768  
Ion Ratio Lower Upper  
96 100  
61 128.4 123.4 185.2  
98 58.7 49.3 73.9

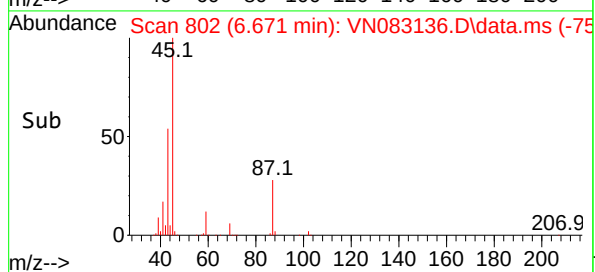
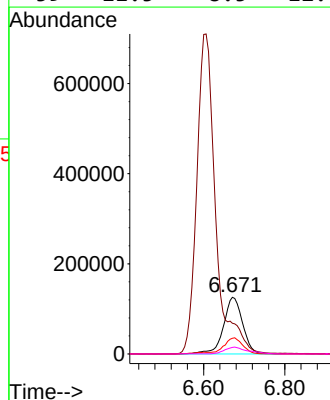
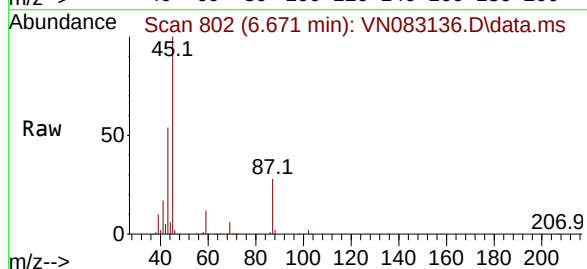
Manual Integrations  
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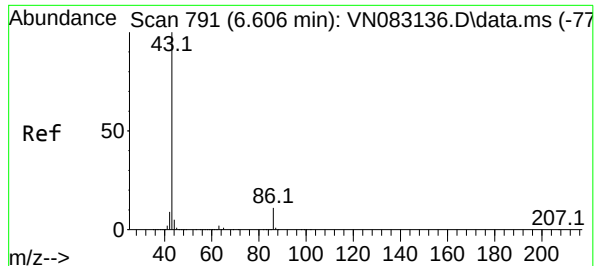
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#22  
Diisopropyl ether  
Concen: 50.987 ug/l  
RT: 6.671 min Scan# 802  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 45 Resp: 411409  
Ion Ratio Lower Upper  
45 100  
43 52.8 44.0 66.0  
87 27.7 19.7 29.5  
59 11.5 8.5 12.7





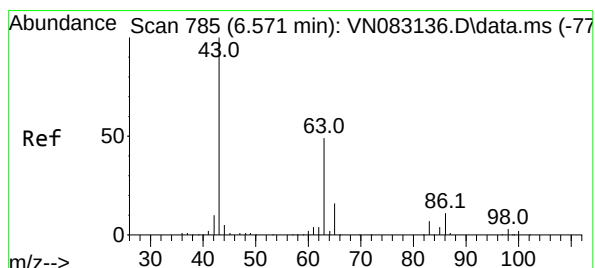
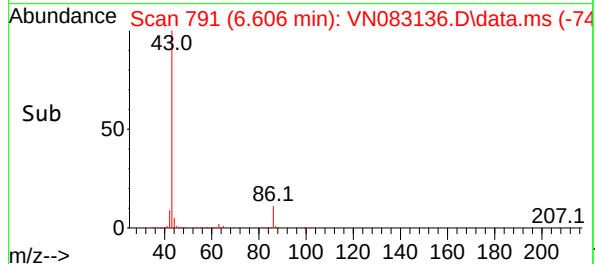
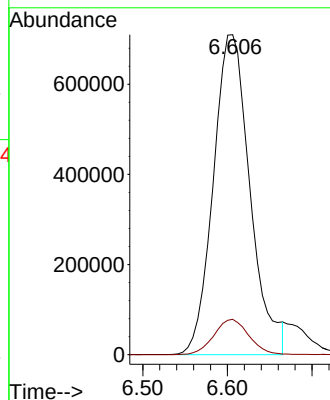
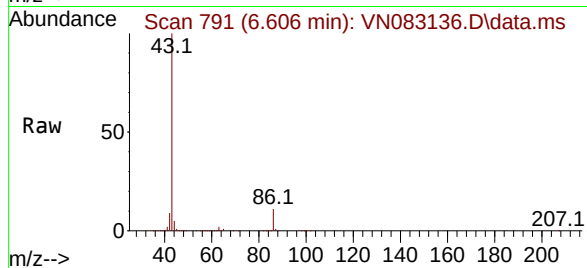
#23  
Vinyl Acetate  
Concen: 259.716 ug/l m  
RT: 6.606 min Scan# 791  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 43 Resp: 214759  
Ion Ratio Lower Upper  
43 100  
86 11.0 7.3 10.9

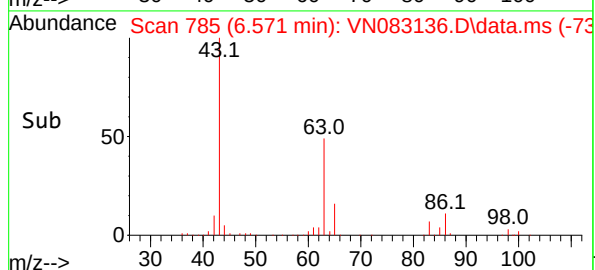
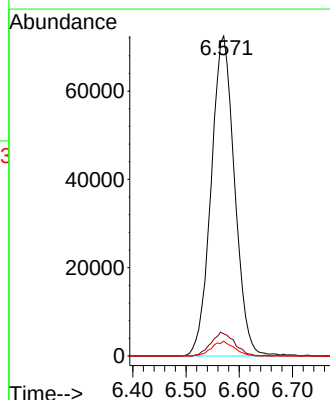
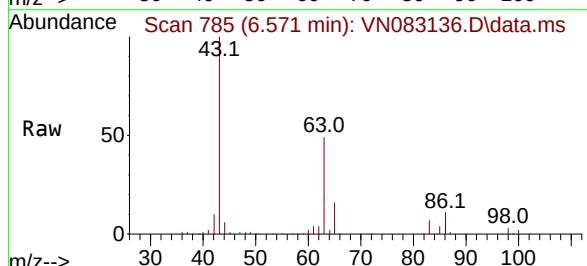
Manual Integrations  
APPROVED

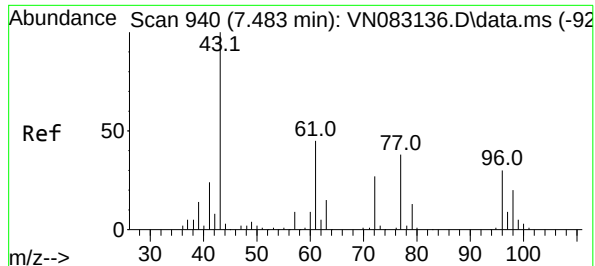
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#24  
1,1-Dichloroethane  
Concen: 50.493 ug/l  
RT: 6.571 min Scan# 785  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 63 Resp: 222071  
Ion Ratio Lower Upper  
63 100  
98 6.9 3.3 9.9  
100 4.6 2.0 6.0





#25

2-Butanone

Concen: 249.591 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 43 Resp: 437392

Ion Ratio Lower Upper

43 100

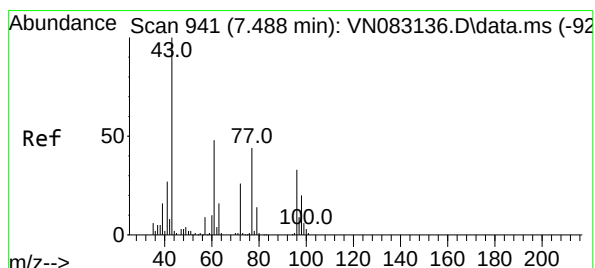
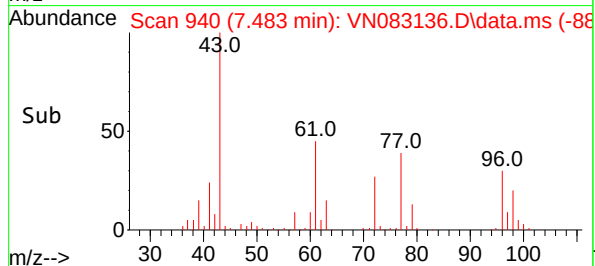
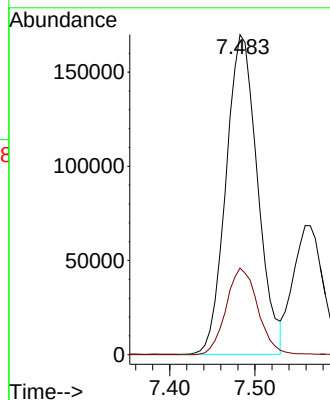
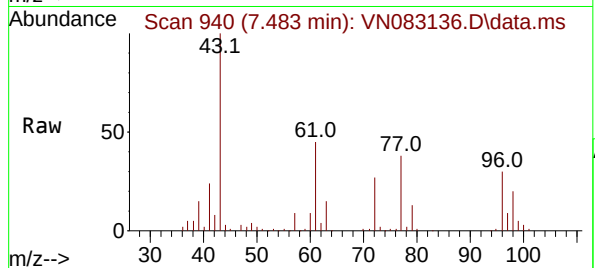
72 27.1 18.2 27.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#26

2,2-Dichloropropane

Concen: 51.336 ug/l

RT: 7.488 min Scan# 941

Delta R.T. 0.000 min

Lab File: VN083136.D

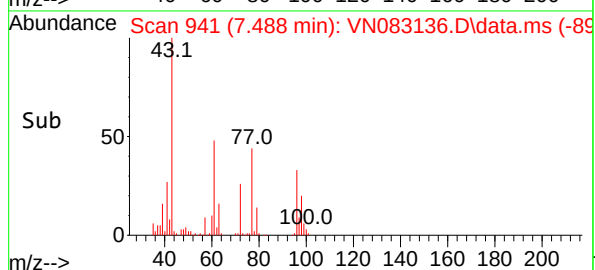
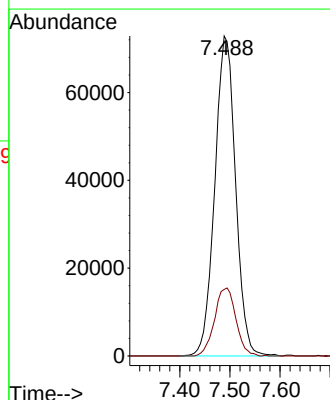
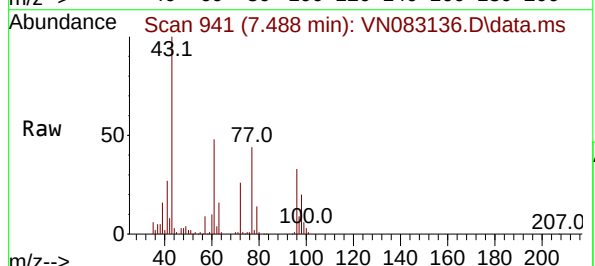
Acq: 07 Aug 2024 10:58

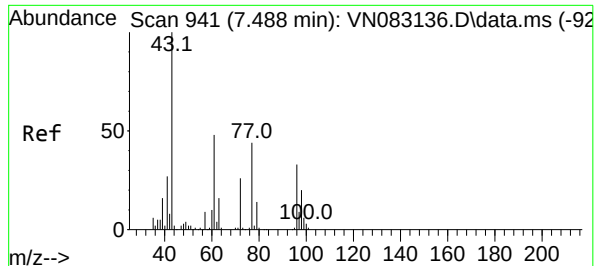
Tgt Ion: 77 Resp: 209679

Ion Ratio Lower Upper

77 100

97 21.9 10.3 30.9





#27

cis-1,2-Dichloroethene

Concen: 49.809 ug/l

RT: 7.488 min Scan# 941

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 96 Resp: 141110

Ion Ratio Lower Upper

96 100

61 150.4 0.0 329.6

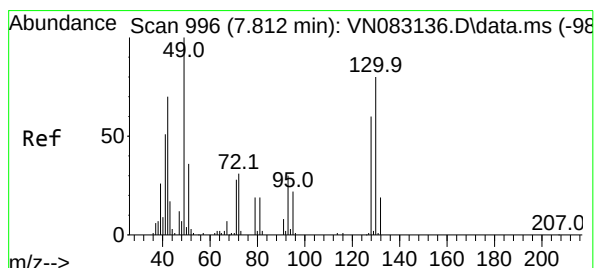
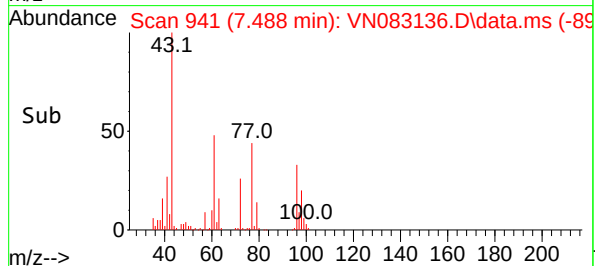
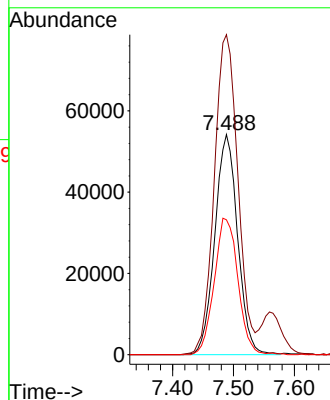
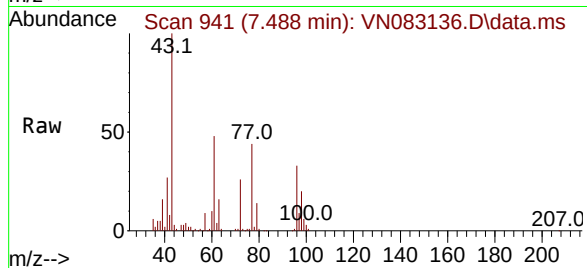
98 64.5 0.0 128.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#28

Bromochloromethane

Concen: 50.041 ug/l

RT: 7.812 min Scan# 996

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

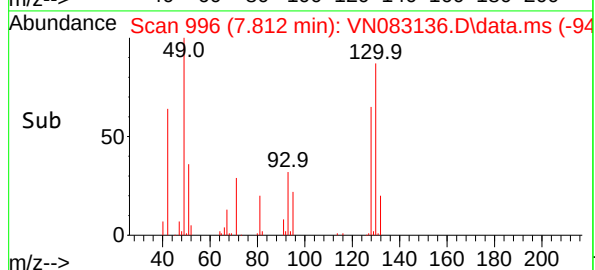
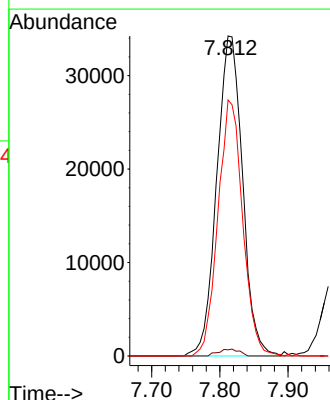
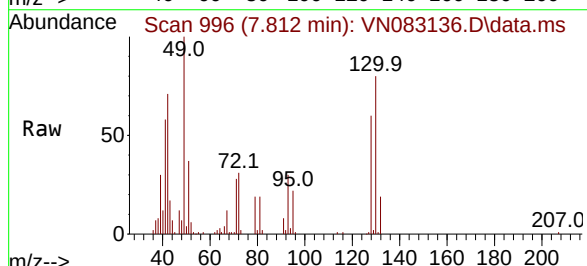
Tgt Ion: 49 Resp: 89942

Ion Ratio Lower Upper

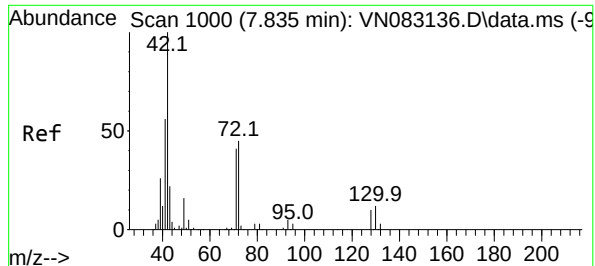
49 100

129 1.8 0.0 3.8

130 76.7 50.5 75.7#







#29

Tetrahydrofuran

Concen: 252.334 ug/l

RT: 7.835 min Scan# 1000

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 42 Resp: 28585

Ion Ratio Lower Upper

42 100

72 44.6 30.0 45.0

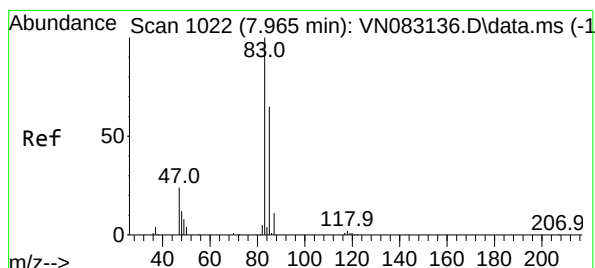
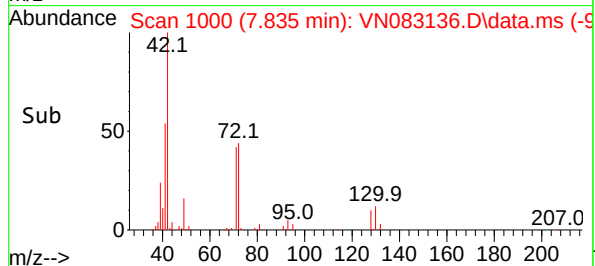
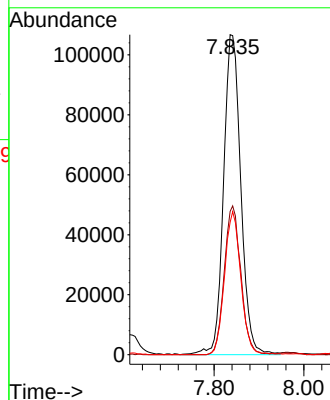
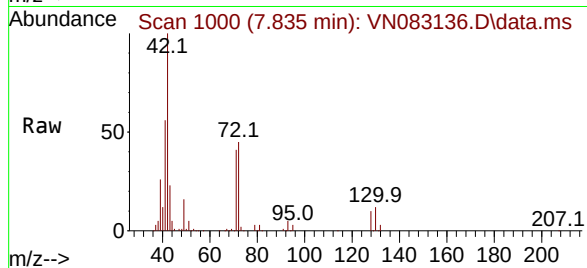
71 42.4 28.3 42.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#30

Chloroform

Concen: 50.978 ug/l

RT: 7.965 min Scan# 1022

Delta R.T. 0.000 min

Lab File: VN083136.D

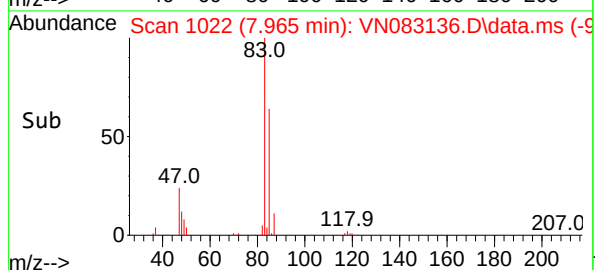
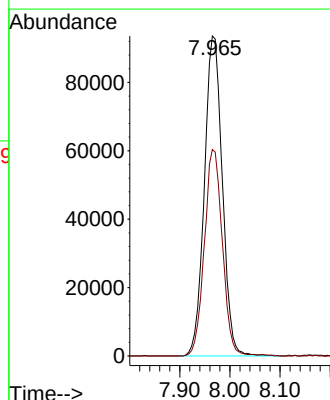
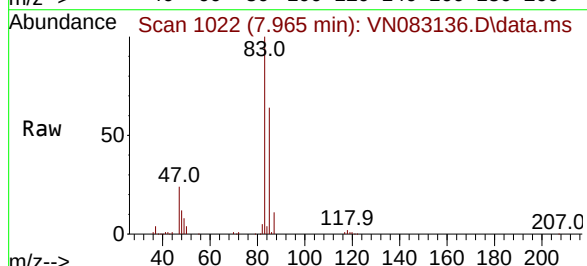
Acq: 07 Aug 2024 10:58

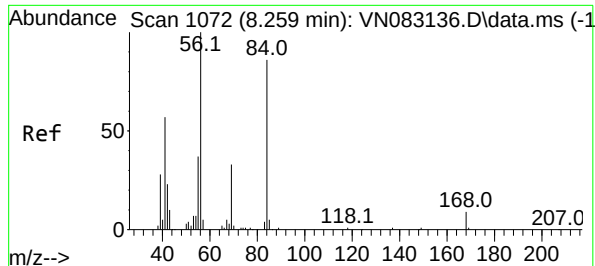
Tgt Ion: 83 Resp: 232933

Ion Ratio Lower Upper

83 100

85 64.5 50.9 76.3





#31

Cyclohexane

Concen: 46.565 ug/l

RT: 8.259 min Scan# 1072

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 56 Resp: 20127

Ion Ratio Lower Upper

56 100

69 32.7 24.5 36.7

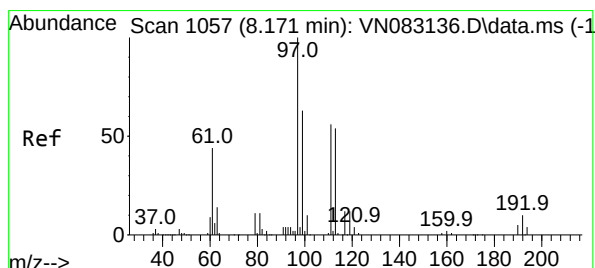
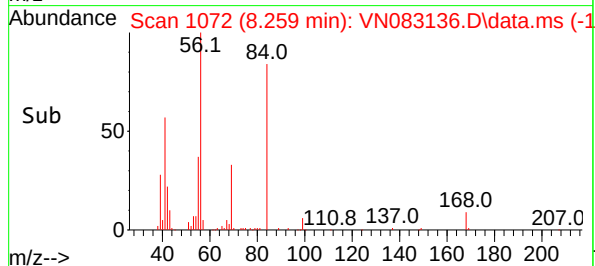
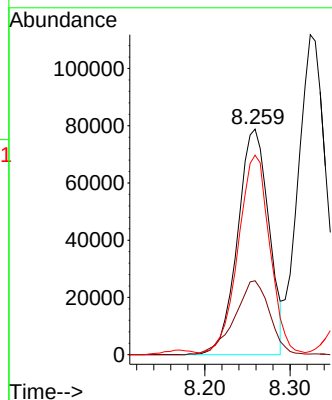
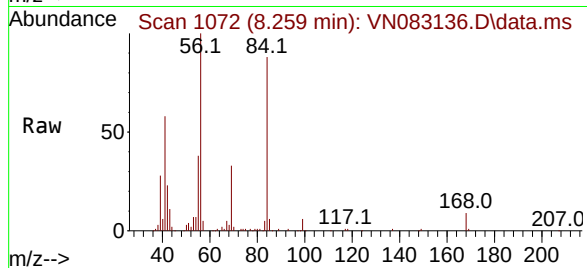
84 86.4 66.0 99.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#32

1,1,1-Trichloroethane

Concen: 50.935 ug/l

RT: 8.171 min Scan# 1057

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

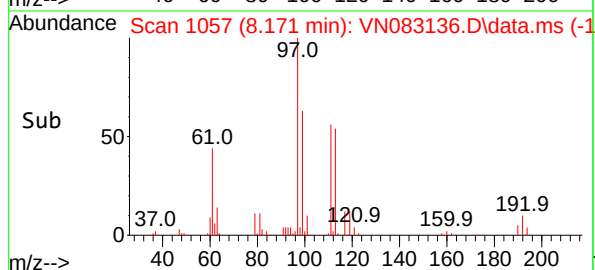
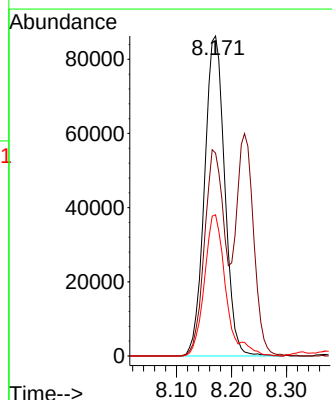
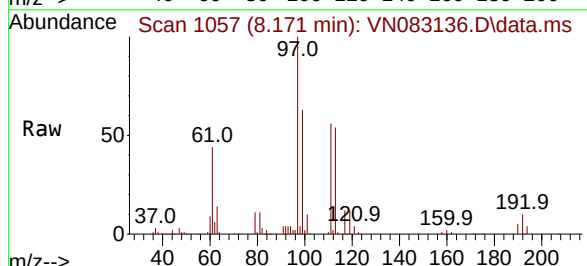
Tgt Ion: 97 Resp: 220296

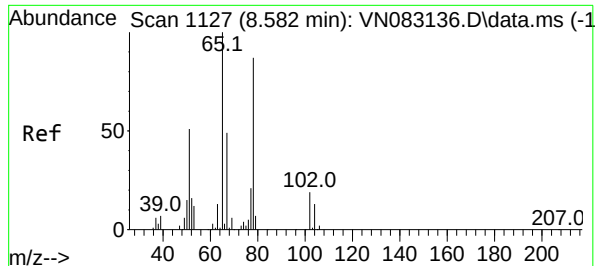
Ion Ratio Lower Upper

97 100

99 62.5 52.0 78.0

61 46.6 42.1 63.1





#33

1,2-Dichloroethane-d4

Concen: 52.348 ug/l

RT: 8.582 min Scan# 1127

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 65 Resp: 152684

Ion Ratio Lower Upper

65 100

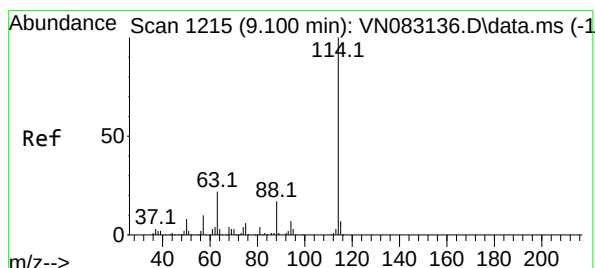
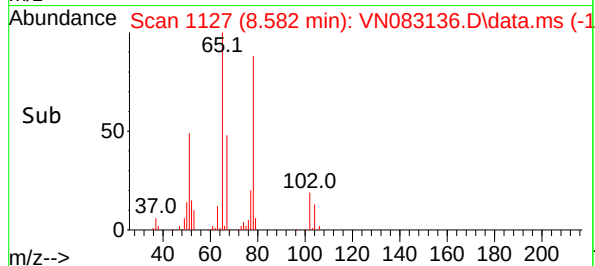
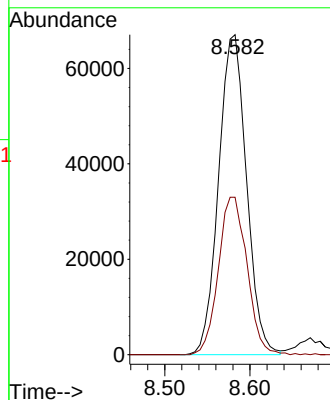
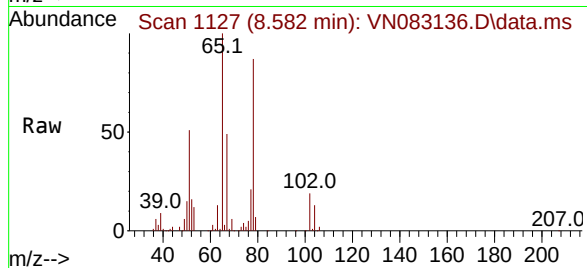
67 50.5 0.0 104.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

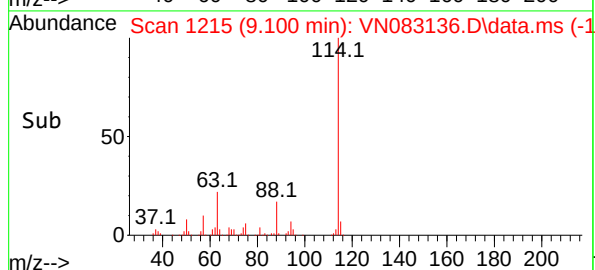
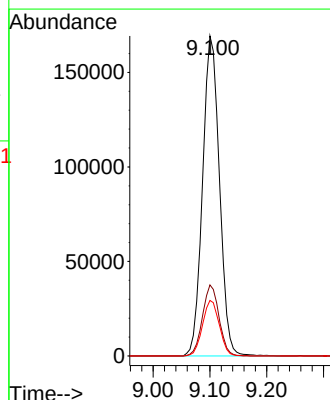
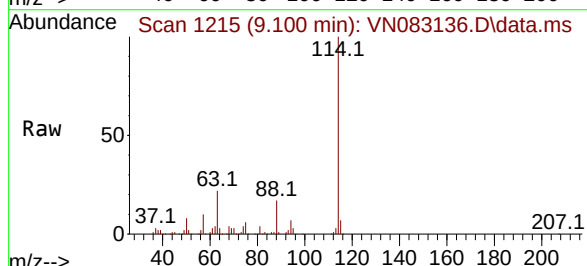
Tgt Ion:114 Resp: 348813

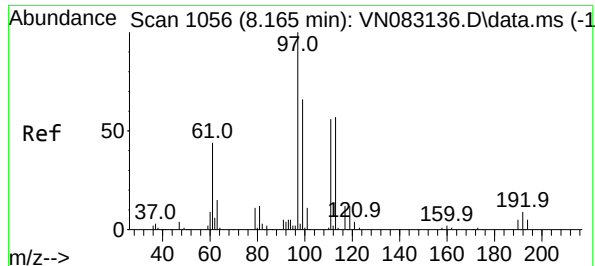
Ion Ratio Lower Upper

114 100

63 22.2 0.0 44.6

88 17.3 0.0 31.4





#35

Dibromofluoromethane

Concen: 53.216 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:113 Resp: 11586

Ion Ratio Lower Upper

113 100

111 101.9 82.4 123.6

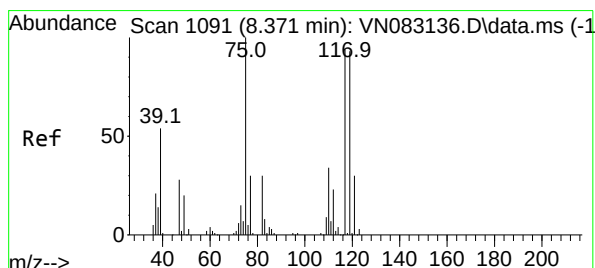
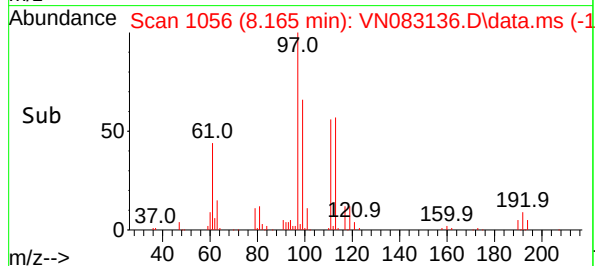
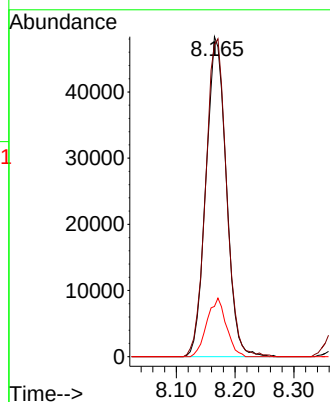
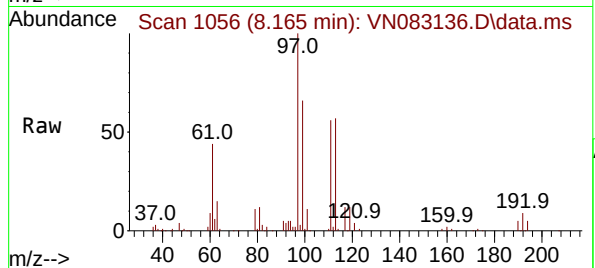
192 17.5 14.9 22.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#36

1,1-Dichloropropene

Concen: 50.349 ug/l

RT: 8.371 min Scan# 1091

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

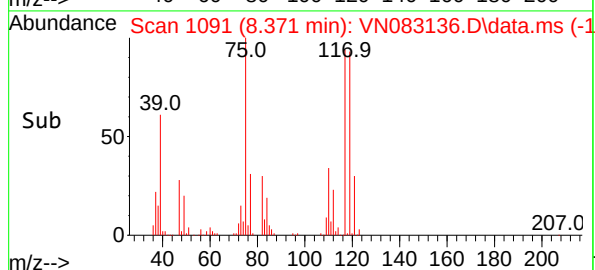
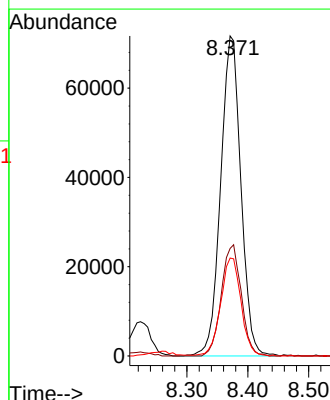
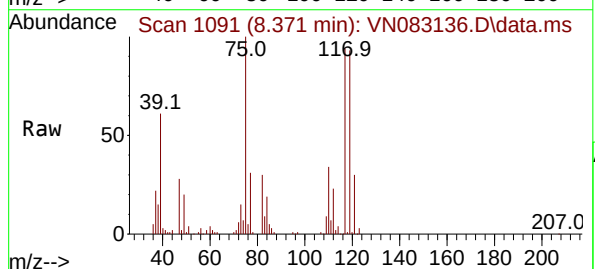
Tgt Ion: 75 Resp: 165826

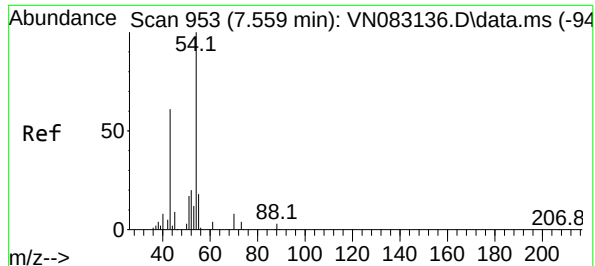
Ion Ratio Lower Upper

75 100

110 34.2 16.3 48.9

77 30.8 24.6 37.0





#37

Ethyl Acetate

Concen: 47.213 ug/l

RT: 7.559 min Scan# 91

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

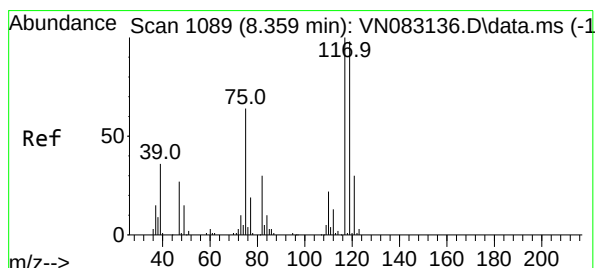
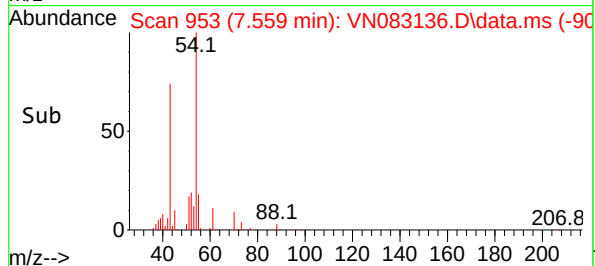
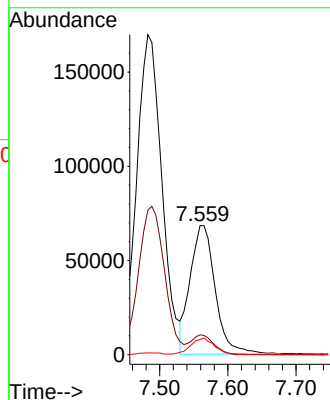
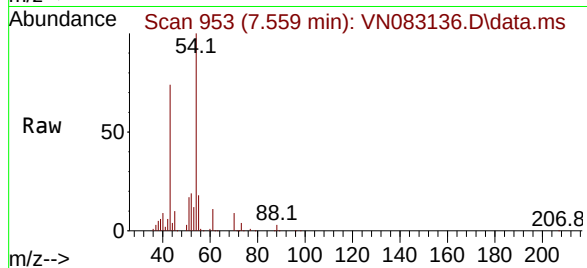
VSTDICCC050

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 17410 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 14.4  | 9.3   | 13.9  |
| 70       | 12.1  | 7.0   | 10.6  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#38

Carbon Tetrachloride

Concen: 51.315 ug/l

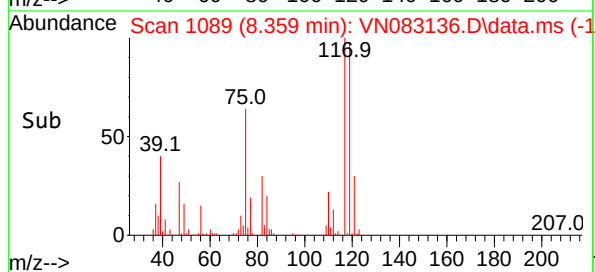
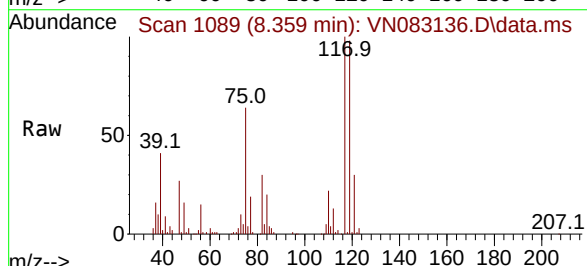
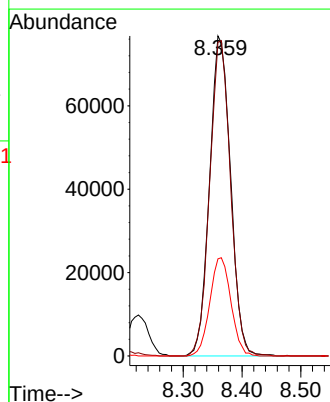
RT: 8.359 min Scan# 1089

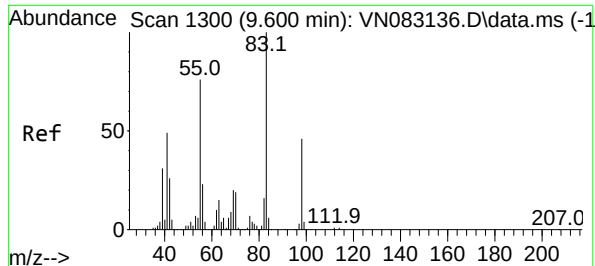
Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 117   | Resp: | 190357 |
| Ion      | Ratio | Lower | Upper  |
| 117      | 100   |       |        |
| 119      | 98.0  | 74.9  | 112.3  |
| 121      | 30.3  | 24.3  | 36.5   |





#39

Methylcyclohexane

Concen: 51.461 ug/l

RT: 9.600 min Scan# 1130

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

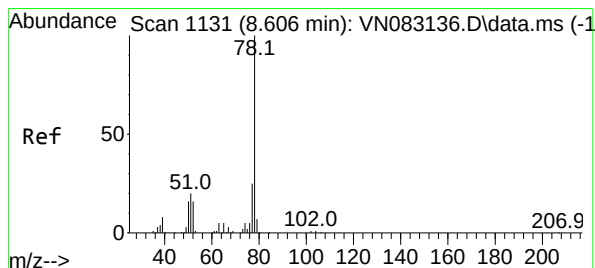
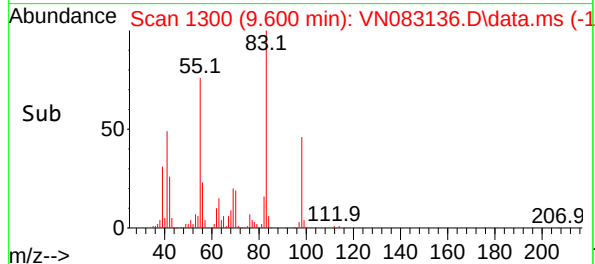
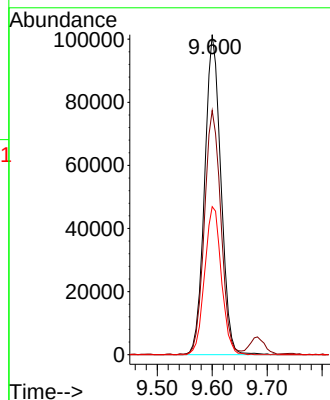
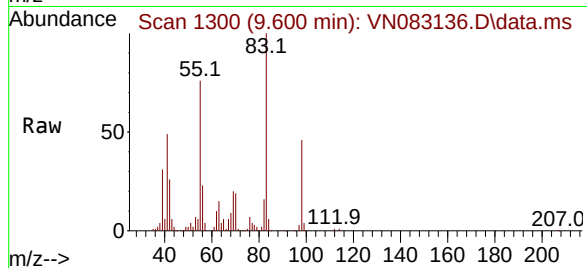
VSTDICCC050

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 20817 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 55       | 76.0  | 66.4  | 99.6  |
| 98       | 46.3  | 40.7  | 61.1  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#40

Benzene

Concen: 51.436 ug/l

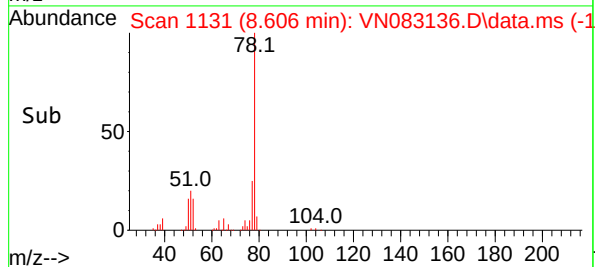
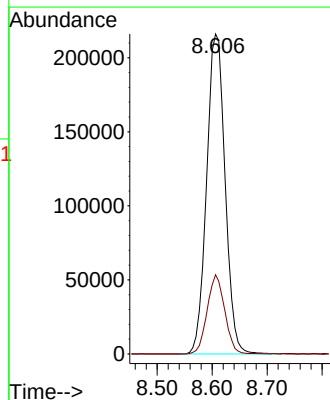
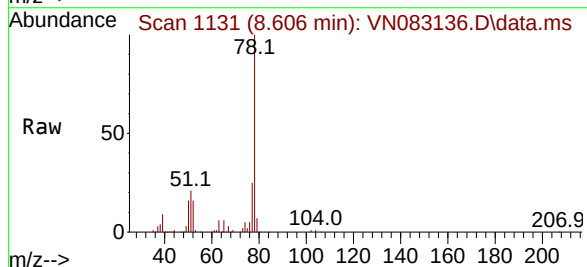
RT: 8.606 min Scan# 1131

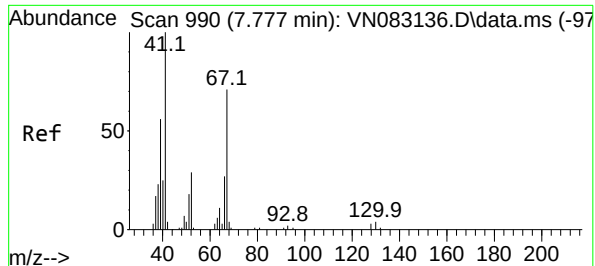
Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 78    | Resp: | 504662 |
| Ion      | Ratio | Lower | Upper  |
| 78       | 100   |       |        |
| 77       | 24.8  | 19.0  | 28.4   |





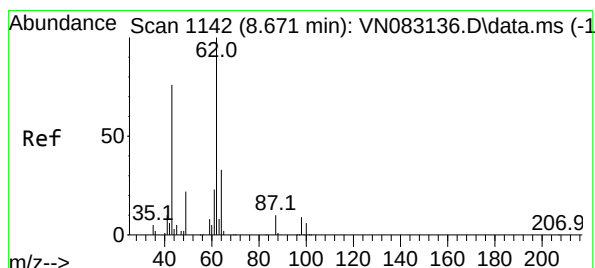
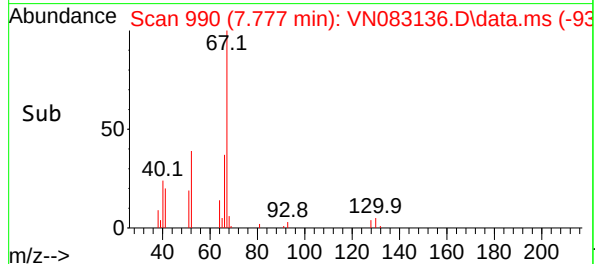
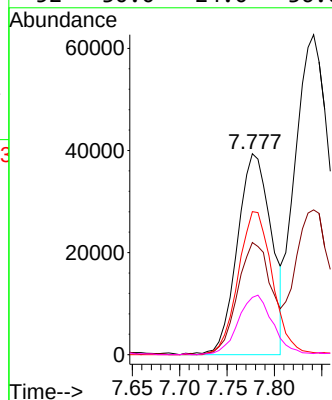
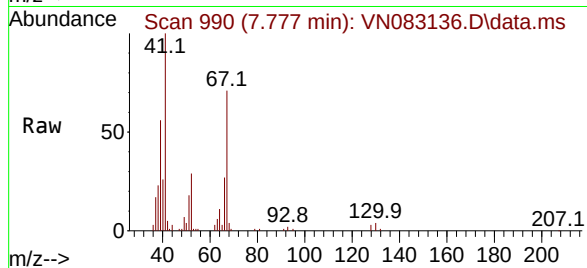
#41  
Methacrylonitrile  
Concen: 47.154 ug/l  
RT: 7.777 min Scan# 990  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
Client Sample Id :  
VSTDICCC050

Tgt Ion: 41 Resp: 98869  
Ion Ratio Lower Upper  
41 100  
39 55.4 45.5 68.3  
67 72.0 50.5 75.7  
52 30.0 24.0 36.0

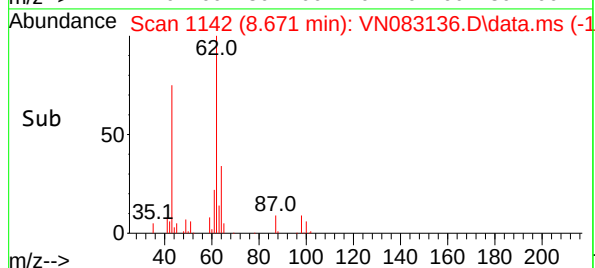
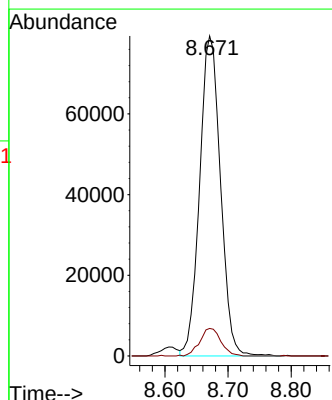
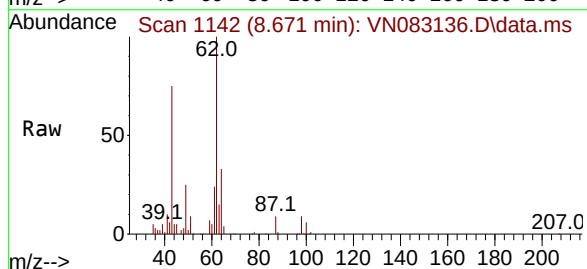
Manual Integrations  
APPROVED

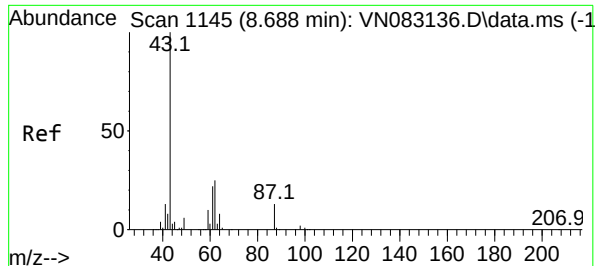
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#42  
1,2-Dichloroethane  
Concen: 50.765 ug/l  
RT: 8.671 min Scan# 1142  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 62 Resp: 181440  
Ion Ratio Lower Upper  
62 100  
98 8.7 0.0 15.8





#43

Isopropyl Acetate

Concen: 50.219 ug/l

RT: 8.688 min Scan# 1145

Delta R.T. 0.000 min

Lab File: VN083136.D

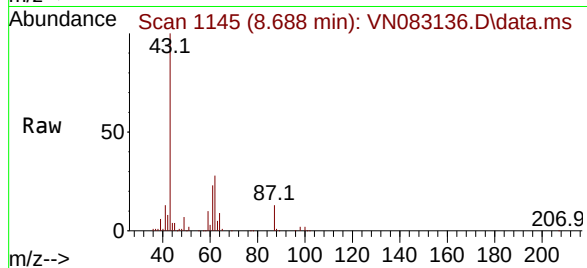
Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050



Tgt Ion: 43 Resp: 321088

Ion Ratio Lower Upper

43 100

61 25.3 17.8 26.6

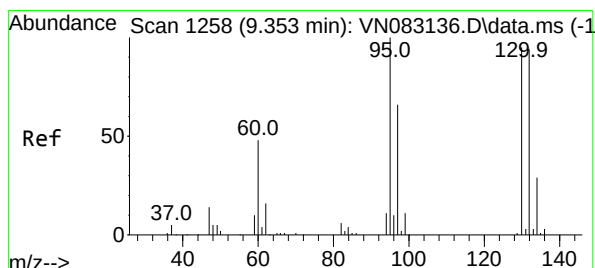
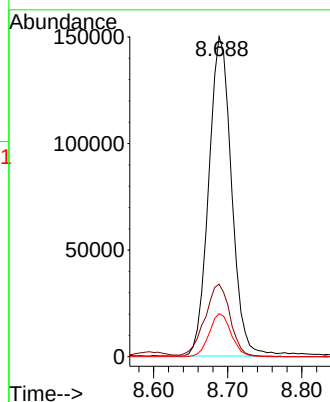
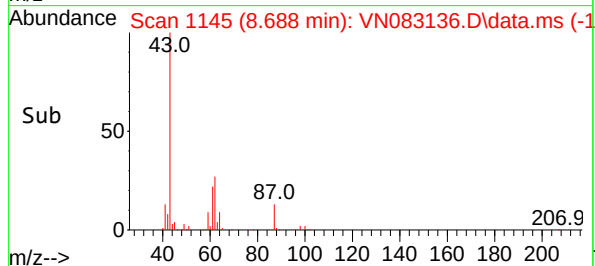
87 13.0 8.2 12.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#44

Trichloroethene

Concen: 51.383 ug/l

RT: 9.353 min Scan# 1258

Delta R.T. 0.000 min

Lab File: VN083136.D

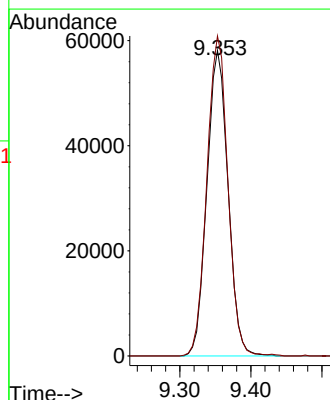
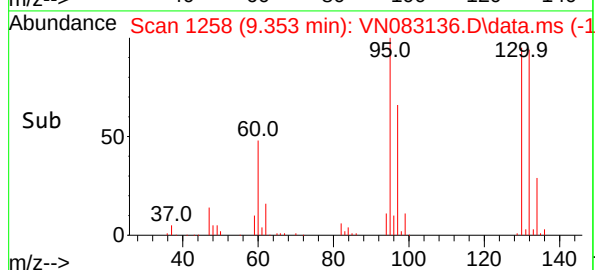
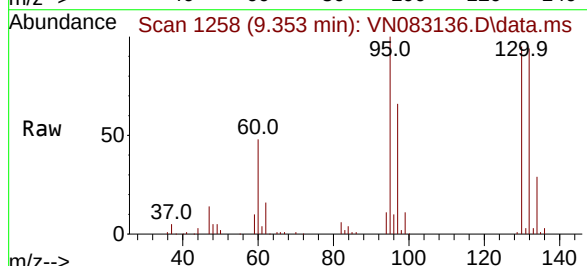
Acq: 07 Aug 2024 10:58

Tgt Ion:130 Resp: 119998

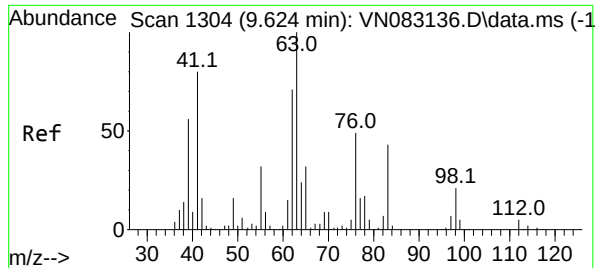
Ion Ratio Lower Upper

130 100

95 104.7 0.0 197.8







#45

1,2-Dichloropropane

Concen: 51.747 ug/l

RT: 9.624 min Scan# 1304

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 63 Resp: 120518

Ion Ratio Lower Upper

63 100

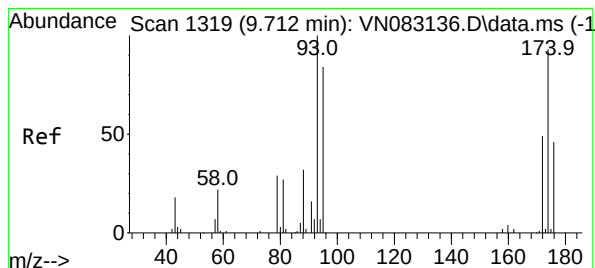
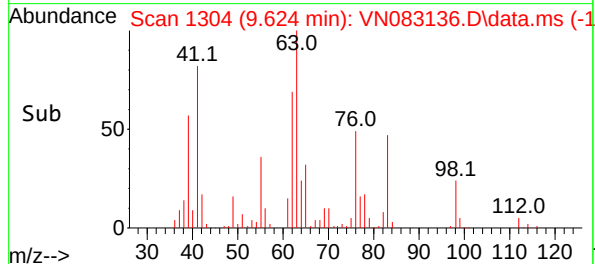
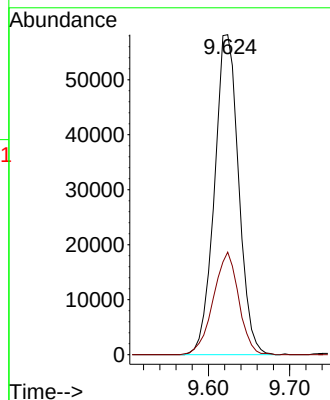
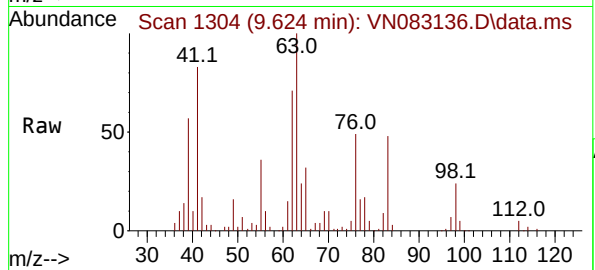
65 32.1 24.4 36.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#46

Dibromomethane

Concen: 52.436 ug/l

RT: 9.712 min Scan# 1319

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

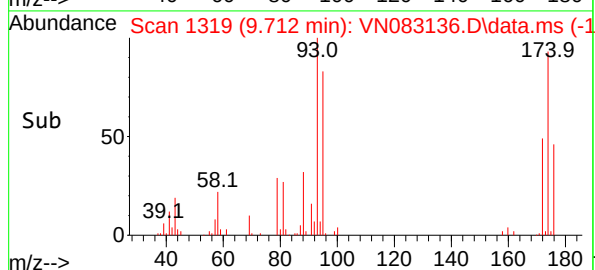
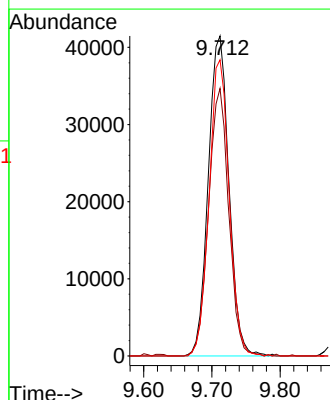
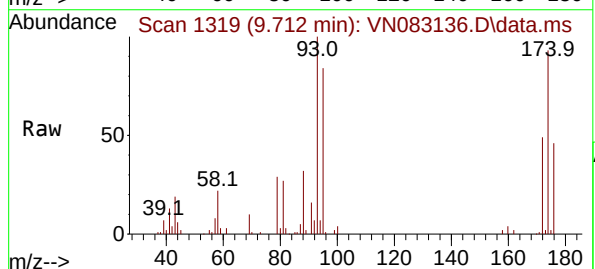
Tgt Ion: 93 Resp: 87411

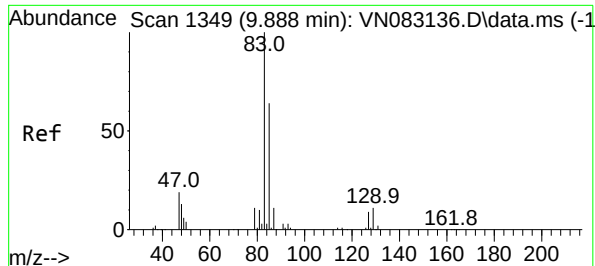
Ion Ratio Lower Upper

93 100

95 81.7 65.8 98.6

174 90.1 71.7 107.5





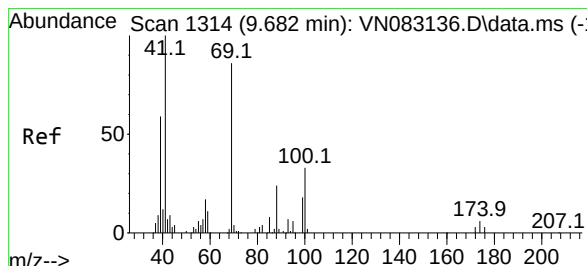
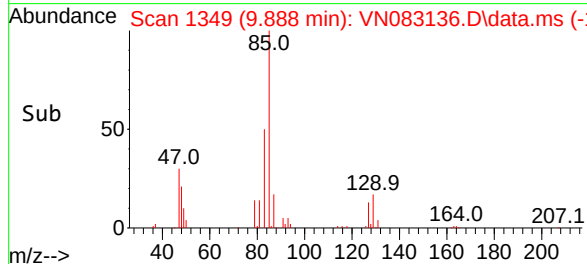
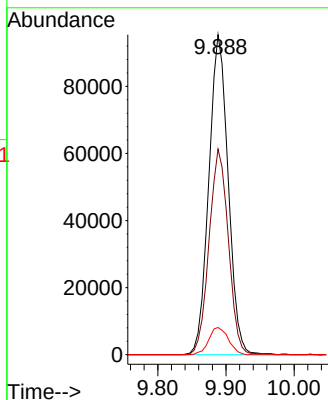
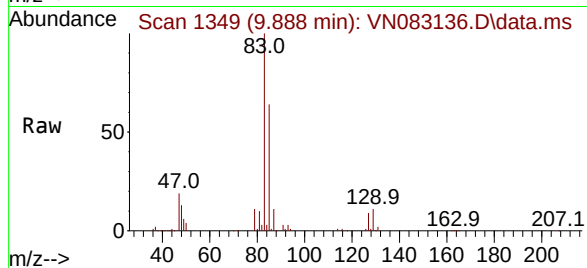
#47  
Bromodichloromethane  
Concen: 50.245 ug/l  
RT: 9.888 min Scan# 1349  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 83 Resp: 188069  
Ion Ratio Lower Upper  
83 100  
85 64.3 51.1 76.7  
127 8.5 7.2 10.8

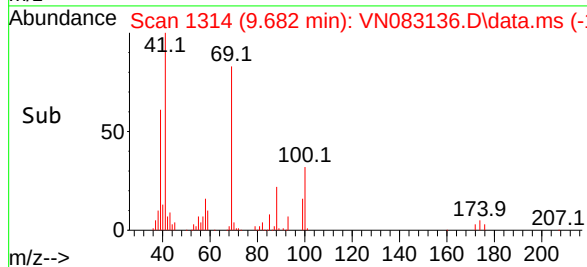
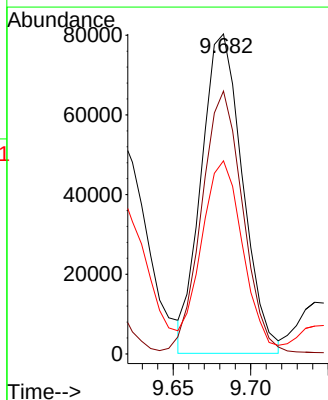
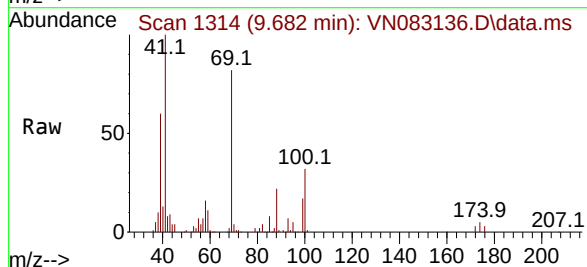
Manual Integrations  
APPROVED

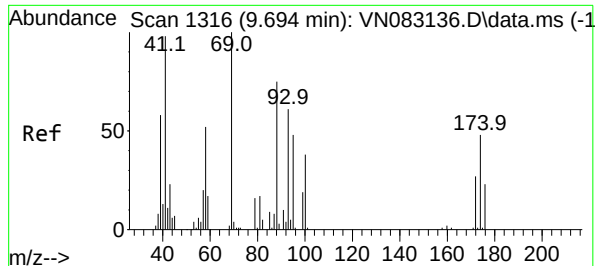
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#48  
Methyl methacrylate  
Concen: 48.631 ug/l  
RT: 9.682 min Scan# 1314  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 41 Resp: 148264  
Ion Ratio Lower Upper  
41 100  
69 82.5 56.3 84.5  
39 61.0 50.3 75.5





#49

1,4-Dioxane

Concen: 1036.917 ug/l

RT: 9.694 min Scan# 1316

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

Client SampleId :

VSTDICCC050

Tgt Ion: 88 Resp: 5703

Ion Ratio Lower Upper

88 100

43 29.1 27.8 41.8

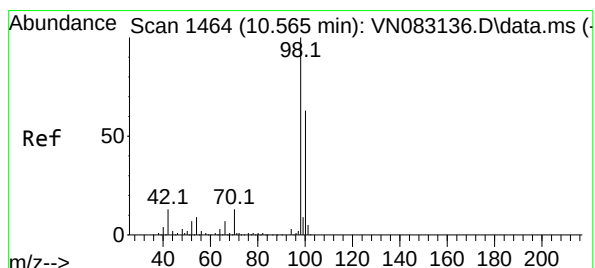
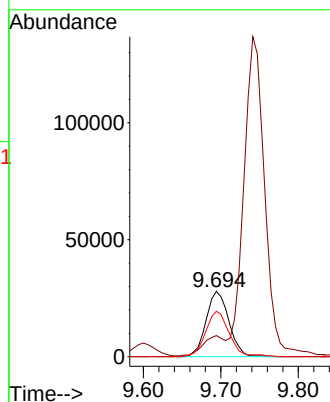
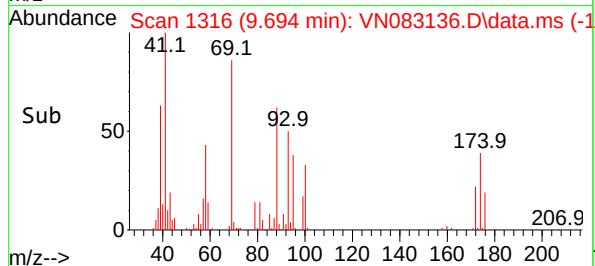
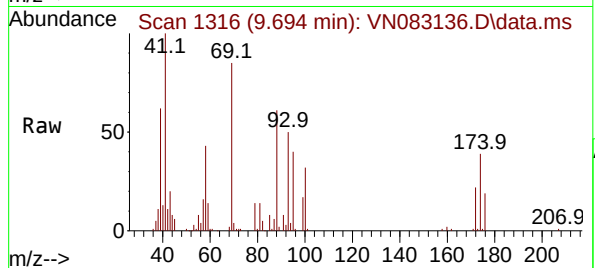
58 72.4 59.4 89.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#50

Toluene-d8

Concen: 54.174 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. 0.000 min

Lab File: VN083136.D

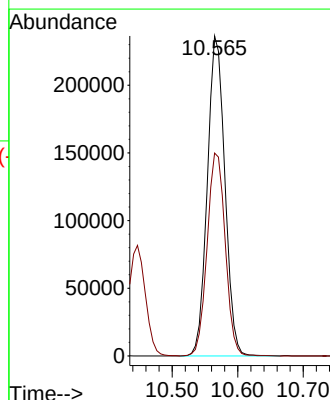
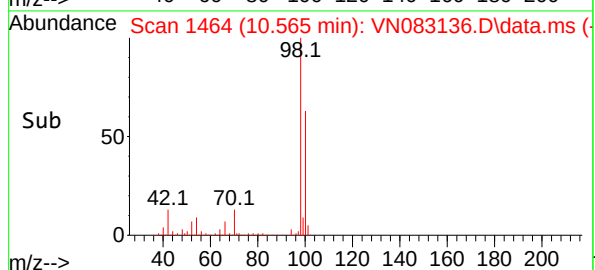
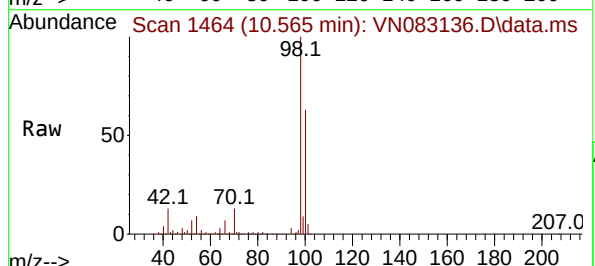
Acq: 07 Aug 2024 10:58

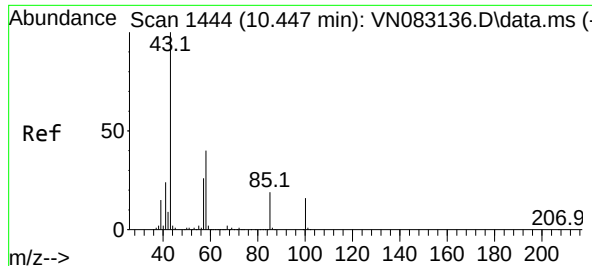
Tgt Ion: 98 Resp: 439976

Ion Ratio Lower Upper

98 100

100 65.5 51.5 77.3





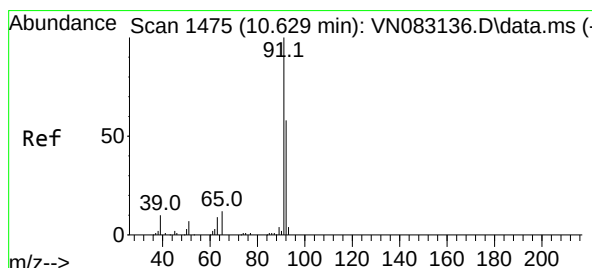
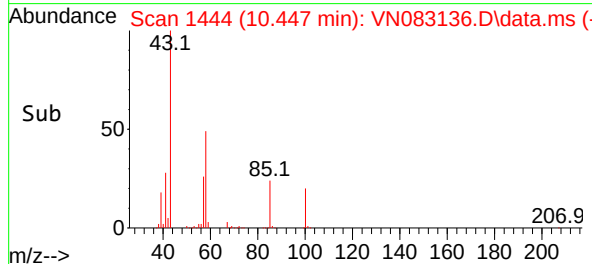
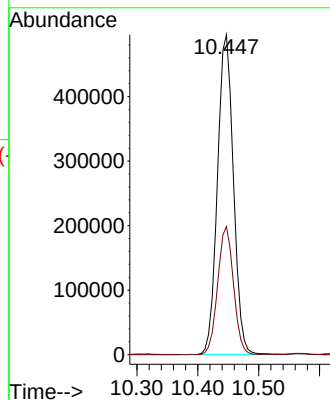
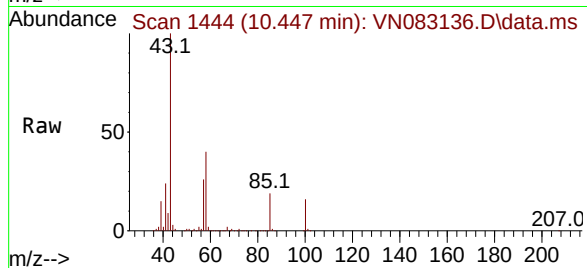
#51  
4-Methyl-2-Pentanone  
Concen: 258.493 ug/l  
RT: 10.447 min Scan# 1444  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 43 Resp: 90141  
Ion Ratio Lower Upper  
43 100  
58 39.8 28.2 42.4

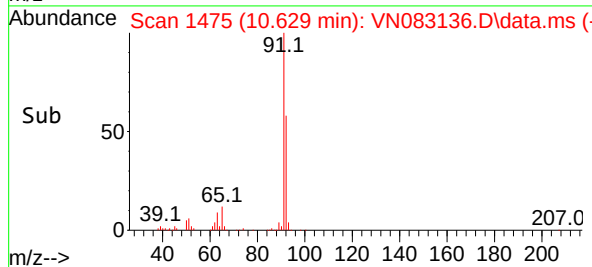
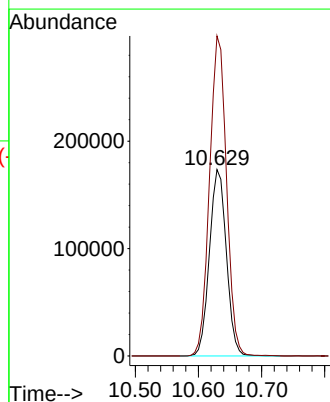
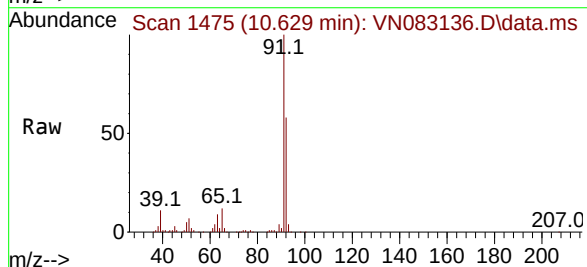
Manual Integrations  
APPROVED

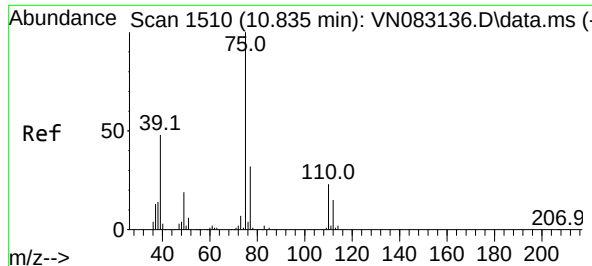
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#52  
Toluene  
Concen: 52.127 ug/l  
RT: 10.629 min Scan# 1475  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

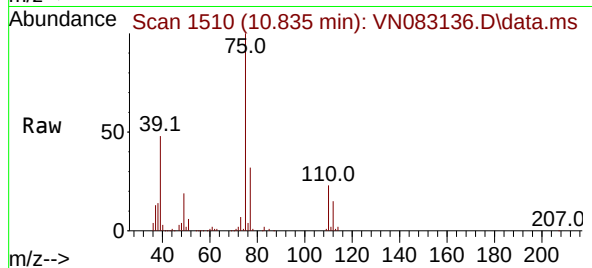
Tgt Ion: 92 Resp: 323148  
Ion Ratio Lower Upper  
92 100  
91 172.1 139.4 209.0





#53  
t-1,3-Dichloropropene  
Concen: 54.205 ug/l  
RT: 10.835 min Scan# 1510  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

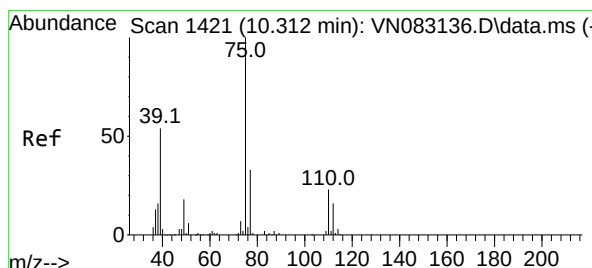
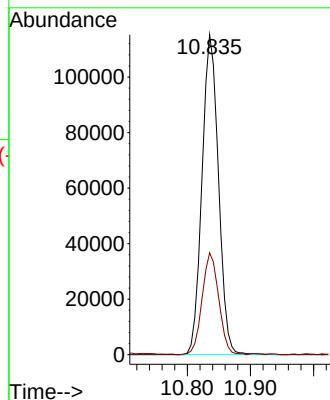
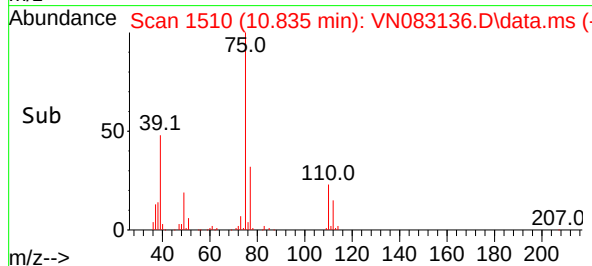
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050



Tgt Ion: 75 Resp: 20841  
Ion Ratio Lower Upper  
75 100  
77 31.9 25.7 38.5

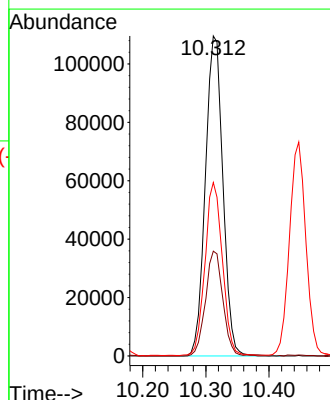
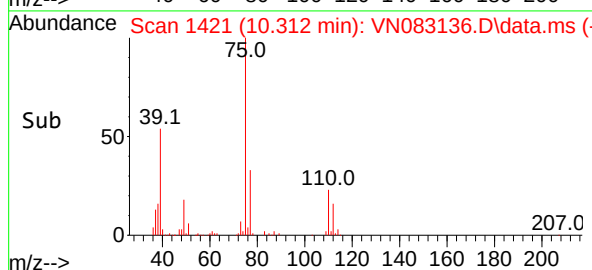
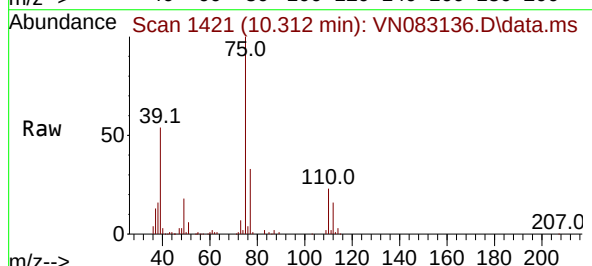
Manual Integrations  
APPROVED

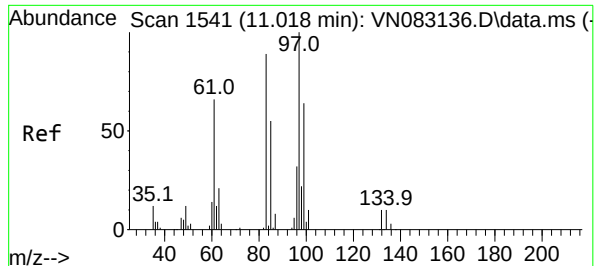
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#54  
cis-1,3-Dichloropropene  
Concen: 51.692 ug/l  
RT: 10.312 min Scan# 1421  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 75 Resp: 211396  
Ion Ratio Lower Upper  
75 100  
77 32.8 24.3 36.5  
39 54.0 50.5 75.7





#55

1,1,2-Trichloroethane

Concen: 52.387 ug/l

RT: 11.018 min Scan# 1541

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 97 Resp: 116384

Ion Ratio Lower Upper

97 100

83 89.4 71.4 107.0

85 55.4 45.8 68.6

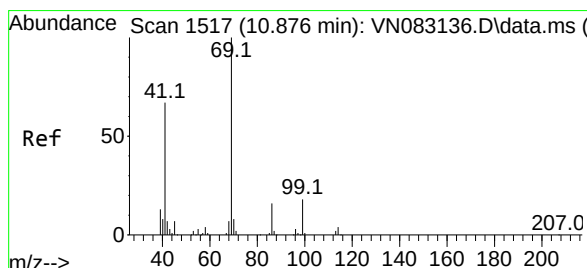
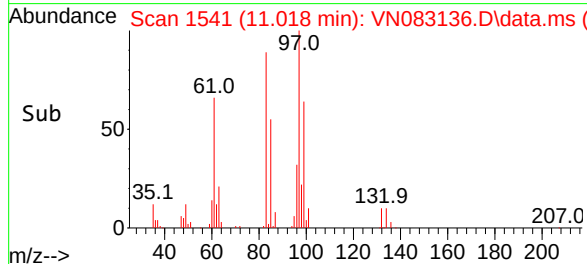
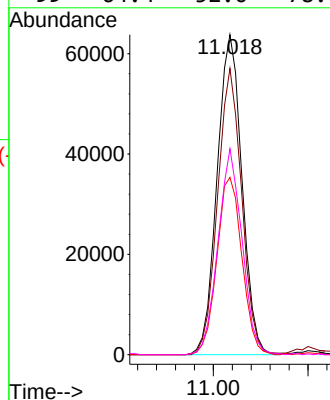
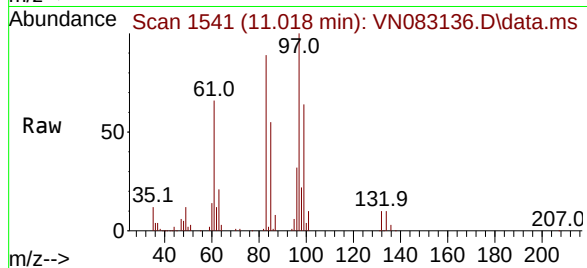
99 64.4 52.0 78.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#56

Ethyl methacrylate

Concen: 51.964 ug/l

RT: 10.876 min Scan# 1517

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

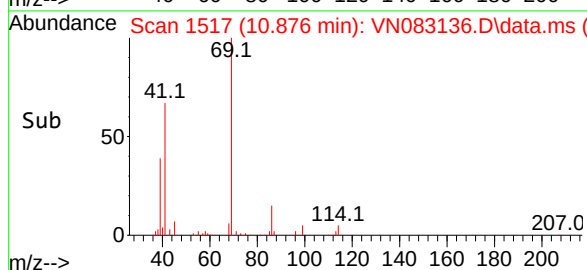
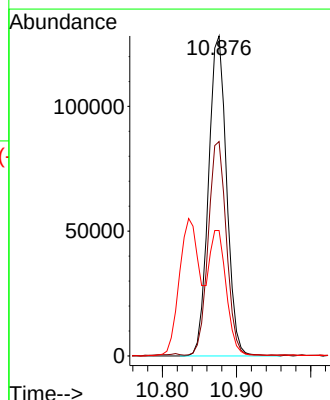
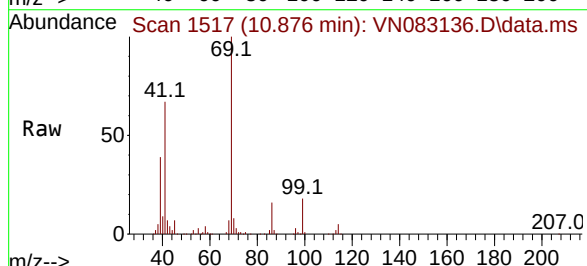
Tgt Ion: 69 Resp: 217635

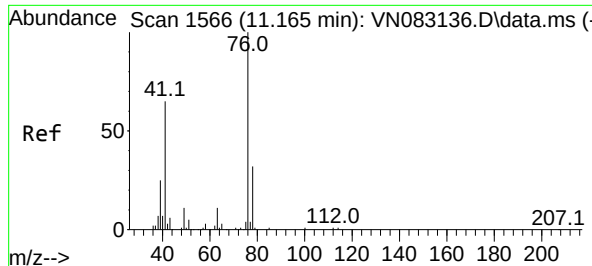
Ion Ratio Lower Upper

69 100

41 66.9 63.4 95.2

39 35.2 37.4 56.0#





#57

1,3-Dichloropropane

Concen: 52.133 ug/l

RT: 11.165 min Scan# 1566

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 76 Resp: 20644

Ion Ratio Lower Upper

76 100

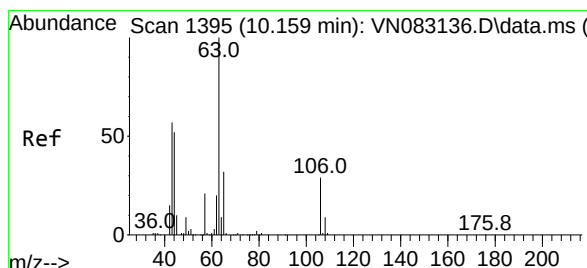
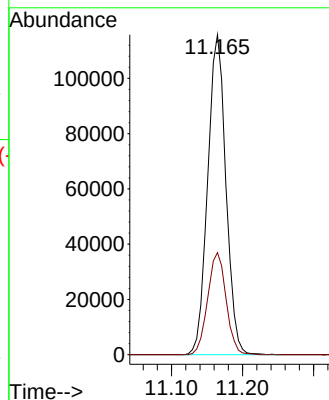
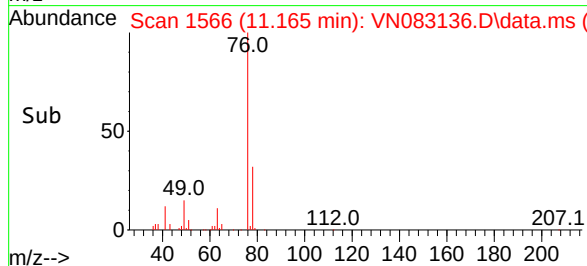
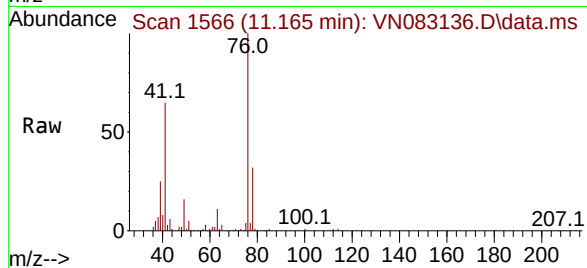
78 32.2 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#58

2-Chloroethyl Vinyl ether

Concen: 256.939 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. 0.000 min

Lab File: VN083136.D

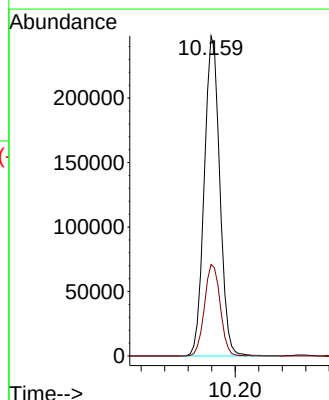
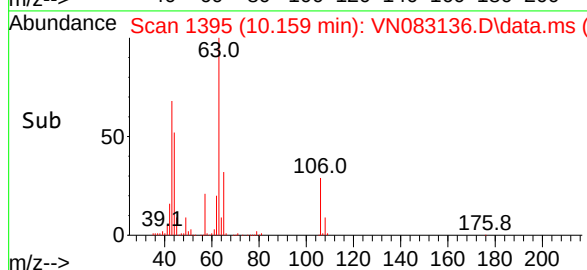
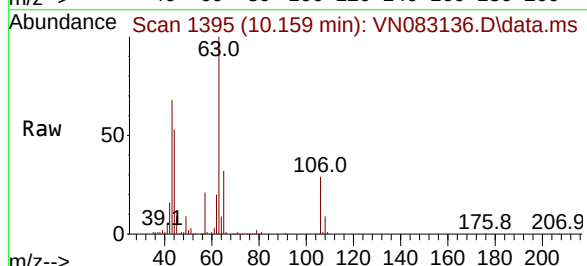
Acq: 07 Aug 2024 10:58

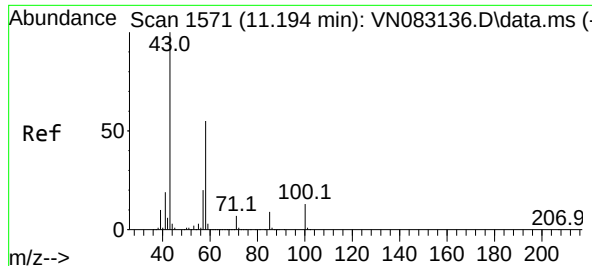
Tgt Ion: 63 Resp: 454871

Ion Ratio Lower Upper

63 100

106 29.0 21.4 32.0





#59

2-Hexanone

Concen: 256.396 ug/l

RT: 11.194 min Scan# 1571

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 43 Resp: 691708

Ion Ratio Lower Upper

43 100

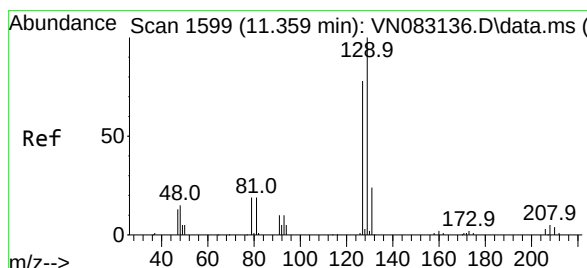
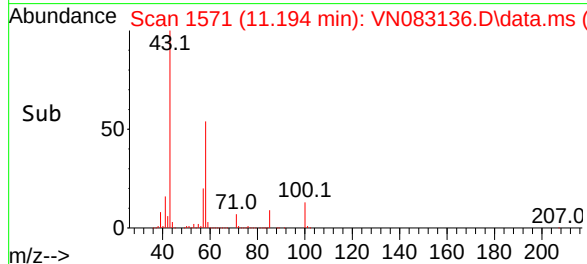
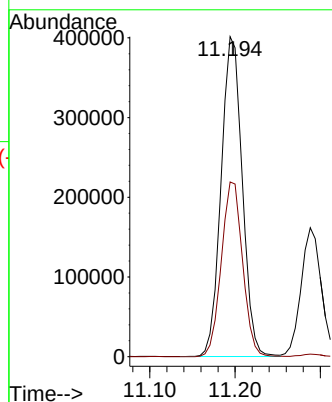
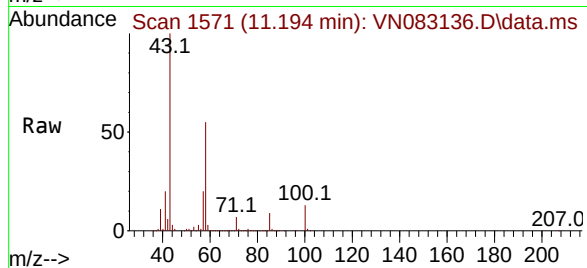
58 54.9 24.6 73.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#60

Dibromochloromethane

Concen: 53.688 ug/l

RT: 11.359 min Scan# 1599

Delta R.T. 0.000 min

Lab File: VN083136.D

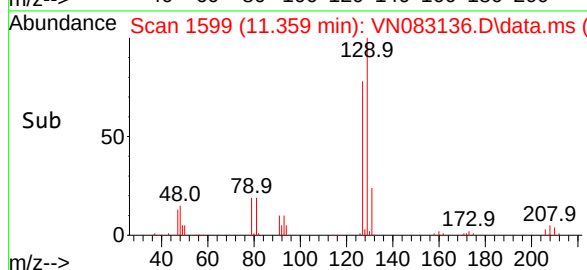
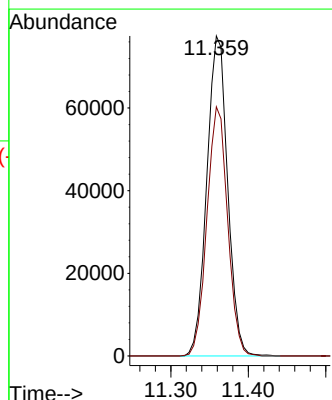
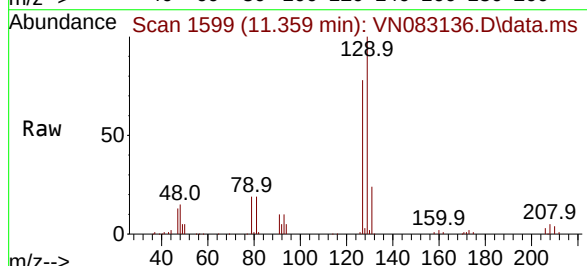
Acq: 07 Aug 2024 10:58

Tgt Ion:129 Resp: 144208

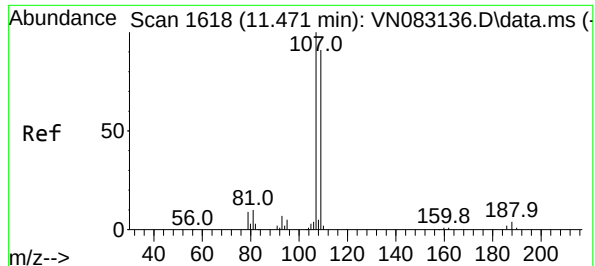
Ion Ratio Lower Upper

129 100

127 77.4 39.2 117.6







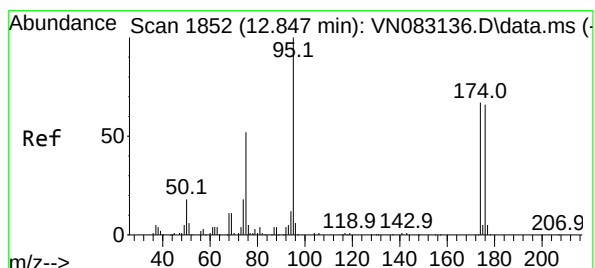
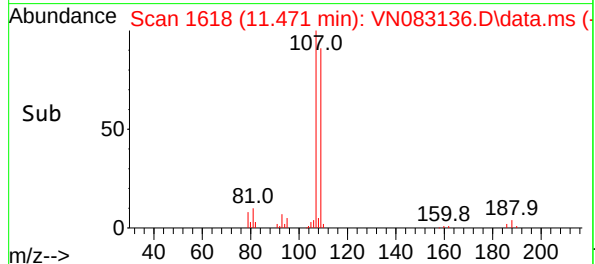
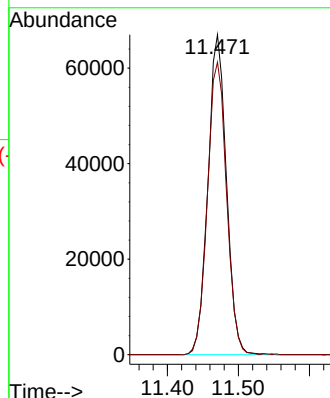
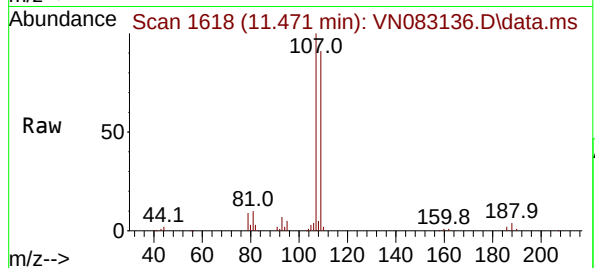
#61  
1,2-Dibromoethane  
Concen: 51.912 ug/l  
RT: 11.471 min Scan# 1618  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion:107 Resp: 12115  
Ion Ratio Lower Upper  
107 100  
109 94.4 73.7 110.5

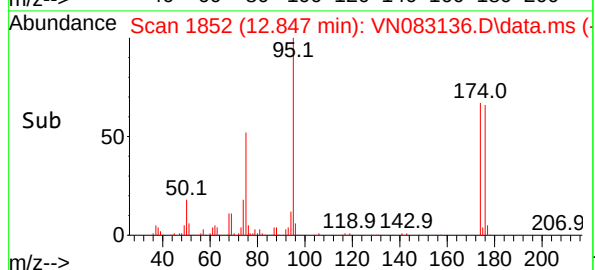
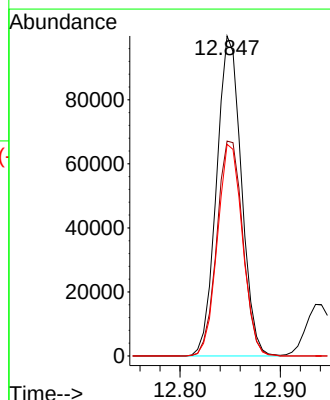
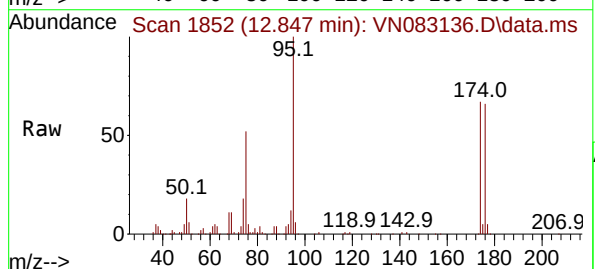
Manual Integrations  
APPROVED

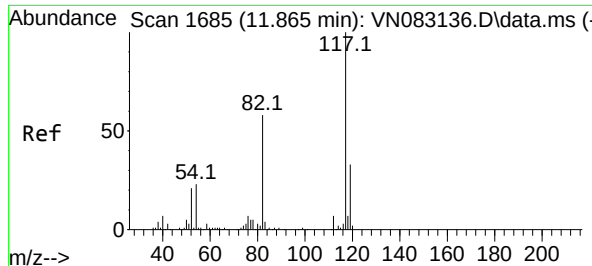
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#62  
4-Bromofluorobenzene  
Concen: 54.173 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

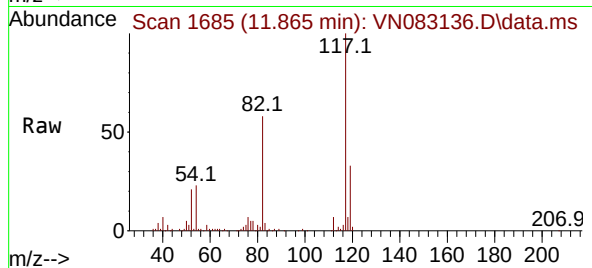
Tgt Ion: 95 Resp: 171524  
Ion Ratio Lower Upper  
95 100  
174 70.0 0.0 159.2  
176 66.9 0.0 147.6





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

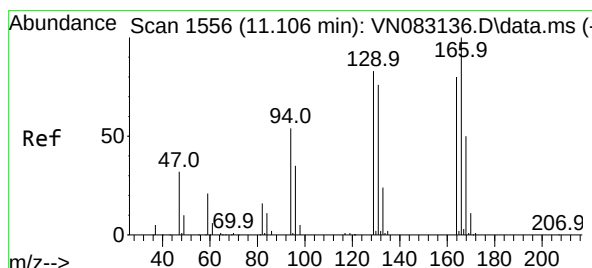
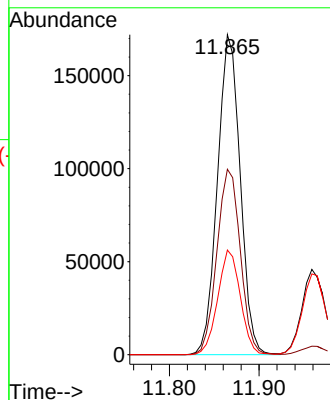
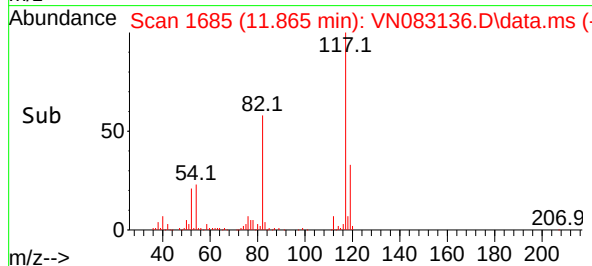
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050



Tgt Ion:117 Resp: 303118  
Ion Ratio Lower Upper  
117 100  
82 57.9 47.5 71.3  
119 32.7 25.6 38.4

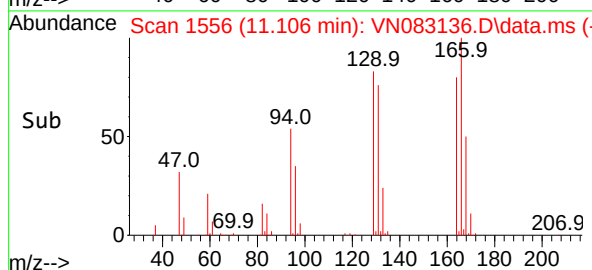
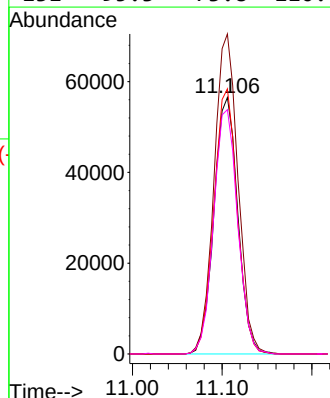
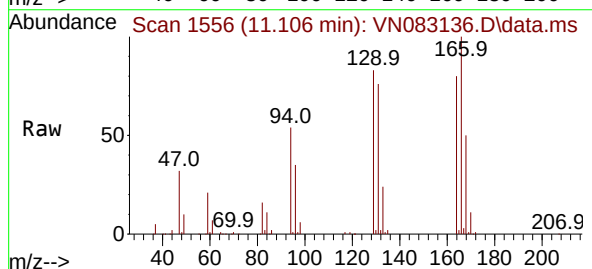
Manual Integrations  
APPROVED

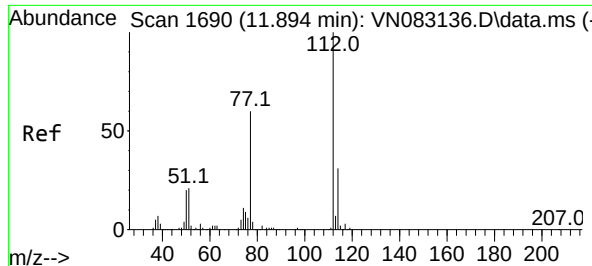
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#64  
Tetrachloroethene  
Concen: 51.784 ug/l  
RT: 11.106 min Scan# 1556  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

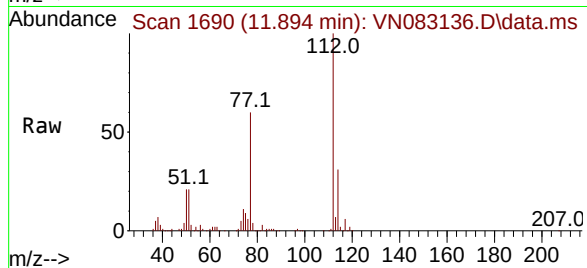
Tgt Ion:164 Resp: 103955  
Ion Ratio Lower Upper  
164 100  
166 124.8 101.4 152.0  
129 103.3 75.7 113.5  
131 95.3 73.8 110.6





#65  
Chlorobenzene  
Concen: 51.679 ug/l  
RT: 11.894 min Scan# 1690  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

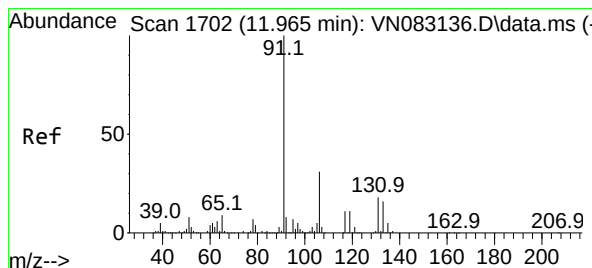
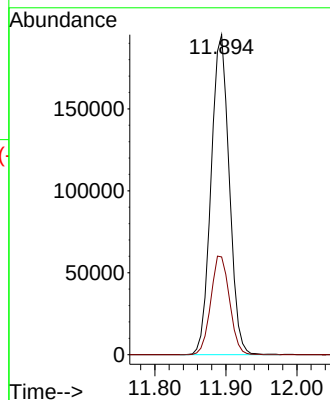
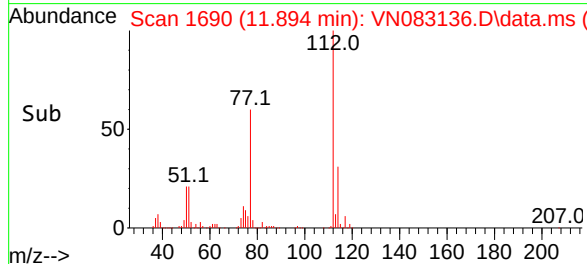
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050



Tgt Ion:112 Resp: 346172  
Ion Ratio Lower Upper  
112 100  
114 30.6 26.2 39.2

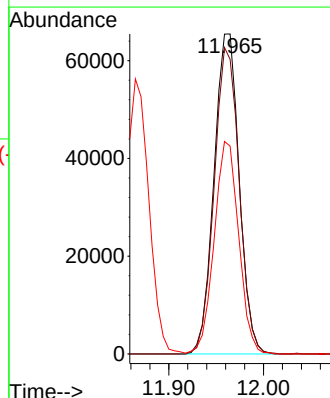
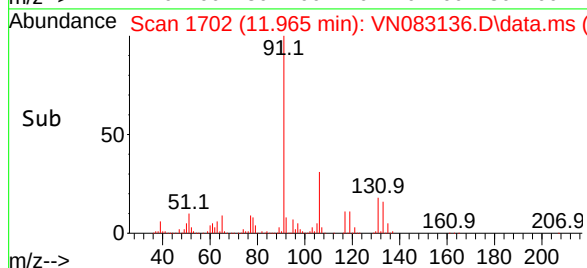
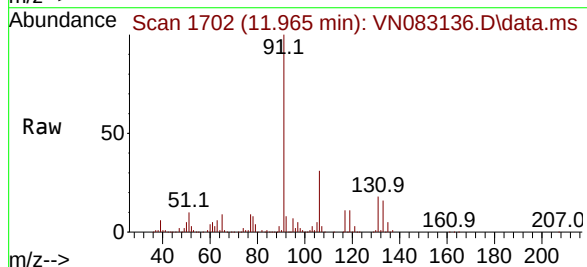
Manual Integrations  
APPROVED

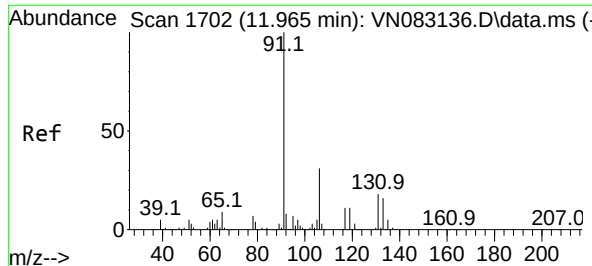
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#66  
1,1,1,2-Tetrachloroethane  
Concen: 51.242 ug/l  
RT: 11.965 min Scan# 1702  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion:131 Resp: 121057  
Ion Ratio Lower Upper  
131 100  
133 94.9 47.3 142.0  
119 64.7 32.5 97.4





#67

Ethyl Benzene

Concen: 51.179 ug/l

RT: 11.965 min Scan# 1702

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 91 Resp: 628900

Ion Ratio Lower Upper

91 100

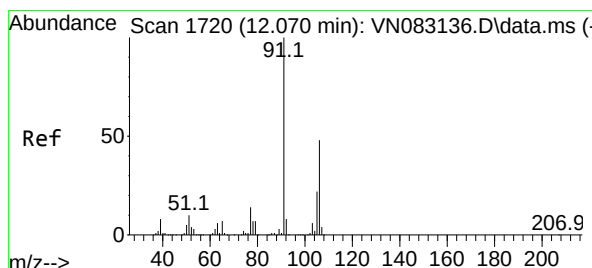
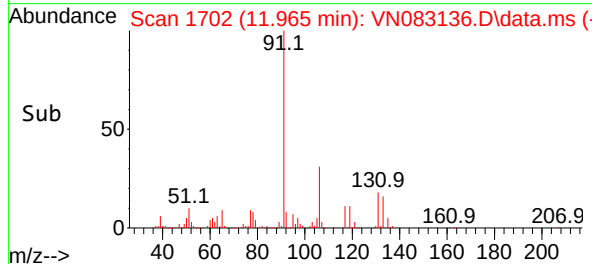
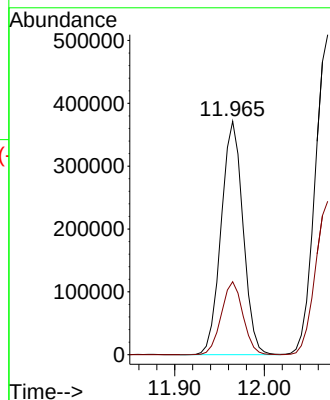
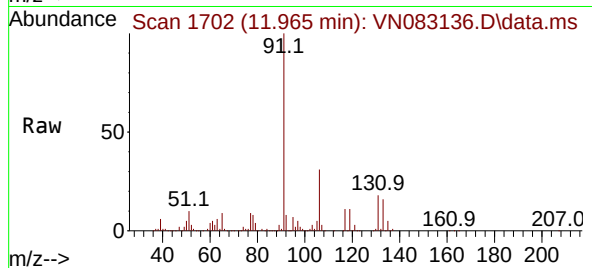
106 31.3 24.0 36.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#68

m/p-Xylenes

Concen: 103.683 ug/l

RT: 12.070 min Scan# 1720

Delta R.T. 0.000 min

Lab File: VN083136.D

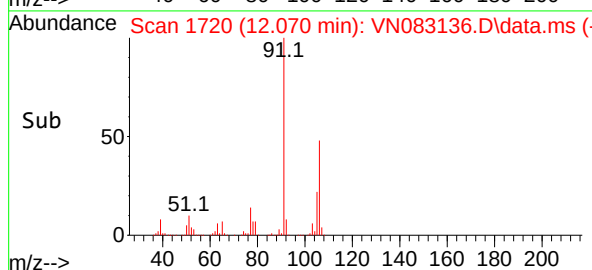
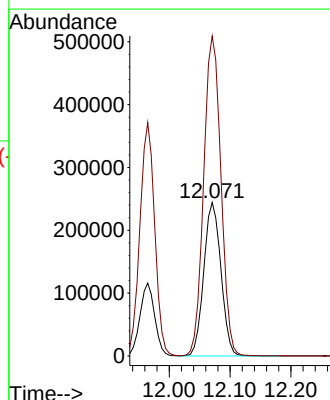
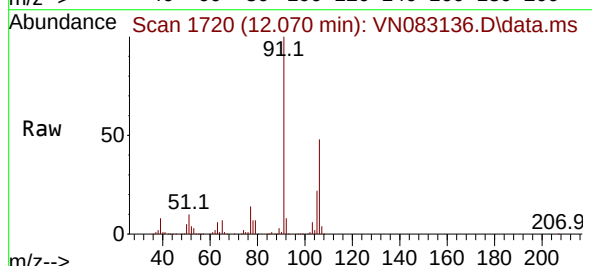
Acq: 07 Aug 2024 10:58

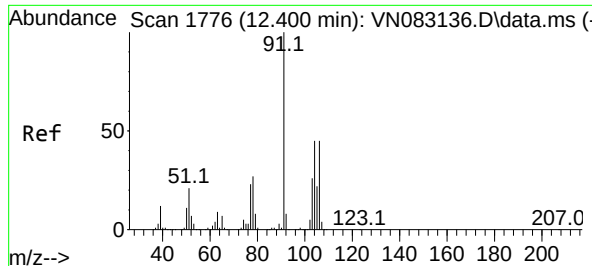
Tgt Ion:106 Resp: 477261

Ion Ratio Lower Upper

106 100

91 209.9 166.1 249.1





#69

o-Xylene

Concen: 51.638 ug/l

RT: 12.400 min Scan# 1776

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:106 Resp: 234432

Ion Ratio Lower Upper

106 100

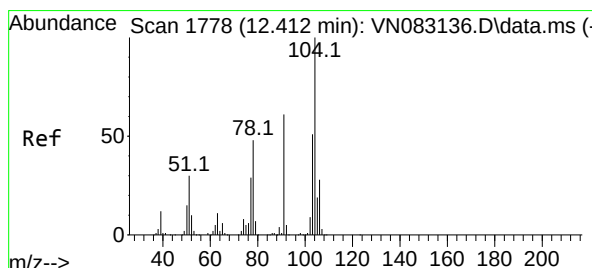
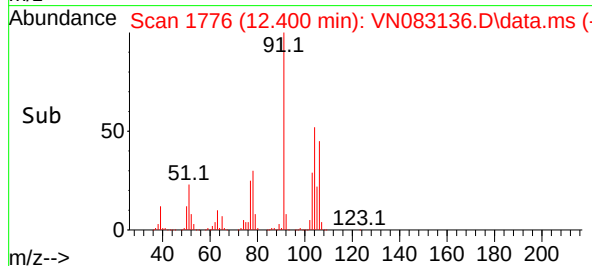
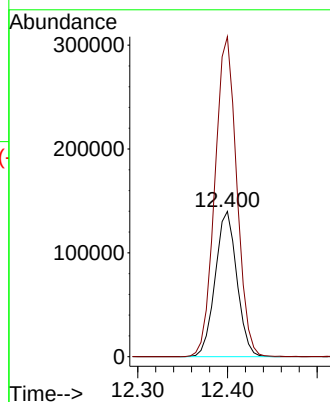
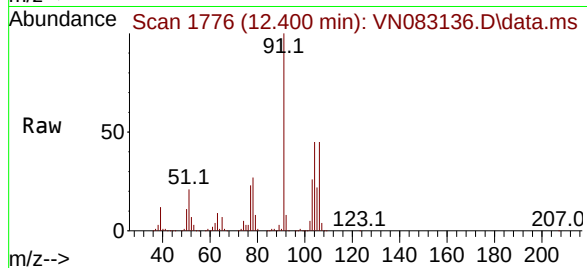
91 222.4 111.3 333.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#70

Styrene

Concen: 53.115 ug/l

RT: 12.412 min Scan# 1778

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

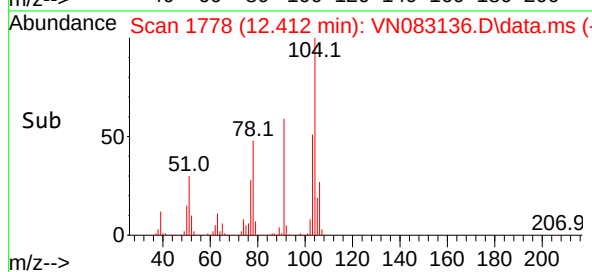
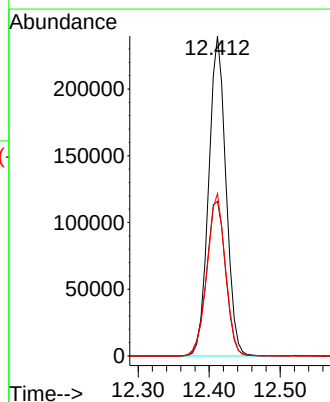
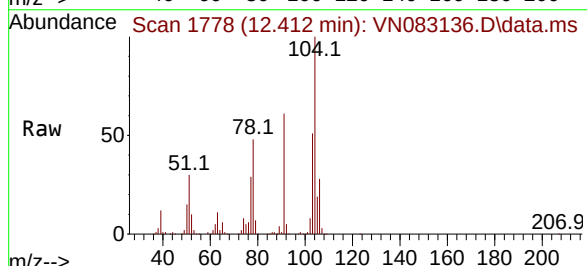
Tgt Ion:104 Resp: 405002

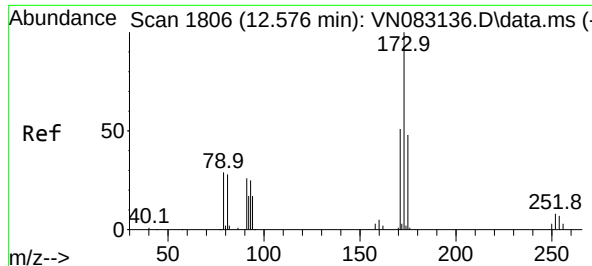
Ion Ratio Lower Upper

104 100

78 53.4 41.6 62.4

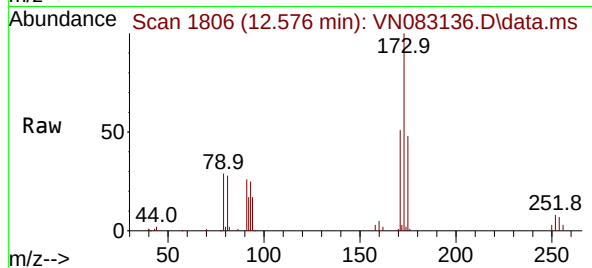
103 53.7 44.0 66.0





#71  
Bromoform  
Concen: 53.850 ug/l  
RT: 12.576 min Scan# 1806  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

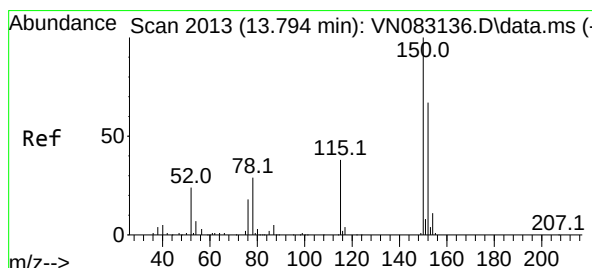
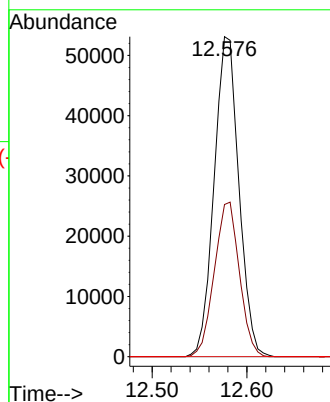
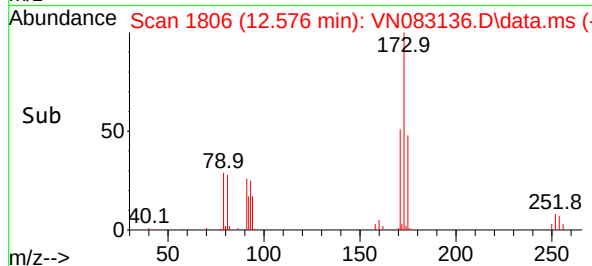
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050



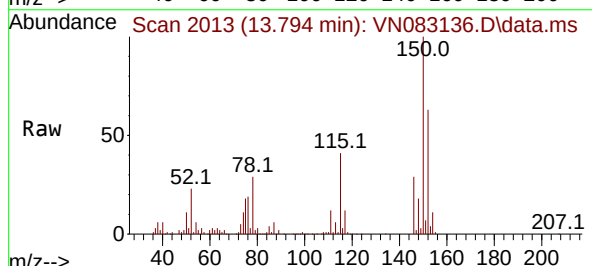
Tgt Ion:173 Resp: 9637  
Ion Ratio Lower Upper  
173 100  
175 48.9 24.0 72.0  
254 0.0 0.0 0.0

Manual Integrations  
APPROVED

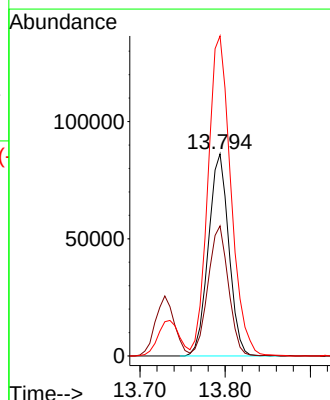
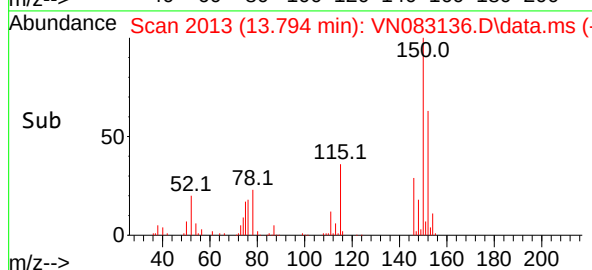
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

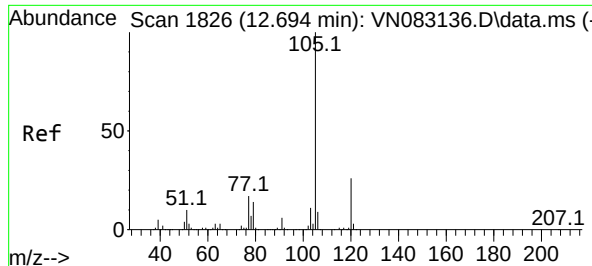


#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.794 min Scan# 1213  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58



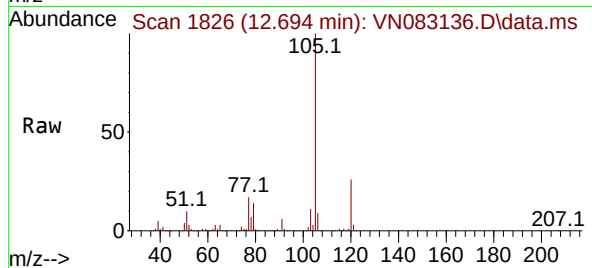
Tgt Ion:152 Resp: 143466  
Ion Ratio Lower Upper  
152 100  
115 63.9 30.6 91.6  
150 177.7 0.0 348.6





#73  
Isopropylbenzene  
Concen: 50.795 ug/l  
RT: 12.694 min Scan# 1826  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

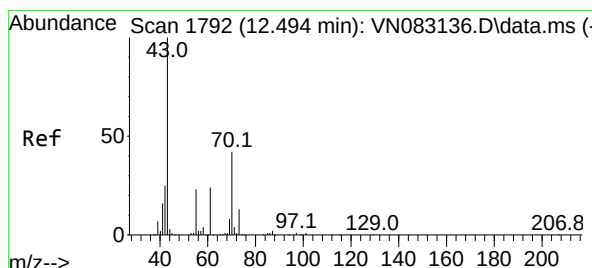
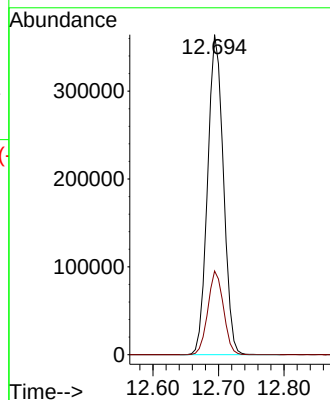
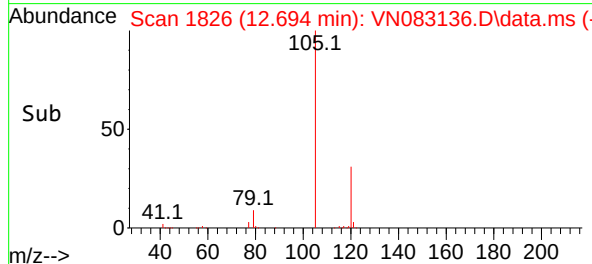
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050



Tgt Ion:105 Resp: 609529  
Ion Ratio Lower Upper  
105 100  
120 25.8 12.9 38.6

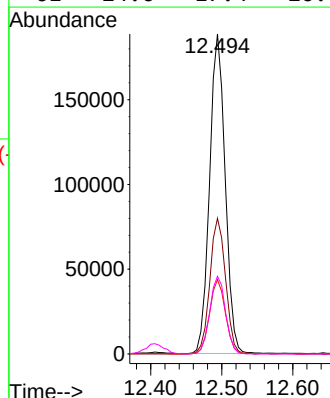
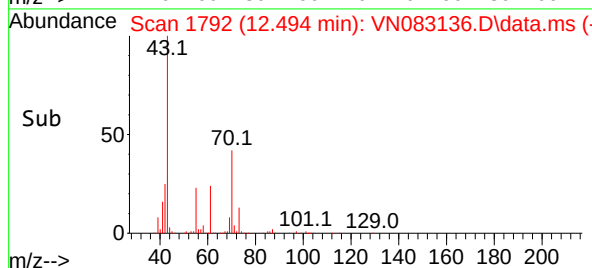
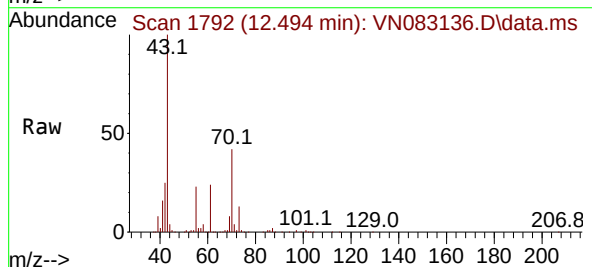
Manual Integrations  
APPROVED

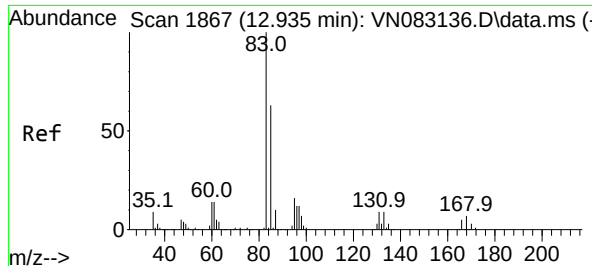
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#74  
N-ethyl acetate  
Concen: 48.950 ug/l  
RT: 12.494 min Scan# 1792  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 43 Resp: 287319  
Ion Ratio Lower Upper  
43 100  
70 42.7 29.8 44.6  
55 23.8 18.7 28.1  
61 24.6 17.4 26.0





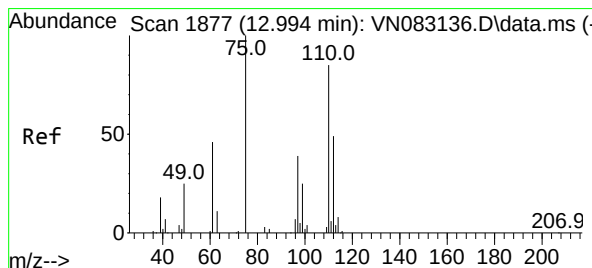
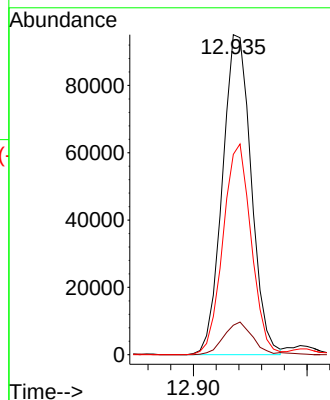
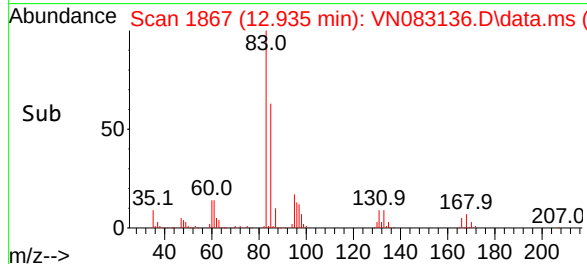
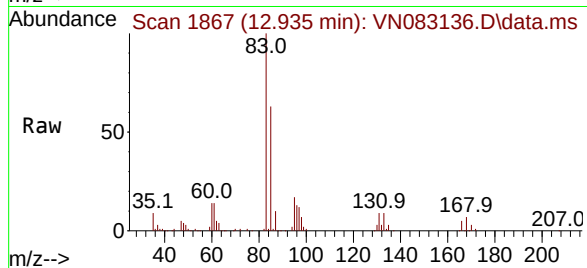
#75  
1,1,2,2-Tetrachloroethane  
Concen: 49.349 ug/l  
RT: 12.935 min Scan# 1867  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 83 Resp: 167489  
Ion Ratio Lower Upper  
83 100  
131 10.4 5.0 14.9  
85 64.4 31.9 95.7

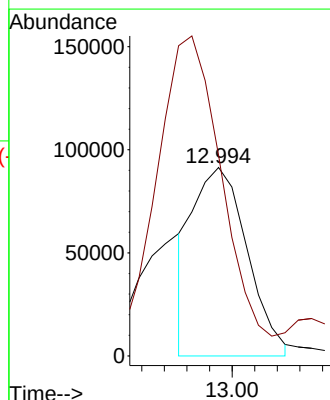
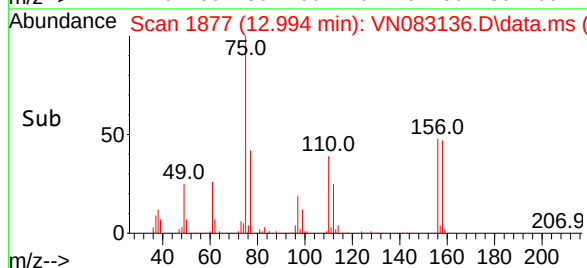
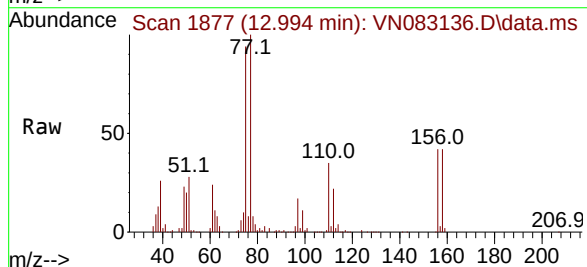
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

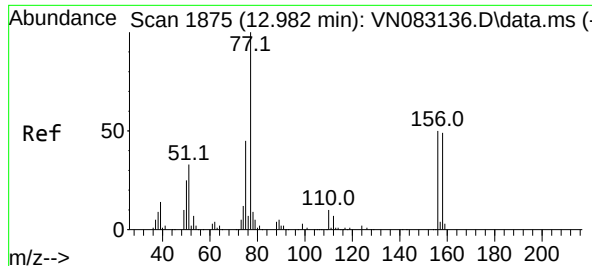


#76  
1,2,3-Trichloropropane  
Concen: 48.363 ug/l m  
RT: 12.994 min Scan# 1877  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 75 Resp: 152531  
Ion Ratio Lower Upper  
75 100  
77 207.4 110.9 332.6







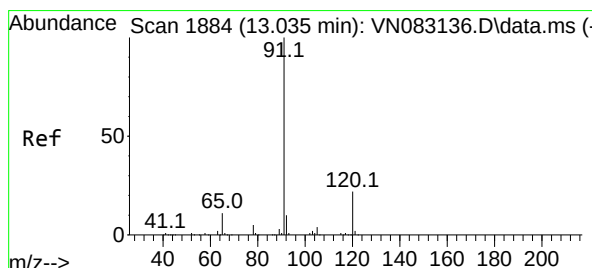
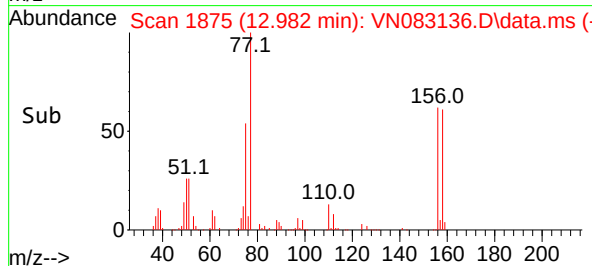
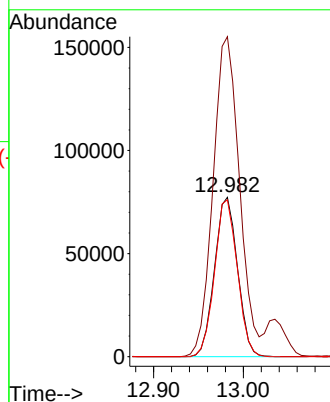
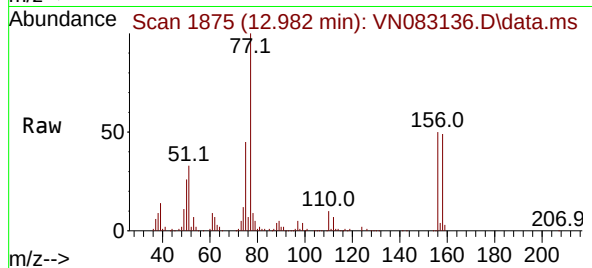
#77  
Bromobenzene  
Concen: 51.587 ug/l  
RT: 12.982 min Scan# 1875  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion:156 Resp: 137514  
Ion Ratio Lower Upper  
156 100  
77 230.1 111.3 333.8  
158 97.4 48.3 144.9

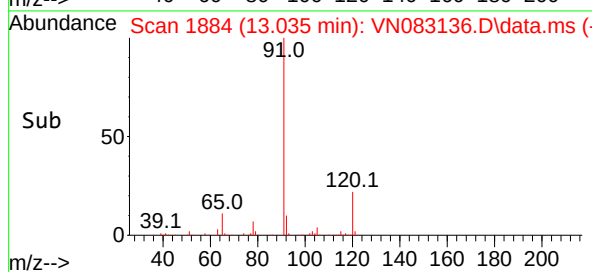
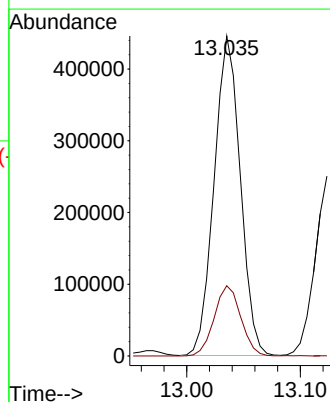
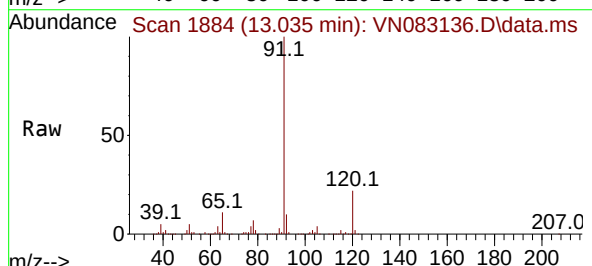
Manual Integrations  
APPROVED

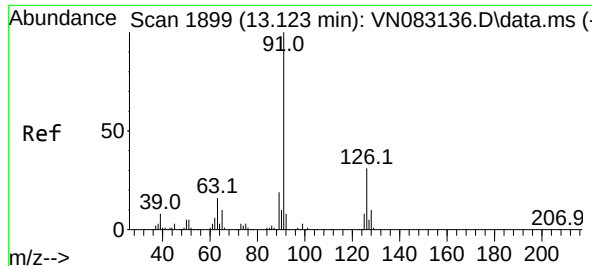
Reviewed By :John Carbone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#78  
n-propylbenzene  
Concen: 51.584 ug/l  
RT: 13.035 min Scan# 1884  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion: 91 Resp: 712768  
Ion Ratio Lower Upper  
91 100  
120 22.3 10.9 32.9





#79

2-Chlorotoluene

Concen: 50.371 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion: 91 Resp: 441262

Ion Ratio Lower Upper

91 100

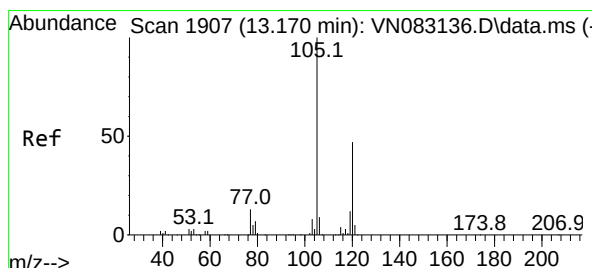
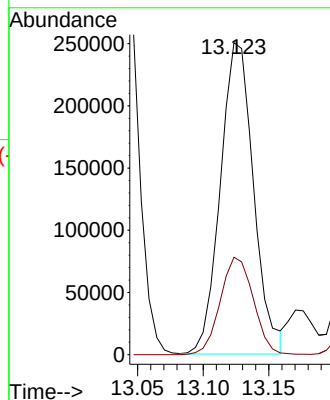
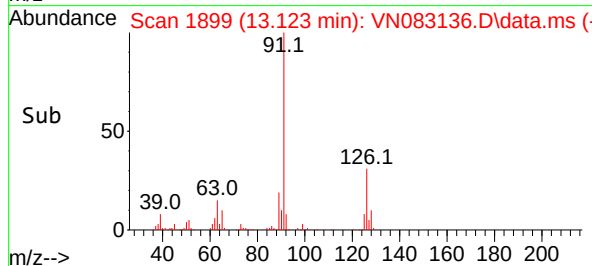
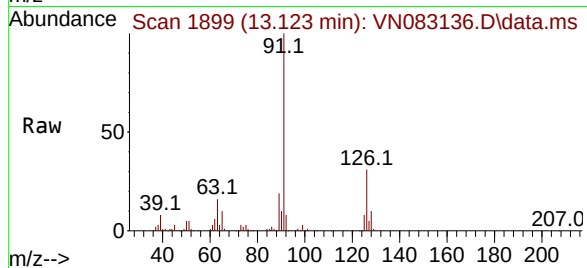
126 31.1 16.2 48.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#80

1,3,5-Trimethylbenzene

Concen: 51.254 ug/l

RT: 13.170 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VN083136.D

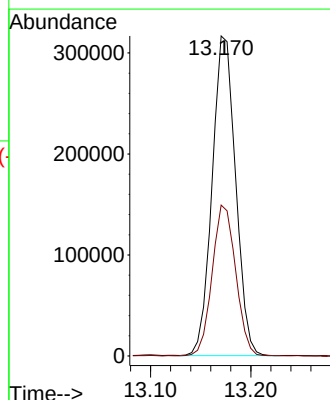
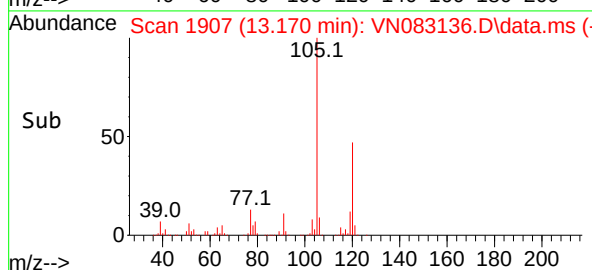
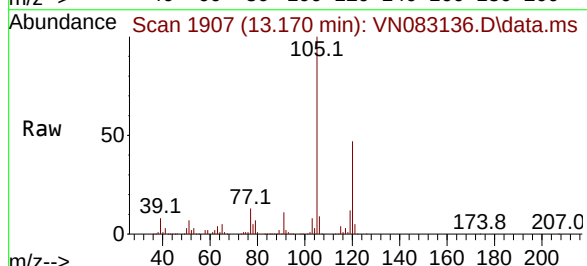
Acq: 07 Aug 2024 10:58

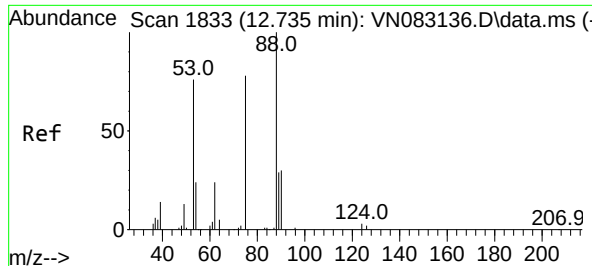
Tgt Ion:105 Resp: 514918

Ion Ratio Lower Upper

105 100

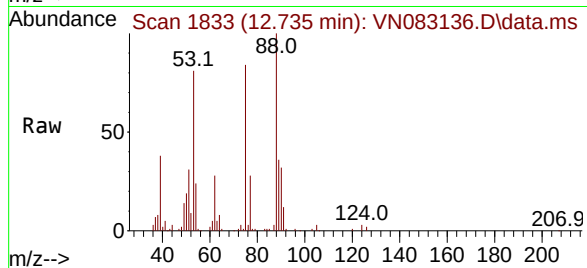
120 47.5 24.3 72.8





#81  
trans-1,4-Dichloro-2-butene  
Concen: 48.894 ug/l  
RT: 12.735 min Scan# 1833  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

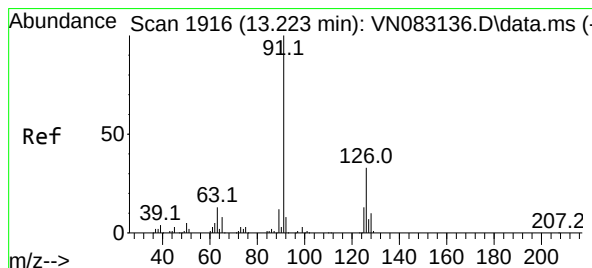
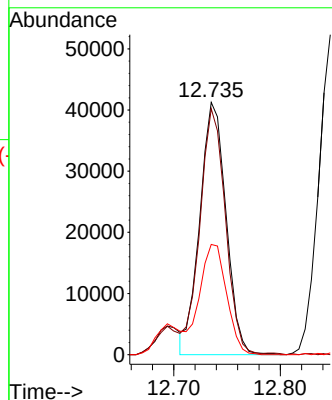
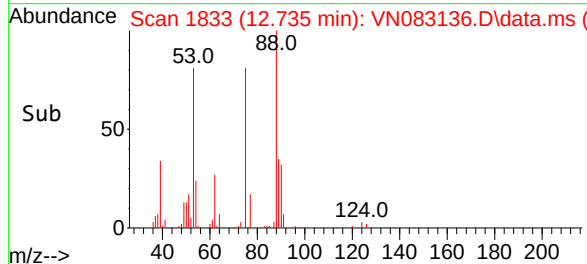
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050



Tgt Ion: 75 Resp: 70770  
Ion Ratio Lower Upper  
75 100  
53 94.2 88.4 132.6  
89 44.3 36.3 54.5

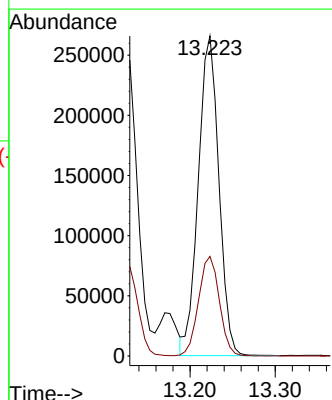
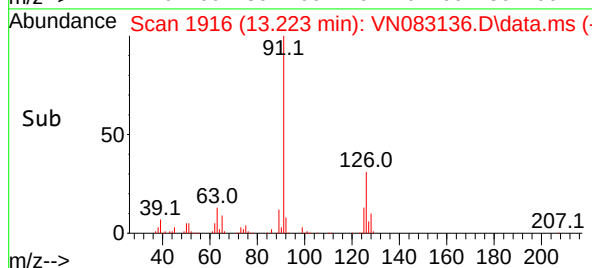
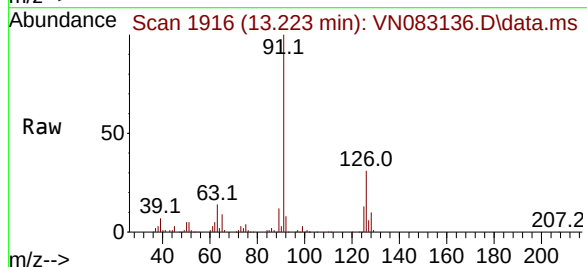
Manual Integrations  
APPROVED

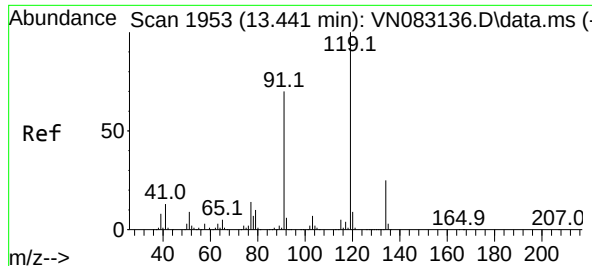
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#82  
4-Chlorotoluene  
Concen: 50.684 ug/l  
RT: 13.223 min Scan# 1916  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

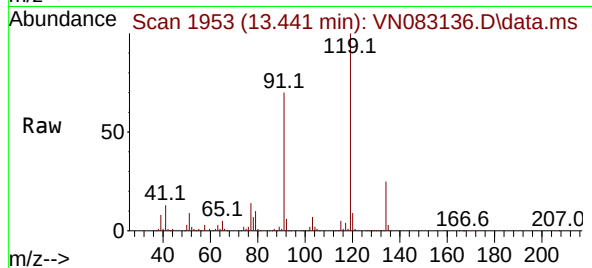
Tgt Ion: 91 Resp: 445369  
Ion Ratio Lower Upper  
91 100  
126 31.6 16.2 48.6





#83  
tert-Butylbenzene  
Concen: 50.983 ug/l  
RT: 13.441 min Scan# 1953  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

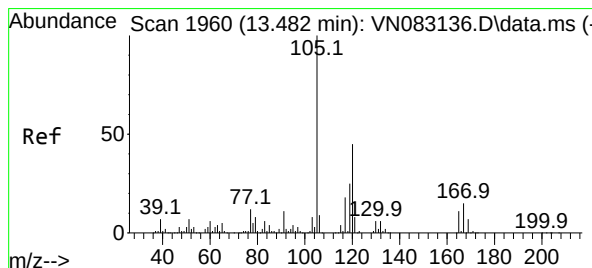
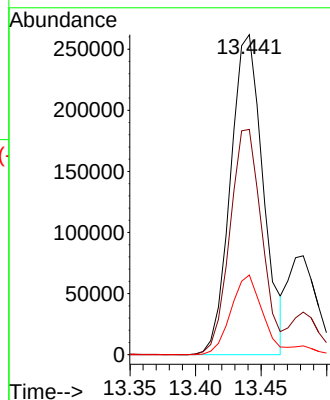
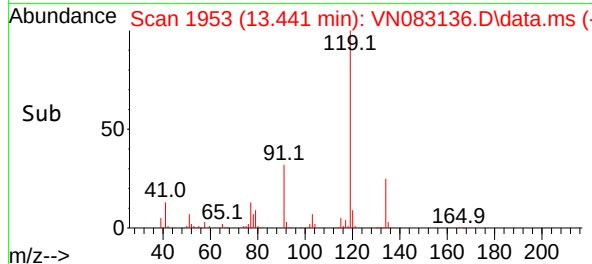
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050



Tgt Ion:119 Resp: 453597  
Ion Ratio Lower Upper  
119 100  
91 68.9 35.0 105.1  
134 24.1 13.3 39.8

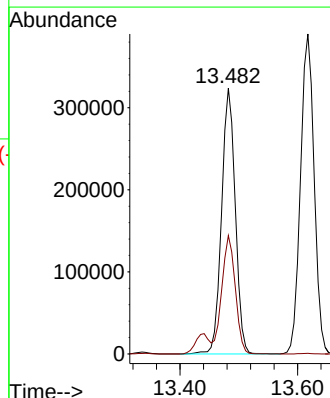
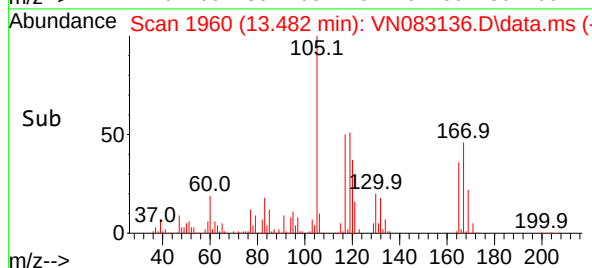
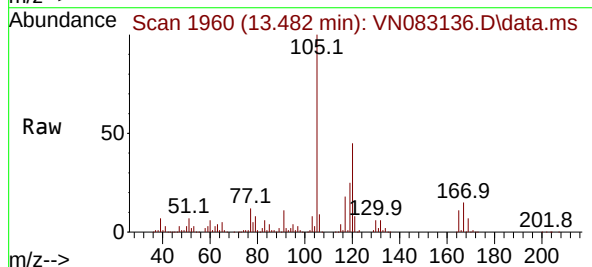
Manual Integrations  
APPROVED

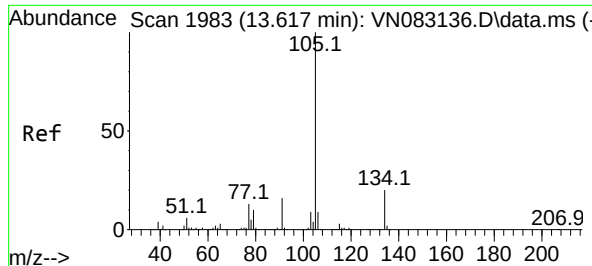
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#84  
1,2,4-Trimethylbenzene  
Concen: 51.778 ug/l  
RT: 13.482 min Scan# 1960  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion:105 Resp: 524226  
Ion Ratio Lower Upper  
105 100  
120 44.1 21.9 65.8





#85

sec-Butylbenzene

Concen: 51.809 ug/l

RT: 13.617 min Scan# 1983

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:105 Resp: 628959

Ion Ratio Lower Upper

105 100

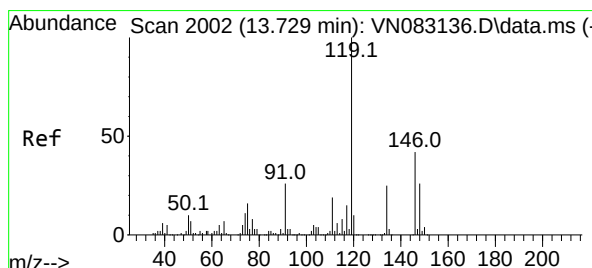
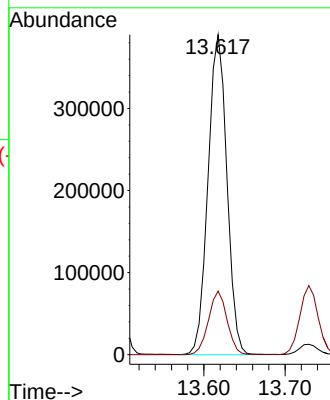
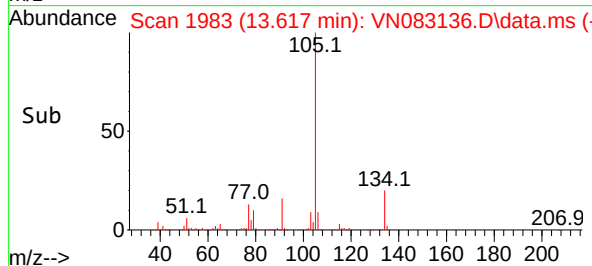
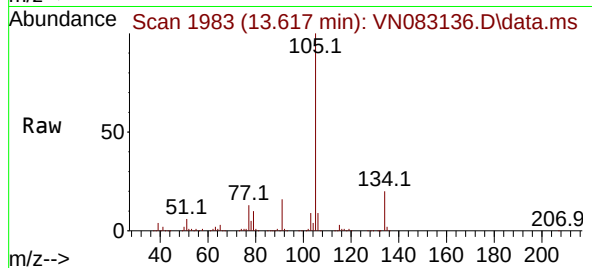
134 19.6 9.8 29.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#86

p-Isopropyltoluene

Concen: 52.699 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

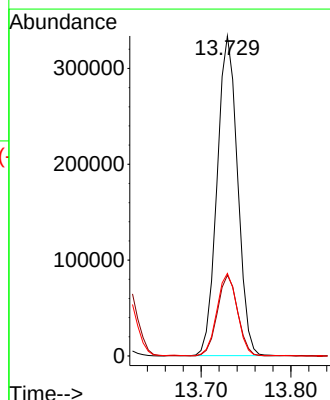
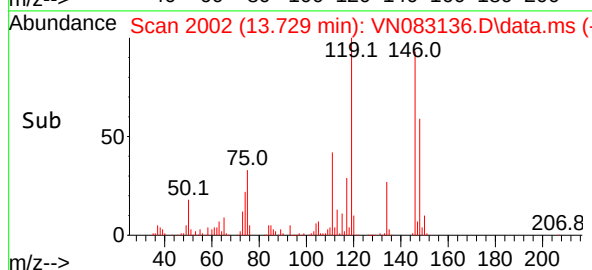
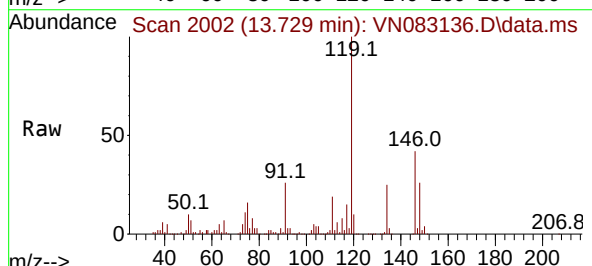
Tgt Ion:119 Resp: 528236

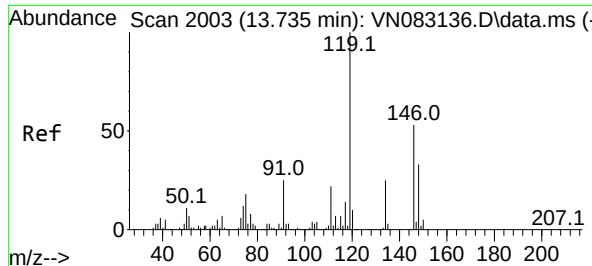
Ion Ratio Lower Upper

119 100

134 24.8 13.0 39.0

91 25.4 12.3 36.9





#87

1,3-Dichlorobenzene

Concen: 50.651 ug/l

RT: 13.735 min Scan# 2003

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:146 Resp: 254058

Ion Ratio Lower Upper

146 100

111 43.1 20.6 61.9

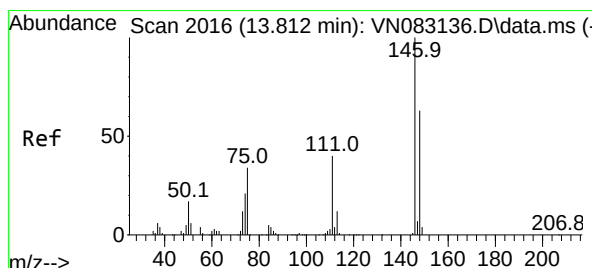
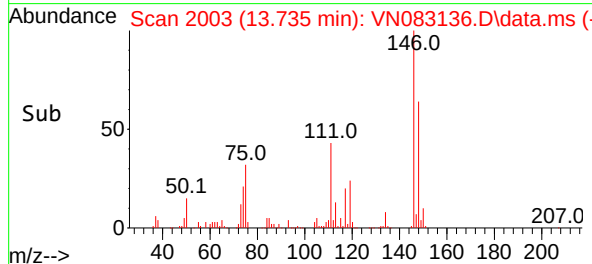
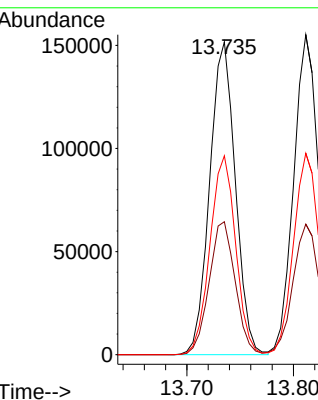
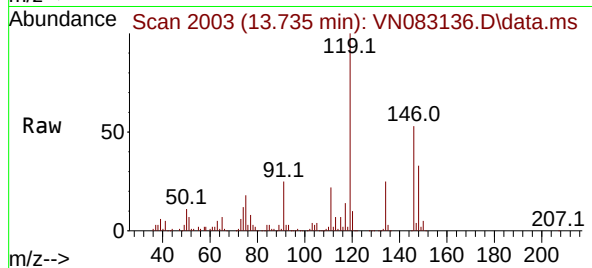
148 63.5 31.8 95.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#88

1,4-Dichlorobenzene

Concen: 50.589 ug/l

RT: 13.812 min Scan# 2016

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

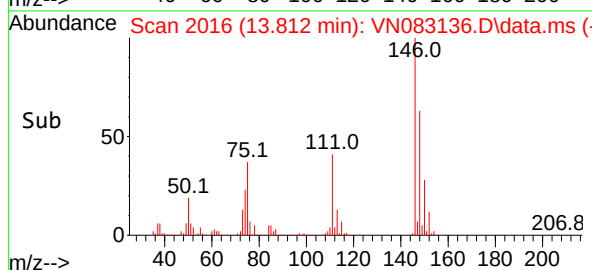
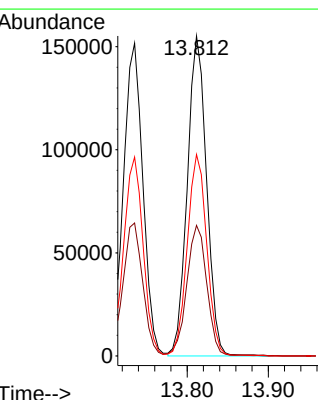
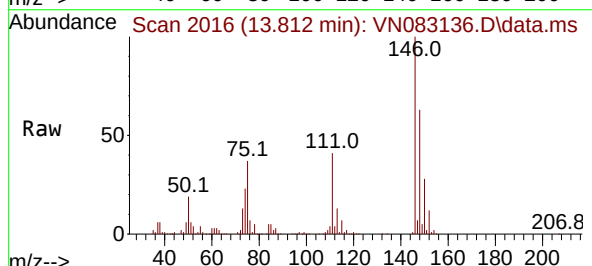
Tgt Ion:146 Resp: 255814

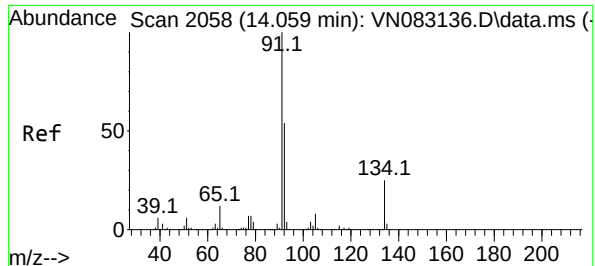
Ion Ratio Lower Upper

146 100

111 42.0 20.1 60.3

148 64.0 32.2 96.6





#89

n-Butylbenzene

Concen: 53.120 ug/l

RT: 14.059 min Scan# 2058

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

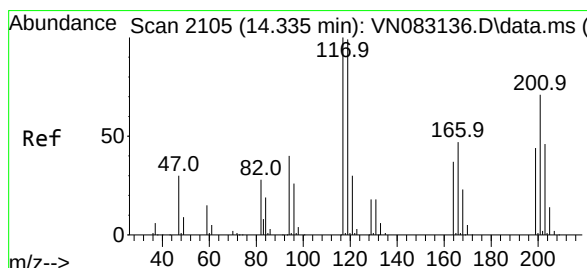
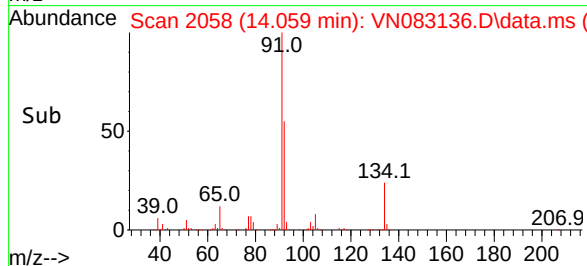
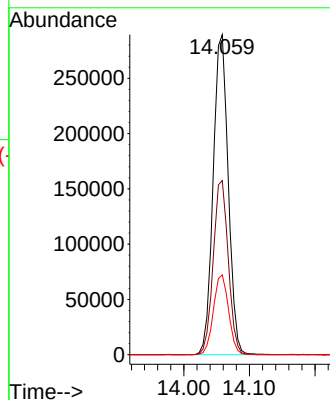
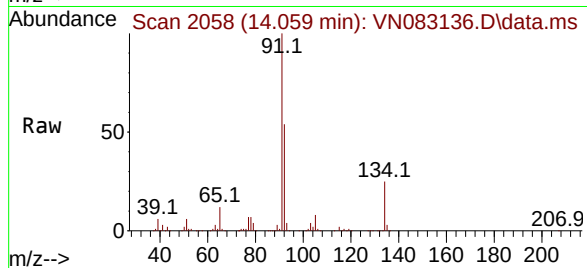
VSTDICCC050

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 91    | Resp: | 46137 |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 92       | 54.4  | 26.1  | 78.3  |
| 134      | 25.1  | 12.1  | 36.3  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#90

Hexachloroethane

Concen: 51.037 ug/l

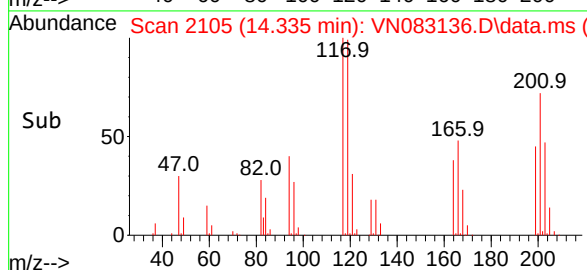
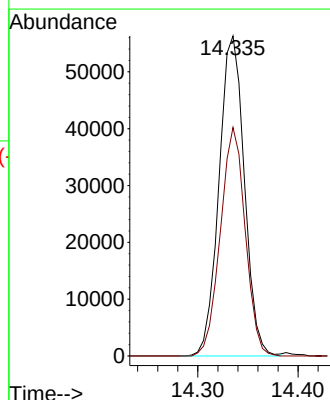
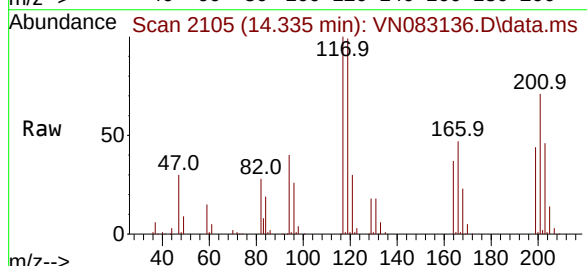
RT: 14.335 min Scan# 2105

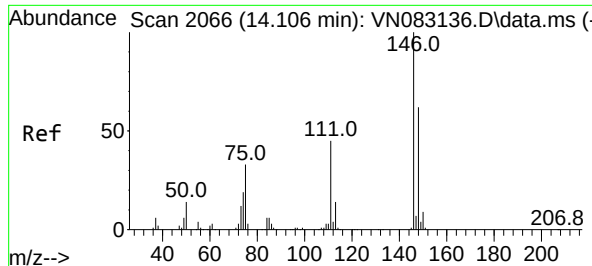
Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 98836 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 201      | 69.9  | 35.8  | 107.3 |





#91

1,2-Dichlorobenzene

Concen: 50.365 ug/l

RT: 14.106 min Scan# 2066

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:146 Resp: 244462

Ion Ratio Lower Upper

146 100

111 45.3 21.4 64.2

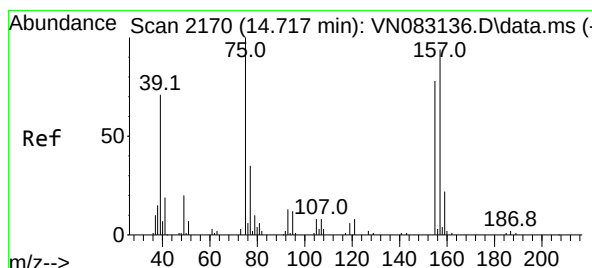
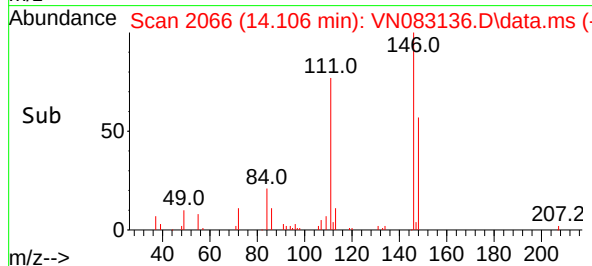
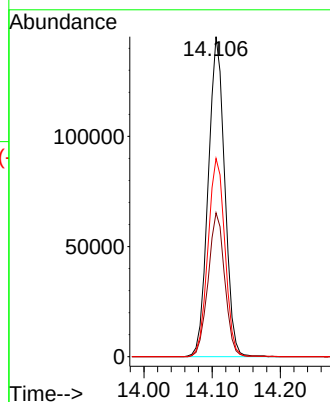
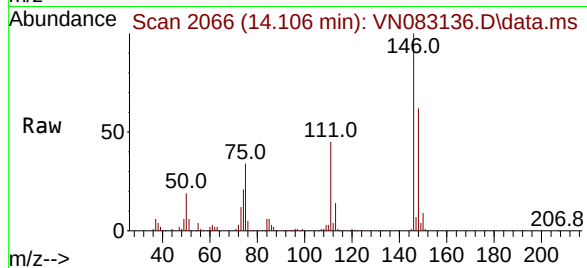
148 63.6 32.1 96.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#92

1,2-Dibromo-3-Chloropropane

Concen: 49.017 ug/l

RT: 14.717 min Scan# 2170

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

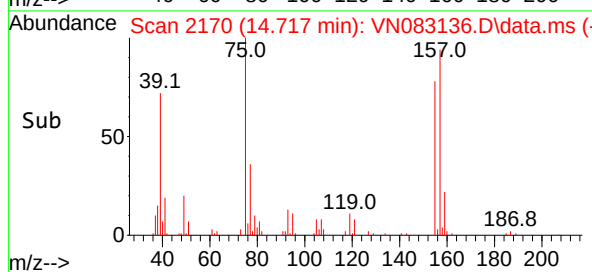
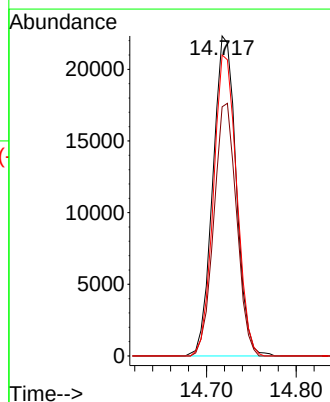
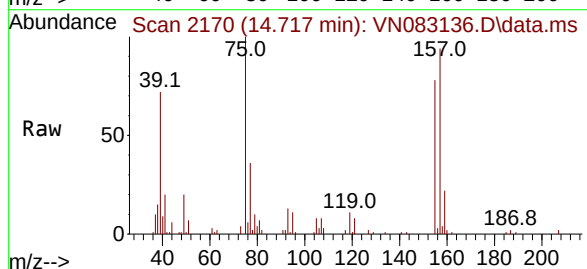
Tgt Ion: 75 Resp: 40369

Ion Ratio Lower Upper

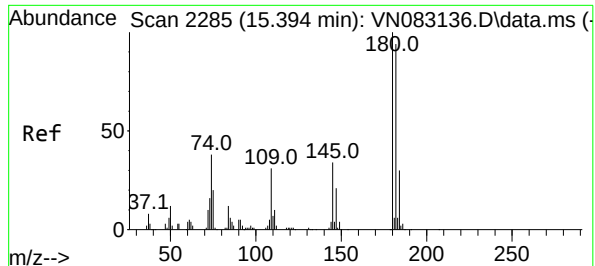
75 100

155 76.6 36.6 109.8

157 93.4 46.9 140.6







#93

1,2,4-Trichlorobenzene

Concen: 51.937 ug/l

RT: 15.394 min Scan# 2285

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICCC050

Tgt Ion:180 Resp: 141229

Ion Ratio Lower Upper

180 100

182 94.1 47.3 141.8

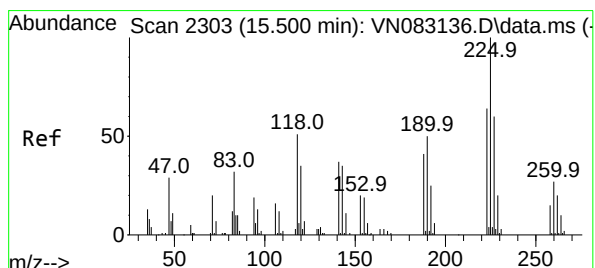
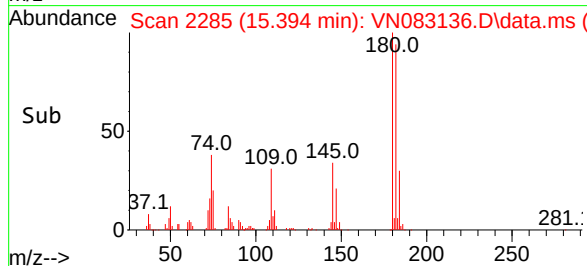
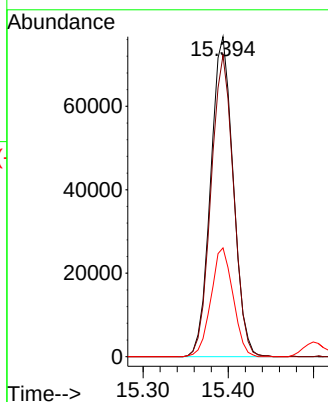
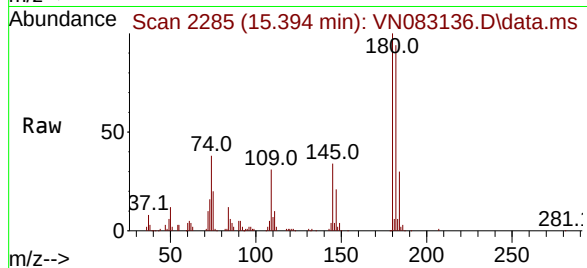
145 33.3 15.7 47.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#94

Hexachlorobutadiene

Concen: 48.509 ug/l

RT: 15.500 min Scan# 2303

Delta R.T. 0.000 min

Lab File: VN083136.D

Acq: 07 Aug 2024 10:58

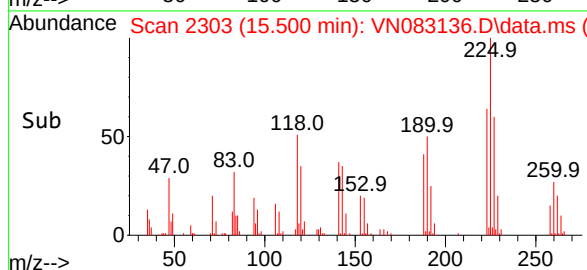
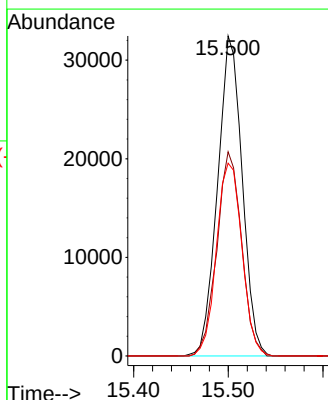
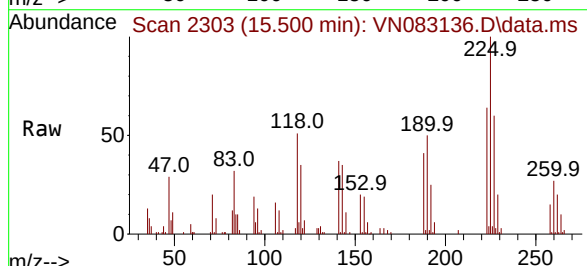
Tgt Ion:225 Resp: 58664

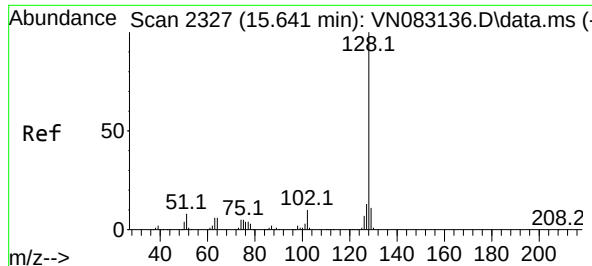
Ion Ratio Lower Upper

225 100

223 63.9 31.9 95.7

227 62.3 32.5 97.5





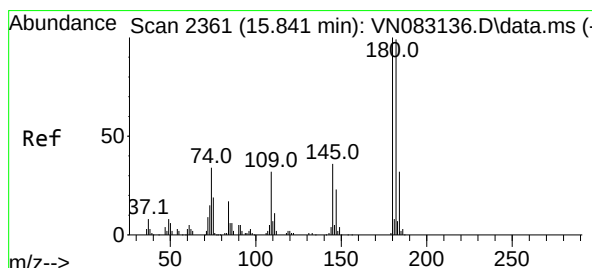
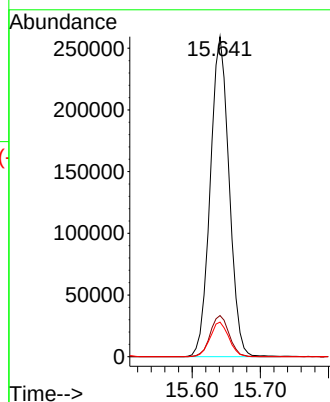
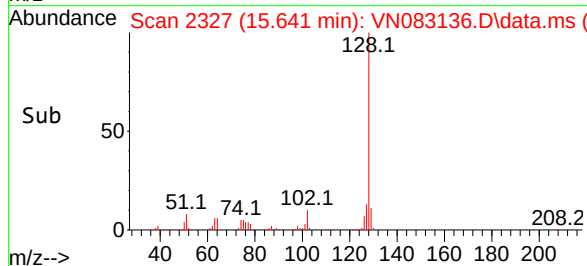
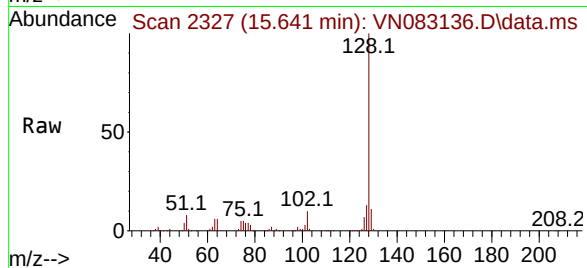
#95  
Naphthalene  
Concen: 51.844 ug/l  
RT: 15.641 min Scan# 2327  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICCC050

Tgt Ion:128 Resp: 499372  
Ion Ratio Lower Upper  
128 100  
127 12.9 10.6 16.0  
129 10.7 8.6 12.8

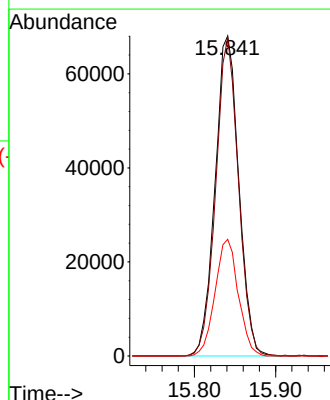
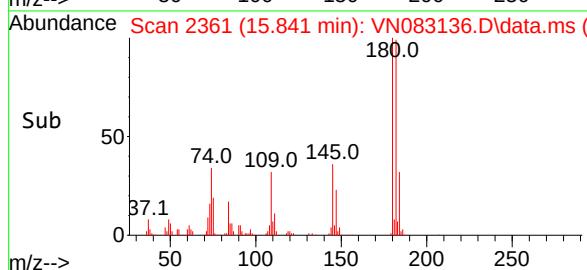
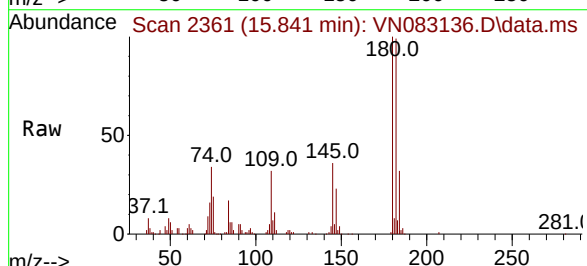
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#96  
1,2,3-Trichlorobenzene  
Concen: 51.335 ug/l  
RT: 15.841 min Scan# 2361  
Delta R.T. 0.000 min  
Lab File: VN083136.D  
Acq: 07 Aug 2024 10:58

Tgt Ion:180 Resp: 138125  
Ion Ratio Lower Upper  
180 100  
182 95.2 48.9 146.8  
145 35.8 16.8 50.4



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
 Data File : VN083137.D  
 Acq On : 07 Aug 2024 11:22  
 Operator : JC\MD  
 Sample : VSTDICC020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC020

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 08/08/2024  
 Supervised By : Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:16:37 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 05:50:26 2024  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 212913   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 362741   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 313255   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.794 | 152  | 149244   | 50.000 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |          |
|---------------------------|--------|-------|----------|----------|------|----------|
| 33) 1,2-Dichloroethane-d4 | 8.583  | 65    | 51159    | 16.881   | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 74 - 125 | Recovery | =    | 33.760%# |
| 35) Dibromofluoromethane  | 8.171  | 113   | 38354    | 16.940   | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 75 - 124 | Recovery | =    | 33.880%# |
| 50) Toluene-d8            | 10.565 | 98    | 142952   | 16.926   | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 86 - 113 | Recovery | =    | 33.860%# |
| 62) 4-Bromofluorobenzene  | 12.847 | 95    | 56566    | 17.179   | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 64 - 133 | Recovery | =    | 34.360%# |

## Target Compounds

|                              |       |     |         |         |        | Qvalue |
|------------------------------|-------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 48191   | 19.959  | ug/l   | 95     |
| 3) Chloromethane             | 2.359 | 50  | 49777   | 20.137  | ug/l   | 99     |
| 4) Vinyl Chloride            | 2.512 | 62  | 50108   | 19.866  | ug/l   | 97     |
| 5) Bromomethane              | 2.942 | 94  | 31525   | 20.143  | ug/l   | 89     |
| 6) Chloroethane              | 3.112 | 64  | 30331   | 19.221  | ug/l   | 100    |
| 7) Trichlorofluoromethane    | 3.489 | 101 | 85550   | 20.531  | ug/l   | 99     |
| 8) Diethyl Ether             | 3.959 | 74  | 31256   | 20.158  | ug/l   | 85     |
| 9) 1,1,2-Trichlorotrifluo... | 4.365 | 101 | 46683   | 20.321  | ug/l   | 99     |
| 10) Methyl Iodide            | 4.589 | 142 | 59865   | 19.810  | ug/l   | 96     |
| 11) Tert butyl alcohol       | 5.530 | 59  | 62317   | 98.946  | ug/l   | 97     |
| 12) 1,1-Dichloroethene       | 4.342 | 96  | 45786   | 19.399  | ug/l   | 89     |
| 13) Acrolein                 | 4.183 | 56  | 35516   | 86.524  | ug/l   | 97     |
| 14) Allyl chloride           | 5.018 | 41  | 90544   | 20.301  | ug/l   | 87     |
| 15) Acrylonitrile            | 5.718 | 53  | 129316  | 99.835  | ug/l   | 99     |
| 16) Acetone                  | 4.430 | 43  | 110676  | 93.330  | ug/l   | 95     |
| 17) Carbon Disulfide         | 4.712 | 76  | 135927  | 19.683  | ug/l   | 97     |
| 18) Methyl Acetate           | 5.030 | 43  | 65871   | 18.644  | ug/l # | 91     |
| 19) Methyl tert-butyl Ether  | 5.800 | 73  | 172740  | 20.277  | ug/l   | 97     |
| 20) Methylene Chloride       | 5.271 | 84  | 52716   | 19.316  | ug/l   | 84     |
| 21) trans-1,2-Dichloroethene | 5.789 | 96  | 49121   | 20.137  | ug/l   | 94     |
| 22) Diisopropyl ether        | 6.671 | 45  | 168267  | 20.070  | ug/l # | 95     |
| 23) Vinyl Acetate            | 6.600 | 43  | 871215m | 101.401 | ug/l   |        |
| 24) 1,1-Dichloroethane       | 6.571 | 63  | 93066   | 20.366  | ug/l   | 97     |
| 25) 2-Butanone               | 7.488 | 43  | 180458  | 99.107  | ug/l   | 93     |
| 26) 2,2-Dichloropropane      | 7.488 | 77  | 86767   | 20.445  | ug/l   | 99     |
| 27) cis-1,2-Dichloroethene   | 7.488 | 96  | 58852   | 19.993  | ug/l   | 92     |
| 28) Bromochloromethane       | 7.812 | 49  | 35768   | 19.153  | ug/l   | 86     |
| 29) Tetrahydrofuran          | 7.841 | 42  | 115821  | 98.399  | ug/l # | 86     |
| 30) Chloroform               | 7.965 | 83  | 94560   | 19.917  | ug/l   | 98     |
| 31) Cyclohexane              | 8.253 | 56  | 85978   | 19.144  | ug/l   | 96     |
| 32) 1,1,1-Trichloroethane    | 8.165 | 97  | 90748   | 20.194  | ug/l   | 91     |
| 36) 1,1-Dichloropropene      | 8.377 | 75  | 68425   | 19.978  | ug/l   | 98     |
| 37) Ethyl Acetate            | 7.565 | 43  | 72806   | 18.985  | ug/l # | 93     |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 79487   | 20.605  | ug/l   | 98     |
| 39) Methylcyclohexane        | 9.600 | 83  | 85173   | 20.246  | ug/l   | 95     |
| 40) Benzene                  | 8.606 | 78  | 207581  | 20.345  | ug/l   | 99     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
 Data File : VN083137.D  
 Acq On : 07 Aug 2024 11:22  
 Operator : JC\MD  
 Sample : VSTDICC020  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 5 Sample Multiplier: 1

## Instrument :

MSVOA\_N

## ClientSampleId :

VSTDICC020

## Manual Integrations

## APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:16:37 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M

Quant Title : SW846 8260

QLast Update : Thu Aug 08 05:50:26 2024

Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 43539    | 19.968  | ug/l   | 97       |
| 42) 1,2-Dichloroethane        | 8.671  | 62   | 74567    | 20.062  | ug/l   | 97       |
| 43) Isopropyl Acetate         | 8.688  | 43   | 138715   | 19.459  | ug/l # | 95       |
| 44) Trichloroethene           | 9.353  | 130  | 49712    | 20.469  | ug/l   | 98       |
| 45) 1,2-Dichloropropane       | 9.624  | 63   | 49878    | 20.594  | ug/l   | 100      |
| 46) Dibromomethane            | 9.712  | 93   | 35560    | 20.512  | ug/l   | 98       |
| 47) Bromodichloromethane      | 9.888  | 83   | 78421    | 20.147  | ug/l   | 99       |
| 48) Methyl methacrylate       | 9.682  | 41   | 61044    | 19.254  | ug/l   | 92       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 23083    | 403.558 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone      | 10.447 | 43   | 374332   | 103.224 | ug/l   | 93       |
| 52) Toluene                   | 10.629 | 92   | 131247   | 20.358  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 83139    | 20.793  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 86551    | 20.351  | ug/l   | 92       |
| 55) 1,1,2-Trichloroethane     | 11.018 | 97   | 48081    | 20.811  | ug/l   | 94       |
| 56) Ethyl methacrylate        | 10.877 | 69   | 89503    | 20.550  | ug/l   | 88       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 84272    | 20.464  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 175345   | 95.242  | ug/l   | 96       |
| 59) 2-Hexanone                | 11.194 | 43   | 286222   | 102.020 | ug/l   | 92       |
| 60) Dibromochloromethane      | 11.359 | 129  | 57571    | 20.610  | ug/l   | 98       |
| 61) 1,2-Dibromoethane         | 11.471 | 107  | 48753    | 20.088  | ug/l   | 98       |
| 64) Tetrachloroethene         | 11.106 | 164  | 42332    | 20.405  | ug/l   | 94       |
| 65) Chlorobenzene             | 11.894 | 112  | 137984   | 19.933  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 48247    | 19.762  | ug/l   | 99       |
| 67) Ethyl Benzene             | 11.965 | 91   | 258237   | 20.335  | ug/l   | 98       |
| 68) m/p-Xylenes               | 12.071 | 106  | 193256   | 40.625  | ug/l   | 99       |
| 69) o-Xylene                  | 12.400 | 106  | 95153    | 20.281  | ug/l   | 99       |
| 70) Styrene                   | 12.412 | 104  | 161342   | 20.475  | ug/l   | 98       |
| 71) Bromoform                 | 12.576 | 173  | 38761    | 20.957  | ug/l # | 100      |
| 73) Isopropylbenzene          | 12.694 | 105  | 246711   | 19.764  | ug/l   | 100      |
| 74) N-amyl acetate            | 12.494 | 43   | 116100   | 19.014  | ug/l   | 94       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 69449    | 19.670  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 65295m   | 19.901  | ug/l   |          |
| 77) Bromobenzene              | 12.982 | 156  | 55327    | 19.952  | ug/l   | 94       |
| 78) n-propylbenzene           | 13.035 | 91   | 283745   | 19.740  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 180682   | 19.827  | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 208367   | 19.938  | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-b... | 12.741 | 75   | 31260    | 20.759  | ug/l # | 83       |
| 82) 4-Chlorotoluene           | 13.223 | 91   | 179932   | 19.684  | ug/l   | 98       |
| 83) tert-Butylbenzene         | 13.441 | 119  | 184965   | 19.985  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 210474   | 19.984  | ug/l   | 100      |
| 85) sec-Butylbenzene          | 13.618 | 105  | 250829   | 19.862  | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 208404   | 19.986  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 13.735 | 146  | 103819   | 19.897  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 103132   | 19.605  | ug/l   | 97       |
| 89) n-Butylbenzene            | 14.053 | 91   | 180483   | 19.975  | ug/l   | 97       |
| 90) Hexachloroethane          | 14.335 | 117  | 40982    | 20.343  | ug/l   | 94       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 99334    | 19.673  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.723 | 75   | 16552    | 19.320  | ug/l   | 98       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 56299    | 19.902  | ug/l   | 98       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 23725    | 18.859  | ug/l   | 99       |
| 95) Naphthalene               | 15.641 | 128  | 200875   | 20.047  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 54944    | 19.630  | ug/l   | 96       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083137.D  
Acq On : 07 Aug 2024 11:22  
Operator : JC\MD  
Sample : VSTDICC020  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:16:37 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 05:50:26 2024  
Response via : Initial Calibration

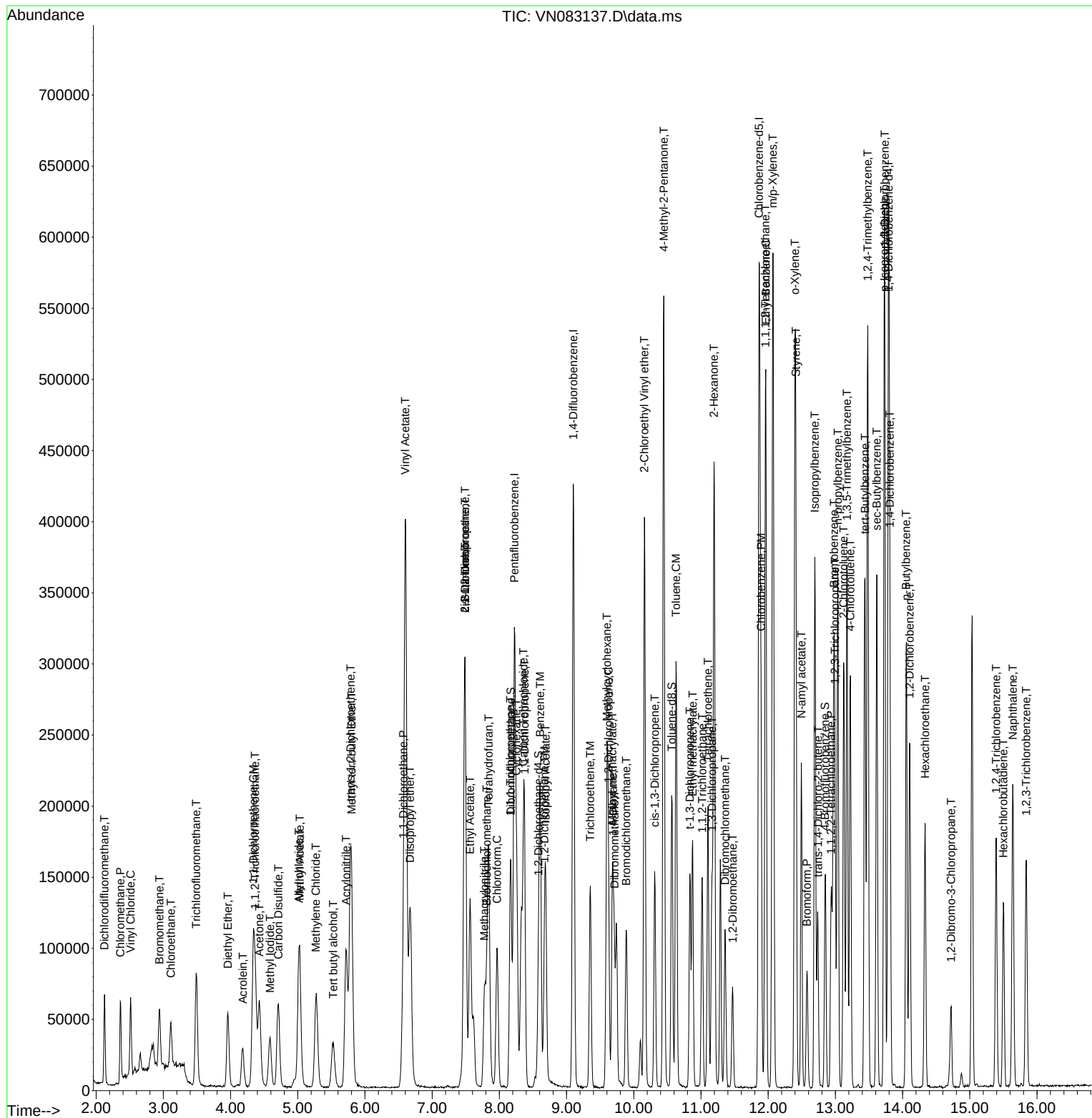
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

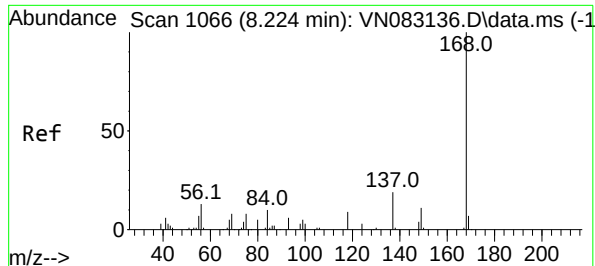
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Instrument :**  
MSVOA\_N  
**ClientSampleId :**  
VSTDICC020

## Manual Integrations

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 8.224 min Scan# 1066

Delta R.T. -0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion:168 Resp: 21291

Ion Ratio Lower Upper

168 100

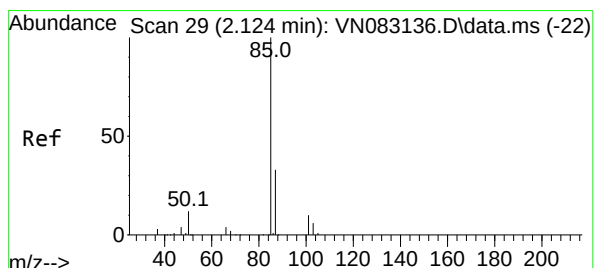
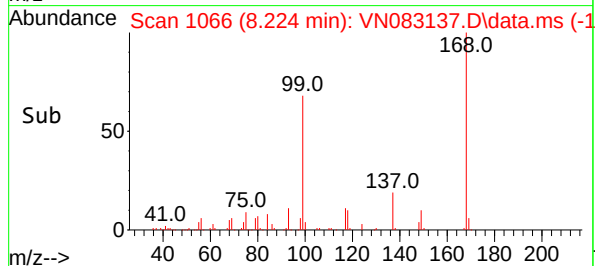
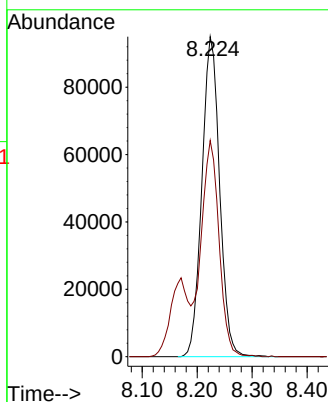
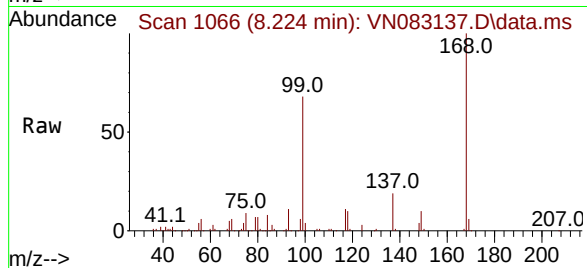
99 67.5 48.2 72.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#2

Dichlorodifluoromethane

Concen: 19.959 ug/l

RT: 2.124 min Scan# 29

Delta R.T. 0.000 min

Lab File: VN083137.D

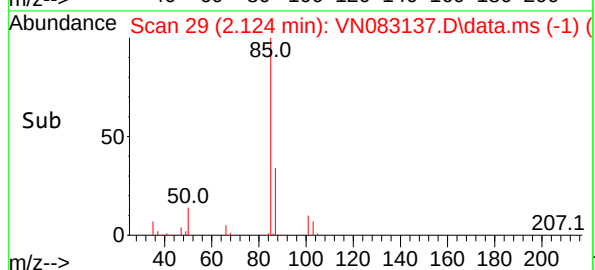
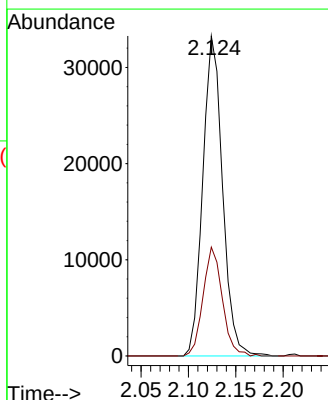
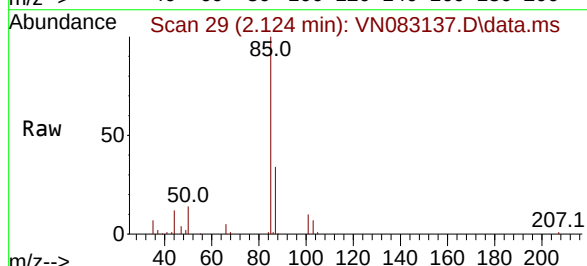
Acq: 07 Aug 2024 11:22

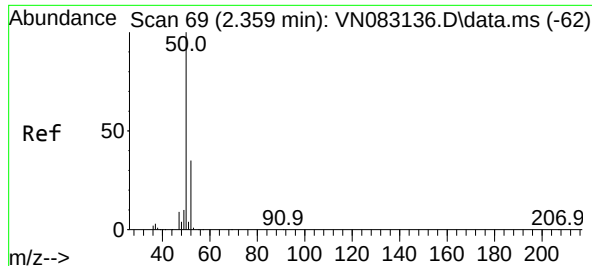
Tgt Ion: 85 Resp: 48191

Ion Ratio Lower Upper

85 100

87 34.0 15.7 47.0





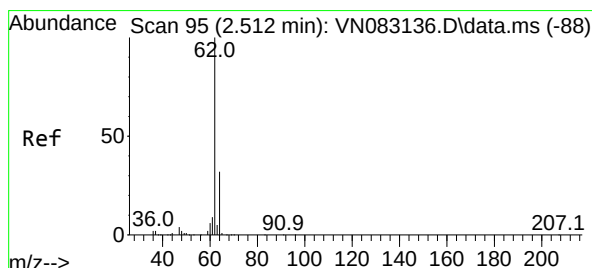
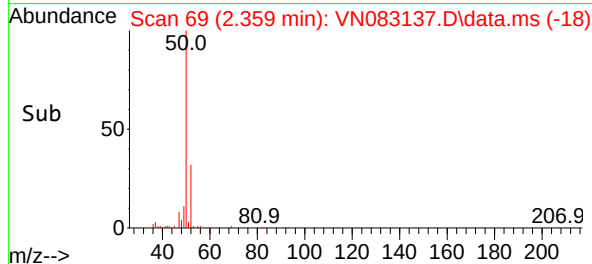
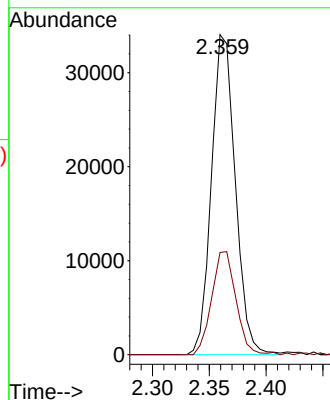
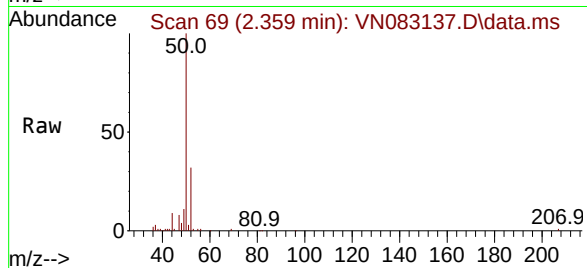
#3  
Chloromethane  
Concen: 20.137 ug/l  
RT: 2.359 min Scan# 69  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

Tgt Ion: 50 Resp: 4977  
Ion Ratio Lower Upper  
50 100  
52 31.9 25.0 37.4

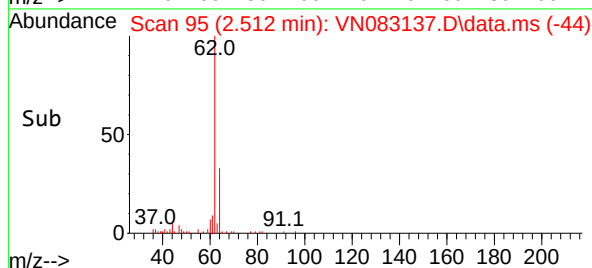
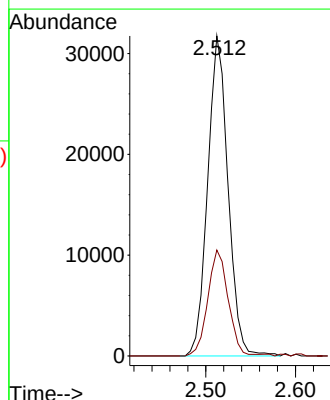
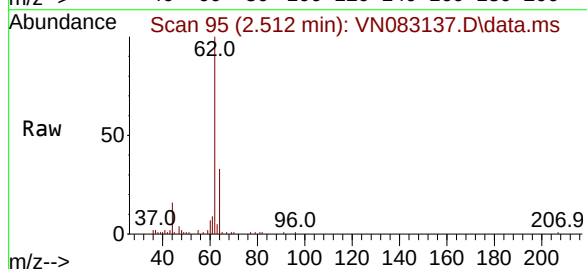
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

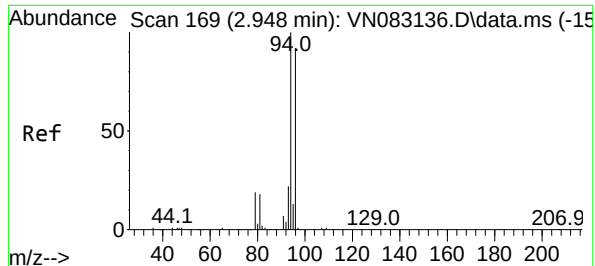


#4  
Vinyl Chloride  
Concen: 19.866 ug/l  
RT: 2.512 min Scan# 95  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion: 62 Resp: 50108  
Ion Ratio Lower Upper  
62 100  
64 33.1 25.0 37.6

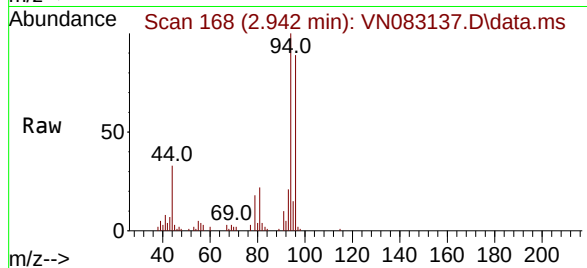






#5  
Bromomethane  
Concen: 20.143 ug/l  
RT: 2.942 min Scan# 168  
Delta R.T. -0.006 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

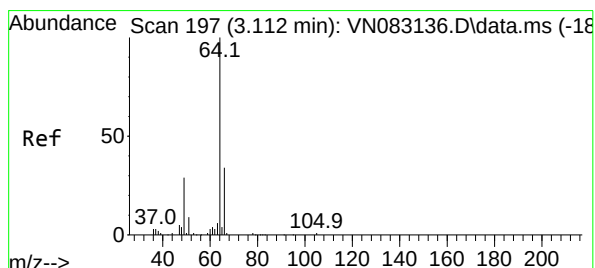
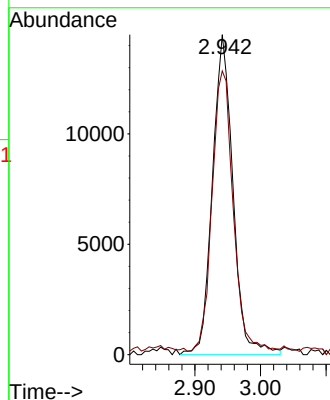
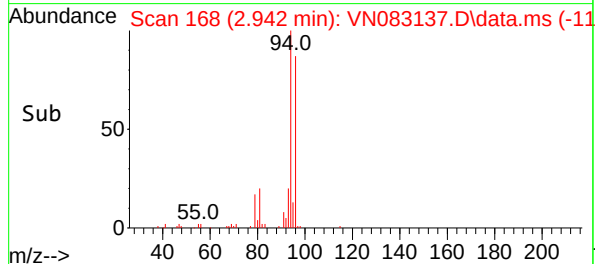
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



Tgt Ion: 94 Resp: 3152  
Ion Ratio Lower Upper  
94 100  
96 87.1 78.0 117.0

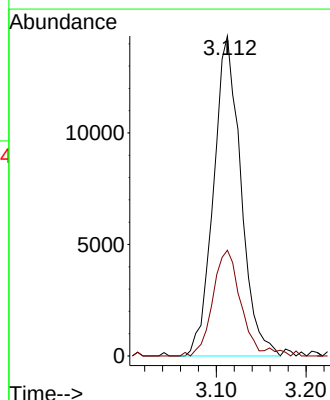
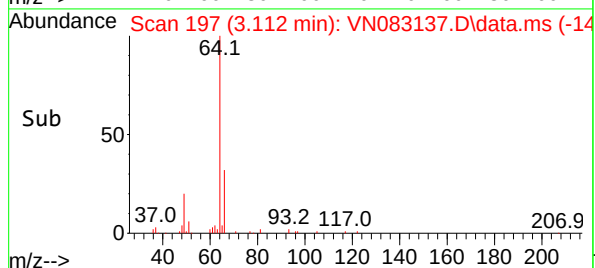
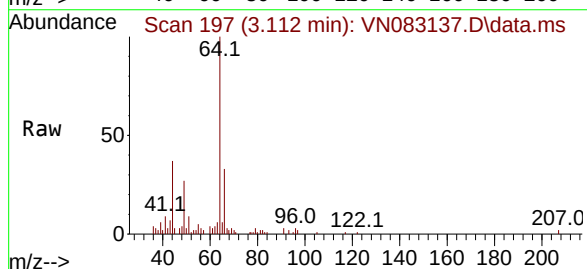
Manual Integrations  
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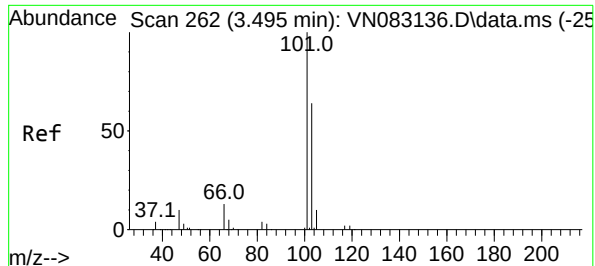
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#6  
Chloroethane  
Concen: 19.221 ug/l  
RT: 3.112 min Scan# 197  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion: 64 Resp: 30331  
Ion Ratio Lower Upper  
64 100  
66 33.0 26.6 40.0





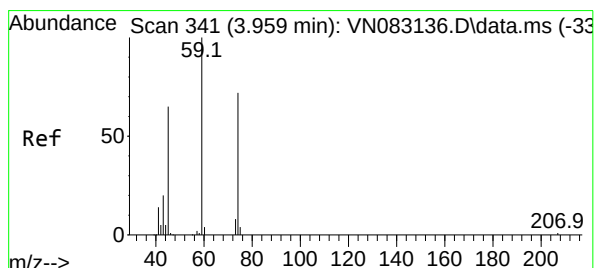
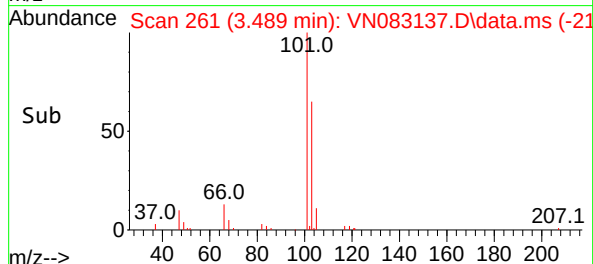
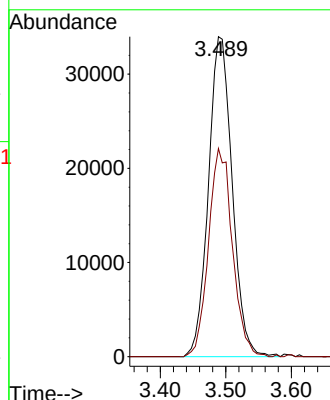
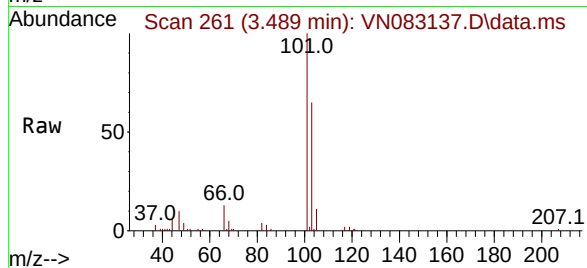
#7  
Trichlorofluoromethane  
Concen: 20.531 ug/l  
RT: 3.489 min Scan# 262  
Delta R.T. -0.006 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

Tgt Ion:101 Resp: 85550  
Ion Ratio Lower Upper  
101 100  
103 65.0 52.7 79.1

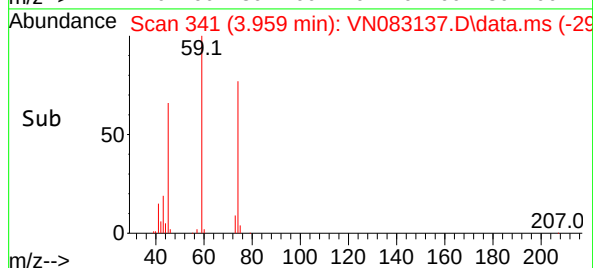
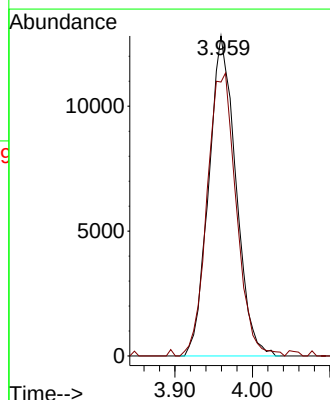
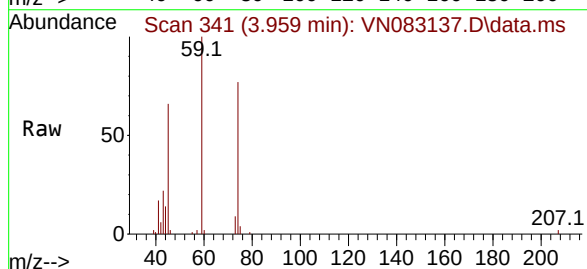
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APPROVED

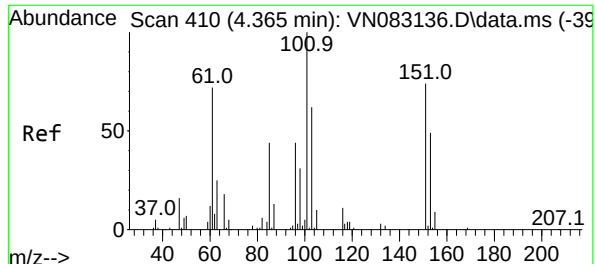
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#8  
Diethyl Ether  
Concen: 20.158 ug/l  
RT: 3.959 min Scan# 341  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion: 74 Resp: 31256  
Ion Ratio Lower Upper  
74 100  
45 94.8 55.5 166.3





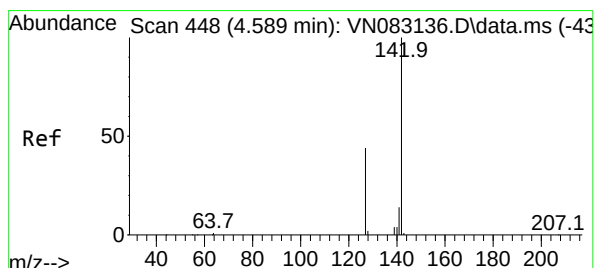
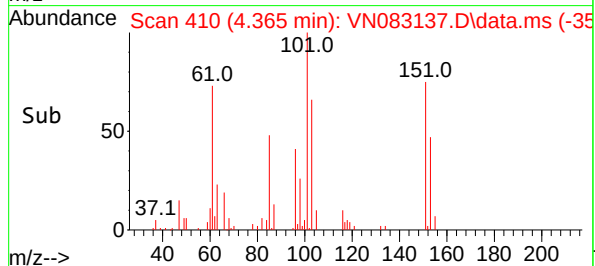
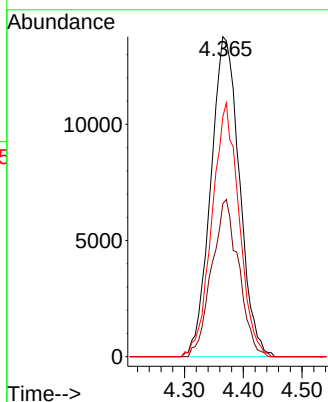
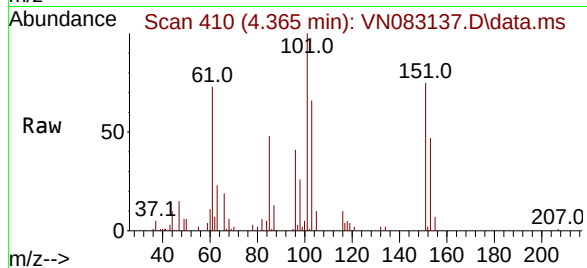
#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 20.321 ug/l  
RT: 4.365 min Scan# 410  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

Tgt Ion:101 Resp: 4668  
Ion Ratio Lower Upper  
101 100  
85 46.5 38.3 57.5  
151 74.6 59.3 88.9

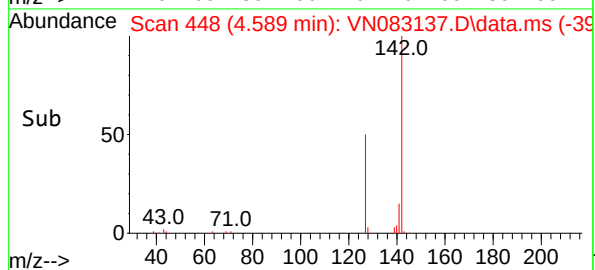
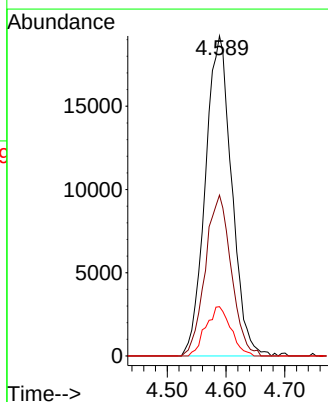
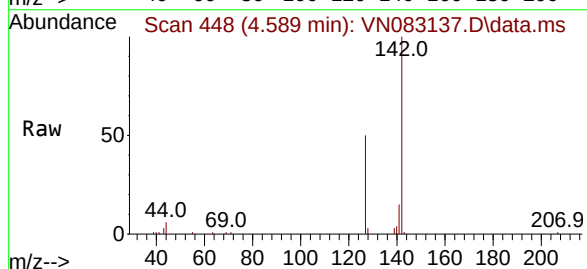
Manual Integrations  
APPROVED

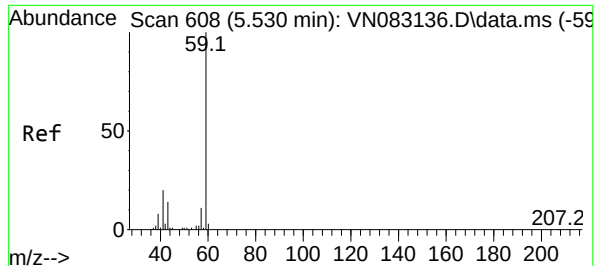
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#10  
Methyl Iodide  
Concen: 19.810 ug/l  
RT: 4.589 min Scan# 448  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion:142 Resp: 59865  
Ion Ratio Lower Upper  
142 100  
127 50.3 37.5 56.3  
141 15.4 13.1 19.7





#11

Tert butyl alcohol

Concen: 98.946 ug/l

RT: 5.530 min Scan# 608

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 59 Resp: 6231

Ion Ratio Lower Upper

59 100

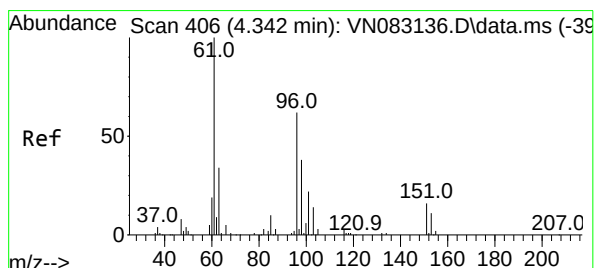
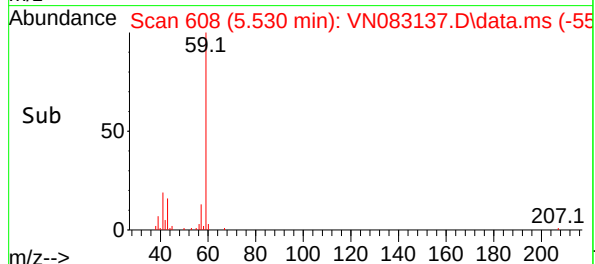
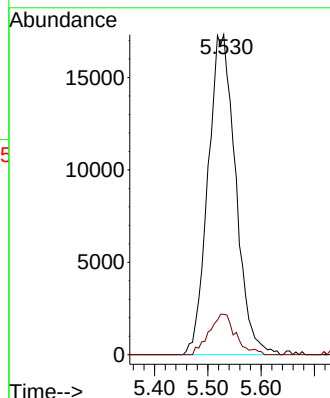
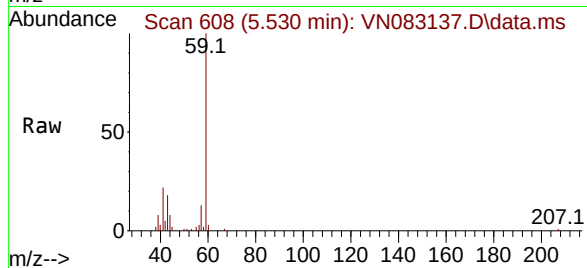
57 12.2 8.9 13.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#12

1,1-Dichloroethene

Concen: 19.399 ug/l

RT: 4.342 min Scan# 406

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

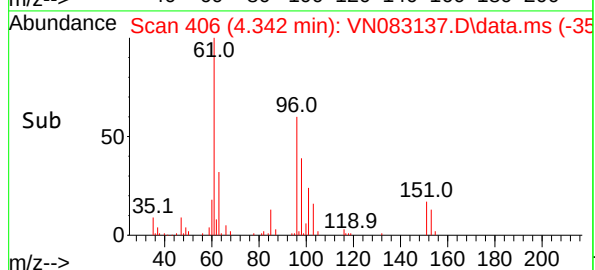
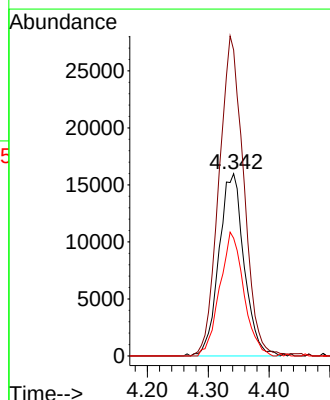
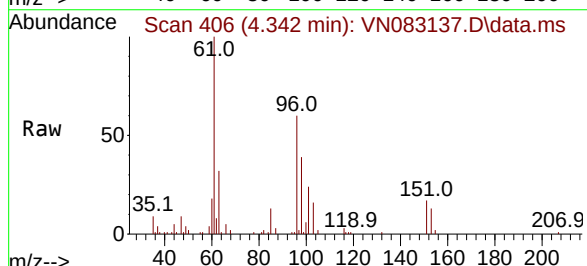
Tgt Ion: 96 Resp: 45786

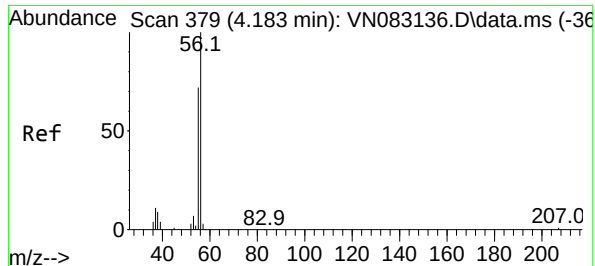
Ion Ratio Lower Upper

96 100

61 167.8 149.7 224.5

98 64.7 50.1 75.1





#13

Acrolein

Concen: 86.524 ug/l

RT: 4.183 min Scan# 379

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 56 Resp: 35510

Ion Ratio Lower Upper

56 100

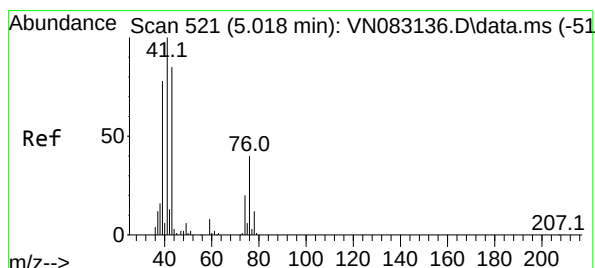
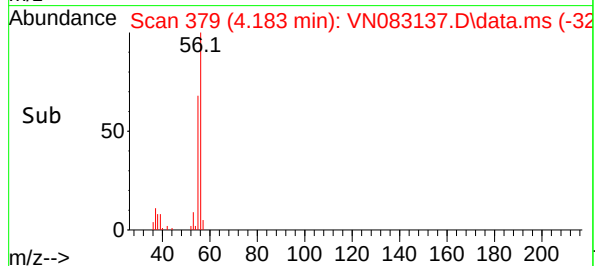
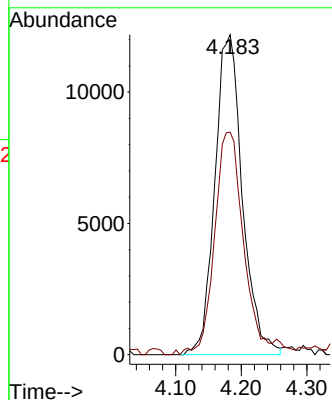
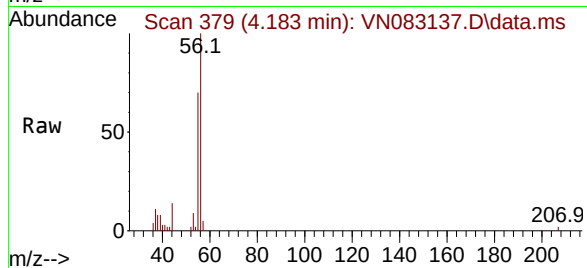
55 72.6 56.4 84.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#14

Allyl chloride

Concen: 20.301 ug/l

RT: 5.018 min Scan# 521

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

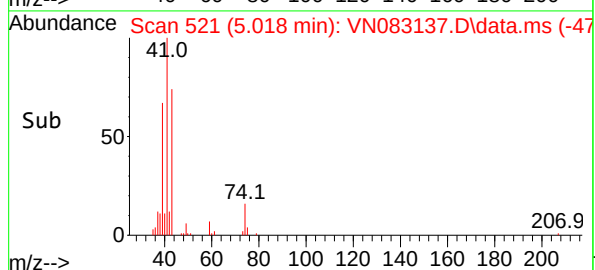
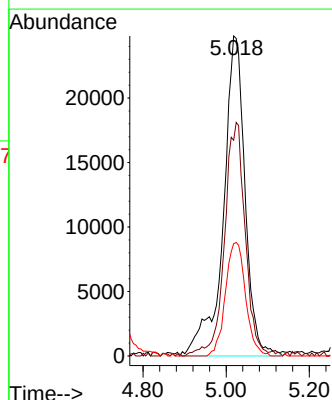
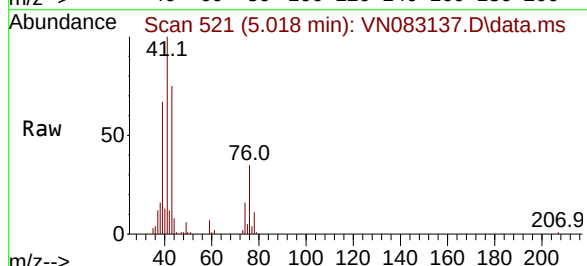
Tgt Ion: 41 Resp: 90544

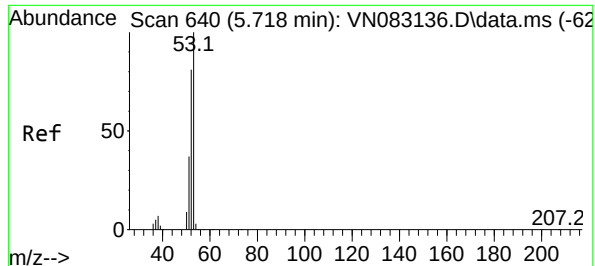
Ion Ratio Lower Upper

41 100

39 69.0 67.8 101.6

76 32.7 25.8 38.8





#15

Acrylonitrile

Concen: 99.835 ug/l

RT: 5.718 min Scan# 640

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

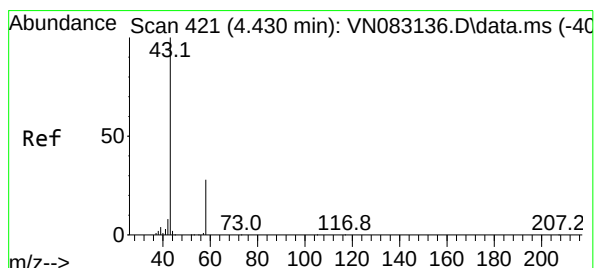
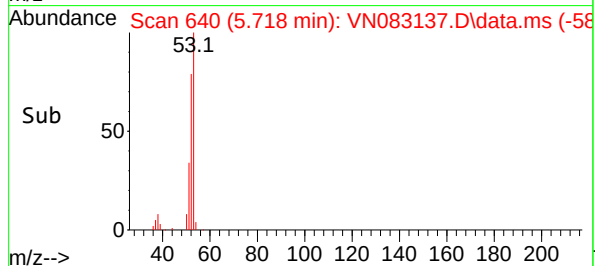
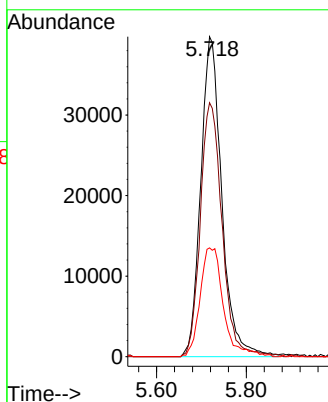
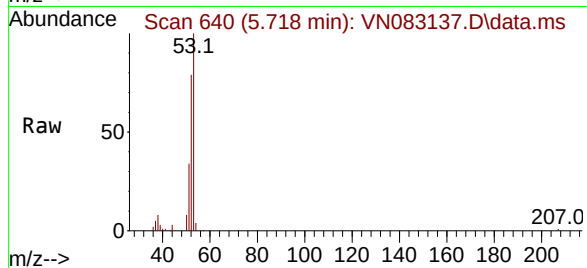
VSTDICC020

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 53    | Resp: | 129310 |
| Ion      | Ratio | Lower | Upper  |
| 53       | 100   |       |        |
| 52       | 82.1  | 66.6  | 100.0  |
| 51       | 37.7  | 30.1  | 45.1   |

Manual Integrations  
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Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#16

Acetone

Concen: 93.330 ug/l

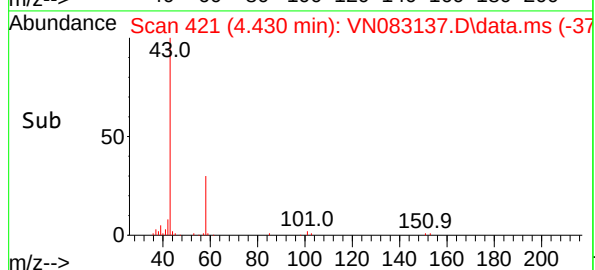
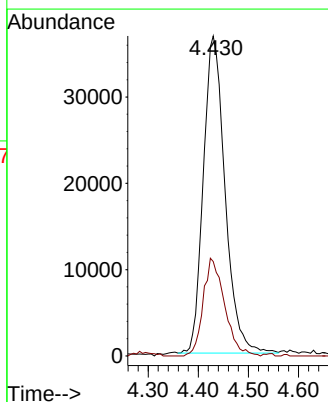
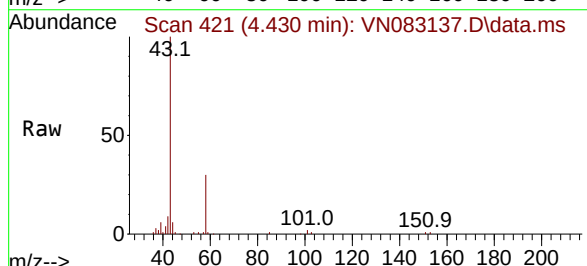
RT: 4.430 min Scan# 421

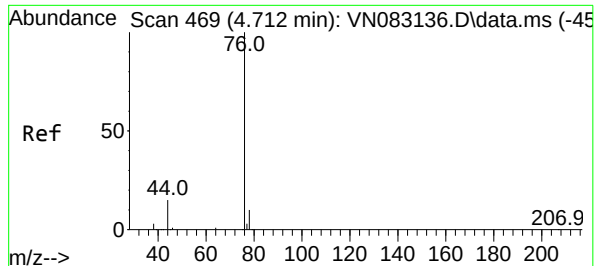
Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

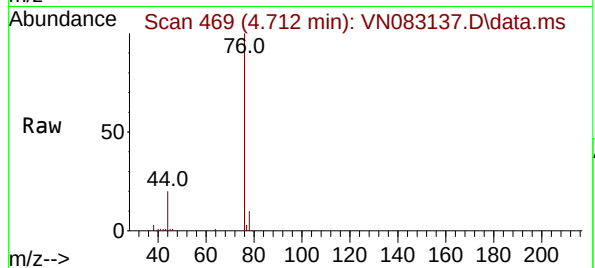
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 110676 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 29.8  | 21.8  | 32.6   |





#17  
Carbon Disulfide  
Concen: 19.683 ug/l  
RT: 4.712 min Scan# 469  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

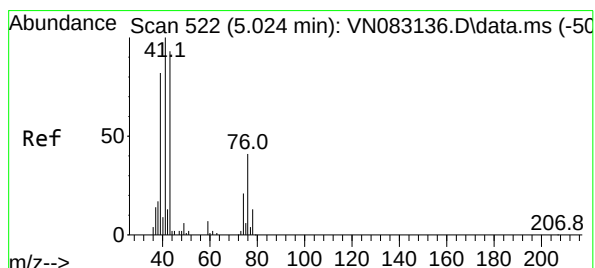
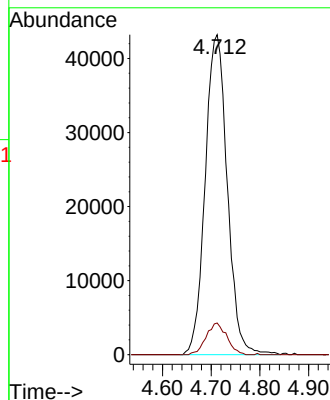
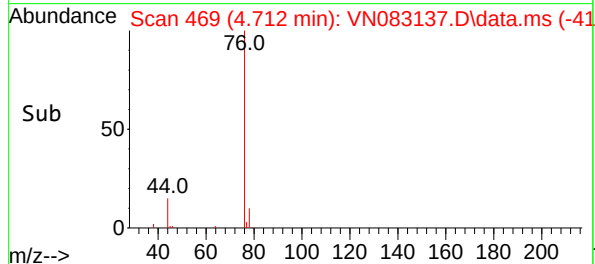
Instrument :  
MSVOA\_N  
Client Sample Id :  
VSTDICC020



Tgt Ion: 76 Resp: 135927  
Ion Ratio Lower Upper  
76 100  
78 9.9 7.2 10.8

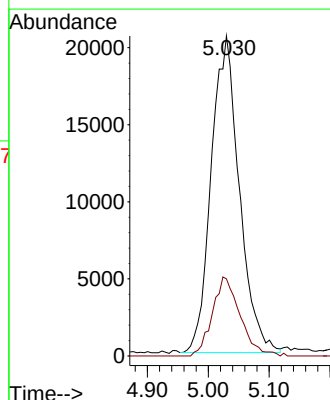
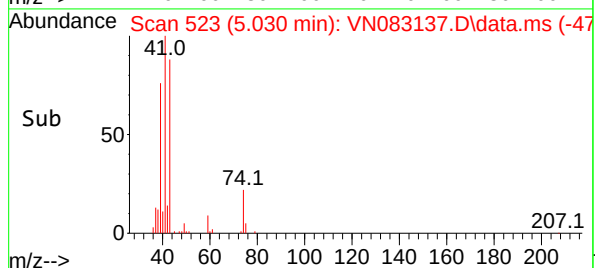
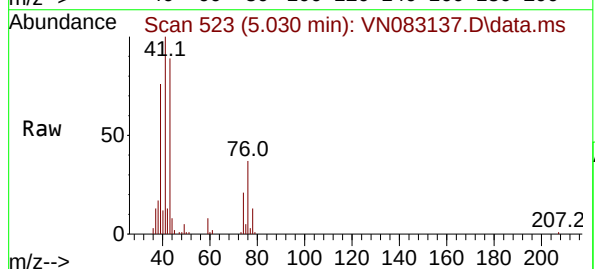
Manual Integrations  
APPROVED

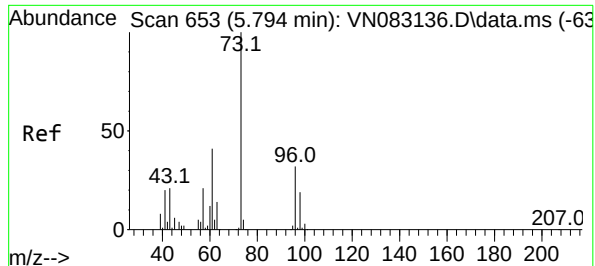
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#18  
Methyl Acetate  
Concen: 18.644 ug/l  
RT: 5.030 min Scan# 523  
Delta R.T. 0.006 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion: 43 Resp: 65871  
Ion Ratio Lower Upper  
43 100  
74 24.5 16.3 24.5





#19

Methyl tert-butyl Ether

Concen: 20.277 ug/l

RT: 5.800 min Scan# 653

Delta R.T. 0.006 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 73 Resp: 172740

Ion Ratio Lower Upper

73 100

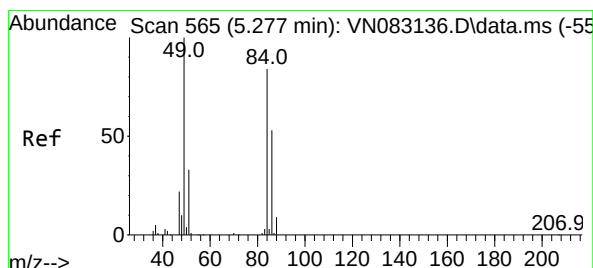
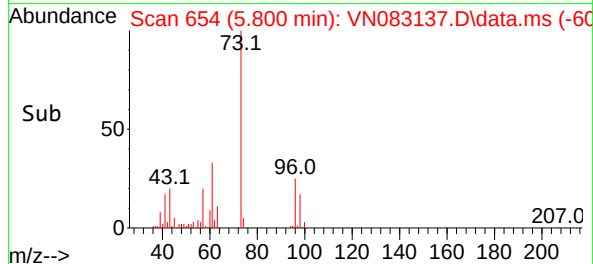
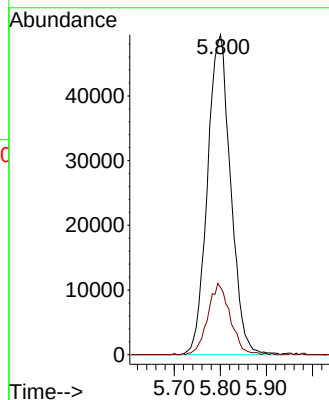
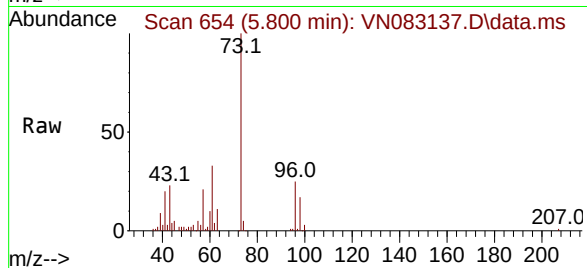
57 21.0 17.9 26.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#20

Methylene Chloride

Concen: 19.316 ug/l

RT: 5.271 min Scan# 564

Delta R.T. -0.006 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Tgt Ion: 84 Resp: 52716

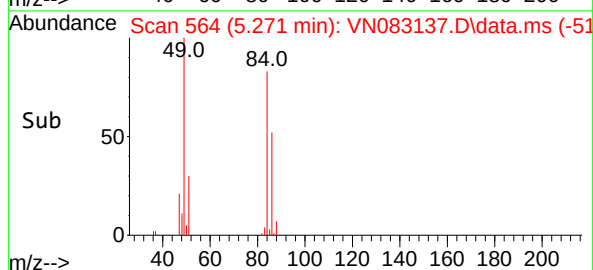
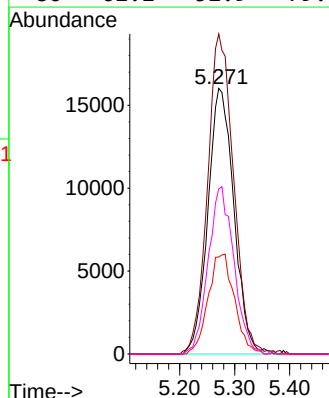
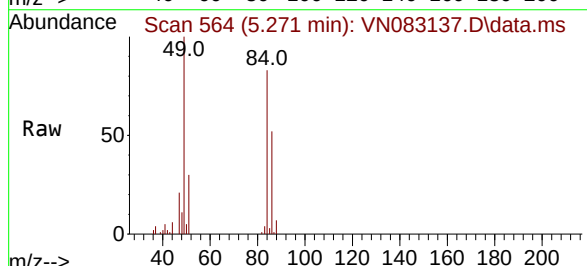
Ion Ratio Lower Upper

84 100

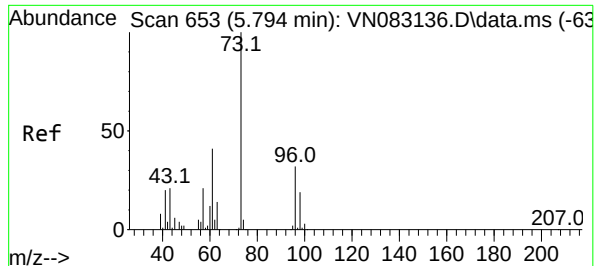
49 120.5 119.6 179.4

51 36.5 34.8 52.2

86 62.2 52.9 79.3







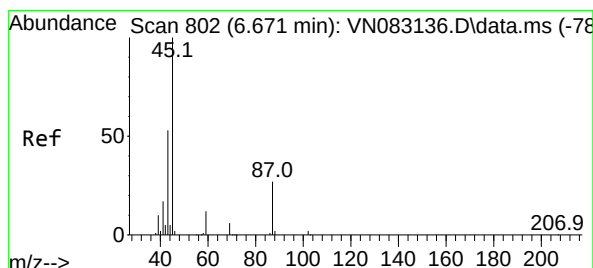
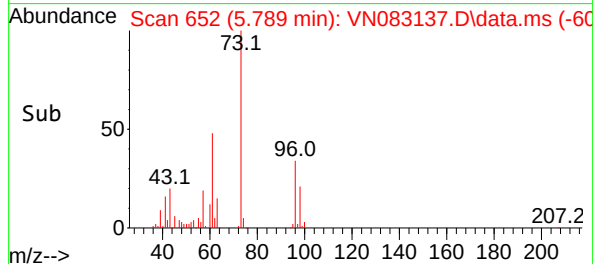
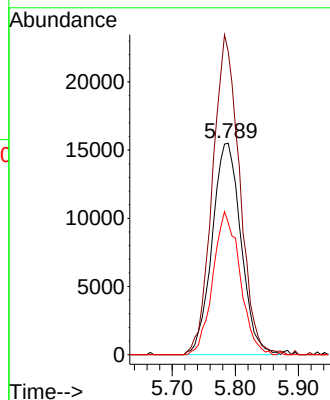
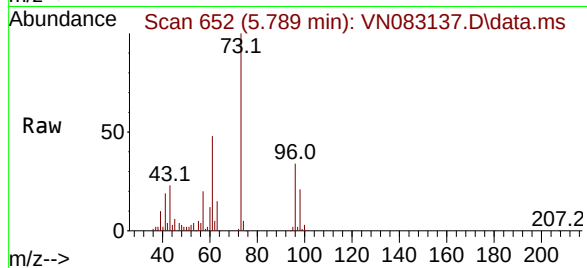
#21  
trans-1,2-Dichloroethene  
Concen: 20.137 ug/l  
RT: 5.789 min Scan# 612  
Delta R.T. -0.006 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

Tgt Ion: 96 Resp: 4912  
Ion Ratio Lower Upper  
96 100  
61 143.3 123.4 185.2  
98 62.4 49.3 73.9

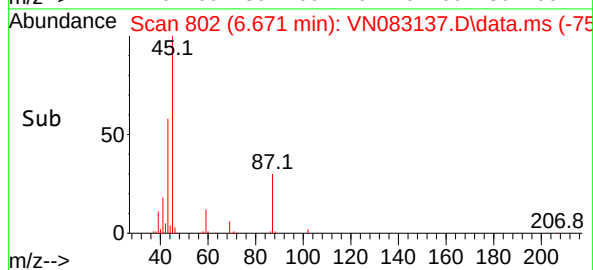
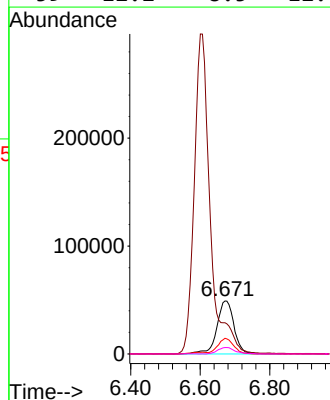
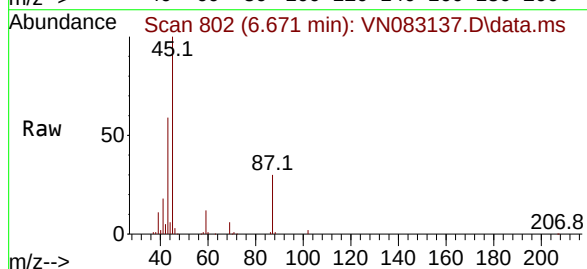
Manual Integrations  
APPROVED

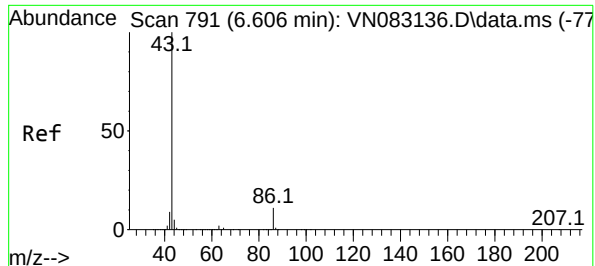
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#22  
Diisopropyl ether  
Concen: 20.070 ug/l  
RT: 6.671 min Scan# 802  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion: 45 Resp: 168267  
Ion Ratio Lower Upper  
45 100  
43 57.6 44.0 66.0  
87 29.6 19.7 29.5#  
59 12.2 8.5 12.7





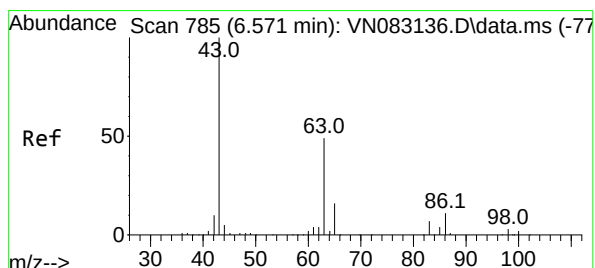
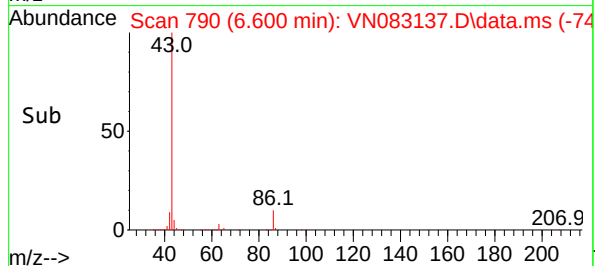
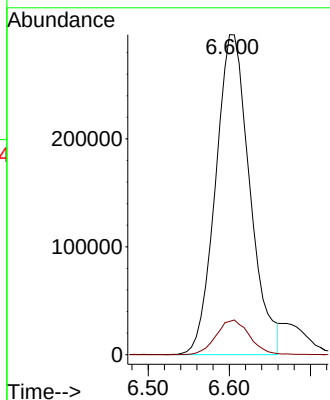
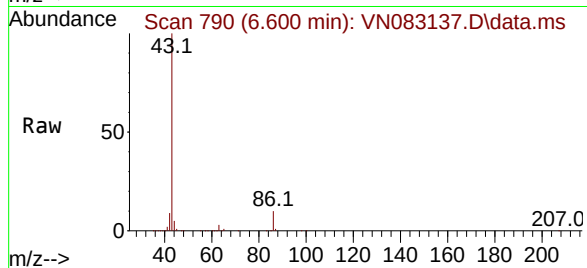
#23  
Vinyl Acetate  
Concen: 101.401 ug/l m  
RT: 6.600 min Scan# 791  
Delta R.T. -0.006 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

Tgt Ion: 43 Resp: 871215  
Ion Ratio Lower Upper  
43 100  
86 10.4 7.3 10.9

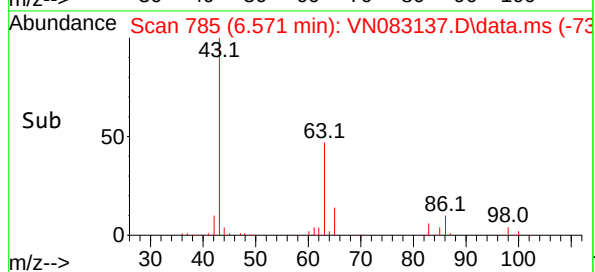
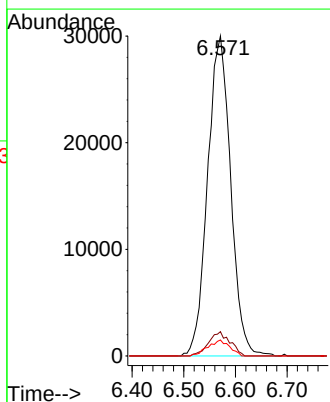
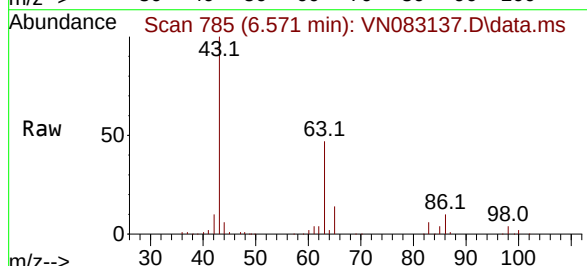
Manual Integrations  
APPROVED

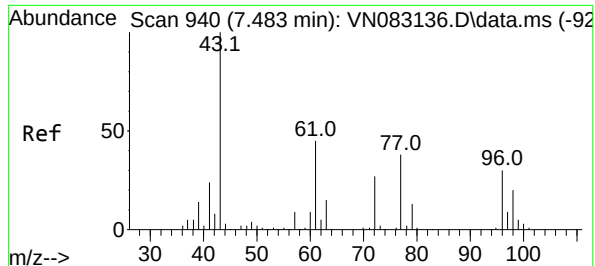
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#24  
1,1-Dichloroethane  
Concen: 20.366 ug/l  
RT: 6.571 min Scan# 785  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion: 63 Resp: 93066  
Ion Ratio Lower Upper  
63 100  
98 7.6 3.3 9.9  
100 5.0 2.0 6.0





#25

2-Butanone

Concen: 99.107 ug/l

RT: 7.488 min Scan# 941

Delta R.T. 0.006 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 43 Resp: 18045

Ion Ratio Lower Upper

43 100

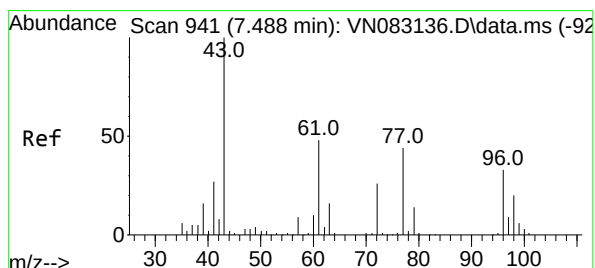
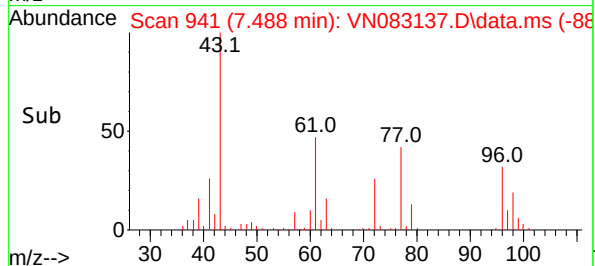
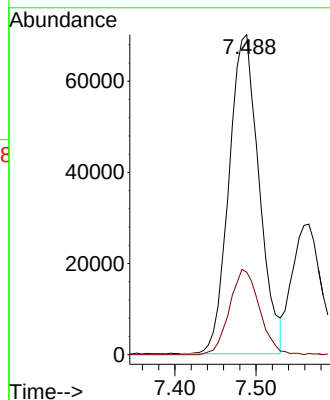
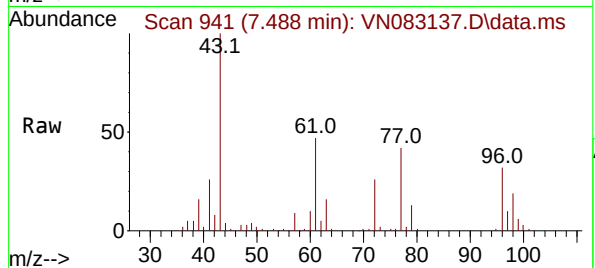
72 25.9 18.2 27.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#26

2,2-Dichloropropane

Concen: 20.445 ug/l

RT: 7.488 min Scan# 941

Delta R.T. 0.000 min

Lab File: VN083137.D

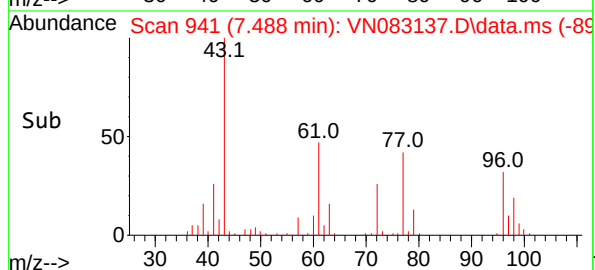
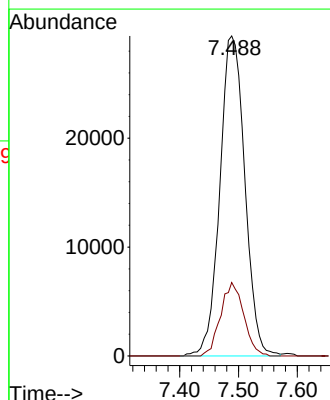
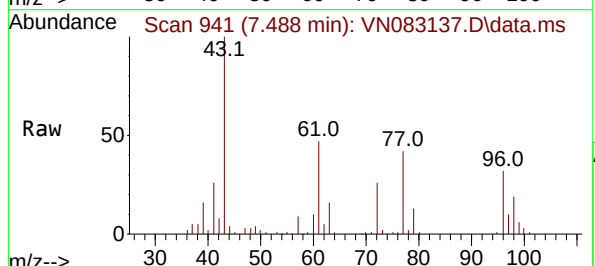
Acq: 07 Aug 2024 11:22

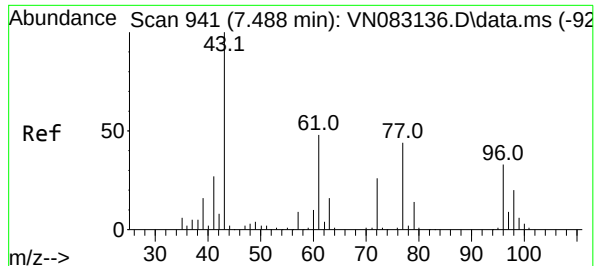
Tgt Ion: 77 Resp: 86767

Ion Ratio Lower Upper

77 100

97 21.3 10.3 30.9





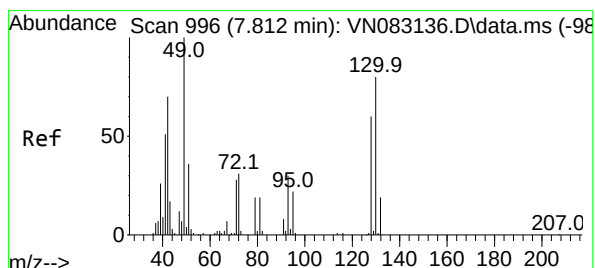
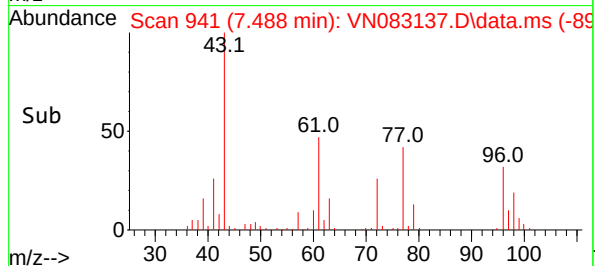
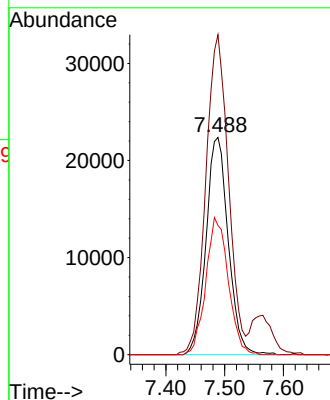
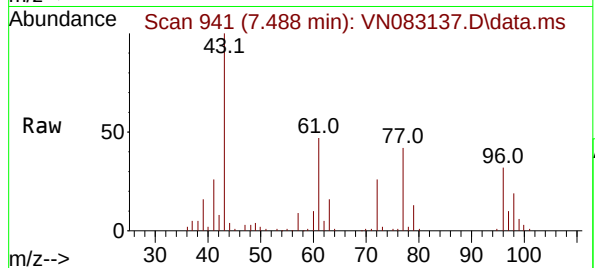
#27  
cis-1,2-Dichloroethene  
Concen: 19.993 ug/l  
RT: 7.488 min Scan# 941  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

Tgt Ion: 96 Resp: 5885  
Ion Ratio Lower Upper  
96 100  
61 149.6 0.0 329.6  
98 63.7 0.0 128.6

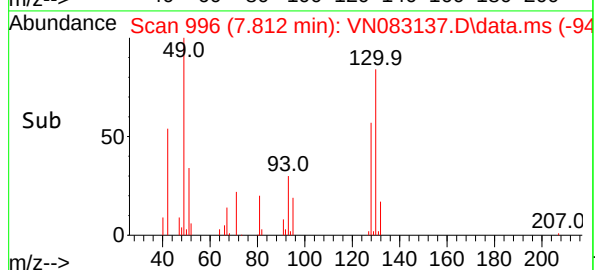
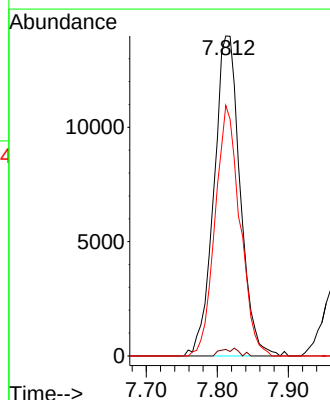
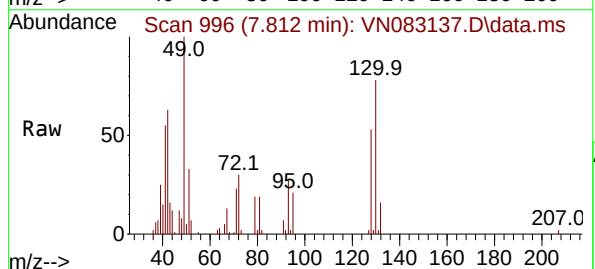
Manual Integrations  
APPROVED

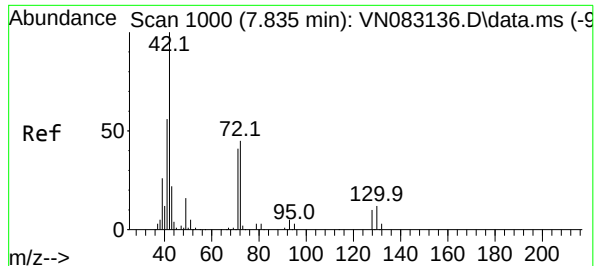
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#28  
Bromochloromethane  
Concen: 19.153 ug/l  
RT: 7.812 min Scan# 996  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion: 49 Resp: 35768  
Ion Ratio Lower Upper  
49 100  
129 1.6 0.0 3.8  
130 74.4 50.5 75.7





#29

Tetrahydrofuran

Concen: 98.399 ug/l

RT: 7.841 min Scan# 1000

Delta R.T. 0.006 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 42 Resp: 11582

Ion Ratio Lower Upper

42 100

72 45.8 30.0 45.0

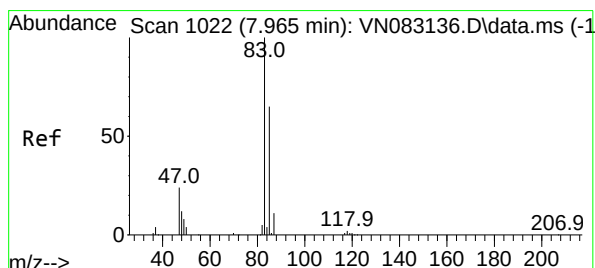
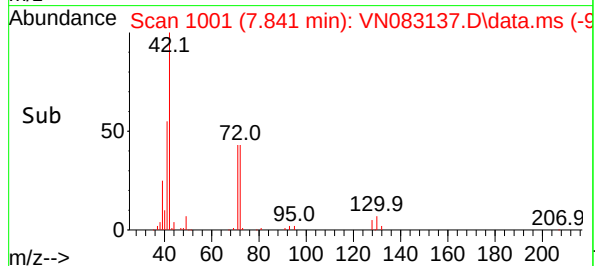
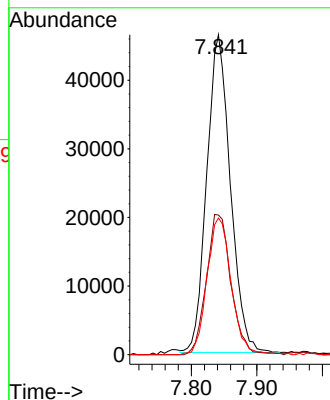
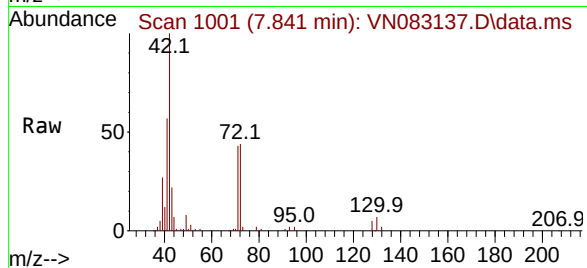
71 44.0 28.3 42.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#30

Chloroform

Concen: 19.917 ug/l

RT: 7.965 min Scan# 1022

Delta R.T. 0.000 min

Lab File: VN083137.D

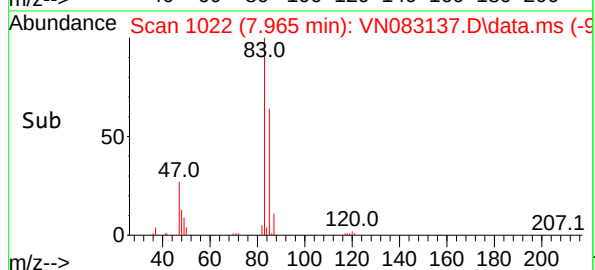
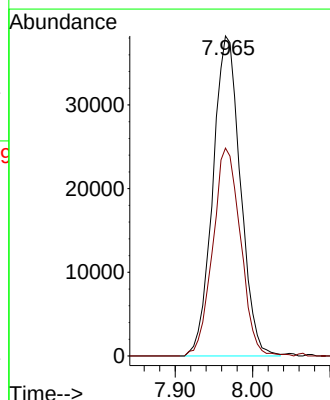
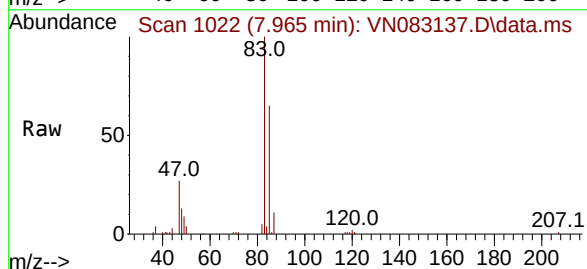
Acq: 07 Aug 2024 11:22

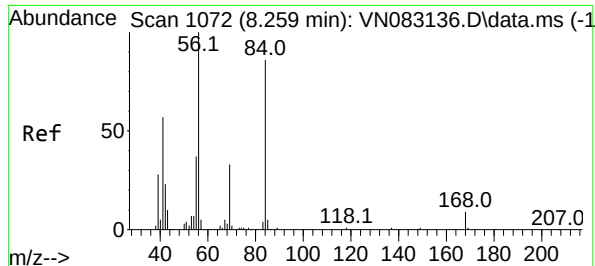
Tgt Ion: 83 Resp: 94560

Ion Ratio Lower Upper

83 100

85 64.9 50.9 76.3





#31

Cyclohexane

Concen: 19.144 ug/l

RT: 8.253 min Scan# 1071

Delta R.T. -0.006 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 56 Resp: 85978

Ion Ratio Lower Upper

56 100

69 30.4 24.5 36.7

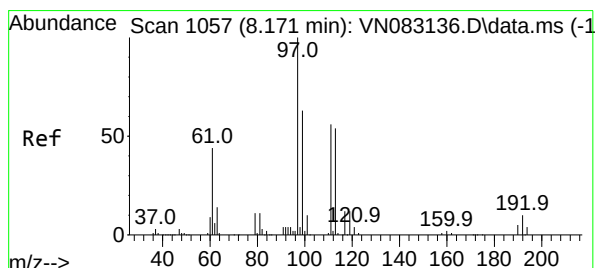
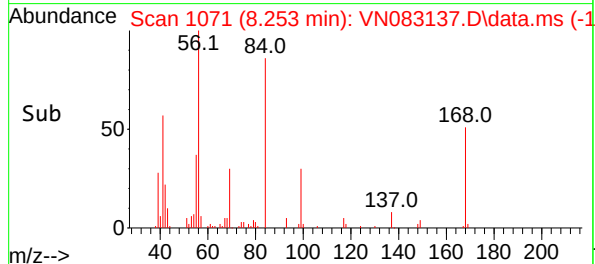
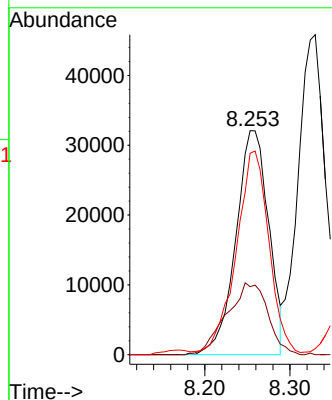
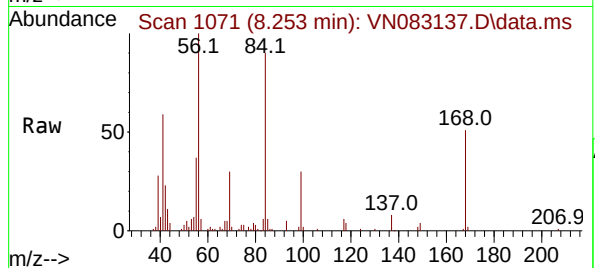
84 87.9 66.0 99.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#32

1,1,1-Trichloroethane

Concen: 20.194 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. -0.006 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

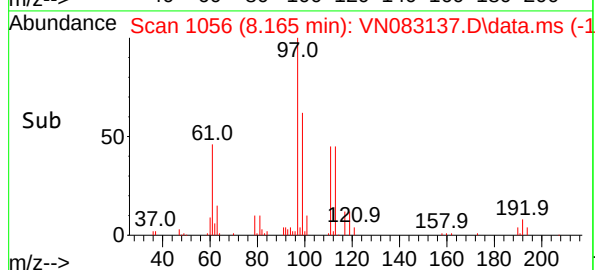
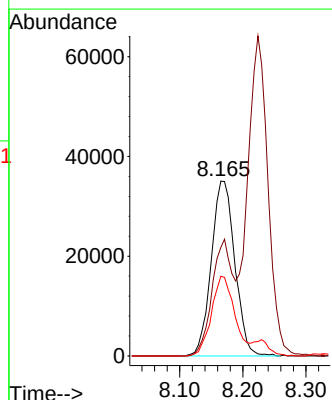
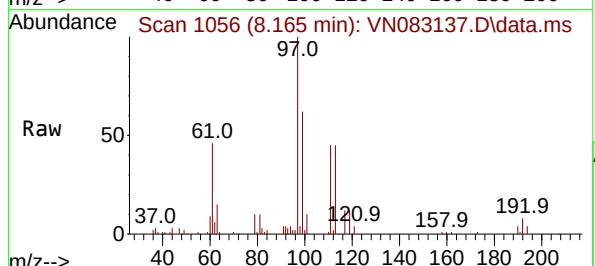
Tgt Ion: 97 Resp: 90748

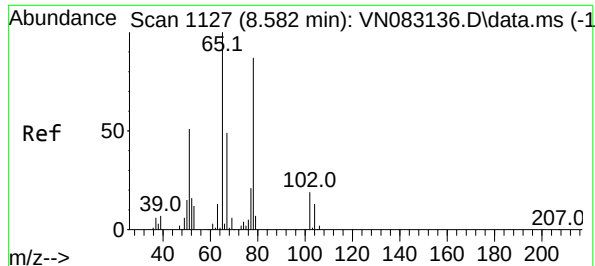
Ion Ratio Lower Upper

97 100

99 58.9 52.0 78.0

61 45.3 42.1 63.1





#33

1,2-Dichloroethane-d4

Concen: 16.881 ug/l

RT: 8.583 min Scan# 1127

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 65 Resp: 5115

Ion Ratio Lower Upper

65 100

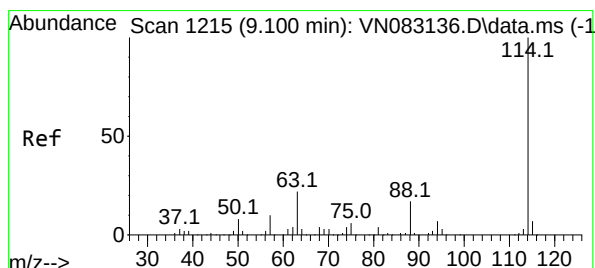
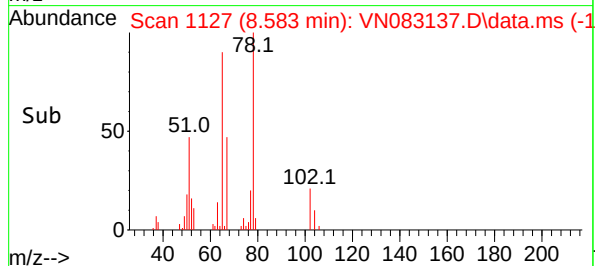
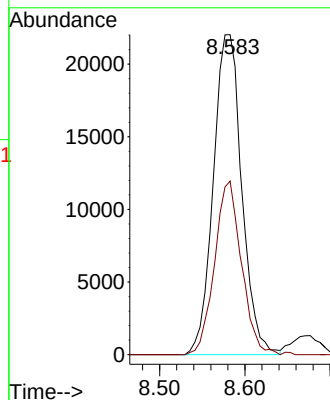
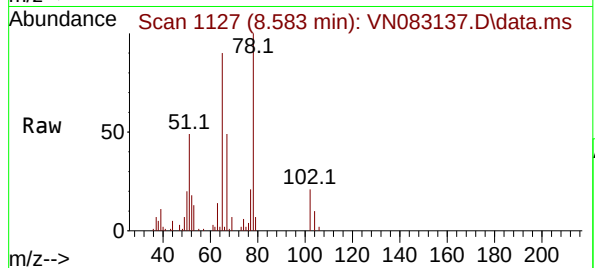
67 51.1 0.0 104.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

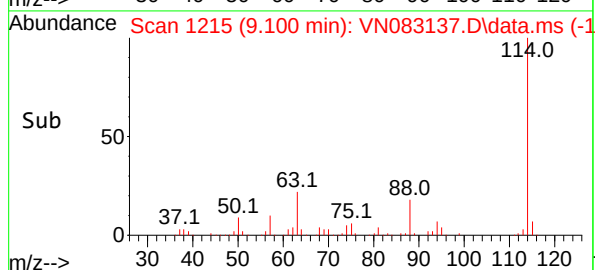
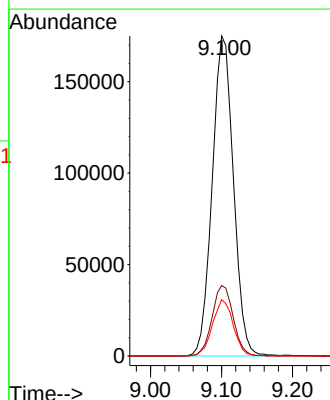
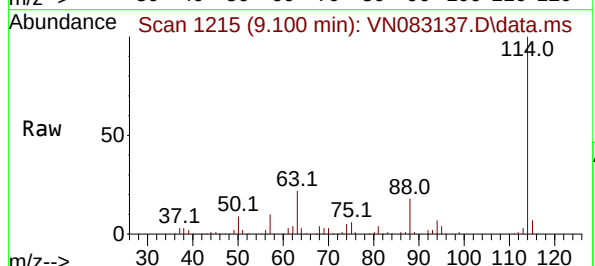
Tgt Ion:114 Resp: 362741

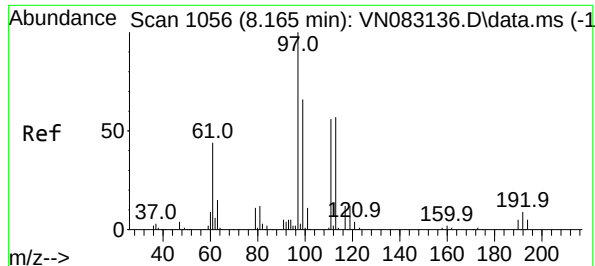
Ion Ratio Lower Upper

114 100

63 22.0 0.0 44.6

88 17.6 0.0 31.4





#35

Dibromofluoromethane

Concen: 16.940 ug/l

RT: 8.171 min Scan# 1056

Delta R.T. 0.006 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

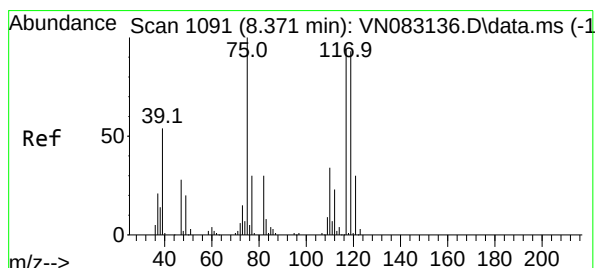
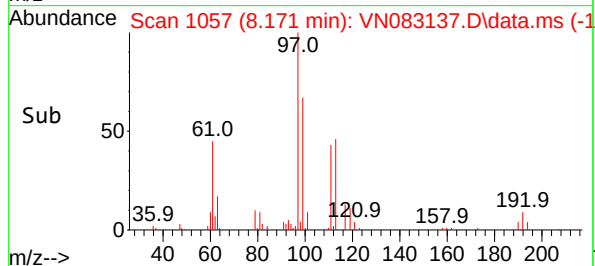
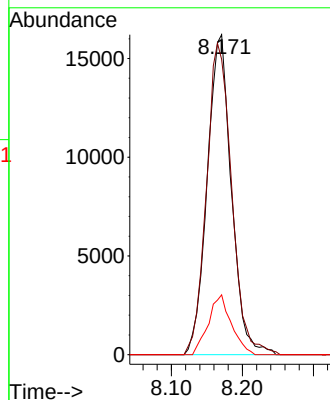
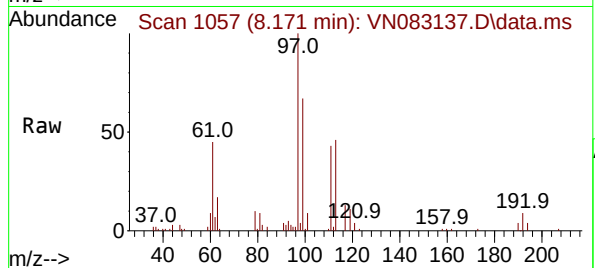
VSTDIC020

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 113   | Resp: | 38354 |
| Ion      | Ratio | Lower | Upper |
| 113      | 100   |       |       |
| 111      | 101.3 | 82.4  | 123.6 |
| 192      | 17.8  | 14.9  | 22.3  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#36

1,1-Dichloropropene

Concen: 19.978 ug/l

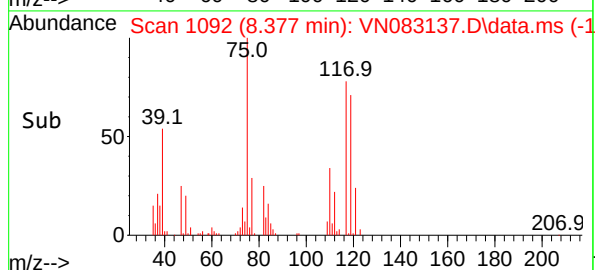
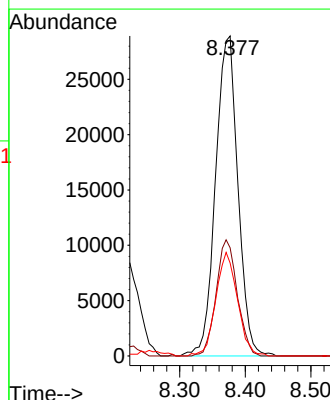
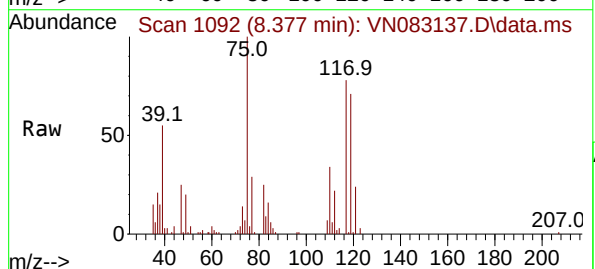
RT: 8.377 min Scan# 1092

Delta R.T. 0.006 min

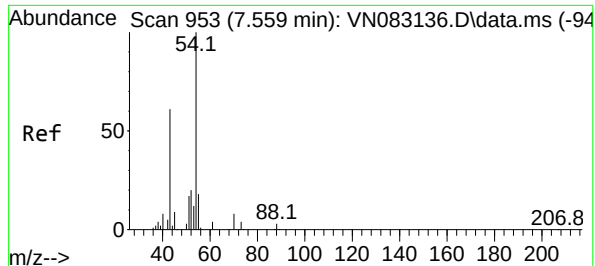
Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 68425 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 110      | 34.3  | 16.3  | 48.9  |
| 77       | 31.3  | 24.6  | 37.0  |







#37

Ethyl Acetate

Concen: 18.985 ug/l

RT: 7.565 min Scan# 91

Delta R.T. 0.006 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

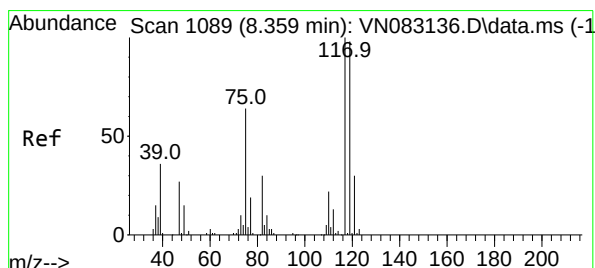
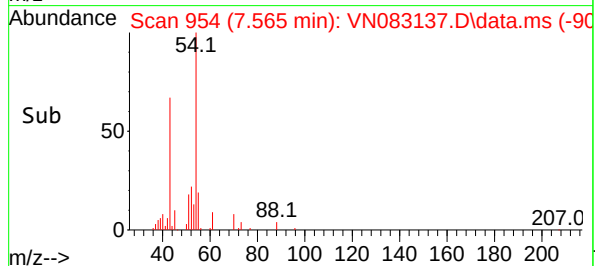
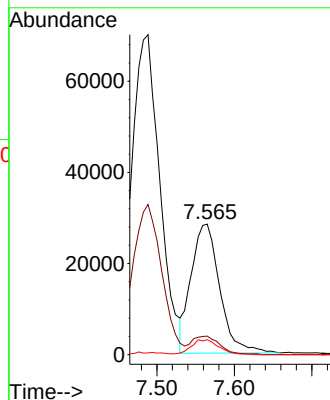
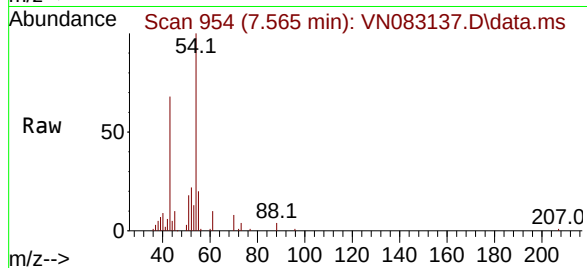
VSTDICC020

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 72800 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 14.3  | 9.3   | 13.9  |
| 70       | 11.2  | 7.0   | 10.6  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#38

Carbon Tetrachloride

Concen: 20.605 ug/l

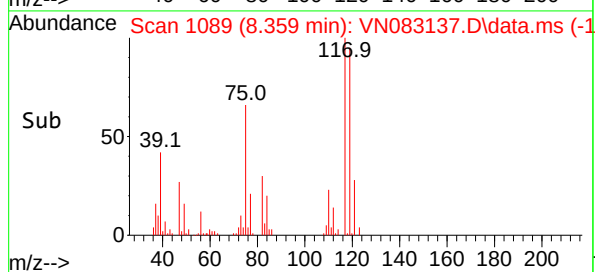
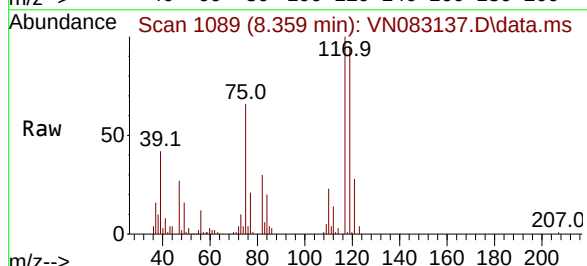
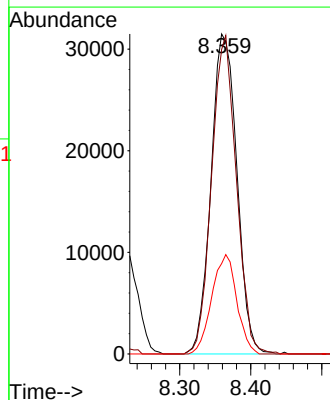
RT: 8.359 min Scan# 1089

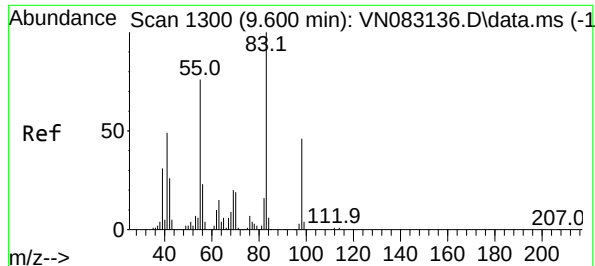
Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 79487 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 119      | 95.1  | 74.9  | 112.3 |
| 121      | 28.3  | 24.3  | 36.5  |





#39

Methylcyclohexane

Concen: 20.246 ug/l

RT: 9.600 min Scan# 1130

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

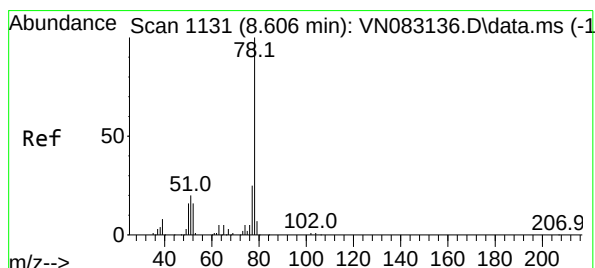
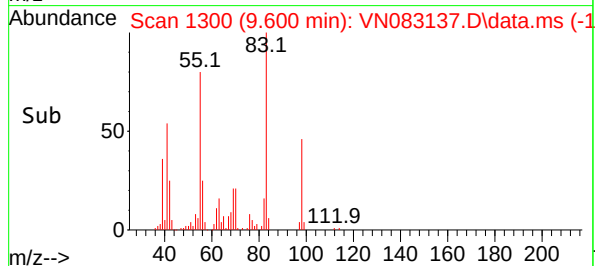
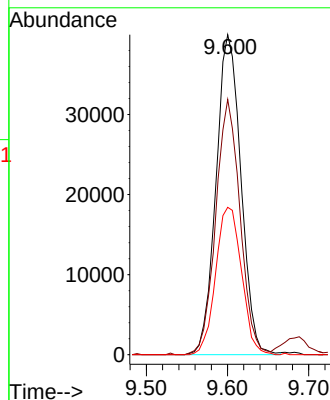
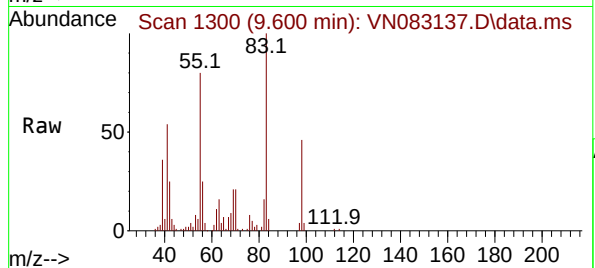
VSTDICC020

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 83    | Resp: | 8517 |
| Ion Ratio | Lower | Upper |      |
| 83        | 100   |       |      |
| 55        | 79.7  | 66.4  | 99.6 |
| 98        | 46.1  | 40.7  | 61.1 |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#40

Benzene

Concen: 20.345 ug/l

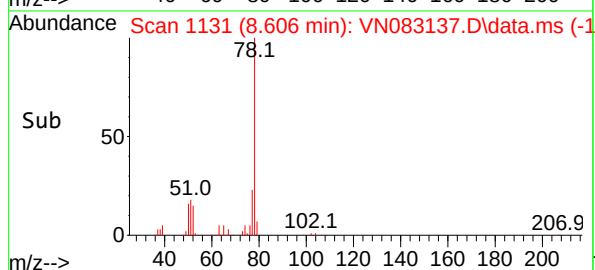
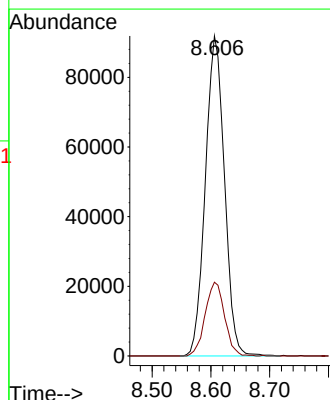
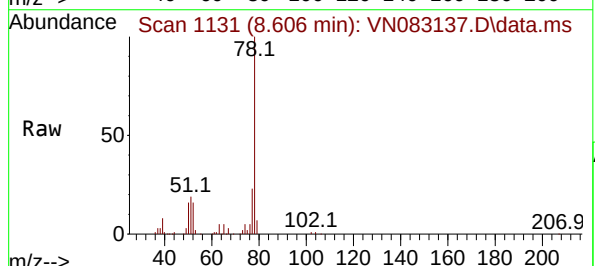
RT: 8.606 min Scan# 1131

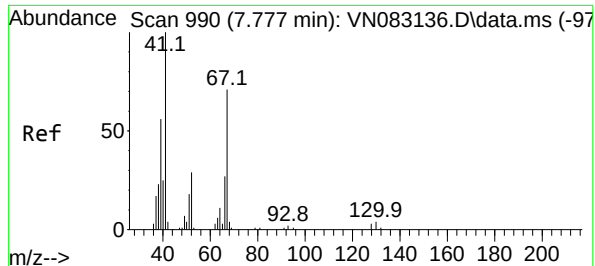
Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 78    | Resp: | 207581 |
| Ion Ratio | Lower | Upper |        |
| 78        | 100   |       |        |
| 77        | 23.1  | 19.0  | 28.4   |





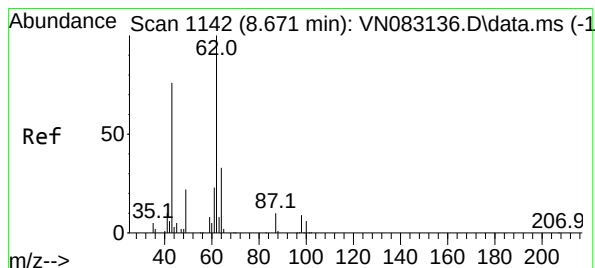
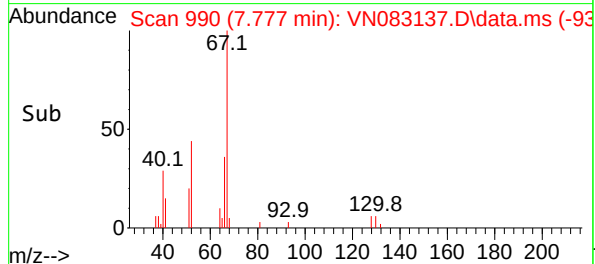
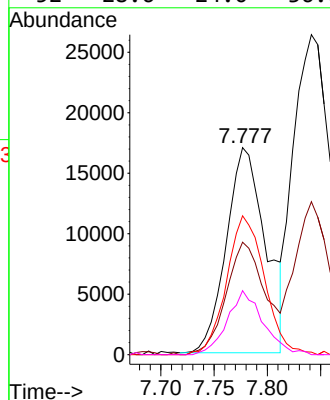
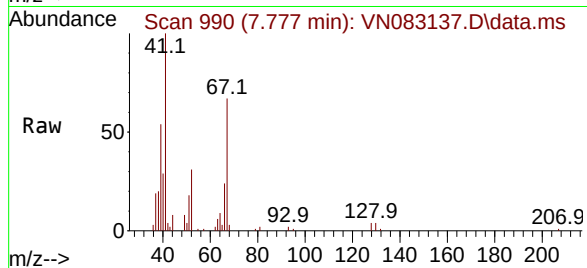
#41  
Methacrylonitrile  
Concen: 19.968 ug/l  
RT: 7.777 min Scan# 990  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Instrument :  
MSVOA\_N  
Client Sample Id :  
VSTDICC020

Tgt Ion: 41 Resp: 43539  
Ion Ratio Lower Upper  
41 100  
39 54.6 45.5 68.3  
67 65.2 50.5 75.7  
52 28.6 24.0 36.0

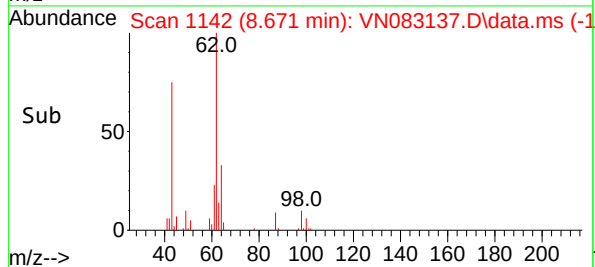
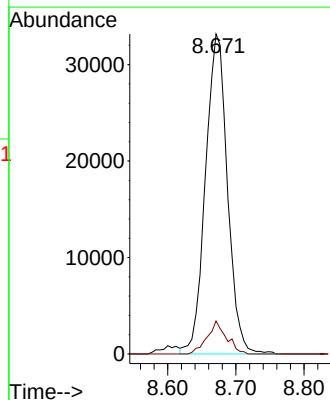
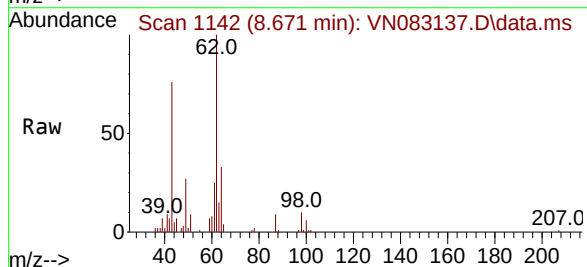
Manual Integrations  
APPROVED

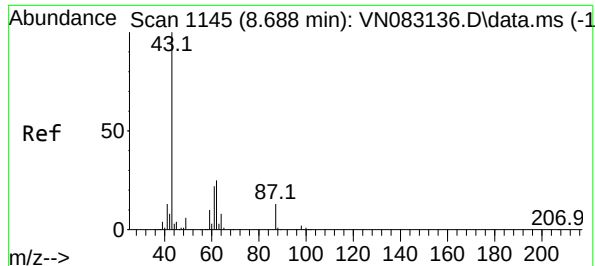
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#42  
1,2-Dichloroethane  
Concen: 20.062 ug/l  
RT: 8.671 min Scan# 1142  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion: 62 Resp: 74567  
Ion Ratio Lower Upper  
62 100  
98 9.0 0.0 15.8





#43

Isopropyl Acetate

Concen: 19.459 ug/l

RT: 8.688 min Scan# 1145

Delta R.T. 0.000 min

Lab File: VN083137.D

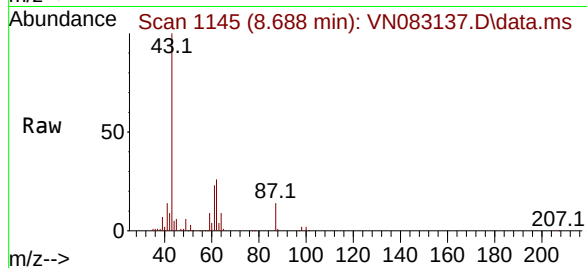
Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

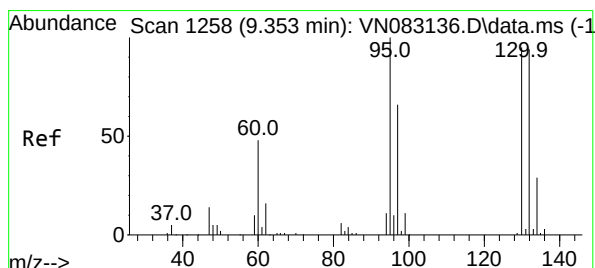
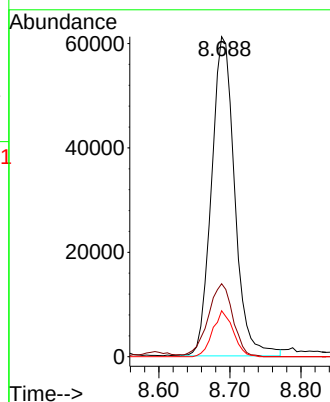
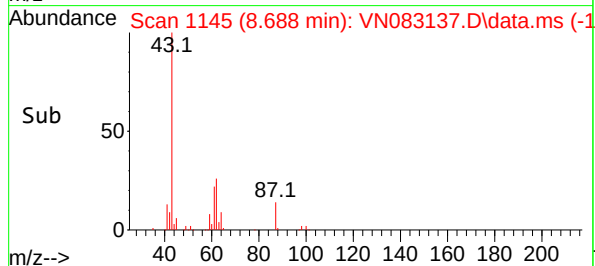


| Tgt Ion:  | 43   | Resp: | 13871 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 43        | 100  |       |       |
| 61        | 24.5 | 17.8  | 26.6  |
| 87        | 12.7 | 8.2   | 12.2  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#44

Trichloroethene

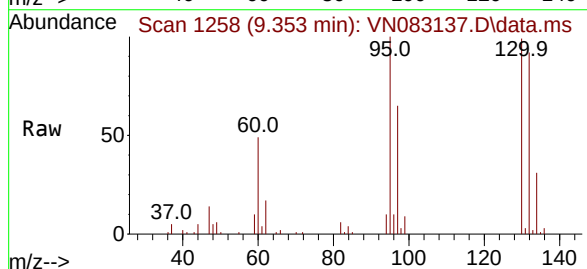
Concen: 20.469 ug/l

RT: 9.353 min Scan# 1258

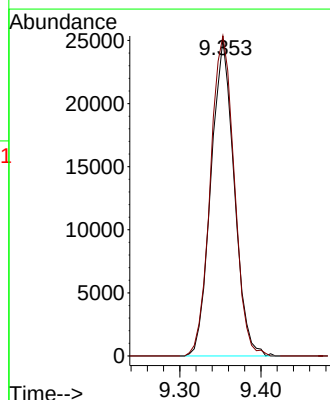
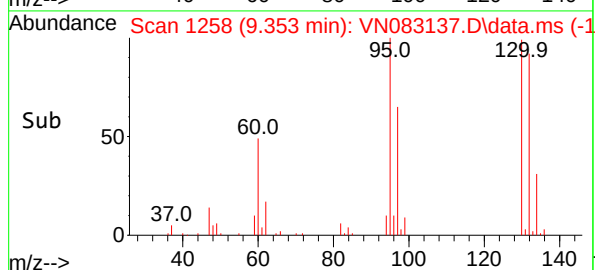
Delta R.T. 0.000 min

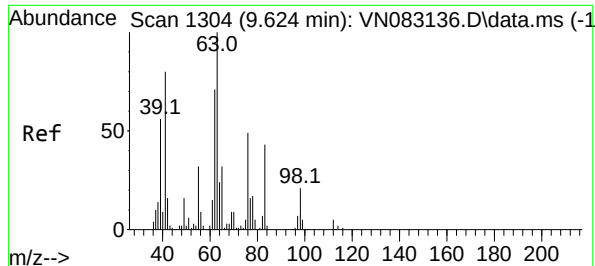
Lab File: VN083137.D

Acq: 07 Aug 2024 11:22



| Tgt Ion:  | 130   | Resp: | 49712 |
|-----------|-------|-------|-------|
| Ion Ratio | 100   | Lower | Upper |
| 130       | 100   |       |       |
| 95        | 101.0 | 0.0   | 197.8 |





#45

1,2-Dichloropropane

Concen: 20.594 ug/l

RT: 9.624 min Scan# 1304

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 63 Resp: 49878

Ion Ratio Lower Upper

63 100

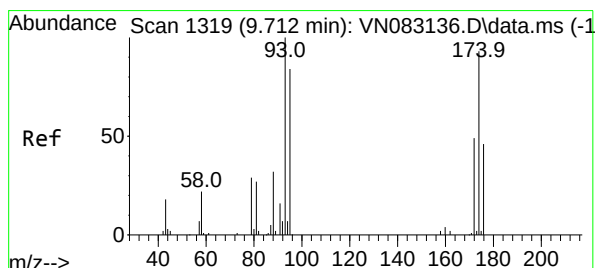
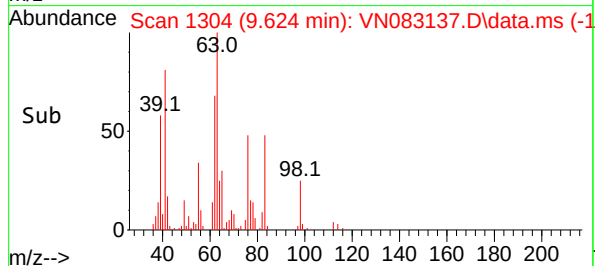
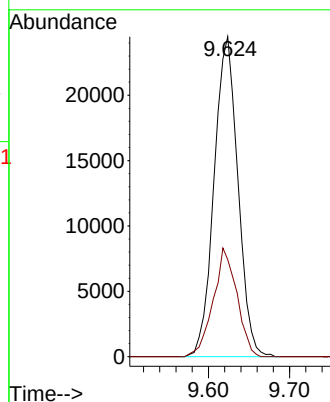
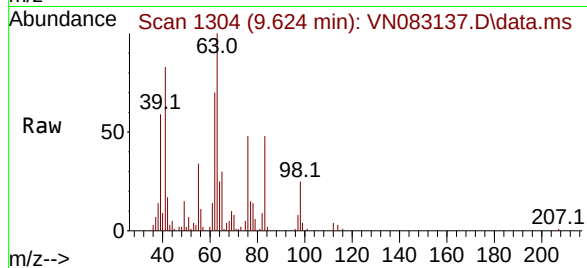
65 30.4 24.4 36.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#46

Dibromomethane

Concen: 20.512 ug/l

RT: 9.712 min Scan# 1319

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

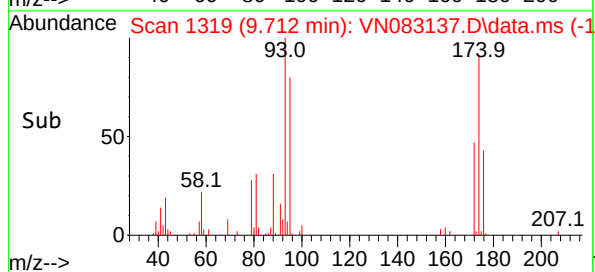
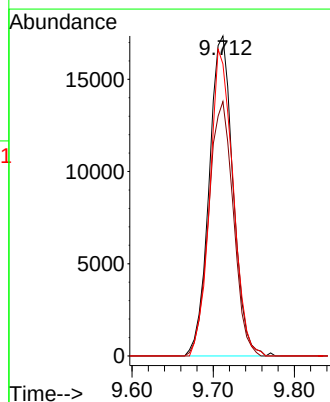
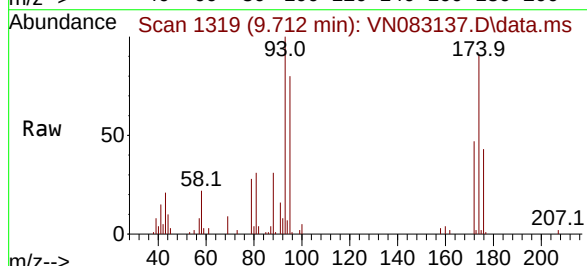
Tgt Ion: 93 Resp: 35560

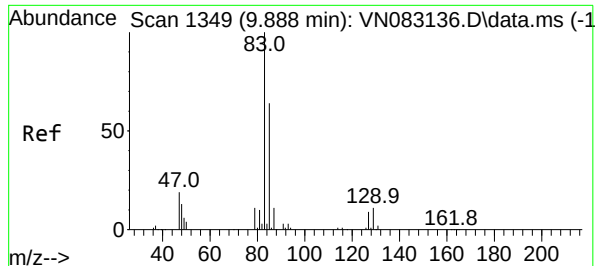
Ion Ratio Lower Upper

93 100

95 81.8 65.8 98.6

174 92.9 71.7 107.5





#47

Bromodichloromethane

Concen: 20.147 ug/l

RT: 9.888 min Scan# 1349

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

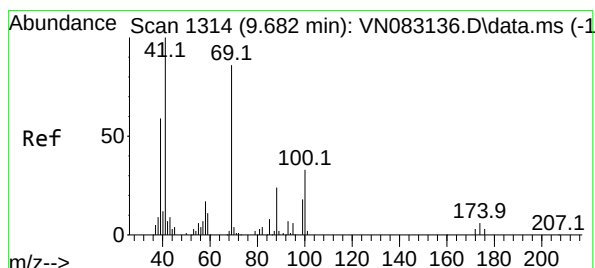
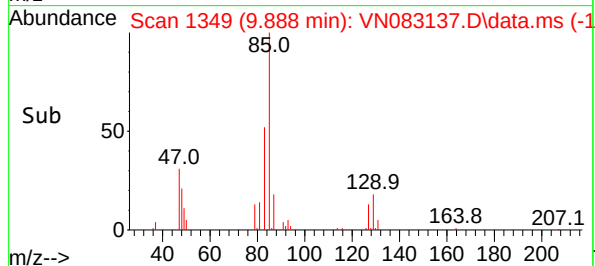
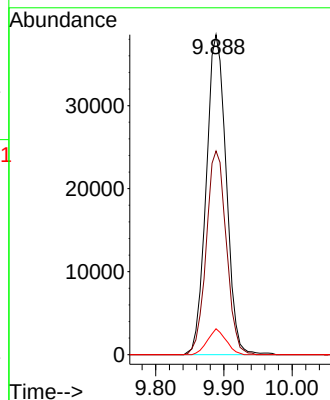
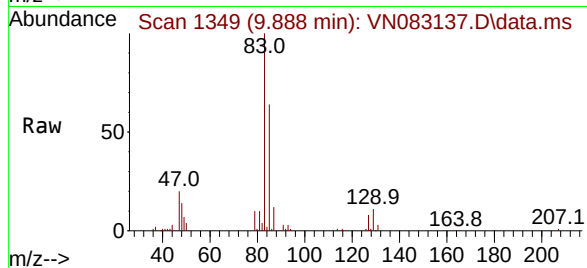
VSTDICC020

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 83    | Resp: | 7842 |
| Ion Ratio | Lower | Upper |      |
| 83        | 100   |       |      |
| 85        | 63.7  | 51.1  | 76.7 |
| 127       | 8.1   | 7.2   | 10.8 |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#48

Methyl methacrylate

Concen: 19.254 ug/l

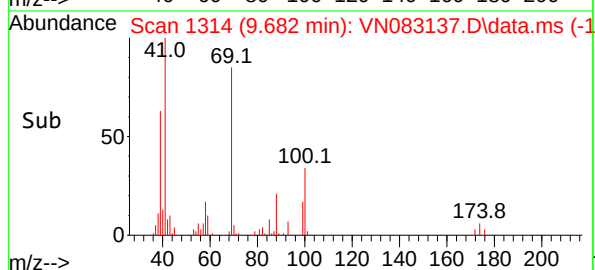
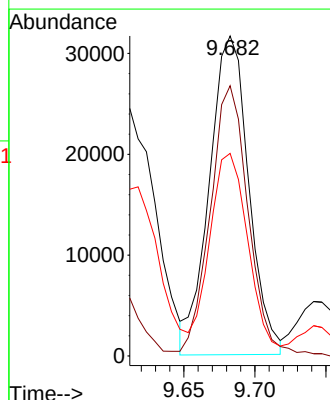
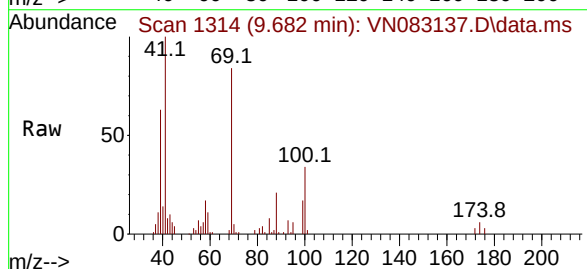
RT: 9.682 min Scan# 1314

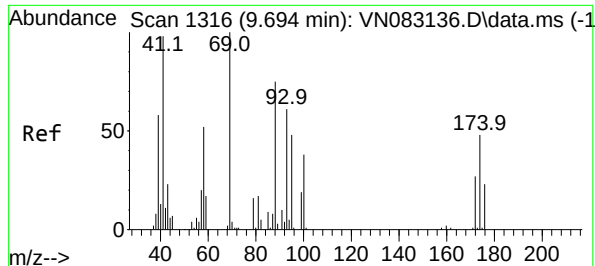
Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 41    | Resp: | 61044 |
| Ion Ratio | Lower | Upper |       |
| 41        | 100   |       |       |
| 69        | 82.1  | 56.3  | 84.5  |
| 39        | 62.5  | 50.3  | 75.5  |





#49

1,4-Dioxane

Concen: 403.558 ug/l

RT: 9.694 min Scan# 1316

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 88 Resp: 2308

Ion Ratio Lower Upper

88 100

43 32.7 27.8 41.8

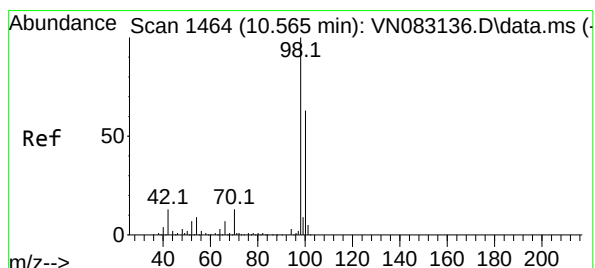
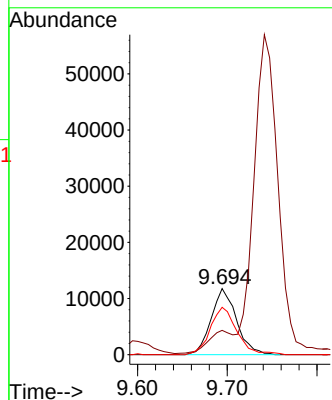
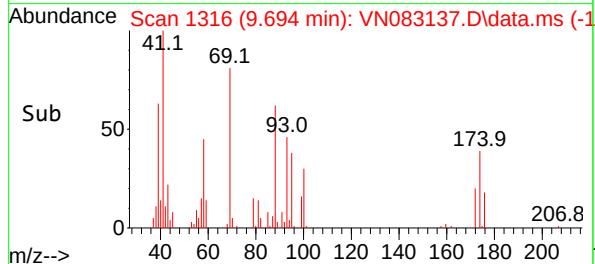
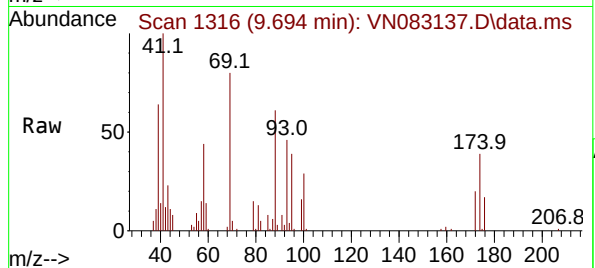
58 75.6 59.4 89.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#50

Toluene-d8

Concen: 16.926 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. 0.000 min

Lab File: VN083137.D

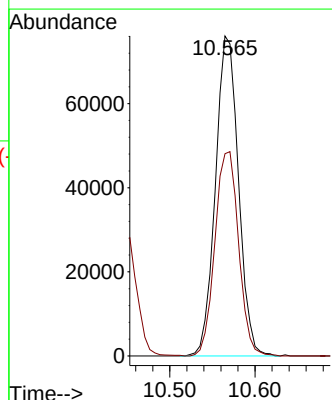
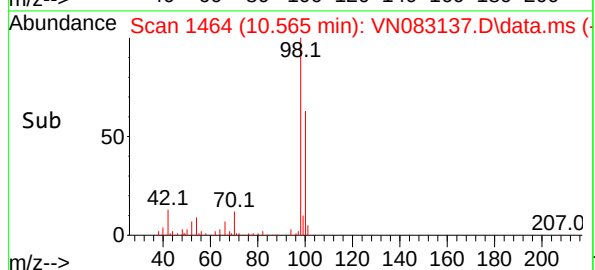
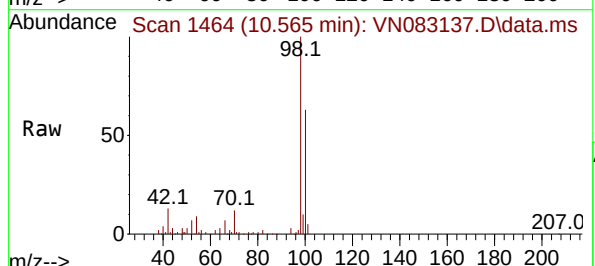
Acq: 07 Aug 2024 11:22

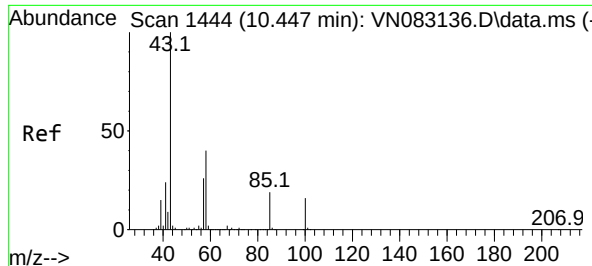
Tgt Ion: 98 Resp: 142952

Ion Ratio Lower Upper

98 100

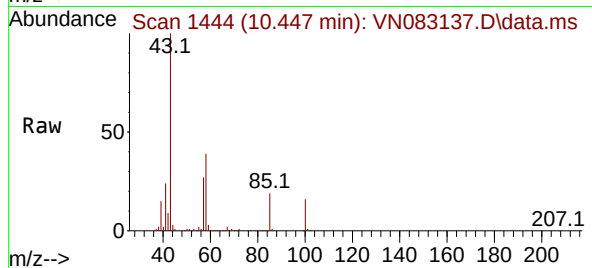
100 65.8 51.5 77.3





#51  
4-Methyl-2-Pentanone  
Concen: 103.224 ug/l  
RT: 10.447 min Scan# 1444  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

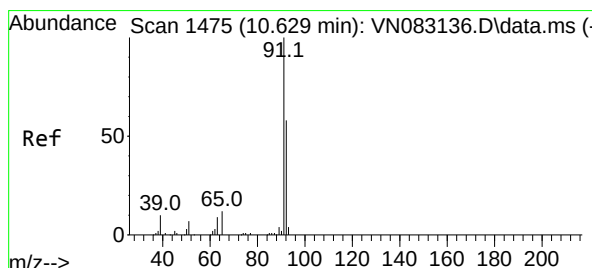
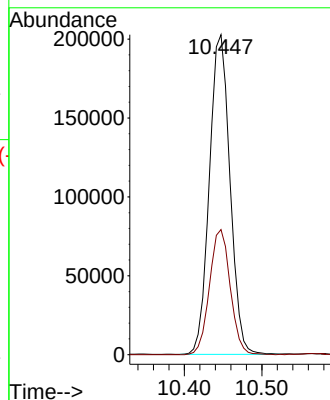
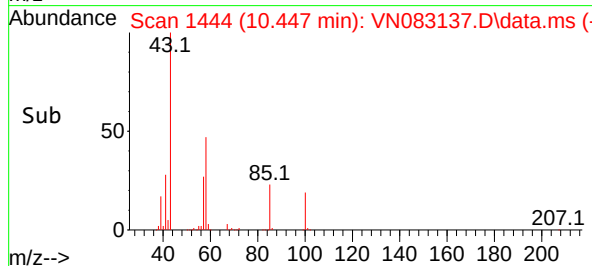
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



Tgt Ion: 43 Resp: 37433  
Ion Ratio Lower Upper  
43 100  
58 39.4 28.2 42.4

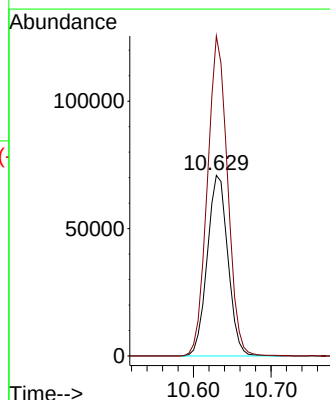
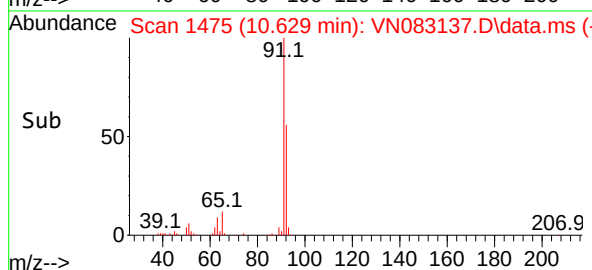
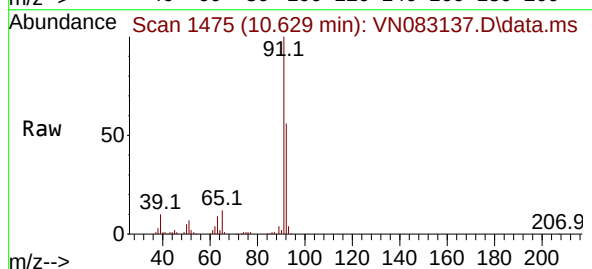
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

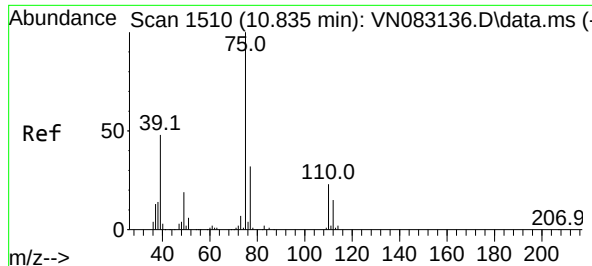


#52  
Toluene  
Concen: 20.358 ug/l  
RT: 10.629 min Scan# 1475  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion: 92 Resp: 131247  
Ion Ratio Lower Upper  
92 100  
91 173.0 139.4 209.0

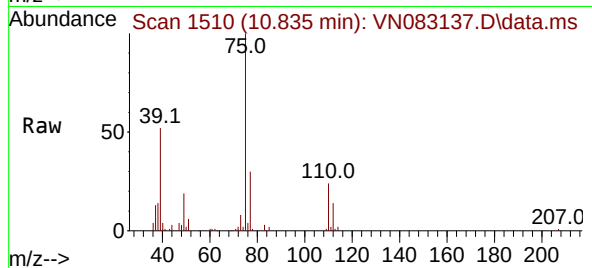






#53  
t-1,3-Dichloropropene  
Concen: 20.793 ug/l  
RT: 10.835 min Scan# 1510  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

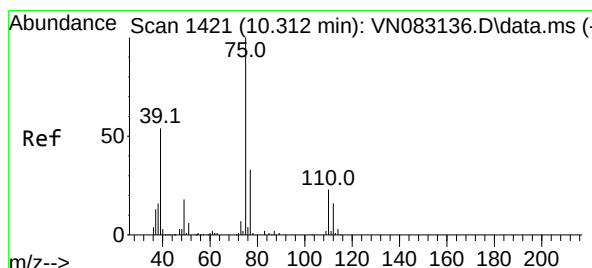
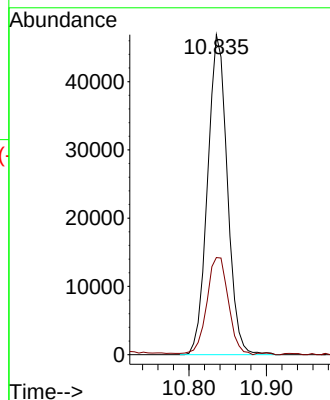
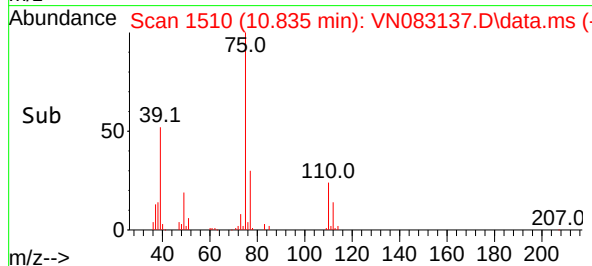
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



Tgt Ion: 75 Resp: 83139  
Ion Ratio Lower Upper  
75 100  
77 30.4 25.7 38.5

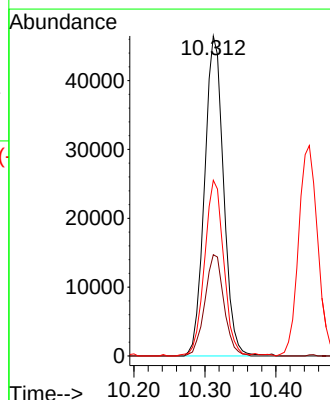
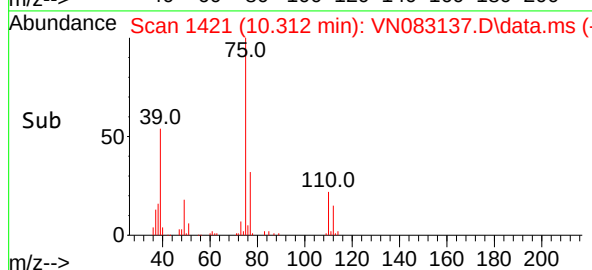
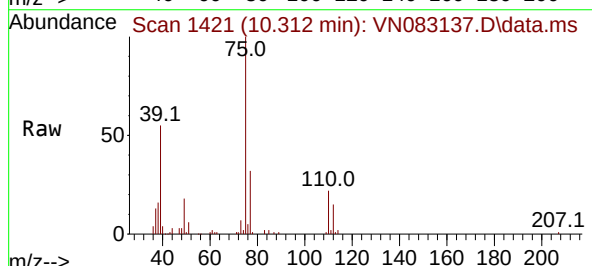
Manual Integrations  
APPROVED

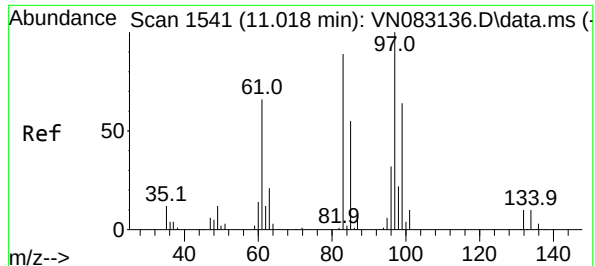
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#54  
cis-1,3-Dichloropropene  
Concen: 20.351 ug/l  
RT: 10.312 min Scan# 1421  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion: 75 Resp: 86551  
Ion Ratio Lower Upper  
75 100  
77 31.7 24.3 36.5  
39 54.5 50.5 75.7





#55

1,1,2-Trichloroethane

Concen: 20.811 ug/l

RT: 11.018 min Scan# 1541

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 97 Resp: 4808

Ion Ratio Lower Upper

97 100

83 81.1 71.4 107.0

85 56.0 45.8 68.6

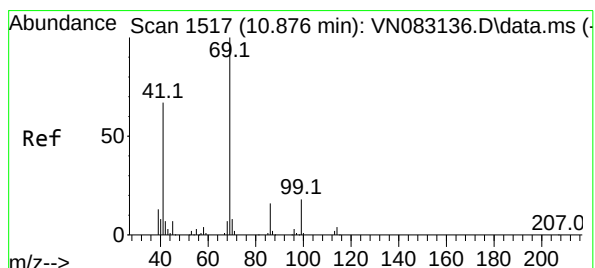
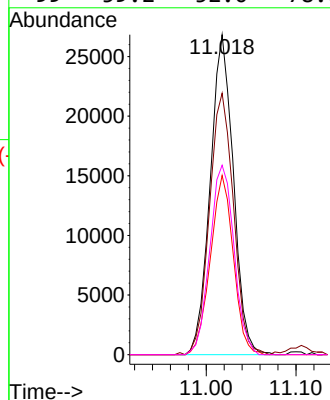
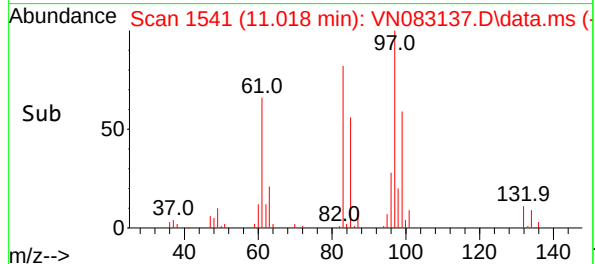
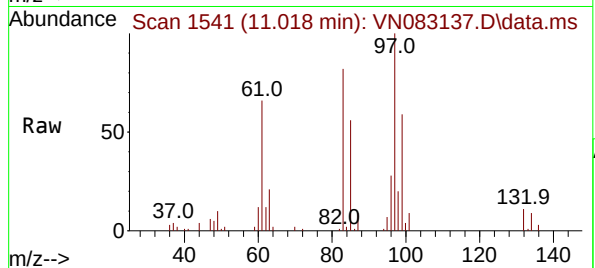
99 59.2 52.0 78.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#56

Ethyl methacrylate

Concen: 20.550 ug/l

RT: 10.877 min Scan# 1517

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

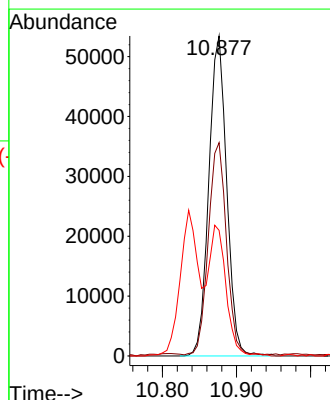
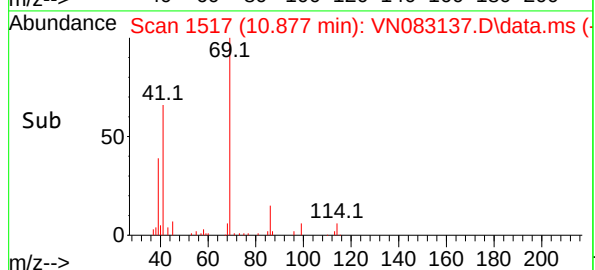
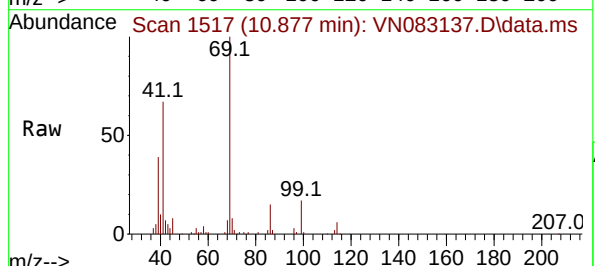
Tgt Ion: 69 Resp: 89503

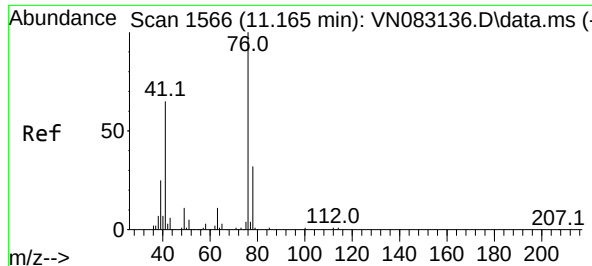
Ion Ratio Lower Upper

69 100

41 67.5 63.4 95.2

39 41.2 37.4 56.0





#57

1,3-Dichloropropane

Concen: 20.464 ug/l

RT: 11.165 min Scan# 1566

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion: 76 Resp: 8427

Ion Ratio Lower Upper

76 100

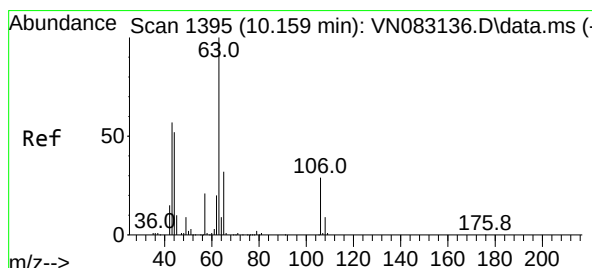
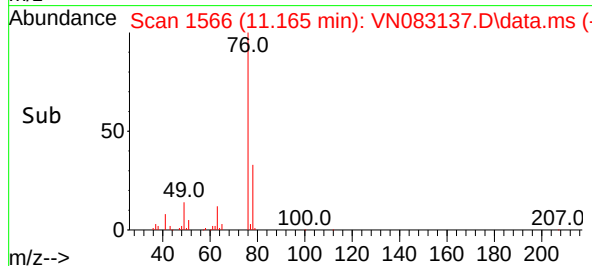
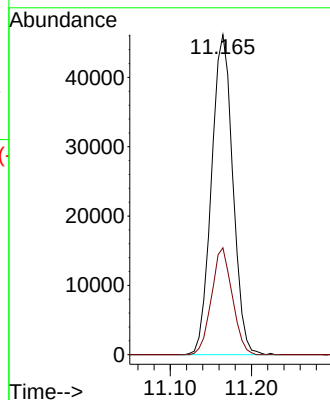
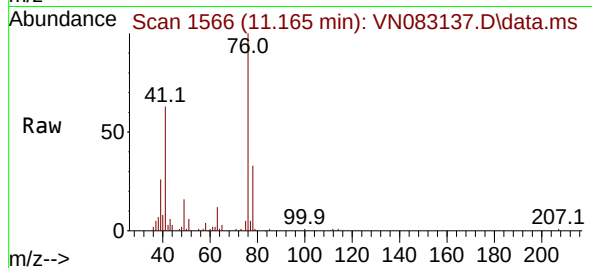
78 32.5 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#58

2-Chloroethyl Vinyl ether

Concen: 95.242 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. 0.000 min

Lab File: VN083137.D

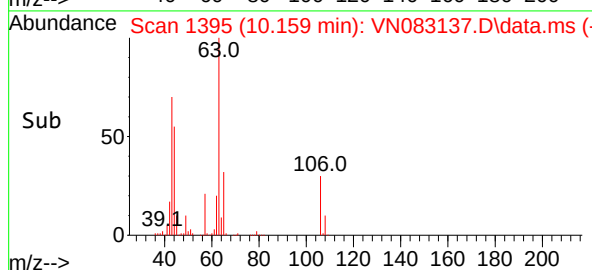
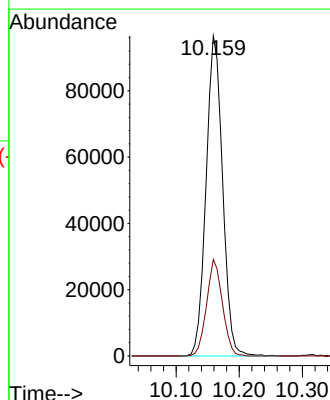
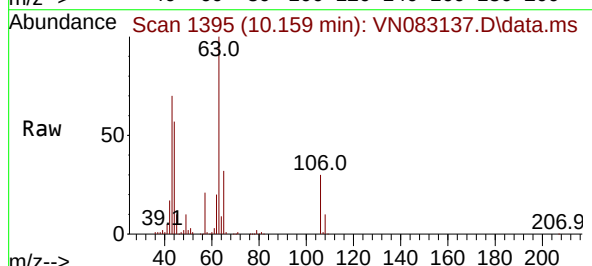
Acq: 07 Aug 2024 11:22

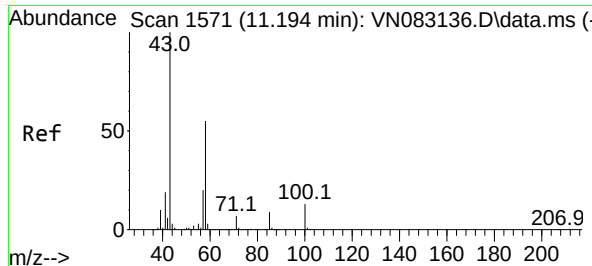
Tgt Ion: 63 Resp: 175345

Ion Ratio Lower Upper

63 100

106 28.9 21.4 32.0





#59

2-Hexanone

Concen: 102.020 ug/l

RT: 11.194 min Scan# 1571

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 43 Resp: 28622

Ion Ratio Lower Upper

43 100

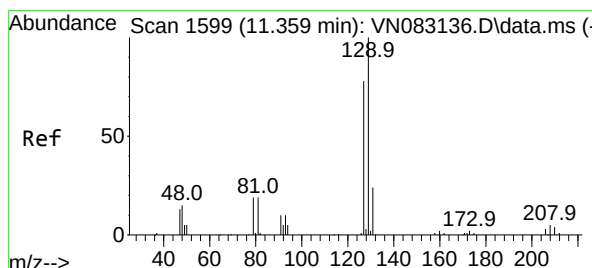
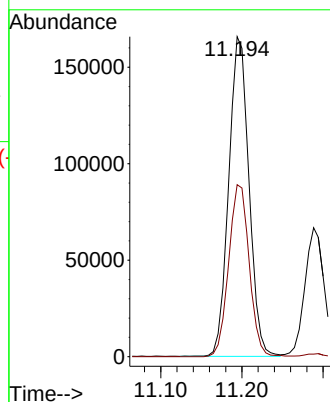
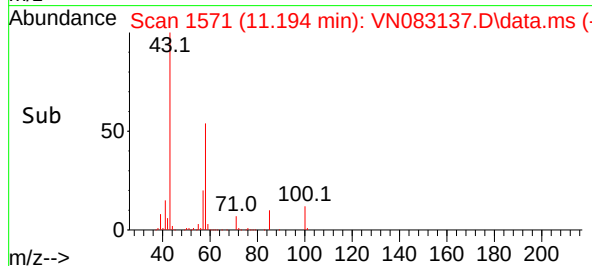
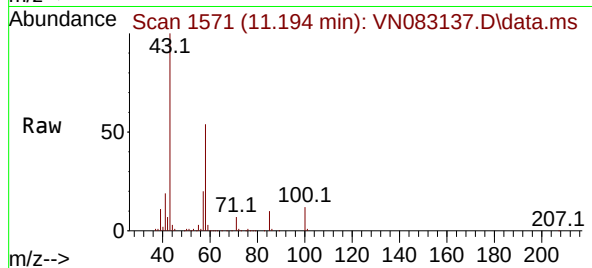
58 54.7 24.6 73.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#60

Dibromochloromethane

Concen: 20.610 ug/l

RT: 11.359 min Scan# 1599

Delta R.T. 0.000 min

Lab File: VN083137.D

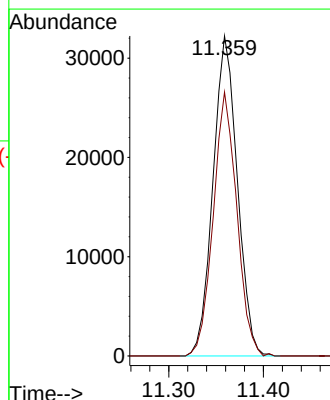
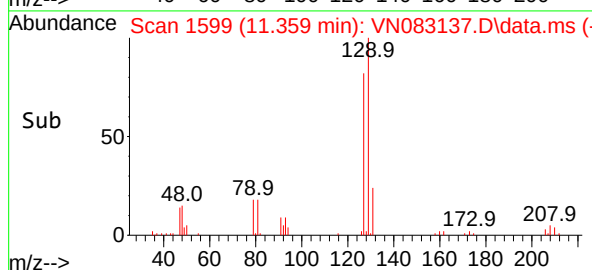
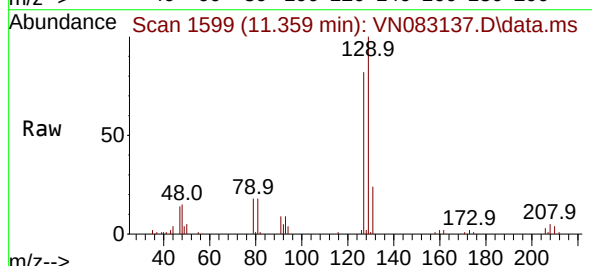
Acq: 07 Aug 2024 11:22

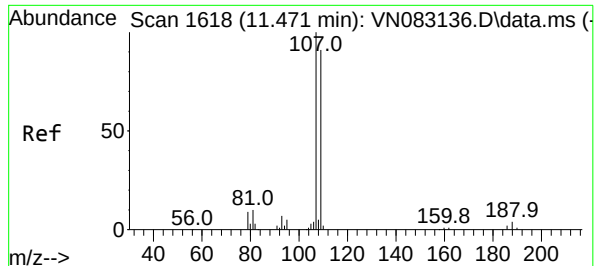
Tgt Ion:129 Resp: 57571

Ion Ratio Lower Upper

129 100

127 79.9 39.2 117.6





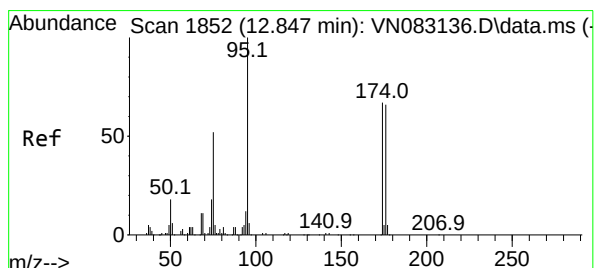
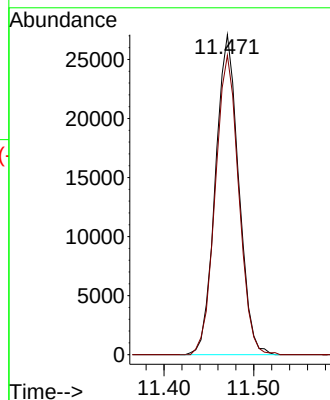
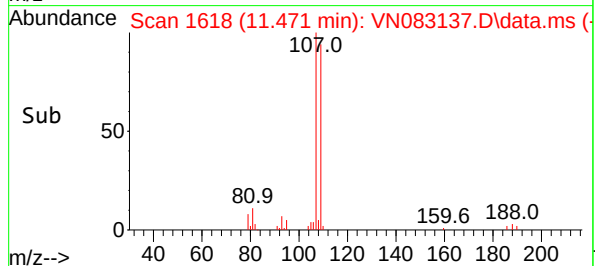
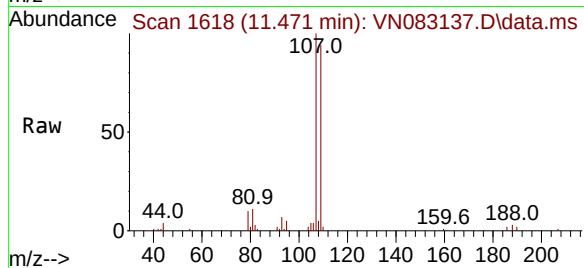
#61  
1,2-Dibromoethane  
Concen: 20.088 ug/l  
RT: 11.471 min Scan# 1618  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

Tgt Ion:107 Resp: 4875  
Ion Ratio Lower Upper  
107 100  
109 94.4 73.7 110.5

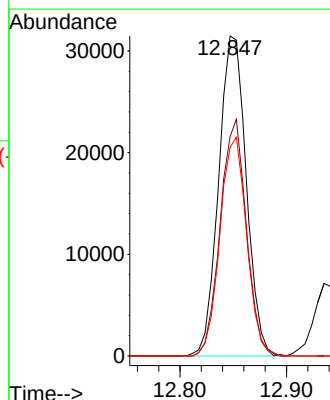
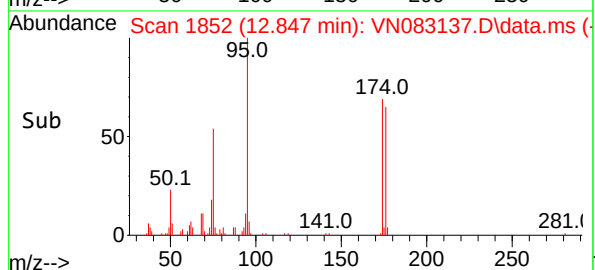
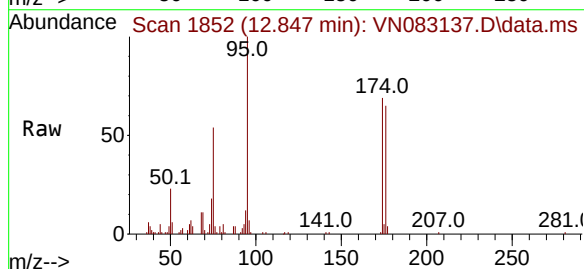
Manual Integrations  
APPROVED

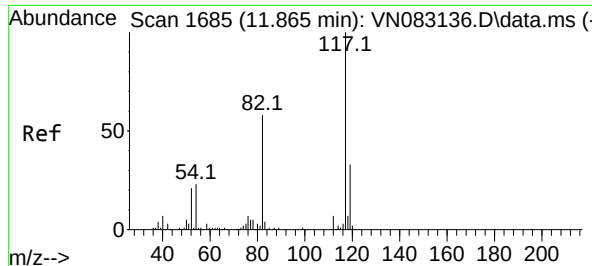
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#62  
4-Bromofluorobenzene  
Concen: 17.179 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

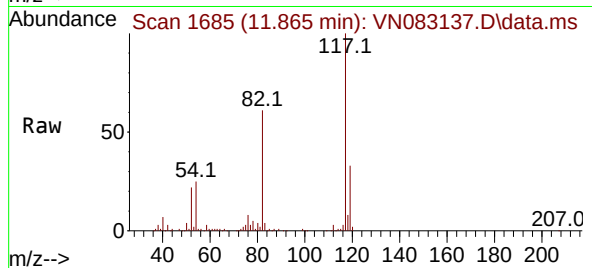
Tgt Ion: 95 Resp: 56566  
Ion Ratio Lower Upper  
95 100  
174 69.8 0.0 159.2  
176 66.2 0.0 147.6





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

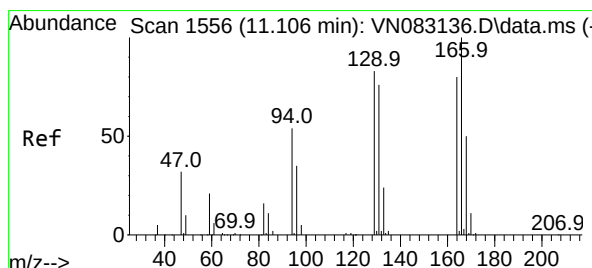
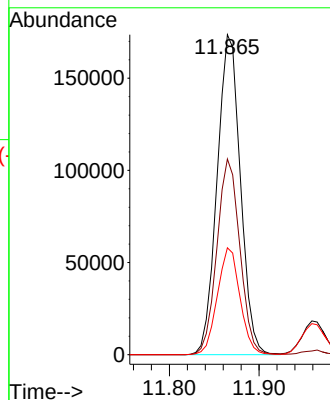
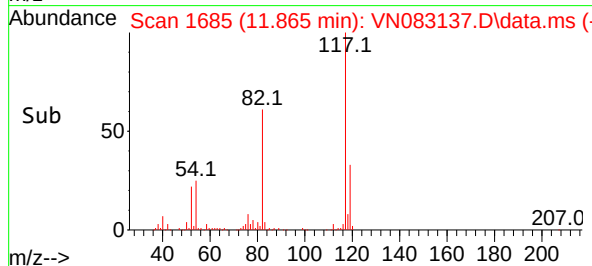
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



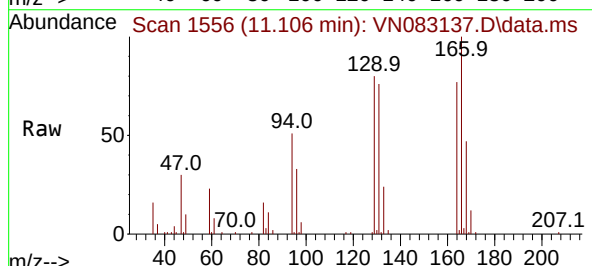
Tgt Ion:117 Resp: 31325  
Ion Ratio Lower Upper  
117 100  
82 61.1 47.5 71.3  
119 33.4 25.6 38.4

Manual Integrations  
APPROVED

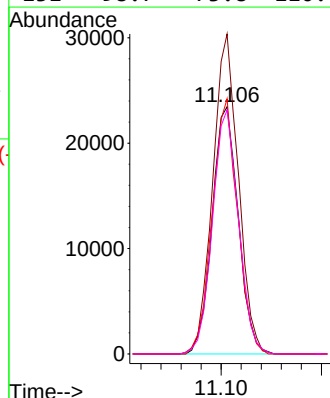
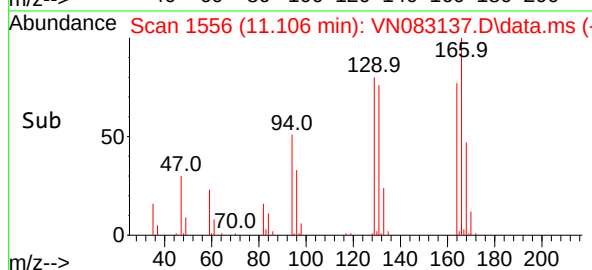
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

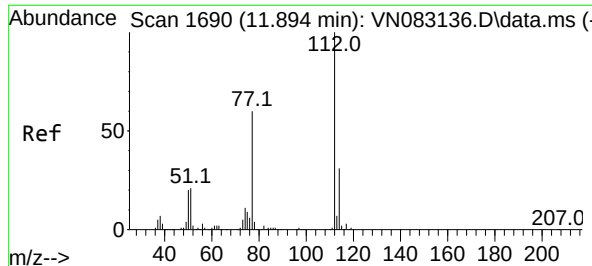


#64  
Tetrachloroethene  
Concen: 20.405 ug/l  
RT: 11.106 min Scan# 1556  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22



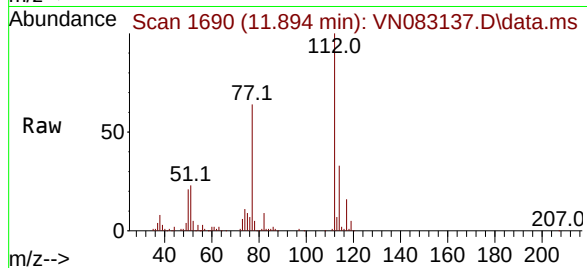
Tgt Ion:164 Resp: 42332  
Ion Ratio Lower Upper  
164 100  
166 129.4 101.4 152.0  
129 103.2 75.7 113.5  
131 98.7 73.8 110.6





#65  
Chlorobenzene  
Concen: 19.933 ug/l  
RT: 11.894 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

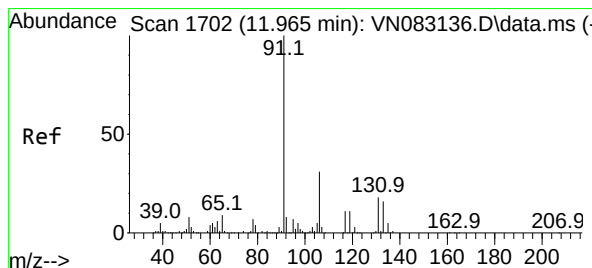
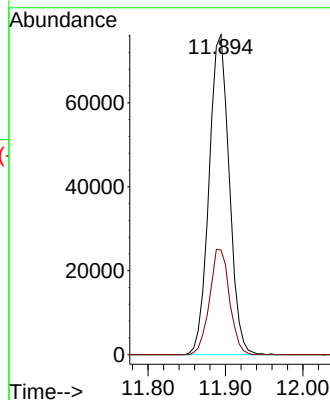
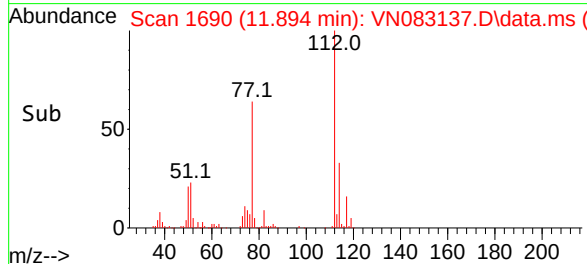
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



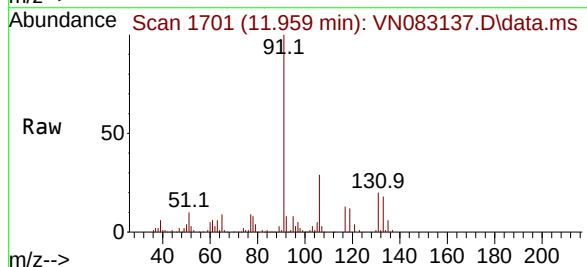
Tgt Ion:112 Resp: 137984  
Ion Ratio Lower Upper  
112 100  
114 32.7 26.2 39.2

Manual Integrations  
APPROVED

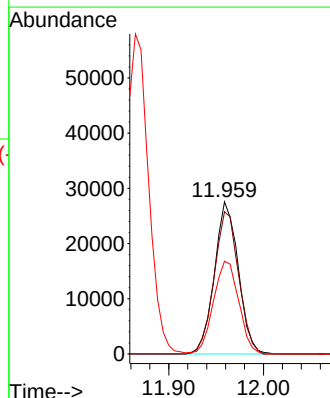
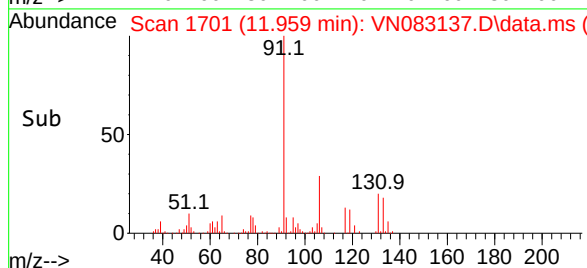
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

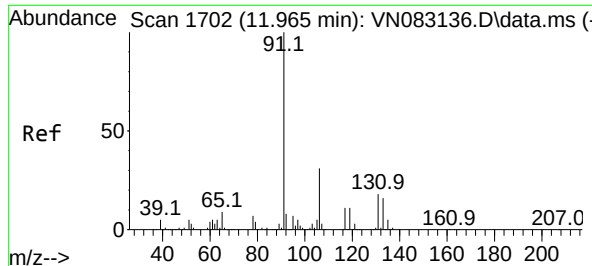


#66  
1,1,1,2-Tetrachloroethane  
Concen: 19.762 ug/l  
RT: 11.959 min Scan# 1701  
Delta R.T. -0.006 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22



Tgt Ion:131 Resp: 48247  
Ion Ratio Lower Upper  
131 100  
133 96.1 47.3 142.0  
119 64.5 32.5 97.4





#67

Ethyl Benzene

Concen: 20.335 ug/l

RT: 11.965 min Scan# 1702

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 91 Resp: 25823

Ion Ratio Lower Upper

91 100

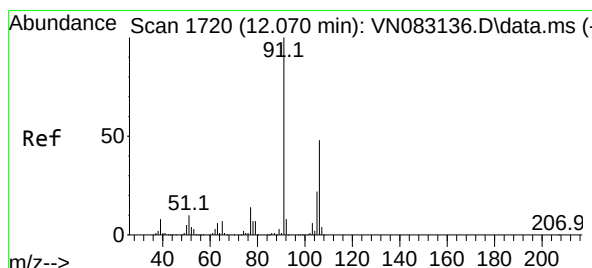
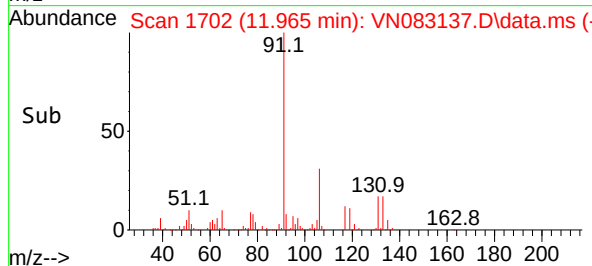
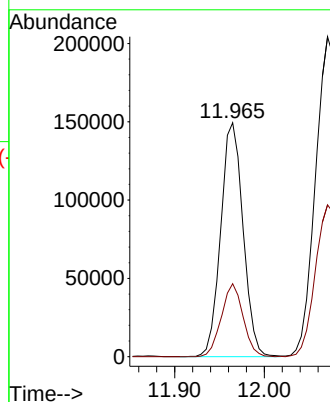
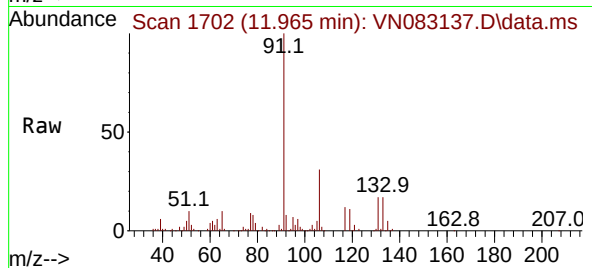
106 31.2 24.0 36.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#68

m/p-Xylenes

Concen: 40.625 ug/l

RT: 12.071 min Scan# 1720

Delta R.T. 0.000 min

Lab File: VN083137.D

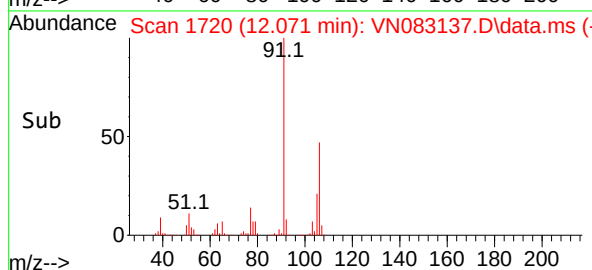
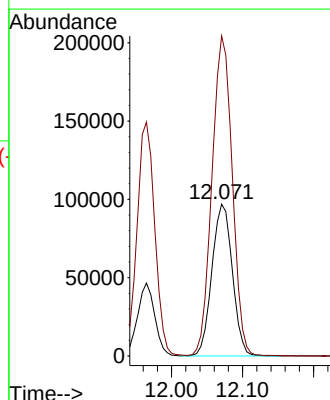
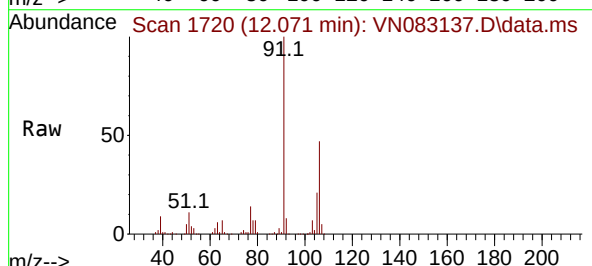
Acq: 07 Aug 2024 11:22

Tgt Ion:106 Resp: 193256

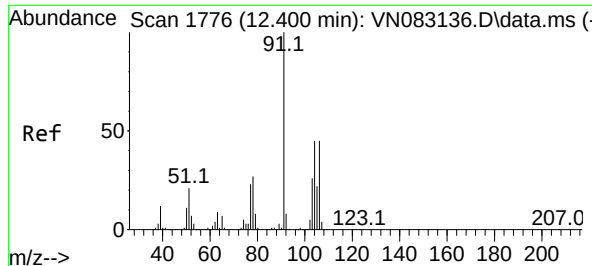
Ion Ratio Lower Upper

106 100

91 209.9 166.1 249.1







#69

o-Xylene

Concen: 20.281 ug/l

RT: 12.400 min Scan# 1776

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion:106 Resp: 9515

Ion Ratio Lower Upper

106 100

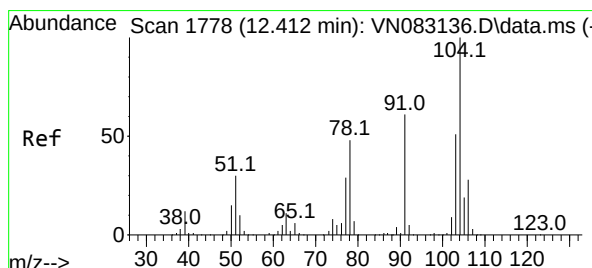
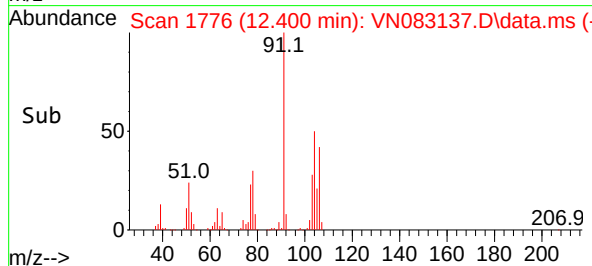
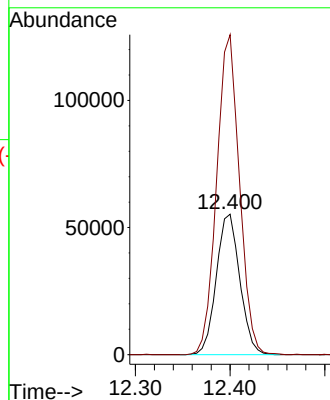
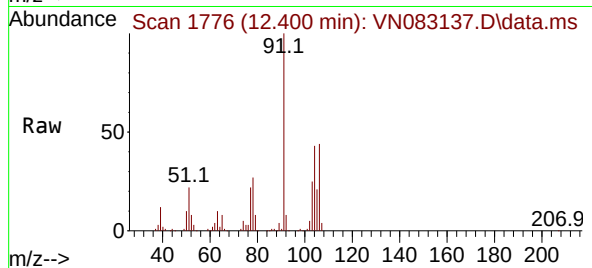
91 221.3 111.3 333.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#70

Styrene

Concen: 20.475 ug/l

RT: 12.412 min Scan# 1778

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

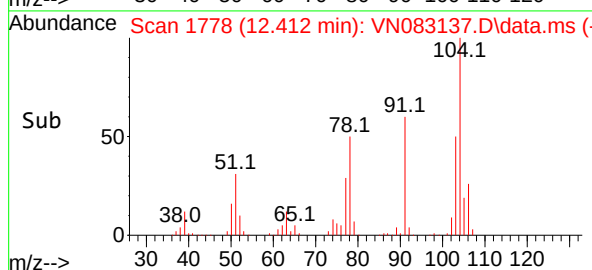
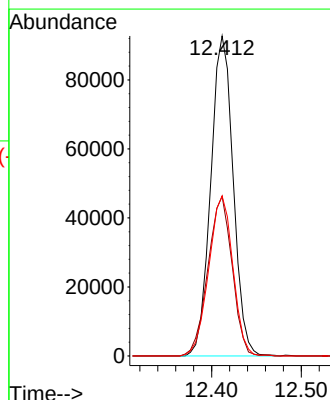
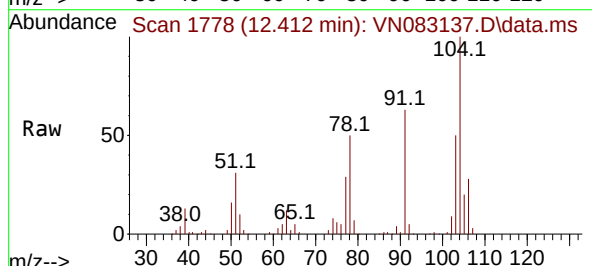
Tgt Ion:104 Resp: 161342

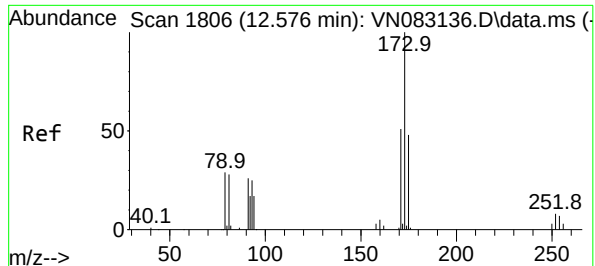
Ion Ratio Lower Upper

104 100

78 53.7 41.6 62.4

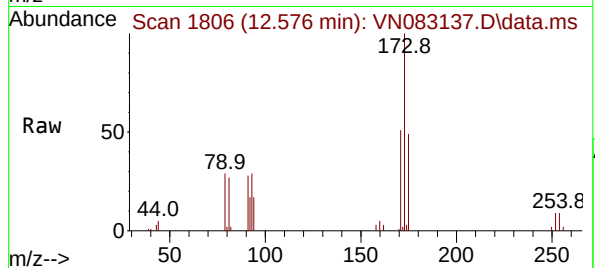
103 53.8 44.0 66.0





#71  
Bromoform  
Concen: 20.957 ug/l  
RT: 12.576 min Scan# 1806  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

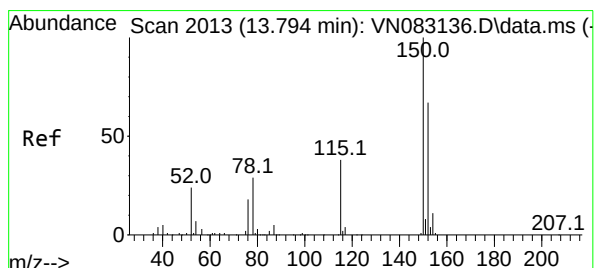
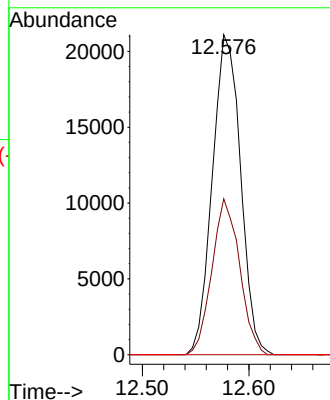
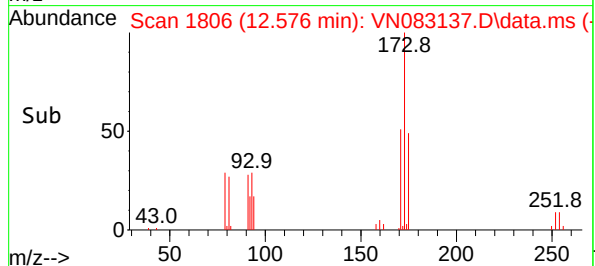
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



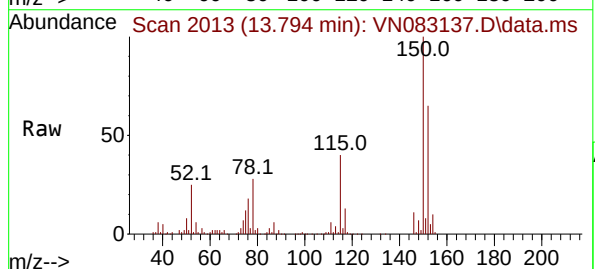
Tgt Ion:173 Resp: 3876  
Ion Ratio Lower Upper  
173 100  
175 47.9 24.0 72.0  
254 0.0 0.0 0.0

Manual Integrations  
APPROVED

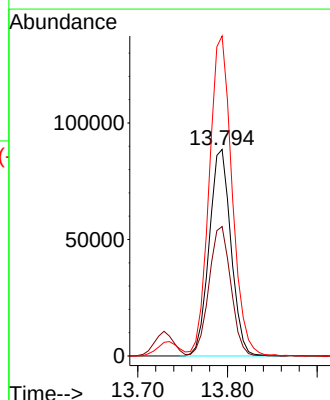
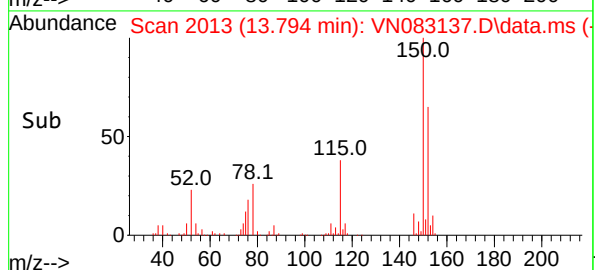
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

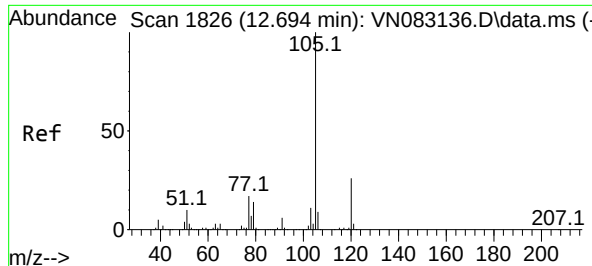


#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.794 min Scan# 2013  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22



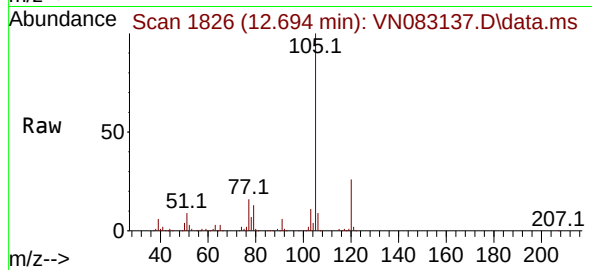
Tgt Ion:152 Resp: 149244  
Ion Ratio Lower Upper  
152 100  
115 63.1 30.6 91.6  
150 162.7 0.0 348.6





#73  
Isopropylbenzene  
Concen: 19.764 ug/l  
RT: 12.694 min Scan# 1826  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

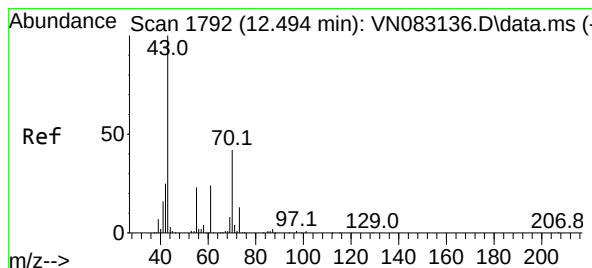
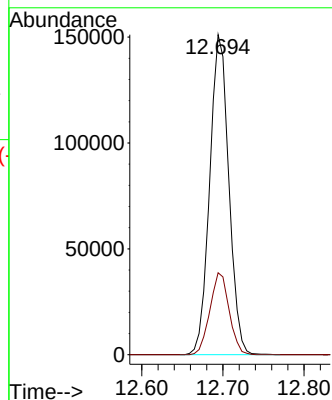
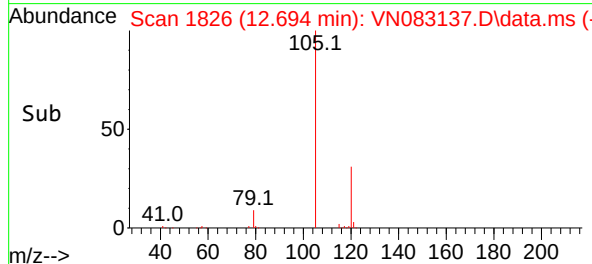
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



Tgt Ion: 105 Resp: 24671  
Ion Ratio Lower Upper  
105 100  
120 25.8 12.9 38.6

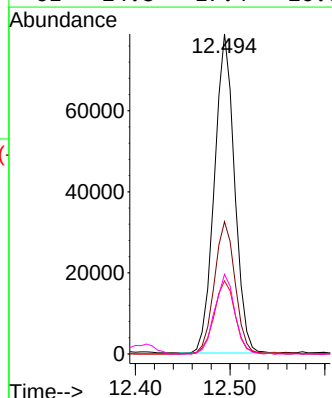
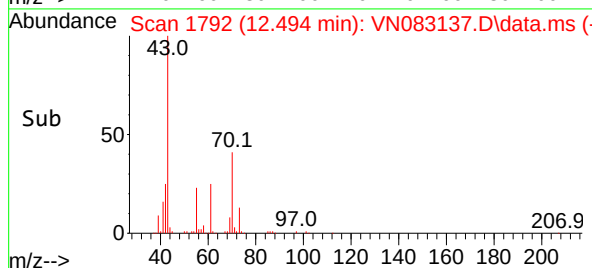
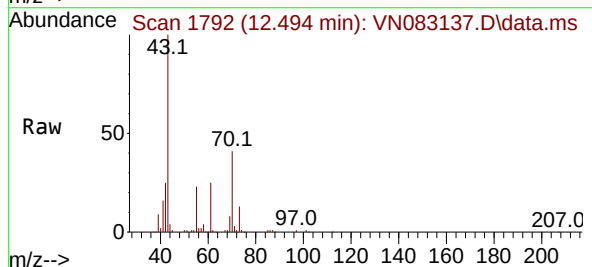
Manual Integrations  
APPROVED

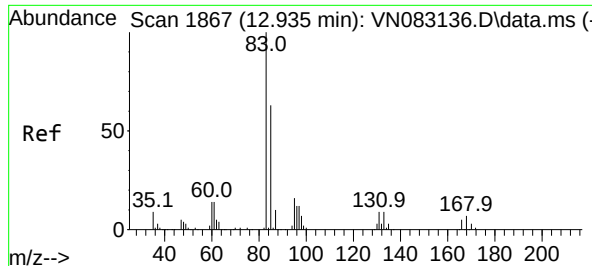
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#74  
N-ethyl acetate  
Concen: 19.014 ug/l  
RT: 12.494 min Scan# 1792  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion: 43 Resp: 116100  
Ion Ratio Lower Upper  
43 100  
70 42.8 29.8 44.6  
55 24.0 18.7 28.1  
61 24.8 17.4 26.0





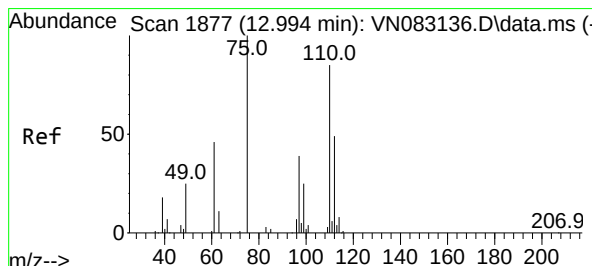
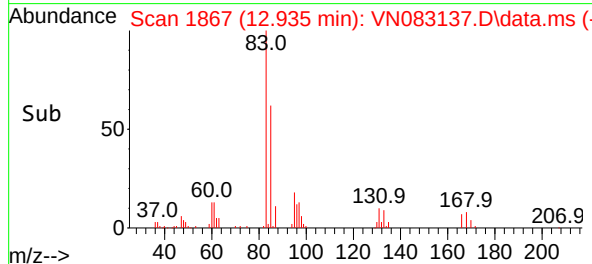
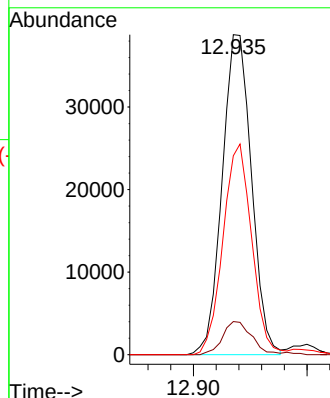
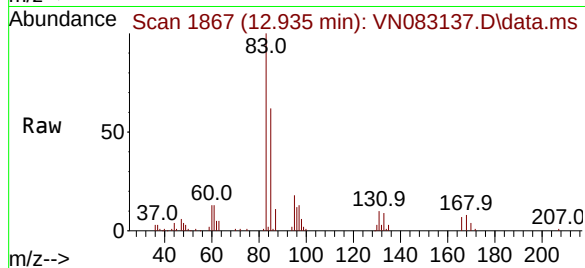
#75  
1,1,2-Tetrachloroethane  
Concen: 19.670 ug/l  
RT: 12.935 min Scan# 1867  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

| Tgt Ion:  | 83    | Resp: | 69449 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 83        | 100   |       |       |
| 131       | 10.6  | 5.0   | 14.9  |
| 85        | 64.6  | 31.9  | 95.7  |

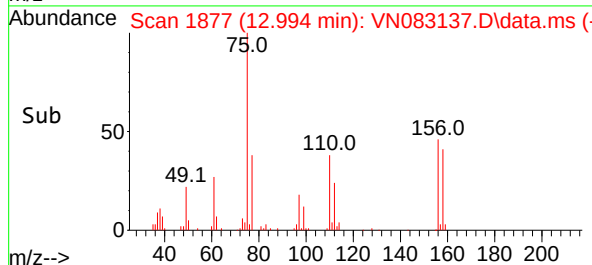
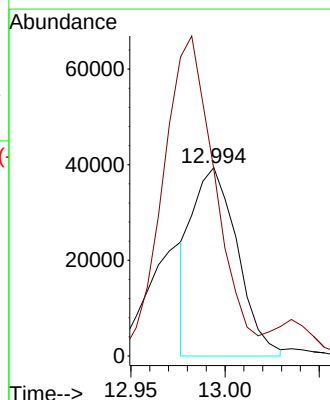
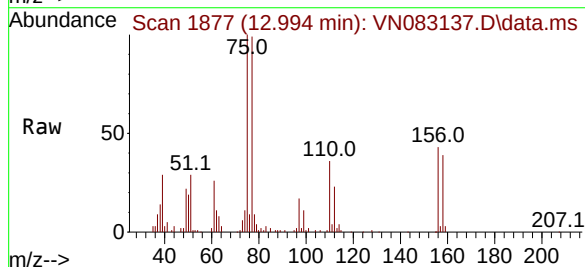
Manual Integrations  
APPROVED

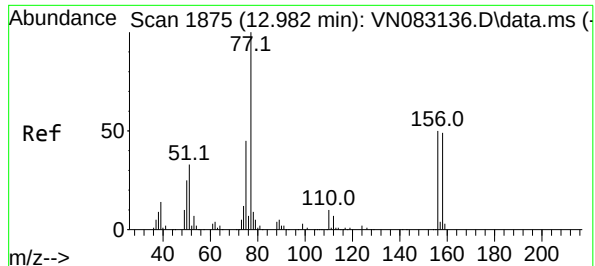
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#76  
1,2,3-Trichloropropane  
Concen: 19.901 ug/l m  
RT: 12.994 min Scan# 1877  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

| Tgt Ion:  | 75    | Resp: | 65295 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 75        | 100   |       |       |
| 77        | 199.0 | 110.9 | 332.6 |





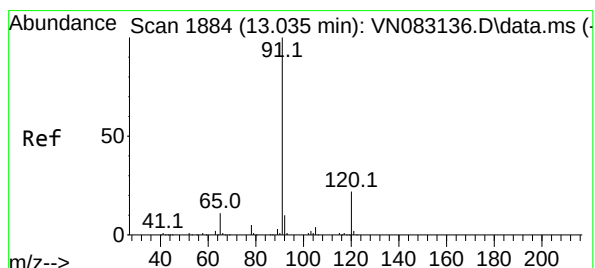
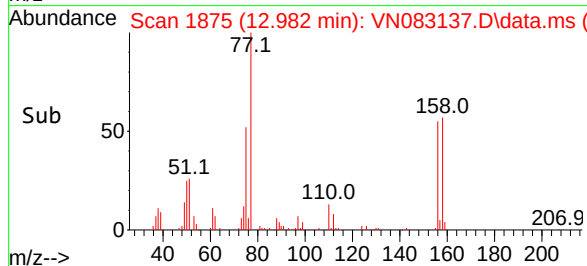
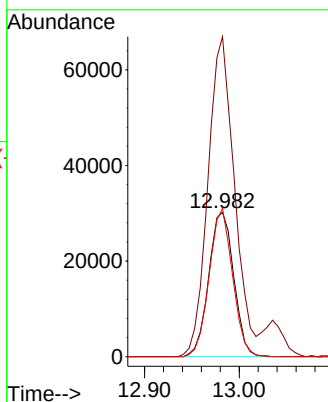
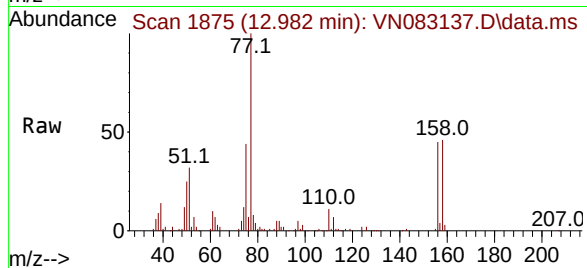
#77  
Bromobenzene  
Concen: 19.952 ug/l  
RT: 12.982 min Scan# 1875  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020

Tgt Ion:156 Resp: 5532  
Ion Ratio Lower Upper  
156 100  
77 234.8 111.3 333.8  
158 95.8 48.3 144.9

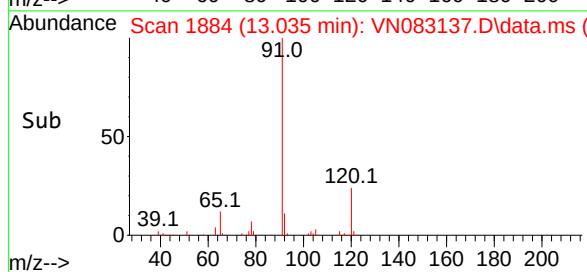
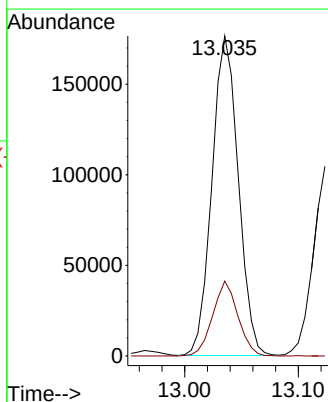
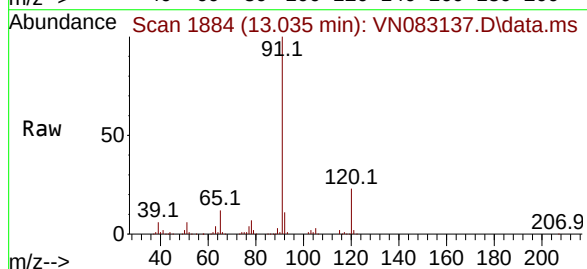
Manual Integrations  
APPROVED

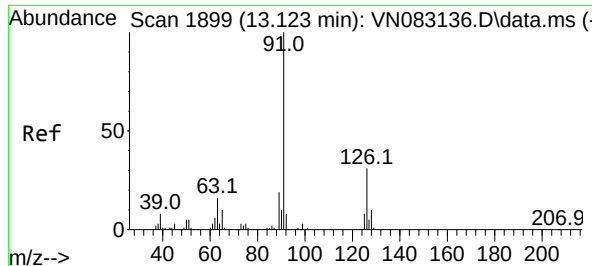
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#78  
n-propylbenzene  
Concen: 19.740 ug/l  
RT: 13.035 min Scan# 1884  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion: 91 Resp: 283745  
Ion Ratio Lower Upper  
91 100  
120 22.4 10.9 32.9





#79

2-Chlorotoluene

Concen: 19.827 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC020

Tgt Ion: 91 Resp: 18068

Ion Ratio Lower Upper

91 100

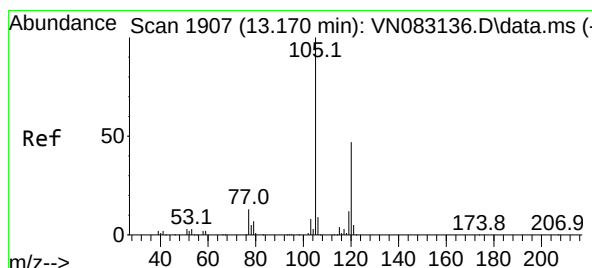
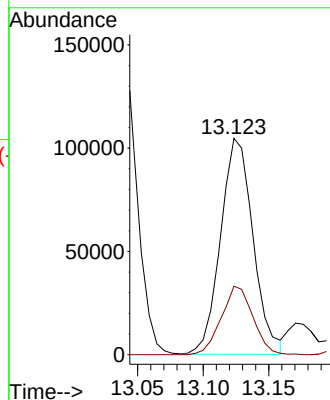
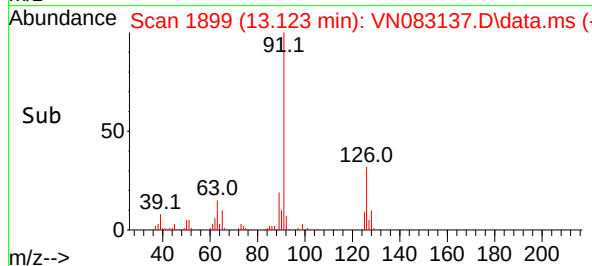
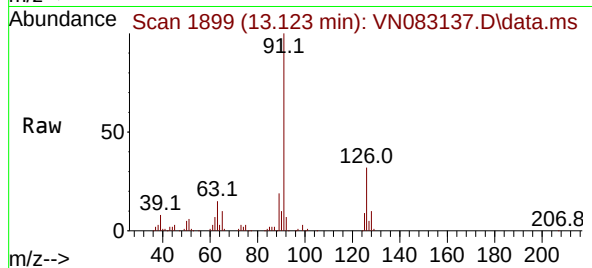
126 30.7 16.2 48.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#80

1,3,5-Trimethylbenzene

Concen: 19.938 ug/l

RT: 13.170 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VN083137.D

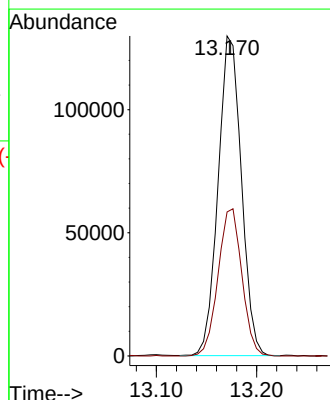
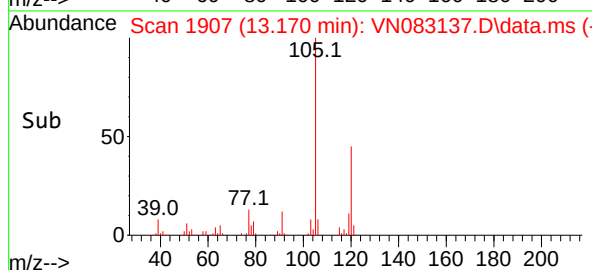
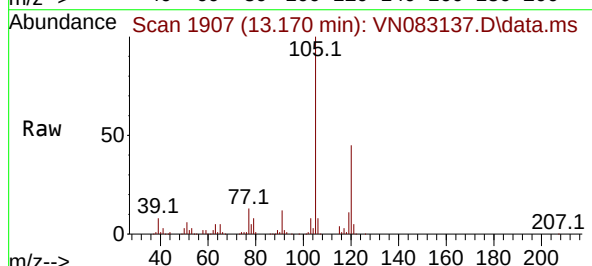
Acq: 07 Aug 2024 11:22

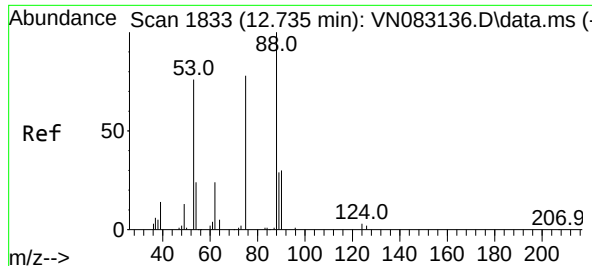
Tgt Ion:105 Resp: 208367

Ion Ratio Lower Upper

105 100

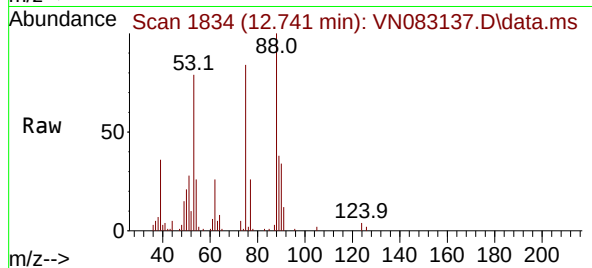
120 47.2 24.3 72.8





#81  
trans-1,4-Dichloro-2-butene  
Concen: 20.759 ug/l  
RT: 12.741 min Scan# 1834  
Delta R.T. 0.006 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

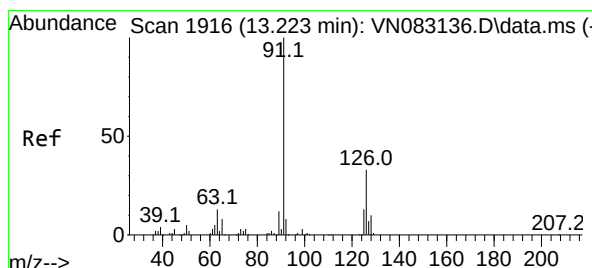
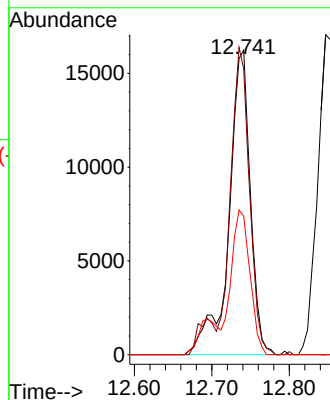
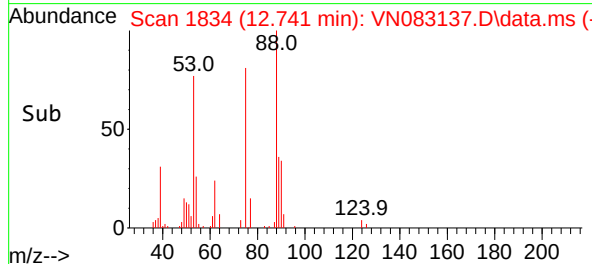
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



Tgt Ion: 75 Resp: 31260  
Ion Ratio Lower Upper  
75 100  
53 88.0 88.4 132.6  
89 41.4 36.3 54.5

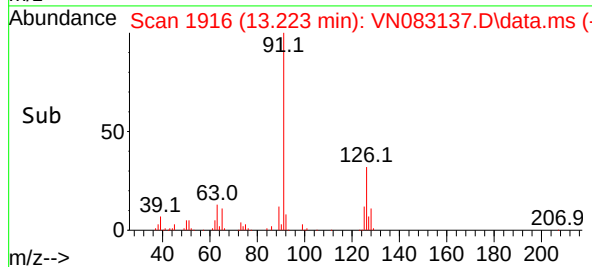
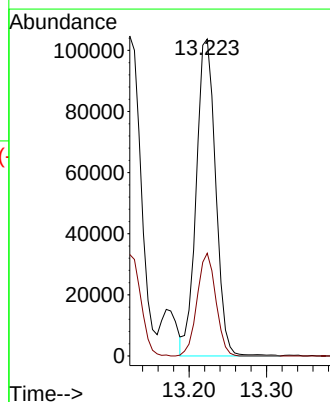
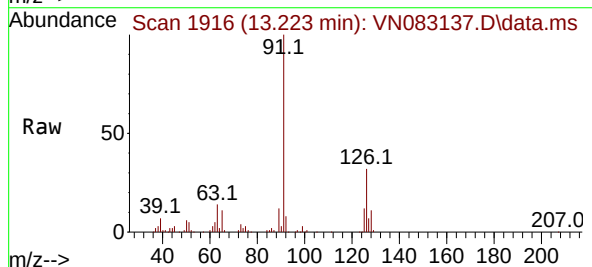
Manual Integrations  
APPROVED

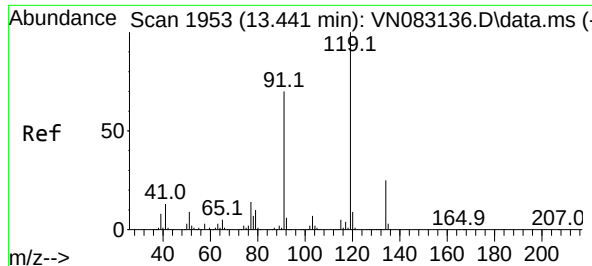
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#82  
4-Chlorotoluene  
Concen: 19.684 ug/l  
RT: 13.223 min Scan# 1916  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

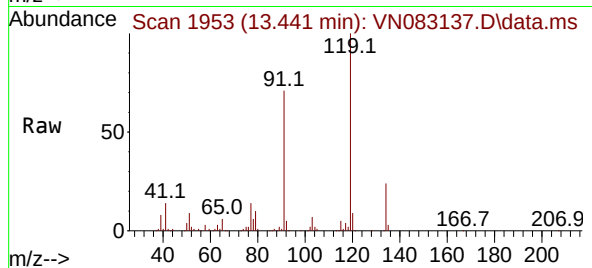
Tgt Ion: 91 Resp: 179932  
Ion Ratio Lower Upper  
91 100  
126 31.3 16.2 48.6





#83  
tert-Butylbenzene  
Concen: 19.985 ug/l  
RT: 13.441 min Scan# 1953  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

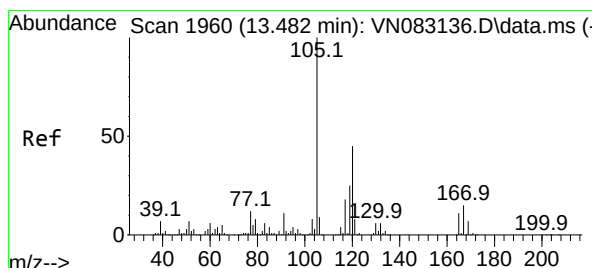
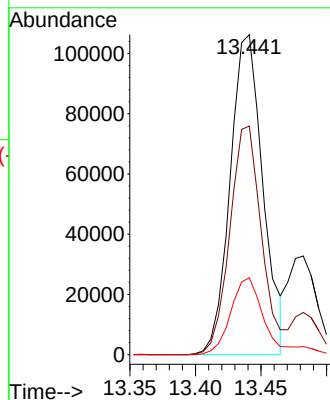
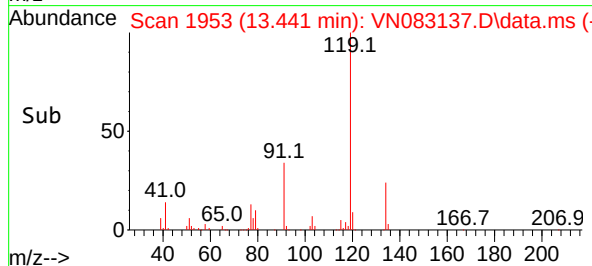
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



Tgt Ion:119 Resp: 18496  
Ion Ratio Lower Upper  
119 100  
91 70.2 35.0 105.1  
134 25.2 13.3 39.8

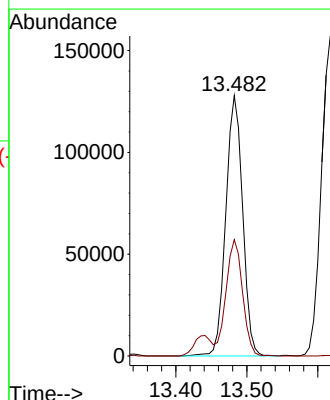
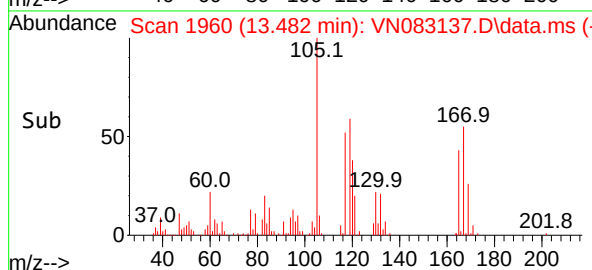
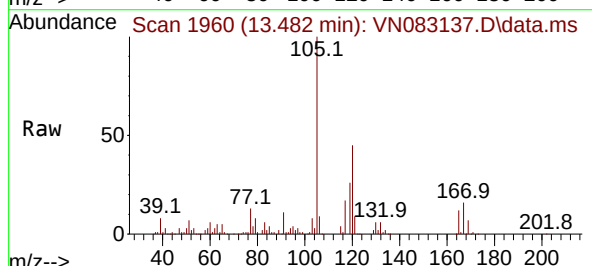
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

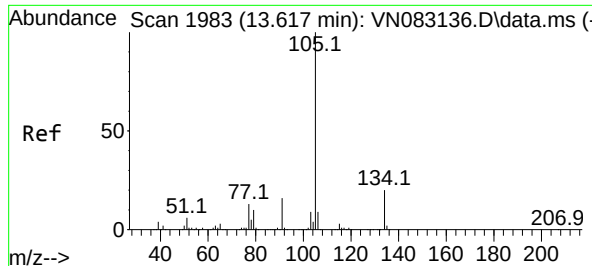


#84  
1,2,4-Trimethylbenzene  
Concen: 19.984 ug/l  
RT: 13.482 min Scan# 1960  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

Tgt Ion:105 Resp: 210474  
Ion Ratio Lower Upper  
105 100  
120 44.0 21.9 65.8

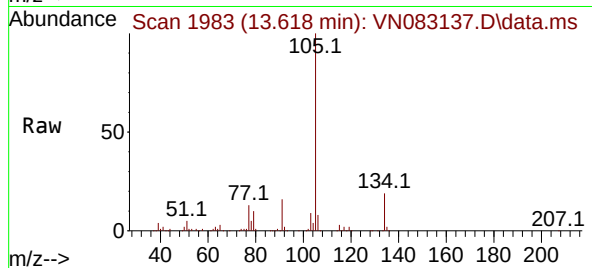






#85  
sec-Butylbenzene  
Concen: 19.862 ug/l  
RT: 13.618 min Scan# 1983  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

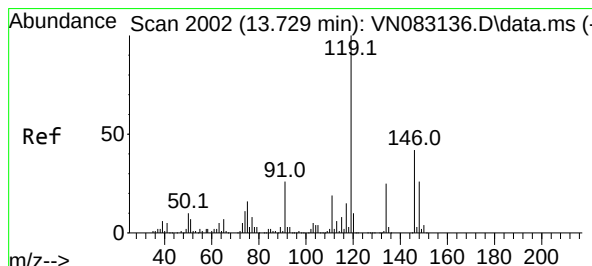
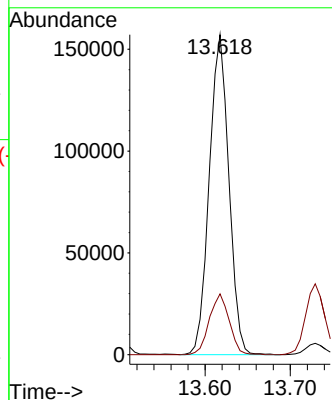
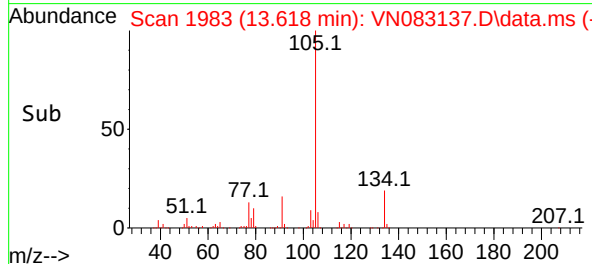
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



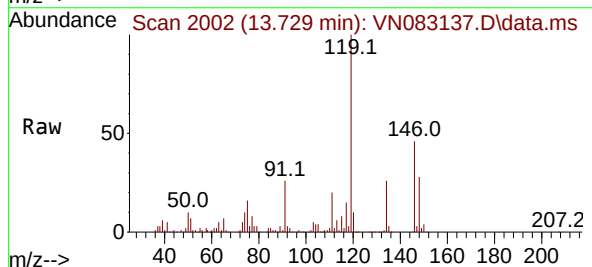
Tgt Ion:105 Resp: 250829  
Ion Ratio Lower Upper  
105 100  
134 19.3 9.8 29.3

Manual Integrations  
APPROVED

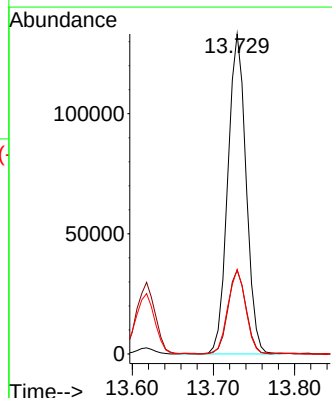
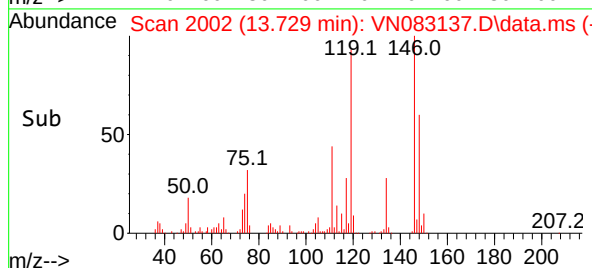
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

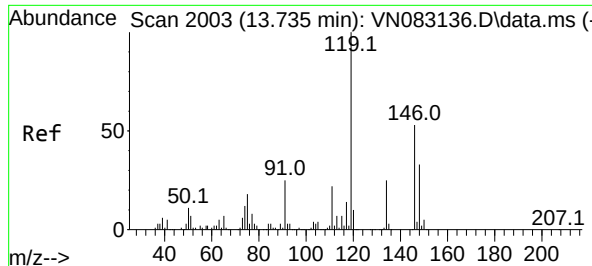


#86  
p-Isopropyltoluene  
Concen: 19.986 ug/l  
RT: 13.729 min Scan# 2002  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22



Tgt Ion:119 Resp: 208404  
Ion Ratio Lower Upper  
119 100  
134 25.7 13.0 39.0  
91 25.8 12.3 36.9





#87

1,3-Dichlorobenzene

Concen: 19.897 ug/l

RT: 13.735 min Scan# 2003

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

Tgt Ion:146 Resp: 103819

Ion Ratio Lower Upper

146 100

111 43.7 20.6 61.9

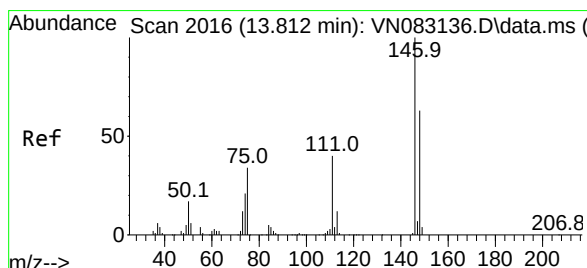
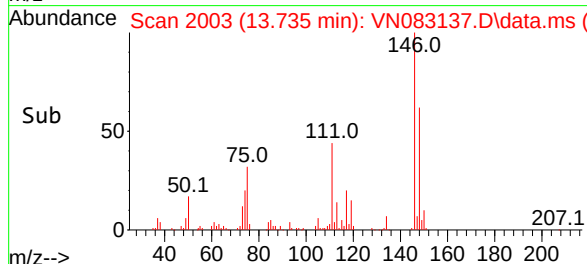
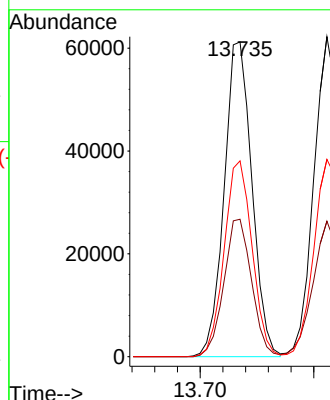
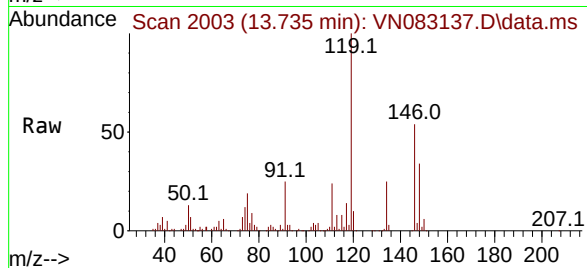
148 62.7 31.8 95.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#88

1,4-Dichlorobenzene

Concen: 19.605 ug/l

RT: 13.812 min Scan# 2016

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

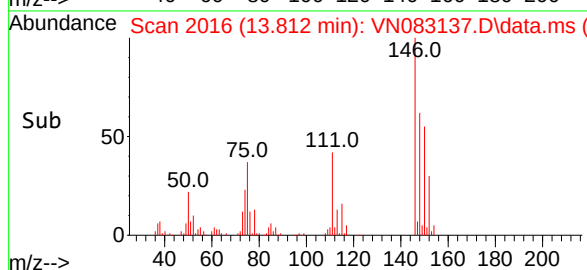
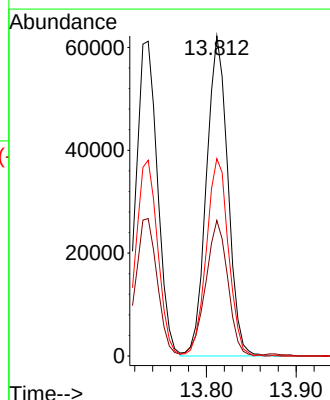
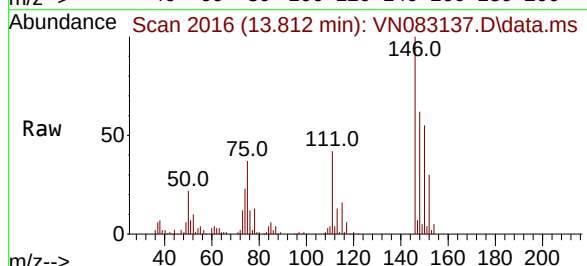
Tgt Ion:146 Resp: 103132

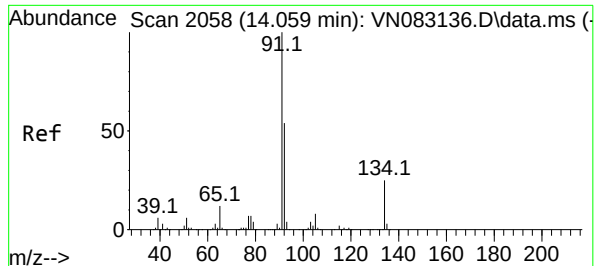
Ion Ratio Lower Upper

146 100

111 43.2 20.1 60.3

148 63.5 32.2 96.6





#89

n-Butylbenzene

Concen: 19.975 ug/l

RT: 14.053 min Scan# 2058

Delta R.T. -0.006 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

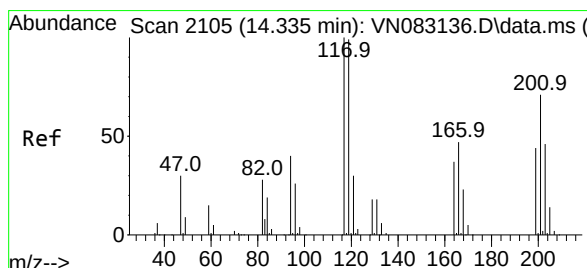
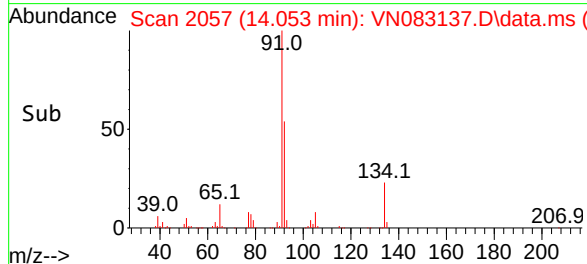
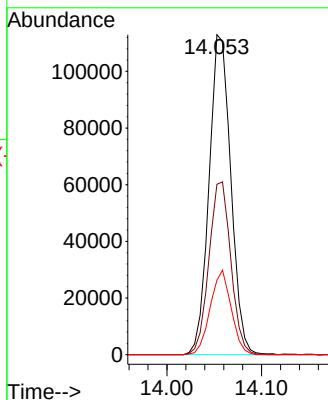
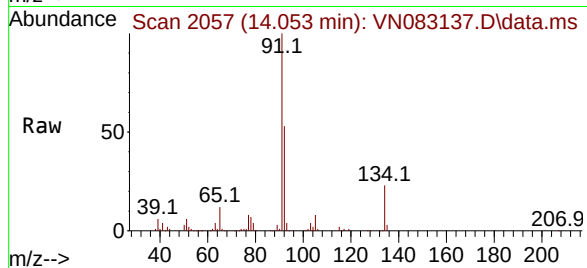
VSTDICC020

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 91    | Resp: | 18048 |
| Ion Ratio | Lower | Upper |       |
| 91        | 100   |       |       |
| 92        | 54.3  | 26.1  | 78.3  |
| 134       | 25.4  | 12.1  | 36.3  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#90

Hexachloroethane

Concen: 20.343 ug/l

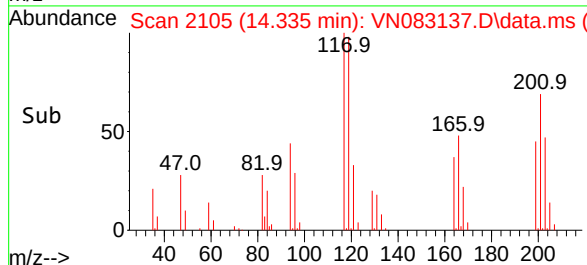
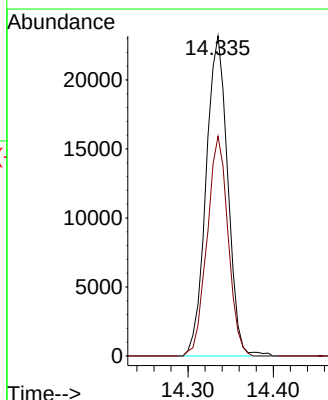
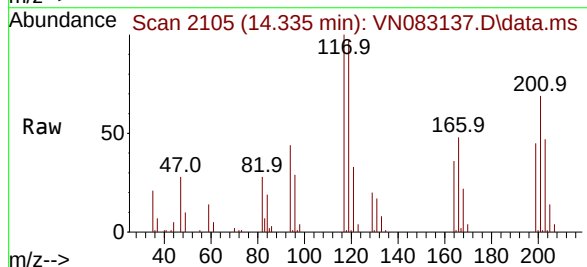
RT: 14.335 min Scan# 2105

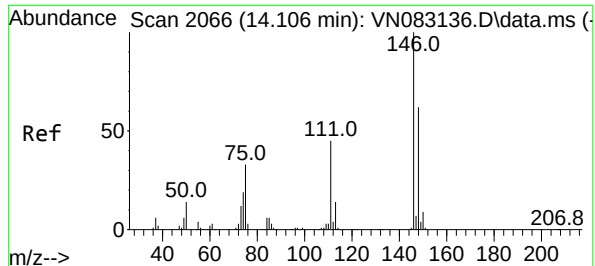
Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

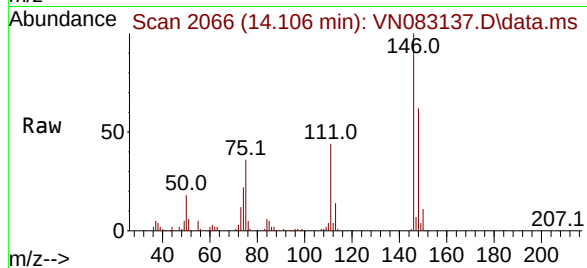
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 117   | Resp: | 40982 |
| Ion Ratio | Lower | Upper |       |
| 117       | 100   |       |       |
| 201       | 66.5  | 35.8  | 107.3 |





#91  
1,2-Dichlorobenzene  
Concen: 19.673 ug/l  
RT: 14.106 min Scan# 2066  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

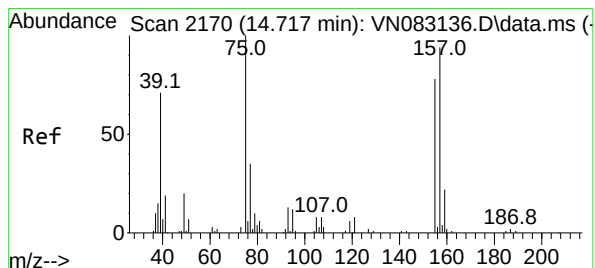
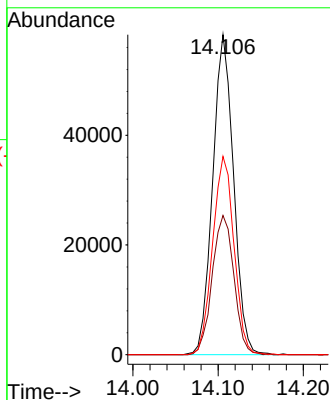
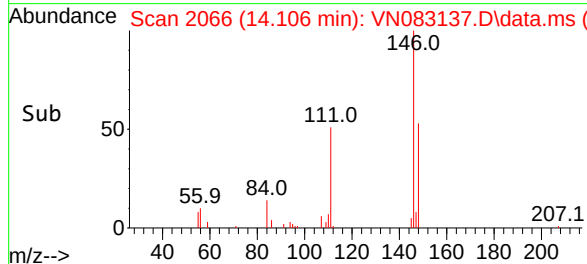
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



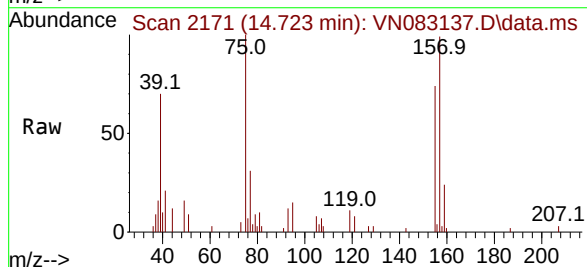
Tgt Ion:146 Resp: 99334  
Ion Ratio Lower Upper  
146 100  
111 45.3 21.4 64.2  
148 63.5 32.1 96.5

Manual Integrations  
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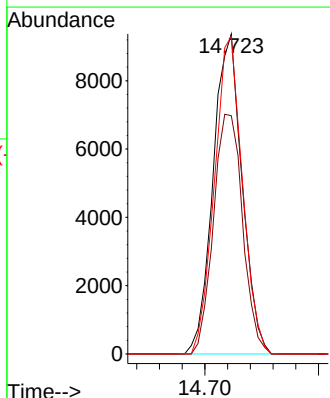
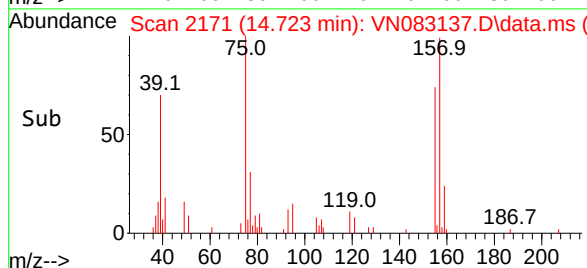
Reviewed By :John Carbone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

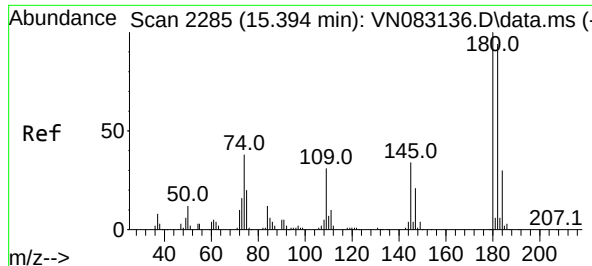


#92  
1,2-Dibromo-3-Chloropropane  
Concen: 19.320 ug/l  
RT: 14.723 min Scan# 2171  
Delta R.T. 0.006 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22



Tgt Ion: 75 Resp: 16552  
Ion Ratio Lower Upper  
75 100  
155 75.5 36.6 109.8  
157 95.6 46.9 140.6





#93

1,2,4-Trichlorobenzene

Concen: 19.902 ug/l

RT: 15.394 min Scan# 2285

Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC020

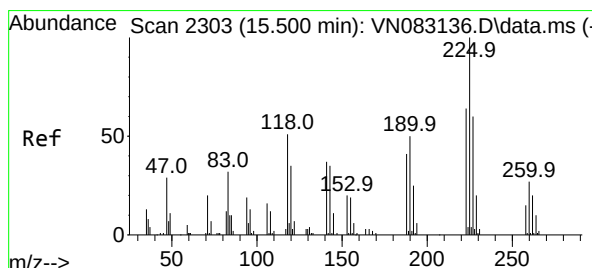
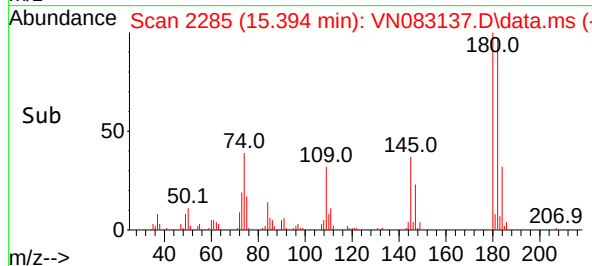
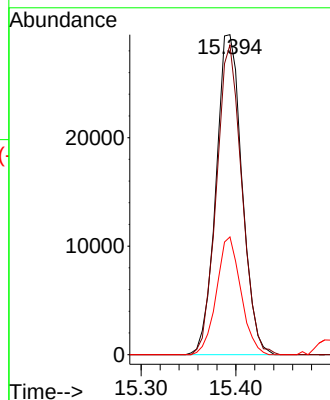
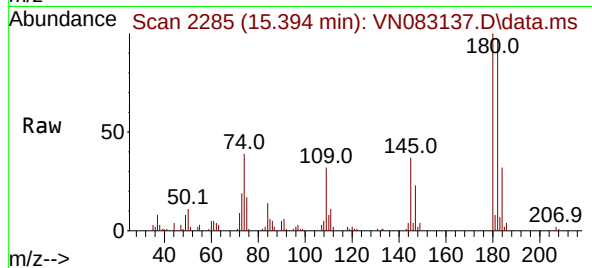
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 180   | Resp: | 56295 |
| Ion Ratio | Lower | Upper |       |
| 180       | 100   |       |       |
| 182       | 94.3  | 47.3  | 141.8 |
| 145       | 34.5  | 15.7  | 47.1  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#94

Hexachlorobutadiene

Concen: 18.859 ug/l

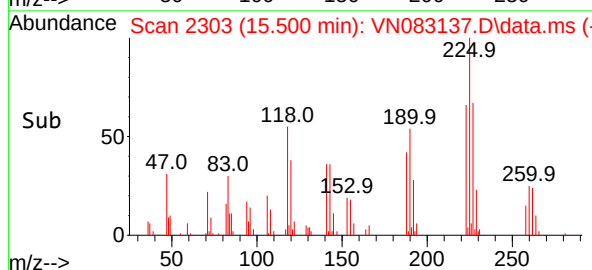
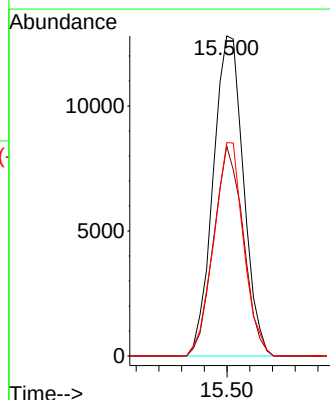
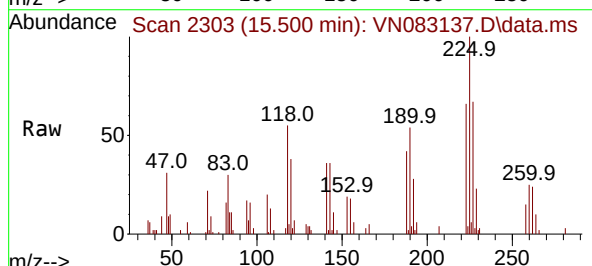
RT: 15.500 min Scan# 2303

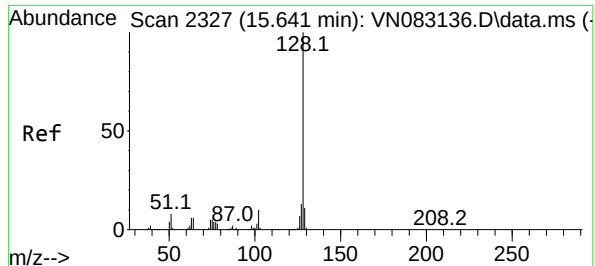
Delta R.T. 0.000 min

Lab File: VN083137.D

Acq: 07 Aug 2024 11:22

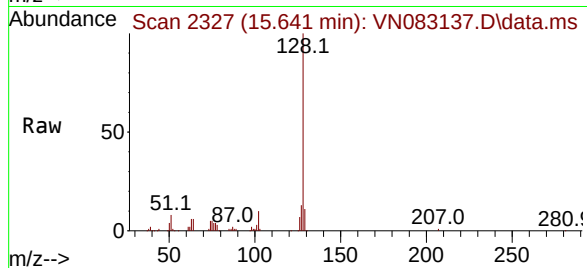
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 225   | Resp: | 23725 |
| Ion Ratio | Lower | Upper |       |
| 225       | 100   |       |       |
| 223       | 64.3  | 31.9  | 95.7  |
| 227       | 65.7  | 32.5  | 97.5  |





#95  
Naphthalene  
Concen: 20.047 ug/l  
RT: 15.641 min Scan# 2327  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22

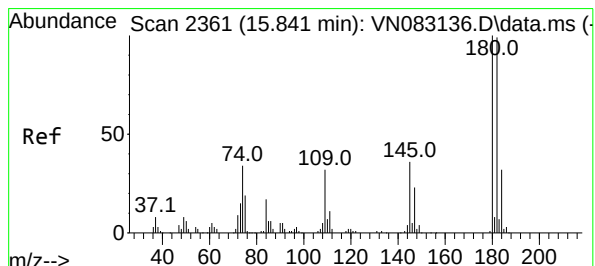
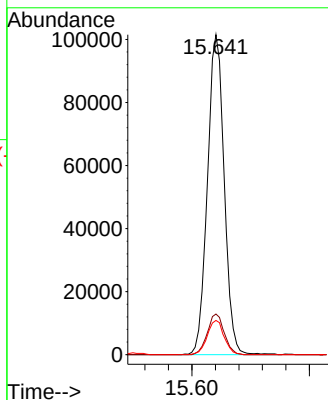
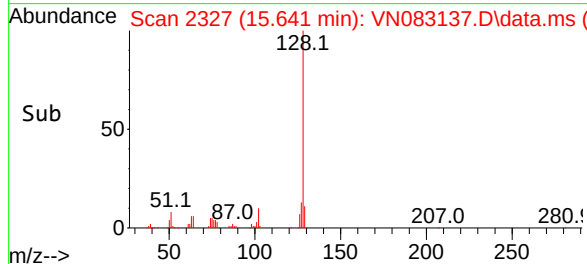
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC020



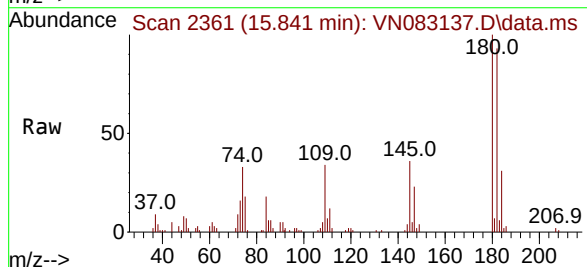
Tgt Ion:128 Resp: 200879  
Ion Ratio Lower Upper  
128 100  
127 12.8 10.6 16.0  
129 10.8 8.6 12.8

Manual Integrations  
APPROVED

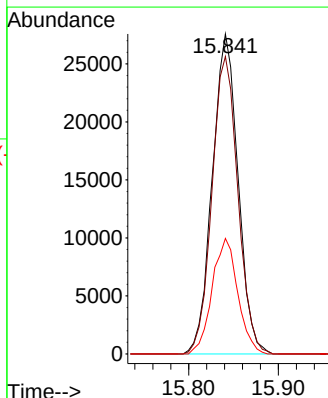
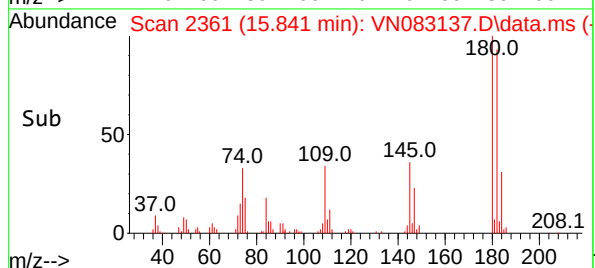
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#96  
1,2,3-Trichlorobenzene  
Concen: 19.630 ug/l  
RT: 15.841 min Scan# 2361  
Delta R.T. 0.000 min  
Lab File: VN083137.D  
Acq: 07 Aug 2024 11:22



Tgt Ion:180 Resp: 54944  
Ion Ratio Lower Upper  
180 100  
182 93.5 48.9 146.8  
145 35.9 16.8 50.4



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
 Data File : VN083138.D  
 Acq On : 07 Aug 2024 11:46  
 Operator : JC\MD  
 Sample : VSTDICC010  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC010

Quant Time: Aug 08 06:17:39 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 05:50:26 2024  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By :John Carlone 08/08/2024  
 Supervised By :Mahesh Dadoda 08/09/2024

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 191754   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 332105   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 279409   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.794 | 152  | 125725   | 50.000 | ug/l  | 0.00     |

#### System Monitoring Compounds

|                           |        |       |          |          |      |          |
|---------------------------|--------|-------|----------|----------|------|----------|
| 33) 1,2-Dichloroethane-d4 | 8.582  | 65    | 27223    | 9.974    | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 74 - 125 | Recovery | =    | 19.940%# |
| 35) Dibromofluoromethane  | 8.165  | 113   | 20382    | 9.832    | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 75 - 124 | Recovery | =    | 19.660%# |
| 50) Toluene-d8            | 10.565 | 98    | 75261    | 9.733    | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 86 - 113 | Recovery | =    | 19.460%# |
| 62) 4-Bromofluorobenzene  | 12.853 | 95    | 28691    | 9.517    | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 64 - 133 | Recovery | =    | 19.040%# |

#### Target Compounds

|                              |       |     |        |        |        | Qvalue |
|------------------------------|-------|-----|--------|--------|--------|--------|
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 22206  | 10.212 | ug/l   | 99     |
| 3) Chloromethane             | 2.359 | 50  | 22596  | 10.150 | ug/l   | 92     |
| 4) Vinyl Chloride            | 2.512 | 62  | 23461  | 10.328 | ug/l   | 99     |
| 5) Bromomethane              | 2.959 | 94  | 14783  | 10.488 | ug/l   | 95     |
| 6) Chloroethane              | 3.118 | 64  | 13616  | 9.581  | ug/l   | 95     |
| 7) Trichlorofluoromethane    | 3.500 | 101 | 38868  | 10.357 | ug/l   | 97     |
| 8) Diethyl Ether             | 3.965 | 74  | 14761  | 10.571 | ug/l   | 86     |
| 9) 1,1,2-Trichlorotrifluo... | 4.365 | 101 | 21081  | 10.189 | ug/l   | 100    |
| 10) Methyl Iodide            | 4.589 | 142 | 27229  | 10.005 | ug/l   | 96     |
| 11) Tert butyl alcohol       | 5.530 | 59  | 29665  | 52.299 | ug/l   | 97     |
| 12) 1,1-Dichloroethene       | 4.336 | 96  | 21633  | 10.177 | ug/l   | 83     |
| 13) Acrolein                 | 4.177 | 56  | 19397  | 52.469 | ug/l   | 92     |
| 14) Allyl chloride           | 5.024 | 41  | 41546  | 10.343 | ug/l   | 89     |
| 15) Acrylonitrile            | 5.724 | 53  | 58618  | 50.248 | ug/l   | 99     |
| 16) Acetone                  | 4.430 | 43  | 54397  | 50.933 | ug/l   | 92     |
| 17) Carbon Disulfide         | 4.712 | 76  | 61323  | 9.860  | ug/l   | 97     |
| 18) Methyl Acetate           | 5.036 | 43  | 32282  | 10.145 | ug/l   | 95     |
| 19) Methyl tert-butyl Ether  | 5.794 | 73  | 77278  | 10.072 | ug/l   | 94     |
| 20) Methylene Chloride       | 5.277 | 84  | 23553  | 9.582  | ug/l # | 83     |
| 21) trans-1,2-Dichloroethene | 5.788 | 96  | 22473  | 10.229 | ug/l   | 93     |
| 22) Diisopropyl ether        | 6.671 | 45  | 77046  | 10.204 | ug/l   | 91     |
| 23) Vinyl Acetate            | 6.606 | 43  | 391151 | 50.550 | ug/l # | 94     |
| 24) 1,1-Dichloroethane       | 6.571 | 63  | 42035  | 10.213 | ug/l   | 100    |
| 25) 2-Butanone               | 7.488 | 43  | 82451  | 50.278 | ug/l # | 90     |
| 26) 2,2-Dichloropropane      | 7.488 | 77  | 39561  | 10.351 | ug/l   | 99     |
| 27) cis-1,2-Dichloroethene   | 7.488 | 96  | 26902  | 10.148 | ug/l   | 93     |
| 28) Bromochloromethane       | 7.818 | 49  | 14997  | 8.916  | ug/l   | 85     |
| 29) Tetrahydrofuran          | 7.841 | 42  | 54815  | 51.708 | ug/l   | 88     |
| 30) Chloroform               | 7.971 | 83  | 43421  | 10.155 | ug/l   | 98     |
| 31) Cyclohexane              | 8.259 | 56  | 42564  | 10.523 | ug/l   | 92     |
| 32) 1,1,1-Trichloroethane    | 8.171 | 97  | 41247  | 10.191 | ug/l   | 92     |
| 36) 1,1-Dichloropropene      | 8.371 | 75  | 31681  | 10.103 | ug/l   | 99     |
| 37) Ethyl Acetate            | 7.565 | 43  | 34005  | 9.685  | ug/l # | 96     |
| 38) Carbon Tetrachloride     | 8.365 | 117 | 35950  | 10.179 | ug/l   | 93     |
| 39) Methylcyclohexane        | 9.600 | 83  | 38738  | 10.058 | ug/l   | 93     |
| 40) Benzene                  | 8.606 | 78  | 94885  | 10.157 | ug/l   | 97     |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
 Data File : VN083138.D  
 Acq On : 07 Aug 2024 11:46  
 Operator : JC\MD  
 Sample : VSTDICC010  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

## Instrument :

MSVOA\_N

## ClientSampleId :

VSTDICC010

## Manual Integrations

## APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:17:39 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M

Quant Title : SW846 8260

QLast Update : Thu Aug 08 05:50:26 2024

Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 18392    | 9.213   | ug/l   | 93       |
| 42) 1,2-Dichloroethane        | 8.671  | 62   | 34826    | 10.234  | ug/l   | 97       |
| 43) Isopropyl Acetate         | 8.694  | 43   | 71420    | 10.170  | ug/l   | 98       |
| 44) Trichloroethene           | 9.353  | 130  | 22669    | 10.195  | ug/l   | 100      |
| 45) 1,2-Dichloropropane       | 9.624  | 63   | 22642    | 10.211  | ug/l   | 98       |
| 46) Dibromomethane            | 9.706  | 93   | 15937    | 10.041  | ug/l   | 97       |
| 47) Bromodichloromethane      | 9.888  | 83   | 35389    | 9.930   | ug/l   | 97       |
| 48) Methyl methacrylate       | 9.682  | 41   | 28711    | 9.891   | ug/l   | 93       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 10545    | 201.364 | ug/l   | 95       |
| 51) 4-Methyl-2-Pentanone      | 10.447 | 43   | 171277   | 51.587  | ug/l   | 94       |
| 52) Toluene                   | 10.629 | 92   | 59784    | 10.129  | ug/l   | 97       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 36670    | 10.017  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 39503    | 10.145  | ug/l   | 91       |
| 55) 1,1,2-Trichloroethane     | 11.018 | 97   | 21732    | 10.274  | ug/l   | 94       |
| 56) Ethyl methacrylate        | 10.871 | 69   | 40676    | 10.201  | ug/l # | 86       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 38200    | 10.132  | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 87140    | 51.698  | ug/l   | 96       |
| 59) 2-Hexanone                | 11.194 | 43   | 129231   | 50.312  | ug/l   | 93       |
| 60) Dibromochloromethane      | 11.359 | 129  | 25798    | 10.088  | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 11.470 | 107  | 22707    | 10.219  | ug/l   | 99       |
| 64) Tetrachloroethene         | 11.106 | 164  | 19174    | 10.362  | ug/l   | 92       |
| 65) Chlorobenzene             | 11.894 | 112  | 64445    | 10.437  | ug/l   | 96       |
| 66) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 22498    | 10.331  | ug/l   | 99       |
| 67) Ethyl Benzene             | 11.965 | 91   | 115664   | 10.211  | ug/l   | 99       |
| 68) m/p-Xylenes               | 12.070 | 106  | 87775    | 20.687  | ug/l   | 100      |
| 69) o-Xylene                  | 12.400 | 106  | 43216    | 10.327  | ug/l   | 97       |
| 70) Styrene                   | 12.412 | 104  | 72641    | 10.335  | ug/l   | 97       |
| 71) Bromoform                 | 12.582 | 173  | 16320    | 9.893   | ug/l # | 95       |
| 73) Isopropylbenzene          | 12.694 | 105  | 110277   | 10.487  | ug/l   | 99       |
| 74) N-amyl acetate            | 12.494 | 43   | 52998    | 10.303  | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 30438    | 10.234  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 28359m   | 10.261  | ug/l   |          |
| 77) Bromobenzene              | 12.982 | 156  | 23781    | 10.180  | ug/l   | 93       |
| 78) n-propylbenzene           | 13.035 | 91   | 125678   | 10.379  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 80065    | 10.429  | ug/l   | 96       |
| 80) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 91559    | 10.400  | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 11760    | 9.271   | ug/l   | 95       |
| 82) 4-Chlorotoluene           | 13.223 | 91   | 78348    | 10.174  | ug/l   | 97       |
| 83) tert-Butylbenzene         | 13.441 | 119  | 80263    | 10.294  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 92502    | 10.426  | ug/l   | 97       |
| 85) sec-Butylbenzene          | 13.617 | 105  | 108740   | 10.221  | ug/l   | 98       |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 88256    | 10.047  | ug/l   | 97       |
| 87) 1,3-Dichlorobenzene       | 13.735 | 146  | 44168    | 10.048  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene       | 13.811 | 146  | 44036    | 9.937   | ug/l   | 96       |
| 89) n-Butylbenzene            | 14.059 | 91   | 76567    | 10.060  | ug/l   | 99       |
| 90) Hexachloroethane          | 14.335 | 117  | 17798    | 10.487  | ug/l   | 93       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 43734    | 10.282  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.723 | 75   | 7258     | 10.056  | ug/l   | 98       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 23580    | 9.895   | ug/l   | 98       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 10788    | 10.179  | ug/l   | 99       |
| 95) Naphthalene               | 15.641 | 128  | 86373    | 10.232  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 24492    | 10.387  | ug/l   | 97       |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083138.D  
Acq On : 07 Aug 2024 11:46  
Operator : JC\MD  
Sample : VSTDICC010  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:17:39 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 05:50:26 2024  
Response via : Initial Calibration

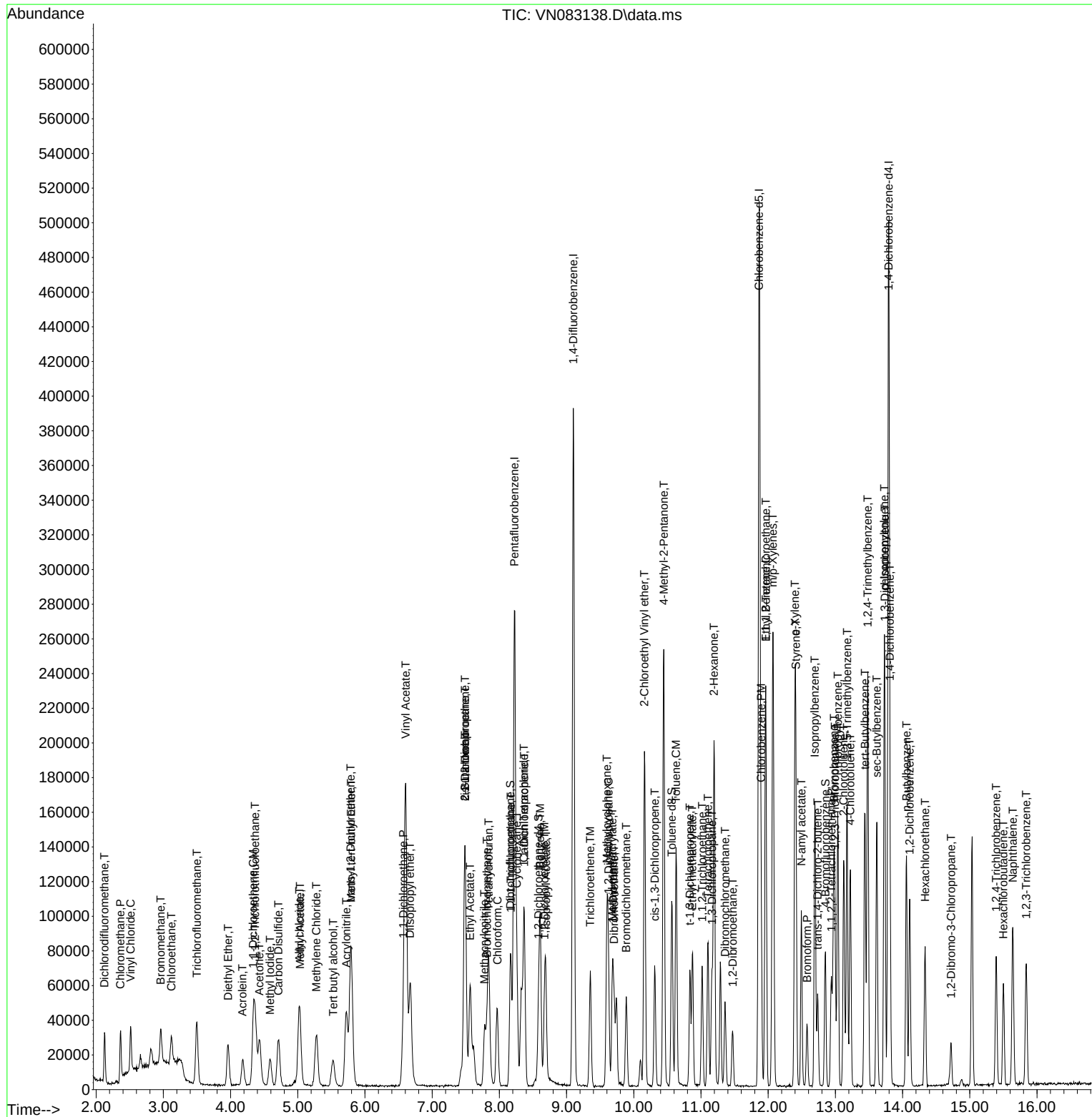
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

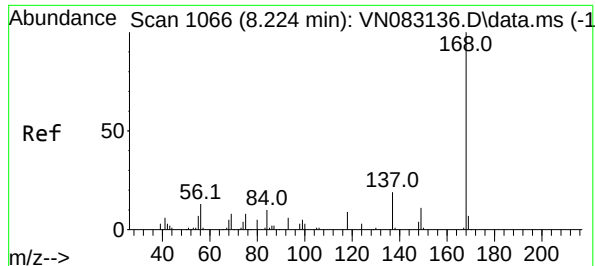
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Instrument :**  
MSVOA\_N  
**ClientSampleId :**  
VSTDICC010

## Manual Integrations

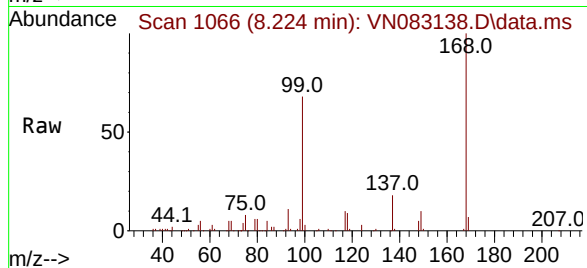
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

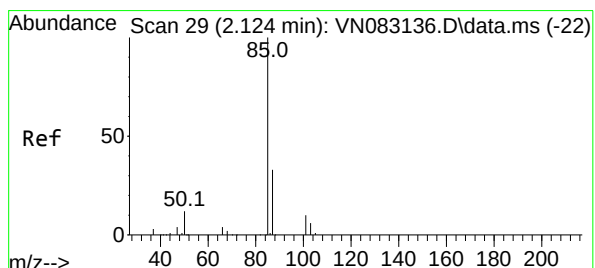
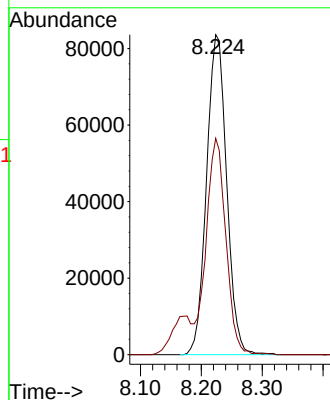
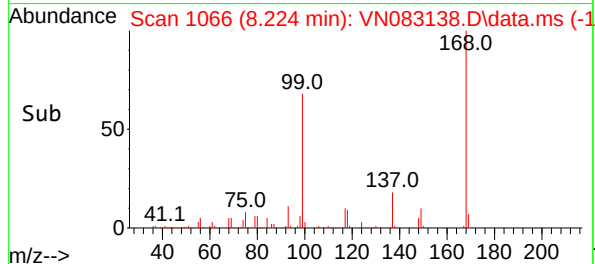
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010



Tgt Ion: 168 Resp: 191754  
Ion Ratio Lower Upper  
168 100  
99 67.6 48.2 72.4

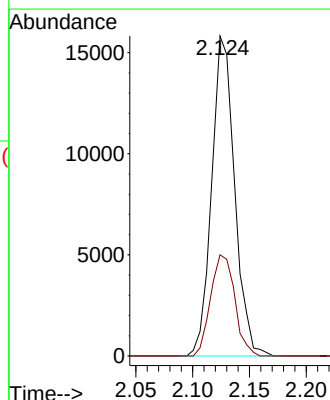
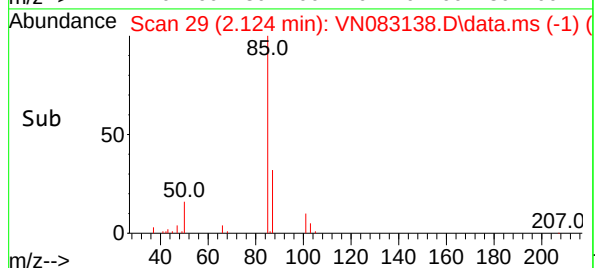
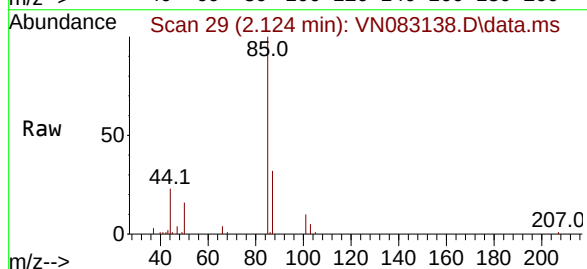
Manual Integrations  
APPROVED

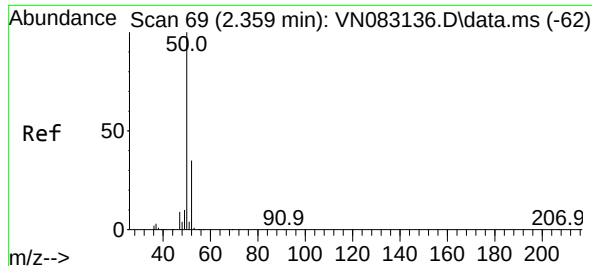
Reviewed By : John Carlone 08/08/2024  
Supervised By : Mahesh Dadoda 08/09/2024



#2  
Dichlorodifluoromethane  
Concen: 10.212 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion: 85 Resp: 22206  
Ion Ratio Lower Upper  
85 100  
87 31.6 15.7 47.0





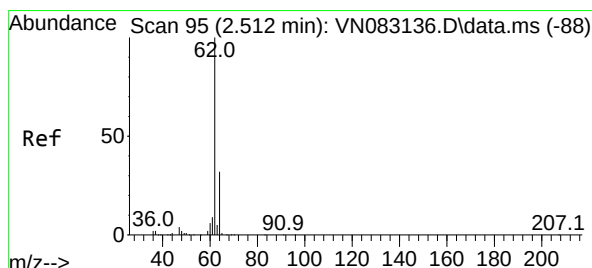
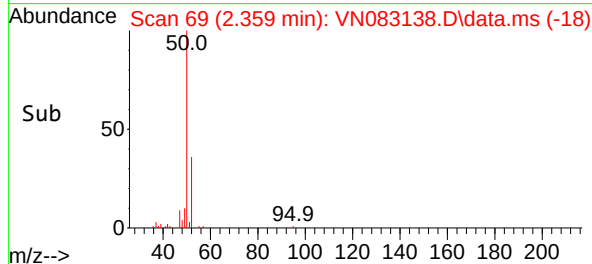
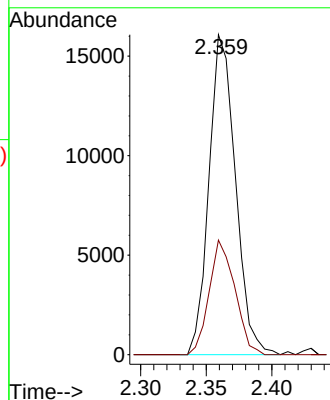
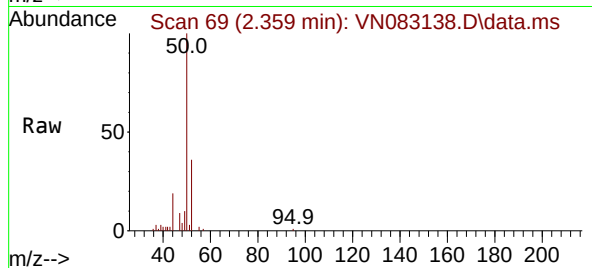
#3  
Chloromethane  
Concen: 10.150 ug/l  
RT: 2.359 min Scan# 69  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Tgt Ion: 50 Resp: 22590  
Ion Ratio Lower Upper  
50 100  
52 35.8 25.0 37.4

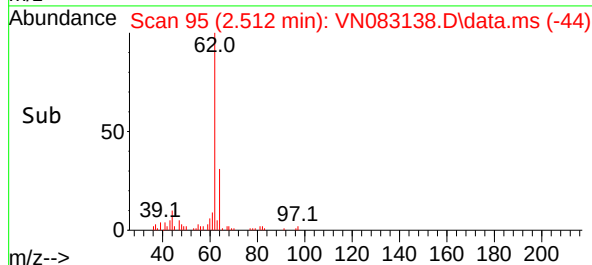
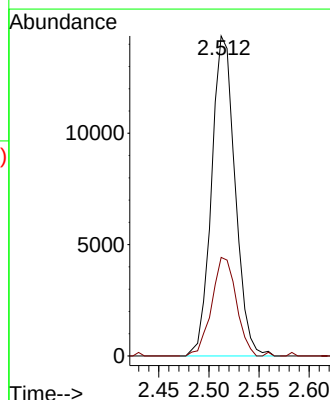
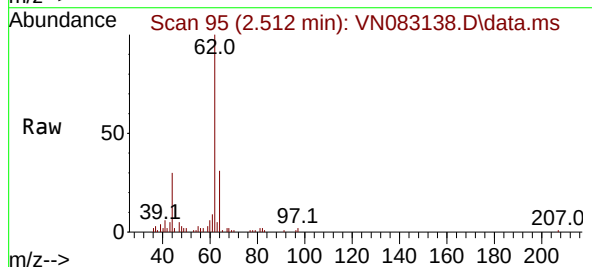
Manual Integrations  
APPROVED

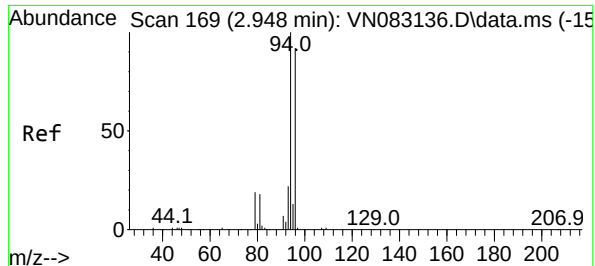
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#4  
Vinyl Chloride  
Concen: 10.328 ug/l  
RT: 2.512 min Scan# 95  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion: 62 Resp: 23461  
Ion Ratio Lower Upper  
62 100  
64 30.8 25.0 37.6





#5

Bromomethane

Concen: 10.488 ug/l

RT: 2.959 min Scan# 11

Delta R.T. 0.012 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 94 Resp: 1478

Ion Ratio Lower Upper

94 100

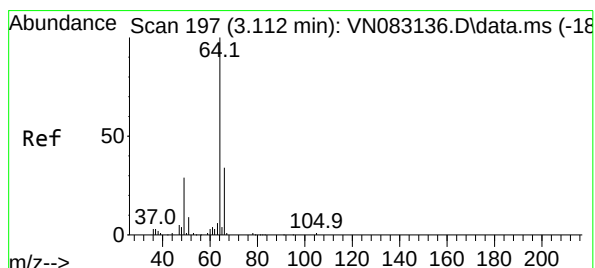
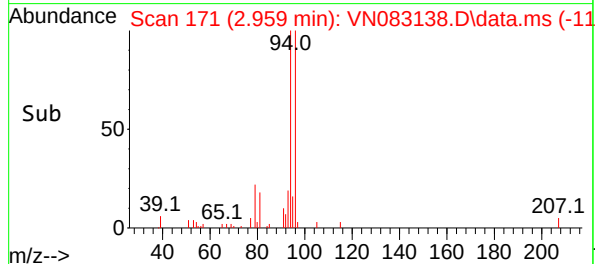
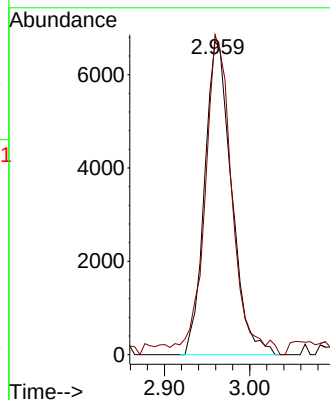
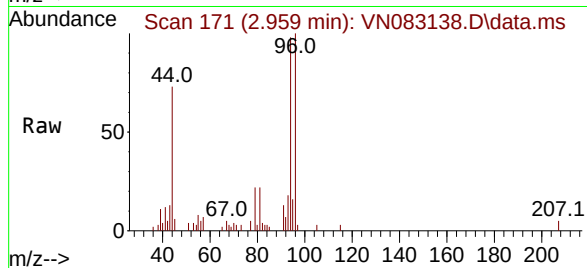
96 102.2 78.0 117.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#6

Chloroethane

Concen: 9.581 ug/l

RT: 3.118 min Scan# 198

Delta R.T. 0.006 min

Lab File: VN083138.D

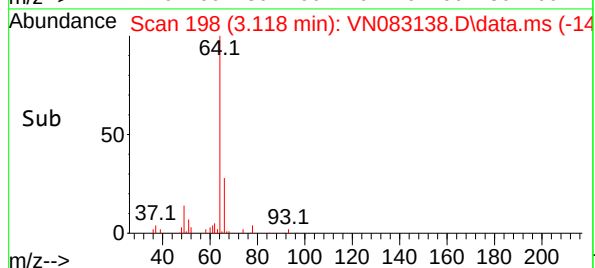
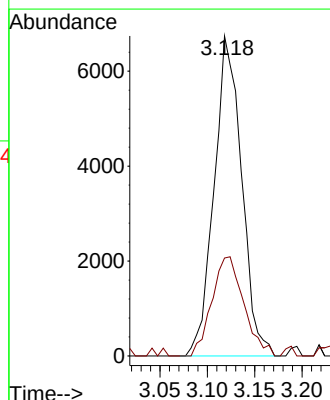
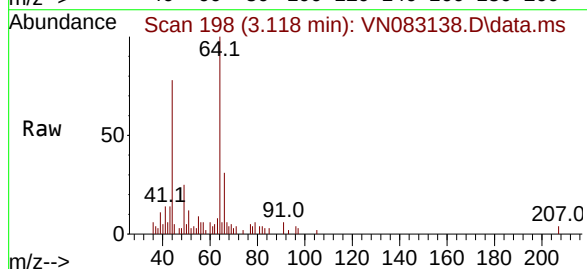
Acq: 07 Aug 2024 11:46

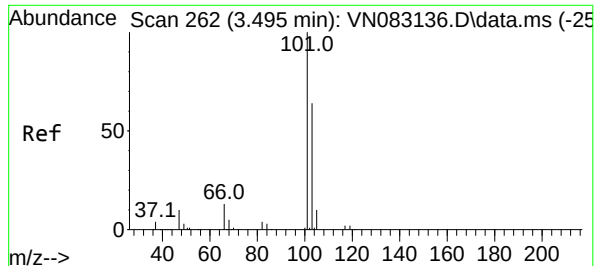
Tgt Ion: 64 Resp: 13616

Ion Ratio Lower Upper

64 100

66 30.6 26.6 40.0





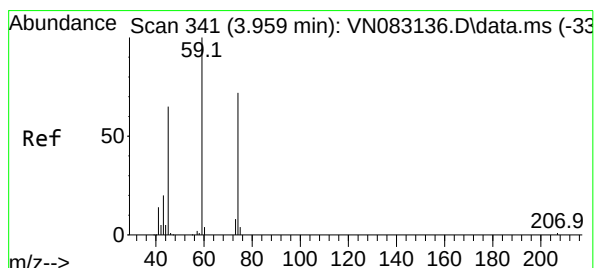
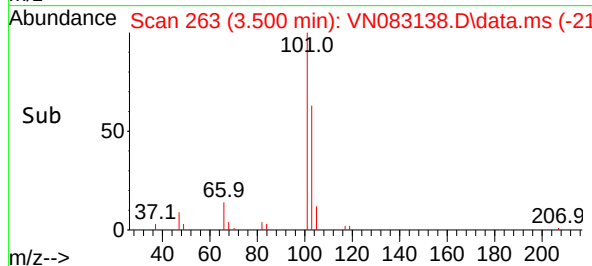
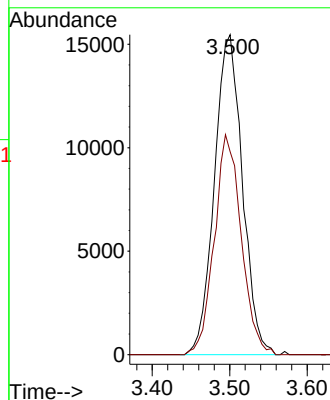
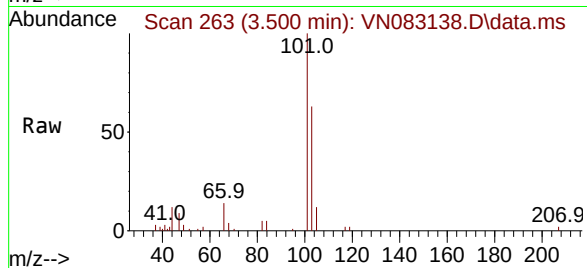
#7  
Trichlorofluoromethane  
Concen: 10.357 ug/l  
RT: 3.500 min Scan# 20  
Delta R.T. 0.005 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Tgt Ion:101 Resp: 3886  
Ion Ratio Lower Upper  
101 100  
103 63.5 52.7 79.1

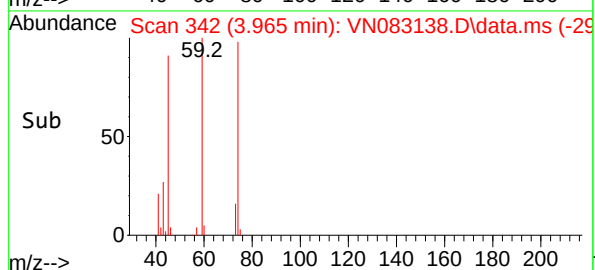
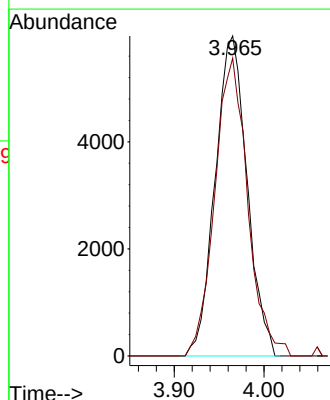
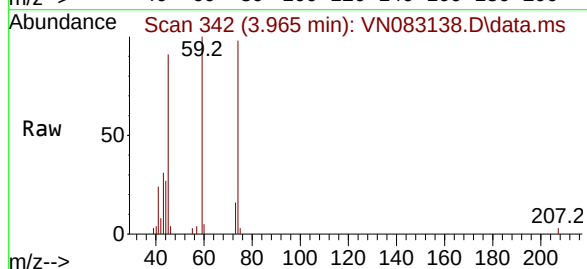
Manual Integrations  
APPROVED

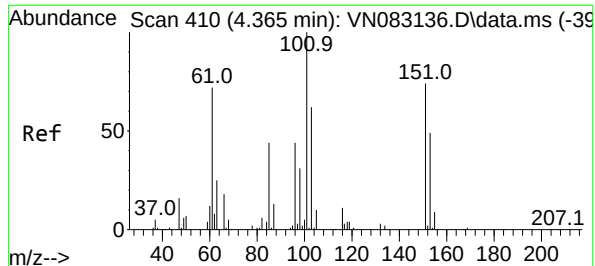
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#8  
Diethyl Ether  
Concen: 10.571 ug/l  
RT: 3.965 min Scan# 342  
Delta R.T. 0.006 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion: 74 Resp: 14761  
Ion Ratio Lower Upper  
74 100  
45 95.9 55.5 166.3





#9

1,1,2-Trichlorotrifluoroethane

Concen: 10.189 ug/l

RT: 4.365 min Scan# 410

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

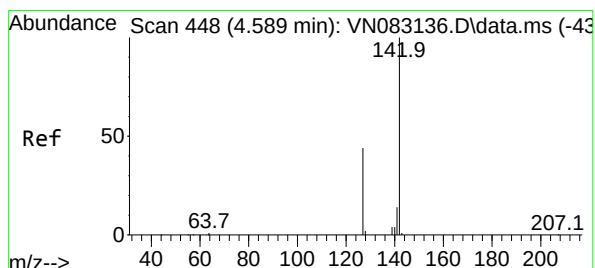
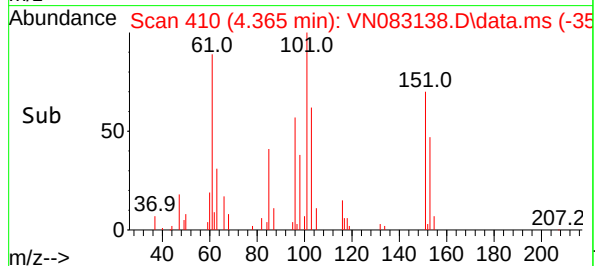
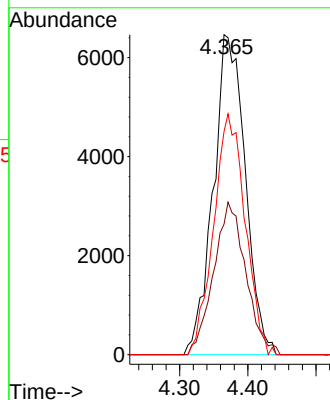
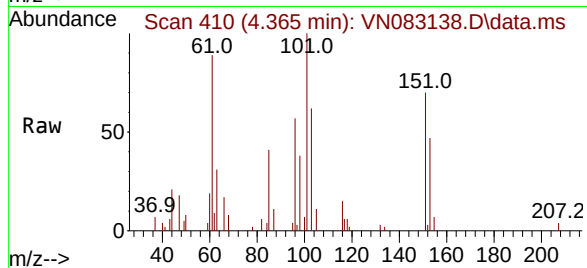
VSTDICC010

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 101   | Resp: | 2108 |
| Ion Ratio | Lower | Upper |      |
| 101       | 100   |       |      |
| 85        | 48.0  | 38.3  | 57.5 |
| 151       | 74.1  | 59.3  | 88.9 |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#10

Methyl Iodide

Concen: 10.005 ug/l

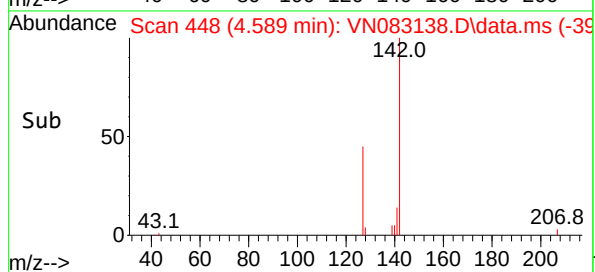
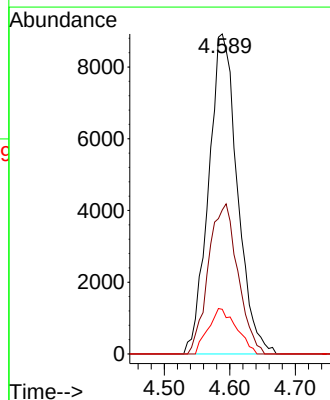
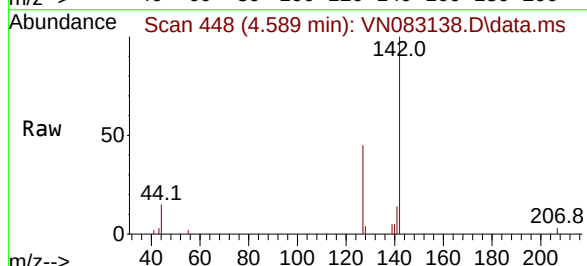
RT: 4.589 min Scan# 448

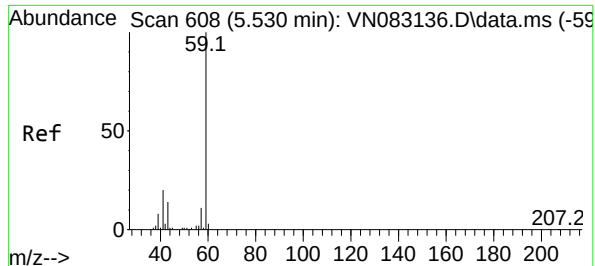
Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 142   | Resp: | 27229 |
| Ion Ratio | Lower | Upper |       |
| 142       | 100   |       |       |
| 127       | 45.0  | 37.5  | 56.3  |
| 141       | 13.9  | 13.1  | 19.7  |





#11

Tert butyl alcohol

Concen: 52.299 ug/l

RT: 5.530 min Scan# 608

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 59 Resp: 2966

Ion Ratio Lower Upper

59 100

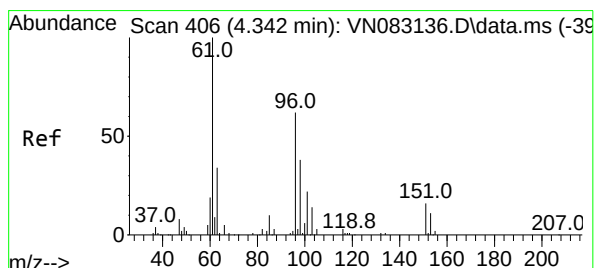
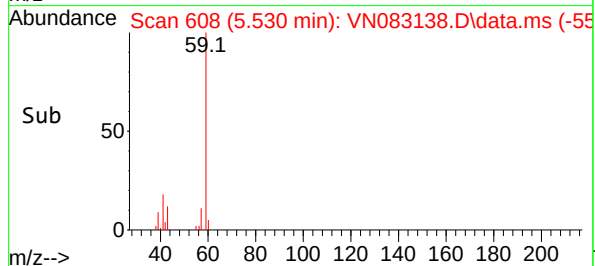
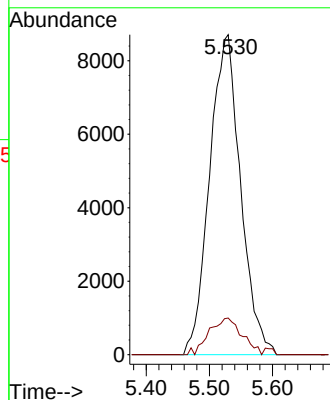
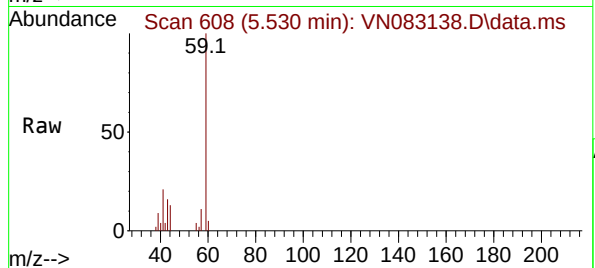
57 12.1 8.9 13.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#12

1,1-Dichloroethene

Concen: 10.177 ug/l

RT: 4.336 min Scan# 405

Delta R.T. -0.006 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

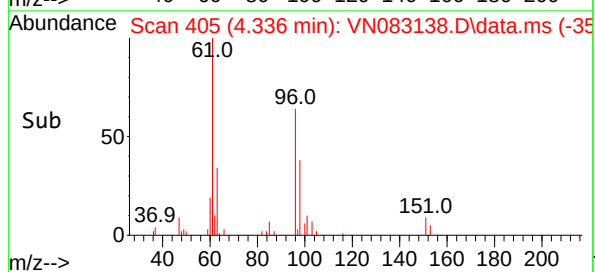
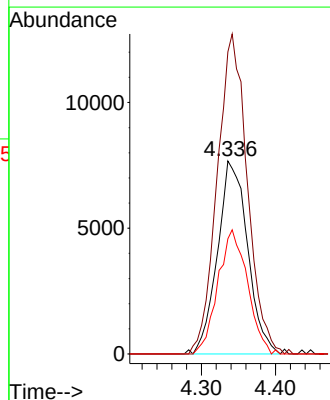
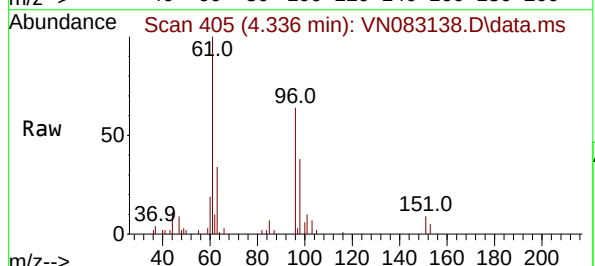
Tgt Ion: 96 Resp: 21633

Ion Ratio Lower Upper

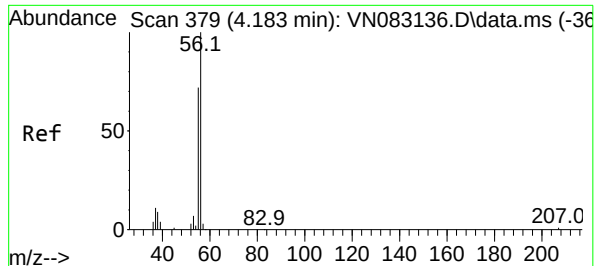
96 100

61 156.5 149.7 224.5

98 59.7 50.1 75.1







#13

Acrolein

Concen: 52.469 ug/l

RT: 4.177 min Scan# 31

Delta R.T. -0.006 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 56 Resp: 1939

Ion Ratio Lower Upper

56 100

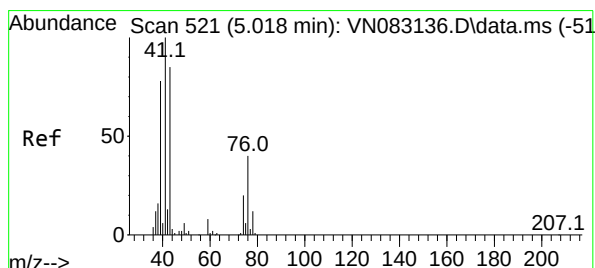
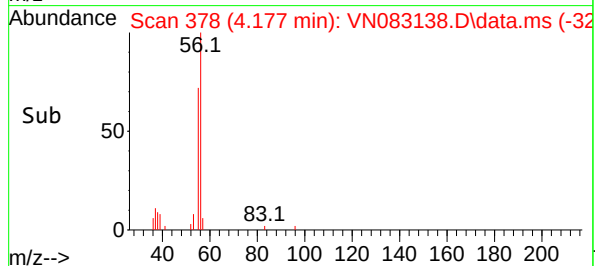
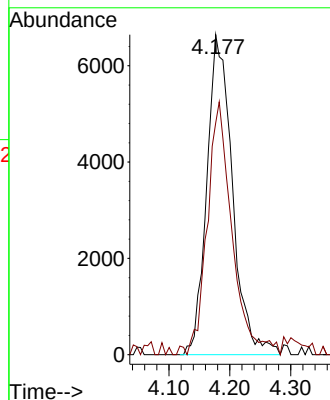
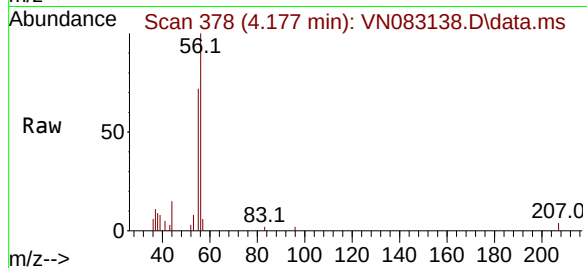
55 77.0 56.4 84.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#14

Allyl chloride

Concen: 10.343 ug/l

RT: 5.024 min Scan# 522

Delta R.T. 0.006 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

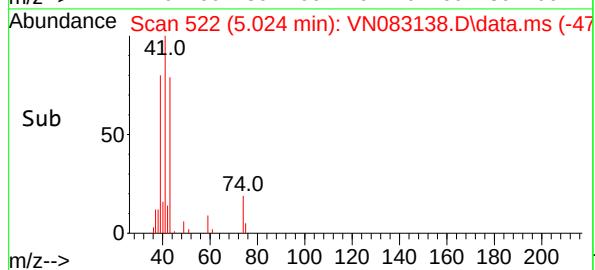
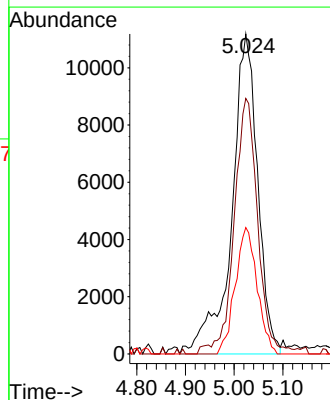
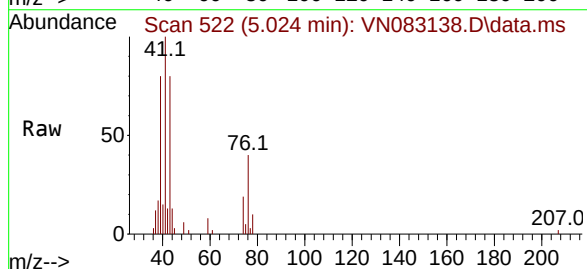
Tgt Ion: 41 Resp: 41546

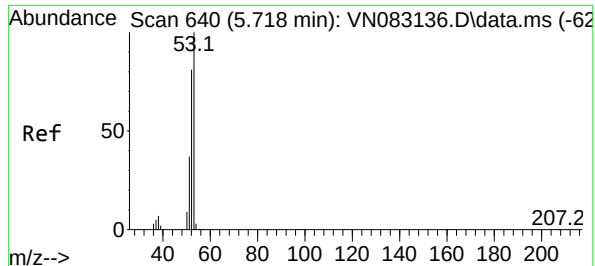
Ion Ratio Lower Upper

41 100

39 72.0 67.8 101.6

76 33.2 25.8 38.8





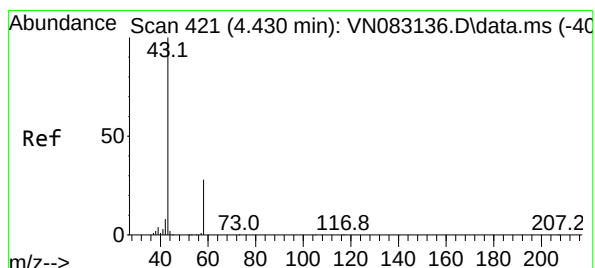
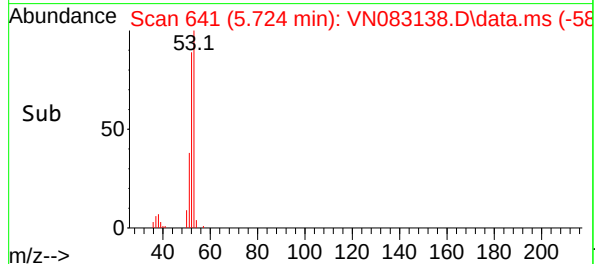
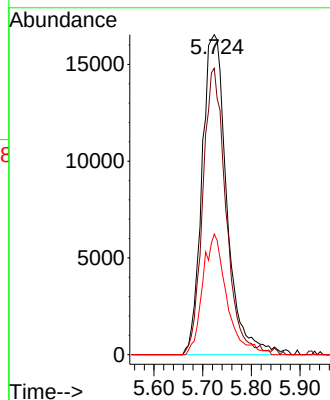
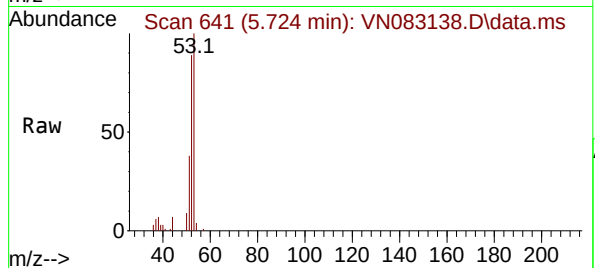
#15  
Acrylonitrile  
Concen: 50.248 ug/l  
RT: 5.724 min Scan# 640  
Delta R.T. 0.006 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Tgt Ion: 53 Resp: 58618  
Ion Ratio Lower Upper  
53 100  
52 83.1 66.6 100.0  
51 36.6 30.1 45.1

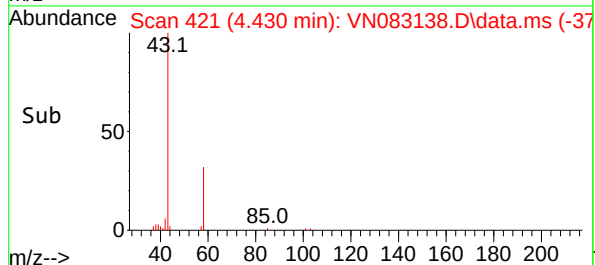
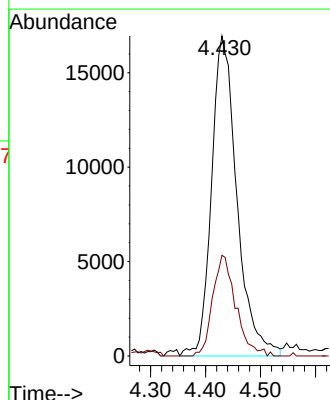
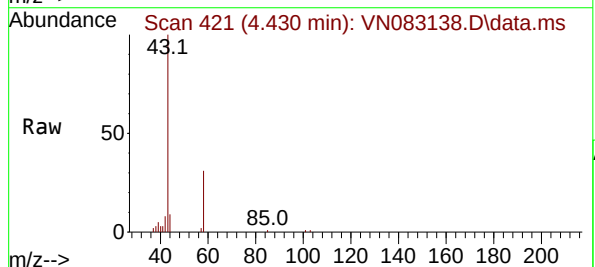
Manual Integrations  
APPROVED

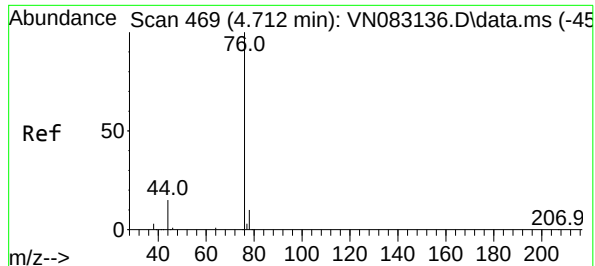
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#16  
Acetone  
Concen: 50.933 ug/l  
RT: 4.430 min Scan# 421  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion: 43 Resp: 54397  
Ion Ratio Lower Upper  
43 100  
58 31.4 21.8 32.6





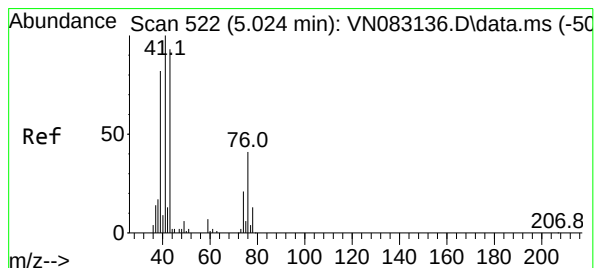
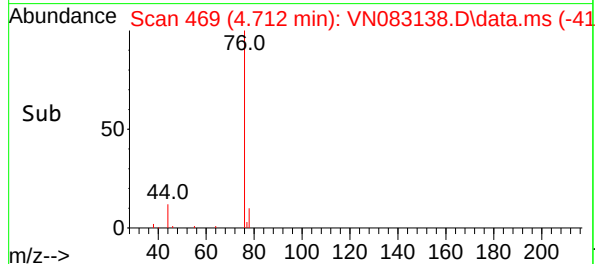
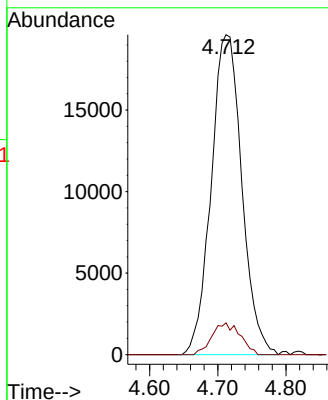
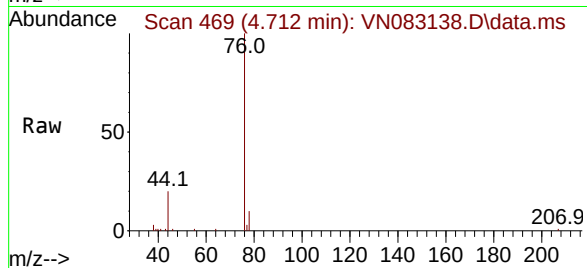
#17  
Carbon Disulfide  
Concen: 9.860 ug/l  
RT: 4.712 min Scan# 469  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Instrument :  
MSVOA\_N  
Client Sample Id :  
VSTDICC010

Tgt Ion: 76 Resp: 6132  
Ion Ratio Lower Upper  
76 100  
78 9.9 7.2 10.8

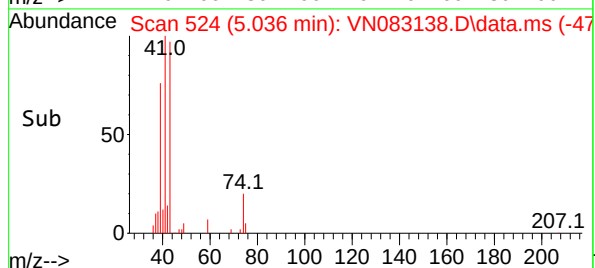
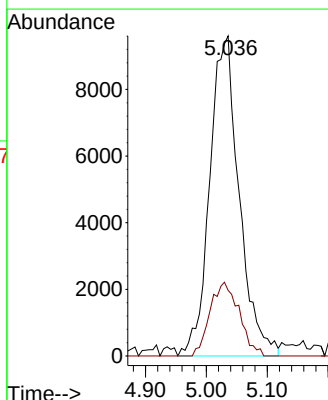
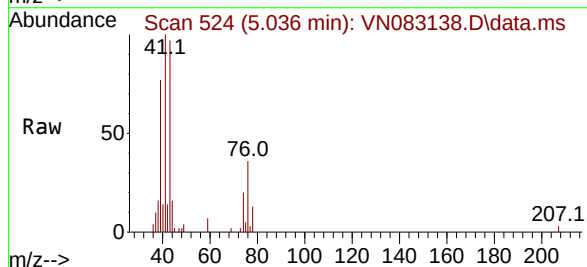
Manual Integrations  
APPROVED

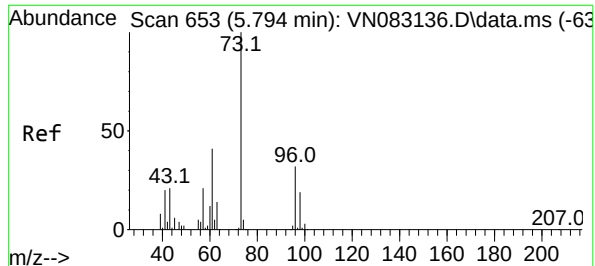
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#18  
Methyl Acetate  
Concen: 10.145 ug/l  
RT: 5.036 min Scan# 524  
Delta R.T. 0.012 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion: 43 Resp: 32282  
Ion Ratio Lower Upper  
43 100  
74 22.8 16.3 24.5





#19

Methyl tert-butyl Ether

Concen: 10.072 ug/l

RT: 5.794 min Scan# 653

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 73 Resp: 77278

Ion Ratio Lower Upper

73 100

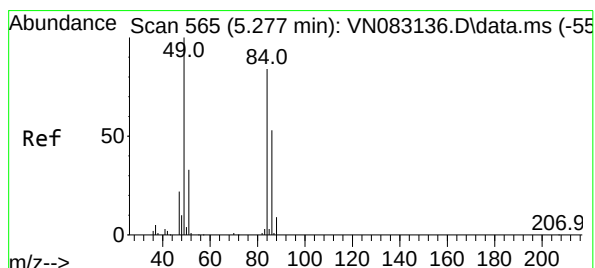
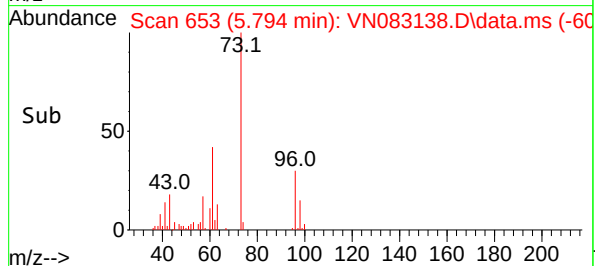
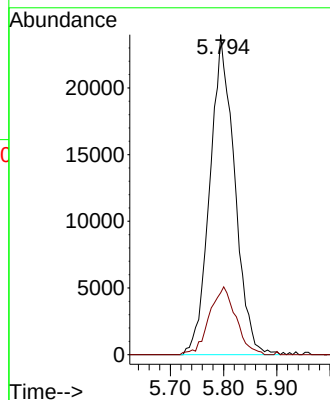
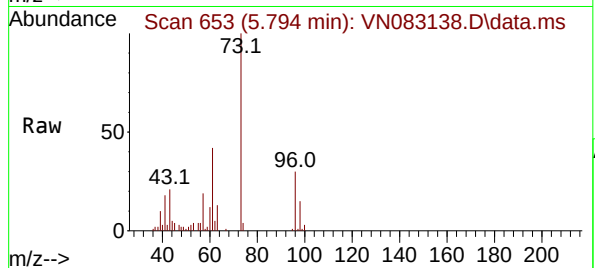
57 19.3 17.9 26.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#20

Methylene Chloride

Concen: 9.582 ug/l

RT: 5.277 min Scan# 565

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Tgt Ion: 84 Resp: 23553

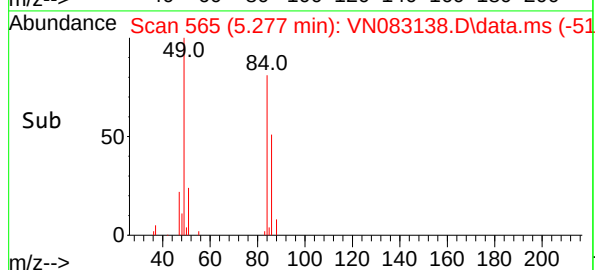
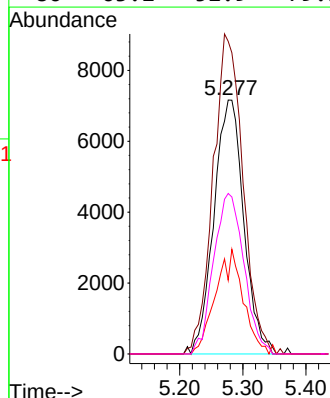
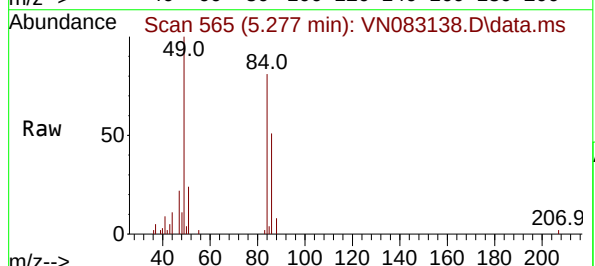
Ion Ratio Lower Upper

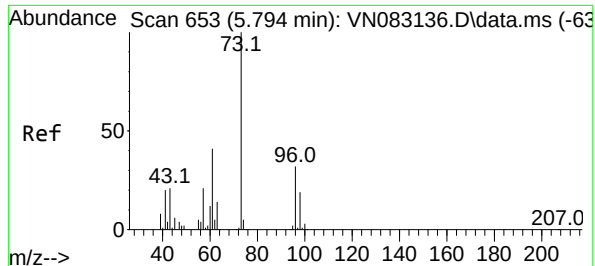
84 100

49 123.1 119.6 179.4

51 29.0 34.8 52.2#

86 63.2 52.9 79.3





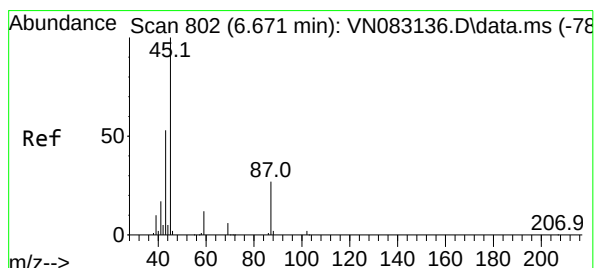
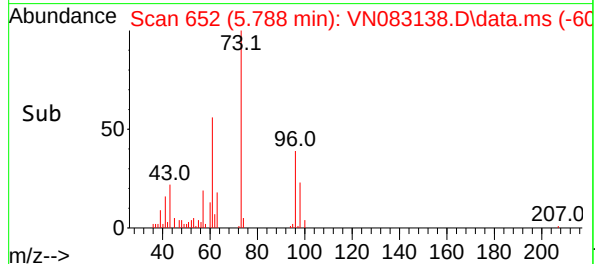
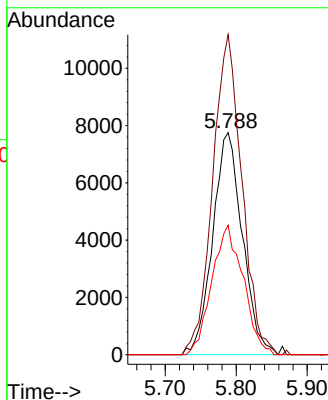
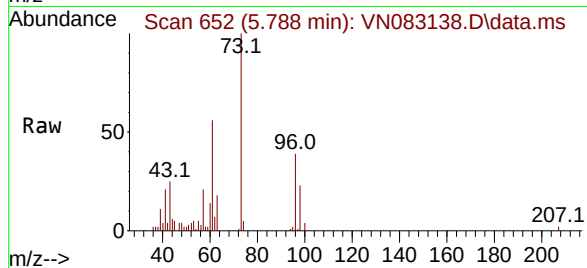
#21  
trans-1,2-Dichloroethene  
Concen: 10.229 ug/l  
RT: 5.788 min Scan# 61  
Delta R.T. -0.006 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Tgt Ion: 96 Resp: 2247  
Ion Ratio Lower Upper  
96 100  
61 144.0 123.4 185.2  
98 58.3 49.3 73.9

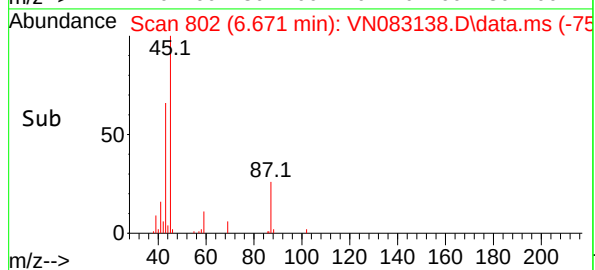
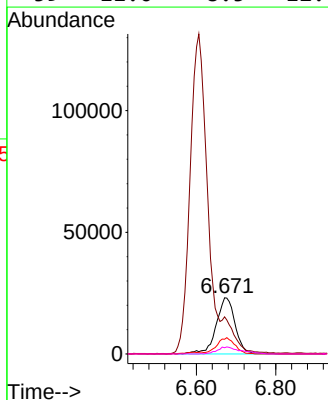
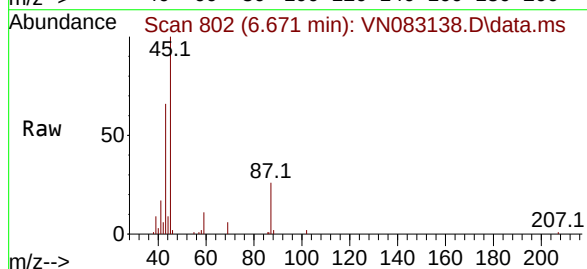
Manual Integrations  
APPROVED

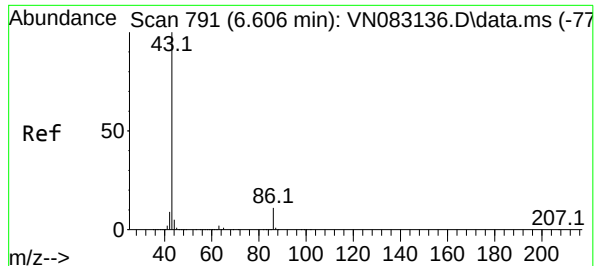
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#22  
Diisopropyl ether  
Concen: 10.204 ug/l  
RT: 6.671 min Scan# 802  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion: 45 Resp: 77046  
Ion Ratio Lower Upper  
45 100  
43 64.3 44.0 66.0  
87 26.1 19.7 29.5  
59 11.0 8.5 12.7





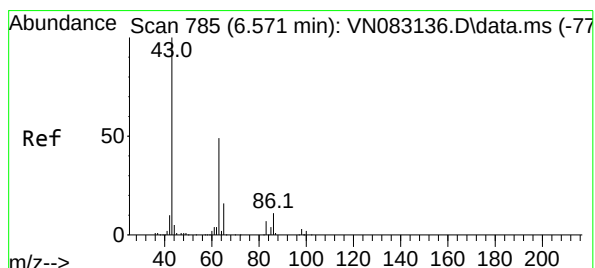
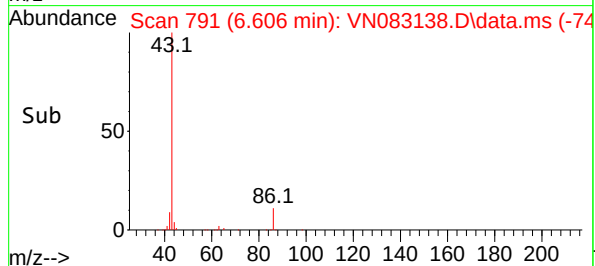
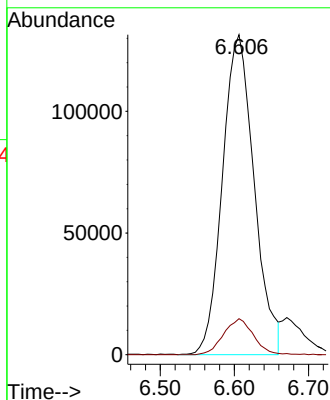
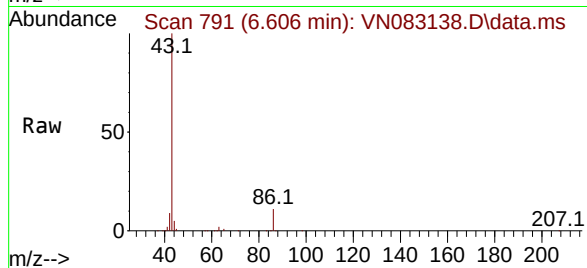
#23  
Vinyl Acetate  
Concen: 50.550 ug/l  
RT: 6.606 min Scan# 791  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Tgt Ion: 43 Resp: 39115  
Ion Ratio Lower Upper  
43 100  
86 11.2 7.3 10.9

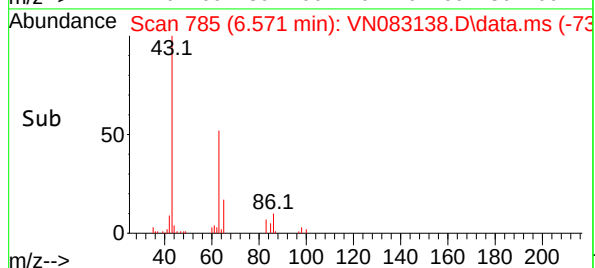
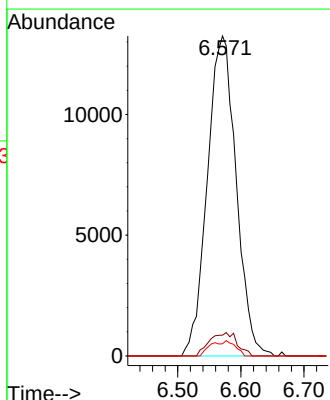
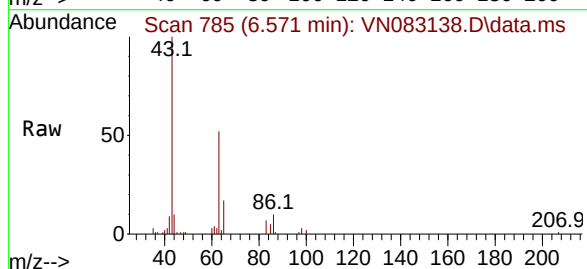
Manual Integrations  
APPROVED

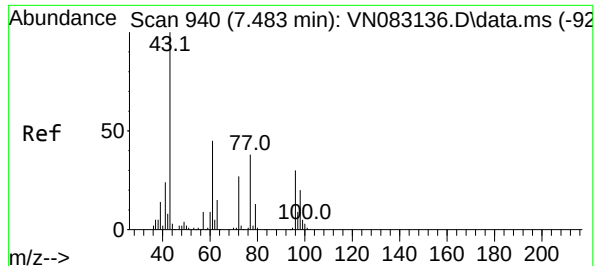
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#24  
1,1-Dichloroethane  
Concen: 10.213 ug/l  
RT: 6.571 min Scan# 785  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion: 63 Resp: 42035  
Ion Ratio Lower Upper  
63 100  
98 6.5 3.3 9.9  
100 3.8 2.0 6.0





#25

2-Butanone

Concen: 50.278 ug/l

RT: 7.488 min Scan# 941

Delta R.T. 0.006 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 43 Resp: 8245

Ion Ratio Lower Upper

43 100

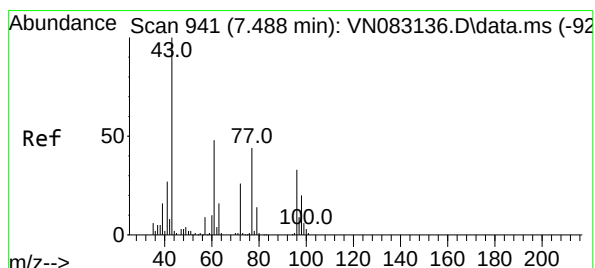
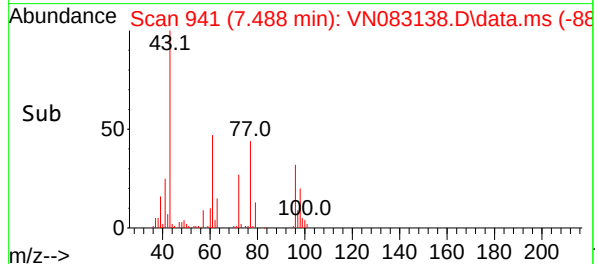
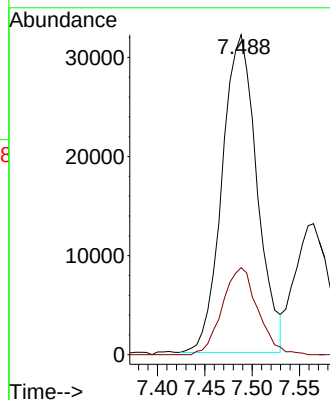
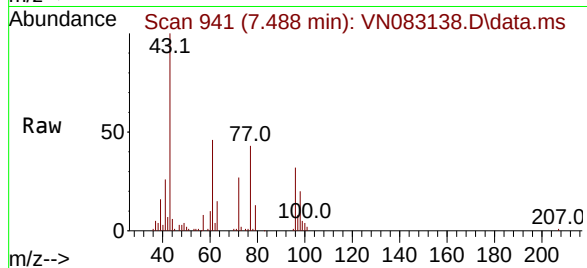
72 27.4 18.2 27.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#26

2,2-Dichloropropane

Concen: 10.351 ug/l

RT: 7.488 min Scan# 941

Delta R.T. -0.000 min

Lab File: VN083138.D

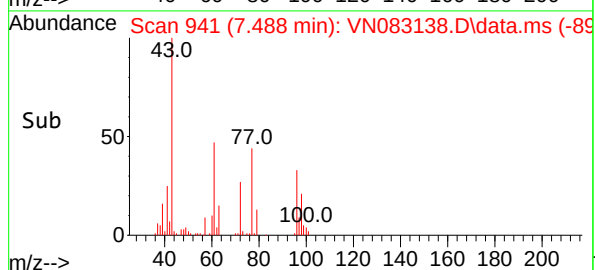
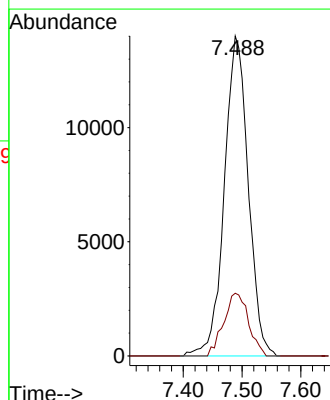
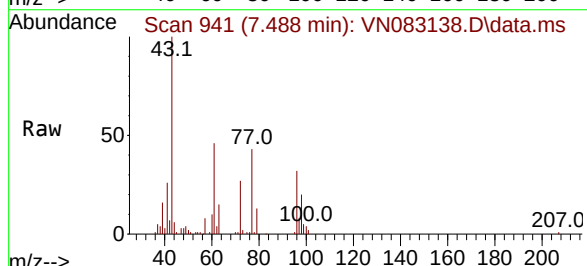
Acq: 07 Aug 2024 11:46

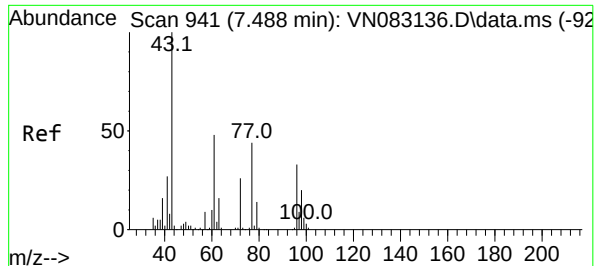
Tgt Ion: 77 Resp: 39561

Ion Ratio Lower Upper

77 100

97 20.2 10.3 30.9





#27

cis-1,2-Dichloroethene

Concen: 10.148 ug/l

RT: 7.488 min Scan# 941

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

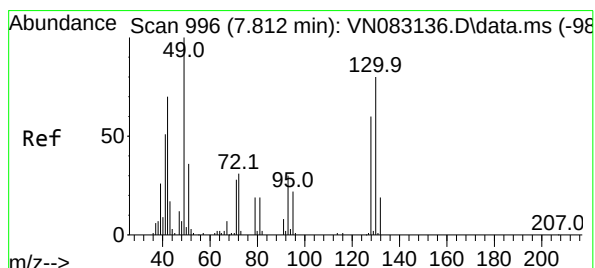
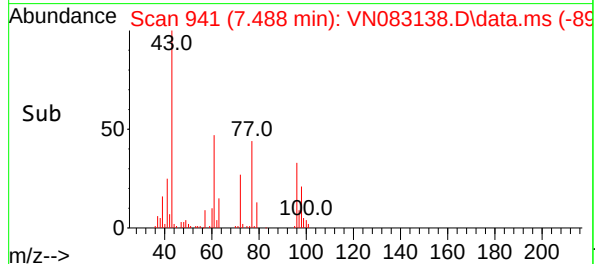
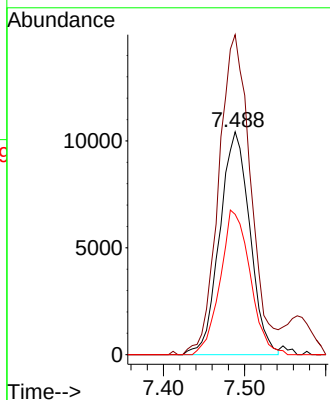
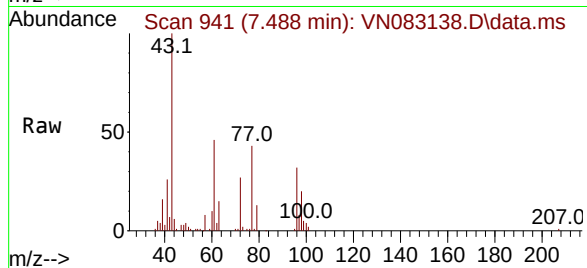
VSTDIC010

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 96    | Resp: | 2690  |
| Ion      | Ratio | Lower | Upper |
| 96       | 100   |       |       |
| 61       | 152.1 | 0.0   | 329.6 |
| 98       | 64.4  | 0.0   | 128.6 |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#28

Bromochloromethane

Concen: 8.916 ug/l

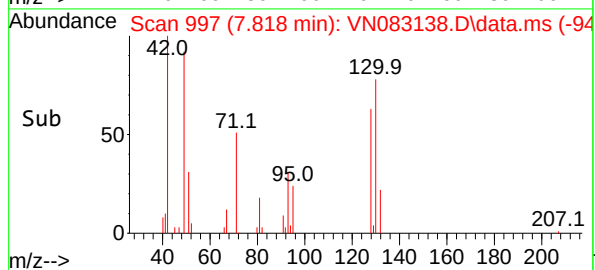
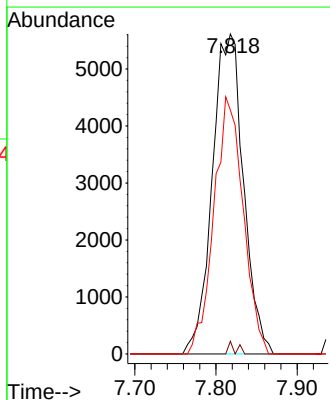
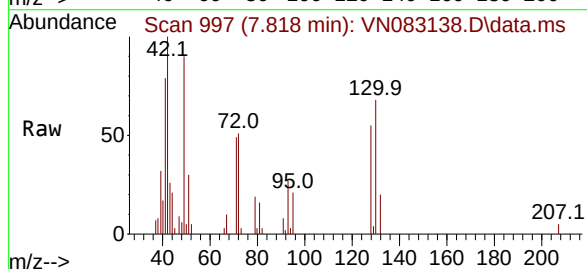
RT: 7.818 min Scan# 997

Delta R.T. 0.006 min

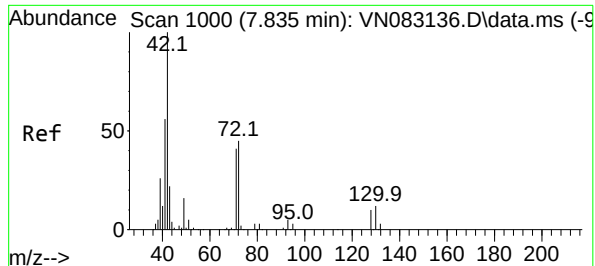
Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 49    | Resp: | 14997 |
| Ion      | Ratio | Lower | Upper |
| 49       | 100   |       |       |
| 129      | 0.9   | 0.0   | 3.8   |
| 130      | 75.4  | 50.5  | 75.7  |







#29

Tetrahydrofuran

Concen: 51.708 ug/l

RT: 7.841 min Scan# 1001

Delta R.T. 0.006 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

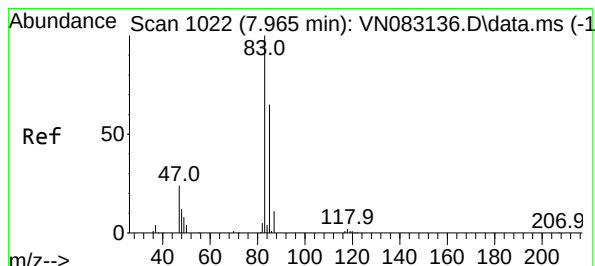
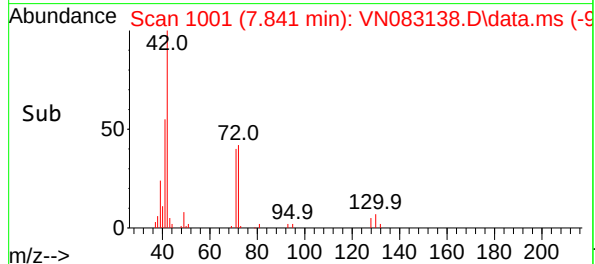
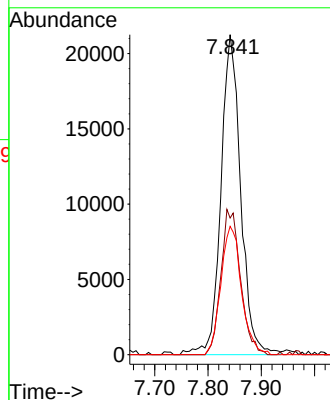
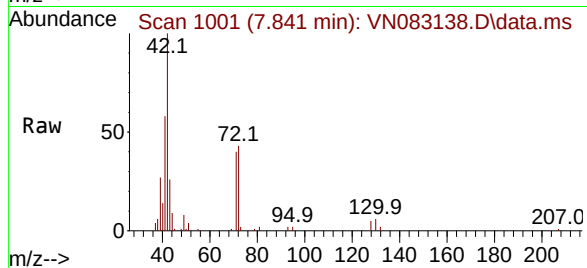
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 42    | Resp: | 5481 |
| Ion Ratio | Lower | Upper |      |
| 42        | 100   |       |      |
| 72        | 44.9  | 30.0  | 45.0 |
| 71        | 41.8  | 28.3  | 42.5 |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#30

Chloroform

Concen: 10.155 ug/l

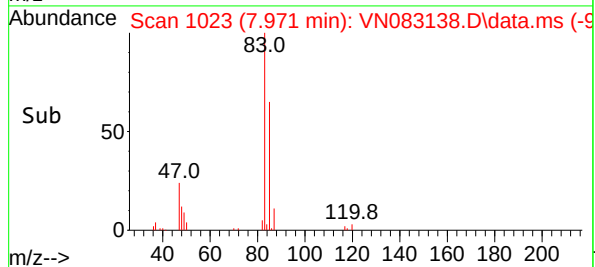
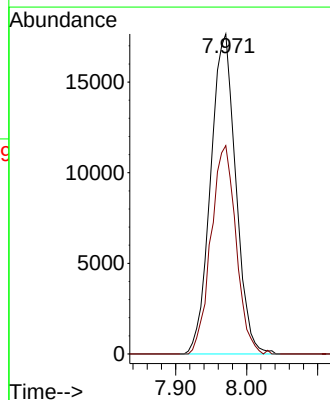
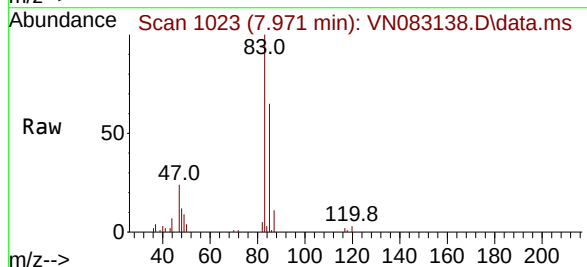
RT: 7.971 min Scan# 1023

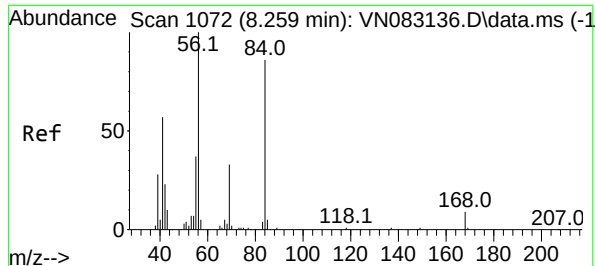
Delta R.T. 0.006 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 83    | Resp: | 43421 |
| Ion Ratio | Lower | Upper |       |
| 83        | 100   |       |       |
| 85        | 65.1  | 50.9  | 76.3  |





#31

Cyclohexane

Concen: 10.523 ug/l

RT: 8.259 min Scan# 1072

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

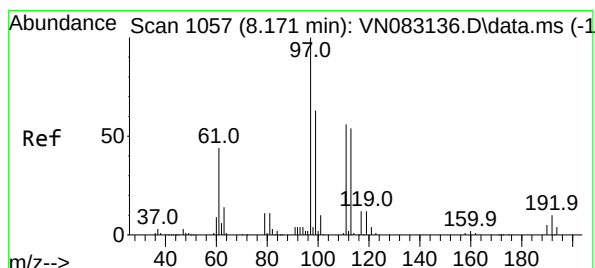
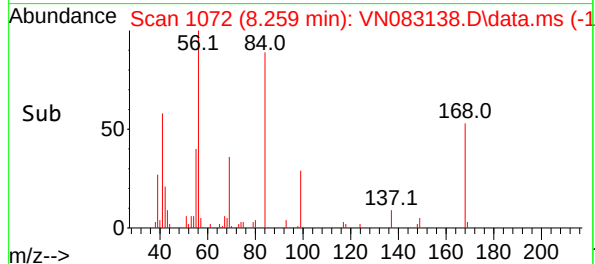
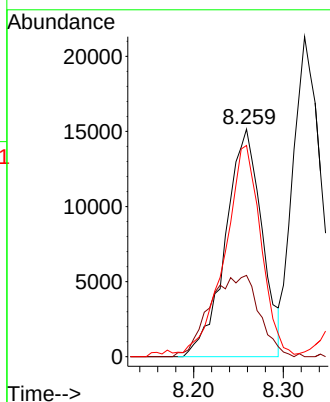
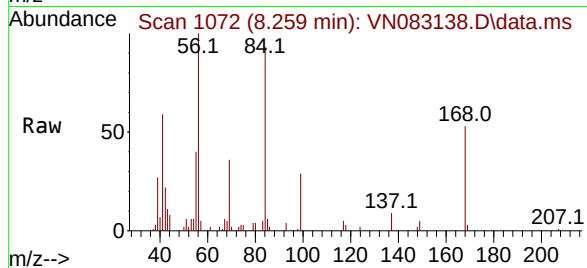
VSTDIC010

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 56    | Resp: | 4256 |
| Ion Ratio | Lower | Upper |      |
| 56        | 100   |       |      |
| 69        | 34.0  | 24.5  | 36.7 |
| 84        | 90.8  | 66.0  | 99.0 |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#32

1,1,1-Trichloroethane

Concen: 10.191 ug/l

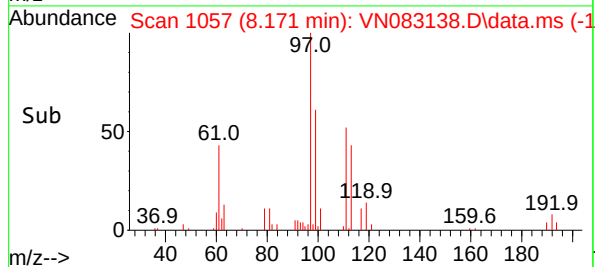
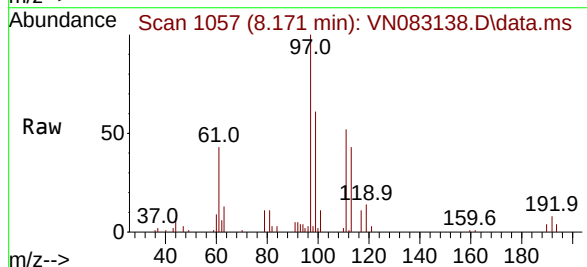
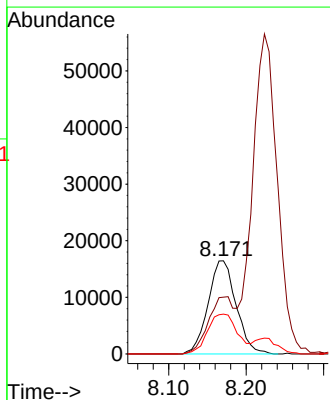
RT: 8.171 min Scan# 1057

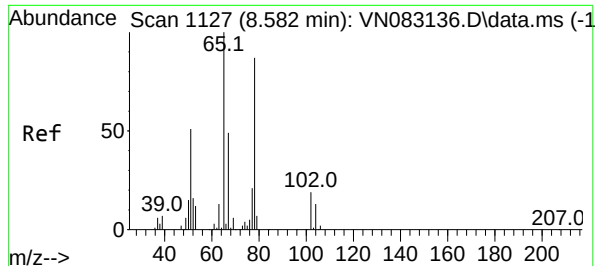
Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 97    | Resp: | 41247 |
| Ion Ratio | Lower | Upper |       |
| 97        | 100   |       |       |
| 99        | 59.5  | 52.0  | 78.0  |
| 61        | 46.2  | 42.1  | 63.1  |





#33

1,2-Dichloroethane-d4

Concen: 9.974 ug/l

RT: 8.582 min Scan# 1127

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 65 Resp: 2722

Ion Ratio Lower Upper

65 100

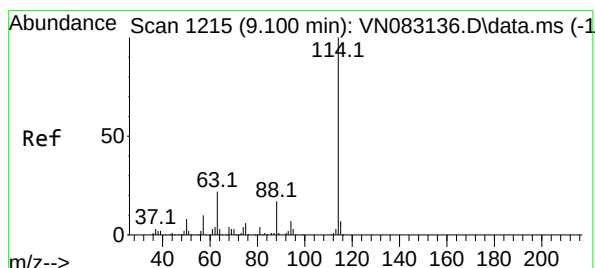
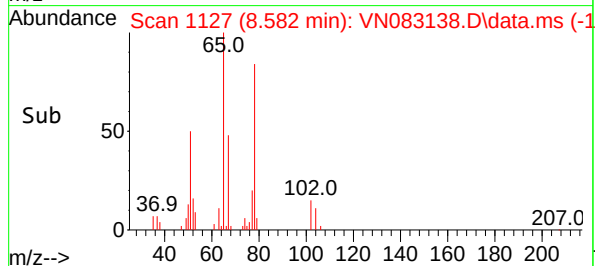
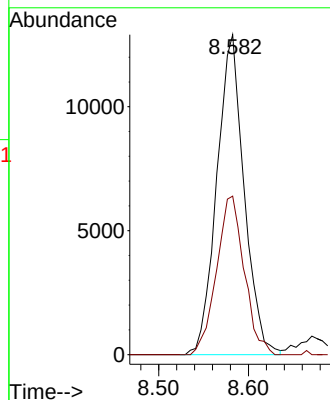
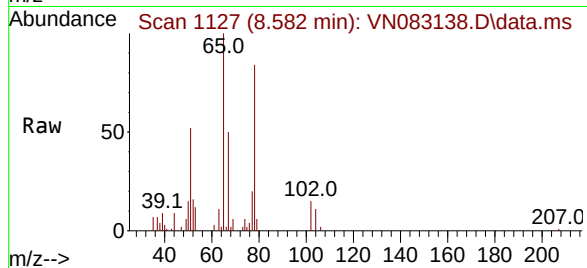
67 50.3 0.0 104.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

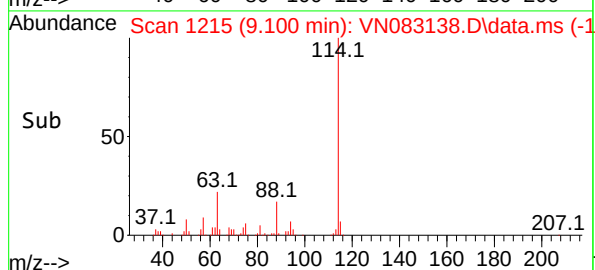
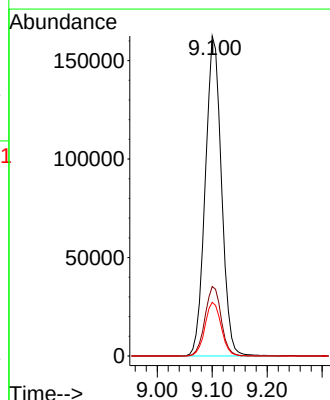
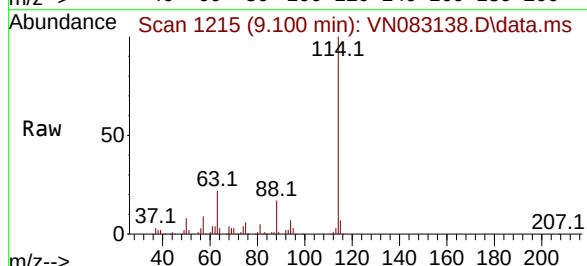
Tgt Ion:114 Resp: 332105

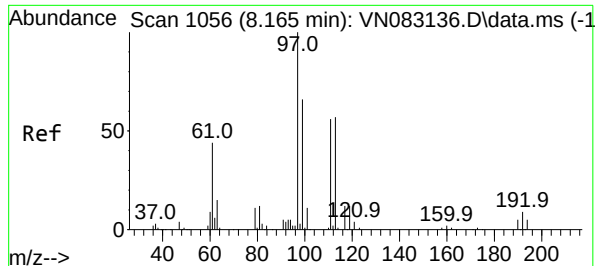
Ion Ratio Lower Upper

114 100

63 21.7 0.0 44.6

88 16.8 0.0 31.4





#35

Dibromofluoromethane

Concen: 9.832 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

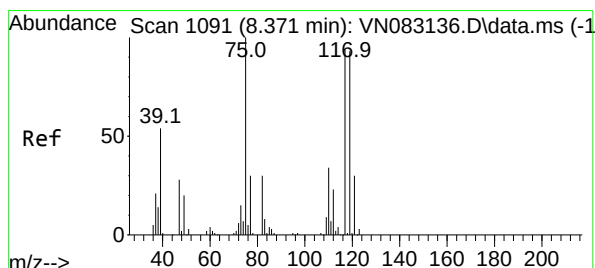
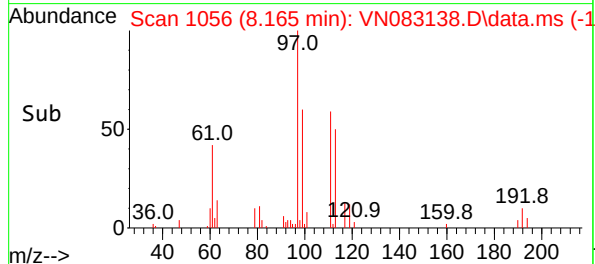
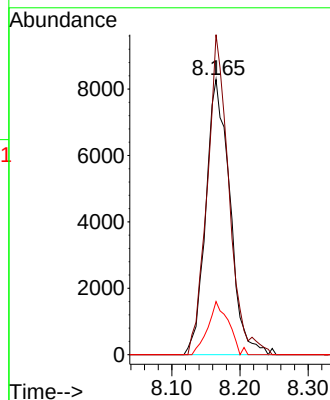
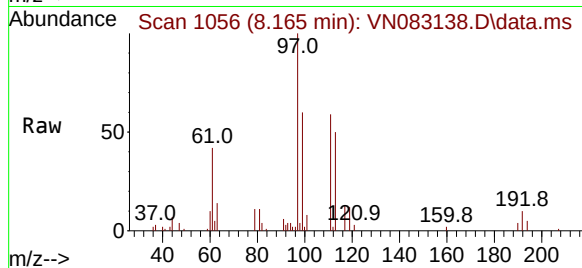
VSTDIC010

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 113   | Resp: | 2038  |
| Ion      | Ratio | Lower | Upper |
| 113      | 100   |       |       |
| 111      | 105.9 | 82.4  | 123.6 |
| 192      | 16.7  | 14.9  | 22.3  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#36

1,1-Dichloropropene

Concen: 10.103 ug/l

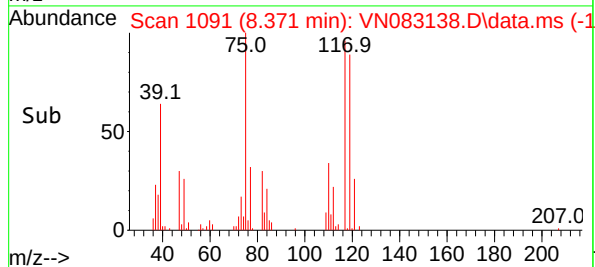
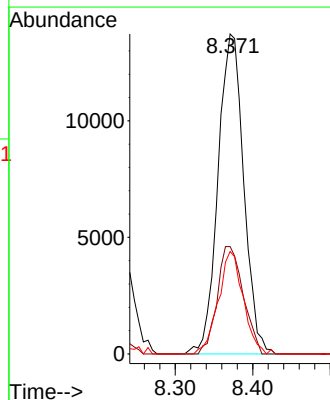
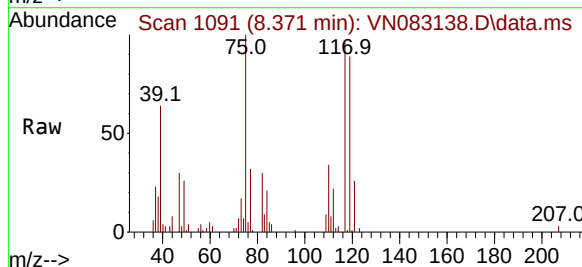
RT: 8.371 min Scan# 1091

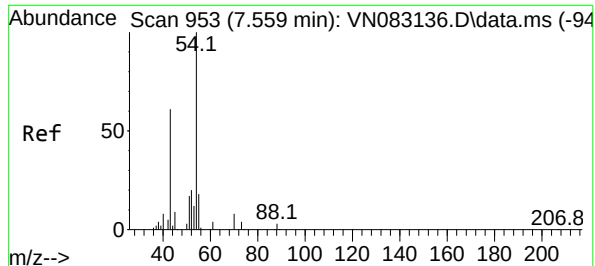
Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 31681 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 110      | 33.9  | 16.3  | 48.9  |
| 77       | 31.1  | 24.6  | 37.0  |





#37

Ethyl Acetate

Concen: 9.685 ug/l

RT: 7.565 min Scan# 91

Delta R.T. 0.006 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

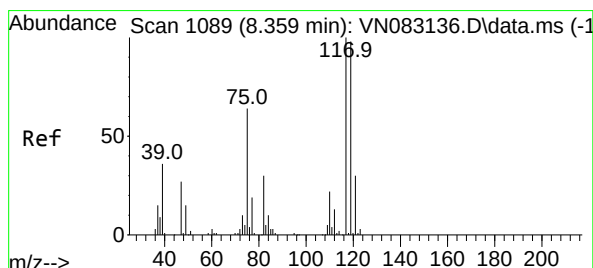
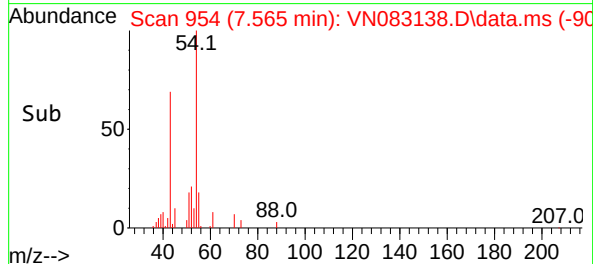
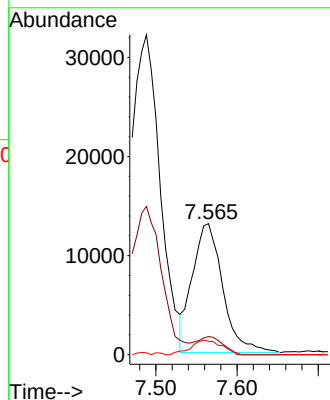
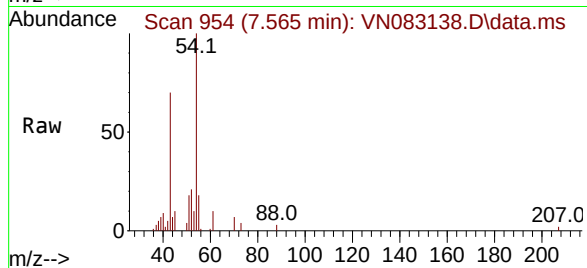
VSTDIC010

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 3400  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 12.0  | 9.3   | 13.9  |
| 70       | 11.4  | 7.0   | 10.6  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#38

Carbon Tetrachloride

Concen: 10.179 ug/l

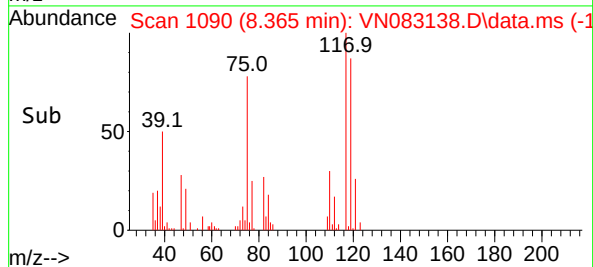
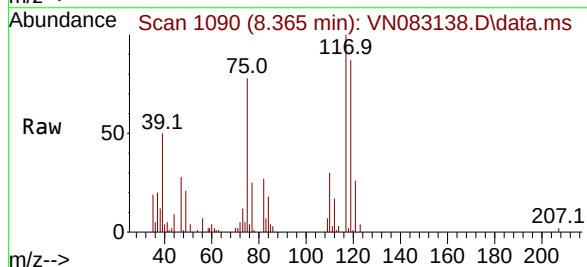
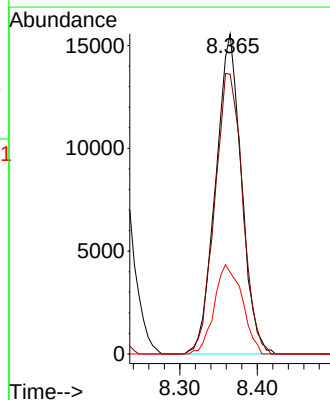
RT: 8.365 min Scan# 1090

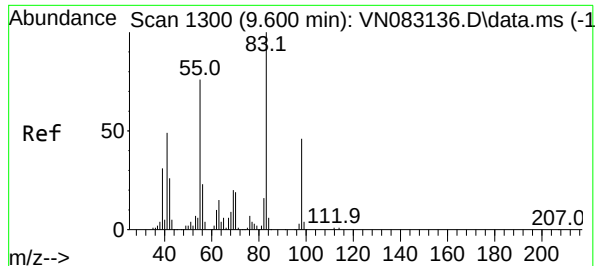
Delta R.T. 0.006 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 35950 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 119      | 87.5  | 74.9  | 112.3 |
| 121      | 25.6  | 24.3  | 36.5  |





#39

Methylcyclohexane

Concen: 10.058 ug/l

RT: 9.600 min Scan# 1130

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

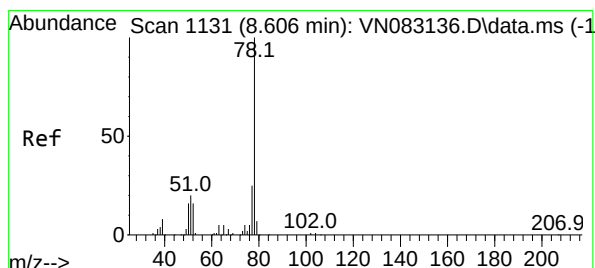
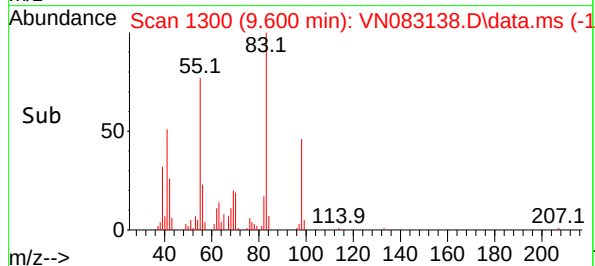
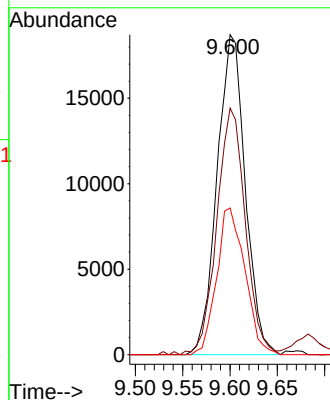
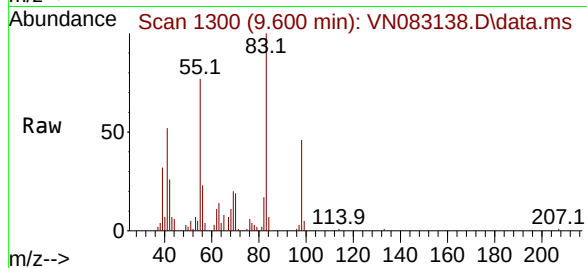
VSTDIC010

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 3873  |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 55       | 77.1  | 66.4  | 99.6  |
| 98       | 45.9  | 40.7  | 61.1  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#40

Benzene

Concen: 10.157 ug/l

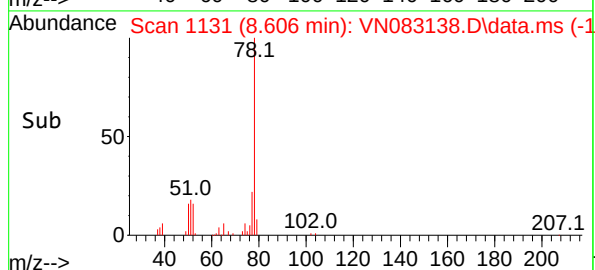
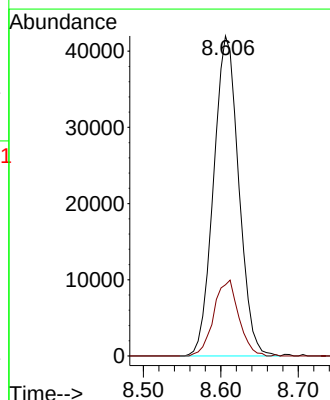
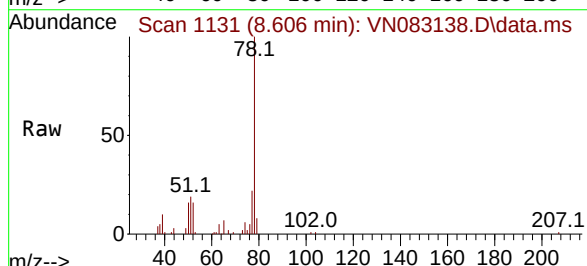
RT: 8.606 min Scan# 1131

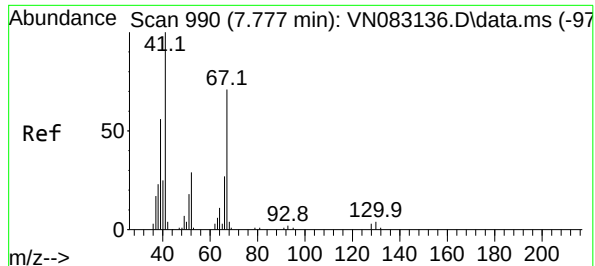
Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 78    | Resp: | 94885 |
| Ion      | Ratio | Lower | Upper |
| 78       | 100   |       |       |
| 77       | 22.2  | 19.0  | 28.4  |





#41

Methacrylonitrile

Concen: 9.213 ug/l

RT: 7.777 min Scan# 990

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 41 Resp: 18392

Ion Ratio Lower Upper

41 100

39 62.6 45.5 68.3

67 71.3 50.5 75.7

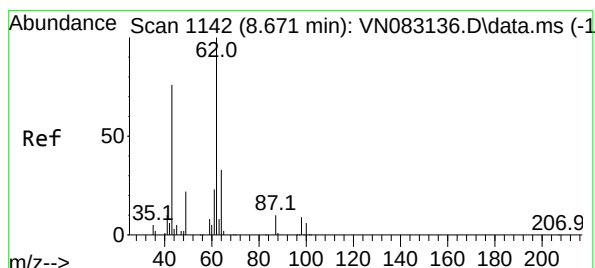
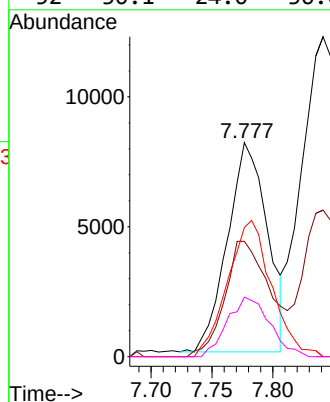
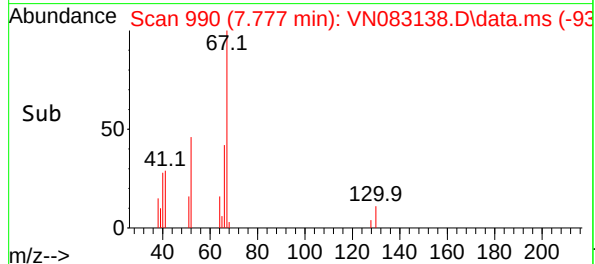
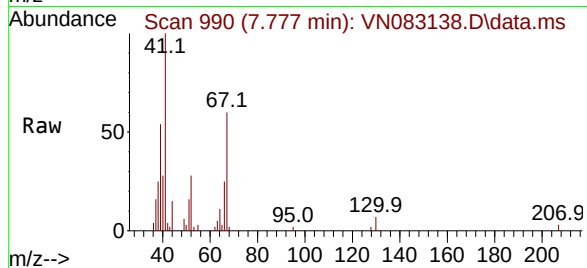
52 30.1 24.0 36.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#42

1,2-Dichloroethane

Concen: 10.234 ug/l

RT: 8.671 min Scan# 1142

Delta R.T. -0.000 min

Lab File: VN083138.D

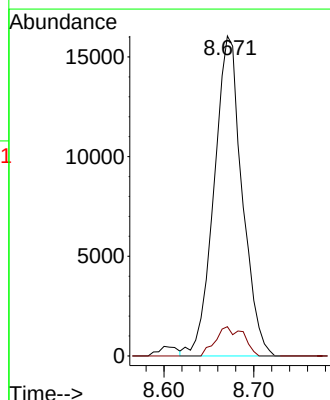
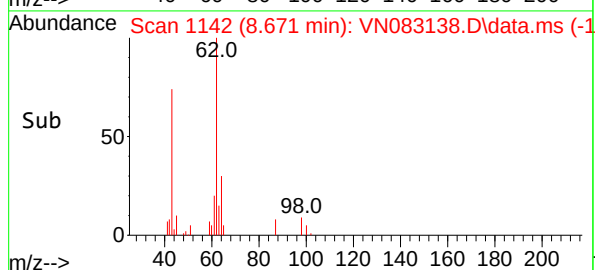
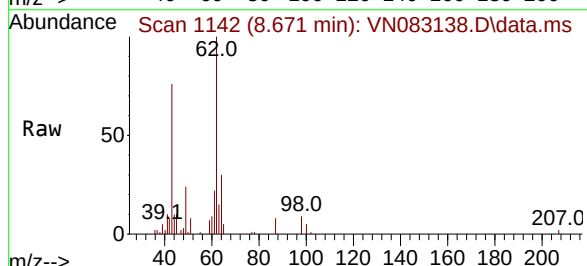
Acq: 07 Aug 2024 11:46

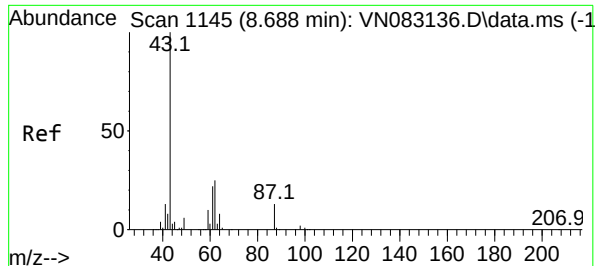
Tgt Ion: 62 Resp: 34826

Ion Ratio Lower Upper

62 100

98 9.1 0.0 15.8





#43

Isopropyl Acetate

Concen: 10.170 ug/l

RT: 8.694 min Scan# 1145

Delta R.T. 0.006 min

Lab File: VN083138.D

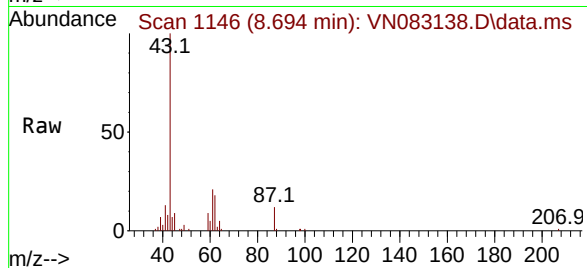
Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

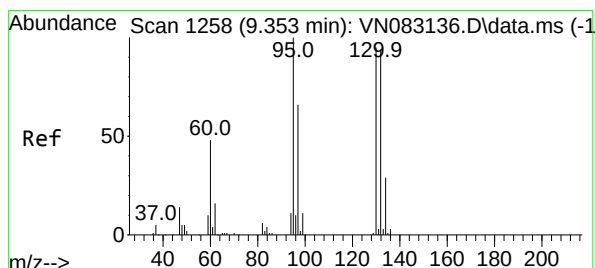
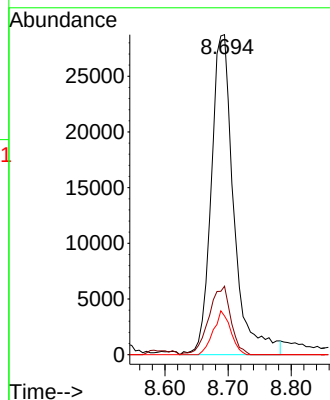
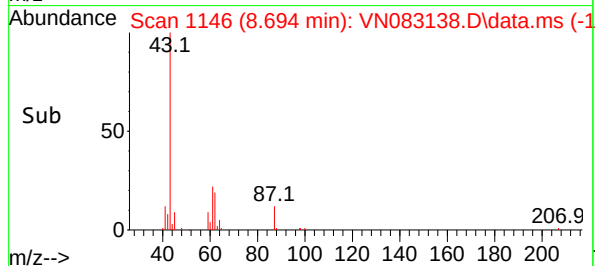


|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 71420 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 20.7  | 17.8  | 26.6  |
| 87       | 10.4  | 8.2   | 12.2  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#44

Trichloroethene

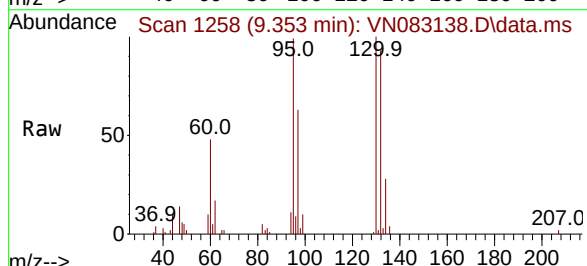
Concen: 10.195 ug/l

RT: 9.353 min Scan# 1258

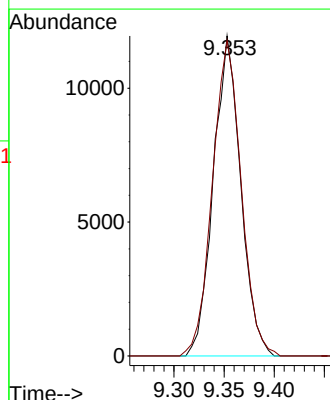
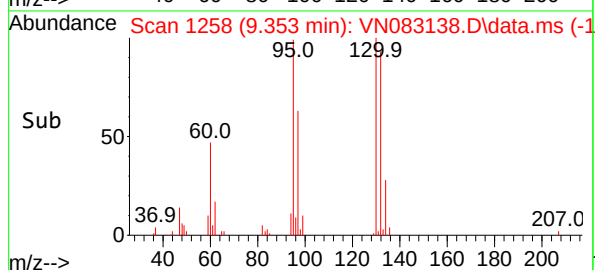
Delta R.T. -0.000 min

Lab File: VN083138.D

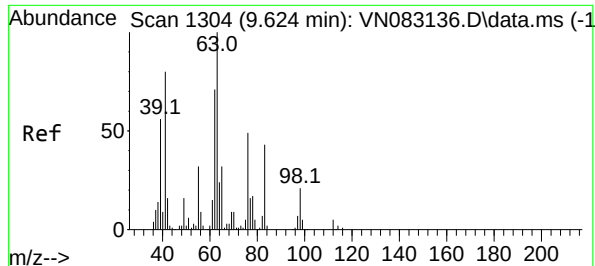
Acq: 07 Aug 2024 11:46



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 130   | Resp: | 22669 |
| Ion      | Ratio | Lower | Upper |
| 130      | 100   |       |       |
| 95       | 98.5  | 0.0   | 197.8 |







#45

1,2-Dichloropropane

Concen: 10.211 ug/l

RT: 9.624 min Scan# 1304

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 63 Resp: 2264

Ion Ratio Lower Upper

63 100

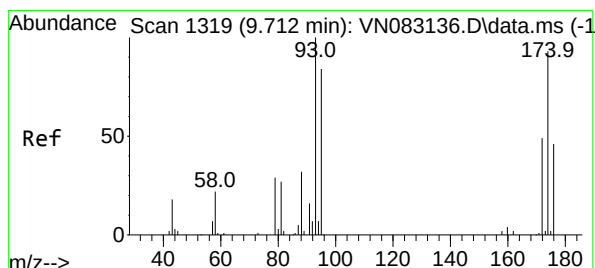
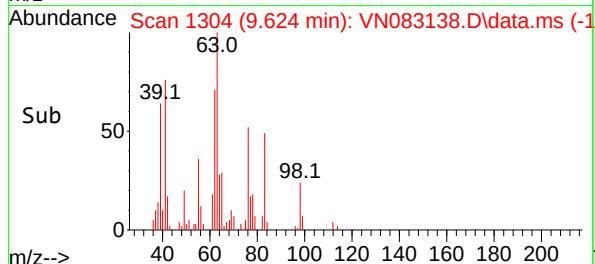
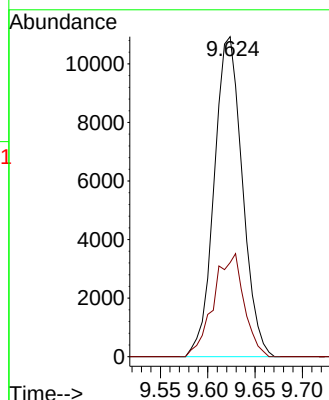
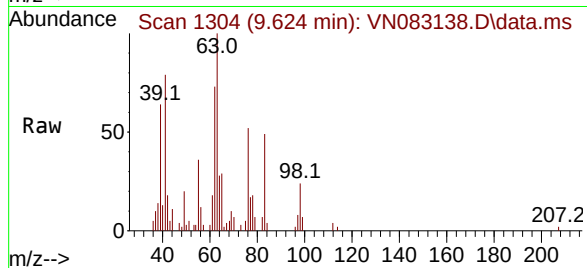
65 29.4 24.4 36.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#46

Dibromomethane

Concen: 10.041 ug/l

RT: 9.706 min Scan# 1318

Delta R.T. -0.006 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

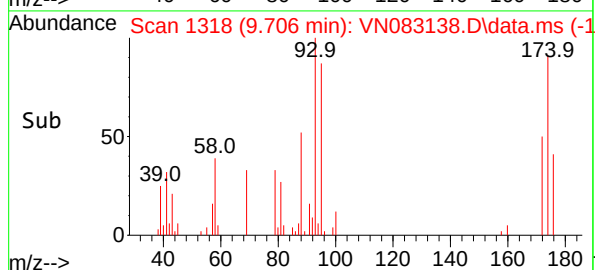
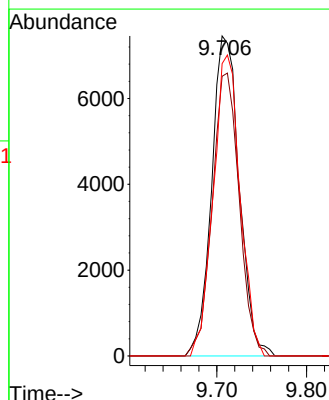
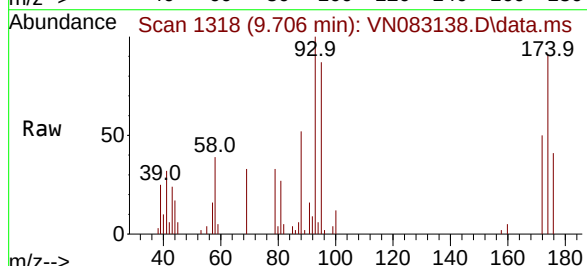
Tgt Ion: 93 Resp: 15937

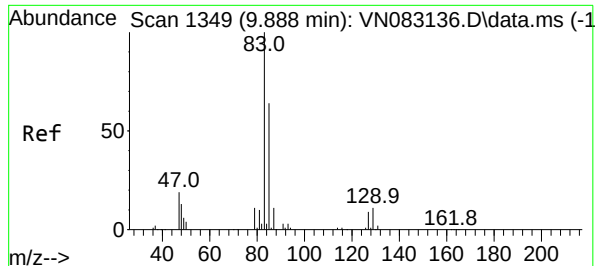
Ion Ratio Lower Upper

93 100

95 86.3 65.8 98.6

174 91.4 71.7 107.5





#47

Bromodichloromethane

Concen: 9.930 ug/l

RT: 9.888 min Scan# 1349

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

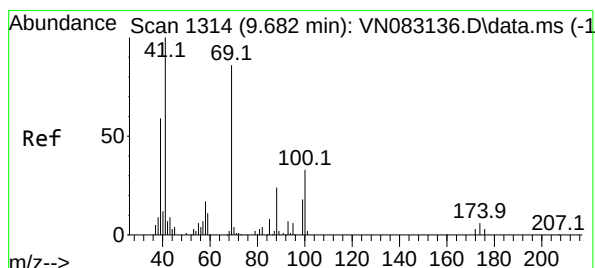
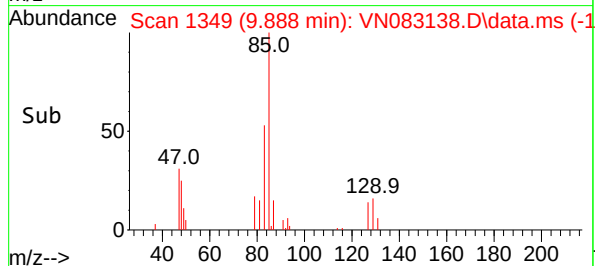
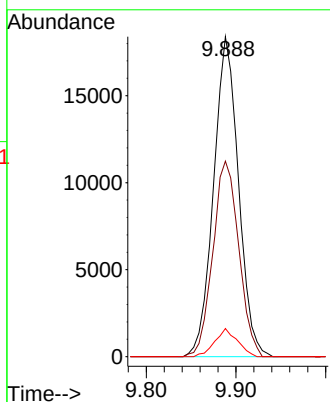
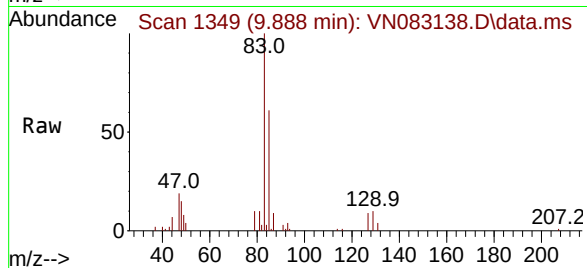
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 3538  |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 61.1  | 51.1  | 76.7  |
| 127      | 8.8   | 7.2   | 10.8  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#48

Methyl methacrylate

Concen: 9.891 ug/l

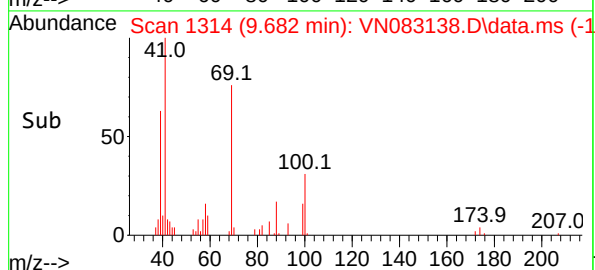
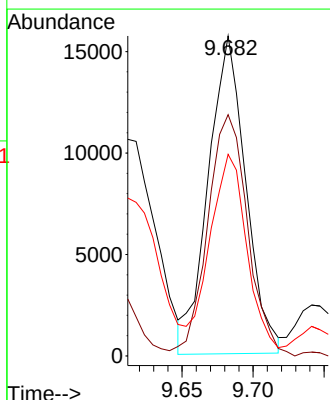
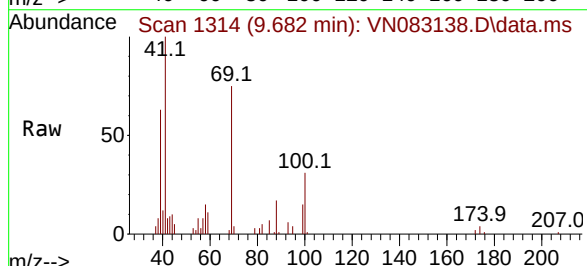
RT: 9.682 min Scan# 1314

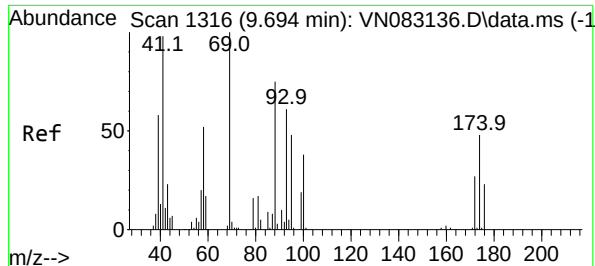
Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 28711 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 69       | 81.0  | 56.3  | 84.5  |
| 39       | 63.6  | 50.3  | 75.5  |





#49

1,4-Dioxane

Concen: 201.364 ug/l

RT: 9.694 min Scan# 11

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

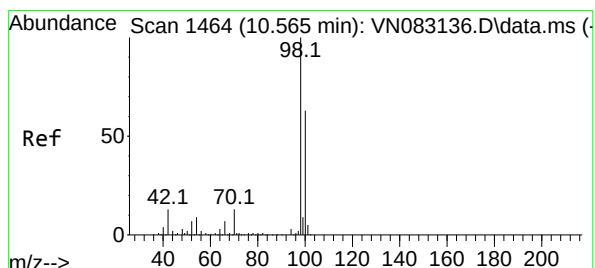
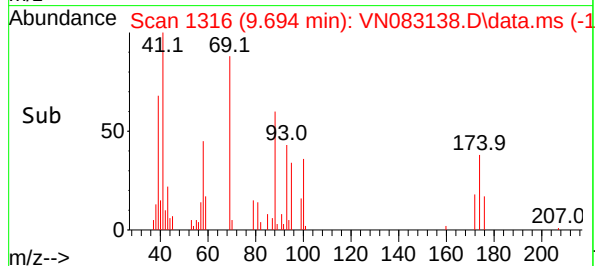
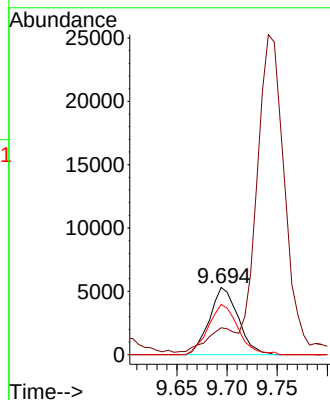
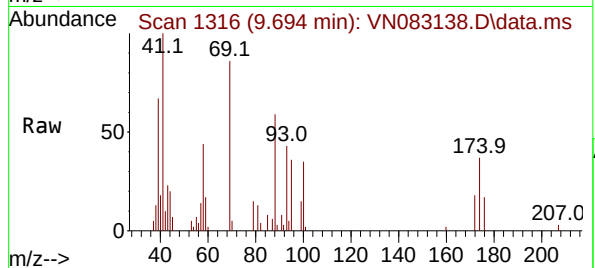
VSTDICC010

| Tgt Ion:  | 88    | Resp: | 10549 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 43        | 39.2  | 27.8  | 41.8  |
| 58        | 77.8  | 59.4  | 89.0  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#50

Toluene-d8

Concen: 9.733 ug/l

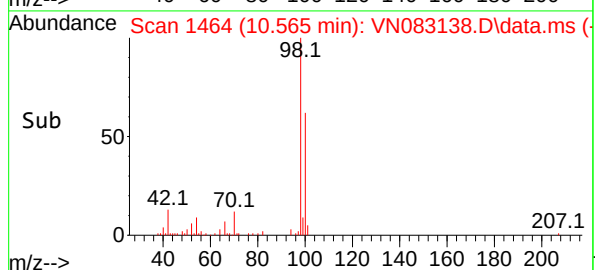
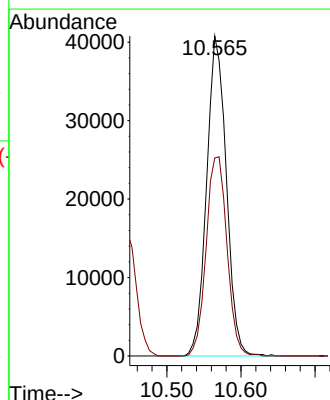
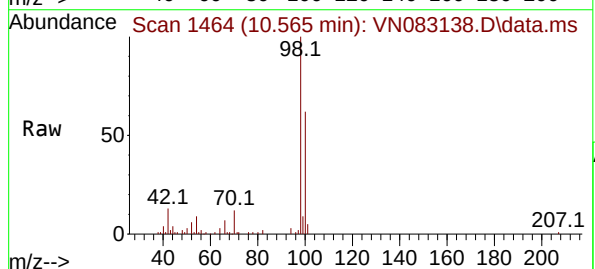
RT: 10.565 min Scan# 1464

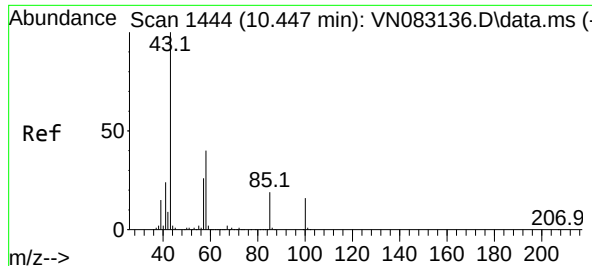
Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

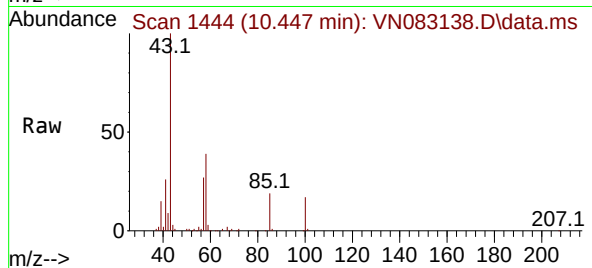
| Tgt Ion:  | 98    | Resp: | 75261 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 98        | 100   |       |       |
| 100       | 66.0  | 51.5  | 77.3  |





#51  
4-Methyl-2-Pentanone  
Concen: 51.587 ug/l  
RT: 10.447 min Scan# 1444  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

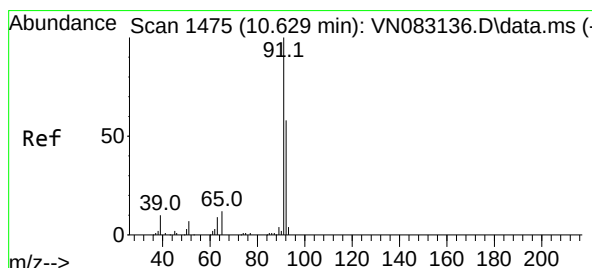
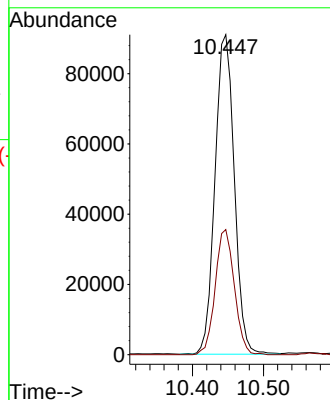
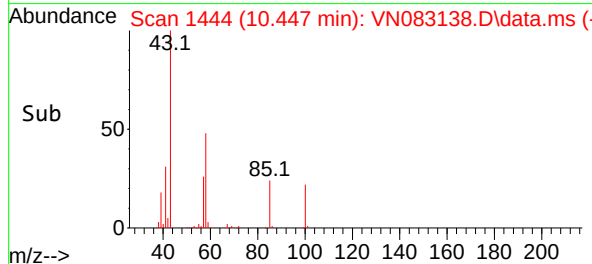
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010



Tgt Ion: 43 Resp: 17127  
Ion Ratio Lower Upper  
43 100  
58 38.8 28.2 42.4

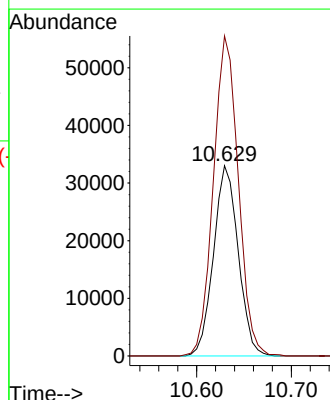
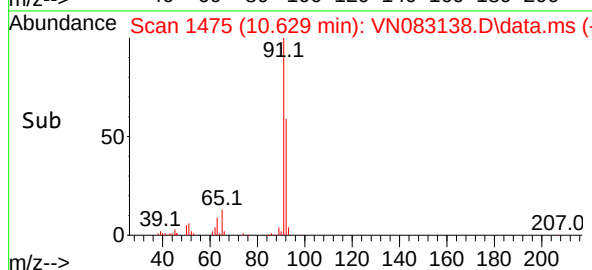
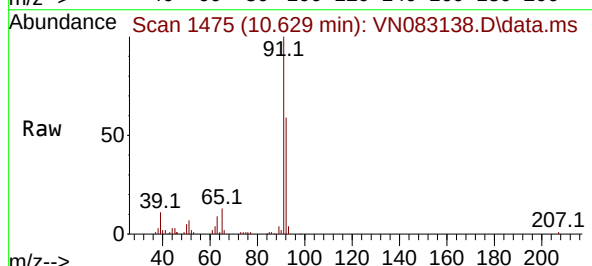
Manual Integrations  
APPROVED

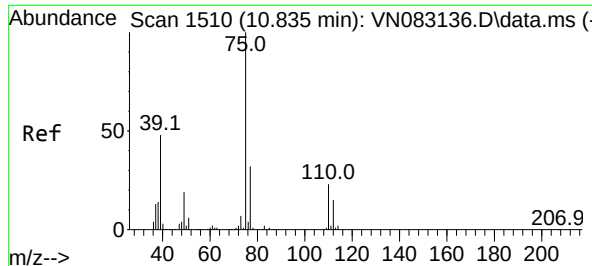
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#52  
Toluene  
Concen: 10.129 ug/l  
RT: 10.629 min Scan# 1475  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

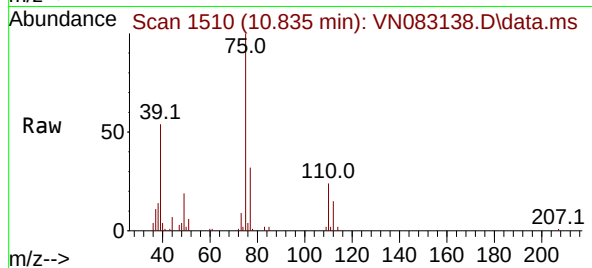
Tgt Ion: 92 Resp: 59784  
Ion Ratio Lower Upper  
92 100  
91 170.0 139.4 209.0





#53  
t-1,3-Dichloropropene  
Concen: 10.017 ug/l  
RT: 10.835 min Scan# 1510  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

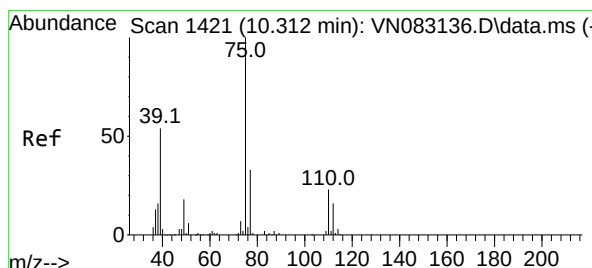
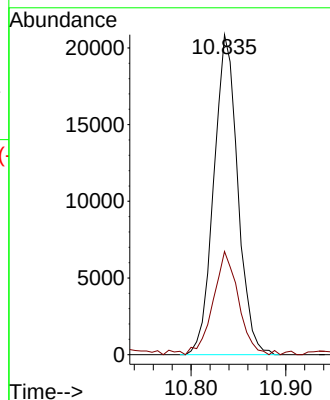
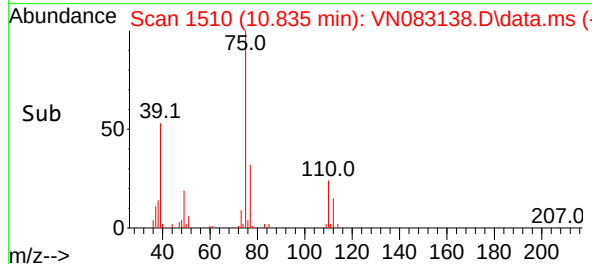
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010



Tgt Ion: 75 Resp: 36670  
Ion Ratio Lower Upper  
75 100  
77 32.2 25.7 38.5

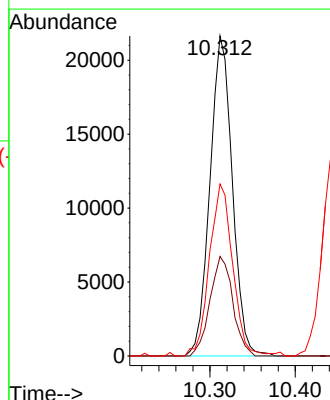
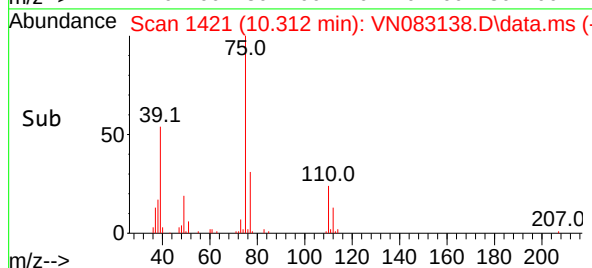
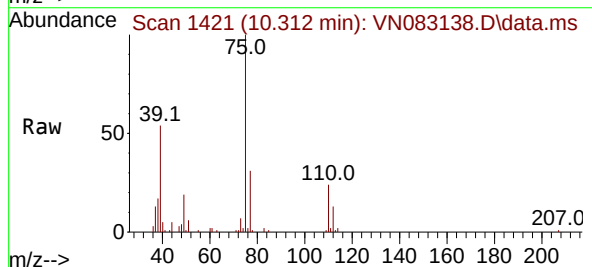
Manual Integrations  
APPROVED

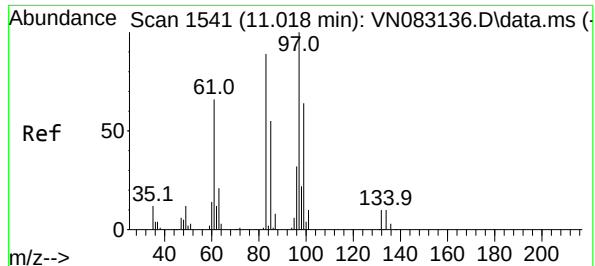
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#54  
cis-1,3-Dichloropropene  
Concen: 10.145 ug/l  
RT: 10.312 min Scan# 1421  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion: 75 Resp: 39503  
Ion Ratio Lower Upper  
75 100  
77 31.1 24.3 36.5  
39 53.8 50.5 75.7





#55

1,1,2-Trichloroethane

Concen: 10.274 ug/l

RT: 11.018 min Scan# 1541

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 97 Resp: 2173

Ion Ratio Lower Upper

97 100

83 84.0 71.4 107.0

85 54.3 45.8 68.6

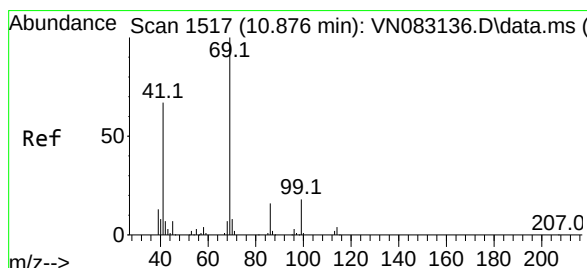
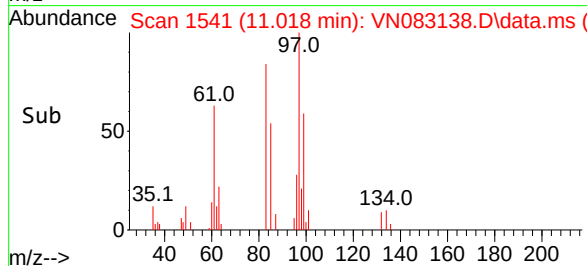
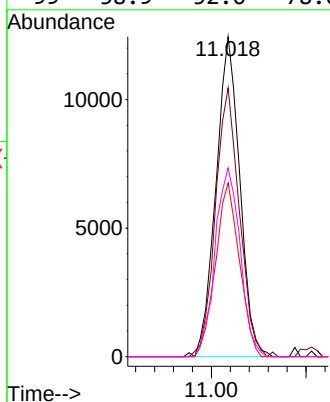
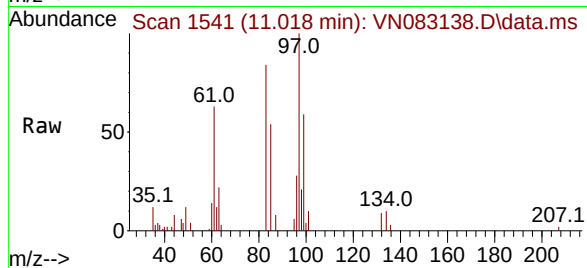
99 58.9 52.0 78.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#56

Ethyl methacrylate

Concen: 10.201 ug/l

RT: 10.871 min Scan# 1516

Delta R.T. -0.006 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

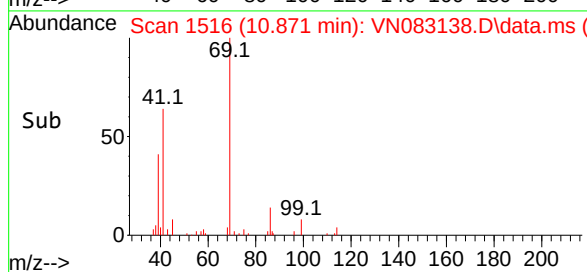
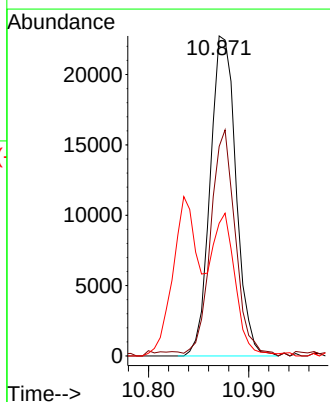
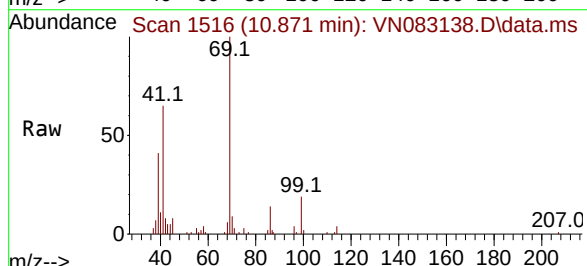
Tgt Ion: 69 Resp: 40676

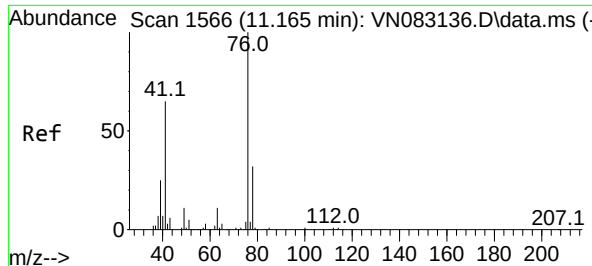
Ion Ratio Lower Upper

69 100

41 67.9 63.4 95.2

39 36.8 37.4 56.0#





#57

1,3-Dichloropropane

Concen: 10.132 ug/l

RT: 11.165 min Scan# 1566

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion: 76 Resp: 38200

Ion Ratio Lower Upper

76 100

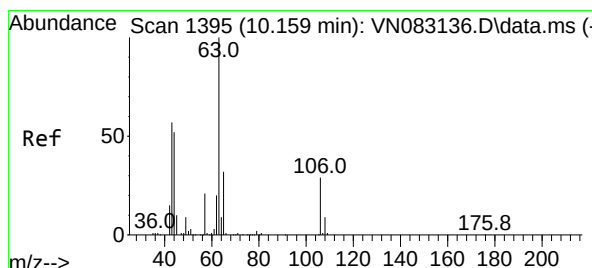
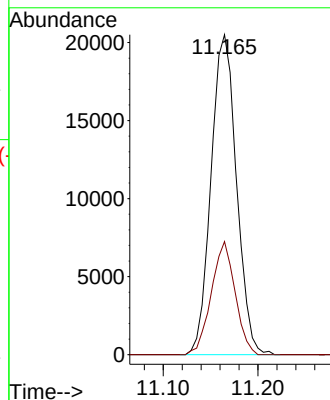
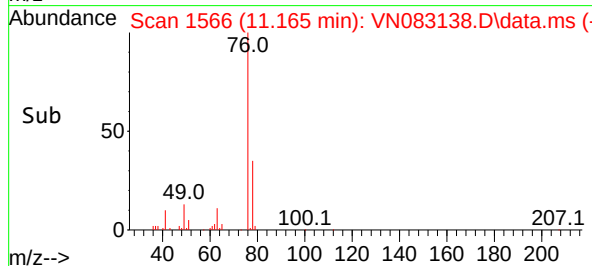
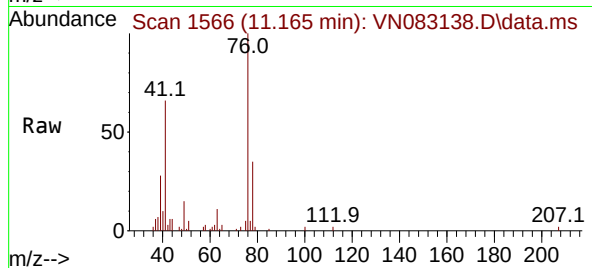
78 33.1 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#58

2-Chloroethyl Vinyl ether

Concen: 51.698 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. -0.000 min

Lab File: VN083138.D

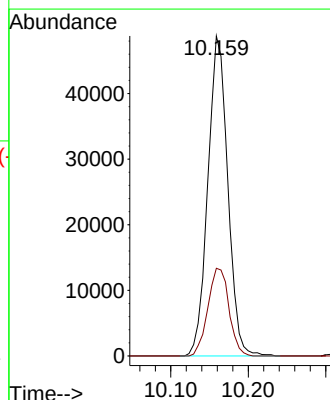
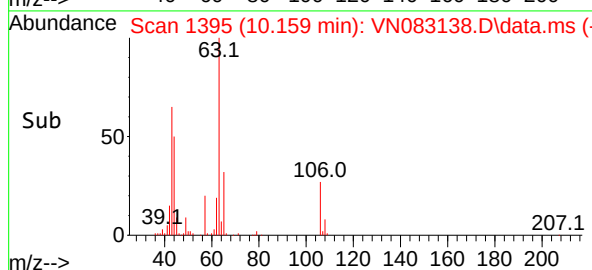
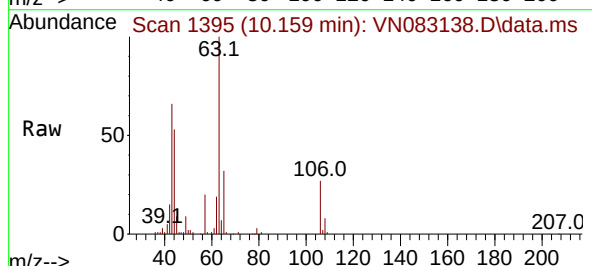
Acq: 07 Aug 2024 11:46

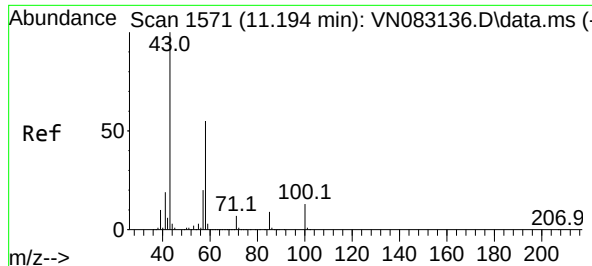
Tgt Ion: 63 Resp: 87140

Ion Ratio Lower Upper

63 100

106 28.9 21.4 32.0





#59

2-Hexanone

Concen: 50.312 ug/l

RT: 11.194 min Scan# 1571

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 43 Resp: 12923

Ion Ratio Lower Upper

43 100

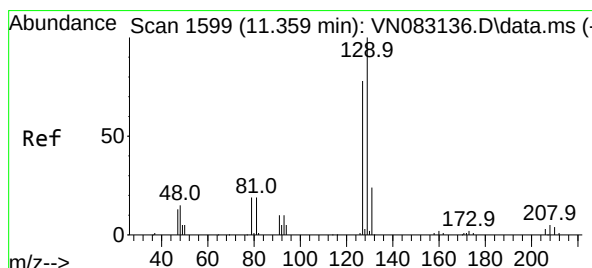
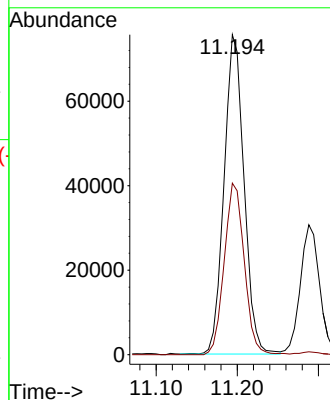
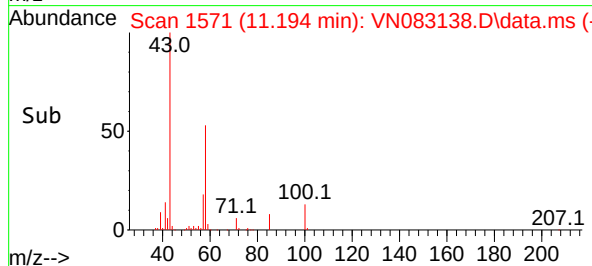
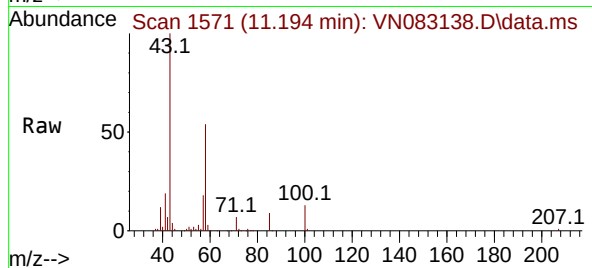
58 54.0 24.6 73.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#60

Dibromochloromethane

Concen: 10.088 ug/l

RT: 11.359 min Scan# 1599

Delta R.T. -0.000 min

Lab File: VN083138.D

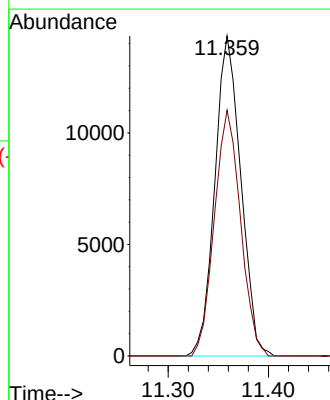
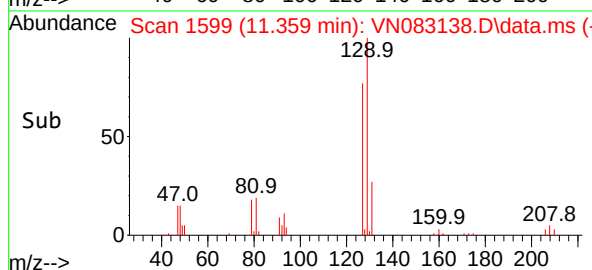
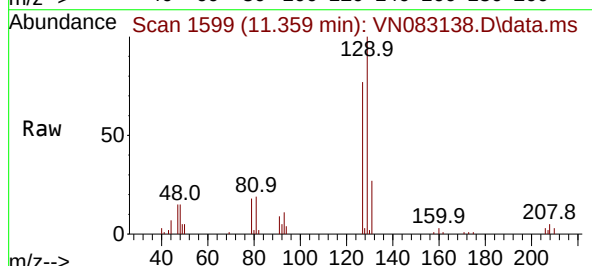
Acq: 07 Aug 2024 11:46

Tgt Ion:129 Resp: 25798

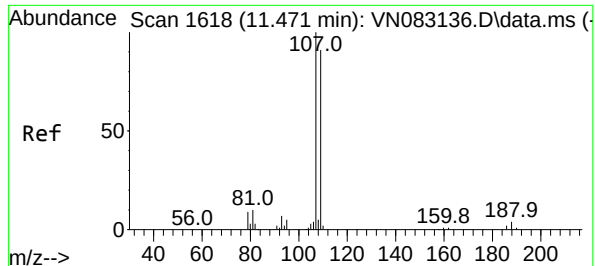
Ion Ratio Lower Upper

129 100

127 77.5 39.2 117.6







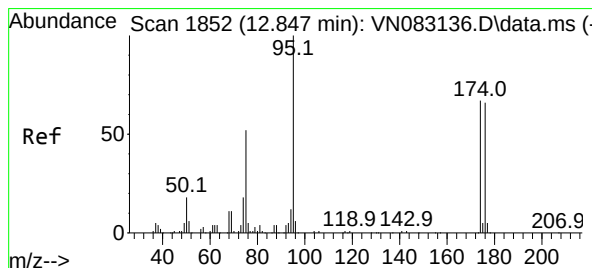
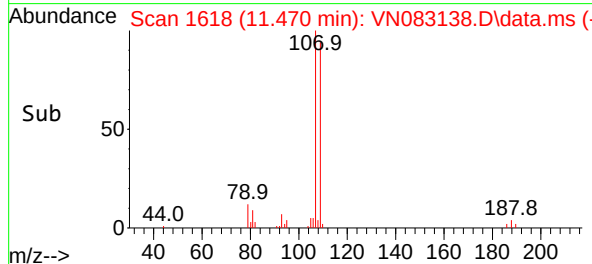
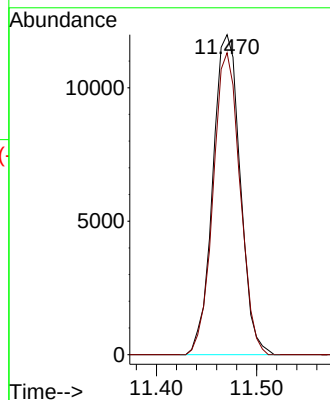
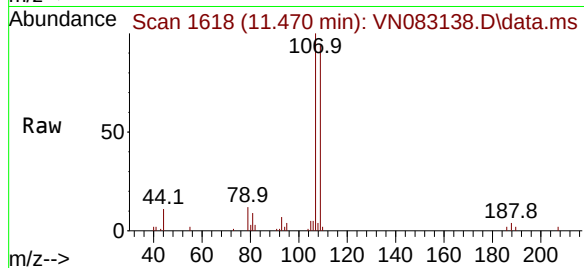
#61  
1,2-Dibromoethane  
Concen: 10.219 ug/l  
RT: 11.470 min Scan# 1618  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC010

Tgt Ion:107 Resp: 2270  
Ion Ratio Lower Upper  
107 100  
109 92.7 73.7 110.5

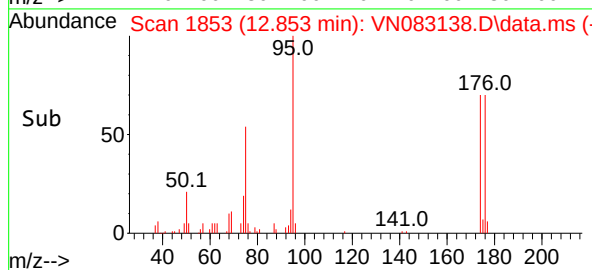
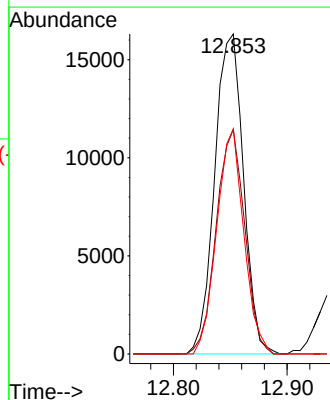
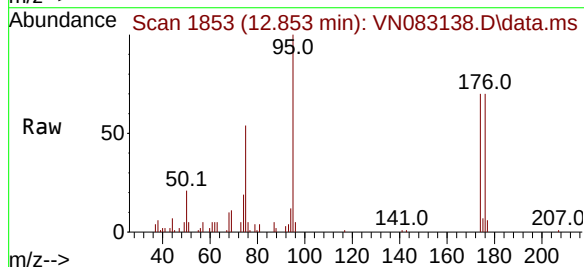
Manual Integrations  
APPROVED

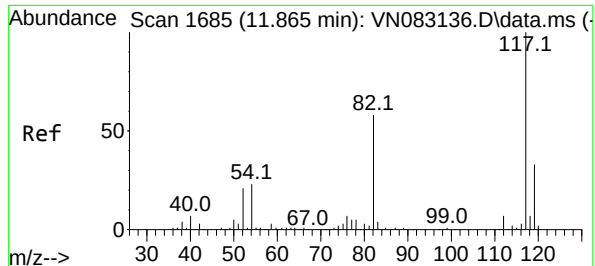
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#62  
4-Bromofluorobenzene  
Concen: 9.517 ug/l  
RT: 12.853 min Scan# 1853  
Delta R.T. 0.006 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion: 95 Resp: 28691  
Ion Ratio Lower Upper  
95 100  
174 69.5 0.0 159.2  
176 66.2 0.0 147.6





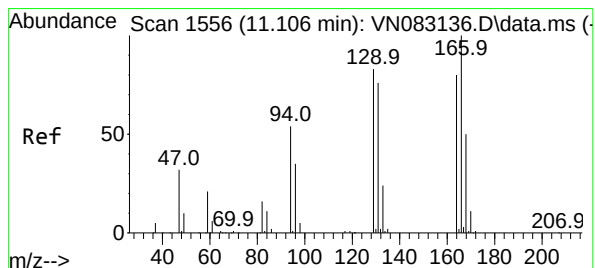
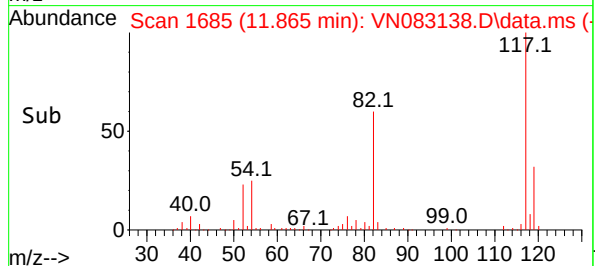
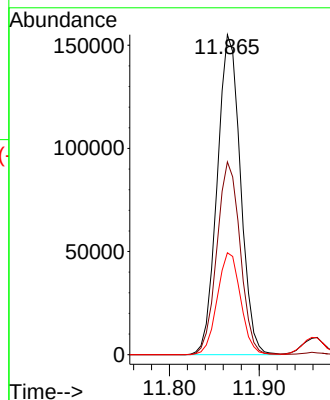
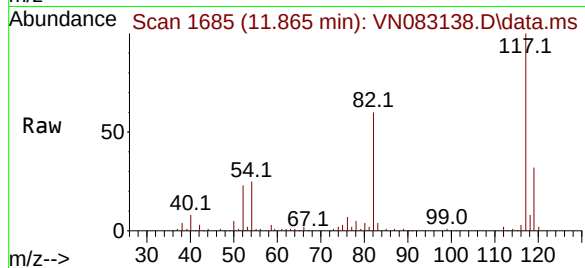
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Tgt Ion:117 Resp: 279409  
Ion Ratio Lower Upper  
117 100  
82 60.2 47.5 71.3  
119 31.9 25.6 38.4

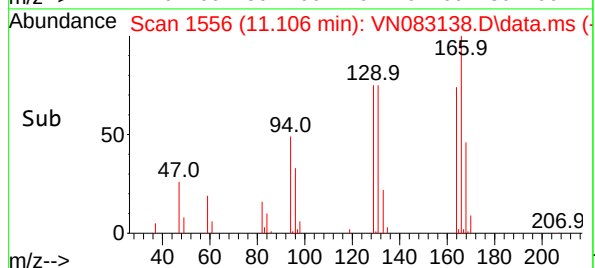
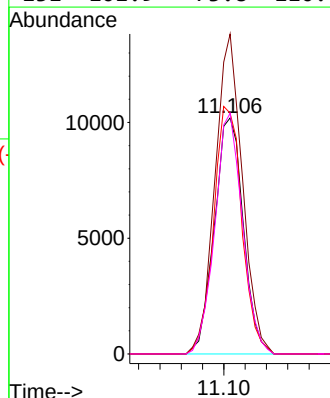
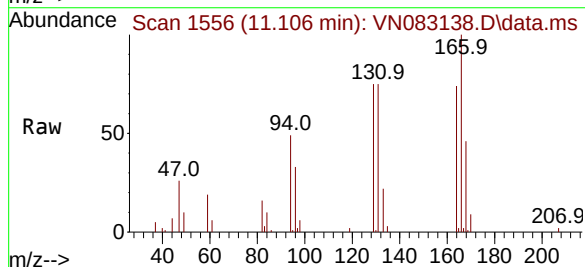
Manual Integrations  
APPROVED

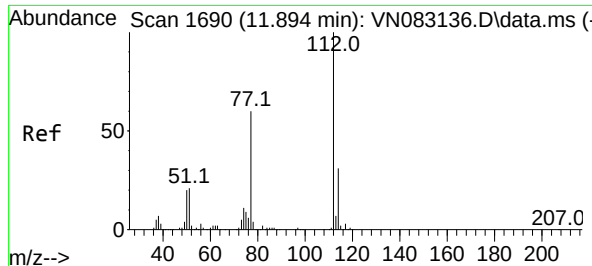
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#64  
Tetrachloroethene  
Concen: 10.362 ug/l  
RT: 11.106 min Scan# 1556  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion:164 Resp: 19174  
Ion Ratio Lower Upper  
164 100  
166 135.5 101.4 152.0  
129 102.0 75.7 113.5  
131 101.9 73.8 110.6





#65

Chlorobenzene

Concen: 10.437 ug/l

RT: 11.894 min Scan# 1

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion:112 Resp: 6444

Ion Ratio Lower Upper

112 100

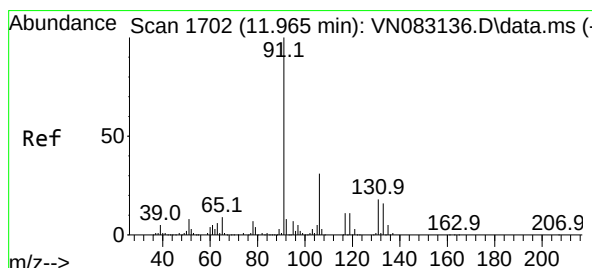
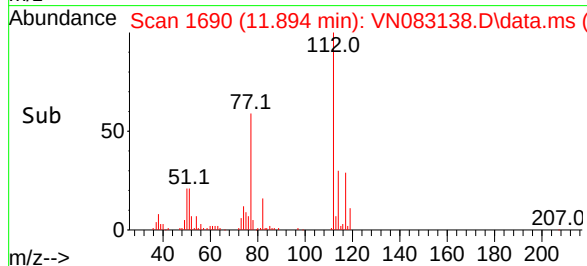
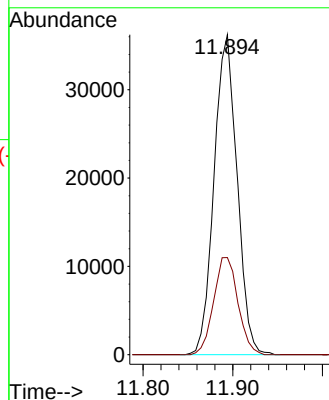
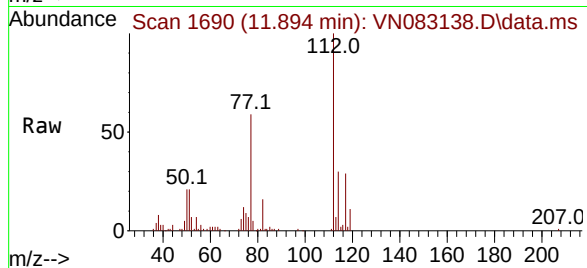
114 30.4 26.2 39.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#66

1,1,1,2-Tetrachloroethane

Concen: 10.331 ug/l

RT: 11.965 min Scan# 1702

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

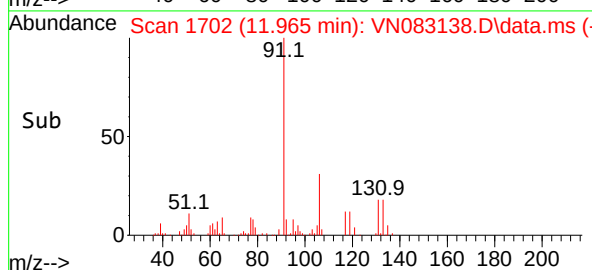
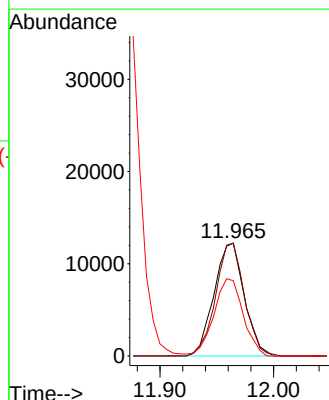
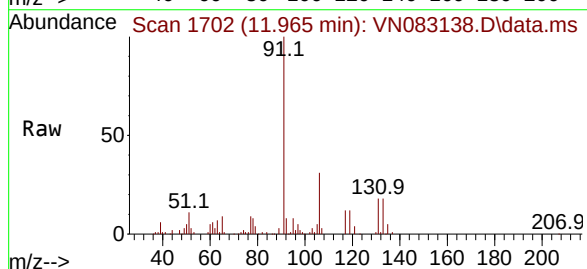
Tgt Ion:131 Resp: 22498

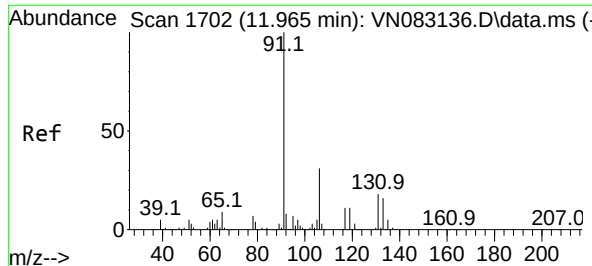
Ion Ratio Lower Upper

131 100

133 95.7 47.3 142.0

119 66.5 32.5 97.4





#67

Ethyl Benzene

Concen: 10.211 ug/l

RT: 11.965 min Scan# 1702

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 91 Resp: 11566

Ion Ratio Lower Upper

91 100

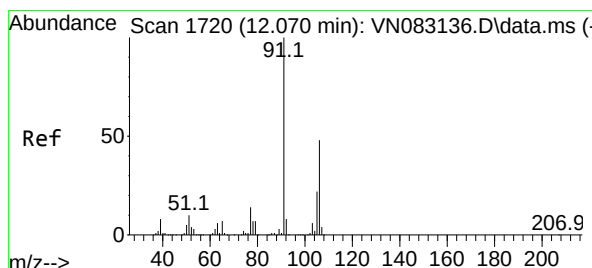
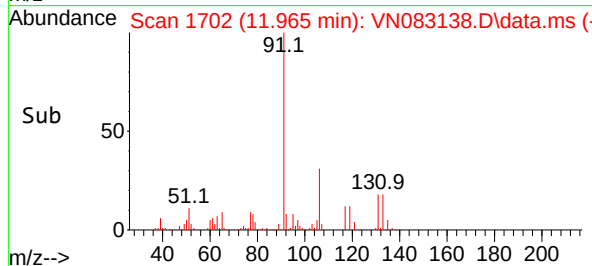
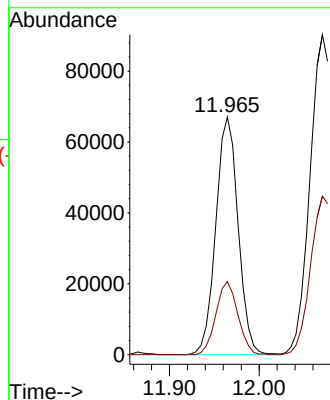
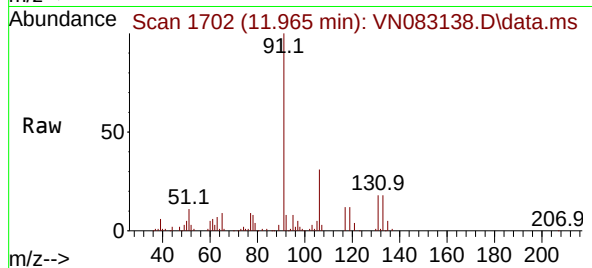
106 30.7 24.0 36.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#68

m/p-Xylenes

Concen: 20.687 ug/l

RT: 12.070 min Scan# 1720

Delta R.T. -0.000 min

Lab File: VN083138.D

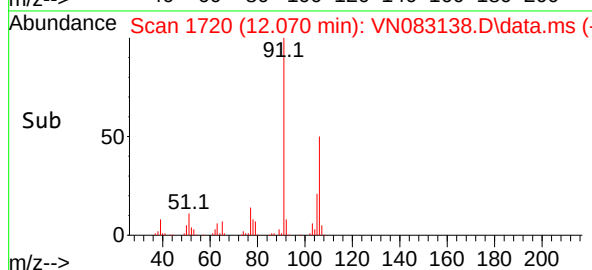
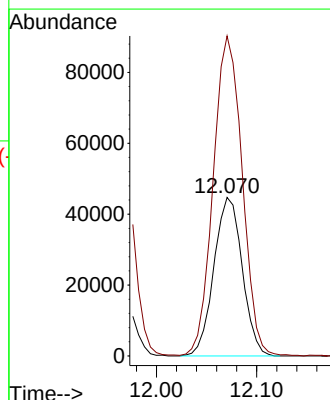
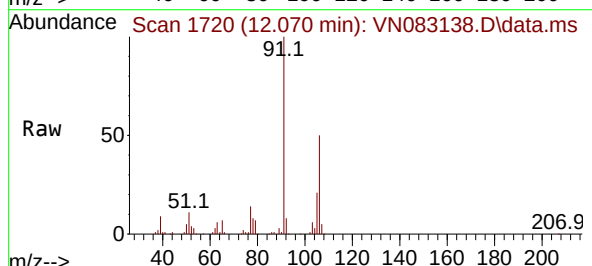
Acq: 07 Aug 2024 11:46

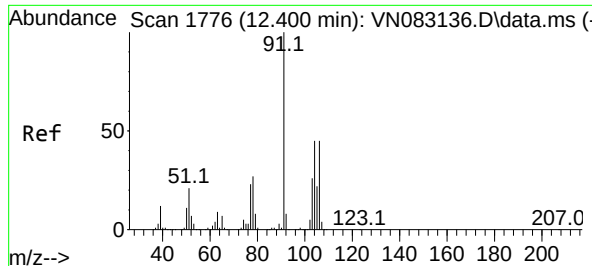
Tgt Ion:106 Resp: 87775

Ion Ratio Lower Upper

106 100

91 206.9 166.1 249.1





#69

o-Xylene

Concen: 10.327 ug/l

RT: 12.400 min Scan# 1776

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion:106 Resp: 43210

Ion Ratio Lower Upper

106 100

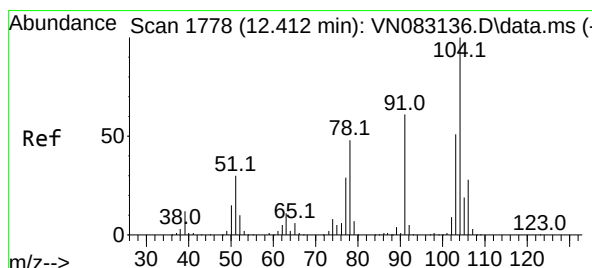
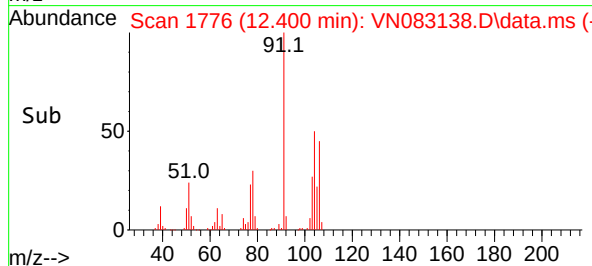
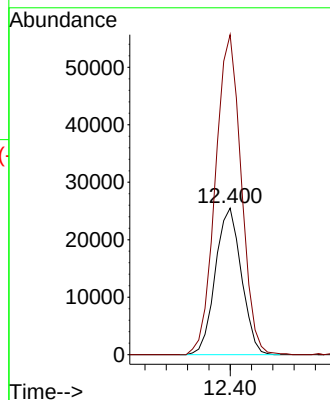
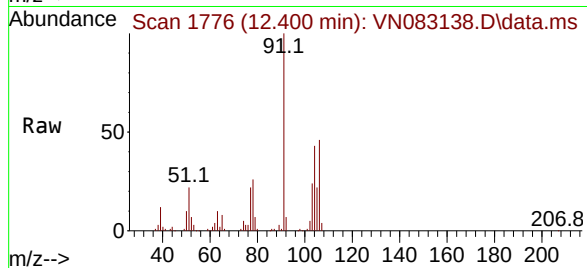
91 217.0 111.3 333.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#70

Styrene

Concen: 10.335 ug/l

RT: 12.412 min Scan# 1778

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

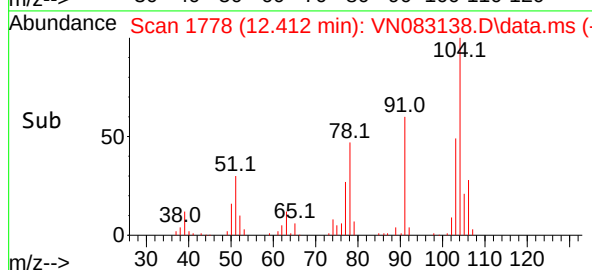
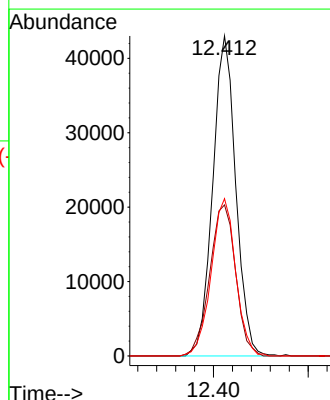
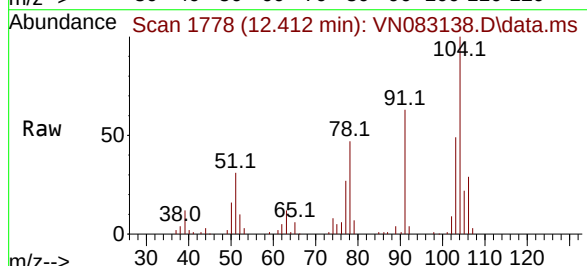
Tgt Ion:104 Resp: 72641

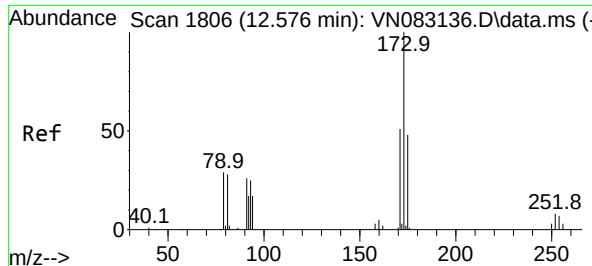
Ion Ratio Lower Upper

104 100

78 53.1 41.6 62.4

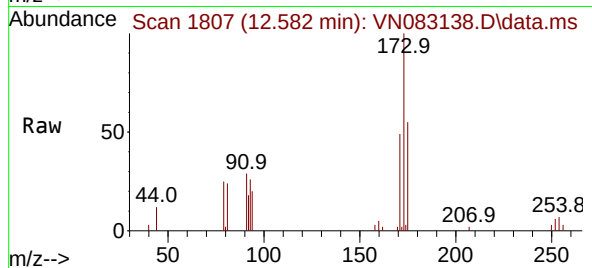
103 52.2 44.0 66.0





#71  
Bromoform  
Concen: 9.893 ug/l  
RT: 12.582 min Scan# 1806  
Delta R.T. 0.006 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

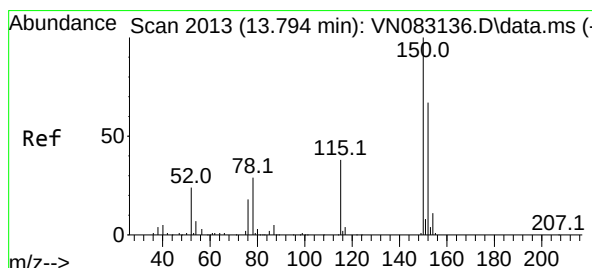
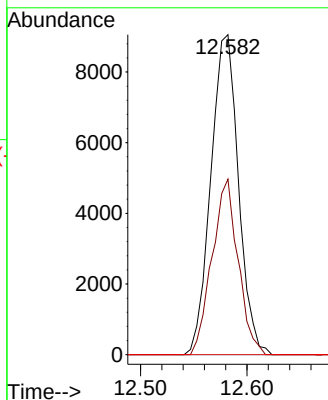
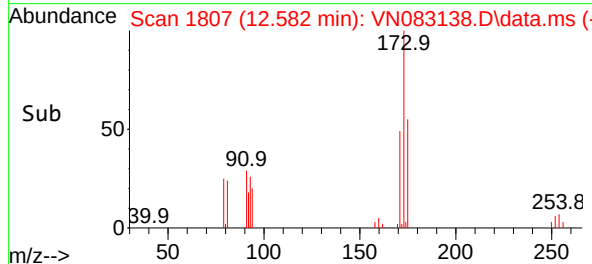
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010



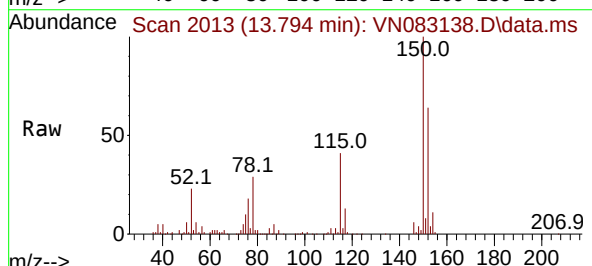
Tgt Ion:173 Resp: 16320  
Ion Ratio Lower Upper  
173 100  
175 51.7 24.0 72.0  
254 0.0 0.0 0.0

Manual Integrations  
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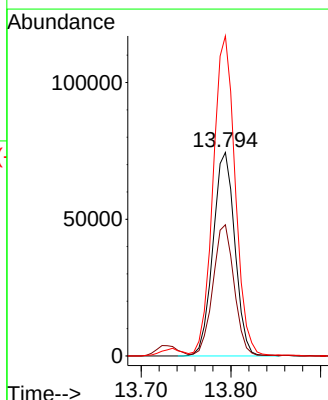
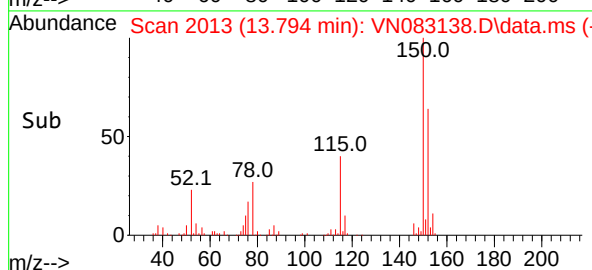
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

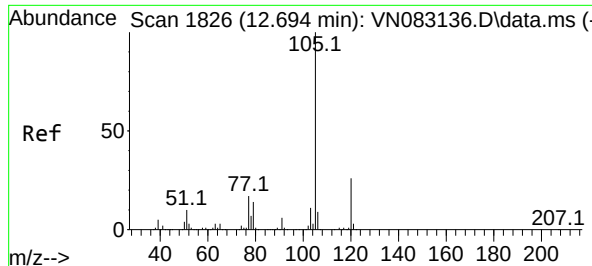


#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.794 min Scan# 2013  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46



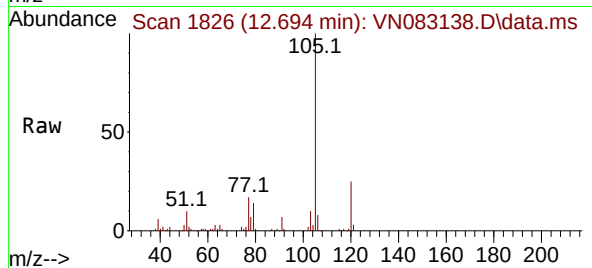
Tgt Ion:152 Resp: 125725  
Ion Ratio Lower Upper  
152 100  
115 62.4 30.6 91.6  
150 158.1 0.0 348.6





#73  
Isopropylbenzene  
Concen: 10.487 ug/l  
RT: 12.694 min Scan# 1826  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

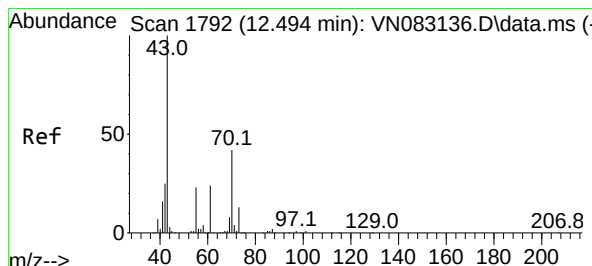
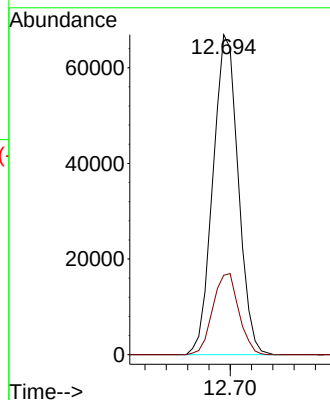
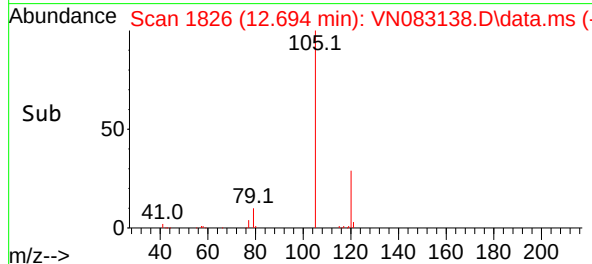
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010



Tgt Ion: 105 Resp: 11027  
Ion Ratio Lower Upper  
105 100  
120 26.0 12.9 38.6

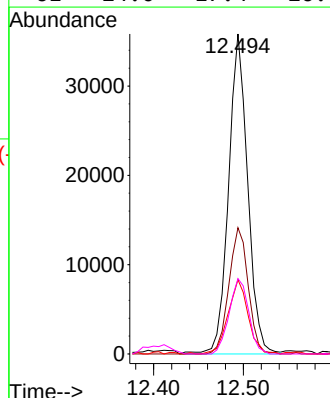
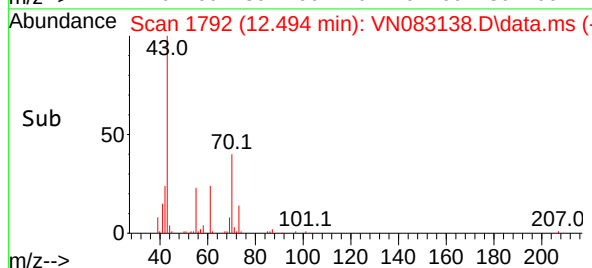
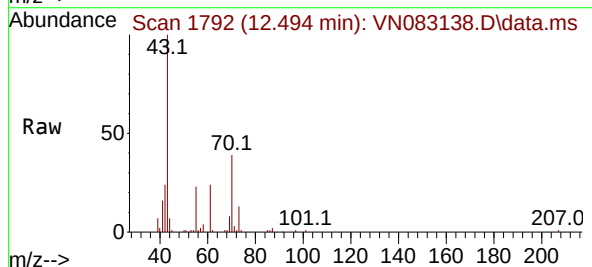
Manual Integrations  
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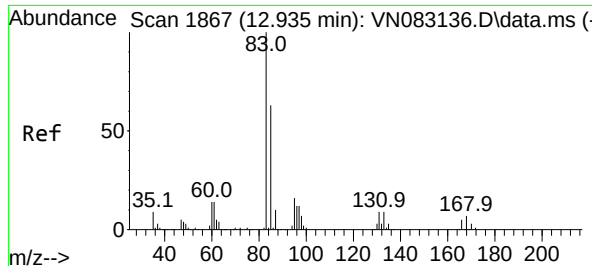
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#74  
N-ethyl acetate  
Concen: 10.303 ug/l  
RT: 12.494 min Scan# 1792  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion: 43 Resp: 52998  
Ion Ratio Lower Upper  
43 100  
70 39.8 29.8 44.6  
55 24.3 18.7 28.1  
61 24.0 17.4 26.0





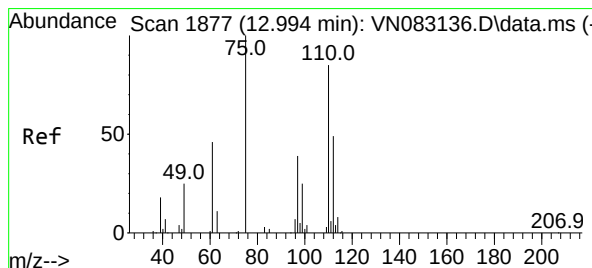
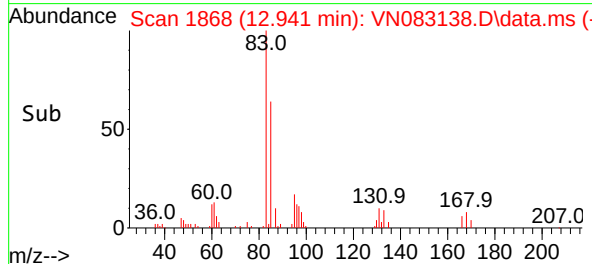
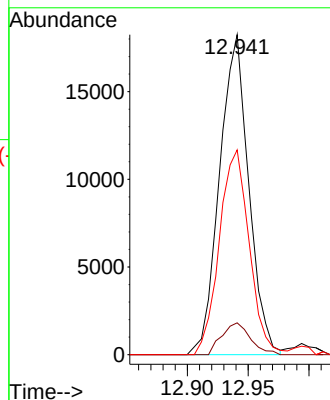
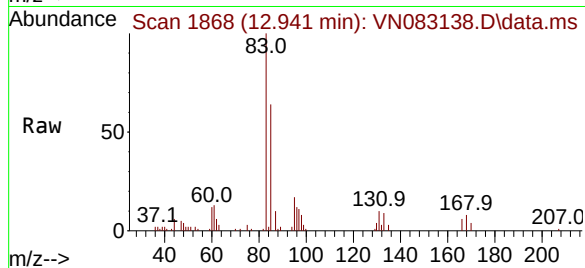
#75  
1,1,2,2-Tetrachloroethane  
Concen: 10.234 ug/l  
RT: 12.941 min Scan# 1868  
Delta R.T. 0.006 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

| Tgt Ion:  | 83    | Resp: | 30438 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 83        | 100   |       |       |
| 131       | 9.8   | 5.0   | 14.9  |
| 85        | 65.6  | 31.9  | 95.7  |

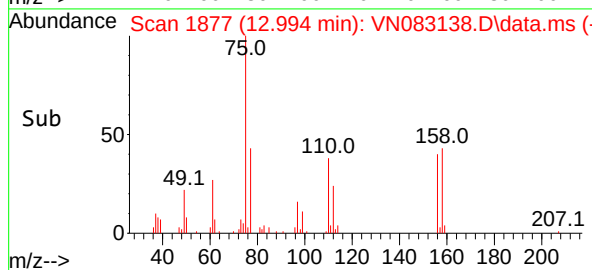
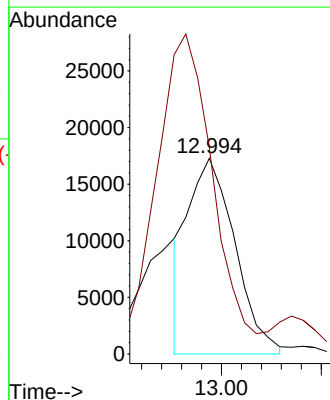
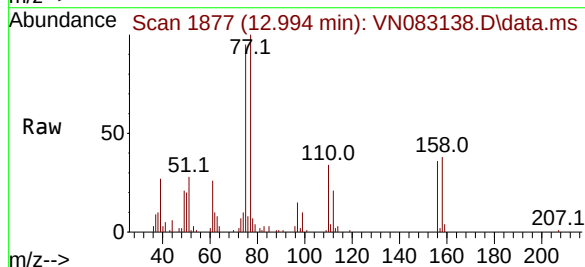
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

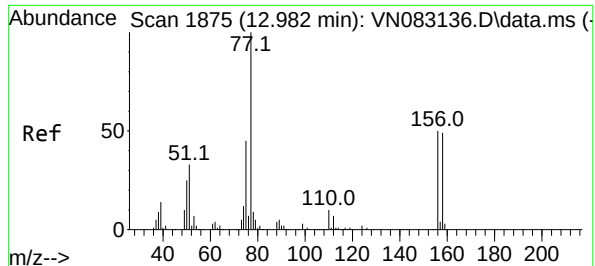


#76  
1,2,3-Trichloropropane  
Concen: 10.261 ug/l m  
RT: 12.994 min Scan# 1877  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

| Tgt Ion:  | 75    | Resp: | 28359 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 75        | 100   |       |       |
| 77        | 197.9 | 110.9 | 332.6 |







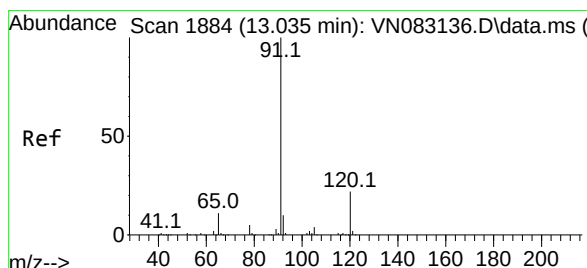
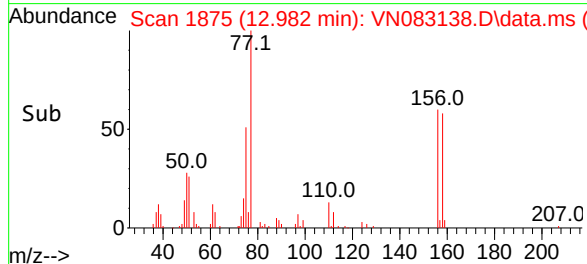
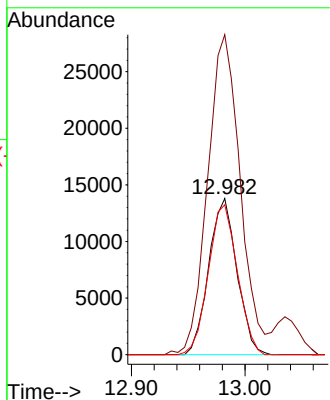
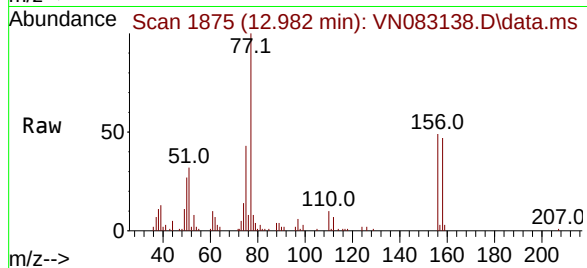
#77  
Bromobenzene  
Concen: 10.180 ug/l  
RT: 12.982 min Scan# 1875  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

Tgt Ion:156 Resp: 2378  
Ion Ratio Lower Upper  
156 100  
77 236.0 111.3 333.8  
158 98.9 48.3 144.9

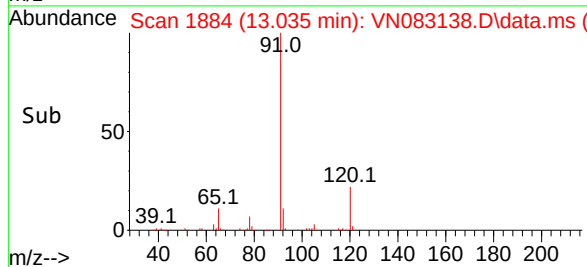
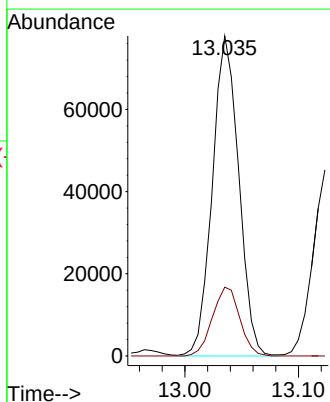
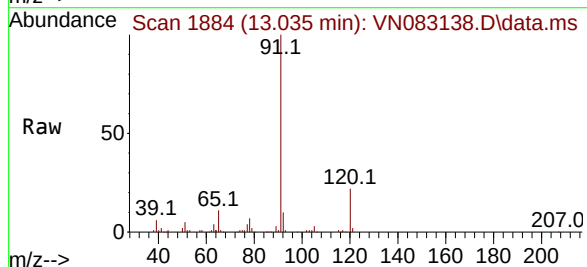
Manual Integrations  
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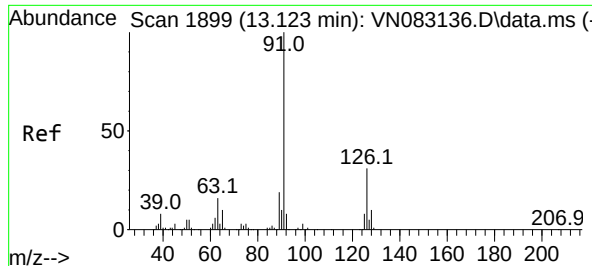
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#78  
n-propylbenzene  
Concen: 10.379 ug/l  
RT: 13.035 min Scan# 1884  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion: 91 Resp: 125678  
Ion Ratio Lower Upper  
91 100  
120 22.2 10.9 32.9





#79

2-Chlorotoluene

Concen: 10.429 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC010

Tgt Ion: 91 Resp: 8006

Ion Ratio Lower Upper

91 100

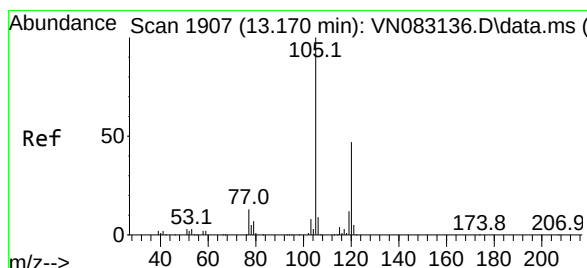
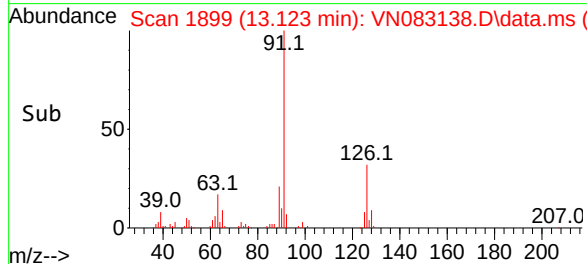
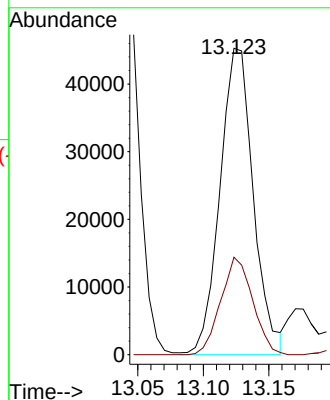
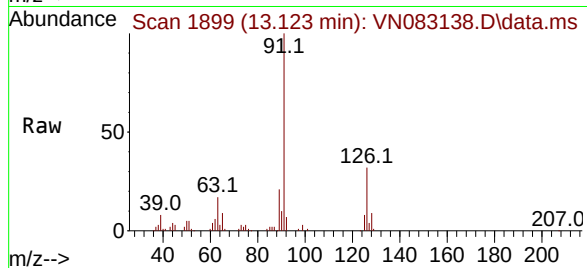
126 30.4 16.2 48.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#80

1,3,5-Trimethylbenzene

Concen: 10.400 ug/l

RT: 13.176 min Scan# 1908

Delta R.T. 0.006 min

Lab File: VN083138.D

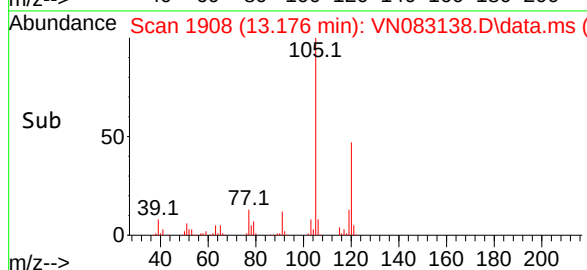
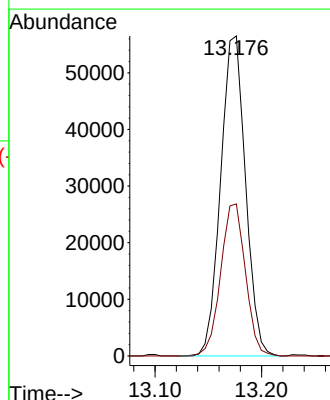
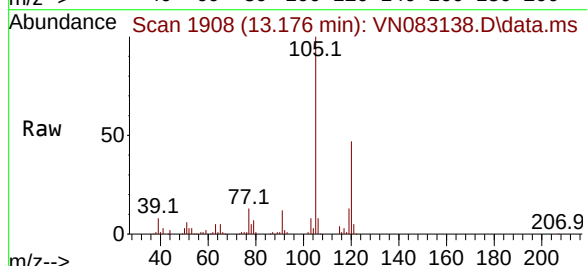
Acq: 07 Aug 2024 11:46

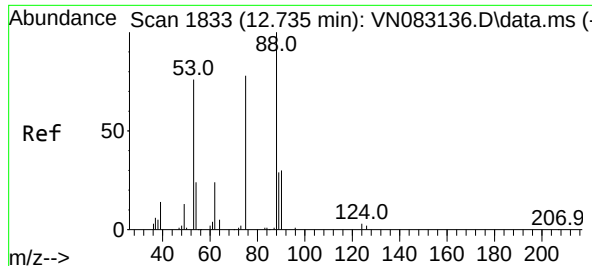
Tgt Ion:105 Resp: 91559

Ion Ratio Lower Upper

105 100

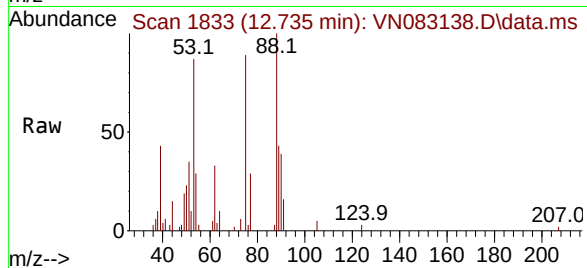
120 47.3 24.3 72.8





#81  
trans-1,4-Dichloro-2-butene  
Concen: 9.271 ug/l  
RT: 12.735 min Scan# 1833  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

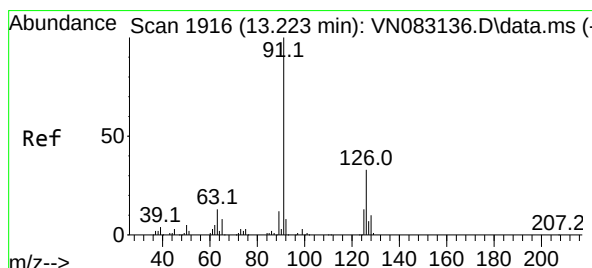
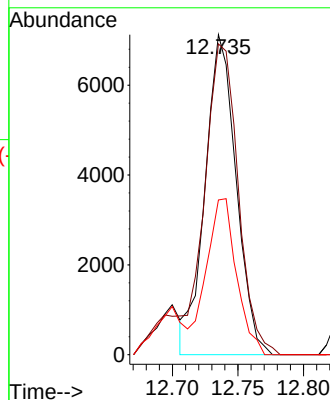
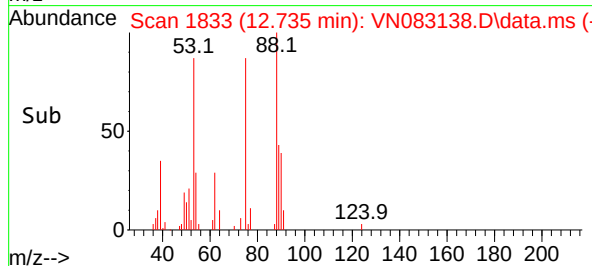
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010



Tgt Ion: 75 Resp: 11760  
Ion Ratio Lower Upper  
75 100  
53 116.7 88.4 132.6  
89 47.3 36.3 54.5

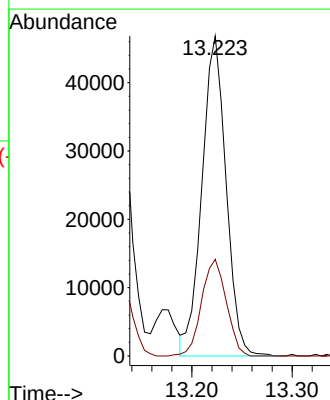
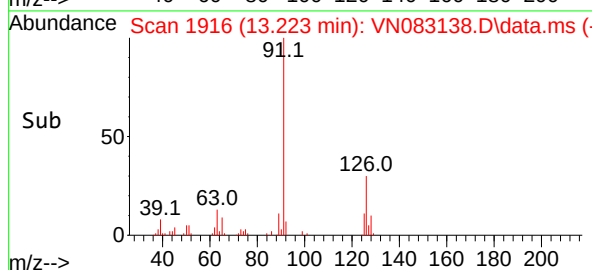
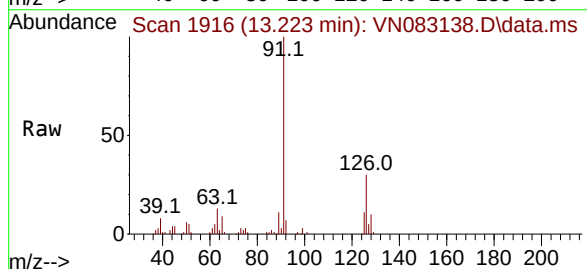
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APPROVED

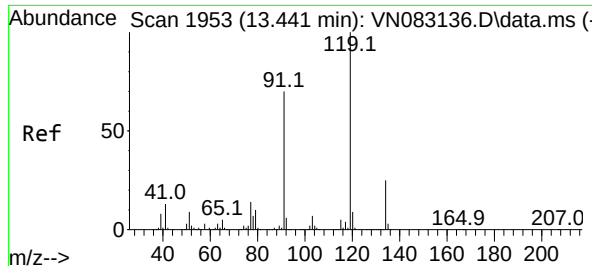
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#82  
4-Chlorotoluene  
Concen: 10.174 ug/l  
RT: 13.223 min Scan# 1916  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

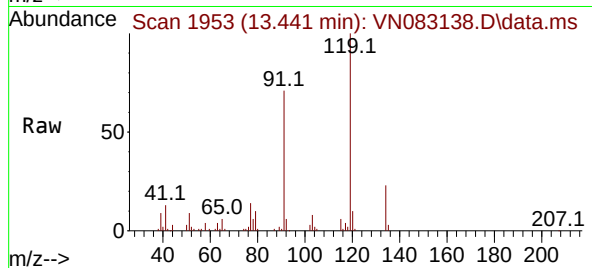
Tgt Ion: 91 Resp: 78348  
Ion Ratio Lower Upper  
91 100  
126 31.0 16.2 48.6





#83  
tert-Butylbenzene  
Concen: 10.294 ug/l  
RT: 13.441 min Scan# 1953  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

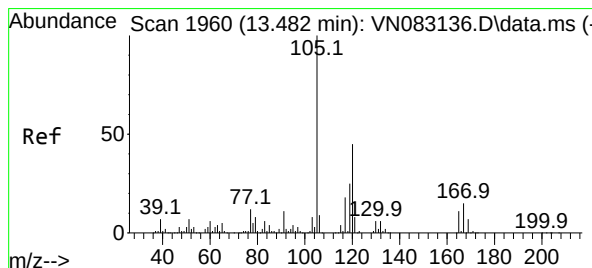
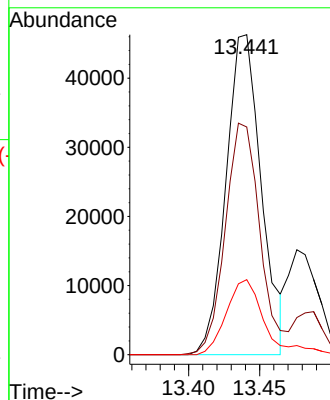
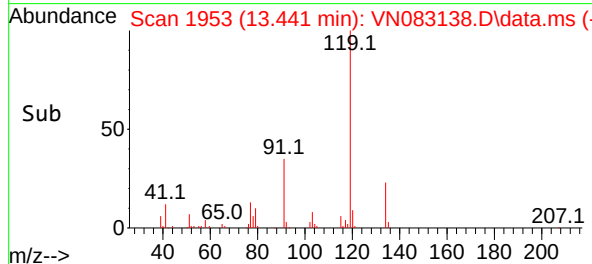
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010



Tgt Ion:119 Resp: 8026  
Ion Ratio Lower Upper  
119 100  
91 71.7 35.0 105.1  
134 25.3 13.3 39.8

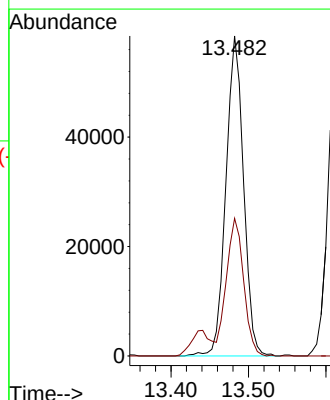
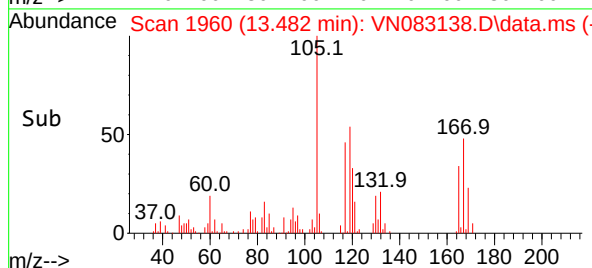
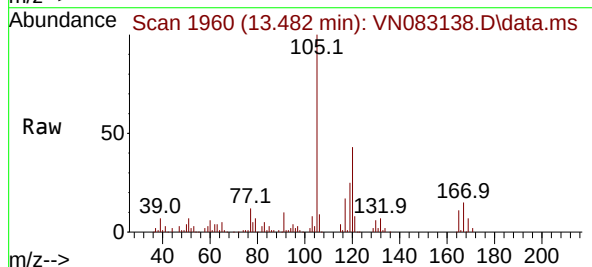
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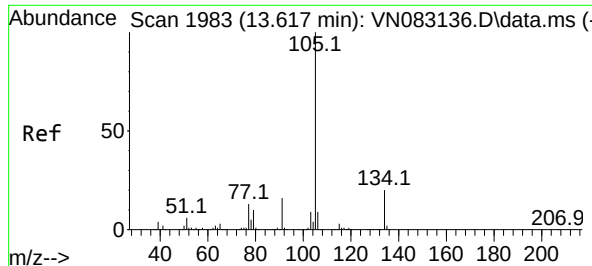
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#84  
1,2,4-Trimethylbenzene  
Concen: 10.426 ug/l  
RT: 13.482 min Scan# 1960  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

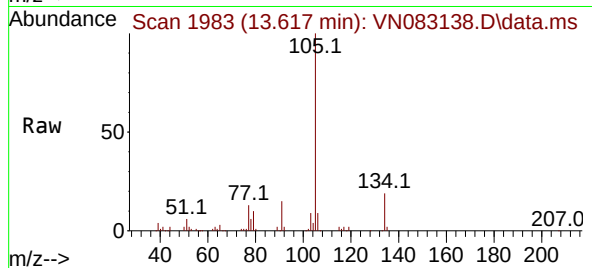
Tgt Ion:105 Resp: 92502  
Ion Ratio Lower Upper  
105 100  
120 42.1 21.9 65.8





#85  
sec-Butylbenzene  
Concen: 10.221 ug/l  
RT: 13.617 min Scan# 1983  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

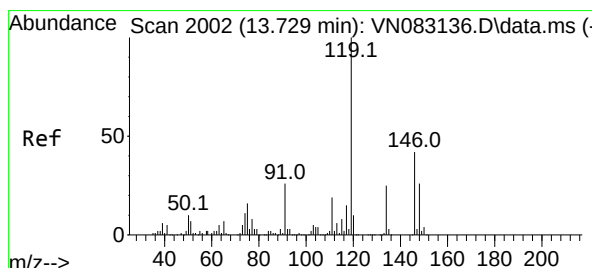
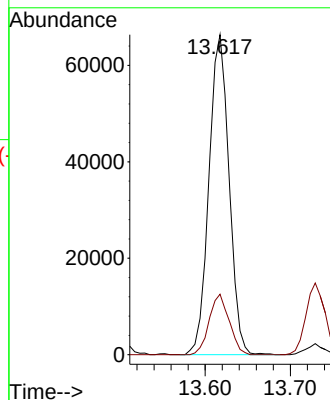
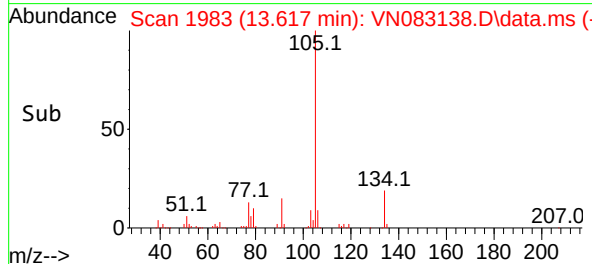
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010



Tgt Ion:105 Resp: 108740  
Ion Ratio Lower Upper  
105 100  
134 18.8 9.8 29.3

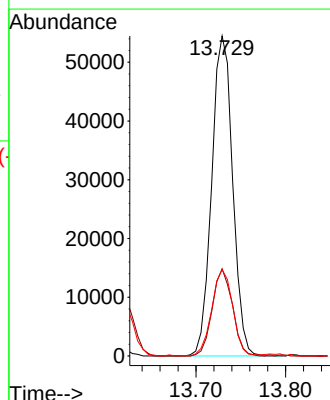
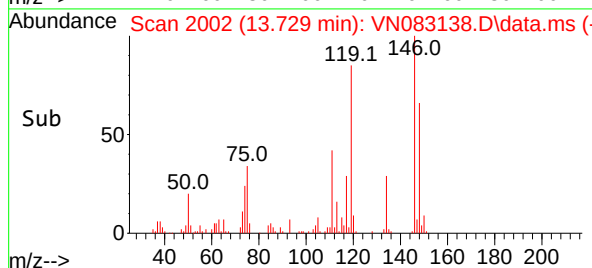
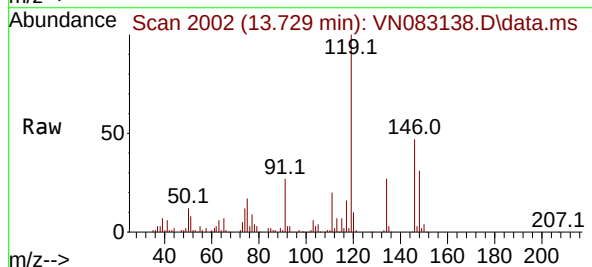
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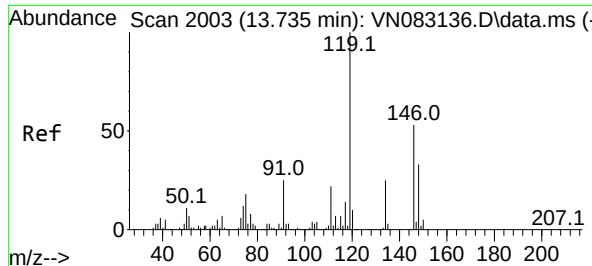
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#86  
p-Isopropyltoluene  
Concen: 10.047 ug/l  
RT: 13.729 min Scan# 2002  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Tgt Ion:119 Resp: 88256  
Ion Ratio Lower Upper  
119 100  
134 26.2 13.0 39.0  
91 27.0 12.3 36.9





#87

1,3-Dichlorobenzene

Concen: 10.048 ug/l

RT: 13.735 min Scan# 2003

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

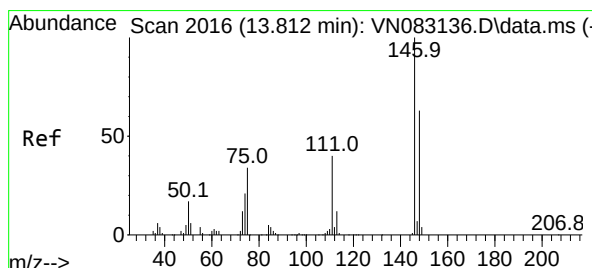
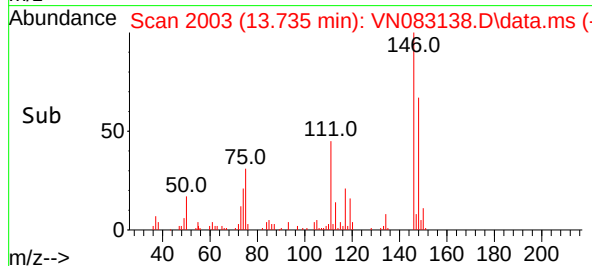
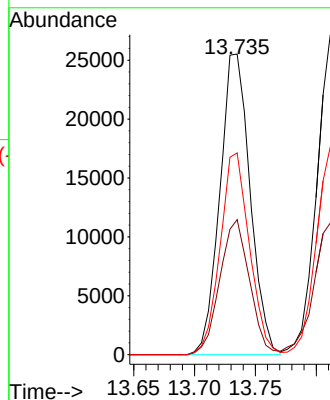
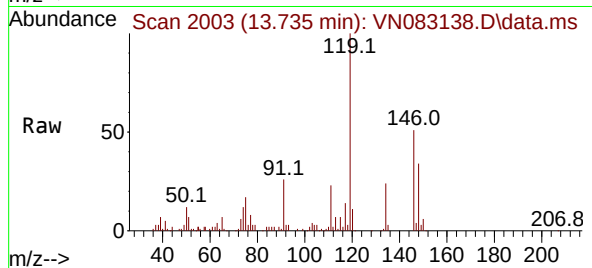
VSTDIC010

| Tgt Ion:  | 146   | Resp: | 4416 |
|-----------|-------|-------|------|
| Ion Ratio | Lower | Upper |      |
| 146       | 100   |       |      |
| 111       | 44.1  | 20.6  | 61.9 |
| 148       | 65.1  | 31.8  | 95.3 |

Manual Integrations  
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Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#88

1,4-Dichlorobenzene

Concen: 9.937 ug/l

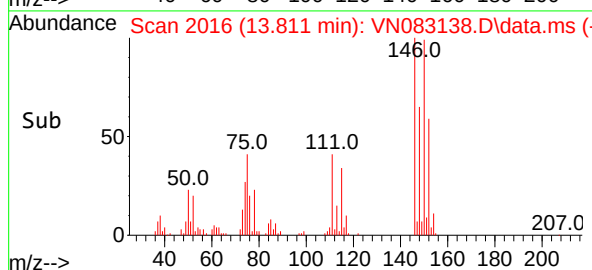
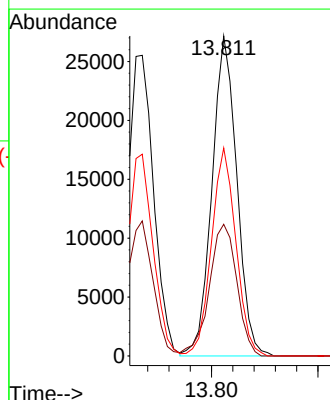
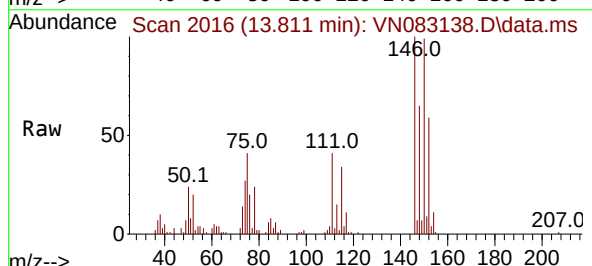
RT: 13.811 min Scan# 2016

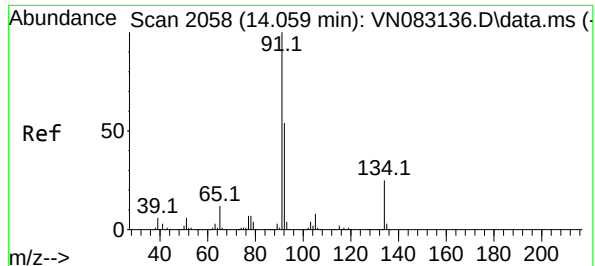
Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

| Tgt Ion:  | 146   | Resp: | 44036 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 146       | 100   |       |       |
| 111       | 45.6  | 20.1  | 60.3  |
| 148       | 64.0  | 32.2  | 96.6  |





#89

n-Butylbenzene

Concen: 10.060 ug/l

RT: 14.059 min Scan# 2058

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

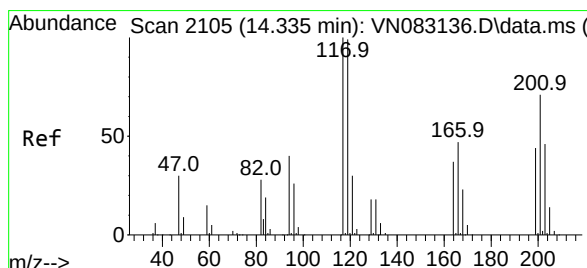
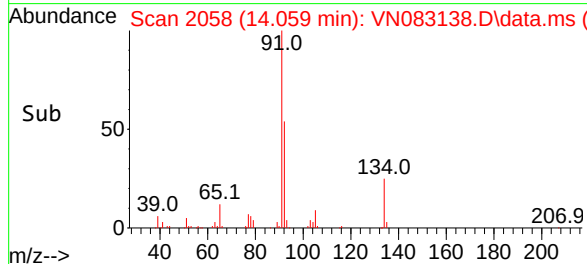
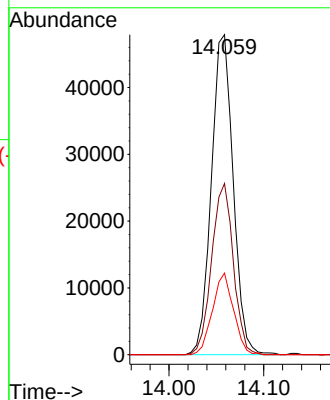
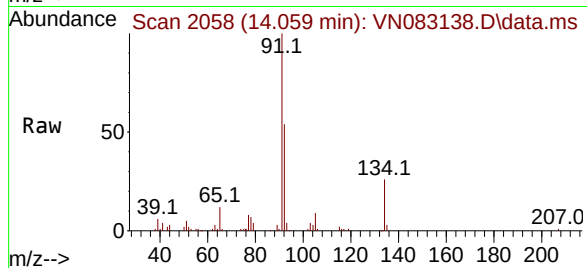
ClientSampleId :

VSTDICC010

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 91    | Resp: | 7656  |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 92       | 53.1  | 26.1  | 78.3  |
| 134      | 24.7  | 12.1  | 36.3  |

Manual Integrations  
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Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#90

Hexachloroethane

Concen: 10.487 ug/l

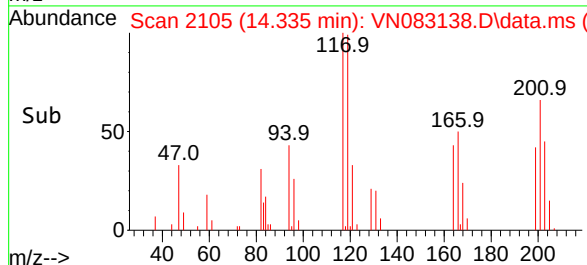
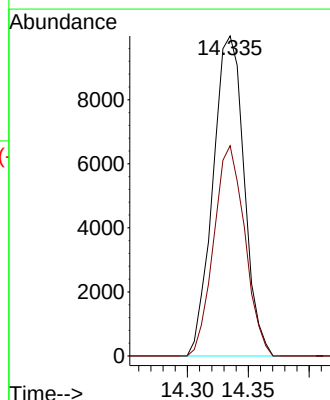
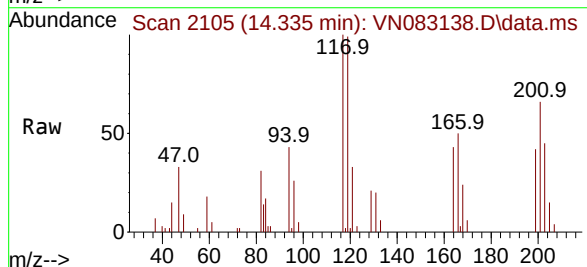
RT: 14.335 min Scan# 2105

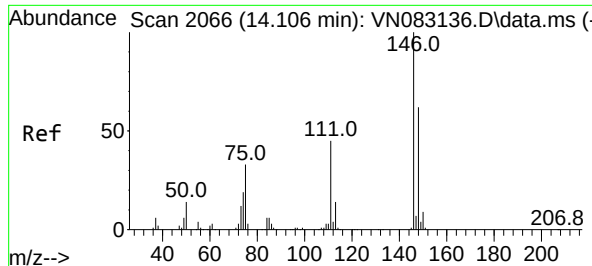
Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 17798 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 201      | 65.3  | 35.8  | 107.3 |





#91

1,2-Dichlorobenzene

Concen: 10.282 ug/l

RT: 14.106 min Scan# 2066

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

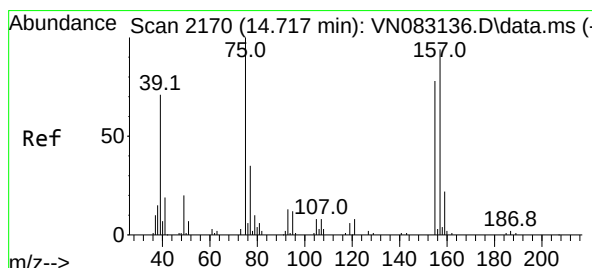
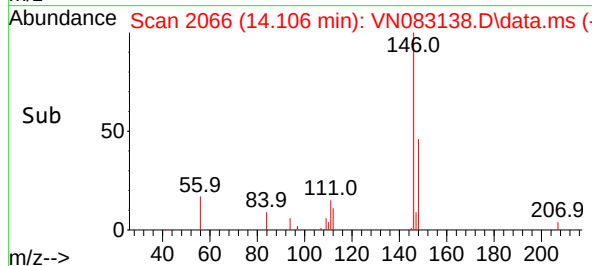
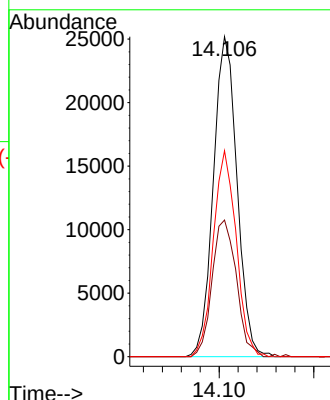
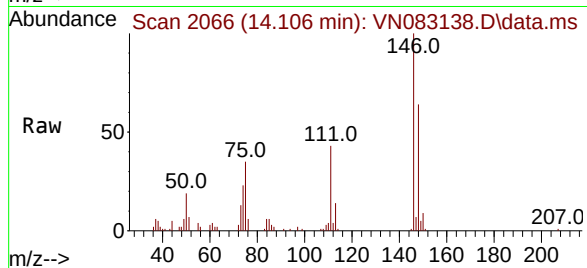
VSTDIC010

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 146   | Resp: | 43734 |
| Ion      | Ratio | Lower | Upper |
| 146      | 100   |       |       |
| 111      | 43.8  | 21.4  | 64.2  |
| 148      | 62.3  | 32.1  | 96.5  |

Manual Integrations  
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Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#92

1,2-Dibromo-3-Chloropropane

Concen: 10.056 ug/l

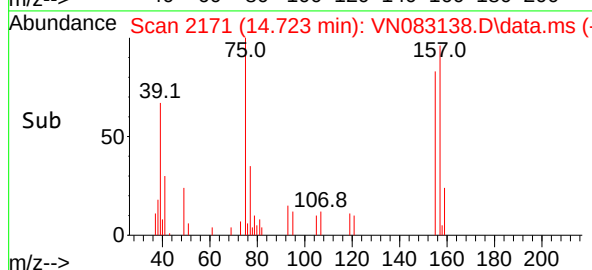
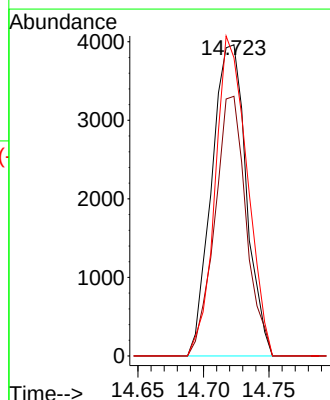
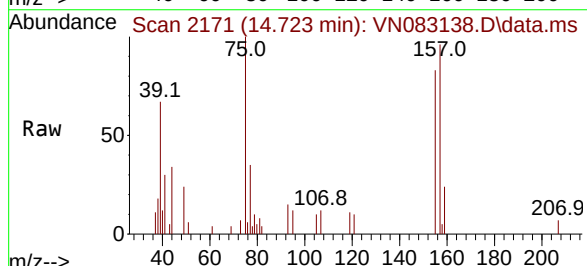
RT: 14.723 min Scan# 2171

Delta R.T. 0.006 min

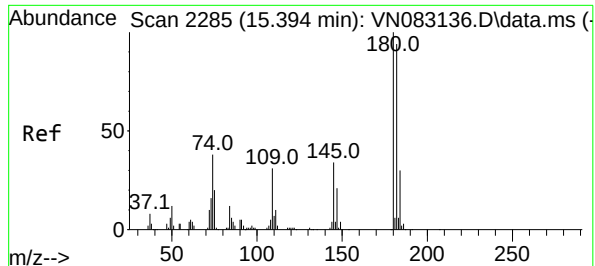
Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 7258  |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 155      | 75.6  | 36.6  | 109.8 |
| 157      | 95.2  | 46.9  | 140.6 |







#93

1,2,4-Trichlorobenzene

Concen: 9.895 ug/l

RT: 15.394 min Scan# 2285

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC010

Tgt Ion:180 Resp: 23580

Ion Ratio Lower Upper

180 100

182 96.2 47.3 141.8

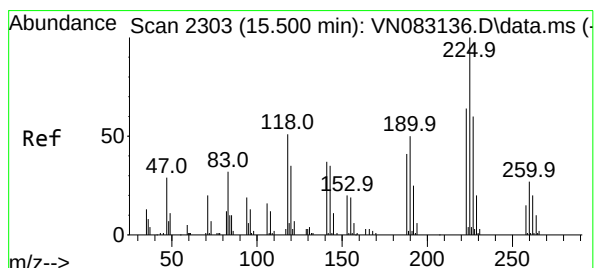
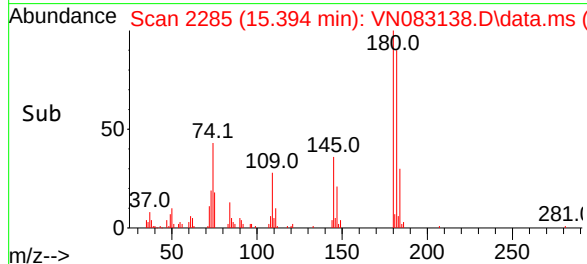
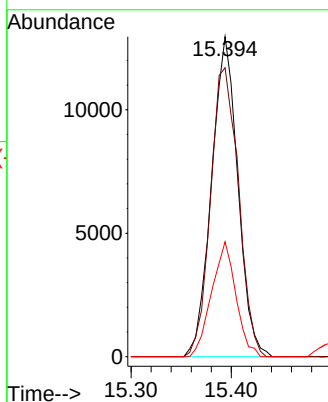
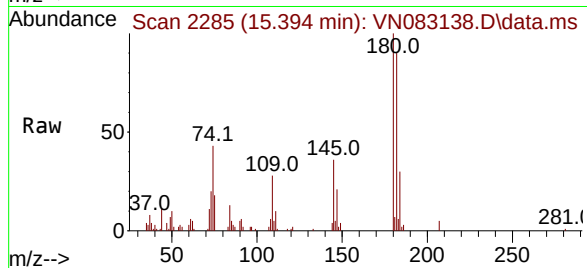
145 33.2 15.7 47.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#94

Hexachlorobutadiene

Concen: 10.179 ug/l

RT: 15.500 min Scan# 2303

Delta R.T. -0.000 min

Lab File: VN083138.D

Acq: 07 Aug 2024 11:46

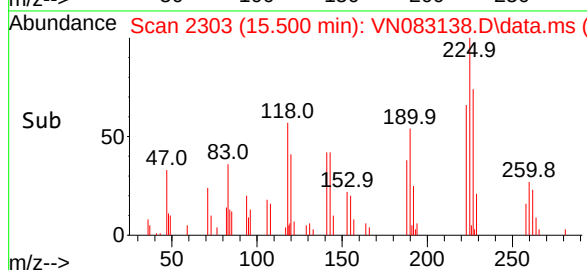
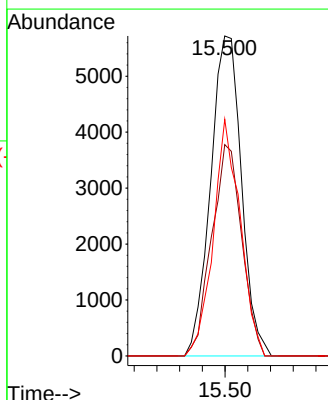
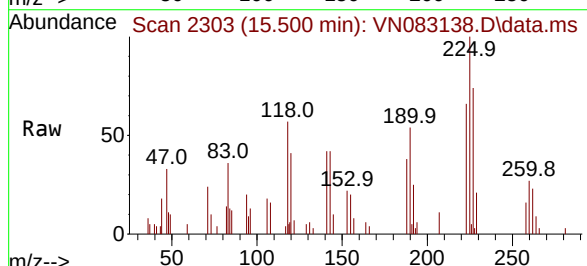
Tgt Ion:225 Resp: 10788

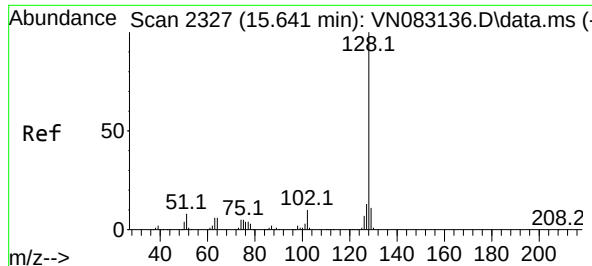
Ion Ratio Lower Upper

225 100

223 64.4 31.9 95.7

227 64.4 32.5 97.5





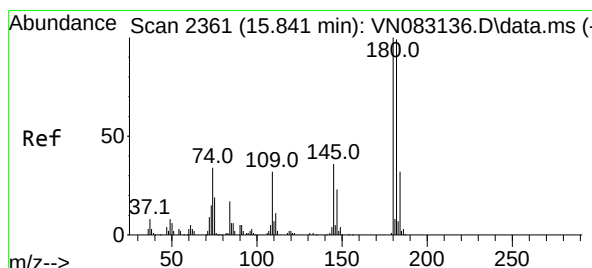
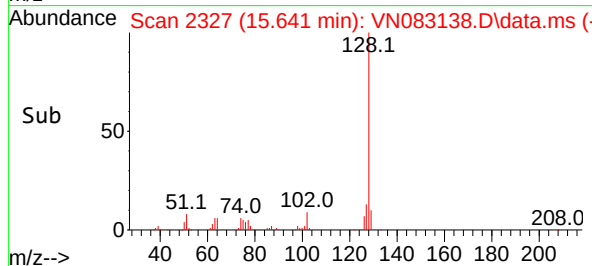
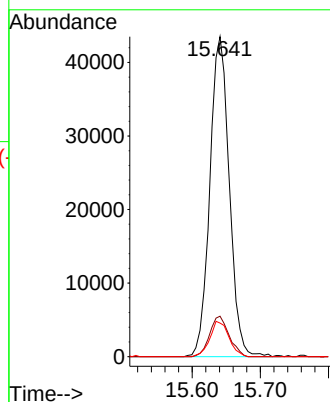
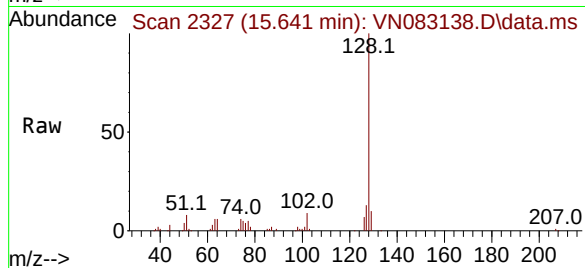
#95  
Naphthalene  
Concen: 10.232 ug/l  
RT: 15.641 min Scan# 2327  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC010

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 12.6  | 10.6  | 16.0  |
| 129     | 10.8  | 8.6   | 12.8  |

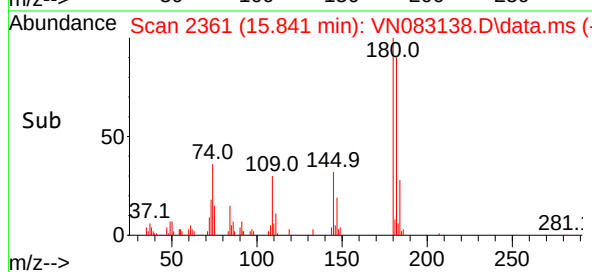
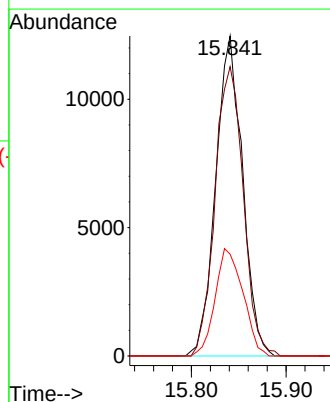
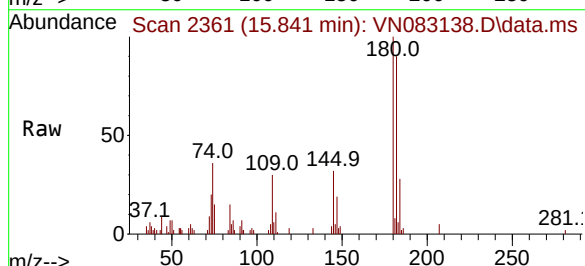
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#96  
1,2,3-Trichlorobenzene  
Concen: 10.387 ug/l  
RT: 15.841 min Scan# 2361  
Delta R.T. -0.000 min  
Lab File: VN083138.D  
Acq: 07 Aug 2024 11:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.3  | 48.9  | 146.8 |
| 145     | 34.8  | 16.8  | 50.4  |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
 Data File : VN083139.D  
 Acq On : 07 Aug 2024 12:10  
 Operator : JC\MD  
 Sample : VSTDICC005  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC005

### Manual Integrations APPROVED

Reviewed By : John Carlone 08/08/2024  
 Supervised By : Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:18:41 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 05:50:26 2024  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response   | Conc     | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|----------|--------|----------|
| Internal Standards           |                |      |            |          |        |          |
| 1) Pentafluorobenzene        | 8.224          | 168  | 201859     | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 9.100          | 114  | 347562     | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 11.865         | 117  | 293513     | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 13.794         | 152  | 133537     | 50.000   | ug/l   | 0.00     |
| System Monitoring Compounds  |                |      |            |          |        |          |
| 33) 1,2-Dichloroethane-d4    | 8.582          | 65   | 15867      | 5.522    | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 74 - 125 |      | Recovery = | 11.040%# |        |          |
| 35) Dibromofluoromethane     | 8.159          | 113  | 12039      | 5.549    | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = | 11.100%# |        |          |
| 50) Toluene-d8               | 10.565         | 98   | 43104      | 5.326    | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 86 - 113 |      | Recovery = | 10.660%# |        |          |
| 62) 4-Bromofluorobenzene     | 12.847         | 95   | 16776      | 5.317    | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 64 - 133 |      | Recovery = | 10.640%# |        |          |
| Target Compounds             |                |      |            |          |        |          |
|                              |                |      |            |          | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.124          | 85   | 12045      | 5.262    | ug/l   | 97       |
| 3) Chloromethane             | 2.359          | 50   | 12017      | 5.128    | ug/l   | 97       |
| 4) Vinyl Chloride            | 2.512          | 62   | 11837      | 4.950    | ug/l   | 96       |
| 5) Bromomethane              | 2.942          | 94   | 8328       | 5.612    | ug/l   | 88       |
| 6) Chloroethane              | 3.106          | 64   | 7688       | 5.139    | ug/l   | 90       |
| 7) Trichlorofluoromethane    | 3.489          | 101  | 20242      | 5.124    | ug/l   | 93       |
| 8) Diethyl Ether             | 3.959          | 74   | 7674       | 5.220    | ug/l   | 91       |
| 9) 1,1,2-Trichlorotrifluo... | 4.377          | 101  | 11261      | 5.170    | ug/l   | 99       |
| 10) Methyl Iodide            | 4.595          | 142  | 13878      | 4.844    | ug/l # | 95       |
| 11) Tert butyl alcohol       | 5.524          | 59   | 15685      | 26.268   | ug/l   | 99       |
| 12) 1,1-Dichloroethene       | 4.342          | 96   | 11718      | 5.237    | ug/l   | 90       |
| 13) Acrolein                 | 4.177          | 56   | 9615       | 24.707   | ug/l   | 89       |
| 14) Allyl chloride           | 5.018          | 41   | 22183      | 5.246    | ug/l   | 87       |
| 15) Acrylonitrile            | 5.724          | 53   | 31357      | 25.534   | ug/l   | 96       |
| 16) Acetone                  | 4.436          | 43   | 27636      | 24.581   | ug/l   | 97       |
| 17) Carbon Disulfide         | 4.712          | 76   | 32908      | 5.026    | ug/l   | 96       |
| 18) Methyl Acetate           | 5.030          | 43   | 17029      | 5.084    | ug/l   | 98       |
| 19) Methyl tert-butyl Ether  | 5.789          | 73   | 41439      | 5.131    | ug/l   | 93       |
| 20) Methylene Chloride       | 5.271          | 84   | 12913      | 4.991    | ug/l # | 84       |
| 21) trans-1,2-Dichloroethene | 5.783          | 96   | 11465      | 4.957    | ug/l   | 88       |
| 22) Diisopropyl ether        | 6.677          | 45   | 39688      | 4.993    | ug/l # | 97       |
| 23) Vinyl Acetate            | 6.600          | 43   | 202471m    | 24.856   | ug/l   |          |
| 24) 1,1-Dichloroethane       | 6.565          | 63   | 22058      | 5.091    | ug/l   | 98       |
| 25) 2-Butanone               | 7.488          | 43   | 41750      | 24.185   | ug/l   | 91       |
| 26) 2,2-Dichloropropane      | 7.494          | 77   | 19864      | 4.937    | ug/l   | 95       |
| 27) cis-1,2-Dichloroethene   | 7.483          | 96   | 13862      | 4.967    | ug/l   | 94       |
| 28) Bromochloromethane       | 7.812          | 49   | 9874       | 5.577    | ug/l # | 85       |
| 29) Tetrahydrofuran          | 7.841          | 42   | 28260      | 25.324   | ug/l   | 89       |
| 30) Chloroform               | 7.965          | 83   | 22650      | 5.032    | ug/l   | 99       |
| 31) Cyclohexane              | 8.265          | 56   | 24999      | 5.871    | ug/l   | 96       |
| 32) 1,1,1-Trichloroethane    | 8.165          | 97   | 21825      | 5.123    | ug/l # | 49       |
| 36) 1,1-Dichloropropene      | 8.377          | 75   | 16102      | 4.907    | ug/l   | 99       |
| 37) Ethyl Acetate            | 7.559          | 43   | 17909      | 4.874    | ug/l # | 96       |
| 38) Carbon Tetrachloride     | 8.365          | 117  | 18728      | 5.067    | ug/l   | 98       |
| 39) Methylcyclohexane        | 9.600          | 83   | 19981      | 4.957    | ug/l   | 91       |
| 40) Benzene                  | 8.606          | 78   | 48765      | 4.988    | ug/l   | 98       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
 Data File : VN083139.D  
 Acq On : 07 Aug 2024 12:10  
 Operator : JC\MD  
 Sample : VSTDICC005  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 7 Sample Multiplier: 1

## Instrument :

MSVOA\_N

## ClientSampleId :

VSTDICC005

## Manual Integrations

## APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:18:41 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M

Quant Title : SW846 8260

QLast Update : Thu Aug 08 05:50:26 2024

Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|--------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 10086    | 4.828  | ug/l   | 95       |
| 42) 1,2-Dichloroethane        | 8.671  | 62   | 18219    | 5.116  | ug/l   | 97       |
| 43) Isopropyl Acetate         | 8.694  | 43   | 44817    | 5.438  | ug/l # | 92       |
| 44) Trichloroethene           | 9.353  | 130  | 11830    | 5.084  | ug/l   | 94       |
| 45) 1,2-Dichloropropane       | 9.624  | 63   | 11320    | 4.878  | ug/l   | 90       |
| 46) Dibromomethane            | 9.712  | 93   | 8436     | 5.079  | ug/l   | 98       |
| 47) Bromodichloromethane      | 9.888  | 83   | 18799    | 5.040  | ug/l   | 98       |
| 48) Methyl methacrylate       | 9.682  | 41   | 14704    | 4.840  | ug/l   | 94       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 5239     | 95.593 | ug/l # | 77       |
| 51) 4-Methyl-2-Pentanone      | 10.447 | 43   | 86679    | 24.946 | ug/l   | 93       |
| 52) Toluene                   | 10.629 | 92   | 30769    | 4.981  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 18964    | 4.950  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 20431    | 5.014  | ug/l   | 93       |
| 55) 1,1,2-Trichloroethane     | 11.018 | 97   | 10913    | 4.930  | ug/l   | 98       |
| 56) Ethyl methacrylate        | 10.876 | 69   | 20661    | 4.951  | ug/l   | 93       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 18934    | 4.799  | ug/l   | 94       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 43528    | 24.676 | ug/l   | 96       |
| 59) 2-Hexanone                | 11.194 | 43   | 66854    | 24.870 | ug/l   | 95       |
| 60) Dibromochloromethane      | 11.359 | 129  | 13307    | 4.972  | ug/l   | 97       |
| 61) 1,2-Dibromoethane         | 11.471 | 107  | 11523    | 4.955  | ug/l   | 96       |
| 64) Tetrachloroethene         | 11.106 | 164  | 9517     | 4.896  | ug/l   | 96       |
| 65) Chlorobenzene             | 11.894 | 112  | 32114    | 4.951  | ug/l   | 96       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 11758    | 5.140  | ug/l   | 94       |
| 67) Ethyl Benzene             | 11.965 | 91   | 59648    | 5.013  | ug/l   | 97       |
| 68) m/p-Xylenes               | 12.070 | 106  | 44572    | 10.000 | ug/l   | 96       |
| 69) o-Xylene                  | 12.400 | 106  | 22003    | 5.005  | ug/l   | 99       |
| 70) Styrene                   | 12.412 | 104  | 37023    | 5.014  | ug/l   | 98       |
| 71) Bromoform                 | 12.582 | 173  | 8085     | 4.665  | ug/l # | 89       |
| 73) Isopropylbenzene          | 12.694 | 105  | 56741    | 5.080  | ug/l   | 100      |
| 74) N-amyl acetate            | 12.494 | 43   | 27393    | 5.014  | ug/l   | 95       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 16514    | 5.227  | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 14463m   | 4.927  | ug/l   |          |
| 77) Bromobenzene              | 12.982 | 156  | 13024    | 5.249  | ug/l   | 94       |
| 78) n-propylbenzene           | 13.035 | 91   | 64751    | 5.035  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 41176    | 5.050  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 47581    | 5.088  | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 7079     | 5.254  | ug/l   | 92       |
| 82) 4-Chlorotoluene           | 13.223 | 91   | 41137    | 5.030  | ug/l   | 97       |
| 83) tert-Butylbenzene         | 13.435 | 119  | 42723    | 5.159  | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 47965    | 5.090  | ug/l   | 98       |
| 85) sec-Butylbenzene          | 13.617 | 105  | 56947    | 5.040  | ug/l   | 98       |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 47654    | 5.108  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene       | 13.735 | 146  | 22814    | 4.887  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 23971    | 5.093  | ug/l   | 94       |
| 89) n-Butylbenzene            | 14.053 | 91   | 40282    | 4.983  | ug/l   | 99       |
| 90) Hexachloroethane          | 14.335 | 117  | 9298     | 5.158  | ug/l   | 93       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 23116    | 5.117  | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 4097     | 5.345  | ug/l   | 94       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 11922    | 4.710  | ug/l   | 94       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 5946     | 5.282  | ug/l   | 93       |
| 95) Naphthalene               | 15.641 | 128  | 43131    | 4.811  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 12285    | 4.905  | ug/l   | 94       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083139.D  
Acq On : 07 Aug 2024 12:10  
Operator : JC\MD  
Sample : VSTDICC005  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:18:41 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 05:50:26 2024  
Response via : Initial Calibration

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

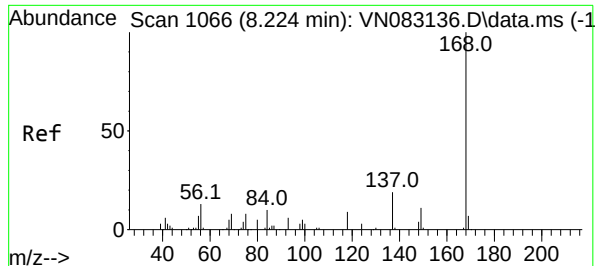
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Instrument :**  
MSVOA\_N  
**ClientSampleId :**  
VSTDICC005

## Manual Integrations APPROVED

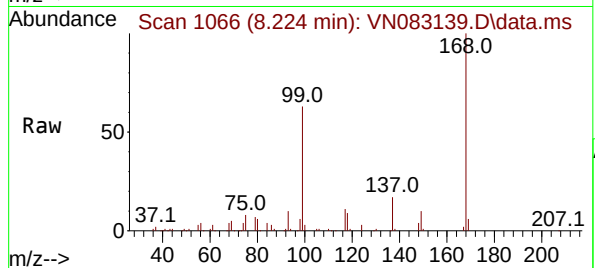
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

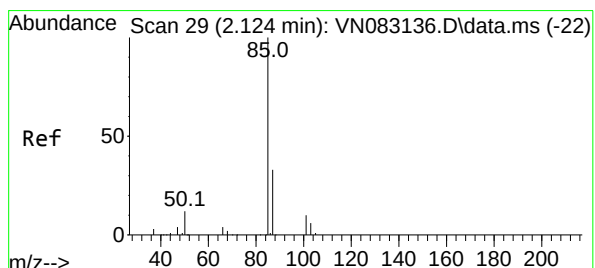
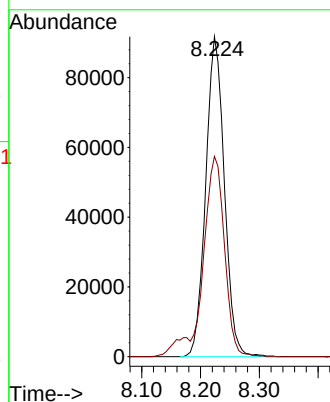
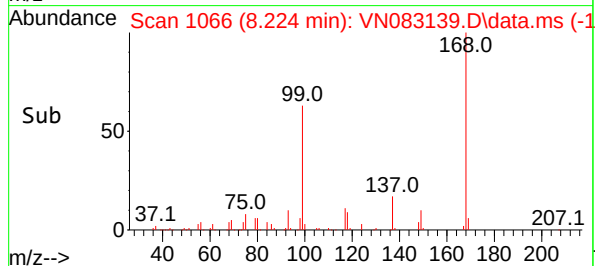
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005



Tgt Ion:168 Resp: 201859  
Ion Ratio Lower Upper  
168 100  
99 62.6 48.2 72.4

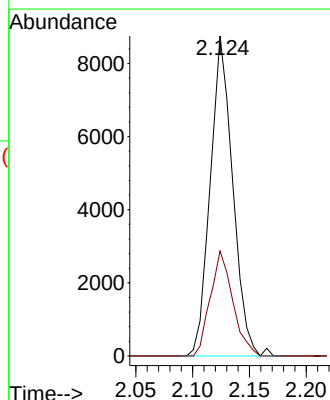
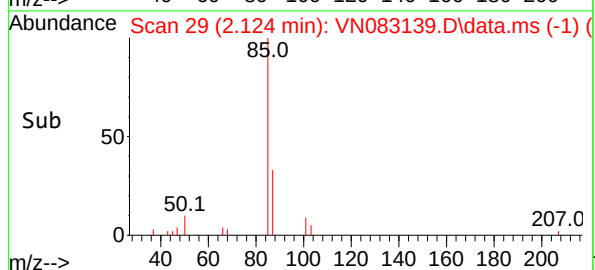
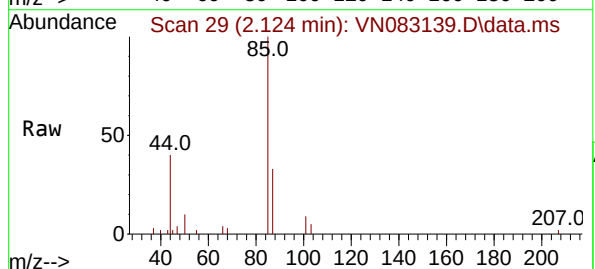
Manual Integrations  
APPROVED

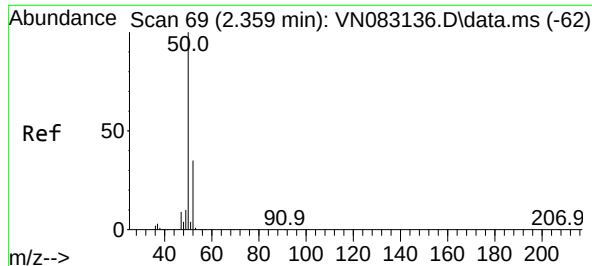
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#2  
Dichlorodifluoromethane  
Concen: 5.262 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 85 Resp: 12045  
Ion Ratio Lower Upper  
85 100  
87 32.8 15.7 47.0





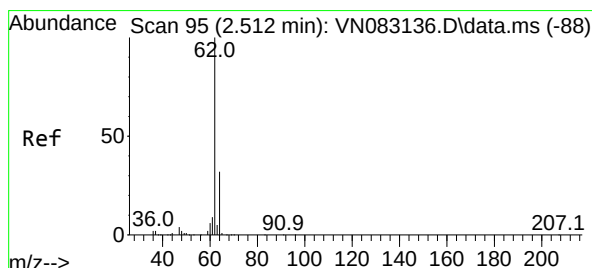
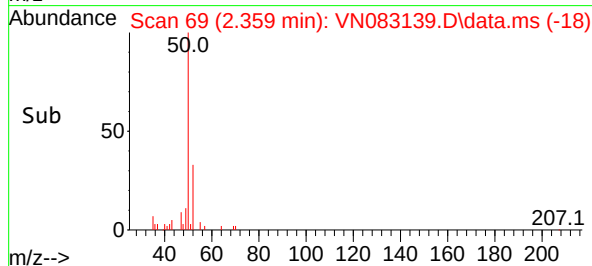
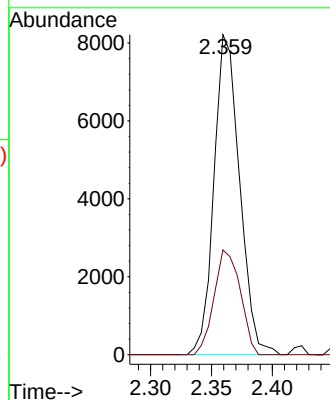
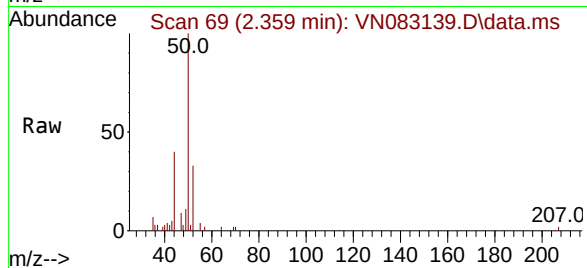
#3  
Chloromethane  
Concen: 5.128 ug/l  
RT: 2.359 min Scan# 69  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Tgt Ion: 50 Resp: 1201  
Ion Ratio Lower Upper  
50 100  
52 32.7 25.0 37.4

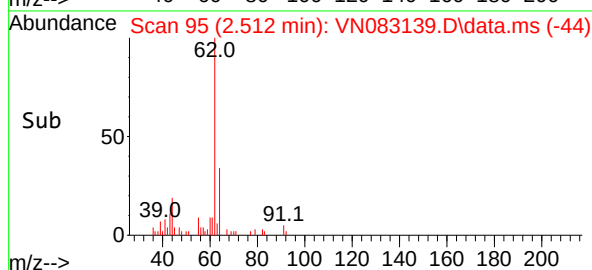
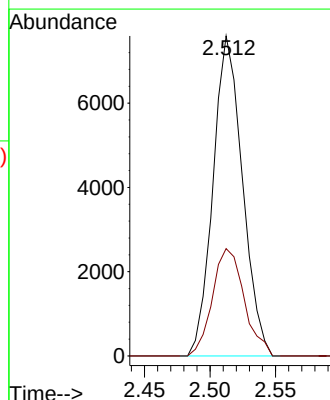
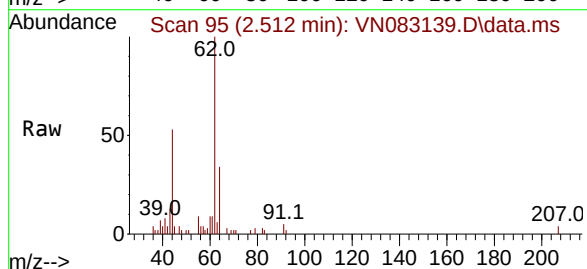
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

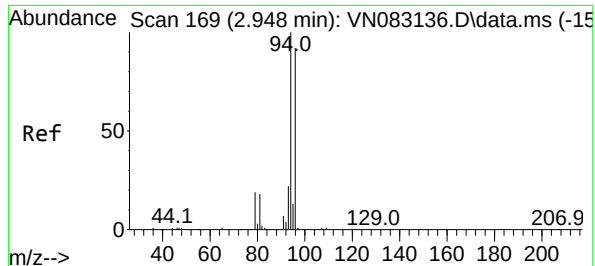


#4  
Vinyl Chloride  
Concen: 4.950 ug/l  
RT: 2.512 min Scan# 95  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 62 Resp: 11837  
Ion Ratio Lower Upper  
62 100  
64 33.6 25.0 37.6

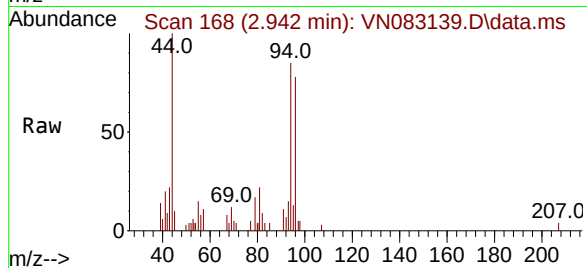






#5  
Bromomethane  
Concen: 5.612 ug/l  
RT: 2.942 min Scan# 10  
Delta R.T. -0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

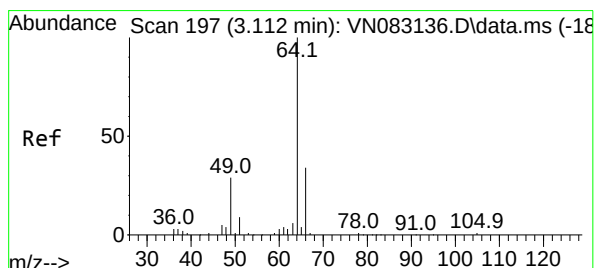
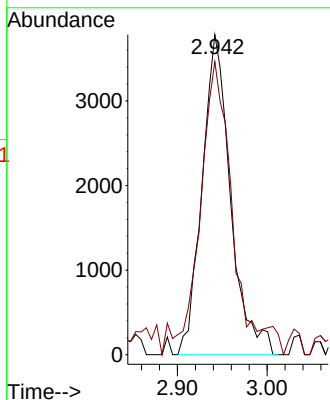
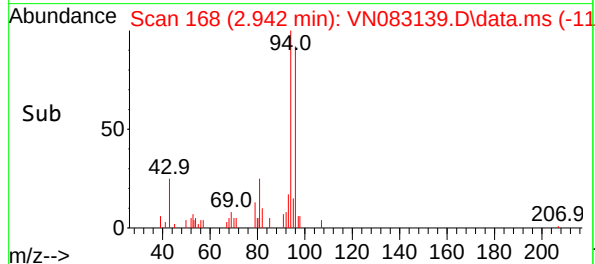
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC005



Tgt Ion: 94 Resp: 8328  
Ion Ratio Lower Upper  
94 100  
96 85.3 78.0 117.0

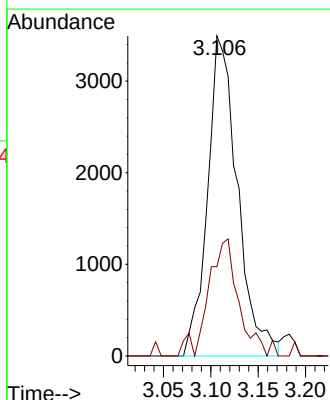
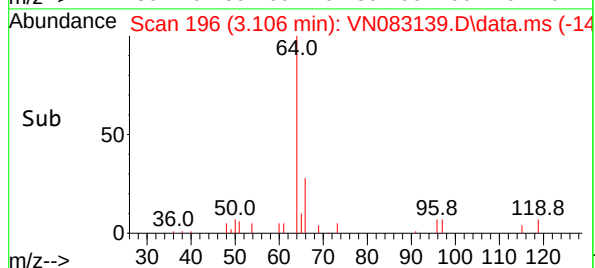
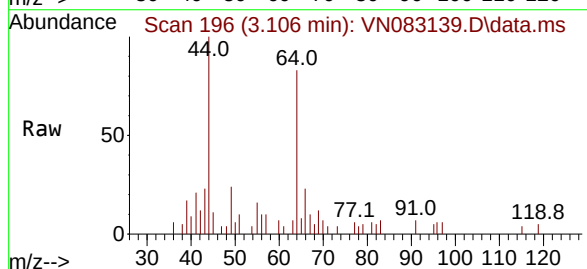
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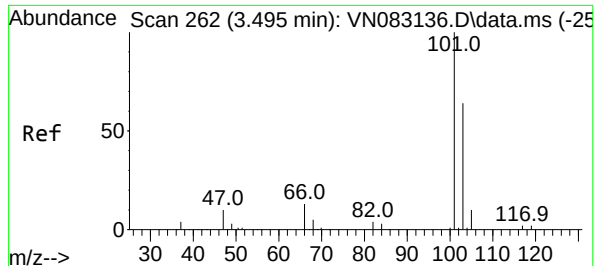
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#6  
Chloroethane  
Concen: 5.139 ug/l  
RT: 3.106 min Scan# 196  
Delta R.T. -0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 64 Resp: 7688  
Ion Ratio Lower Upper  
64 100  
66 27.9 26.6 40.0





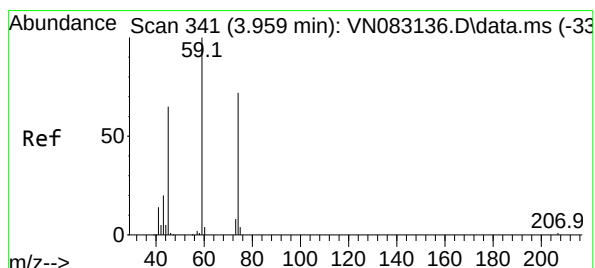
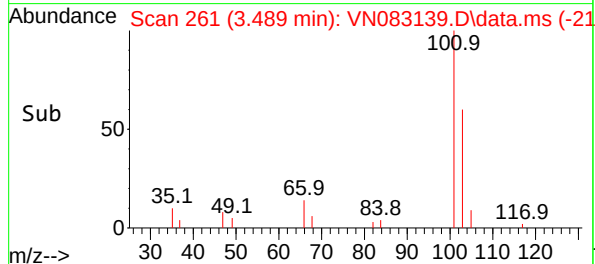
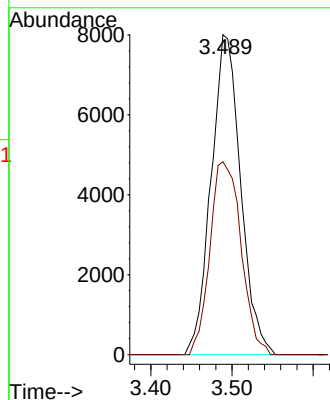
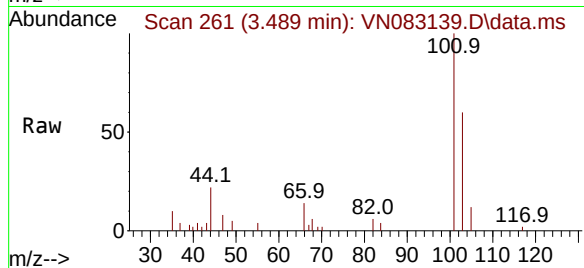
#7  
Trichlorofluoromethane  
Concen: 5.124 ug/l  
RT: 3.489 min Scan# 261  
Delta R.T. -0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Tgt Ion:101 Resp: 2024  
Ion Ratio Lower Upper  
101 100  
103 60.3 52.7 79.1

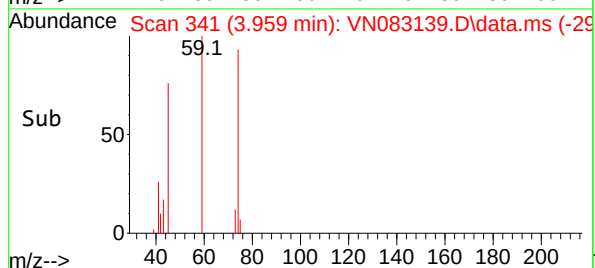
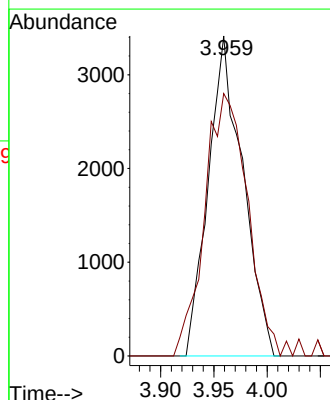
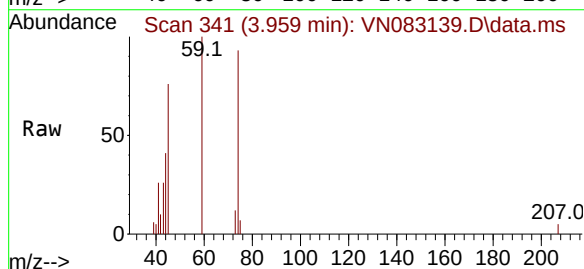
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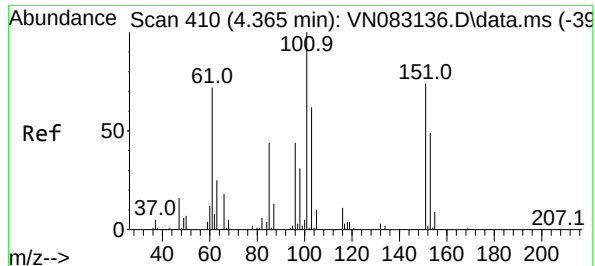
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#8  
Diethyl Ether  
Concen: 5.220 ug/l  
RT: 3.959 min Scan# 341  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 74 Resp: 7674  
Ion Ratio Lower Upper  
74 100  
45 101.8 55.5 166.3





#9

1,1,2-Trichlorotrifluoroethane

Concen: 5.170 ug/l

RT: 4.377 min Scan# 410

Delta R.T. 0.012 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion:101 Resp: 1126

Ion Ratio Lower Upper

101 100

85 47.2 38.3 57.5

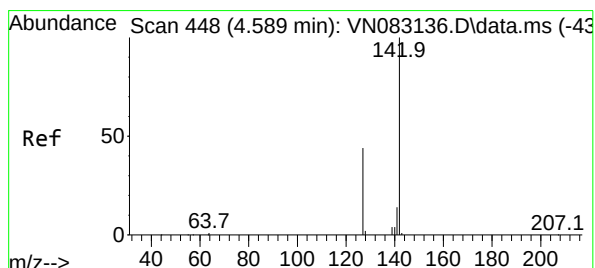
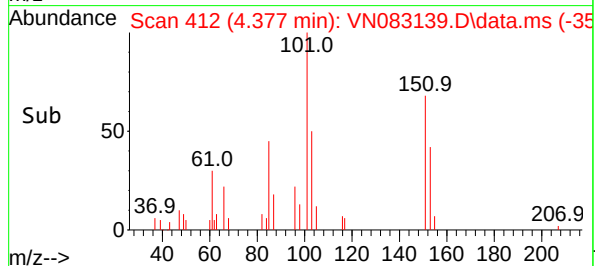
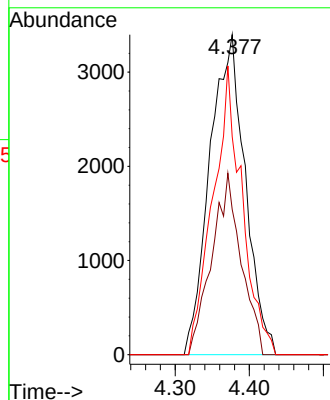
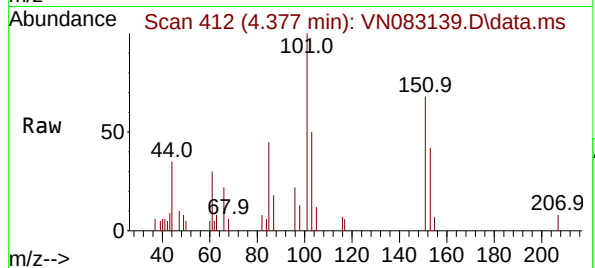
151 74.4 59.3 88.9

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Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#10

Methyl Iodide

Concen: 4.844 ug/l

RT: 4.595 min Scan# 449

Delta R.T. 0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

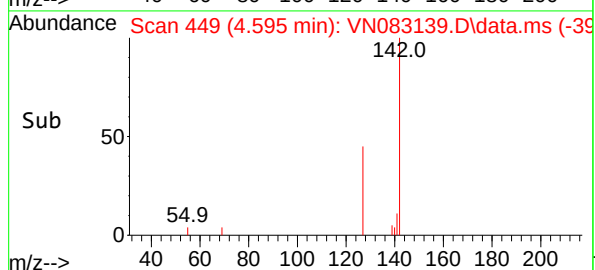
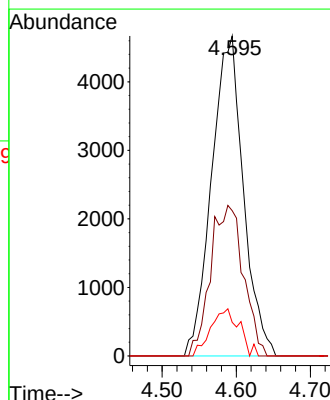
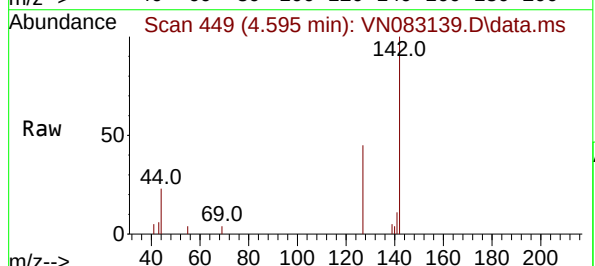
Tgt Ion:142 Resp: 13878

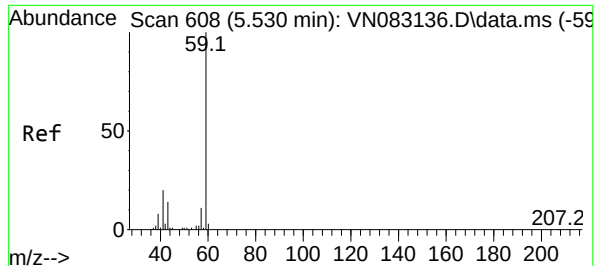
Ion Ratio Lower Upper

142 100

127 45.4 37.5 56.3

141 10.5 13.1 19.7#





#11

Tert butyl alcohol

Concen: 26.268 ug/l

RT: 5.524 min Scan# 608

Delta R.T. -0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005

Tgt Ion: 59 Resp: 1568

Ion Ratio Lower Upper

59 100

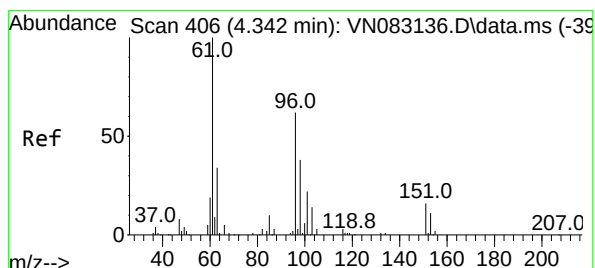
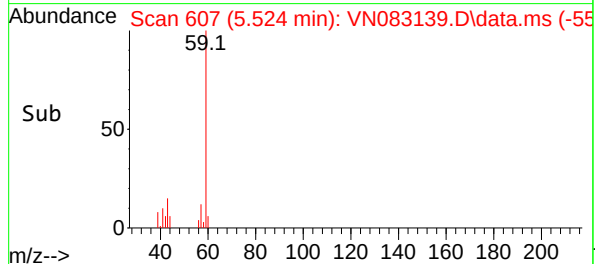
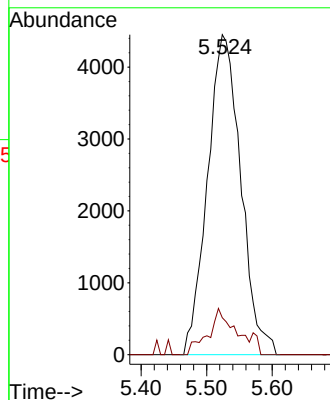
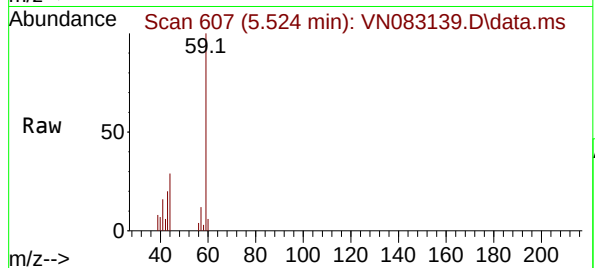
57 11.4 8.9 13.3

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Supervised By :Mahesh Dadoda 08/09/2024



#12

1,1-Dichloroethene

Concen: 5.237 ug/l

RT: 4.342 min Scan# 406

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

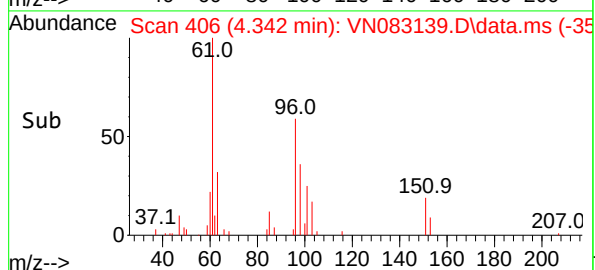
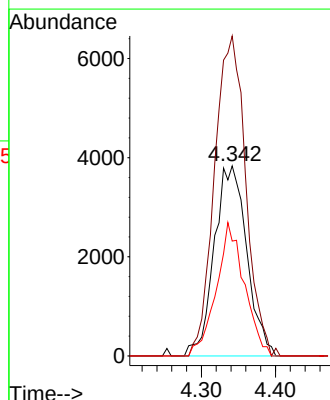
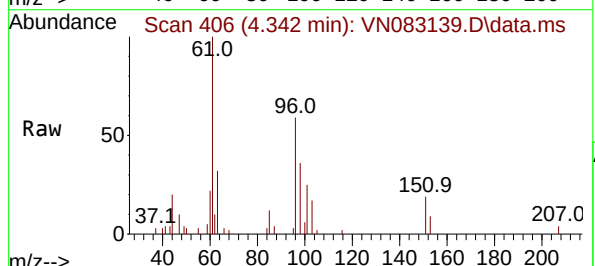
Tgt Ion: 96 Resp: 11718

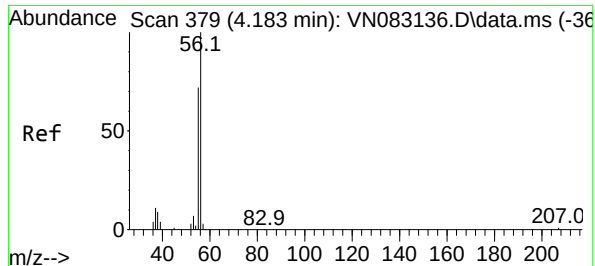
Ion Ratio Lower Upper

96 100

61 168.3 149.7 224.5

98 60.4 50.1 75.1





#13

Acrolein

Concen: 24.707 ug/l

RT: 4.177 min Scan# 31

Delta R.T. -0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005

Tgt Ion: 56 Resp: 961

Ion Ratio Lower Upper

56 100

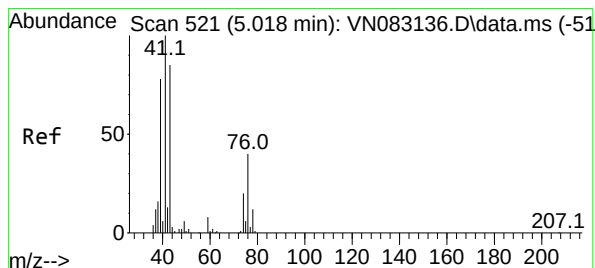
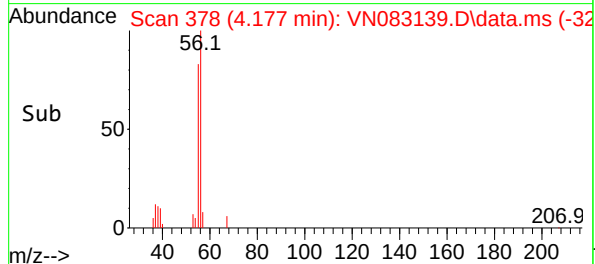
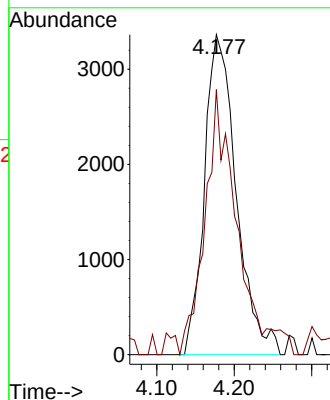
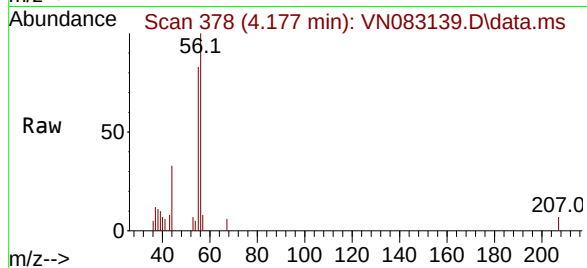
55 80.0 56.4 84.6

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Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#14

Allyl chloride

Concen: 5.246 ug/l

RT: 5.018 min Scan# 521

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

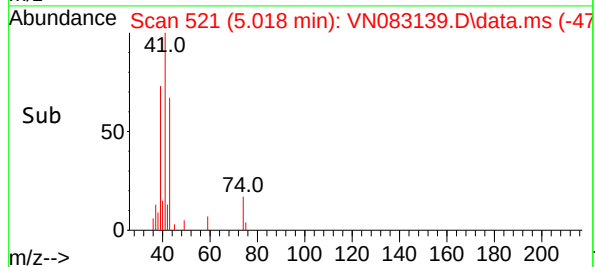
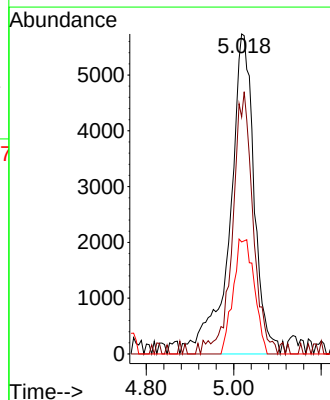
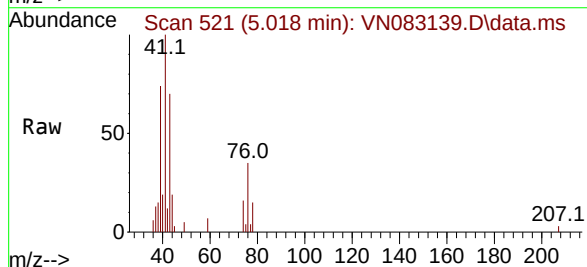
Tgt Ion: 41 Resp: 22183

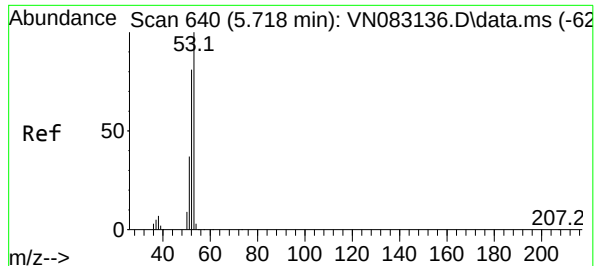
Ion Ratio Lower Upper

41 100

39 69.3 67.8 101.6

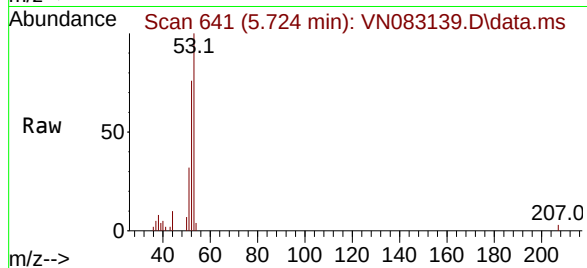
76 31.2 25.8 38.8





#15  
Acrylonitrile  
Concen: 25.534 ug/l  
RT: 5.724 min Scan# 641  
Delta R.T. 0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

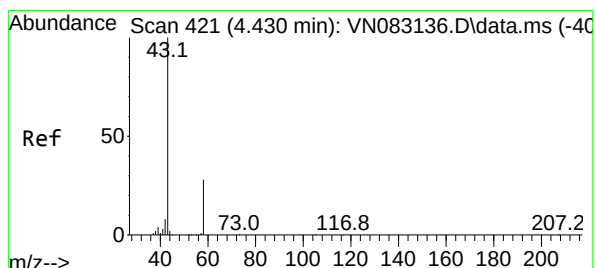
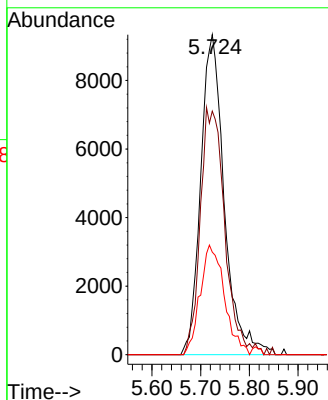
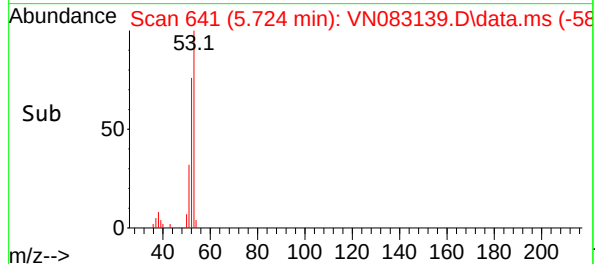
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005



Tgt Ion: 53 Resp: 3135  
Ion Ratio Lower Upper  
53 100  
52 79.9 66.6 100.0  
51 35.3 30.1 45.1

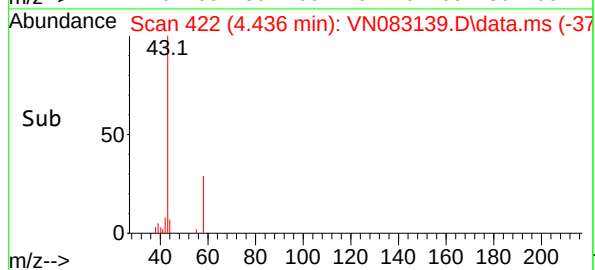
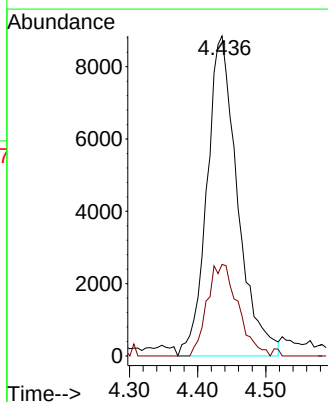
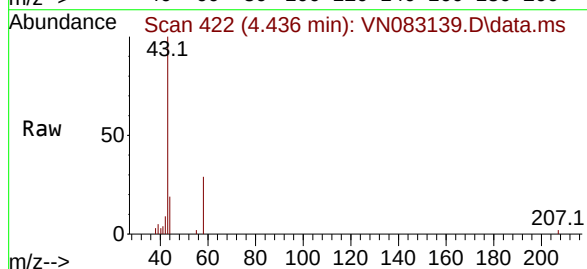
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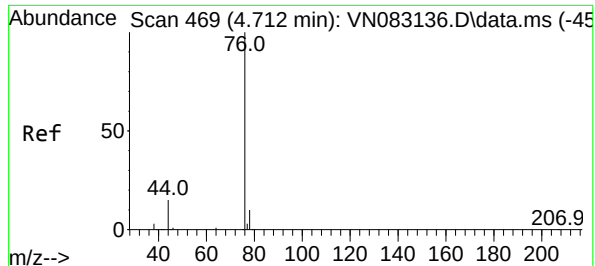
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#16  
Acetone  
Concen: 24.581 ug/l  
RT: 4.436 min Scan# 422  
Delta R.T. 0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 43 Resp: 27636  
Ion Ratio Lower Upper  
43 100  
58 28.6 21.8 32.6





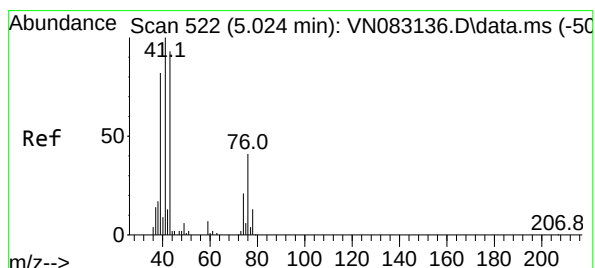
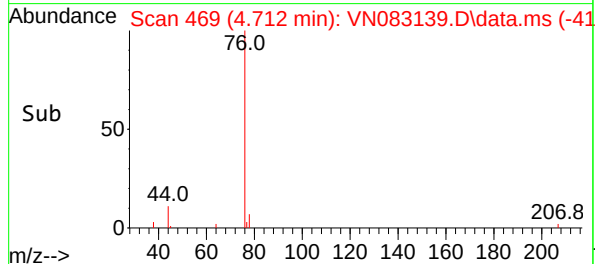
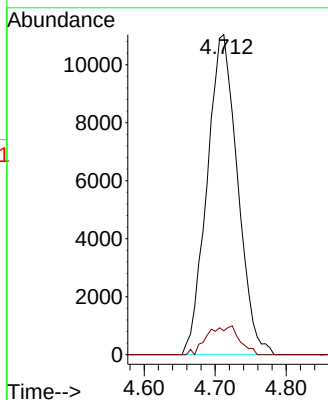
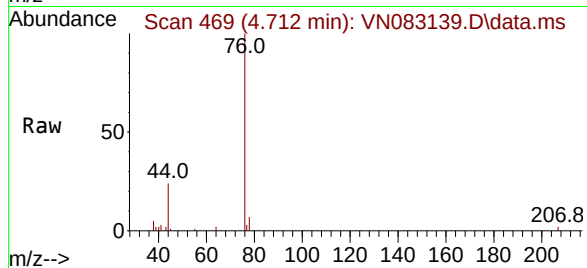
#17  
Carbon Disulfide  
Concen: 5.026 ug/l  
RT: 4.712 min Scan# 469  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC005

Tgt Ion: 76 Resp: 32908  
Ion Ratio Lower Upper  
76 100  
78 7.4 7.2 10.8

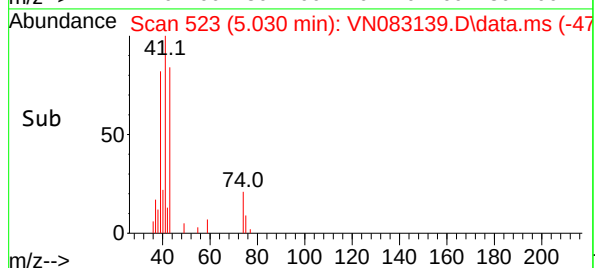
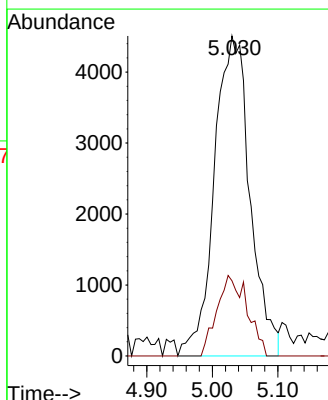
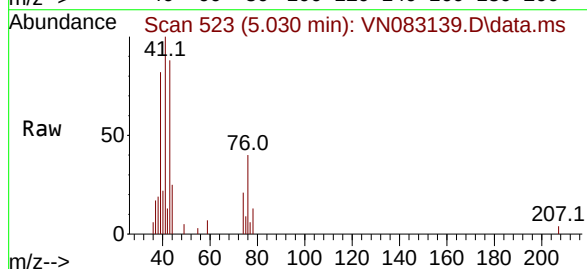
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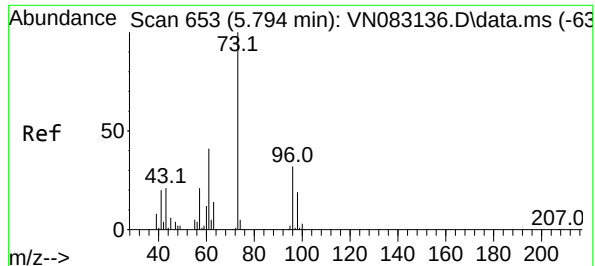
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#18  
Methyl Acetate  
Concen: 5.084 ug/l  
RT: 5.030 min Scan# 523  
Delta R.T. 0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 43 Resp: 17029  
Ion Ratio Lower Upper  
43 100  
74 21.4 16.3 24.5





#19

Methyl tert-butyl Ether

Concen: 5.131 ug/l

RT: 5.789 min Scan# 61

Delta R.T. -0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005

Tgt Ion: 73 Resp: 41439

Ion Ratio Lower Upper

73 100

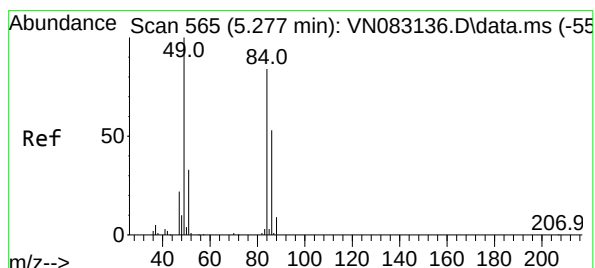
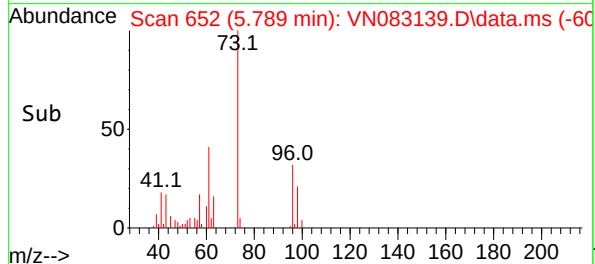
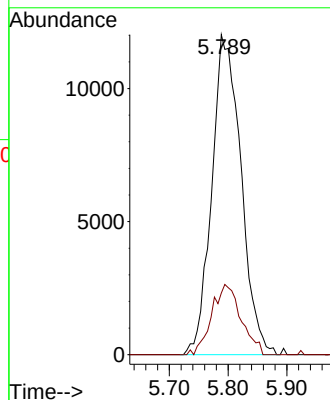
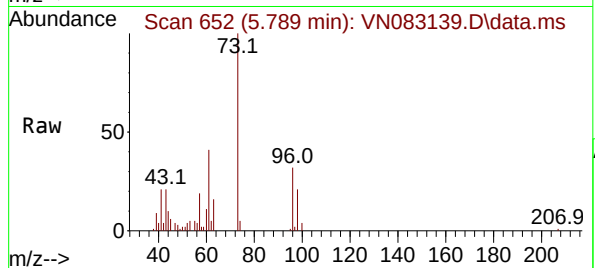
57 19.2 17.9 26.9

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Supervised By :Mahesh Dadoda 08/09/2024



#20

Methylene Chloride

Concen: 4.991 ug/l

RT: 5.271 min Scan# 564

Delta R.T. -0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Tgt Ion: 84 Resp: 12913

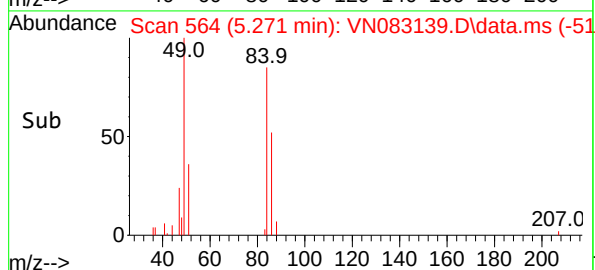
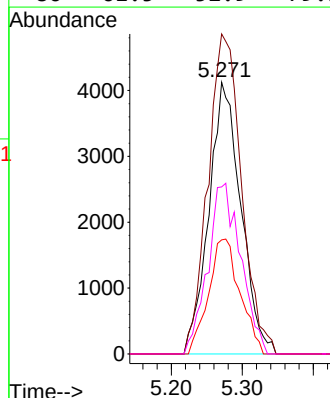
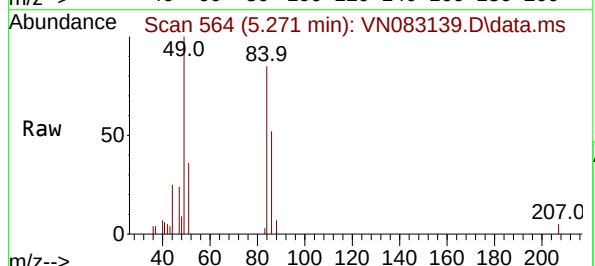
Ion Ratio Lower Upper

84 100

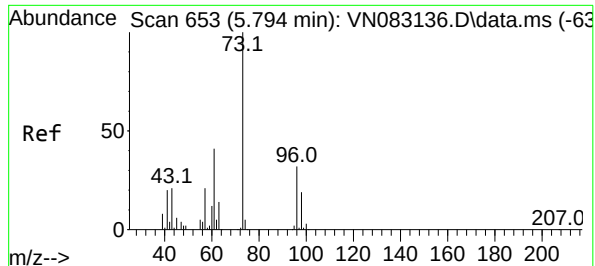
49 117.8 119.6 179.4#

51 42.0 34.8 52.2

86 61.5 52.9 79.3







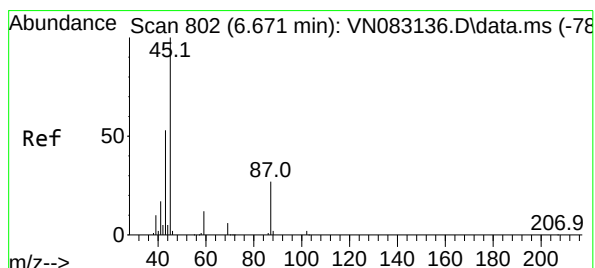
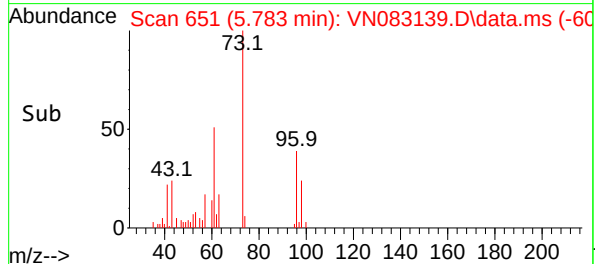
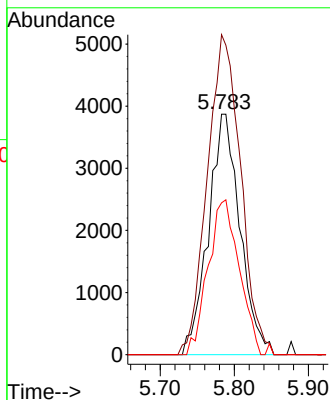
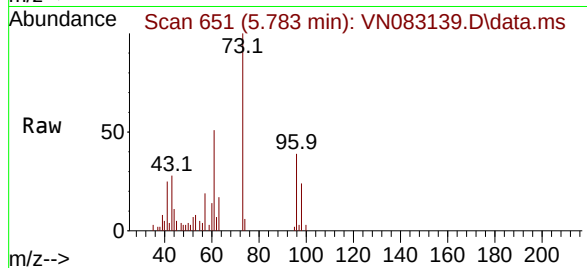
#21  
trans-1,2-Dichloroethene  
Concen: 4.957 ug/l  
RT: 5.783 min Scan# 61  
Delta R.T. -0.012 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC005

Tgt Ion: 96 Resp: 1146  
Ion Ratio Lower Upper  
96 100  
61 133.0 123.4 185.2  
98 63.1 49.3 73.9

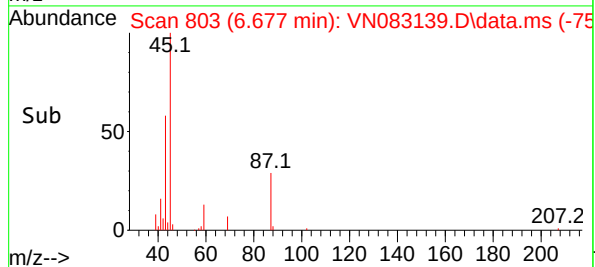
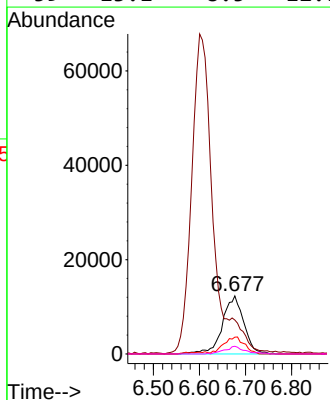
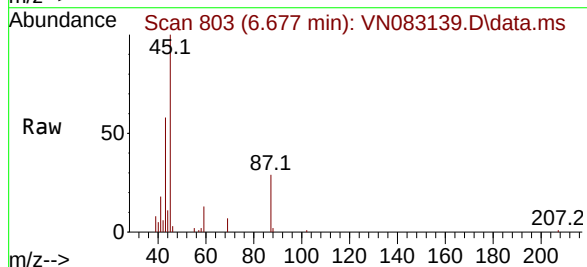
Manual Integrations  
APPROVED

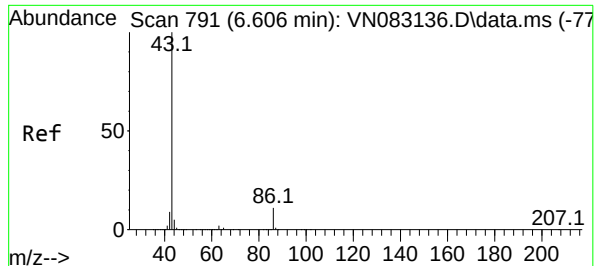
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#22  
Diisopropyl ether  
Concen: 4.993 ug/l  
RT: 6.677 min Scan# 803  
Delta R.T. 0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 45 Resp: 39688  
Ion Ratio Lower Upper  
45 100  
43 54.9 44.0 66.0  
87 29.0 19.7 29.5  
59 13.1 8.5 12.7#





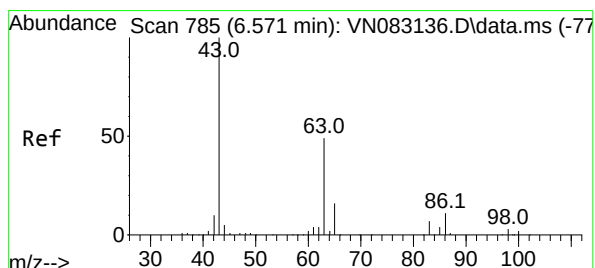
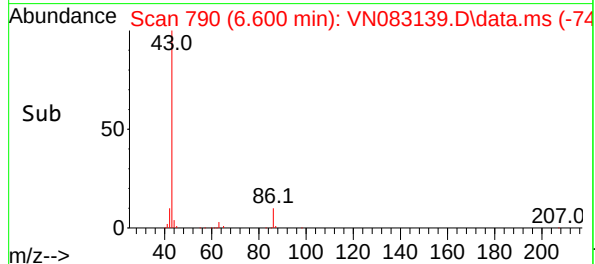
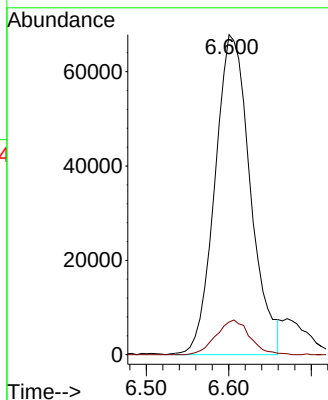
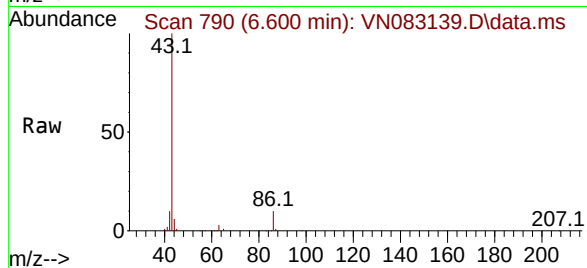
#23  
Vinyl Acetate  
Concen: 24.856 ug/l m  
RT: 6.600 min Scan# 791  
Delta R.T. -0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Tgt Ion: 43 Resp: 20247  
Ion Ratio Lower Upper  
43 100  
86 10.2 7.3 10.9

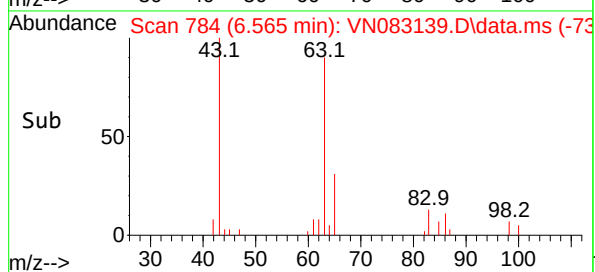
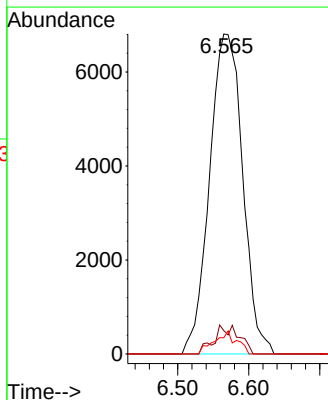
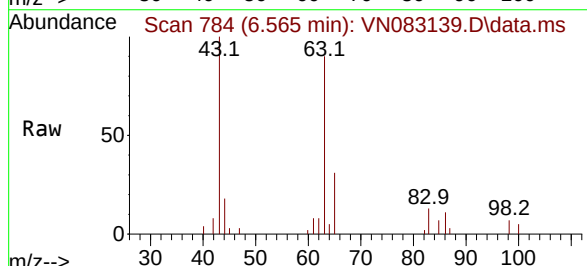
Manual Integrations  
APPROVED

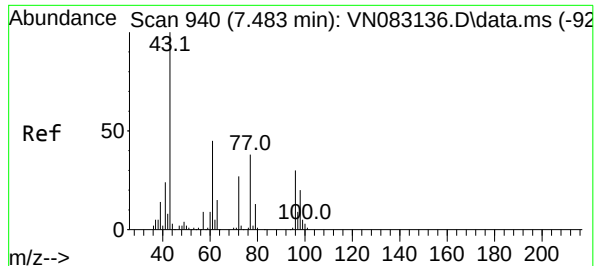
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#24  
1,1-Dichloroethane  
Concen: 5.091 ug/l  
RT: 6.565 min Scan# 784  
Delta R.T. -0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 63 Resp: 22058  
Ion Ratio Lower Upper  
63 100  
98 7.3 3.3 9.9  
100 5.0 2.0 6.0





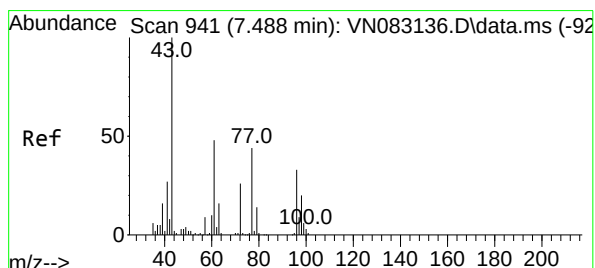
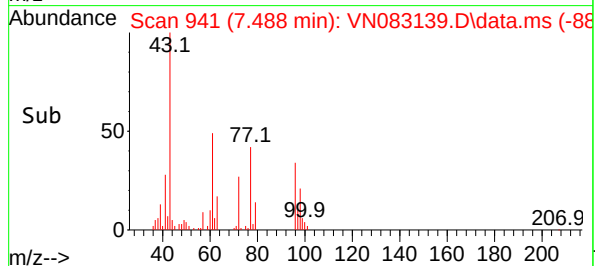
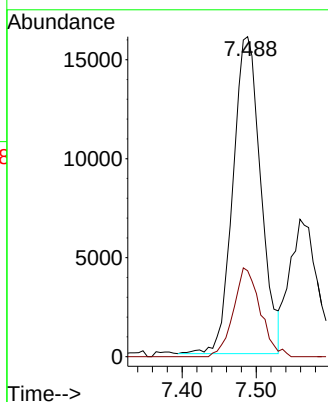
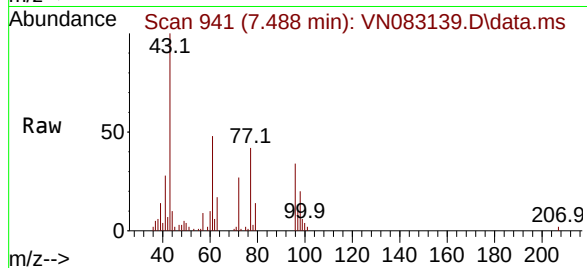
#25  
2-Butanone  
Concen: 24.185 ug/l  
RT: 7.488 min Scan# 941  
Delta R.T. 0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Tgt Ion: 43 Resp: 41750  
Ion Ratio Lower Upper  
43 100  
72 27.1 18.2 27.2

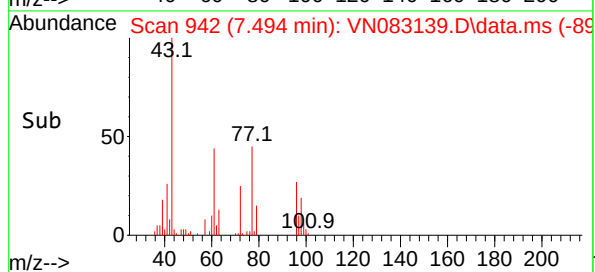
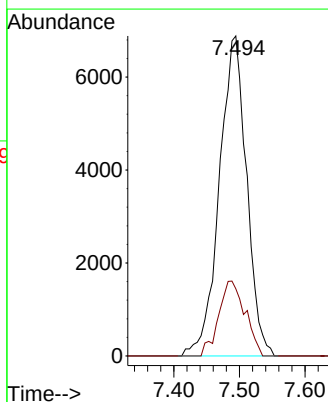
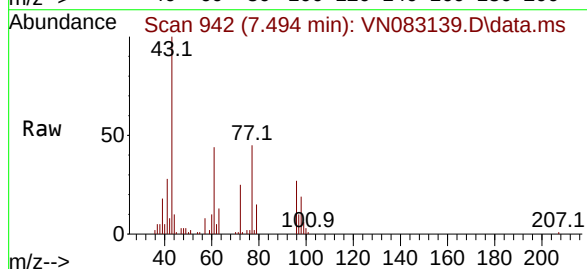
Manual Integrations  
APPROVED

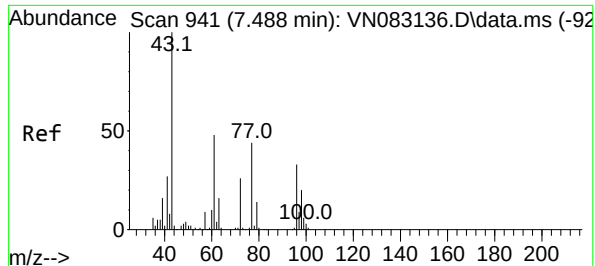
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#26  
2,2-Dichloropropane  
Concen: 4.937 ug/l  
RT: 7.494 min Scan# 942  
Delta R.T. 0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 77 Resp: 19864  
Ion Ratio Lower Upper  
77 100  
97 22.7 10.3 30.9





#27

cis-1,2-Dichloroethene

Concen: 4.967 ug/l

RT: 7.483 min Scan# 941

Delta R.T. -0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

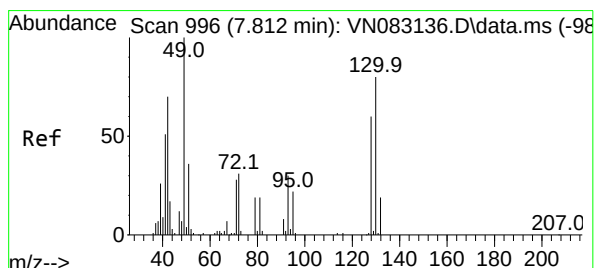
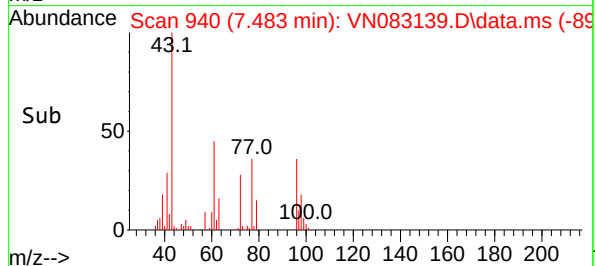
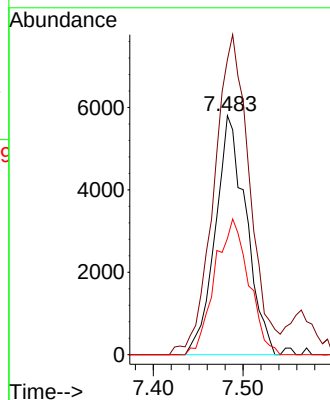
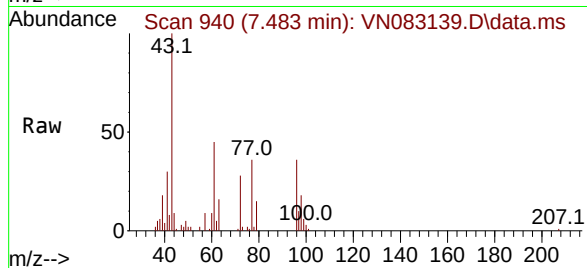
VSTDICC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 96    | Resp: | 1386  |
| Ion      | Ratio | Lower | Upper |
| 96       | 100   |       |       |
| 61       | 154.7 | 0.0   | 329.6 |
| 98       | 62.6  | 0.0   | 128.6 |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#28

Bromochloromethane

Concen: 5.577 ug/l

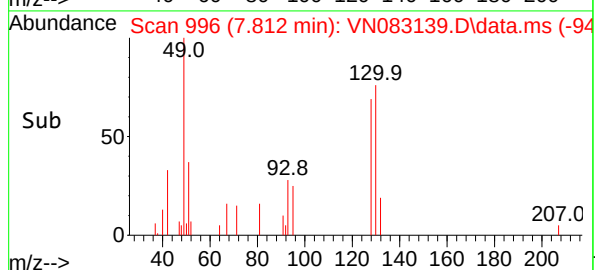
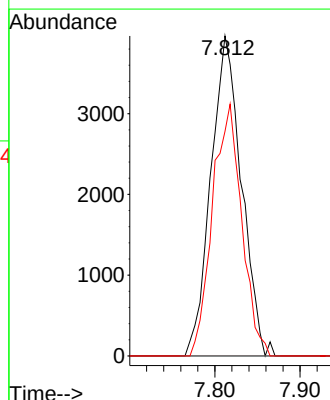
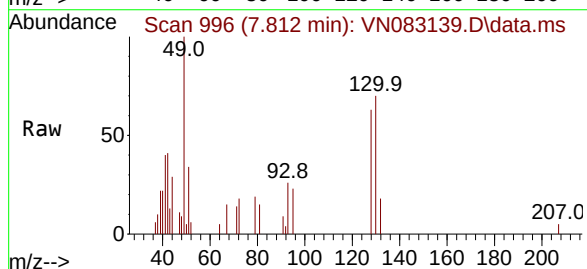
RT: 7.812 min Scan# 996

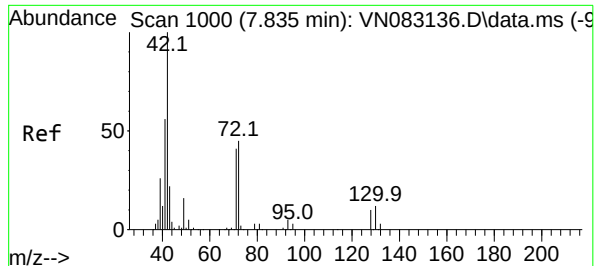
Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 49    | Resp: | 9874  |
| Ion      | Ratio | Lower | Upper |
| 49       | 100   |       |       |
| 129      | 0.0   | 0.0   | 3.8   |
| 130      | 75.2  | 50.5  | 75.7  |





#29

Tetrahydrofuran

Concen: 25.324 ug/l

RT: 7.841 min Scan# 1000

Delta R.T. 0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

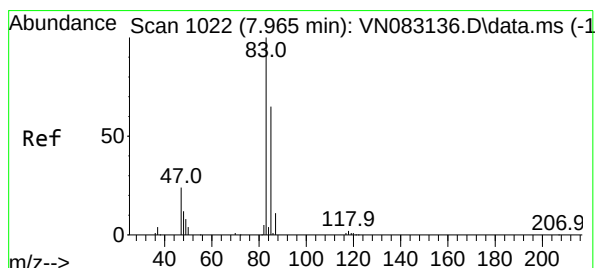
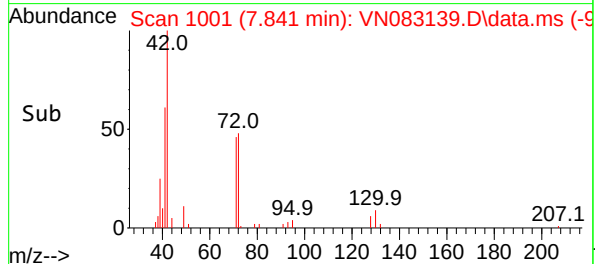
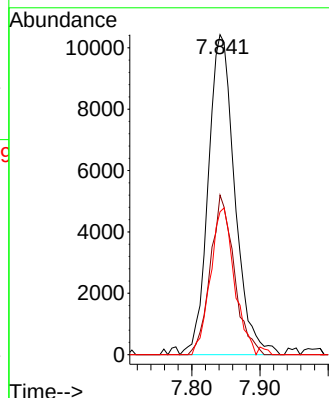
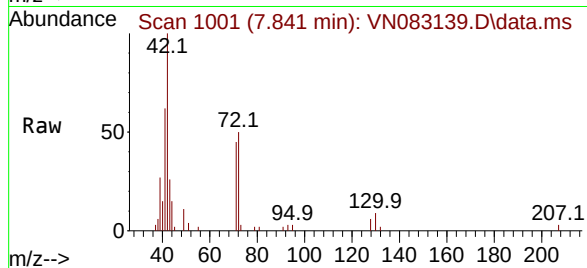
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 28260 |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 44.9  | 30.0  | 45.0  |
| 71       | 41.3  | 28.3  | 42.5  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#30

Chloroform

Concen: 5.032 ug/l

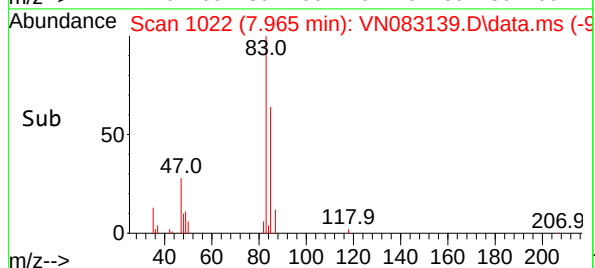
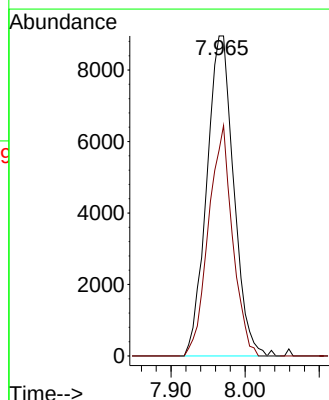
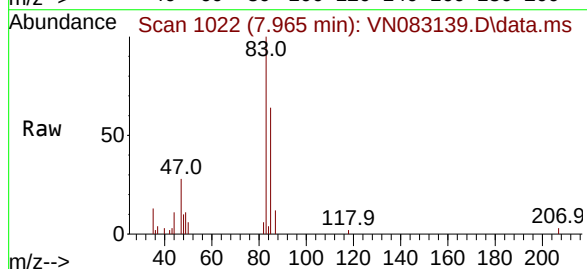
RT: 7.965 min Scan# 1022

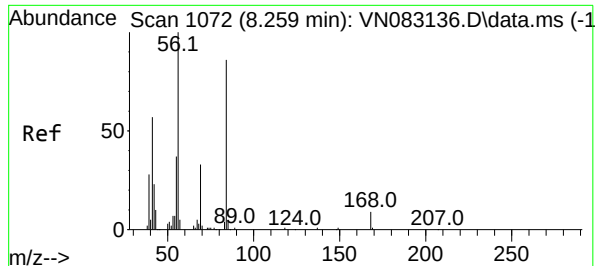
Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 22650 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 64.3  | 50.9  | 76.3  |





#31

Cyclohexane

Concen: 5.871 ug/l

RT: 8.265 min Scan# 1073

Delta R.T. 0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

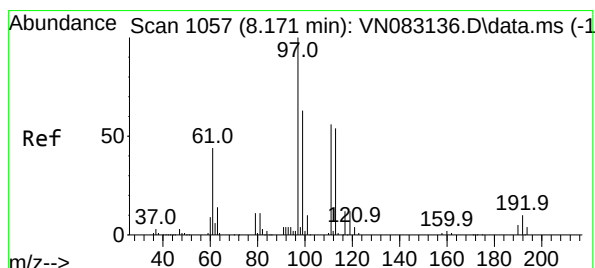
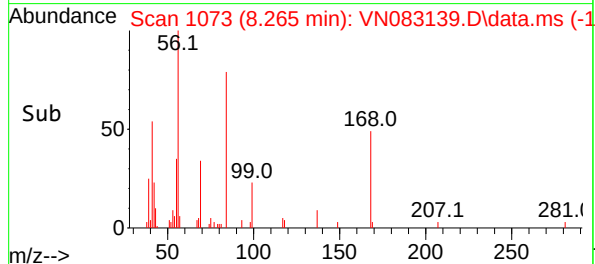
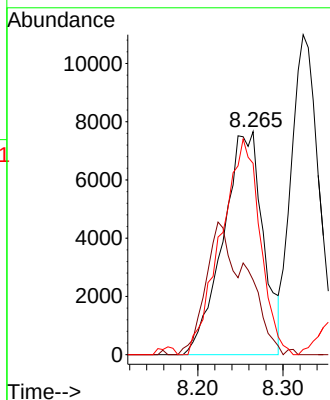
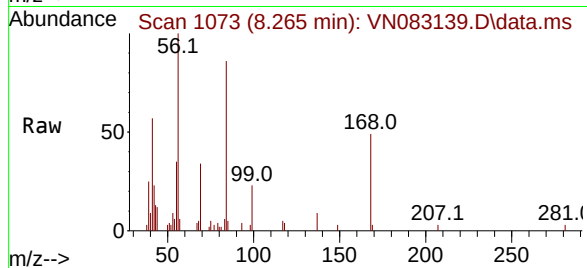
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 56    | Resp: | 2499  |
| Ion      | Ratio | Lower | Upper |
| 56       | 100   |       |       |
| 69       | 33.5  | 24.5  | 36.7  |
| 84       | 85.8  | 66.0  | 99.0  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#32

1,1,1-Trichloroethane

Concen: 5.123 ug/l

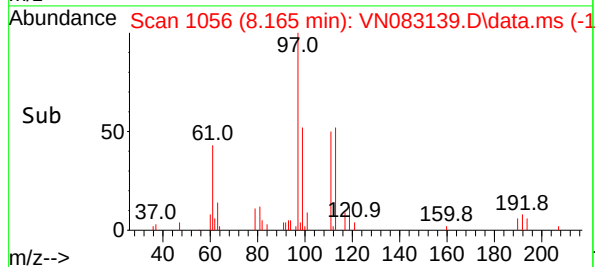
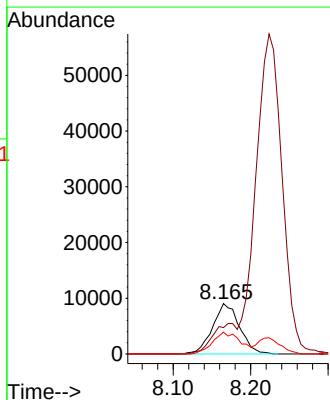
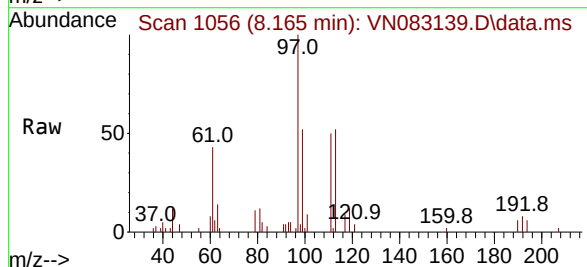
RT: 8.165 min Scan# 1056

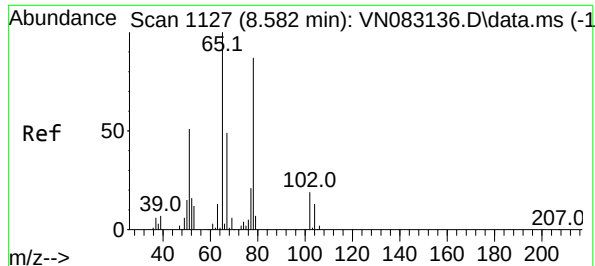
Delta R.T. -0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 21825 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 99       | 0.0   | 52.0  | 78.0  |
| 61       | 44.1  | 42.1  | 63.1  |





#33

1,2-Dichloroethane-d4

Concen: 5.522 ug/l

RT: 8.582 min Scan# 1127

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005

Tgt Ion: 65 Resp: 1586

Ion Ratio Lower Upper

65 100

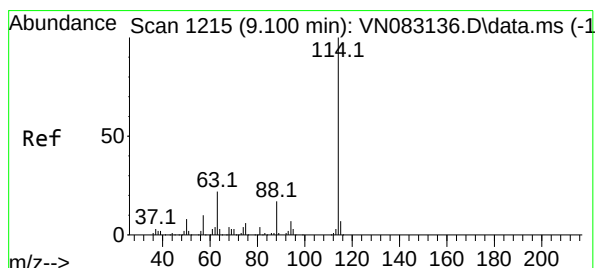
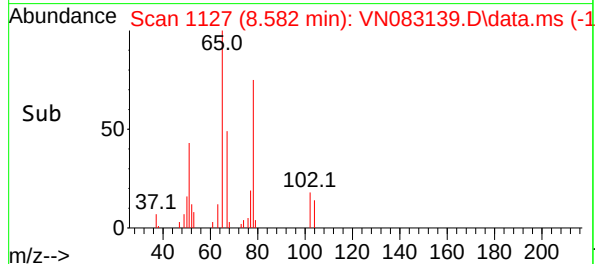
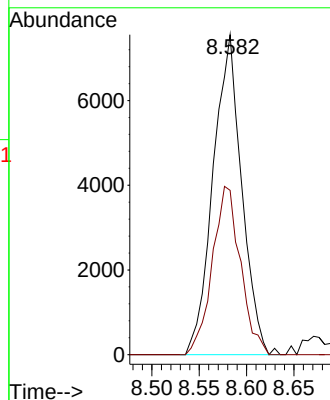
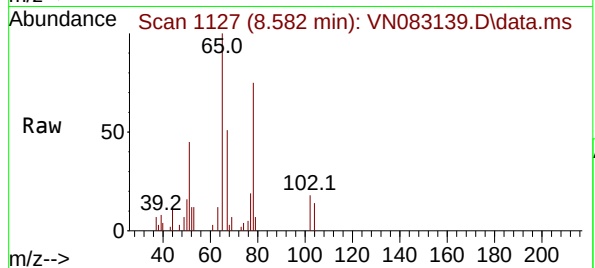
67 51.8 0.0 104.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

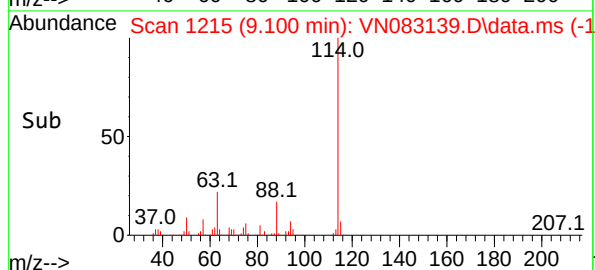
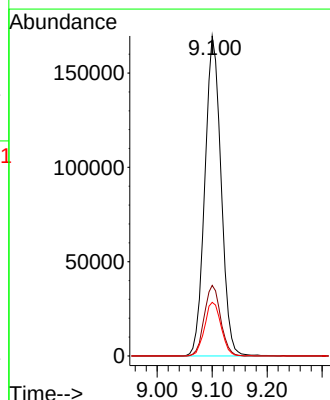
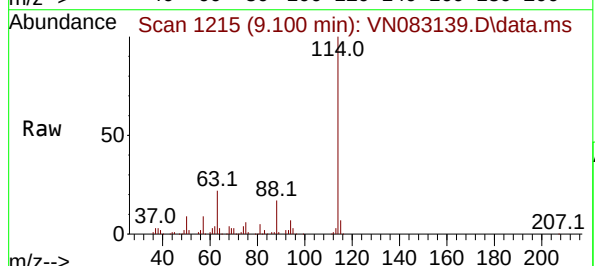
Tgt Ion:114 Resp: 347562

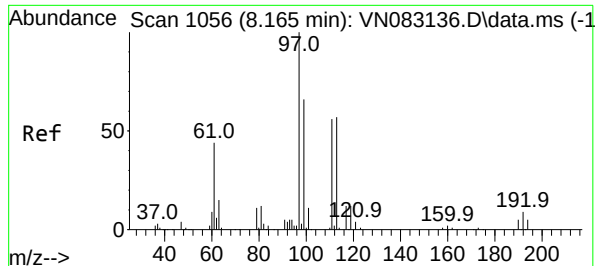
Ion Ratio Lower Upper

114 100

63 22.1 0.0 44.6

88 16.8 0.0 31.4





#35

Dibromofluoromethane

Concen: 5.549 ug/l

RT: 8.159 min Scan# 1055

Delta R.T. -0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

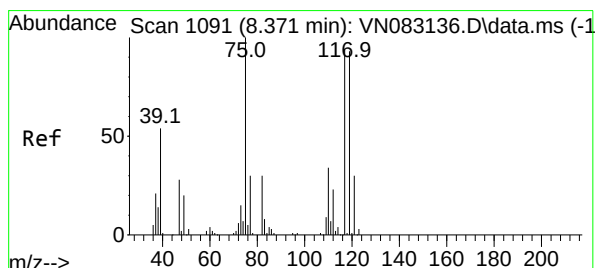
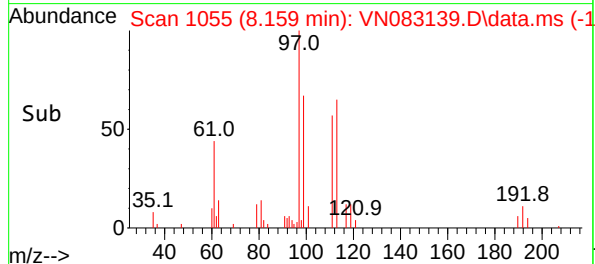
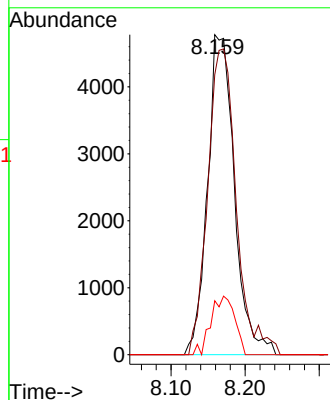
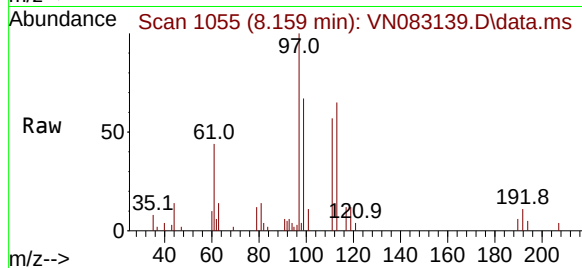
VSTDICC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 113   | Resp: | 12039 |
| Ion      | Ratio | Lower | Upper |
| 113      | 100   |       |       |
| 111      | 101.4 | 82.4  | 123.6 |
| 192      | 16.2  | 14.9  | 22.3  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#36

1,1-Dichloropropene

Concen: 4.907 ug/l

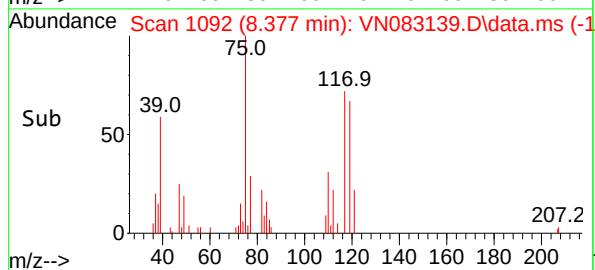
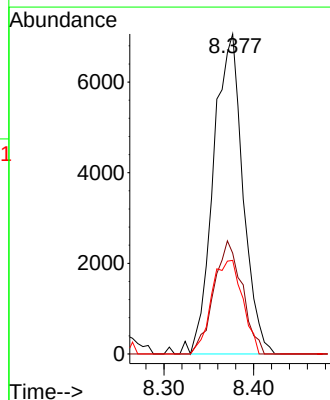
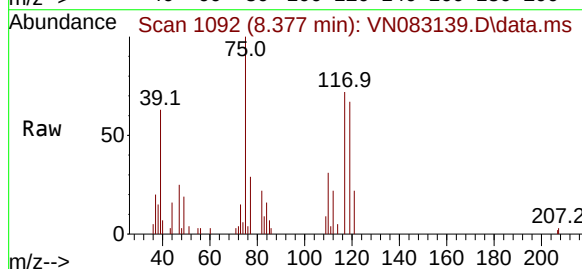
RT: 8.377 min Scan# 1092

Delta R.T. 0.006 min

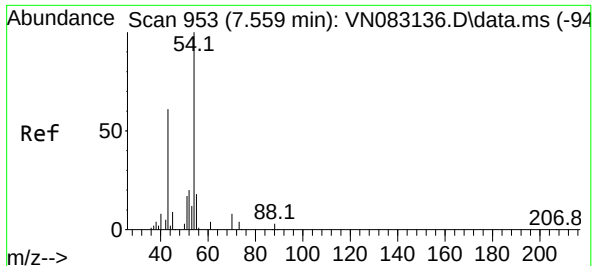
Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 16102 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 110      | 34.1  | 16.3  | 48.9  |
| 77       | 30.8  | 24.6  | 37.0  |







#37

Ethyl Acetate

Concen: 4.874 ug/l

RT: 7.559 min Scan# 91

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

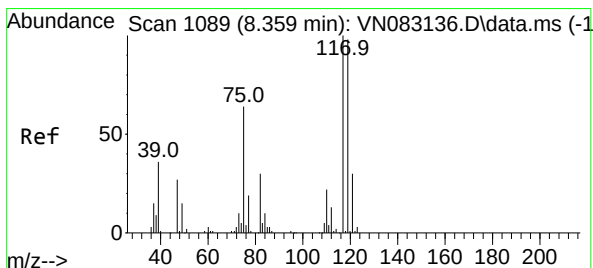
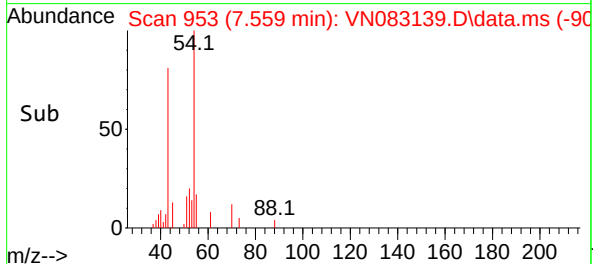
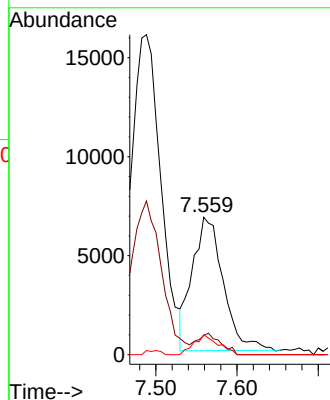
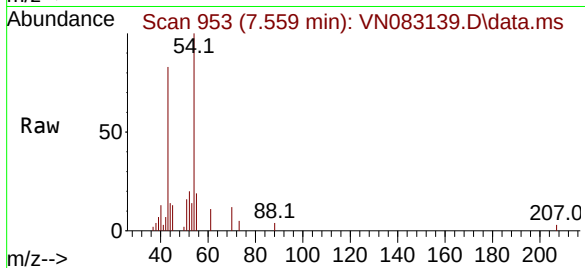
VSTDICC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 1790  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 12.1  | 9.3   | 13.9  |
| 70       | 11.6  | 7.0   | 10.6  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#38

Carbon Tetrachloride

Concen: 5.067 ug/l

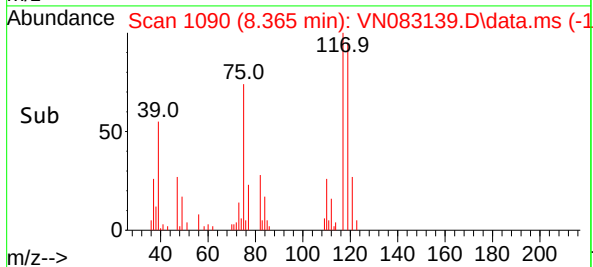
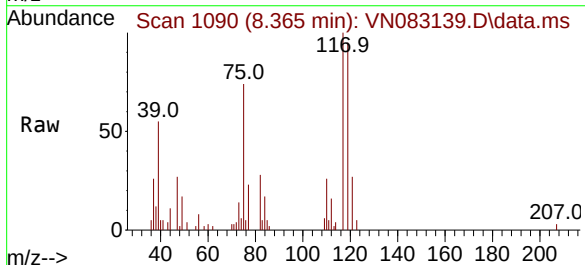
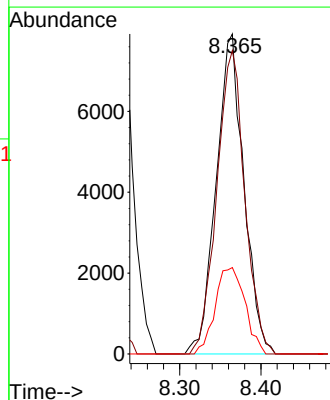
RT: 8.365 min Scan# 1090

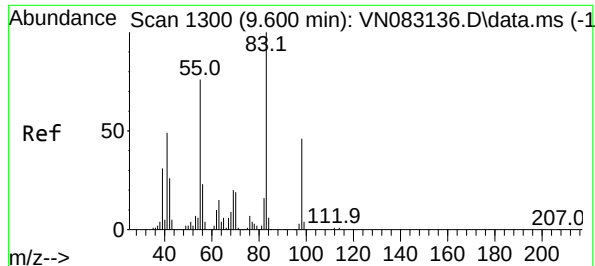
Delta R.T. 0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 18728 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 119      | 94.8  | 74.9  | 112.3 |
| 121      | 27.0  | 24.3  | 36.5  |





#39

Methylcyclohexane

Concen: 4.957 ug/l

RT: 9.600 min Scan# 1130

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

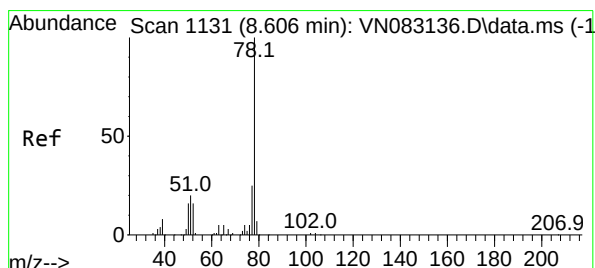
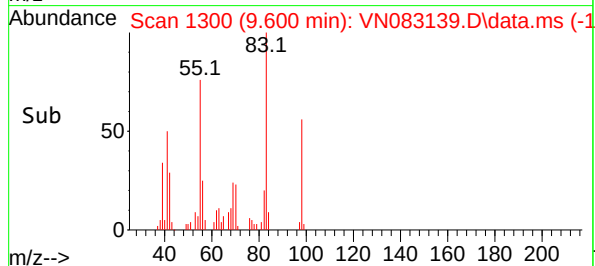
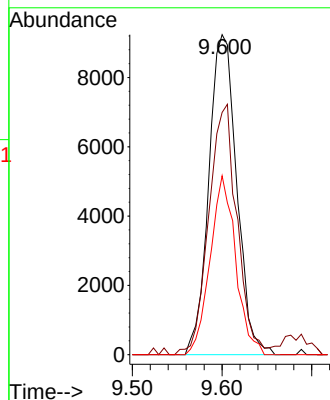
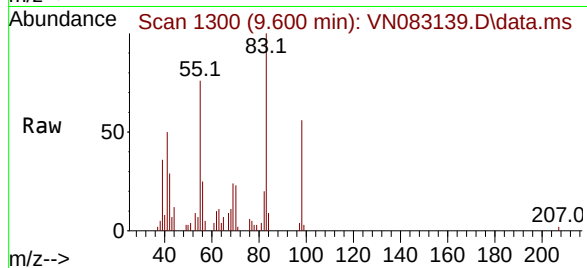
VSTDIC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 1998  |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 55       | 74.1  | 66.4  | 99.6  |
| 98       | 55.9  | 40.7  | 61.1  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#40

Benzene

Concen: 4.988 ug/l

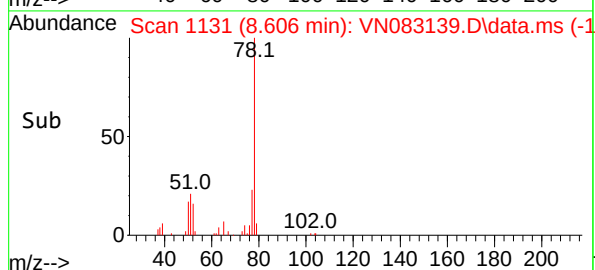
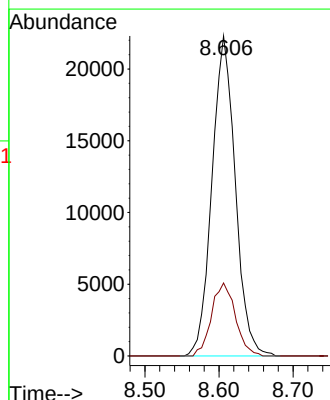
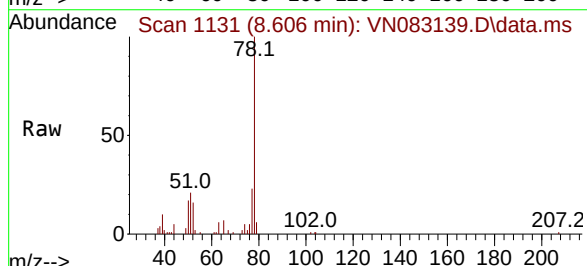
RT: 8.606 min Scan# 1131

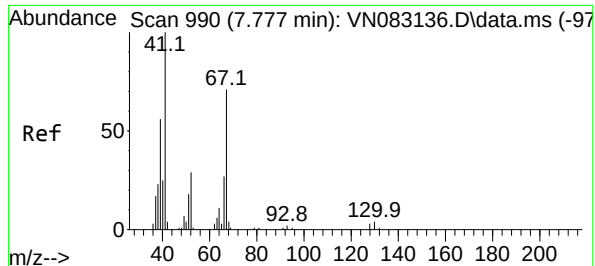
Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 78    | Resp: | 48765 |
| Ion      | Ratio | Lower | Upper |
| 78       | 100   |       |       |
| 77       | 22.8  | 19.0  | 28.4  |





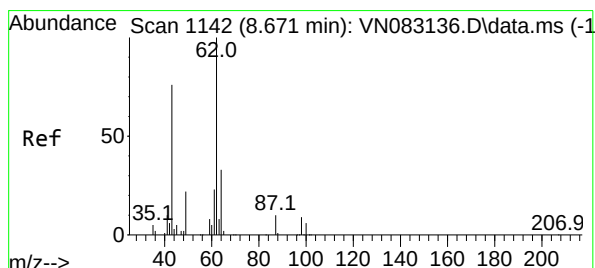
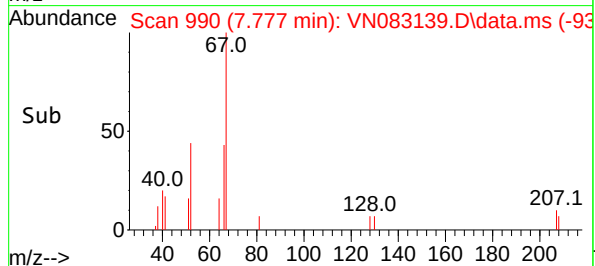
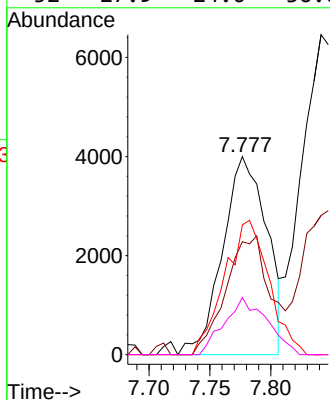
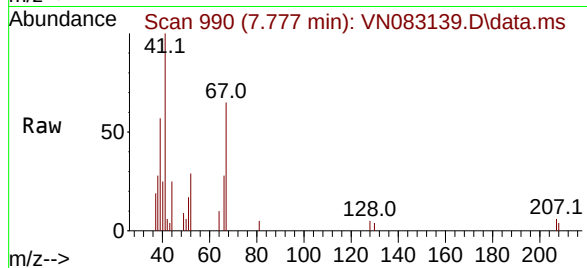
#41  
Methacrylonitrile  
Concen: 4.828 ug/l  
RT: 7.777 min Scan# 990  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

| Tgt Ion:  | 41    | Resp: | 1008 |
|-----------|-------|-------|------|
| Ion Ratio | Lower | Upper |      |
| 41        | 100   |       |      |
| 39        | 60.2  | 45.5  | 68.3 |
| 67        | 68.2  | 50.5  | 75.7 |
| 52        | 27.9  | 24.0  | 36.0 |

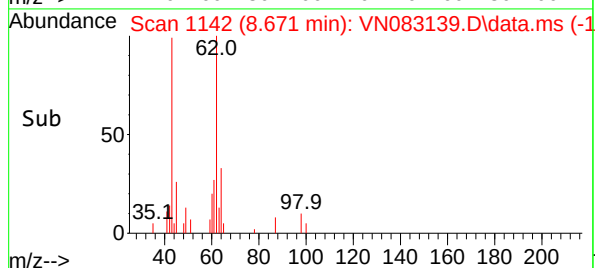
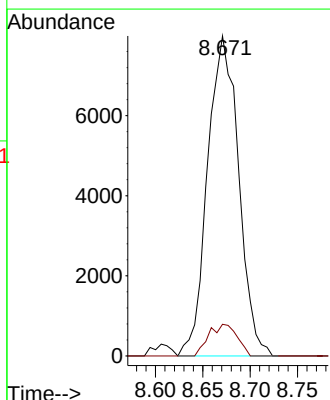
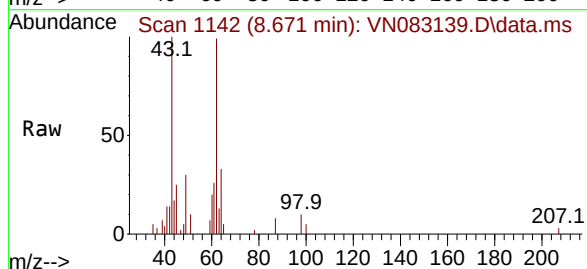
Manual Integrations  
APPROVED

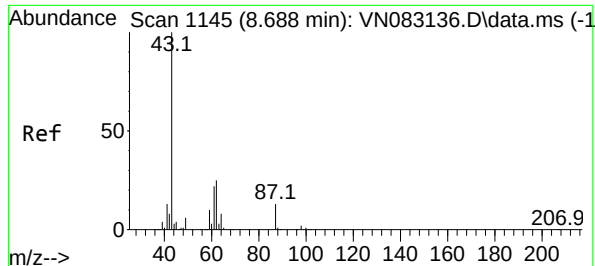
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#42  
1,2-Dichloroethane  
Concen: 5.116 ug/l  
RT: 8.671 min Scan# 1142  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

| Tgt Ion:  | 62    | Resp: | 18219 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 62        | 100   |       |       |
| 98        | 9.0   | 0.0   | 15.8  |





#43

Isopropyl Acetate

Concen: 5.438 ug/l

RT: 8.694 min Scan# 1146

Delta R.T. 0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

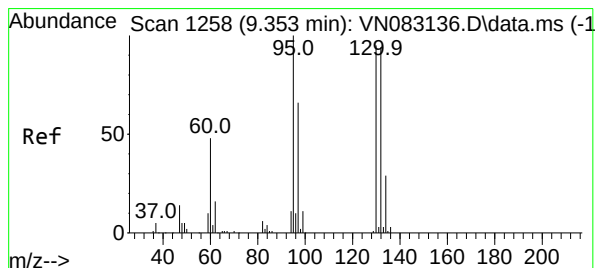
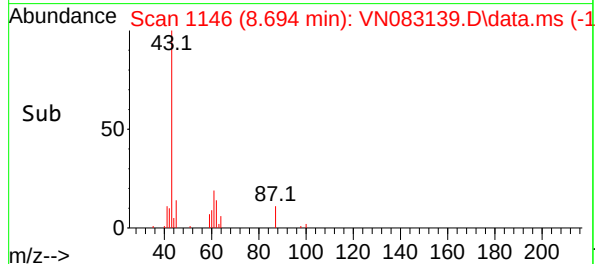
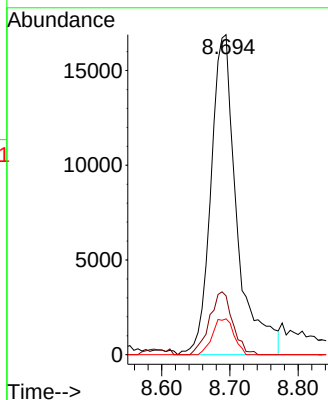
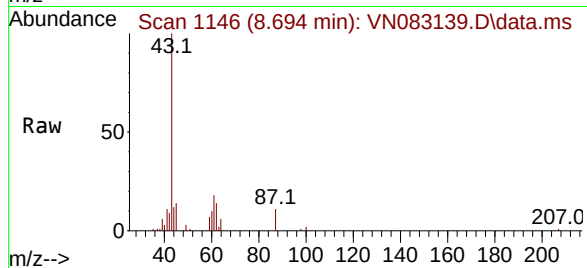
VSTDICC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 4481  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 17.5  | 17.8  | 26.6  |
| 87       | 9.2   | 8.2   | 12.2  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#44

Trichloroethene

Concen: 5.084 ug/l

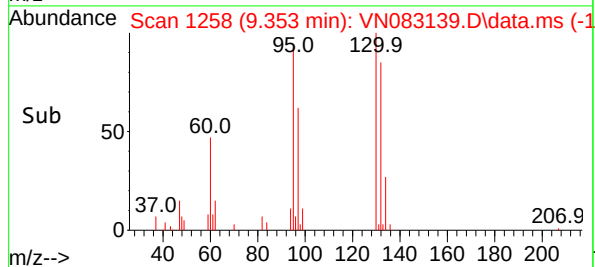
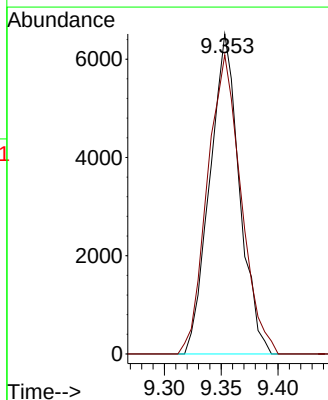
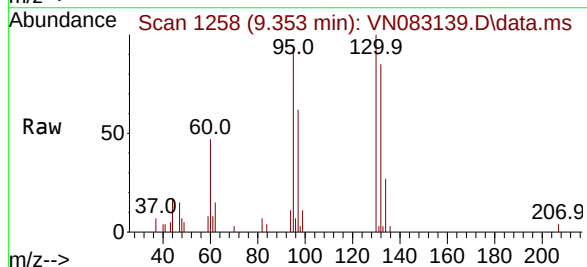
RT: 9.353 min Scan# 1258

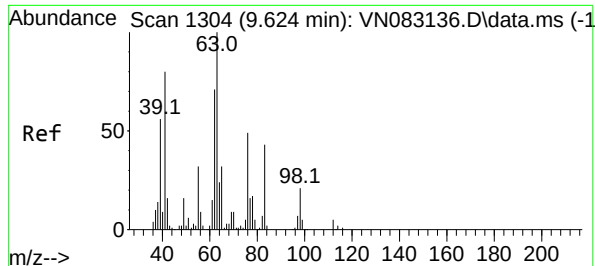
Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 130   | Resp: | 11830 |
| Ion      | Ratio | Lower | Upper |
| 130      | 100   |       |       |
| 95       | 93.4  | 0.0   | 197.8 |





#45

1,2-Dichloropropane

Concen: 4.878 ug/l

RT: 9.624 min Scan# 11320

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005

Tgt Ion: 63 Resp: 11320

Ion Ratio Lower Upper

63 100

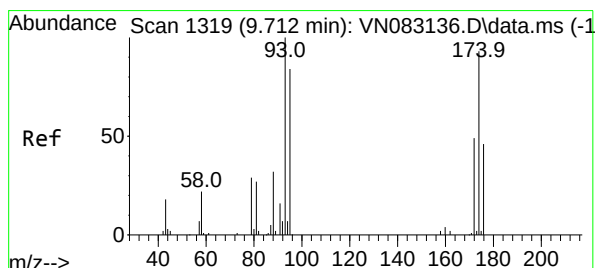
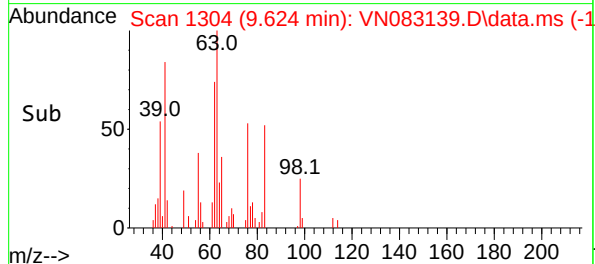
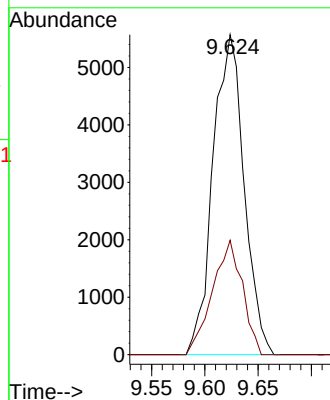
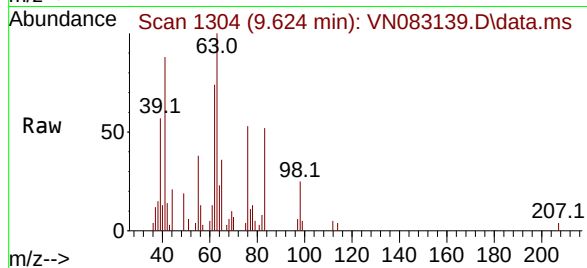
65 35.7 24.4 36.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#46

Dibromomethane

Concen: 5.079 ug/l

RT: 9.712 min Scan# 1319

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

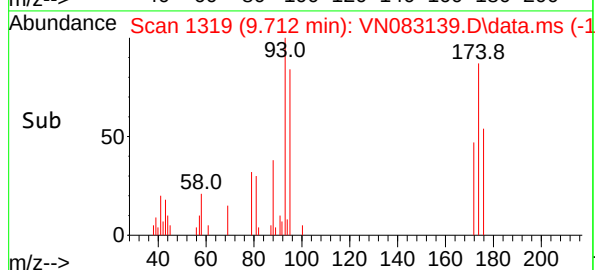
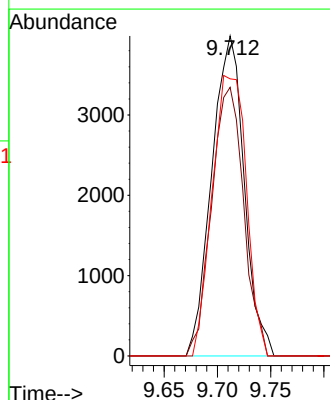
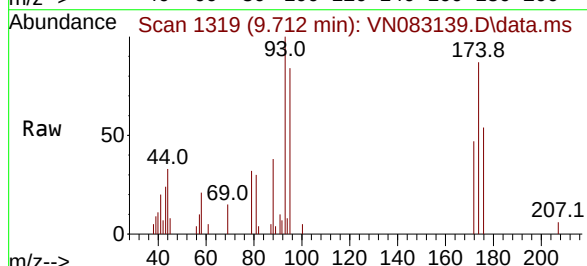
Tgt Ion: 93 Resp: 8436

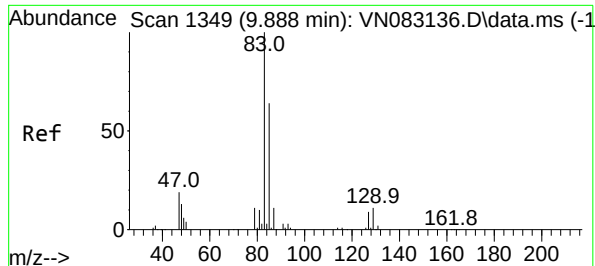
Ion Ratio Lower Upper

93 100

95 82.9 65.8 98.6

174 92.2 71.7 107.5





#47

Bromodichloromethane

Concen: 5.040 ug/l

RT: 9.888 min Scan# 1349

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

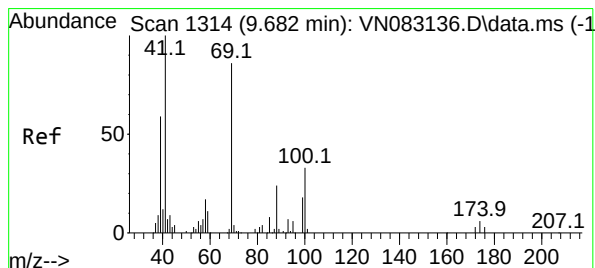
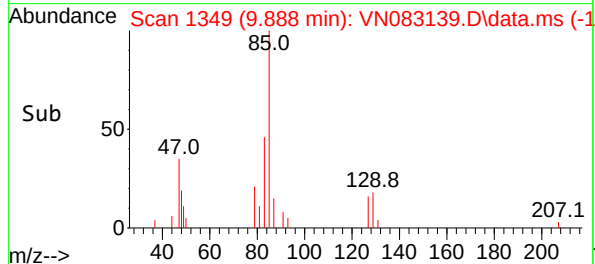
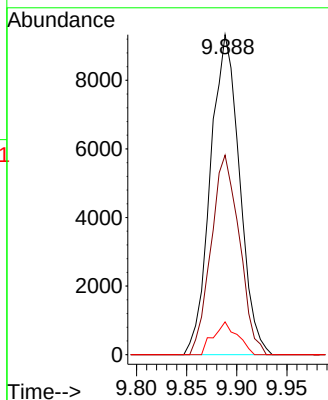
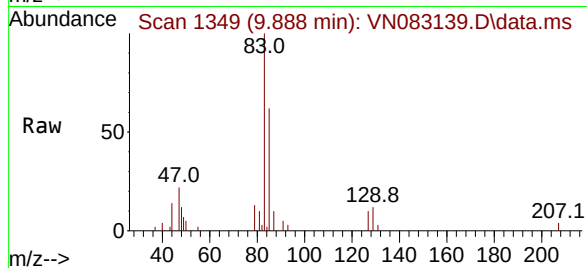
VSTDIC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 1879  |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 62.3  | 51.1  | 76.7  |
| 127      | 10.3  | 7.2   | 10.8  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#48

Methyl methacrylate

Concen: 4.840 ug/l

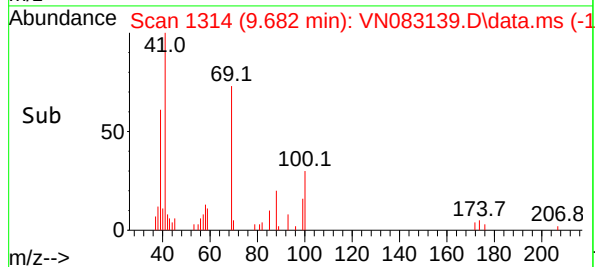
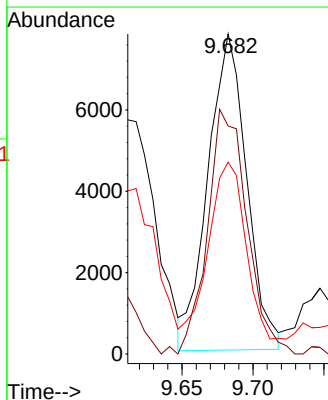
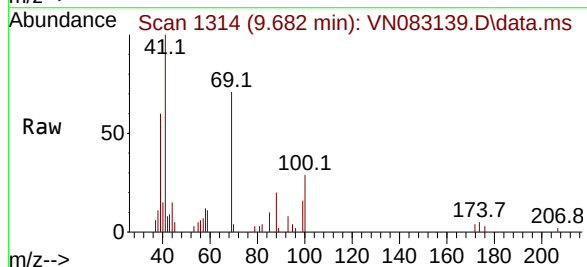
RT: 9.682 min Scan# 1314

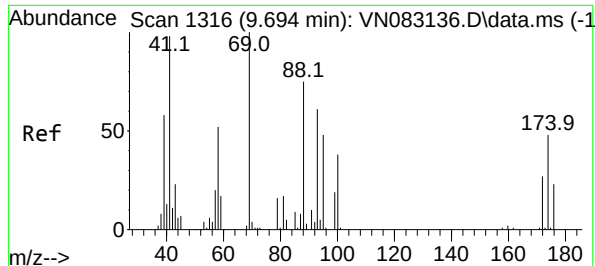
Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 14704 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 69       | 79.2  | 56.3  | 84.5  |
| 39       | 63.9  | 50.3  | 75.5  |





#49

1,4-Dioxane

Concen: 95.593 ug/l

RT: 9.694 min Scan# 1316

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 88 Resp: 5239

Ion Ratio Lower Upper

88 100

43 0.0 27.8 41.8

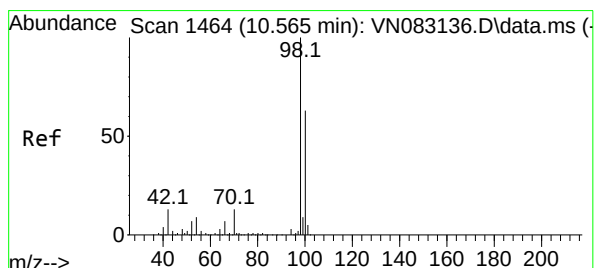
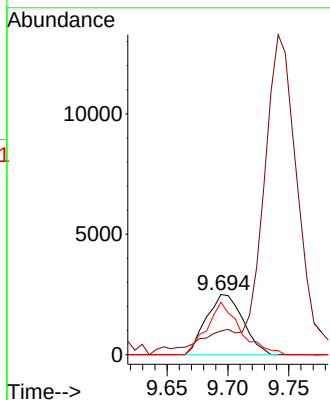
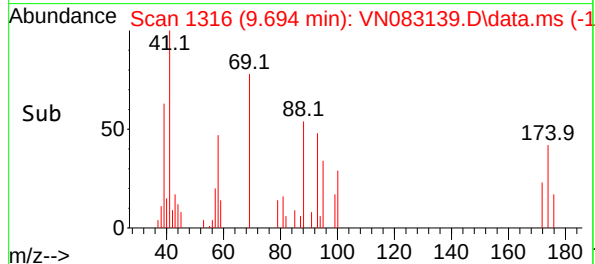
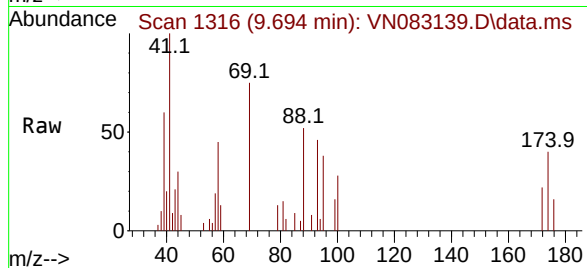
58 79.3 59.4 89.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#50

Toluene-d8

Concen: 5.326 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. 0.000 min

Lab File: VN083139.D

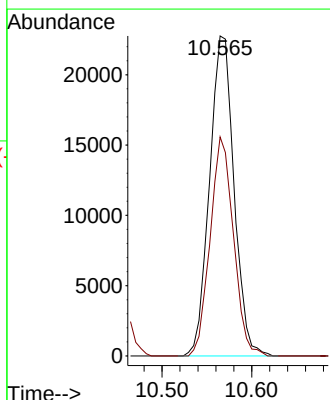
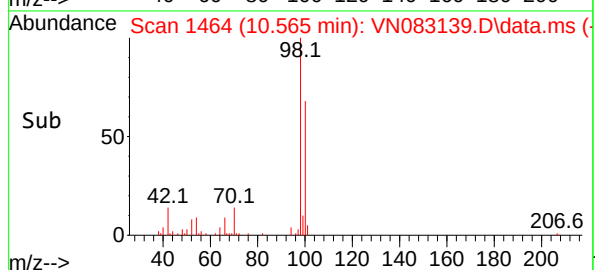
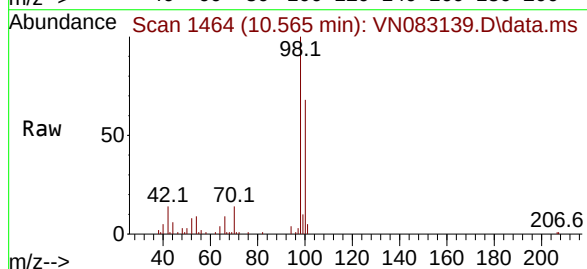
Acq: 07 Aug 2024 12:10

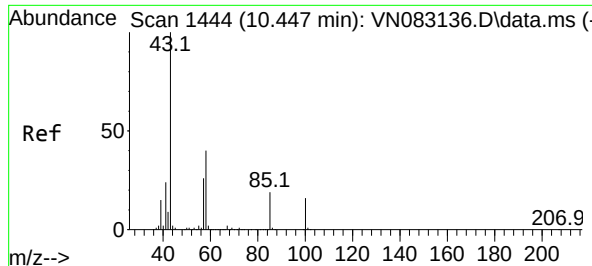
Tgt Ion: 98 Resp: 43104

Ion Ratio Lower Upper

98 100

100 65.2 51.5 77.3





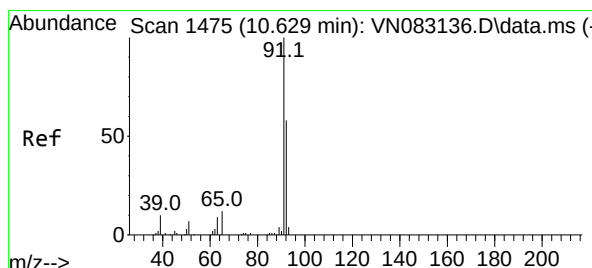
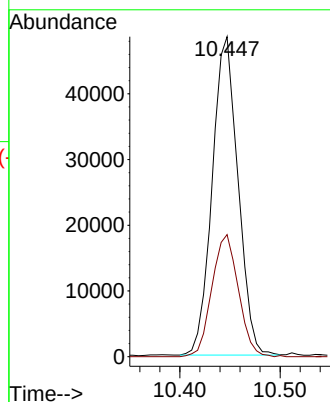
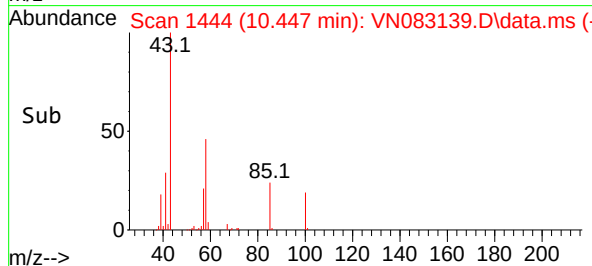
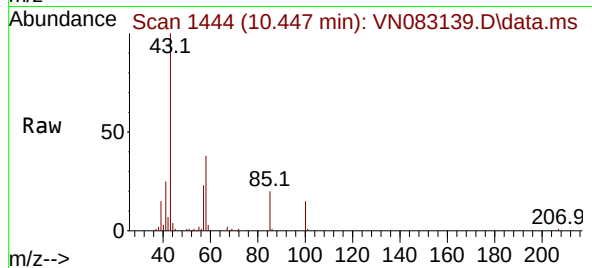
#51  
4-Methyl-2-Pentanone  
Concen: 24.946 ug/l  
RT: 10.447 min Scan# 1444  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Tgt Ion: 43 Resp: 86679  
Ion Ratio Lower Upper  
43 100  
58 39.3 28.2 42.4

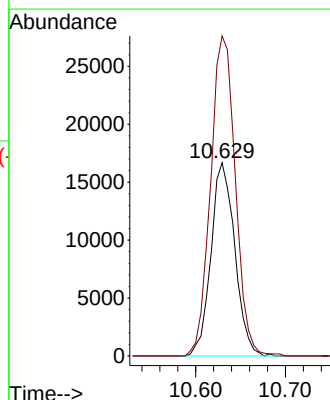
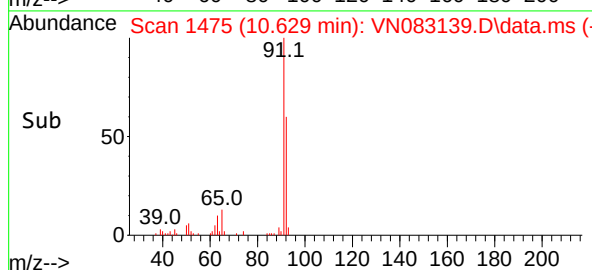
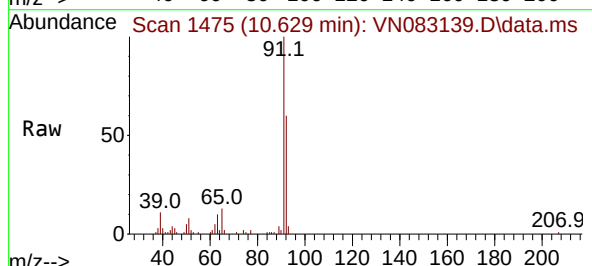
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

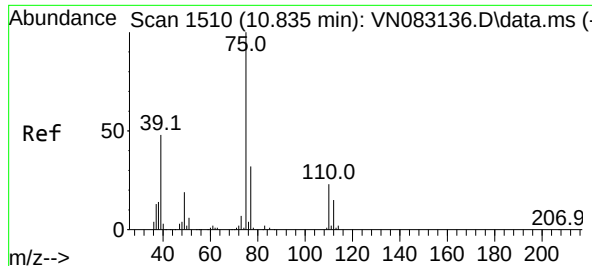


#52  
Toluene  
Concen: 4.981 ug/l  
RT: 10.629 min Scan# 1475  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 92 Resp: 30769  
Ion Ratio Lower Upper  
92 100  
91 172.3 139.4 209.0

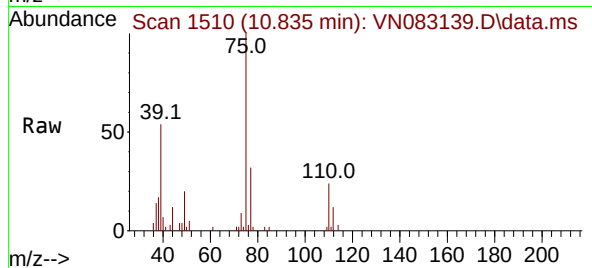






#53  
t-1,3-Dichloropropene  
Concen: 4.950 ug/l  
RT: 10.835 min Scan# 1510  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

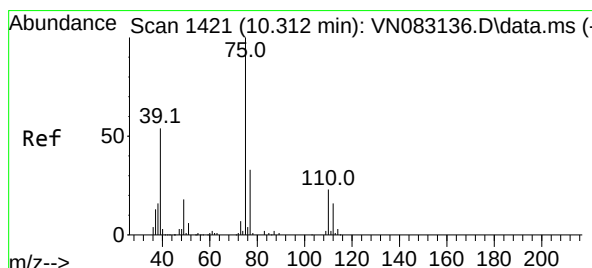
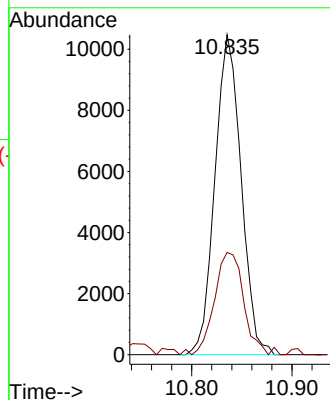
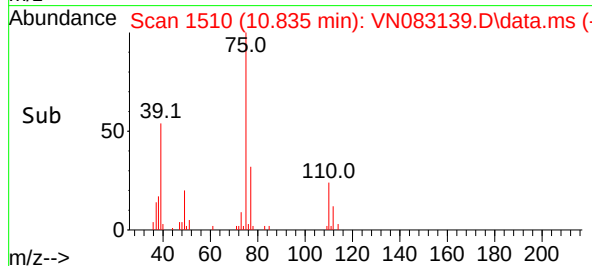
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC005



Tgt Ion: 75 Resp: 18964  
Ion Ratio Lower Upper  
75 100  
77 32.0 25.7 38.5

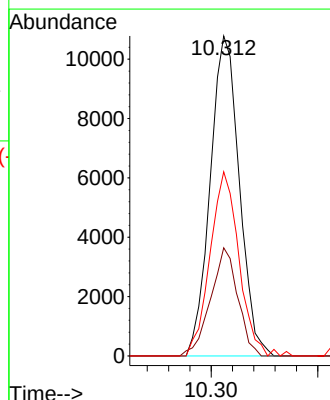
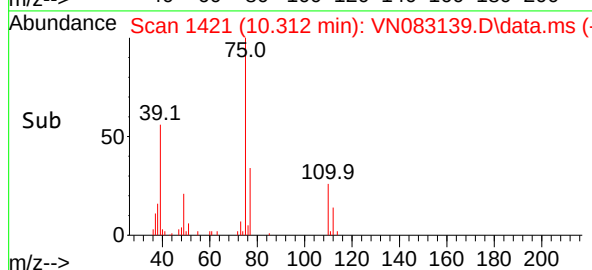
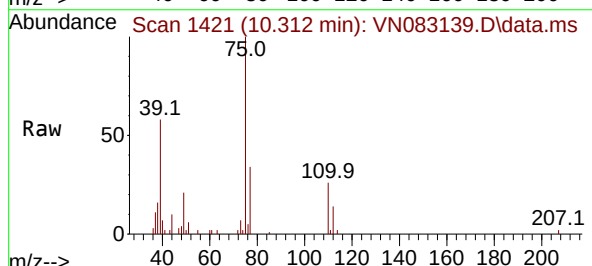
Manual Integrations  
APPROVED

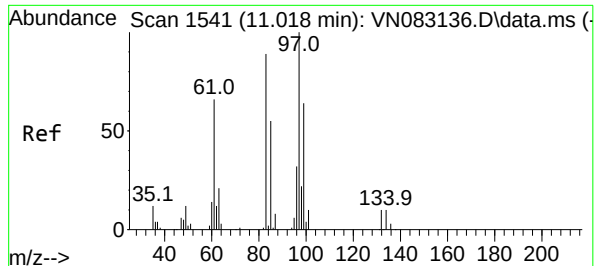
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#54  
cis-1,3-Dichloropropene  
Concen: 5.014 ug/l  
RT: 10.312 min Scan# 1421  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 75 Resp: 20431  
Ion Ratio Lower Upper  
75 100  
77 33.8 24.3 36.5  
39 57.5 50.5 75.7





#55

1,1,2-Trichloroethane

Concen: 4.930 ug/l

RT: 11.018 min Scan# 1541

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 97 Resp: 1091

Ion Ratio Lower Upper

97 100

83 91.7 71.4 107.0

85 54.2 45.8 68.6

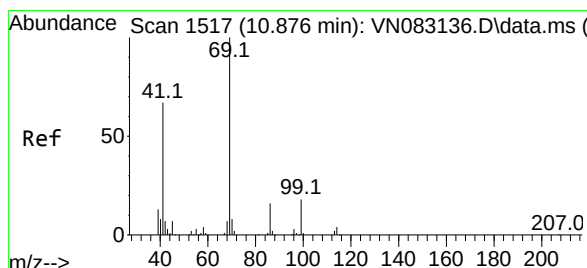
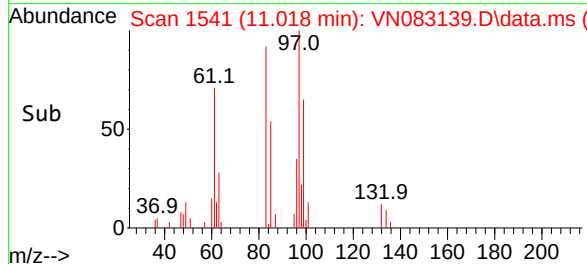
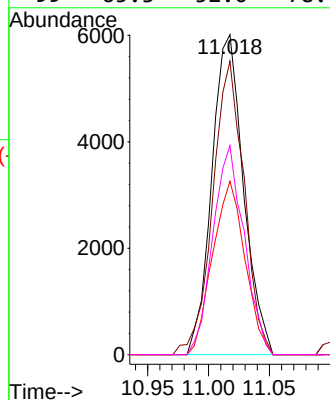
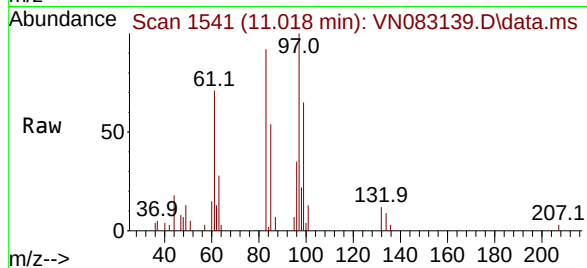
99 65.3 52.0 78.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#56

Ethyl methacrylate

Concen: 4.951 ug/l

RT: 10.876 min Scan# 1517

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

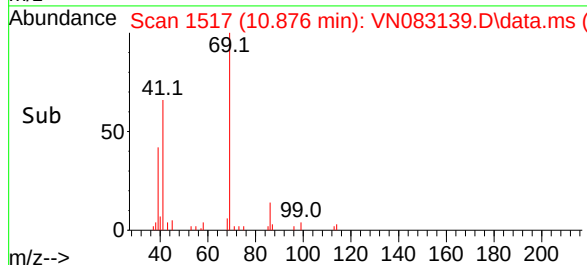
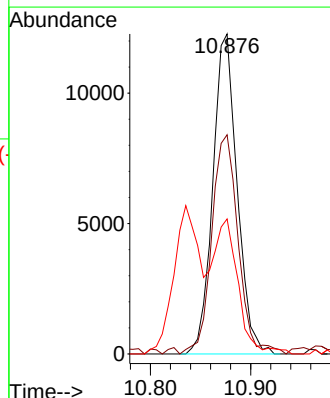
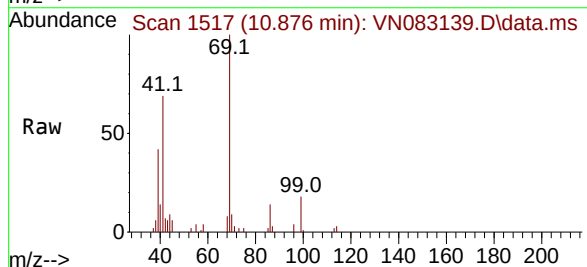
Tgt Ion: 69 Resp: 20661

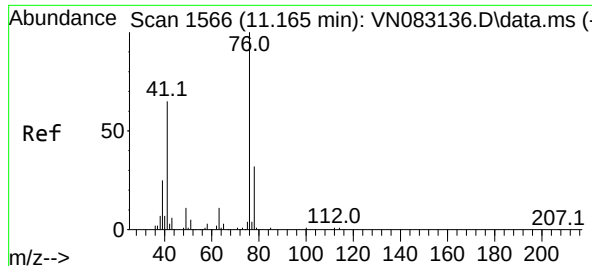
Ion Ratio Lower Upper

69 100

41 74.3 63.4 95.2

39 39.8 37.4 56.0





#57

1,3-Dichloropropane

Concen: 4.799 ug/l

RT: 11.165 min Scan# 1566

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 76 Resp: 18934

Ion Ratio Lower Upper

76 100

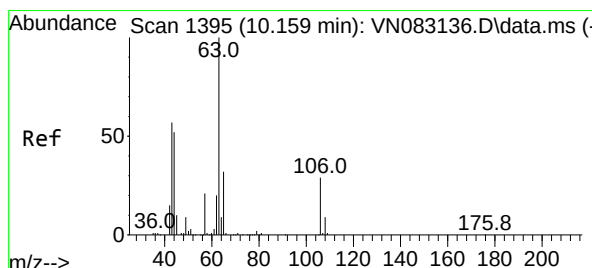
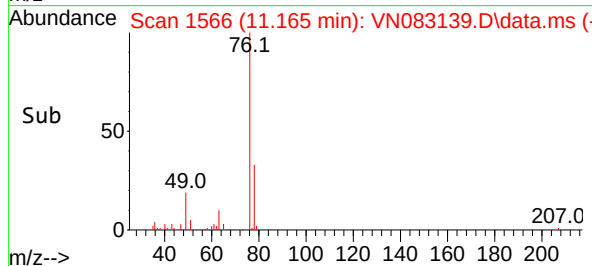
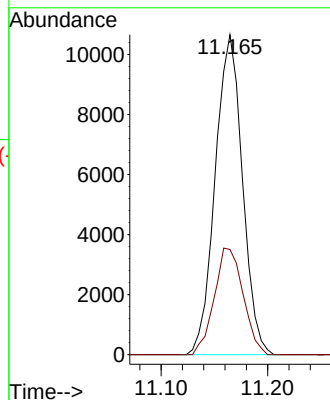
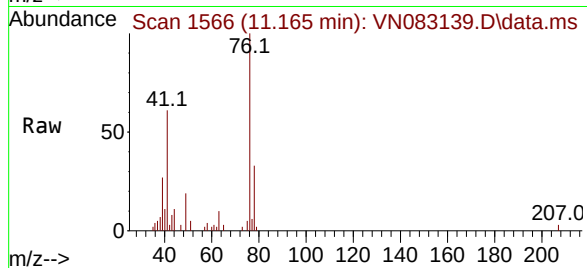
78 35.3 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#58

2-Chloroethyl Vinyl ether

Concen: 24.676 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. 0.000 min

Lab File: VN083139.D

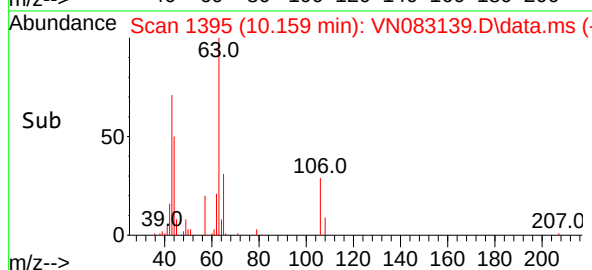
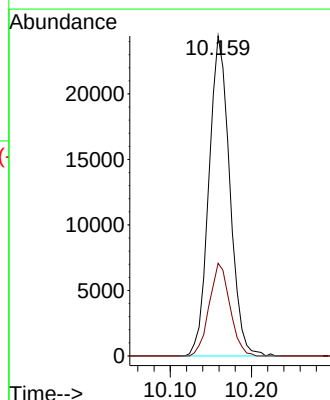
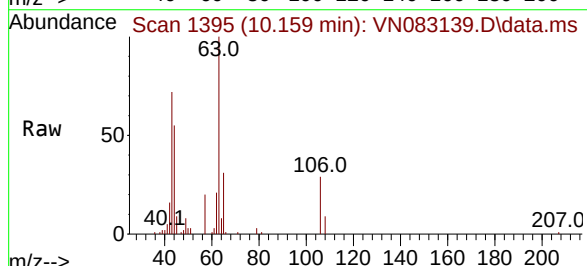
Acq: 07 Aug 2024 12:10

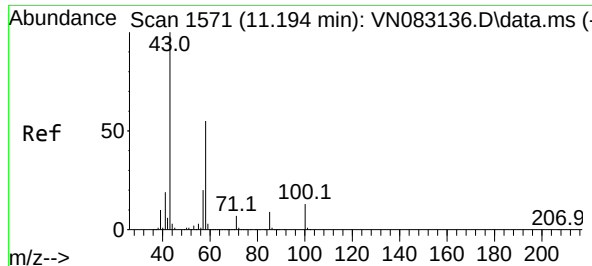
Tgt Ion: 63 Resp: 43528

Ion Ratio Lower Upper

63 100

106 28.8 21.4 32.0





#59

2-Hexanone

Concen: 24.870 ug/l

RT: 11.194 min Scan# 1571

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005

Tgt Ion: 43 Resp: 66854

Ion Ratio Lower Upper

43 100

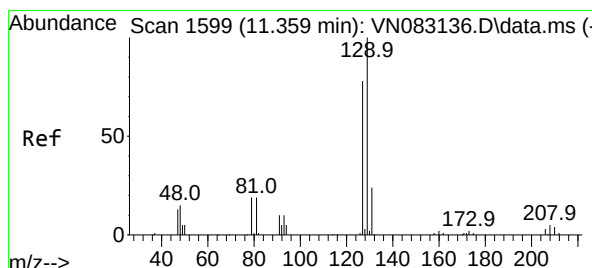
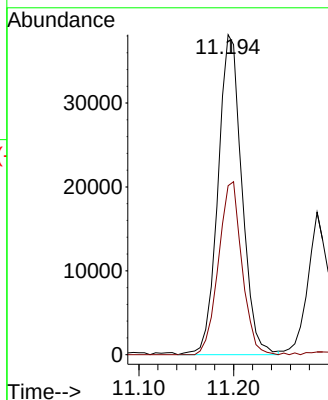
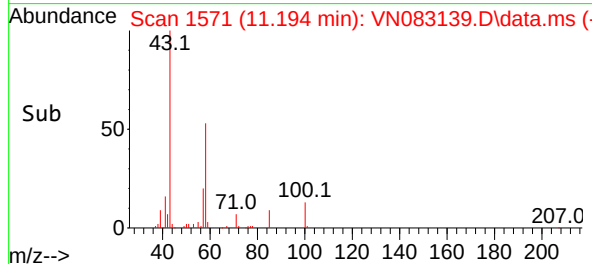
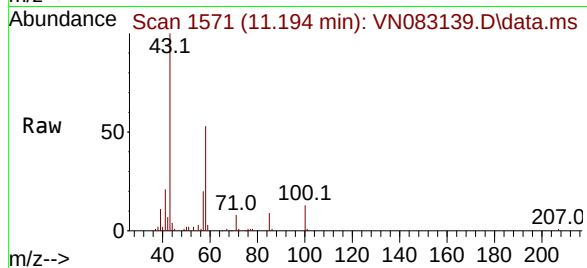
58 52.9 24.6 73.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#60

Dibromochloromethane

Concen: 4.972 ug/l

RT: 11.359 min Scan# 1599

Delta R.T. 0.000 min

Lab File: VN083139.D

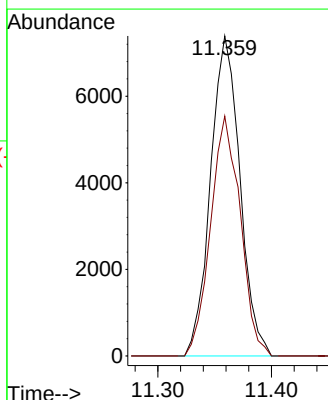
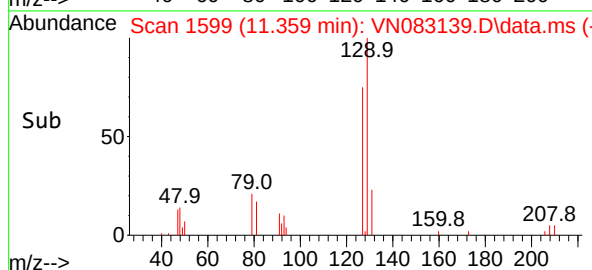
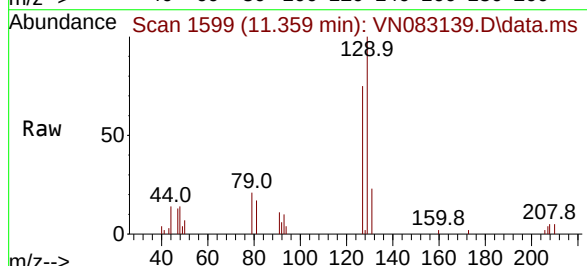
Acq: 07 Aug 2024 12:10

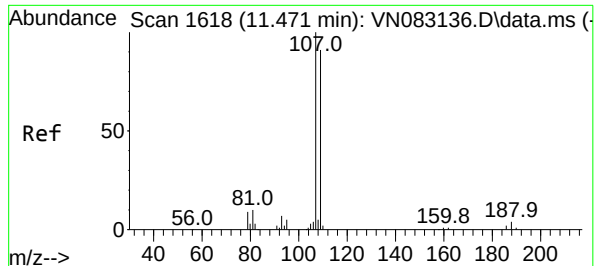
Tgt Ion:129 Resp: 13307

Ion Ratio Lower Upper

129 100

127 75.6 39.2 117.6





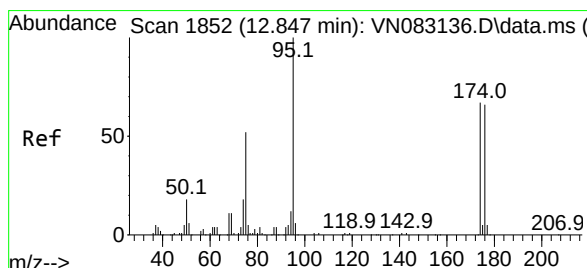
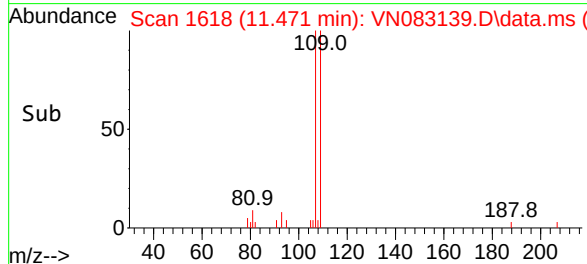
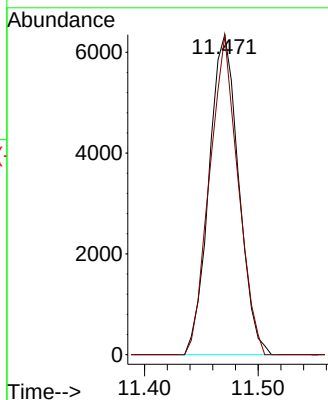
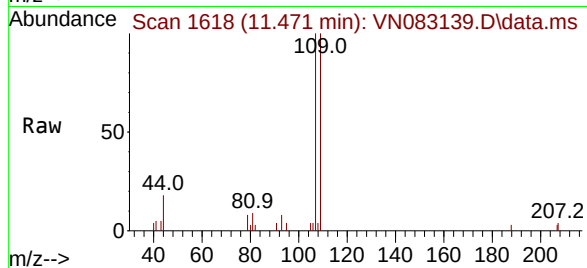
#61  
1,2-Dibromoethane  
Concen: 4.955 ug/l  
RT: 11.471 min Scan# 1152  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC005

Tgt Ion:107 Resp: 1152  
Ion Ratio Lower Upper  
107 100  
109 95.9 73.7 110.5

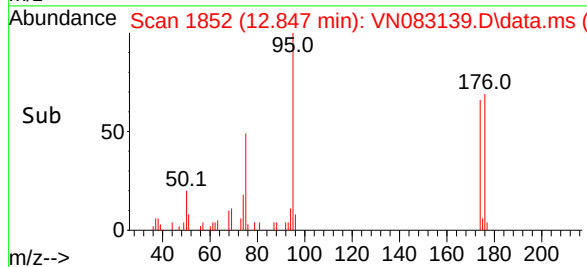
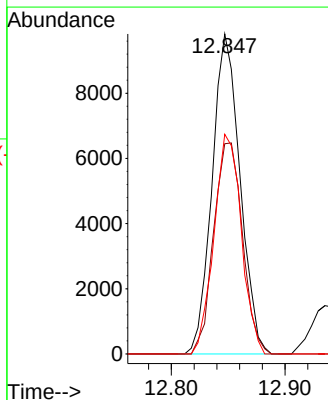
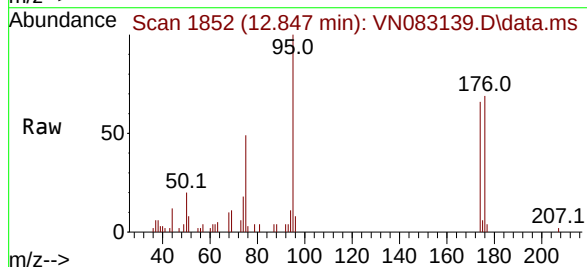
Manual Integrations  
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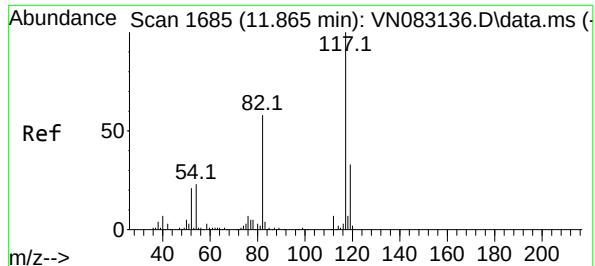
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#62  
4-Bromofluorobenzene  
Concen: 5.317 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

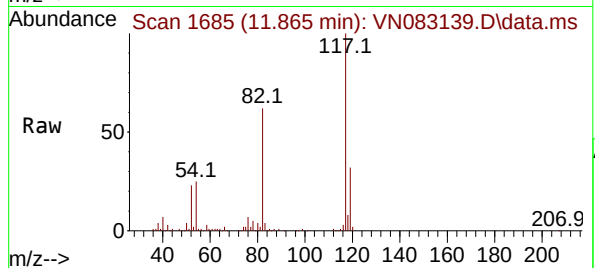
Tgt Ion: 95 Resp: 16776  
Ion Ratio Lower Upper  
95 100  
174 68.1 0.0 159.2  
176 67.0 0.0 147.6





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

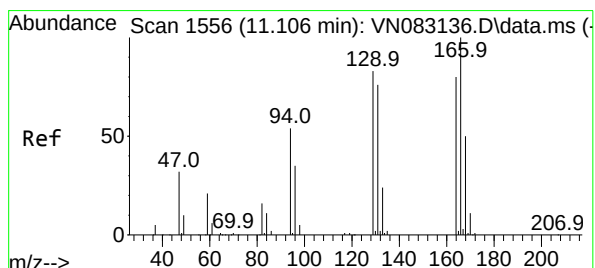
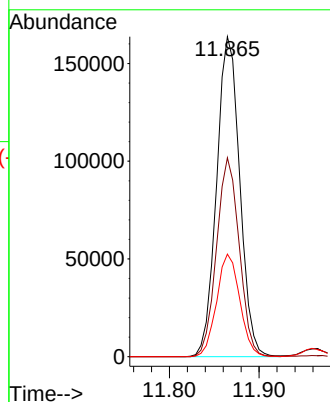
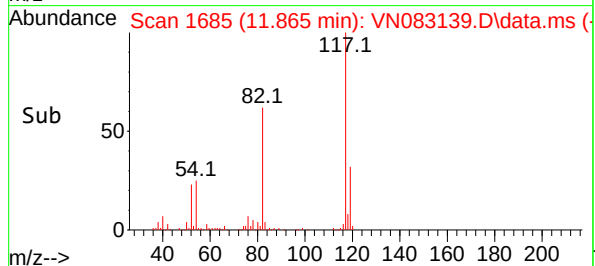
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005



Tgt Ion:117 Resp: 29351  
Ion Ratio Lower Upper  
117 100  
82 62.1 47.5 71.3  
119 32.0 25.6 38.4

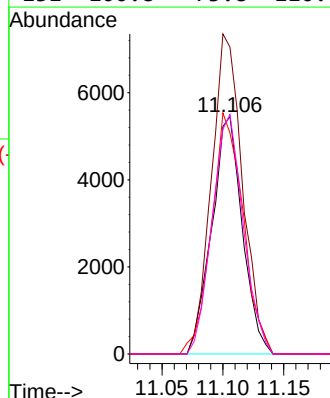
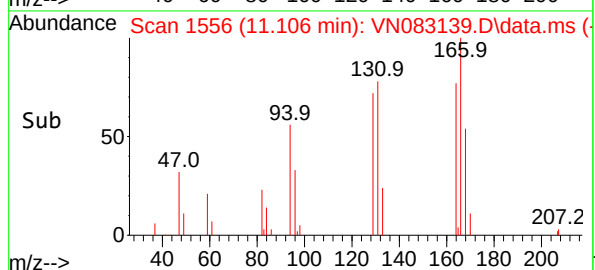
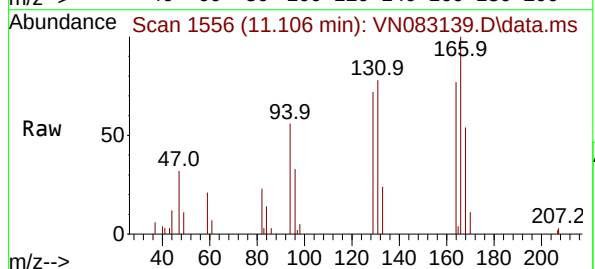
Manual Integrations  
APPROVED

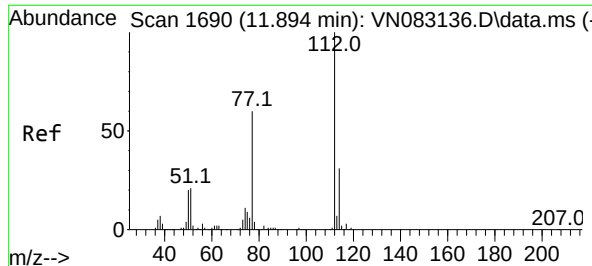
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#64  
Tetrachloroethene  
Concen: 4.896 ug/l  
RT: 11.106 min Scan# 1556  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

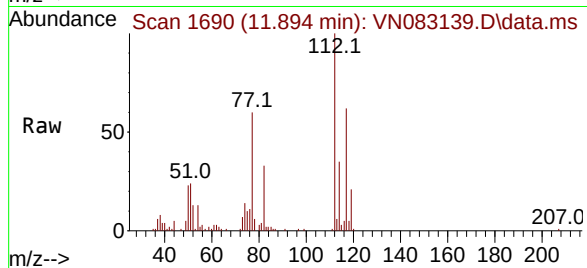
Tgt Ion:164 Resp: 9517  
Ion Ratio Lower Upper  
164 100  
166 129.2 101.4 152.0  
129 93.1 75.7 113.5  
131 100.8 73.8 110.6





#65  
Chlorobenzene  
Concen: 4.951 ug/l  
RT: 11.894 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

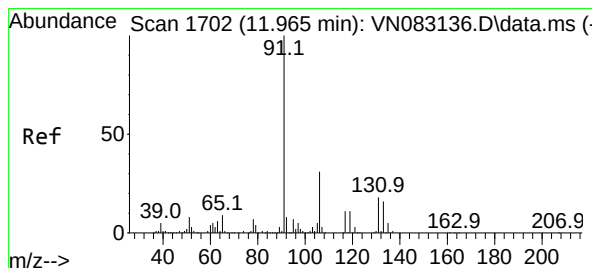
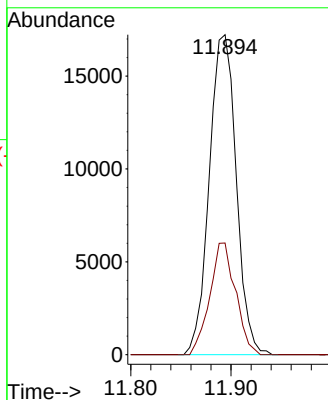
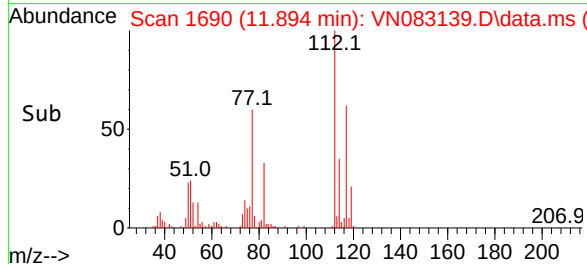
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005



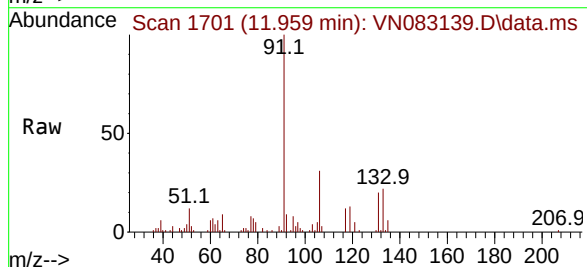
Tgt Ion:112 Resp: 32114  
Ion Ratio Lower Upper  
112 100  
114 34.9 26.2 39.2

Manual Integrations  
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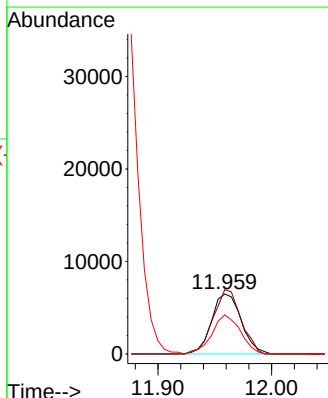
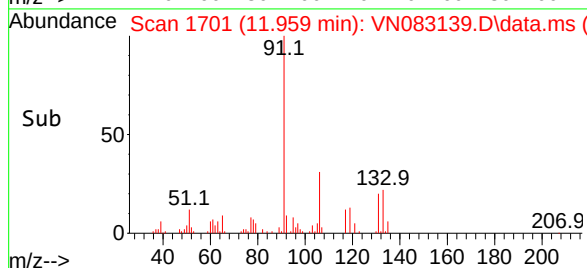
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

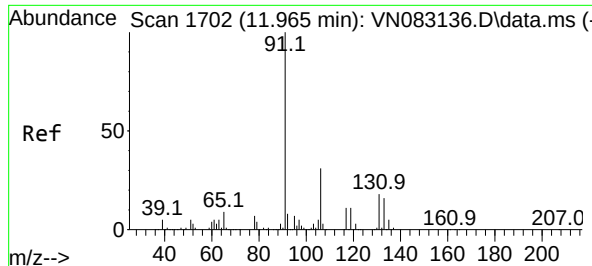


#66  
1,1,1,2-Tetrachloroethane  
Concen: 5.140 ug/l  
RT: 11.959 min Scan# 1701  
Delta R.T. -0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10



Tgt Ion:131 Resp: 11758  
Ion Ratio Lower Upper  
131 100  
133 101.6 47.3 142.0  
119 62.2 32.5 97.4





#67

Ethyl Benzene

Concen: 5.013 ug/l

RT: 11.965 min Scan# 1702

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC005

Tgt Ion: 91 Resp: 5964

Ion Ratio Lower Upper

91 100

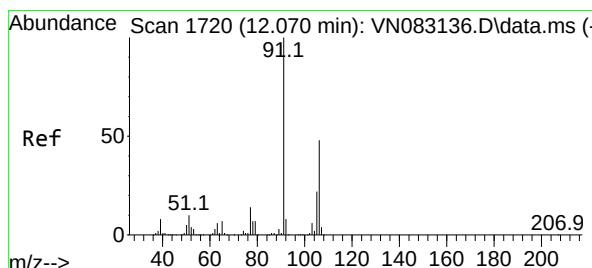
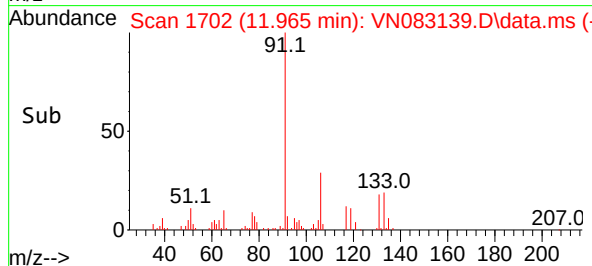
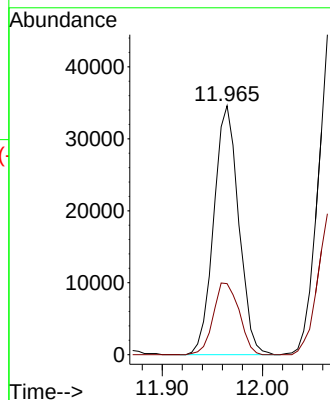
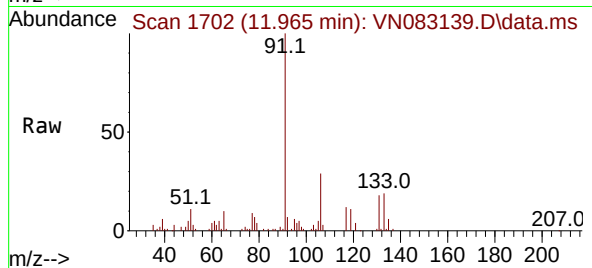
106 28.6 24.0 36.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#68

m/p-Xylenes

Concen: 10.000 ug/l

RT: 12.070 min Scan# 1720

Delta R.T. 0.000 min

Lab File: VN083139.D

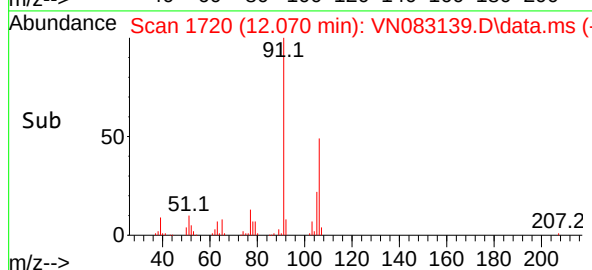
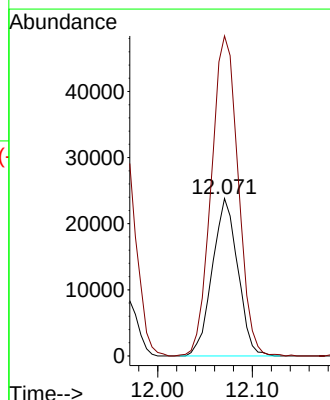
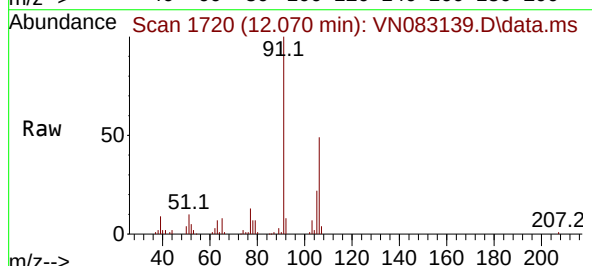
Acq: 07 Aug 2024 12:10

Tgt Ion:106 Resp: 44572

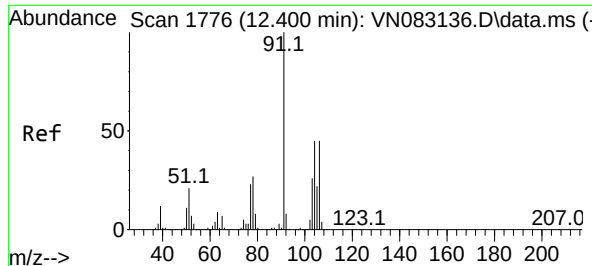
Ion Ratio Lower Upper

106 100

91 214.3 166.1 249.1







#69

o-Xylene

Concen: 5.005 ug/l

RT: 12.400 min Scan# 1776

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion:106 Resp: 2200

Ion Ratio Lower Upper

106 100

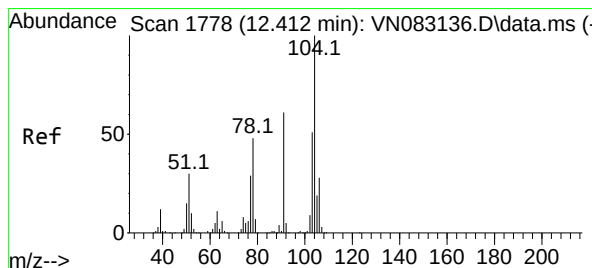
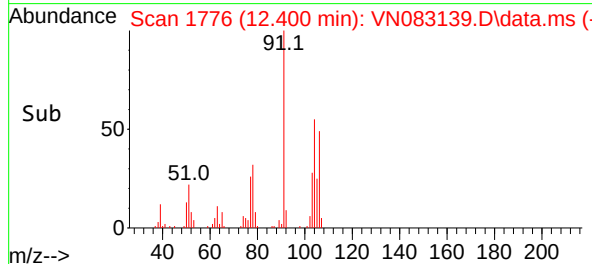
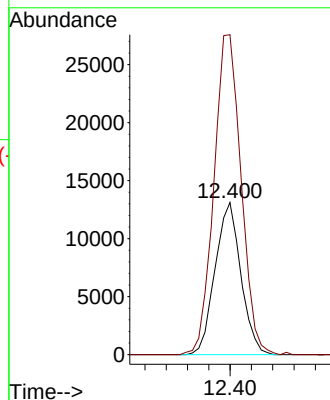
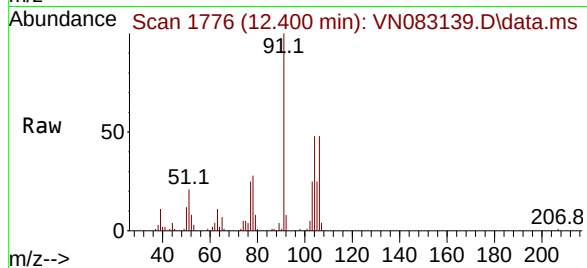
91 221.7 111.3 333.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#70

Styrene

Concen: 5.014 ug/l

RT: 12.412 min Scan# 1778

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

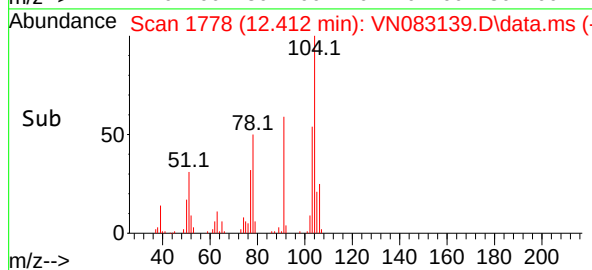
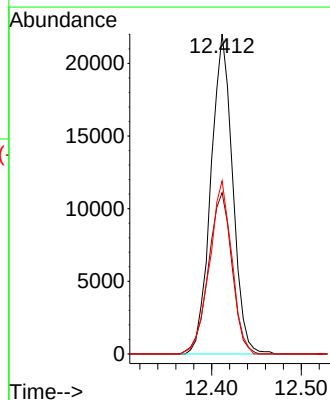
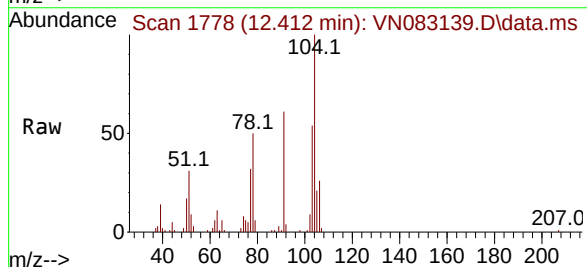
Tgt Ion:104 Resp: 37023

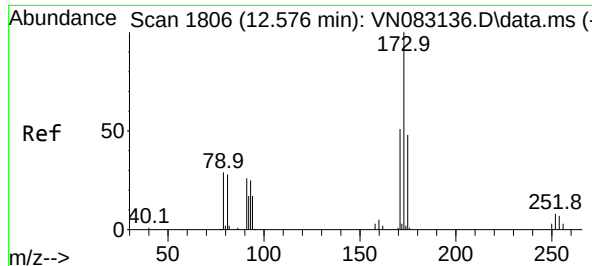
Ion Ratio Lower Upper

104 100

78 54.3 41.6 62.4

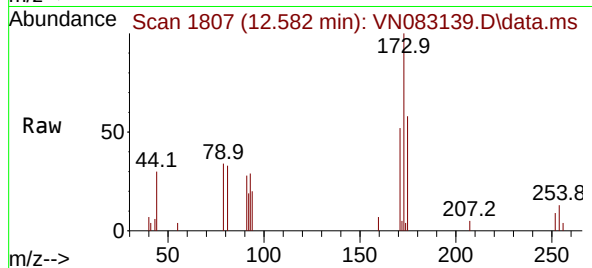
103 55.4 44.0 66.0





#71  
Bromoform  
Concen: 4.665 ug/l  
RT: 12.582 min Scan# 1806  
Delta R.T. 0.006 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

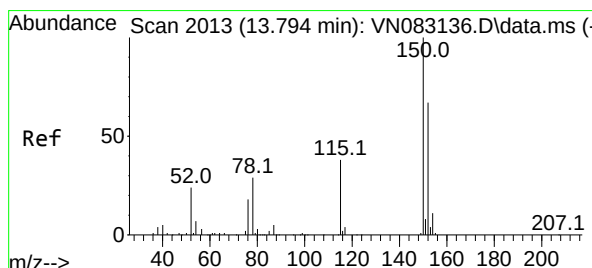
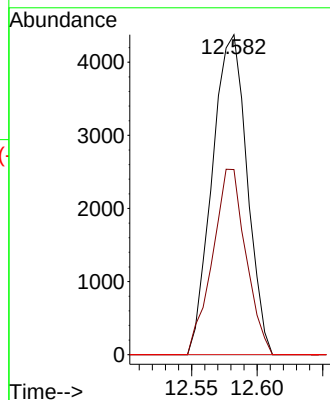
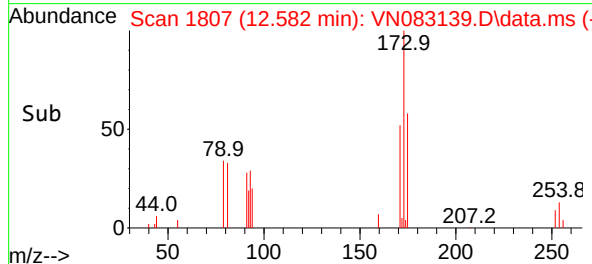
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005



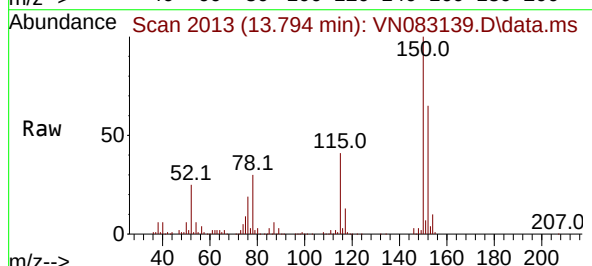
Tgt Ion:173 Resp: 808  
Ion Ratio Lower Upper  
173 100  
175 55.6 24.0 72.0  
254 0.0 0.0 0.0

Manual Integrations  
APPROVED

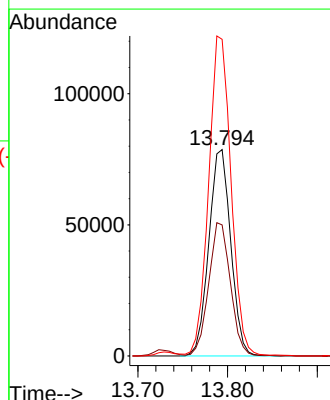
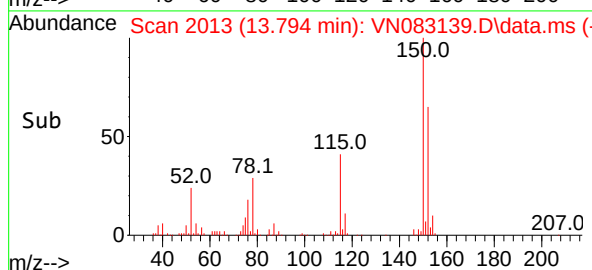
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

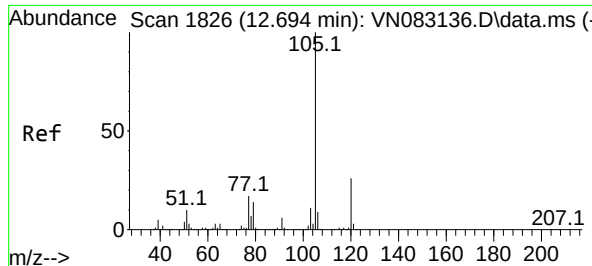


#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.794 min Scan# 2013  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10



Tgt Ion:152 Resp: 133537  
Ion Ratio Lower Upper  
152 100  
115 64.0 30.6 91.6  
150 158.4 0.0 348.6





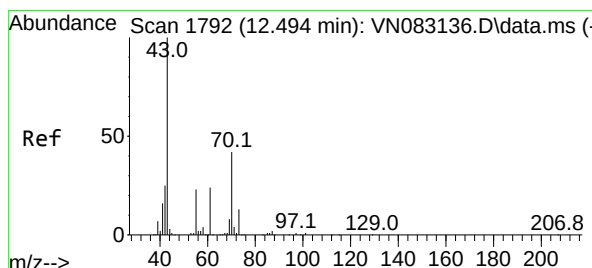
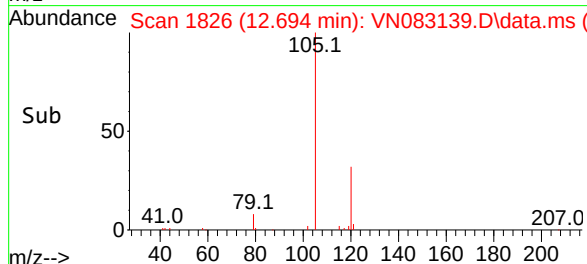
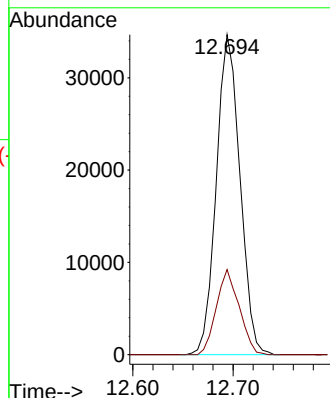
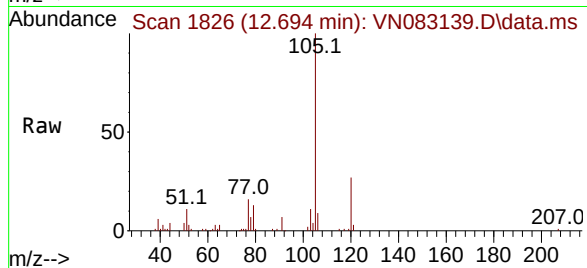
#73  
Isopropylbenzene  
Concen: 5.080 ug/l  
RT: 12.694 min Scan# 1826  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Tgt Ion: 105 Resp: 5674  
Ion Ratio Lower Upper  
105 100  
120 25.7 12.9 38.6

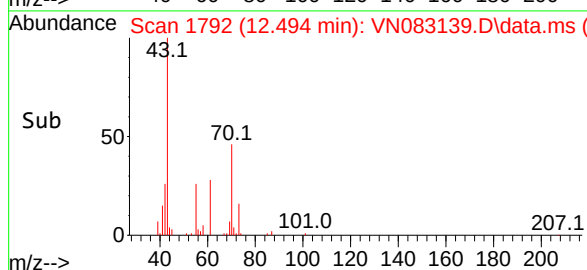
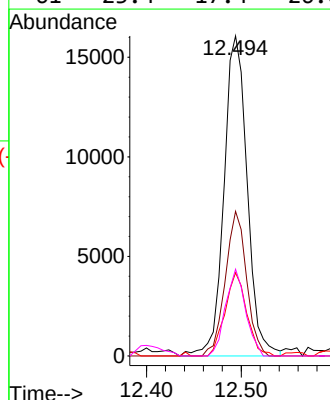
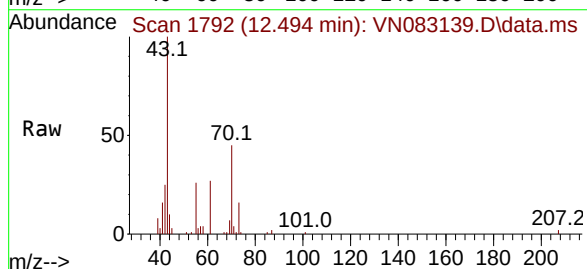
Manual Integrations  
APPROVED

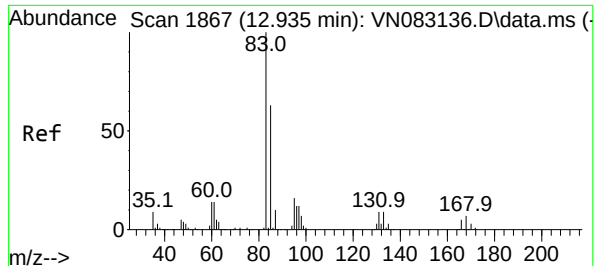
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#74  
N-ethyl acetate  
Concen: 5.014 ug/l  
RT: 12.494 min Scan# 1792  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 43 Resp: 27393  
Ion Ratio Lower Upper  
43 100  
70 41.4 29.8 44.6  
55 24.3 18.7 28.1  
61 23.4 17.4 26.0





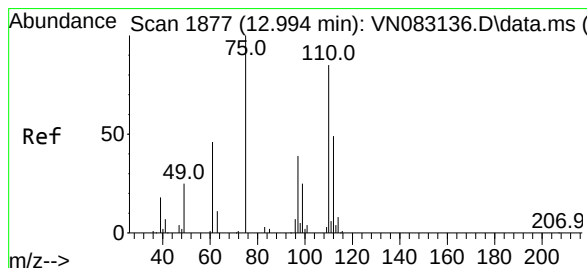
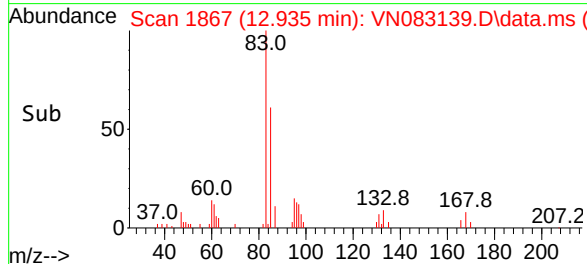
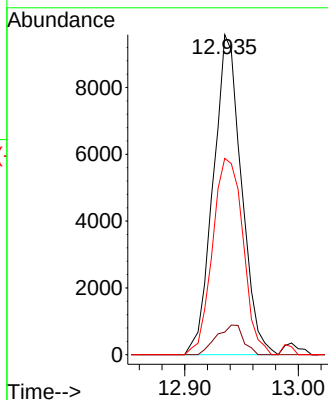
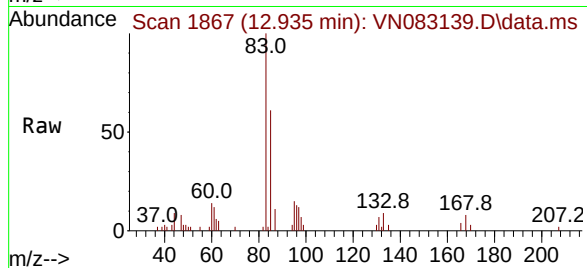
#75  
1,1,2,2-Tetrachloroethane  
Concen: 5.227 ug/l  
RT: 12.935 min Scan# 1867  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

| Tgt Ion:  | 83    | Resp: | 16514 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 83        | 100   |       |       |
| 131       | 8.8   | 5.0   | 14.9  |
| 85        | 66.4  | 31.9  | 95.7  |

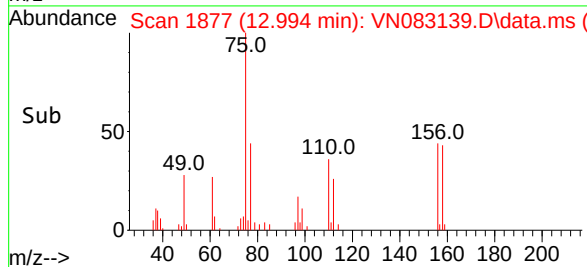
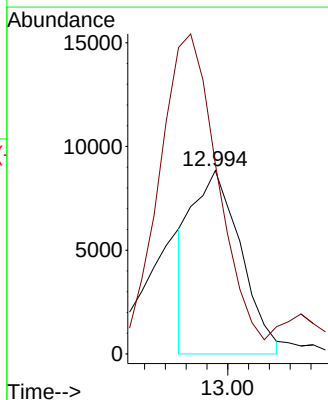
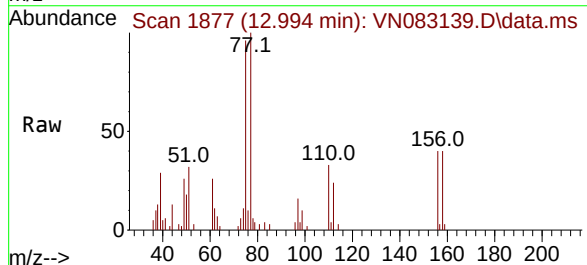
Manual Integrations  
APPROVED

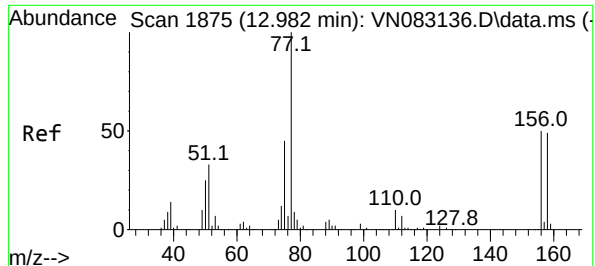
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#76  
1,2,3-Trichloropropane  
Concen: 4.927 ug/l m  
RT: 12.994 min Scan# 1877  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

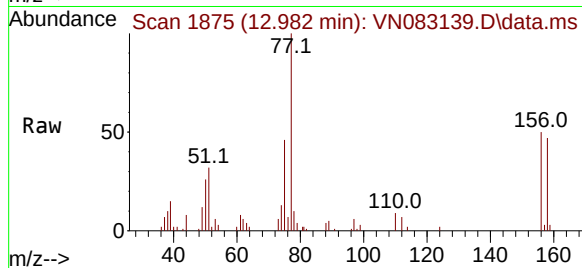
| Tgt Ion:  | 75    | Resp: | 14463 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 75        | 100   |       |       |
| 77        | 212.4 | 110.9 | 332.6 |





#77  
Bromobenzene  
Concen: 5.249 ug/l  
RT: 12.982 min Scan# 1875  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

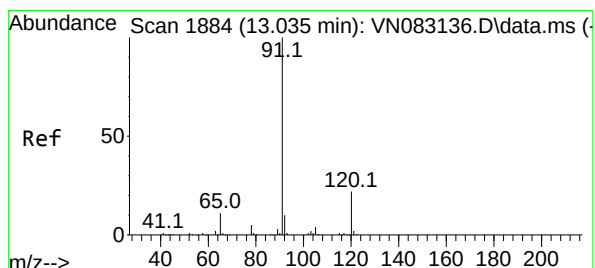
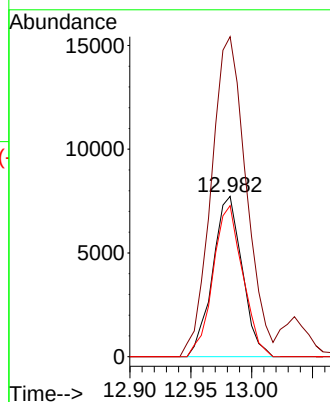
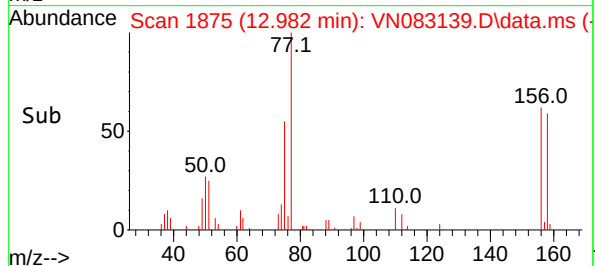
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005



Tgt Ion:156 Resp: 13024  
Ion Ratio Lower Upper  
156 100  
77 235.8 111.3 333.8  
158 95.0 48.3 144.9

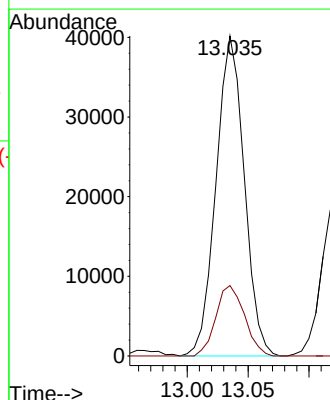
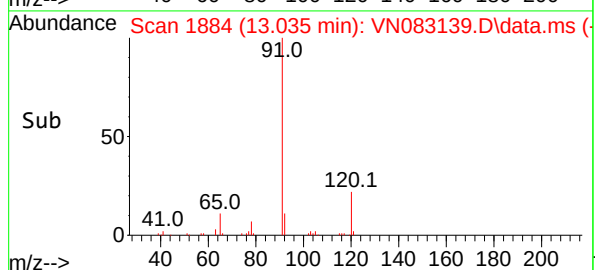
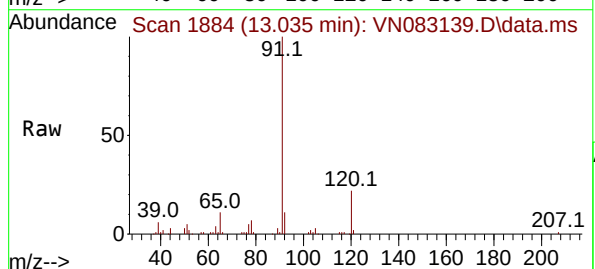
Manual Integrations  
APPROVED

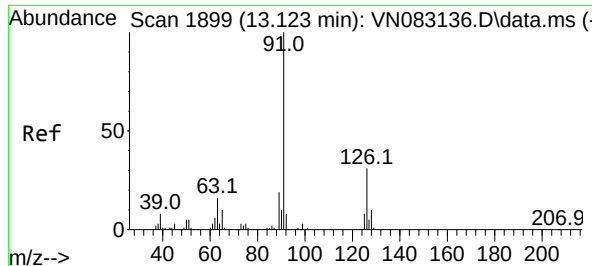
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#78  
n-propylbenzene  
Concen: 5.035 ug/l  
RT: 13.035 min Scan# 1884  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 91 Resp: 64751  
Ion Ratio Lower Upper  
91 100  
120 22.4 10.9 32.9





#79

2-Chlorotoluene

Concen: 5.050 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion: 91 Resp: 41170

Ion Ratio Lower Upper

91 100

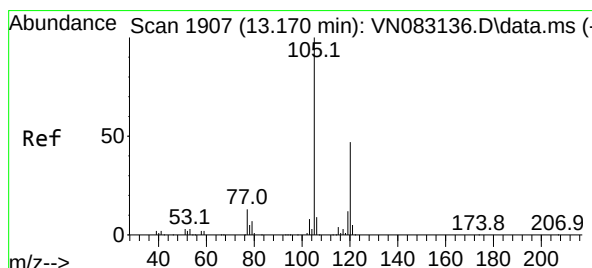
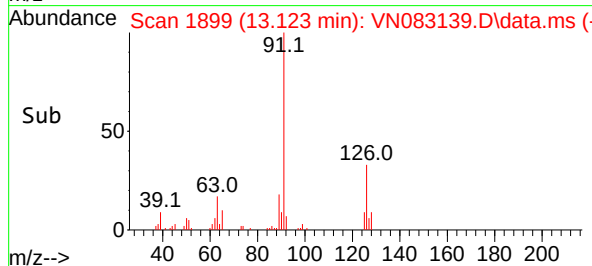
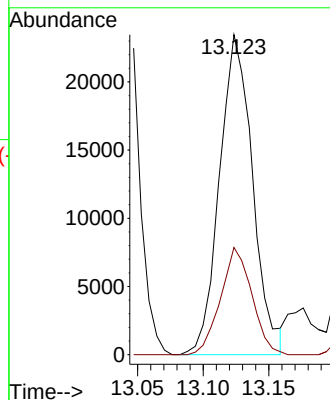
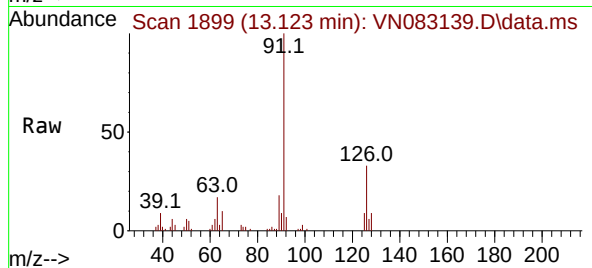
126 31.6 16.2 48.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#80

1,3,5-Trimethylbenzene

Concen: 5.088 ug/l

RT: 13.170 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VN083139.D

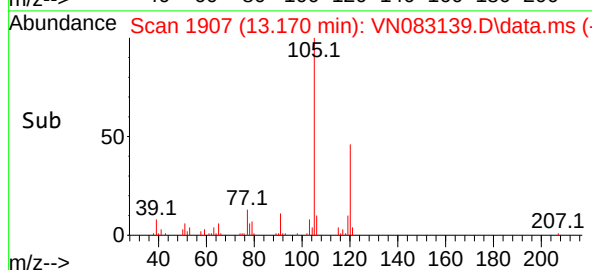
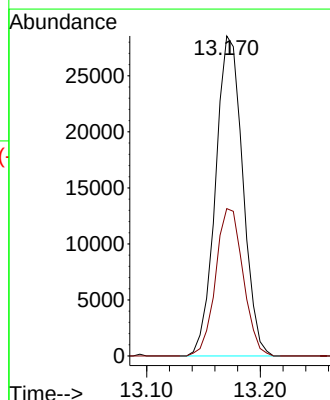
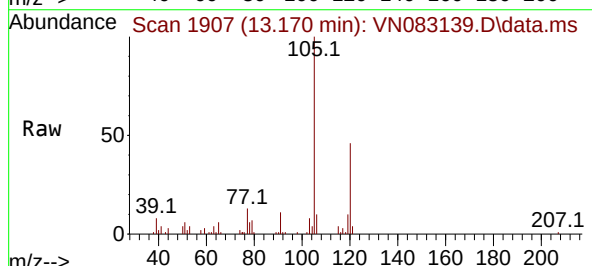
Acq: 07 Aug 2024 12:10

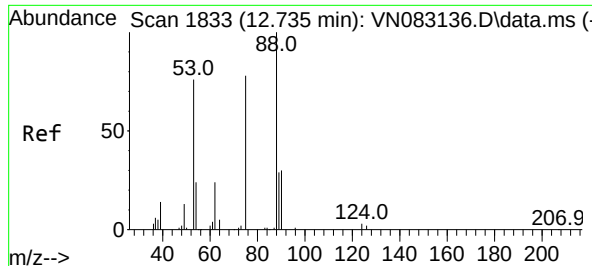
Tgt Ion:105 Resp: 47581

Ion Ratio Lower Upper

105 100

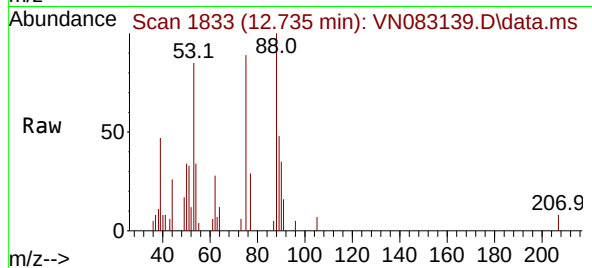
120 46.5 24.3 72.8





#81  
trans-1,4-Dichloro-2-butene  
Concen: 5.254 ug/l  
RT: 12.735 min Scan# 1833  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

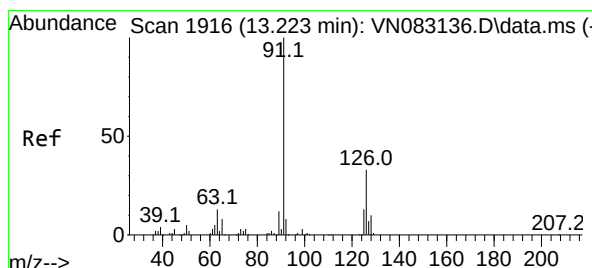
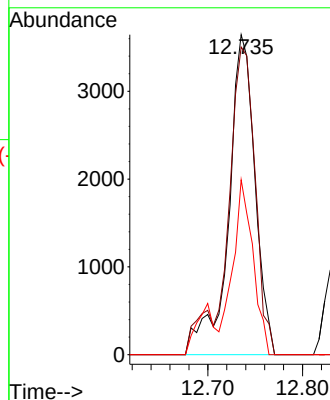
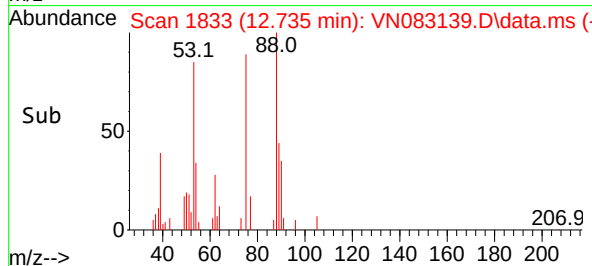
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005



Tgt Ion: 75 Resp: 7079  
Ion Ratio Lower Upper  
75 100  
53 100.6 88.4 132.6  
89 41.6 36.3 54.5

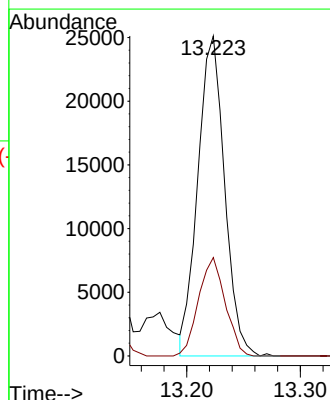
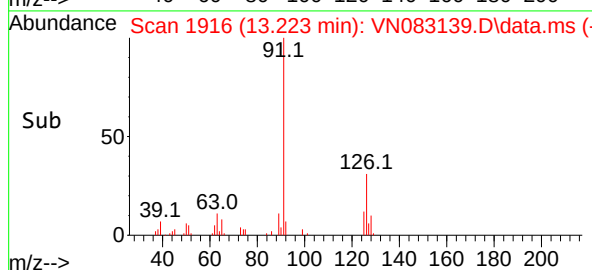
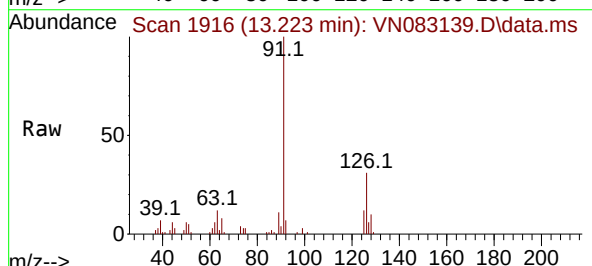
Manual Integrations  
APPROVED

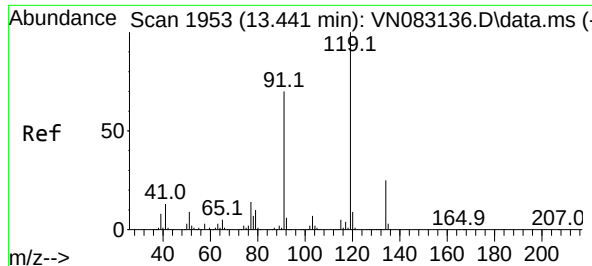
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#82  
4-Chlorotoluene  
Concen: 5.030 ug/l  
RT: 13.223 min Scan# 1916  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 91 Resp: 41137  
Ion Ratio Lower Upper  
91 100  
126 30.6 16.2 48.6





#83

tert-Butylbenzene

Concen: 5.159 ug/l

RT: 13.435 min Scan# 1953

Delta R.T. -0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

Tgt Ion:119 Resp: 4272

Ion Ratio Lower Upper

119 100

91 70.0 35.0 105.1

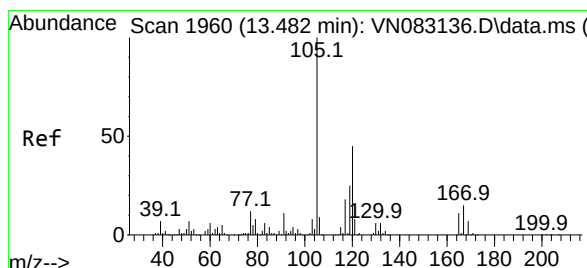
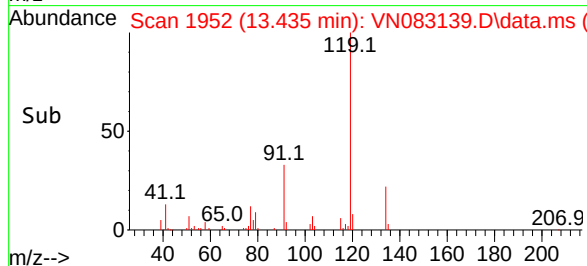
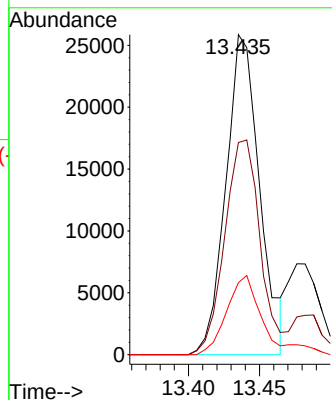
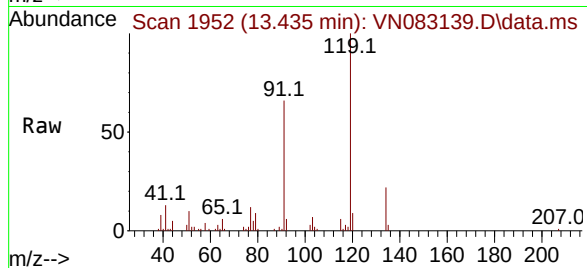
134 26.6 13.3 39.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#84

1,2,4-Trimethylbenzene

Concen: 5.090 ug/l

RT: 13.482 min Scan# 1960

Delta R.T. 0.000 min

Lab File: VN083139.D

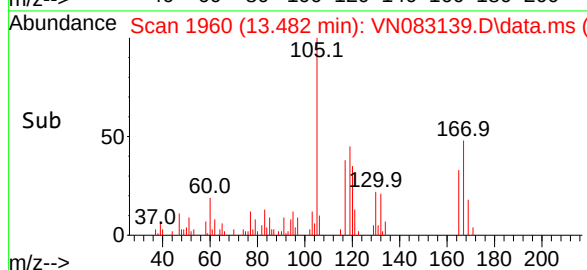
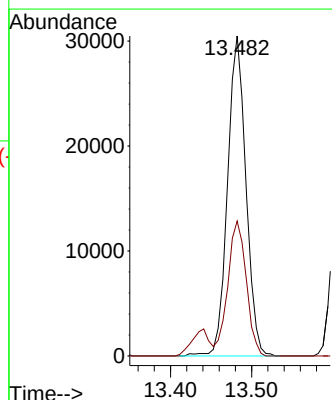
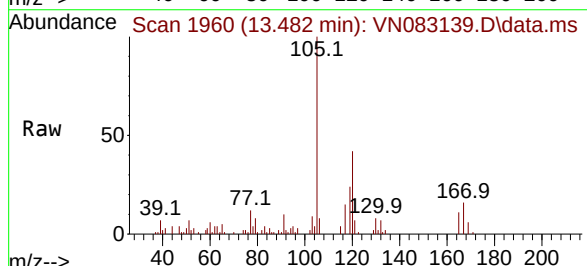
Acq: 07 Aug 2024 12:10

Tgt Ion:105 Resp: 47965

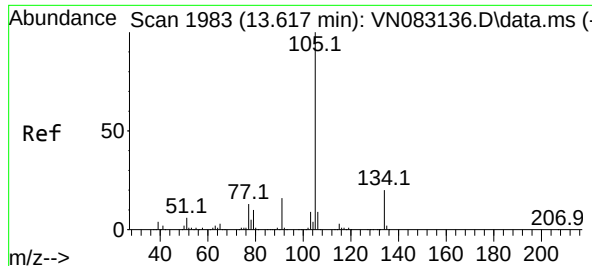
Ion Ratio Lower Upper

105 100

120 42.3 21.9 65.8







#85

sec-Butylbenzene

Concen: 5.040 ug/l

RT: 13.617 min Scan# 1983

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

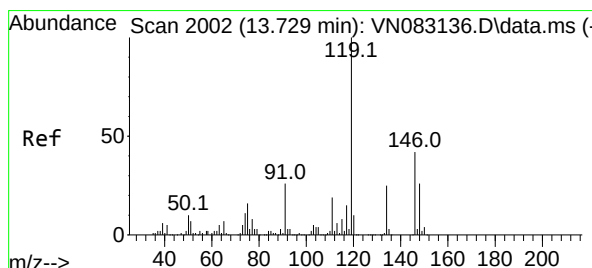
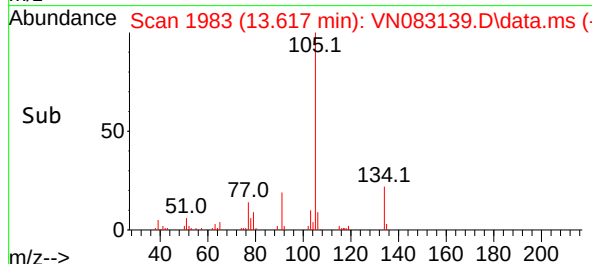
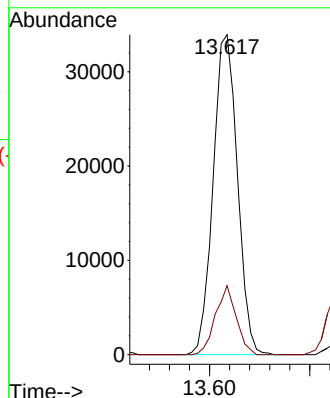
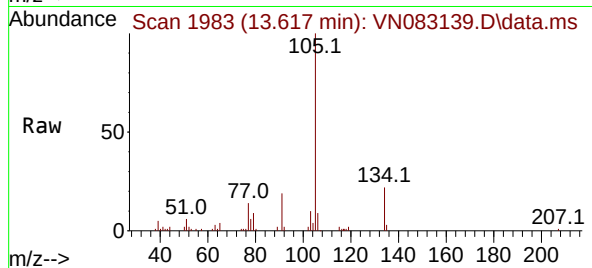
VSTDIC005

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 105   | Resp: | 5694 |
| Ion Ratio | Lower | Upper |      |
| 105       | 100   |       |      |
| 134       | 18.5  | 9.8   | 29.3 |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#86

p-Isopropyltoluene

Concen: 5.108 ug/l

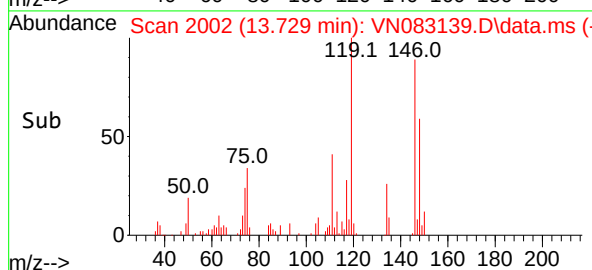
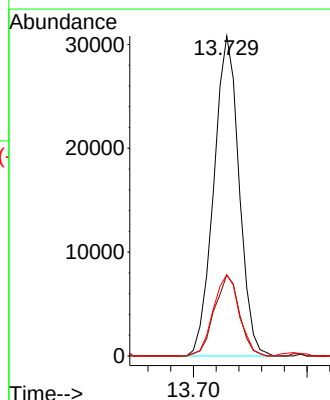
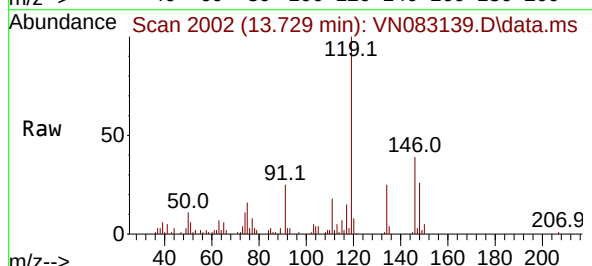
RT: 13.729 min Scan# 2002

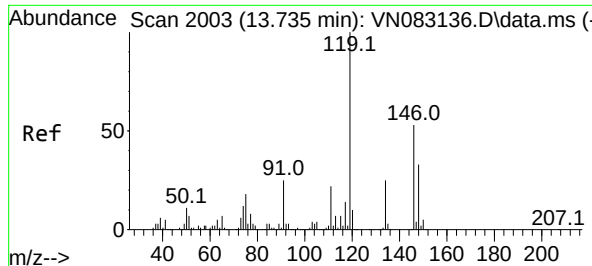
Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 119   | Resp: | 47654 |
| Ion Ratio | Lower | Upper |       |
| 119       | 100   |       |       |
| 134       | 24.9  | 13.0  | 39.0  |
| 91        | 26.0  | 12.3  | 36.9  |





#87

1,3-Dichlorobenzene

Concen: 4.887 ug/l

RT: 13.735 min Scan# 2003

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

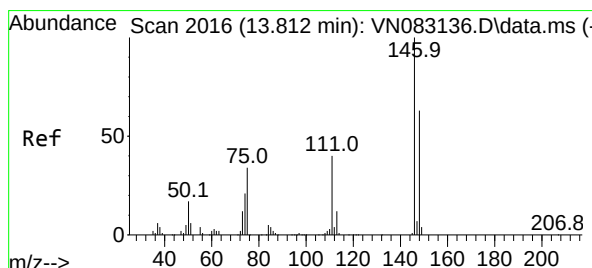
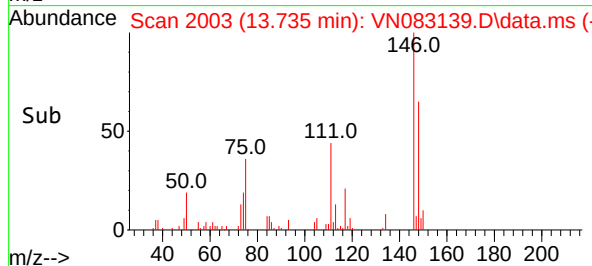
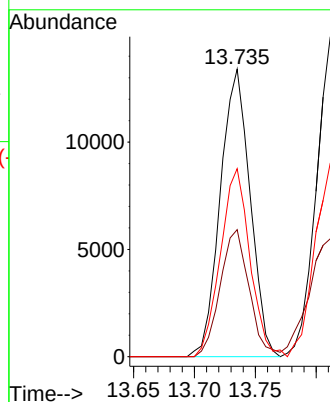
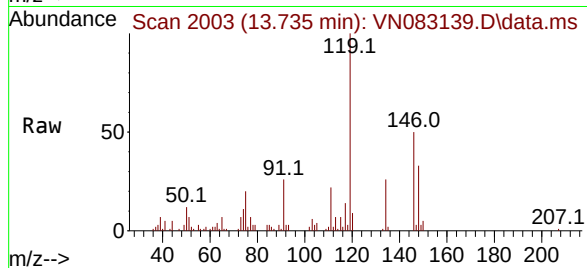
VSTDIC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 146   | Resp: | 22814 |
| Ion      | Ratio | Lower | Upper |
| 146      | 100   |       |       |
| 111      | 43.0  | 20.6  | 61.9  |
| 148      | 64.7  | 31.8  | 95.3  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#88

1,4-Dichlorobenzene

Concen: 5.093 ug/l

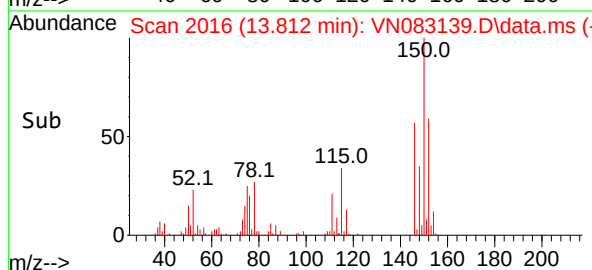
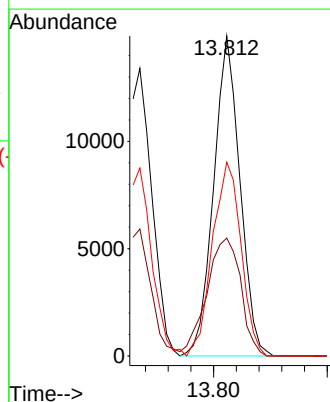
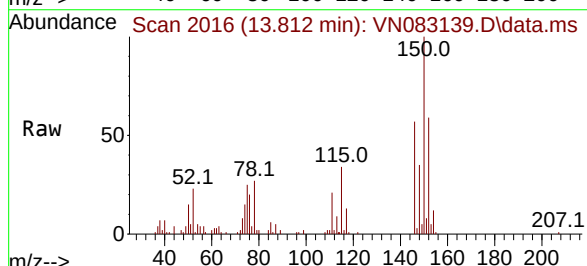
RT: 13.812 min Scan# 2016

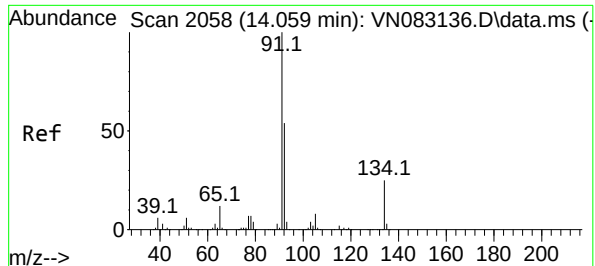
Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 146   | Resp: | 23971 |
| Ion      | Ratio | Lower | Upper |
| 146      | 100   |       |       |
| 111      | 47.6  | 20.1  | 60.3  |
| 148      | 65.9  | 32.2  | 96.6  |





#89

n-Butylbenzene

Concen: 4.983 ug/l

RT: 14.053 min Scan# 2058

Delta R.T. -0.006 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

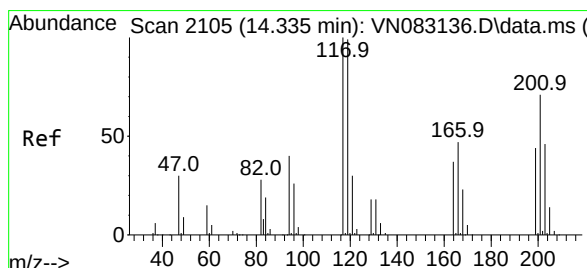
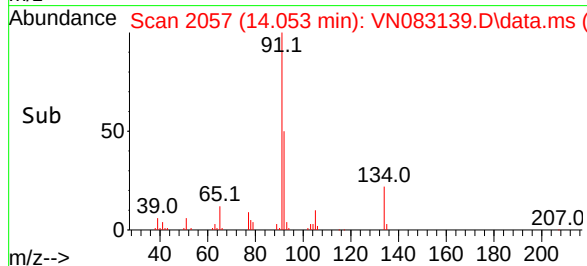
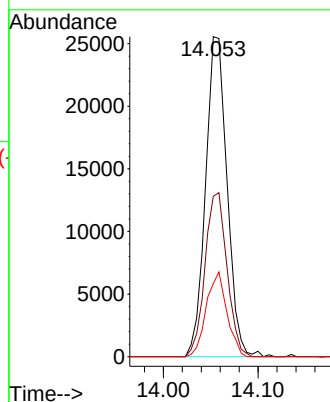
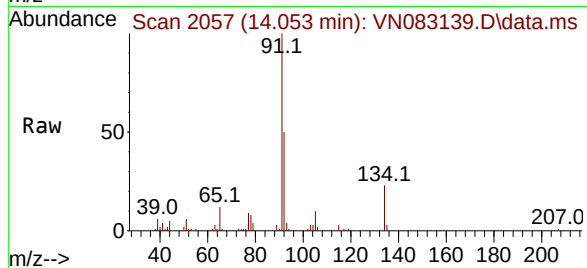
VSTDICC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 91    | Resp: | 4028  |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 92       | 52.3  | 26.1  | 78.3  |
| 134      | 25.3  | 12.1  | 36.3  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#90

Hexachloroethane

Concen: 5.158 ug/l

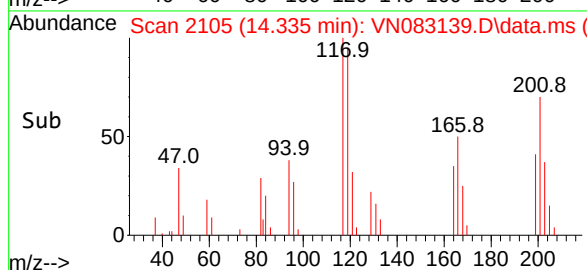
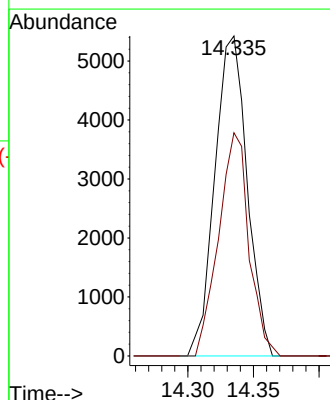
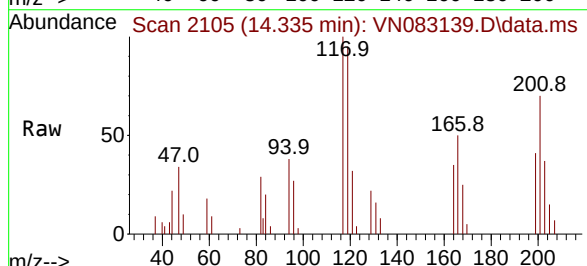
RT: 14.335 min Scan# 2105

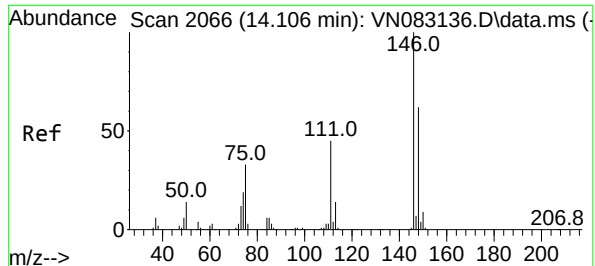
Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

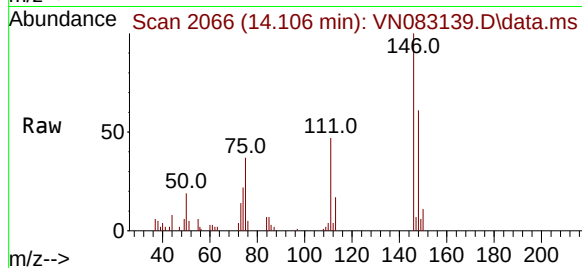
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 9298  |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 201      | 65.4  | 35.8  | 107.3 |





#91  
1,2-Dichlorobenzene  
Concen: 5.117 ug/l  
RT: 14.106 min Scan# 2066  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

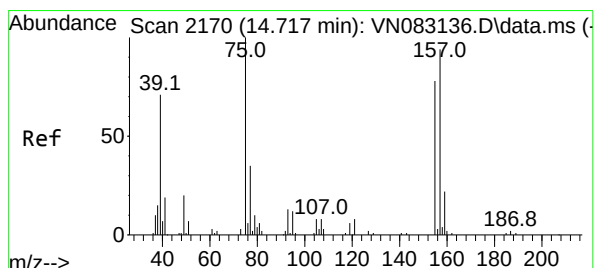
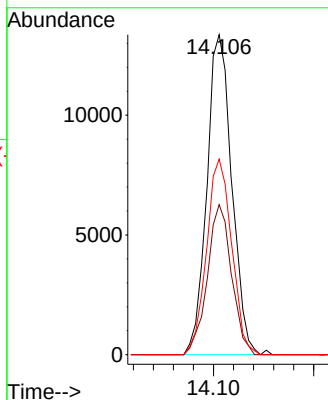
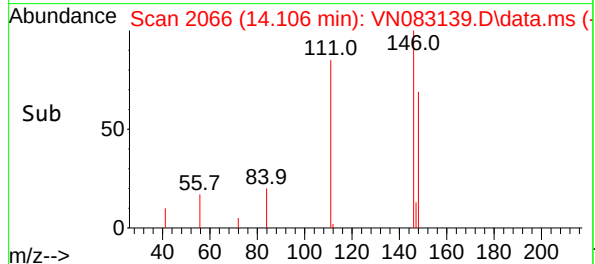
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005



Tgt Ion: 146 Resp: 23110  
Ion Ratio Lower Upper  
146 100  
111 45.5 21.4 64.2  
148 61.5 32.1 96.5

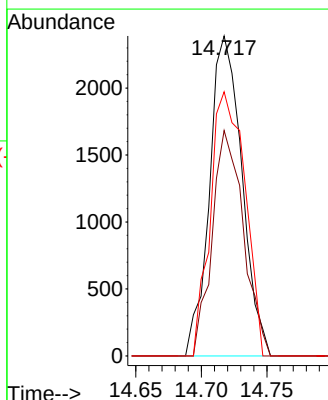
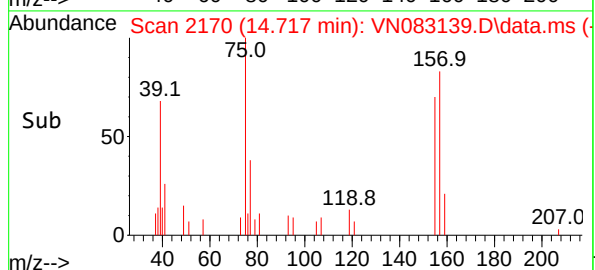
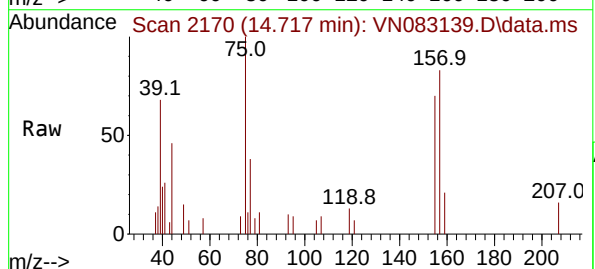
Manual Integrations  
APPROVED

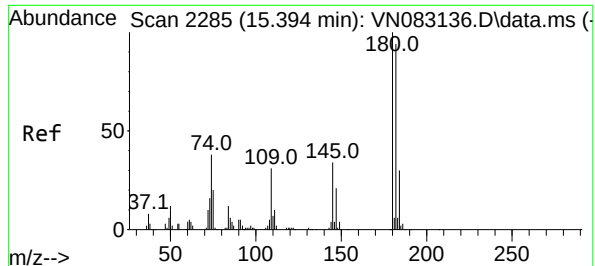
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#92  
1,2-Dibromo-3-Chloropropane  
Concen: 5.345 ug/l  
RT: 14.717 min Scan# 2170  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion: 75 Resp: 4097  
Ion Ratio Lower Upper  
75 100  
155 68.1 36.6 109.8  
157 88.3 46.9 140.6





#93

1,2,4-Trichlorobenzene

Concen: 4.710 ug/l

RT: 15.394 min Scan# 21

Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC005

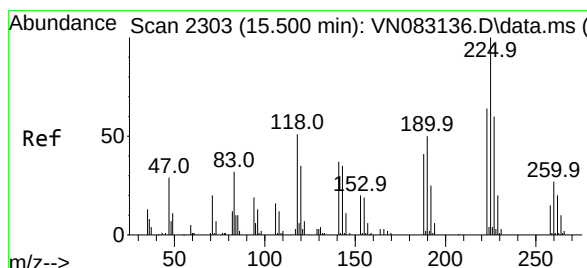
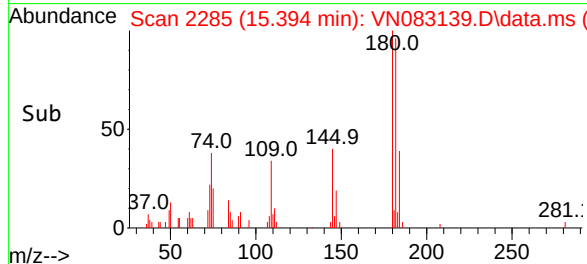
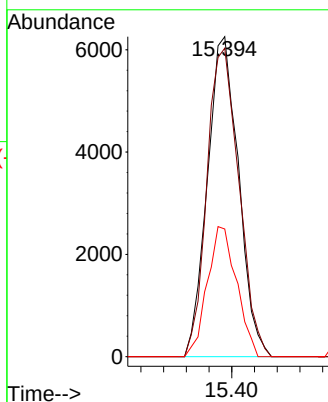
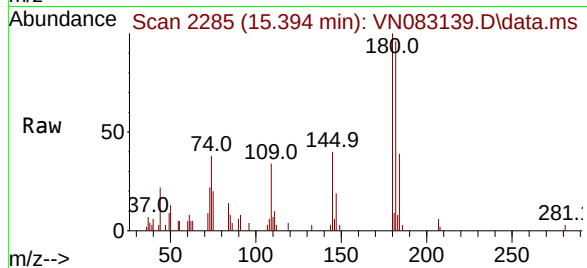
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 180   | Resp: | 1192  |
| Ion Ratio | Lower | Upper |       |
| 180       | 100   |       |       |
| 182       | 98.9  | 47.3  | 141.8 |
| 145       | 38.1  | 15.7  | 47.1  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#94

Hexachlorobutadiene

Concen: 5.282 ug/l

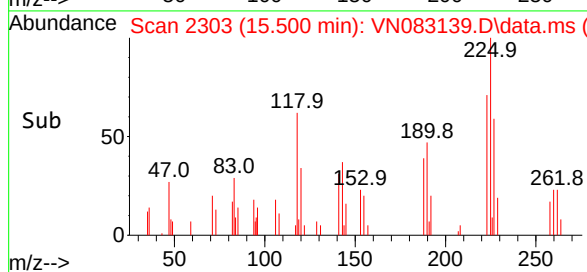
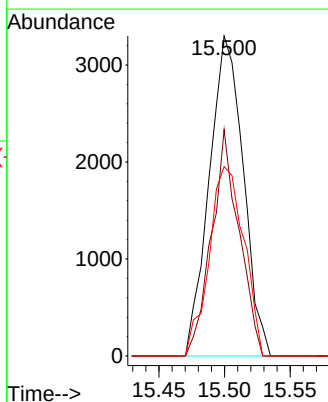
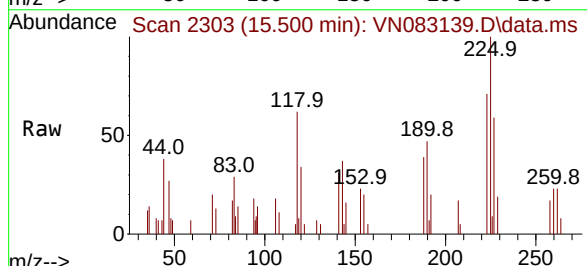
RT: 15.500 min Scan# 2303

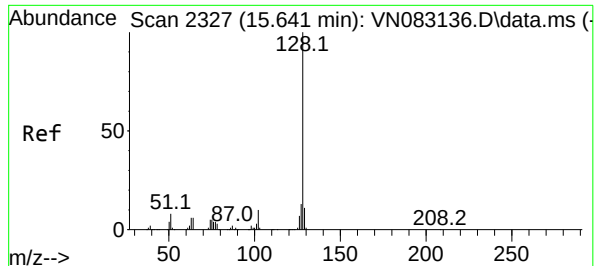
Delta R.T. 0.000 min

Lab File: VN083139.D

Acq: 07 Aug 2024 12:10

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 225   | Resp: | 5946 |
| Ion Ratio | Lower | Upper |      |
| 225       | 100   |       |      |
| 223       | 57.3  | 31.9  | 95.7 |
| 227       | 60.5  | 32.5  | 97.5 |





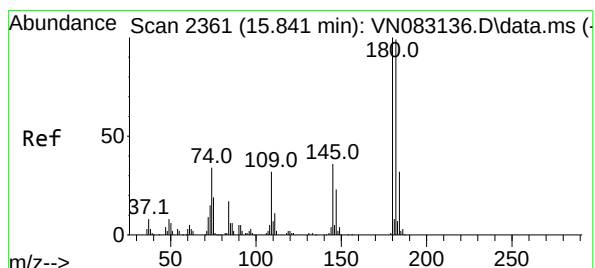
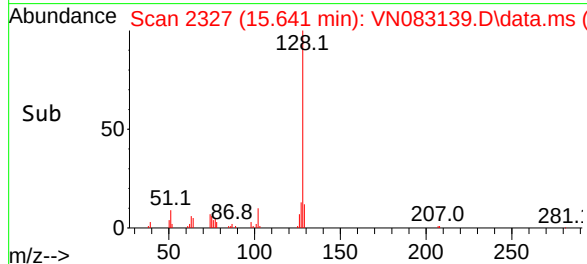
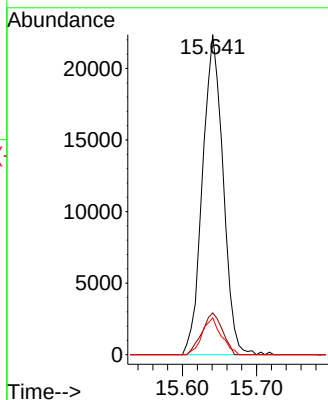
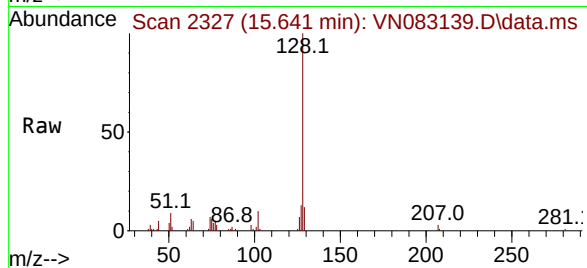
#95  
Naphthalene  
Concen: 4.811 ug/l  
RT: 15.641 min Scan# 2327  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC005

Tgt Ion:128 Resp: 4313  
Ion Ratio Lower Upper  
128 100  
127 13.0 10.6 16.0  
129 10.8 8.6 12.8

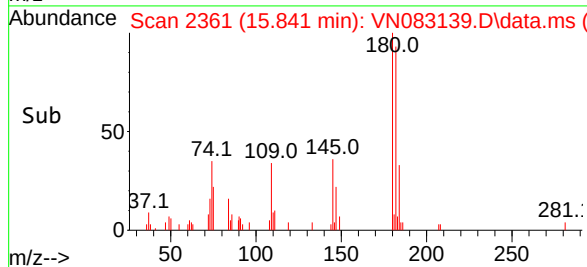
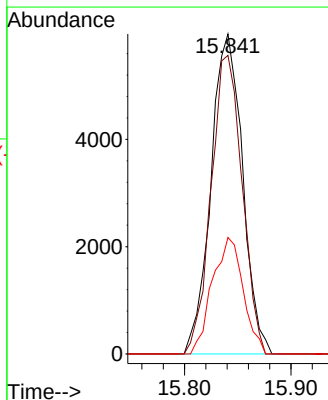
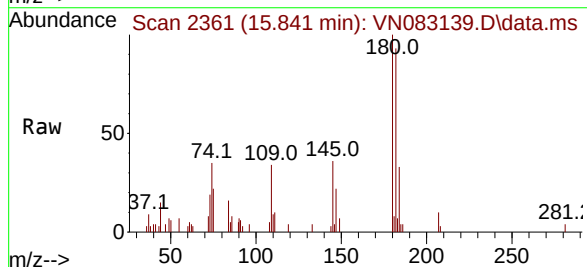
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#96  
1,2,3-Trichlorobenzene  
Concen: 4.905 ug/l  
RT: 15.841 min Scan# 2361  
Delta R.T. 0.000 min  
Lab File: VN083139.D  
Acq: 07 Aug 2024 12:10

Tgt Ion:180 Resp: 12285  
Ion Ratio Lower Upper  
180 100  
182 91.5 48.9 146.8  
145 35.5 16.8 50.4



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083140.D  
Acq On : 07 Aug 2024 12:34  
Operator : JC\MD  
Sample : VSTDICC001  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001

Quant Time: Aug 08 06:19:42 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 05:50:26 2024  
Response via : Initial Calibration

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 202290   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 347394   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 292647   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.794 | 152  | 122922   | 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 | 64 - 133 | Recovery | =    | 0.000%# |

## Target Compounds

|                              |       |     |       |       |        | Qvalue |
|------------------------------|-------|-----|-------|-------|--------|--------|
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 2193  | 0.956 | ug/l   | 84     |
| 3) Chloromethane             | 2.365 | 50  | 2331  | 0.993 | ug/l   | 96     |
| 4) Vinyl Chloride            | 2.512 | 62  | 2457  | 1.025 | ug/l   | 94     |
| 6) Chloroethane              | 3.124 | 64  | 1763  | 1.176 | ug/l # | 54     |
| 7) Trichlorofluoromethane    | 3.495 | 101 | 3645  | 0.921 | ug/l   | 88     |
| 8) Diethyl Ether             | 3.965 | 74  | 1368  | 0.929 | ug/l   | 95     |
| 9) 1,1,2-Trichlorotrifluo... | 4.371 | 101 | 2064  | 0.946 | ug/l # | 88     |
| 12) 1,1-Dichloroethene       | 4.342 | 96  | 2328  | 1.038 | ug/l # | 72     |
| 14) Allyl chloride           | 5.018 | 41  | 4894  | 1.155 | ug/l # | 75     |
| 15) Acrylonitrile            | 5.724 | 53  | 6198  | 5.036 | ug/l   | 94     |
| 16) Acetone                  | 4.442 | 43  | 5369  | 4.765 | ug/l   | 95     |
| 17) Carbon Disulfide         | 4.718 | 76  | 7603  | 1.159 | ug/l   | 99     |
| 18) Methyl Acetate           | 5.036 | 43  | 3987  | 1.188 | ug/l # | 89     |
| 19) Methyl tert-butyl Ether  | 5.795 | 73  | 7900  | 0.976 | ug/l   | 96     |
| 20) Methylene Chloride       | 5.283 | 84  | 3255  | 1.255 | ug/l # | 63     |
| 21) trans-1,2-Dichloroethene | 5.783 | 96  | 2425  | 1.046 | ug/l # | 75     |
| 22) Diisopropyl ether        | 6.677 | 45  | 7871  | 0.988 | ug/l   | 94     |
| 23) Vinyl Acetate            | 6.606 | 43  | 39044 | 4.783 | ug/l # | 94     |
| 24) 1,1-Dichloroethane       | 6.571 | 63  | 4189  | 0.965 | ug/l # | 83     |
| 25) 2-Butanone               | 7.495 | 43  | 9164  | 5.297 | ug/l   | 93     |
| 26) 2,2-Dichloropropane      | 7.489 | 77  | 3741  | 0.928 | ug/l   | 95     |
| 27) cis-1,2-Dichloroethene   | 7.495 | 96  | 2919  | 1.044 | ug/l   | 90     |
| 28) Bromochloromethane       | 7.812 | 49  | 1883  | 1.061 | ug/l # | 92     |
| 29) Tetrahydrofuran          | 7.842 | 42  | 5490  | 4.909 | ug/l # | 87     |
| 30) Chloroform               | 7.971 | 83  | 4457  | 0.988 | ug/l   | 95     |
| 32) 1,1,1-Trichloroethane    | 8.171 | 97  | 4076  | 0.955 | ug/l # | 49     |
| 36) 1,1-Dichloropropene      | 8.377 | 75  | 3393  | 1.034 | ug/l   | 97     |
| 37) Ethyl Acetate            | 7.565 | 43  | 4617  | 1.257 | ug/l # | 90     |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 3422  | 0.926 | ug/l # | 84     |
| 39) Methylcyclohexane        | 9.600 | 83  | 3974  | 0.986 | ug/l   | 87     |
| 40) Benzene                  | 8.606 | 78  | 9334  | 0.955 | ug/l   | 99     |
| 41) Methacrylonitrile        | 7.783 | 41  | 2618  | 1.254 | ug/l # | 85     |
| 42) 1,2-Dichloroethane       | 8.677 | 62  | 3457  | 0.971 | ug/l   | 82     |
| 43) Isopropyl Acetate        | 8.689 | 43  | 14981 | 0.753 | ug/l # | 80     |
| 44) Trichloroethene          | 9.359 | 130 | 2151  | 0.925 | ug/l   | 98     |
| 45) 1,2-Dichloropropane      | 9.618 | 63  | 2194  | 0.946 | ug/l   | 93     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
 Data File : VN083140.D  
 Acq On : 07 Aug 2024 12:34  
 Operator : JC\MD  
 Sample : VSTDICC001  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

## Instrument :

MSVOA\_N

## ClientSampleId :

VSTDICC001

## Manual Integrations

## APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:19:42 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M

Quant Title : SW846 8260

QLast Update : Thu Aug 08 05:50:26 2024

Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|--------|--------|----------|
| 46) Dibromomethane            | 9.700  | 93   | 1513     | 0.911  | ug/l   | 95       |
| 47) Bromodichloromethane      | 9.894  | 83   | 3783     | 1.015  | ug/l # | 83       |
| 48) Methyl methacrylate       | 9.683  | 41   | 3518     | 1.159  | ug/l   | 96       |
| 49) 1,4-Dioxane               | 9.700  | 88   | 1089     | 19.880 | ug/l # | 77       |
| 51) 4-Methyl-2-Pentanone      | 10.447 | 43   | 15872    | 4.570  | ug/l   | 90       |
| 52) Toluene                   | 10.630 | 92   | 5723     | 0.927  | ug/l   | 97       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 3260     | 0.851  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 3797     | 0.932  | ug/l # | 87       |
| 55) 1,1,2-Trichloroethane     | 11.018 | 97   | 1963     | 0.887  | ug/l   | 96       |
| 56) Ethyl methacrylate        | 10.871 | 69   | 3843     | 0.921  | ug/l # | 90       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 3837     | 0.973  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 8453     | 4.794  | ug/l   | 93       |
| 59) 2-Hexanone                | 11.200 | 43   | 12761    | 4.749  | ug/l   | 100      |
| 60) Dibromochloromethane      | 11.353 | 129  | 2283     | 0.853  | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 11.465 | 107  | 2200     | 0.947  | ug/l   | 98       |
| 64) Tetrachloroethene         | 11.106 | 164  | 1872     | 0.966  | ug/l   | 93       |
| 65) Chlorobenzene             | 11.888 | 112  | 6259     | 0.968  | ug/l   | 93       |
| 66) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 2168     | 0.951  | ug/l # | 63       |
| 67) Ethyl Benzene             | 11.965 | 91   | 11455    | 0.966  | ug/l   | 98       |
| 68) m/p-Xylenes               | 12.065 | 106  | 8266     | 1.860  | ug/l   | 94       |
| 69) o-Xylene                  | 12.400 | 106  | 4113     | 0.938  | ug/l   | 98       |
| 70) Styrene                   | 12.412 | 104  | 6441     | 0.875  | ug/l   | 90       |
| 71) Bromoform                 | 12.577 | 173  | 1561     | 0.903  | ug/l # | 88       |
| 73) Isopropylbenzene          | 12.694 | 105  | 10459    | 1.017  | ug/l   | 99       |
| 74) N-amyl acetate            | 12.494 | 43   | 5755     | 1.144  | ug/l # | 92       |
| 75) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 3034     | 1.043  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 12.988 | 75   | 3031m    | 1.122  | ug/l   |          |
| 77) Bromobenzene              | 12.977 | 156  | 2212     | 0.969  | ug/l   | 86       |
| 78) n-propylbenzene           | 13.029 | 91   | 11800    | 0.997  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.124 | 91   | 7735     | 1.031  | ug/l   | 90       |
| 80) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 8552     | 0.994  | ug/l   | 95       |
| 82) 4-Chlorotoluene           | 13.224 | 91   | 8018     | 1.065  | ug/l   | 93       |
| 83) tert-Butylbenzene         | 13.435 | 119  | 7628     | 1.001  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 8397     | 0.968  | ug/l   | 100      |
| 85) sec-Butylbenzene          | 13.618 | 105  | 10411    | 1.001  | ug/l   | 96       |
| 86) p-Isopropyltoluene        | 13.735 | 119  | 8247     | 0.960  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 13.735 | 146  | 4598     | 1.070  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 4578m    | 1.057  | ug/l   |          |
| 89) n-Butylbenzene            | 14.053 | 91   | 7008     | 0.942  | ug/l   | 100      |
| 90) Hexachloroethane          | 14.335 | 117  | 1524     | 0.918  | ug/l   | 93       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 4279     | 1.029  | ug/l   | 95       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.718 | 75   | 763      | 1.081  | ug/l   | 78       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 2493     | 1.070  | ug/l   | 97       |
| 94) Hexachlorobutadiene       | 15.512 | 225  | 1181     | 1.140  | ug/l   | 92       |
| 95) Naphthalene               | 15.641 | 128  | 8430     | 1.021  | ug/l # | 96       |
| 96) 1,2,3-Trichlorobenzene    | 15.835 | 180  | 2389     | 1.036  | ug/l   | 96       |

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

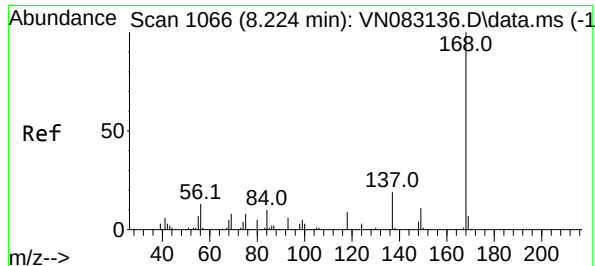


**Instrument :**  
MSVOA\_N  
**ClientSampleId :**  
VSTDICC001

## Manual Integrations APPROVED

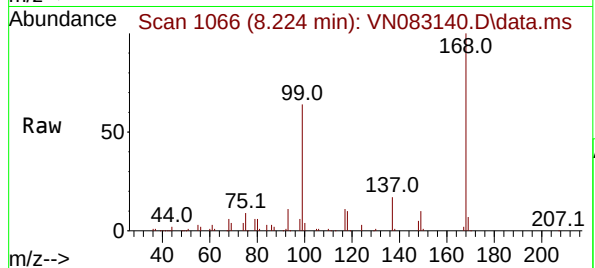
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

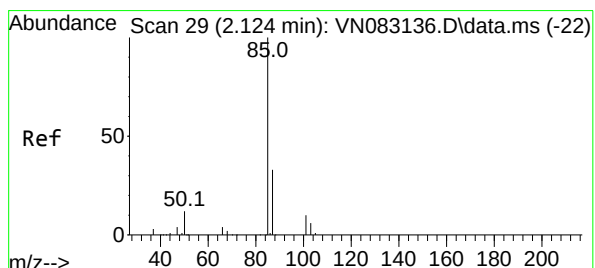
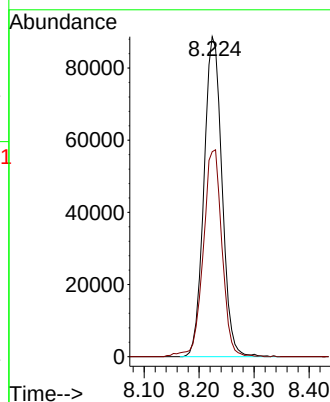
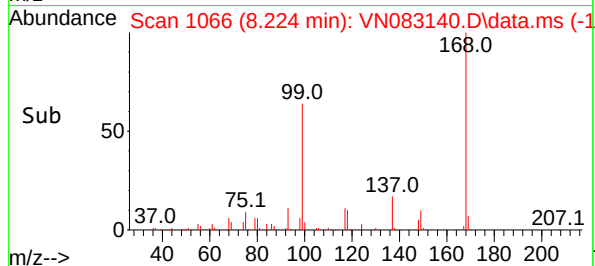
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001



Tgt Ion:168 Resp: 202290  
Ion Ratio Lower Upper  
168 100  
99 64.1 48.2 72.4

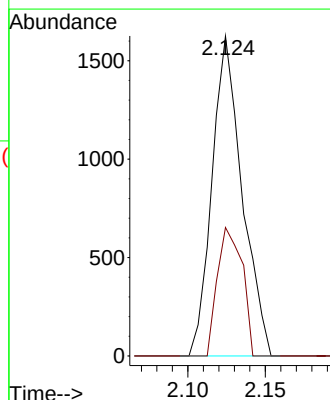
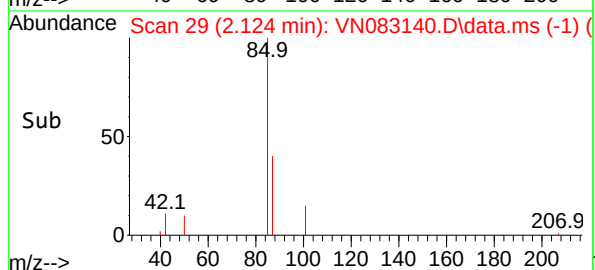
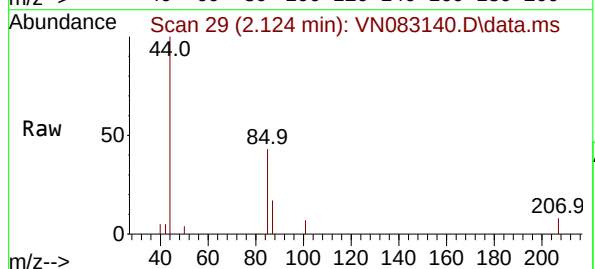
Manual Integrations  
APPROVED

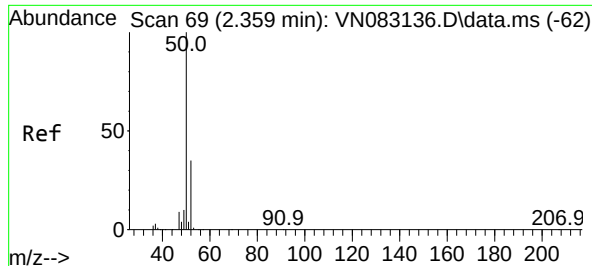
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#2  
Dichlorodifluoromethane  
Concen: 0.956 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion: 85 Resp: 2193  
Ion Ratio Lower Upper  
85 100  
87 40.2 15.7 47.0





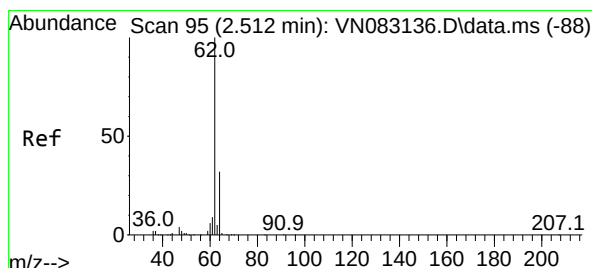
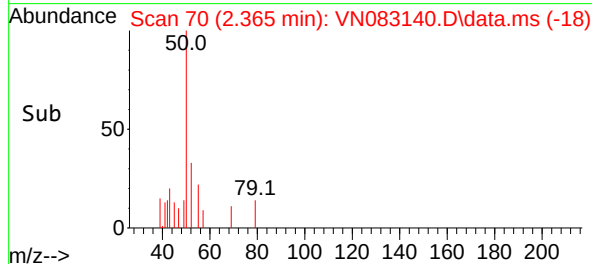
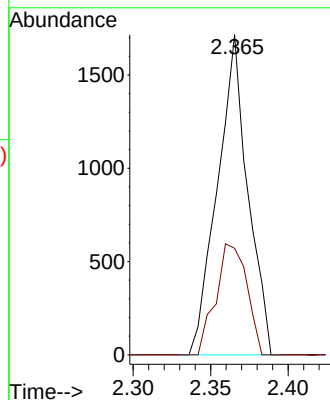
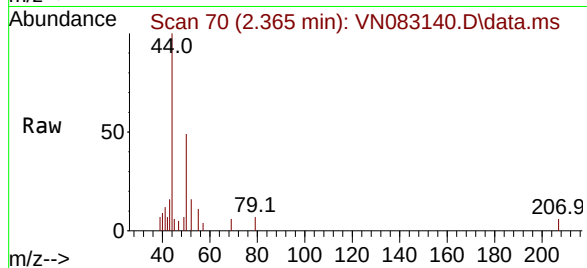
#3  
Chloromethane  
Concen: 0.993 ug/l  
RT: 2.365 min Scan# 70  
Delta R.T. 0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001

Tgt Ion: 50 Resp: 233  
Ion Ratio Lower Upper  
50 100  
52 33.3 25.0 37.4

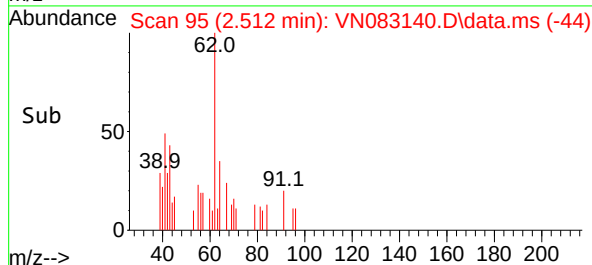
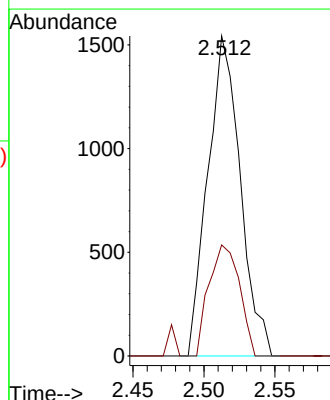
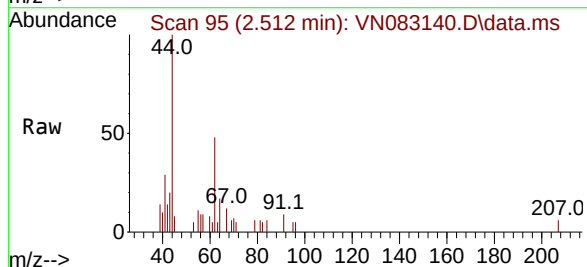
Manual Integrations  
APPROVED

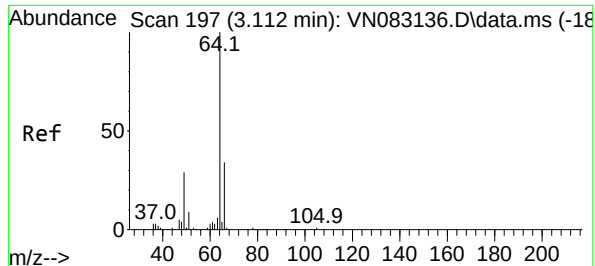
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#4  
Vinyl Chloride  
Concen: 1.025 ug/l  
RT: 2.512 min Scan# 95  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion: 62 Resp: 2457  
Ion Ratio Lower Upper  
62 100  
64 34.7 25.0 37.6





#6

Chloroethane

Concen: 1.176 ug/l

RT: 3.124 min Scan# 197

Delta R.T. 0.012 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 64 Resp: 176

Ion Ratio Lower Upper

64 100

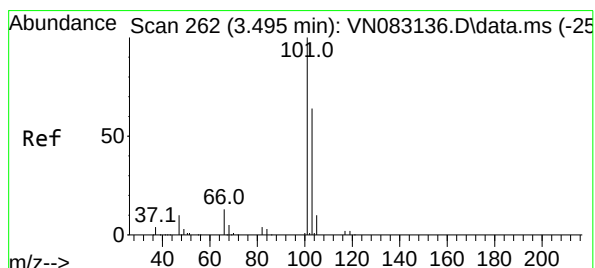
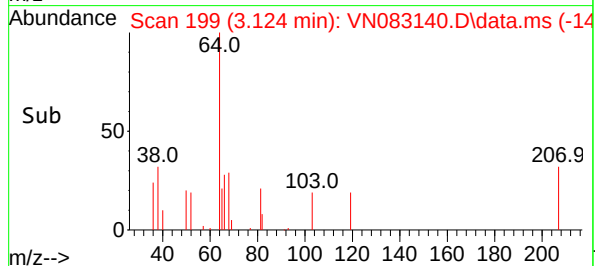
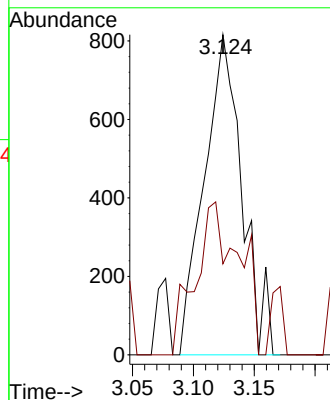
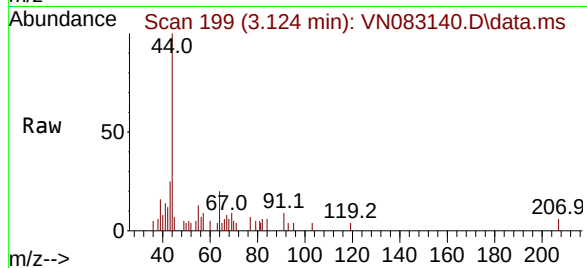
66 7.1 26.6 40.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#7

Trichlorofluoromethane

Concen: 0.921 ug/l

RT: 3.495 min Scan# 262

Delta R.T. -0.000 min

Lab File: VN083140.D

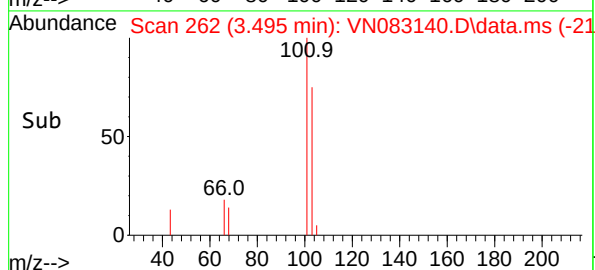
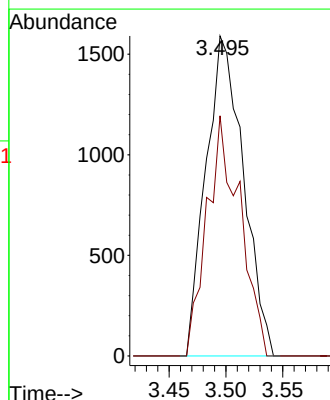
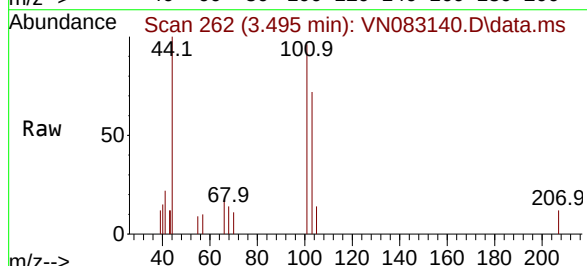
Acq: 07 Aug 2024 12:34

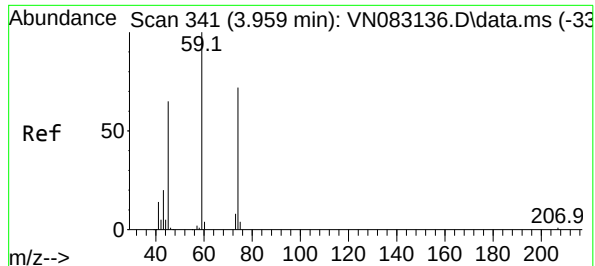
Tgt Ion:101 Resp: 3645

Ion Ratio Lower Upper

101 100

103 75.0 52.7 79.1





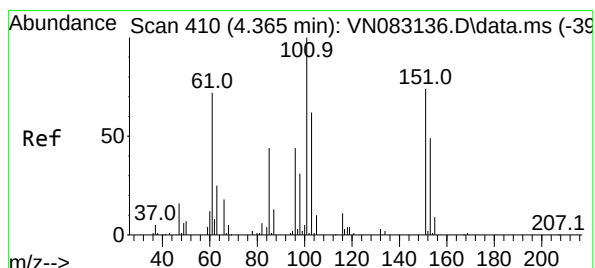
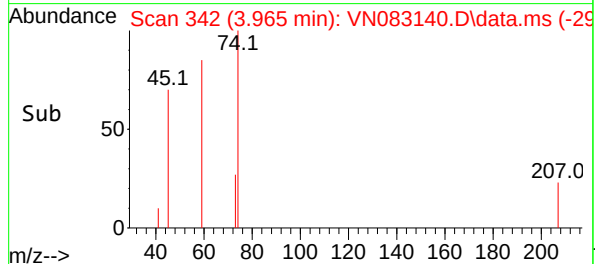
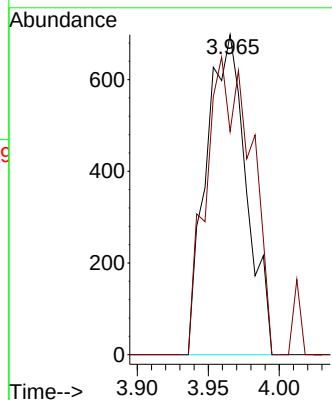
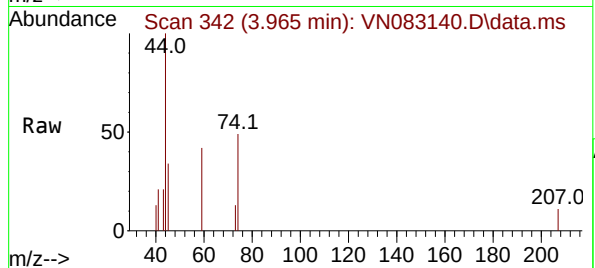
#8  
Diethyl Ether  
Concen: 0.929 ug/l  
RT: 3.965 min Scan# 341  
Delta R.T. 0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001

Tgt Ion: 74 Resp: 1368  
Ion Ratio Lower Upper  
74 100  
45 105.1 55.5 166.3

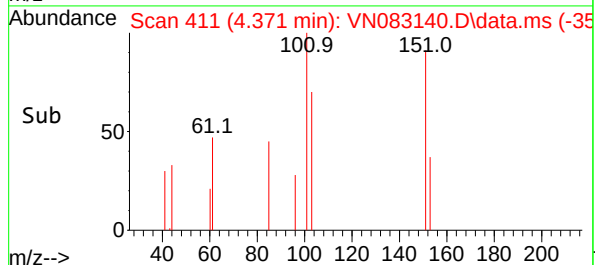
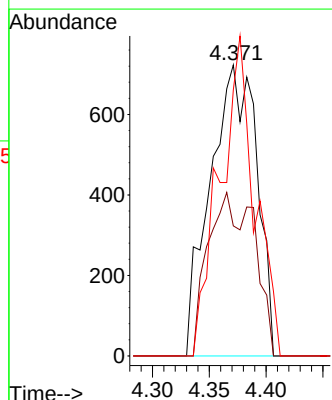
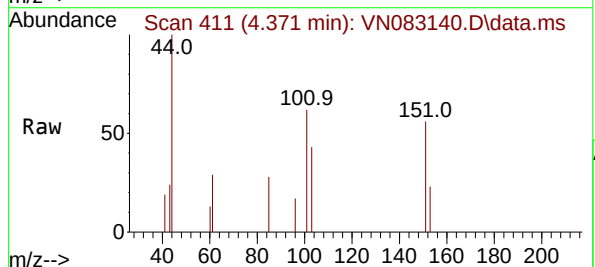
Manual Integrations  
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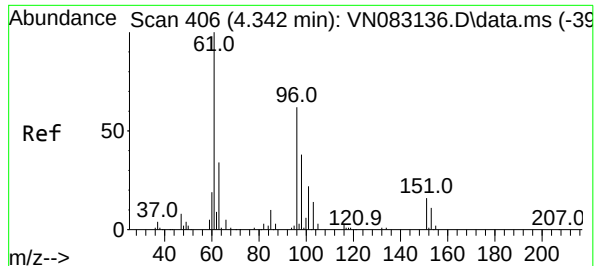
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 0.946 ug/l  
RT: 4.371 min Scan# 411  
Delta R.T. 0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion:101 Resp: 2064  
Ion Ratio Lower Upper  
101 100  
85 37.3 38.3 57.5#  
151 82.8 59.3 88.9





#12

1,1-Dichloroethene

Concen: 1.038 ug/l

RT: 4.342 min Scan# 406

Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

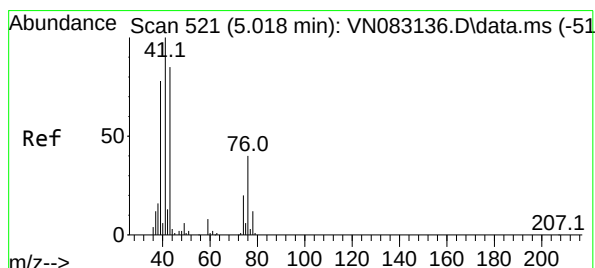
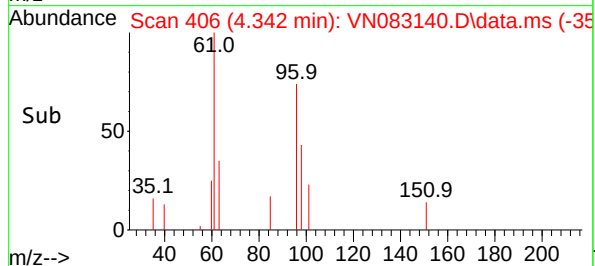
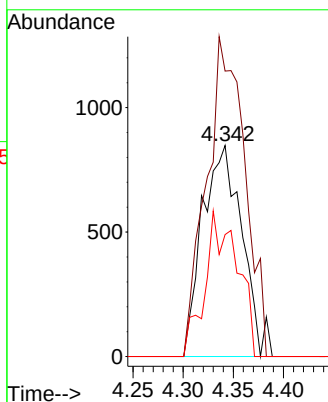
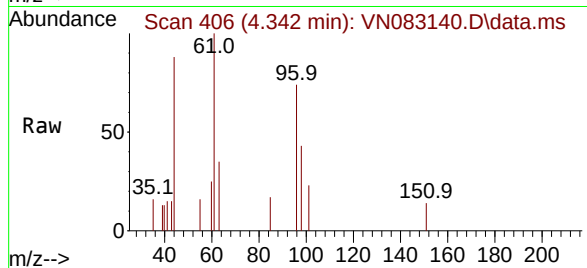
VSTDIC001

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 96    | Resp: | 2328  |
| Ion      | Ratio | Lower | Upper |
| 96       | 100   |       |       |
| 61       | 135.3 | 149.7 | 224.5 |
| 98       | 57.8  | 50.1  | 75.1  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#14

Allyl chloride

Concen: 1.155 ug/l

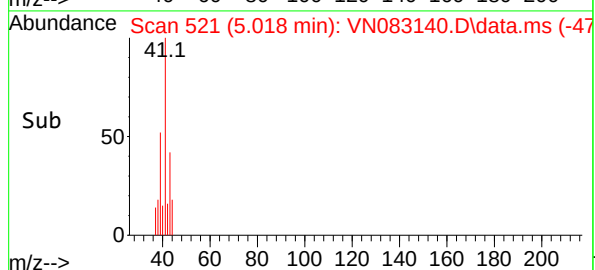
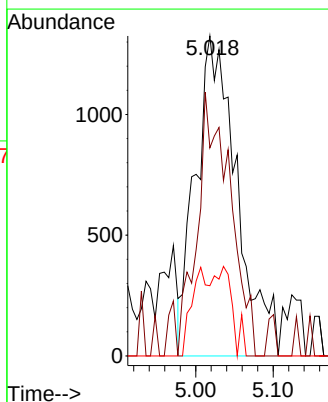
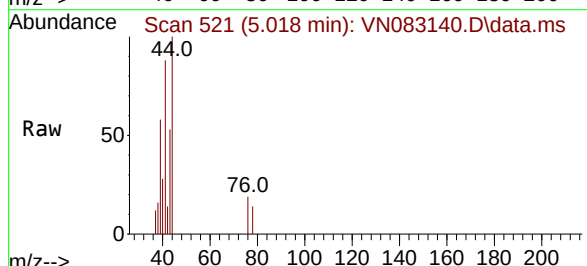
RT: 5.018 min Scan# 521

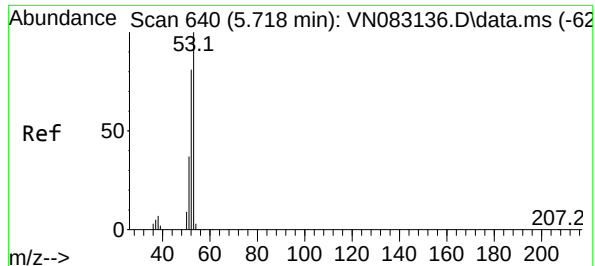
Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 4894  |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 65.9  | 67.8  | 101.6 |
| 76       | 11.9  | 25.8  | 38.8  |





#15

Acrylonitrile

Concen: 5.036 ug/l

RT: 5.724 min Scan# 641

Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

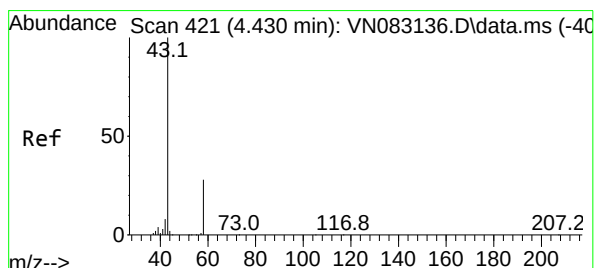
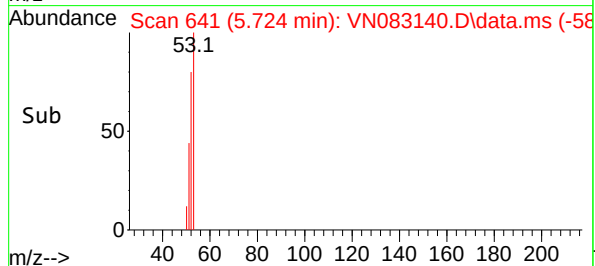
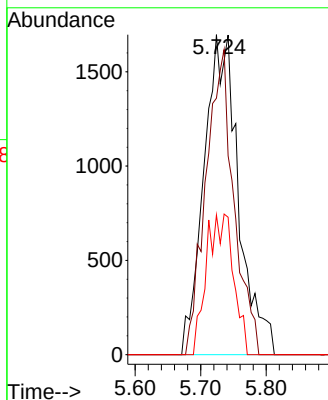
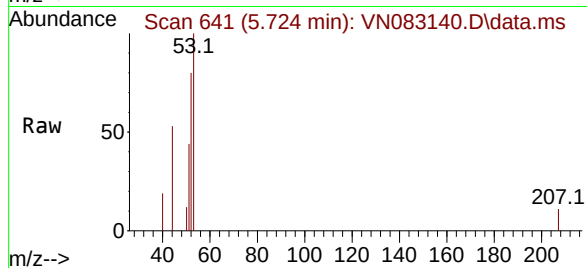
VSTDIC001

|             |                 |
|-------------|-----------------|
| Tgt Ion: 53 | Resp: 6198      |
| Ion Ratio   | Lower Upper     |
| 53          | 100             |
| 52          | 77.5 66.6 100.0 |
| 51          | 34.3 30.1 45.1  |

Manual Integrations  
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Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#16

Acetone

Concen: 4.765 ug/l

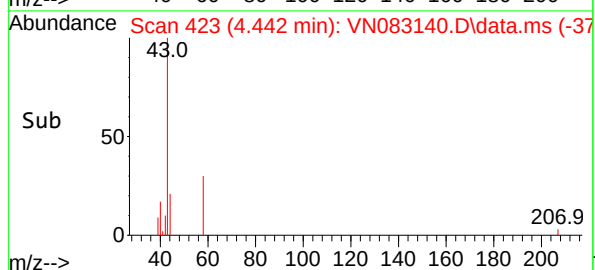
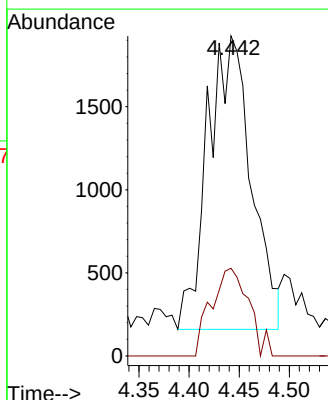
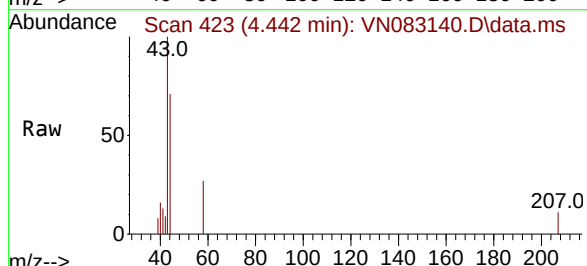
RT: 4.442 min Scan# 423

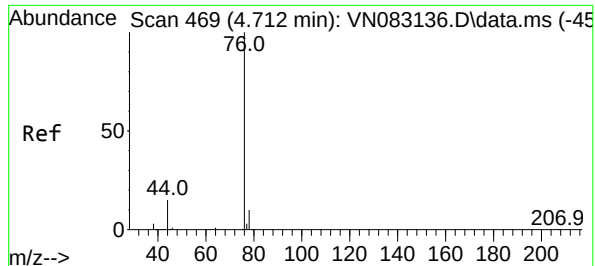
Delta R.T. 0.012 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

|             |                |
|-------------|----------------|
| Tgt Ion: 43 | Resp: 5369     |
| Ion Ratio   | Lower Upper    |
| 43          | 100            |
| 58          | 29.9 21.8 32.6 |





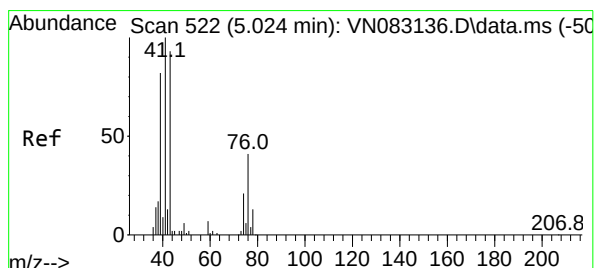
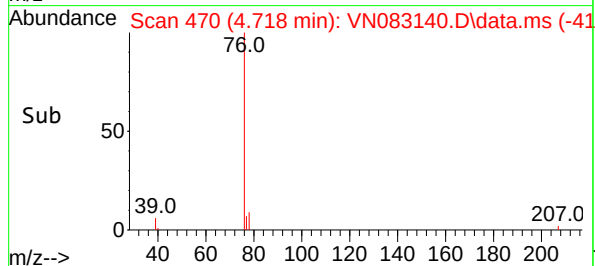
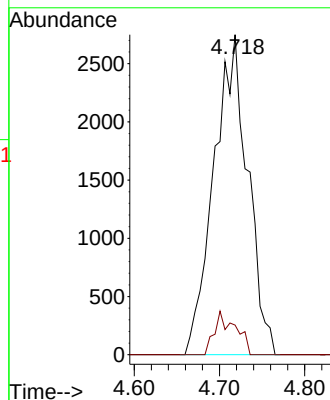
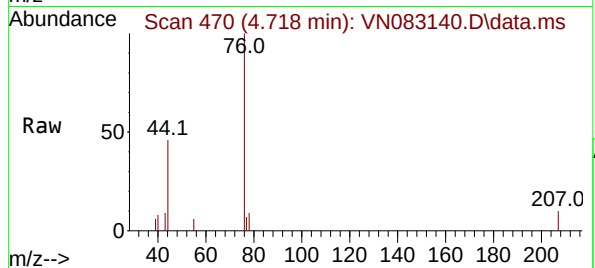
#17  
Carbon Disulfide  
Concen: 1.159 ug/l  
RT: 4.718 min Scan# 41  
Delta R.T. 0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001

Tgt Ion: 76 Resp: 760  
Ion Ratio Lower Upper  
76 100  
78 9.3 7.2 10.8

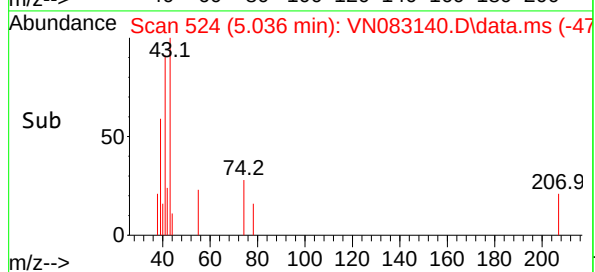
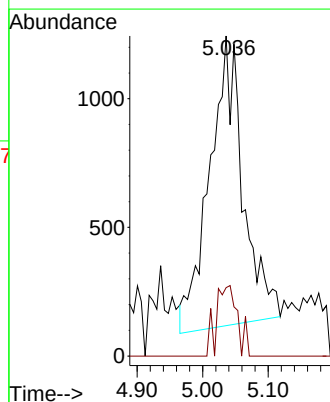
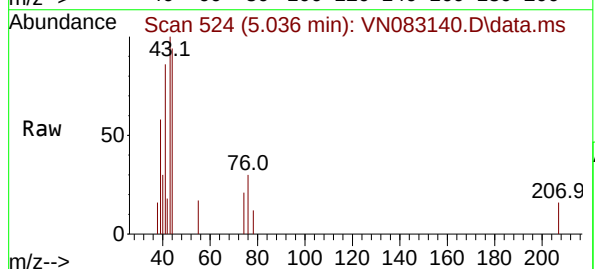
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

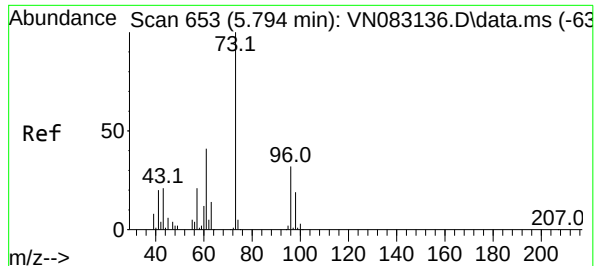


#18  
Methyl Acetate  
Concen: 1.188 ug/l  
RT: 5.036 min Scan# 524  
Delta R.T. 0.012 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion: 43 Resp: 3987  
Ion Ratio Lower Upper  
43 100  
74 15.5 16.3 24.5







#19

Methyl tert-butyl Ether

Concen: 0.976 ug/l

RT: 5.795 min Scan# 653

Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 73 Resp: 7900

Ion Ratio Lower Upper

73 100

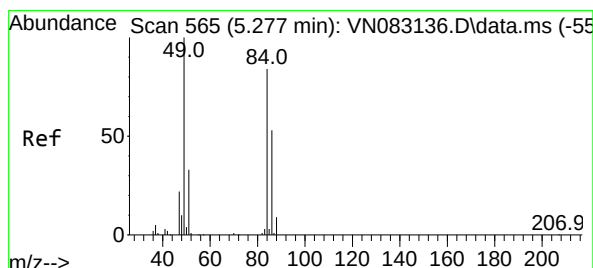
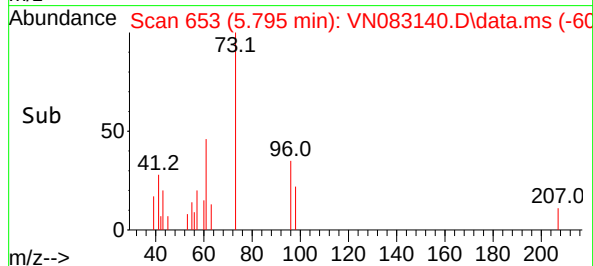
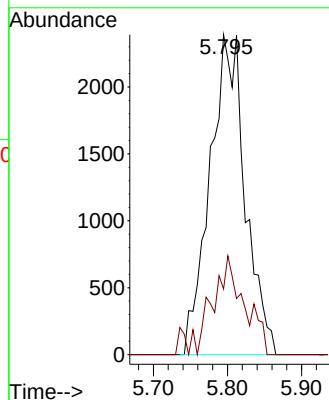
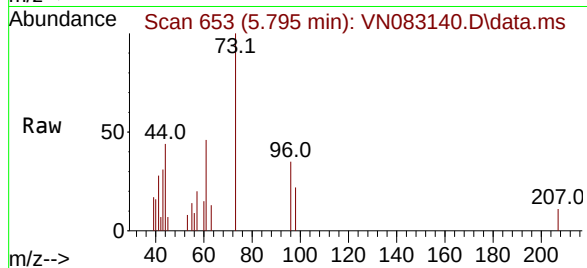
57 20.5 17.9 26.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#20

Methylene Chloride

Concen: 1.255 ug/l

RT: 5.283 min Scan# 566

Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Tgt Ion: 84 Resp: 3255

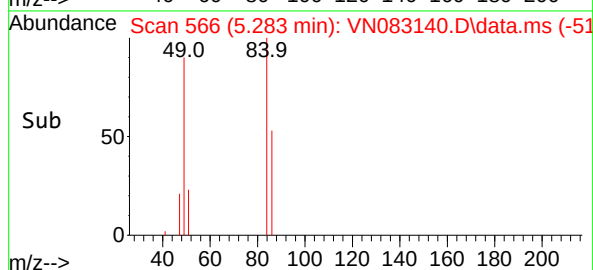
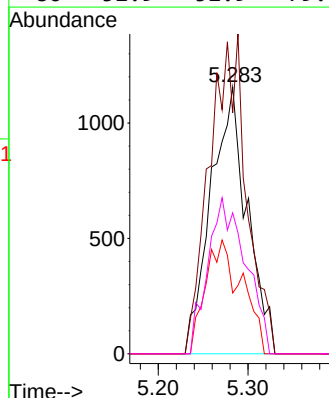
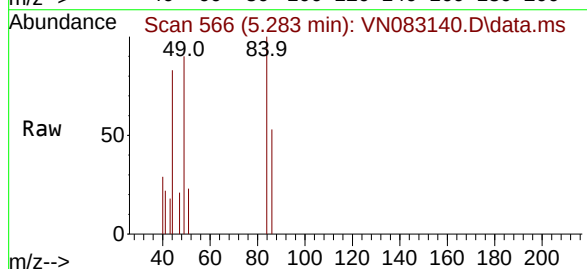
Ion Ratio Lower Upper

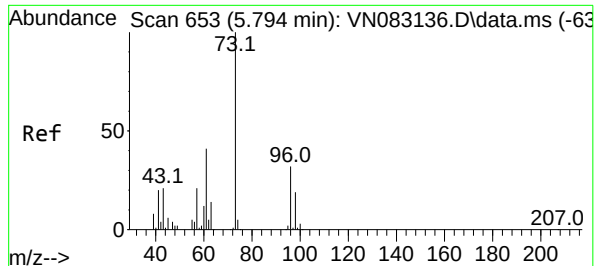
84 100

49 90.3 119.6 179.4#

51 22.8 34.8 52.2#

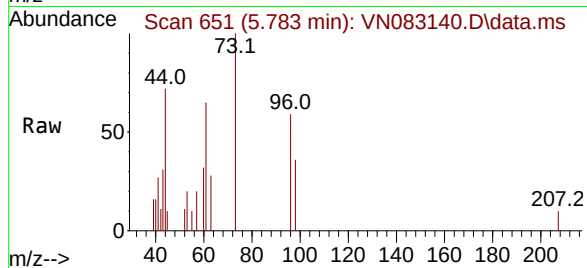
86 52.9 52.9 79.3#





#21  
trans-1,2-Dichloroethene  
Concen: 1.046 ug/l  
RT: 5.783 min Scan# 61  
Delta R.T. -0.012 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

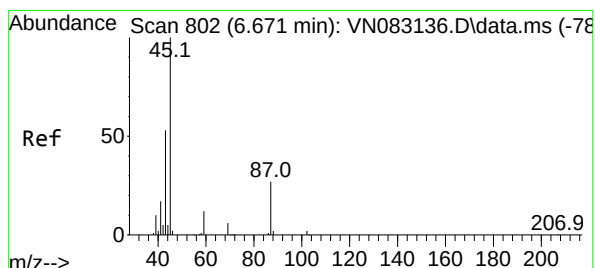
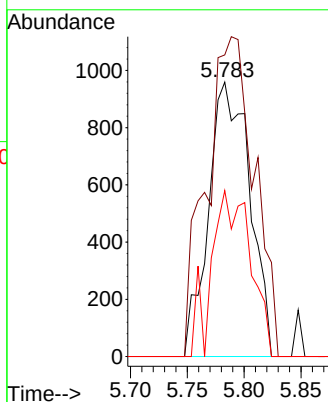
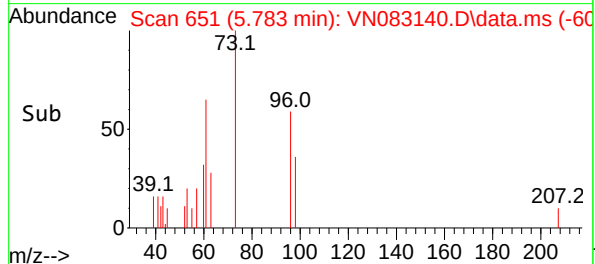
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC001



Tgt Ion: 96 Resp: 242  
Ion Ratio Lower Upper  
96 100  
61 109.9 123.4 185.2  
98 60.5 49.3 73.9

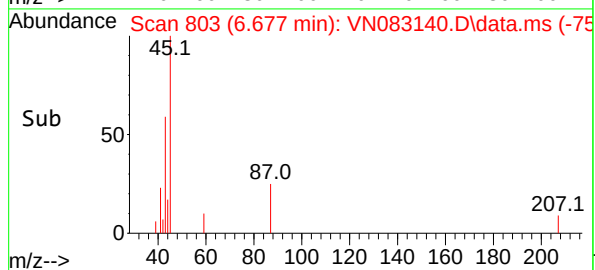
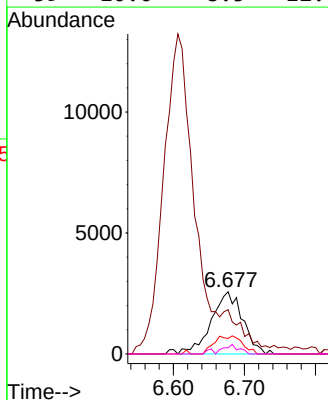
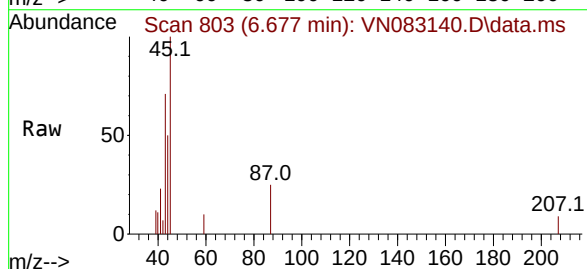
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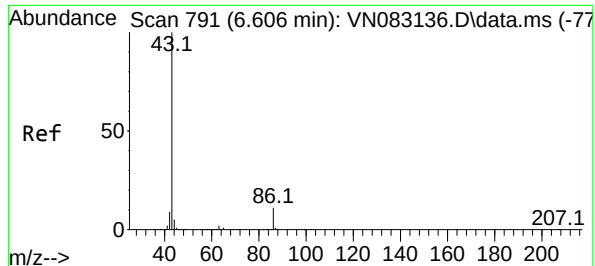
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#22  
Diisopropyl ether  
Concen: 0.988 ug/l  
RT: 6.677 min Scan# 803  
Delta R.T. 0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion: 45 Resp: 7871  
Ion Ratio Lower Upper  
45 100  
43 61.5 44.0 66.0  
87 24.9 19.7 29.5  
59 10.0 8.5 12.7





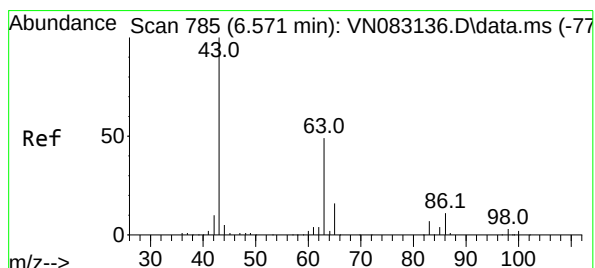
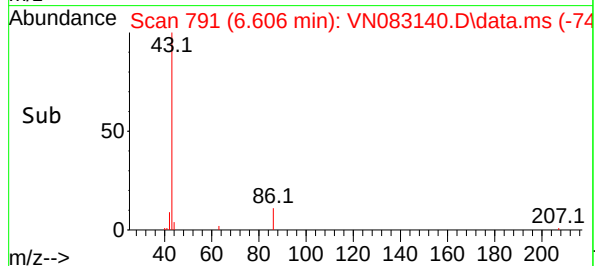
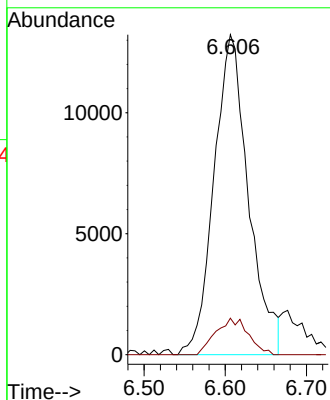
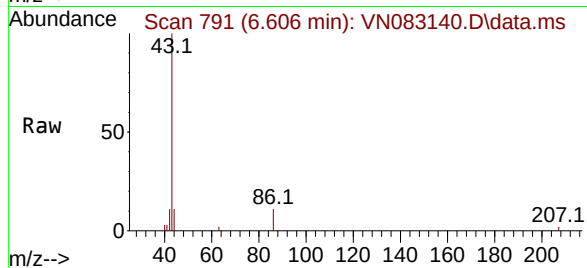
#23  
Vinyl Acetate  
Concen: 4.783 ug/l  
RT: 6.606 min Scan# 791  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Instrument :  
MSVOA\_N  
Client Sample Id :  
VSTDICC001

Tgt Ion: 43 Resp: 3904  
Ion Ratio Lower Upper  
43 100  
86 11.4 7.3 10.9

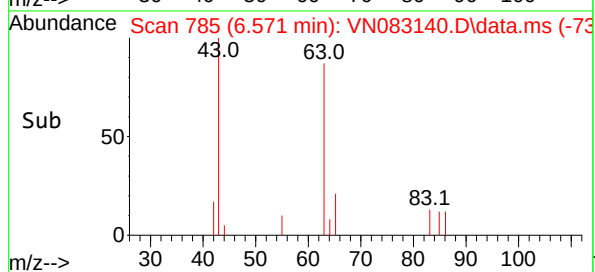
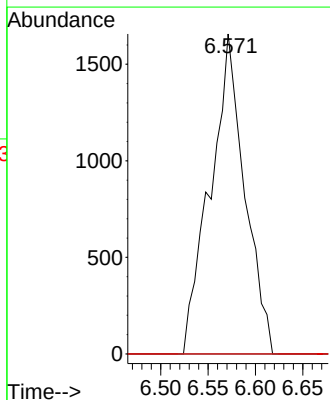
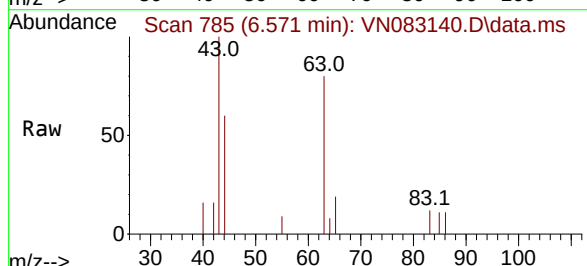
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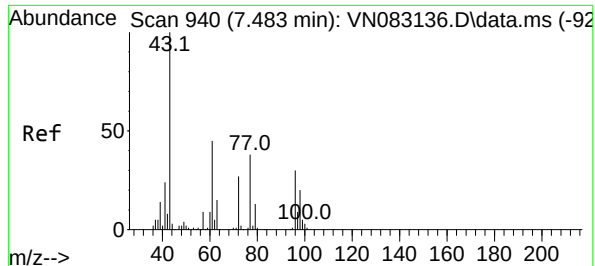
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#24  
1,1-Dichloroethane  
Concen: 0.965 ug/l  
RT: 6.571 min Scan# 785  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion: 63 Resp: 4189  
Ion Ratio Lower Upper  
63 100  
98 0.0 3.3 9.9#  
100 0.0 2.0 6.0#





#25

2-Butanone

Concen: 5.297 ug/l

RT: 7.495 min Scan# 942

Delta R.T. 0.012 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC001

Tgt Ion: 43 Resp: 9164

Ion Ratio Lower Upper

43 100

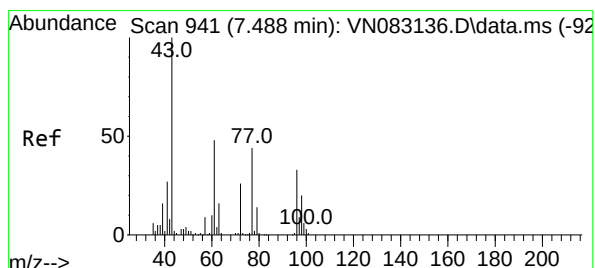
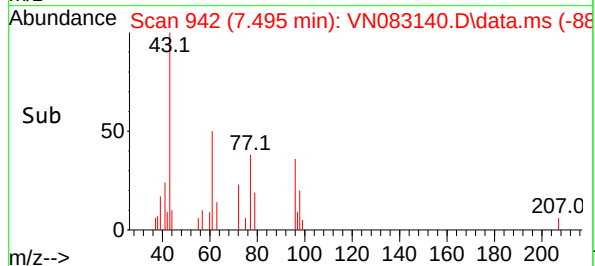
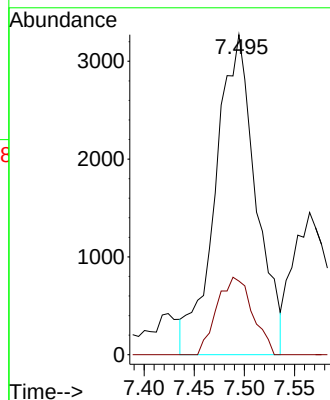
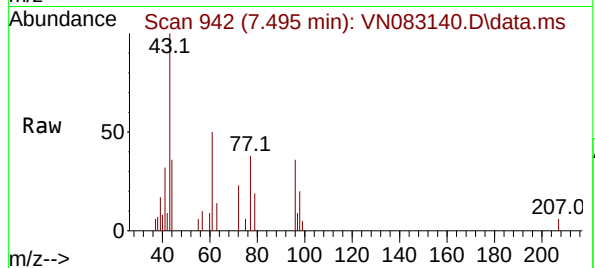
72 25.9 18.2 27.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#26

2,2-Dichloropropane

Concen: 0.928 ug/l

RT: 7.489 min Scan# 941

Delta R.T. 0.000 min

Lab File: VN083140.D

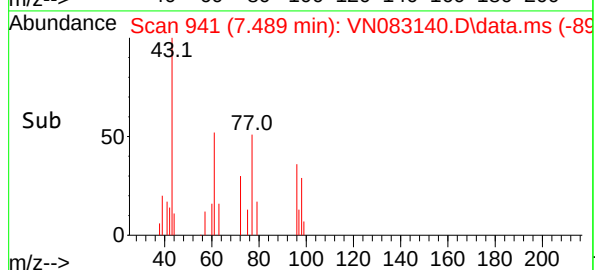
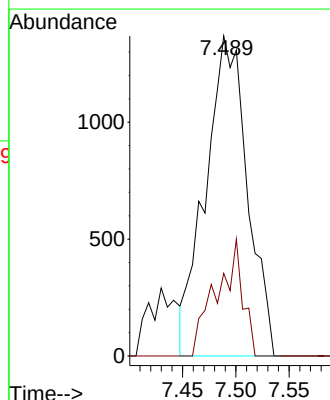
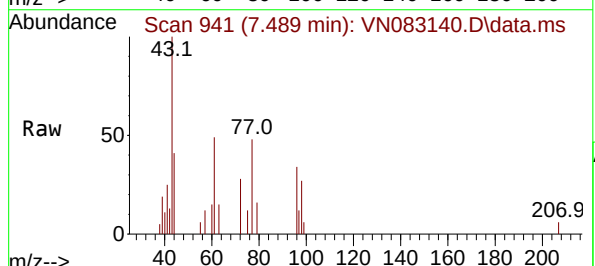
Acq: 07 Aug 2024 12:34

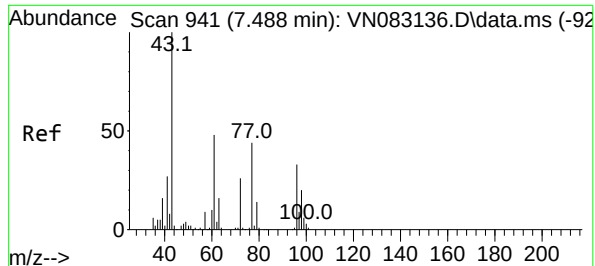
Tgt Ion: 77 Resp: 3741

Ion Ratio Lower Upper

77 100

97 22.9 10.3 30.9





#27

cis-1,2-Dichloroethene

Concen: 1.044 ug/l

RT: 7.495 min Scan# 941

Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC001

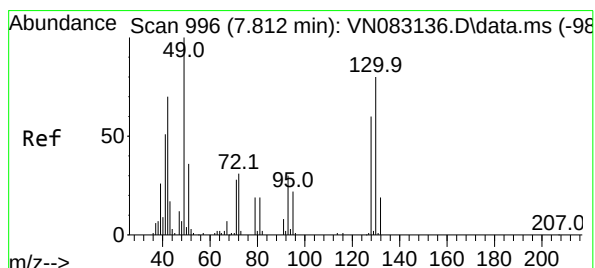
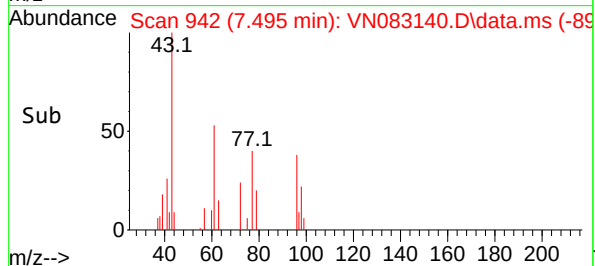
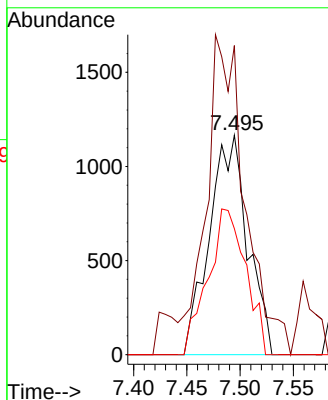
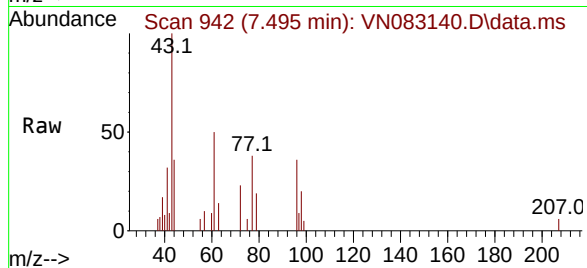
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 96    | Resp: | 2919  |
| Ion      | Ratio | Lower | Upper |
| 96       | 100   |       |       |
| 61       | 146.7 | 0.0   | 329.6 |
| 98       | 65.4  | 0.0   | 128.6 |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#28

Bromochloromethane

Concen: 1.061 ug/l

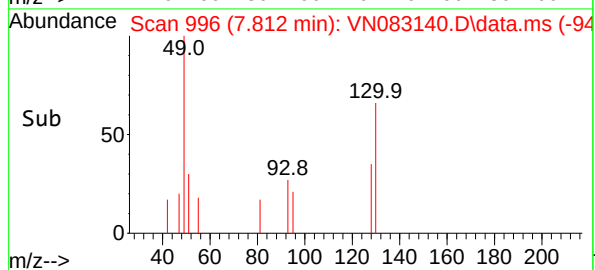
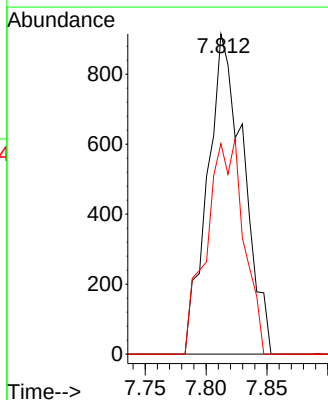
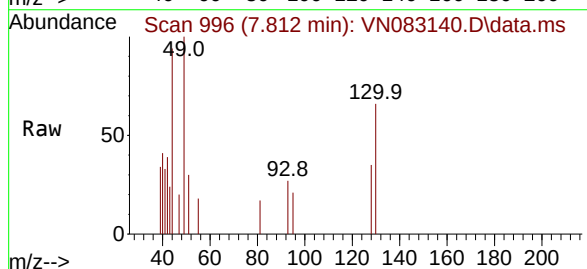
RT: 7.812 min Scan# 996

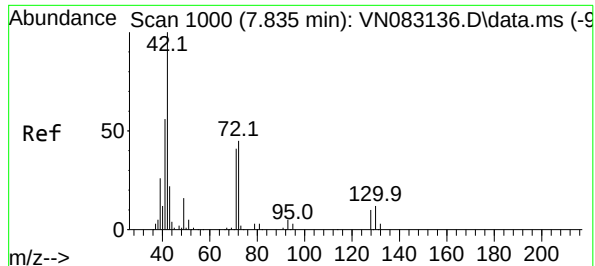
Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 49    | Resp: | 1883  |
| Ion      | Ratio | Lower | Upper |
| 49       | 100   |       |       |
| 129      | 0.0   | 0.0   | 3.8   |
| 130      | 69.5  | 50.5  | 75.7  |





#29

Tetrahydrofuran

Concen: 4.909 ug/l

RT: 7.842 min Scan# 1000

Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

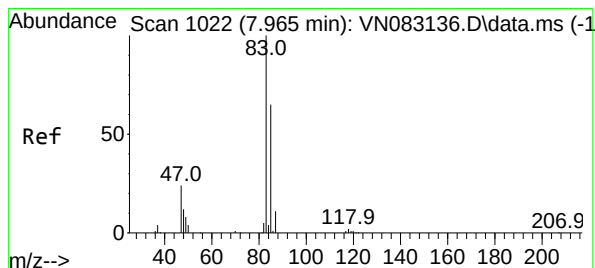
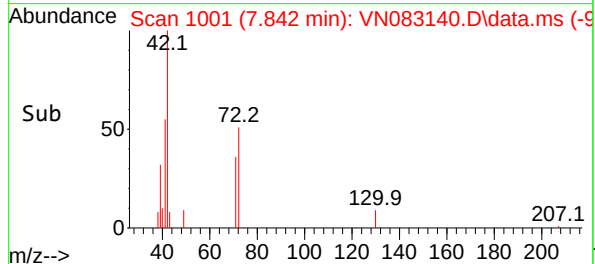
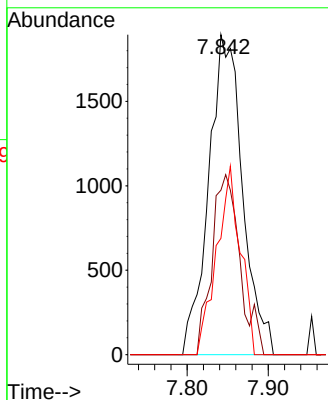
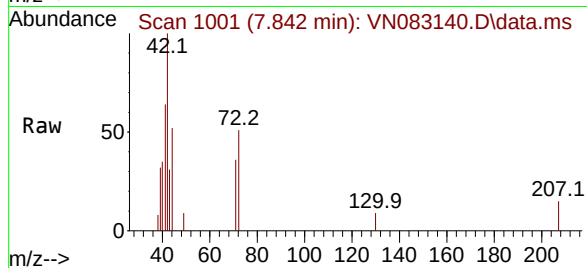
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 42    | Resp: | 5490 |
| Ion Ratio | Lower | Upper |      |
| 42        | 100   |       |      |
| 72        | 46.5  | 30.0  | 45.0 |
| 71        | 41.2  | 28.3  | 42.5 |

Manual Integrations

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Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#30

Chloroform

Concen: 0.988 ug/l

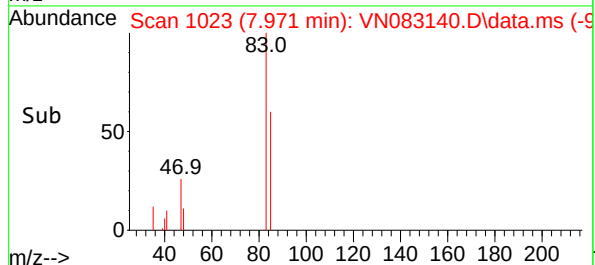
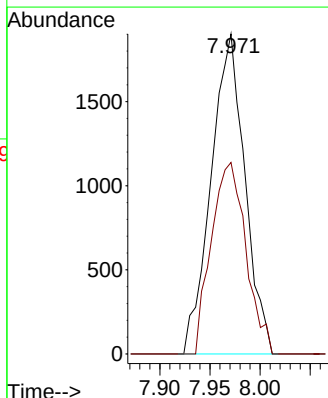
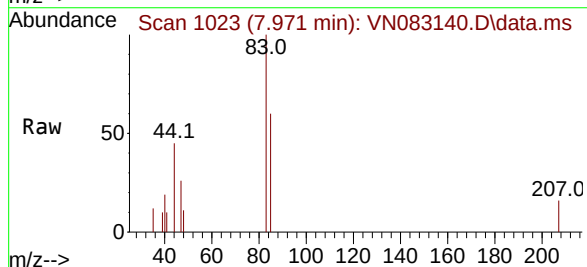
RT: 7.971 min Scan# 1023

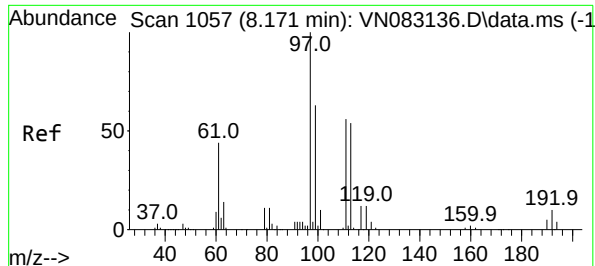
Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 83    | Resp: | 4457 |
| Ion Ratio | Lower | Upper |      |
| 83        | 100   |       |      |
| 85        | 59.8  | 50.9  | 76.3 |





#32

1,1,1-Trichloroethane

Concen: 0.955 ug/l

RT: 8.171 min Scan# 1057

Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion: 97 Resp: 4070

Ion Ratio Lower Upper

97 100

99 0.0 52.0 78.0

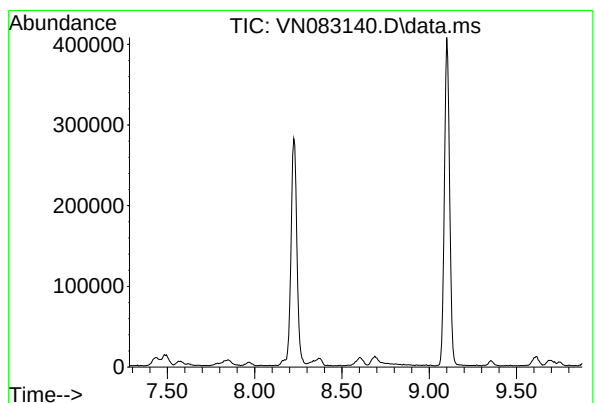
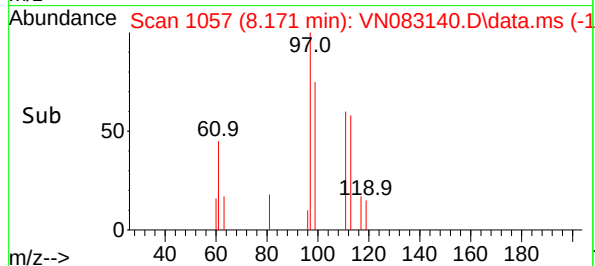
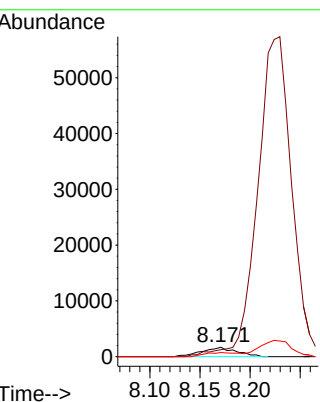
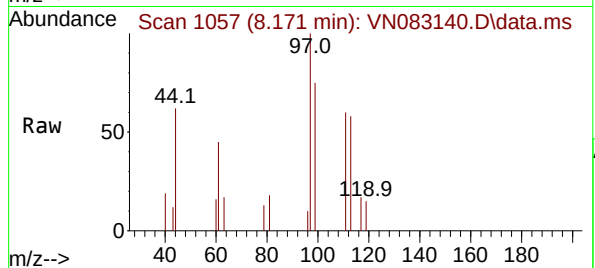
61 44.6 42.1 63.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#33

1,2-Dichloroethane-d4

Concen: 0.000 ug/l

Expected RT: 8.58 min

Lab File: VN083140.D

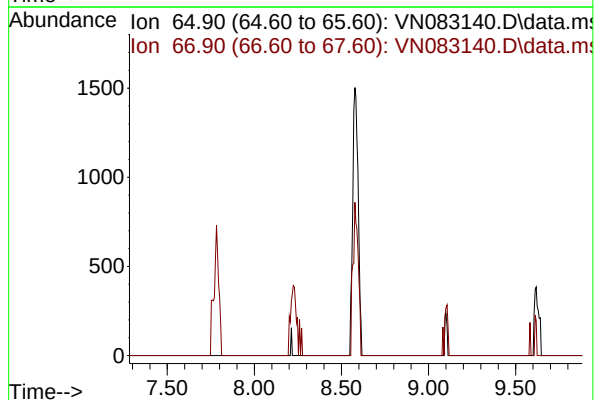
Acq: 07 Aug 2024 12:34

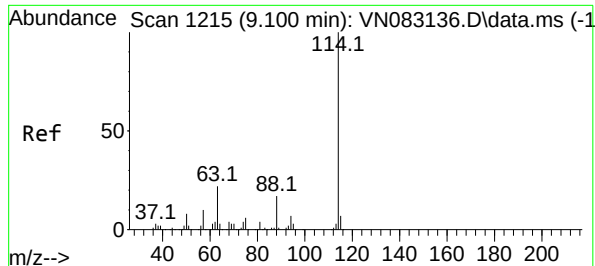
Tgt Ion: 65

Sig Exp Ratio

65 100

67 52.2





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 11

Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC001

Tgt Ion:114 Resp: 347394

Ion Ratio Lower Upper

114 100

63 22.6 0.0 44.6

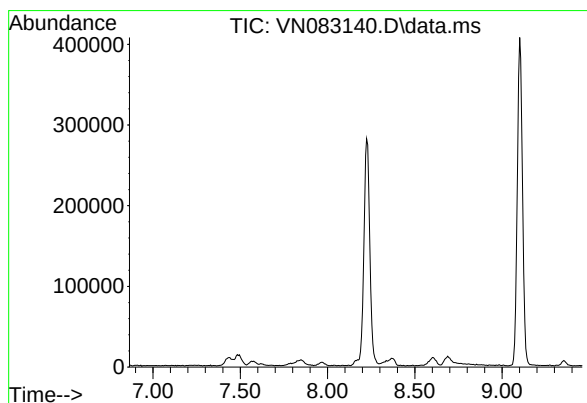
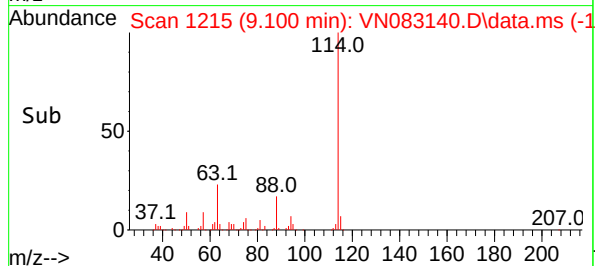
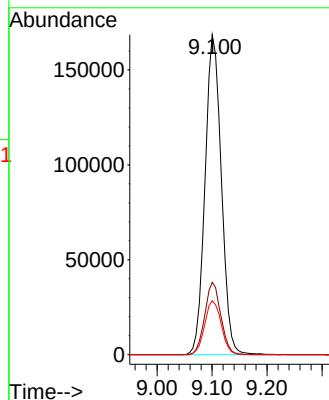
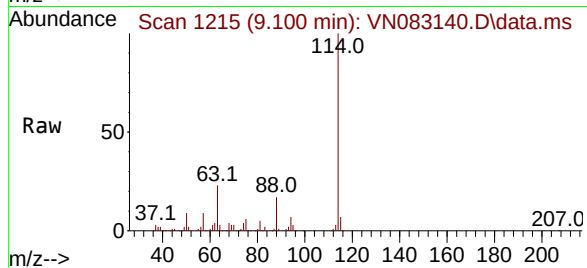
88 16.9 0.0 31.4

Manual Integrations

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Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#35

Dibromofluoromethane

Concen: 0.000 ug/l

Expected RT: 8.16 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

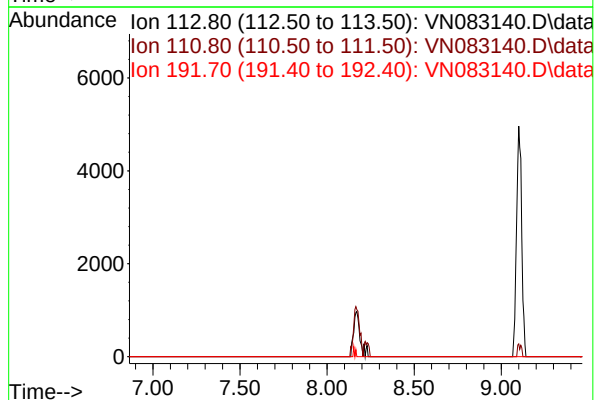
Tgt Ion: 113

Sig Exp Ratio

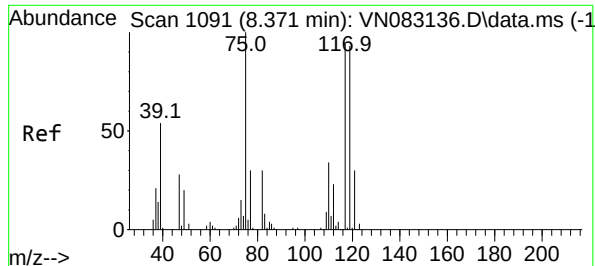
113 100

111 103.0

192 18.6







#36

1,1-Dichloropropene

Concen: 1.034 ug/l

RT: 8.377 min Scan# 1091

Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

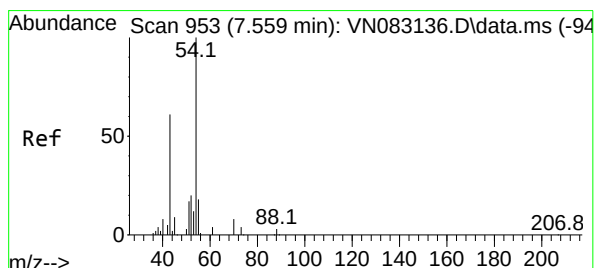
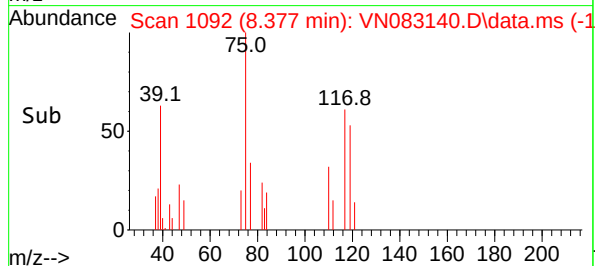
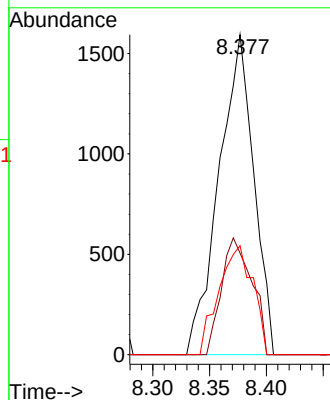
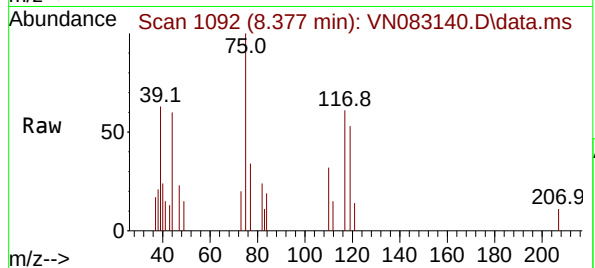
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 339   |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 110      | 32.0  | 16.3  | 48.9  |
| 77       | 33.3  | 24.6  | 37.0  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#37

Ethyl Acetate

Concen: 1.257 ug/l

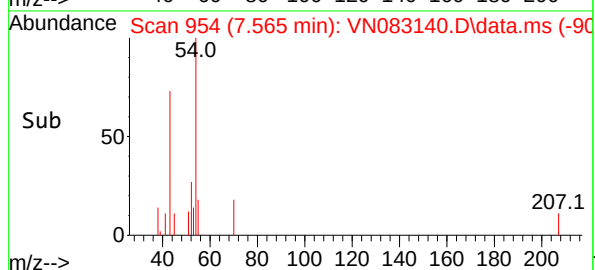
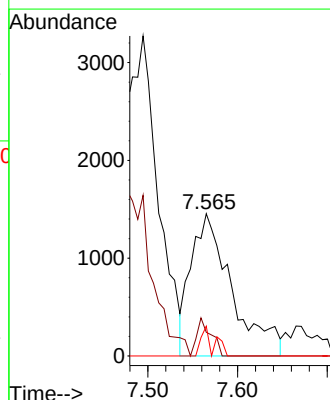
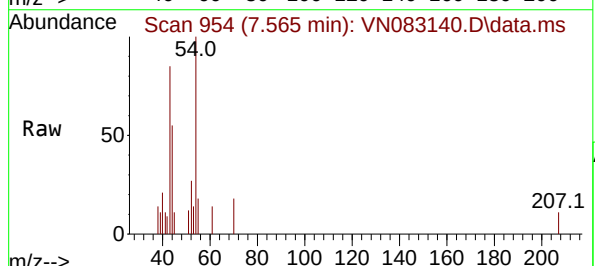
RT: 7.565 min Scan# 954

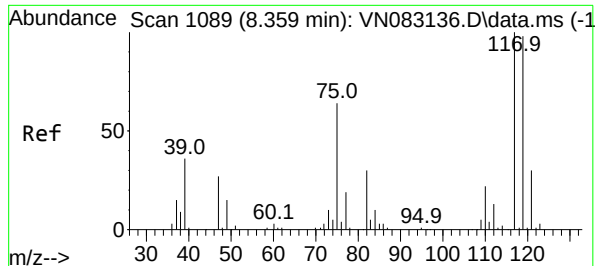
Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

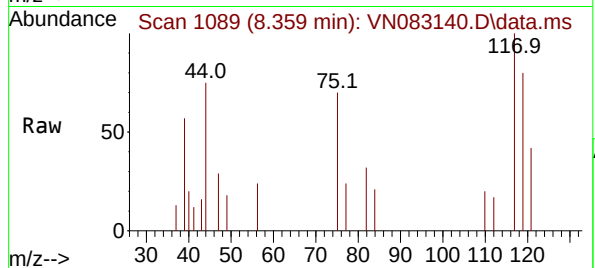
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 4617  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 9.2   | 9.3   | 13.9# |
| 70       | 3.8   | 7.0   | 10.6# |





#38  
Carbon Tetrachloride  
Concen: 0.926 ug/l  
RT: 8.359 min Scan# 1089  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

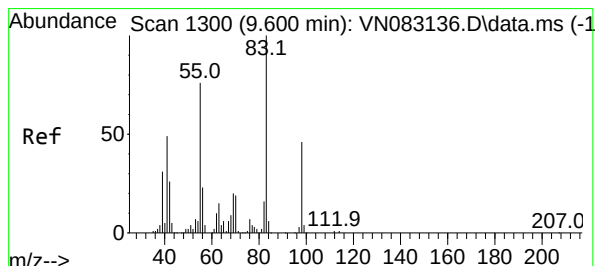
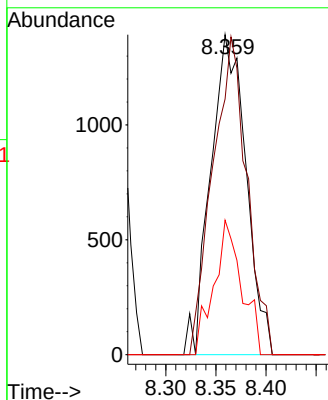
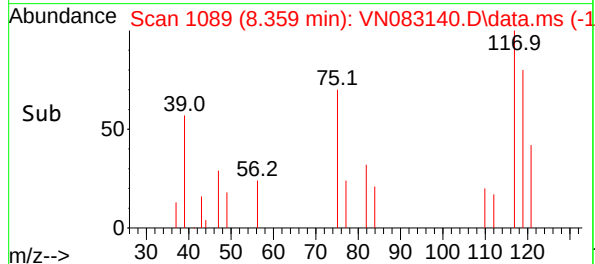
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC001



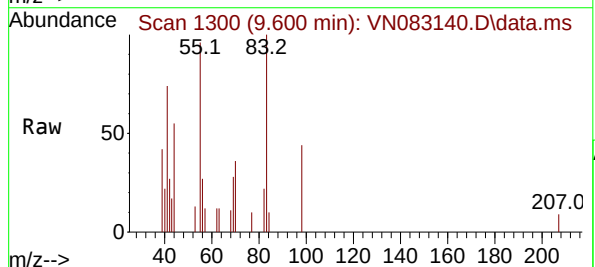
Tgt Ion: 117 Resp: 342  
Ion Ratio Lower Upper  
117 100  
119 79.9 74.9 112.3  
121 42.0 24.3 36.5

Manual Integrations  
APPROVED

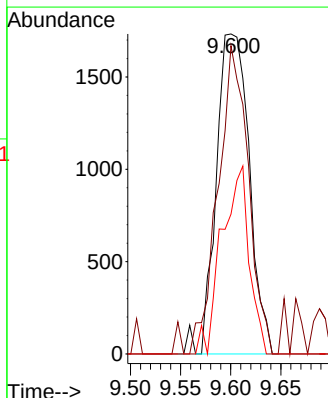
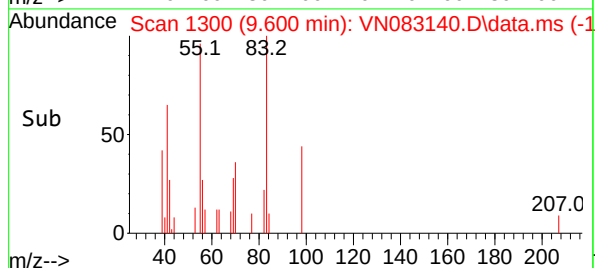
Reviewed By : John Carlone 08/08/2024  
Supervised By : Mahesh Dadoda 08/09/2024

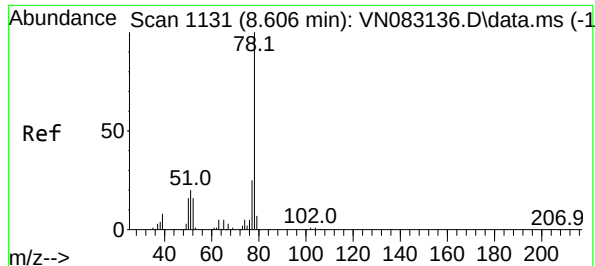


#39  
Methylcyclohexane  
Concen: 0.986 ug/l  
RT: 9.600 min Scan# 1300  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34



Tgt Ion: 83 Resp: 3974  
Ion Ratio Lower Upper  
83 100  
55 96.3 66.4 99.6  
98 43.7 40.7 61.1





#40

Benzene

Concen: 0.955 ug/l

RT: 8.606 min Scan# 1131

Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC001

Tgt Ion: 78 Resp: 9334

Ion Ratio Lower Upper

78 100

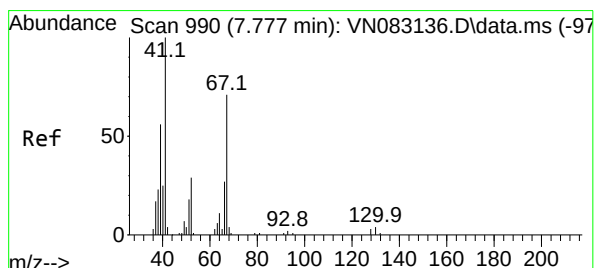
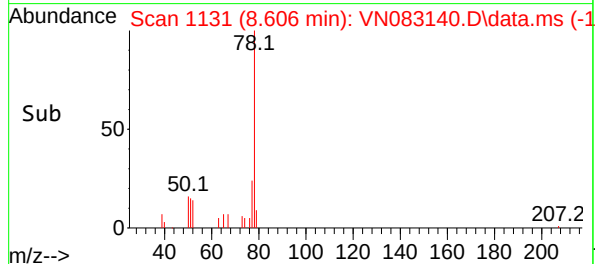
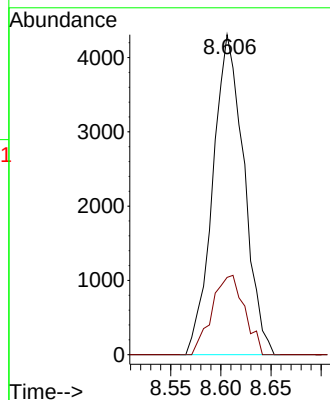
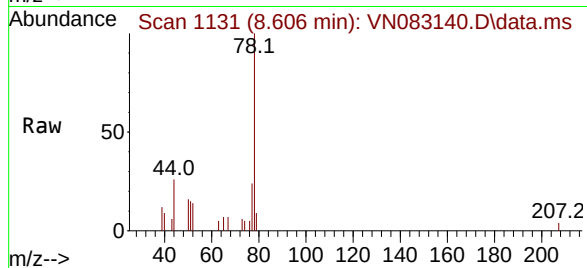
77 24.2 19.0 28.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#41

Methacrylonitrile

Concen: 1.254 ug/l

RT: 7.783 min Scan# 991

Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Tgt Ion: 41 Resp: 2618

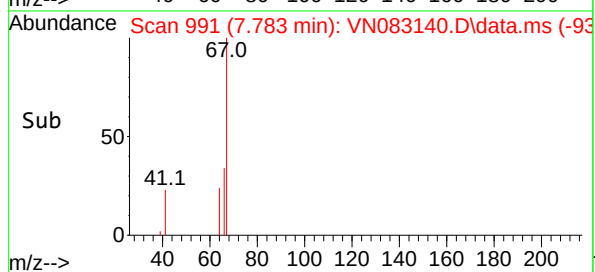
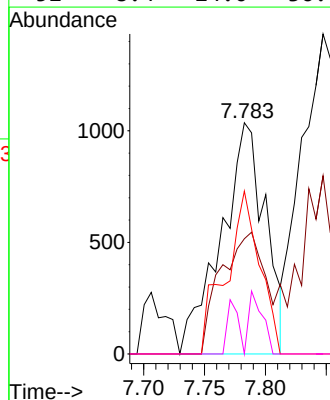
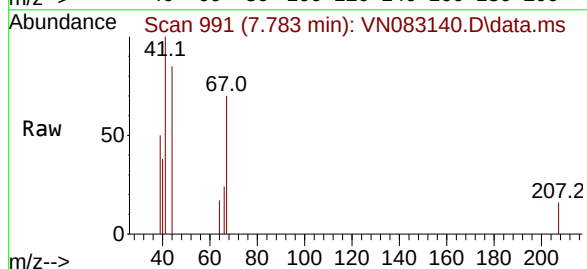
Ion Ratio Lower Upper

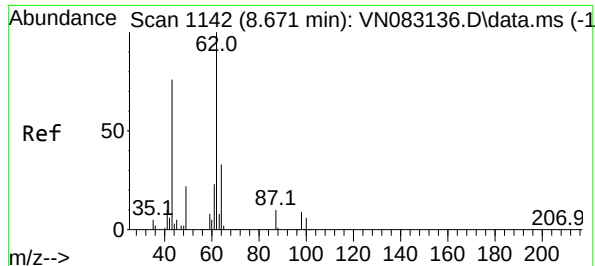
41 100

39 52.4 45.5 68.3

67 54.2 50.5 75.7

52 8.4 24.0 36.0#





#42

1,2-Dichloroethane

Concen: 0.971 ug/l

RT: 8.677 min Scan# 1142

Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

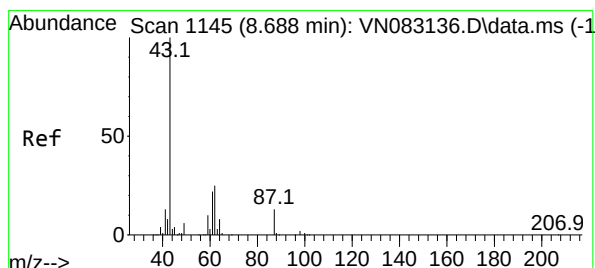
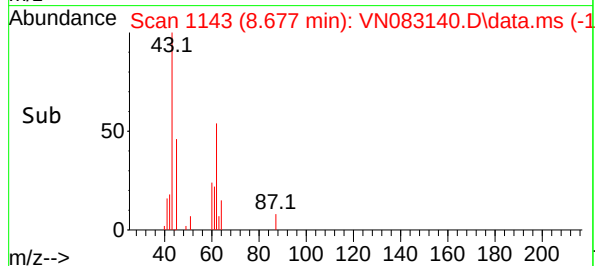
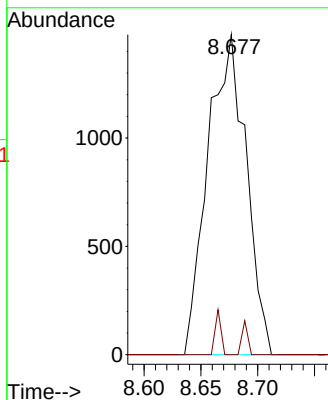
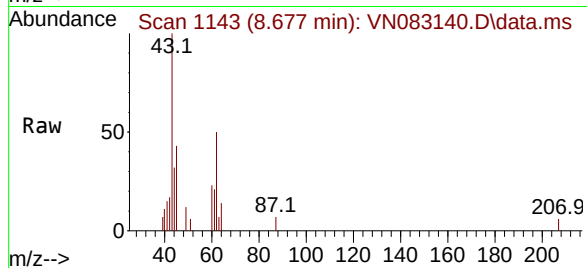
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 62      | 100   |       |       |
| 98      | 1.6   | 0.0   | 15.8  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#43

Isopropyl Acetate

Concen: 0.753 ug/l

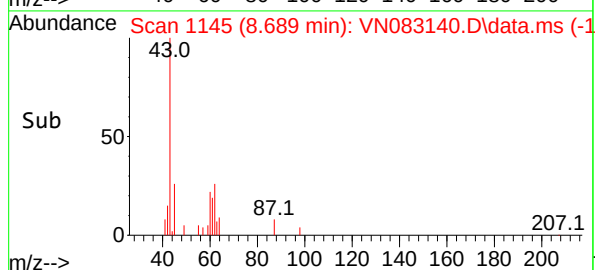
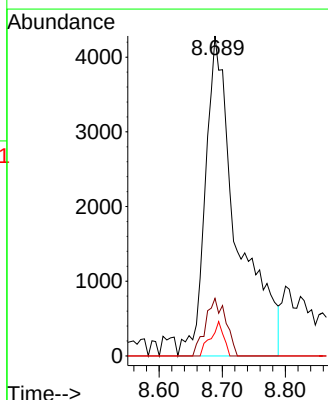
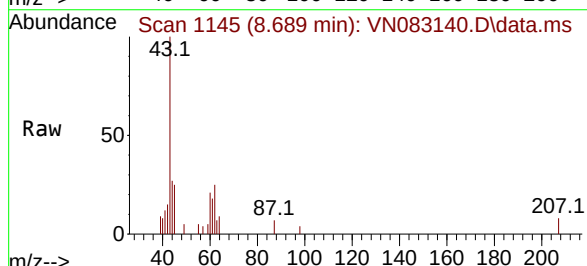
RT: 8.689 min Scan# 1145

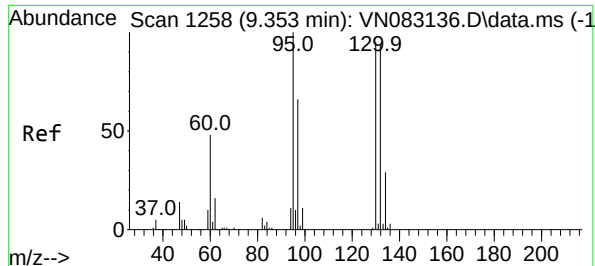
Delta R.T. 0.001 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 61      | 11.5  | 17.8  | 26.6# |
| 87      | 4.4   | 8.2   | 12.2# |





#44

Trichloroethene

Concen: 0.925 ug/l

RT: 9.359 min Scan# 11

Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

Tgt Ion:130 Resp: 215

Ion Ratio Lower Upper

130 100

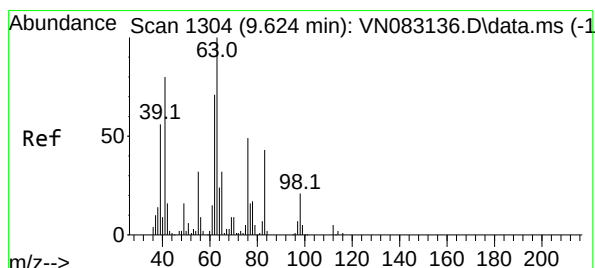
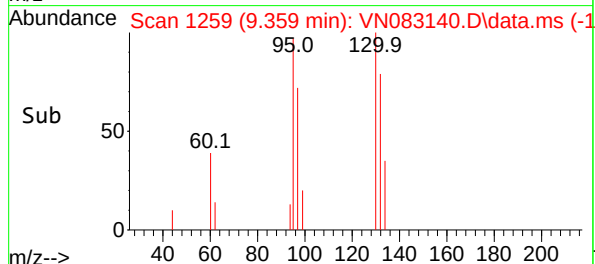
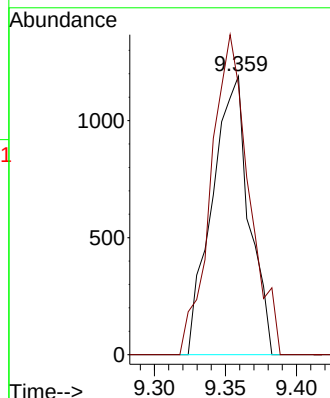
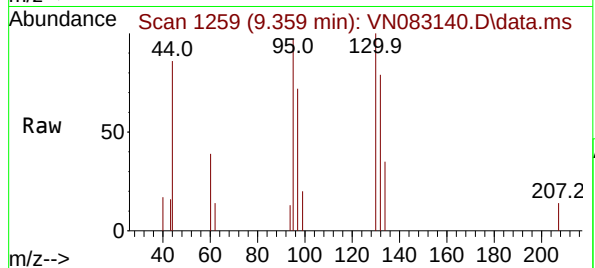
95 96.7 0.0 197.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#45

1,2-Dichloropropane

Concen: 0.946 ug/l

RT: 9.618 min Scan# 1303

Delta R.T. -0.006 min

Lab File: VN083140.D

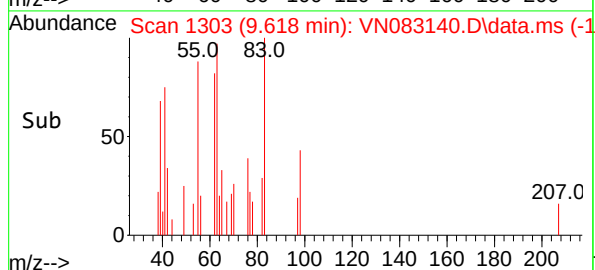
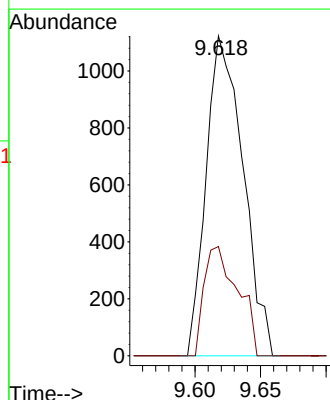
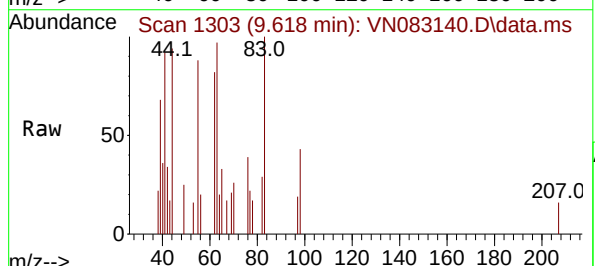
Acq: 07 Aug 2024 12:34

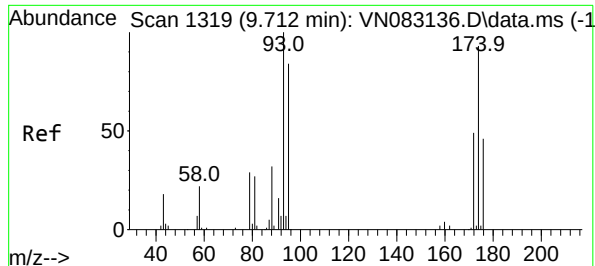
Tgt Ion: 63 Resp: 2194

Ion Ratio Lower Upper

63 100

65 34.2 24.4 36.6





#46

Dibromomethane

Concen: 0.911 ug/l

RT: 9.700 min Scan# 1319

Delta R.T. -0.012 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

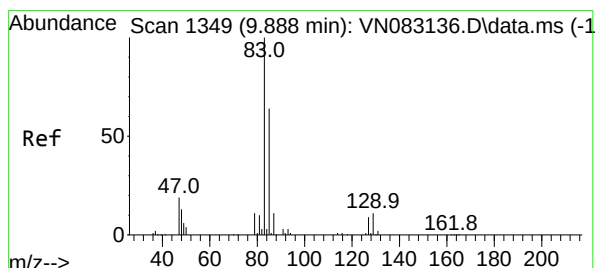
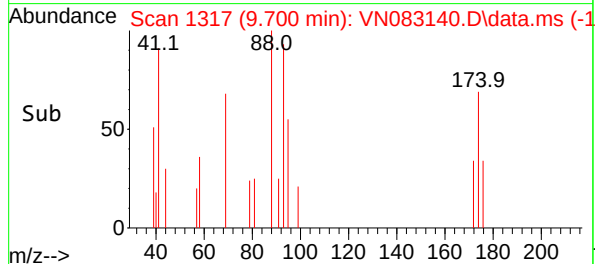
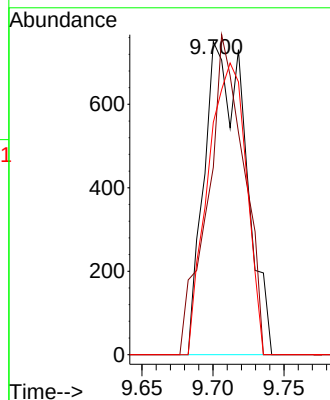
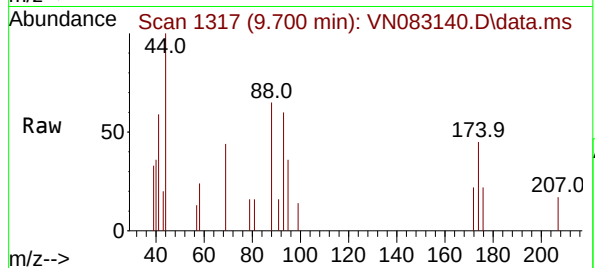
VSTDICC001

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 93    | Resp: | 151   |
| Ion      | Ratio | Lower | Upper |
| 93       | 100   |       |       |
| 95       | 89.4  | 65.8  | 98.6  |
| 174      | 87.3  | 71.7  | 107.5 |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#47

Bromodichloromethane

Concen: 1.015 ug/l

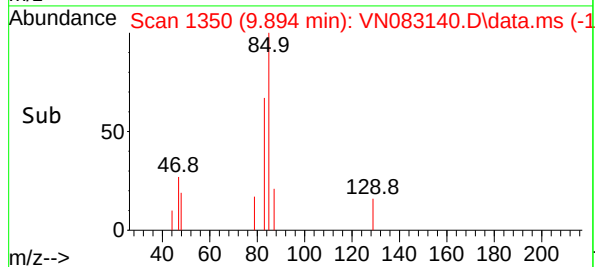
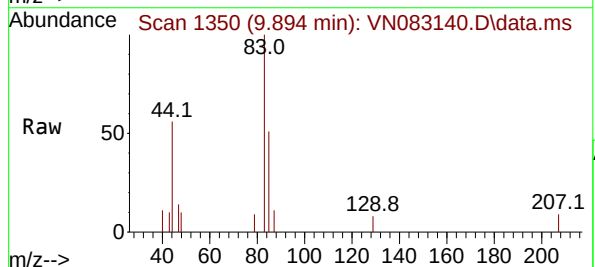
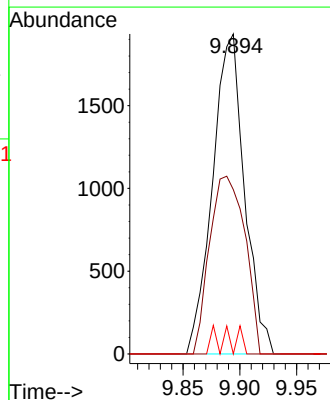
RT: 9.894 min Scan# 1350

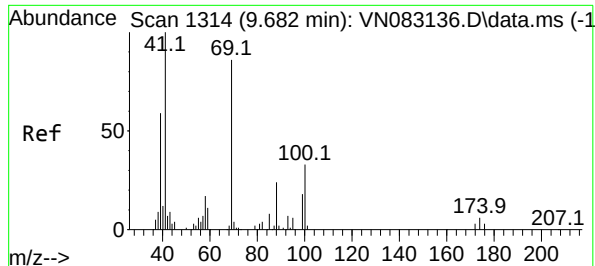
Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 3783  |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 51.4  | 51.1  | 76.7  |
| 127      | 0.0   | 7.2   | 10.8  |





#48

Methyl methacrylate

Concen: 1.159 ug/l

RT: 9.683 min Scan# 1314

Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

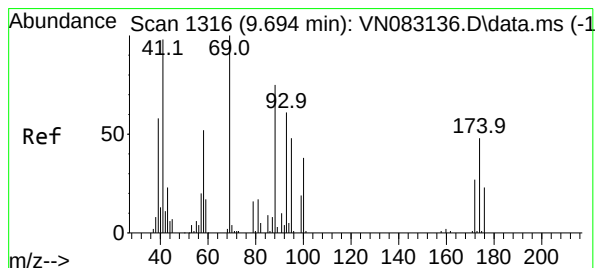
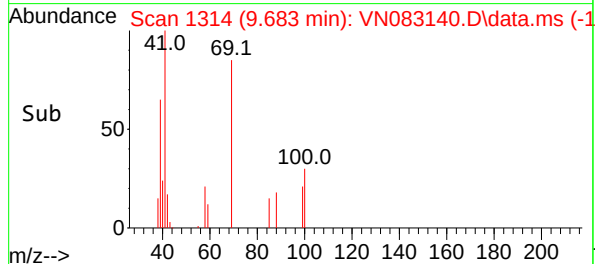
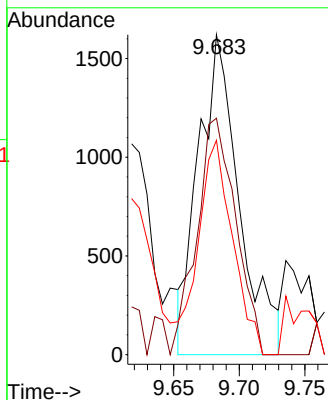
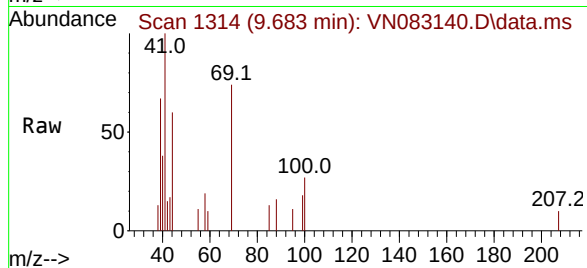
VSTDIC001

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 3518  |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 69       | 70.6  | 56.3  | 84.5  |
| 39       | 57.3  | 50.3  | 75.5  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#49

1,4-Dioxane

Concen: 19.880 ug/l

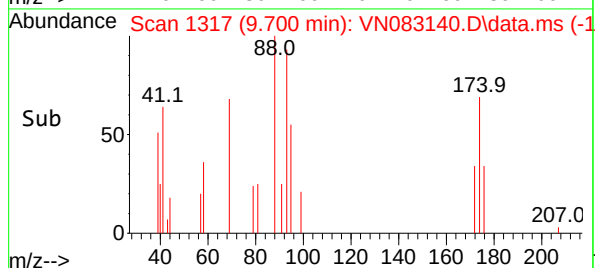
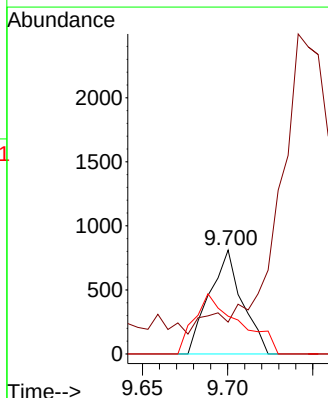
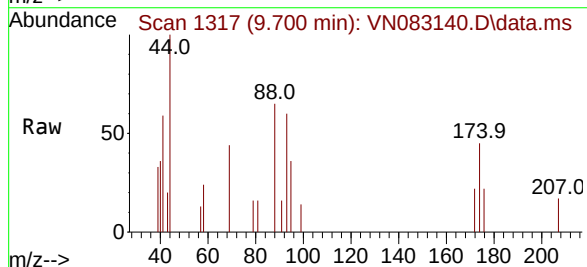
RT: 9.700 min Scan# 1317

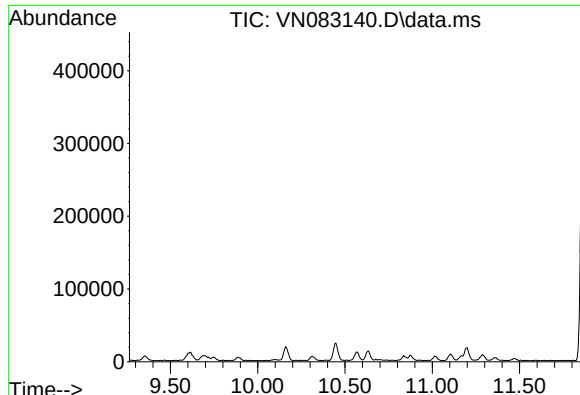
Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 88    | Resp: | 1089  |
| Ion      | Ratio | Lower | Upper |
| 88       | 100   |       |       |
| 43       | 0.0   | 27.8  | 41.8# |
| 58       | 79.4  | 59.4  | 89.0  |





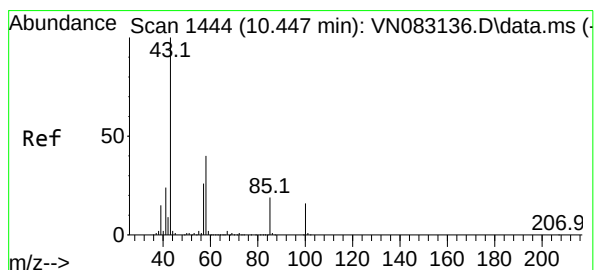
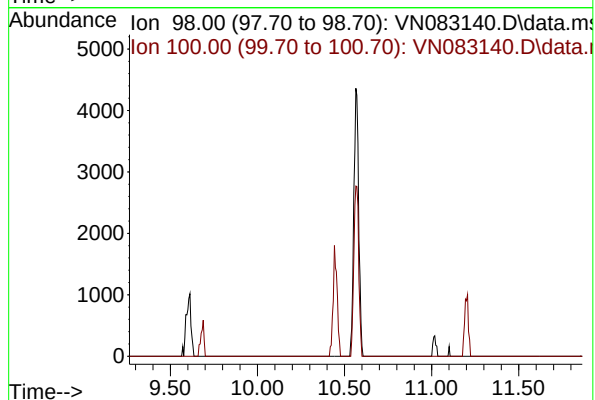
#50  
Toluene-d8  
Concen: 0.000 ug/l  
Expected RT: 10.56 min  
  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion: 98  
Sig Exp Ratio  
98 100  
100 64.4

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001

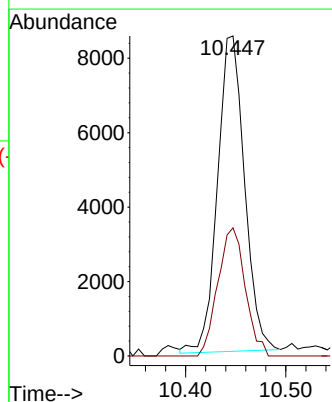
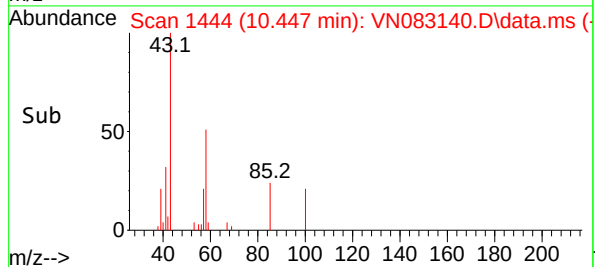
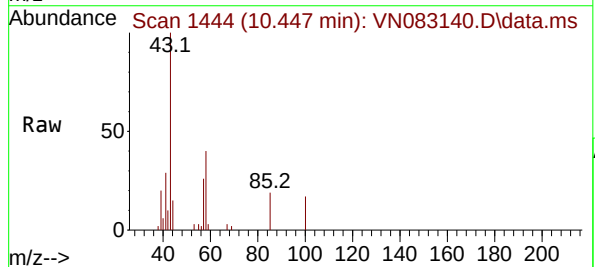
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

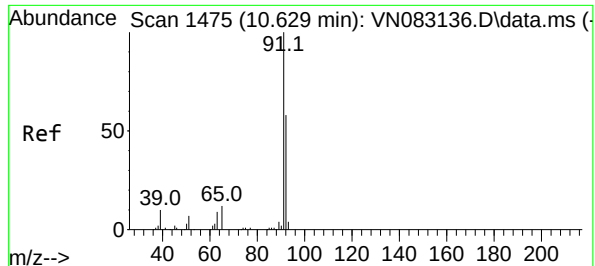


#51  
4-Methyl-2-Pentanone  
Concen: 4.570 ug/l  
RT: 10.447 min Scan# 1444  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion: 43 Resp: 15872  
Ion Ratio Lower Upper  
43 100  
58 41.1 28.2 42.4

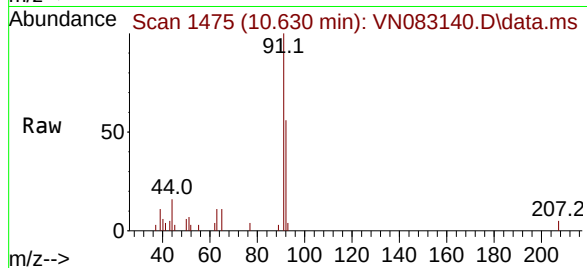






#52  
Toluene  
Concen: 0.927 ug/l  
RT: 10.630 min Scan# 1475  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

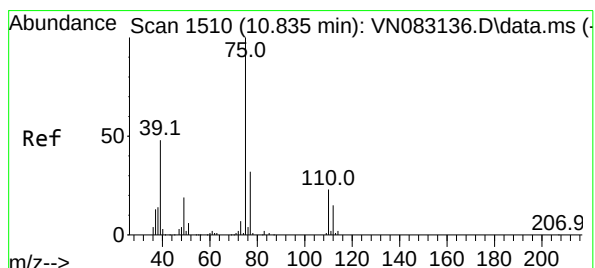
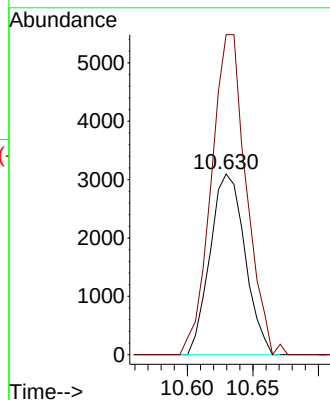
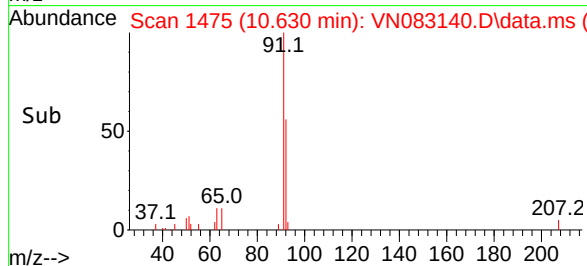
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001



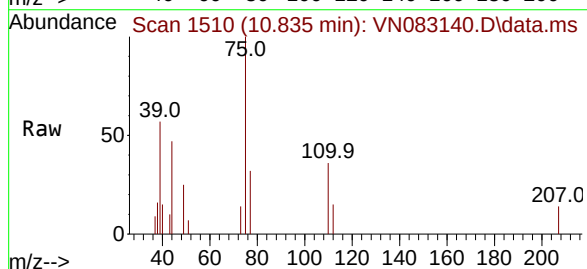
Tgt Ion: 92 Resp: 572  
Ion Ratio Lower Upper  
92 100  
91 178.1 139.4 209.0

Manual Integrations  
APPROVED

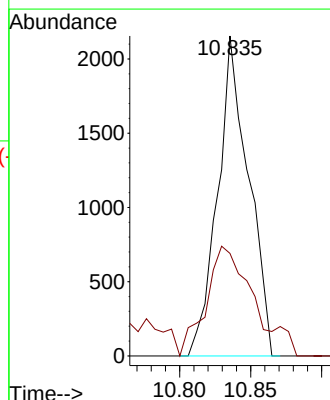
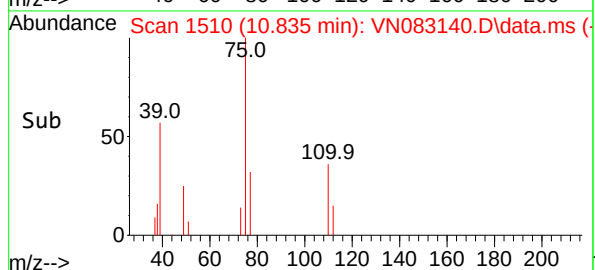
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

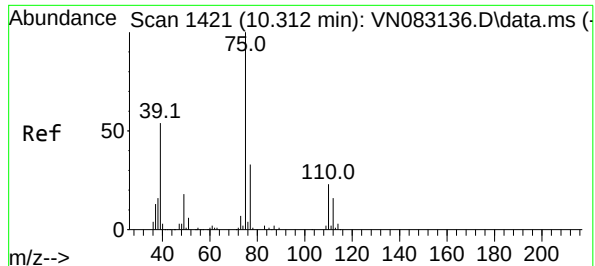


#53  
t-1,3-Dichloropropene  
Concen: 0.851 ug/l  
RT: 10.835 min Scan# 1510  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34



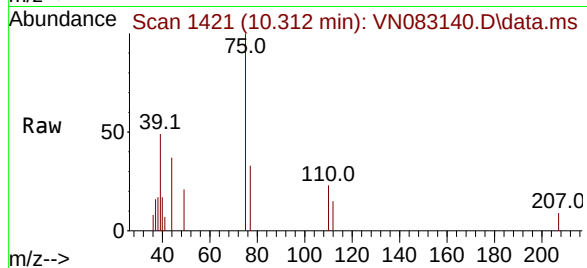
Tgt Ion: 75 Resp: 3260  
Ion Ratio Lower Upper  
75 100  
77 32.0 25.7 38.5





#54  
cis-1,3-Dichloropropene  
Concen: 0.932 ug/l  
RT: 10.312 min Scan# 1421  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

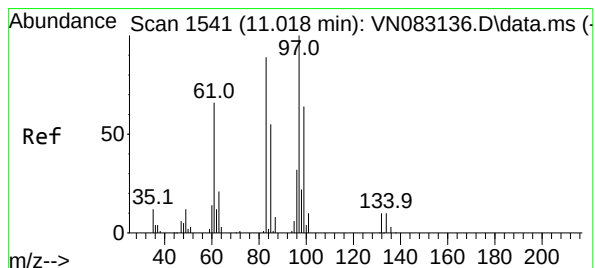
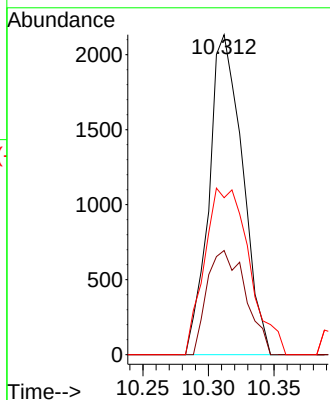
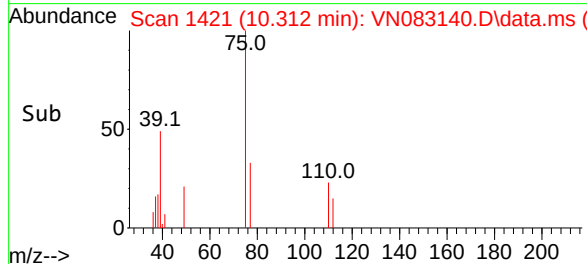
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC001



Tgt Ion: 75 Resp: 379  
Ion Ratio Lower Upper  
75 100  
77 32.5 24.3 36.5  
39 49.0 50.5 75.7

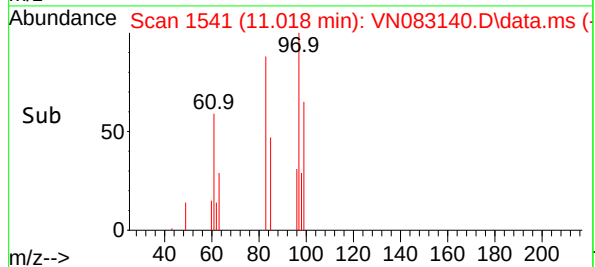
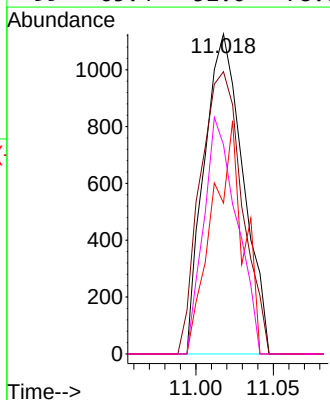
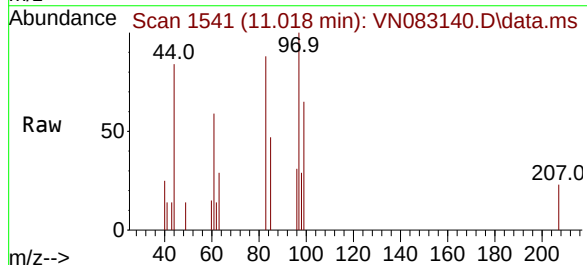
Manual Integrations  
APPROVED

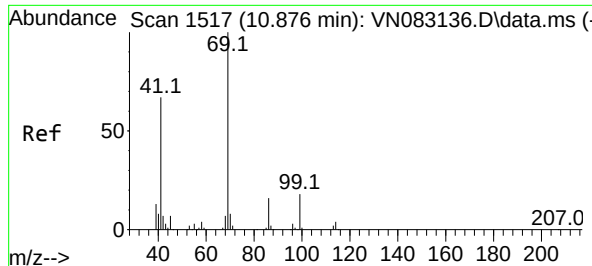
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#55  
1,1,2-Trichloroethane  
Concen: 0.887 ug/l  
RT: 11.018 min Scan# 1541  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

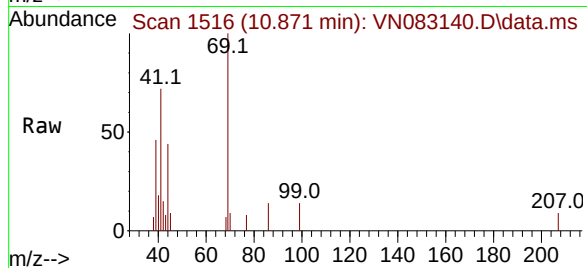
Tgt Ion: 97 Resp: 1963  
Ion Ratio Lower Upper  
97 100  
83 88.2 71.4 107.0  
85 47.2 45.8 68.6  
99 65.4 52.0 78.0





#56  
Ethyl methacrylate  
Concen: 0.921 ug/l  
RT: 10.871 min Scan# 1517  
Delta R.T. -0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

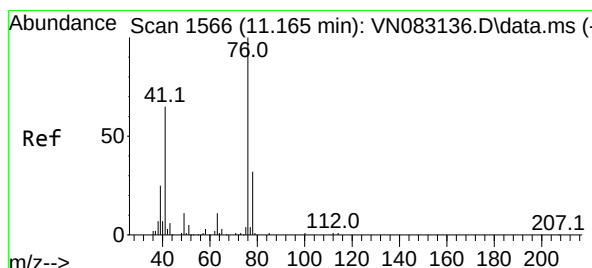
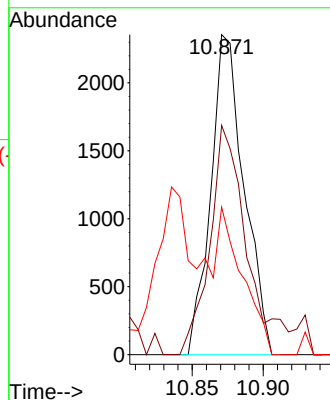
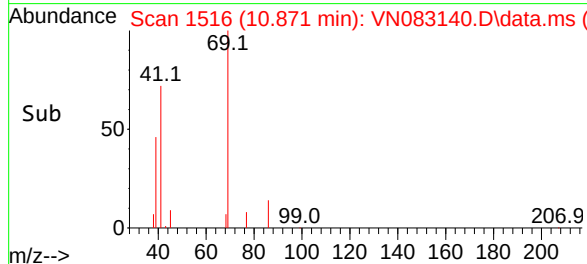
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001



Tgt Ion: 69 Resp: 384  
Ion Ratio Lower Upper  
69 100  
41 83.6 63.4 95.2  
39 33.7 37.4 56.0

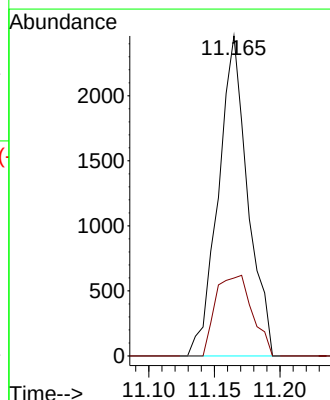
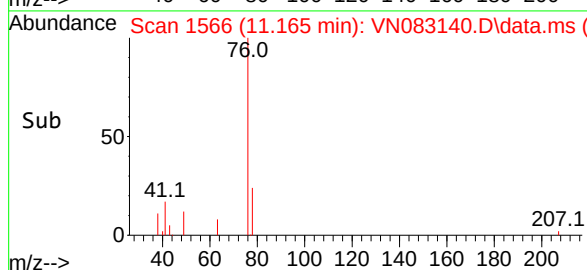
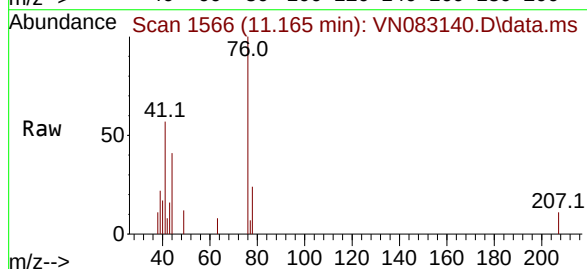
Manual Integrations  
APPROVED

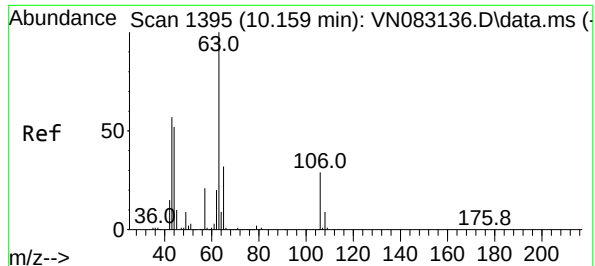
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#57  
1,3-Dichloropropane  
Concen: 0.973 ug/l  
RT: 11.165 min Scan# 1566  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion: 76 Resp: 3837  
Ion Ratio Lower Upper  
76 100  
78 31.3 25.6 38.4





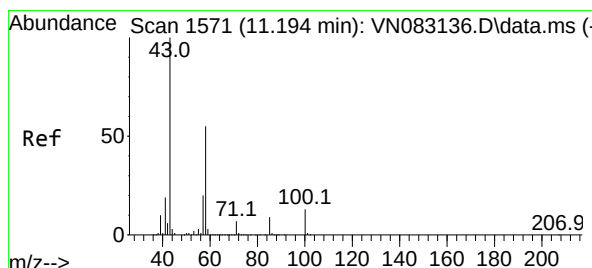
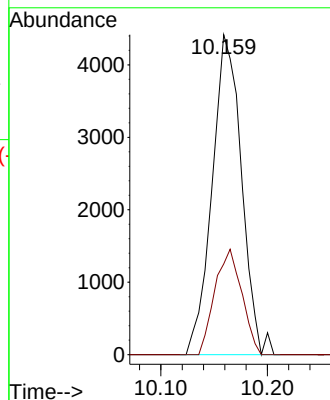
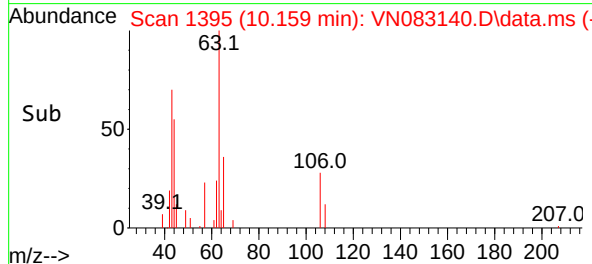
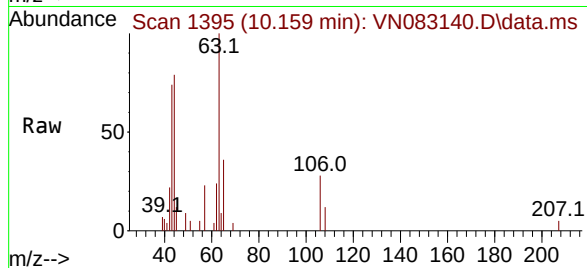
#58  
2-Chloroethyl Vinyl ether  
Concen: 4.794 ug/l  
RT: 10.159 min Scan# 1395  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC001

Tgt Ion: 63 Resp: 845  
Ion Ratio Lower Upper  
63 100  
106 30.3 21.4 32.0

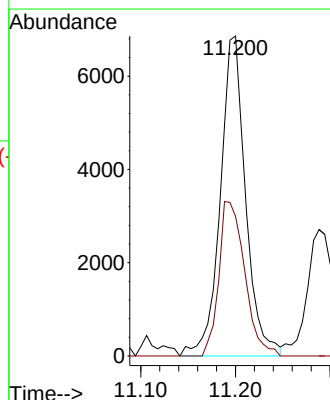
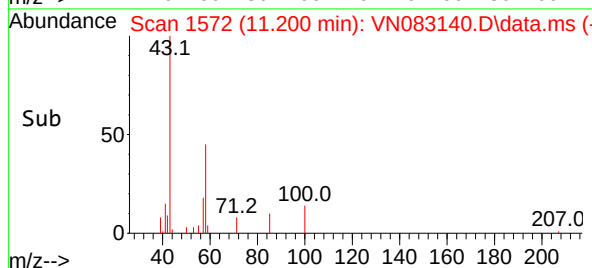
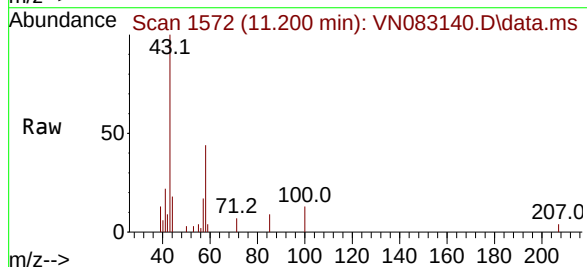
Manual Integrations  
APPROVED

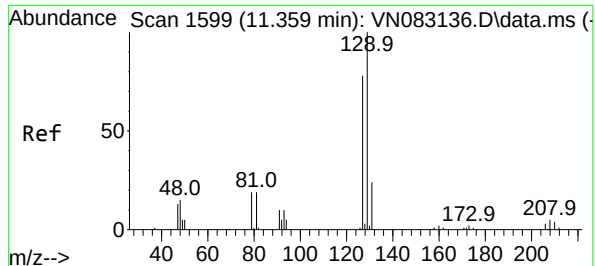
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#59  
2-Hexanone  
Concen: 4.749 ug/l  
RT: 11.200 min Scan# 1572  
Delta R.T. 0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

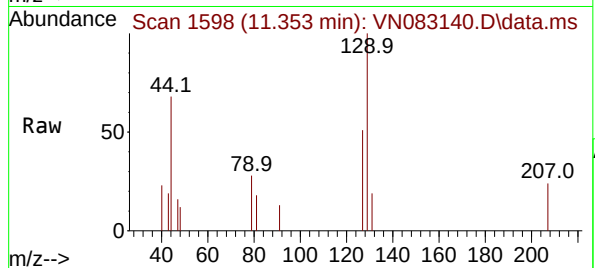
Tgt Ion: 43 Resp: 12761  
Ion Ratio Lower Upper  
43 100  
58 49.3 24.6 73.8





#60  
Dibromochloromethane  
Concen: 0.853 ug/l  
RT: 11.353 min Scan# 1598  
Delta R.T. -0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

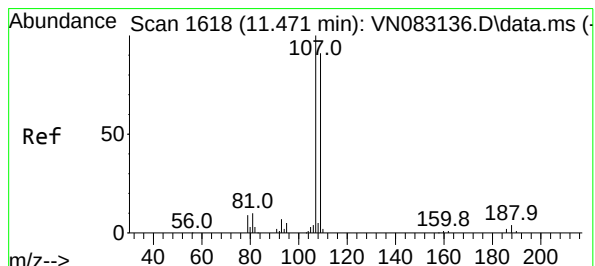
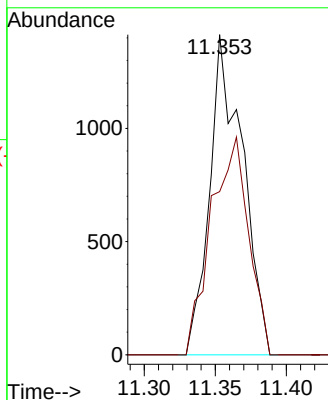
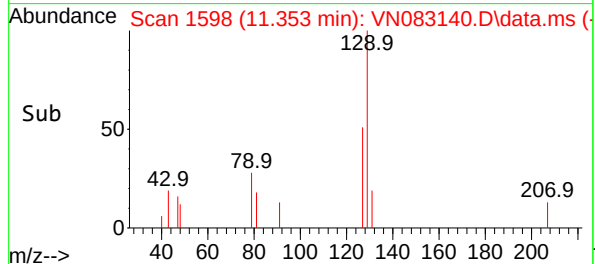
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001



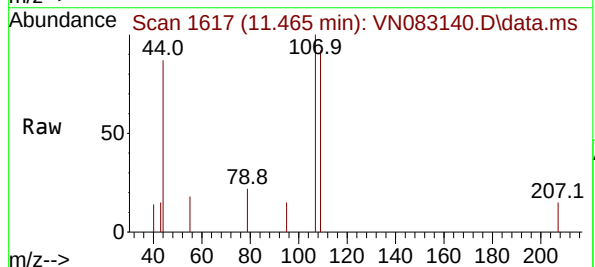
Tgt Ion:129 Resp: 2283  
Ion Ratio Lower Upper  
129 100  
127 77.5 39.2 117.6

Manual Integrations  
APPROVED

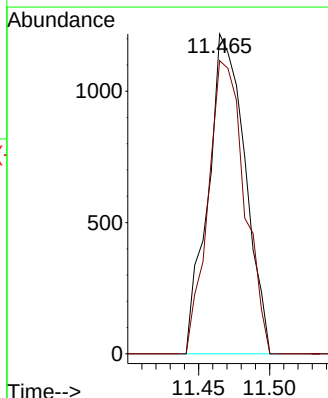
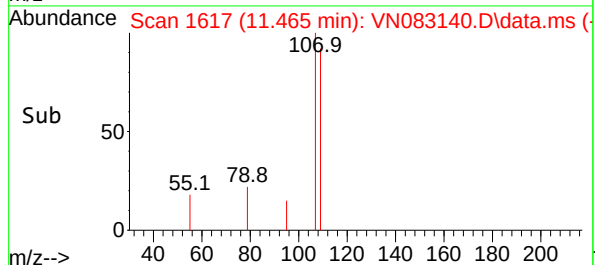
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

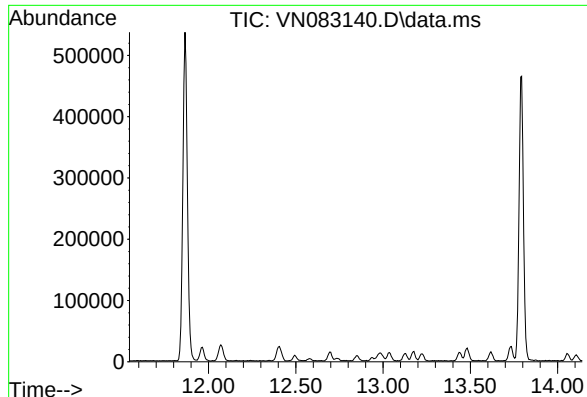


#61  
1,2-Dibromoethane  
Concen: 0.947 ug/l  
RT: 11.465 min Scan# 1617  
Delta R.T. -0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34



Tgt Ion:107 Resp: 2200  
Ion Ratio Lower Upper  
107 100  
109 90.4 73.7 110.5





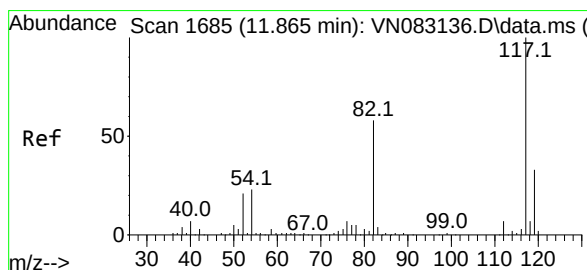
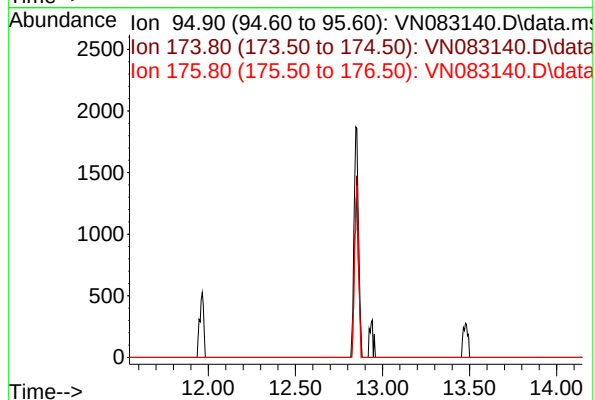
#62  
4-Bromofluorobenzene  
Concen: 0.000 ug/l  
Expected RT: 12.85 min  
  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion: 95  
Sig Exp Ratio  
95 100  
174 79.6  
176 73.8

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001

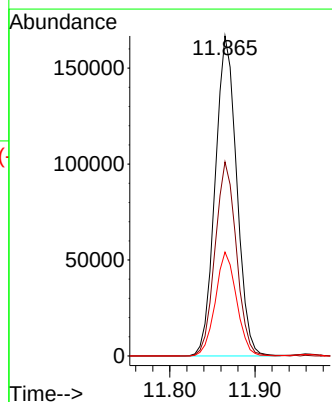
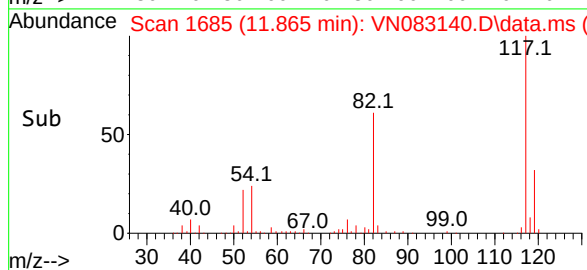
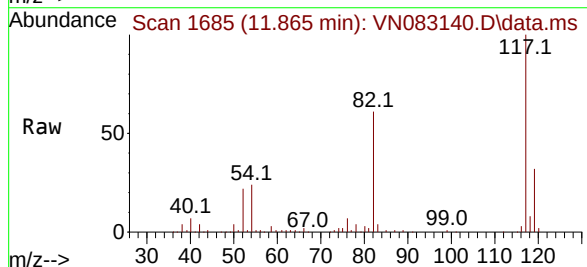
Manual Integrations  
APPROVED

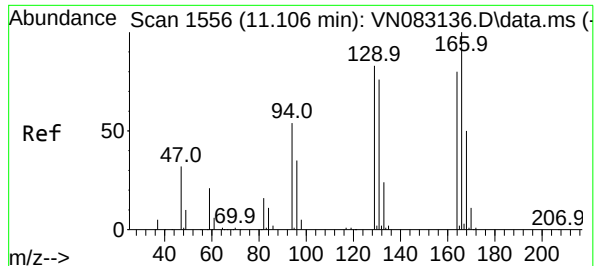
Reviewed By : John Carlone 08/08/2024  
Supervised By : Mahesh Dadoda 08/09/2024



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

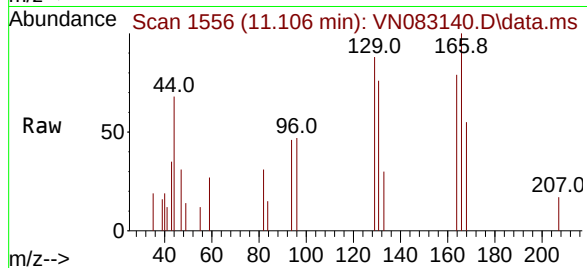
Tgt Ion: 117 Resp: 292647  
Ion Ratio Lower Upper  
117 100  
82 60.6 47.5 71.3  
119 32.4 25.6 38.4





#64  
Tetrachloroethene  
Concen: 0.966 ug/l  
RT: 11.106 min Scan# 1556  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

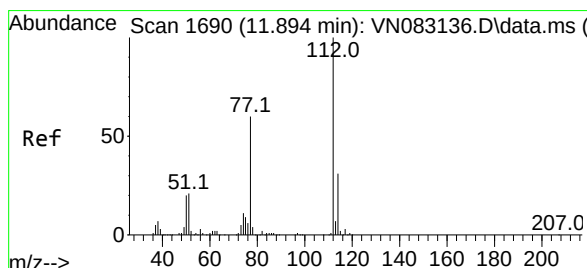
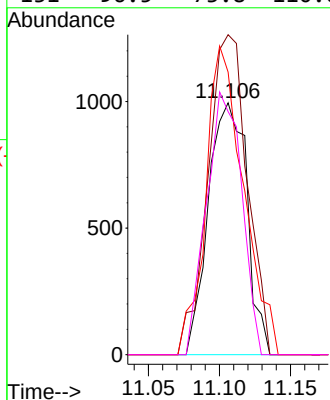
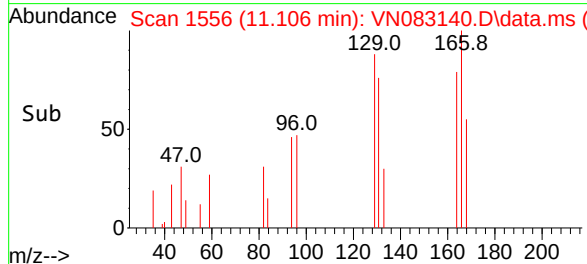
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001



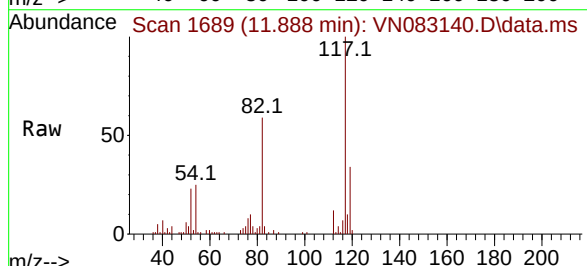
Tgt Ion:164 Resp: 1872  
Ion Ratio Lower Upper  
164 100  
166 127.0 101.4 152.0  
129 112.2 75.7 113.5  
131 96.5 73.8 110.6

Manual Integrations  
APPROVED

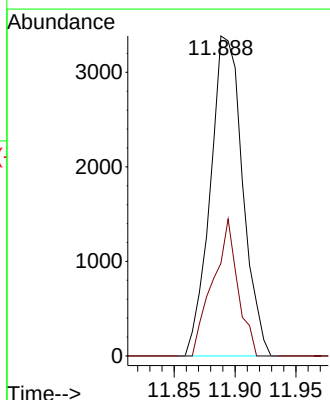
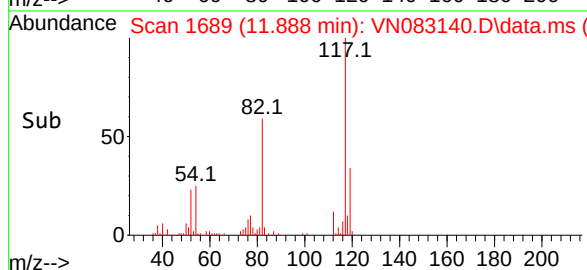
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

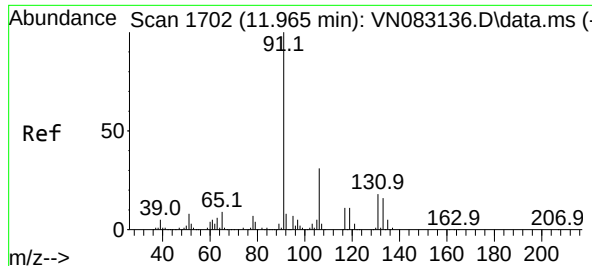


#65  
Chlorobenzene  
Concen: 0.968 ug/l  
RT: 11.888 min Scan# 1689  
Delta R.T. -0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34



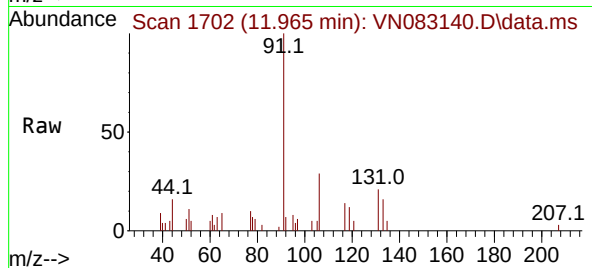
Tgt Ion:112 Resp: 6259  
Ion Ratio Lower Upper  
112 100  
114 29.0 26.2 39.2





#66  
1,1,1,2-Tetrachloroethane  
Concen: 0.951 ug/l  
RT: 11.965 min Scan# 1702  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

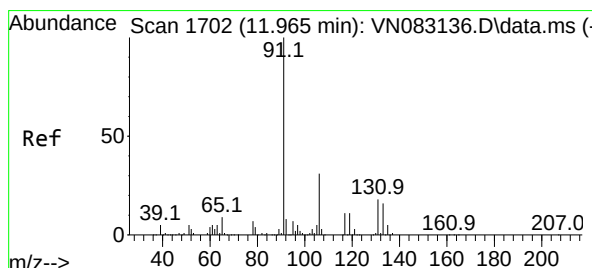
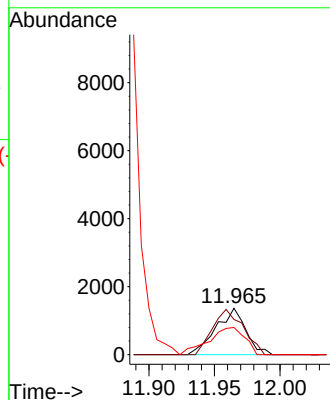
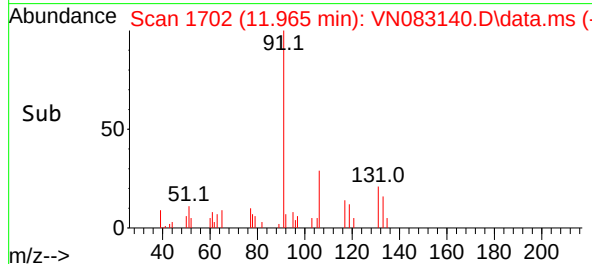
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001



Tgt Ion: 131 Resp: 2168  
Ion Ratio Lower Upper  
131 100  
133 100.6 47.3 142.0  
119 0.0 32.5 97.4

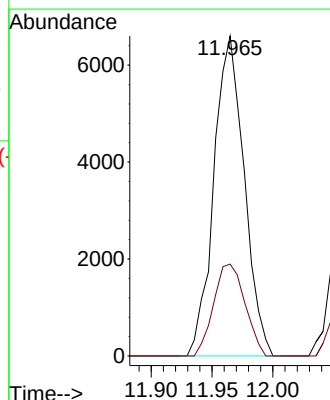
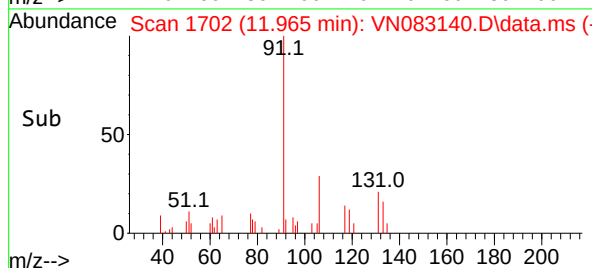
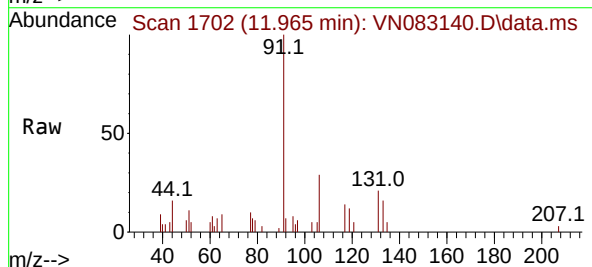
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

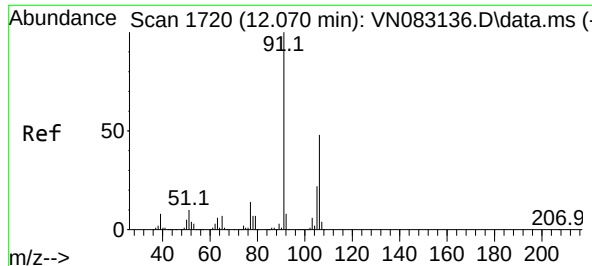


#67  
Ethyl Benzene  
Concen: 0.966 ug/l  
RT: 11.965 min Scan# 1702  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion: 91 Resp: 11455  
Ion Ratio Lower Upper  
91 100  
106 28.7 24.0 36.0

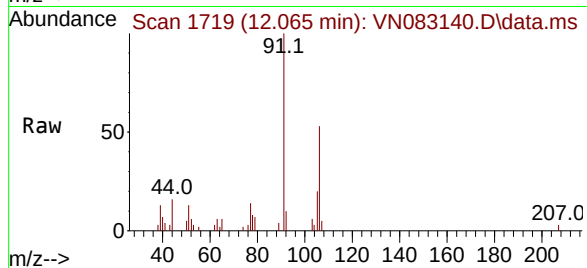






#68  
m/p-Xylenes  
Concen: 1.860 ug/l  
RT: 12.065 min Scan# 1719  
Delta R.T. -0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

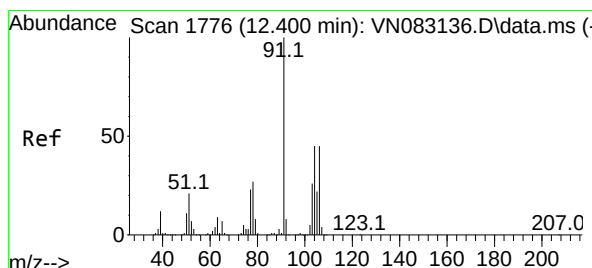
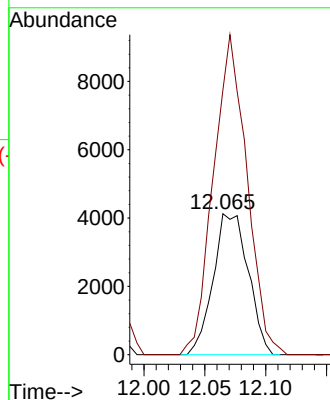
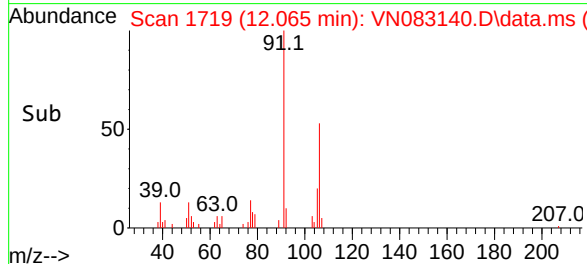
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001



Tgt Ion:106 Resp: 826  
Ion Ratio Lower Upper  
106 100  
91 217.0 166.1 249.1

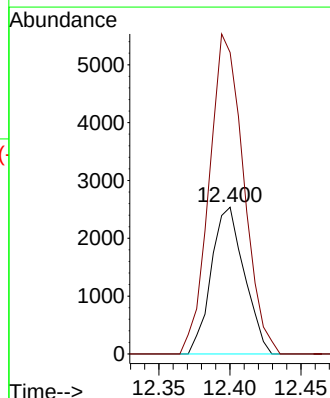
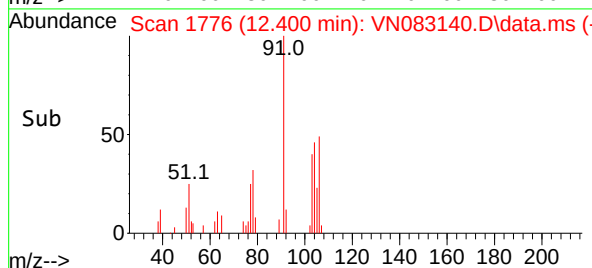
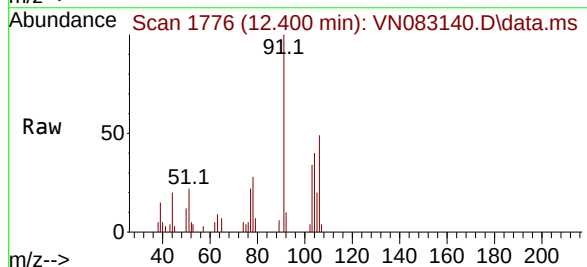
Manual Integrations  
APPROVED

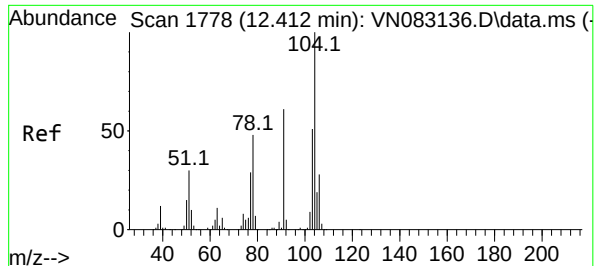
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#69  
o-Xylene  
Concen: 0.938 ug/l  
RT: 12.400 min Scan# 1776  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion:106 Resp: 4113  
Ion Ratio Lower Upper  
106 100  
91 226.2 111.3 333.9





#70

Styrene

Concen: 0.875 ug/l

RT: 12.412 min Scan# 11

Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

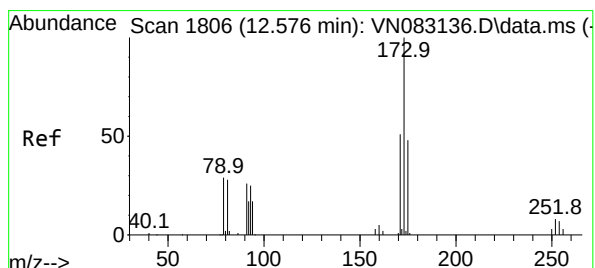
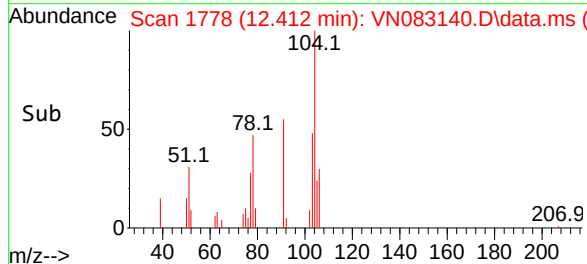
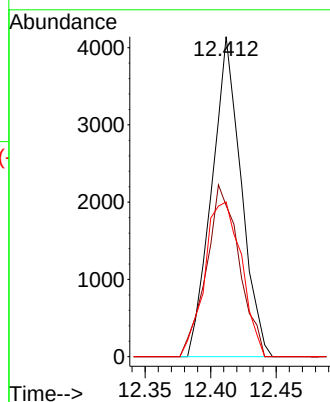
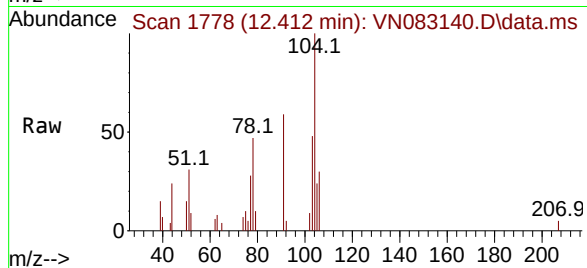
VSTDIC001

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 104   | Resp: | 644   |
| Ion      | Ratio | Lower | Upper |
| 104      | 100   |       |       |
| 78       | 60.2  | 41.6  | 62.4  |
| 103      | 60.7  | 44.0  | 66.0  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#71

Bromoform

Concen: 0.903 ug/l

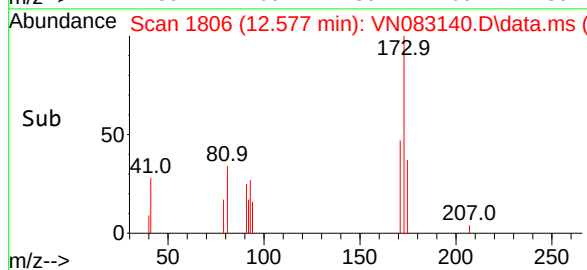
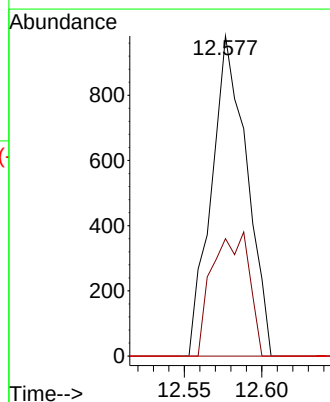
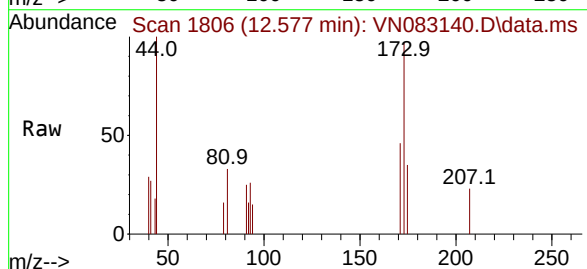
RT: 12.577 min Scan# 1806

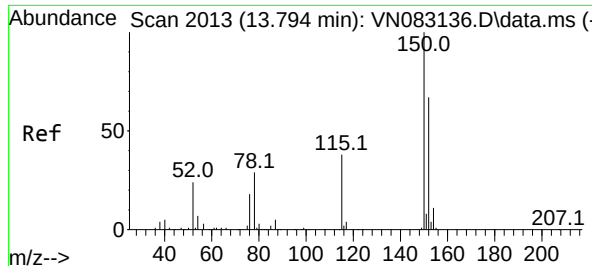
Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

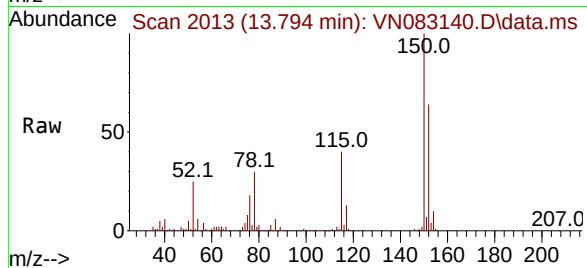
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 173   | Resp: | 1561  |
| Ion      | Ratio | Lower | Upper |
| 173      | 100   |       |       |
| 175      | 40.2  | 24.0  | 72.0  |
| 254      | 0.0   | 0.0   | 0.0   |





#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.794 min Scan# 2013  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

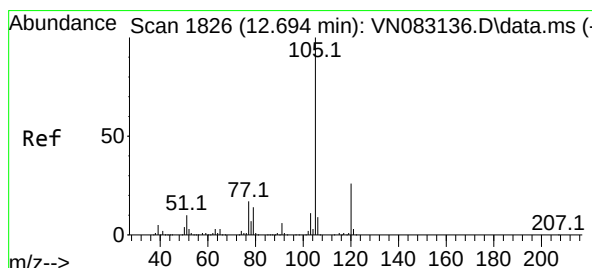
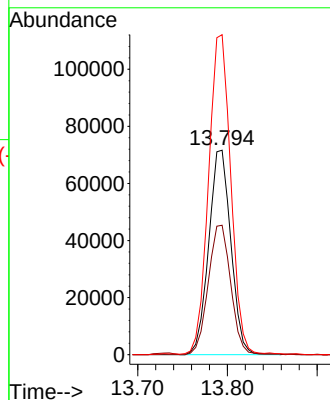
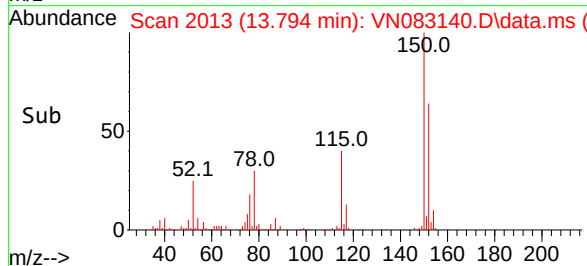
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001



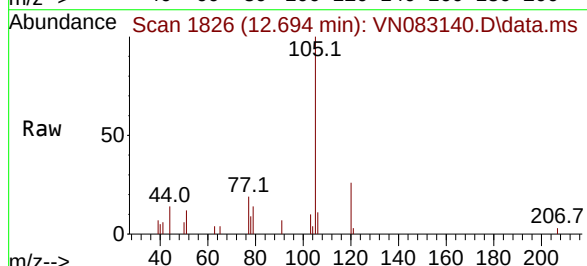
Tgt Ion:152 Resp: 12292  
Ion Ratio Lower Upper  
152 100  
115 64.2 30.6 91.6  
150 157.5 0.0 348.6

Manual Integrations  
APPROVED

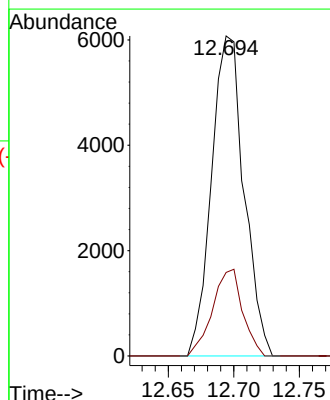
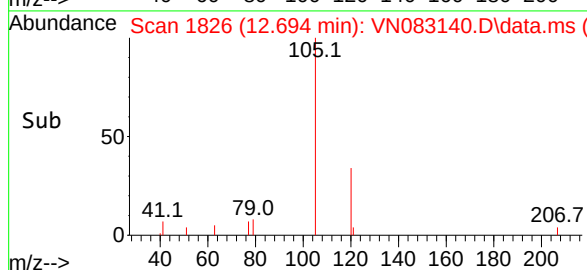
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

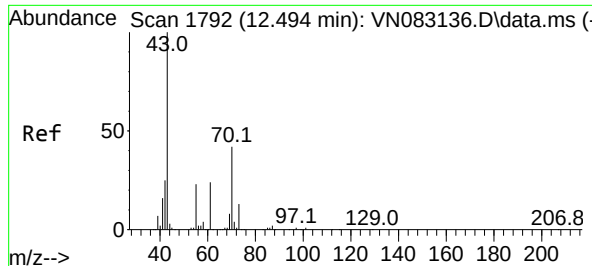


#73  
Isopropylbenzene  
Concen: 1.017 ug/l  
RT: 12.694 min Scan# 1826  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34



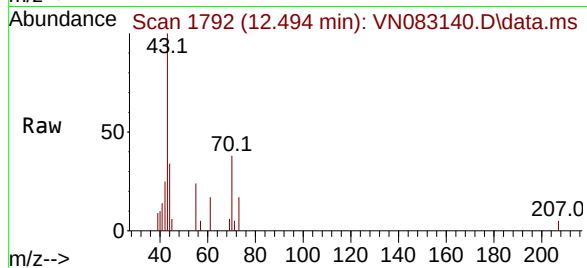
Tgt Ion:105 Resp: 10459  
Ion Ratio Lower Upper  
105 100  
120 25.1 12.9 38.6





#74  
N-amy1 acetate  
Concen: 1.144 ug/l  
RT: 12.494 min Scan# 1792  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

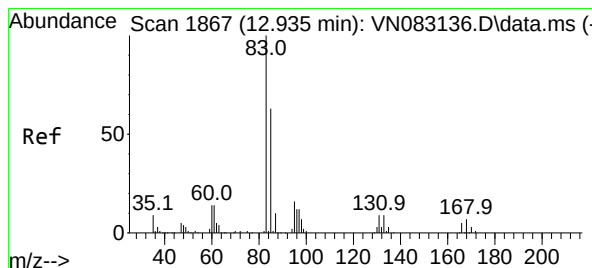
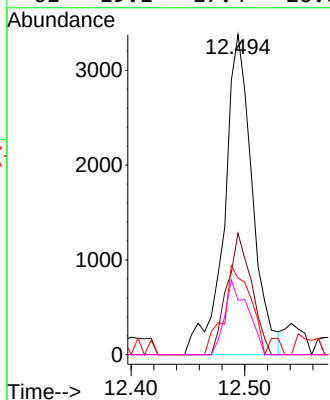
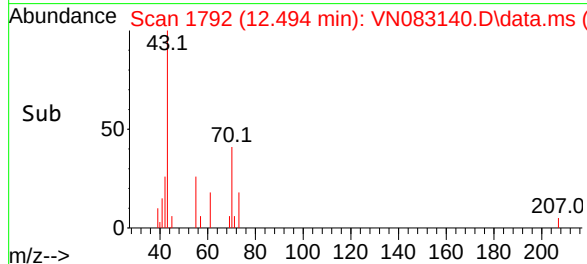
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001



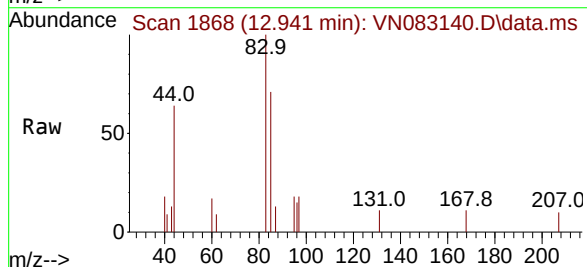
Tgt Ion: 43 Resp: 575  
Ion Ratio Lower Upper  
43 100  
70 33.3 29.8 44.6  
55 28.9 18.7 28.1  
61 19.1 17.4 26.0

Manual Integrations  
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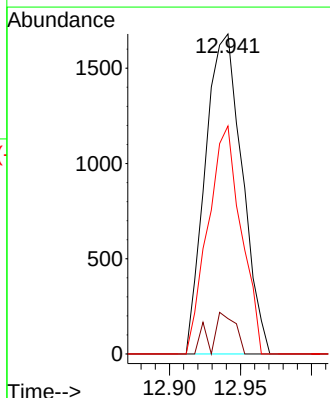
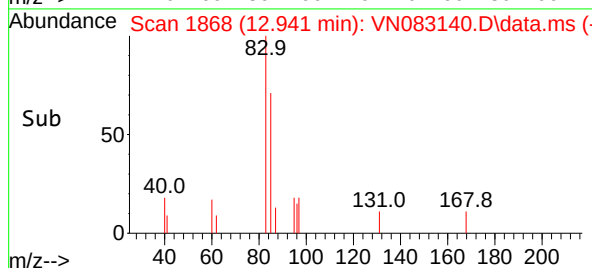
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

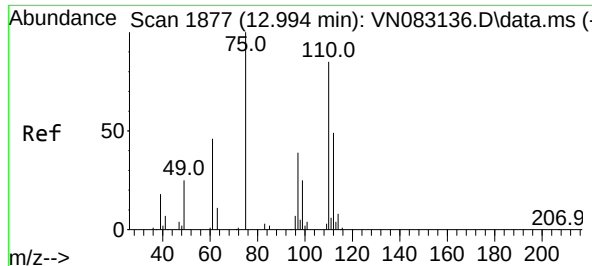


#75  
1,1,2,2-Tetrachloroethane  
Concen: 1.043 ug/l  
RT: 12.941 min Scan# 1868  
Delta R.T. 0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34



Tgt Ion: 83 Resp: 3034  
Ion Ratio Lower Upper  
83 100  
131 8.5 5.0 14.9  
85 64.0 31.9 95.7





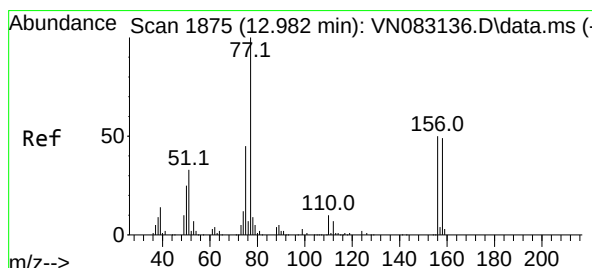
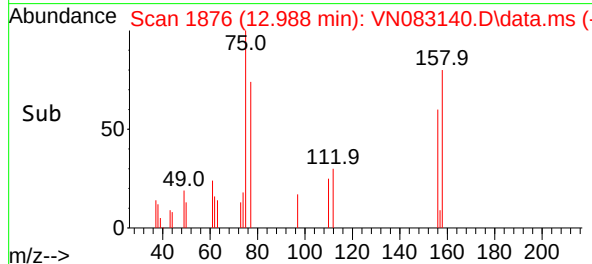
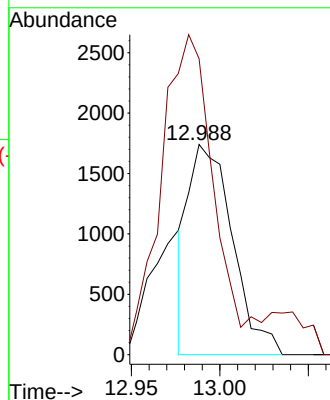
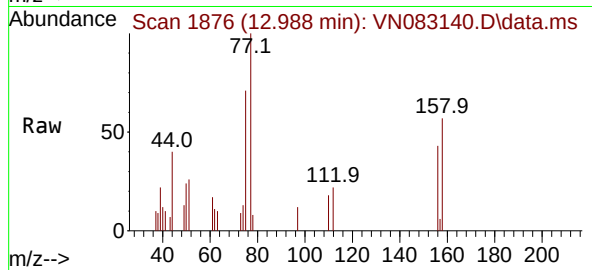
#76  
1,2,3-Trichloropropane  
Concen: 1.122 ug/l m  
RT: 12.988 min Scan# 1876  
Delta R.T. -0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001

Tgt Ion: 75 Resp: 303  
Ion Ratio Lower Upper  
75 100  
77 184.1 110.9 332.6

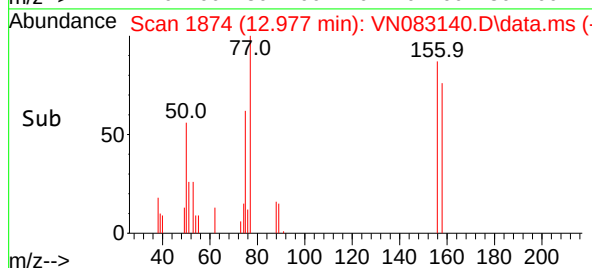
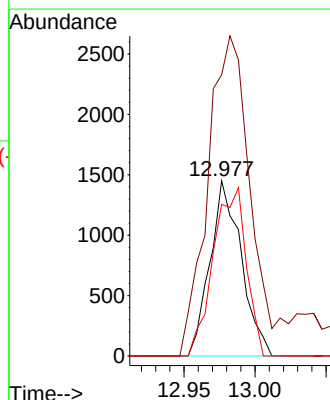
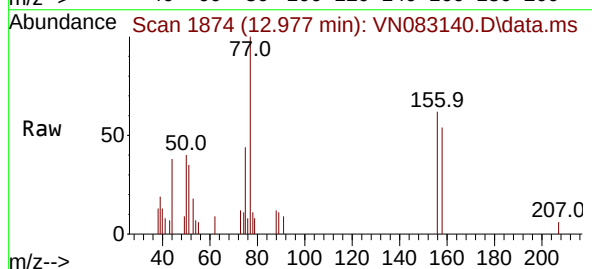
Manual Integrations  
APPROVED

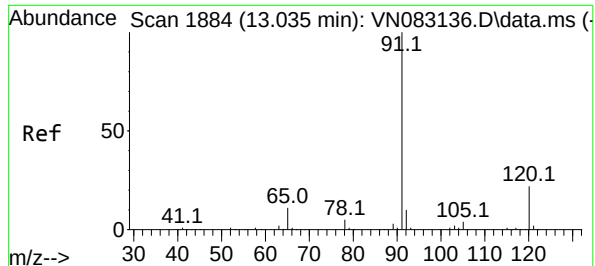
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#77  
Bromobenzene  
Concen: 0.969 ug/l  
RT: 12.977 min Scan# 1874  
Delta R.T. -0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion:156 Resp: 2212  
Ion Ratio Lower Upper  
156 100  
77 252.2 111.3 333.8  
158 101.5 48.3 144.9





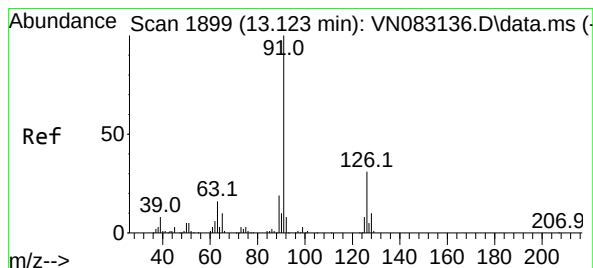
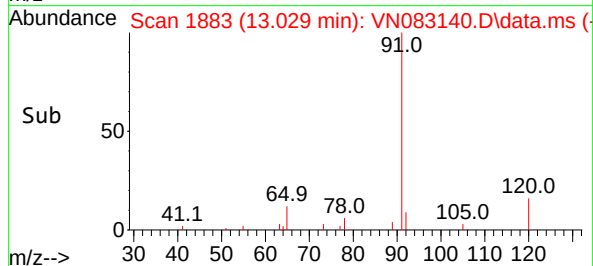
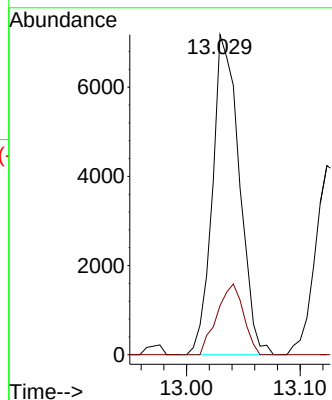
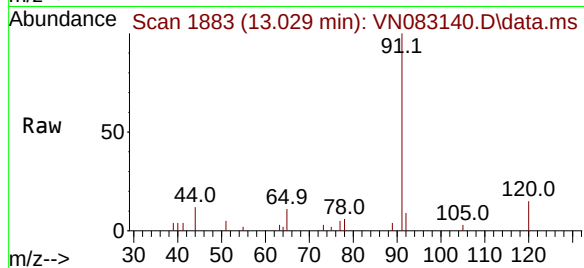
#78  
n-propylbenzene  
Concen: 0.997 ug/l  
RT: 13.029 min Scan# 1883  
Delta R.T. -0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001

Tgt Ion: 91 Resp: 11800  
Ion Ratio Lower Upper  
91 100  
120 21.7 10.9 32.9

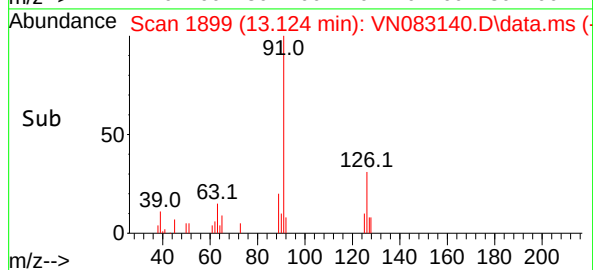
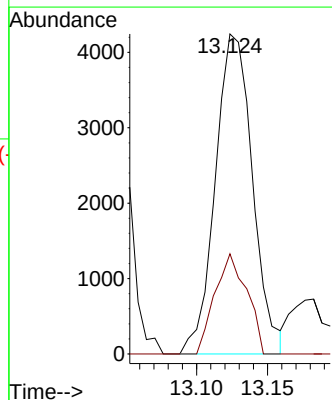
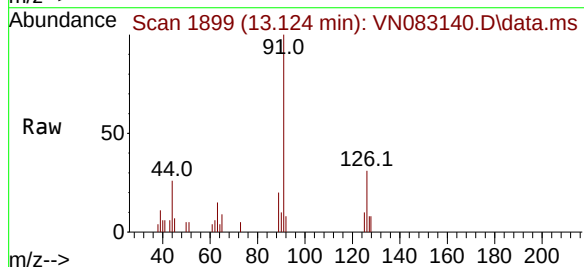
Manual Integrations  
APPROVED

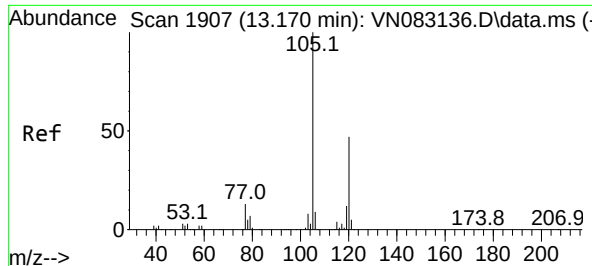
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#79  
2-Chlorotoluene  
Concen: 1.031 ug/l  
RT: 13.124 min Scan# 1899  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion: 91 Resp: 7735  
Ion Ratio Lower Upper  
91 100  
126 26.9 16.2 48.6





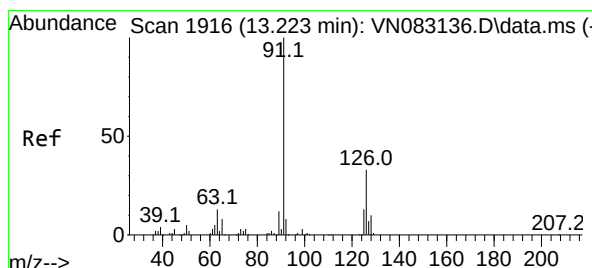
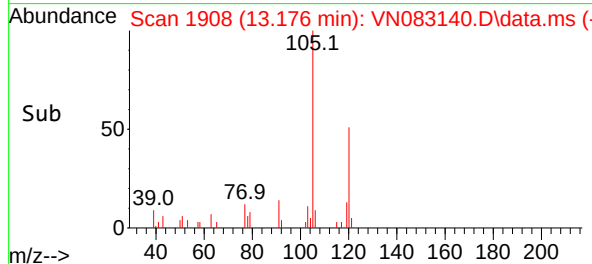
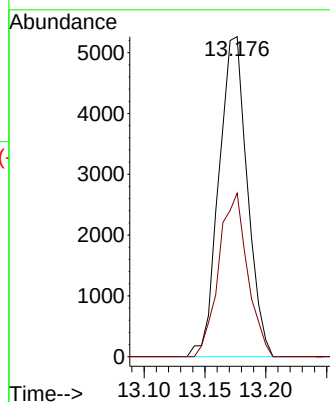
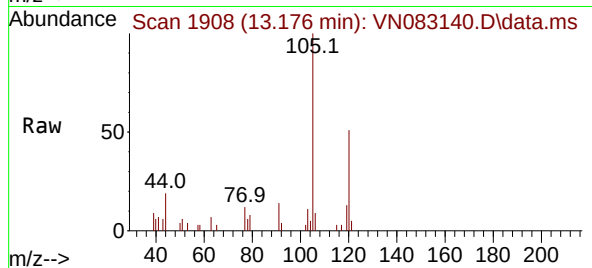
#80  
1,3,5-Trimethylbenzene  
Concen: 0.994 ug/l  
RT: 13.176 min Scan# 1907  
Delta R.T. 0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDIC001

Tgt Ion:105 Resp: 855  
Ion Ratio Lower Upper  
105 100  
120 51.7 24.3 72.8

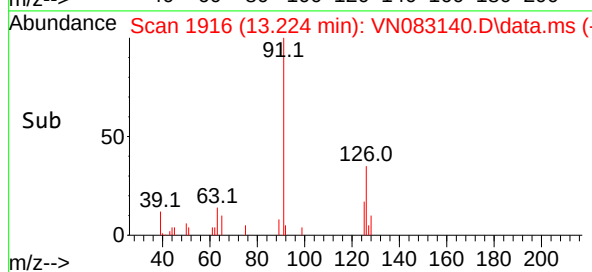
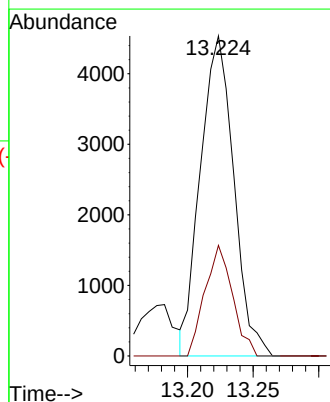
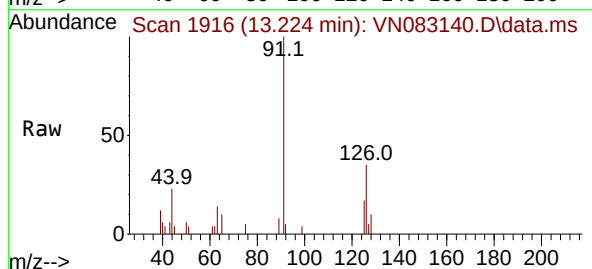
Manual Integrations  
APPROVED

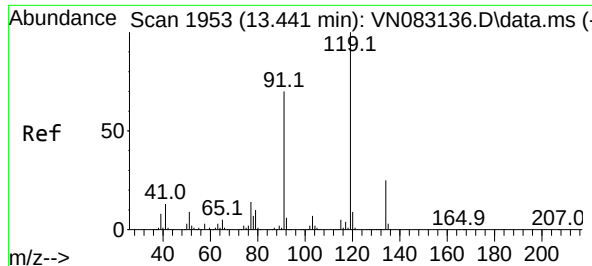
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#82  
4-Chlorotoluene  
Concen: 1.065 ug/l  
RT: 13.224 min Scan# 1916  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

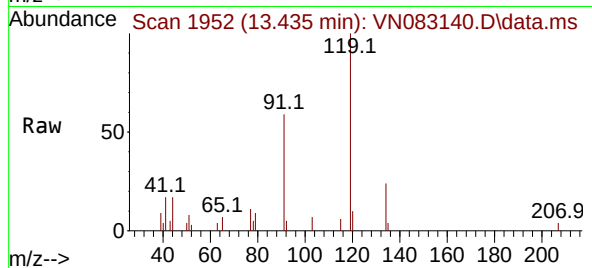
Tgt Ion: 91 Resp: 8018  
Ion Ratio Lower Upper  
91 100  
126 28.6 16.2 48.6





#83  
tert-Butylbenzene  
Concen: 1.001 ug/l  
RT: 13.435 min Scan# 1953  
Delta R.T. -0.006 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

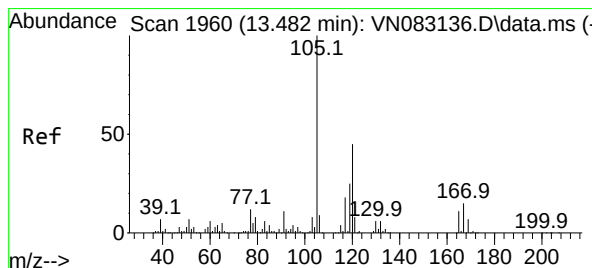
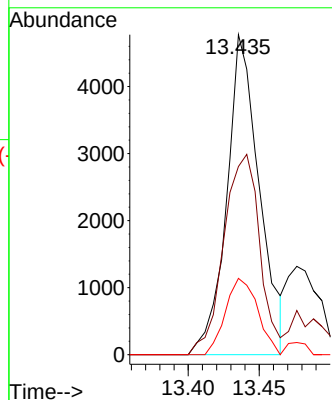
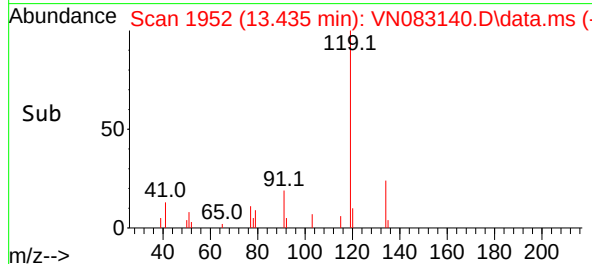
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC001



Tgt Ion:119 Resp: 7628  
Ion Ratio Lower Upper  
119 100  
91 69.2 35.0 105.1  
134 23.5 13.3 39.8

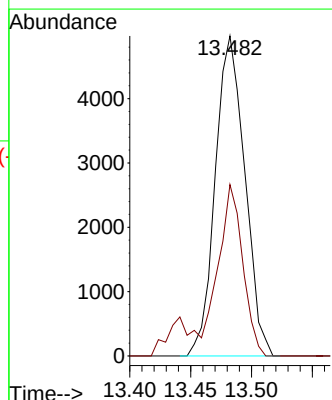
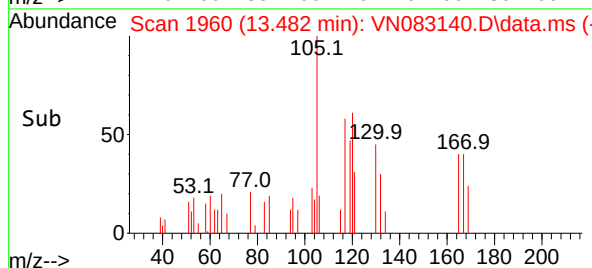
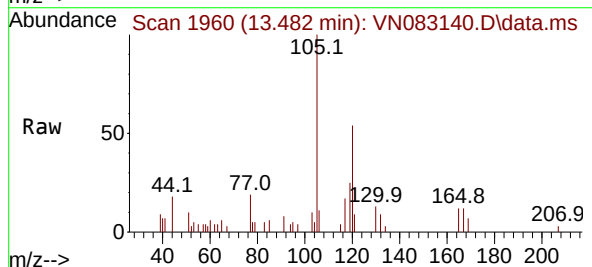
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

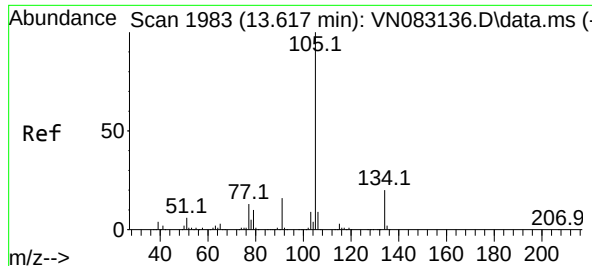


#84  
1,2,4-Trimethylbenzene  
Concen: 0.968 ug/l  
RT: 13.482 min Scan# 1960  
Delta R.T. 0.000 min  
Lab File: VN083140.D  
Acq: 07 Aug 2024 12:34

Tgt Ion:105 Resp: 8397  
Ion Ratio Lower Upper  
105 100  
120 44.1 21.9 65.8







#85

sec-Butylbenzene

Concen: 1.001 ug/l

RT: 13.618 min Scan# 1983

Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC001

Tgt Ion:105 Resp: 1041

Ion Ratio Lower Upper

105 100

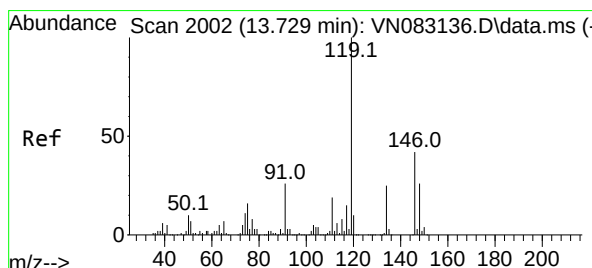
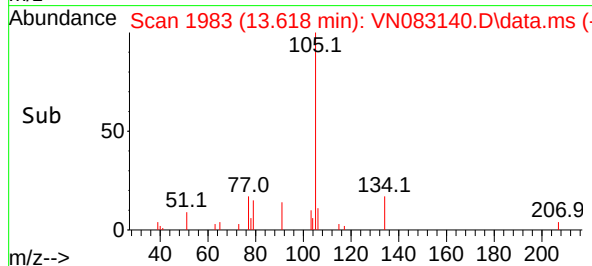
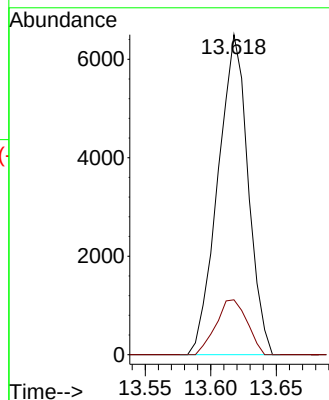
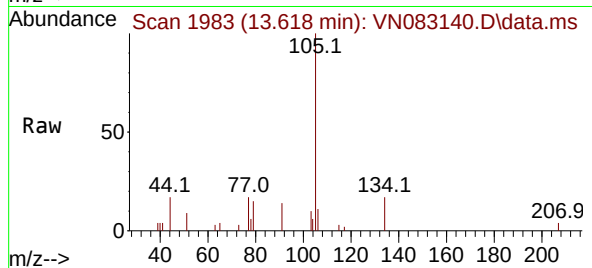
134 17.7 9.8 29.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#86

p-Isopropyltoluene

Concen: 0.960 ug/l

RT: 13.735 min Scan# 2003

Delta R.T. 0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

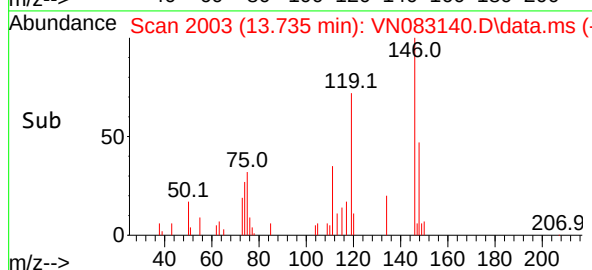
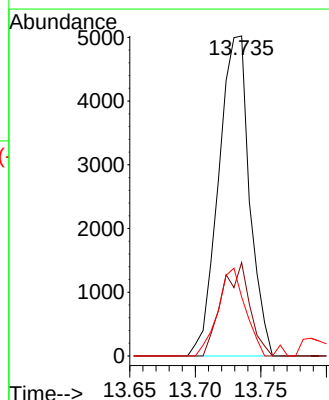
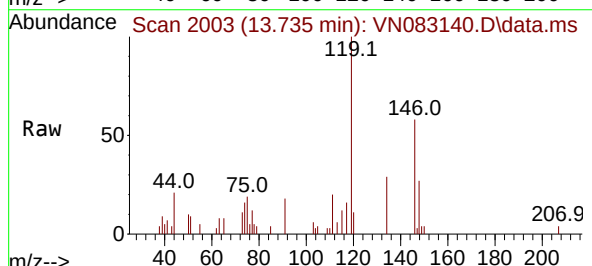
Tgt Ion:119 Resp: 8247

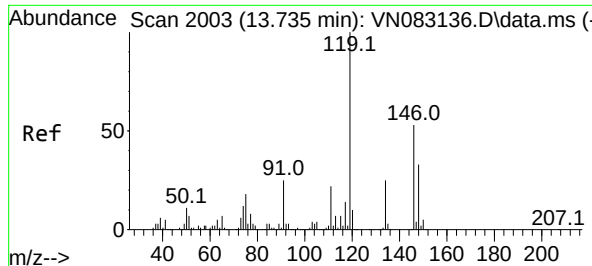
Ion Ratio Lower Upper

119 100

134 26.4 13.0 39.0

91 24.2 12.3 36.9





#87

1,3-Dichlorobenzene

Concen: 1.070 ug/l

RT: 13.735 min Scan# 2003

Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

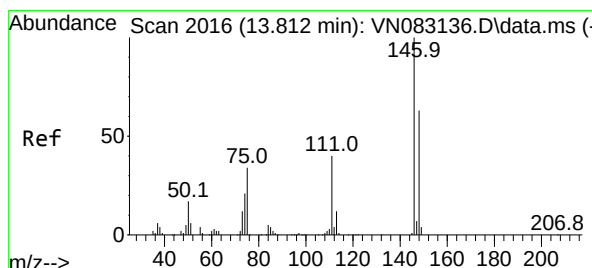
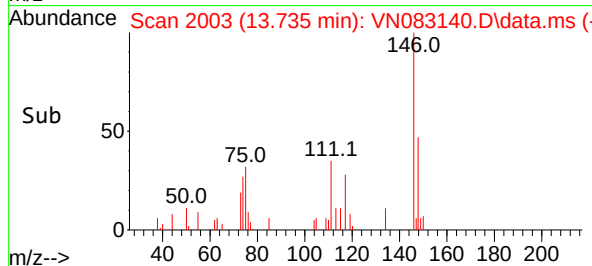
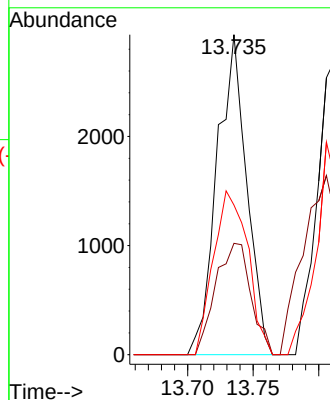
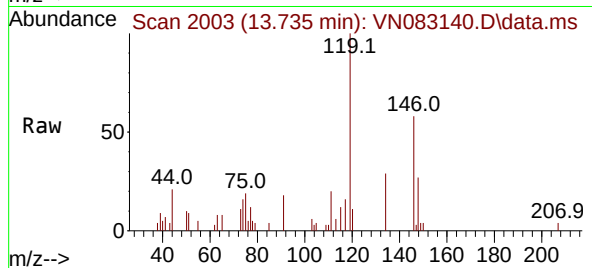
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 146   | Resp: | 4598  |
| Ion      | Ratio | Lower | Upper |
| 146      | 100   |       |       |
| 111      | 41.5  | 20.6  | 61.9  |
| 148      | 59.5  | 31.8  | 95.3  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#88

1,4-Dichlorobenzene

Concen: 1.057 ug/l m

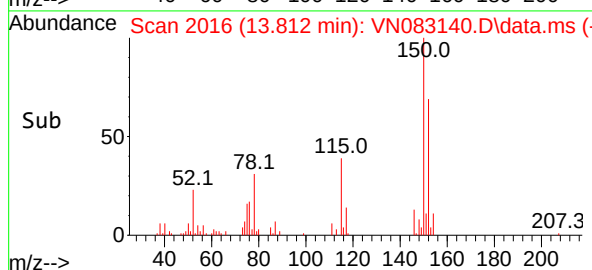
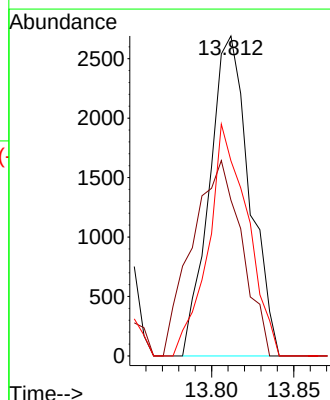
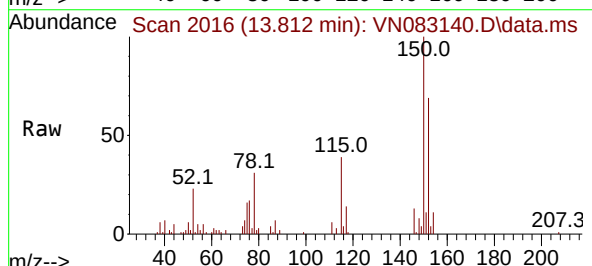
RT: 13.812 min Scan# 2016

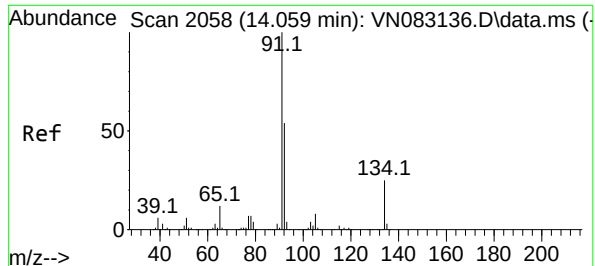
Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 146   | Resp: | 4578  |
| Ion      | Ratio | Lower | Upper |
| 146      | 100   |       |       |
| 111      | 41.7  | 20.1  | 60.3  |
| 148      | 59.7  | 32.2  | 96.6  |





#89

n-Butylbenzene

Concen: 0.942 ug/l

RT: 14.053 min Scan# 2058

Delta R.T. -0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

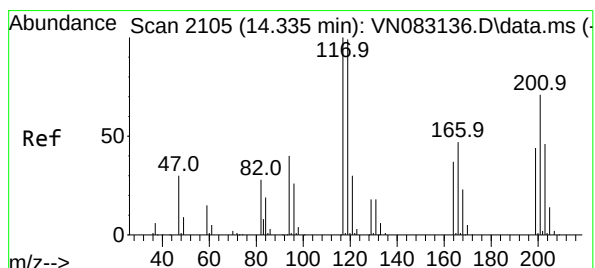
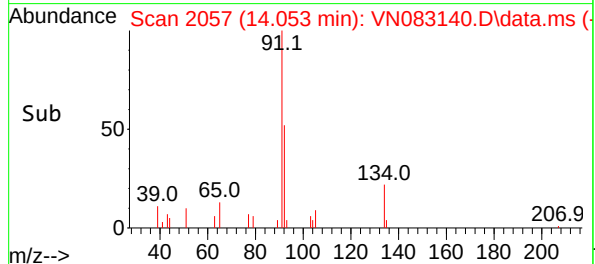
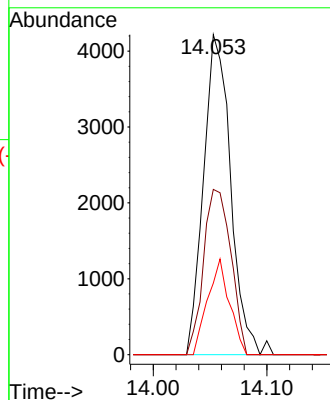
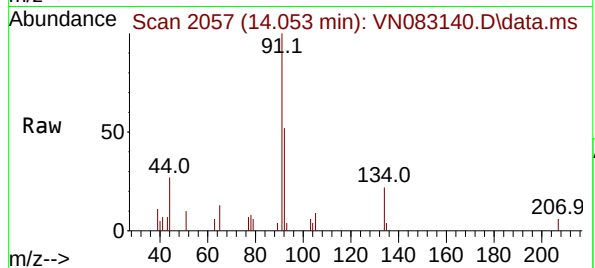
VSTDICC001

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 91    | Resp: | 7008  |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 92       | 52.0  | 26.1  | 78.3  |
| 134      | 24.1  | 12.1  | 36.3  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

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#90

Hexachloroethane

Concen: 0.918 ug/l

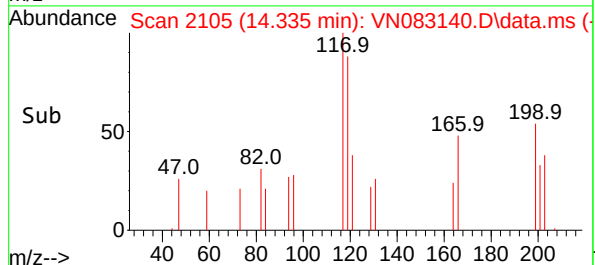
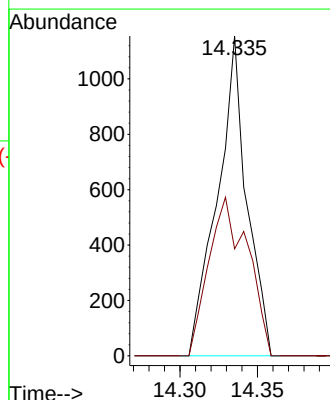
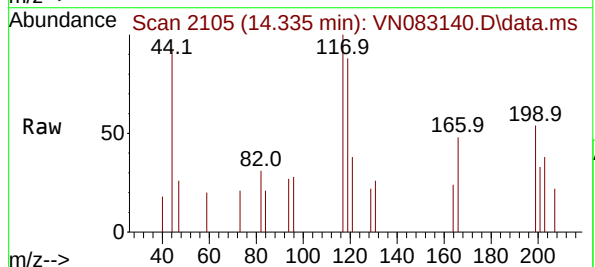
RT: 14.335 min Scan# 2105

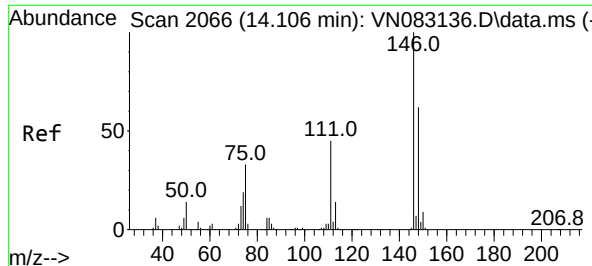
Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 1524  |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 201      | 65.7  | 35.8  | 107.3 |





#91

1,2-Dichlorobenzene

Concen: 1.029 ug/l

RT: 14.106 min Scan# 2066

Delta R.T. 0.000 min

Lab File: VN083140.D

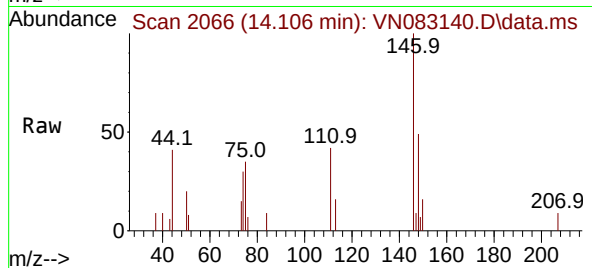
Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDICC001



Tgt Ion:146 Resp: 4279

Ion Ratio Lower Upper

146 100

111 40.7 21.4 64.2

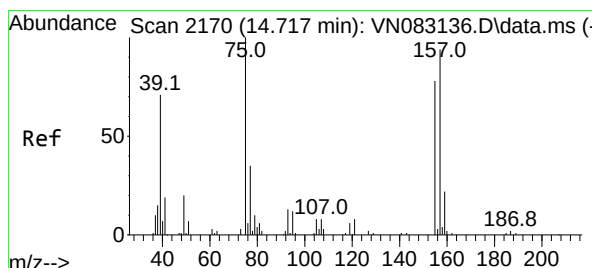
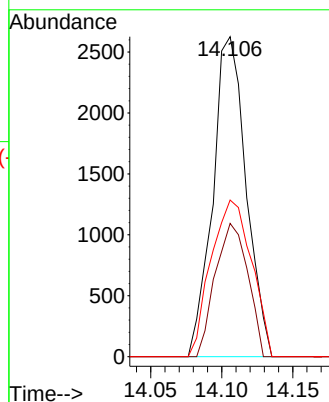
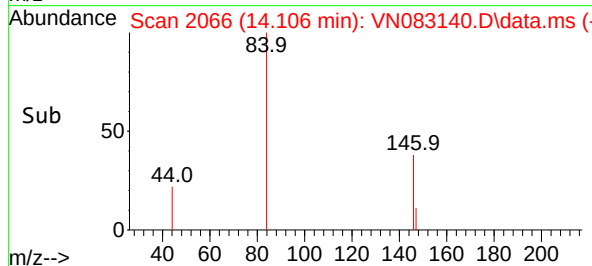
148 59.6 32.1 96.5

Manual Integrations

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#92

1,2-Dibromo-3-Chloropropane

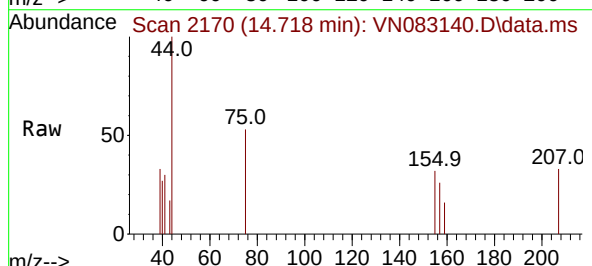
Concen: 1.081 ug/l

RT: 14.718 min Scan# 2170

Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34



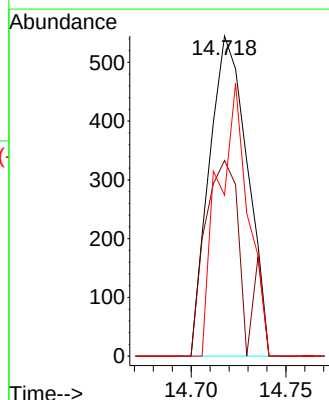
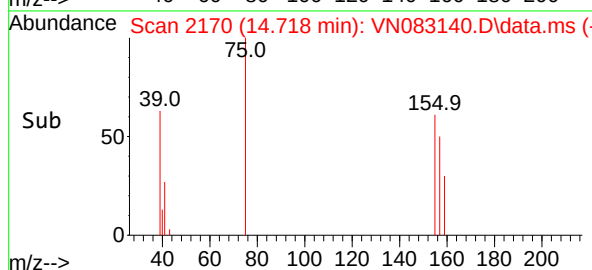
Tgt Ion: 75 Resp: 763

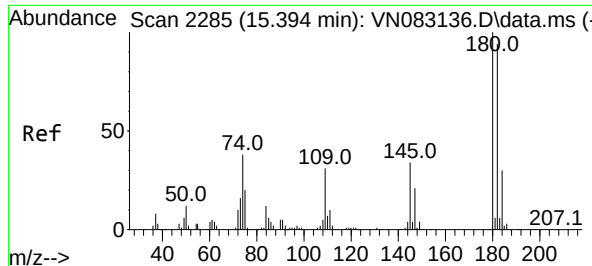
Ion Ratio Lower Upper

75 100

155 59.5 36.6 109.8

157 67.9 46.9 140.6





#93

1,2,4-Trichlorobenzene

Concen: 1.070 ug/l

RT: 15.394 min Scan# 21

Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

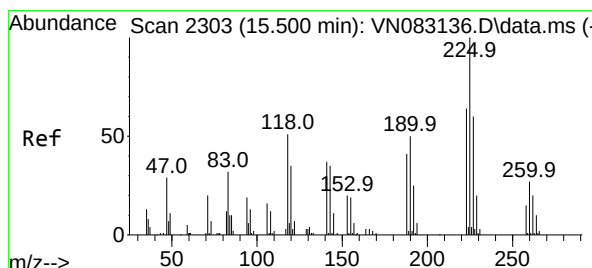
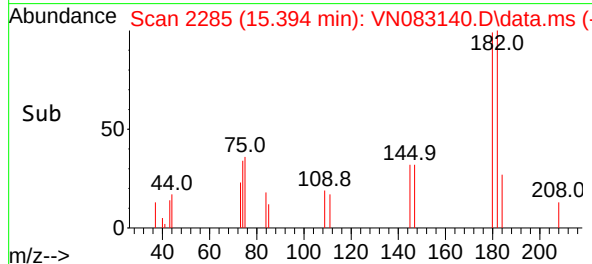
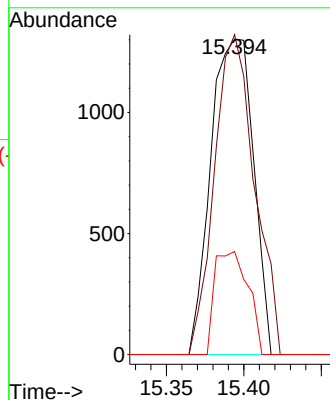
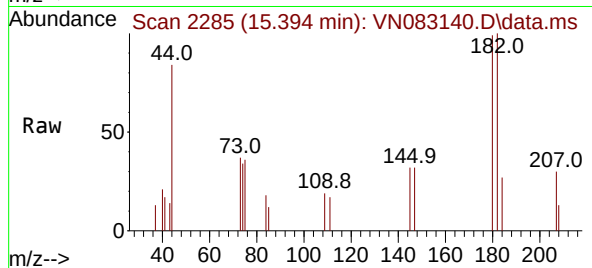
VSTDICC001

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 180   | Resp: | 249   |
| Ion Ratio | Lower | Upper |       |
| 180       | 100   |       |       |
| 182       | 95.5  | 47.3  | 141.8 |
| 145       | 25.6  | 15.7  | 47.1  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

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#94

Hexachlorobutadiene

Concen: 1.140 ug/l

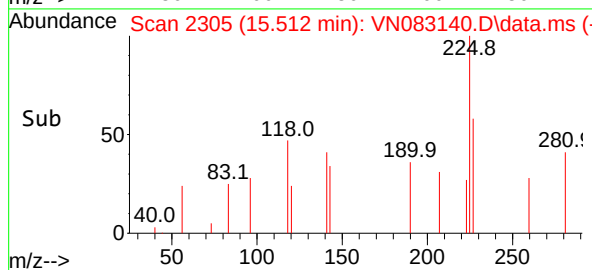
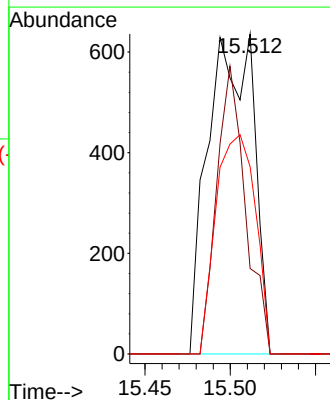
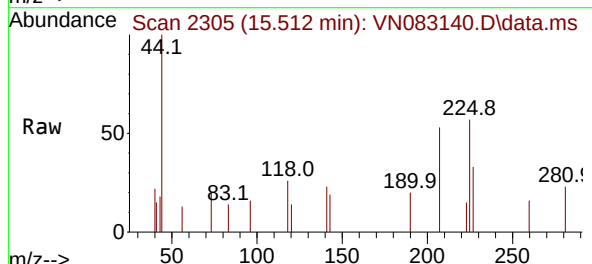
RT: 15.512 min Scan# 2305

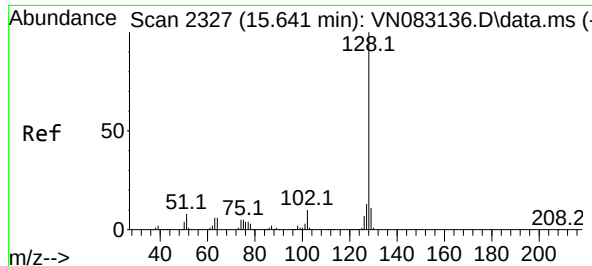
Delta R.T. 0.012 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 225   | Resp: | 1181 |
| Ion Ratio | Lower | Upper |      |
| 225       | 100   |       |      |
| 223       | 57.0  | 31.9  | 95.7 |
| 227       | 59.4  | 32.5  | 97.5 |





#95

Naphthalene

Concen: 1.021 ug/l

RT: 15.641 min Scan# 2327

Delta R.T. 0.000 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

Instrument :

MSVOA\_N

ClientSampleId :

VSTDIC001

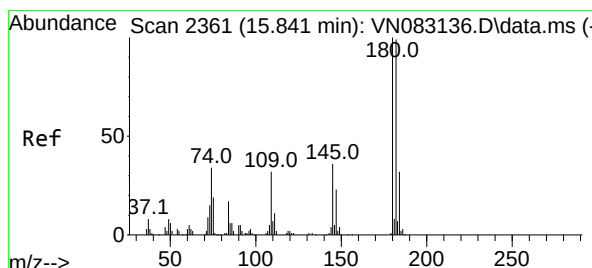
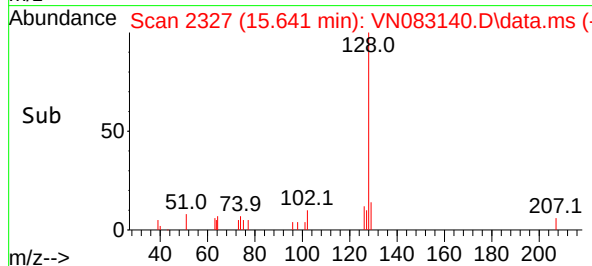
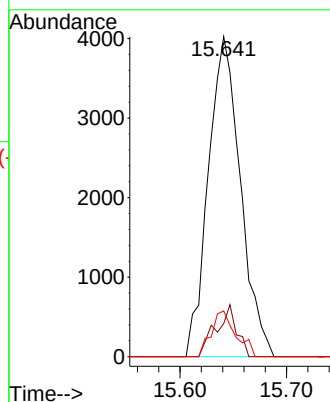
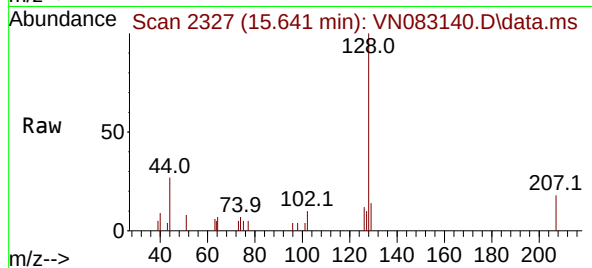
|             |       |             |
|-------------|-------|-------------|
| Tgt Ion:128 | Resp: | 8430        |
| Ion         | Ratio | Lower Upper |
| 128         | 100   |             |
| 127         | 10.4  | 10.6 16.0   |
| 129         | 10.9  | 8.6 12.8    |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#96

1,2,3-Trichlorobenzene

Concen: 1.036 ug/l

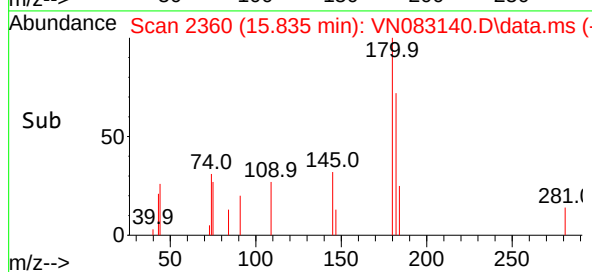
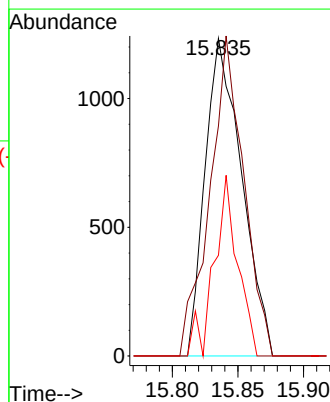
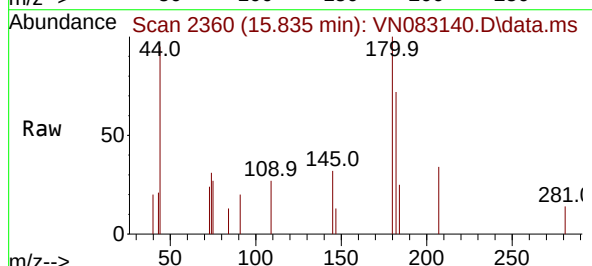
RT: 15.835 min Scan# 2360

Delta R.T. -0.006 min

Lab File: VN083140.D

Acq: 07 Aug 2024 12:34

|             |       |             |
|-------------|-------|-------------|
| Tgt Ion:180 | Resp: | 2389        |
| Ion         | Ratio | Lower Upper |
| 180         | 100   |             |
| 182         | 93.8  | 48.9 146.8  |
| 145         | 36.6  | 16.8 50.4   |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
 Data File : VN083142.D  
 Acq On : 07 Aug 2024 14:49  
 Operator : JC\MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 ICVVN080724

Quant Time: Aug 08 06:35:30 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 06:30:41 2024  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By : John Carlone 08/08/2024  
 Supervised By : Mahesh Dadoda 08/09/2024

| Compound                     | R.T.           | QIon | Response            | Conc    | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|---------|--------|----------|
| Internal Standards           |                |      |                     |         |        |          |
| 1) Pentafluorobenzene        | 8.224          | 168  | 223686              | 50.000  | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 9.100          | 114  | 380000              | 50.000  | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 11.865         | 117  | 330951              | 50.000  | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 13.794         | 152  | 157193              | 50.000  | ug/l   | 0.00     |
| System Monitoring Compounds  |                |      |                     |         |        |          |
| 33) 1,2-Dichloroethane-d4    | 8.577          | 65   | 161051              | 50.583  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 74 - 125 |      | Recovery = 101.160% |         |        |          |
| 35) Dibromofluoromethane     | 8.165          | 113  | 122268              | 51.549  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = 103.100% |         |        |          |
| 50) Toluene-d8               | 10.565         | 98   | 461627              | 52.175  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 86 - 113 |      | Recovery = 104.340% |         |        |          |
| 62) 4-Bromofluorobenzene     | 12.847         | 95   | 181344              | 52.574  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 64 - 133 |      | Recovery = 105.140% |         |        |          |
| Target Compounds             |                |      |                     |         |        |          |
|                              |                |      |                     |         | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.124          | 85   | 119481              | 47.102  | ug/l   | 99       |
| 3) Chloromethane             | 2.360          | 50   | 120081              | 46.238  | ug/l   | 97       |
| 4) Vinyl Chloride            | 2.512          | 62   | 121730              | 45.937  | ug/l   | 99       |
| 5) Bromomethane              | 2.948          | 94   | 70678               | 42.984  | ug/l   | 99       |
| 6) Chloroethane              | 3.112          | 64   | 72491               | 43.725  | ug/l   | 96       |
| 7) Trichlorofluoromethane    | 3.495          | 101  | 206291              | 47.124  | ug/l   | 98       |
| 8) Diethyl Ether             | 3.959          | 74   | 75355               | 46.259  | ug/l   | 85       |
| 9) 1,1,2-Trichlorotrifluo... | 4.365          | 101  | 113860              | 47.176  | ug/l   | 99       |
| 10) Methyl Iodide            | 4.589          | 142  | 150327              | 47.349  | ug/l   | 97       |
| 11) Tert butyl alcohol       | 5.524          | 59   | 137718              | 208.135 | ug/l   | 99       |
| 12) 1,1-Dichloroethene       | 4.336          | 96   | 112976              | 45.562  | ug/l   | 93       |
| 13) Acrolein                 | 4.177          | 56   | 93826               | 217.571 | ug/l   | 97       |
| 14) Allyl chloride           | 5.018          | 41   | 192929              | 41.173  | ug/l   | 94       |
| 15) Acrylonitrile            | 5.712          | 53   | 296594              | 217.950 | ug/l   | 99       |
| 16) Acetone                  | 4.424          | 43   | 262677              | 210.840 | ug/l   | 97       |
| 17) Carbon Disulfide         | 4.712          | 76   | 316980              | 43.689  | ug/l   | 100      |
| 18) Methyl Acetate           | 5.024          | 43   | 157374              | 42.397  | ug/l # | 91       |
| 19) Methyl tert-butyl Ether  | 5.795          | 73   | 418691              | 46.781  | ug/l   | 97       |
| 20) Methylene Chloride       | 5.277          | 84   | 125142              | 43.645  | ug/l # | 82       |
| 21) trans-1,2-Dichloroethene | 5.783          | 96   | 117045              | 45.671  | ug/l   | 92       |
| 22) Diisopropyl ether        | 6.671          | 45   | 412931              | 46.881  | ug/l   | 97       |
| 23) Vinyl Acetate            | 6.600          | 43   | 2125343             | 235.414 | ug/l   | 95       |
| 24) 1,1-Dichloroethane       | 6.565          | 63   | 224136              | 46.685  | ug/l   | 99       |
| 25) 2-Butanone               | 7.483          | 43   | 405134              | 211.782 | ug/l   | 91       |
| 26) 2,2-Dichloropropane      | 7.489          | 77   | 213355              | 47.853  | ug/l   | 97       |
| 27) cis-1,2-Dichloroethene   | 7.483          | 96   | 142606              | 46.113  | ug/l   | 93       |
| 28) Bromochloromethane       | 7.812          | 49   | 90226               | 45.986  | ug/l   | 86       |
| 29) Tetrahydrofuran          | 7.836          | 42   | 274710              | 222.147 | ug/l   | 89       |
| 30) Chloroform               | 7.965          | 83   | 236359              | 47.387  | ug/l   | 97       |
| 31) Cyclohexane              | 8.253          | 56   | 205124              | 43.474  | ug/l   | 96       |
| 32) 1,1,1-Trichloroethane    | 8.165          | 97   | 222538              | 47.135  | ug/l   | 96       |
| 36) 1,1-Dichloropropene      | 8.371          | 75   | 171262              | 47.732  | ug/l   | 99       |
| 37) Ethyl Acetate            | 7.559          | 43   | 173246              | 43.124  | ug/l # | 96       |
| 38) Carbon Tetrachloride     | 8.365          | 117  | 193592              | 47.904  | ug/l   | 100      |
| 39) Methylcyclohexane        | 9.600          | 83   | 210745              | 47.821  | ug/l   | 98       |
| 40) Benzene                  | 8.606          | 78   | 509159              | 47.635  | ug/l   | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
 Data File : VN083142.D  
 Acq On : 07 Aug 2024 14:49  
 Operator : JC\MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 11 Sample Multiplier: 1

## Instrument :

MSVOA\_N

## ClientSampleId :

ICVVN080724

## Manual Integrations

## APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:35:30 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M

Quant Title : SW846 8260

QLast Update : Thu Aug 08 06:30:41 2024

Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 98251    | 43.013  | ug/l   | 95       |
| 42) 1,2-Dichloroethane        | 8.671  | 62   | 184210   | 47.310  | ug/l   | 98       |
| 43) Isopropyl Acetate         | 8.689  | 43   | 319540   | 45.577  | ug/l # | 95       |
| 44) Trichloroethene           | 9.353  | 130  | 122105   | 47.994  | ug/l   | 99       |
| 45) 1,2-Dichloropropane       | 9.624  | 63   | 122313   | 48.208  | ug/l   | 99       |
| 46) Dibromomethane            | 9.712  | 93   | 85581    | 47.124  | ug/l   | 99       |
| 47) Bromodichloromethane      | 9.888  | 83   | 191842   | 47.047  | ug/l   | 98       |
| 48) Methyl methacrylate       | 9.683  | 41   | 148161   | 44.609  | ug/l   | 92       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 53042    | 885.211 | ug/l   | 96       |
| 51) 4-Methyl-2-Pentanone      | 10.441 | 43   | 877246   | 230.917 | ug/l   | 94       |
| 52) Toluene                   | 10.630 | 92   | 327682   | 48.520  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 208495   | 49.776  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 216020   | 48.487  | ug/l   | 93       |
| 55) 1,1,2-Trichloroethane     | 11.018 | 97   | 117023   | 48.351  | ug/l   | 99       |
| 56) Ethyl methacrylate        | 10.871 | 69   | 216248   | 47.395  | ug/l   | 88       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 204441   | 47.391  | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 472357   | 244.918 | ug/l   | 96       |
| 59) 2-Hexanone                | 11.194 | 43   | 661033   | 224.916 | ug/l   | 92       |
| 60) Dibromochloromethane      | 11.359 | 129  | 144886   | 49.513  | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 11.471 | 107  | 119834   | 47.133  | ug/l   | 98       |
| 64) Tetrachloroethene         | 11.106 | 164  | 105591   | 48.175  | ug/l   | 97       |
| 65) Chlorobenzene             | 11.888 | 112  | 347560   | 47.522  | ug/l   | 95       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 120826   | 46.843  | ug/l   | 98       |
| 67) Ethyl Benzene             | 11.965 | 91   | 640827   | 47.764  | ug/l   | 99       |
| 68) m/p-Xylenes               | 12.071 | 106  | 484653   | 96.434  | ug/l   | 98       |
| 69) o-Xylene                  | 12.400 | 106  | 231292   | 46.662  | ug/l   | 97       |
| 70) Styrene                   | 12.412 | 104  | 403657   | 48.487  | ug/l   | 98       |
| 71) Bromoform                 | 12.577 | 173  | 93397    | 47.797  | ug/l # | 99       |
| 73) Isopropylbenzene          | 12.694 | 105  | 616544   | 46.893  | ug/l   | 99       |
| 74) N-amyl acetate            | 12.494 | 43   | 281352   | 43.748  | ug/l   | 94       |
| 75) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 159962   | 43.016  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 145309m  | 42.119  | ug/l   |          |
| 77) Bromobenzene              | 12.982 | 156  | 136249   | 46.649  | ug/l   | 97       |
| 78) n-propylbenzene           | 13.035 | 91   | 721825   | 47.678  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.124 | 91   | 445353   | 46.398  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 13.171 | 105  | 524769   | 47.673  | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 74654    | 47.070  | ug/l   | 84       |
| 82) 4-Chlorotoluene           | 13.224 | 91   | 447810   | 46.512  | ug/l   | 98       |
| 83) tert-Butylbenzene         | 13.435 | 119  | 450104   | 46.173  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 515759   | 46.493  | ug/l   | 99       |
| 85) sec-Butylbenzene          | 13.618 | 105  | 625404   | 47.018  | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 522411   | 47.566  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene       | 13.735 | 146  | 252579   | 45.959  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 252088   | 45.499  | ug/l   | 98       |
| 89) n-Butylbenzene            | 14.059 | 91   | 461440   | 48.489  | ug/l   | 98       |
| 90) Hexachloroethane          | 14.335 | 117  | 99176    | 46.741  | ug/l   | 95       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 240673   | 45.255  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.723 | 75   | 37677    | 41.753  | ug/l   | 99       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 137214   | 46.054  | ug/l   | 96       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 57394    | 43.315  | ug/l   | 98       |
| 95) Naphthalene               | 15.641 | 128  | 471674   | 44.692  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 133315   | 45.221  | ug/l   | 95       |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083142.D  
Acq On : 07 Aug 2024 14:49  
Operator : JC\MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

Quant Time: Aug 08 06:35:30 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
Response via : Initial Calibration

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

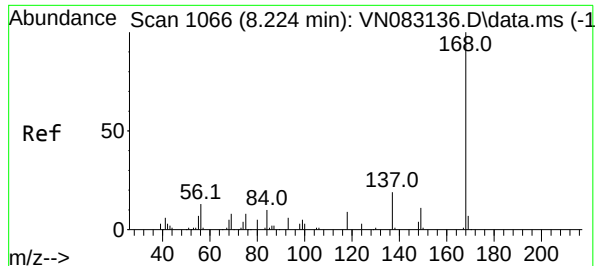
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Instrument :**  
MSVOA\_N  
**ClientSampleId :**  
ICVVN080724

## Manual Integrations APPROVED

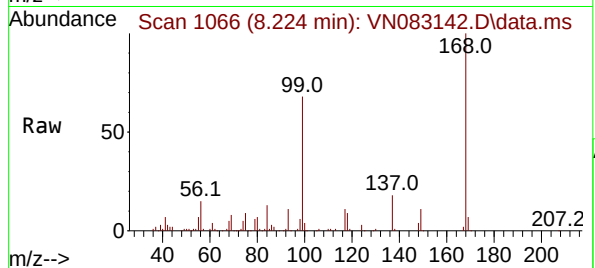
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

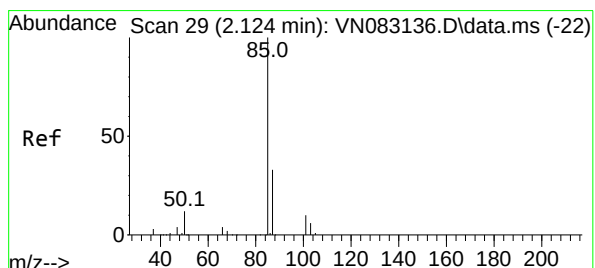
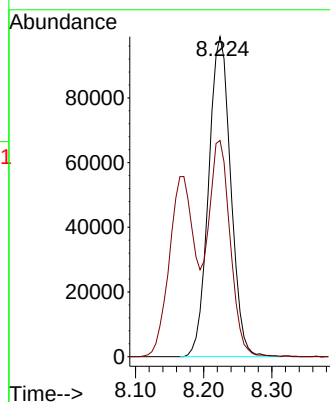
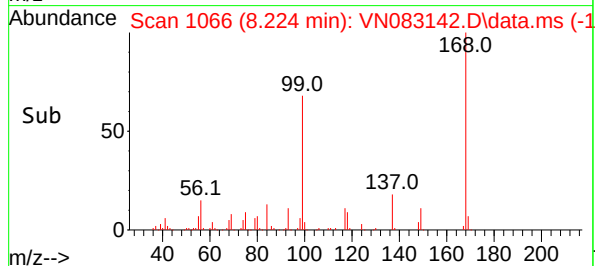
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion:168 Resp: 223680  
Ion Ratio Lower Upper  
168 100  
99 67.4 48.2 72.4

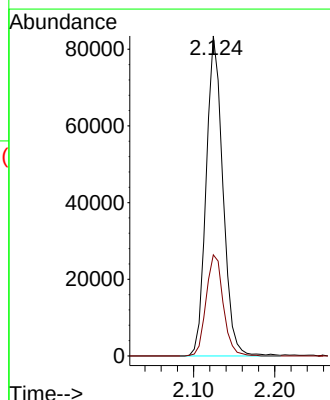
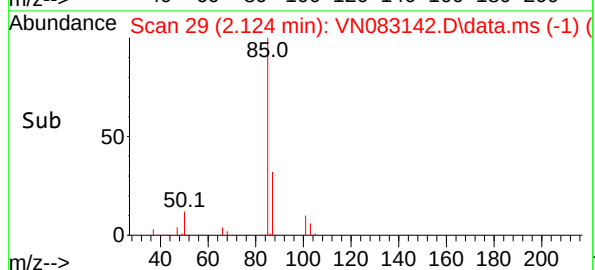
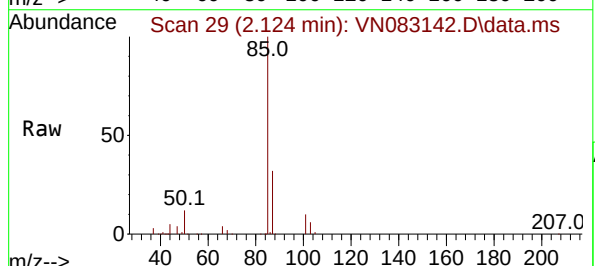
Manual Integrations  
APPROVED

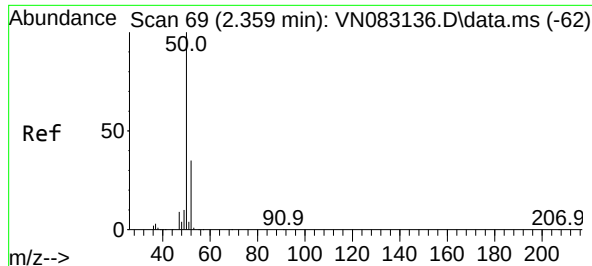
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#2  
Dichlorodifluoromethane  
Concen: 47.102 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Tgt Ion: 85 Resp: 119481  
Ion Ratio Lower Upper  
85 100  
87 31.6 15.7 47.0





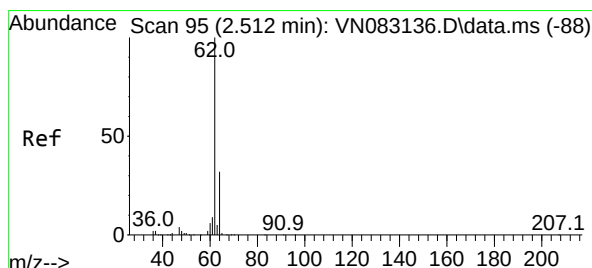
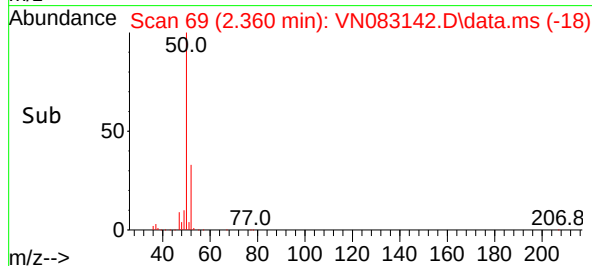
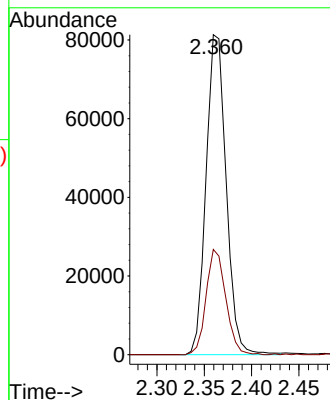
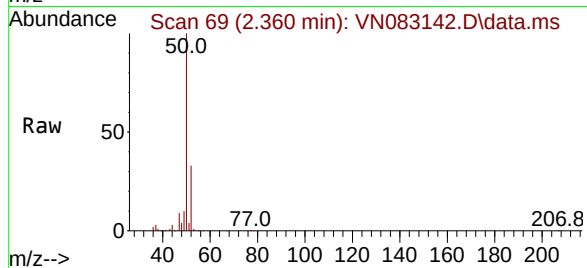
#3  
Chloromethane  
Concen: 46.238 ug/l  
RT: 2.360 min Scan# 69  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Instrument :  
MSVOA\_N  
Client Sample Id :  
ICVVN080724

Tgt Ion: 50 Resp: 12008  
Ion Ratio Lower Upper  
50 100  
52 32.9 25.0 37.4

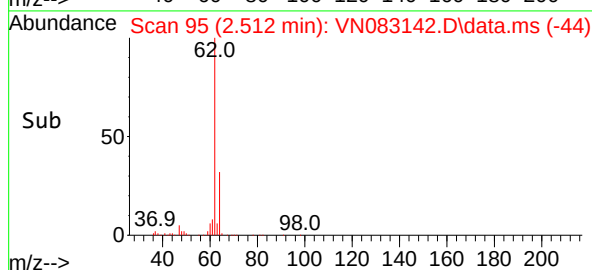
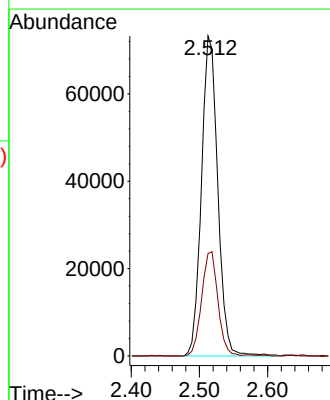
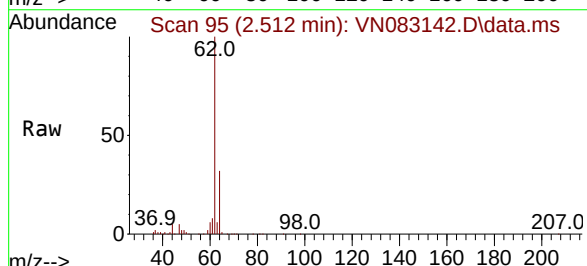
Manual Integrations  
APPROVED

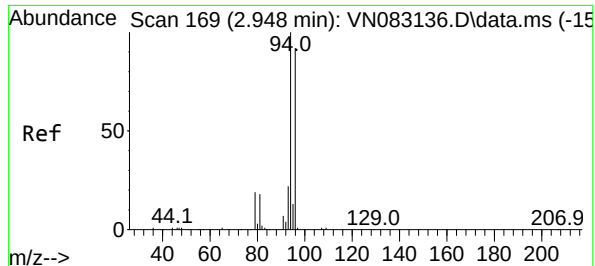
Reviewed By : John Carlone 08/08/2024  
Supervised By : Mahesh Dadoda 08/09/2024



#4  
Vinyl Chloride  
Concen: 45.937 ug/l  
RT: 2.512 min Scan# 95  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Tgt Ion: 62 Resp: 121730  
Ion Ratio Lower Upper  
62 100  
64 32.0 25.0 37.6





#5

Bromomethane

Concen: 42.984 ug/l

RT: 2.948 min Scan# 1

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion: 94 Resp: 70678

Ion Ratio Lower Upper

94 100

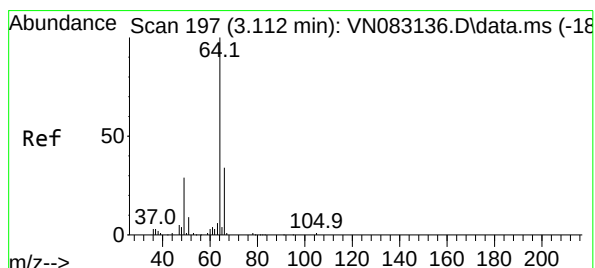
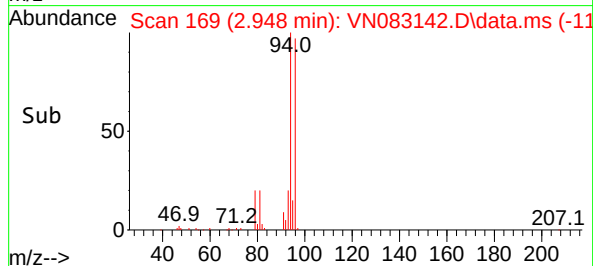
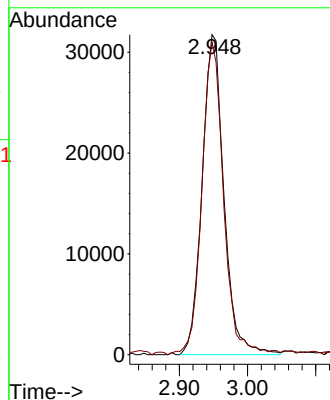
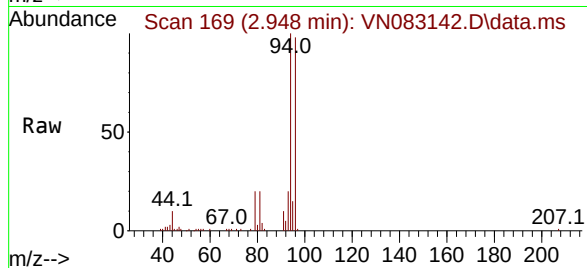
96 96.9 78.0 117.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#6

Chloroethane

Concen: 43.725 ug/l

RT: 3.112 min Scan# 197

Delta R.T. 0.000 min

Lab File: VN083142.D

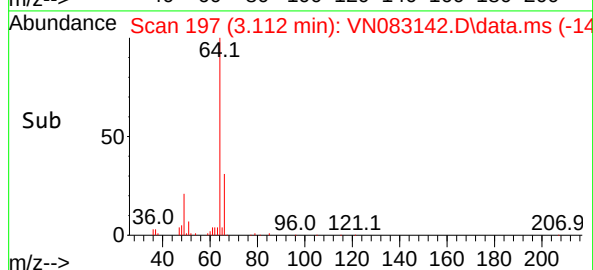
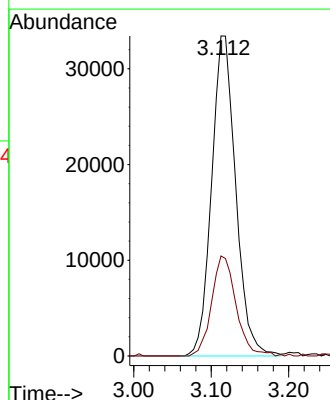
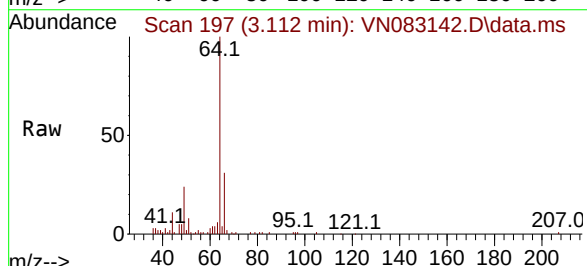
Acq: 07 Aug 2024 14:49

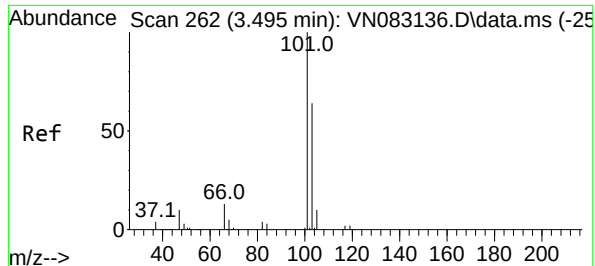
Tgt Ion: 64 Resp: 72491

Ion Ratio Lower Upper

64 100

66 31.3 26.6 40.0





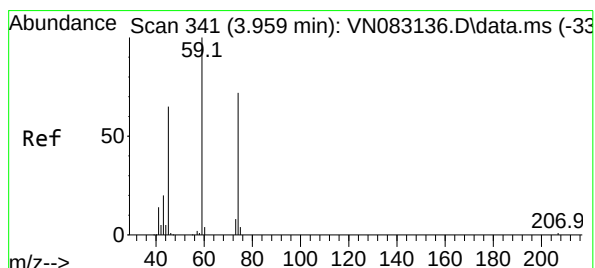
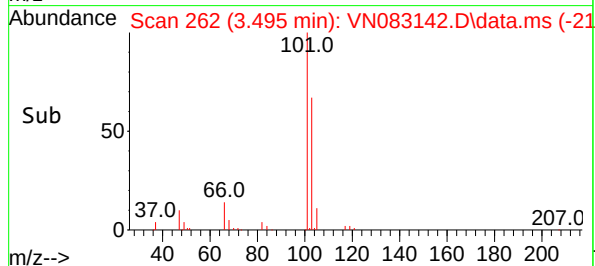
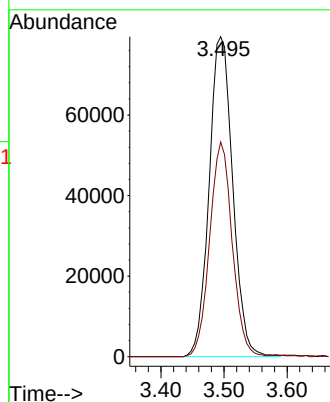
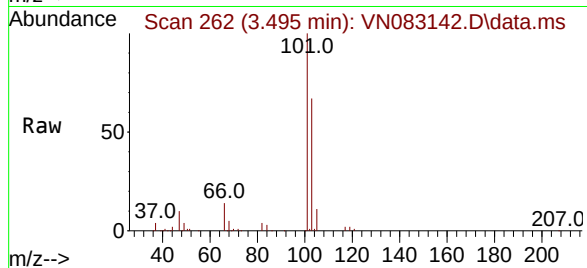
#7  
Trichlorofluoromethane  
Concen: 47.124 ug/l  
RT: 3.495 min Scan# 20629  
Delta R.T. -0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724

Tgt Ion:101 Resp: 20629  
Ion Ratio Lower Upper  
101 100  
103 67.1 52.7 79.1

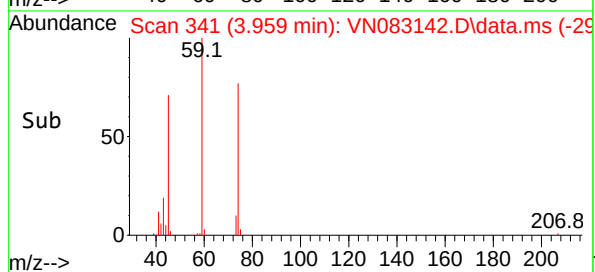
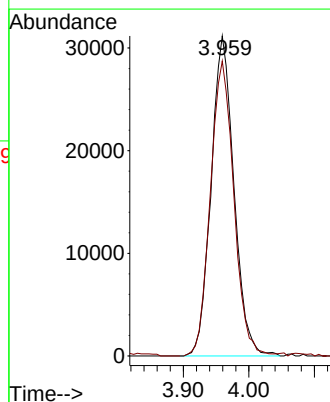
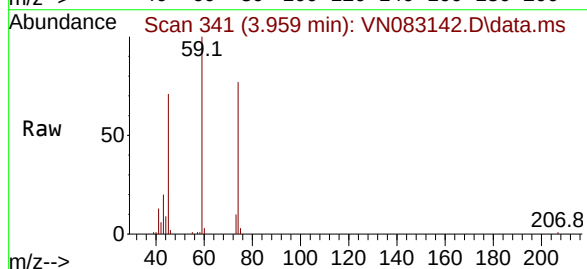
Manual Integrations  
APPROVED

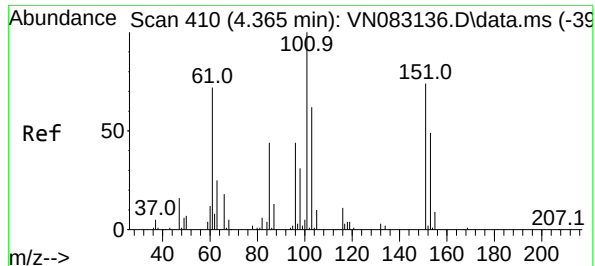
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#8  
Diethyl Ether  
Concen: 46.259 ug/l  
RT: 3.959 min Scan# 341  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

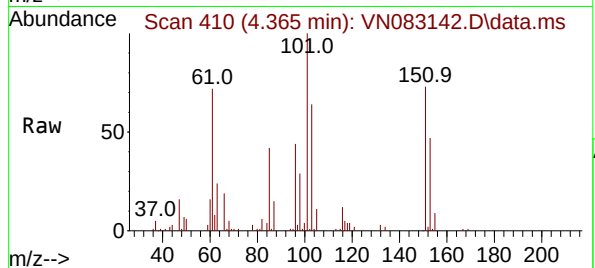
Tgt Ion: 74 Resp: 75355  
Ion Ratio Lower Upper  
74 100  
45 94.7 55.5 166.3





#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 47.176 ug/l  
RT: 4.365 min Scan# 410  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

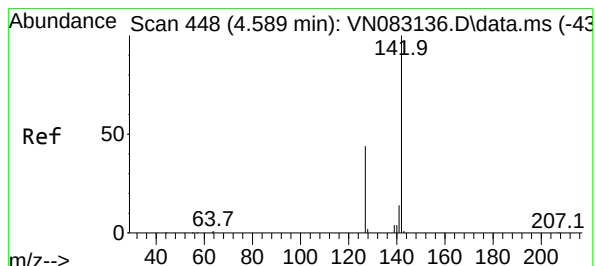
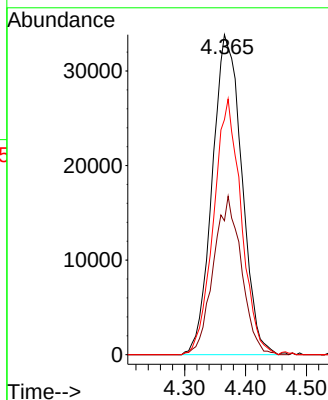
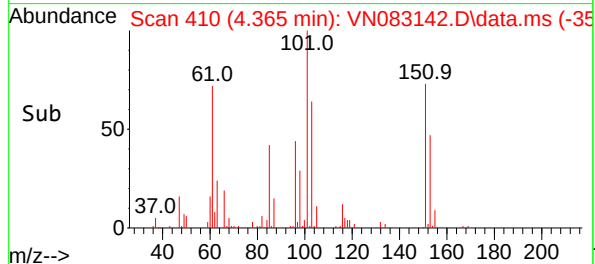
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



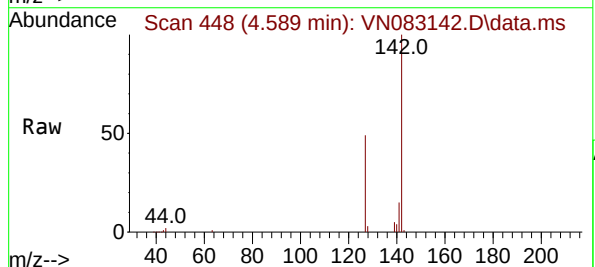
Tgt Ion:101 Resp: 113860  
Ion Ratio Lower Upper  
101 100  
85 47.0 38.3 57.5  
151 75.1 59.3 88.9

Manual Integrations  
APPROVED

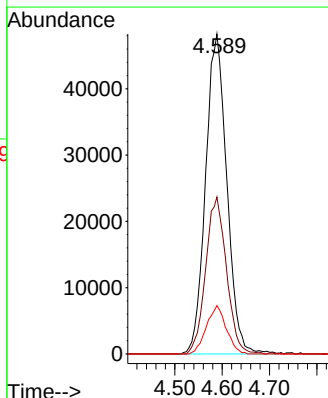
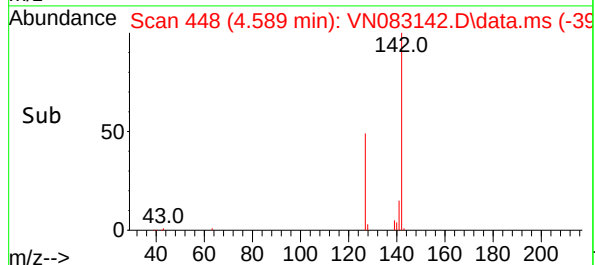
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

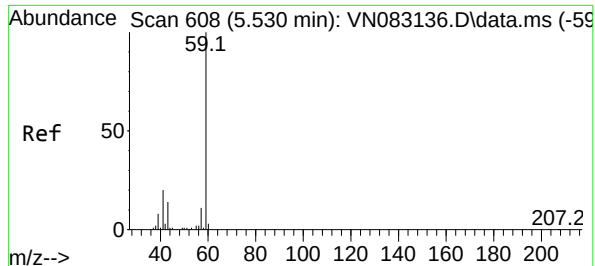


#10  
Methyl Iodide  
Concen: 47.349 ug/l  
RT: 4.589 min Scan# 448  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49



Tgt Ion:142 Resp: 150327  
Ion Ratio Lower Upper  
142 100  
127 49.1 37.5 56.3  
141 15.1 13.1 19.7





#11

Tert butyl alcohol

Concen: 208.135 ug/l

RT: 5.524 min Scan# 607

Delta R.T. -0.006 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion: 59 Resp: 137718

Ion Ratio Lower Upper

59 100

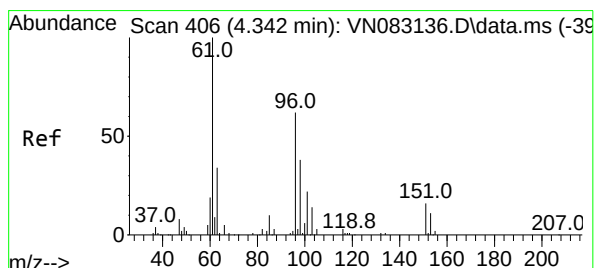
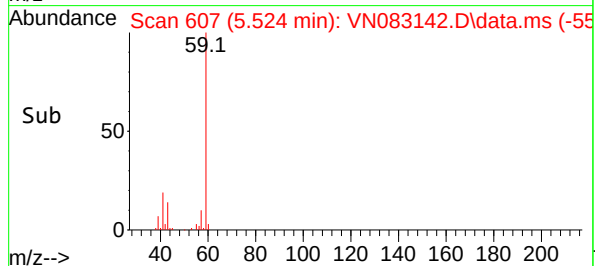
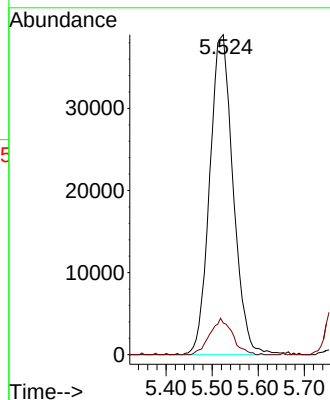
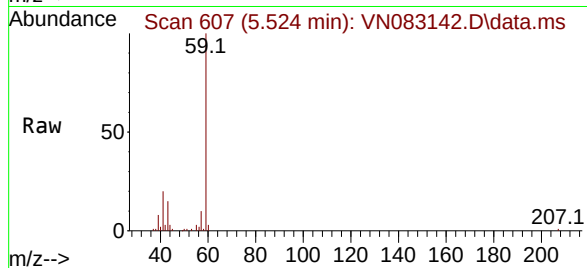
57 10.9 8.9 13.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#12

1,1-Dichloroethene

Concen: 45.562 ug/l

RT: 4.336 min Scan# 405

Delta R.T. -0.006 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

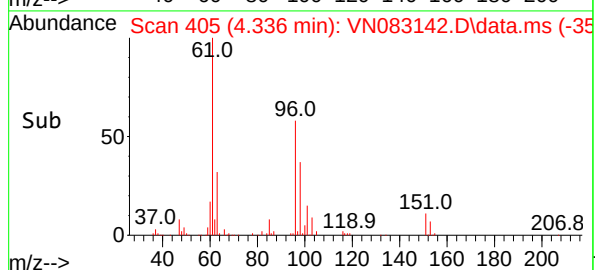
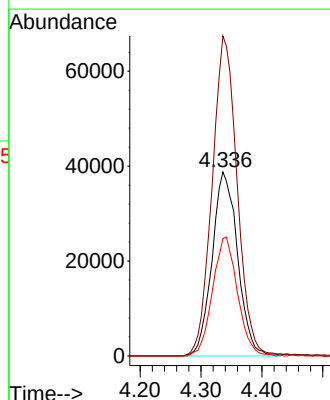
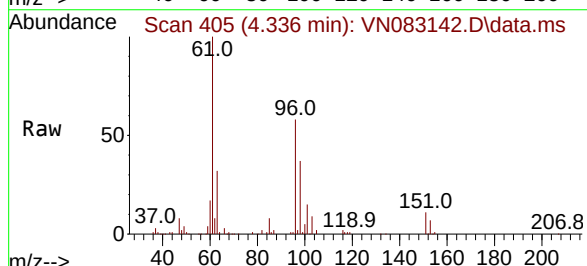
Tgt Ion: 96 Resp: 112976

Ion Ratio Lower Upper

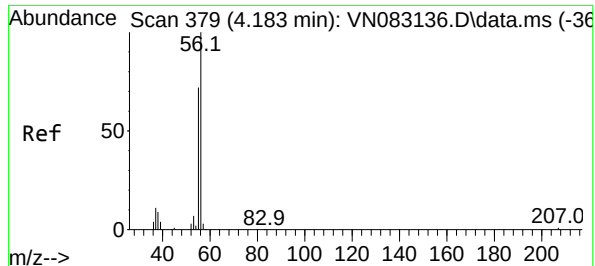
96 100

61 173.9 149.7 224.5

98 63.8 50.1 75.1







#13

Acrolein

Concen: 217.571 ug/l

RT: 4.177 min Scan# 31

Delta R.T. -0.006 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion: 56 Resp: 93820

Ion Ratio Lower Upper

56 100

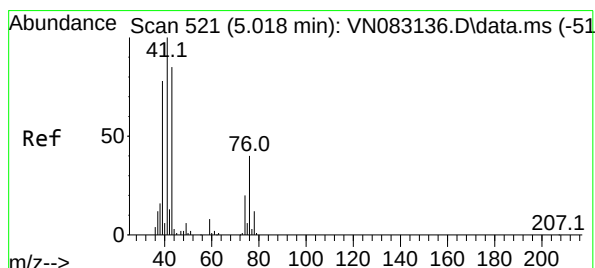
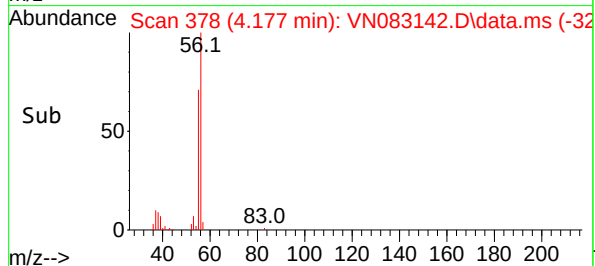
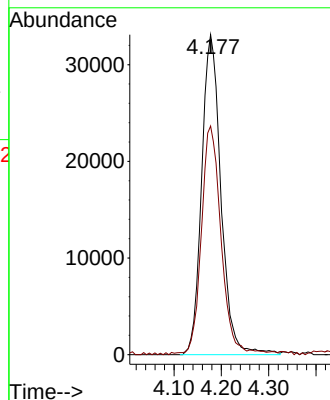
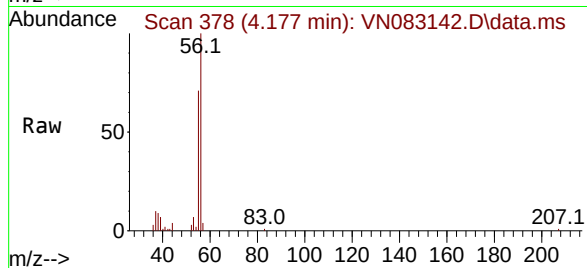
55 73.1 56.4 84.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#14

Allyl chloride

Concen: 41.173 ug/l

RT: 5.018 min Scan# 521

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

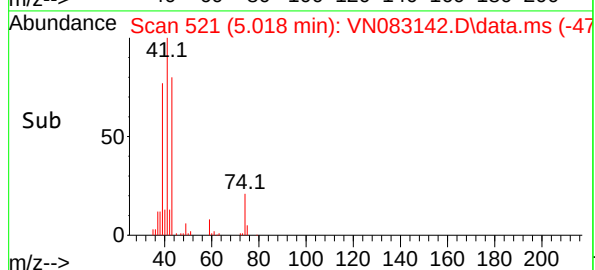
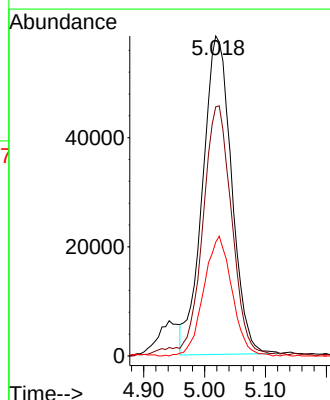
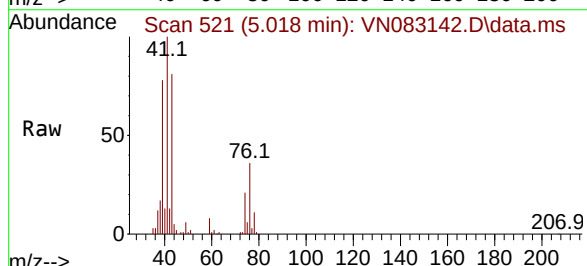
Tgt Ion: 41 Resp: 192929

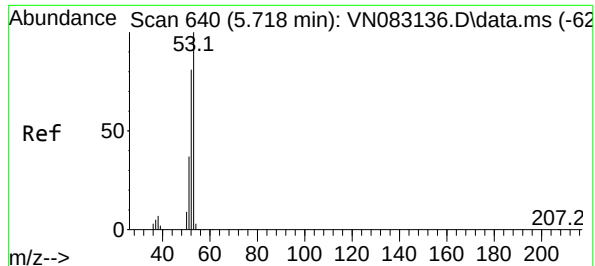
Ion Ratio Lower Upper

41 100

39 79.9 67.8 101.6

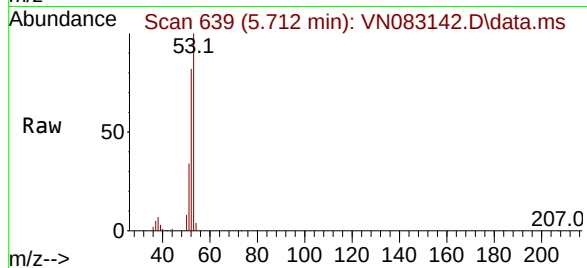
76 36.7 25.8 38.8





#15  
Acrylonitrile  
Concen: 217.950 ug/l  
RT: 5.712 min Scan# 61  
Delta R.T. -0.006 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

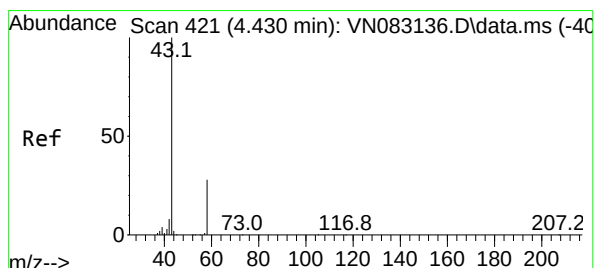
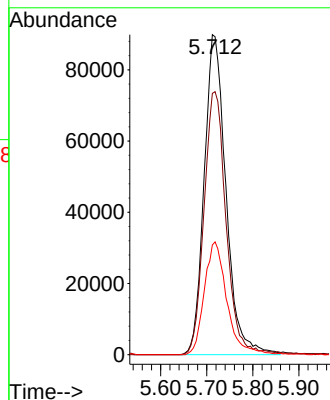
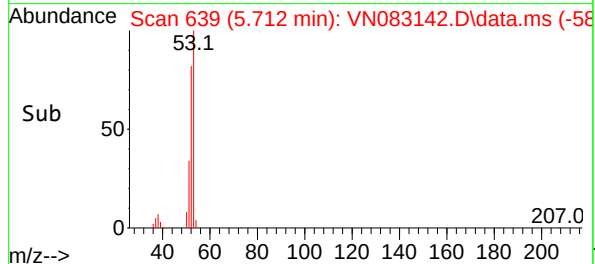
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion: 53 Resp: 296594  
Ion Ratio Lower Upper  
53 100  
52 82.9 66.6 100.0  
51 36.5 30.1 45.1

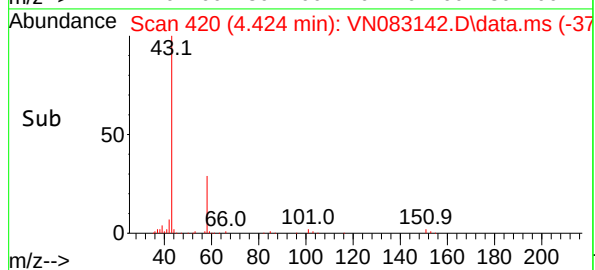
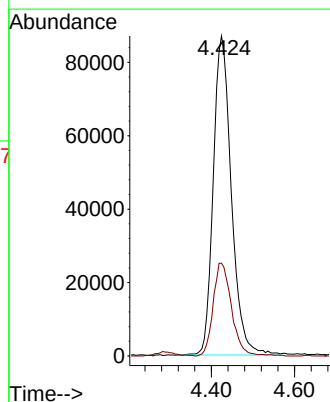
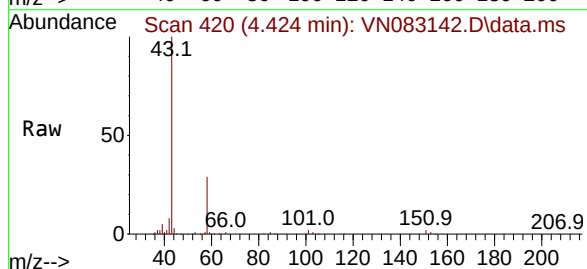
Manual Integrations  
APPROVED

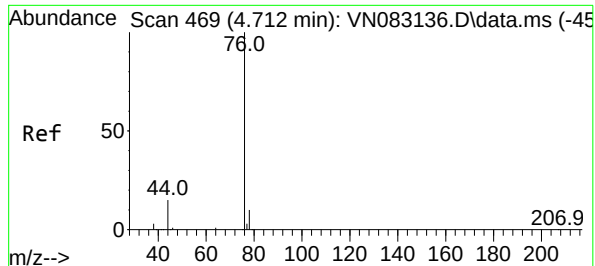
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#16  
Acetone  
Concen: 210.840 ug/l  
RT: 4.424 min Scan# 420  
Delta R.T. -0.006 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

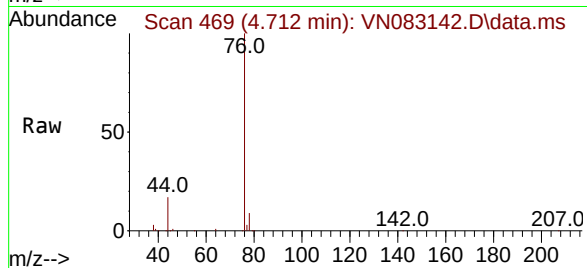
Tgt Ion: 43 Resp: 262677  
Ion Ratio Lower Upper  
43 100  
58 28.9 21.8 32.6





#17  
Carbon Disulfide  
Concen: 43.689 ug/l  
RT: 4.712 min Scan# 469  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

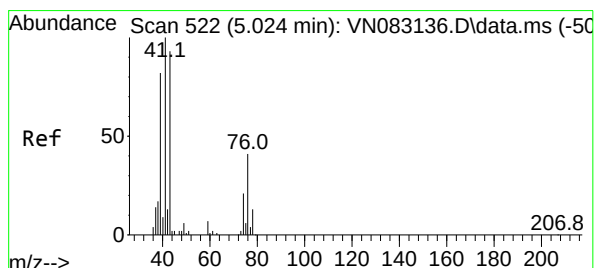
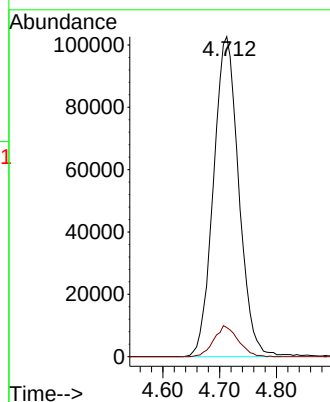
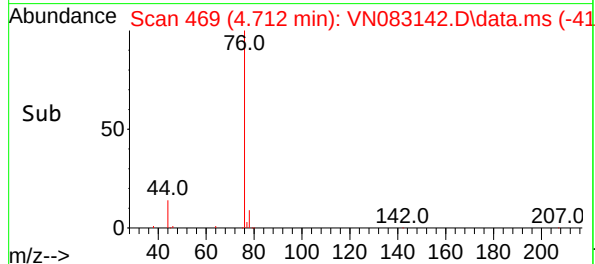
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion: 76 Resp: 316980  
Ion Ratio Lower Upper  
76 100  
78 9.1 7.2 10.8

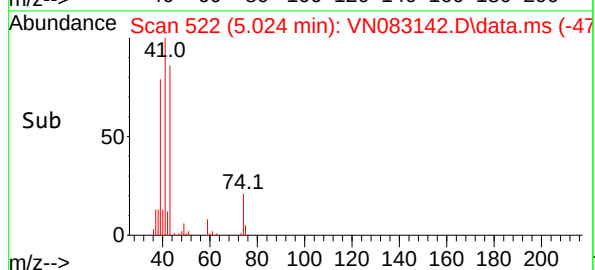
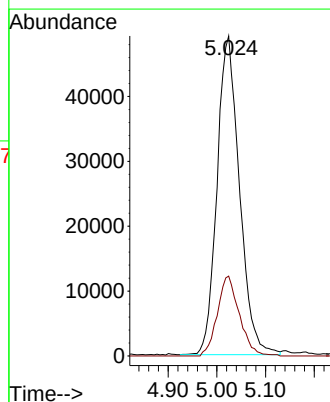
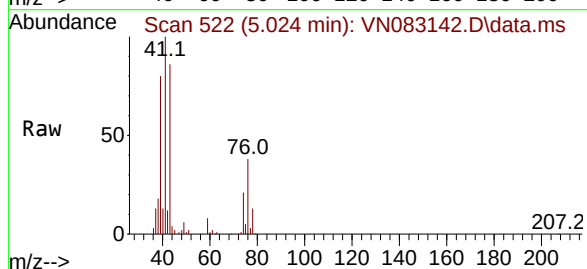
Manual Integrations  
APPROVED

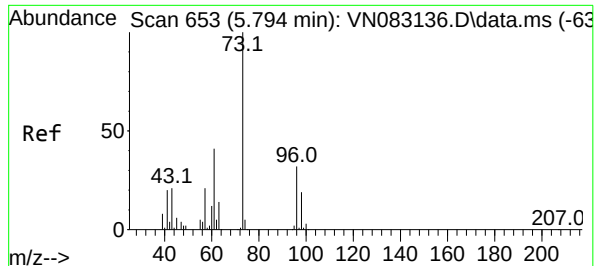
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#18  
Methyl Acetate  
Concen: 42.397 ug/l  
RT: 5.024 min Scan# 522  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Tgt Ion: 43 Resp: 157374  
Ion Ratio Lower Upper  
43 100  
74 24.6 16.3 24.5#





#19

Methyl tert-butyl Ether

Concen: 46.781 ug/l

RT: 5.795 min Scan# 61

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion: 73 Resp: 41869

Ion Ratio Lower Upper

73 100

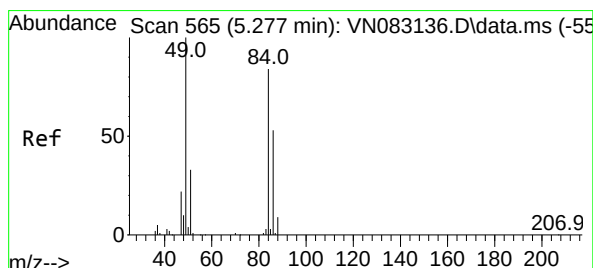
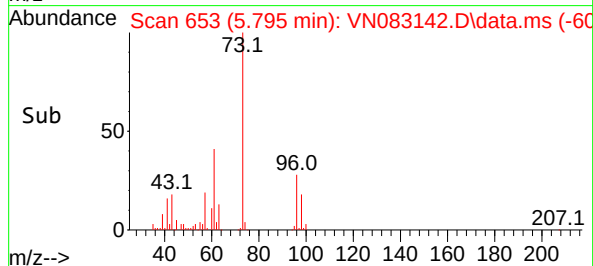
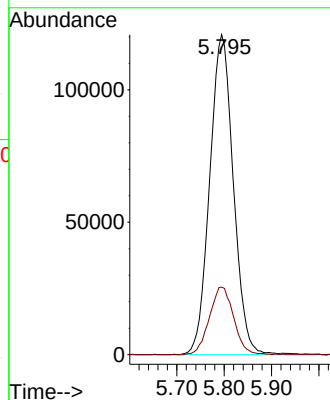
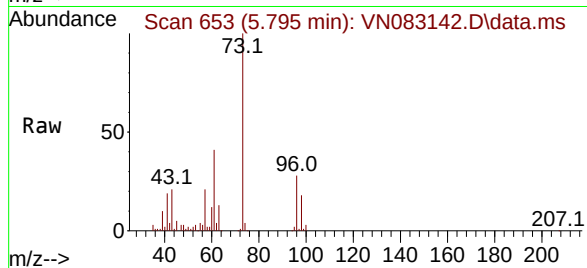
57 21.1 17.9 26.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#20

Methylene Chloride

Concen: 43.645 ug/l

RT: 5.277 min Scan# 565

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Tgt Ion: 84 Resp: 125142

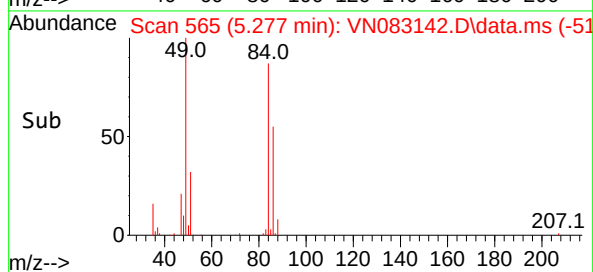
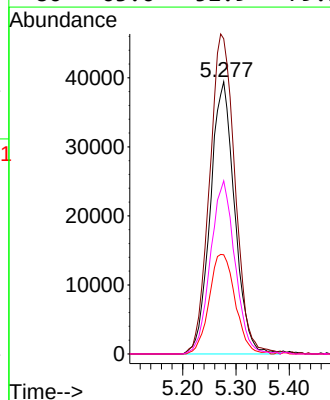
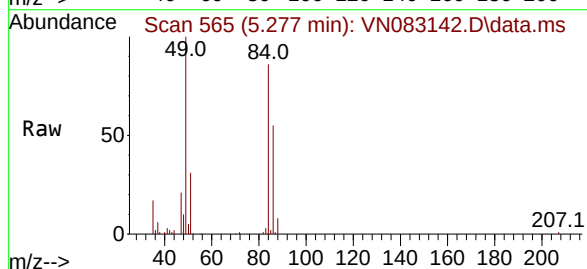
Ion Ratio Lower Upper

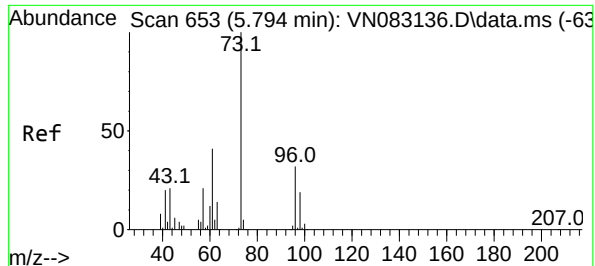
84 100

49 115.8 119.6 179.4#

51 36.5 34.8 52.2

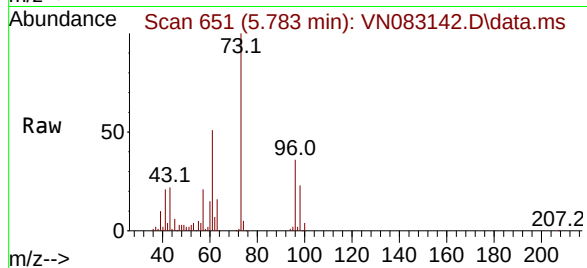
86 63.6 52.9 79.3





#21  
trans-1,2-Dichloroethene  
Concen: 45.671 ug/l  
RT: 5.783 min Scan# 651  
Delta R.T. -0.012 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

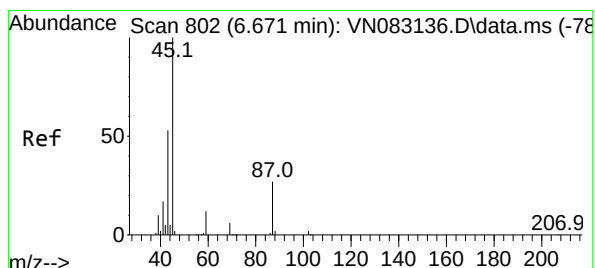
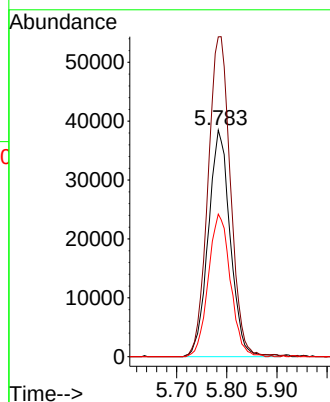
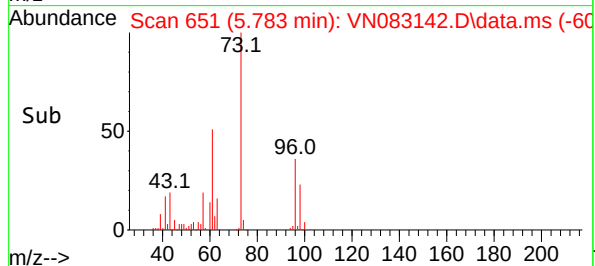
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion: 96 Resp: 117049  
Ion Ratio Lower Upper  
96 100  
61 141.1 123.4 185.2  
98 62.9 49.3 73.9

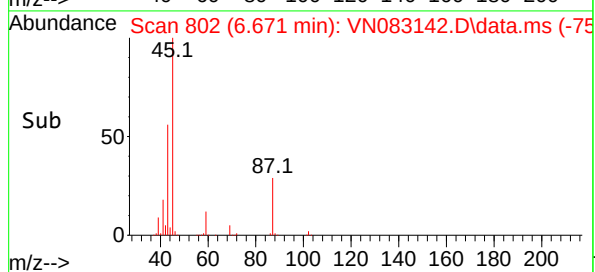
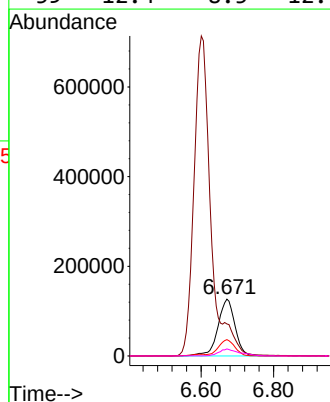
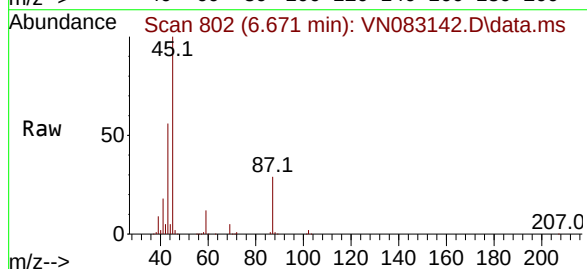
Manual Integrations  
APPROVED

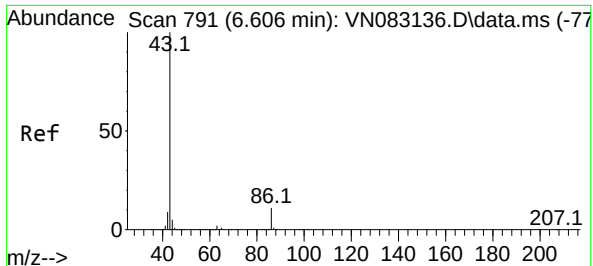
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#22  
Diisopropyl ether  
Concen: 46.881 ug/l  
RT: 6.671 min Scan# 802  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Tgt Ion: 45 Resp: 412931  
Ion Ratio Lower Upper  
45 100  
43 55.6 44.0 66.0  
87 28.6 19.7 29.5  
59 12.4 8.5 12.7





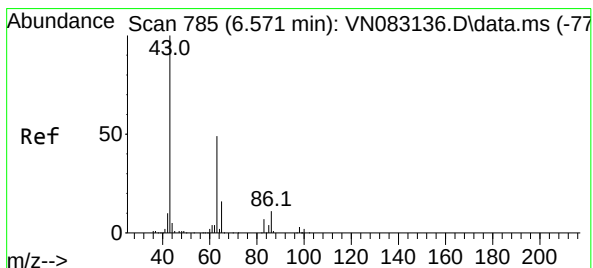
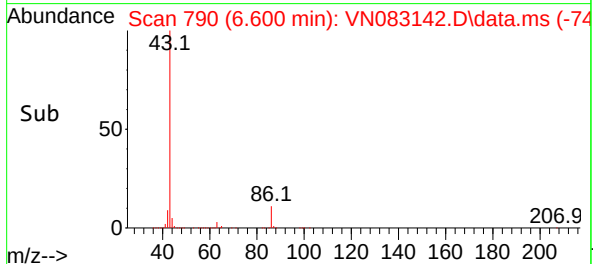
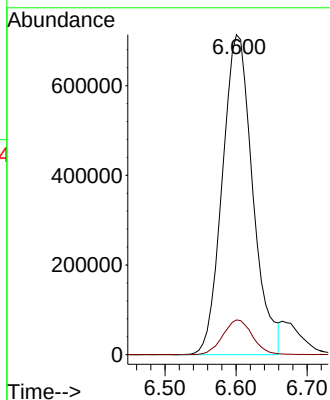
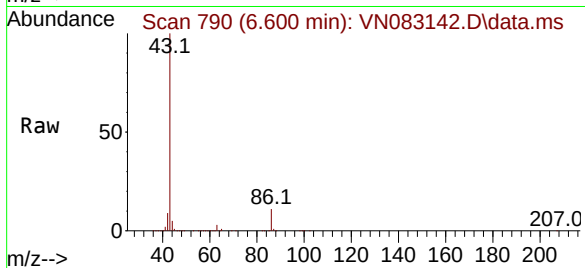
#23  
Vinyl Acetate  
Concen: 235.414 ug/l  
RT: 6.600 min Scan# 791  
Delta R.T. -0.006 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Instrument :  
MSVOA\_N  
Client Sample Id :  
ICVVN080724

Tgt Ion: 43 Resp: 212534  
Ion Ratio Lower Upper  
43 100  
86 10.9 7.3 10.9

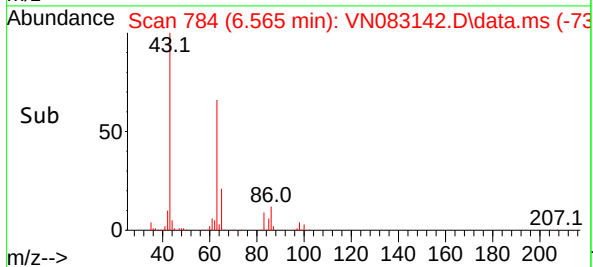
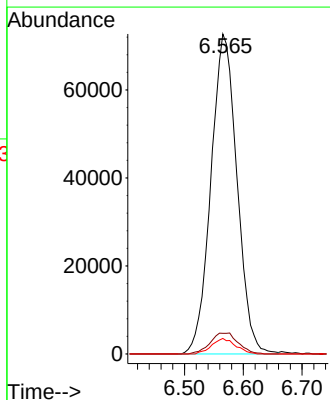
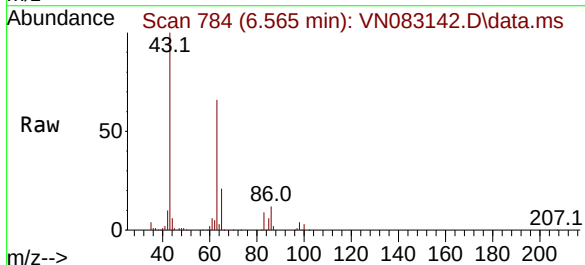
Manual Integrations  
APPROVED

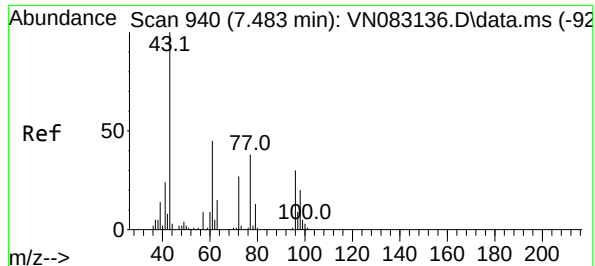
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#24  
1,1-Dichloroethane  
Concen: 46.685 ug/l  
RT: 6.565 min Scan# 784  
Delta R.T. -0.006 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Tgt Ion: 63 Resp: 224136  
Ion Ratio Lower Upper  
63 100  
98 6.5 3.3 9.9  
100 4.9 2.0 6.0





#25

2-Butanone

Concen: 211.782 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.000 min

Lab File: VN083142.D

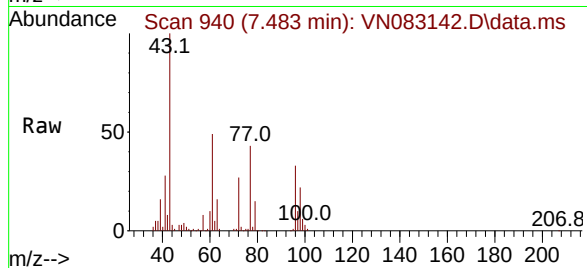
Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

Client Sample Id :

ICVVN080724



Tgt Ion: 43 Resp: 405134

Ion Ratio Lower Upper

43 100

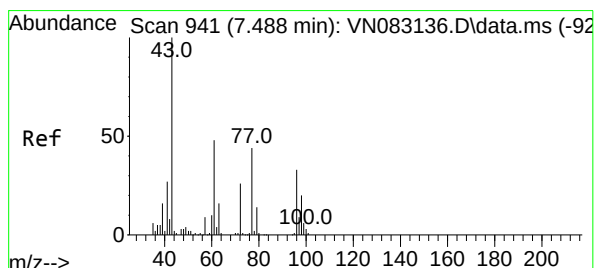
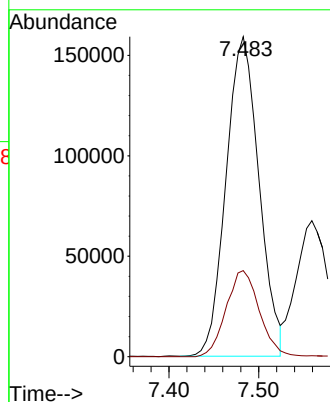
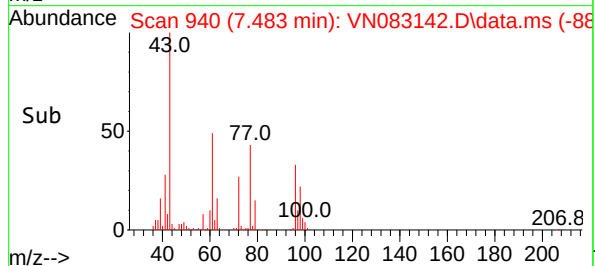
72 26.9 18.2 27.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#26

2,2-Dichloropropane

Concen: 47.853 ug/l

RT: 7.489 min Scan# 941

Delta R.T. 0.000 min

Lab File: VN083142.D

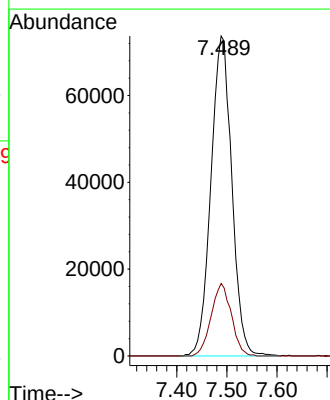
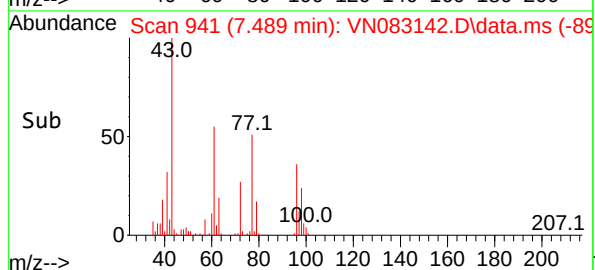
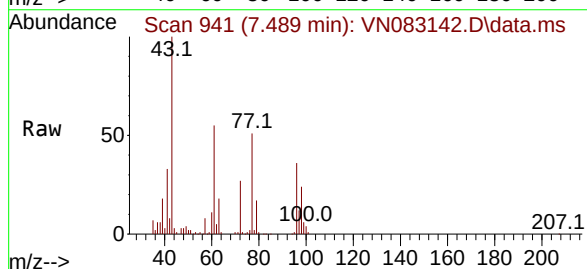
Acq: 07 Aug 2024 14:49

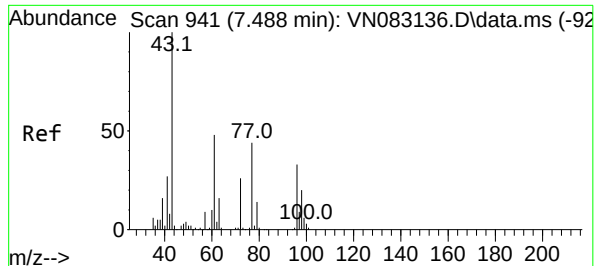
Tgt Ion: 77 Resp: 213355

Ion Ratio Lower Upper

77 100

97 21.9 10.3 30.9





#27

cis-1,2-Dichloroethene

Concen: 46.113 ug/l

RT: 7.483 min Scan# 941

Delta R.T. -0.006 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion: 96 Resp: 142600

Ion Ratio Lower Upper

96 100

61 151.9 0.0 329.6

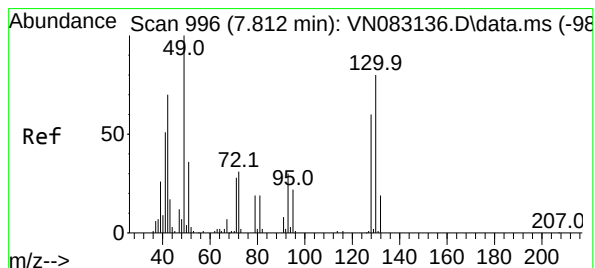
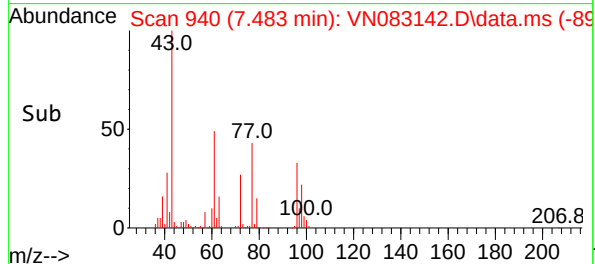
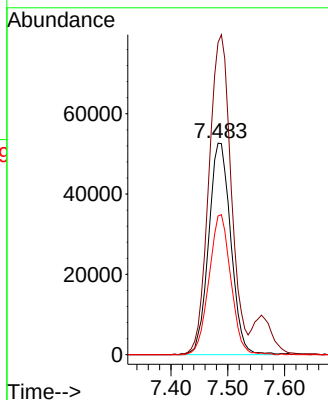
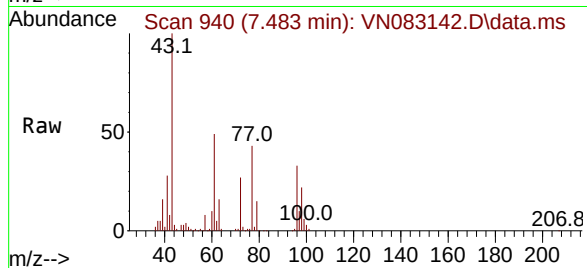
98 65.2 0.0 128.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#28

Bromochloromethane

Concen: 45.986 ug/l

RT: 7.812 min Scan# 996

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

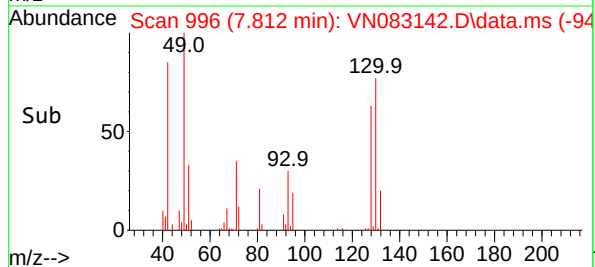
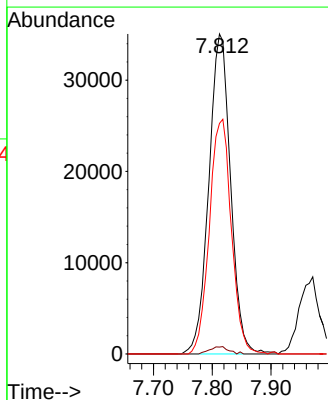
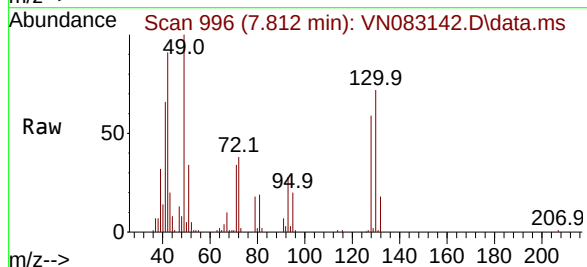
Tgt Ion: 49 Resp: 90226

Ion Ratio Lower Upper

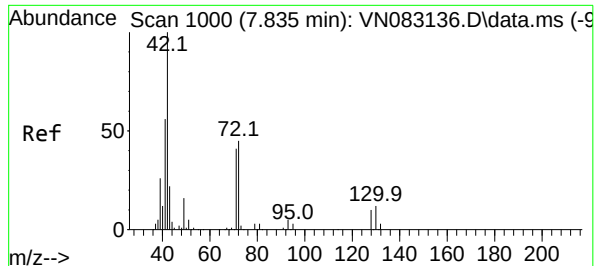
49 100

129 2.0 0.0 3.8

130 73.9 50.5 75.7







#29

Tetrahydrofuran

Concen: 222.147 ug/l

RT: 7.836 min Scan# 1000

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

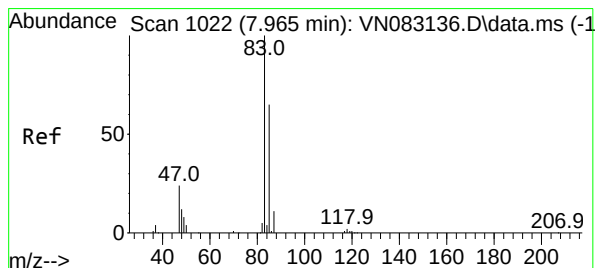
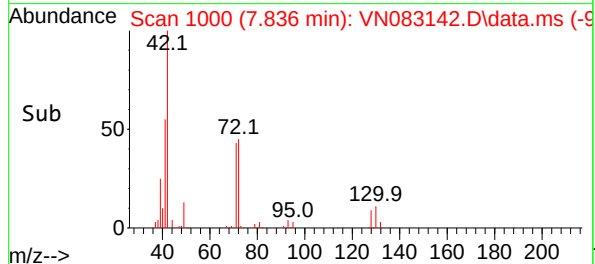
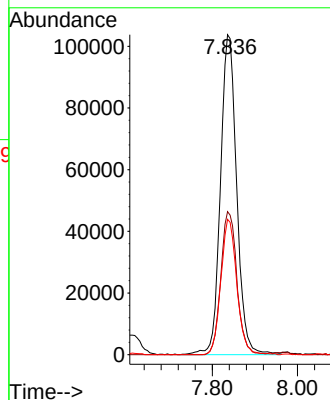
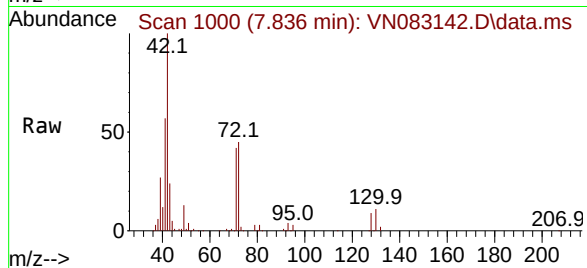
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 42    | Resp: | 274710 |
| Ion      | Ratio | Lower | Upper  |
| 42       | 100   |       |        |
| 72       | 44.2  | 30.0  | 45.0   |
| 71       | 41.5  | 28.3  | 42.5   |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#30

Chloroform

Concen: 47.387 ug/l

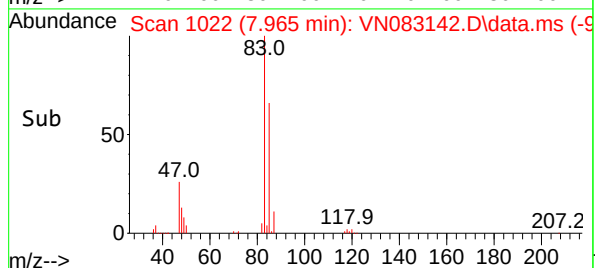
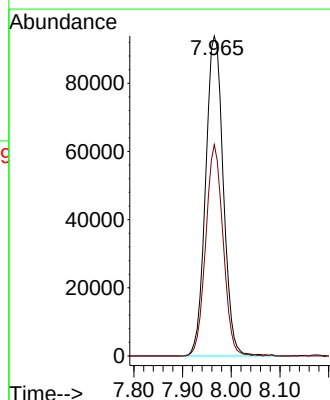
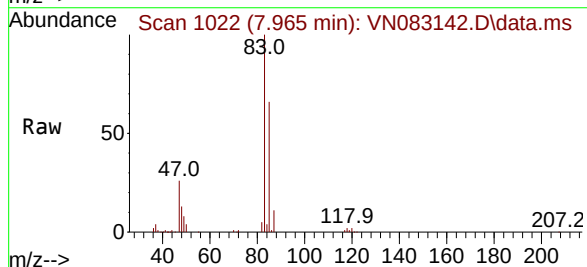
RT: 7.965 min Scan# 1022

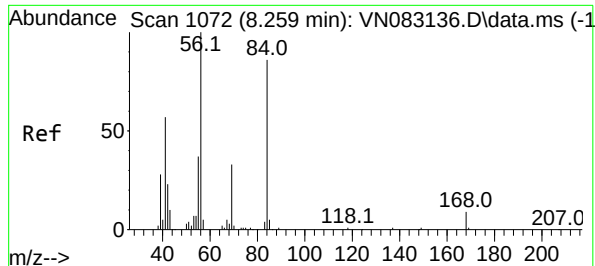
Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 236359 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 85       | 66.1  | 50.9  | 76.3   |





#31

Cyclohexane

Concen: 43.474 ug/l

RT: 8.253 min Scan# 1071

Delta R.T. -0.006 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

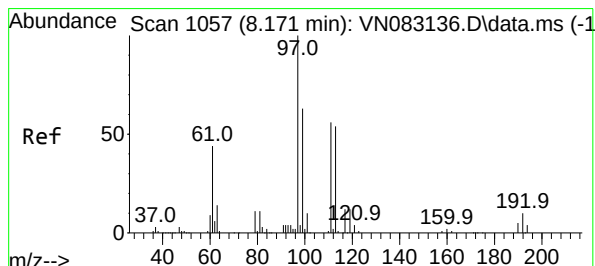
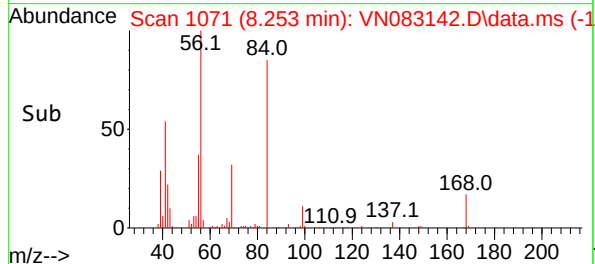
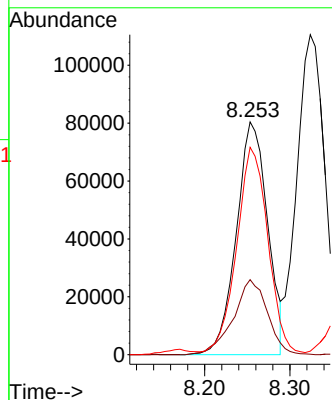
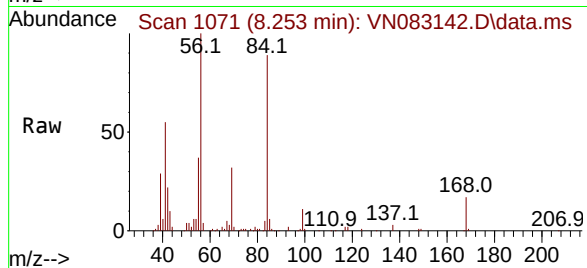
ICVVN080724

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 56    | Resp: | 205124 |
| Ion Ratio | Lower | Upper |        |
| 56        | 100   |       |        |
| 69        | 32.3  | 24.5  | 36.7   |
| 84        | 86.7  | 66.0  | 99.0   |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#32

1,1,1-Trichloroethane

Concen: 47.135 ug/l

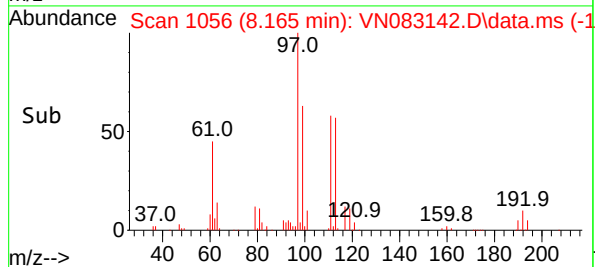
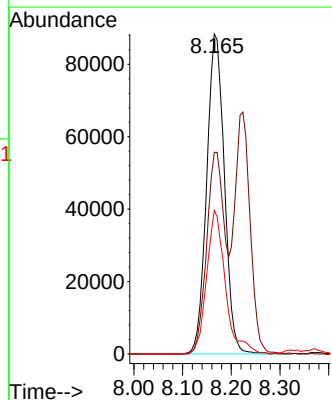
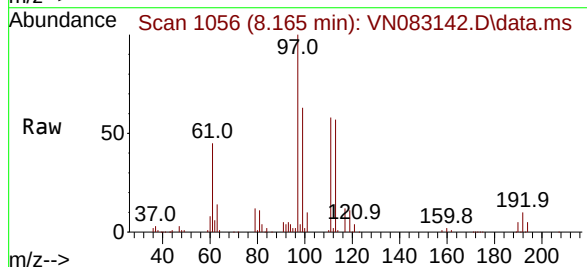
RT: 8.165 min Scan# 1056

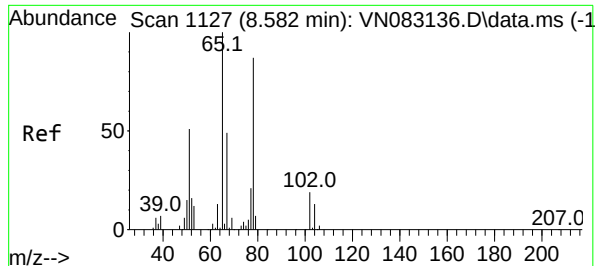
Delta R.T. -0.006 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 97    | Resp: | 222538 |
| Ion Ratio | Lower | Upper |        |
| 97        | 100   |       |        |
| 99        | 64.0  | 52.0  | 78.0   |
| 61        | 47.5  | 42.1  | 63.1   |





#33

1,2-Dichloroethane-d4

Concen: 50.583 ug/l

RT: 8.577 min Scan# 1126

Delta R.T. -0.006 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion: 65 Resp: 16105

Ion Ratio Lower Upper

65 100

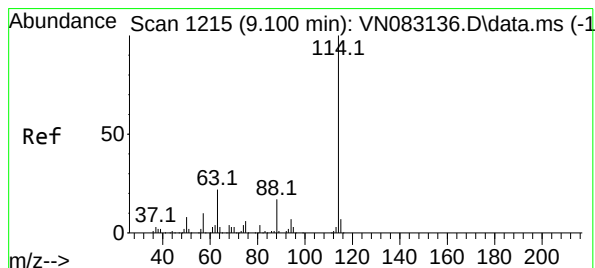
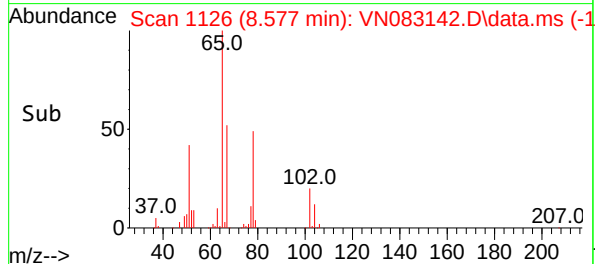
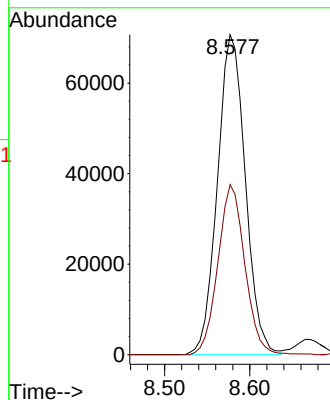
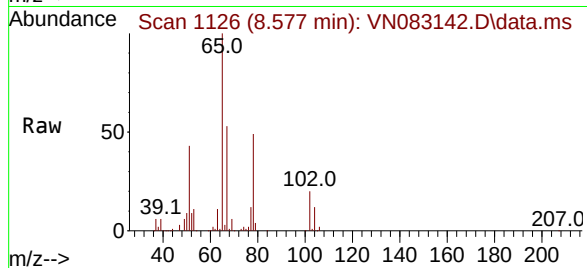
67 51.3 0.0 104.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

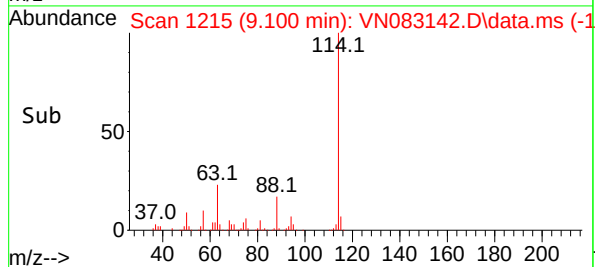
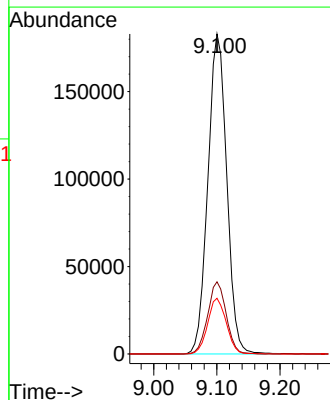
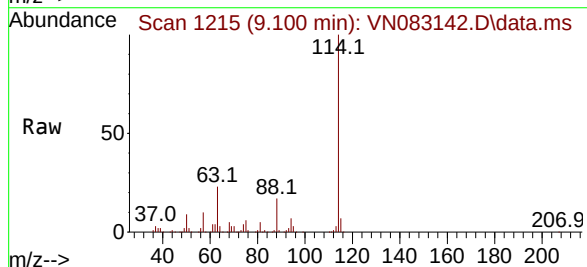
Tgt Ion:114 Resp: 380000

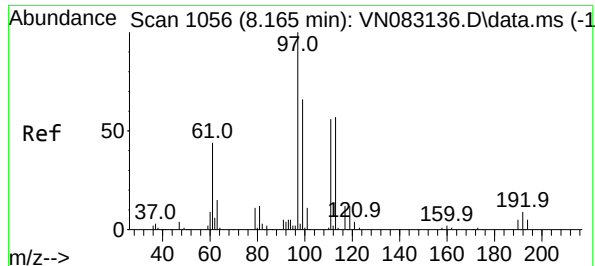
Ion Ratio Lower Upper

114 100

63 22.6 0.0 44.6

88 17.4 0.0 31.4





#35

Dibromofluoromethane

Concen: 51.549 ug/l

RT: 8.165 min Scan# 1056

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

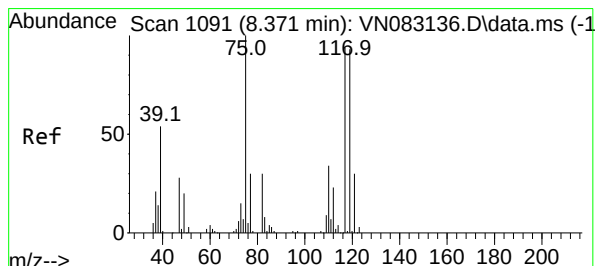
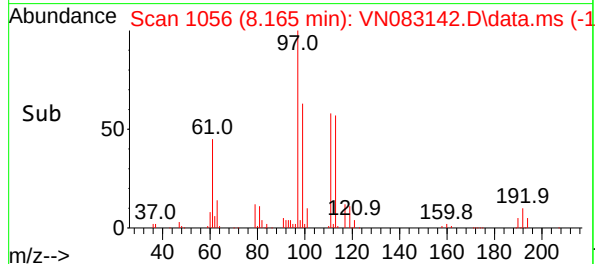
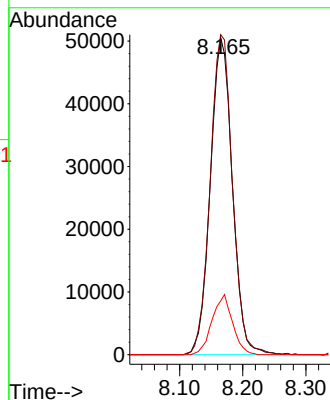
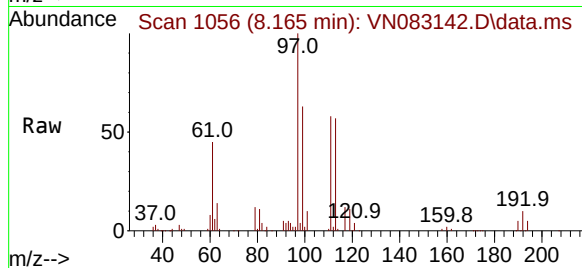
ICVVN080724

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 113   | Resp: | 12226 |
| Ion      | Ratio | Lower | Upper |
| 113      | 100   |       |       |
| 111      | 102.3 | 82.4  | 123.6 |
| 192      | 17.6  | 14.9  | 22.3  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#36

1,1-Dichloropropene

Concen: 47.732 ug/l

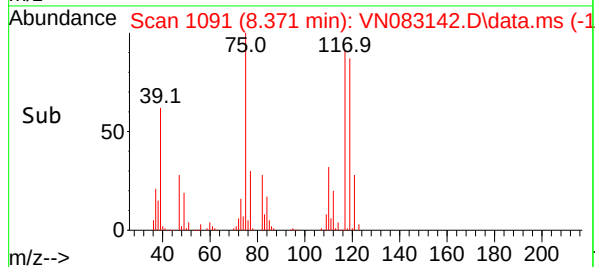
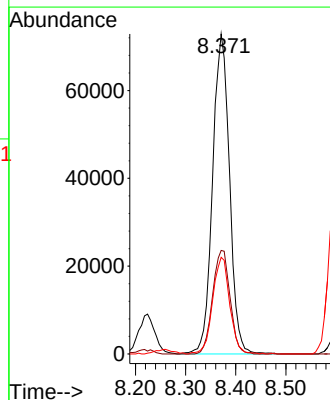
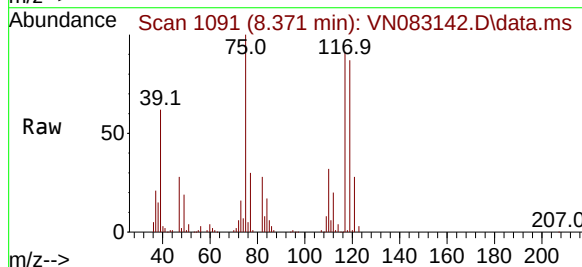
RT: 8.371 min Scan# 1091

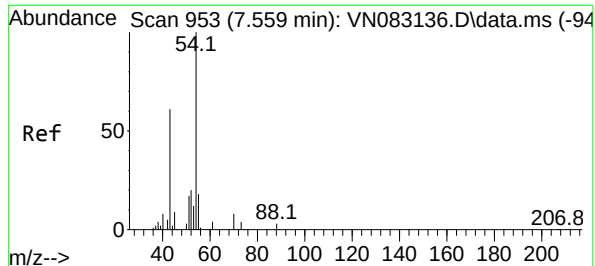
Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 75    | Resp: | 171262 |
| Ion      | Ratio | Lower | Upper  |
| 75       | 100   |       |        |
| 110      | 33.2  | 16.3  | 48.9   |
| 77       | 30.5  | 24.6  | 37.0   |





#37

Ethyl Acetate

Concen: 43.124 ug/l

RT: 7.559 min Scan# 91

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion: 43 Resp: 173240

Ion Ratio Lower Upper

43 100

61 12.9 9.3 13.9

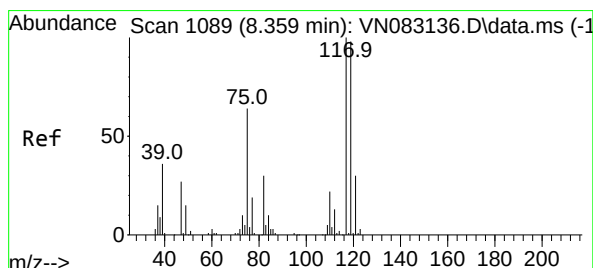
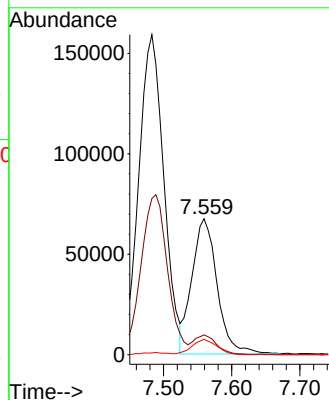
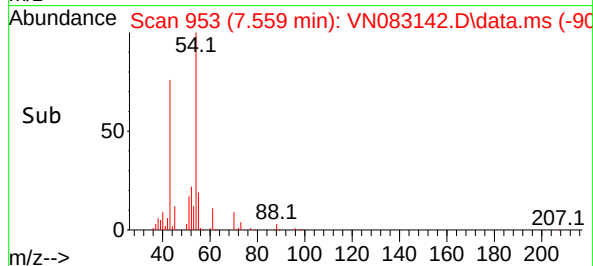
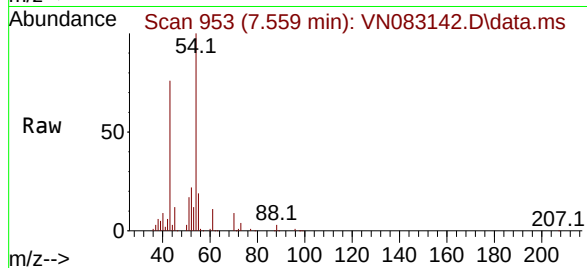
70 11.0 7.0 10.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#38

Carbon Tetrachloride

Concen: 47.904 ug/l

RT: 8.365 min Scan# 1090

Delta R.T. 0.006 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

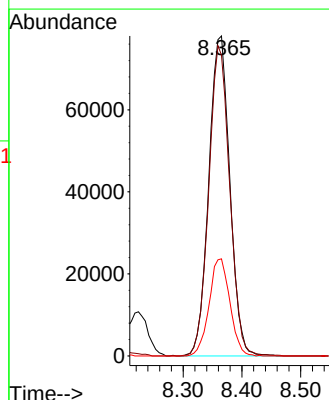
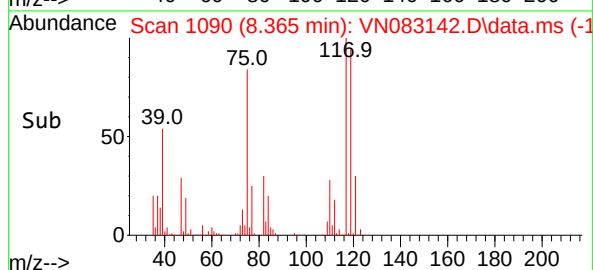
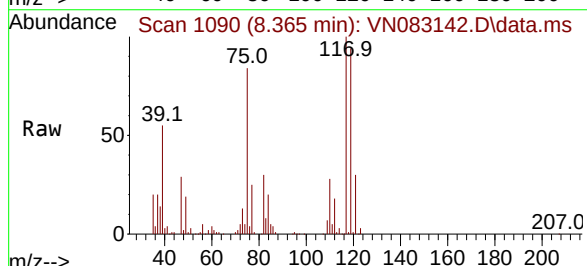
Tgt Ion:117 Resp: 193592

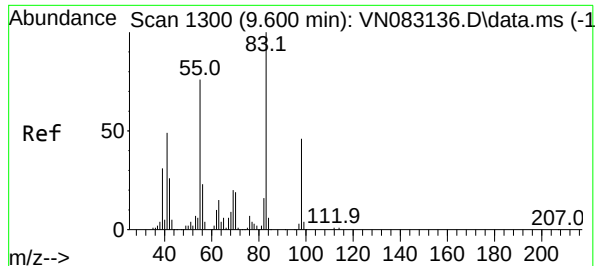
Ion Ratio Lower Upper

117 100

119 94.0 74.9 112.3

121 30.3 24.3 36.5





#39

Methylcyclohexane

Concen: 47.821 ug/l

RT: 9.600 min Scan# 1130

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

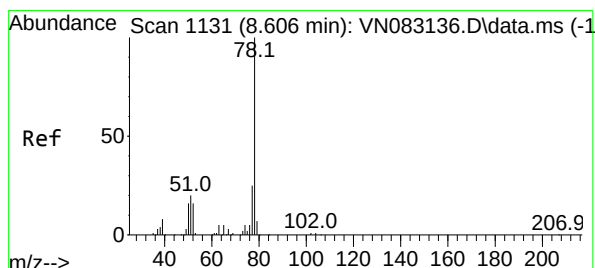
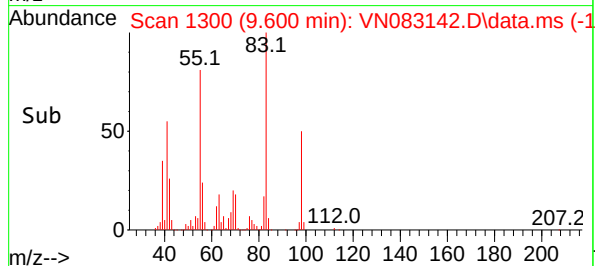
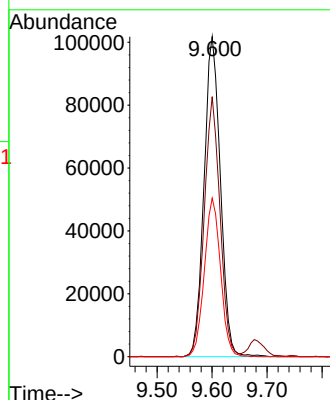
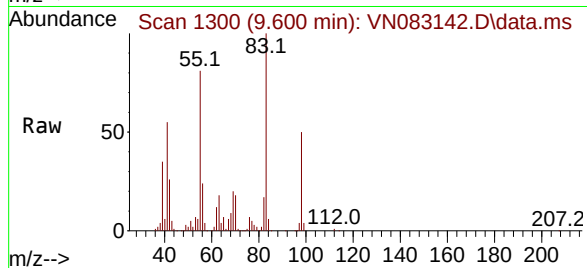
ICVVN080724

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 21074 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 55       | 81.3  | 66.4  | 99.6  |
| 98       | 49.5  | 40.7  | 61.1  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#40

Benzene

Concen: 47.635 ug/l

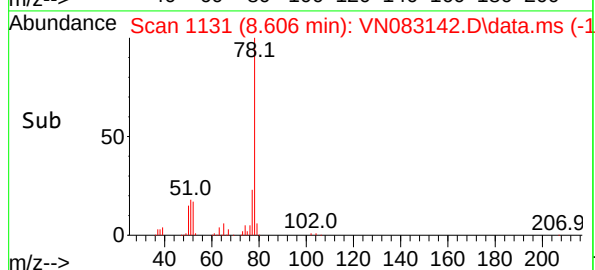
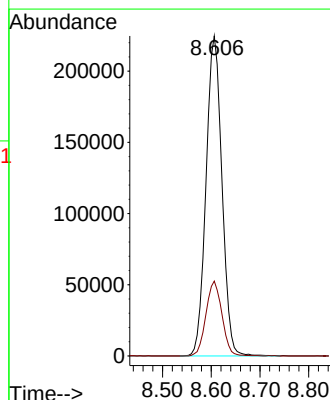
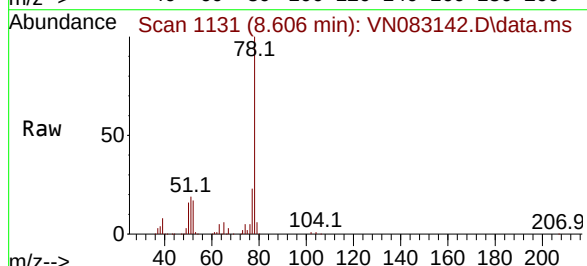
RT: 8.606 min Scan# 1131

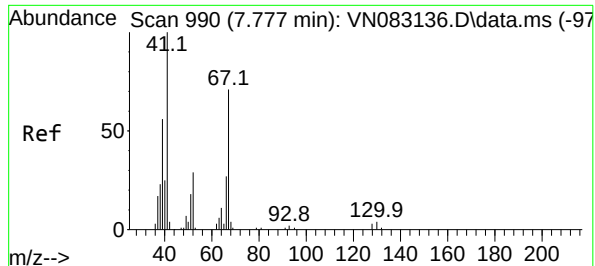
Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 78    | Resp: | 509159 |
| Ion      | Ratio | Lower | Upper  |
| 78       | 100   |       |        |
| 77       | 23.4  | 19.0  | 28.4   |





#41

Methacrylonitrile

Concen: 43.013 ug/l

RT: 7.777 min Scan# 990

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

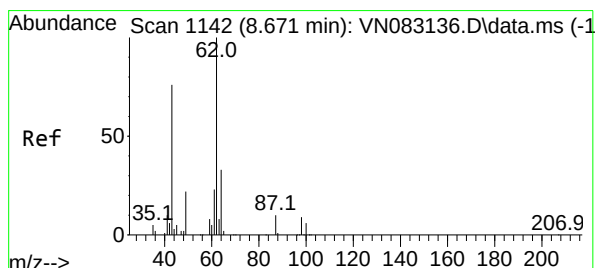
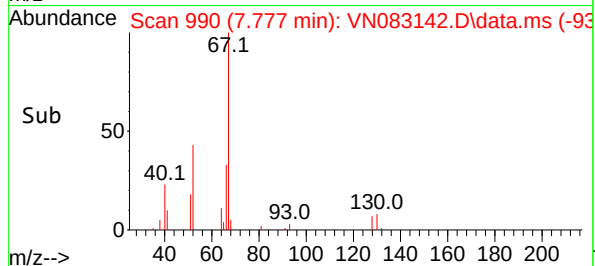
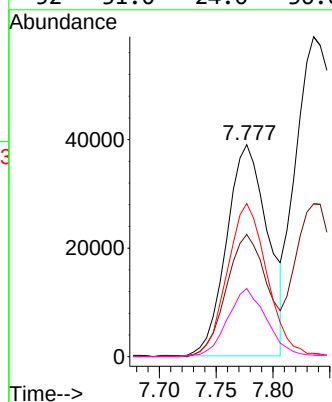
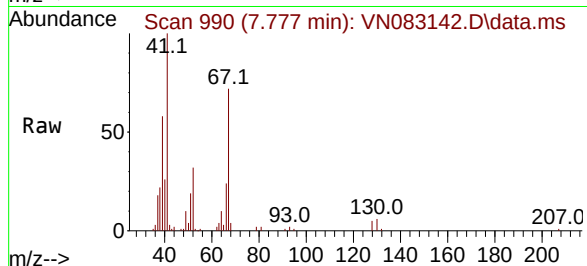
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 9825  |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 57.7  | 45.5  | 68.3  |
| 67       | 70.8  | 50.5  | 75.7  |
| 52       | 31.0  | 24.0  | 36.0  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#42

1,2-Dichloroethane

Concen: 47.310 ug/l

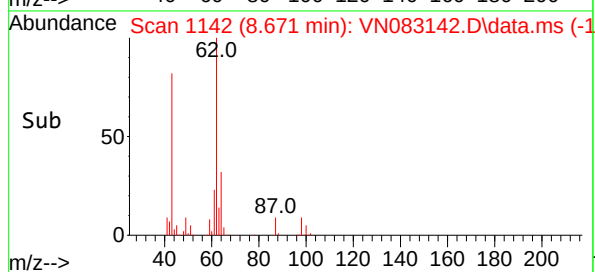
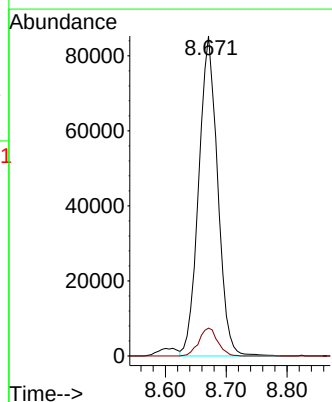
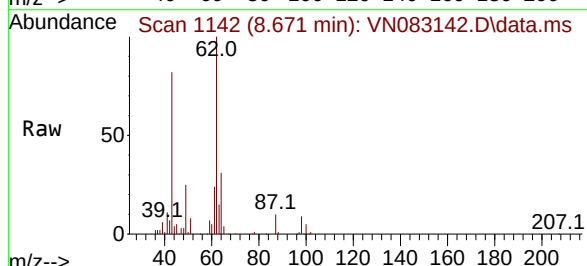
RT: 8.671 min Scan# 1142

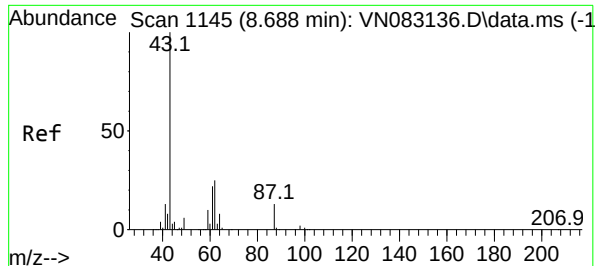
Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 62    | Resp: | 184210 |
| Ion      | Ratio | Lower | Upper  |
| 62       | 100   |       |        |
| 98       | 8.6   | 0.0   | 15.8   |





#43

Isopropyl Acetate

Concen: 45.577 ug/l

RT: 8.689 min Scan# 1145

Delta R.T. 0.001 min

Lab File: VN083142.D

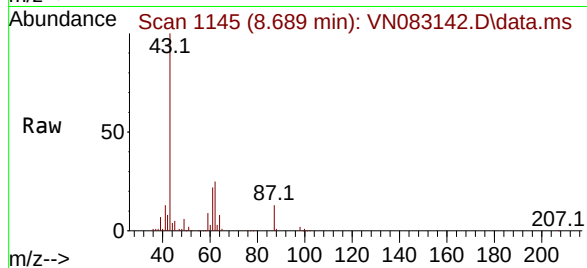
Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724



Tgt Ion: 43 Resp: 319540

Ion Ratio Lower Upper

43 100

61 24.3 17.8 26.6

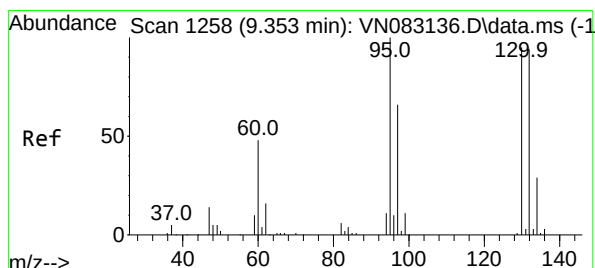
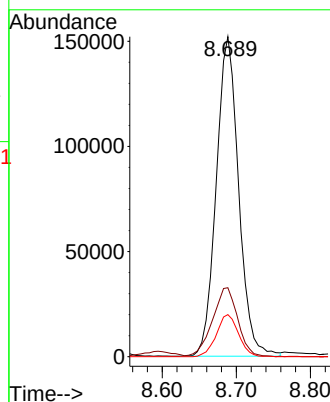
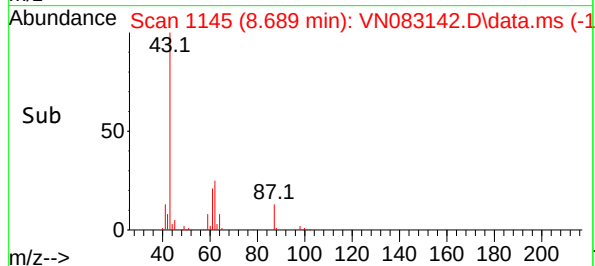
87 13.0 8.2 12.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#44

Trichloroethene

Concen: 47.994 ug/l

RT: 9.353 min Scan# 1258

Delta R.T. 0.000 min

Lab File: VN083142.D

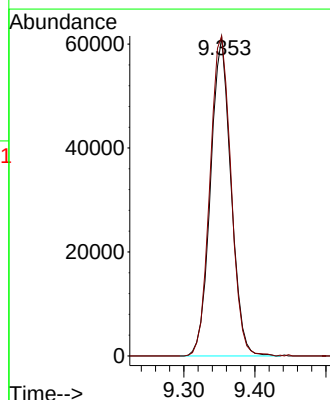
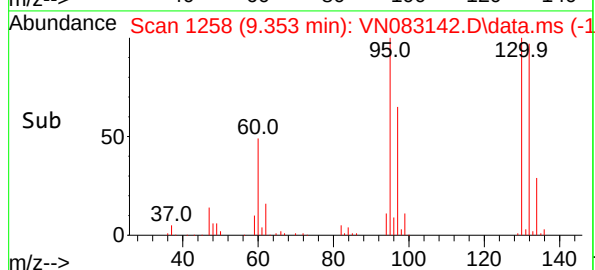
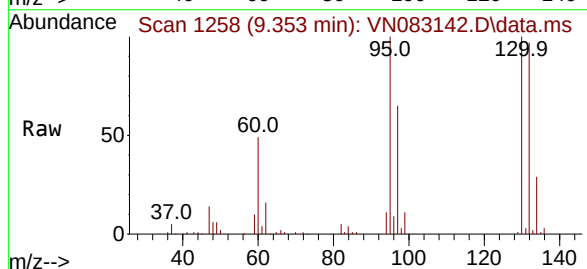
Acq: 07 Aug 2024 14:49

Tgt Ion:130 Resp: 122105

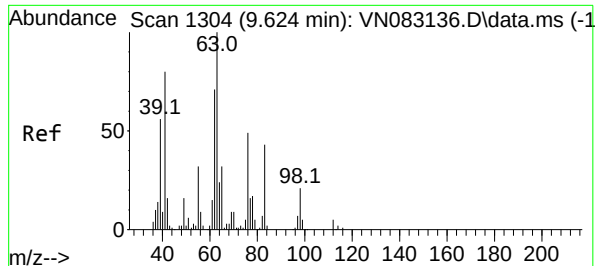
Ion Ratio Lower Upper

130 100

95 100.4 0.0 197.8







#45

1,2-Dichloropropane

Concen: 48.208 ug/l

RT: 9.624 min Scan# 1304

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion: 63 Resp: 12231

Ion Ratio Lower Upper

63 100

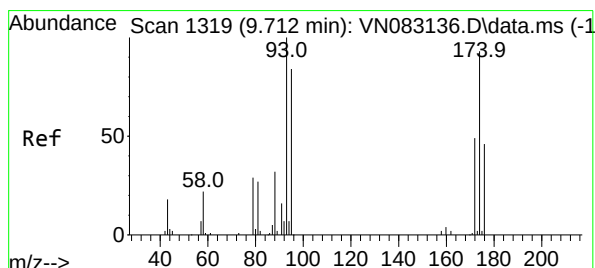
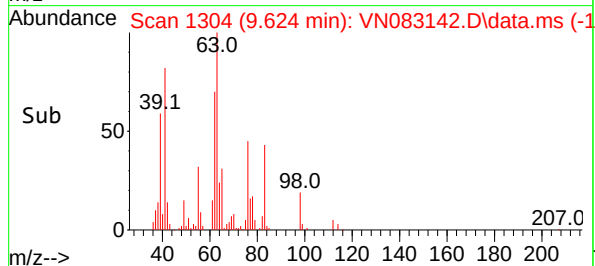
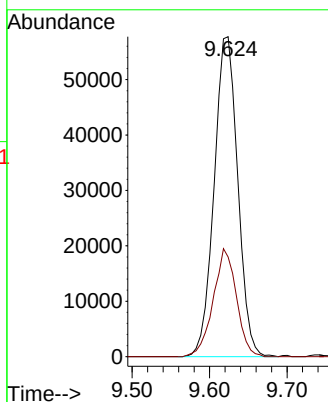
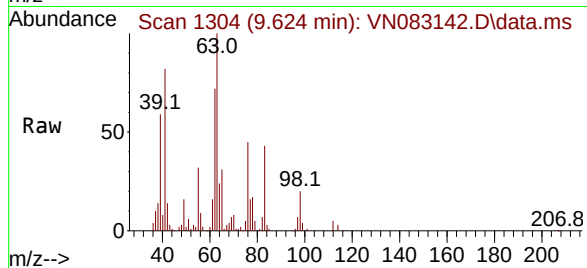
65 31.2 24.4 36.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#46

Dibromomethane

Concen: 47.124 ug/l

RT: 9.712 min Scan# 1319

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

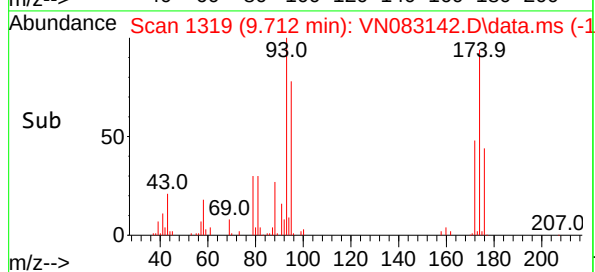
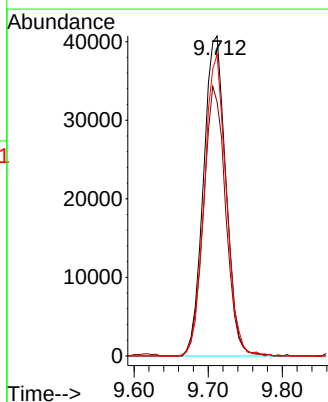
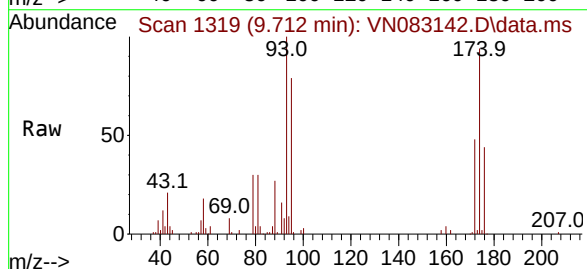
Tgt Ion: 93 Resp: 85581

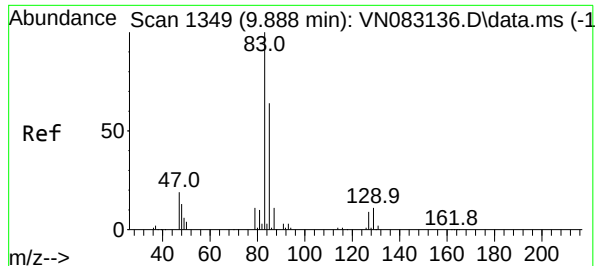
Ion Ratio Lower Upper

93 100

95 83.0 65.8 98.6

174 91.4 71.7 107.5





#47

Bromodichloromethane

Concen: 47.047 ug/l

RT: 9.888 min Scan# 1349

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

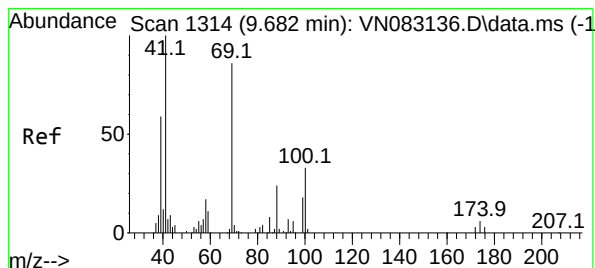
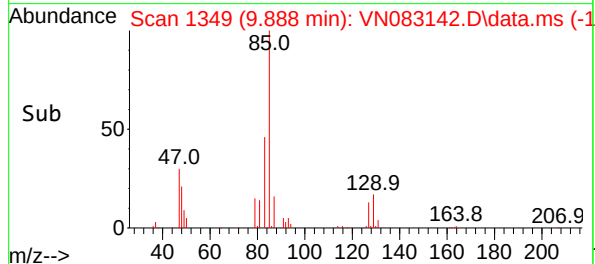
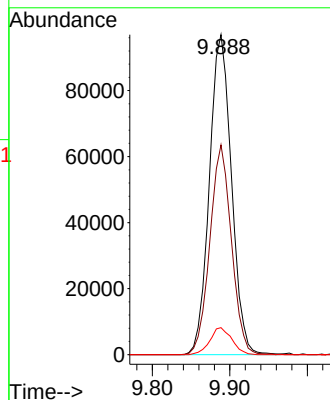
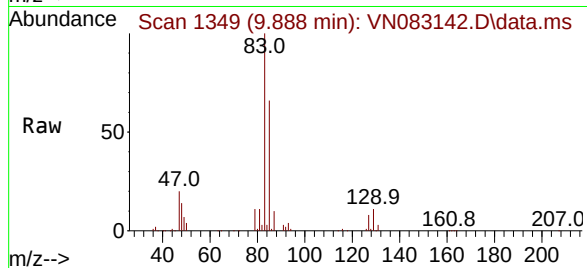
ICVVN080724

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 19184 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 65.5  | 51.1  | 76.7  |
| 127      | 8.5   | 7.2   | 10.8  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#48

Methyl methacrylate

Concen: 44.609 ug/l

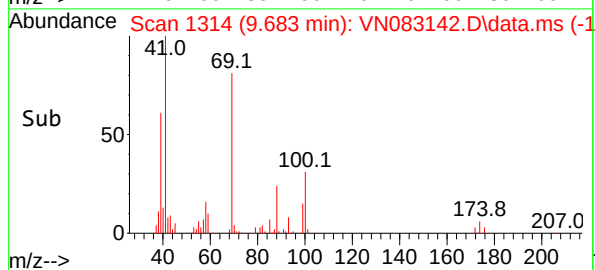
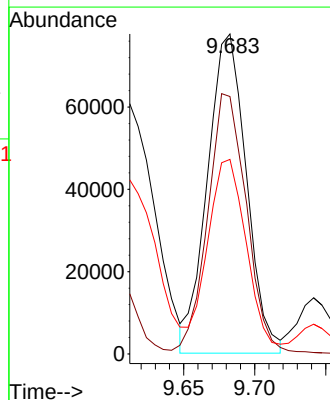
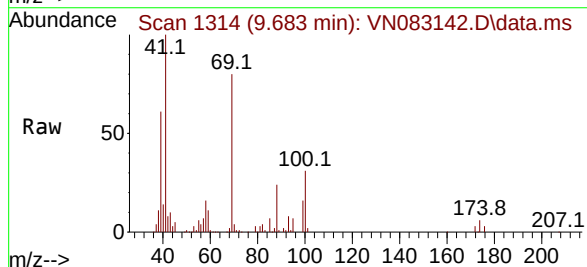
RT: 9.683 min Scan# 1314

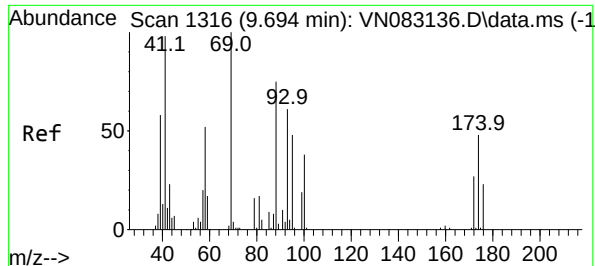
Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 41    | Resp: | 148161 |
| Ion      | Ratio | Lower | Upper  |
| 41       | 100   |       |        |
| 69       | 81.0  | 56.3  | 84.5   |
| 39       | 60.7  | 50.3  | 75.5   |





#49

1,4-Dioxane

Concen: 885.211 ug/l

RT: 9.694 min Scan# 11

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

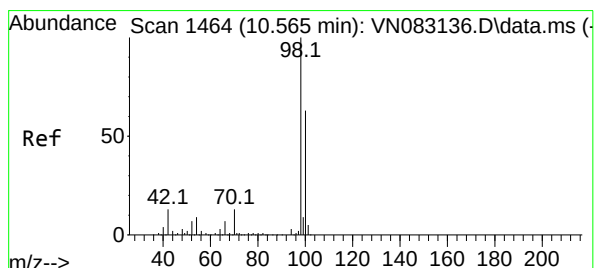
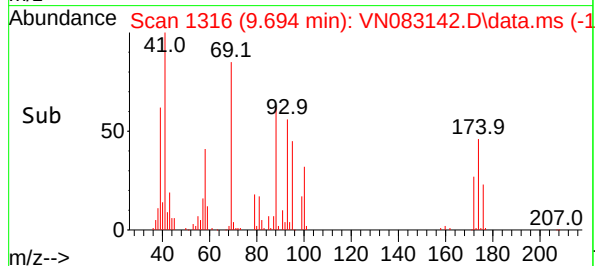
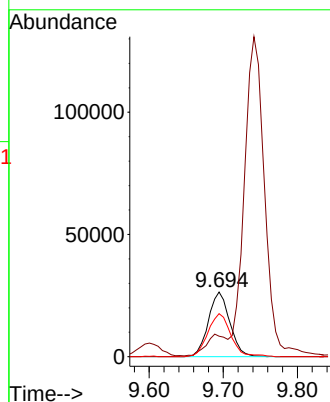
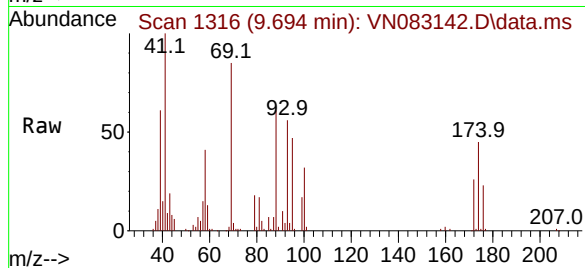
ICVVN080724

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 88    | Resp: | 5304  |
| Ion      | Ratio | Lower | Upper |
| 88       | 100   |       |       |
| 43       | 32.0  | 27.8  | 41.8  |
| 58       | 71.4  | 59.4  | 89.0  |

Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#50

Toluene-d8

Concen: 52.175 ug/l

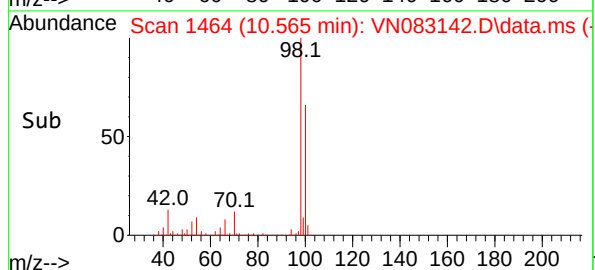
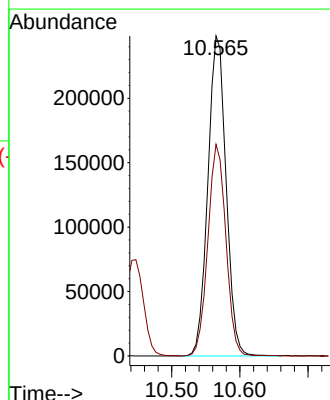
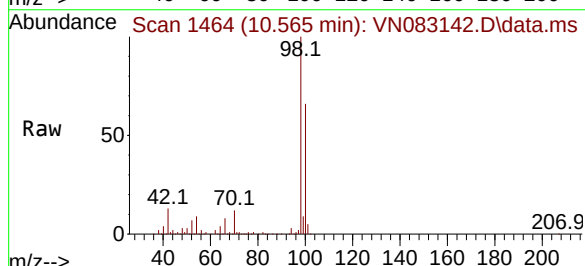
RT: 10.565 min Scan# 1464

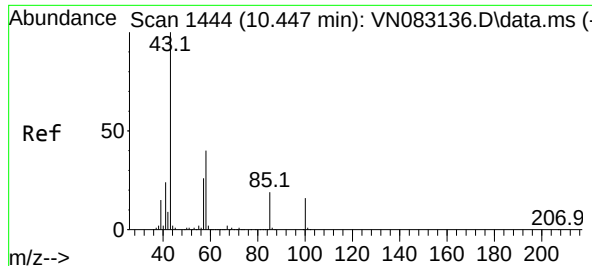
Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

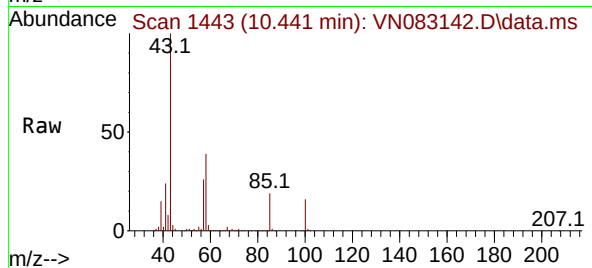
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 98    | Resp: | 461627 |
| Ion      | Ratio | Lower | Upper  |
| 98       | 100   |       |        |
| 100      | 65.5  | 51.5  | 77.3   |





#51  
4-Methyl-2-Pentanone  
Concen: 230.917 ug/l  
RT: 10.441 min Scan# 1443  
Delta R.T. -0.006 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

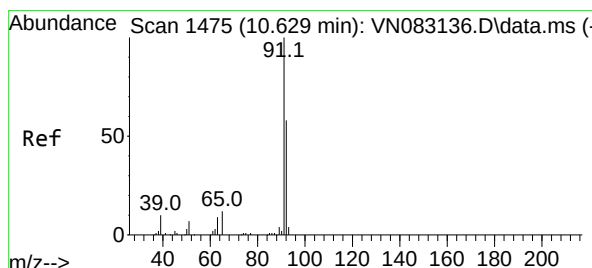
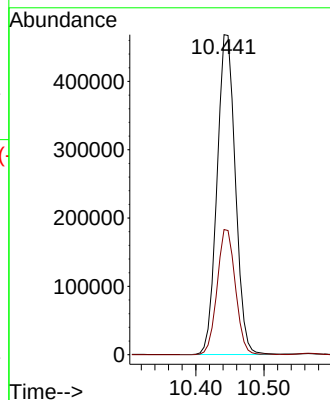
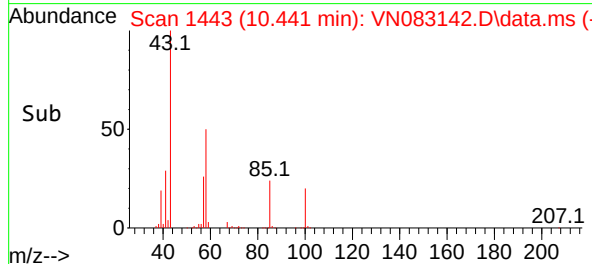
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion: 43 Resp: 877240  
Ion Ratio Lower Upper  
43 100  
58 39.0 28.2 42.4

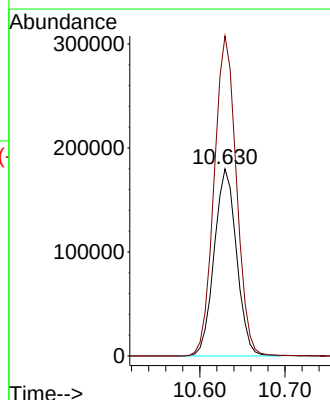
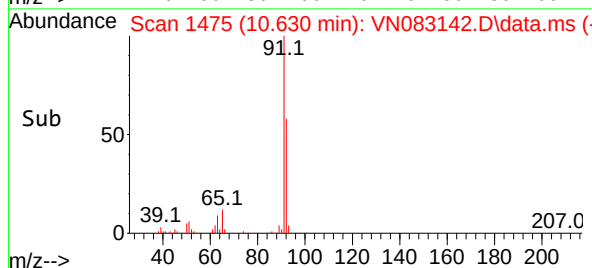
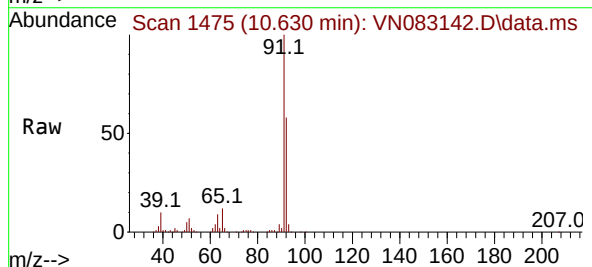
Manual Integrations  
APPROVED

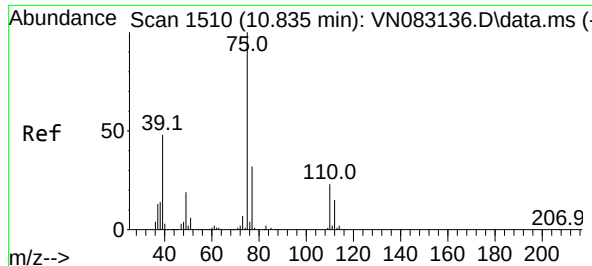
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#52  
Toluene  
Concen: 48.520 ug/l  
RT: 10.630 min Scan# 1475  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

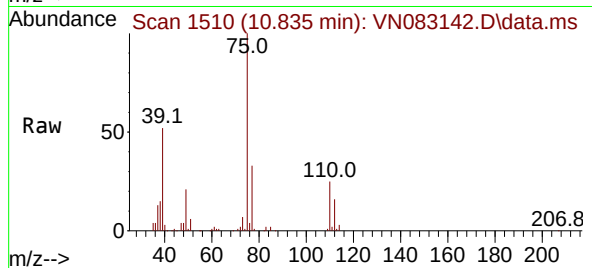
Tgt Ion: 92 Resp: 327682  
Ion Ratio Lower Upper  
92 100  
91 170.9 139.4 209.0





#53  
t-1,3-Dichloropropene  
Concen: 49.776 ug/l  
RT: 10.835 min Scan# 1510  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

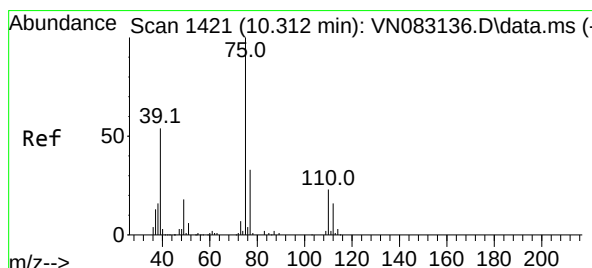
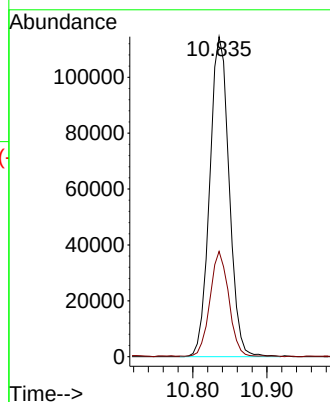
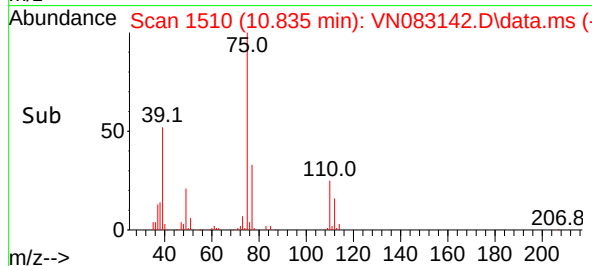
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion: 75 Resp: 20849  
Ion Ratio Lower Upper  
75 100  
77 32.8 25.7 38.5

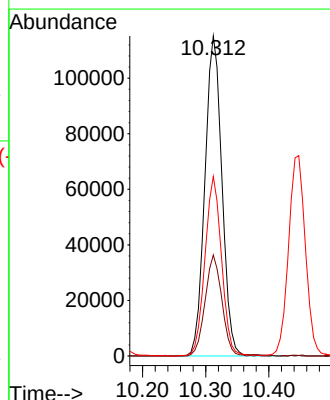
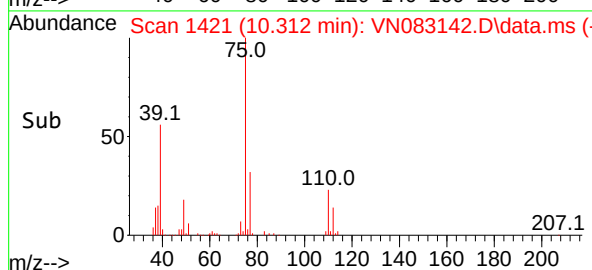
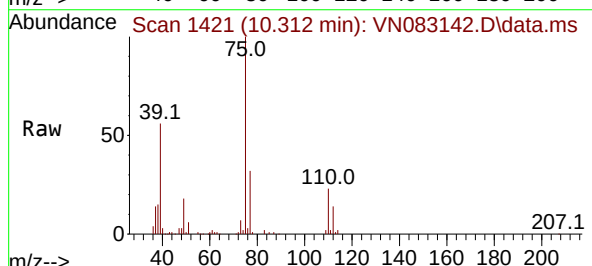
Manual Integrations  
APPROVED

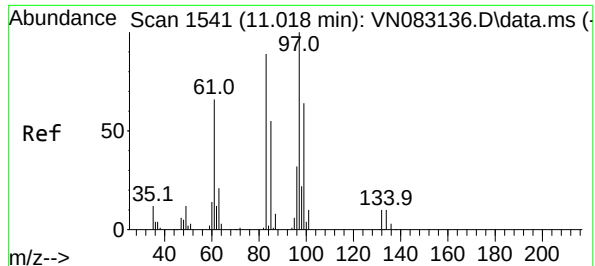
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#54  
cis-1,3-Dichloropropene  
Concen: 48.487 ug/l  
RT: 10.312 min Scan# 1421  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

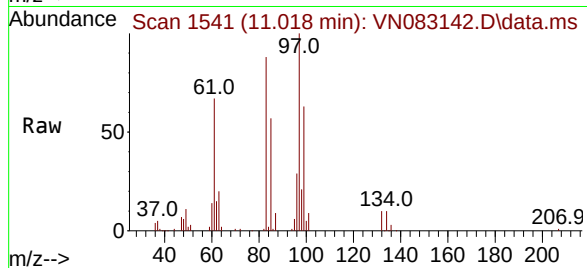
Tgt Ion: 75 Resp: 216020  
Ion Ratio Lower Upper  
75 100  
77 31.6 24.3 36.5  
39 56.0 50.5 75.7





#55  
1,1,2-Trichloroethane  
Concen: 48.351 ug/l  
RT: 11.018 min Scan# 1541  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

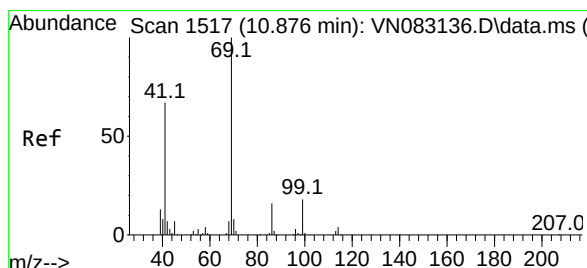
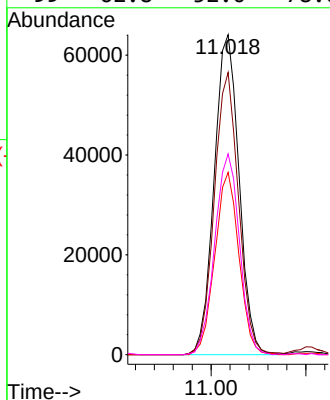
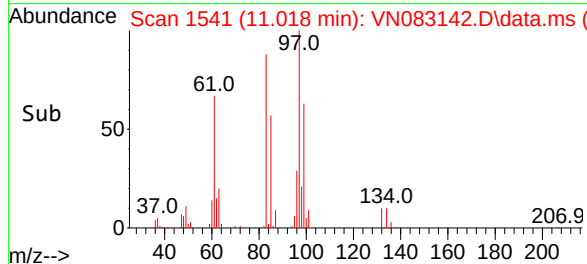
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion: 97 Resp: 117023  
Ion Ratio Lower Upper  
97 100  
83 88.2 71.4 107.0  
85 57.0 45.8 68.6  
99 62.8 52.0 78.0

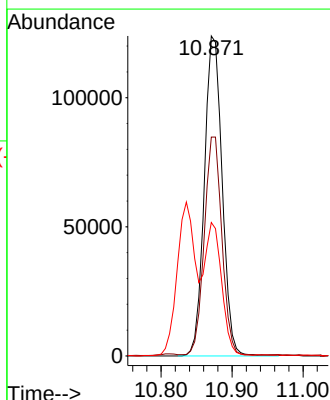
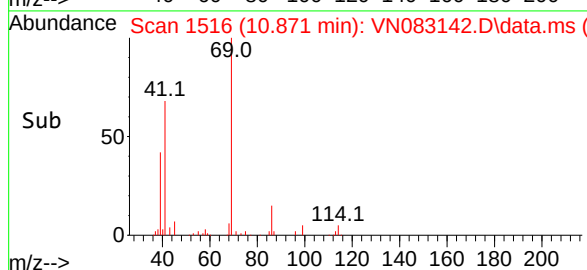
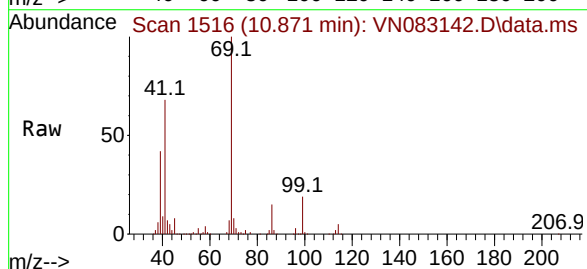
Manual Integrations  
APPROVED

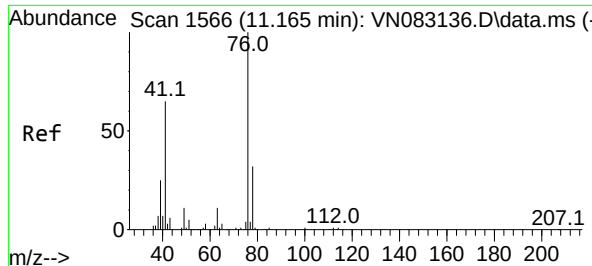
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#56  
Ethyl methacrylate  
Concen: 47.395 ug/l  
RT: 10.871 min Scan# 1516  
Delta R.T. -0.006 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Tgt Ion: 69 Resp: 216248  
Ion Ratio Lower Upper  
69 100  
41 67.3 63.4 95.2  
39 40.2 37.4 56.0





#57

1,3-Dichloropropane

Concen: 47.391 ug/l

RT: 11.165 min Scan# 1566

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion: 76 Resp: 20444

Ion Ratio Lower Upper

76 100

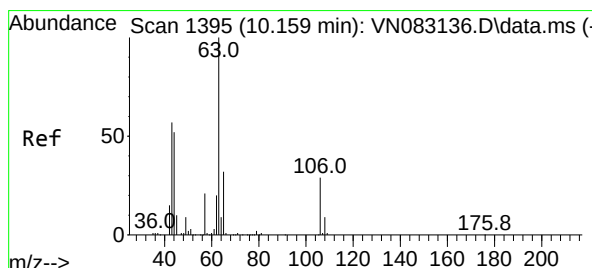
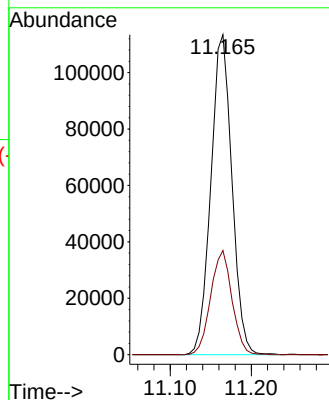
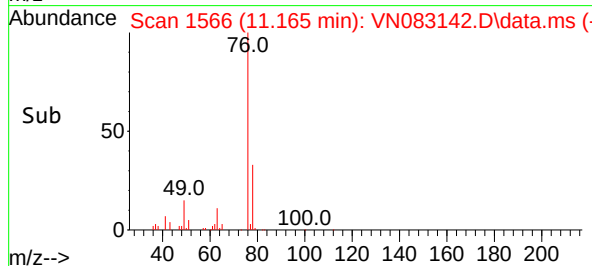
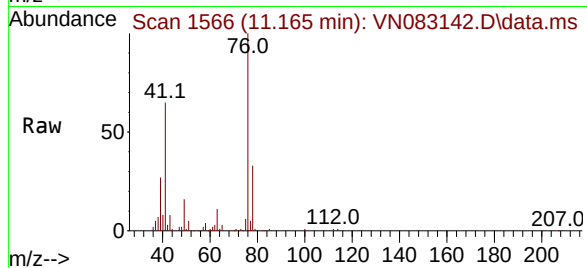
78 32.9 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#58

2-Chloroethyl Vinyl ether

Concen: 244.918 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. 0.000 min

Lab File: VN083142.D

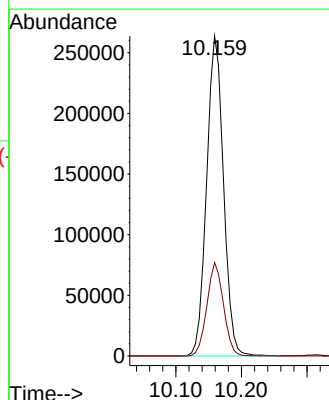
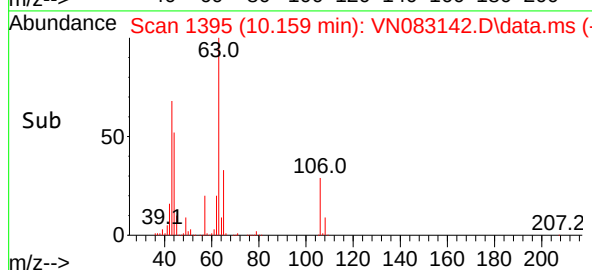
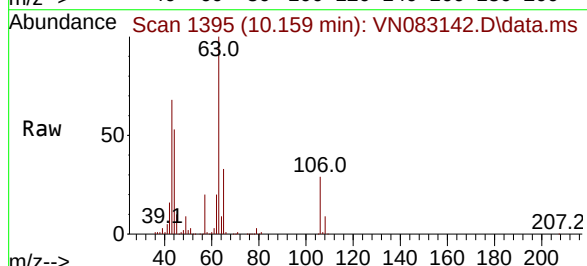
Acq: 07 Aug 2024 14:49

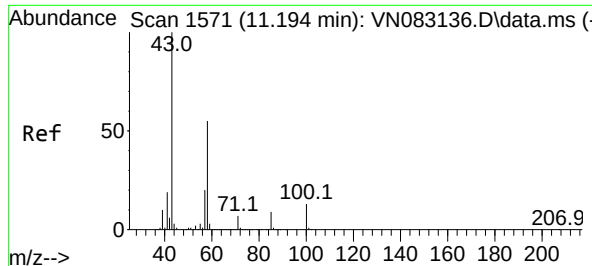
Tgt Ion: 63 Resp: 472357

Ion Ratio Lower Upper

63 100

106 28.6 21.4 32.0





#59

2-Hexanone

Concen: 224.916 ug/l

RT: 11.194 min Scan# 1571

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion: 43 Resp: 661033

Ion Ratio Lower Upper

43 100

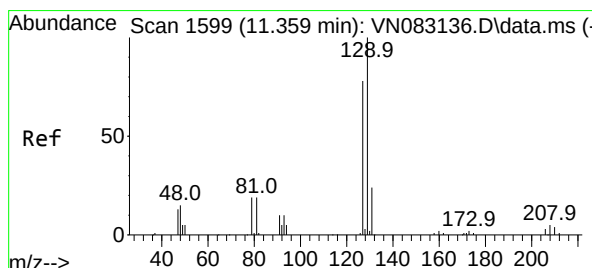
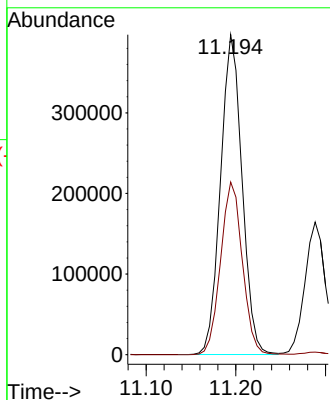
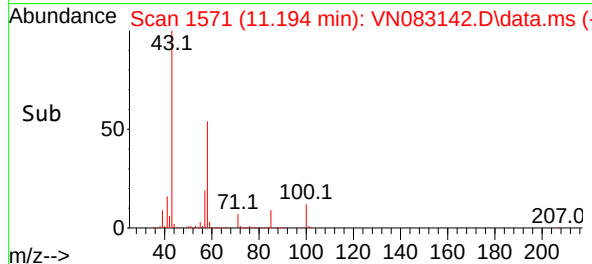
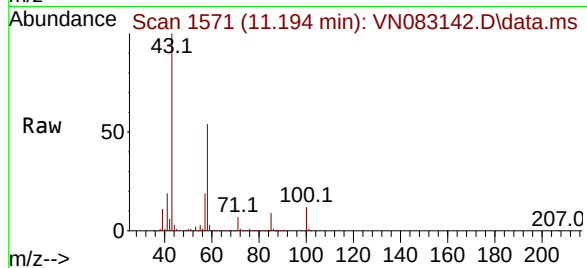
58 54.6 24.6 73.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#60

Dibromochloromethane

Concen: 49.513 ug/l

RT: 11.359 min Scan# 1599

Delta R.T. 0.000 min

Lab File: VN083142.D

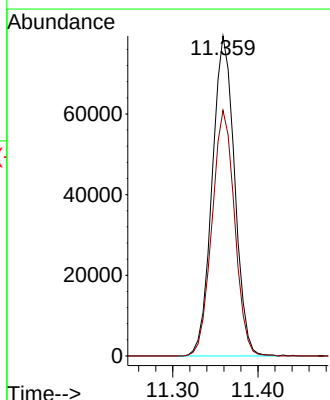
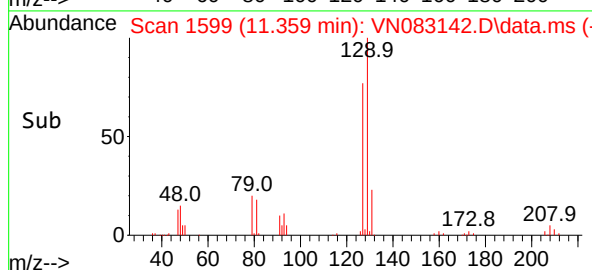
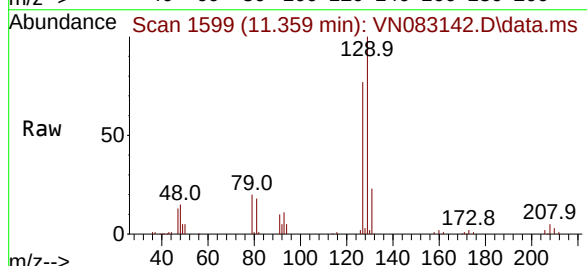
Acq: 07 Aug 2024 14:49

Tgt Ion:129 Resp: 144886

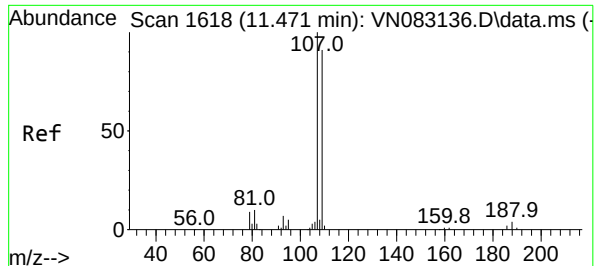
Ion Ratio Lower Upper

129 100

127 77.3 39.2 117.6

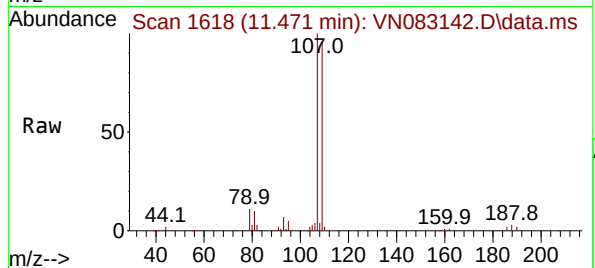






#61  
1,2-Dibromoethane  
Concen: 47.133 ug/l  
RT: 11.471 min Scan# 119834  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

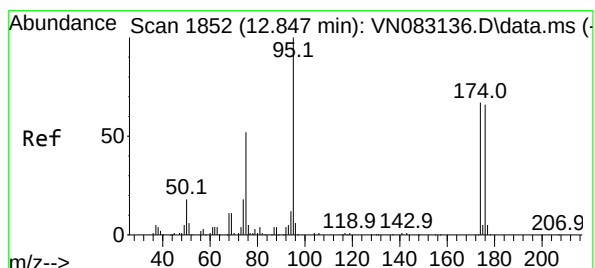
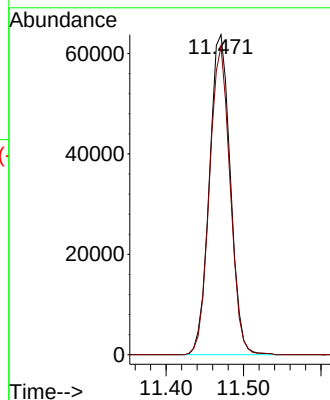
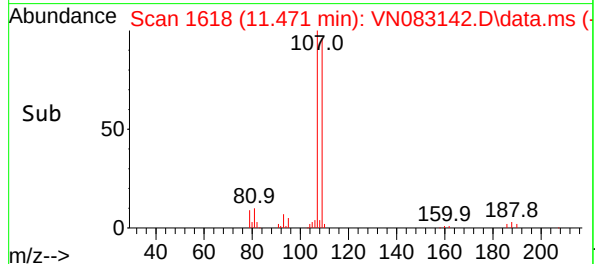
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



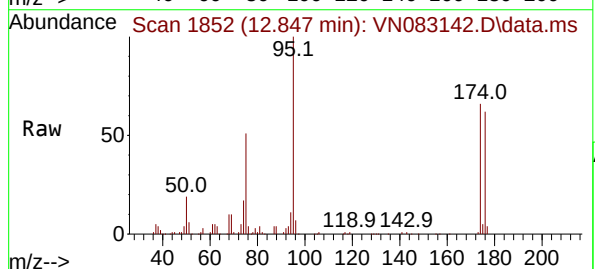
Tgt Ion:107 Resp: 119834  
Ion Ratio Lower Upper  
107 100  
109 94.5 73.7 110.5

Manual Integrations  
APPROVED

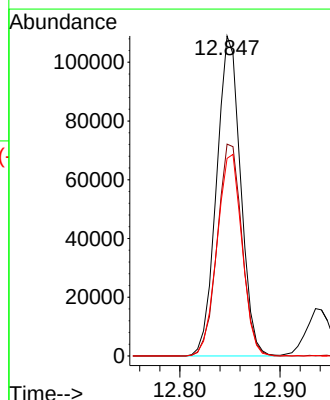
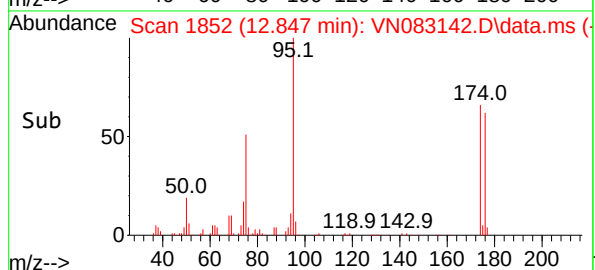
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

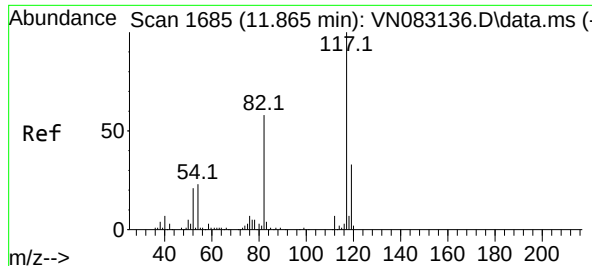


#62  
4-Bromofluorobenzene  
Concen: 52.574 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49



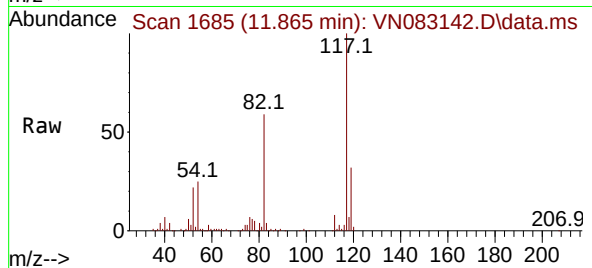
Tgt Ion: 95 Resp: 181344  
Ion Ratio Lower Upper  
95 100  
174 68.0 0.0 159.2  
176 65.5 0.0 147.6





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.865 min Scan# 1685  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

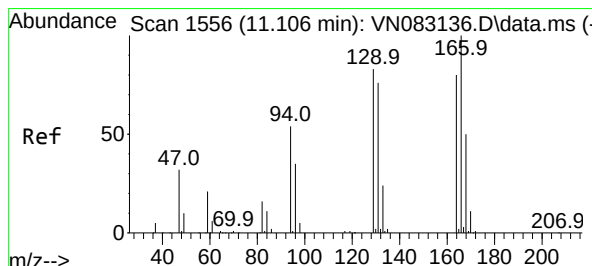
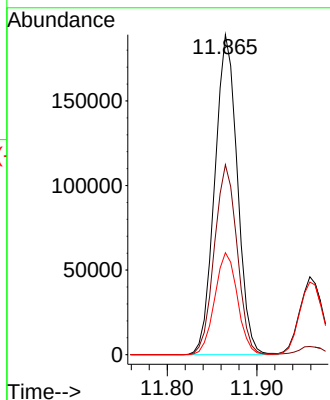
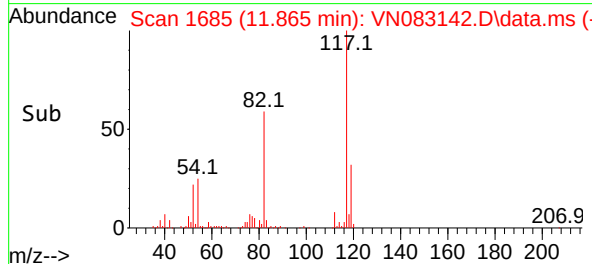
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion:117 Resp: 33095  
Ion Ratio Lower Upper  
117 100  
82 59.4 47.5 71.3  
119 31.9 25.6 38.4

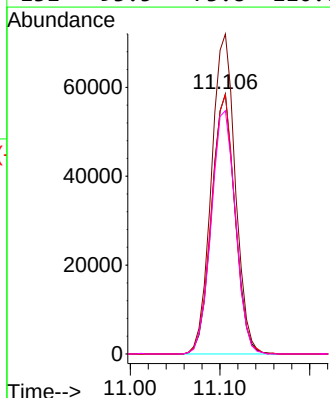
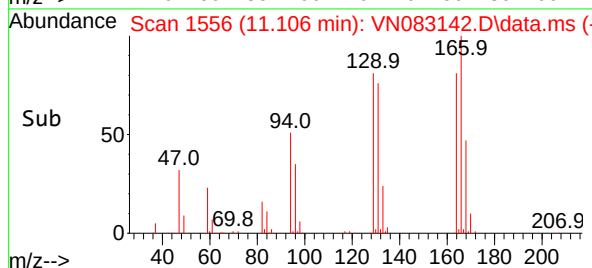
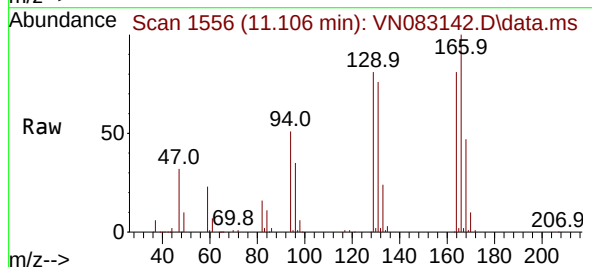
Manual Integrations  
APPROVED

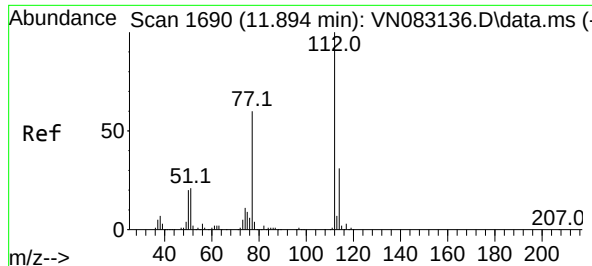
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#64  
Tetrachloroethene  
Concen: 48.175 ug/l  
RT: 11.106 min Scan# 1556  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

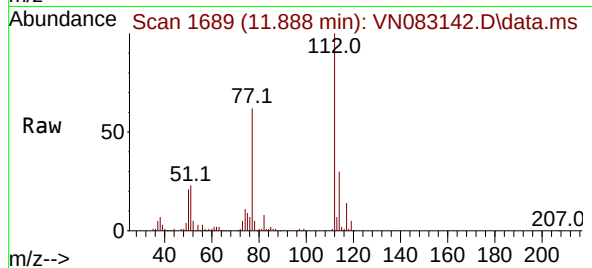
Tgt Ion:164 Resp: 105591  
Ion Ratio Lower Upper  
164 100  
166 123.0 101.4 152.0  
129 99.7 75.7 113.5  
131 93.5 73.8 110.6





#65  
Chlorobenzene  
Concen: 47.522 ug/l  
RT: 11.888 min Scan# 1689  
Delta R.T. -0.006 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

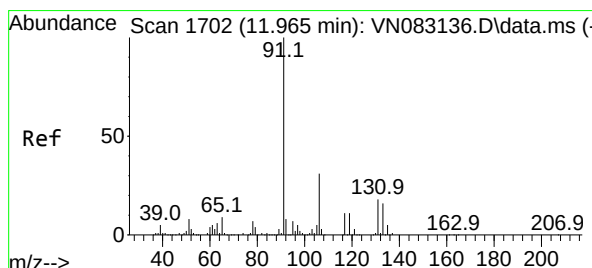
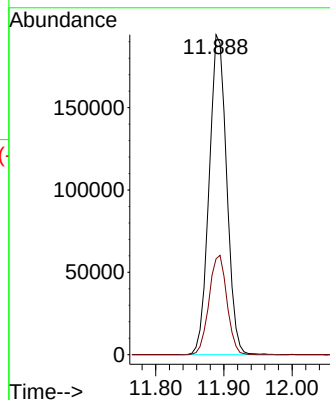
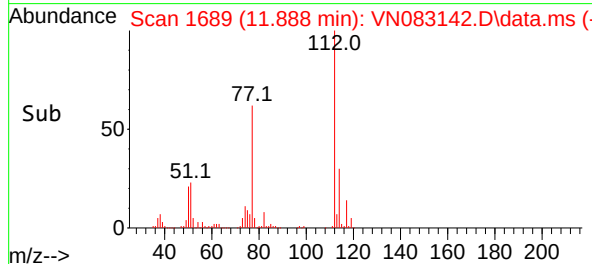
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



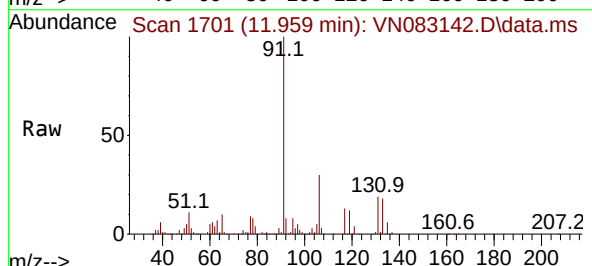
Tgt Ion:112 Resp: 347560  
Ion Ratio Lower Upper  
112 100  
114 29.9 26.2 39.2

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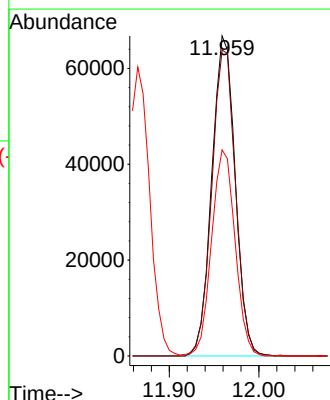
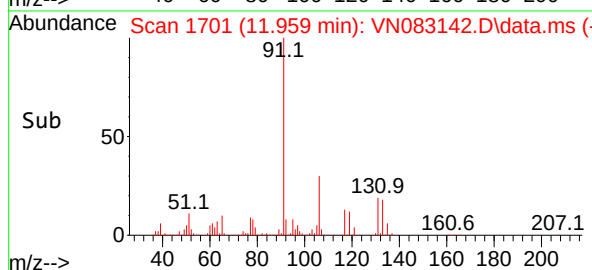
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

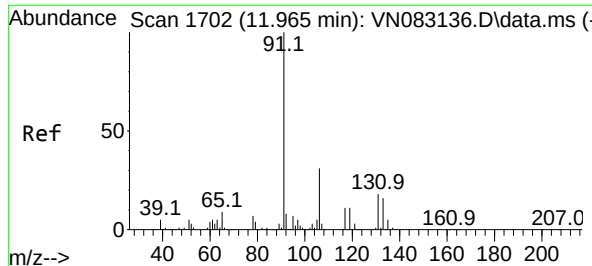


#66  
1,1,1,2-Tetrachloroethane  
Concen: 46.843 ug/l  
RT: 11.959 min Scan# 1701  
Delta R.T. -0.006 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49



Tgt Ion:131 Resp: 120826  
Ion Ratio Lower Upper  
131 100  
133 97.1 47.3 142.0  
119 64.8 32.5 97.4





#67

Ethyl Benzene

Concen: 47.764 ug/l

RT: 11.965 min Scan# 1702

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion: 91 Resp: 64082

Ion Ratio Lower Upper

91 100

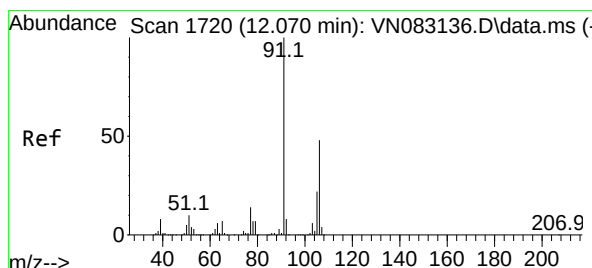
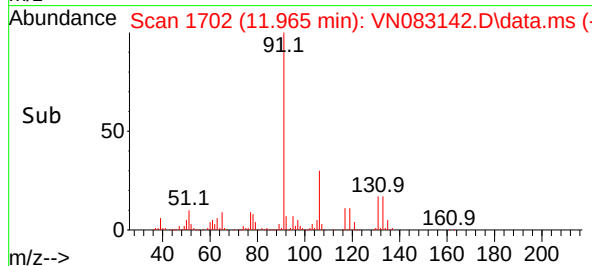
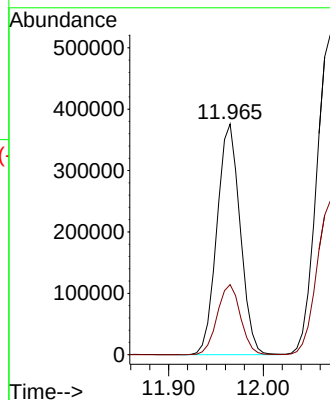
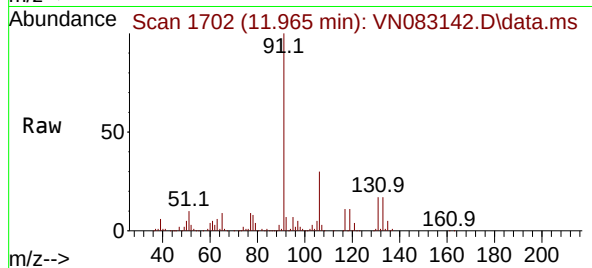
106 30.4 24.0 36.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#68

m/p-Xylenes

Concen: 96.434 ug/l

RT: 12.071 min Scan# 1720

Delta R.T. 0.000 min

Lab File: VN083142.D

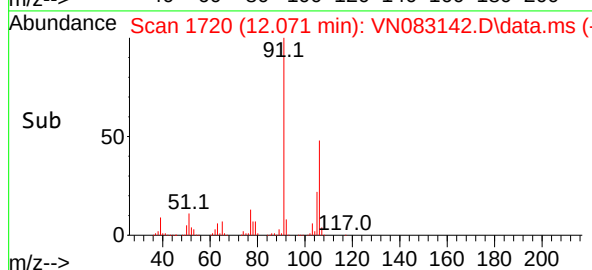
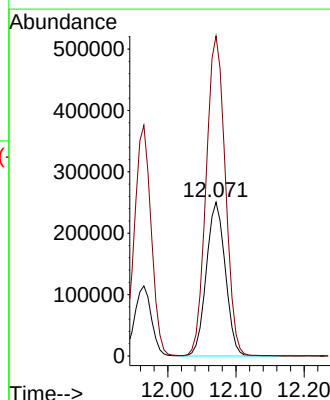
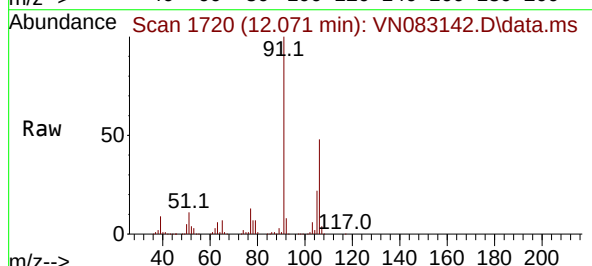
Acq: 07 Aug 2024 14:49

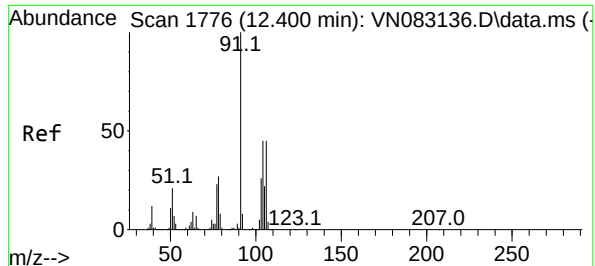
Tgt Ion:106 Resp: 484653

Ion Ratio Lower Upper

106 100

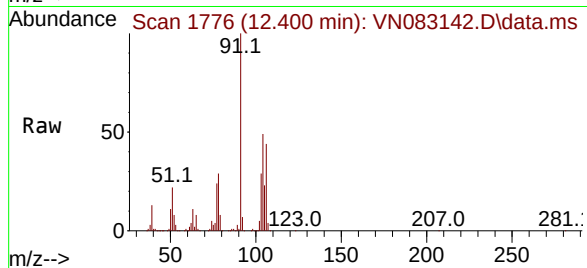
91 210.2 166.1 249.1





#69  
o-Xylene  
Concen: 46.662 ug/l  
RT: 12.400 min Scan# 1776  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

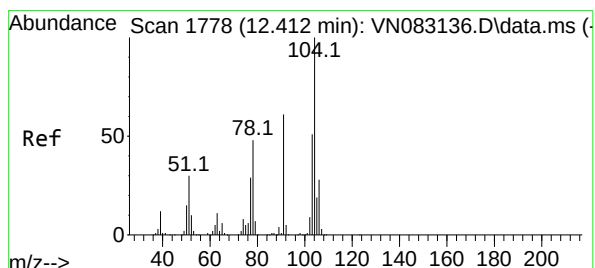
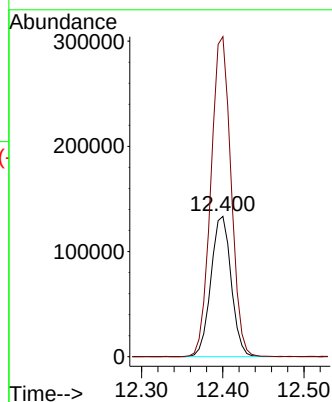
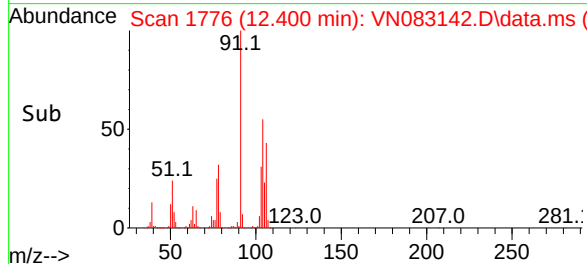
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion:106 Resp: 231292  
Ion Ratio Lower Upper  
106 100  
91 227.0 111.3 333.9

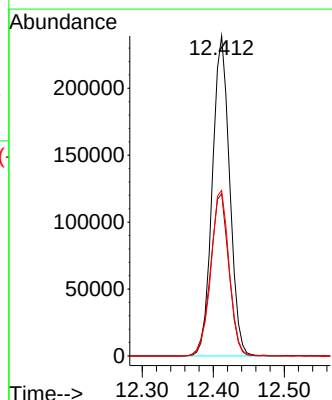
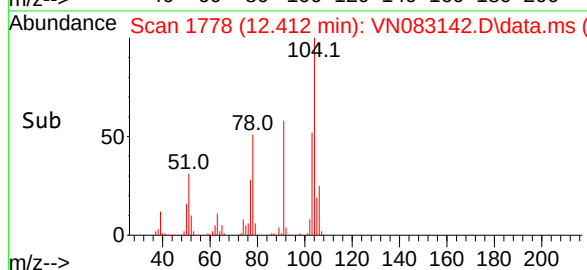
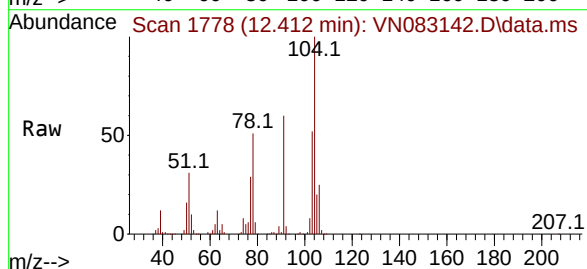
Manual Integrations  
APPROVED

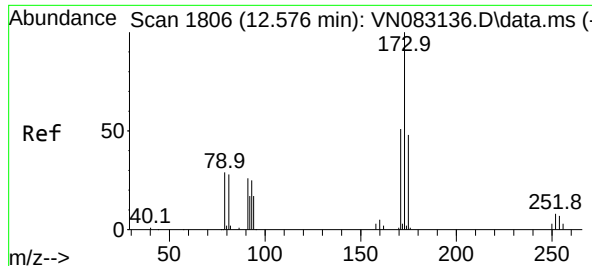
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#70  
Styrene  
Concen: 48.487 ug/l  
RT: 12.412 min Scan# 1778  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

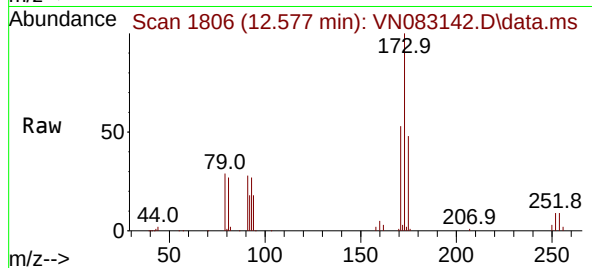
Tgt Ion:104 Resp: 403657  
Ion Ratio Lower Upper  
104 100  
78 53.9 41.6 62.4  
103 54.6 44.0 66.0





#71  
Bromoform  
Concen: 47.797 ug/l  
RT: 12.577 min Scan# 1806  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

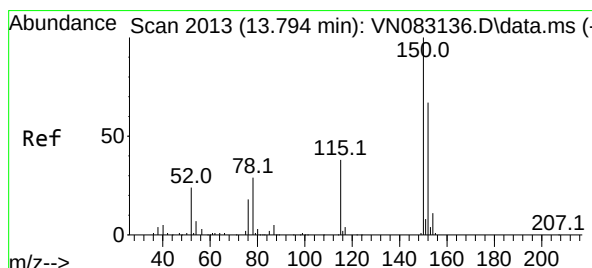
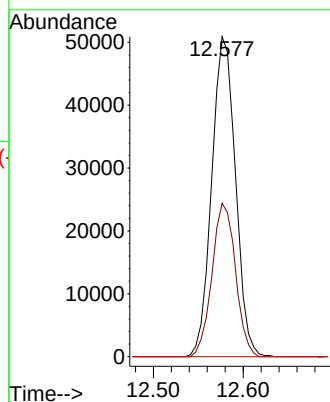
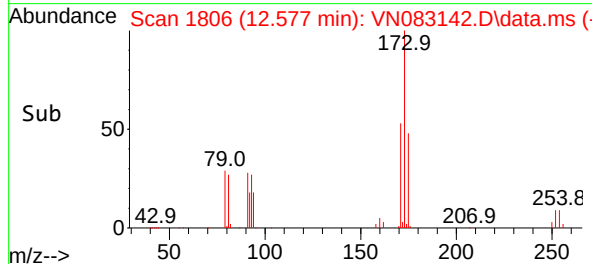
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



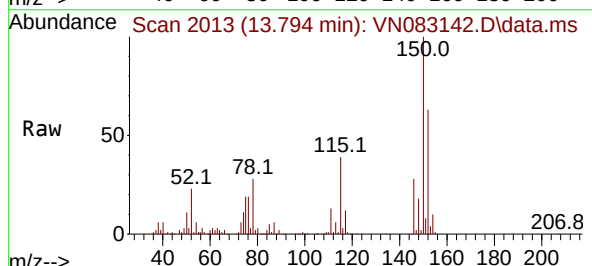
Tgt Ion:173 Resp: 9339  
Ion Ratio Lower Upper  
173 100  
175 47.4 24.0 72.0  
254 0.0 0.0 0.0

Manual Integrations  
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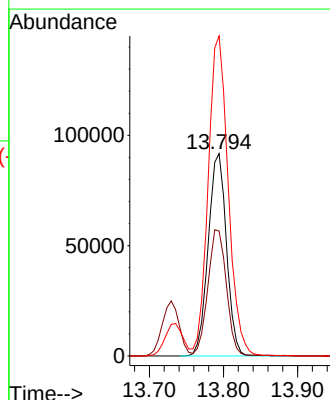
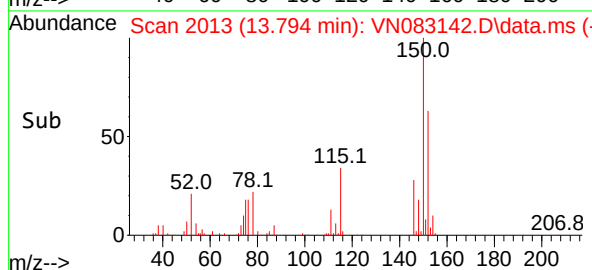
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

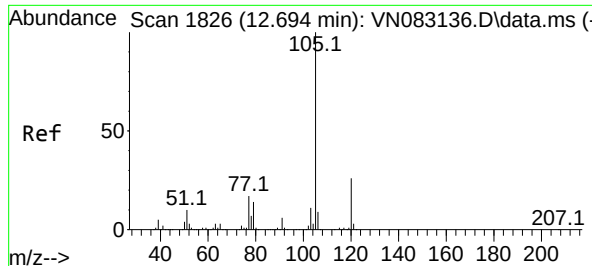


#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.794 min Scan# 2013  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49



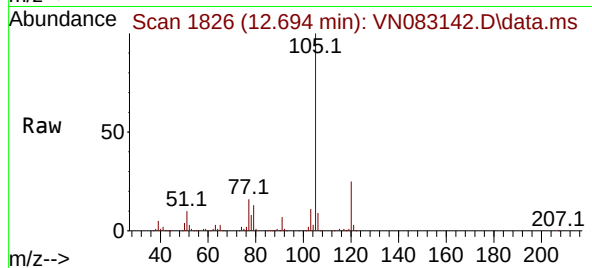
Tgt Ion:152 Resp: 157193  
Ion Ratio Lower Upper  
152 100  
115 63.3 30.6 91.6  
150 172.2 0.0 348.6





#73  
Isopropylbenzene  
Concen: 46.893 ug/l  
RT: 12.694 min Scan# 1826  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

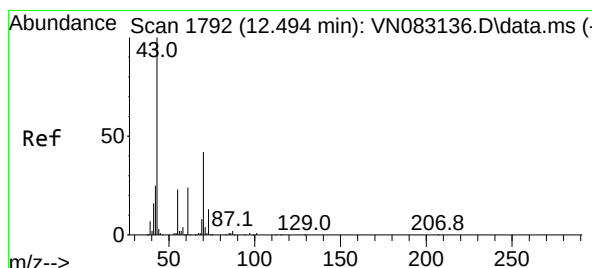
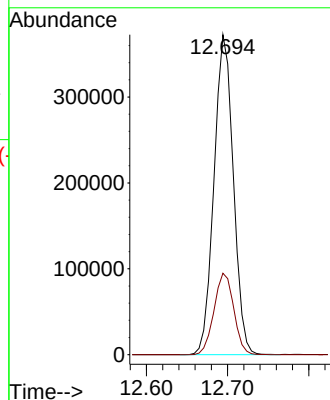
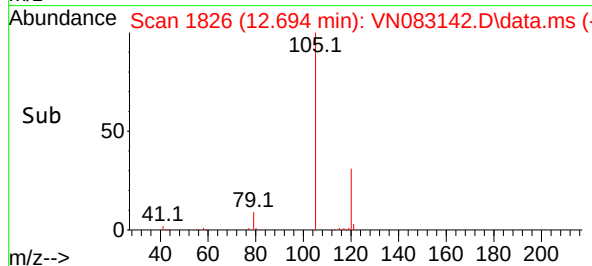
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion:105 Resp: 616544  
Ion Ratio Lower Upper  
105 100  
120 26.0 12.9 38.6

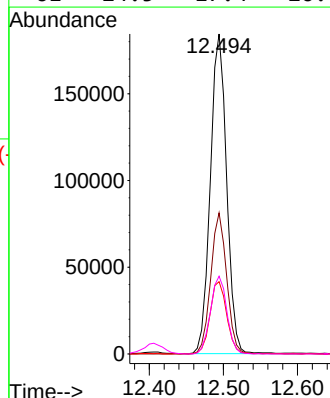
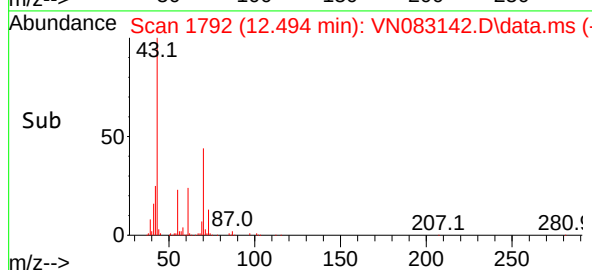
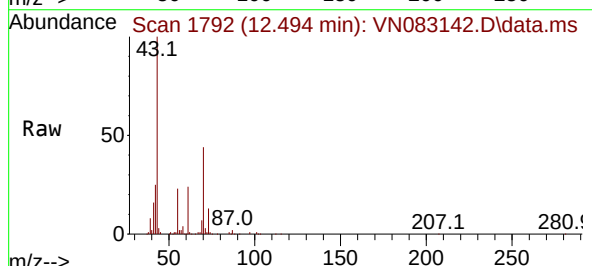
Manual Integrations  
APPROVED

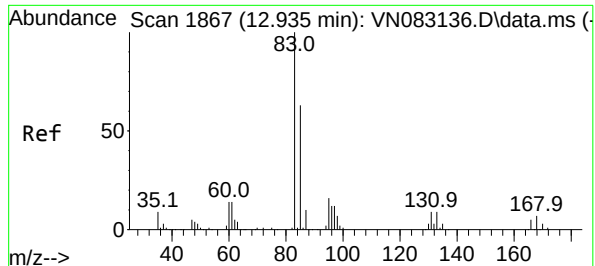
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#74  
N-ethyl acetate  
Concen: 43.748 ug/l  
RT: 12.494 min Scan# 1792  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

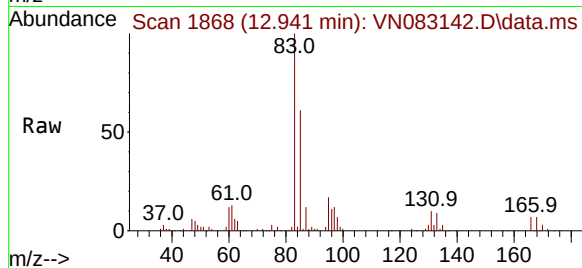
Tgt Ion: 43 Resp: 281352  
Ion Ratio Lower Upper  
43 100  
70 43.1 29.8 44.6  
55 23.3 18.7 28.1  
61 24.5 17.4 26.0





#75  
1,1,2,2-Tetrachloroethane  
Concen: 43.016 ug/l  
RT: 12.941 min Scan# 1868  
Delta R.T. 0.006 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

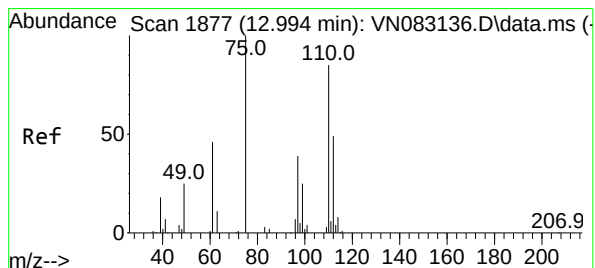
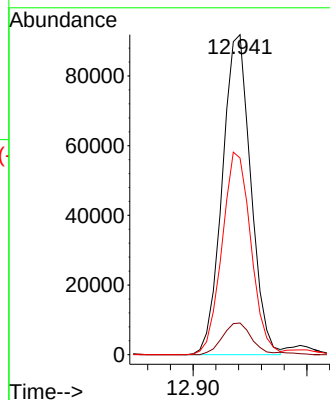
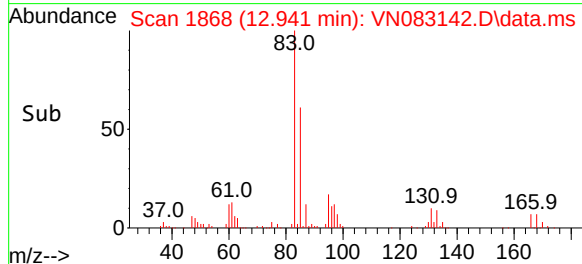
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion: 83 Resp: 159962  
Ion Ratio Lower Upper  
83 100  
131 10.6 5.0 14.9  
85 64.5 31.9 95.7

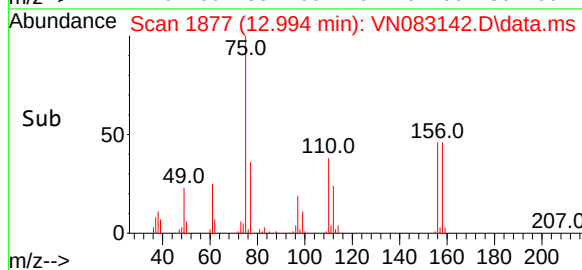
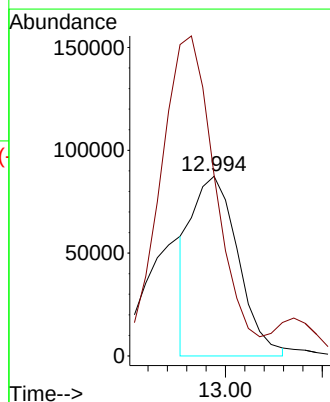
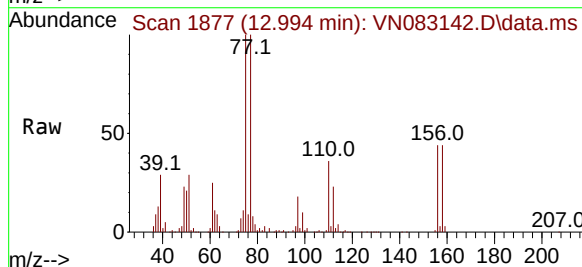
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024

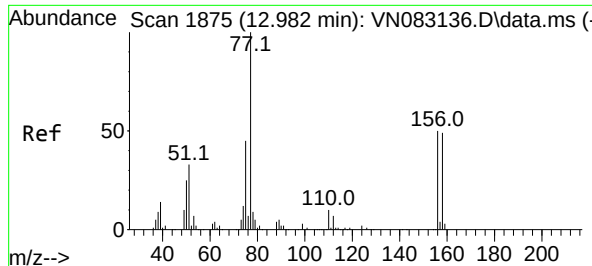


#76  
1,2,3-Trichloropropane  
Concen: 42.119 ug/l m  
RT: 12.994 min Scan# 1877  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Tgt Ion: 75 Resp: 145309  
Ion Ratio Lower Upper  
75 100  
77 214.8 110.9 332.6

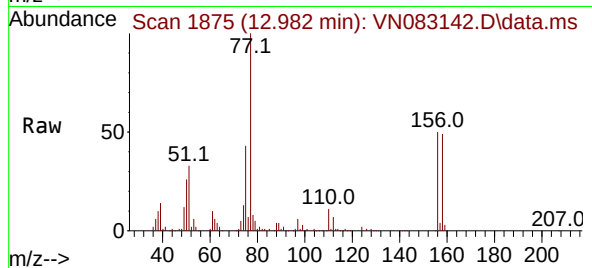






#77  
Bromobenzene  
Concen: 46.649 ug/l  
RT: 12.982 min Scan# 1875  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

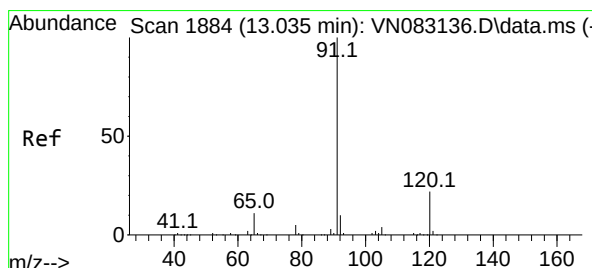
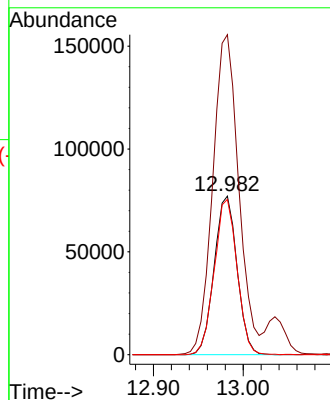
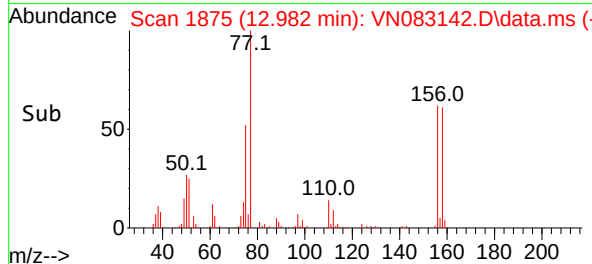
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion:156 Resp: 136249  
Ion Ratio Lower Upper  
156 100  
77 229.1 111.3 333.8  
158 98.0 48.3 144.9

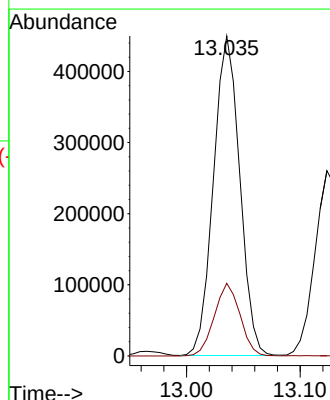
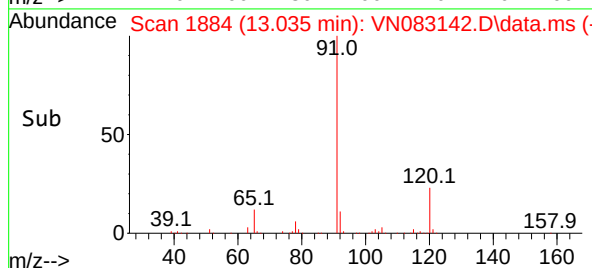
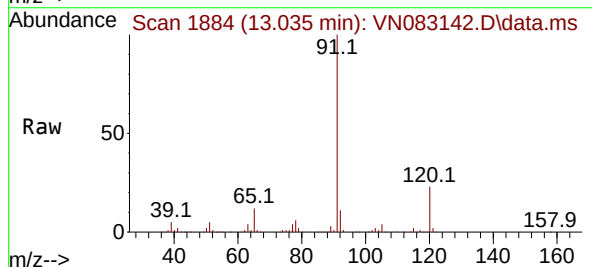
Manual Integrations  
APPROVED

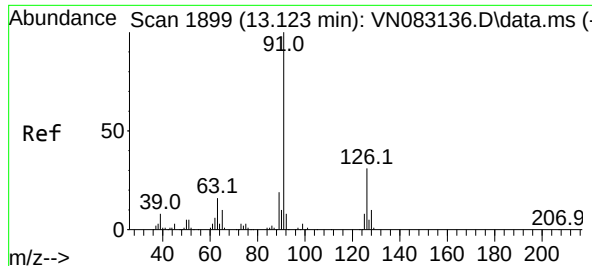
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#78  
n-propylbenzene  
Concen: 47.678 ug/l  
RT: 13.035 min Scan# 1884  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Tgt Ion: 91 Resp: 721825  
Ion Ratio Lower Upper  
91 100  
120 22.2 10.9 32.9





#79

2-Chlorotoluene

Concen: 46.398 ug/l

RT: 13.124 min Scan# 1899

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion: 91 Resp: 44535

Ion Ratio Lower Upper

91 100

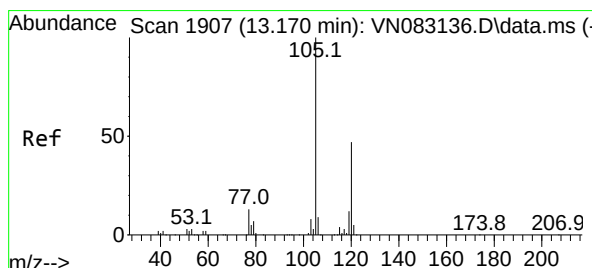
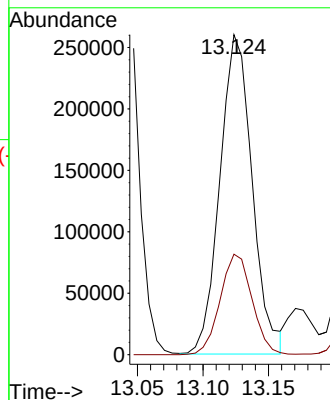
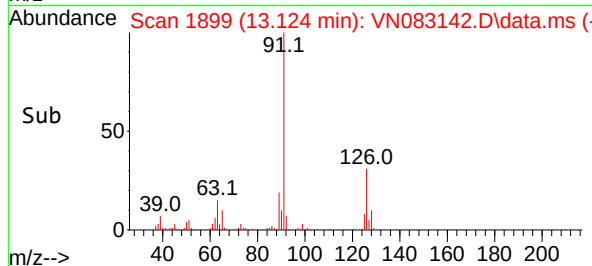
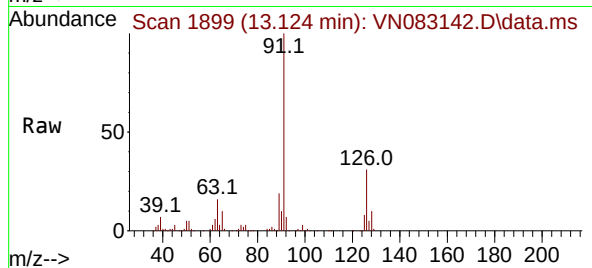
126 31.1 16.2 48.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#80

1,3,5-Trimethylbenzene

Concen: 47.673 ug/l

RT: 13.171 min Scan# 1907

Delta R.T. 0.000 min

Lab File: VN083142.D

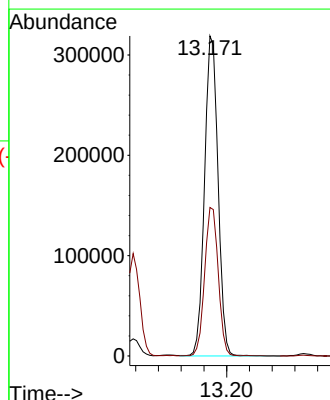
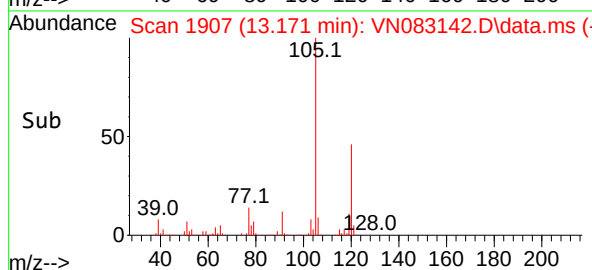
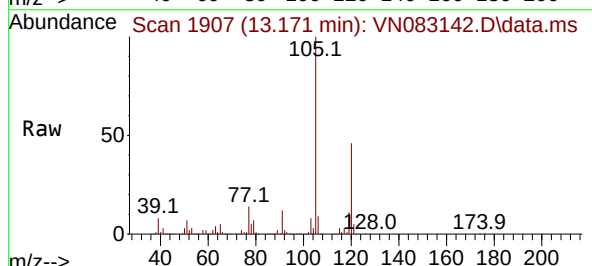
Acq: 07 Aug 2024 14:49

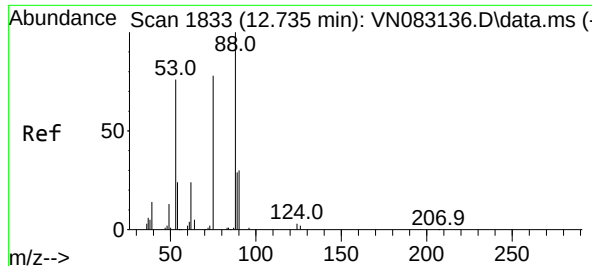
Tgt Ion:105 Resp: 524769

Ion Ratio Lower Upper

105 100

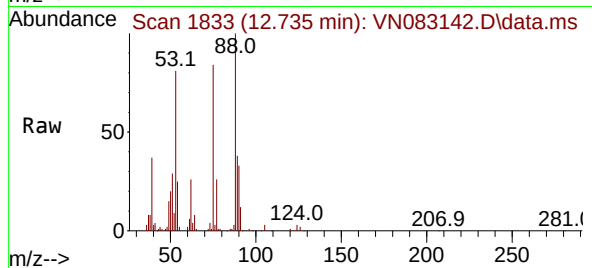
120 46.9 24.3 72.8





#81  
trans-1,4-Dichloro-2-butene  
Concen: 47.070 ug/l  
RT: 12.735 min Scan# 1833  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

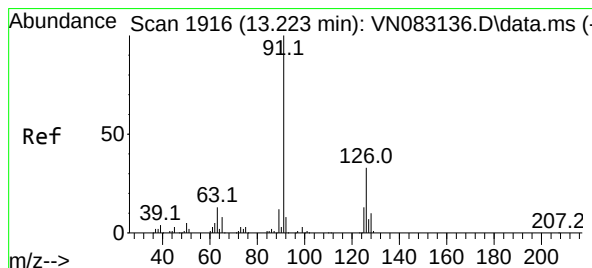
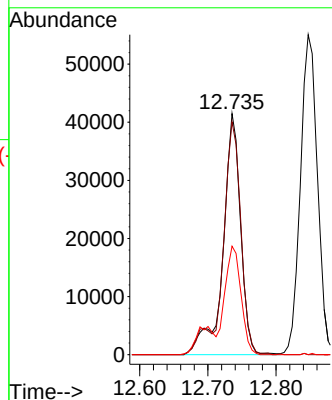
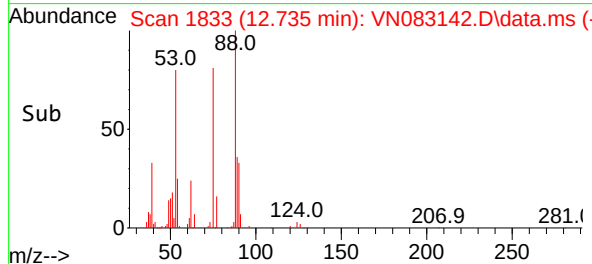
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion: 75 Resp: 74654  
Ion Ratio Lower Upper  
75 100  
53 89.6 88.4 132.6  
89 41.1 36.3 54.5

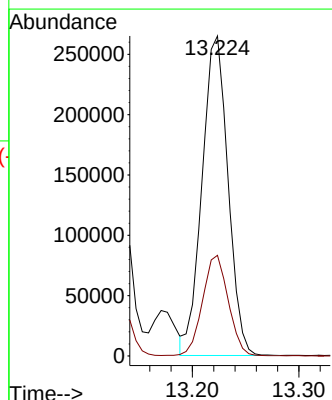
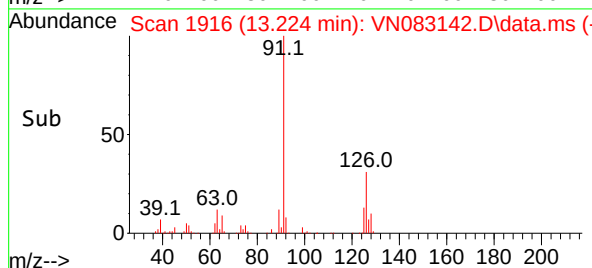
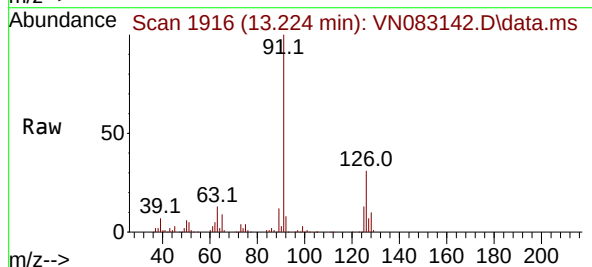
Manual Integrations  
APPROVED

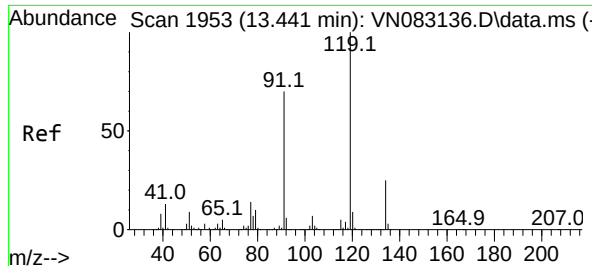
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#82  
4-Chlorotoluene  
Concen: 46.512 ug/l  
RT: 13.224 min Scan# 1916  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

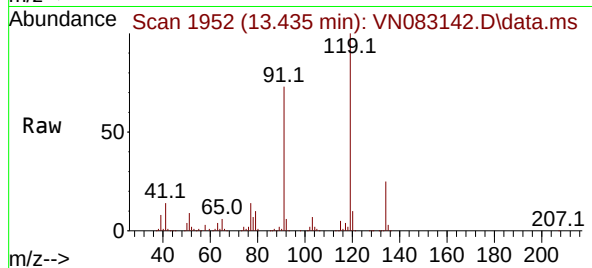
Tgt Ion: 91 Resp: 447810  
Ion Ratio Lower Upper  
91 100  
126 31.2 16.2 48.6





#83  
tert-Butylbenzene  
Concen: 46.173 ug/l  
RT: 13.435 min Scan# 1953  
Delta R.T. -0.006 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

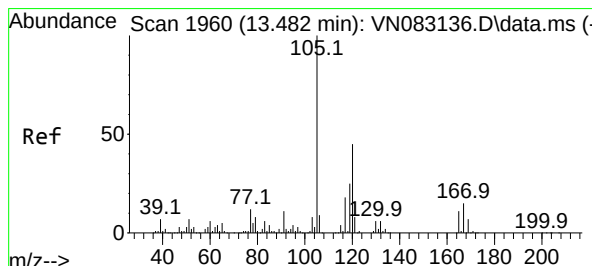
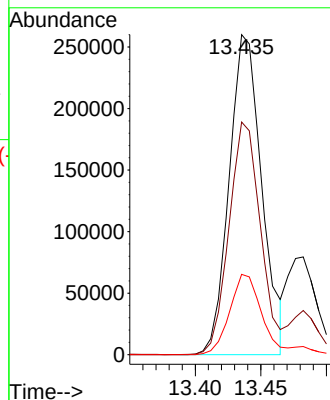
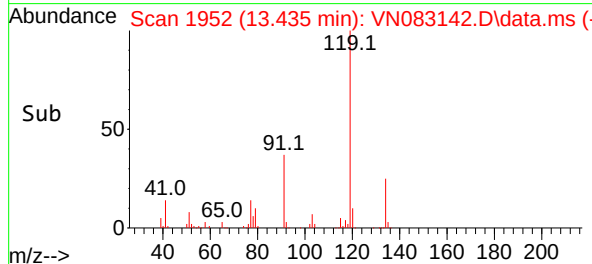
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion:119 Resp: 450104  
Ion Ratio Lower Upper  
119 100  
91 70.4 35.0 105.1  
134 24.4 13.3 39.8

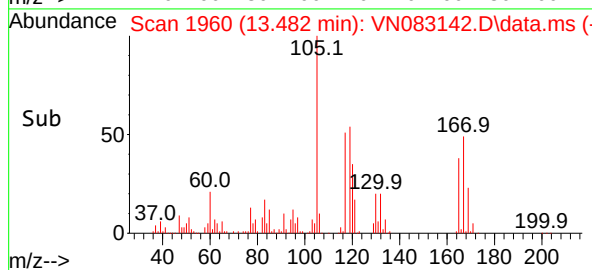
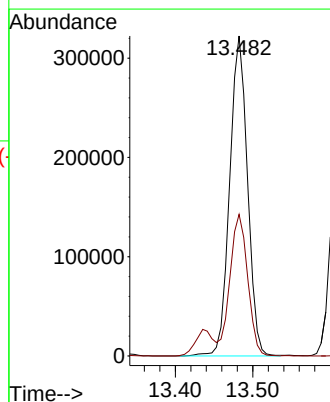
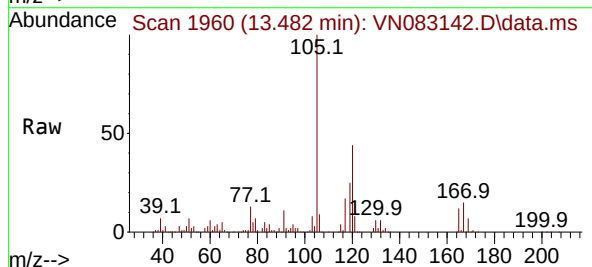
Manual Integrations  
APPROVED

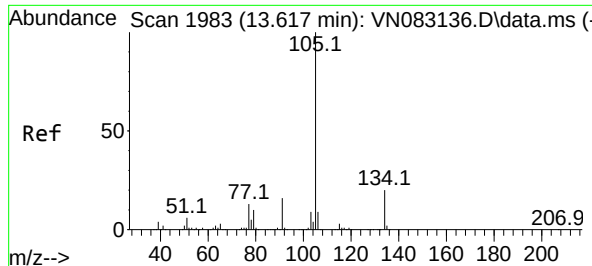
Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#84  
1,2,4-Trimethylbenzene  
Concen: 46.493 ug/l  
RT: 13.482 min Scan# 1960  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Tgt Ion:105 Resp: 515759  
Ion Ratio Lower Upper  
105 100  
120 44.4 21.9 65.8





#85

sec-Butylbenzene

Concen: 47.018 ug/l

RT: 13.618 min Scan# 1983

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion:105 Resp: 625404

Ion Ratio Lower Upper

105 100

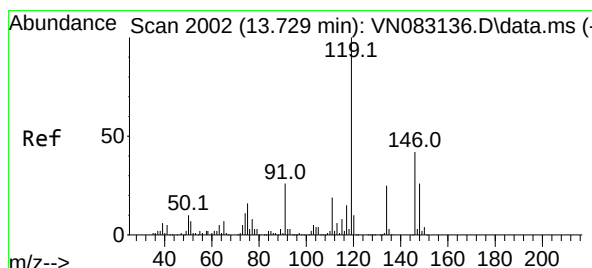
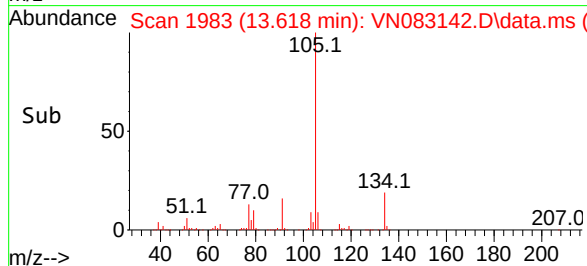
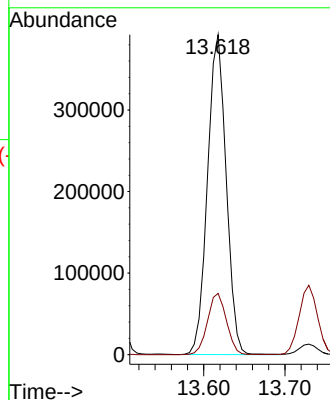
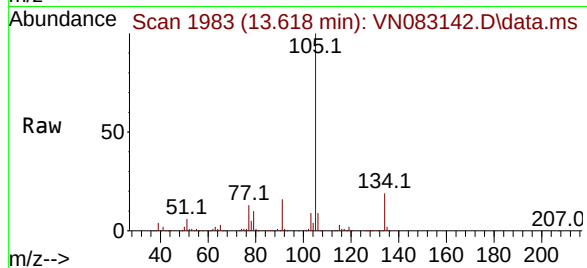
134 19.5 9.8 29.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#86

p-Isopropyltoluene

Concen: 47.566 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

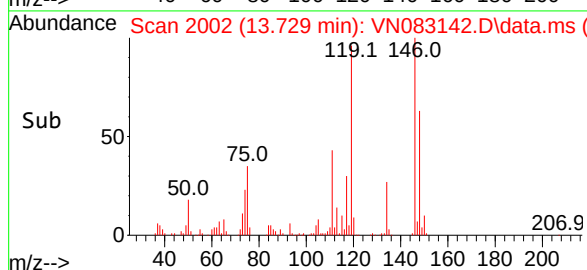
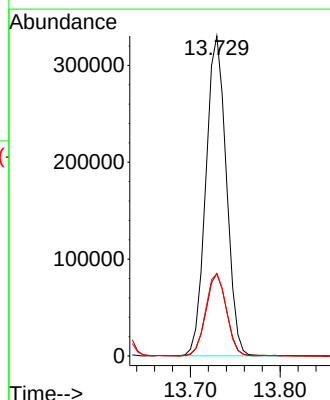
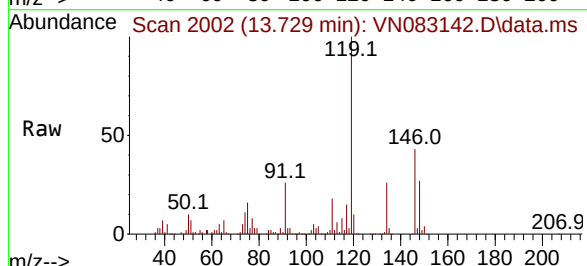
Tgt Ion:119 Resp: 522411

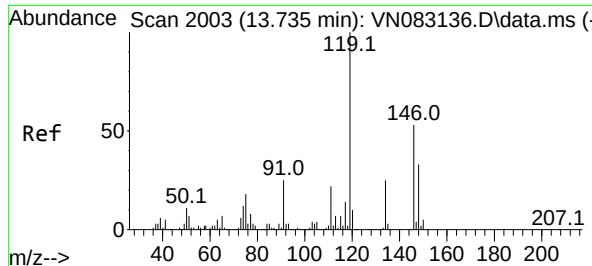
Ion Ratio Lower Upper

119 100

134 25.6 13.0 39.0

91 25.9 12.3 36.9





#87

1,3-Dichlorobenzene

Concen: 45.959 ug/l

RT: 13.735 min Scan# 2003

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion:146 Resp: 252579

Ion Ratio Lower Upper

146 100

111 43.4 20.6 61.9

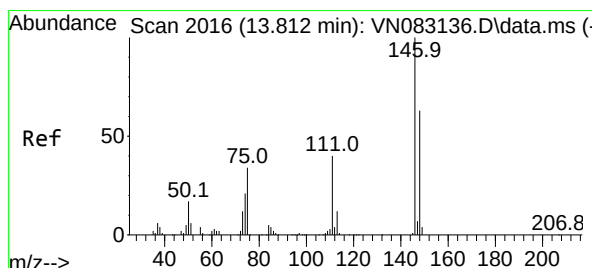
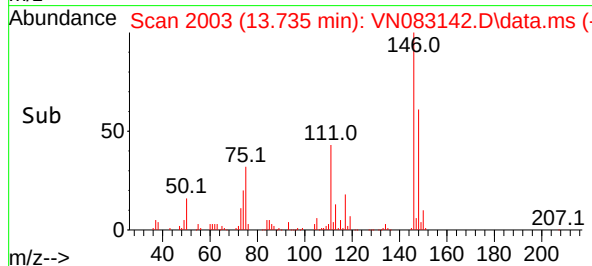
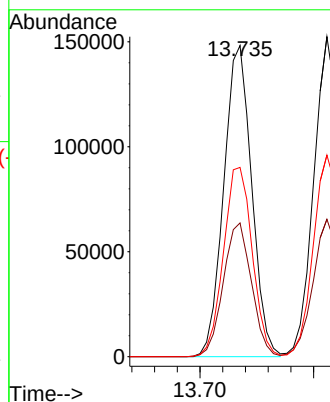
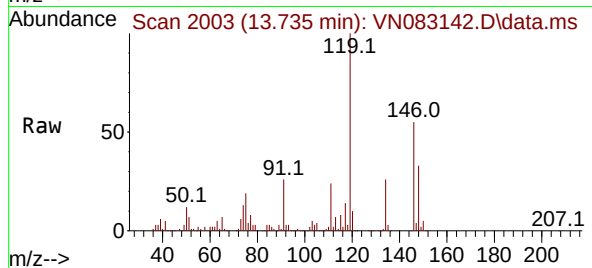
148 62.8 31.8 95.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#88

1,4-Dichlorobenzene

Concen: 45.499 ug/l

RT: 13.812 min Scan# 2016

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

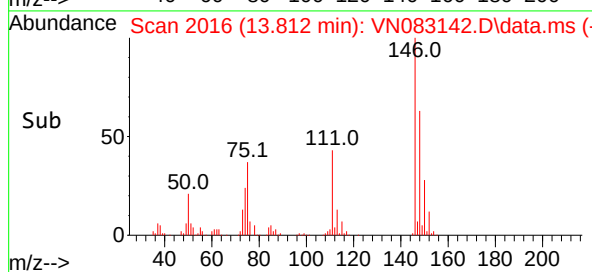
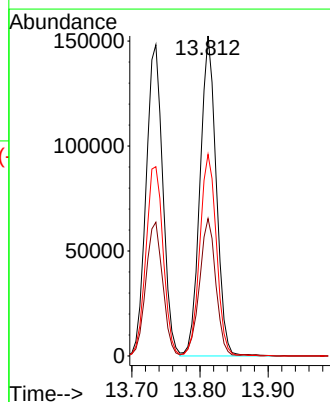
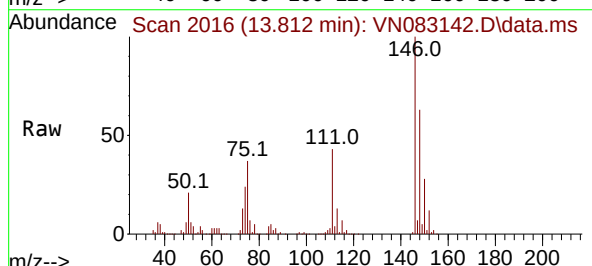
Tgt Ion:146 Resp: 252088

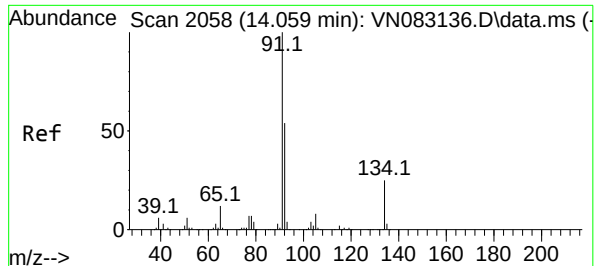
Ion Ratio Lower Upper

146 100

111 42.6 20.1 60.3

148 64.5 32.2 96.6





#89

n-Butylbenzene

Concen: 48.489 ug/l

RT: 14.059 min Scan# 2058

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

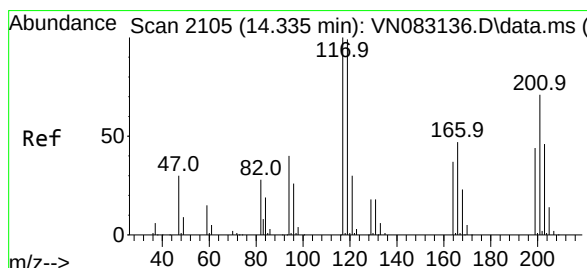
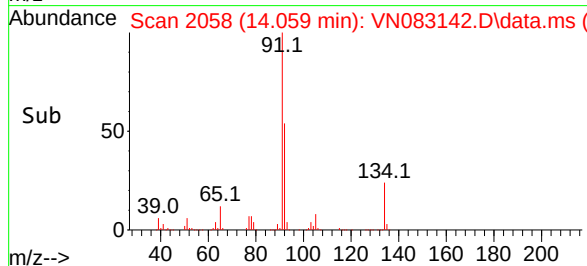
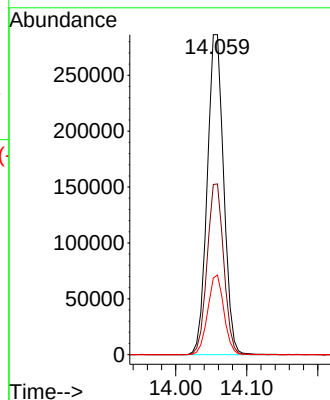
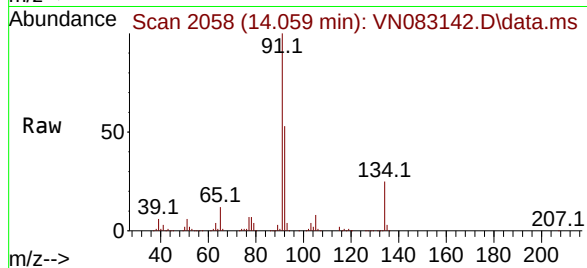
ICVVN080724

| Tgt Ion:  | 91    | Resp: | 461440 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 91        | 100   |       |        |
| 92        | 53.9  | 26.1  | 78.3   |
| 134       | 24.5  | 12.1  | 36.3   |

**Manual Integrations**  
**APPROVED**

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#90

Hexachloroethane

Concen: 46.741 ug/l

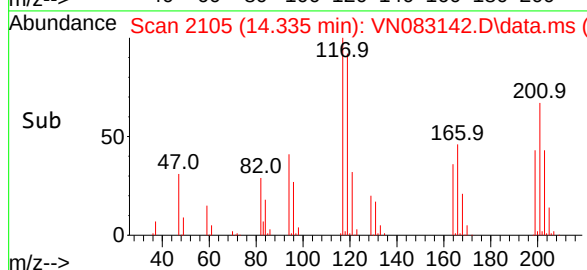
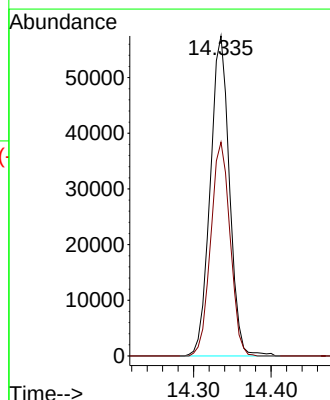
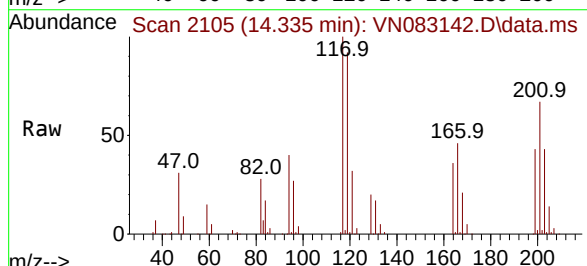
RT: 14.335 min Scan# 2105

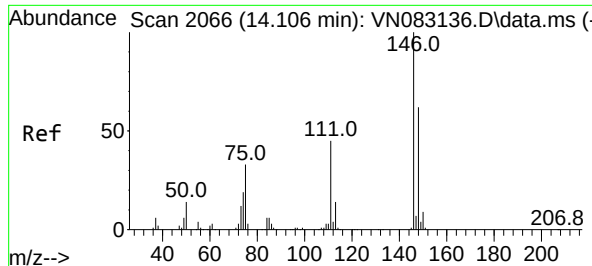
Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

| Tgt Ion:  | 117   | Resp: | 99176 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 117       | 100   |       |       |
| 201       | 67.3  | 35.8  | 107.3 |





#91

1,2-Dichlorobenzene

Concen: 45.255 ug/l

RT: 14.106 min Scan# 2066

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

Tgt Ion:146 Resp: 24067

Ion Ratio Lower Upper

146 100

111 45.2 21.4 64.2

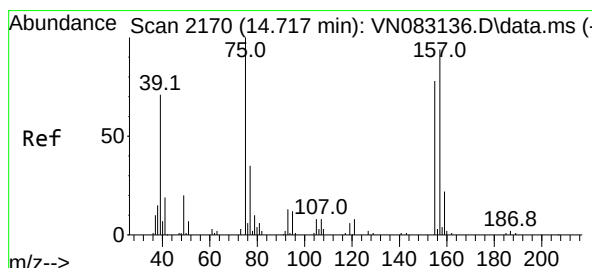
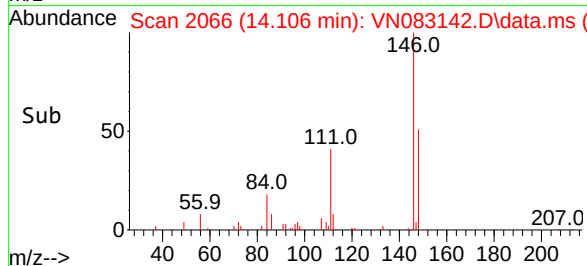
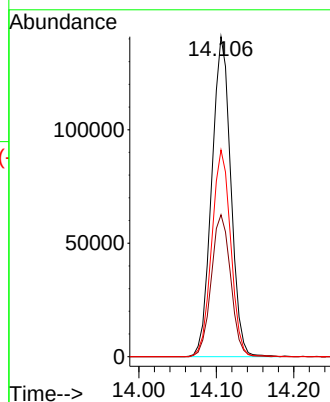
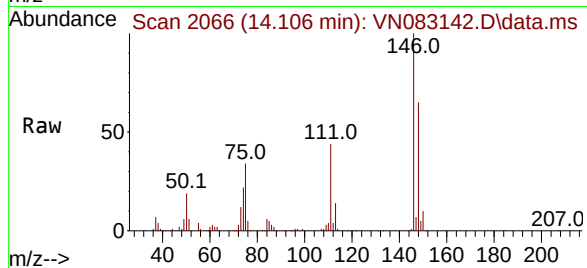
148 64.4 32.1 96.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#92

1,2-Dibromo-3-Chloropropane

Concen: 41.753 ug/l

RT: 14.723 min Scan# 2171

Delta R.T. 0.006 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

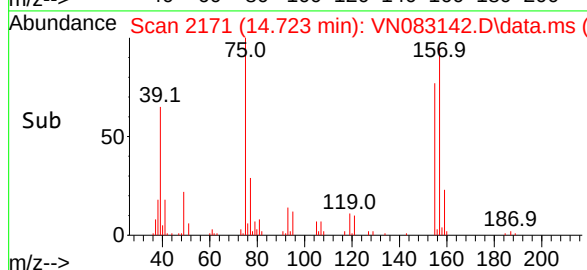
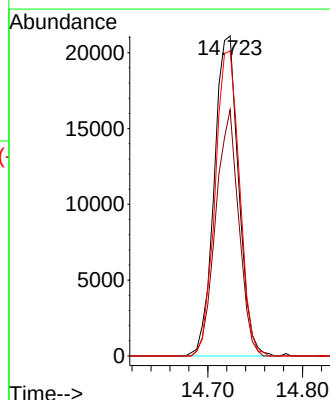
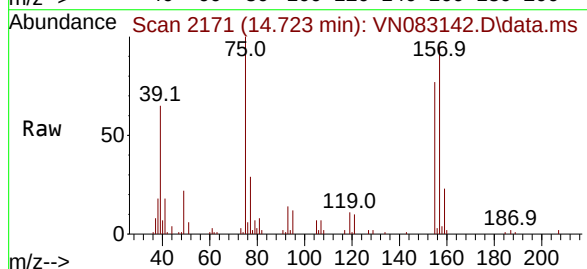
Tgt Ion: 75 Resp: 37677

Ion Ratio Lower Upper

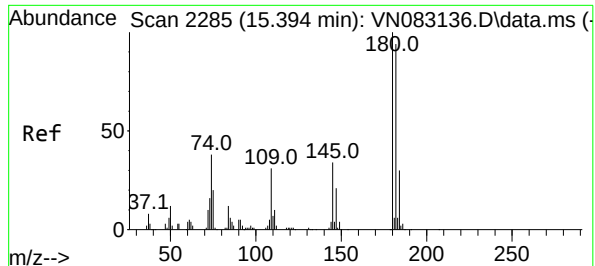
75 100

155 72.8 36.6 109.8

157 95.3 46.9 140.6







#93

1,2,4-Trichlorobenzene

Concen: 46.054 ug/l

RT: 15.394 min Scan# 2285

Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

Instrument :

MSVOA\_N

ClientSampleId :

ICVVN080724

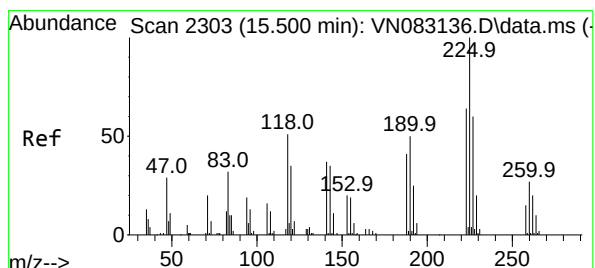
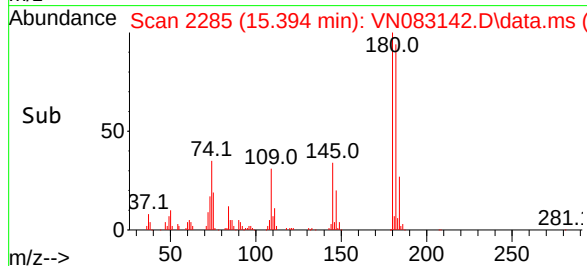
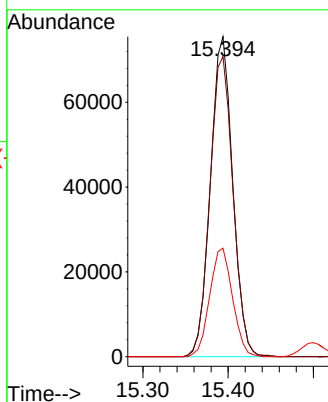
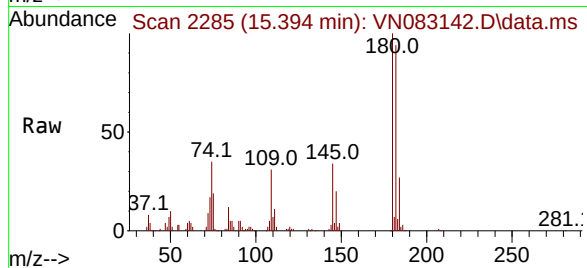
|             |       |            |
|-------------|-------|------------|
| Tgt Ion:180 | Resp: | 137214     |
| Ion Ratio   | Lower | Upper      |
| 180         | 100   |            |
| 182         | 97.2  | 47.3 141.8 |
| 145         | 34.6  | 15.7 47.1  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 08/08/2024

Supervised By :Mahesh Dadoda 08/09/2024



#94

Hexachlorobutadiene

Concen: 43.315 ug/l

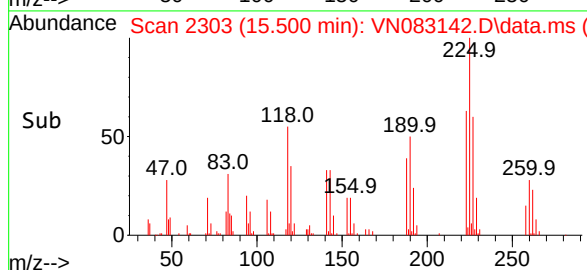
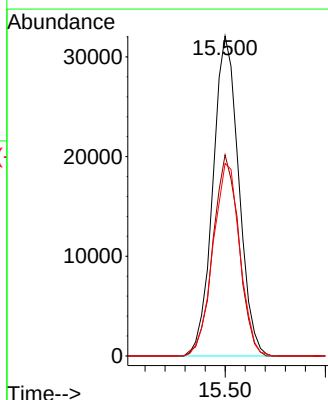
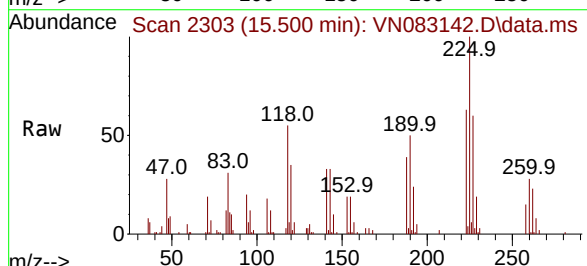
RT: 15.500 min Scan# 2303

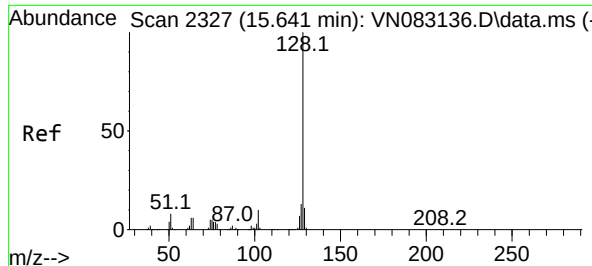
Delta R.T. 0.000 min

Lab File: VN083142.D

Acq: 07 Aug 2024 14:49

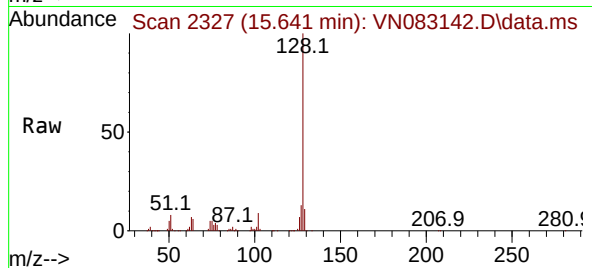
|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:225 | Resp: | 57394     |
| Ion Ratio   | Lower | Upper     |
| 225         | 100   |           |
| 223         | 63.3  | 31.9 95.7 |
| 227         | 62.6  | 32.5 97.5 |





#95  
Naphthalene  
Concen: 44.692 ug/l  
RT: 15.641 min Scan# 2327  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

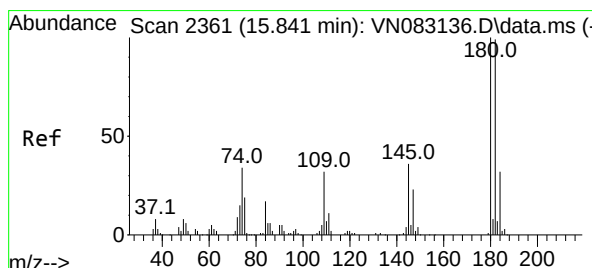
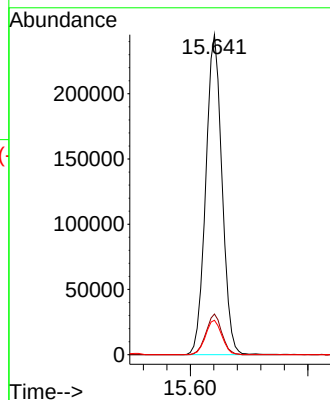
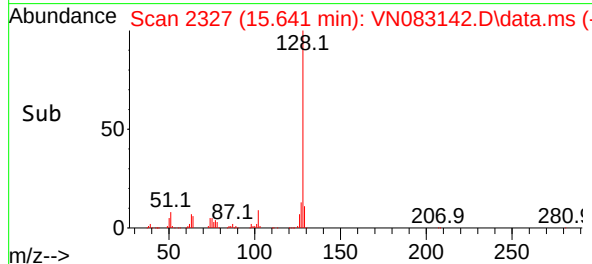
Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724



Tgt Ion:128 Resp: 471674  
Ion Ratio Lower Upper  
128 100  
127 12.4 10.6 16.0  
129 10.8 8.6 12.8

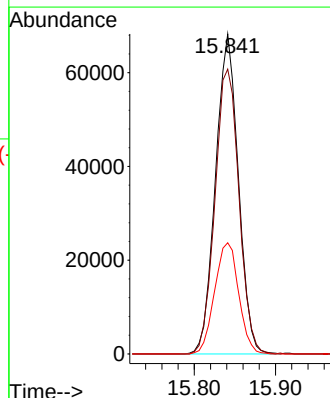
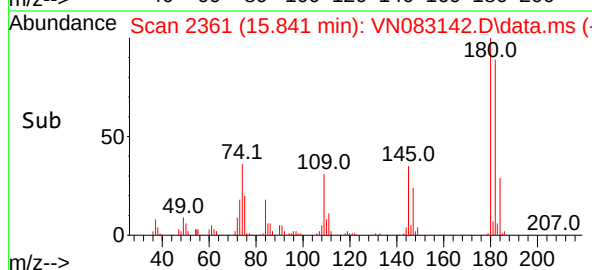
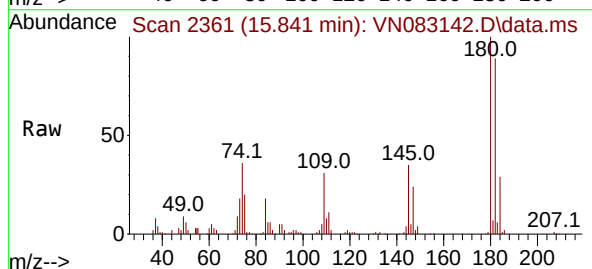
Manual Integrations  
APPROVED

Reviewed By :John Carlone 08/08/2024  
Supervised By :Mahesh Dadoda 08/09/2024



#96  
1,2,3-Trichlorobenzene  
Concen: 45.221 ug/l  
RT: 15.841 min Scan# 2361  
Delta R.T. 0.000 min  
Lab File: VN083142.D  
Acq: 07 Aug 2024 14:49

Tgt Ion:180 Resp: 133315  
Ion Ratio Lower Upper  
180 100  
182 93.7 48.9 146.8  
145 36.6 16.8 50.4



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083142.D  
Acq On : 07 Aug 2024 14:49  
Operator : JC\MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724

Quant Time: Aug 08 06:35:30 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
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   | 109   | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 0.567 | 0.534 | 5.8   | 102   | 0.00     |
| 3 P   | Chloromethane               | 0.581 | 0.537 | 7.6   | 99    | 0.00     |
| 4 C   | Vinyl Chloride              | 0.592 | 0.544 | 8.1#  | 99    | 0.00     |
| 5 T   | Bromomethane                | 0.368 | 0.316 | 14.1  | 97    | 0.00     |
| 6 T   | Chloroethane                | 0.371 | 0.324 | 12.7  | 99    | 0.00     |
| 7 T   | Trichlorofluoromethane      | 0.979 | 0.922 | 5.8   | 101   | 0.00     |
| 8 T   | Diethyl Ether               | 0.364 | 0.337 | 7.4   | 100   | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 0.539 | 0.509 | 5.6   | 101   | 0.00     |
| 10 T  | Methyl Iodide               | 0.710 | 0.672 | 5.4   | 99    | 0.00     |
| 11 T  | Tert butyl alcohol          | 0.148 | 0.123 | 16.9  | 92    | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 0.554 | 0.505 | 8.8#  | 101   | 0.00     |
| 13 T  | Acrolein                    | 0.096 | 0.084 | 12.5  | 90    | 0.00     |
| 14 T  | Allyl chloride              | 1.047 | 0.862 | 17.7  | 101   | 0.00     |
| 15 T  | Acrylonitrile               | 0.304 | 0.265 | 12.8  | 95    | 0.00     |
| 16 T  | Acetone                     | 0.278 | 0.235 | 15.5  | 90    | 0.00     |
| 17 T  | Carbon Disulfide            | 1.622 | 1.417 | 12.6  | 99    | 0.00     |
| 18 T  | Methyl Acetate              | 0.830 | 0.704 | 15.2  | 99    | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 2.001 | 1.872 | 6.4   | 101   | 0.00     |
| 20 T  | Methylene Chloride          | 0.641 | 0.559 | 12.8  | 102   | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 0.573 | 0.523 | 8.7   | 99    | -0.01    |
| 22 T  | Diisopropyl ether           | 1.969 | 1.846 | 6.2   | 100   | 0.00     |
| 23 T  | Vinyl Acetate               | 2.018 | 1.900 | 5.8   | 99    | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 1.073 | 1.002 | 6.6   | 101   | 0.00     |
| 25 T  | 2-Butanone                  | 0.428 | 0.362 | 15.4  | 93    | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 0.997 | 0.954 | 4.3   | 102   | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 0.691 | 0.638 | 7.7   | 101   | 0.00     |
| 28 T  | Bromochloromethane          | 0.439 | 0.403 | 8.2   | 100   | 0.00     |
| 29 T  | Tetrahydrofuran             | 0.276 | 0.246 | 10.9  | 96    | 0.00     |
| 30 C  | Chloroform                  | 1.115 | 1.057 | 5.2#  | 101   | 0.00     |
| 31 T  | Cyclohexane                 | 1.055 | 0.917 | 13.1  | 102   | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 1.055 | 0.995 | 5.7   | 101   | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 0.712 | 0.720 | -1.1  | 105   | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 1.000 | 1.000 | 0.0   | 109   | 0.00     |
| 35 S  | Dibromofluoromethane        | 0.312 | 0.322 | -3.2  | 106   | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 0.472 | 0.451 | 4.4   | 103   | 0.00     |
| 37 T  | Ethyl Acetate               | 0.529 | 0.456 | 13.8  | 100   | 0.00     |
| 38 T  | Carbon Tetrachloride        | 0.532 | 0.509 | 4.3   | 102   | 0.00     |
| 39 T  | Methylcyclohexane           | 0.580 | 0.555 | 4.3   | 101   | 0.00     |
| 40 TM | Benzene                     | 1.406 | 1.340 | 4.7   | 101   | 0.00     |
| 41 T  | Methacrylonitrile           | 0.301 | 0.259 | 14.0  | 99    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 0.512 | 0.485 | 5.3   | 102   | 0.00     |
| 43 T  | Isopropyl Acetate           | 1.211 | 0.841 | 30.6# | 100   | 0.00     |
| 44 TM | Trichloroethene             | 0.335 | 0.321 | 4.2   | 102   | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 0.334 | 0.322 | 3.6#  | 101   | 0.00     |
| 46 T  | Dibromomethane              | 0.239 | 0.225 | 5.9   | 98    | 0.00     |
| 47 T  | Bromodichloromethane        | 0.537 | 0.505 | 6.0   | 102   | 0.00     |
| 48 T  | Methyl methacrylate         | 0.437 | 0.390 | 10.8  | 100   | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083142.D  
Acq On : 07 Aug 2024 14:49  
Operator : JC\MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724

Quant Time: Aug 08 06:35:30 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
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                 | 0.008 | 0.007 | 12.5 | 93    | 0.00     |
| 50 S  | Toluene-d8                  | 1.164 | 1.215 | -4.4 | 105   | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 0.500 | 0.462 | 7.6  | 97    | 0.00     |
| 52 CM | Toluene                     | 0.889 | 0.862 | 3.0# | 101   | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 0.551 | 0.549 | 0.4  | 100   | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 0.586 | 0.568 | 3.1  | 102   | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 0.318 | 0.308 | 3.1  | 101   | 0.00     |
| 56 T  | Ethyl methacrylate          | 0.600 | 0.569 | 5.2  | 99    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 0.568 | 0.538 | 5.3  | 99    | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 0.254 | 0.249 | 2.0  | 104   | 0.00     |
| 59 T  | 2-Hexanone                  | 0.387 | 0.348 | 10.1 | 96    | 0.00     |
| 60 T  | Dibromochloromethane        | 0.385 | 0.381 | 1.0  | 100   | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 0.335 | 0.315 | 6.0  | 99    | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 0.454 | 0.477 | -5.1 | 106   | 0.00     |
| 63 I  | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0  | 109   | 0.00     |
| 64 T  | Tetrachloroethene           | 0.331 | 0.319 | 3.6  | 102   | 0.00     |
| 65 PM | Chlorobenzene               | 1.105 | 1.050 | 5.0  | 100   | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 0.390 | 0.365 | 6.4  | 100   | 0.00     |
| 67 C  | Ethyl Benzene               | 2.027 | 1.936 | 4.5# | 102   | 0.00     |
| 68 T  | m/p-Xylenes                 | 0.759 | 0.732 | 3.6  | 102   | 0.00     |
| 69 T  | o-Xylene                    | 0.749 | 0.699 | 6.7  | 99    | 0.00     |
| 70 T  | Styrene                     | 1.258 | 1.220 | 3.0  | 100   | 0.00     |
| 71 P  | Bromoform                   | 0.295 | 0.282 | 4.4  | 97    | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0  | 110   | 0.00     |
| 73 T  | Isopropylbenzene            | 4.182 | 3.922 | 6.2  | 101   | 0.00     |
| 74 T  | N-amyl acetate              | 2.046 | 1.790 | 12.5 | 98    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 1.183 | 1.018 | 13.9 | 96    | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 1.097 | 0.924 | 15.8 | 95    | 0.00     |
| 77 T  | Bromobenzene                | 0.929 | 0.867 | 6.7  | 99    | 0.00     |
| 78 T  | n-propylbenzene             | 4.816 | 4.592 | 4.7  | 101   | 0.00     |
| 79 T  | 2-Chlorotoluene             | 3.053 | 2.833 | 7.2  | 101   | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 3.501 | 3.338 | 4.7  | 102   | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 0.504 | 0.475 | 5.8  | 105   | 0.00     |
| 82 T  | 4-Chlorotoluene             | 3.062 | 2.849 | 7.0  | 101   | 0.00     |
| 83 T  | tert-Butylbenzene           | 3.101 | 2.863 | 7.7  | 99    | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 3.529 | 3.281 | 7.0  | 98    | 0.00     |
| 85 T  | sec-Butylbenzene            | 4.231 | 3.979 | 6.0  | 99    | 0.00     |
| 86 T  | p-Isopropyltoluene          | 3.493 | 3.323 | 4.9  | 99    | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 1.748 | 1.607 | 8.1  | 99    | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 1.762 | 1.604 | 9.0  | 99    | 0.00     |
| 89 T  | n-Butylbenzene              | 3.027 | 2.935 | 3.0  | 100   | 0.00     |
| 90 T  | Hexachloroethane            | 0.675 | 0.631 | 6.5  | 100   | 0.00     |
| 91 T  | 1,2-Dichlorobenzene         | 1.692 | 1.531 | 9.5  | 98    | 0.00     |
| 92 T  | 1,2-Dibromo-3-Chloropropane | 0.287 | 0.240 | 16.4 | 93    | 0.00     |
| 93 T  | 1,2,4-Trichlorobenzene      | 0.948 | 0.873 | 7.9  | 97    | 0.00     |
| 94 T  | Hexachlorobutadiene         | 0.421 | 0.365 | 13.3 | 98    | 0.00     |
| 95 T  | Naphthalene                 | 3.357 | 3.001 | 10.6 | 94    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083142.D  
Acq On : 07 Aug 2024 14:49  
Operator : JC\MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724

Quant Time: Aug 08 06:35:30 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
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 | 0.938 | 0.848 | 9.6  | 97    | 0.00     |

(#) = Out of Range      SPCC's out = 0    CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083142.D  
Acq On : 07 Aug 2024 14:49  
Operator : JC\MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724

Quant Time: Aug 08 06:35:30 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
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  | 109   | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 50.000  | 47.102  | 5.8  | 102   | 0.00     |
| 3 P   | Chloromethane               | 50.000  | 46.238  | 7.5  | 99    | 0.00     |
| 4 C   | Vinyl Chloride              | 50.000  | 45.937  | 8.1# | 99    | 0.00     |
| 5 T   | Bromomethane                | 50.000  | 42.984  | 14.0 | 97    | 0.00     |
| 6 T   | Chloroethane                | 50.000  | 43.725  | 12.5 | 99    | 0.00     |
| 7 T   | Trichlorofluoromethane      | 50.000  | 47.124  | 5.8  | 101   | 0.00     |
| 8 T   | Diethyl Ether               | 50.000  | 46.259  | 7.5  | 100   | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 50.000  | 47.176  | 5.6  | 101   | 0.00     |
| 10 T  | Methyl Iodide               | 50.000  | 47.349  | 5.3  | 99    | 0.00     |
| 11 T  | Tert butyl alcohol          | 250.000 | 208.135 | 16.7 | 92    | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 50.000  | 45.562  | 8.9# | 101   | 0.00     |
| 13 T  | Acrolein                    | 250.000 | 217.571 | 13.0 | 90    | 0.00     |
| 14 T  | Allyl chloride              | 50.000  | 41.173  | 17.7 | 101   | 0.00     |
| 15 T  | Acrylonitrile               | 250.000 | 217.950 | 12.8 | 95    | 0.00     |
| 16 T  | Acetone                     | 250.000 | 210.840 | 15.7 | 90    | 0.00     |
| 17 T  | Carbon Disulfide            | 50.000  | 43.689  | 12.6 | 99    | 0.00     |
| 18 T  | Methyl Acetate              | 50.000  | 42.397  | 15.2 | 99    | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 50.000  | 46.781  | 6.4  | 101   | 0.00     |
| 20 T  | Methylene Chloride          | 50.000  | 43.645  | 12.7 | 102   | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 50.000  | 45.671  | 8.7  | 99    | -0.01    |
| 22 T  | Diisopropyl ether           | 50.000  | 46.881  | 6.2  | 100   | 0.00     |
| 23 T  | Vinyl Acetate               | 250.000 | 235.414 | 5.8  | 99    | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 50.000  | 46.685  | 6.6  | 101   | 0.00     |
| 25 T  | 2-Butanone                  | 250.000 | 211.782 | 15.3 | 93    | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 50.000  | 47.853  | 4.3  | 102   | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 50.000  | 46.113  | 7.8  | 101   | 0.00     |
| 28 T  | Bromochloromethane          | 50.000  | 45.986  | 8.0  | 100   | 0.00     |
| 29 T  | Tetrahydrofuran             | 250.000 | 222.147 | 11.1 | 96    | 0.00     |
| 30 C  | Chloroform                  | 50.000  | 47.387  | 5.2# | 101   | 0.00     |
| 31 T  | Cyclohexane                 | 50.000  | 43.474  | 13.1 | 102   | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 50.000  | 47.135  | 5.7  | 101   | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 50.000  | 50.583  | -1.2 | 105   | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 50.000  | 50.000  | 0.0  | 109   | 0.00     |
| 35 S  | Dibromofluoromethane        | 50.000  | 51.549  | -3.1 | 106   | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 50.000  | 47.732  | 4.5  | 103   | 0.00     |
| 37 T  | Ethyl Acetate               | 50.000  | 43.124  | 13.8 | 100   | 0.00     |
| 38 T  | Carbon Tetrachloride        | 50.000  | 47.904  | 4.2  | 102   | 0.00     |
| 39 T  | Methylcyclohexane           | 50.000  | 47.821  | 4.4  | 101   | 0.00     |
| 40 TM | Benzene                     | 50.000  | 47.635  | 4.7  | 101   | 0.00     |
| 41 T  | Methacrylonitrile           | 50.000  | 43.013  | 14.0 | 99    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 50.000  | 47.310  | 5.4  | 102   | 0.00     |
| 43 T  | Isopropyl Acetate           | 50.000  | 45.577  | 8.8  | 100   | 0.00     |
| 44 TM | Trichloroethene             | 50.000  | 47.994  | 4.0  | 102   | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 50.000  | 48.208  | 3.6# | 101   | 0.00     |
| 46 T  | Dibromomethane              | 50.000  | 47.124  | 5.8  | 98    | 0.00     |
| 47 T  | Bromodichloromethane        | 50.000  | 47.047  | 5.9  | 102   | 0.00     |
| 48 T  | Methyl methacrylate         | 50.000  | 44.609  | 10.8 | 100   | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083142.D  
Acq On : 07 Aug 2024 14:49  
Operator : JC\MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724

Quant Time: Aug 08 06:35:30 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
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 | 885.211 | 11.5 | 93    | 0.00     |
| 50 S  | Toluene-d8                  | 50.000   | 52.175  | -4.3 | 105   | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 250.000  | 230.917 | 7.6  | 97    | 0.00     |
| 52 CM | Toluene                     | 50.000   | 48.520  | 3.0# | 101   | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 50.000   | 49.776  | 0.4  | 100   | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 50.000   | 48.487  | 3.0  | 102   | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 50.000   | 48.351  | 3.3  | 101   | 0.00     |
| 56 T  | Ethyl methacrylate          | 50.000   | 47.395  | 5.2  | 99    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 50.000   | 47.391  | 5.2  | 99    | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 250.000  | 244.918 | 2.0  | 104   | 0.00     |
| 59 T  | 2-Hexanone                  | 250.000  | 224.916 | 10.0 | 96    | 0.00     |
| 60 T  | Dibromochloromethane        | 50.000   | 49.513  | 1.0  | 100   | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 50.000   | 47.133  | 5.7  | 99    | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 50.000   | 52.574  | -5.1 | 106   | 0.00     |
| 63 I  | Chlorobenzene-d5            | 50.000   | 50.000  | 0.0  | 109   | 0.00     |
| 64 T  | Tetrachloroethene           | 50.000   | 48.175  | 3.7  | 102   | 0.00     |
| 65 PM | Chlorobenzene               | 50.000   | 47.522  | 5.0  | 100   | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 50.000   | 46.843  | 6.3  | 100   | 0.00     |
| 67 C  | Ethyl Benzene               | 50.000   | 47.764  | 4.5# | 102   | 0.00     |
| 68 T  | m/p-Xylenes                 | 100.000  | 96.434  | 3.6  | 102   | 0.00     |
| 69 T  | o-Xylene                    | 50.000   | 46.662  | 6.7  | 99    | 0.00     |
| 70 T  | Styrene                     | 50.000   | 48.487  | 3.0  | 100   | 0.00     |
| 71 P  | Bromoform                   | 50.000   | 47.797  | 4.4  | 97    | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 50.000   | 50.000  | 0.0  | 110   | 0.00     |
| 73 T  | Isopropylbenzene            | 50.000   | 46.893  | 6.2  | 101   | 0.00     |
| 74 T  | N-amyl acetate              | 50.000   | 43.748  | 12.5 | 98    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 50.000   | 43.016  | 14.0 | 96    | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 50.000   | 42.119  | 15.8 | 95    | 0.00     |
| 77 T  | Bromobenzene                | 50.000   | 46.649  | 6.7  | 99    | 0.00     |
| 78 T  | n-propylbenzene             | 50.000   | 47.678  | 4.6  | 101   | 0.00     |
| 79 T  | 2-Chlorotoluene             | 50.000   | 46.398  | 7.2  | 101   | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 50.000   | 47.673  | 4.7  | 102   | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 50.000   | 47.070  | 5.9  | 105   | 0.00     |
| 82 T  | 4-Chlorotoluene             | 50.000   | 46.512  | 7.0  | 101   | 0.00     |
| 83 T  | tert-Butylbenzene           | 50.000   | 46.173  | 7.7  | 99    | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 50.000   | 46.493  | 7.0  | 98    | 0.00     |
| 85 T  | sec-Butylbenzene            | 50.000   | 47.018  | 6.0  | 99    | 0.00     |
| 86 T  | p-Isopropyltoluene          | 50.000   | 47.566  | 4.9  | 99    | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 50.000   | 45.959  | 8.1  | 99    | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 50.000   | 45.499  | 9.0  | 99    | 0.00     |
| 89 T  | n-Butylbenzene              | 50.000   | 48.489  | 3.0  | 100   | 0.00     |
| 90 T  | Hexachloroethane            | 50.000   | 46.741  | 6.5  | 100   | 0.00     |
| 91 T  | 1,2-Dichlorobenzene         | 50.000   | 45.255  | 9.5  | 98    | 0.00     |
| 92 T  | 1,2-Dibromo-3-Chloropropane | 50.000   | 41.753  | 16.5 | 93    | 0.00     |
| 93 T  | 1,2,4-Trichlorobenzene      | 50.000   | 46.054  | 7.9  | 97    | 0.00     |
| 94 T  | Hexachlorobutadiene         | 50.000   | 43.315  | 13.4 | 98    | 0.00     |
| 95 T  | Naphthalene                 | 50.000   | 44.692  | 10.6 | 94    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083142.D  
Acq On : 07 Aug 2024 14:49  
Operator : JC\MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 11 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
ICVVN080724

Quant Time: Aug 08 06:35:30 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
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 | 45.221 | 9.6  | 97    | 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: JAC005

Lab Code: CHEM Case No.: P3609 SAS No.: P3609 SDG No.: P3609

Instrument ID: MSVOA\_N Calibration Date/Time: 08/14/2024 12:41

Lab File ID: VN083295.D Init. Calib. Date(s): 08/07/2024 08/07/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:33 12:34

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

| COMPOUND                       | RRF   | RRF050 | MIN<br>RRF | %D     | MAX%D |
|--------------------------------|-------|--------|------------|--------|-------|
| Dichlorodifluoromethane        | 0.567 | 0.535  |            | -5.64  | 20    |
| Chloromethane                  | 0.581 | 0.541  | 0.1        | -6.89  | 20    |
| Vinyl Chloride                 | 0.592 | 0.580  |            | -2.03  | 20    |
| Bromomethane                   | 0.368 | 0.326  |            | -11.41 | 20    |
| Chloroethane                   | 0.371 | 0.373  |            | 0.54   | 20    |
| 1,1,2-Trichlorotrifluoroethane | 0.539 | 0.554  |            | 2.78   | 20    |
| 1,1-Dichloroethene             | 0.554 | 0.521  |            | -5.96  | 20    |
| Acetone                        | 0.278 | 0.244  |            | -12.23 | 20    |
| Carbon Disulfide               | 1.622 | 1.333  |            | -17.82 | 20    |
| Methyl tert-butyl Ether        | 2.001 | 2.005  |            | 0.2    | 20    |
| Methylene Chloride             | 0.641 | 0.596  |            | -7.02  | 20    |
| trans-1,2-Dichloroethene       | 0.573 | 0.543  |            | -5.24  | 20    |
| 1,1-Dichloroethane             | 1.073 | 1.095  | 0.1        | 2.05   | 20    |
| Cyclohexane                    | 1.055 | 0.966  |            | -8.44  | 20    |
| 2-Butanone                     | 0.428 | 0.402  |            | -6.07  | 20    |
| Carbon Tetrachloride           | 0.532 | 0.548  |            | 3.01   | 20    |
| cis-1,2-Dichloroethene         | 0.691 | 0.680  |            | -1.59  | 20    |
| Chloroform                     | 1.115 | 1.186  |            | 6.37   | 20    |
| 1,1,1-Trichloroethane          | 1.055 | 1.088  |            | 3.13   | 20    |
| Methylcyclohexane              | 0.580 | 0.559  |            | -3.62  | 20    |
| Benzene                        | 1.406 | 1.433  |            | 1.92   | 20    |
| 1,2-Dichloroethane             | 0.512 | 0.547  |            | 6.84   | 20    |
| Trichloroethene                | 0.335 | 0.341  |            | 1.79   | 20    |
| Bromodichloromethane           | 0.537 | 0.551  |            | 2.61   | 20    |
| Toluene                        | 0.889 | 0.921  |            | 3.6    | 20    |
| 1,1,2-Trichloroethane          | 0.318 | 0.338  |            | 6.29   | 20    |
| Dibromochloromethane           | 0.385 | 0.416  |            | 8.05   | 20    |
| Tetrachloroethene              | 0.331 | 0.333  |            | 0.6    | 20    |
| Chlorobenzene                  | 1.105 | 1.119  | 0.3        | 1.27   | 20    |
| Ethyl Benzene                  | 2.027 | 2.073  |            | 2.27   | 20    |
| m/p-Xylenes                    | 0.759 | 0.775  |            | 2.11   | 20    |
| o-Xylene                       | 0.749 | 0.756  |            | 0.94   | 20    |
| Isopropylbenzene               | 4.182 | 4.049  |            | -3.18  | 20    |
| 1,4-Dichlorobenzene            | 1.762 | 1.724  |            | -2.16  | 20    |
| 1,2-Dichlorobenzene            | 1.692 | 1.685  |            | -0.41  | 20    |
| 1,2-Dichloroethane-d4          | 0.712 | 0.742  |            | 4.21   | 20    |
| Dibromofluoromethane           | 0.312 | 0.320  |            | 2.56   | 20    |
| Toluene-d8                     | 1.164 | 1.193  |            | 2.49   | 20    |

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



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

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: JACO05  
Lab Code: CHEM Case No.: P3609 SAS No.: P3609 SDG No.: P3609  
Instrument ID: MSVOA\_N Calibration Date/Time: 08/14/2024 12:41  
Lab File ID: VN083295.D Init. Calib. Date(s): 08/07/2024 08/07/2024  
Heated Purge: (Y/N) N Init. Calib. Time(s): 10:33 12:34  
GC Column: RXI-624 ID: 0.25 (mm)

| COMPOUND             | RRF   | RRF050 | MIN<br>RRF | %D   | MAX%D |
|----------------------|-------|--------|------------|------|-------|
| 4-Bromofluorobenzene | 0.454 | 0.479  |            | 5.51 | 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\VN081424\  
 Data File : VN083295.D  
 Acq On : 14 Aug 2024 12:41  
 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 :Mahesh Dadoda 08/15/2024  
 Supervised By :Semsettin Yesilyurt 08/15/2024

Quant Time: Aug 14 23:14:20 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 06:30:41 2024  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 165534   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 282606   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 250996   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.794 | 152  | 122669   | 50.000 | ug/l  | 0.00     |

#### System Monitoring Compounds

|                           |        |       |          |          |      |          |
|---------------------------|--------|-------|----------|----------|------|----------|
| 33) 1,2-Dichloroethane-d4 | 8.582  | 65    | 122826   | 52.129   | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 74 - 125 | Recovery | =    | 104.260% |
| 35) Dibromofluoromethane  | 8.171  | 113   | 90305    | 51.194   | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 75 - 124 | Recovery | =    | 102.380% |
| 50) Toluene-d8            | 10.565 | 98    | 337123   | 51.234   | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 86 - 113 | Recovery | =    | 102.460% |
| 62) 4-Bromofluorobenzene  | 12.853 | 95    | 135336   | 52.757   | ug/l | 0.00     |
| Spiked Amount             | 50.000 | Range | 77 - 121 | Recovery | =    | 105.520% |

#### Target Compounds

|                              |       |     |         |         |        | Qvalue |
|------------------------------|-------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 88523   | 47.158  | ug/l   | 98     |
| 3) Chloromethane             | 2.365 | 50  | 89486   | 46.562  | ug/l   | 96     |
| 4) Vinyl Chloride            | 2.512 | 62  | 96057   | 48.983  | ug/l   | 96     |
| 5) Bromomethane              | 2.942 | 94  | 53952   | 44.339  | ug/l   | 100    |
| 6) Chloroethane              | 3.112 | 64  | 61671   | 50.266  | ug/l   | 97     |
| 7) Trichlorofluoromethane    | 3.495 | 101 | 169822  | 52.421  | ug/l   | 97     |
| 8) Diethyl Ether             | 3.959 | 74  | 57654   | 47.827  | ug/l   | 87     |
| 9) 1,1,2-Trichlorotrifluo... | 4.365 | 101 | 91744   | 51.366  | ug/l   | 99     |
| 10) Methyl Iodide            | 4.583 | 142 | 96810   | 41.205  | ug/l   | 93     |
| 11) Tert butyl alcohol       | 5.524 | 59  | 122885  | 250.960 | ug/l   | 99     |
| 12) 1,1-Dichloroethene       | 4.342 | 96  | 86237   | 46.996  | ug/l   | 87     |
| 13) Acrolein                 | 4.183 | 56  | 76414   | 239.443 | ug/l   | 98     |
| 14) Allyl chloride           | 5.024 | 41  | 159911  | 46.115  | ug/l   | 89     |
| 15) Acrylonitrile            | 5.718 | 53  | 244473  | 242.760 | ug/l   | 98     |
| 16) Acetone                  | 4.424 | 43  | 202275  | 219.394 | ug/l   | 99     |
| 17) Carbon Disulfide         | 4.706 | 76  | 220684  | 41.102  | ug/l   | 99     |
| 18) Methyl Acetate           | 5.030 | 43  | 136868  | 49.826  | ug/l   | 92     |
| 19) Methyl tert-butyl Ether  | 5.794 | 73  | 331920  | 50.114  | ug/l   | 99     |
| 20) Methylene Chloride       | 5.277 | 84  | 98695   | 46.513  | ug/l # | 78     |
| 21) trans-1,2-Dichloroethene | 5.783 | 96  | 89928   | 47.417  | ug/l   | 90     |
| 22) Diisopropyl ether        | 6.677 | 45  | 332029  | 50.939  | ug/l   | 98     |
| 23) Vinyl Acetate            | 6.600 | 43  | 1823939 | 273.001 | ug/l   | 96     |
| 24) 1,1-Dichloroethane       | 6.571 | 63  | 181204  | 51.002  | ug/l   | 100    |
| 25) 2-Butanone               | 7.482 | 43  | 332401  | 234.803 | ug/l   | 92     |
| 26) 2,2-Dichloropropane      | 7.488 | 77  | 154672  | 46.878  | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene   | 7.488 | 96  | 112641  | 49.219  | ug/l   | 94     |
| 28) Bromochloromethane       | 7.812 | 49  | 72630   | 50.022  | ug/l   | 85     |
| 29) Tetrahydrofuran          | 7.841 | 42  | 212863  | 232.605 | ug/l # | 87     |
| 30) Chloroform               | 7.965 | 83  | 196262  | 53.171  | ug/l   | 98     |
| 31) Cyclohexane              | 8.259 | 56  | 159977  | 45.816  | ug/l   | 98     |
| 32) 1,1,1-Trichloroethane    | 8.171 | 97  | 180121  | 51.554  | ug/l   | 97     |
| 36) 1,1-Dichloropropene      | 8.371 | 75  | 134252  | 50.312  | ug/l   | 99     |
| 37) Ethyl Acetate            | 7.559 | 43  | 137359  | 45.975  | ug/l # | 95     |
| 38) Carbon Tetrachloride     | 8.365 | 117 | 154915  | 51.545  | ug/l   | 99     |
| 39) Methylcyclohexane        | 9.600 | 83  | 157882  | 48.172  | ug/l   | 98     |
| 40) Benzene                  | 8.606 | 78  | 404907  | 50.937  | ug/l   | 99     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
 Data File : VN083295.D  
 Acq On : 14 Aug 2024 12:41  
 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 :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024

Quant Time: Aug 14 23:14:20 2024

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M

Quant Title : SW846 8260

QLast Update : Thu Aug 08 06:30:41 2024

Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 78258    | 46.068  | ug/l   | 93       |
| 42) 1,2-Dichloroethane        | 8.671  | 62   | 154557   | 53.374  | ug/l   | 98       |
| 43) Isopropyl Acetate         | 8.688  | 43   | 252838   | 48.708  | ug/l # | 94       |
| 44) Trichloroethene           | 9.353  | 130  | 96274    | 50.883  | ug/l   | 98       |
| 45) 1,2-Dichloropropane       | 9.624  | 63   | 100079   | 53.038  | ug/l   | 99       |
| 46) Dibromomethane            | 9.712  | 93   | 72298    | 53.530  | ug/l   | 99       |
| 47) Bromodichloromethane      | 9.888  | 83   | 155782   | 51.369  | ug/l   | 99       |
| 48) Methyl methacrylate       | 9.682  | 41   | 117620   | 47.618  | ug/l   | 92       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 42819    | 960.872 | ug/l   | 95       |
| 51) 4-Methyl-2-Pentanone      | 10.447 | 43   | 714918   | 253.043 | ug/l   | 93       |
| 52) Toluene                   | 10.629 | 92   | 260237   | 51.813  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 161721   | 51.915  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 168161   | 50.753  | ug/l   | 91       |
| 55) 1,1,2-Trichloroethane     | 11.018 | 97   | 95596    | 53.110  | ug/l   | 98       |
| 56) Ethyl methacrylate        | 10.876 | 69   | 172350   | 50.792  | ug/l   | 88       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 169602   | 52.864  | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 364003   | 253.780 | ug/l   | 97       |
| 59) 2-Hexanone                | 11.194 | 43   | 532597   | 243.668 | ug/l   | 92       |
| 60) Dibromochloromethane      | 11.359 | 129  | 117651   | 54.062  | ug/l   | 98       |
| 61) 1,2-Dibromoethane         | 11.470 | 107  | 97558    | 51.595  | ug/l   | 97       |
| 64) Tetrachloroethene         | 11.106 | 164  | 83497    | 50.230  | ug/l   | 95       |
| 65) Chlorobenzene             | 11.894 | 112  | 280885   | 50.640  | ug/l   | 97       |
| 66) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 99691    | 50.961  | ug/l   | 99       |
| 67) Ethyl Benzene             | 11.965 | 91   | 520196   | 51.124  | ug/l   | 99       |
| 68) m/p-Xylenes               | 12.070 | 106  | 388963   | 102.048 | ug/l   | 98       |
| 69) o-Xylene                  | 12.400 | 106  | 189655   | 50.450  | ug/l   | 100      |
| 70) Styrene                   | 12.412 | 104  | 327524   | 51.874  | ug/l   | 98       |
| 71) Bromoform                 | 12.582 | 173  | 74422    | 50.218  | ug/l # | 97       |
| 73) Isopropylbenzene          | 12.694 | 105  | 496635   | 48.403  | ug/l   | 100      |
| 74) N-amyl acetate            | 12.494 | 43   | 224010   | 44.635  | ug/l   | 94       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 140246   | 48.328  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 128158m  | 47.602  | ug/l   |          |
| 77) Bromobenzene              | 12.982 | 156  | 113178   | 49.656  | ug/l   | 97       |
| 78) n-propylbenzene           | 13.035 | 91   | 590000   | 49.938  | ug/l   | 100      |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 367969   | 49.125  | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 428037   | 49.829  | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 56887    | 45.962  | ug/l   | 86       |
| 82) 4-Chlorotoluene           | 13.223 | 91   | 364156   | 48.468  | ug/l   | 98       |
| 83) tert-Butylbenzene         | 13.441 | 119  | 371735   | 48.866  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 430444   | 49.723  | ug/l   | 100      |
| 85) sec-Butylbenzene          | 13.617 | 105  | 517202   | 49.826  | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 434576   | 50.705  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene       | 13.735 | 146  | 213990   | 49.896  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene       | 13.811 | 146  | 211478   | 48.912  | ug/l   | 98       |
| 89) n-Butylbenzene            | 14.059 | 91   | 382193   | 51.464  | ug/l   | 98       |
| 90) Hexachloroethane          | 14.335 | 117  | 78059    | 47.142  | ug/l   | 93       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 206688   | 49.802  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 30853    | 43.813  | ug/l   | 99       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 112669   | 48.458  | ug/l   | 97       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 46384    | 44.858  | ug/l   | 98       |
| 95) Naphthalene               | 15.641 | 128  | 389373   | 47.278  | ug/l   | 98       |
| 96) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 110529   | 48.043  | ug/l   | 97       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083295.D  
Acq On : 14 Aug 2024 12:41  
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 :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

Quant Time: Aug 14 23:14:20 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
Response via : Initial Calibration

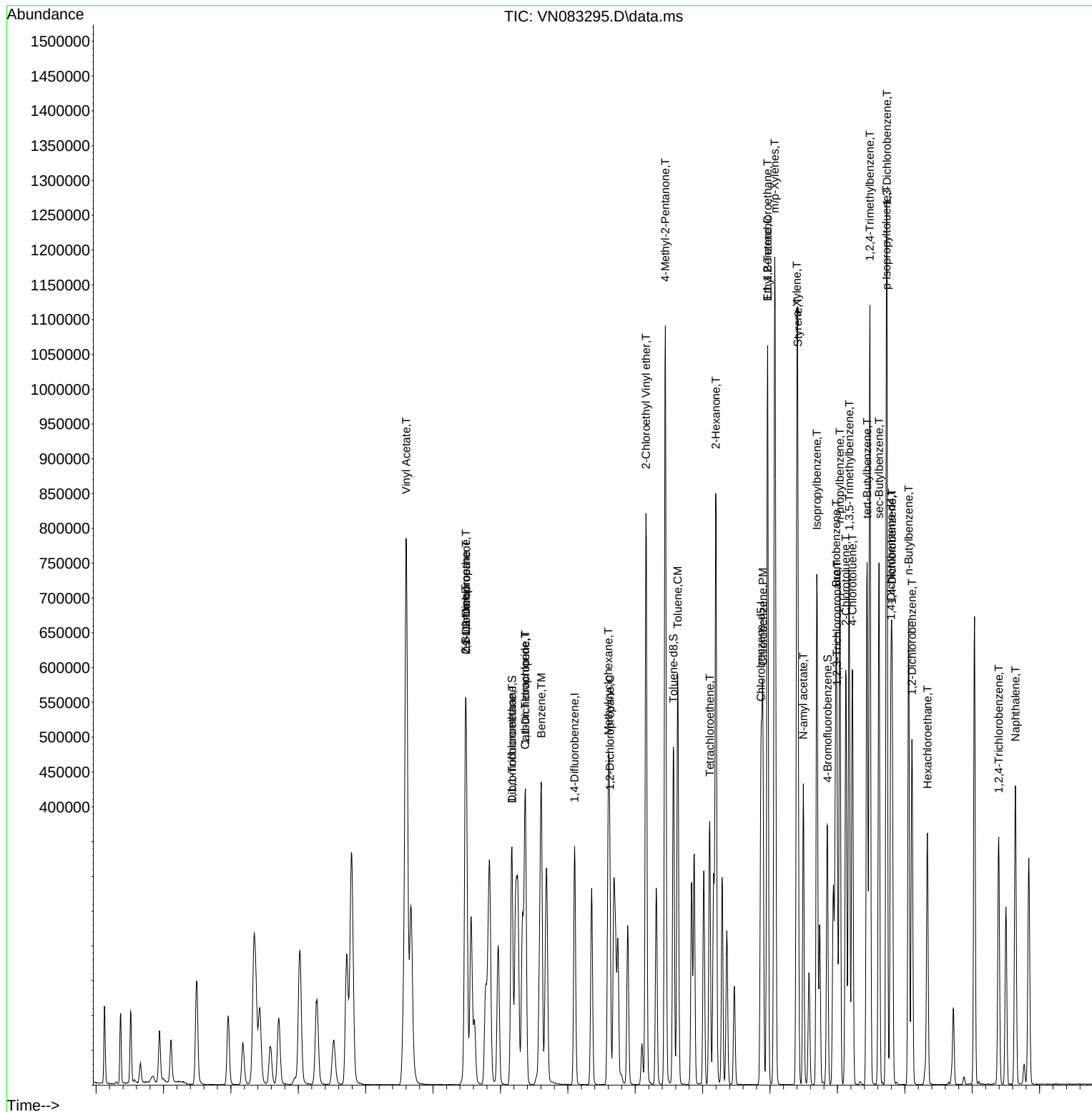
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

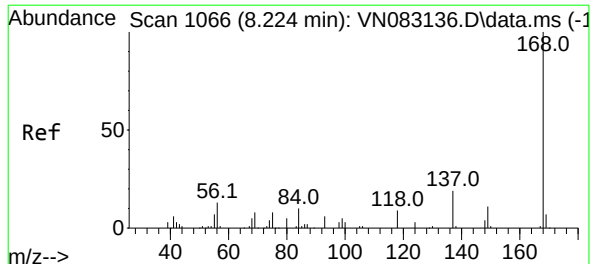
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Instrument :**  
MSVOA\_N  
**ClientSampleId :**  
VSTDCCC050

## Manual Integrations APPROVED

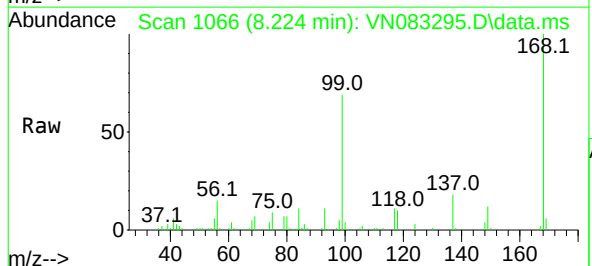
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

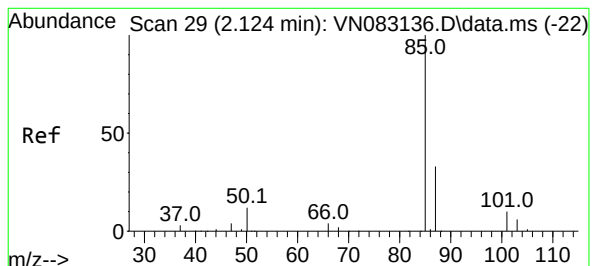
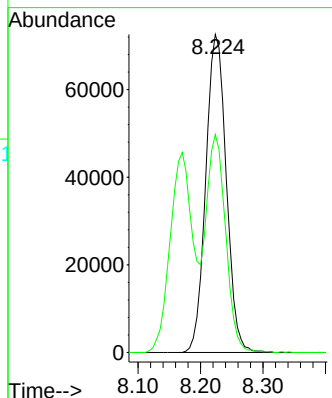
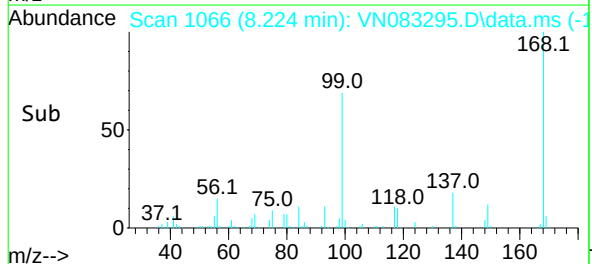
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 168 Resp: 165534  
Ion Ratio Lower Upper  
168 100  
99 68.5 48.2 72.4

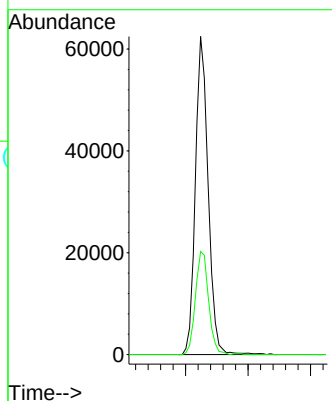
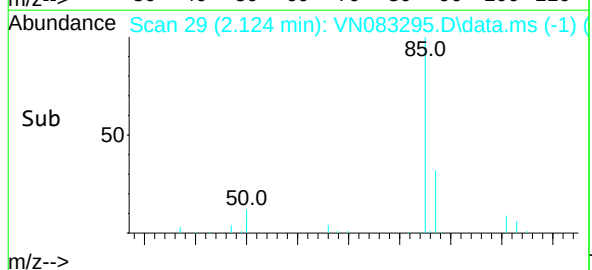
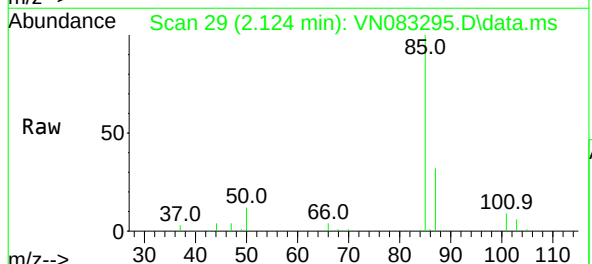
Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

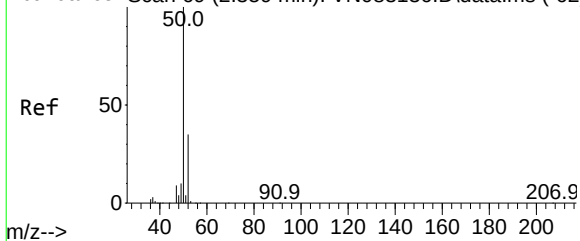


#2  
Dichlorodifluoromethane  
Concen: 47.158 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Tgt Ion: 85 Resp: 88523  
Ion Ratio Lower Upper  
85 100  
87 32.4 15.7 47.0



Abundance Scan 69 (2.359 min): VN083136.D\data.ms (-62)



#3

Chloromethane

Concen: 46.562 ug/l

RT: 2.365 min Scan# 70

Delta R.T. 0.006 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 50 Resp: 89486

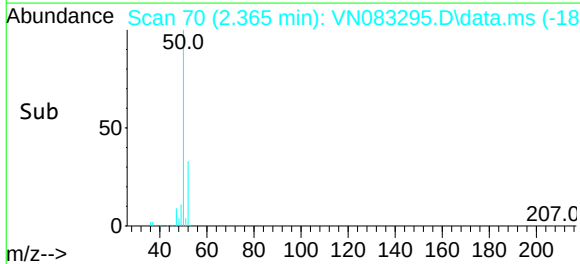
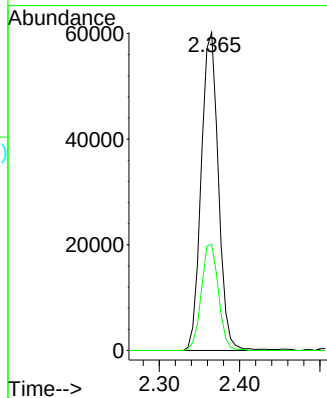
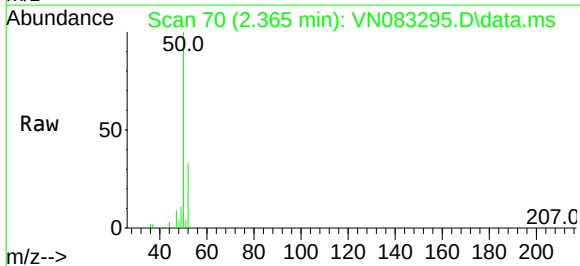
Ion Ratio Lower Upper

50 100

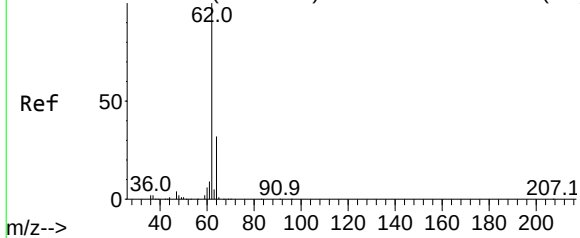
52 33.4 25.0 37.4

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

Abundance Scan 95 (2.512 min): VN083136.D\data.ms (-88)



#4

Vinyl Chloride

Concen: 48.983 ug/l

RT: 2.512 min Scan# 95

Delta R.T. -0.000 min

Lab File: VN083295.D

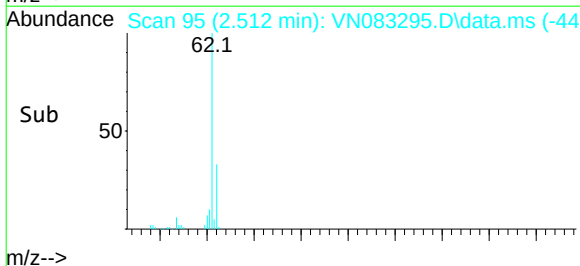
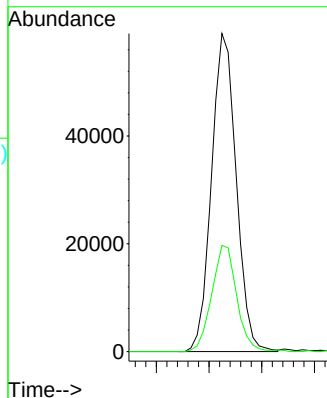
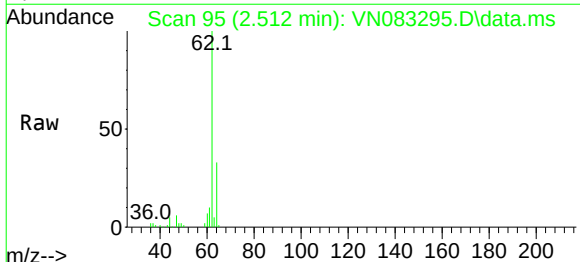
Acq: 14 Aug 2024 12:41

Tgt Ion: 62 Resp: 96057

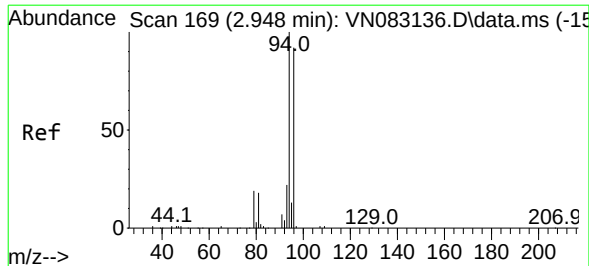
Ion Ratio Lower Upper

62 100

64 33.4 25.0 37.6







#5

Bromomethane

Concen: 44.339 ug/l

RT: 2.942 min Scan# 169

Delta R.T. -0.006 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 94 Resp: 53952

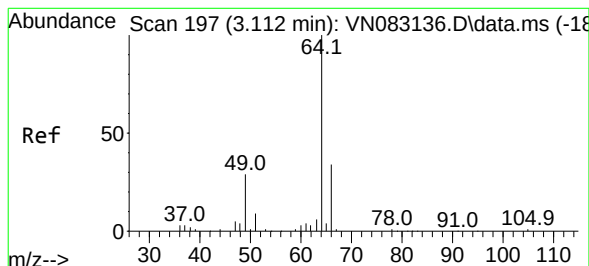
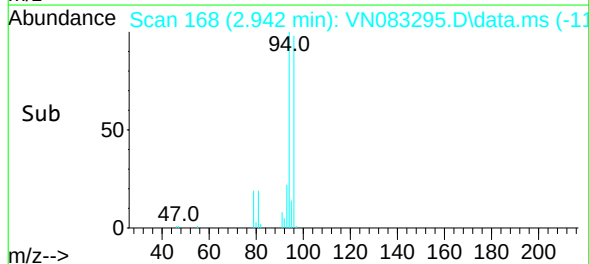
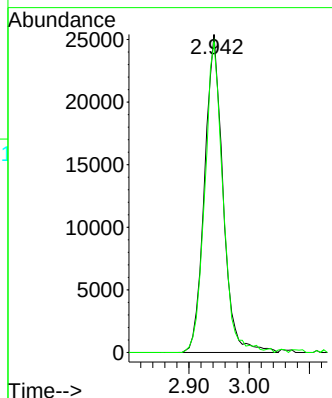
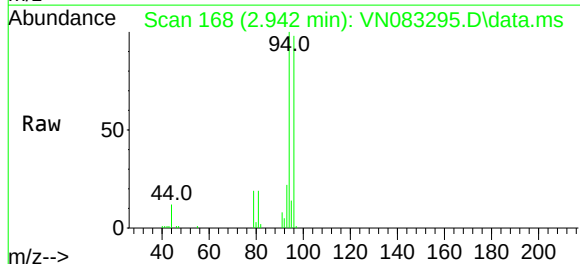
Ion Ratio Lower Upper

94 100

96 97.5 78.0 117.0

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#6

Chloroethane

Concen: 50.266 ug/l

RT: 3.112 min Scan# 197

Delta R.T. -0.000 min

Lab File: VN083295.D

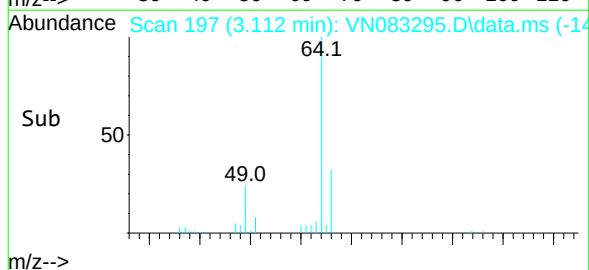
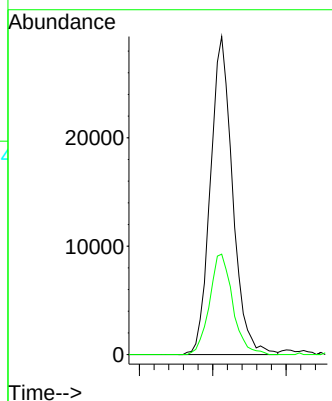
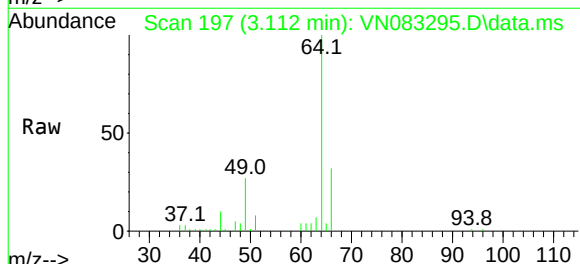
Acq: 14 Aug 2024 12:41

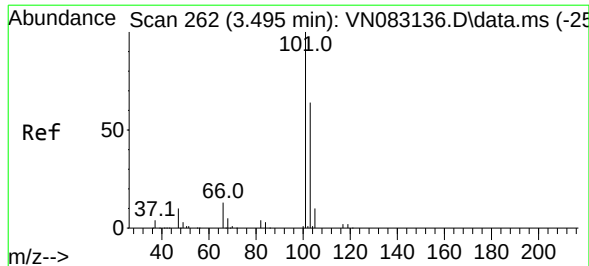
Tgt Ion: 64 Resp: 61671

Ion Ratio Lower Upper

64 100

66 31.6 26.6 40.0





#7

Trichlorofluoromethane

Concen: 52.421 ug/l

RT: 3.495 min Scan# 262

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:101 Resp: 169822

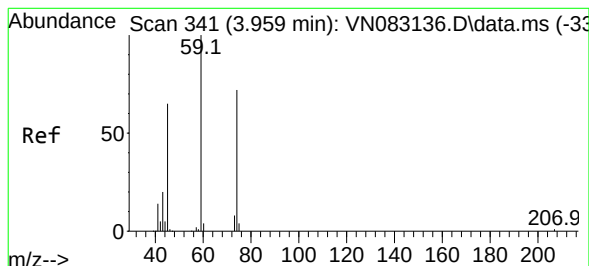
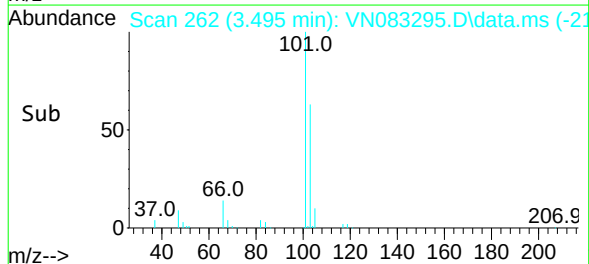
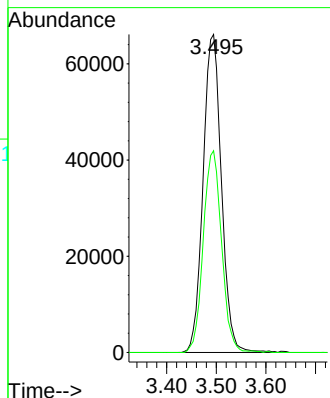
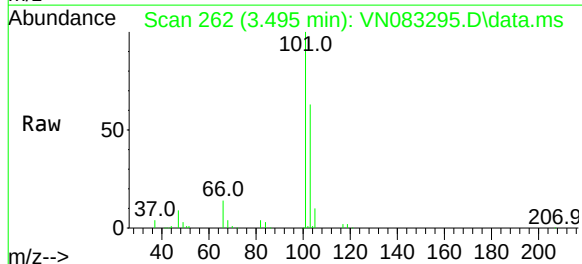
Ion Ratio Lower Upper

101 100

103 63.4 52.7 79.1

Manual Integrations

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Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#8

Diethyl Ether

Concen: 47.827 ug/l

RT: 3.959 min Scan# 341

Delta R.T. -0.000 min

Lab File: VN083295.D

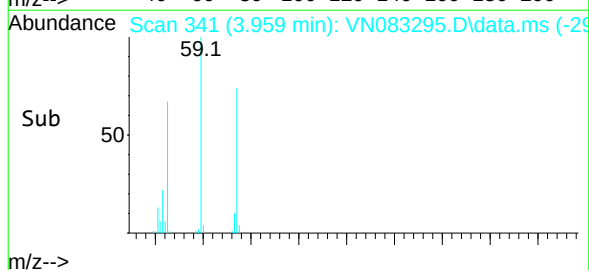
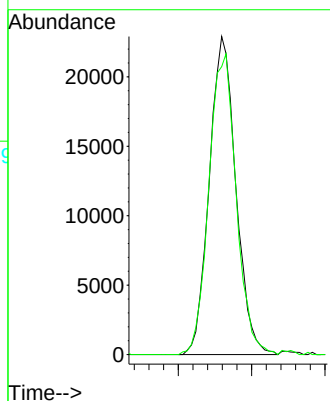
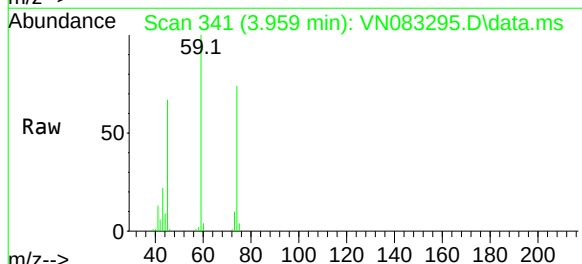
Acq: 14 Aug 2024 12:41

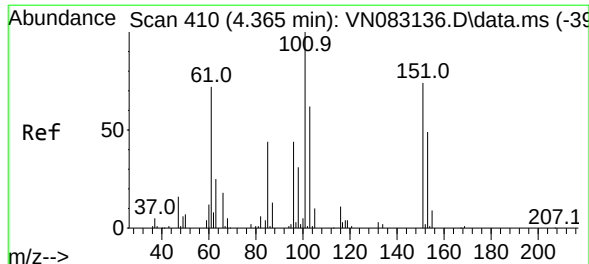
Tgt Ion: 74 Resp: 57654

Ion Ratio Lower Upper

74 100

45 97.2 55.5 166.3





#9

1,1,2-Trichlorotrifluoroethane

Concen: 51.366 ug/l

RT: 4.365 min Scan# 410

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

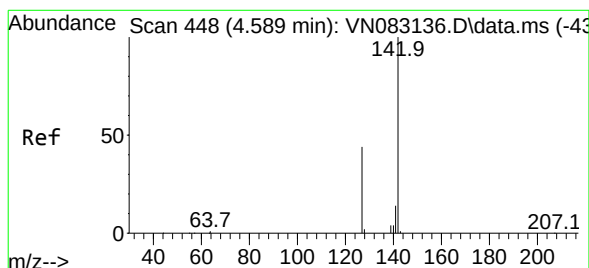
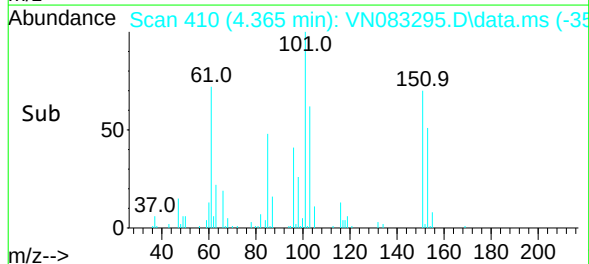
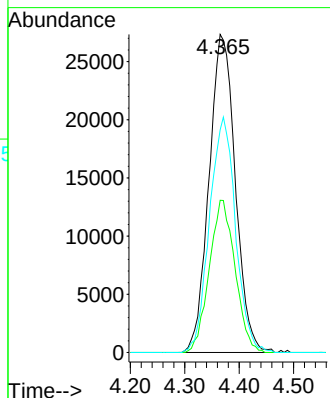
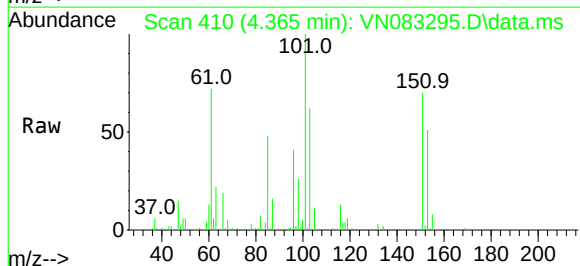
ClientSampleId :

VSTDCCC050

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 101   | Resp: | 91744 |
| Ion      | Ratio | Lower | Upper |
| 101      | 100   |       |       |
| 85       | 46.9  | 38.3  | 57.5  |
| 151      | 73.4  | 59.3  | 88.9  |

Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#10

Methyl Iodide

Concen: 41.205 ug/l

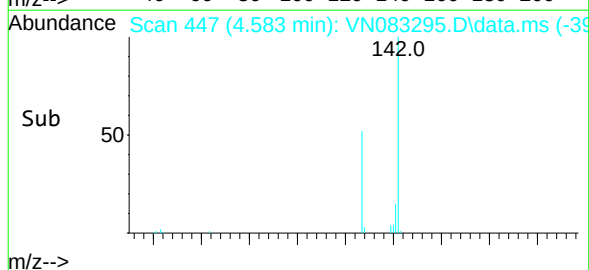
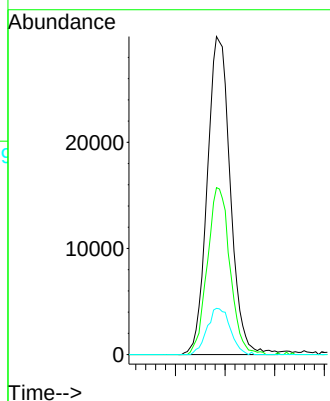
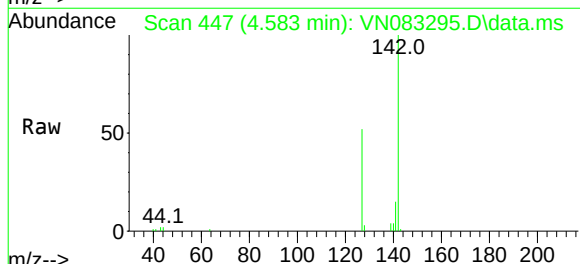
RT: 4.583 min Scan# 447

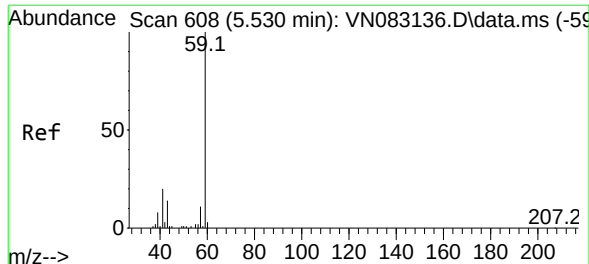
Delta R.T. -0.006 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 142   | Resp: | 96810 |
| Ion      | Ratio | Lower | Upper |
| 142      | 100   |       |       |
| 127      | 52.5  | 37.5  | 56.3  |
| 141      | 14.5  | 13.1  | 19.7  |





#11

Tert butyl alcohol

Concen: 250.960 ug/l

RT: 5.524 min Scan# 608

Delta R.T. -0.006 min

Lab File: VN083295.D

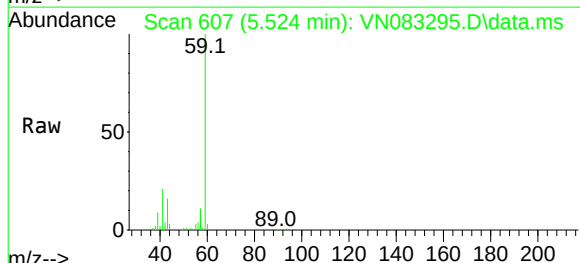
Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDC050



Tgt Ion: 59 Resp: 122885

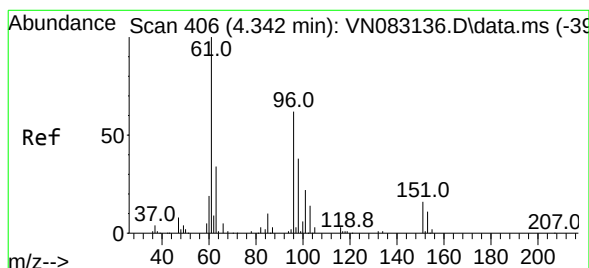
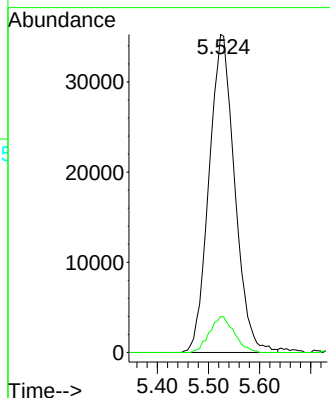
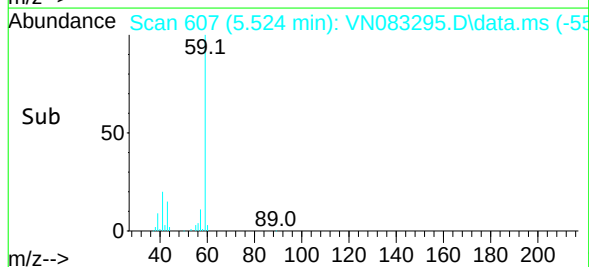
Ion Ratio Lower Upper

59 100

57 10.9 8.9 13.3

Manual Integrations

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Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#12

1,1-Dichloroethene

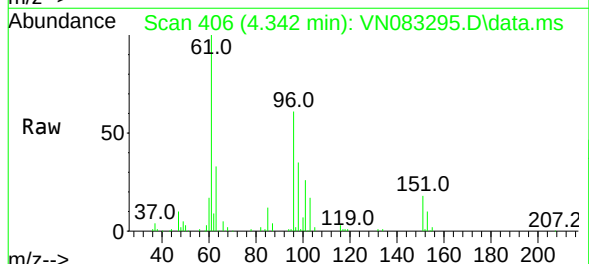
Concen: 46.996 ug/l

RT: 4.342 min Scan# 406

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41



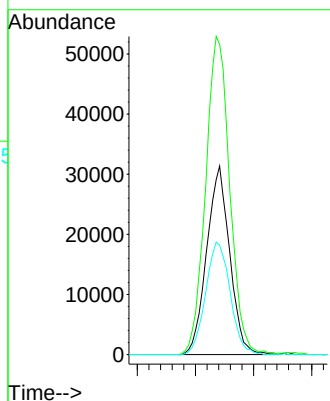
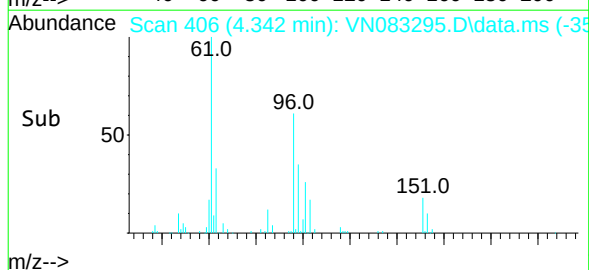
Tgt Ion: 96 Resp: 86237

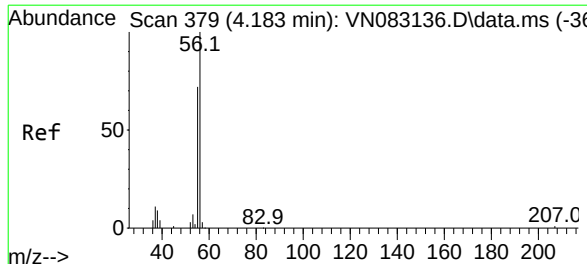
Ion Ratio Lower Upper

96 100

61 164.6 149.7 224.5

98 58.0 50.1 75.1





#13

Acrolein

Concen: 239.443 ug/l

RT: 4.183 min Scan# 379

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDC050

Tgt Ion: 56 Resp: 76414

Ion Ratio Lower Upper

56 100

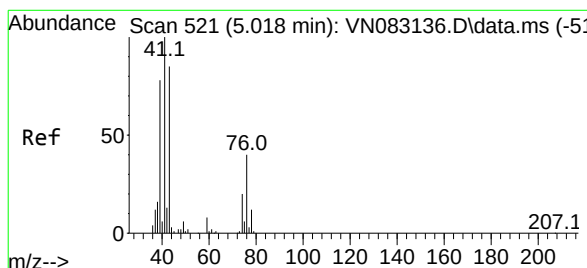
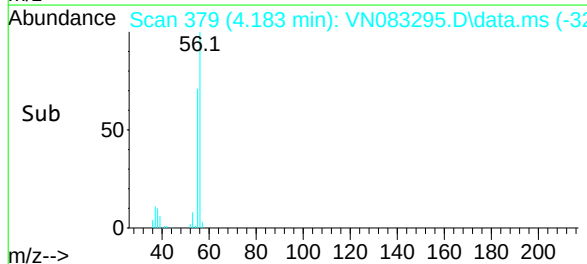
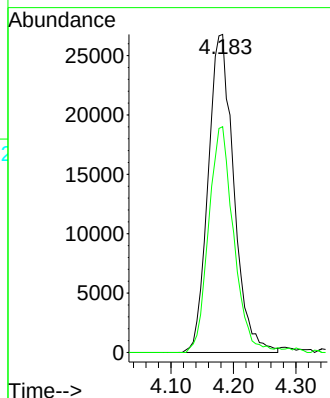
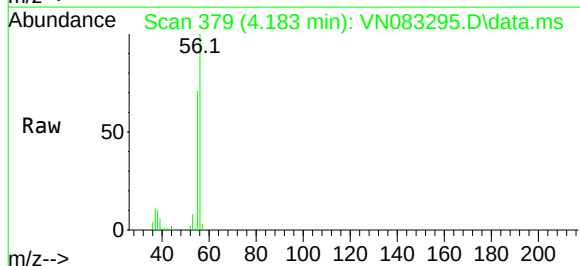
55 69.2 56.4 84.6

Manual Integrations

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Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#14

Allyl chloride

Concen: 46.115 ug/l

RT: 5.024 min Scan# 522

Delta R.T. 0.006 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

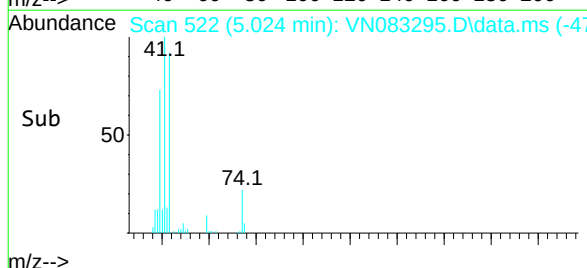
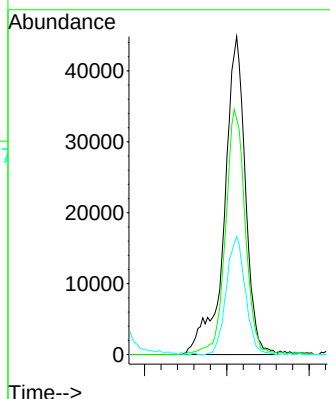
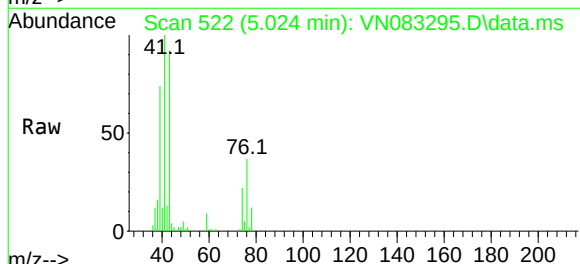
Tgt Ion: 41 Resp: 159911

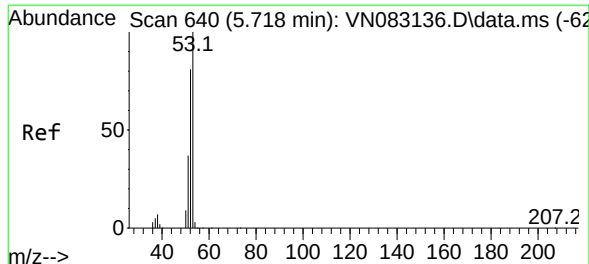
Ion Ratio Lower Upper

41 100

39 72.1 67.8 101.6

76 33.5 25.8 38.8





#15

Acrylonitrile

Concen: 242.760 ug/l

RT: 5.718 min Scan# 640

Delta R.T. -0.000 min

Lab File: VN083295.D

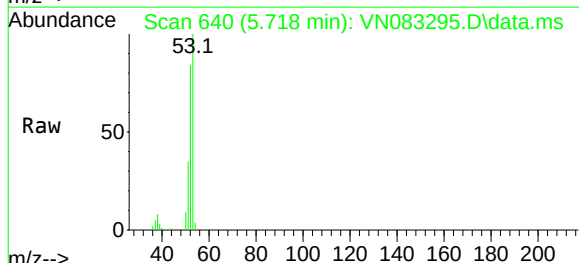
Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

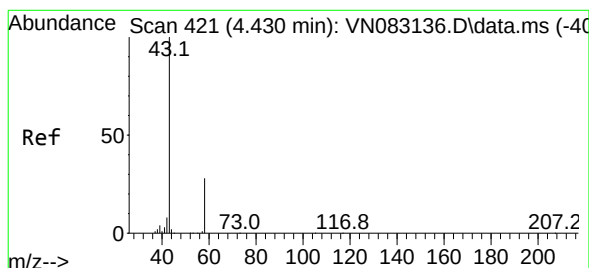
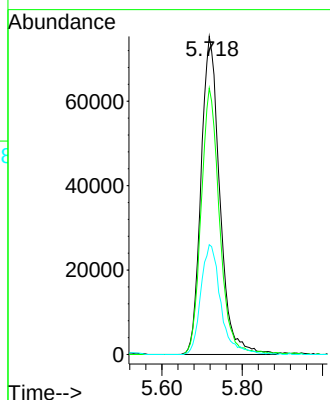
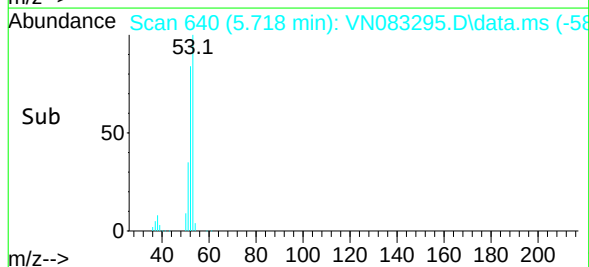
VSTDCCC050



| Tgt Ion | 53    | Resp  | 244473 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 53      | 100   |       |        |
| 52      | 81.5  | 66.6  | 100.0  |
| 51      | 36.6  | 30.1  | 45.1   |

Manual Integrations  
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Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#16

Acetone

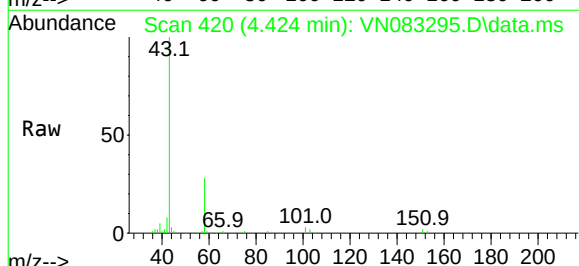
Concen: 219.394 ug/l

RT: 4.424 min Scan# 420

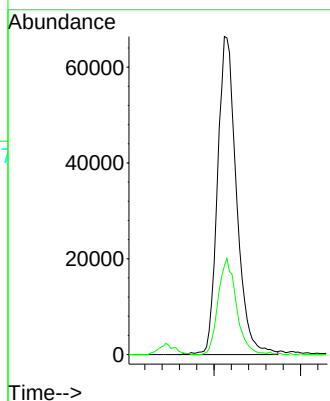
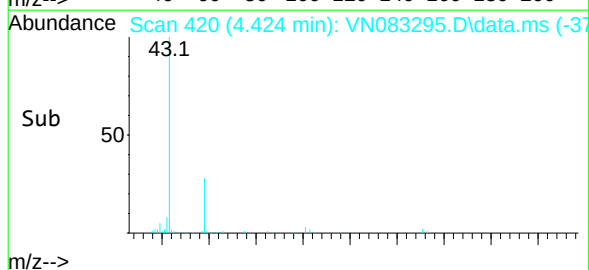
Delta R.T. -0.006 min

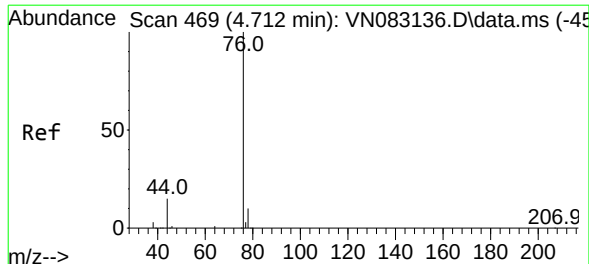
Lab File: VN083295.D

Acq: 14 Aug 2024 12:41



| Tgt Ion | 43    | Resp  | 202275 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 43      | 100   |       |        |
| 58      | 27.5  | 21.8  | 32.6   |





#17

Carbon Disulfide

Concen: 41.102 ug/l

RT: 4.706 min Scan# 468

Delta R.T. -0.006 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 76 Resp: 220684

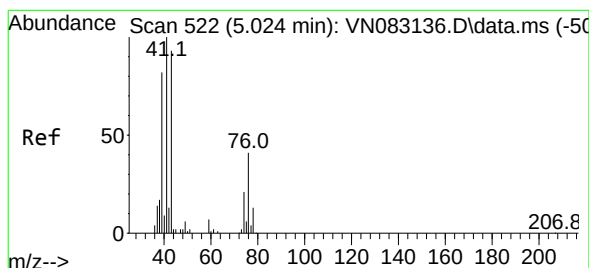
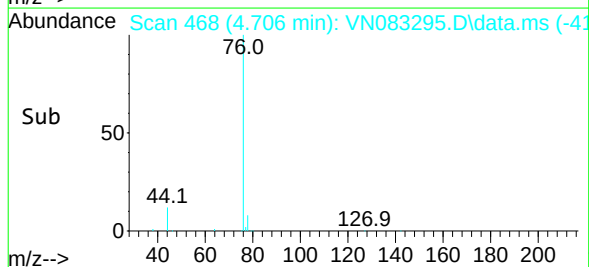
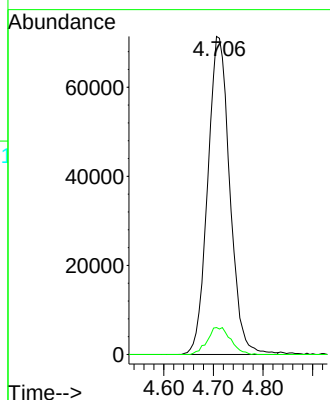
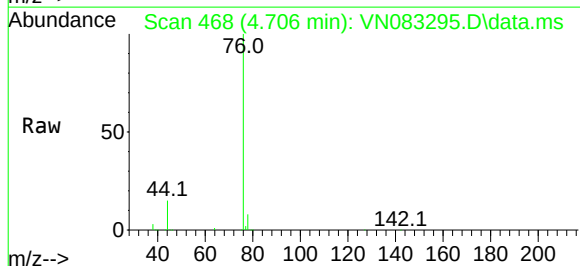
Ion Ratio Lower Upper

76 100

78 8.5 7.2 10.8

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#18

Methyl Acetate

Concen: 49.826 ug/l

RT: 5.030 min Scan# 523

Delta R.T. 0.006 min

Lab File: VN083295.D

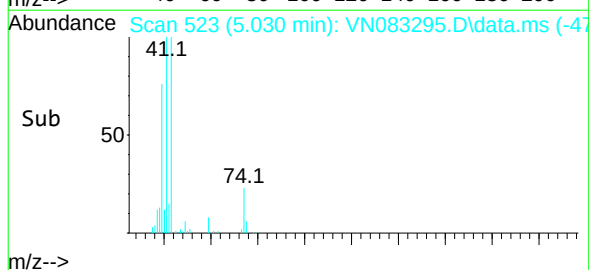
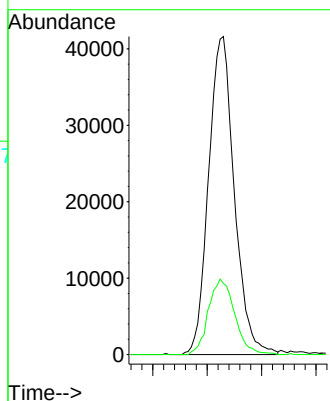
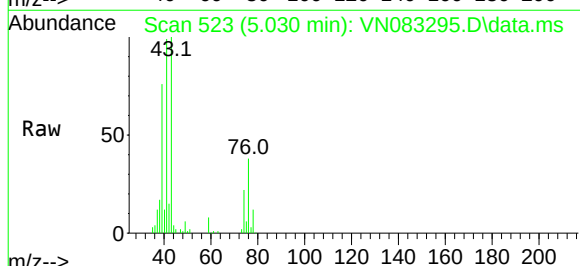
Acq: 14 Aug 2024 12:41

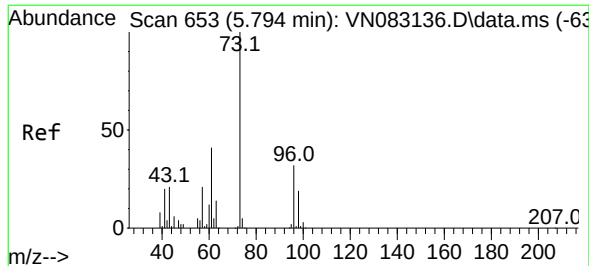
Tgt Ion: 43 Resp: 136868

Ion Ratio Lower Upper

43 100

74 24.2 16.3 24.5





#19

Methyl tert-butyl Ether

Concen: 50.114 ug/l

RT: 5.794 min Scan# 65

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 73 Resp: 331920

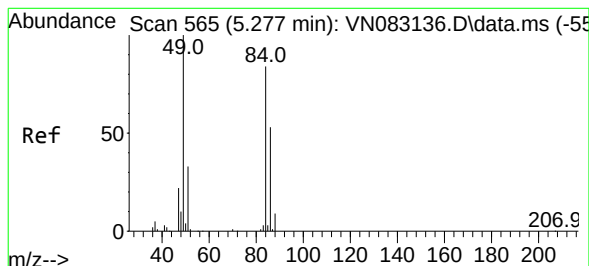
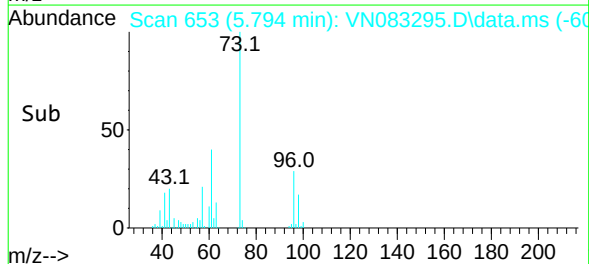
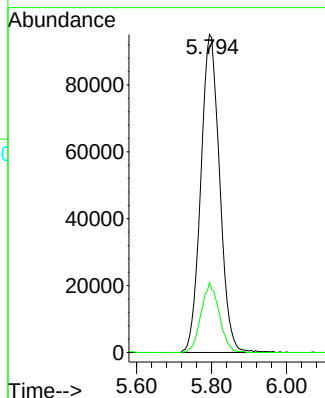
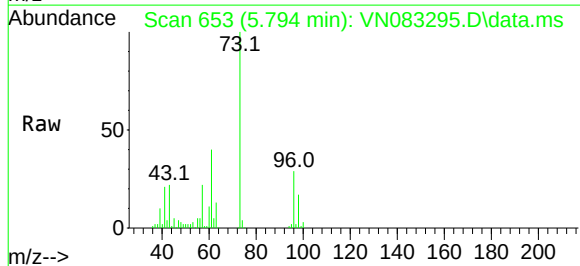
Ion Ratio Lower Upper

73 100

57 21.9 17.9 26.9

Manual Integrations

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Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#20

Methylene Chloride

Concen: 46.513 ug/l

RT: 5.277 min Scan# 565

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Tgt Ion: 84 Resp: 98695

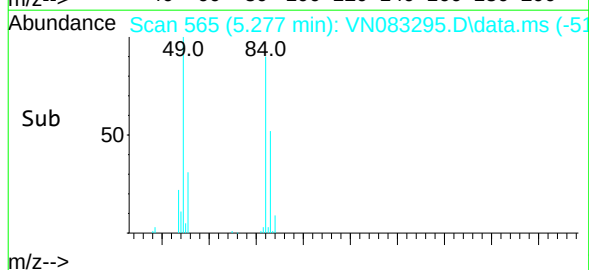
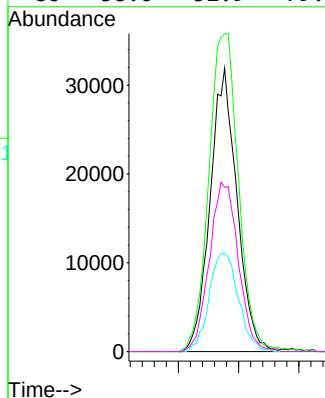
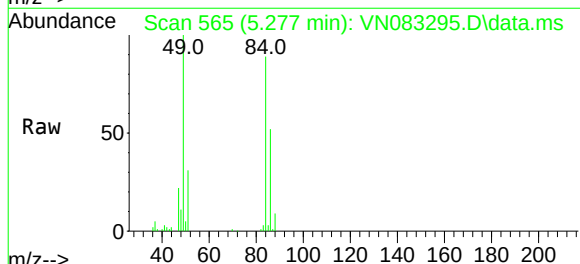
Ion Ratio Lower Upper

84 100

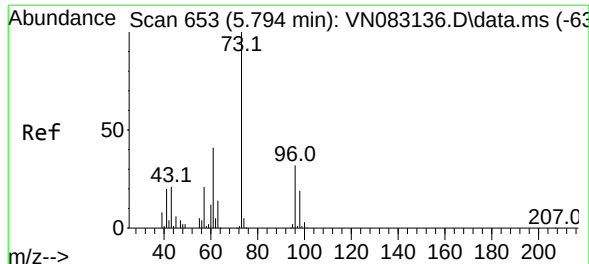
49 112.1 119.6 179.4#

51 34.7 34.8 52.2#

86 58.0 52.9 79.3







#21

trans-1,2-Dichloroethene

Concen: 47.417 ug/l

RT: 5.783 min Scan# 65

Delta R.T. -0.012 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 96 Resp: 89928

Ion Ratio Lower Upper

96 100

61 138.1 123.4 185.2

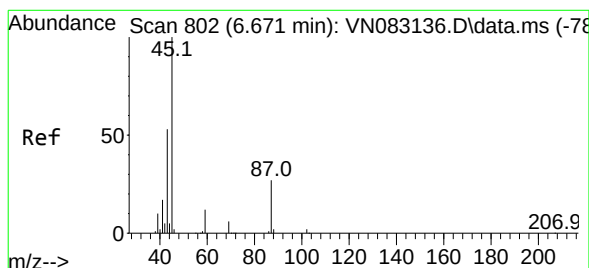
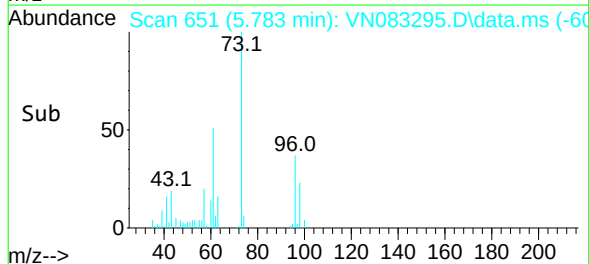
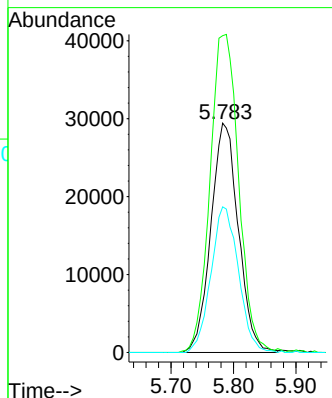
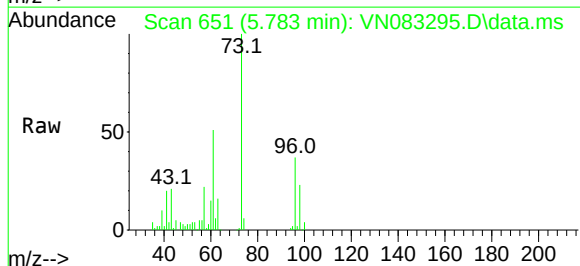
98 63.5 49.3 73.9

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#22

Diisopropyl ether

Concen: 50.939 ug/l

RT: 6.677 min Scan# 803

Delta R.T. 0.006 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Tgt Ion: 45 Resp: 332029

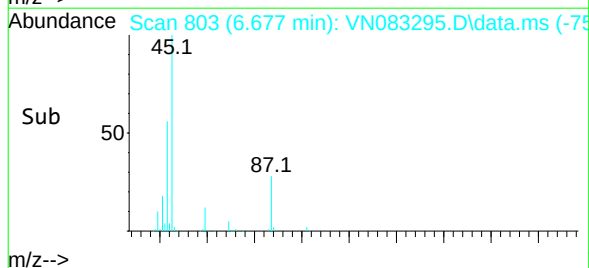
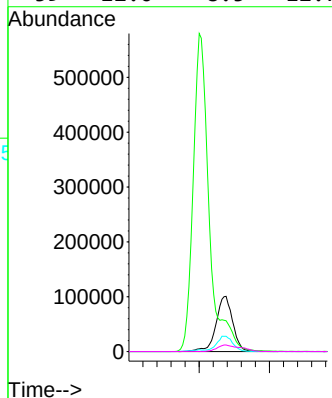
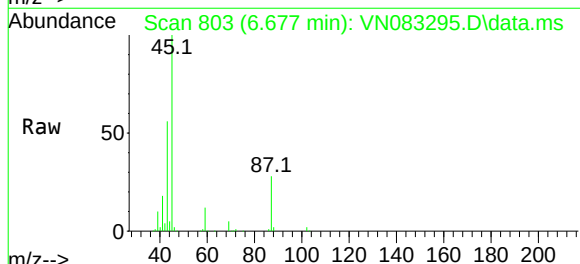
Ion Ratio Lower Upper

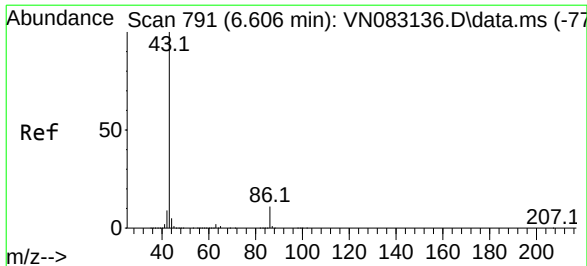
45 100

43 55.3 44.0 66.0

87 27.8 19.7 29.5

59 12.0 8.5 12.7





#23

Vinyl Acetate

Concen: 273.001 ug/l

RT: 6.600 min Scan# 791

Delta R.T. -0.006 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 43 Resp: 1823939

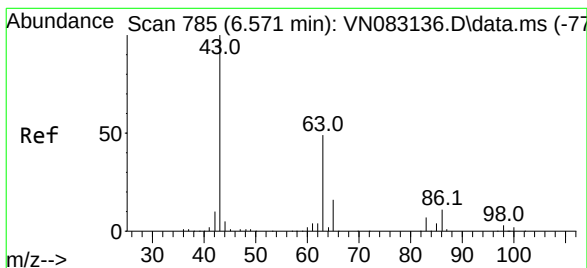
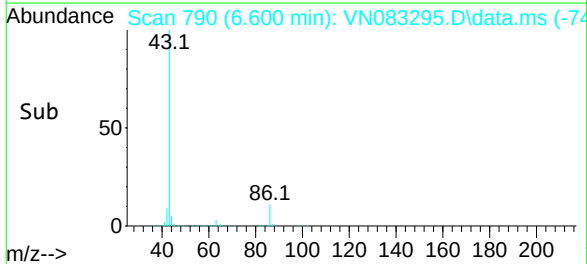
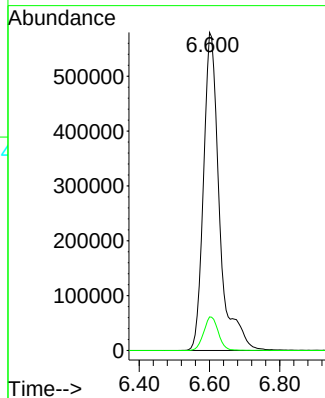
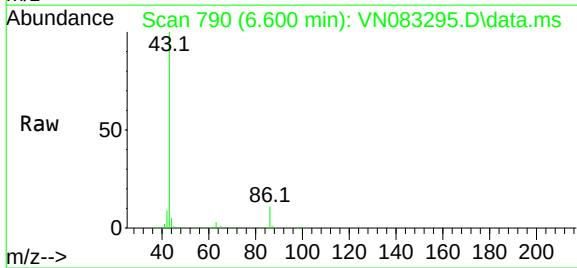
Ion Ratio Lower Upper

43 100

86 10.6 7.3 10.9

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#24

1,1-Dichloroethane

Concen: 51.002 ug/l

RT: 6.571 min Scan# 785

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

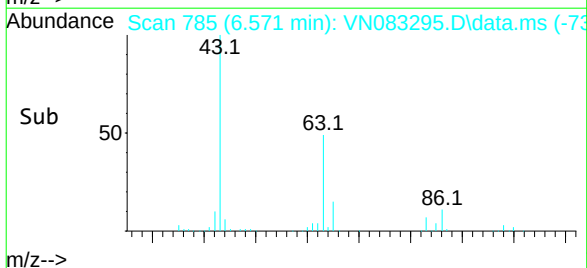
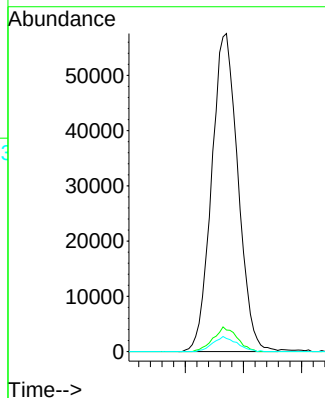
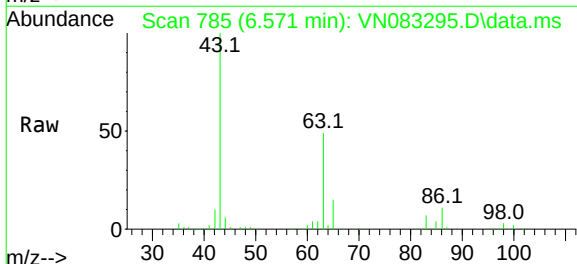
Tgt Ion: 63 Resp: 181204

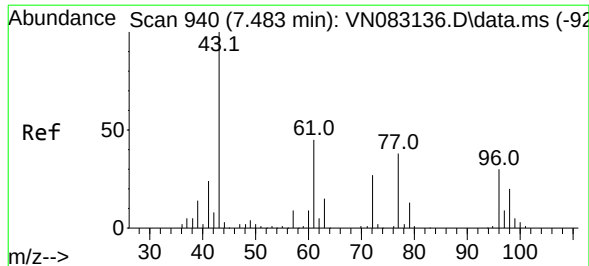
Ion Ratio Lower Upper

63 100

98 6.8 3.3 9.9

100 4.1 2.0 6.0





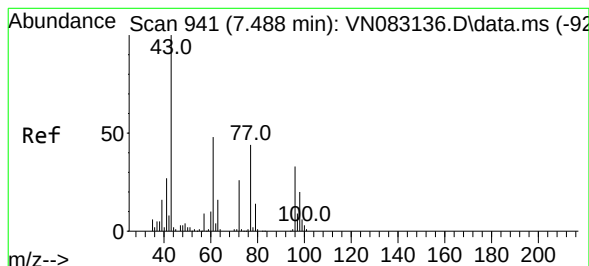
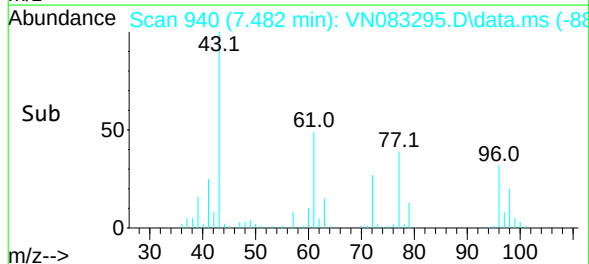
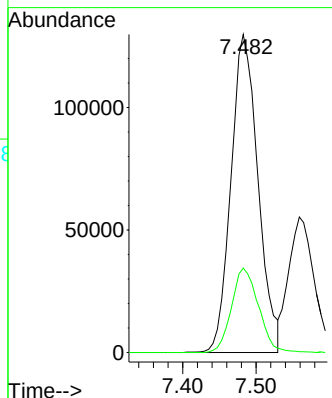
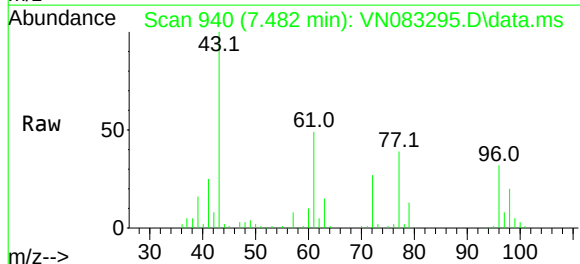
#25  
2-Butanone  
Concen: 234.803 ug/l  
RT: 7.482 min Scan# 940  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050

Tgt Ion: 43 Resp: 332401  
Ion Ratio Lower Upper  
43 100  
72 26.5 18.2 27.2

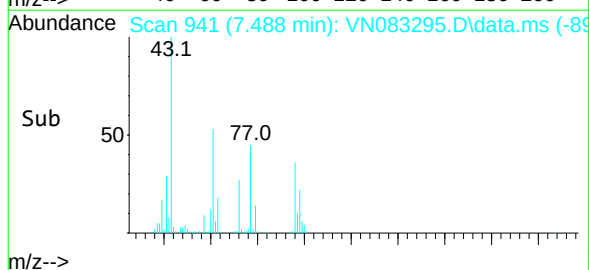
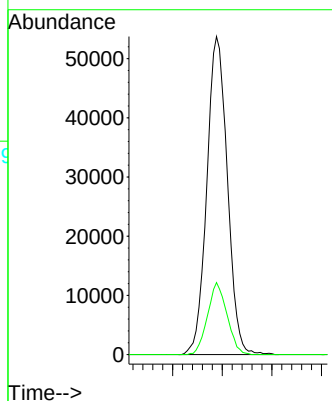
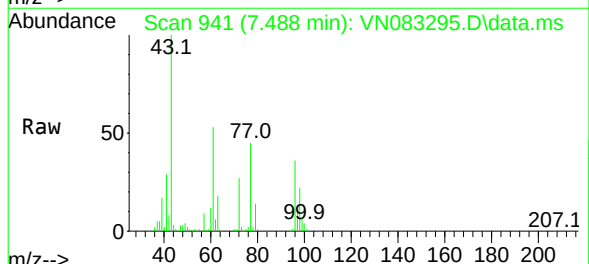
Manual Integrations  
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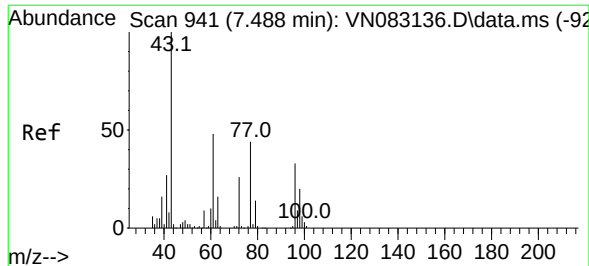
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#26  
2,2-Dichloropropane  
Concen: 46.878 ug/l  
RT: 7.488 min Scan# 941  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

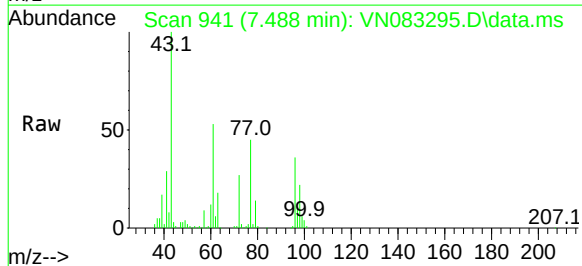
Tgt Ion: 77 Resp: 154672  
Ion Ratio Lower Upper  
77 100  
97 21.4 10.3 30.9





#27  
cis-1,2-Dichloroethene  
Concen: 49.219 ug/l  
RT: 7.488 min Scan# 941  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

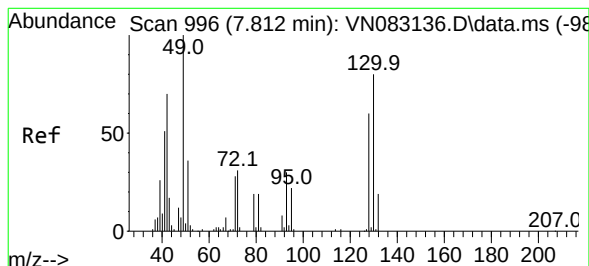
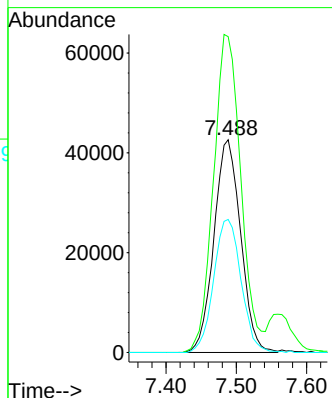
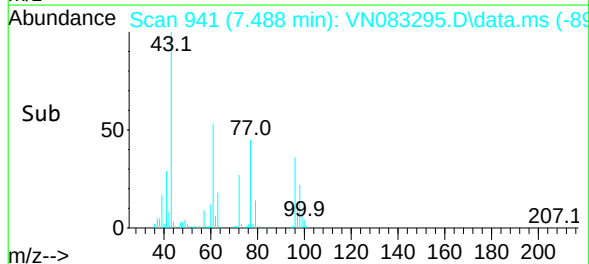
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



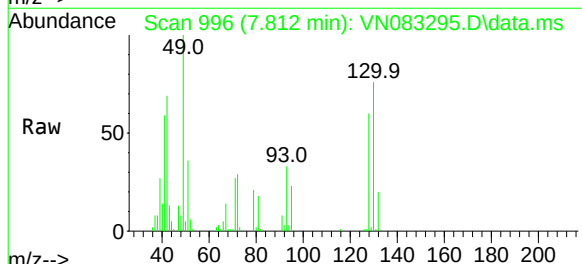
Tgt Ion: 96 Resp: 112641  
Ion Ratio Lower Upper  
96 100  
61 153.9 0.0 329.6  
98 64.1 0.0 128.6

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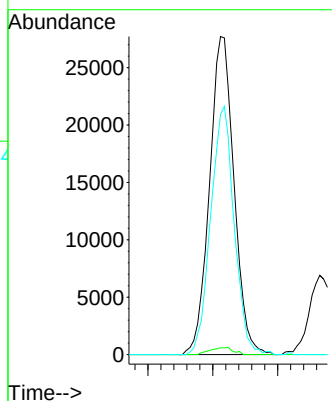
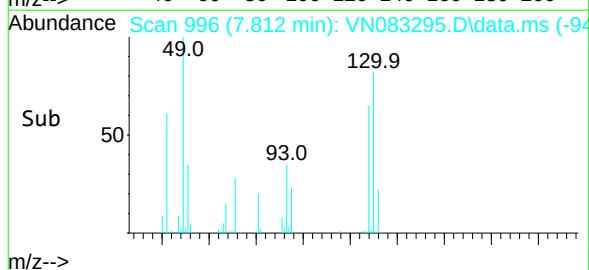
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

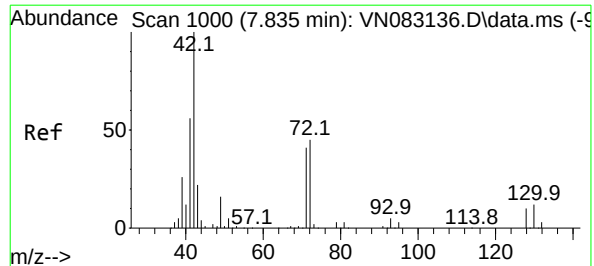


#28  
Bromochloromethane  
Concen: 50.022 ug/l  
RT: 7.812 min Scan# 996  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41



Tgt Ion: 49 Resp: 72630  
Ion Ratio Lower Upper  
49 100  
129 2.1 0.0 3.8  
130 74.7 50.5 75.7





#29  
Tetrahydrofuran  
Concen: 232.605 ug/l  
RT: 7.841 min Scan# 1001  
Delta R.T. 0.006 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

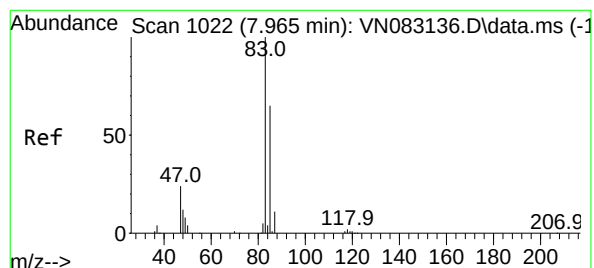
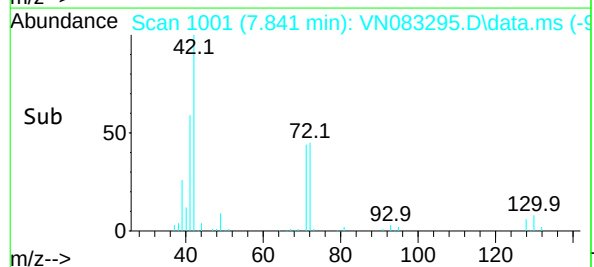
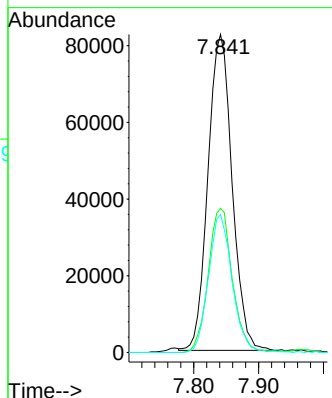
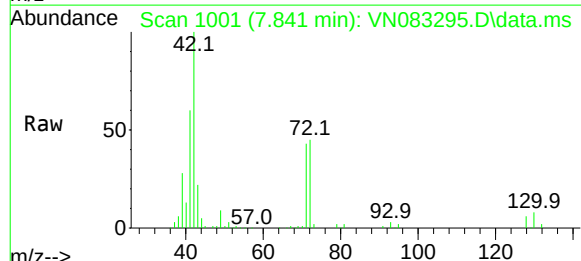
ClientSampleId :

VSTDCCC050

Tgt Ion: 42 Resp: 212863  
Ion Ratio Lower Upper  
42 100  
72 45.5 30.0 45.0#  
71 42.9 28.3 42.5#

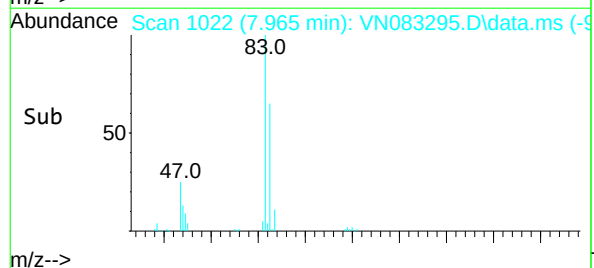
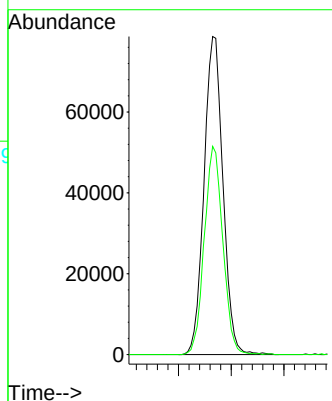
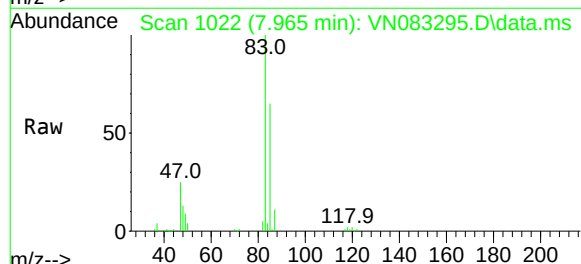
Manual Integrations  
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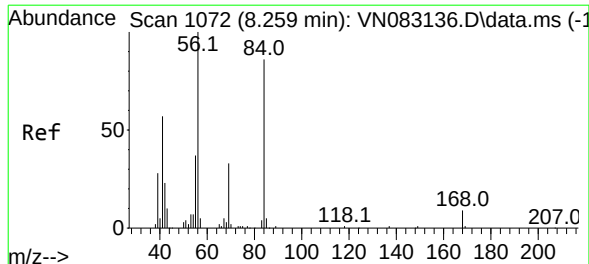
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#30  
Chloroform  
Concen: 53.171 ug/l  
RT: 7.965 min Scan# 1022  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Tgt Ion: 83 Resp: 196262  
Ion Ratio Lower Upper  
83 100  
85 65.5 50.9 76.3





#31

Cyclohexane

Concen: 45.816 ug/l

RT: 8.259 min Scan# 1072

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 56 Resp: 159977

Ion Ratio Lower Upper

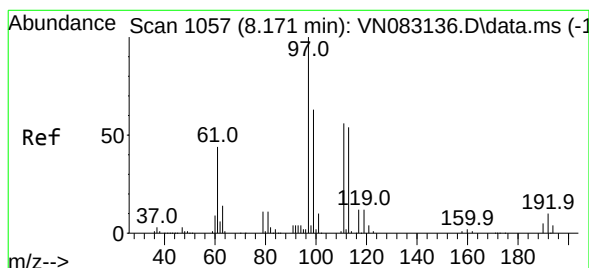
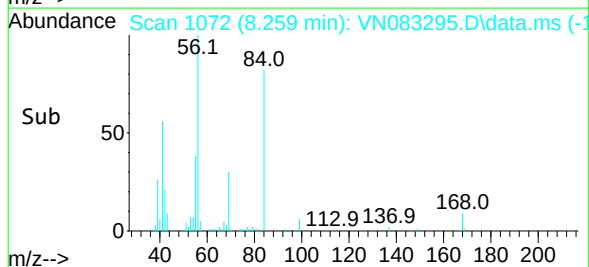
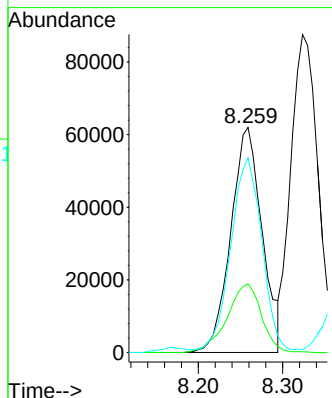
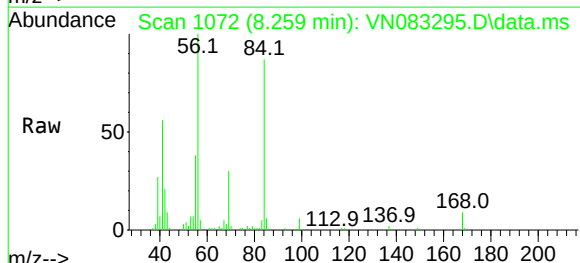
56 100

69 30.5 24.5 36.7

84 84.7 66.0 99.0

Manual Integrations

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Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#32

1,1,1-Trichloroethane

Concen: 51.554 ug/l

RT: 8.171 min Scan# 1057

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

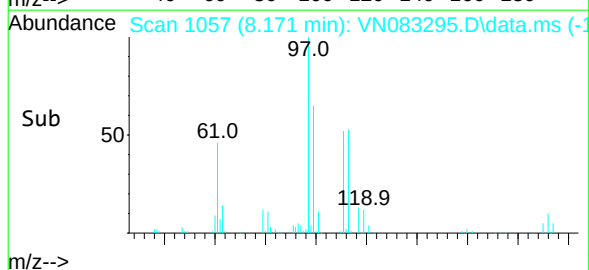
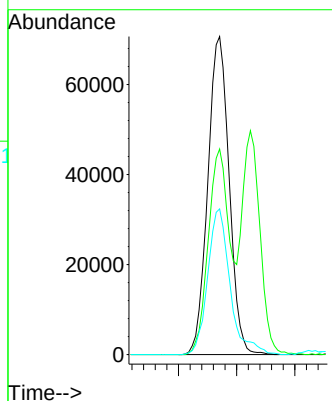
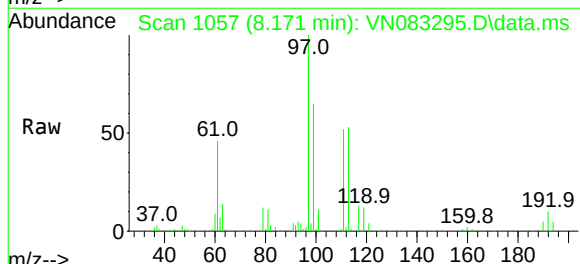
Tgt Ion: 97 Resp: 180121

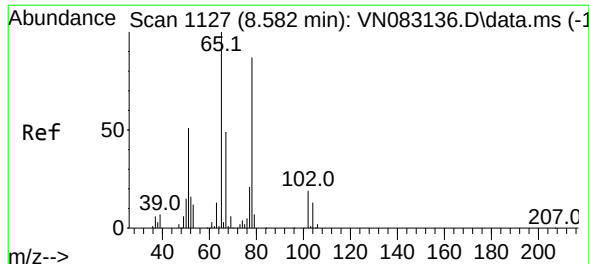
Ion Ratio Lower Upper

97 100

99 65.7 52.0 78.0

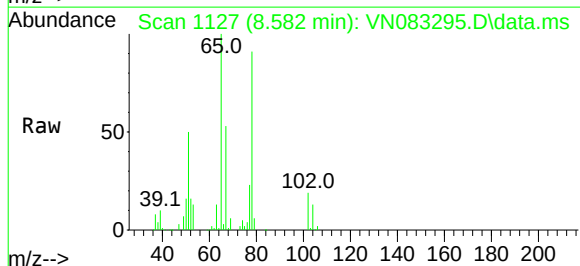
61 48.1 42.1 63.1





#33  
1,2-Dichloroethane-d4  
Concen: 52.129 ug/l  
RT: 8.582 min Scan# 1127  
Delta R.T. 0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

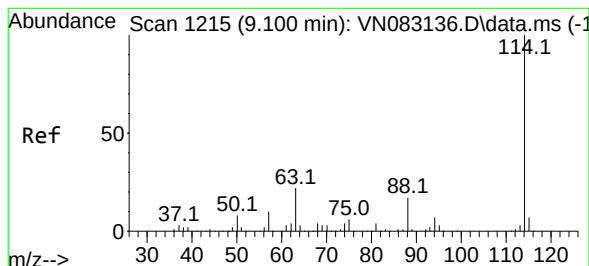
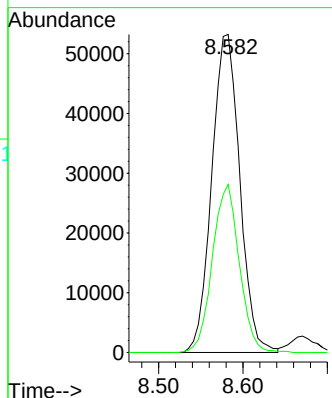
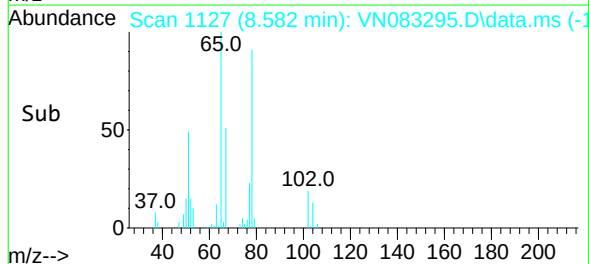
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 65 Resp: 122826  
Ion Ratio Lower Upper  
65 100  
67 50.7 0.0 104.4

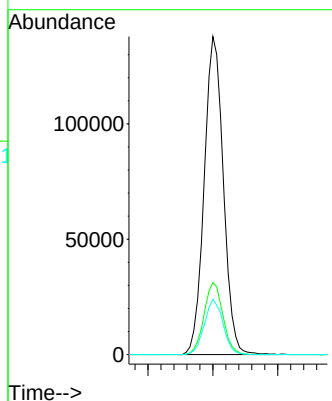
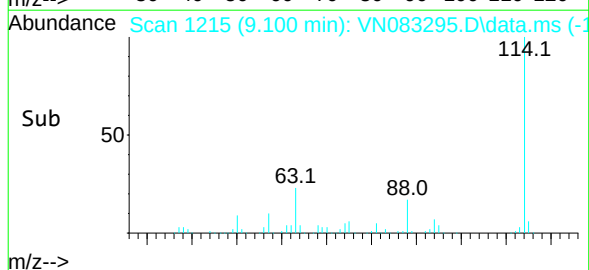
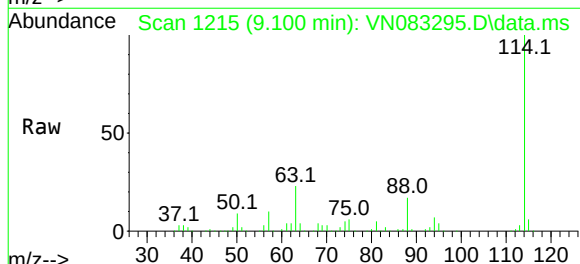
Manual Integrations  
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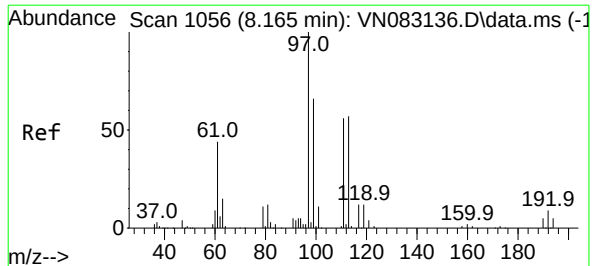
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 9.100 min Scan# 1215  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Tgt Ion:114 Resp: 282606  
Ion Ratio Lower Upper  
114 100  
63 22.6 0.0 44.6  
88 17.3 0.0 31.4





#35

Dibromofluoromethane

Concen: 51.194 ug/l

RT: 8.171 min Scan# 1056

Delta R.T. 0.006 min

Lab File: VN083295.D

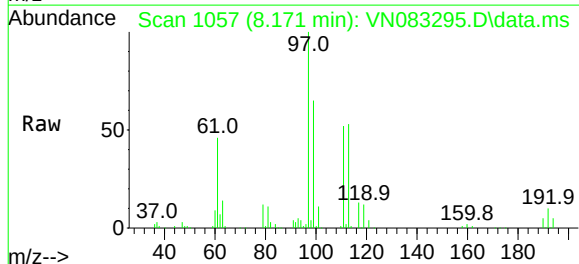
Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

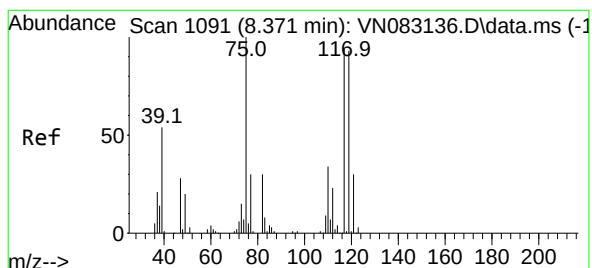
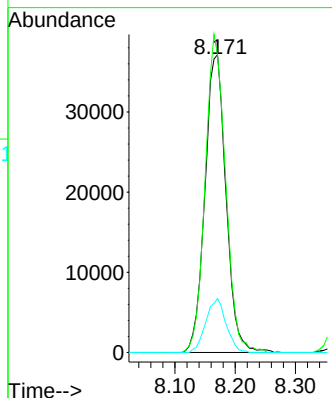
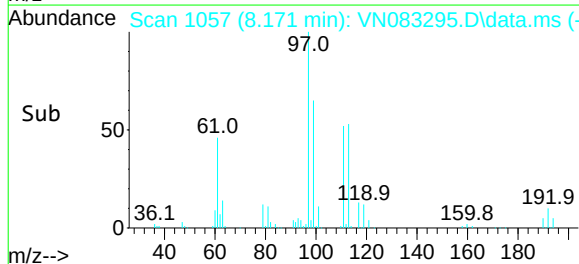
VSTDCCC050



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 113   | Resp: | 90305 |
| Ion      | Ratio | Lower | Upper |
| 113      | 100   |       |       |
| 111      | 103.3 | 82.4  | 123.6 |
| 192      | 17.3  | 14.9  | 22.3  |

Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#36

1,1-Dichloropropene

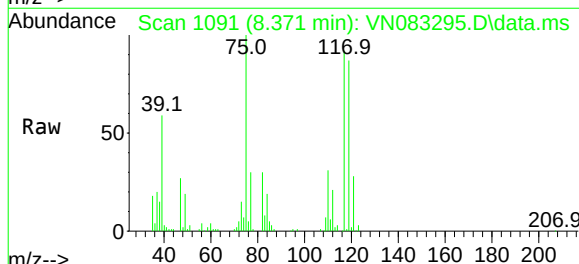
Concen: 50.312 ug/l

RT: 8.371 min Scan# 1091

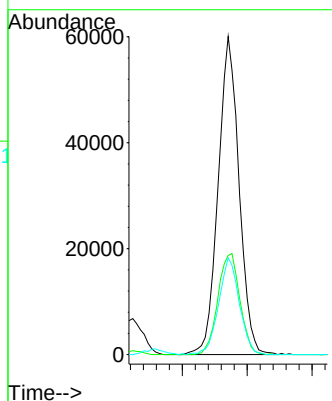
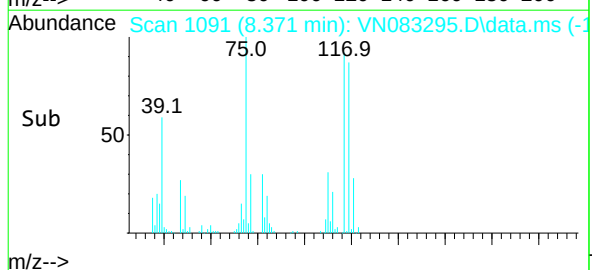
Delta R.T. -0.000 min

Lab File: VN083295.D

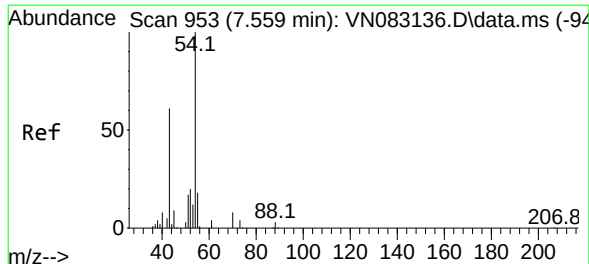
Acq: 14 Aug 2024 12:41



|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 75    | Resp: | 134252 |
| Ion      | Ratio | Lower | Upper  |
| 75       | 100   |       |        |
| 110      | 33.4  | 16.3  | 48.9   |
| 77       | 30.1  | 24.6  | 37.0   |







#37

Ethyl Acetate

Concen: 45.975 ug/l

RT: 7.559 min Scan# 953

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDC050

Tgt Ion: 43 Resp: 137359

Ion Ratio Lower Upper

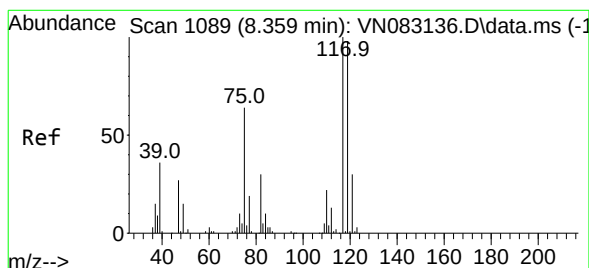
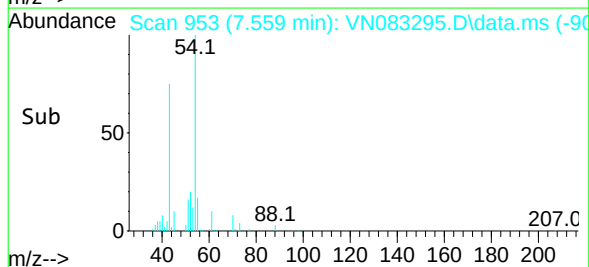
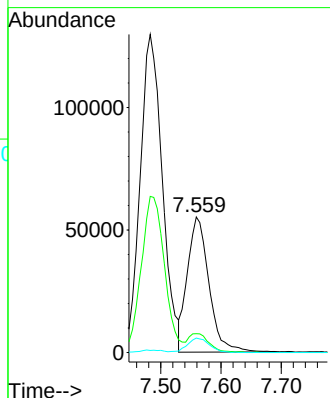
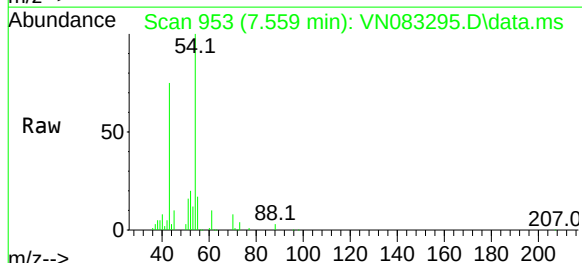
43 100

61 13.0 9.3 13.9

70 10.9 7.0 10.6#

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#38

Carbon Tetrachloride

Concen: 51.545 ug/l

RT: 8.365 min Scan# 1090

Delta R.T. 0.006 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

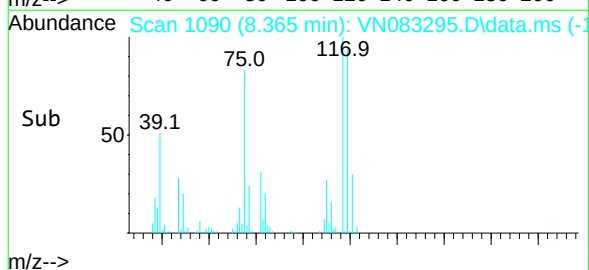
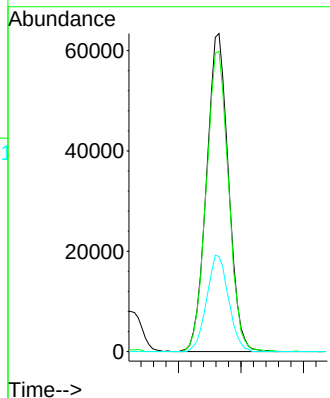
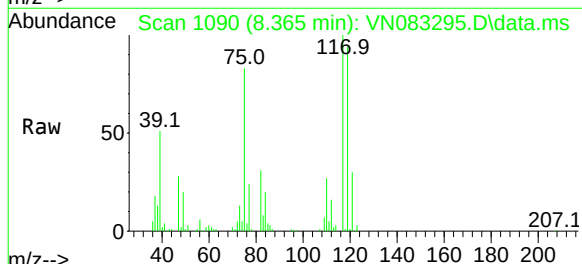
Tgt Ion:117 Resp: 154915

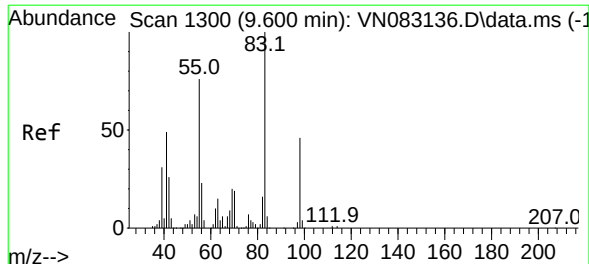
Ion Ratio Lower Upper

117 100

119 94.4 74.9 112.3

121 29.9 24.3 36.5





#39

Methylcyclohexane

Concen: 48.172 ug/l

RT: 9.600 min Scan# 13

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 83 Resp: 157882

Ion Ratio Lower Upper

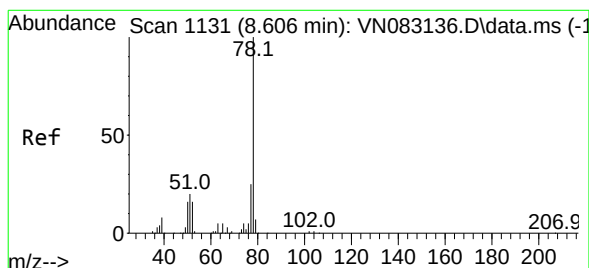
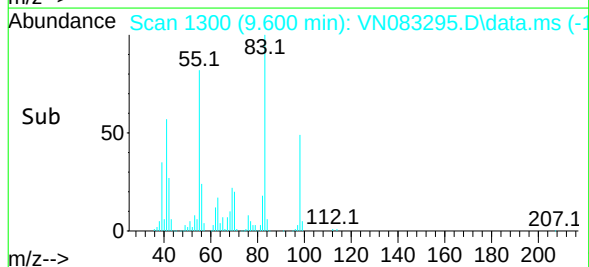
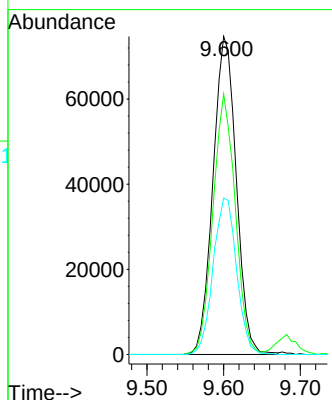
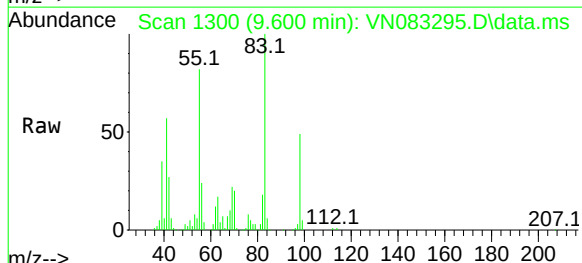
83 100

55 81.9 66.4 99.6

98 49.2 40.7 61.1

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#40

Benzene

Concen: 50.937 ug/l

RT: 8.606 min Scan# 1131

Delta R.T. -0.000 min

Lab File: VN083295.D

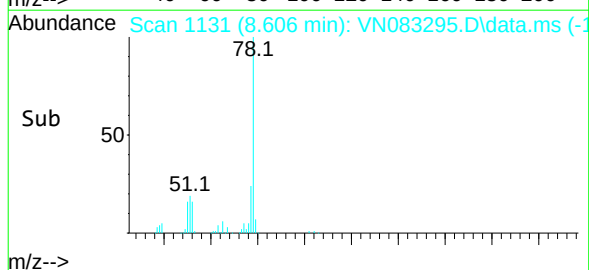
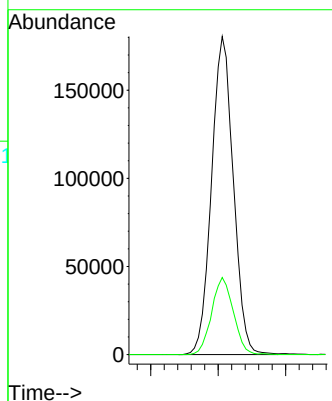
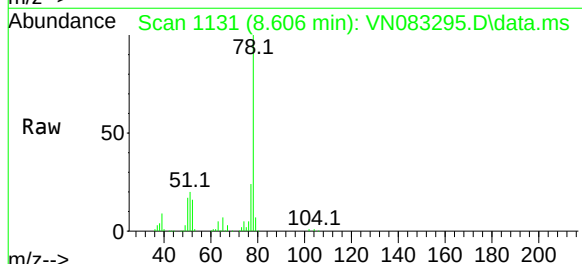
Acq: 14 Aug 2024 12:41

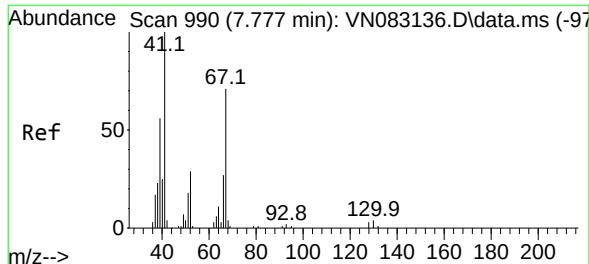
Tgt Ion: 78 Resp: 404907

Ion Ratio Lower Upper

78 100

77 24.3 19.0 28.4





#41

Methacrylonitrile

Concen: 46.068 ug/l

RT: 7.777 min Scan# 990

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 41 Resp: 78258

Ion Ratio Lower Upper

41 100

39 58.8 45.5 68.3

67 72.8 50.5 75.7

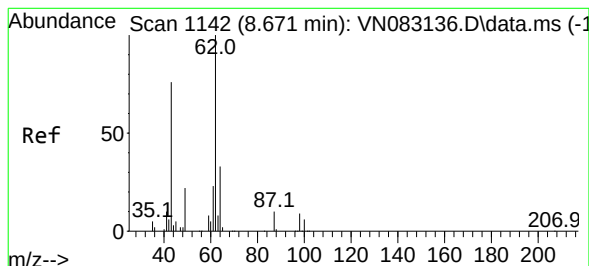
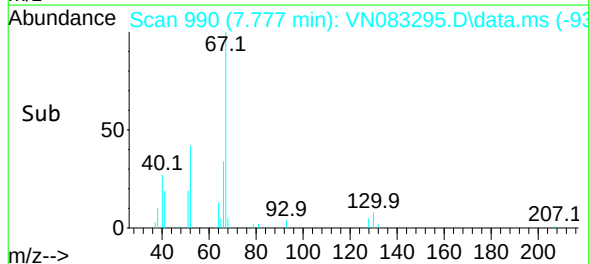
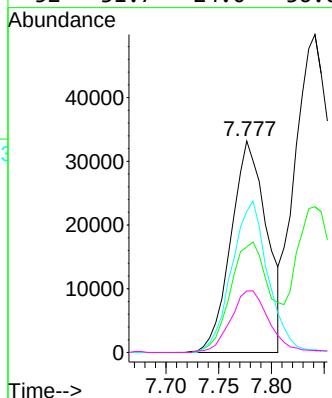
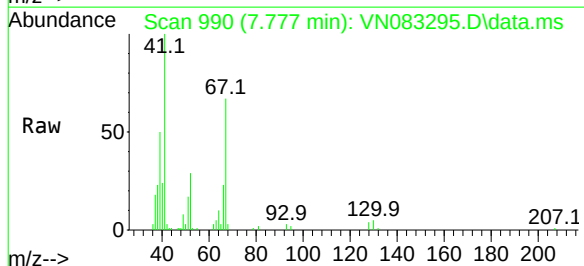
52 31.7 24.0 36.0

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#42

1,2-Dichloroethane

Concen: 53.374 ug/l

RT: 8.671 min Scan# 1142

Delta R.T. -0.000 min

Lab File: VN083295.D

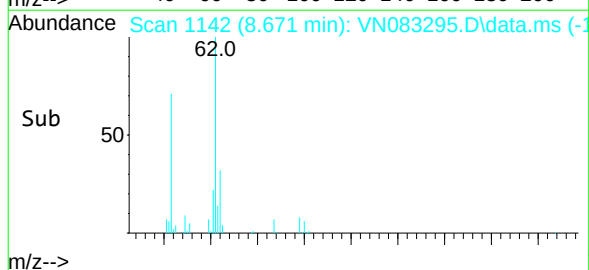
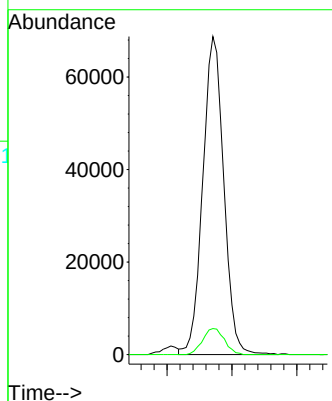
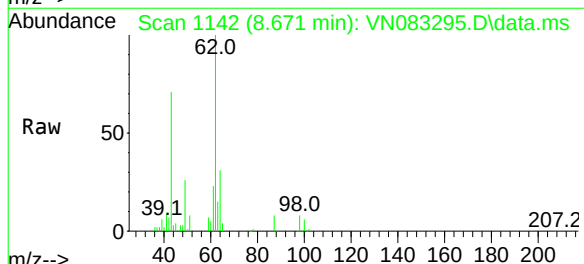
Acq: 14 Aug 2024 12:41

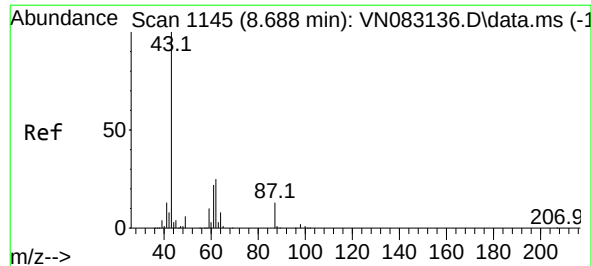
Tgt Ion: 62 Resp: 154557

Ion Ratio Lower Upper

62 100

98 8.5 0.0 15.8





#43

Isopropyl Acetate

Concen: 48.708 ug/l

RT: 8.688 min Scan# 1145

Delta R.T. 0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 43 Resp: 252838

Ion Ratio Lower Upper

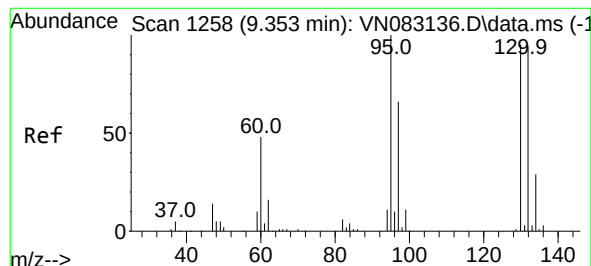
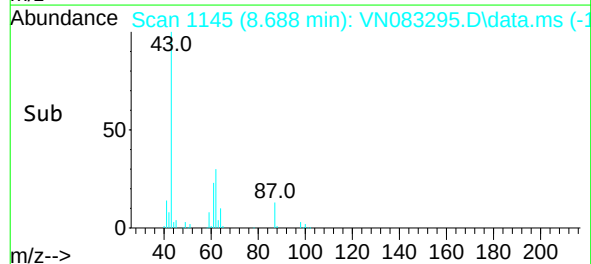
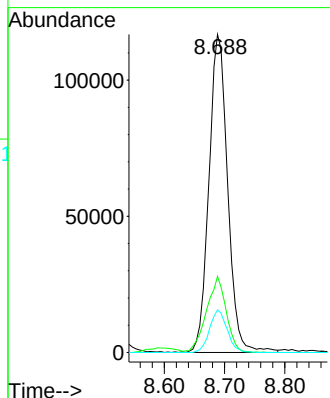
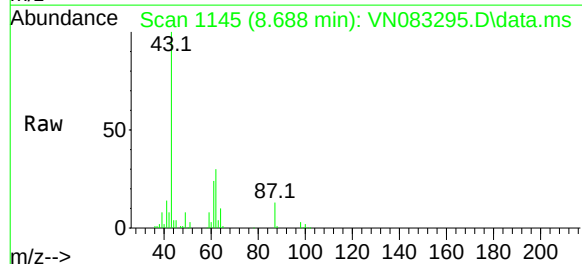
43 100

61 25.1 17.8 26.6

87 12.5 8.2 12.2#

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#44

Trichloroethene

Concen: 50.883 ug/l

RT: 9.353 min Scan# 1258

Delta R.T. -0.000 min

Lab File: VN083295.D

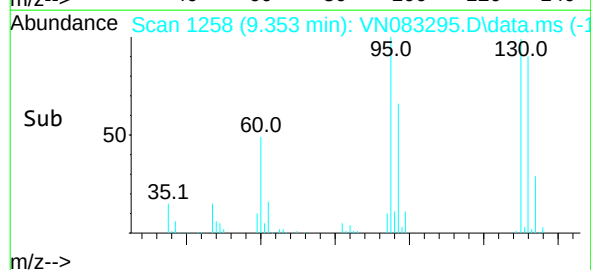
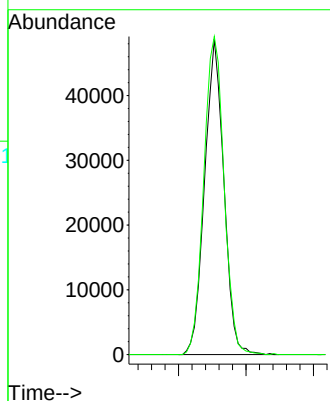
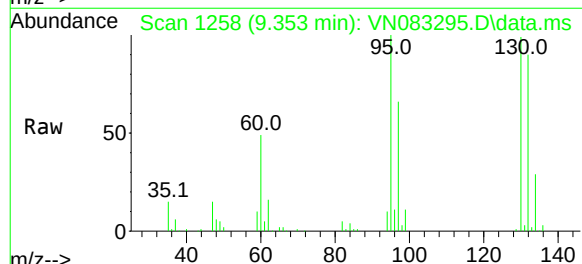
Acq: 14 Aug 2024 12:41

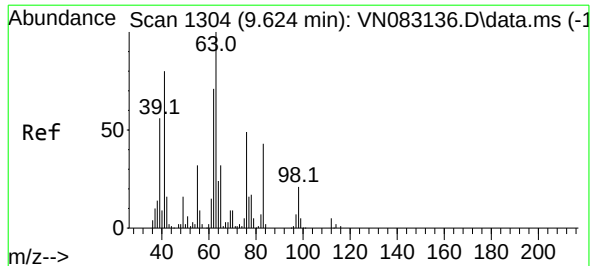
Tgt Ion:130 Resp: 96274

Ion Ratio Lower Upper

130 100

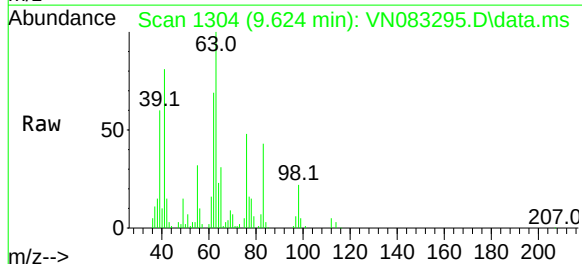
95 100.8 0.0 197.8





#45  
1,2-Dichloropropane  
Concen: 53.038 ug/l  
RT: 9.624 min Scan# 1304  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

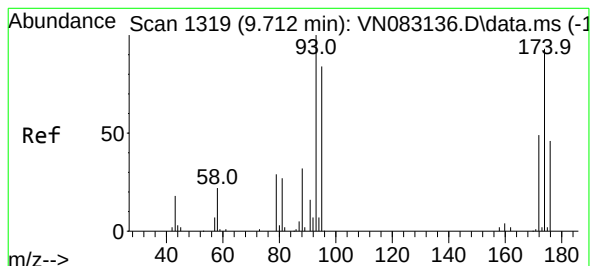
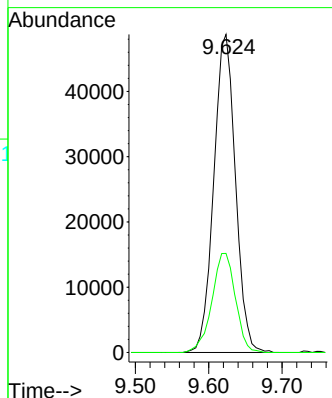
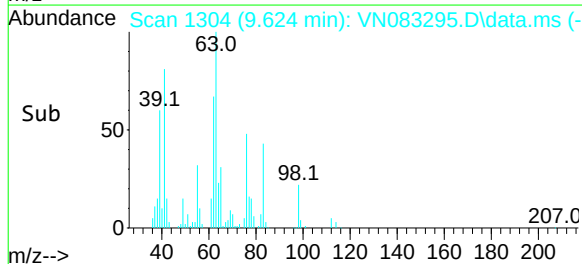
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 63 Resp: 100079  
Ion Ratio Lower Upper  
63 100  
65 31.1 24.4 36.6

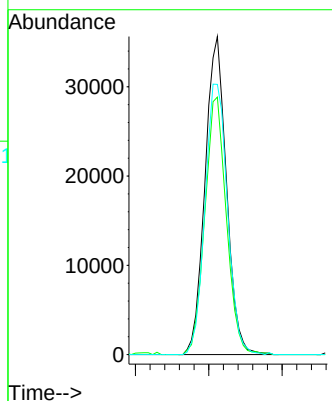
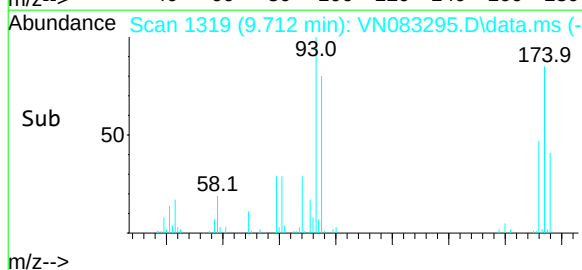
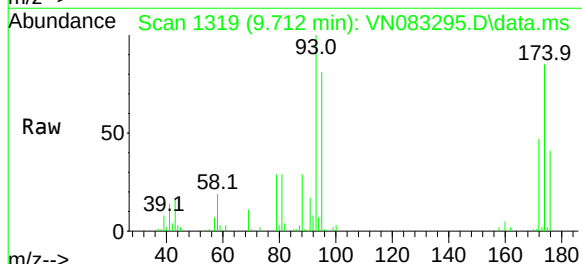
Manual Integrations  
APPROVED

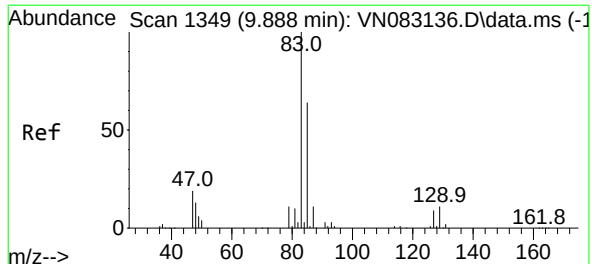
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#46  
Dibromomethane  
Concen: 53.530 ug/l  
RT: 9.712 min Scan# 1319  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Tgt Ion: 93 Resp: 72298  
Ion Ratio Lower Upper  
93 100  
95 81.4 65.8 98.6  
174 89.3 71.7 107.5





#47  
Bromodichloromethane  
Concen: 51.369 ug/l  
RT: 9.888 min Scan# 1349  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

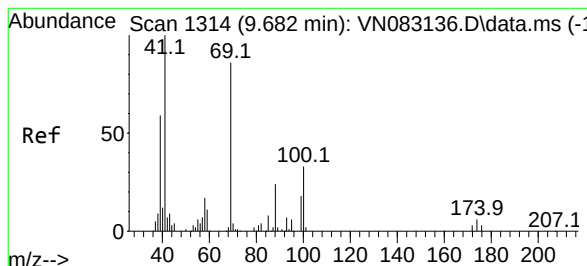
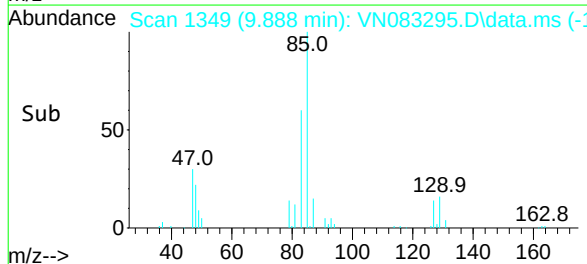
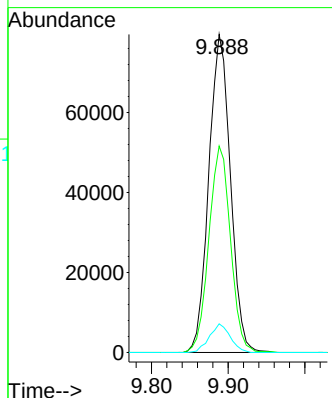
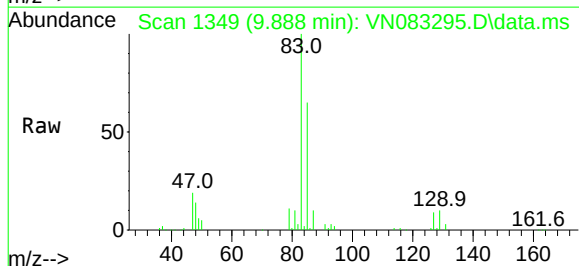
ClientSampleId :

VSTDCCC050

| Tgt Ion | 83    | Resp  | 155782 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 83      | 100   |       |        |
| 85      | 64.9  | 51.1  | 76.7   |
| 127     | 9.0   | 7.2   | 10.8   |

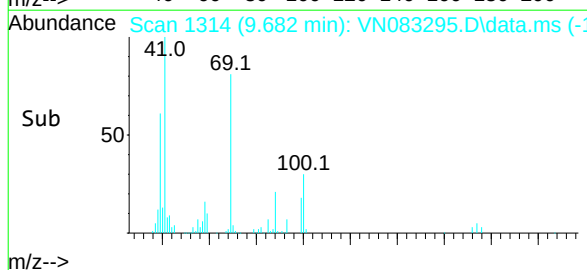
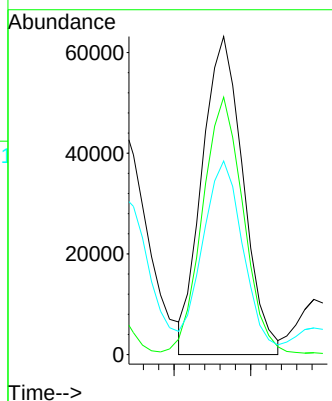
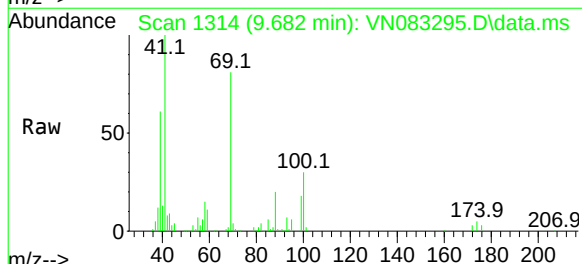
Manual Integrations  
APPROVED

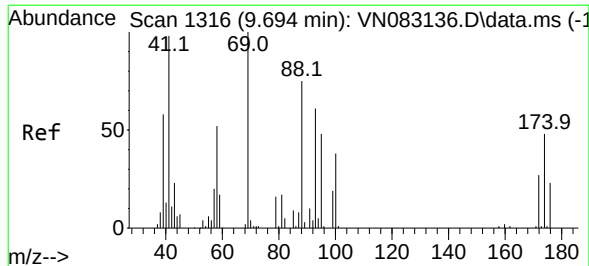
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#48  
Methyl methacrylate  
Concen: 47.618 ug/l  
RT: 9.682 min Scan# 1314  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

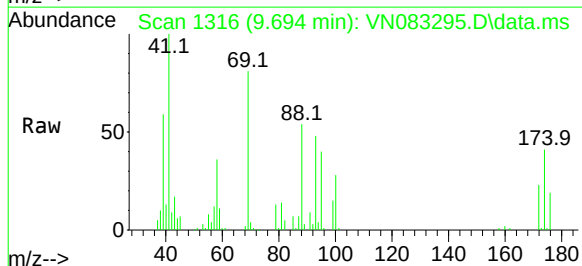
| Tgt Ion | 41    | Resp  | 117620 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 41      | 100   |       |        |
| 69      | 81.3  | 56.3  | 84.5   |
| 39      | 60.6  | 50.3  | 75.5   |





#49  
1,4-Dioxane  
Concen: 960.872 ug/l  
RT: 9.694 min Scan# 1316  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

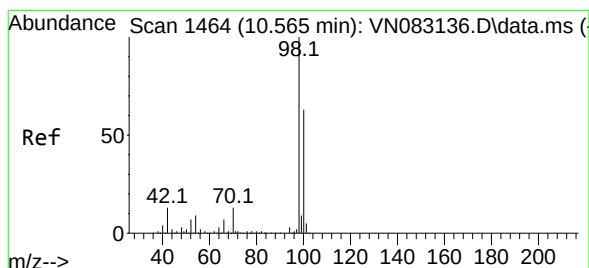
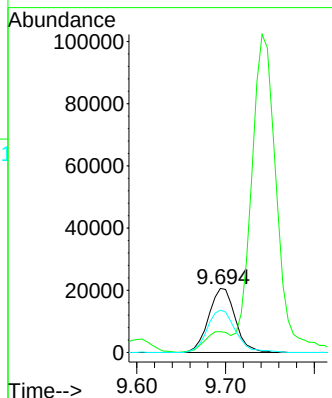
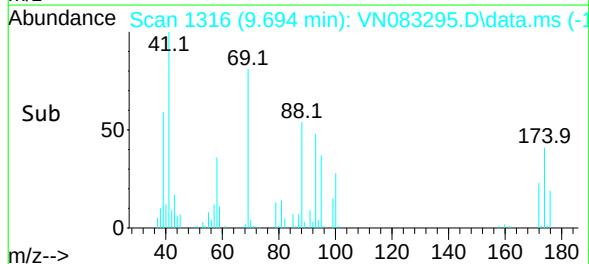
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 88 Resp: 42819  
Ion Ratio Lower Upper  
88 100  
43 31.5 27.8 41.8  
58 70.6 59.4 89.0

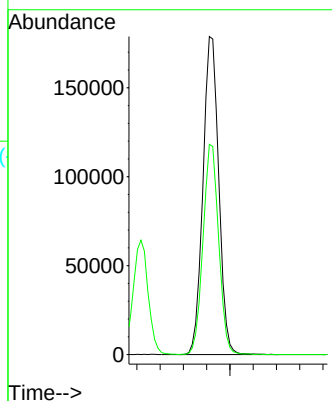
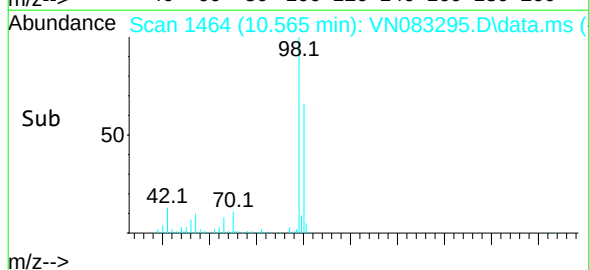
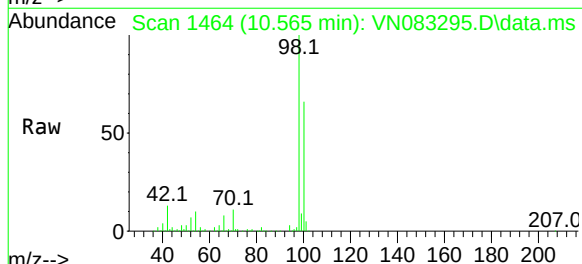
Manual Integrations  
APPROVED

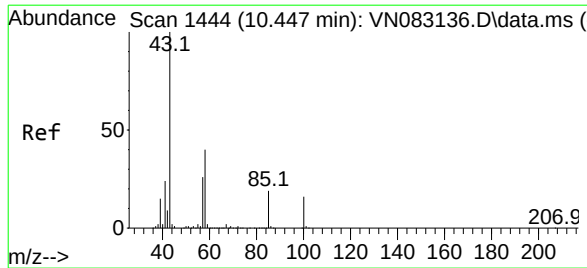
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#50  
Toluene-d8  
Concen: 51.234 ug/l  
RT: 10.565 min Scan# 1464  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

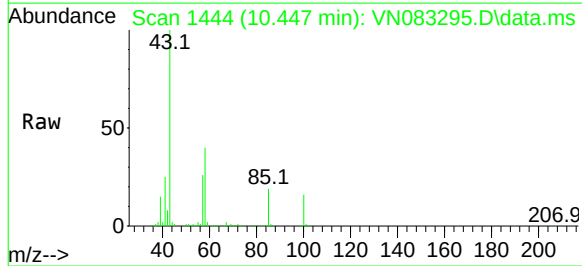
Tgt Ion: 98 Resp: 337123  
Ion Ratio Lower Upper  
98 100  
100 65.6 51.5 77.3





#51  
4-Methyl-2-Pentanone  
Concen: 253.043 ug/l  
RT: 10.447 min Scan# 1444  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

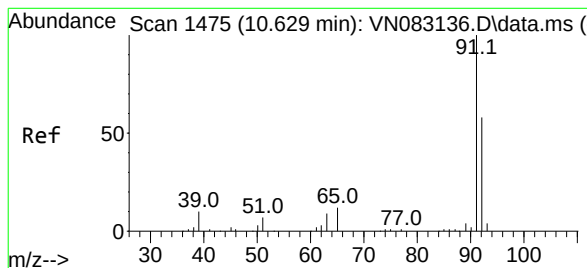
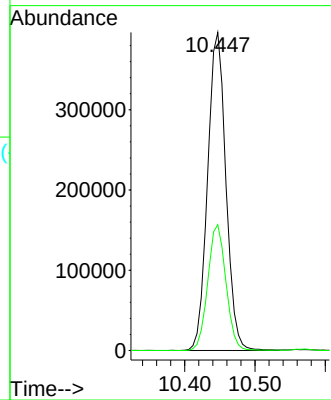
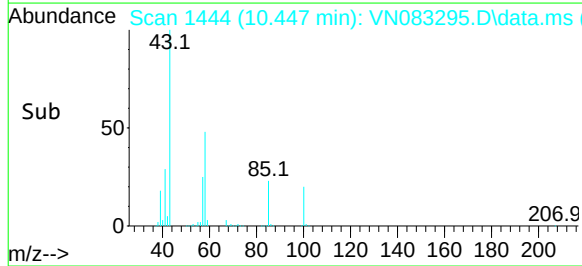
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 43 Resp: 714918  
Ion Ratio Lower Upper  
43 100  
58 39.3 28.2 42.4

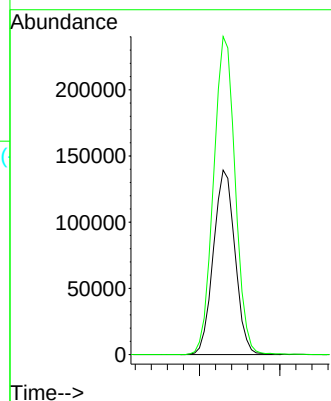
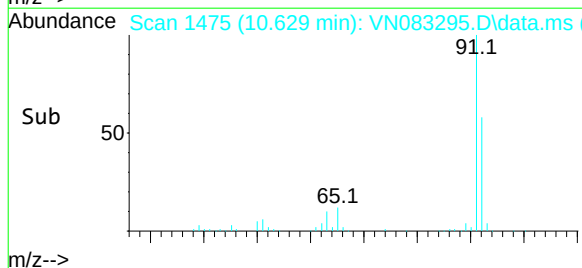
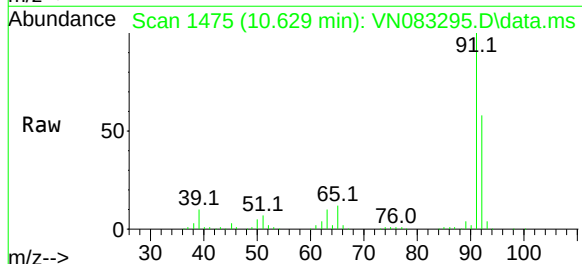
Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

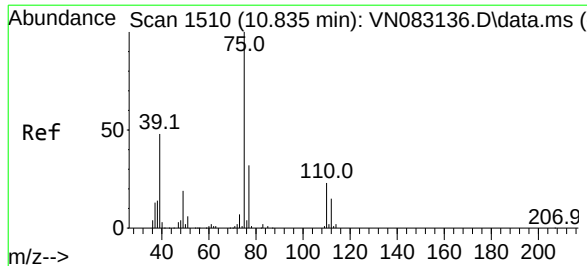


#52  
Toluene  
Concen: 51.813 ug/l  
RT: 10.629 min Scan# 1475  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Tgt Ion: 92 Resp: 260237  
Ion Ratio Lower Upper  
92 100  
91 173.2 139.4 209.0







#53

t-1,3-Dichloropropene

Concen: 51.915 ug/l

RT: 10.835 min Scan# 1510

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 75 Resp: 161721

Ion Ratio Lower Upper

75 100

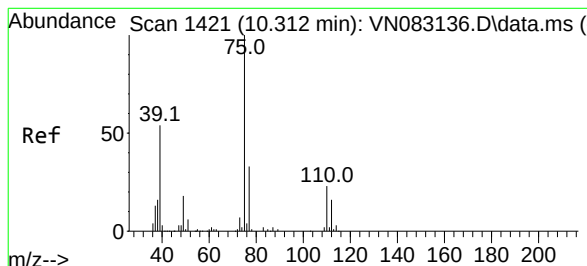
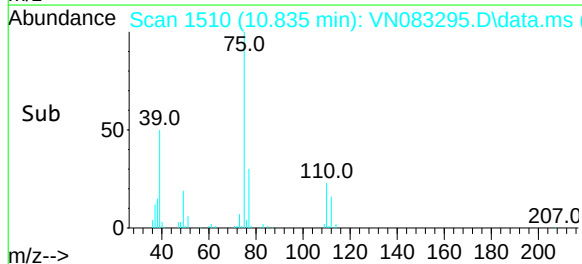
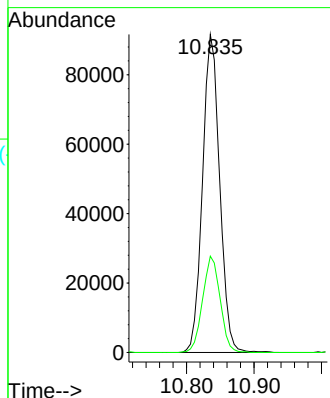
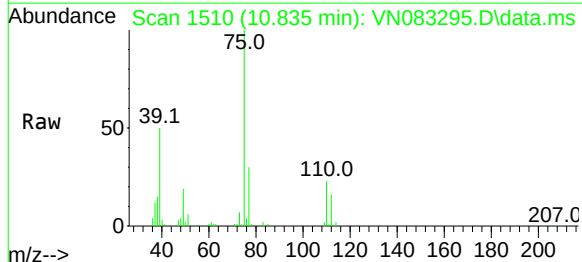
77 30.3 25.7 38.5

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#54

cis-1,3-Dichloropropene

Concen: 50.753 ug/l

RT: 10.312 min Scan# 1421

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

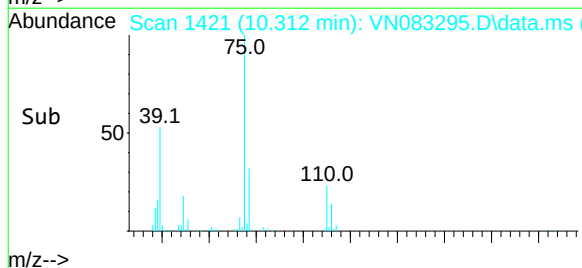
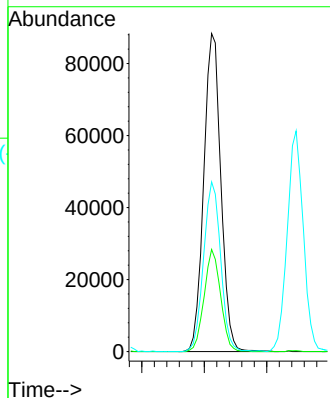
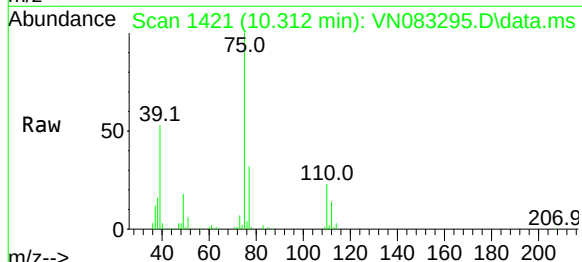
Tgt Ion: 75 Resp: 168161

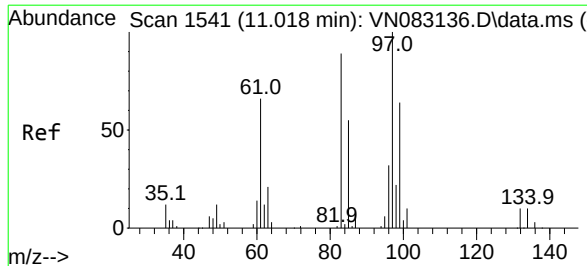
Ion Ratio Lower Upper

75 100

77 32.1 24.3 36.5

39 53.4 50.5 75.7





#55

1,1,2-Trichloroethane

Concen: 53.110 ug/l

RT: 11.018 min Scan# 1541

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 97 Resp: 95596

Ion Ratio Lower Upper

97 100

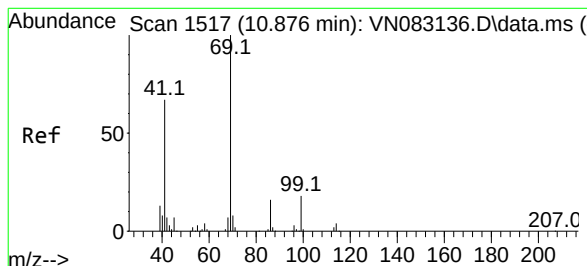
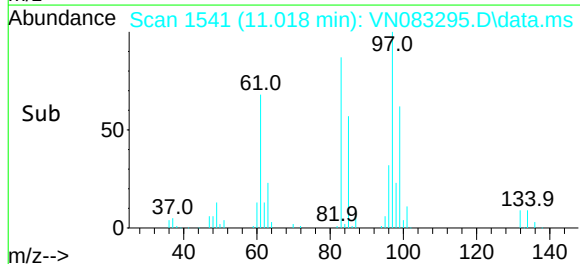
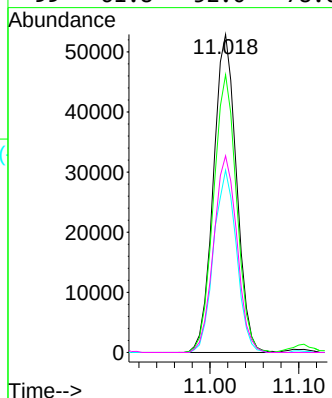
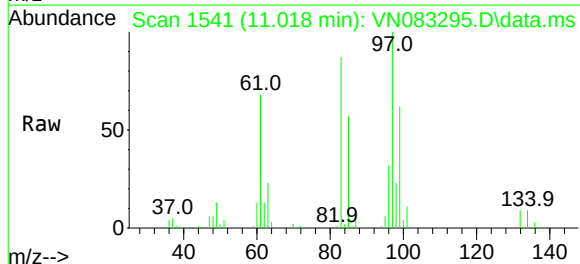
83 87.3 71.4 107.0

85 57.3 45.8 68.6

99 61.8 52.0 78.0

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#56

Ethyl methacrylate

Concen: 50.792 ug/l

RT: 10.876 min Scan# 1517

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

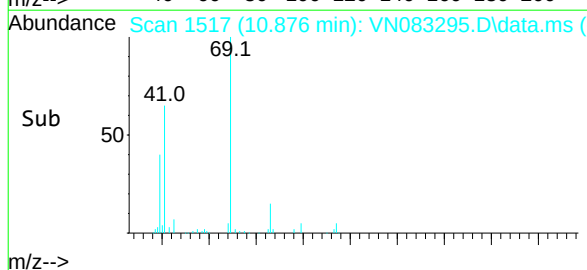
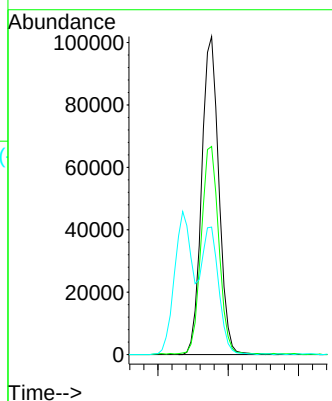
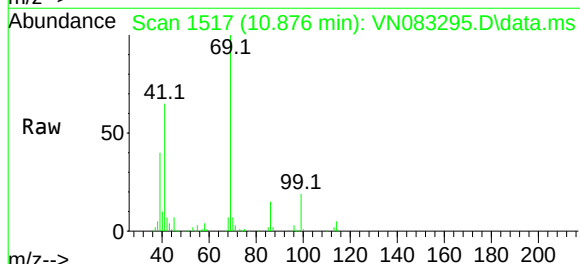
Tgt Ion: 69 Resp: 172350

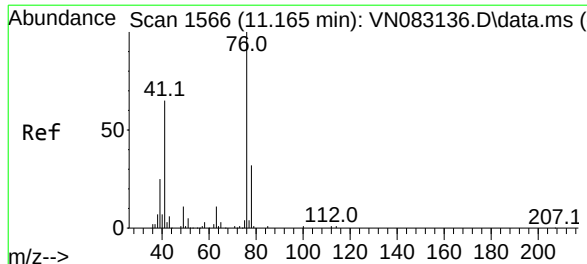
Ion Ratio Lower Upper

69 100

41 66.8 63.4 95.2

39 41.7 37.4 56.0





#57

1,3-Dichloropropane

Concen: 52.864 ug/l

RT: 11.165 min Scan# 1566

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 76 Resp: 169602

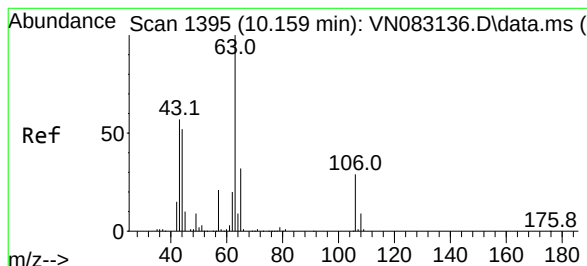
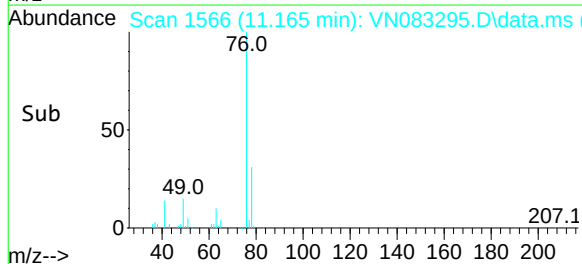
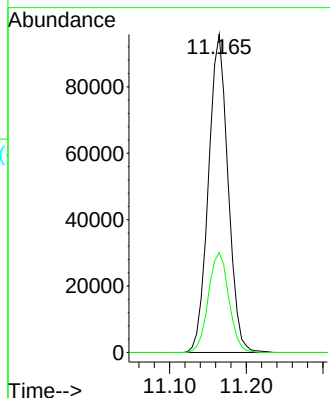
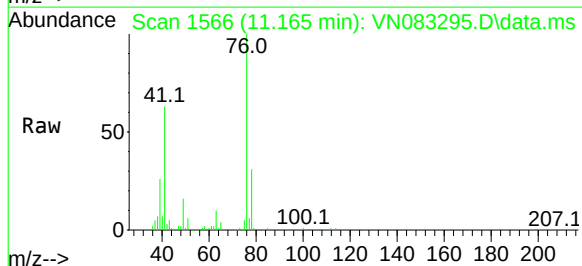
Ion Ratio Lower Upper

76 100

78 32.9 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#58

2-Chloroethyl Vinyl ether

Concen: 253.780 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. -0.000 min

Lab File: VN083295.D

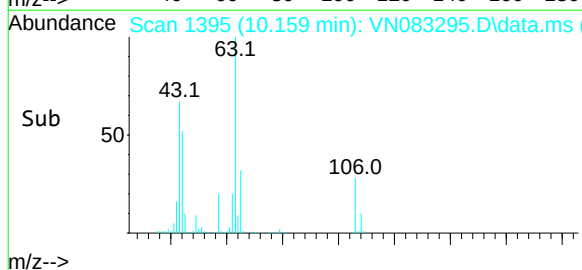
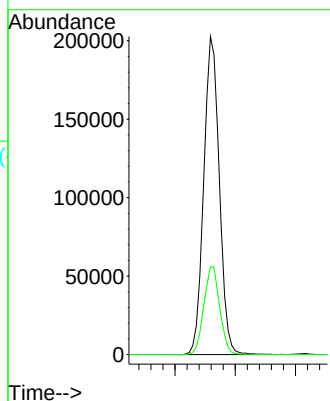
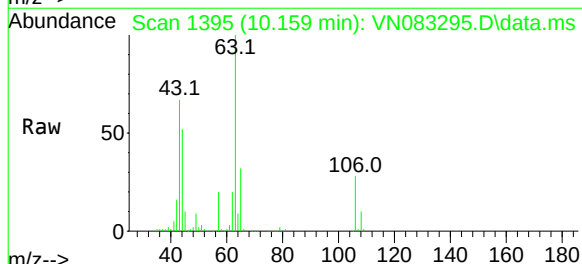
Acq: 14 Aug 2024 12:41

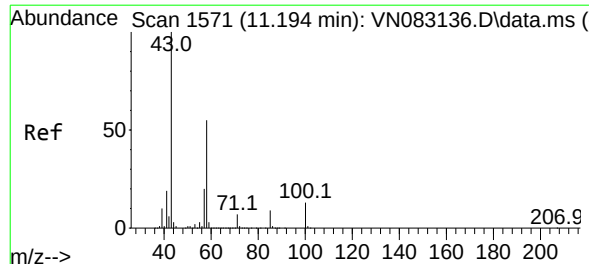
Tgt Ion: 63 Resp: 364003

Ion Ratio Lower Upper

63 100

106 28.2 21.4 32.0





#59

2-Hexanone

Concen: 243.668 ug/l

RT: 11.194 min Scan# 1571

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 43 Resp: 532597

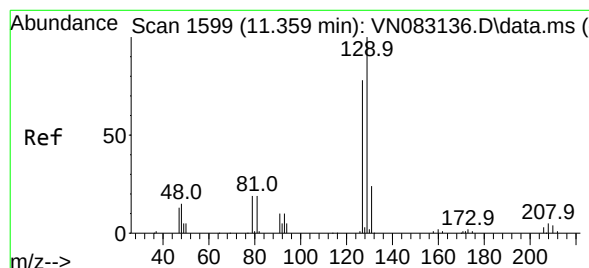
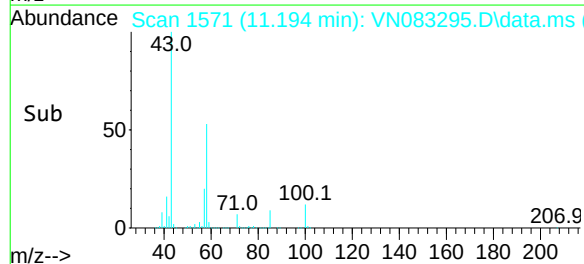
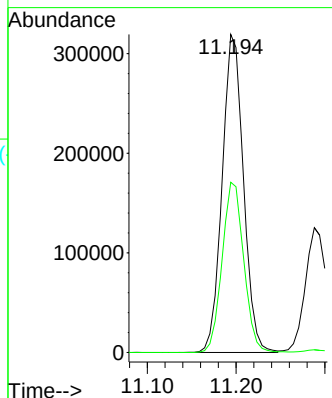
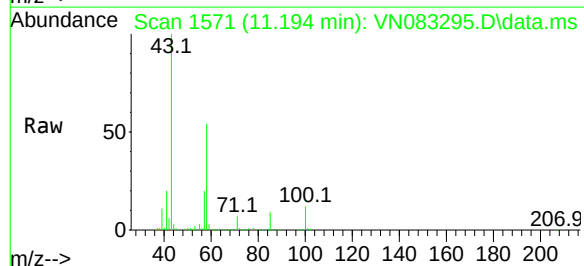
Ion Ratio Lower Upper

43 100

58 54.3 24.6 73.8

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#60

Dibromochloromethane

Concen: 54.062 ug/l

RT: 11.359 min Scan# 1599

Delta R.T. -0.000 min

Lab File: VN083295.D

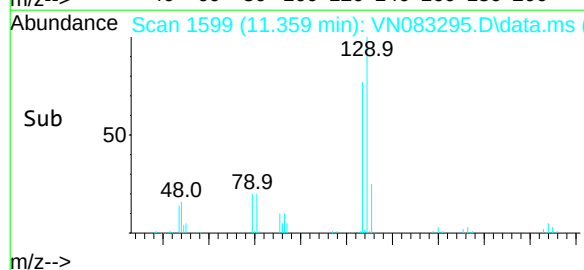
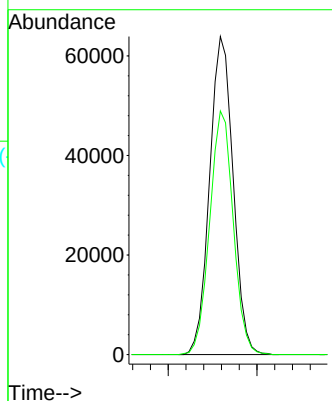
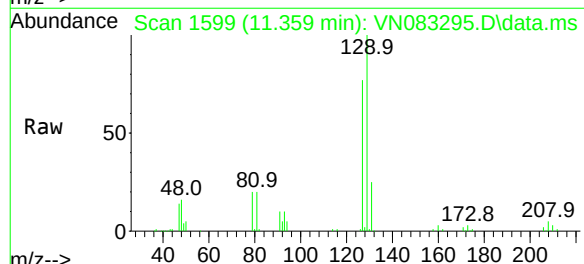
Acq: 14 Aug 2024 12:41

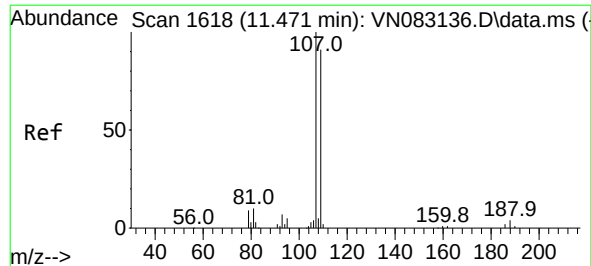
Tgt Ion:129 Resp: 117651

Ion Ratio Lower Upper

129 100

127 76.5 39.2 117.6





#61  
1,2-Dibromoethane  
Concen: 51.595 ug/l  
RT: 11.470 min Scan# 1618  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

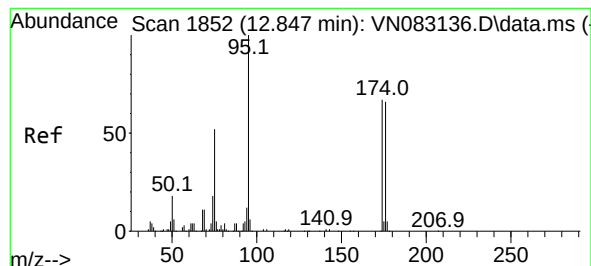
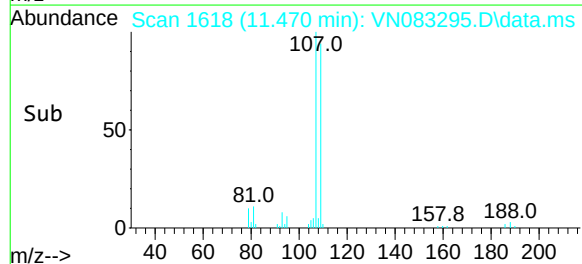
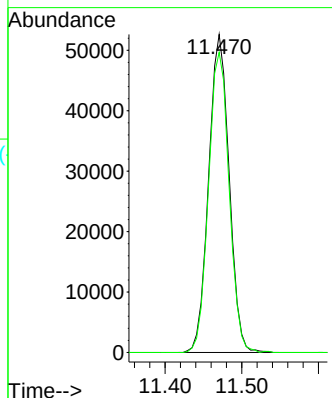
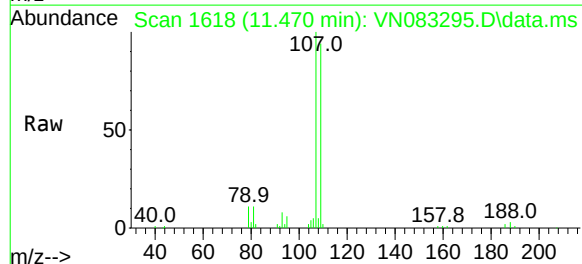
ClientSampleId :

VSTDCCC050

Tgt Ion: 107 Resp: 97558  
Ion Ratio Lower Upper  
107 100  
109 94.9 73.7 110.5

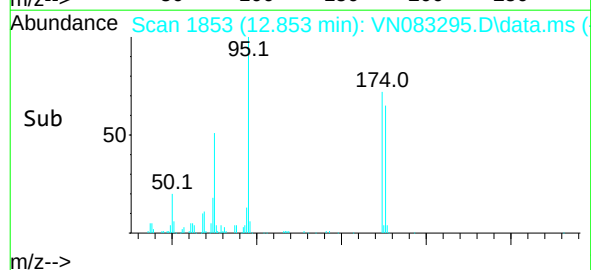
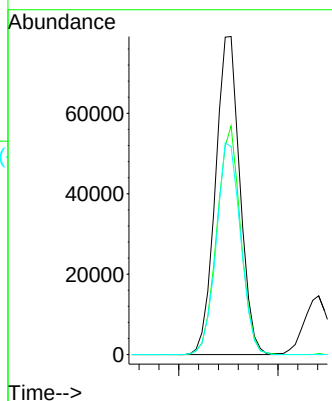
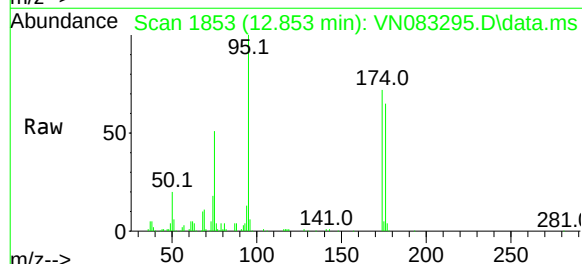
Manual Integrations  
APPROVED

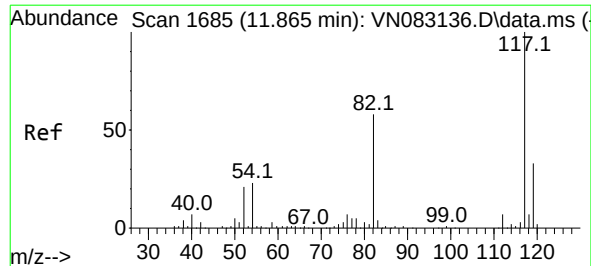
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#62  
4-Bromofluorobenzene  
Concen: 52.757 ug/l  
RT: 12.853 min Scan# 1853  
Delta R.T. 0.006 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Tgt Ion: 95 Resp: 135336  
Ion Ratio Lower Upper  
95 100  
174 69.6 0.0 159.2  
176 66.4 0.0 147.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 16

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:117 Resp: 250996

Ion Ratio Lower Upper

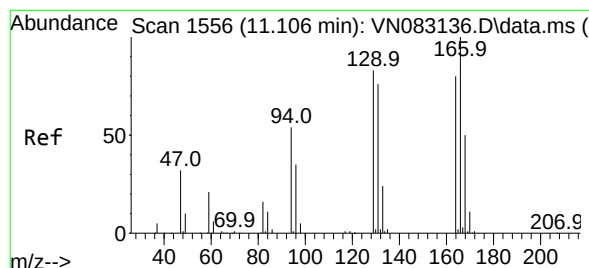
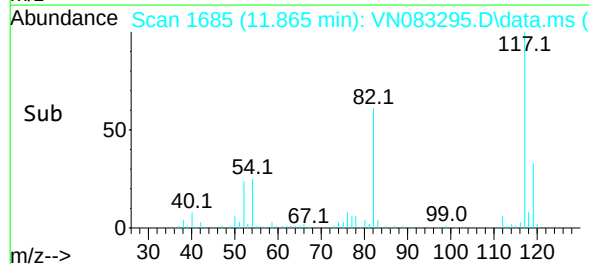
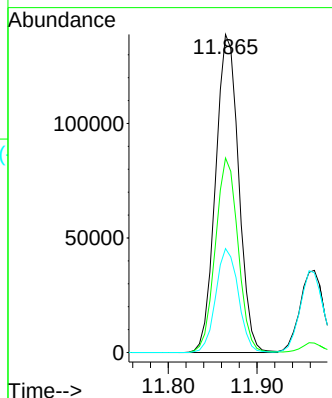
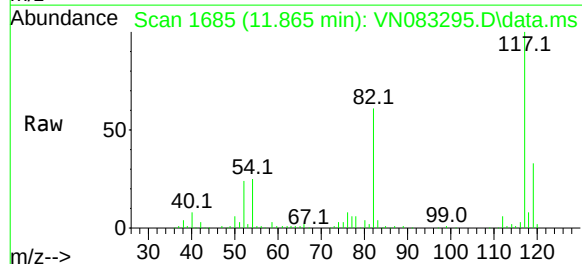
117 100

82 61.1 47.5 71.3

119 32.7 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#64

Tetrachloroethene

Concen: 50.230 ug/l

RT: 11.106 min Scan# 1556

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Tgt Ion:164 Resp: 83497

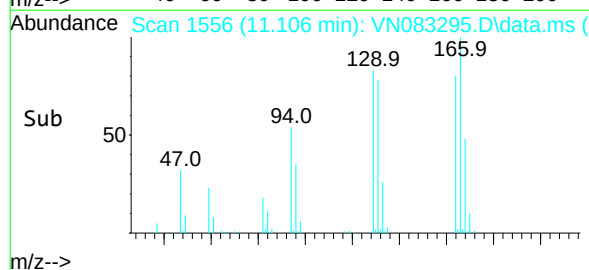
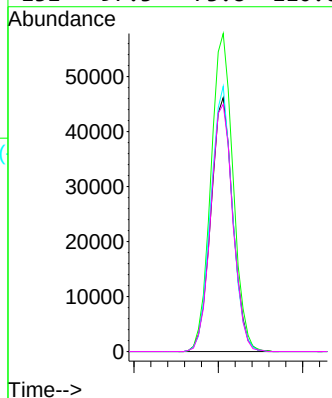
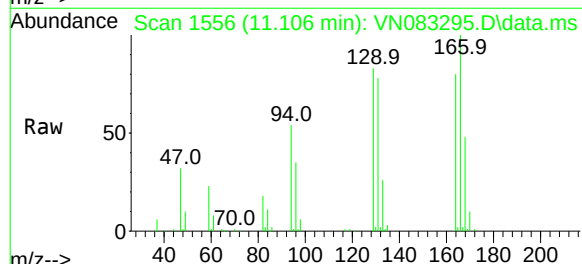
Ion Ratio Lower Upper

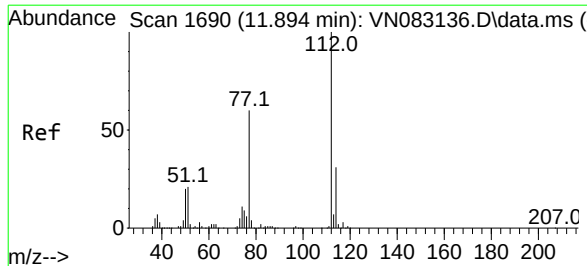
164 100

166 125.2 101.4 152.0

129 104.5 75.7 113.5

131 97.3 73.8 110.6





#65

Chlorobenzene

Concen: 50.640 ug/l

RT: 11.894 min Scan# 1690

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:112 Resp: 280885

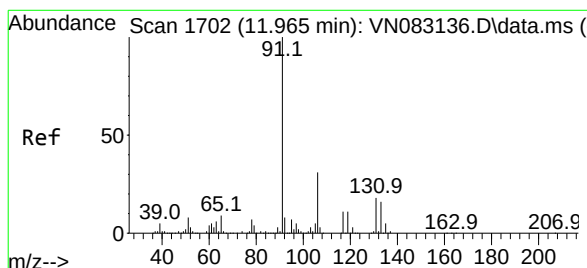
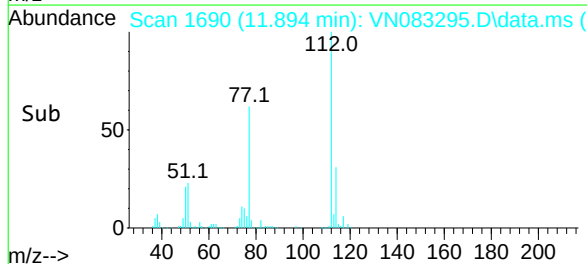
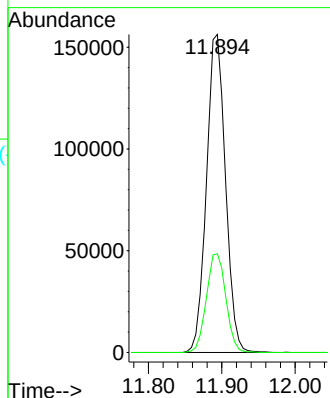
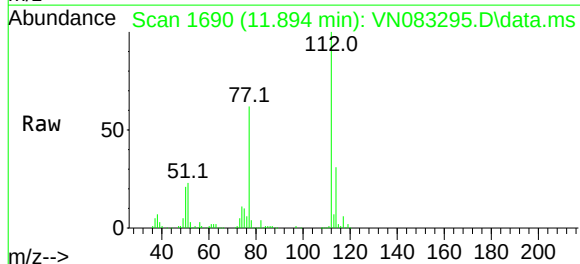
Ion Ratio Lower Upper

112 100

114 31.1 26.2 39.2

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#66

1,1,1,2-Tetrachloroethane

Concen: 50.961 ug/l

RT: 11.965 min Scan# 1702

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

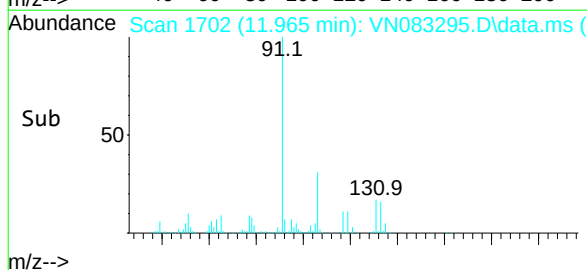
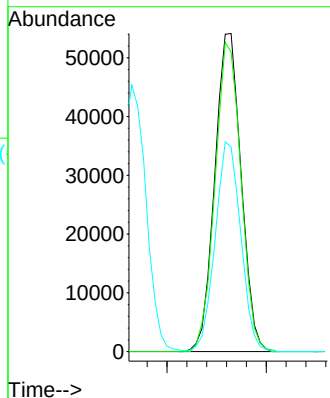
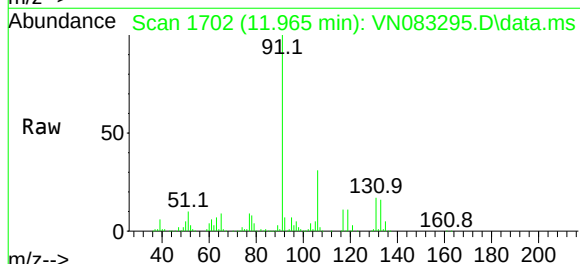
Tgt Ion:131 Resp: 99691

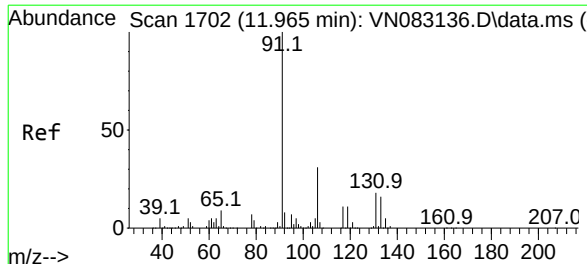
Ion Ratio Lower Upper

131 100

133 95.5 47.3 142.0

119 64.0 32.5 97.4





#67

Ethyl Benzene

Concen: 51.124 ug/l

RT: 11.965 min Scan# 1702

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 91 Resp: 520196

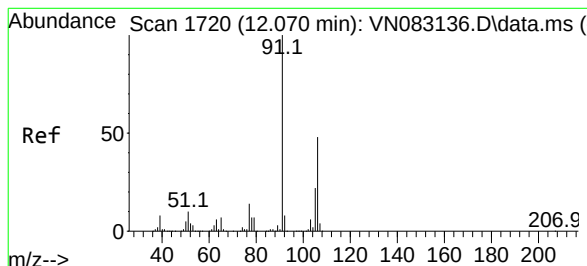
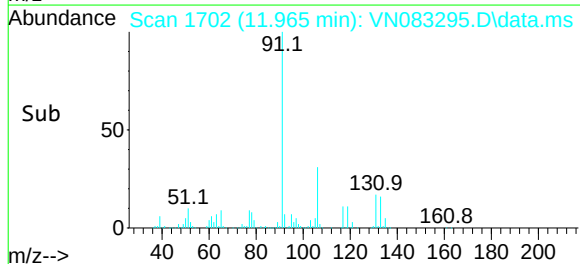
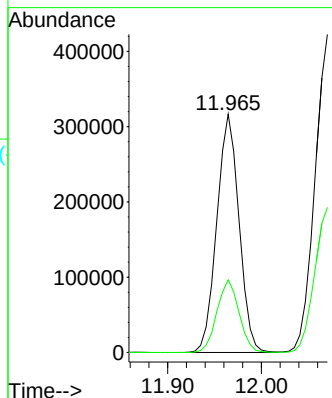
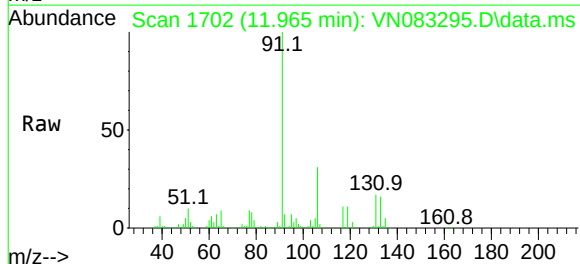
Ion Ratio Lower Upper

91 100

106 30.5 24.0 36.0

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#68

m/p-Xylenes

Concen: 102.048 ug/l

RT: 12.070 min Scan# 1720

Delta R.T. -0.000 min

Lab File: VN083295.D

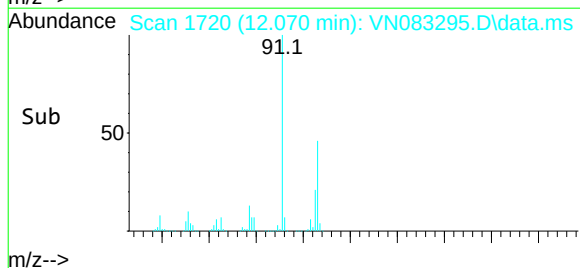
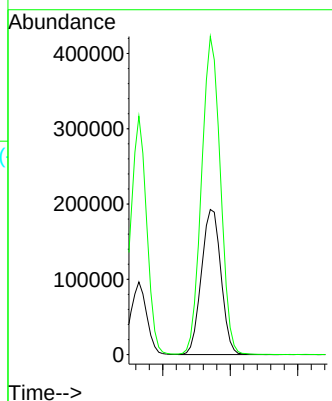
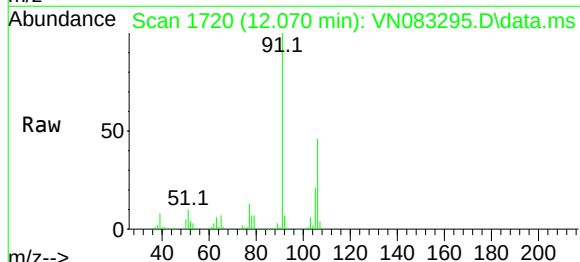
Acq: 14 Aug 2024 12:41

Tgt Ion:106 Resp: 388963

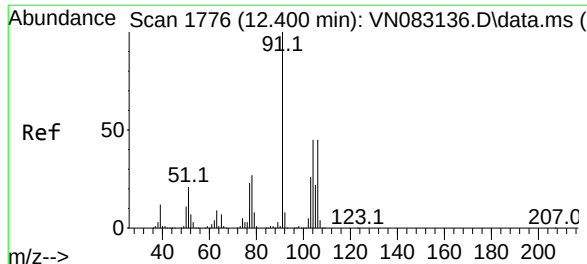
Ion Ratio Lower Upper

106 100

91 211.2 166.1 249.1

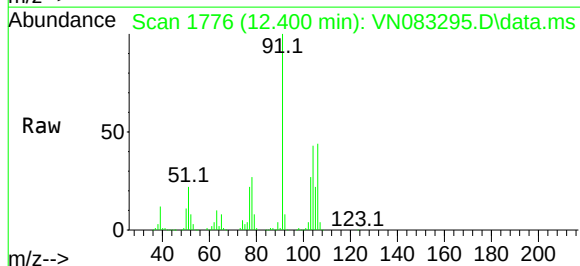






#69  
o-Xylene  
Concen: 50.450 ug/l  
RT: 12.400 min Scan# 1776  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

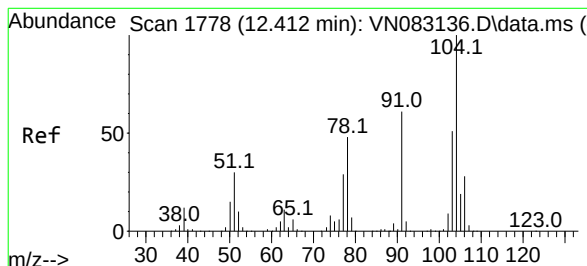
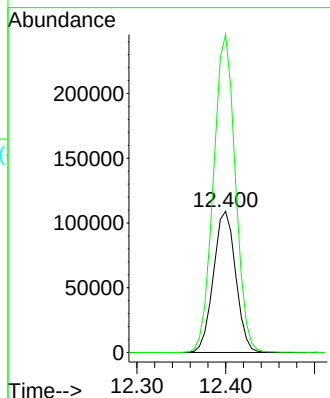
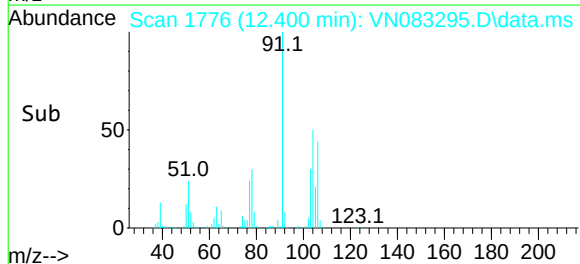
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion:106 Resp: 189655  
Ion Ratio Lower Upper  
106 100  
91 222.9 111.3 333.9

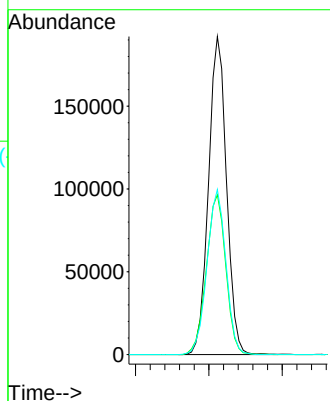
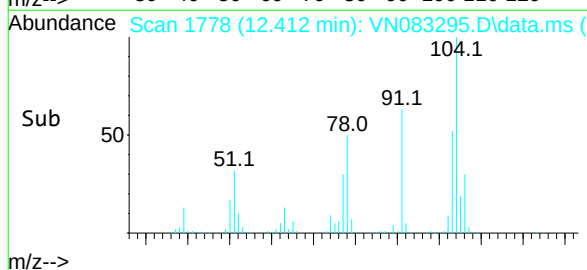
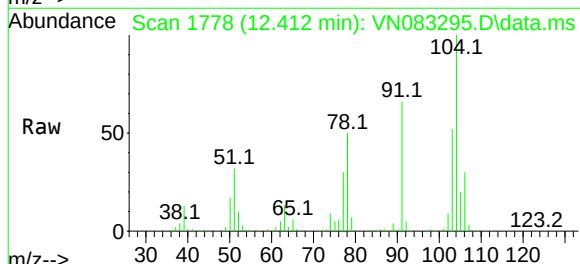
Manual Integrations  
APPROVED

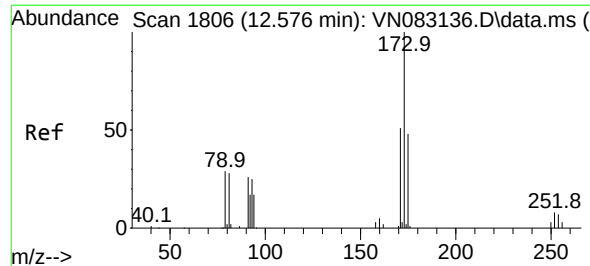
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#70  
Styrene  
Concen: 51.874 ug/l  
RT: 12.412 min Scan# 1778  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Tgt Ion:104 Resp: 327524  
Ion Ratio Lower Upper  
104 100  
78 54.0 41.6 62.4  
103 54.5 44.0 66.0





#71

Bromoform

Concen: 50.218 ug/l

RT: 12.582 min Scan# 1806

Delta R.T. 0.006 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:173 Resp: 74422

Ion Ratio Lower Upper

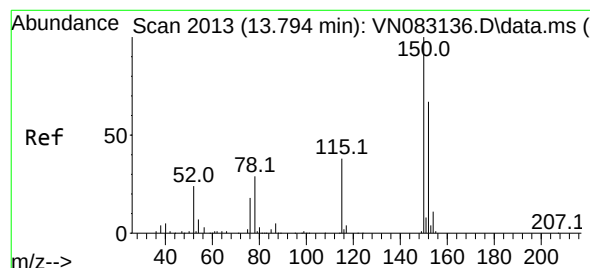
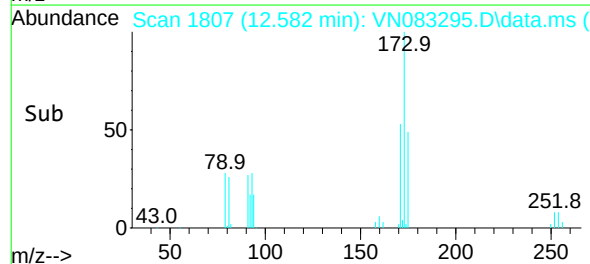
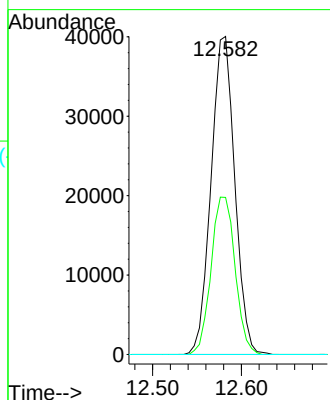
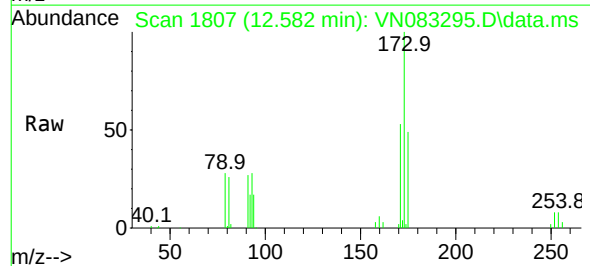
173 100

175 50.1 24.0 72.0

254 0.0 0.0 0.0

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.794 min Scan# 2013

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

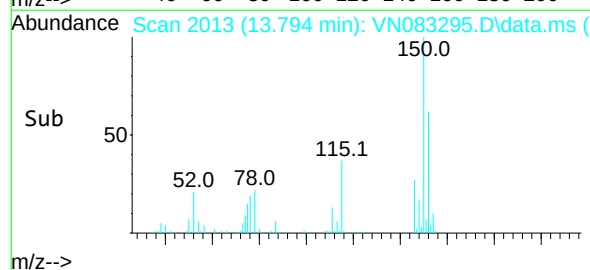
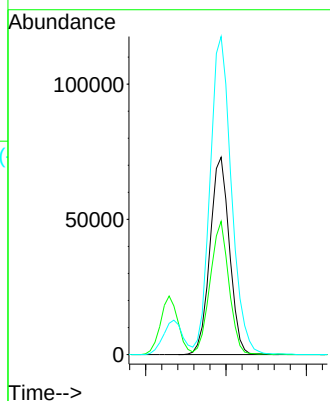
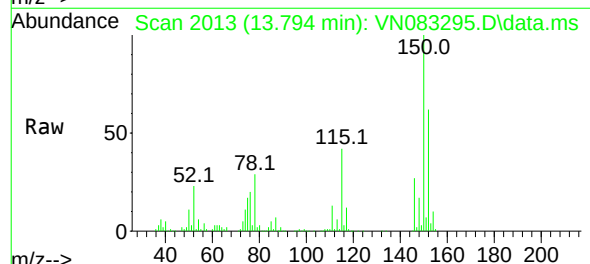
Tgt Ion:152 Resp: 122669

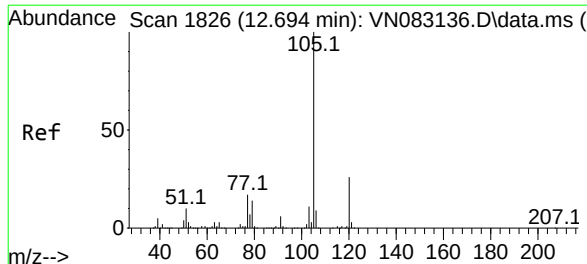
Ion Ratio Lower Upper

152 100

115 65.3 30.6 91.6

150 177.2 0.0 348.6





#73

Isopropylbenzene

Concen: 48.403 ug/l

RT: 12.694 min Scan# 1826

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 105 Resp: 496635

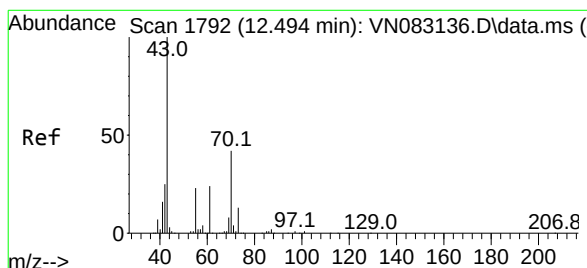
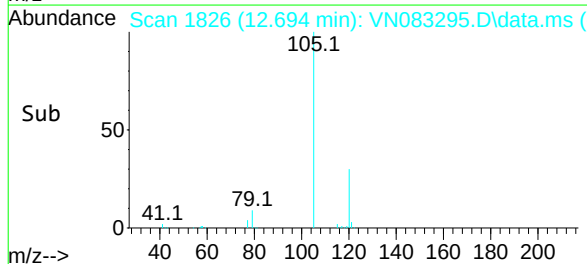
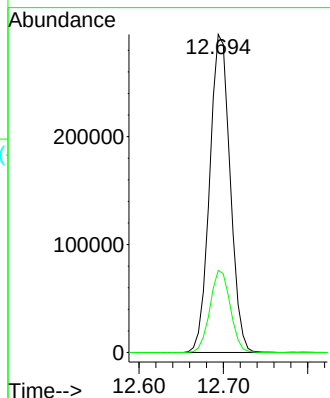
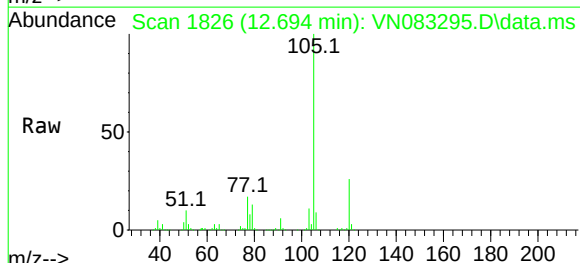
Ion Ratio Lower Upper

105 100

120 25.6 12.9 38.6

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#74

N-ethyl acetate

Concen: 44.635 ug/l

RT: 12.494 min Scan# 1792

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Tgt Ion: 43 Resp: 224010

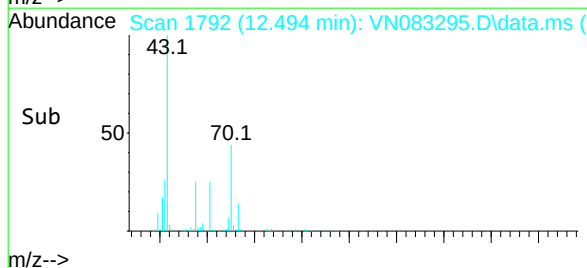
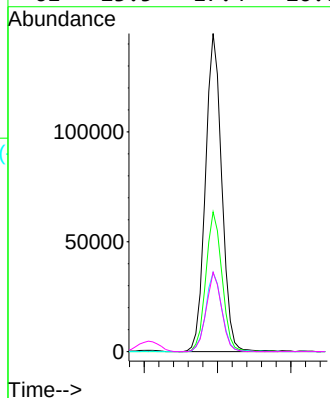
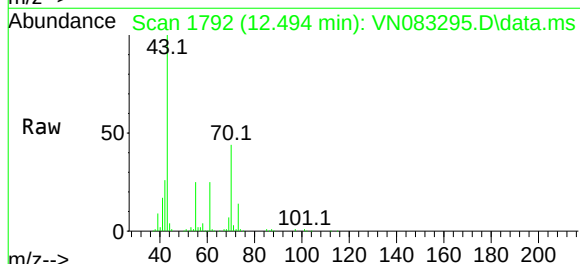
Ion Ratio Lower Upper

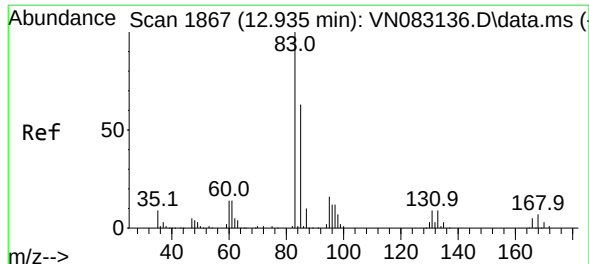
43 100

70 43.2 29.8 44.6

55 24.3 18.7 28.1

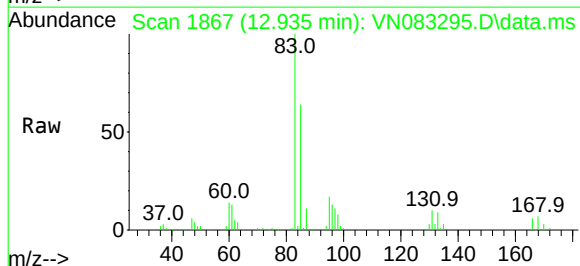
61 23.5 17.4 26.0





#75  
1,1,2,2-Tetrachloroethane  
Concen: 48.328 ug/l  
RT: 12.935 min Scan# 1867  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

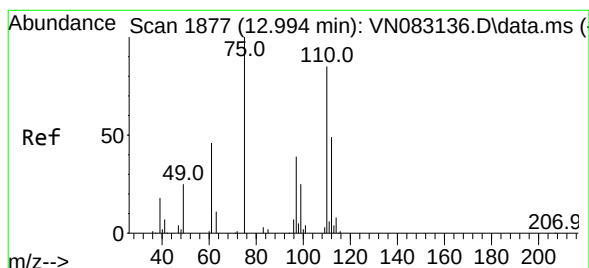
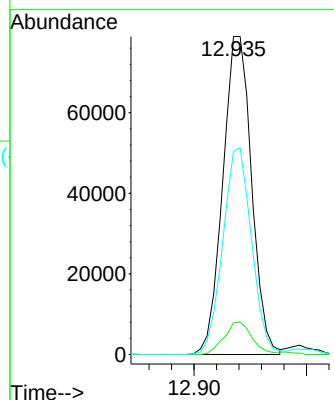
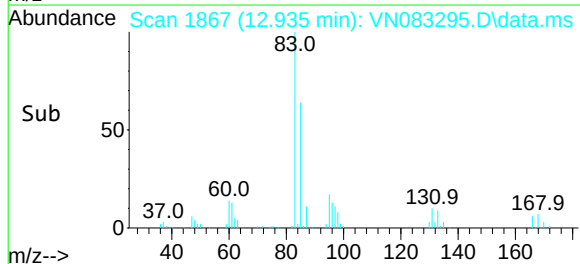
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 83 Resp: 140246  
Ion Ratio Lower Upper  
83 100  
131 10.3 5.0 14.9  
85 65.1 31.9 95.7

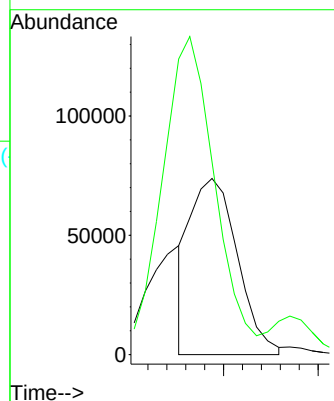
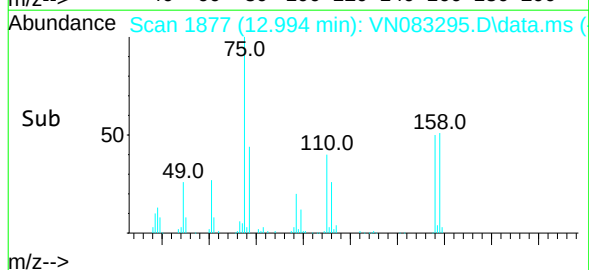
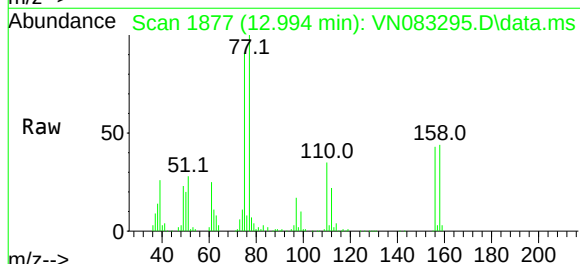
Manual Integrations  
APPROVED

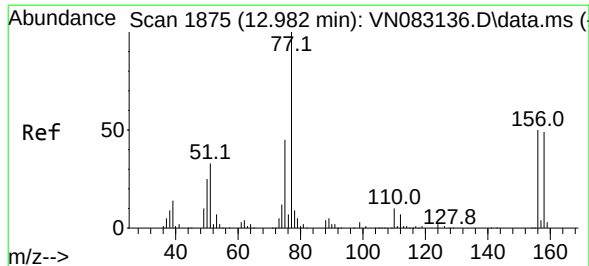
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#76  
1,2,3-Trichloropropane  
Concen: 47.602 ug/l m  
RT: 12.994 min Scan# 1877  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

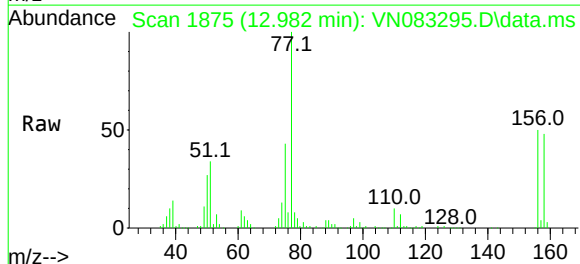
Tgt Ion: 75 Resp: 128158  
Ion Ratio Lower Upper  
75 100  
77 202.2 110.9 332.6





#77  
Bromobenzene  
Concen: 49.656 ug/l  
RT: 12.982 min Scan# 1875  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

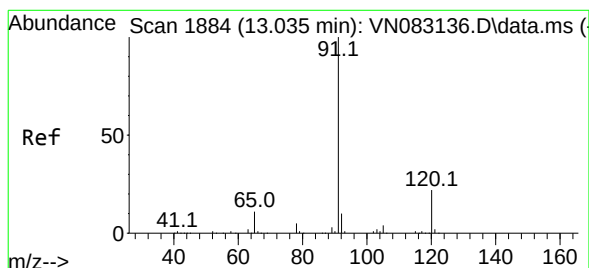
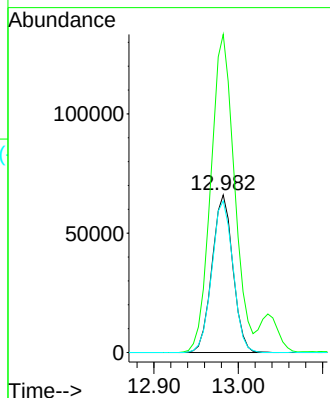
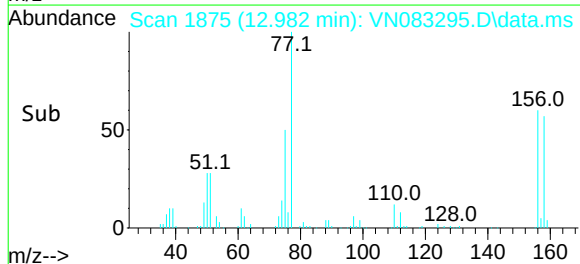
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 156 Resp: 113178  
Ion Ratio Lower Upper  
156 100  
77 228.9 111.3 333.8  
158 97.7 48.3 144.9

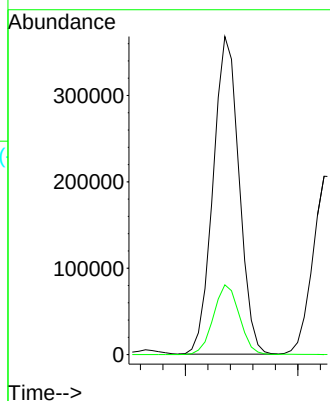
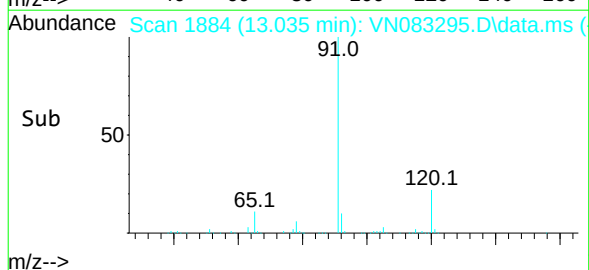
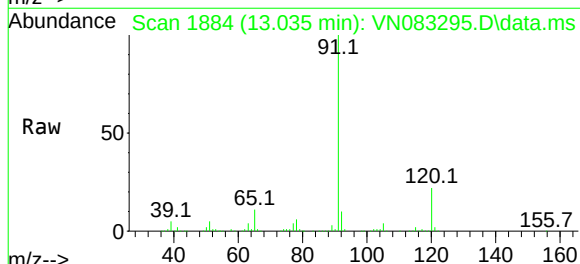
Manual Integrations  
APPROVED

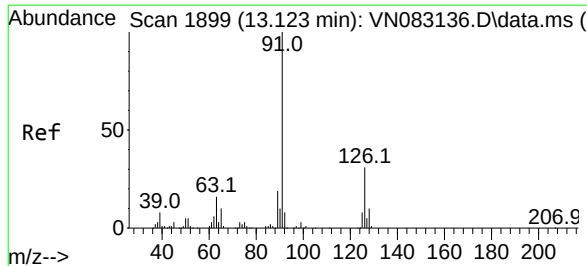
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#78  
n-propylbenzene  
Concen: 49.938 ug/l  
RT: 13.035 min Scan# 1884  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Tgt Ion: 91 Resp: 590000  
Ion Ratio Lower Upper  
91 100  
120 21.9 10.9 32.9





#79

2-Chlorotoluene

Concen: 49.125 ug/l

RT: 13.123 min Scan# 18

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 91 Resp: 367969

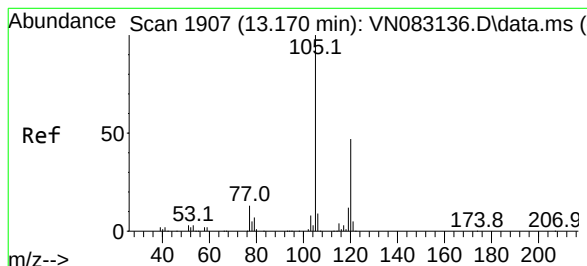
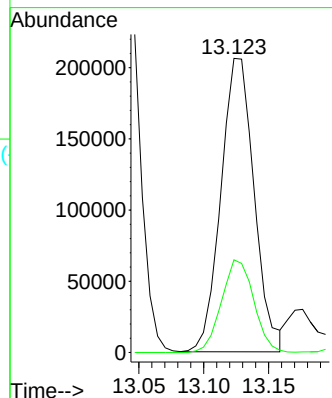
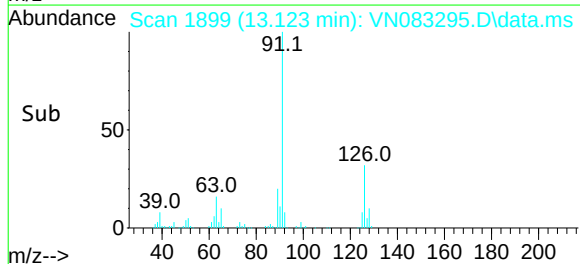
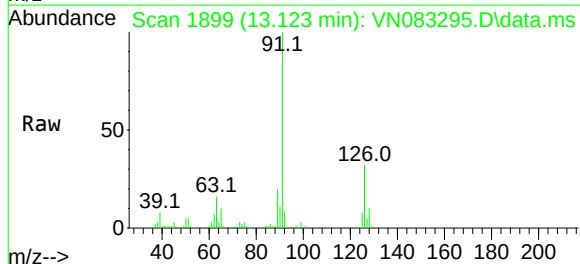
Ion Ratio Lower Upper

91 100

126 30.5 16.2 48.6

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#80

1,3,5-Trimethylbenzene

Concen: 49.829 ug/l

RT: 13.176 min Scan# 1908

Delta R.T. 0.006 min

Lab File: VN083295.D

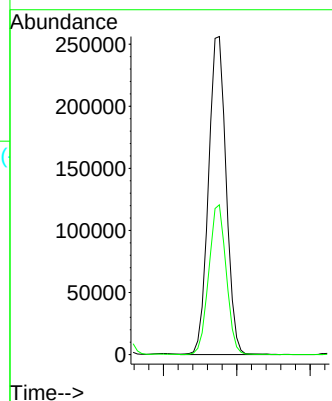
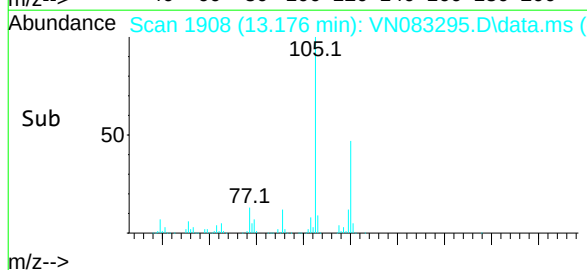
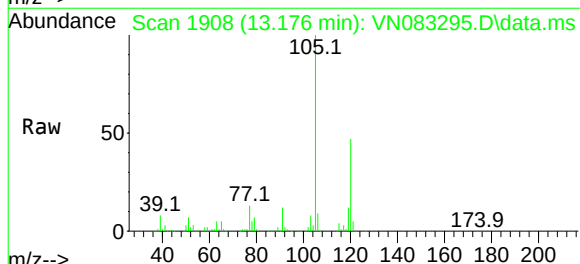
Acq: 14 Aug 2024 12:41

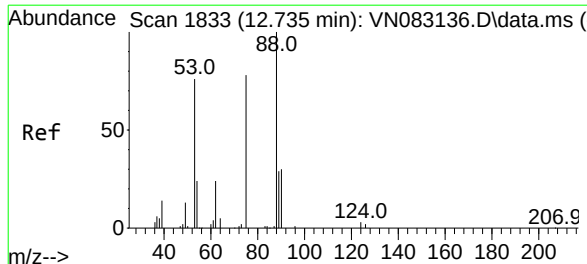
Tgt Ion:105 Resp: 428037

Ion Ratio Lower Upper

105 100

120 46.5 24.3 72.8





#81

trans-1,4-Dichloro-2-butene

Concen: 45.962 ug/l

RT: 12.735 min Scan# 1833

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion: 75 Resp: 56887

Ion Ratio Lower Upper

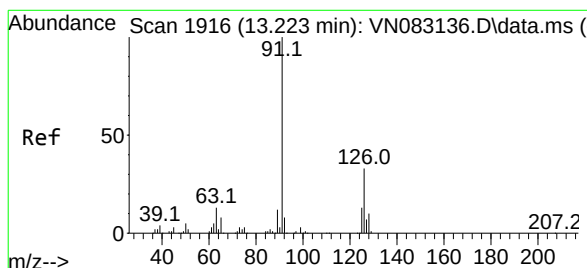
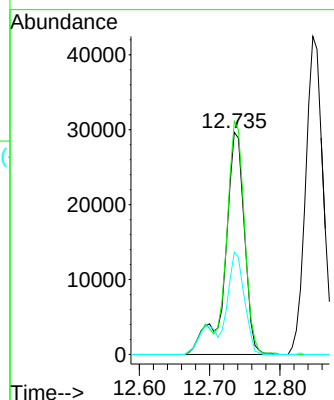
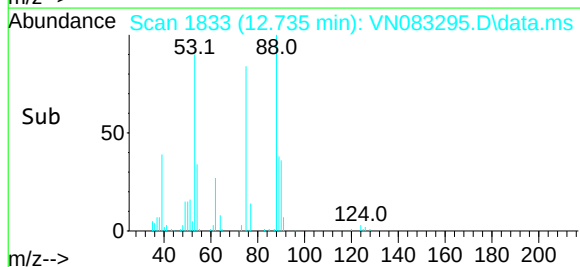
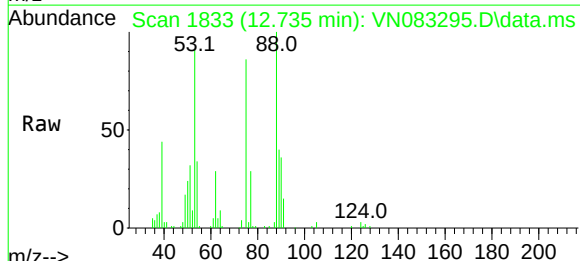
75 100

53 94.1 88.4 132.6

89 39.6 36.3 54.5

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#82

4-Chlorotoluene

Concen: 48.468 ug/l

RT: 13.223 min Scan# 1916

Delta R.T. -0.000 min

Lab File: VN083295.D

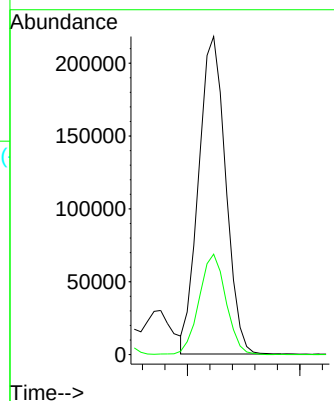
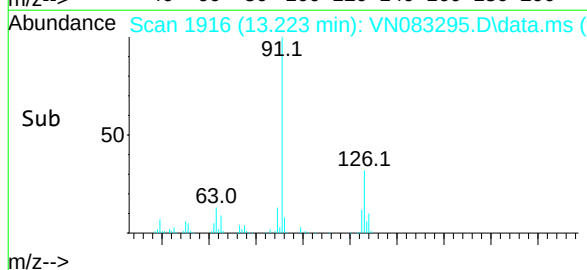
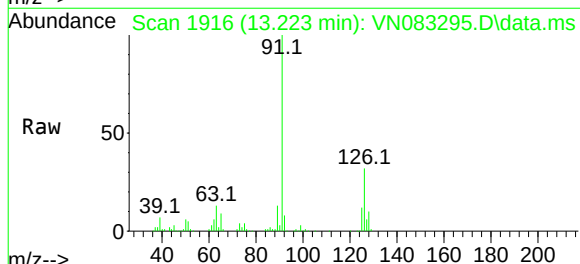
Acq: 14 Aug 2024 12:41

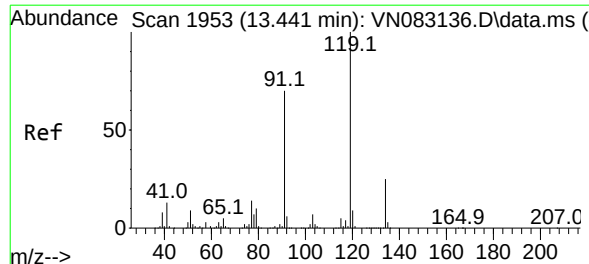
Tgt Ion: 91 Resp: 364156

Ion Ratio Lower Upper

91 100

126 31.4 16.2 48.6





#83

tert-Butylbenzene

Concen: 48.866 ug/l

RT: 13.441 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:119 Resp: 371735

Ion Ratio Lower Upper

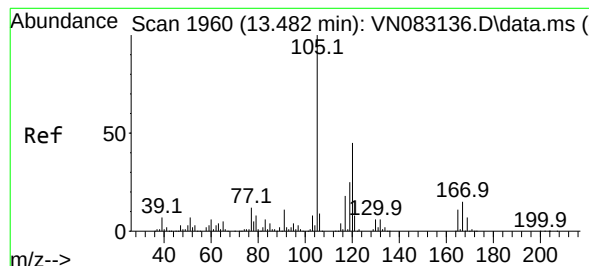
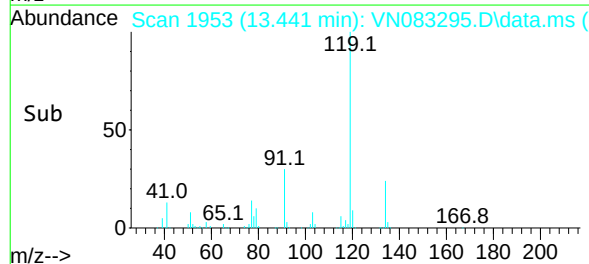
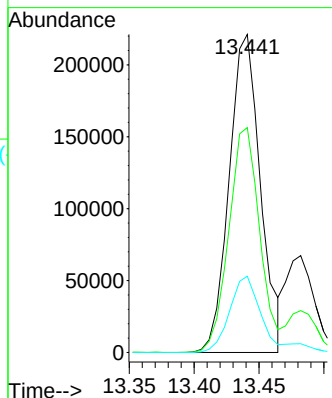
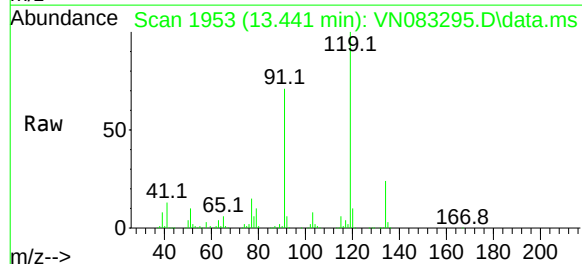
119 100

91 69.6 35.0 105.1

134 25.6 13.3 39.8

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#84

1,2,4-Trimethylbenzene

Concen: 49.723 ug/l

RT: 13.482 min Scan# 1960

Delta R.T. -0.000 min

Lab File: VN083295.D

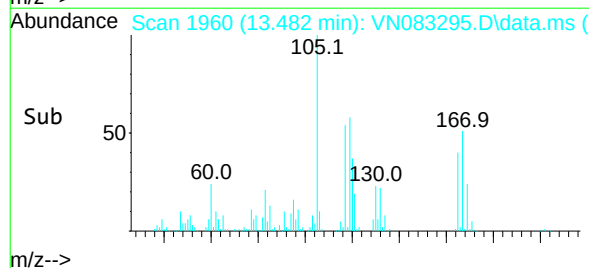
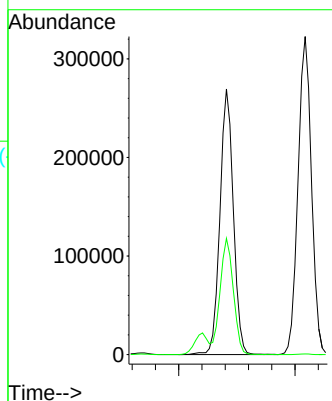
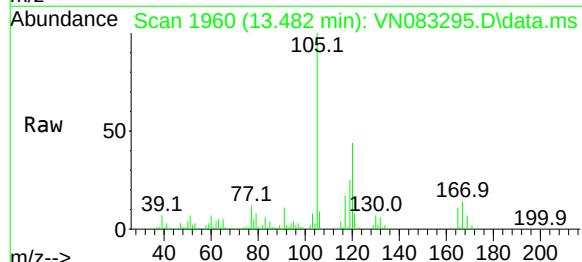
Acq: 14 Aug 2024 12:41

Tgt Ion:105 Resp: 430444

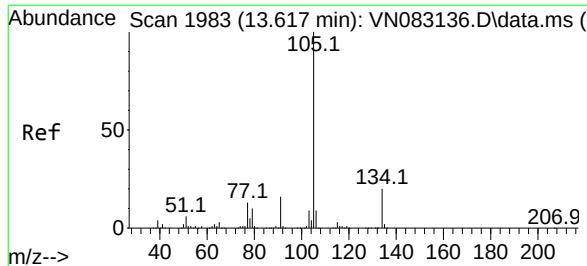
Ion Ratio Lower Upper

105 100

120 43.7 21.9 65.8







#85

sec-Butylbenzene

Concen: 49.826 ug/l

RT: 13.617 min Scan# 1983

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:105 Resp: 517202

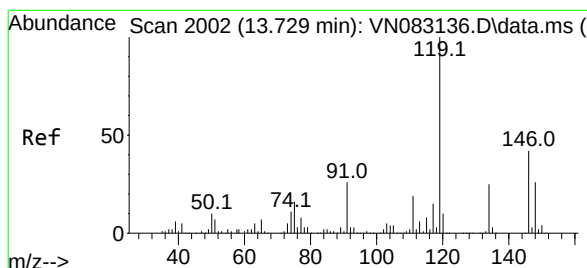
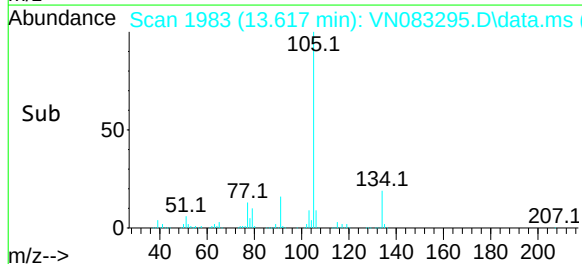
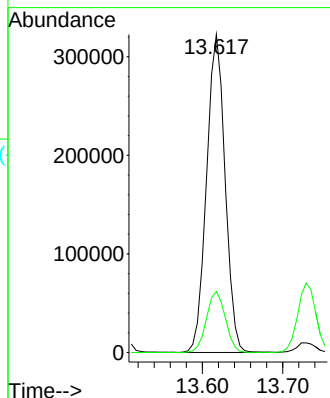
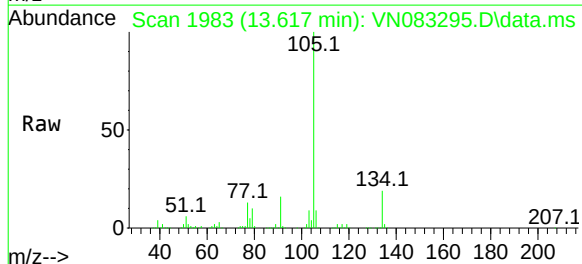
Ion Ratio Lower Upper

105 100

134 19.5 9.8 29.3

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#86

p-Isopropyltoluene

Concen: 50.705 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

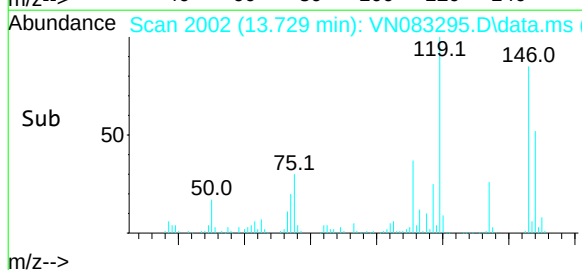
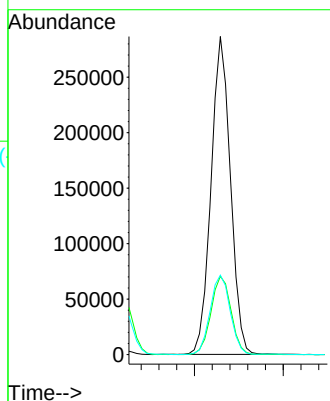
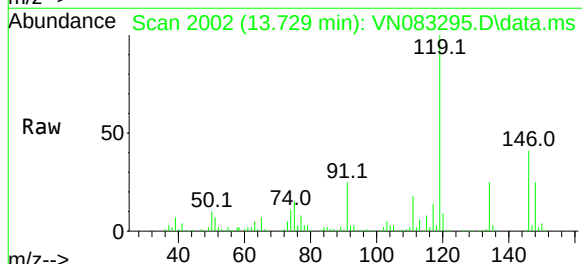
Tgt Ion:119 Resp: 434576

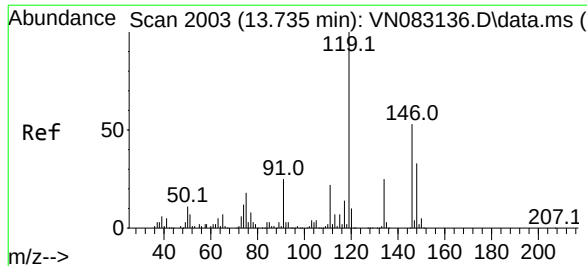
Ion Ratio Lower Upper

119 100

134 25.5 13.0 39.0

91 25.9 12.3 36.9





#87

1,3-Dichlorobenzene

Concen: 49.896 ug/l

RT: 13.735 min Scan# 2003

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:146 Resp: 213990

Ion Ratio Lower Upper

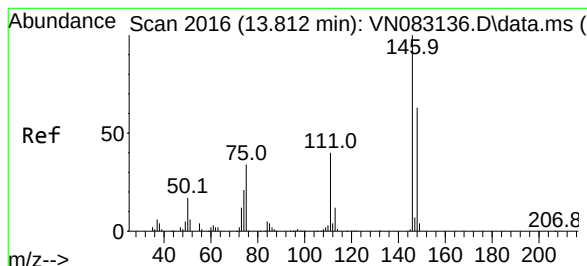
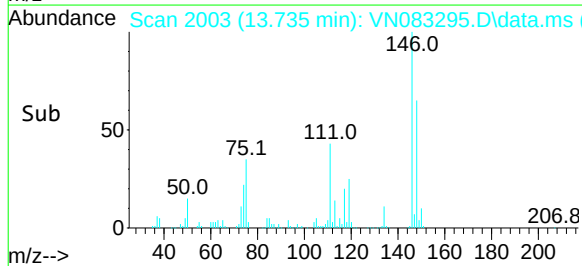
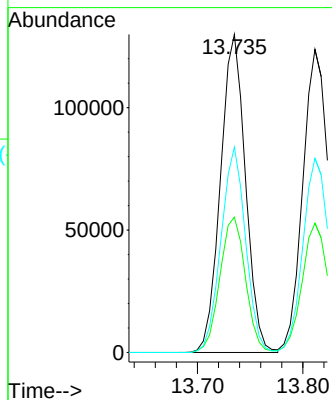
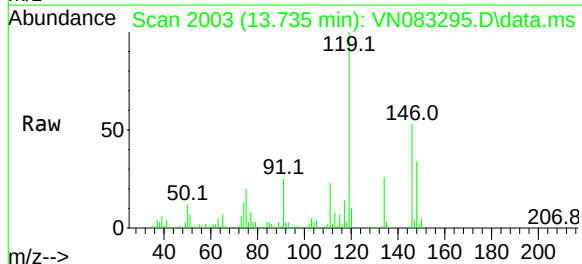
146 100

111 43.6 20.6 61.9

148 63.7 31.8 95.3

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#88

1,4-Dichlorobenzene

Concen: 48.912 ug/l

RT: 13.811 min Scan# 2016

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

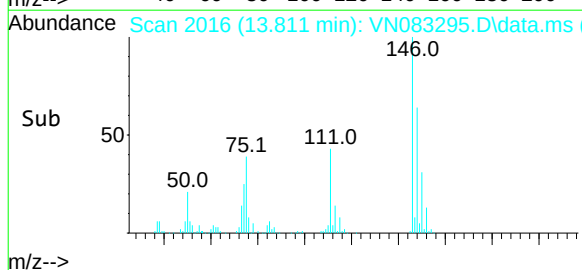
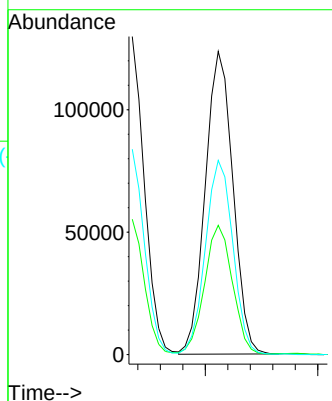
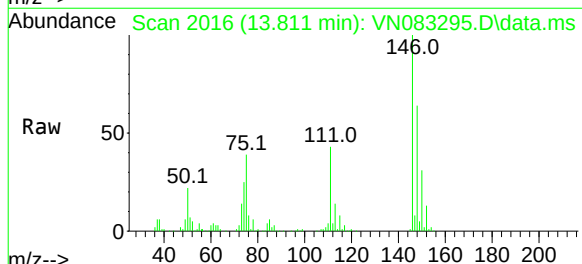
Tgt Ion:146 Resp: 211478

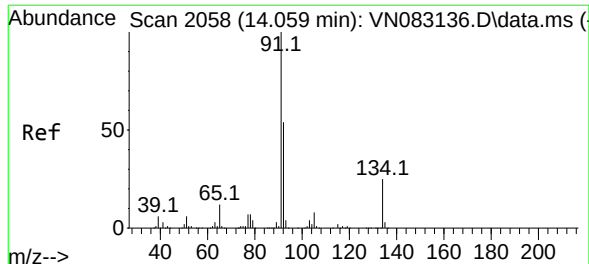
Ion Ratio Lower Upper

146 100

111 42.9 20.1 60.3

148 64.0 32.2 96.6





#89

n-Butylbenzene

Concen: 51.464 ug/l

RT: 14.059 min Scan# 2058

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

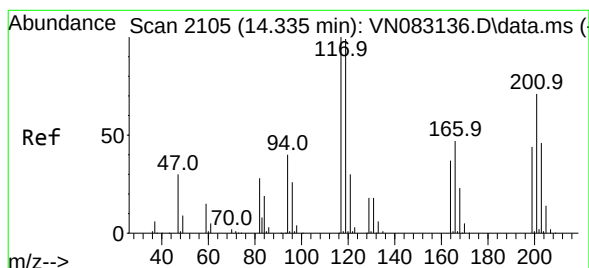
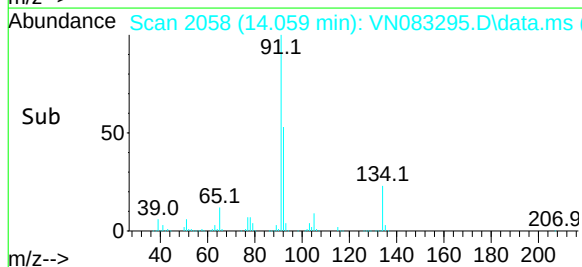
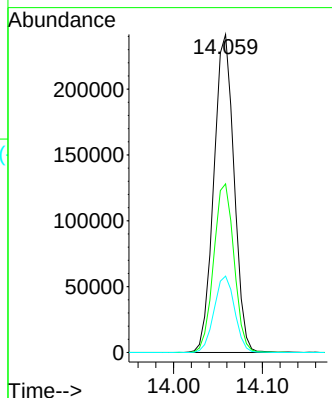
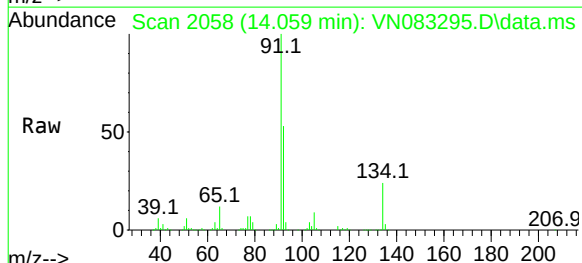
ClientSampleId :

VSTDCCC050

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 91    | Resp: | 382193 |
| Ion      | Ratio | Lower | Upper  |
| 91       | 100   |       |        |
| 92       | 53.6  | 26.1  | 78.3   |
| 134      | 24.5  | 12.1  | 36.3   |

Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#90

Hexachloroethane

Concen: 47.142 ug/l

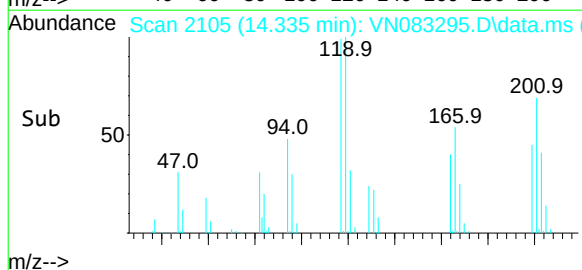
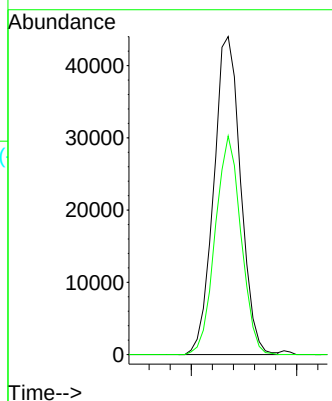
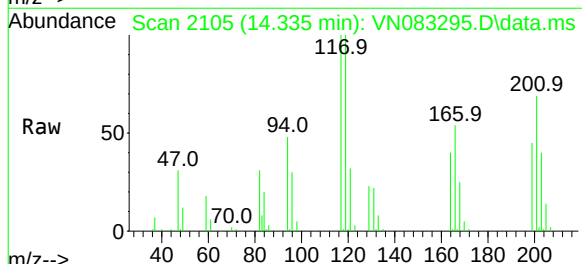
RT: 14.335 min Scan# 2105

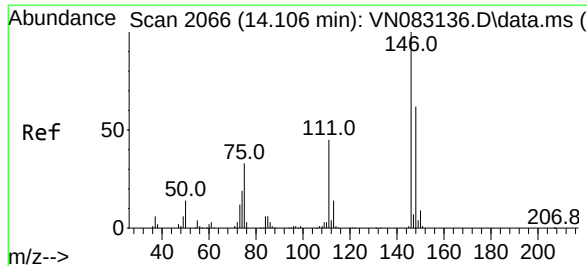
Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 78059 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 201      | 65.9  | 35.8  | 107.3 |





#91

1,2-Dichlorobenzene

Concen: 49.802 ug/l

RT: 14.106 min Scan# 2066

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDCCC050

Tgt Ion:146 Resp: 206688

Ion Ratio Lower Upper

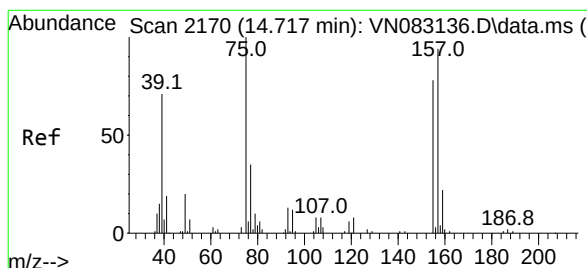
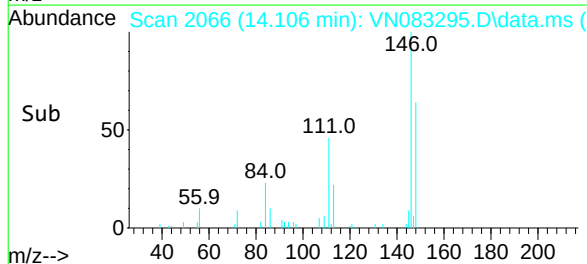
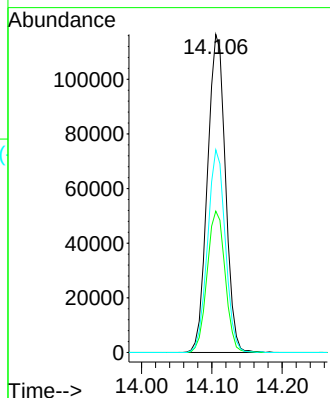
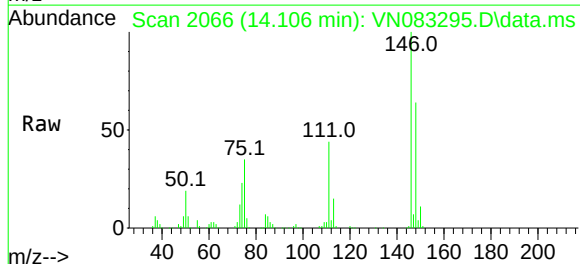
146 100

111 44.6 21.4 64.2

148 62.8 32.1 96.5

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#92

1,2-Dibromo-3-Chloropropane

Concen: 43.813 ug/l

RT: 14.717 min Scan# 2170

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

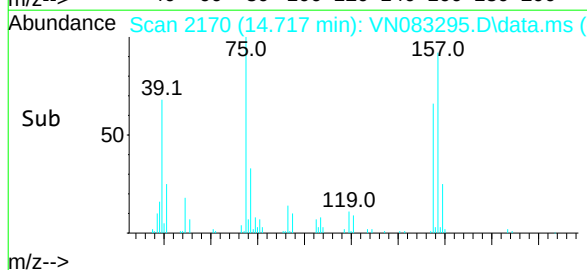
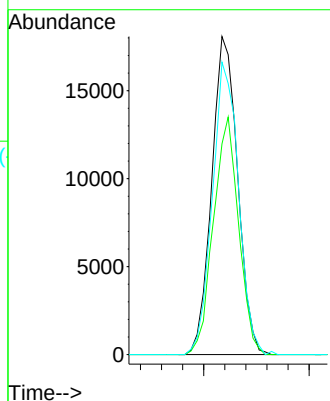
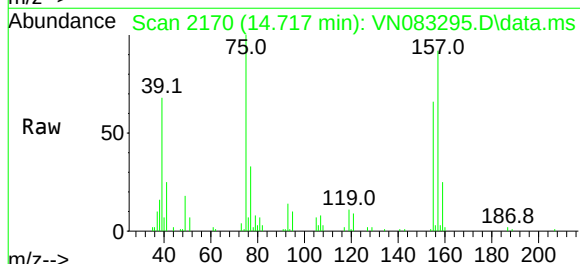
Tgt Ion: 75 Resp: 30853

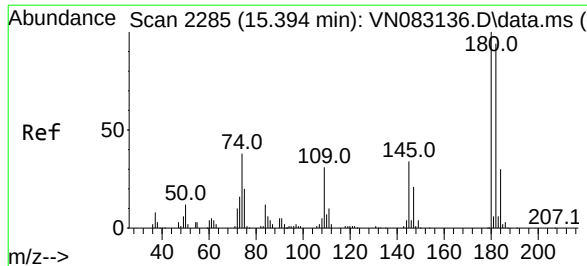
Ion Ratio Lower Upper

75 100

155 72.7 36.6 109.8

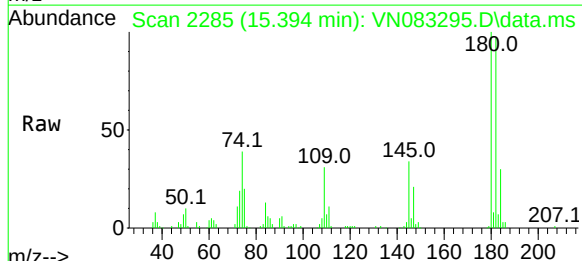
157 93.0 46.9 140.6





#93  
1,2,4-Trichlorobenzene  
Concen: 48.458 ug/l  
RT: 15.394 min Scan# 2285  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

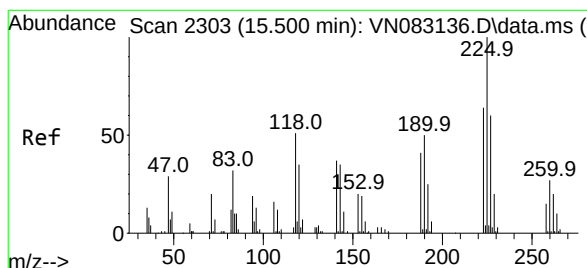
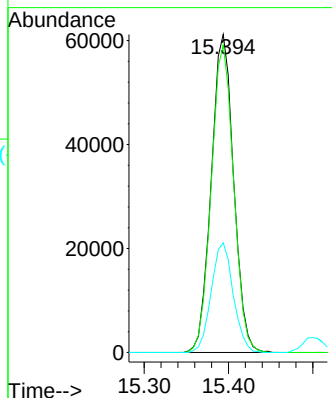
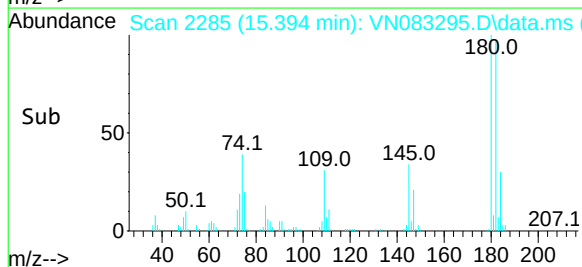
Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050



Tgt Ion:180 Resp: 112669  
Ion Ratio Lower Upper  
180 100  
182 96.4 47.3 141.8  
145 34.0 15.7 47.1

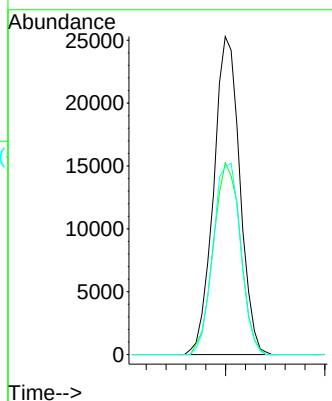
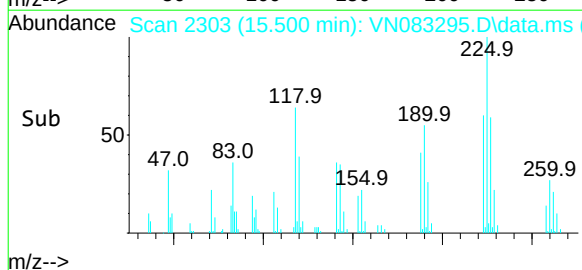
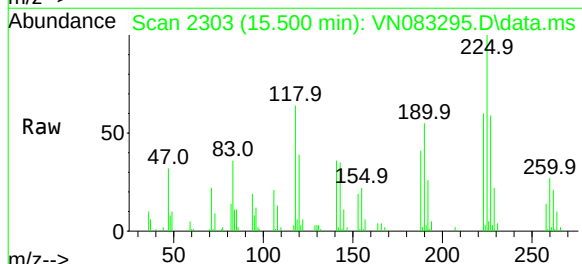
Manual Integrations  
APPROVED

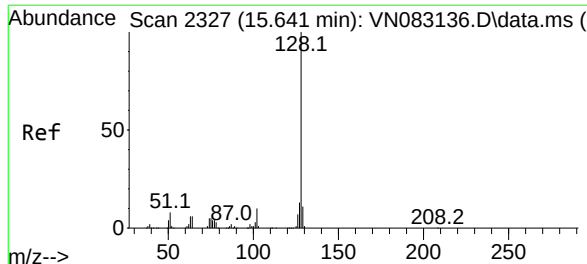
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#94  
Hexachlorobutadiene  
Concen: 44.858 ug/l  
RT: 15.500 min Scan# 2303  
Delta R.T. -0.000 min  
Lab File: VN083295.D  
Acq: 14 Aug 2024 12:41

Tgt Ion:225 Resp: 46384  
Ion Ratio Lower Upper  
225 100  
223 62.7 31.9 95.7  
227 63.0 32.5 97.5





#95

Naphthalene

Concen: 47.278 ug/l

RT: 15.641 min Scan# 2327

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

Instrument :

MSVOA\_N

ClientSampleId :

VSTDC050

Tgt Ion:128 Resp: 389373

Ion Ratio Lower Upper

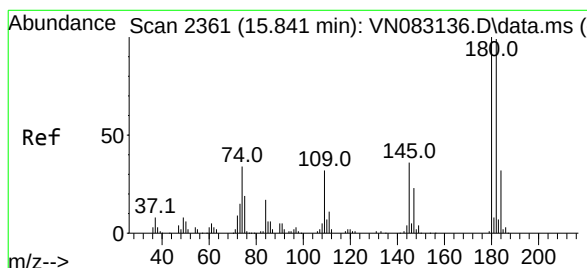
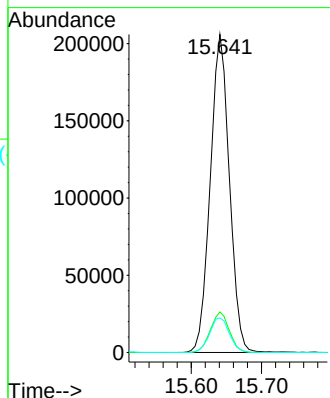
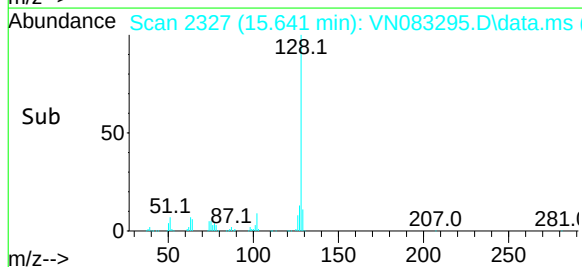
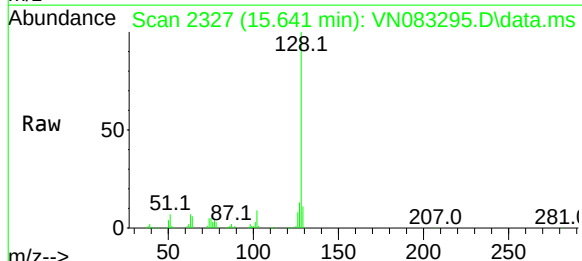
128 100

127 12.6 10.6 16.0

129 11.3 8.6 12.8

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#96

1,2,3-Trichlorobenzene

Concen: 48.043 ug/l

RT: 15.841 min Scan# 2361

Delta R.T. -0.000 min

Lab File: VN083295.D

Acq: 14 Aug 2024 12:41

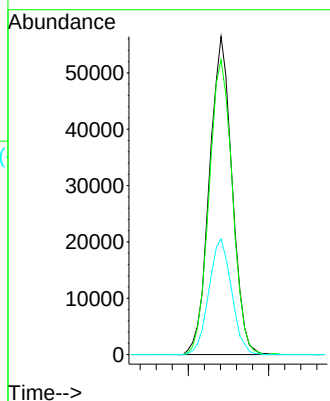
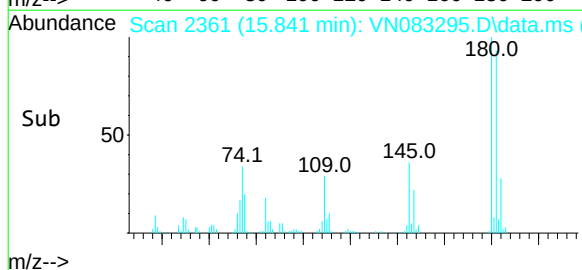
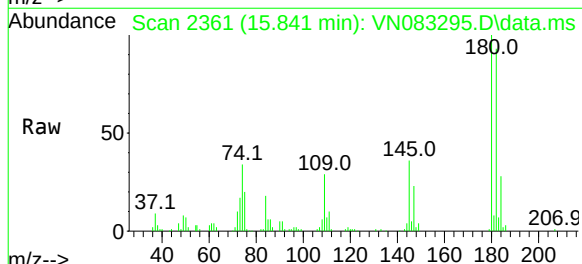
Tgt Ion:180 Resp: 110529

Ion Ratio Lower Upper

180 100

182 95.1 48.9 146.8

145 36.3 16.8 50.4



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083295.D  
Acq On : 14 Aug 2024 12:41  
Operator : JC\MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
LabSampleId :  
VSTDCCC050

Quant Time: Aug 14 23:14:20 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
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   | 81    | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 0.567 | 0.535 | 5.6   | 76    | 0.00     |
| 3 P   | Chloromethane               | 0.581 | 0.541 | 6.9   | 74    | 0.00     |
| 4 C   | Vinyl Chloride              | 0.592 | 0.580 | 2.0#  | 78    | 0.00     |
| 5 T   | Bromomethane                | 0.368 | 0.326 | 11.4  | 74    | 0.00     |
| 6 T   | Chloroethane                | 0.371 | 0.373 | -0.5  | 85    | 0.00     |
| 7 T   | Trichlorofluoromethane      | 0.979 | 1.026 | -4.8  | 83    | 0.00     |
| 8 T   | Diethyl Ether               | 0.364 | 0.348 | 4.4   | 77    | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 0.539 | 0.554 | -2.8  | 82    | 0.00     |
| 10 T  | Methyl Iodide               | 0.710 | 0.585 | 17.6  | 64    | 0.00     |
| 11 T  | Tert butyl alcohol          | 0.148 | 0.148 | 0.0   | 82    | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 0.554 | 0.521 | 6.0#  | 77    | 0.00     |
| 13 T  | Acrolein                    | 0.096 | 0.092 | 4.2   | 73    | 0.00     |
| 14 T  | Allyl chloride              | 1.047 | 0.966 | 7.7   | 84    | 0.00     |
| 15 T  | Acrylonitrile               | 0.304 | 0.295 | 3.0   | 78    | 0.00     |
| 16 T  | Acetone                     | 0.278 | 0.244 | 12.2  | 69    | 0.00     |
| 17 T  | Carbon Disulfide            | 1.622 | 1.333 | 17.8  | 69    | 0.00     |
| 18 T  | Methyl Acetate              | 0.830 | 0.827 | 0.4   | 86    | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 2.001 | 2.005 | -0.2  | 80    | 0.00     |
| 20 T  | Methylene Chloride          | 0.641 | 0.596 | 7.0   | 80    | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 0.573 | 0.543 | 5.2   | 76    | -0.01    |
| 22 T  | Diisopropyl ether           | 1.969 | 2.006 | -1.9  | 81    | 0.00     |
| 23 T  | Vinyl Acetate               | 2.018 | 2.204 | -9.2  | 85    | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 1.073 | 1.095 | -2.1  | 82    | 0.00     |
| 25 T  | 2-Butanone                  | 0.428 | 0.402 | 6.1   | 76    | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 0.997 | 0.934 | 6.3   | 74    | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 0.691 | 0.680 | 1.6   | 80    | 0.00     |
| 28 T  | Bromochloromethane          | 0.439 | 0.439 | 0.0   | 81    | 0.00     |
| 29 T  | Tetrahydrofuran             | 0.276 | 0.257 | 6.9   | 74    | 0.00     |
| 30 C  | Chloroform                  | 1.115 | 1.186 | -6.4# | 84    | 0.00     |
| 31 T  | Cyclohexane                 | 1.055 | 0.966 | 8.4   | 79    | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 1.055 | 1.088 | -3.1  | 82    | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 0.712 | 0.742 | -4.2  | 80    | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 1.000 | 1.000 | 0.0   | 81    | 0.00     |
| 35 S  | Dibromofluoromethane        | 0.312 | 0.320 | -2.6  | 78    | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 0.472 | 0.475 | -0.6  | 81    | 0.00     |
| 37 T  | Ethyl Acetate               | 0.529 | 0.486 | 8.1   | 79    | 0.00     |
| 38 T  | Carbon Tetrachloride        | 0.532 | 0.548 | -3.0  | 81    | 0.00     |
| 39 T  | Methylcyclohexane           | 0.580 | 0.559 | 3.6   | 76    | 0.00     |
| 40 TM | Benzene                     | 1.406 | 1.433 | -1.9  | 80    | 0.00     |
| 41 T  | Methacrylonitrile           | 0.301 | 0.277 | 8.0   | 79    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 0.512 | 0.547 | -6.8  | 85    | 0.00     |
| 43 T  | Isopropyl Acetate           | 1.211 | 0.895 | 26.1# | 79    | 0.00     |
| 44 TM | Trichloroethene             | 0.335 | 0.341 | -1.8  | 80    | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 0.334 | 0.354 | -6.0# | 83    | 0.00     |
| 46 T  | Dibromomethane              | 0.239 | 0.256 | -7.1  | 83    | 0.00     |
| 47 T  | Bromodichloromethane        | 0.537 | 0.551 | -2.6  | 83    | 0.00     |
| 48 T  | Methyl methacrylate         | 0.437 | 0.416 | 4.8   | 79    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083295.D  
Acq On : 14 Aug 2024 12:41  
Operator : JC\MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
LabSampleId :  
VSTDCCC050

Quant Time: Aug 14 23:14:20 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
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                 | 0.008 | 0.008 | 0.0   | 75    | 0.00     |
| 50 S  | Toluene-d8                  | 1.164 | 1.193 | -2.5  | 77    | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 0.500 | 0.506 | -1.2  | 79    | 0.00     |
| 52 CM | Toluene                     | 0.889 | 0.921 | -3.6# | 81    | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 0.551 | 0.572 | -3.8  | 78    | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 0.586 | 0.595 | -1.5  | 80    | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 0.318 | 0.338 | -6.3  | 82    | 0.00     |
| 56 T  | Ethyl methacrylate          | 0.600 | 0.610 | -1.7  | 79    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 0.568 | 0.600 | -5.6  | 82    | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 0.254 | 0.258 | -1.6  | 80    | 0.00     |
| 59 T  | 2-Hexanone                  | 0.387 | 0.377 | 2.6   | 77    | 0.00     |
| 60 T  | Dibromochloromethane        | 0.385 | 0.416 | -8.1  | 82    | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 0.335 | 0.345 | -3.0  | 81    | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 0.454 | 0.479 | -5.5  | 79    | 0.00     |
| 63 I  | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0   | 83    | 0.00     |
| 64 T  | Tetrachloroethene           | 0.331 | 0.333 | -0.6  | 80    | 0.00     |
| 65 PM | Chlorobenzene               | 1.105 | 1.119 | -1.3  | 81    | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 0.390 | 0.397 | -1.8  | 82    | 0.00     |
| 67 C  | Ethyl Benzene               | 2.027 | 2.073 | -2.3# | 83    | 0.00     |
| 68 T  | m/p-Xylenes                 | 0.759 | 0.775 | -2.1  | 81    | 0.00     |
| 69 T  | o-Xylene                    | 0.749 | 0.756 | -0.9  | 81    | 0.00     |
| 70 T  | Styrene                     | 1.258 | 1.305 | -3.7  | 81    | 0.00     |
| 71 P  | Bromoform                   | 0.295 | 0.297 | -0.7  | 77    | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0   | 86    | 0.00     |
| 73 T  | Isopropylbenzene            | 4.182 | 4.049 | 3.2   | 81    | 0.00     |
| 74 T  | N-amyl acetate              | 2.046 | 1.826 | 10.8  | 78    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 1.183 | 1.143 | 3.4   | 84    | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 1.097 | 1.045 | 4.7   | 84    | 0.00     |
| 77 T  | Bromobenzene                | 0.929 | 0.923 | 0.6   | 82    | 0.00     |
| 78 T  | n-propylbenzene             | 4.816 | 4.810 | 0.1   | 83    | 0.00     |
| 79 T  | 2-Chlorotoluene             | 3.053 | 3.000 | 1.7   | 83    | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 3.501 | 3.489 | 0.3   | 83    | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 0.504 | 0.464 | 7.9   | 80    | 0.00     |
| 82 T  | 4-Chlorotoluene             | 3.062 | 2.969 | 3.0   | 82    | 0.00     |
| 83 T  | tert-Butylbenzene           | 3.101 | 3.030 | 2.3   | 82    | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 3.529 | 3.509 | 0.6   | 82    | 0.00     |
| 85 T  | sec-Butylbenzene            | 4.231 | 4.216 | 0.4   | 82    | 0.00     |
| 86 T  | p-Isopropyltoluene          | 3.493 | 3.543 | -1.4  | 82    | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 1.748 | 1.744 | 0.2   | 84    | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 1.762 | 1.724 | 2.2   | 83    | 0.00     |
| 89 T  | n-Butylbenzene              | 3.027 | 3.116 | -2.9  | 83    | 0.00     |
| 90 T  | Hexachloroethane            | 0.675 | 0.636 | 5.8   | 79    | 0.00     |
| 91 T  | 1,2-Dichlorobenzene         | 1.692 | 1.685 | 0.4   | 85    | 0.00     |
| 92 T  | 1,2-Dibromo-3-Chloropropane | 0.287 | 0.252 | 12.2  | 76    | 0.00     |
| 93 T  | 1,2,4-Trichlorobenzene      | 0.948 | 0.918 | 3.2   | 80    | 0.00     |
| 94 T  | Hexachlorobutadiene         | 0.421 | 0.378 | 10.2  | 79    | 0.00     |
| 95 T  | Naphthalene                 | 3.357 | 3.174 | 5.5   | 78    | 0.00     |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083295.D  
Acq On : 14 Aug 2024 12:41  
Operator : JC\MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
LabSampleId :  
VSTDCCC050

Quant Time: Aug 14 23:14:20 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
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 | 0.938 | 0.901 | 3.9  | 80    | 0.00     |

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083295.D  
Acq On : 14 Aug 2024 12:41  
Operator : JC\MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
LabSampleId :  
VSTDCCC050

Quant Time: Aug 14 23:14:20 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
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   | 81    | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 50.000  | 47.158  | 5.7   | 76    | 0.00     |
| 3 P   | Chloromethane               | 50.000  | 46.562  | 6.9   | 74    | 0.00     |
| 4 C   | Vinyl Chloride              | 50.000  | 48.983  | 2.0#  | 78    | 0.00     |
| 5 T   | Bromomethane                | 50.000  | 44.339  | 11.3  | 74    | 0.00     |
| 6 T   | Chloroethane                | 50.000  | 50.266  | -0.5  | 85    | 0.00     |
| 7 T   | Trichlorofluoromethane      | 50.000  | 52.421  | -4.8  | 83    | 0.00     |
| 8 T   | Diethyl Ether               | 50.000  | 47.827  | 4.3   | 77    | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 50.000  | 51.366  | -2.7  | 82    | 0.00     |
| 10 T  | Methyl Iodide               | 50.000  | 41.205  | 17.6  | 64    | 0.00     |
| 11 T  | Tert butyl alcohol          | 250.000 | 250.960 | -0.4  | 82    | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 50.000  | 46.996  | 6.0#  | 77    | 0.00     |
| 13 T  | Acrolein                    | 250.000 | 239.443 | 4.2   | 73    | 0.00     |
| 14 T  | Allyl chloride              | 50.000  | 46.115  | 7.8   | 84    | 0.00     |
| 15 T  | Acrylonitrile               | 250.000 | 242.760 | 2.9   | 78    | 0.00     |
| 16 T  | Acetone                     | 250.000 | 219.394 | 12.2  | 69    | 0.00     |
| 17 T  | Carbon Disulfide            | 50.000  | 41.102  | 17.8  | 69    | 0.00     |
| 18 T  | Methyl Acetate              | 50.000  | 49.826  | 0.3   | 86    | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 50.000  | 50.114  | -0.2  | 80    | 0.00     |
| 20 T  | Methylene Chloride          | 50.000  | 46.513  | 7.0   | 80    | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 50.000  | 47.417  | 5.2   | 76    | -0.01    |
| 22 T  | Diisopropyl ether           | 50.000  | 50.939  | -1.9  | 81    | 0.00     |
| 23 T  | Vinyl Acetate               | 250.000 | 273.001 | -9.2  | 85    | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 50.000  | 51.002  | -2.0  | 82    | 0.00     |
| 25 T  | 2-Butanone                  | 250.000 | 234.803 | 6.1   | 76    | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 50.000  | 46.878  | 6.2   | 74    | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 50.000  | 49.219  | 1.6   | 80    | 0.00     |
| 28 T  | Bromochloromethane          | 50.000  | 50.022  | -0.0  | 81    | 0.00     |
| 29 T  | Tetrahydrofuran             | 250.000 | 232.605 | 7.0   | 74    | 0.00     |
| 30 C  | Chloroform                  | 50.000  | 53.171  | -6.3# | 84    | 0.00     |
| 31 T  | Cyclohexane                 | 50.000  | 45.816  | 8.4   | 79    | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 50.000  | 51.554  | -3.1  | 82    | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 50.000  | 52.129  | -4.3  | 80    | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 50.000  | 50.000  | 0.0   | 81    | 0.00     |
| 35 S  | Dibromofluoromethane        | 50.000  | 51.194  | -2.4  | 78    | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 50.000  | 50.312  | -0.6  | 81    | 0.00     |
| 37 T  | Ethyl Acetate               | 50.000  | 45.975  | 8.0   | 79    | 0.00     |
| 38 T  | Carbon Tetrachloride        | 50.000  | 51.545  | -3.1  | 81    | 0.00     |
| 39 T  | Methylcyclohexane           | 50.000  | 48.172  | 3.7   | 76    | 0.00     |
| 40 TM | Benzene                     | 50.000  | 50.937  | -1.9  | 80    | 0.00     |
| 41 T  | Methacrylonitrile           | 50.000  | 46.068  | 7.9   | 79    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 50.000  | 53.374  | -6.7  | 85    | 0.00     |
| 43 T  | Isopropyl Acetate           | 50.000  | 48.708  | 2.6   | 79    | 0.00     |
| 44 TM | Trichloroethene             | 50.000  | 50.883  | -1.8  | 80    | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 50.000  | 53.038  | -6.1# | 83    | 0.00     |
| 46 T  | Dibromomethane              | 50.000  | 53.530  | -7.1  | 83    | 0.00     |
| 47 T  | Bromodichloromethane        | 50.000  | 51.369  | -2.7  | 83    | 0.00     |
| 48 T  | Methyl methacrylate         | 50.000  | 47.618  | 4.8   | 79    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083295.D  
Acq On : 14 Aug 2024 12:41  
Operator : JC\MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
LabSampleId :  
VSTDCCC050

Quant Time: Aug 14 23:14:20 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
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 | 960.872 | 3.9   | 75    | 0.00     |
| 50 S  | Toluene-d8                  | 50.000   | 51.234  | -2.5  | 77    | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 250.000  | 253.043 | -1.2  | 79    | 0.00     |
| 52 CM | Toluene                     | 50.000   | 51.813  | -3.6# | 81    | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 50.000   | 51.915  | -3.8  | 78    | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 50.000   | 50.753  | -1.5  | 80    | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 50.000   | 53.110  | -6.2  | 82    | 0.00     |
| 56 T  | Ethyl methacrylate          | 50.000   | 50.792  | -1.6  | 79    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 50.000   | 52.864  | -5.7  | 82    | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 250.000  | 253.780 | -1.5  | 80    | 0.00     |
| 59 T  | 2-Hexanone                  | 250.000  | 243.668 | 2.5   | 77    | 0.00     |
| 60 T  | Dibromochloromethane        | 50.000   | 54.062  | -8.1  | 82    | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 50.000   | 51.595  | -3.2  | 81    | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 50.000   | 52.757  | -5.5  | 79    | 0.00     |
| 63 I  | Chlorobenzene-d5            | 50.000   | 50.000  | 0.0   | 83    | 0.00     |
| 64 T  | Tetrachloroethene           | 50.000   | 50.230  | -0.5  | 80    | 0.00     |
| 65 PM | Chlorobenzene               | 50.000   | 50.640  | -1.3  | 81    | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 50.000   | 50.961  | -1.9  | 82    | 0.00     |
| 67 C  | Ethyl Benzene               | 50.000   | 51.124  | -2.2# | 83    | 0.00     |
| 68 T  | m/p-Xylenes                 | 100.000  | 102.048 | -2.0  | 81    | 0.00     |
| 69 T  | o-Xylene                    | 50.000   | 50.450  | -0.9  | 81    | 0.00     |
| 70 T  | Styrene                     | 50.000   | 51.874  | -3.7  | 81    | 0.00     |
| 71 P  | Bromoform                   | 50.000   | 50.218  | -0.4  | 77    | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 50.000   | 50.000  | 0.0   | 86    | 0.00     |
| 73 T  | Isopropylbenzene            | 50.000   | 48.403  | 3.2   | 81    | 0.00     |
| 74 T  | N-amyl acetate              | 50.000   | 44.635  | 10.7  | 78    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 50.000   | 48.328  | 3.3   | 84    | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 50.000   | 47.602  | 4.8   | 84    | 0.00     |
| 77 T  | Bromobenzene                | 50.000   | 49.656  | 0.7   | 82    | 0.00     |
| 78 T  | n-propylbenzene             | 50.000   | 49.938  | 0.1   | 83    | 0.00     |
| 79 T  | 2-Chlorotoluene             | 50.000   | 49.125  | 1.8   | 83    | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 50.000   | 49.829  | 0.3   | 83    | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 50.000   | 45.962  | 8.1   | 80    | 0.00     |
| 82 T  | 4-Chlorotoluene             | 50.000   | 48.468  | 3.1   | 82    | 0.00     |
| 83 T  | tert-Butylbenzene           | 50.000   | 48.866  | 2.3   | 82    | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 50.000   | 49.723  | 0.6   | 82    | 0.00     |
| 85 T  | sec-Butylbenzene            | 50.000   | 49.826  | 0.3   | 82    | 0.00     |
| 86 T  | p-Isopropyltoluene          | 50.000   | 50.705  | -1.4  | 82    | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 50.000   | 49.896  | 0.2   | 84    | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 50.000   | 48.912  | 2.2   | 83    | 0.00     |
| 89 T  | n-Butylbenzene              | 50.000   | 51.464  | -2.9  | 83    | 0.00     |
| 90 T  | Hexachloroethane            | 50.000   | 47.142  | 5.7   | 79    | 0.00     |
| 91 T  | 1,2-Dichlorobenzene         | 50.000   | 49.802  | 0.4   | 85    | 0.00     |
| 92 T  | 1,2-Dibromo-3-Chloropropane | 50.000   | 43.813  | 12.4  | 76    | 0.00     |
| 93 T  | 1,2,4-Trichlorobenzene      | 50.000   | 48.458  | 3.1   | 80    | 0.00     |
| 94 T  | Hexachlorobutadiene         | 50.000   | 44.858  | 10.3  | 79    | 0.00     |
| 95 T  | Naphthalene                 | 50.000   | 47.278  | 5.4   | 78    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083295.D  
Acq On : 14 Aug 2024 12:41  
Operator : JC\MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
LabSampleId :  
VSTDCCC050

Quant Time: Aug 14 23:14:20 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
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 | 48.043 | 3.9  | 80    | 0.00     |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 6



# QC SAMPLE DATA

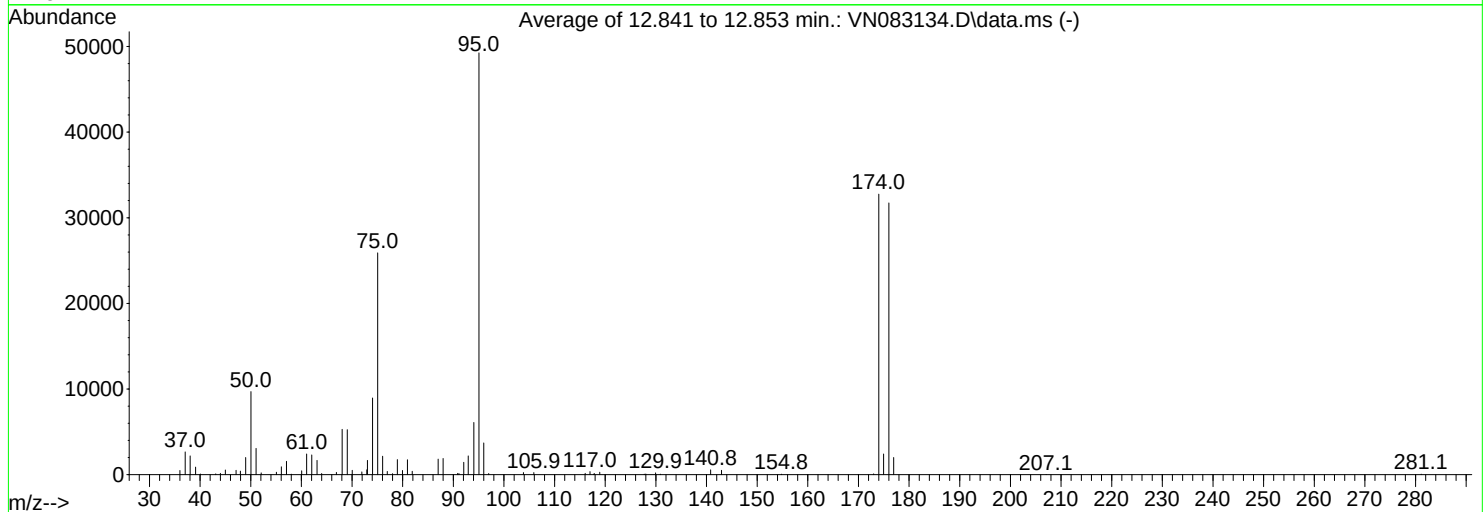
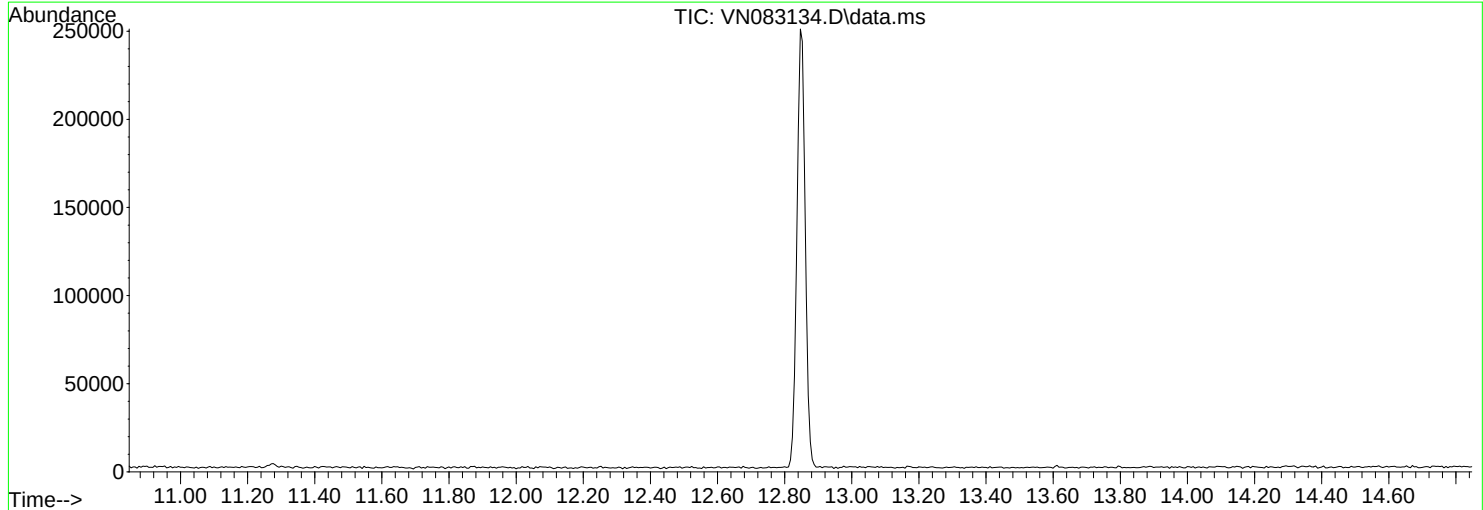
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN080724\  
Data File : VN083134.D  
Acq On : 07 Aug 2024 10:09  
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\82N080724W.M  
Title : SW846 8260  
Last Update : Thu Aug 08 06:30:41 2024



AutoFind: Scans 1851, 1852, 1853; Background Corrected with Scan 1843

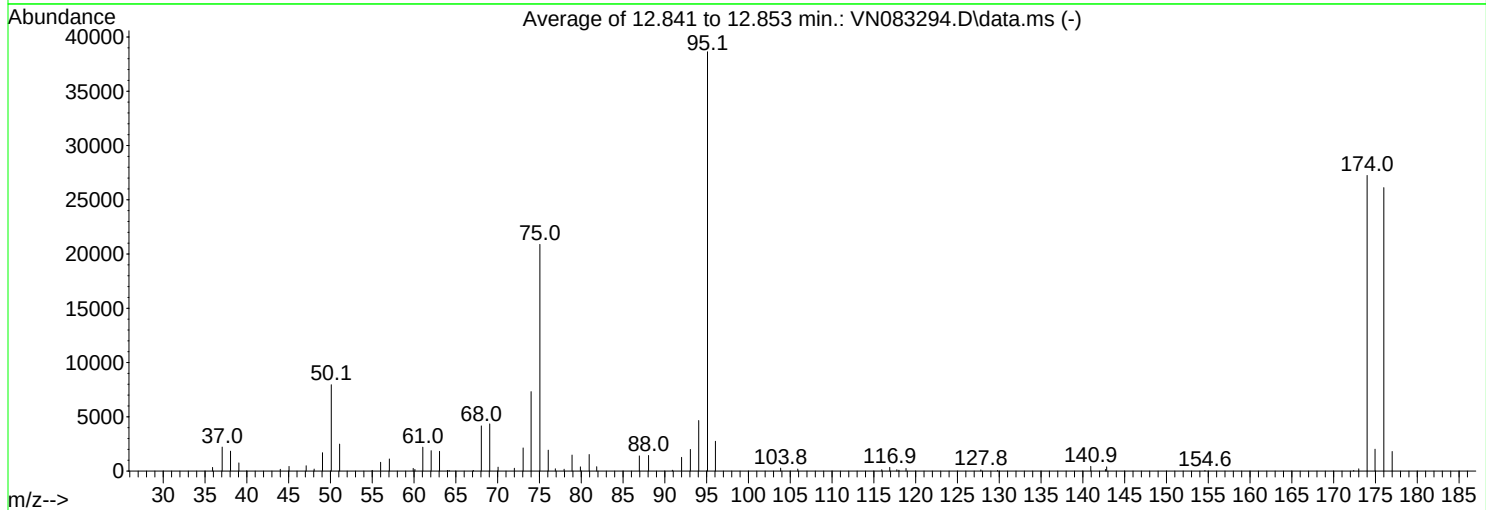
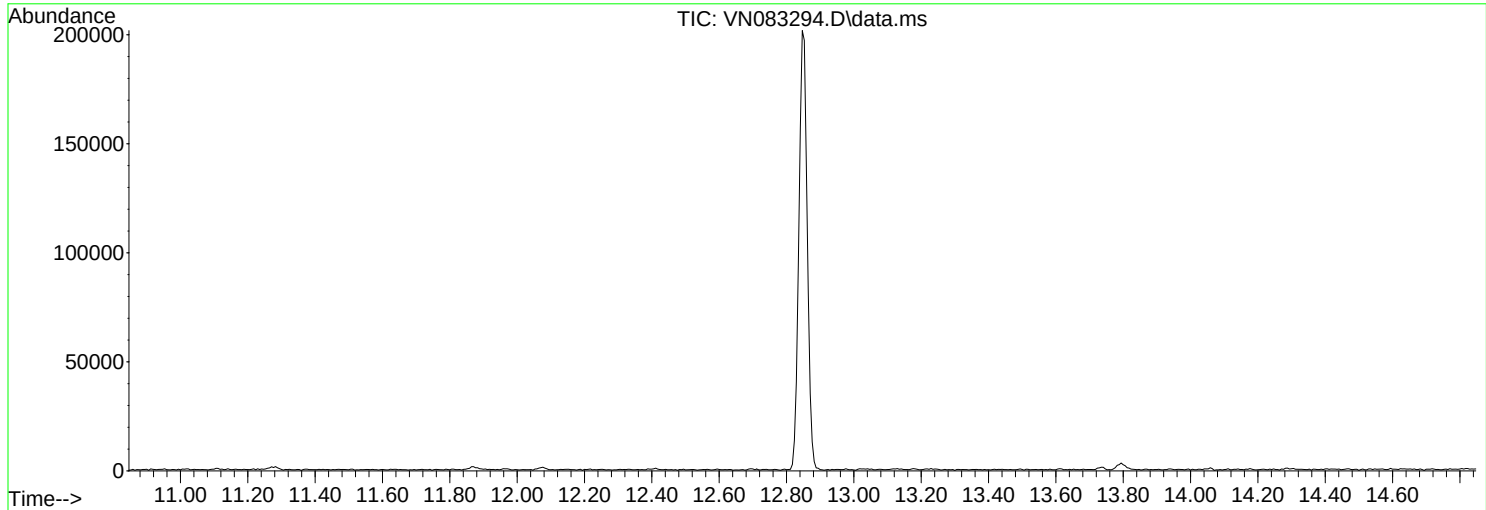
| Target | Rel. to | Lower  | Upper  | Rel.  | Raw   | Result    |
|--------|---------|--------|--------|-------|-------|-----------|
| Mass   | Mass    | Limit% | Limit% | Abn%  | Abn   | Pass/Fail |
| 50     | 95      | 15     | 40     | 19.7  | 9690  | PASS      |
| 75     | 95      | 30     | 60     | 52.6  | 25907 | PASS      |
| 95     | 95      | 100    | 100    | 100.0 | 49259 | PASS      |
| 96     | 95      | 5      | 9      | 7.5   | 3697  | PASS      |
| 173    | 174     | 0.00   | 2      | 0.3   | 99    | PASS      |
| 174    | 95      | 50     | 100    | 66.5  | 32749 | PASS      |
| 175    | 174     | 5      | 9      | 7.4   | 2414  | PASS      |
| 176    | 174     | 95     | 101    | 96.9  | 31720 | PASS      |
| 177    | 176     | 5      | 9      | 6.3   | 1999  | PASS      |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083294.D  
Acq On : 14 Aug 2024 12:07  
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\82N080724W.M  
Title : SW846 8260  
Last Update : Thu Aug 08 06:30:41 2024



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              | 20.6         | 7958       | PASS                |
| 75             | 95              | 30              | 60              | 54.1         | 20891      | PASS                |
| 95             | 95              | 100             | 100             | 100.0        | 38643      | PASS                |
| 96             | 95              | 5               | 9               | 7.1          | 2747       | PASS                |
| 173            | 174             | 0.00            | 2               | 0.8          | 207        | PASS                |
| 174            | 95              | 50              | 100             | 70.5         | 27243      | PASS                |
| 175            | 174             | 5               | 9               | 7.4          | 2019       | PASS                |
| 176            | 174             | 95              | 101             | 95.9         | 26120      | PASS                |
| 177            | 176             | 5               | 9               | 6.9          | 1805       | PASS                |

### Report of Analysis

|                    |                                       |           |                 |              |
|--------------------|---------------------------------------|-----------|-----------------|--------------|
| Client:            | JACOBS Engineering Group, Inc.        |           | Date Collected: |              |
| Project:           | Former Schlumberger Site Princeton NJ |           | Date Received:  |              |
| Client Sample ID:  | VN0814WBL01                           |           | SDG No.:        | P3609        |
| Lab Sample ID:     | VN0814WBL01                           |           | Matrix:         | Water        |
| Analytical Method: | SW8260                                |           | % Solid:        | 0            |
| Sample Wt/Vol:     | 5                                     | Units: mL | Final Vol:      | 5000 uL      |
| Soil Aliquot Vol:  |                                       | uL        | Test:           | VOCMS Group6 |
| GC Column:         | RXI-624                               | ID : 0.25 | Level :         | LOW          |
| Prep Method :      |                                       |           |                 |              |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN083297.D        | 1         |           | 08/14/24 13:39 | VN081424      |

| CAS Number     | Parameter                      | Conc. | Qualifier | MDL  | LOQ / CRQL | Units |
|----------------|--------------------------------|-------|-----------|------|------------|-------|
| <b>TARGETS</b> |                                |       |           |      |            |       |
| 75-71-8        | Dichlorodifluoromethane        | 0.21  | U         | 0.21 | 1.00       | ug/L  |
| 74-87-3        | Chloromethane                  | 0.35  | U         | 0.35 | 1.00       | ug/L  |
| 75-01-4        | Vinyl Chloride                 | 0.34  | U         | 0.34 | 1.00       | ug/L  |
| 74-83-9        | Bromomethane                   | 1.40  | U         | 1.40 | 5.00       | ug/L  |
| 75-00-3        | Chloroethane                   | 0.56  | U         | 0.56 | 1.00       | ug/L  |
| 76-13-1        | 1,1,2-Trichlorotrifluoroethane | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 75-35-4        | 1,1-Dichloroethene             | 0.26  | U         | 0.26 | 1.00       | ug/L  |
| 67-64-1        | Acetone                        | 1.40  | U         | 1.40 | 5.00       | ug/L  |
| 75-15-0        | Carbon Disulfide               | 0.32  | U         | 0.32 | 1.00       | ug/L  |
| 1634-04-4      | Methyl tert-butyl Ether        | 0.16  | U         | 0.16 | 1.00       | ug/L  |
| 75-09-2        | Methylene Chloride             | 0.32  | U         | 0.32 | 1.00       | ug/L  |
| 156-60-5       | trans-1,2-Dichloroethene       | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 75-34-3        | 1,1-Dichloroethane             | 0.23  | U         | 0.23 | 1.00       | ug/L  |
| 110-82-7       | Cyclohexane                    | 1.60  | U         | 1.60 | 5.00       | ug/L  |
| 78-93-3        | 2-Butanone                     | 1.30  | U         | 1.30 | 5.00       | ug/L  |
| 56-23-5        | Carbon Tetrachloride           | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 156-59-2       | cis-1,2-Dichloroethene         | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 67-66-3        | Chloroform                     | 0.26  | U         | 0.26 | 1.00       | ug/L  |
| 71-55-6        | 1,1,1-Trichloroethane          | 0.19  | U         | 0.19 | 1.00       | ug/L  |
| 108-87-2       | Methylcyclohexane              | 0.19  | U         | 0.19 | 1.00       | ug/L  |
| 71-43-2        | Benzene                        | 0.16  | U         | 0.16 | 1.00       | ug/L  |
| 107-06-2       | 1,2-Dichloroethane             | 0.24  | U         | 0.24 | 1.00       | ug/L  |
| 79-01-6        | Trichloroethene                | 0.32  | U         | 0.32 | 1.00       | ug/L  |
| 75-27-4        | Bromodichloromethane           | 0.24  | U         | 0.24 | 1.00       | ug/L  |
| 108-88-3       | Toluene                        | 0.18  | U         | 0.18 | 1.00       | ug/L  |
| 79-00-5        | 1,1,2-Trichloroethane          | 0.21  | U         | 0.21 | 1.00       | ug/L  |
| 124-48-1       | Dibromochloromethane           | 0.18  | U         | 0.18 | 1.00       | ug/L  |
| 127-18-4       | Tetrachloroethene              | 0.25  | U         | 0.25 | 1.00       | ug/L  |
| 108-90-7       | Chlorobenzene                  | 0.13  | U         | 0.13 | 1.00       | ug/L  |
| 100-41-4       | Ethyl Benzene                  | 0.16  | U         | 0.16 | 1.00       | ug/L  |



## Report of Analysis

|                    |                                       |                 |       |
|--------------------|---------------------------------------|-----------------|-------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: |       |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  |       |
| Client Sample ID:  | VN0814WBL01                           | SDG No.:        | P3609 |
| Lab Sample ID:     | VN0814WBL01                           | Matrix:         | Water |
| Analytical Method: | SW8260                                | % Solid:        | 0     |
| Sample Wt/Vol:     | 5                                     | Units:          | mL    |
| Soil Aliquot Vol:  |                                       |                 | uL    |
| GC Column:         | RXI-624                               | ID :            | 0.25  |
| Prep Method :      |                                       | Level :         | LOW   |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
|-------------------|-----------|-----------|----------------|---------------|
| VN083297.D        | 1         |           | 08/14/24 13:39 | VN081424      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| 179601-23-1               | m/p-Xylenes            | 0.31   | U         | 0.31                | 2.00       | ug/L    |
| 1330-20-7                 | Total Xylenes          | 0.45   | U         | 0.45                | 3.00       | ug/L    |
| 95-47-6                   | o-Xylene               | 0.14   | U         | 0.14                | 1.00       | ug/L    |
| 98-82-8                   | Isopropylbenzene       | 0.13   | U         | 0.13                | 1.00       | ug/L    |
| 106-46-7                  | 1,4-Dichlorobenzene    | 0.27   | U         | 0.27                | 1.00       | ug/L    |
| 95-50-1                   | 1,2-Dichlorobenzene    | 0.19   | U         | 0.19                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 55.6   |           | 70 (74) - 130 (125) | 111%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 53.1   |           | 70 (75) - 130 (124) | 106%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 54.2   |           | 70 (86) - 130 (113) | 108%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 56.3   |           | 70 (77) - 130 (121) | 113%       | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 145000 | 8.23      |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 277000 | 9.1       |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 287000 | 11.865    |                     |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 128000 | 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\VN081424\  
Data File : VN083297.D  
Acq On : 14 Aug 2024 13:39  
Operator : JC\MD  
Sample : VN0814WBL01  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBL01

Quant Time: Aug 14 23:22:14 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
Response via : Initial Calibration

| Compound                    | R.T.   | QIon           | Response | Conc       | Units | Dev(Min) |
|-----------------------------|--------|----------------|----------|------------|-------|----------|
| Internal Standards          |        |                |          |            |       |          |
| 1) Pentafluorobenzene       | 8.230  | 168            | 145129   | 50.000     | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene     | 9.100  | 114            | 276647   | 50.000     | ug/l  | 0.00     |
| 63) Chlorobenzene-d5        | 11.865 | 117            | 286871   | 50.000     | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 13.794 | 152            | 128230   | 50.000     | ug/l  | 0.00     |
| System Monitoring Compounds |        |                |          |            |       |          |
| 33) 1,2-Dichloroethane-d4   | 8.582  | 65             | 114917   | 55.630     | ug/l  | 0.00     |
| Spiked Amount               | 50.000 | Range 74 - 125 | Recovery | = 111.260% |       |          |
| 35) Dibromofluoromethane    | 8.165  | 113            | 91714    | 53.113     | ug/l  | 0.00     |
| Spiked Amount               | 50.000 | Range 75 - 124 | Recovery | = 106.220% |       |          |
| 50) Toluene-d8              | 10.565 | 98             | 349304   | 54.229     | ug/l  | 0.00     |
| Spiked Amount               | 50.000 | Range 86 - 113 | Recovery | = 108.460% |       |          |
| 62) 4-Bromofluorobenzene    | 12.847 | 95             | 141438   | 56.323     | ug/l  | 0.00     |
| Spiked Amount               | 50.000 | Range 77 - 121 | Recovery | = 112.640% |       |          |

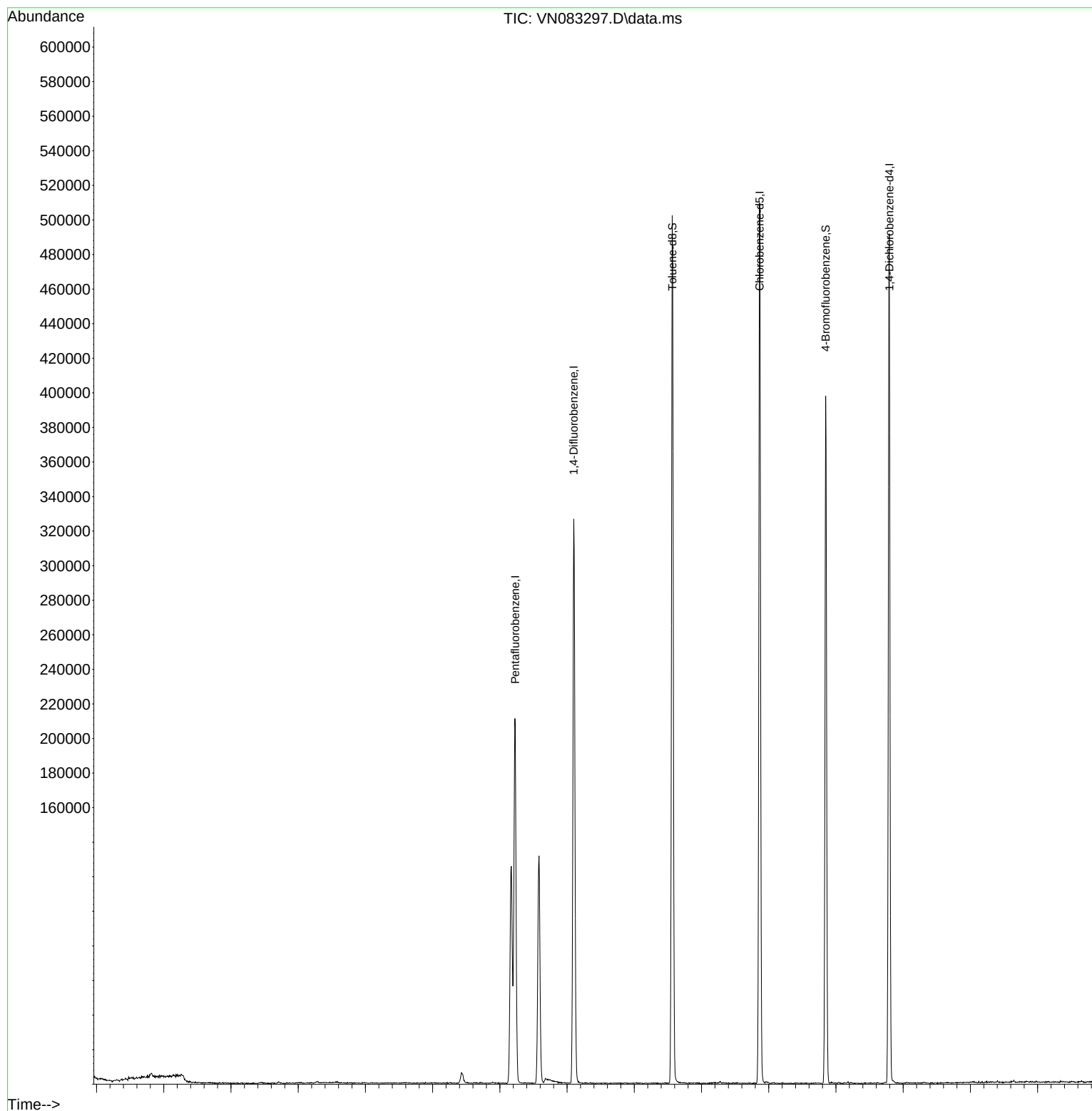
Target Compounds Qvalue

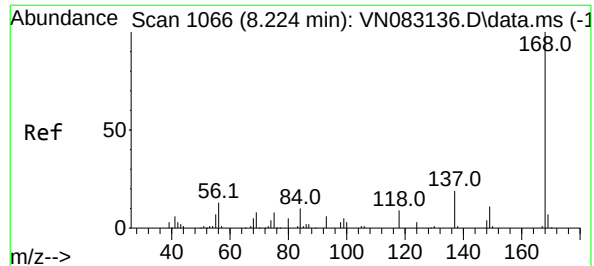
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083297.D  
Acq On : 14 Aug 2024 13:39  
Operator : JC\MD  
Sample : VN0814WBL01  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBL01

Quant Time: Aug 14 23:22:14 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
Response via : Initial Calibration

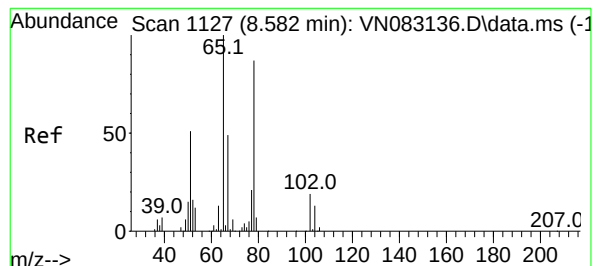
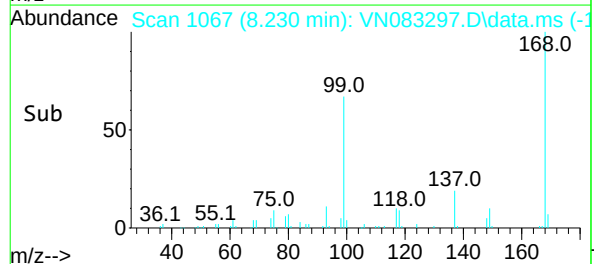
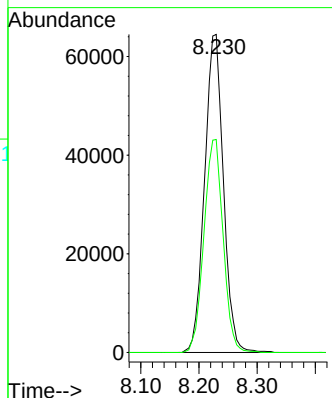
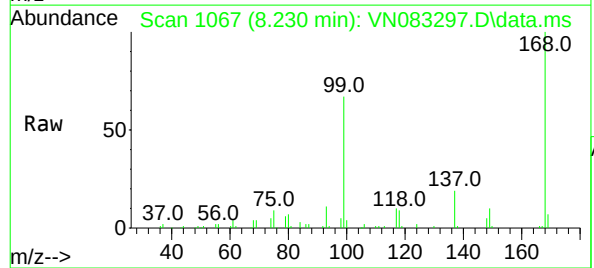




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.230 min Scan# 1066  
Delta R.T. 0.006 min  
Lab File: VN083297.D  
Acq: 14 Aug 2024 13:39

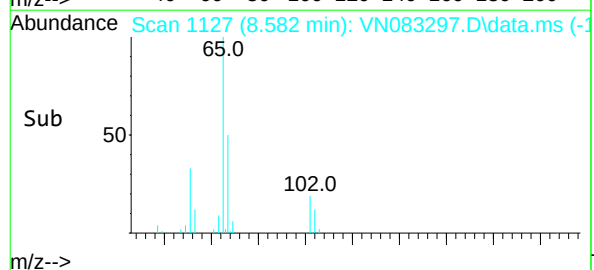
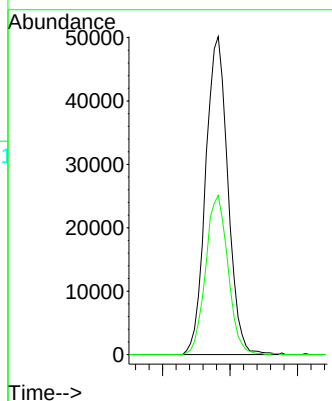
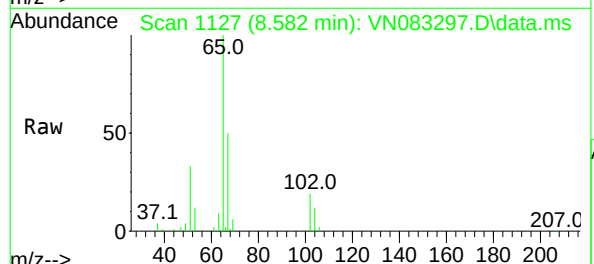
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBL01

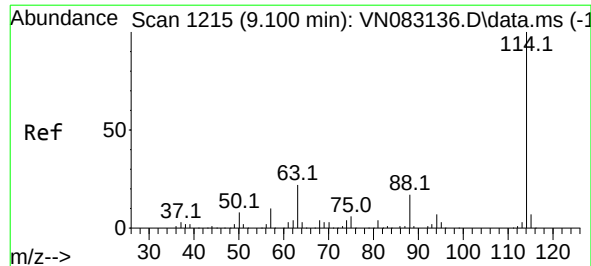
Tgt Ion:168 Resp: 145129  
Ion Ratio Lower Upper  
168 100  
99 67.0 48.2 72.4



#33  
1,2-Dichloroethane-d4  
Concen: 55.630 ug/l  
RT: 8.582 min Scan# 1127  
Delta R.T. 0.000 min  
Lab File: VN083297.D  
Acq: 14 Aug 2024 13:39

Tgt Ion: 65 Resp: 114917  
Ion Ratio Lower Upper  
65 100  
67 50.2 0.0 104.4

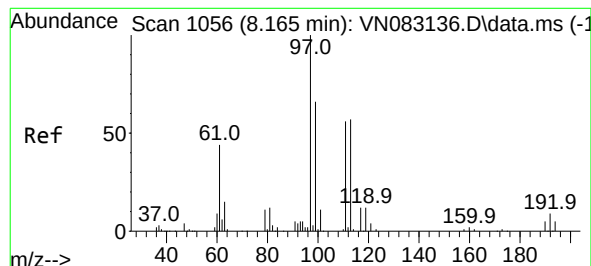
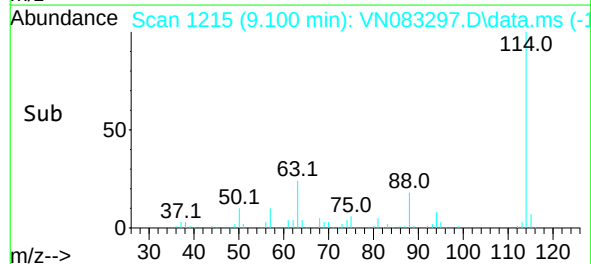
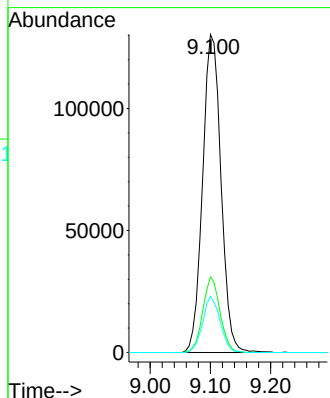
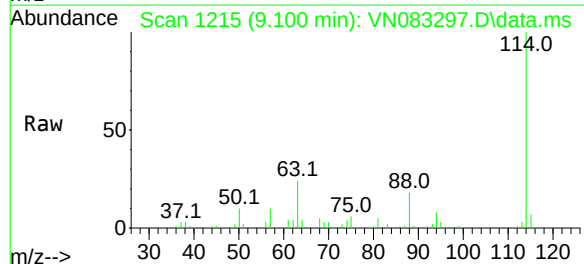




#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 9.100 min Scan# 1215  
Delta R.T. 0.000 min  
Lab File: VN083297.D  
Acq: 14 Aug 2024 13:39

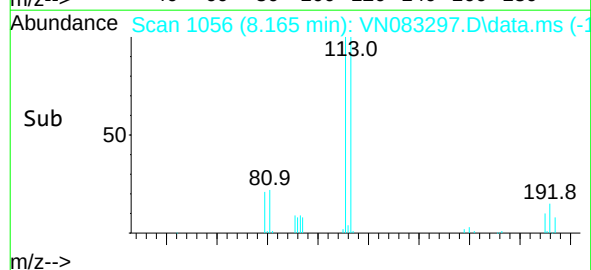
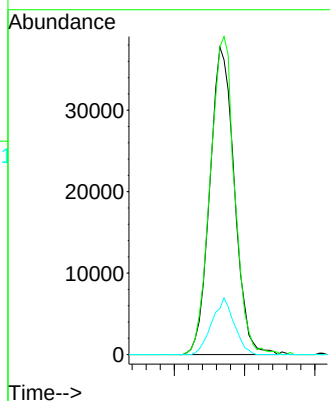
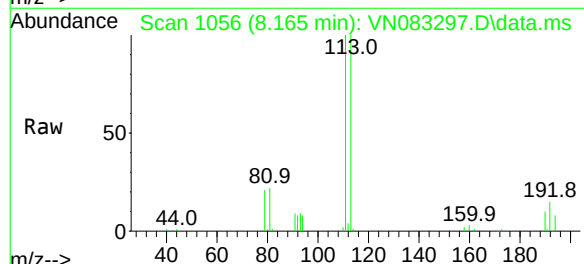
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBL01

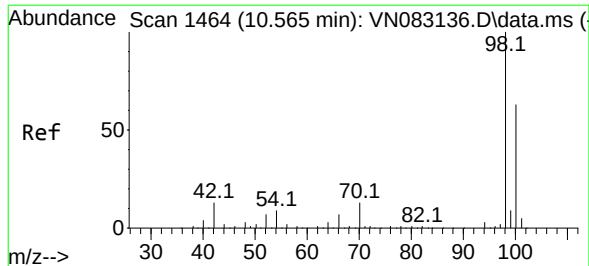
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 114   | Resp: | 276647 |
| Ion      | Ratio | Lower | Upper  |
| 114      | 100   |       |        |
| 63       | 23.8  | 0.0   | 44.6   |
| 88       | 17.6  | 0.0   | 31.4   |



#35  
Dibromofluoromethane  
Concen: 53.113 ug/l  
RT: 8.165 min Scan# 1056  
Delta R.T. -0.000 min  
Lab File: VN083297.D  
Acq: 14 Aug 2024 13:39

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 113   | Resp: | 91714 |
| Ion      | Ratio | Lower | Upper |
| 113      | 100   |       |       |
| 111      | 102.7 | 82.4  | 123.6 |
| 192      | 16.7  | 14.9  | 22.3  |





#50

Toluene-d8

Concen: 54.229 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. -0.000 min

Lab File: VN083297.D

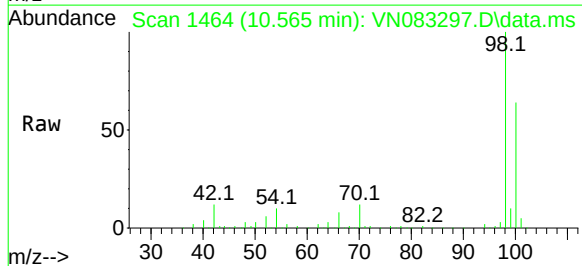
Acq: 14 Aug 2024 13:39

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBL01

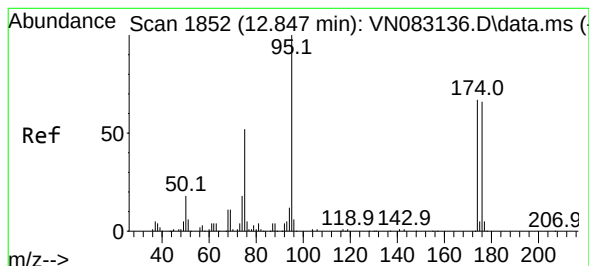
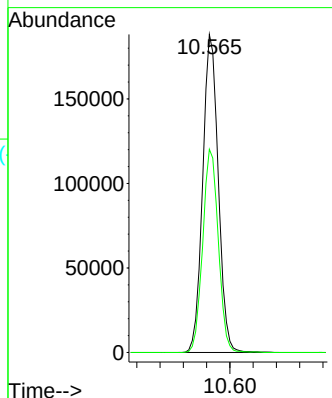
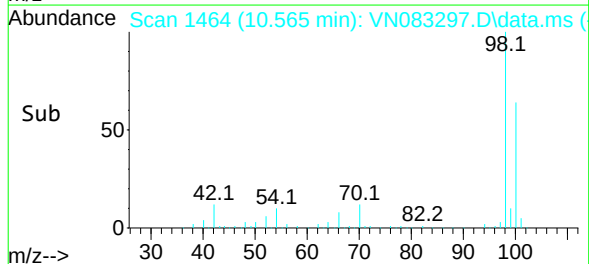


Tgt Ion: 98 Resp: 349304

Ion Ratio Lower Upper

98 100

100 64.0 51.5 77.3



#62

4-Bromofluorobenzene

Concen: 56.323 ug/l

RT: 12.847 min Scan# 1852

Delta R.T. -0.000 min

Lab File: VN083297.D

Acq: 14 Aug 2024 13:39

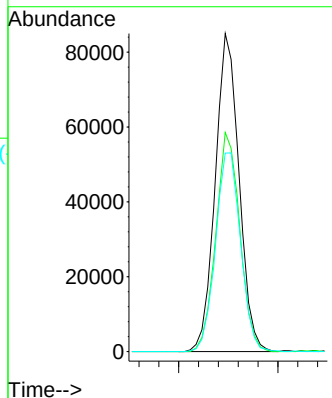
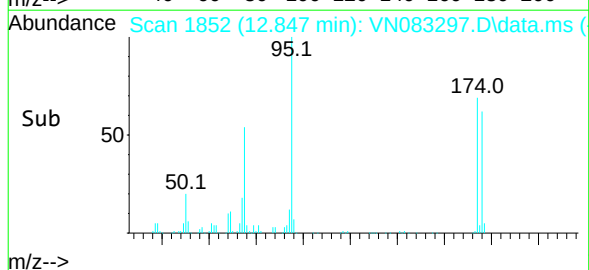
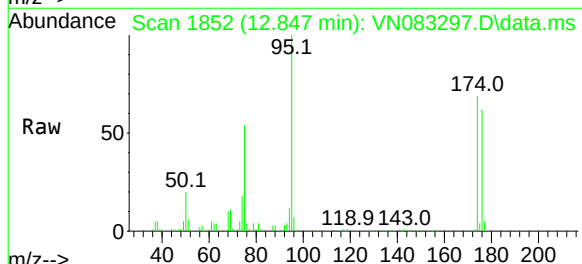
Tgt Ion: 95 Resp: 141438

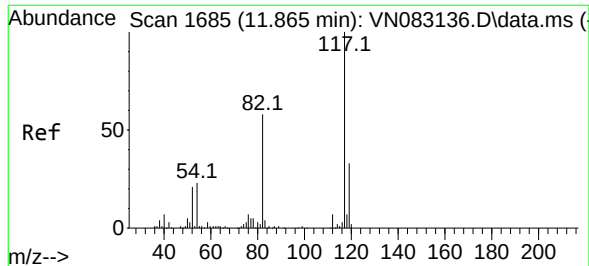
Ion Ratio Lower Upper

95 100

174 69.3 0.0 159.2

176 65.8 0.0 147.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 16

Delta R.T. 0.000 min

Lab File: VN083297.D

Acq: 14 Aug 2024 13:39

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBL01

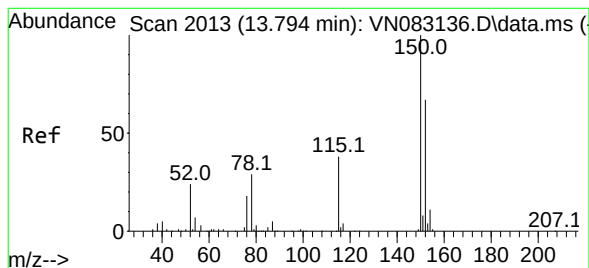
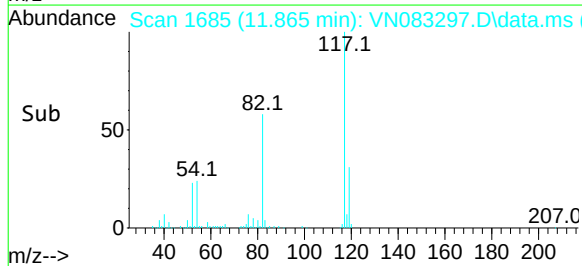
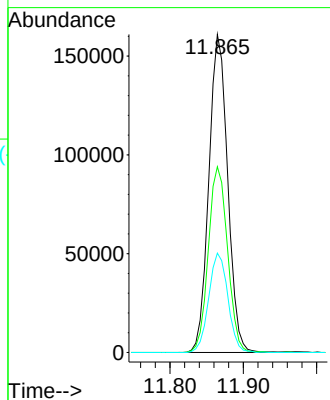
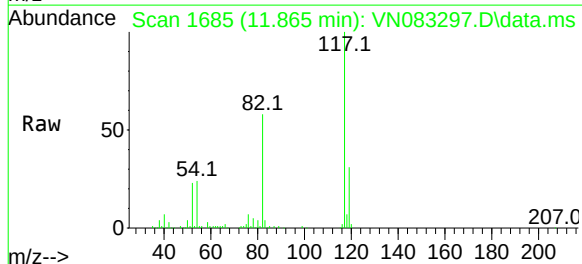
Tgt Ion:117 Resp: 286871

Ion Ratio Lower Upper

117 100

82 58.4 47.5 71.3

119 31.3 25.6 38.4



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.794 min Scan# 2013

Delta R.T. 0.000 min

Lab File: VN083297.D

Acq: 14 Aug 2024 13:39

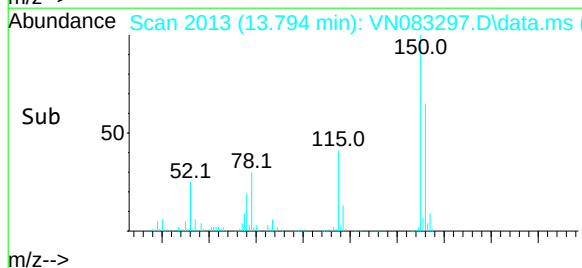
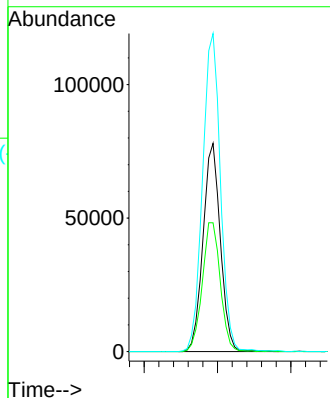
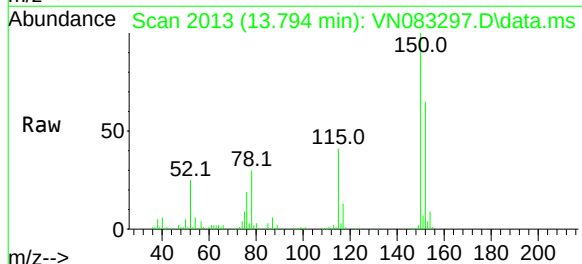
Tgt Ion:152 Resp: 128230

Ion Ratio Lower Upper

152 100

115 64.2 30.6 91.6

150 157.1 0.0 348.6



### Report of Analysis

|                    |                                       |            |                 |    |
|--------------------|---------------------------------------|------------|-----------------|----|
| Client:            | JACOBS Engineering Group, Inc.        |            | Date Collected: |    |
| Project:           | Former Schlumberger Site Princeton NJ |            | Date Received:  |    |
| Client Sample ID:  | VN0814WBS01                           | SDG No.:   | P3609           |    |
| Lab Sample ID:     | VN0814WBS01                           | Matrix:    | Water           |    |
| Analytical Method: | SW8260                                | % Solid:   | 0               |    |
| Sample Wt/Vol:     | 5                                     | Units:     | mL              |    |
| Soil Aliquot Vol:  |                                       |            | uL              |    |
| GC Column:         | RXI-624                               | ID :       | 0.25            |    |
| Prep Method :      |                                       | Level :    | LOW             |    |
|                    |                                       | Final Vol: | 5000            | uL |
|                    |                                       | Test:      | VOCMS Group6    |    |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN083298.D        | 1         |           | 08/14/24 14:03 | VN081424      |

| CAS Number     | Parameter                      | Conc. | Qualifier | MDL  | LOQ / CRQL | Units |
|----------------|--------------------------------|-------|-----------|------|------------|-------|
| <b>TARGETS</b> |                                |       |           |      |            |       |
| 75-71-8        | Dichlorodifluoromethane        | 18.6  |           | 0.21 | 1.00       | ug/L  |
| 74-87-3        | Chloromethane                  | 19.1  |           | 0.35 | 1.00       | ug/L  |
| 75-01-4        | Vinyl Chloride                 | 20.2  |           | 0.34 | 1.00       | ug/L  |
| 74-83-9        | Bromomethane                   | 18.6  |           | 1.40 | 5.00       | ug/L  |
| 75-00-3        | Chloroethane                   | 20.4  |           | 0.56 | 1.00       | ug/L  |
| 76-13-1        | 1,1,2-Trichlorotrifluoroethane | 20.8  |           | 0.25 | 1.00       | ug/L  |
| 75-35-4        | 1,1-Dichloroethene             | 18.8  |           | 0.26 | 1.00       | ug/L  |
| 67-64-1        | Acetone                        | 100   |           | 1.40 | 5.00       | ug/L  |
| 75-15-0        | Carbon Disulfide               | 16.3  |           | 0.32 | 1.00       | ug/L  |
| 1634-04-4      | Methyl tert-butyl Ether        | 20.0  |           | 0.16 | 1.00       | ug/L  |
| 75-09-2        | Methylene Chloride             | 19.0  |           | 0.32 | 1.00       | ug/L  |
| 156-60-5       | trans-1,2-Dichloroethene       | 18.7  |           | 0.25 | 1.00       | ug/L  |
| 75-34-3        | 1,1-Dichloroethane             | 20.5  |           | 0.23 | 1.00       | ug/L  |
| 110-82-7       | Cyclohexane                    | 18.5  |           | 1.60 | 5.00       | ug/L  |
| 78-93-3        | 2-Butanone                     | 100   |           | 1.30 | 5.00       | ug/L  |
| 56-23-5        | Carbon Tetrachloride           | 20.1  |           | 0.25 | 1.00       | ug/L  |
| 156-59-2       | cis-1,2-Dichloroethene         | 19.6  |           | 0.25 | 1.00       | ug/L  |
| 67-66-3        | Chloroform                     | 21.3  |           | 0.26 | 1.00       | ug/L  |
| 71-55-6        | 1,1,1-Trichloroethane          | 20.7  |           | 0.19 | 1.00       | ug/L  |
| 108-87-2       | Methylcyclohexane              | 18.2  |           | 0.19 | 1.00       | ug/L  |
| 71-43-2        | Benzene                        | 20.4  |           | 0.16 | 1.00       | ug/L  |
| 107-06-2       | 1,2-Dichloroethane             | 21.5  |           | 0.24 | 1.00       | ug/L  |
| 79-01-6        | Trichloroethene                | 20.1  |           | 0.32 | 1.00       | ug/L  |
| 75-27-4        | Bromodichloromethane           | 20.7  |           | 0.24 | 1.00       | ug/L  |
| 108-88-3       | Toluene                        | 20.3  |           | 0.18 | 1.00       | ug/L  |
| 79-00-5        | 1,1,2-Trichloroethane          | 21.5  |           | 0.21 | 1.00       | ug/L  |
| 124-48-1       | Dibromochloromethane           | 20.6  |           | 0.18 | 1.00       | ug/L  |
| 127-18-4       | Tetrachloroethene              | 19.6  |           | 0.25 | 1.00       | ug/L  |
| 108-90-7       | Chlorobenzene                  | 19.8  |           | 0.13 | 1.00       | ug/L  |
| 100-41-4       | Ethyl Benzene                  | 19.6  |           | 0.16 | 1.00       | ug/L  |



## Report of Analysis

|                    |                                       |                 |       |
|--------------------|---------------------------------------|-----------------|-------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: |       |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  |       |
| Client Sample ID:  | VN0814WBS01                           | SDG No.:        | P3609 |
| Lab Sample ID:     | VN0814WBS01                           | Matrix:         | Water |
| Analytical Method: | SW8260                                | % Solid:        | 0     |
| Sample Wt/Vol:     | 5                                     | Units:          | mL    |
| Soil Aliquot Vol:  |                                       |                 | uL    |
| GC Column:         | RXI-624                               | ID :            | 0.25  |
| Prep Method :      |                                       | Level :         | LOW   |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
|-------------------|-----------|-----------|----------------|---------------|
| VN083298.D        | 1         |           | 08/14/24 14:03 | VN081424      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| 179601-23-1               | m/p-Xylenes            | 38.6   |           | 0.31                | 2.00       | ug/L    |
| 1330-20-7                 | Total Xylenes          | 58.1   |           | 0.45                | 3.00       | ug/L    |
| 95-47-6                   | o-Xylene               | 19.5   |           | 0.14                | 1.00       | ug/L    |
| 98-82-8                   | Isopropylbenzene       | 19.3   |           | 0.13                | 1.00       | ug/L    |
| 106-46-7                  | 1,4-Dichlorobenzene    | 19.1   |           | 0.27                | 1.00       | ug/L    |
| 95-50-1                   | 1,2-Dichlorobenzene    | 19.1   |           | 0.19                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 56.3   |           | 70 (74) - 130 (125) | 113%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 54.0   |           | 70 (75) - 130 (124) | 108%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 53.1   |           | 70 (86) - 130 (113) | 106%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 52.3   |           | 70 (77) - 130 (121) | 105%       | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 165000 | 8.224     |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 284000 | 9.1       |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 251000 | 11.865    |                     |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 118000 | 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\VN081424\  
 Data File : VN083298.D  
 Acq On : 14 Aug 2024 14:03  
 Operator : JC\MD  
 Sample : VN0814WBS01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0814WBS01

Quant Time: Aug 14 23:22:35 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 06:30:41 2024  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
 Supervised By :Semsettin Yesilyurt 08/15/2024

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 164632   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 284346   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 250581   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.794 | 152  | 117869   | 50.000 | ug/l  | 0.00     |

|                             |        |       |          |          |      |          |
|-----------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds |        |       |          |          |      |          |
| 33) 1,2-Dichloroethane-d4   | 8.577  | 65    | 131834   | 56.259   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 74 - 125 | Recovery | =    | 112.520% |
| 35) Dibromofluoromethane    | 8.171  | 113   | 95892    | 54.029   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =    | 108.060% |
| 50) Toluene-d8              | 10.565 | 98    | 351385   | 53.075   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 86 - 113 | Recovery | =    | 106.160% |
| 62) 4-Bromofluorobenzene    | 12.847 | 95    | 134979   | 52.296   | ug/l | 0.00     |
| Spiked Amount               | 50.000 | Range | 77 - 121 | Recovery | =    | 104.600% |

|                              |       |     |        |         |        |     |
|------------------------------|-------|-----|--------|---------|--------|-----|
| Target Compounds             |       |     |        |         | Qvalue |     |
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 34716  | 18.595  | ug/l   | 97  |
| 3) Chloromethane             | 2.365 | 50  | 36577  | 19.136  | ug/l   | 95  |
| 4) Vinyl Chloride            | 2.512 | 62  | 39346  | 20.174  | ug/l   | 99  |
| 5) Bromomethane              | 2.959 | 94  | 22519  | 18.608  | ug/l   | 90  |
| 6) Chloroethane              | 3.112 | 64  | 24904  | 20.410  | ug/l   | 100 |
| 7) Trichlorofluoromethane    | 3.495 | 101 | 66745  | 20.716  | ug/l   | 93  |
| 8) Diethyl Ether             | 3.959 | 74  | 23647  | 19.724  | ug/l   | 85  |
| 9) 1,1,2-Trichlorotrifluo... | 4.377 | 101 | 36883  | 20.763  | ug/l   | 98  |
| 10) Methyl Iodide            | 4.583 | 142 | 36262  | 15.519  | ug/l   | 98  |
| 11) Tert butyl alcohol       | 5.524 | 59  | 47088  | 96.692  | ug/l   | 99  |
| 12) 1,1-Dichloroethene       | 4.347 | 96  | 34241  | 18.762  | ug/l   | 92  |
| 13) Acrolein                 | 4.183 | 56  | 23357  | 73.590  | ug/l   | 96  |
| 14) Allyl chloride           | 5.018 | 41  | 63728m | 18.479  | ug/l   |     |
| 15) Acrylonitrile            | 5.718 | 53  | 103317 | 103.155 | ug/l   | 98  |
| 16) Acetone                  | 4.436 | 43  | 94520  | 103.081 | ug/l   | 98  |
| 17) Carbon Disulfide         | 4.712 | 76  | 87175  | 16.325  | ug/l   | 97  |
| 18) Methyl Acetate           | 5.030 | 43  | 57100  | 20.901  | ug/l # | 88  |
| 19) Methyl tert-butyl Ether  | 5.794 | 73  | 131685 | 19.991  | ug/l   | 99  |
| 20) Methylene Chloride       | 5.283 | 84  | 40039  | 18.973  | ug/l   | 85  |
| 21) trans-1,2-Dichloroethene | 5.789 | 96  | 35228  | 18.677  | ug/l   | 92  |
| 22) Diisopropyl ether        | 6.677 | 45  | 130740 | 20.168  | ug/l   | 98  |
| 23) Vinyl Acetate            | 6.606 | 43  | 720397 | 108.418 | ug/l   | 97  |
| 24) 1,1-Dichloroethane       | 6.571 | 63  | 72312  | 20.465  | ug/l   | 96  |
| 25) 2-Butanone               | 7.483 | 43  | 145625 | 103.431 | ug/l   | 95  |
| 26) 2,2-Dichloropropane      | 7.488 | 77  | 67033  | 20.428  | ug/l   | 100 |
| 27) cis-1,2-Dichloroethene   | 7.488 | 96  | 44697  | 19.638  | ug/l   | 94  |
| 28) Bromochloromethane       | 7.812 | 49  | 31073  | 21.518  | ug/l   | 85  |
| 29) Tetrahydrofuran          | 7.841 | 42  | 94074  | 103.362 | ug/l # | 89  |
| 30) Chloroform               | 7.971 | 83  | 78159  | 21.291  | ug/l   | 100 |
| 31) Cyclohexane              | 8.259 | 56  | 64241  | 18.499  | ug/l   | 95  |
| 32) 1,1,1-Trichloroethane    | 8.171 | 97  | 71974  | 20.713  | ug/l   | 92  |
| 36) 1,1-Dichloropropene      | 8.371 | 75  | 51536  | 19.195  | ug/l   | 99  |
| 37) Ethyl Acetate            | 7.559 | 43  | 58610  | 19.497  | ug/l # | 96  |
| 38) Carbon Tetrachloride     | 8.359 | 117 | 60835  | 20.118  | ug/l   | 99  |
| 39) Methylcyclohexane        | 9.600 | 83  | 60089  | 18.222  | ug/l   | 97  |
| 40) Benzene                  | 8.612 | 78  | 163247 | 20.411  | ug/l   | 97  |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
 Data File : VN083298.D  
 Acq On : 14 Aug 2024 14:03  
 Operator : JC\MD  
 Sample : VN0814WBS01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0814WBS01

Manual Integrations  
 APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
 Supervised By :Semsettin Yesilyurt 08/15/2024

Quant Time: Aug 14 23:22:35 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 06:30:41 2024  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 33603    | 19.660  | ug/l   | 97       |
| 42) 1,2-Dichloroethane        | 8.671  | 62   | 62700    | 21.520  | ug/l   | 100      |
| 43) Isopropyl Acetate         | 8.688  | 43   | 103775   | 18.485  | ug/l   | 94       |
| 44) Trichloroethene           | 9.353  | 130  | 38223    | 20.078  | ug/l   | 99       |
| 45) 1,2-Dichloropropane       | 9.624  | 63   | 40150    | 21.148  | ug/l   | 98       |
| 46) Dibromomethane            | 9.712  | 93   | 29327    | 21.581  | ug/l   | 96       |
| 47) Bromodichloromethane      | 9.888  | 83   | 63079    | 20.673  | ug/l   | 100      |
| 48) Methyl methacrylate       | 9.682  | 41   | 46397    | 18.669  | ug/l # | 90       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 18902    | 421.571 | ug/l # | 93       |
| 51) 4-Methyl-2-Pentanone      | 10.447 | 43   | 299875   | 105.490 | ug/l   | 93       |
| 52) Toluene                   | 10.629 | 92   | 102822   | 20.347  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 61891    | 19.747  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 64711    | 19.411  | ug/l   | 92       |
| 55) 1,1,2-Trichloroethane     | 11.018 | 97   | 38882    | 21.469  | ug/l   | 97       |
| 56) Ethyl methacrylate        | 10.876 | 69   | 66534    | 19.488  | ug/l # | 88       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 67303    | 20.850  | ug/l   | 97       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 133714   | 92.654  | ug/l   | 96       |
| 59) 2-Hexanone                | 11.194 | 43   | 226634   | 103.052 | ug/l   | 93       |
| 60) Dibromochloromethane      | 11.359 | 129  | 45197    | 20.642  | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 11.470 | 107  | 39209    | 20.609  | ug/l   | 99       |
| 64) Tetrachloroethene         | 11.100 | 164  | 32564    | 19.622  | ug/l   | 96       |
| 65) Chlorobenzene             | 11.894 | 112  | 109477   | 19.770  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 38818    | 19.876  | ug/l   | 98       |
| 67) Ethyl Benzene             | 11.965 | 91   | 199315   | 19.621  | ug/l   | 100      |
| 68) m/p-Xylenes               | 12.070 | 106  | 146923   | 38.610  | ug/l   | 96       |
| 69) o-Xylene                  | 12.400 | 106  | 73227    | 19.511  | ug/l   | 100      |
| 70) Styrene                   | 12.412 | 104  | 123747   | 19.632  | ug/l   | 98       |
| 71) Bromoform                 | 12.576 | 173  | 28667    | 19.376  | ug/l # | 99       |
| 73) Isopropylbenzene          | 12.694 | 105  | 189904   | 19.262  | ug/l   | 99       |
| 74) N-ethyl acetate           | 12.494 | 43   | 87695    | 18.185  | ug/l   | 95       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 55881    | 20.040  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 51046m   | 19.732  | ug/l   |          |
| 77) Bromobenzene              | 12.982 | 156  | 44274    | 20.216  | ug/l   | 99       |
| 78) n-propylbenzene           | 13.035 | 91   | 221023   | 19.470  | ug/l   | 100      |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 139743   | 19.416  | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene    | 13.170 | 105  | 162894   | 19.735  | ug/l   | 96       |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 21751    | 18.289  | ug/l   | 95       |
| 82) 4-Chlorotoluene           | 13.223 | 91   | 138990   | 19.252  | ug/l   | 97       |
| 83) tert-Butylbenzene         | 13.441 | 119  | 140176   | 19.177  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 162074   | 19.484  | ug/l   | 100      |
| 85) sec-Butylbenzene          | 13.617 | 105  | 191578   | 19.208  | ug/l   | 98       |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 158838   | 19.287  | ug/l   | 97       |
| 87) 1,3-Dichlorobenzene       | 13.735 | 146  | 79688    | 19.337  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 79466    | 19.128  | ug/l   | 95       |
| 89) n-Butylbenzene            | 14.059 | 91   | 134766   | 18.886  | ug/l   | 98       |
| 90) Hexachloroethane          | 14.335 | 117  | 28843    | 18.128  | ug/l   | 94       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 76195    | 19.107  | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 12319    | 18.206  | ug/l   | 97       |
| 93) 1,2,4-Trichlorobenzene    | 15.388 | 180  | 41092    | 18.393  | ug/l   | 98       |
| 94) Hexachlorobutadiene       | 15.506 | 225  | 17266    | 17.378  | ug/l   | 99       |
| 95) Naphthalene               | 15.641 | 128  | 145278   | 18.358  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 40786    | 18.450  | ug/l   | 95       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083298.D  
Acq On : 14 Aug 2024 14:03  
Operator : JC\MD  
Sample : VN0814WBS01  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01

Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

Quant Time: Aug 14 23:22:35 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
Response via : Initial Calibration

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

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

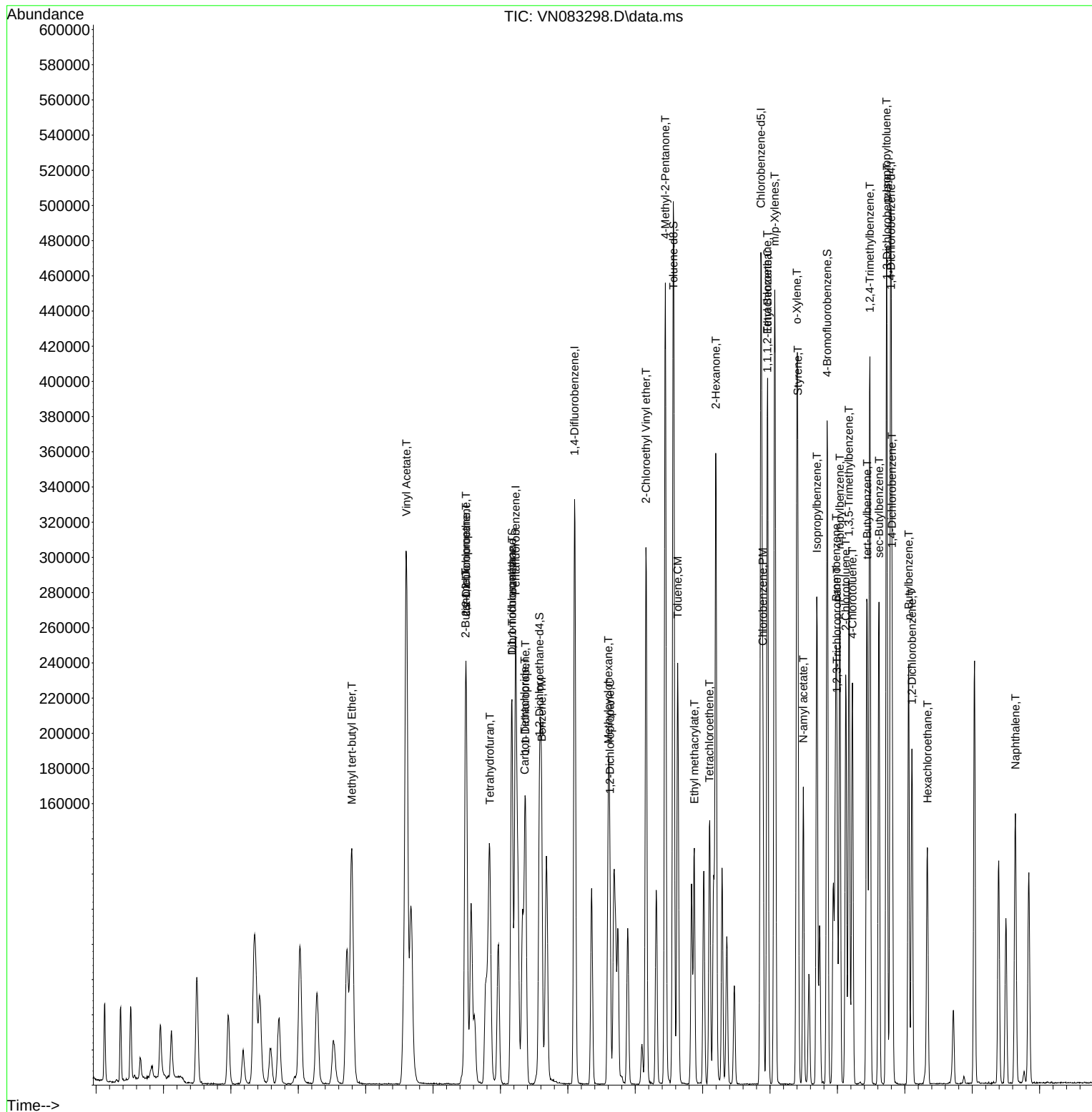
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
 Data File : VN083298.D  
 Acq On : 14 Aug 2024 14:03  
 Operator : JC\MD  
 Sample : VN0814WBS01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

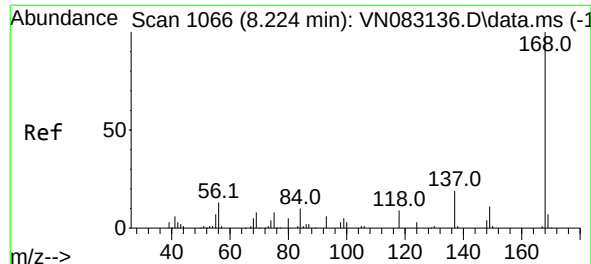
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0814WBS01

### Manual Integrations APPROVED

Reviewed By : Mahesh Dadoda 08/15/2024  
 Supervised By : Semsettin Yesilyurt 08/15/2024

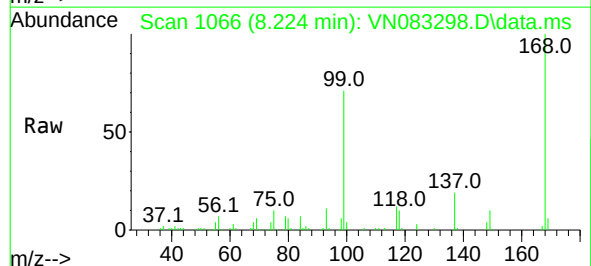
Quant Time: Aug 14 23:22:35 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 06:30:41 2024  
 Response via : Initial Calibration





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

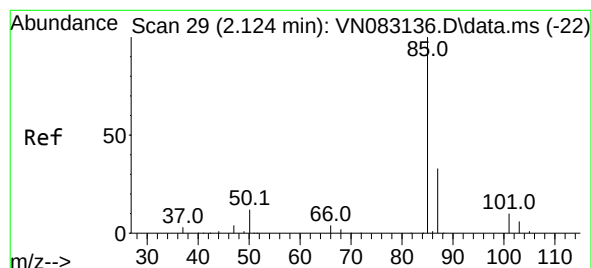
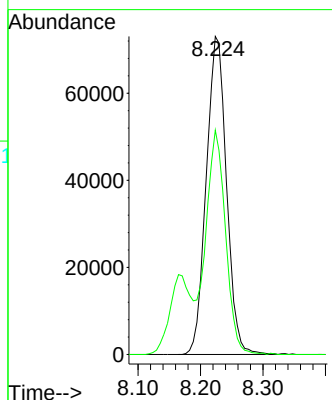
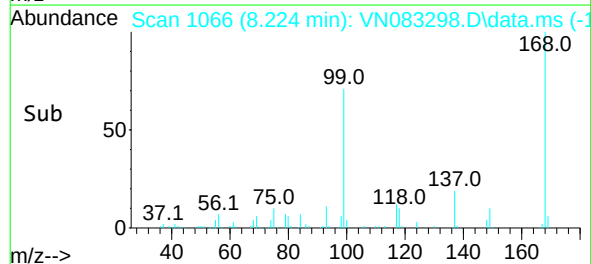
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01



Tgt Ion: 168 Resp: 164632  
Ion Ratio Lower Upper  
168 100  
99 70.5 48.2 72.4

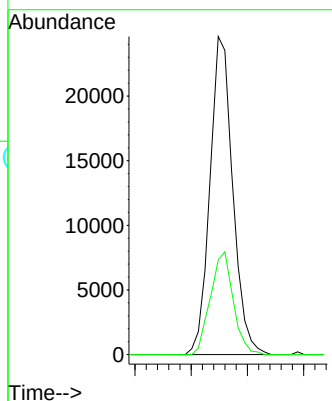
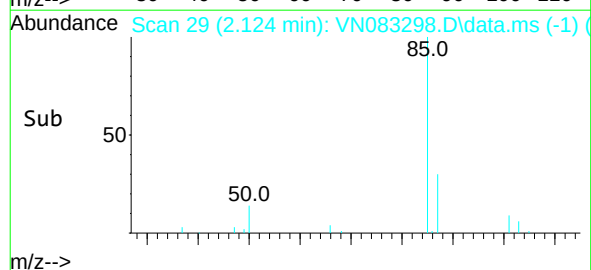
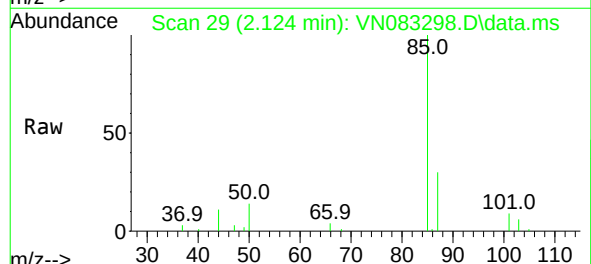
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APPROVED

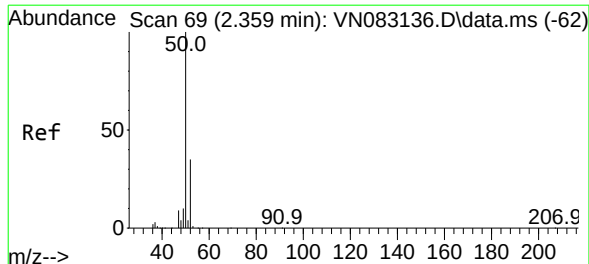
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#2  
Dichlorodifluoromethane  
Concen: 18.595 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Tgt Ion: 85 Resp: 34716  
Ion Ratio Lower Upper  
85 100  
87 29.7 15.7 47.0





#3

Chloromethane

Concen: 19.136 ug/l

RT: 2.365 min Scan# 70

Delta R.T. 0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 50 Resp: 36577

Ion Ratio Lower Upper

50 100

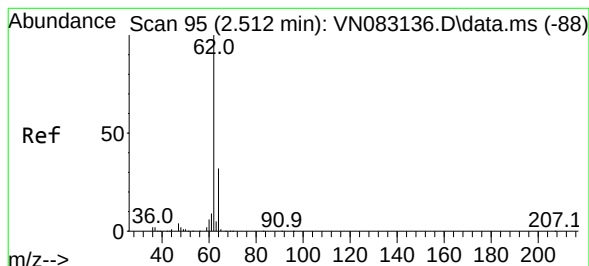
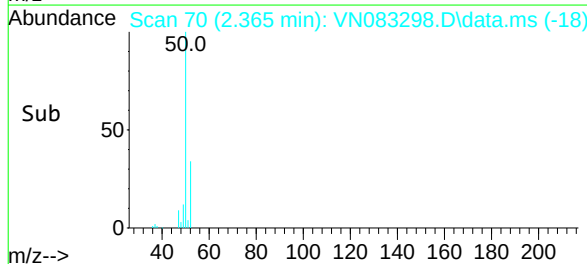
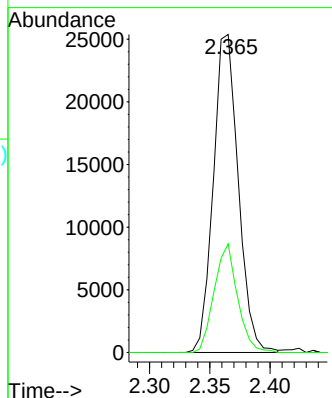
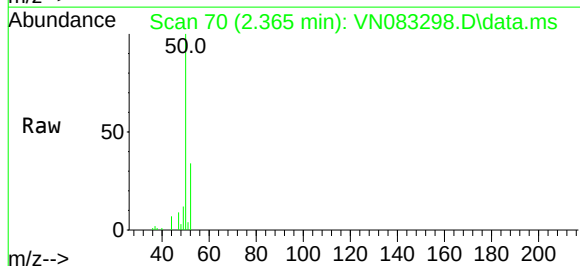
52 34.2 25.0 37.4

Manual Integrations

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Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#4

Vinyl Chloride

Concen: 20.174 ug/l

RT: 2.512 min Scan# 95

Delta R.T. -0.000 min

Lab File: VN083298.D

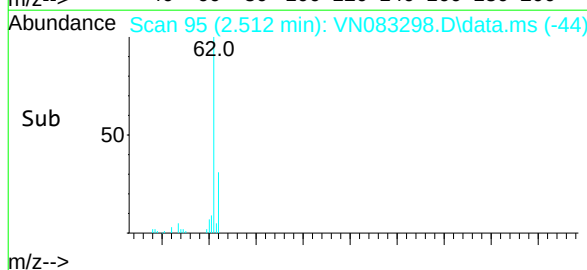
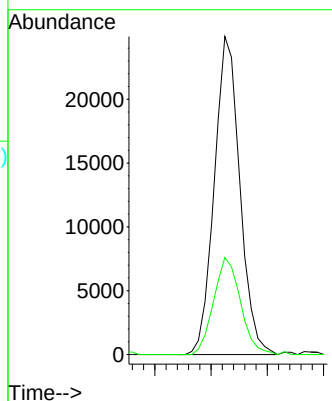
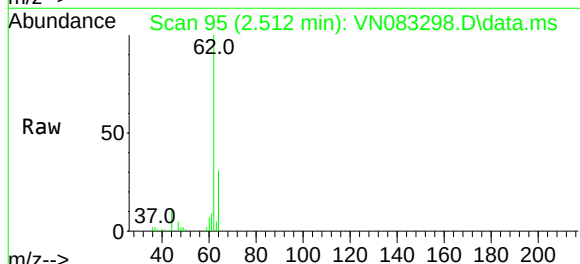
Acq: 14 Aug 2024 14:03

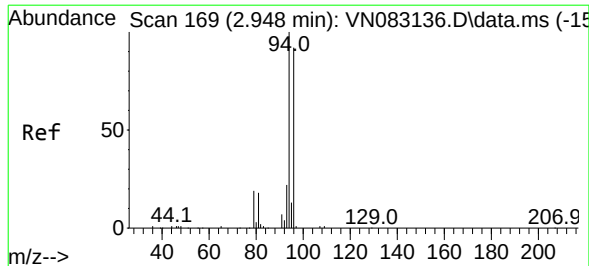
Tgt Ion: 62 Resp: 39346

Ion Ratio Lower Upper

62 100

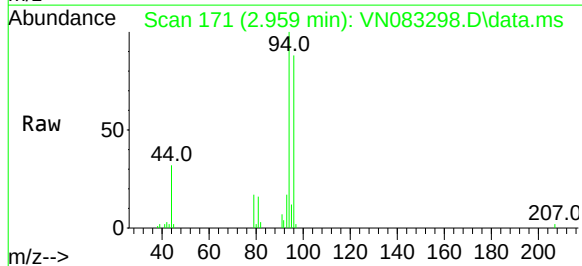
64 30.5 25.0 37.6





#5  
Bromomethane  
Concen: 18.608 ug/l  
RT: 2.959 min Scan# 171  
Delta R.T. 0.012 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

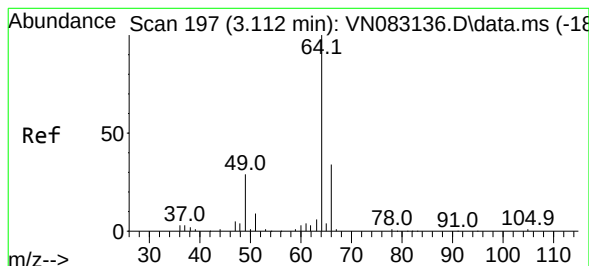
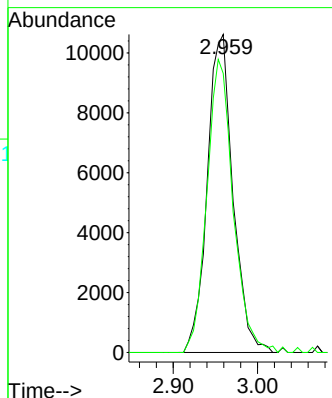
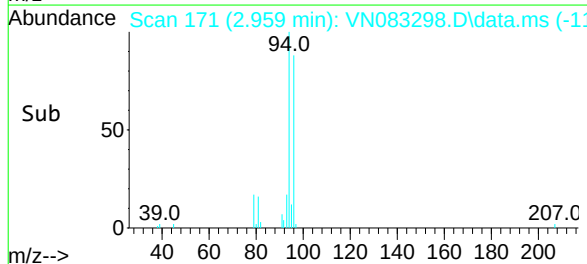
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01



Tgt Ion: 94 Resp: 22519  
Ion Ratio Lower Upper  
94 100  
96 87.7 78.0 117.0

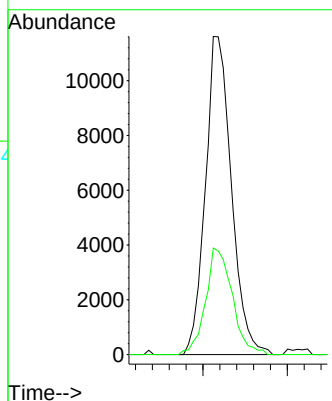
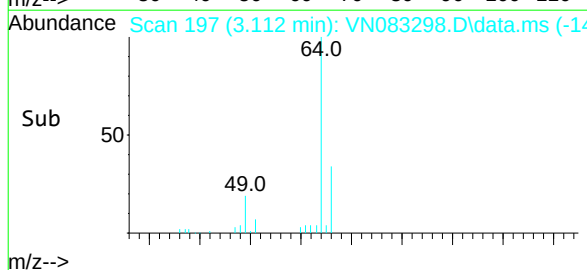
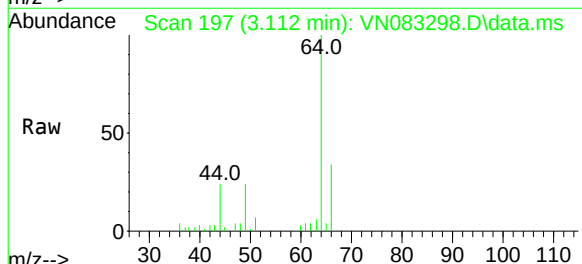
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Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

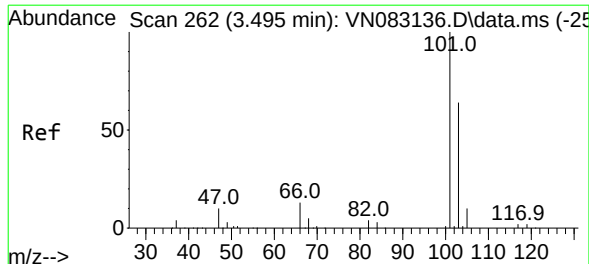


#6  
Chloroethane  
Concen: 20.410 ug/l  
RT: 3.112 min Scan# 197  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Tgt Ion: 64 Resp: 24904  
Ion Ratio Lower Upper  
64 100  
66 33.5 26.6 40.0







#7

Trichlorofluoromethane

Concen: 20.716 ug/l

RT: 3.495 min Scan# 262

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Tgt Ion: 101 Resp: 66745

Ion Ratio Lower Upper

101 100

103 60.5 52.7 79.1

Instrument :

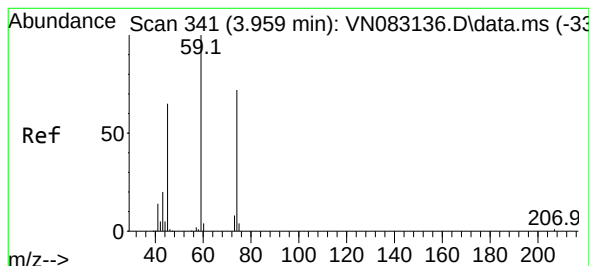
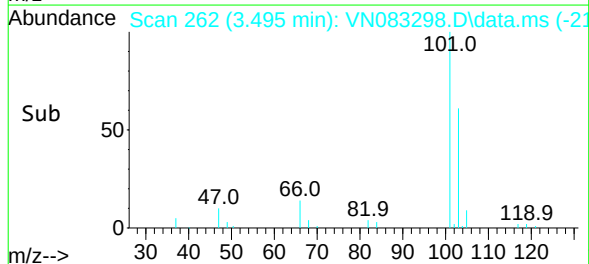
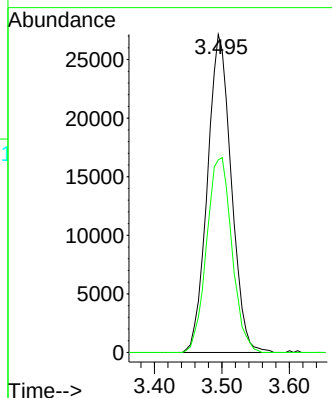
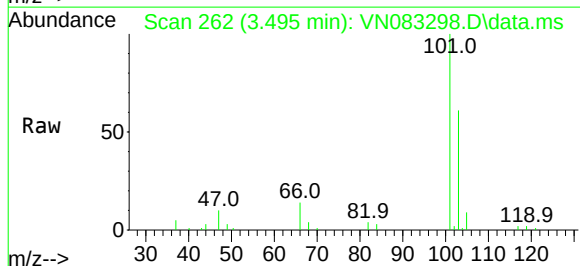
MSVOA\_N

ClientSampleId :

VN0814WBS01

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#8

Diethyl Ether

Concen: 19.724 ug/l

RT: 3.959 min Scan# 341

Delta R.T. -0.000 min

Lab File: VN083298.D

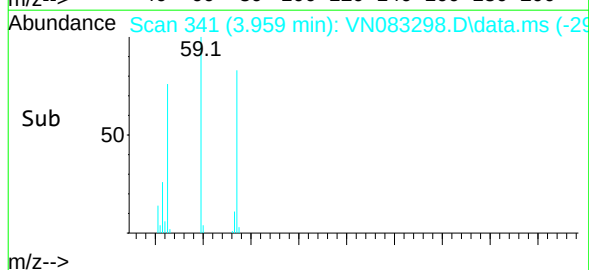
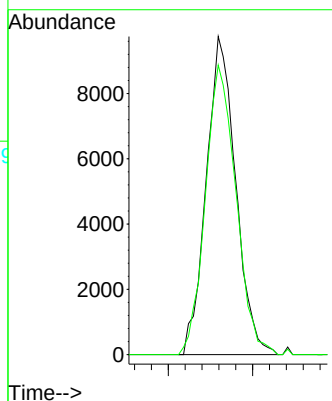
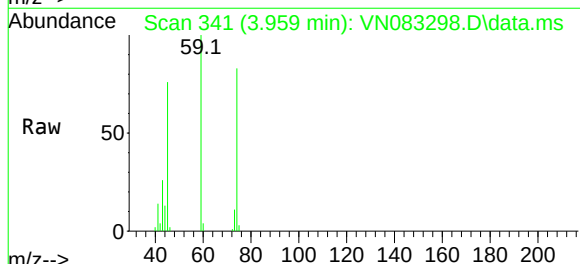
Acq: 14 Aug 2024 14:03

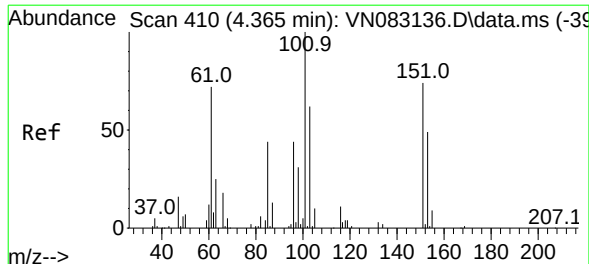
Tgt Ion: 74 Resp: 23647

Ion Ratio Lower Upper

74 100

45 94.5 55.5 166.3





#9

1,1,2-Trichlorotrifluoroethane

Concen: 20.763 ug/l

RT: 4.377 min Scan# 410

Delta R.T. 0.012 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion:101 Resp: 36883

Ion Ratio Lower Upper

101 100

85 44.9 38.3 57.5

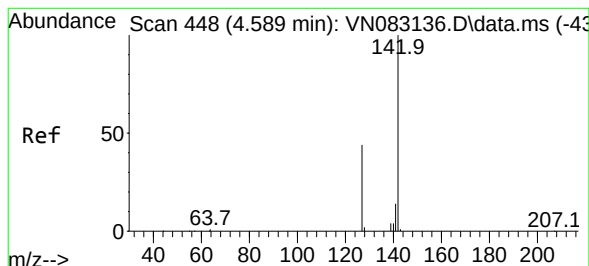
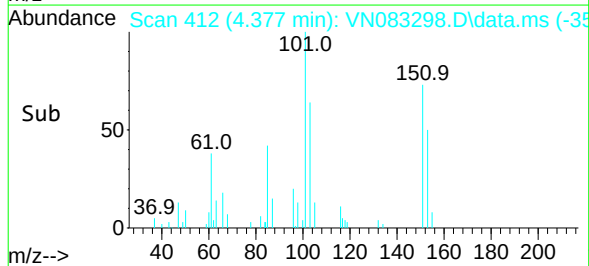
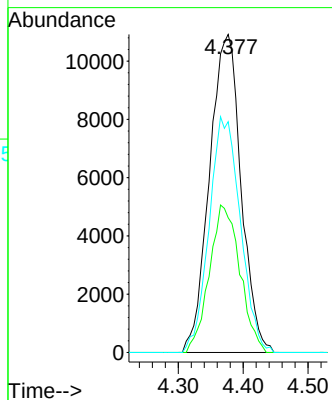
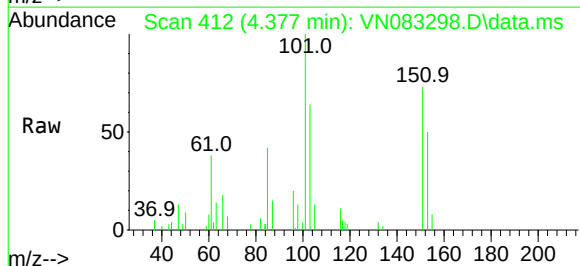
151 73.2 59.3 88.9

Manual Integrations

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Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#10

Methyl Iodide

Concen: 15.519 ug/l

RT: 4.583 min Scan# 447

Delta R.T. -0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

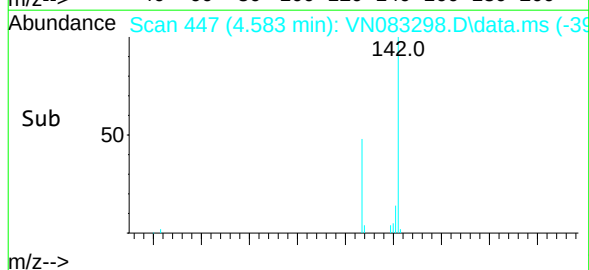
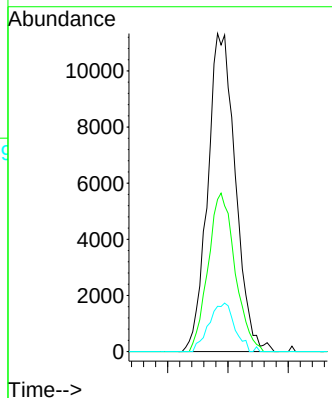
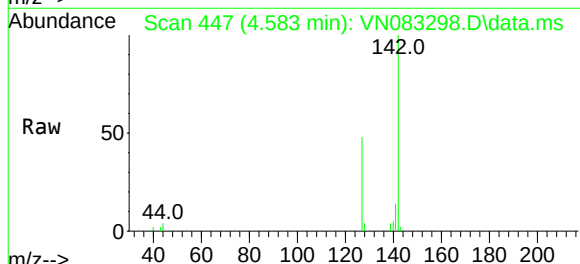
Tgt Ion:142 Resp: 36262

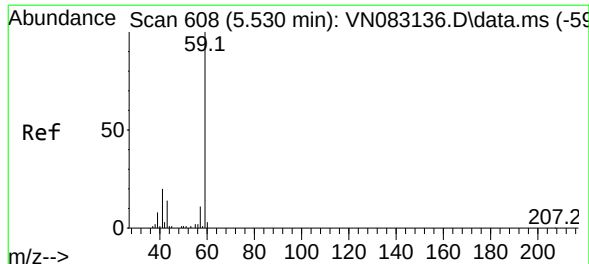
Ion Ratio Lower Upper

142 100

127 47.9 37.5 56.3

141 14.2 13.1 19.7





#11

Tert butyl alcohol

Concen: 96.692 ug/l

RT: 5.524 min Scan# 608

Delta R.T. -0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Tgt Ion: 59 Resp: 47088

Ion Ratio Lower Upper

59 100

57 11.5 8.9 13.3

Instrument :

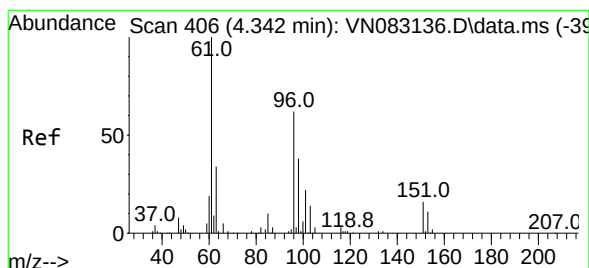
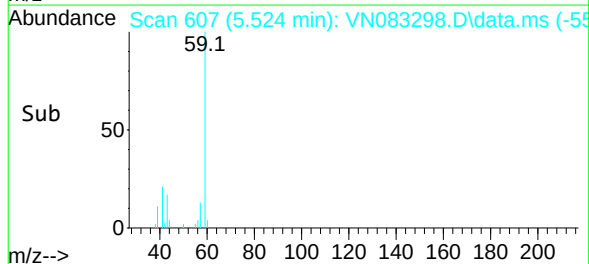
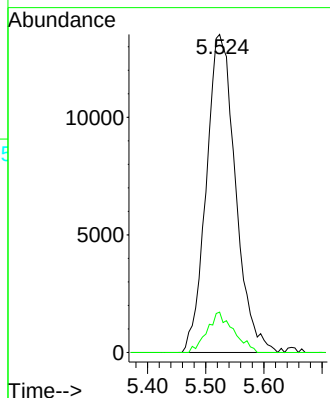
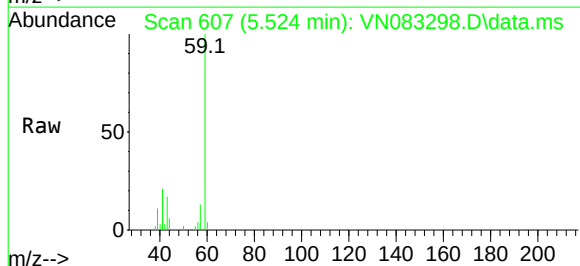
MSVOA\_N

ClientSampleId :

VN0814WBS01

Manual Integrations

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Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#12

1,1-Dichloroethene

Concen: 18.762 ug/l

RT: 4.347 min Scan# 407

Delta R.T. 0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

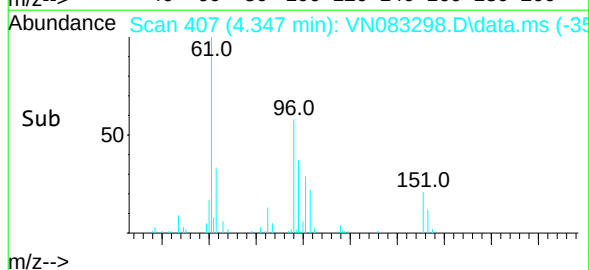
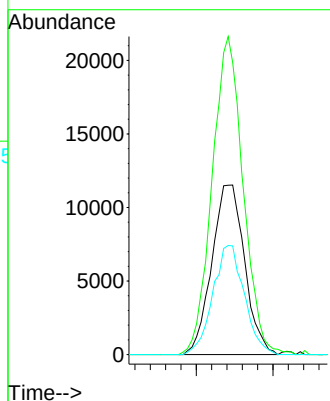
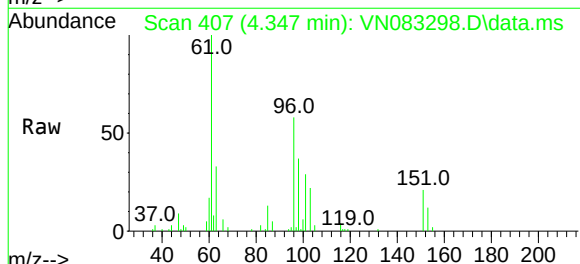
Tgt Ion: 96 Resp: 34241

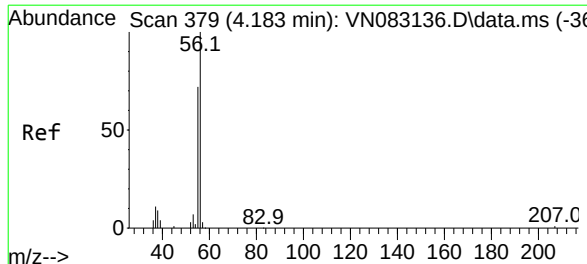
Ion Ratio Lower Upper

96 100

61 172.3 149.7 224.5

98 64.1 50.1 75.1





#13

Acrolein

Concen: 73.590 ug/l

RT: 4.183 min Scan# 379

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 56 Resp: 23357

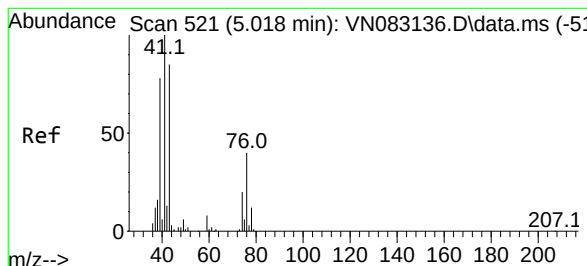
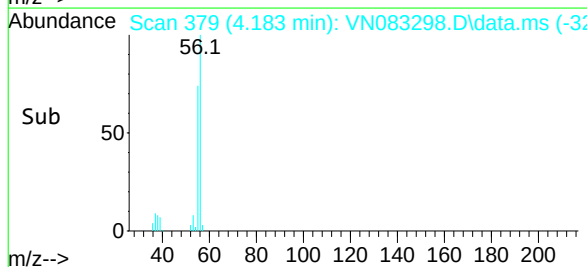
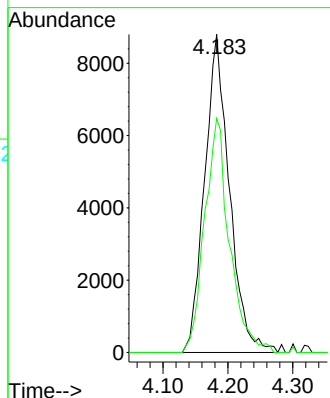
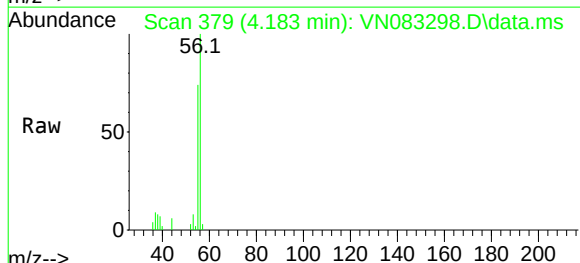
Ion Ratio Lower Upper

56 100

55 73.8 56.4 84.6

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#14

Allyl chloride

Concen: 18.479 ug/l m

RT: 5.018 min Scan# 521

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

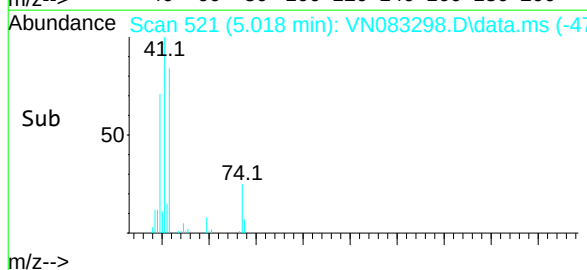
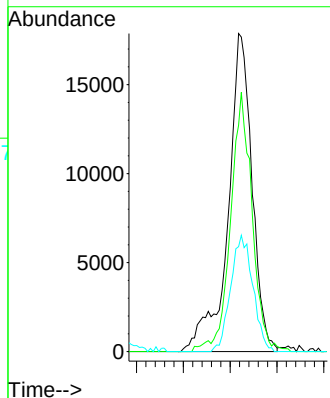
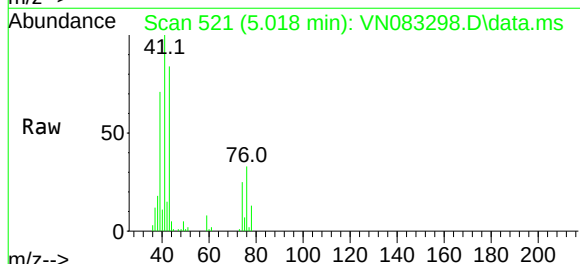
Tgt Ion: 41 Resp: 63728

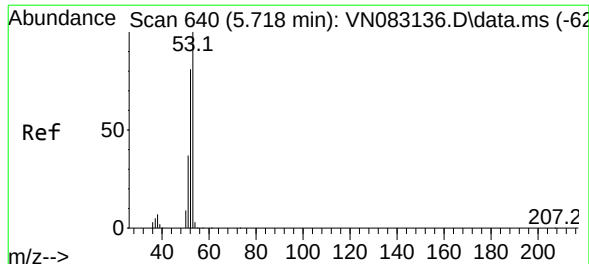
Ion Ratio Lower Upper

41 100

39 72.9 67.8 101.6

76 33.7 25.8 38.8





#15

Acrylonitrile

Concen: 103.155 ug/l

RT: 5.718 min Scan# 640

Delta R.T. -0.000 min

Lab File: VN083298.D

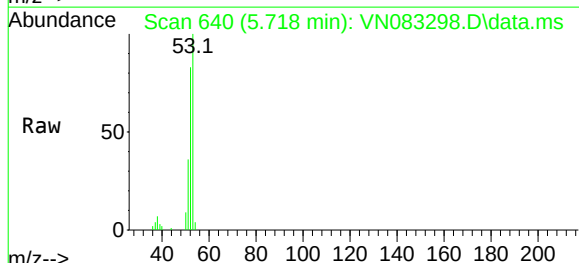
Acq: 14 Aug 2024 14:03

Instrument :

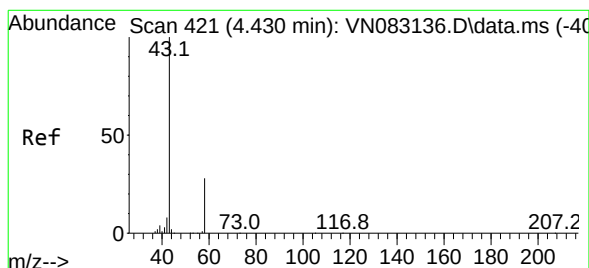
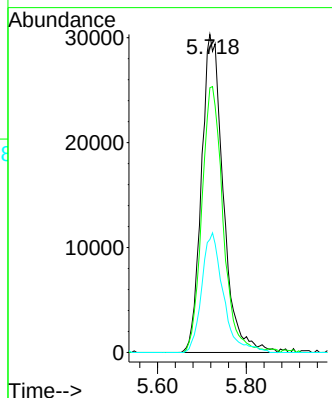
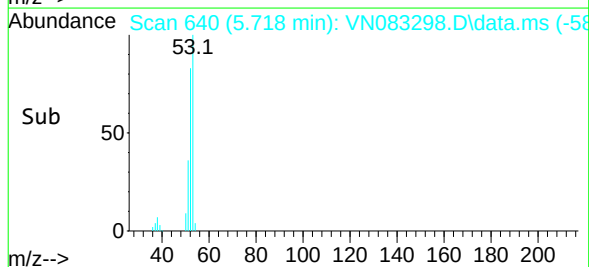
MSVOA\_N

ClientSampleId :

VN0814WBS01



| Tgt Ion | 53    | Resp  | 103317 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 53      | 100   |       |        |
| 52      | 81.2  | 66.6  | 100.0  |
| 51      | 37.3  | 30.1  | 45.1   |

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APPROVEDReviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#16

Acetone

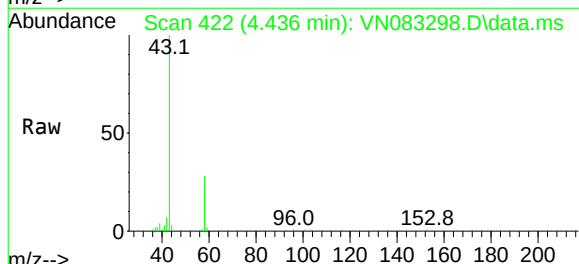
Concen: 103.081 ug/l

RT: 4.436 min Scan# 422

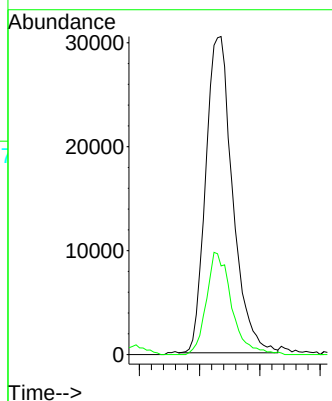
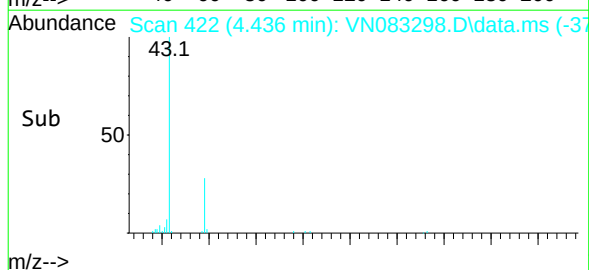
Delta R.T. 0.006 min

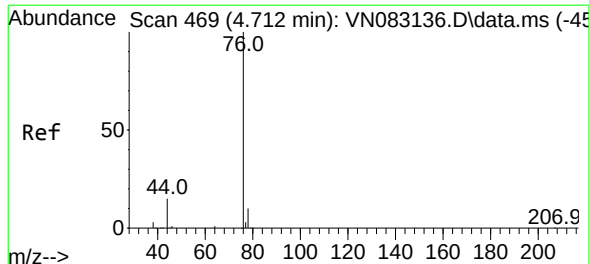
Lab File: VN083298.D

Acq: 14 Aug 2024 14:03



| Tgt Ion | 43    | Resp  | 94520 |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 43      | 100   |       |       |
| 58      | 28.0  | 21.8  | 32.6  |





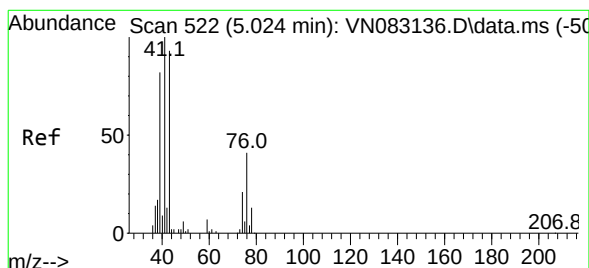
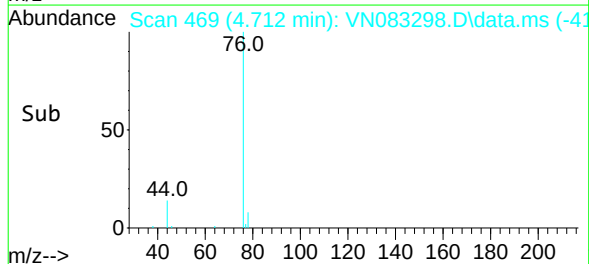
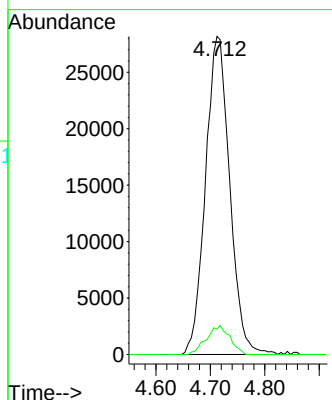
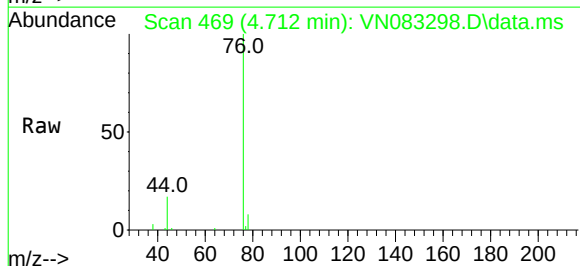
#17  
Carbon Disulfide  
Concen: 16.325 ug/l  
RT: 4.712 min Scan# 469  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01

Tgt Ion: 76 Resp: 87175  
Ion Ratio Lower Upper  
76 100  
78 8.0 7.2 10.8

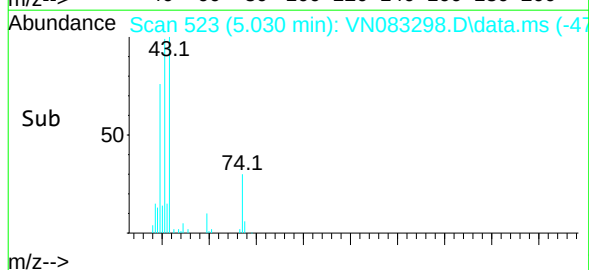
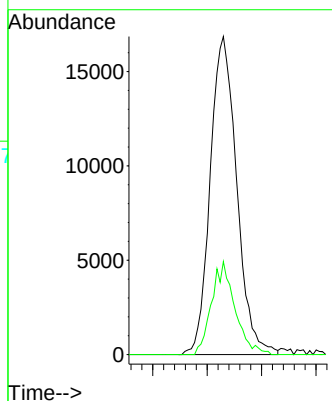
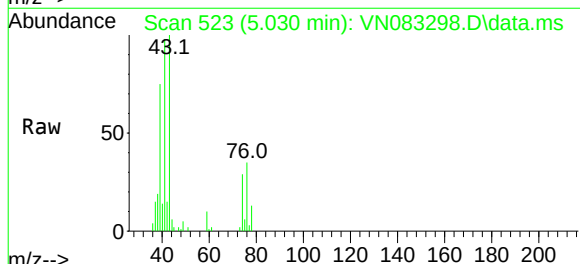
Manual Integrations  
APPROVED

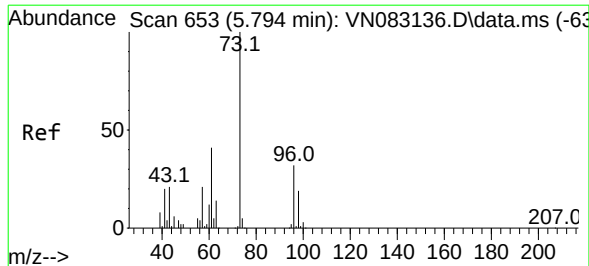
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#18  
Methyl Acetate  
Concen: 20.901 ug/l  
RT: 5.030 min Scan# 523  
Delta R.T. 0.006 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Tgt Ion: 43 Resp: 57100  
Ion Ratio Lower Upper  
43 100  
74 25.8 16.3 24.5#





#19

Methyl tert-butyl Ether

Concen: 19.991 ug/l

RT: 5.794 min Scan# 653

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 73 Resp: 131685

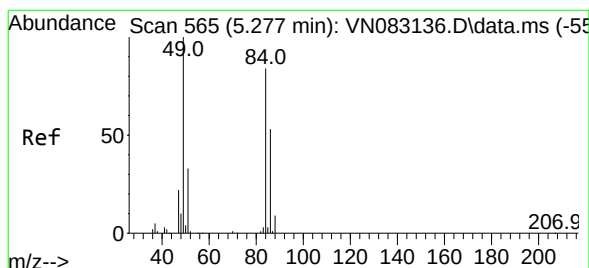
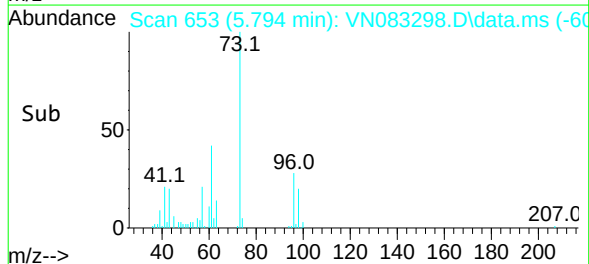
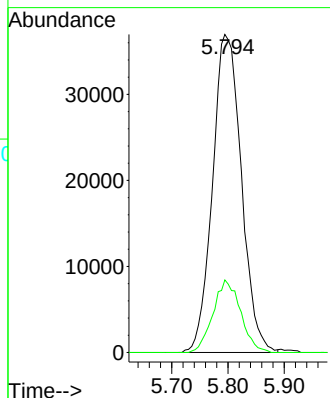
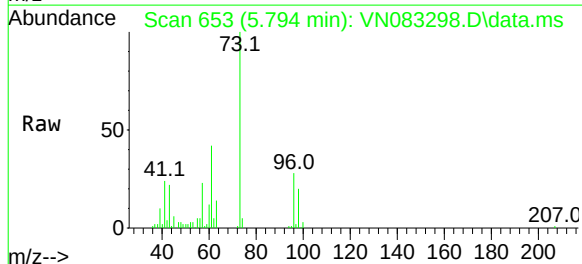
Ion Ratio Lower Upper

73 100

57 22.8 17.9 26.9

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#20

Methylene Chloride

Concen: 18.973 ug/l

RT: 5.283 min Scan# 566

Delta R.T. 0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Tgt Ion: 84 Resp: 40039

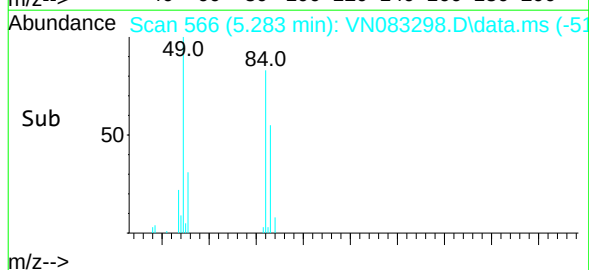
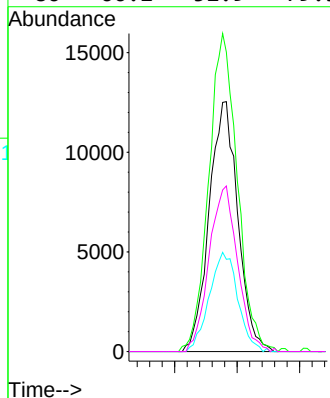
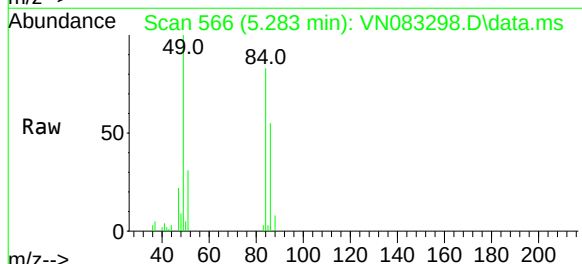
Ion Ratio Lower Upper

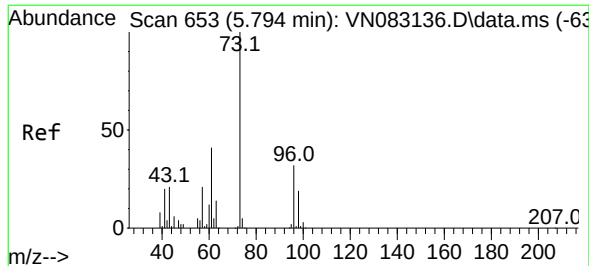
84 100

49 119.8 119.6 179.4

51 36.9 34.8 52.2

86 66.2 52.9 79.3





#21

trans-1,2-Dichloroethene

Concen: 18.677 ug/l

RT: 5.789 min Scan# 65

Delta R.T. -0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 96 Resp: 35228

Ion Ratio Lower Upper

96 100

61 142.3 123.4 185.2

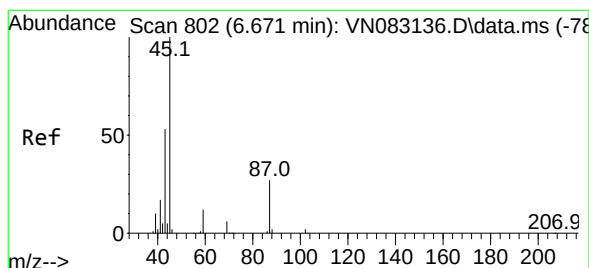
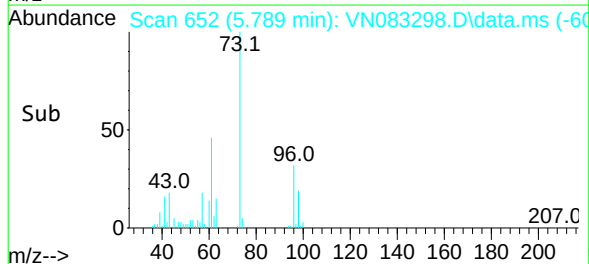
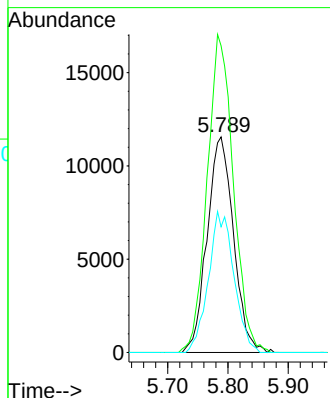
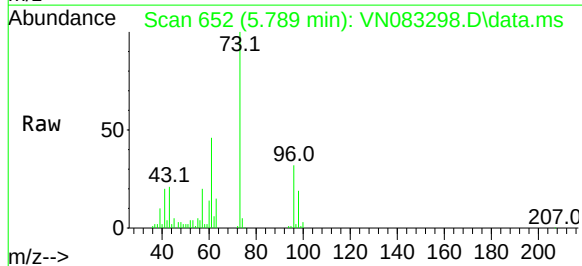
98 58.3 49.3 73.9

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#22

Diisopropyl ether

Concen: 20.168 ug/l

RT: 6.677 min Scan# 803

Delta R.T. 0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Tgt Ion: 45 Resp: 130740

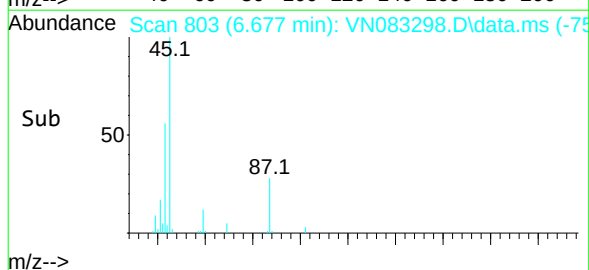
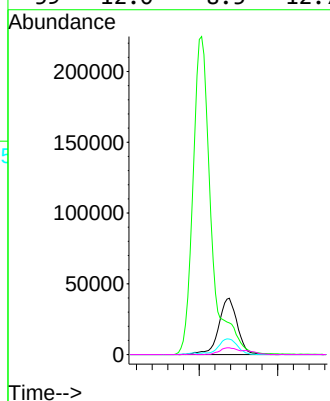
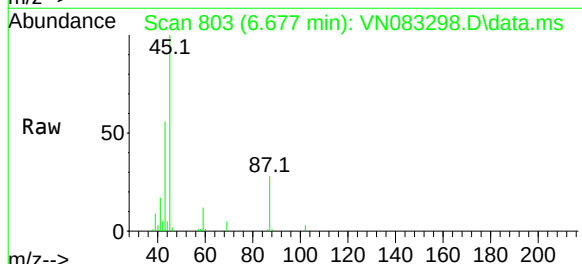
Ion Ratio Lower Upper

45 100

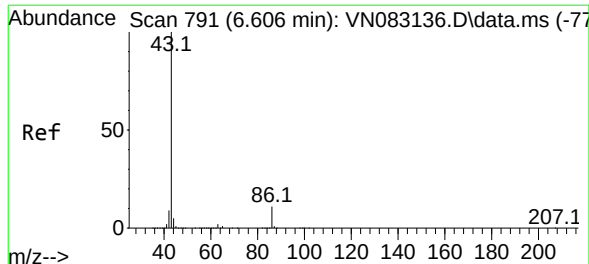
43 54.8 44.0 66.0

87 27.6 19.7 29.5

59 12.0 8.5 12.7







#23

Vinyl Acetate

Concen: 108.418 ug/l

RT: 6.606 min Scan# 791

Delta R.T. -0.000 min

Lab File: VN083298.D

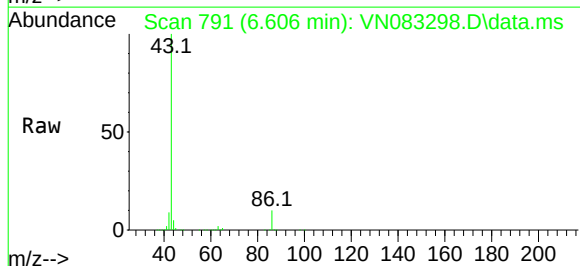
Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01



Tgt Ion: 43 Resp: 720397

Ion Ratio Lower Upper

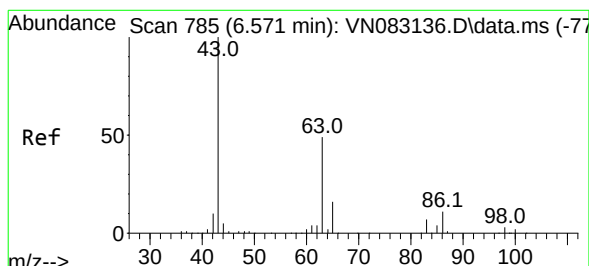
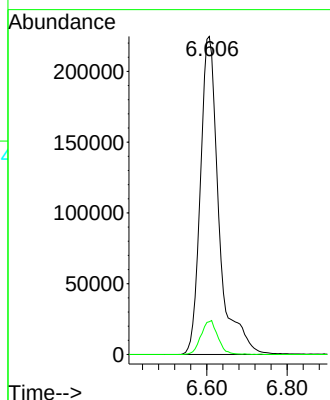
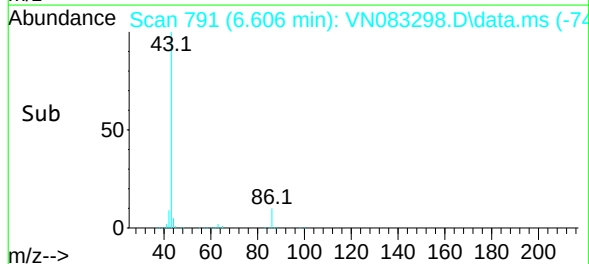
43 100

86 10.3 7.3 10.9

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#24

1,1-Dichloroethane

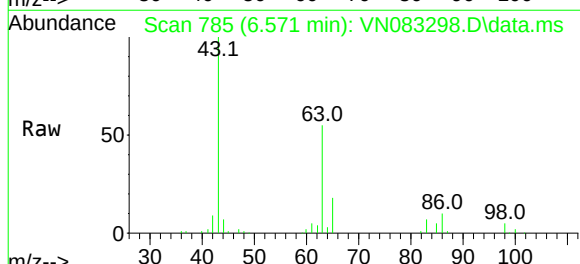
Concen: 20.465 ug/l

RT: 6.571 min Scan# 785

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03



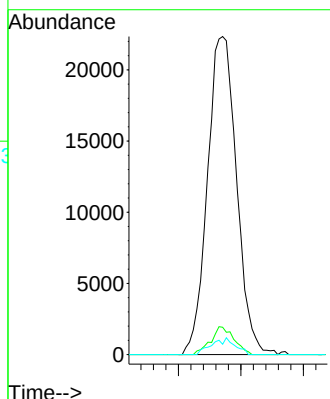
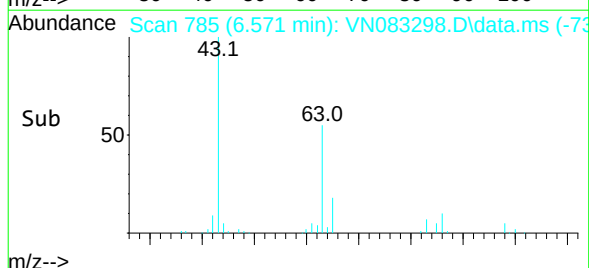
Tgt Ion: 63 Resp: 72312

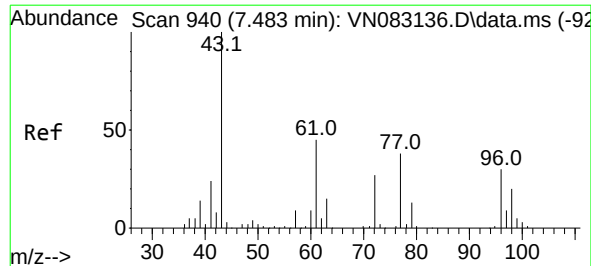
Ion Ratio Lower Upper

63 100

98 8.6 3.3 9.9

100 3.2 2.0 6.0





#25

2-Butanone

Concen: 103.431 ug/l

RT: 7.483 min Scan# 940

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 43 Resp: 145625

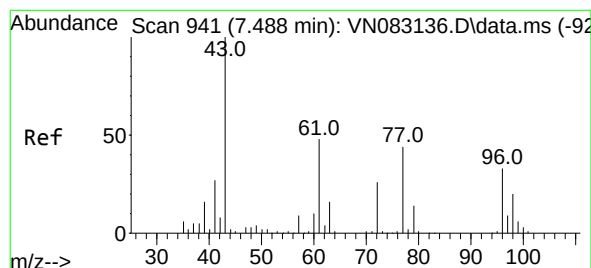
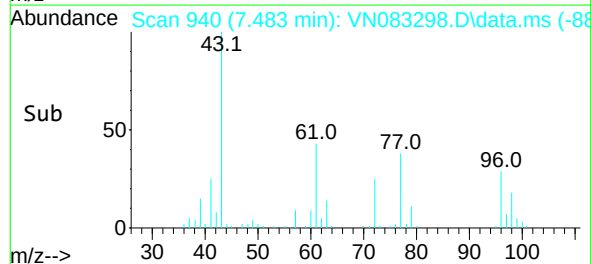
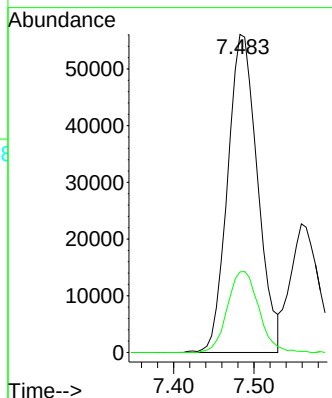
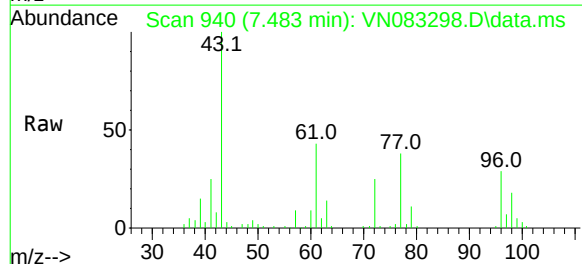
Ion Ratio Lower Upper

43 100

72 25.3 18.2 27.2

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#26

2,2-Dichloropropane

Concen: 20.428 ug/l

RT: 7.488 min Scan# 941

Delta R.T. -0.000 min

Lab File: VN083298.D

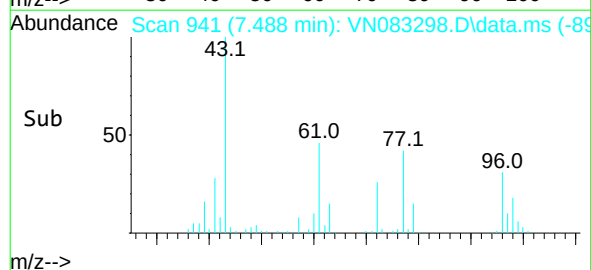
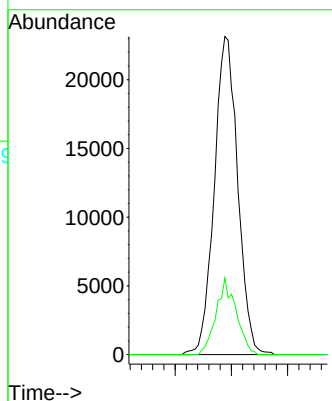
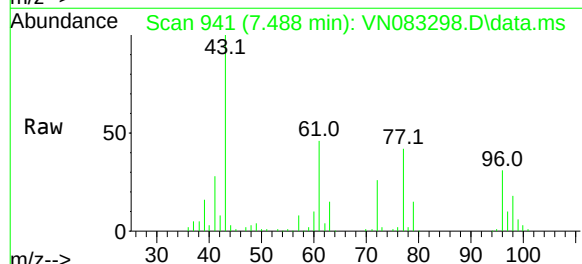
Acq: 14 Aug 2024 14:03

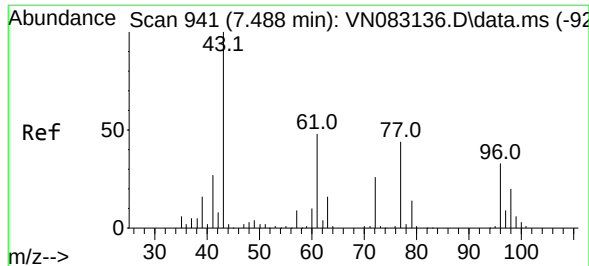
Tgt Ion: 77 Resp: 67033

Ion Ratio Lower Upper

77 100

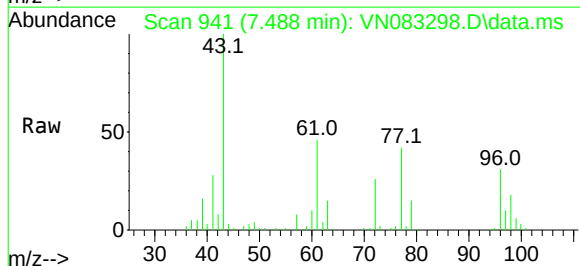
97 20.5 10.3 30.9





#27  
cis-1,2-Dichloroethene  
Concen: 19.638 ug/l  
RT: 7.488 min Scan# 941  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

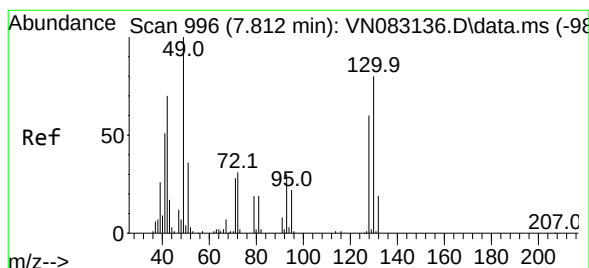
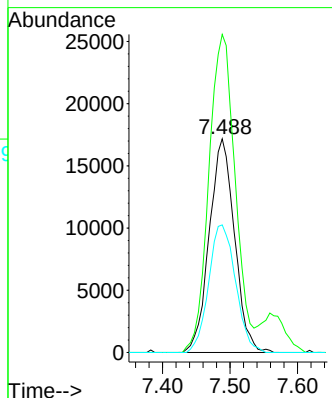
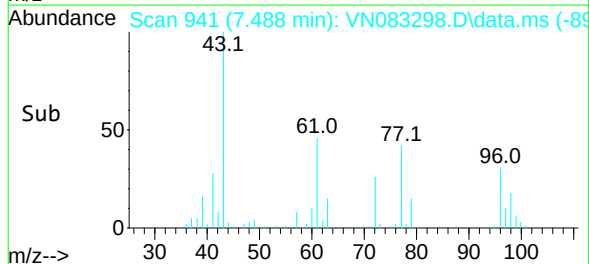
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01



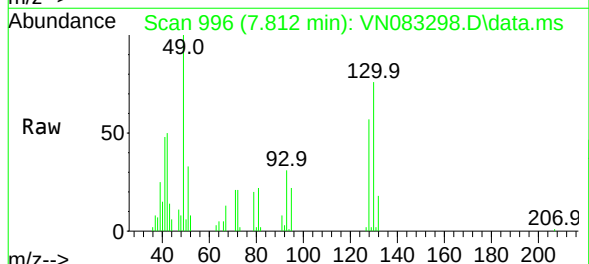
Tgt Ion: 96 Resp: 44697  
Ion Ratio Lower Upper  
96 100  
61 154.6 0.0 329.6  
98 63.5 0.0 128.6

Manual Integrations  
APPROVED

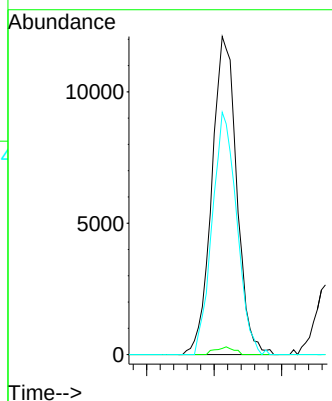
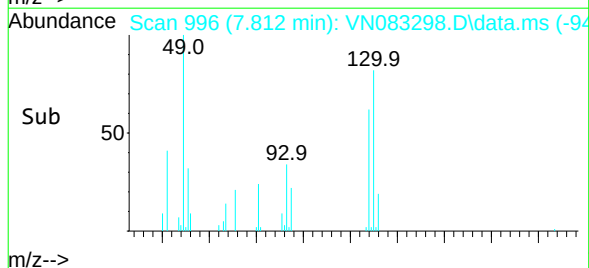
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

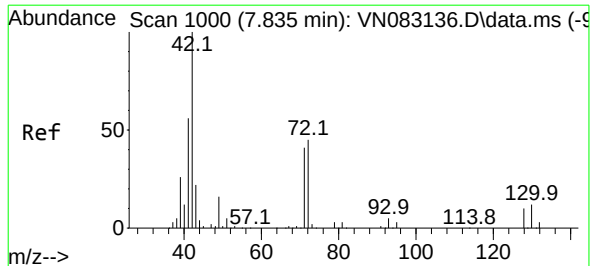


#28  
Bromochloromethane  
Concen: 21.518 ug/l  
RT: 7.812 min Scan# 996  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03



Tgt Ion: 49 Resp: 31073  
Ion Ratio Lower Upper  
49 100  
129 1.8 0.0 3.8  
130 74.9 50.5 75.7





#29

Tetrahydrofuran

Concen: 103.362 ug/l

RT: 7.841 min Scan# 10

Delta R.T. 0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 42 Resp: 94074

Ion Ratio Lower Upper

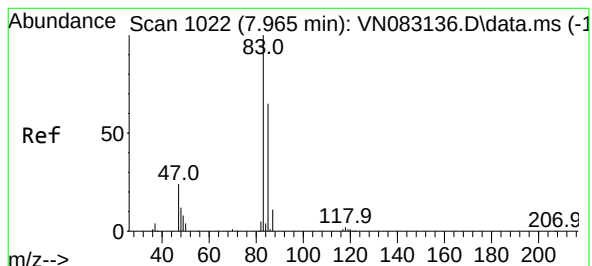
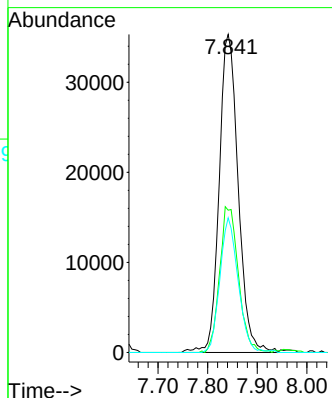
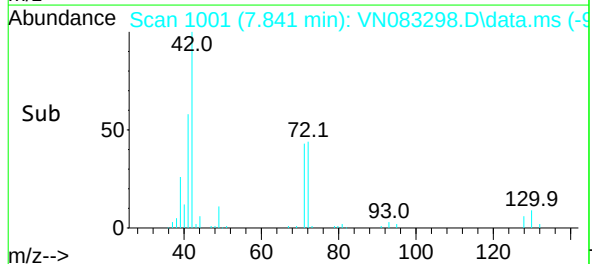
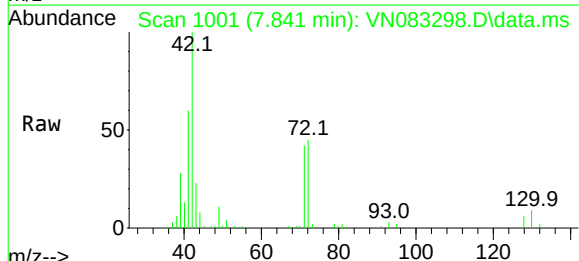
42 100

72 45.4 30.0 45.0

71 40.6 28.3 42.5

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#30

Chloroform

Concen: 21.291 ug/l

RT: 7.971 min Scan# 1023

Delta R.T. 0.006 min

Lab File: VN083298.D

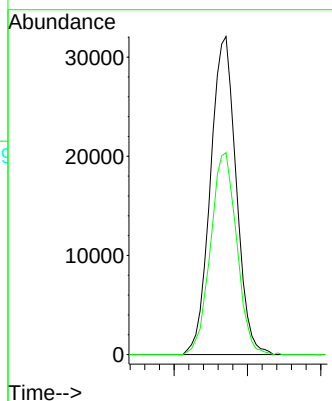
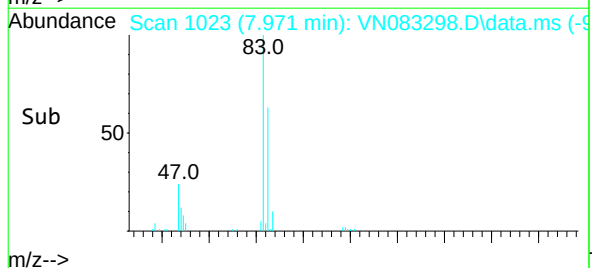
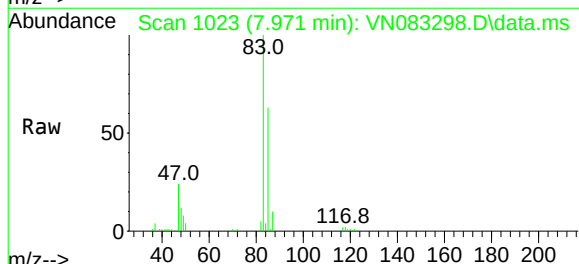
Acq: 14 Aug 2024 14:03

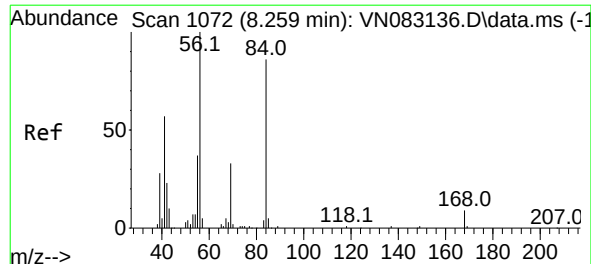
Tgt Ion: 83 Resp: 78159

Ion Ratio Lower Upper

83 100

85 63.5 50.9 76.3





#31

Cyclohexane

Concen: 18.499 ug/l

RT: 8.259 min Scan# 1072

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 56 Resp: 64241

Ion Ratio Lower Upper

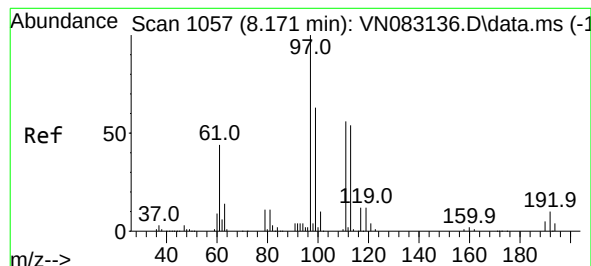
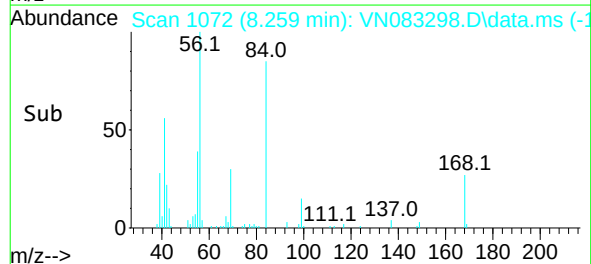
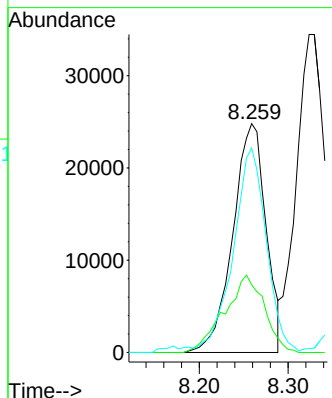
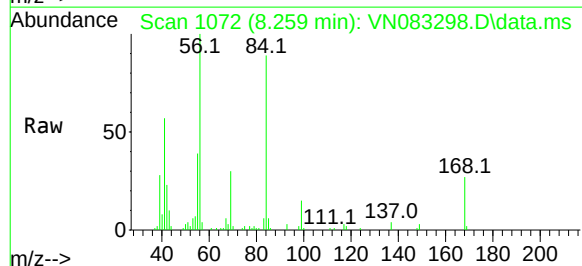
56 100

69 29.5 24.5 36.7

84 87.9 66.0 99.0

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#32

1,1,1-Trichloroethane

Concen: 20.713 ug/l

RT: 8.171 min Scan# 1057

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

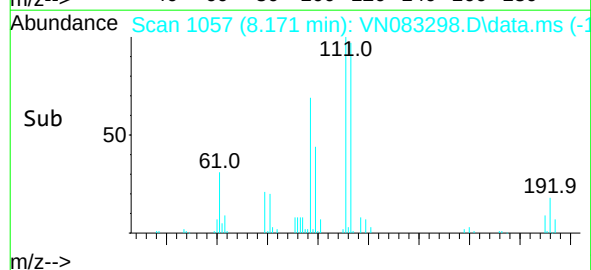
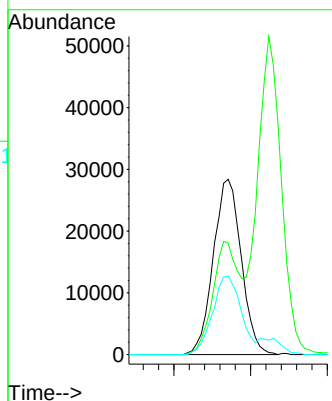
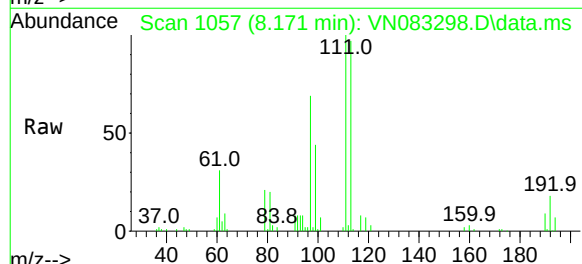
Tgt Ion: 97 Resp: 71974

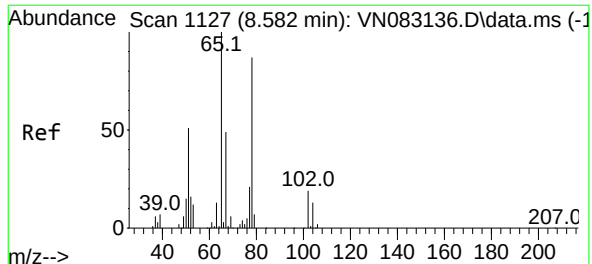
Ion Ratio Lower Upper

97 100

99 59.3 52.0 78.0

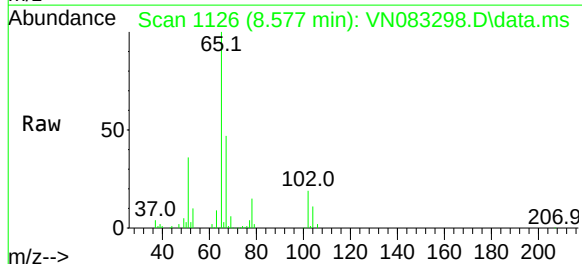
61 45.5 42.1 63.1





#33  
1,2-Dichloroethane-d4  
Concen: 56.259 ug/l  
RT: 8.577 min Scan# 1127  
Delta R.T. -0.005 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

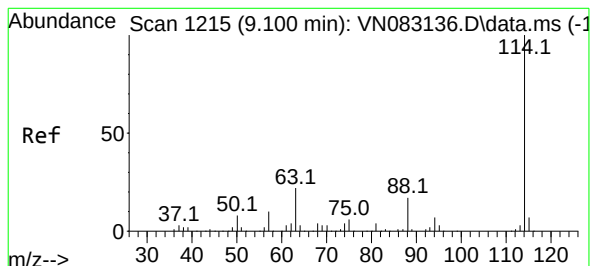
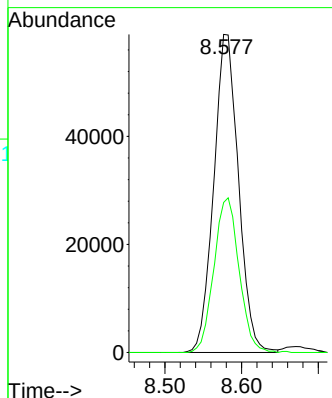
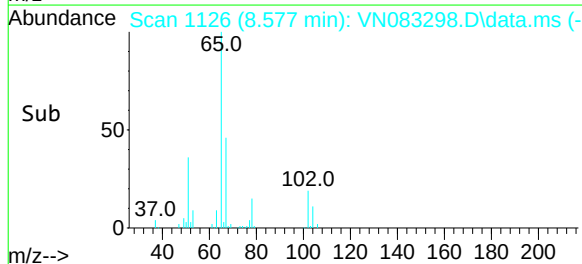
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01



Tgt Ion: 65 Resp: 131834  
Ion Ratio Lower Upper  
65 100  
67 49.4 0.0 104.4

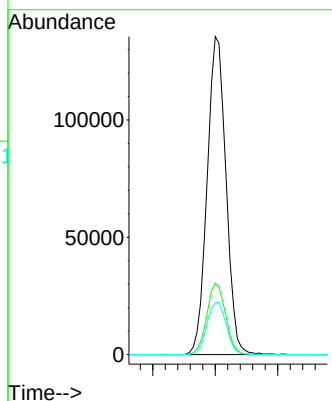
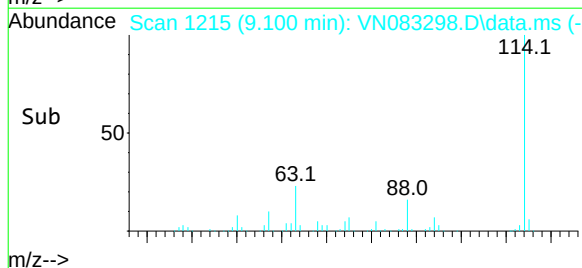
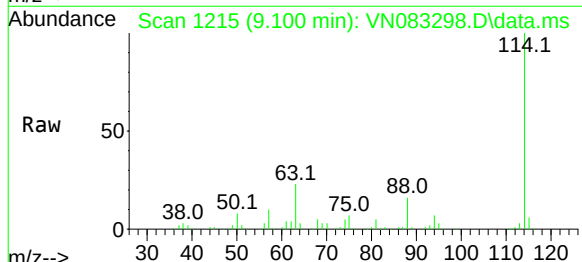
Manual Integrations  
APPROVED

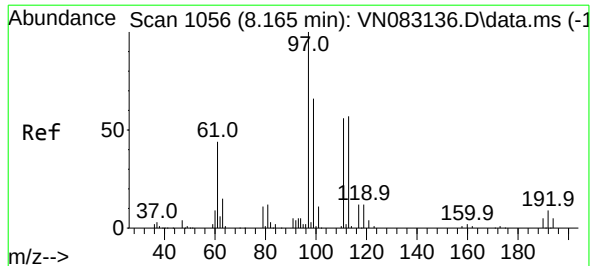
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 9.100 min Scan# 1215  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Tgt Ion:114 Resp: 284346  
Ion Ratio Lower Upper  
114 100  
63 22.5 0.0 44.6  
88 16.4 0.0 31.4





#35

Dibromofluoromethane

Concen: 54.029 ug/l

RT: 8.171 min Scan# 1056

Delta R.T. 0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

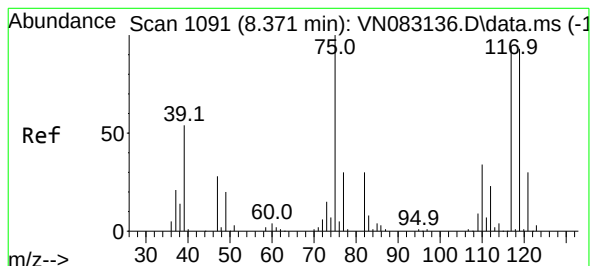
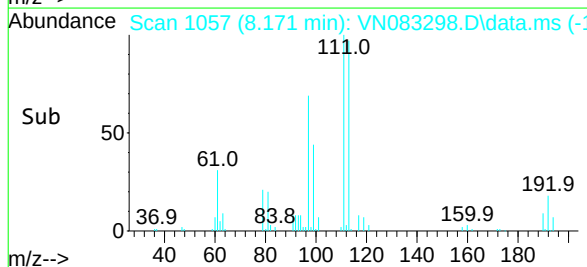
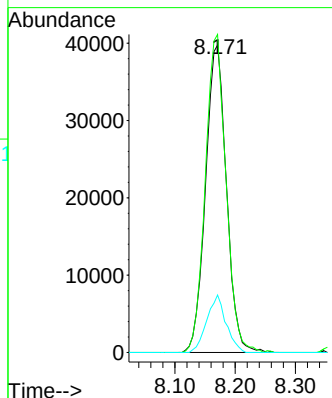
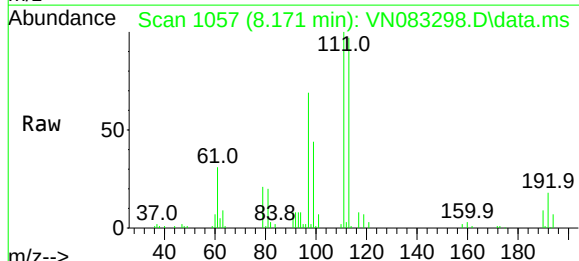
ClientSampleId :

VN0814WBS01

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 113   | Resp: | 95892 |
| Ion      | Ratio | Lower | Upper |
| 113      | 100   |       |       |
| 111      | 102.4 | 82.4  | 123.6 |
| 192      | 17.2  | 14.9  | 22.3  |

Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#36

1,1-Dichloropropene

Concen: 19.195 ug/l

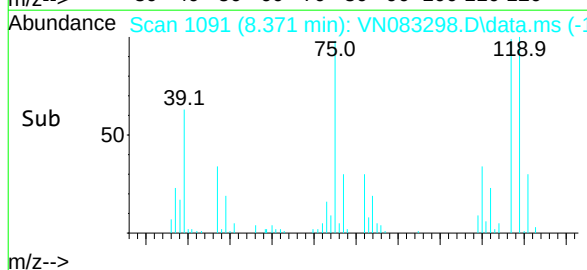
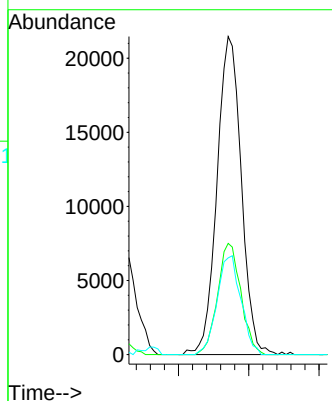
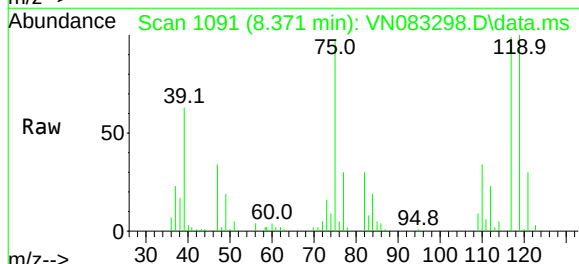
RT: 8.371 min Scan# 1091

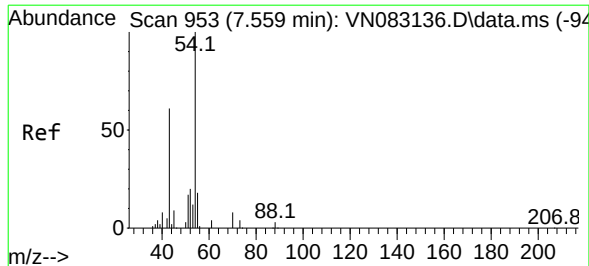
Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 51536 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 110      | 33.5  | 16.3  | 48.9  |
| 77       | 30.5  | 24.6  | 37.0  |





#37

Ethyl Acetate

Concen: 19.497 ug/l

RT: 7.559 min Scan# 953

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 43 Resp: 58610

Ion Ratio Lower Upper

43 100

61 12.3 9.3 13.9

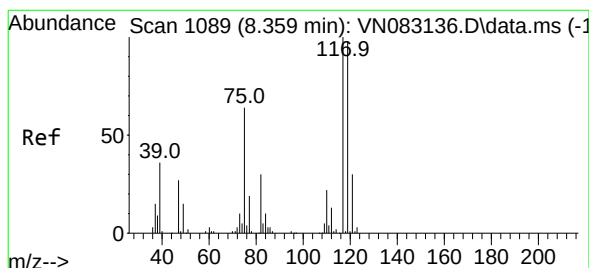
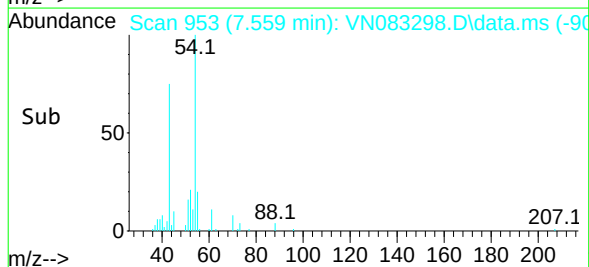
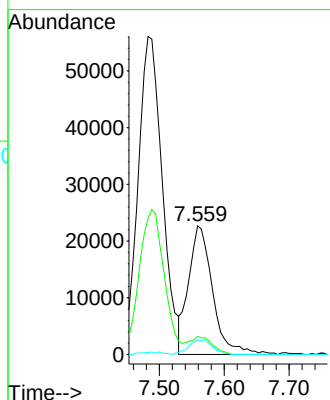
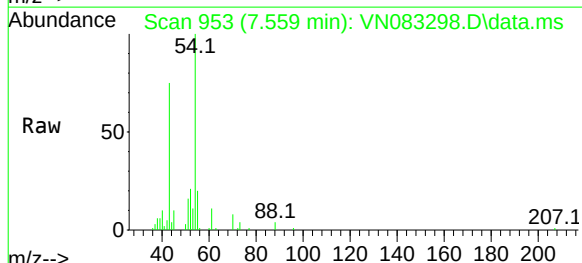
70 11.2 7.0 10.6#

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#38

Carbon Tetrachloride

Concen: 20.118 ug/l

RT: 8.359 min Scan# 1089

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

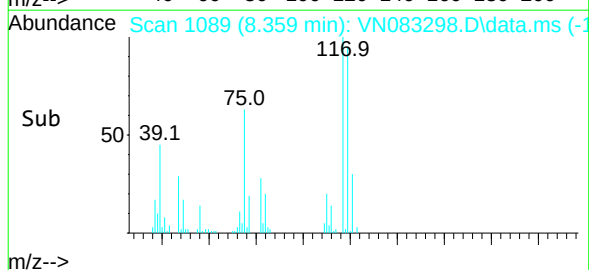
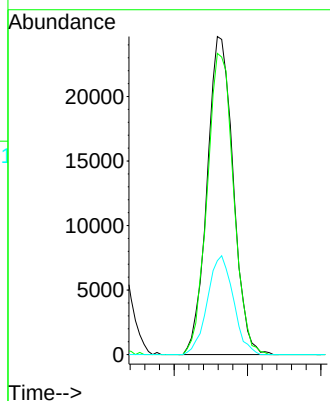
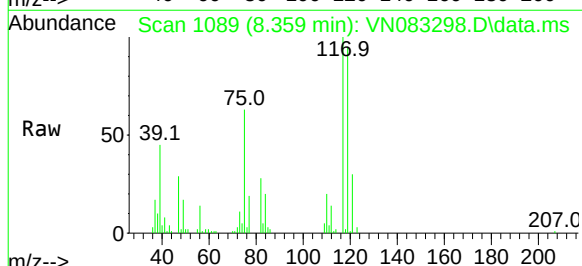
Tgt Ion:117 Resp: 60835

Ion Ratio Lower Upper

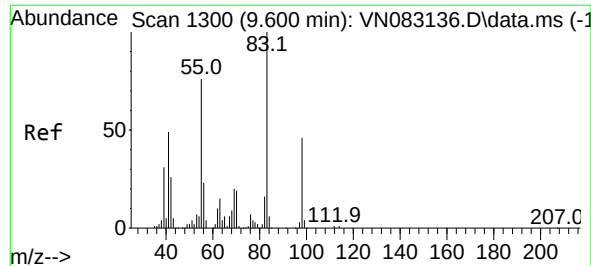
117 100

119 94.7 74.9 112.3

121 29.5 24.3 36.5







#39

Methylcyclohexane

Concen: 18.222 ug/l

RT: 9.600 min Scan# 13

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 83 Resp: 60089

Ion Ratio Lower Upper

83 100

55 80.6 66.4 99.6

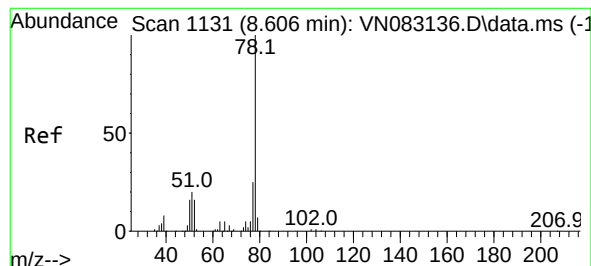
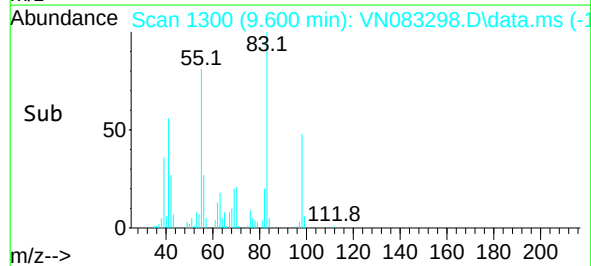
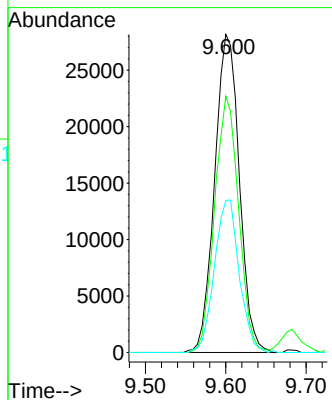
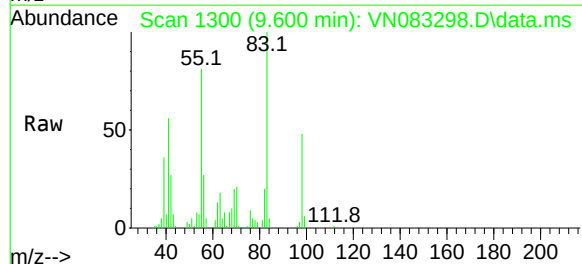
98 47.8 40.7 61.1

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#40

Benzene

Concen: 20.411 ug/l

RT: 8.612 min Scan# 1132

Delta R.T. 0.006 min

Lab File: VN083298.D

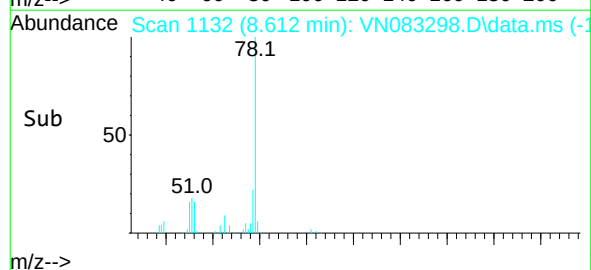
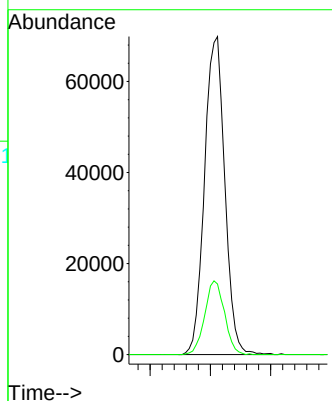
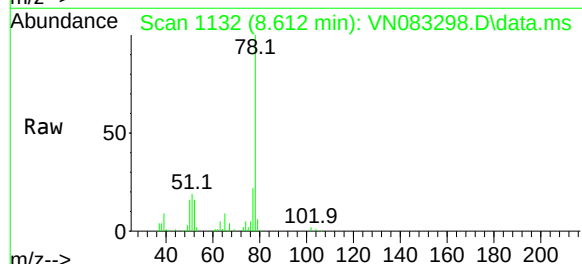
Acq: 14 Aug 2024 14:03

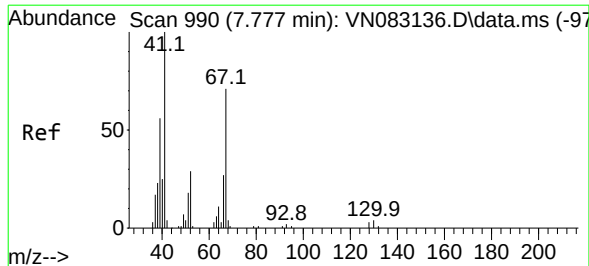
Tgt Ion: 78 Resp: 163247

Ion Ratio Lower Upper

78 100

77 22.2 19.0 28.4





#41

Methacrylonitrile

Concen: 19.660 ug/l

RT: 7.777 min Scan# 990

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

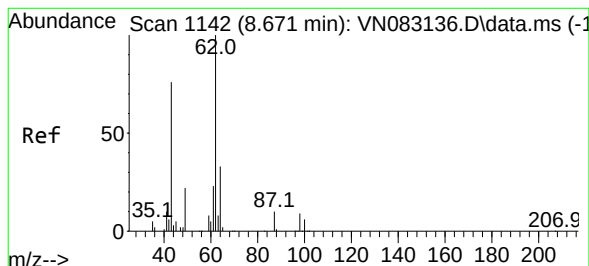
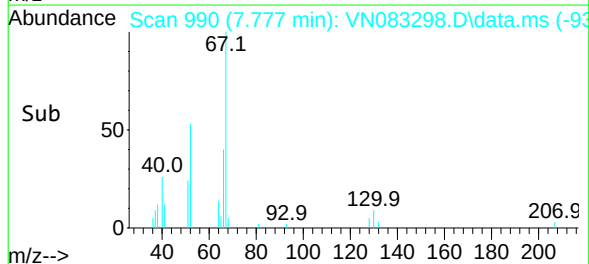
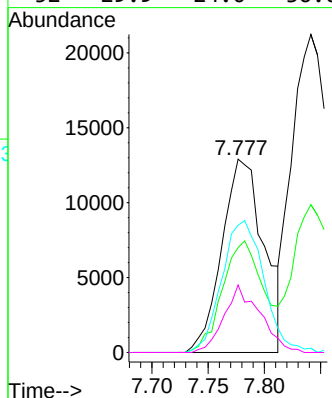
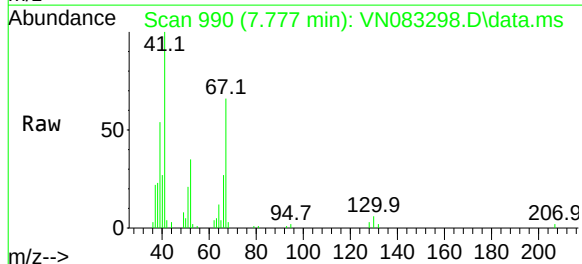
ClientSampleId :

VN0814WBS01

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 33603 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 56.9  | 45.5  | 68.3  |
| 67       | 68.3  | 50.5  | 75.7  |
| 52       | 29.9  | 24.0  | 36.0  |

Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#42

1,2-Dichloroethane

Concen: 21.520 ug/l

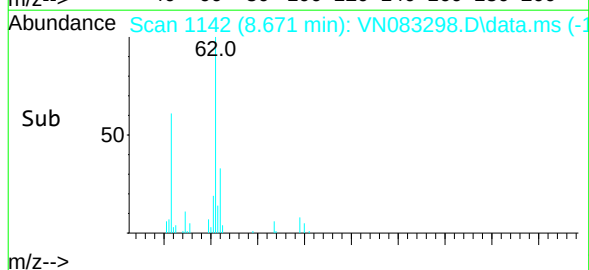
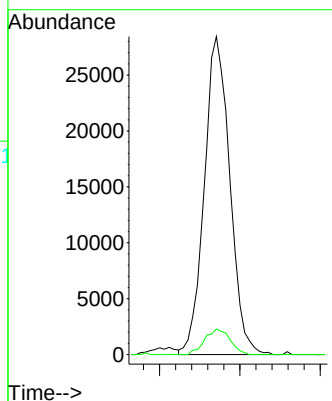
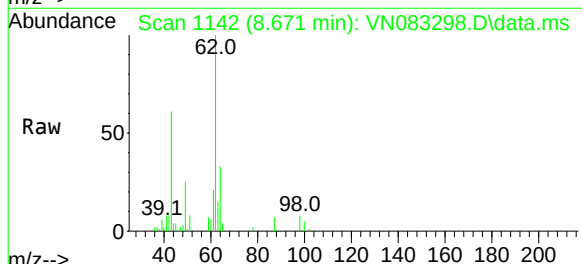
RT: 8.671 min Scan# 1142

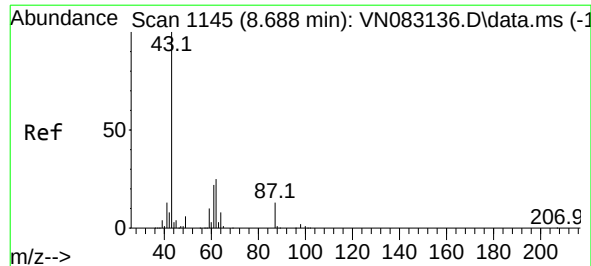
Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 62    | Resp: | 62700 |
| Ion      | Ratio | Lower | Upper |
| 62       | 100   |       |       |
| 98       | 8.0   | 0.0   | 15.8  |





#43

Isopropyl Acetate

Concen: 18.485 ug/l

RT: 8.688 min Scan# 1145

Delta R.T. 0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 43 Resp: 103775

Ion Ratio Lower Upper

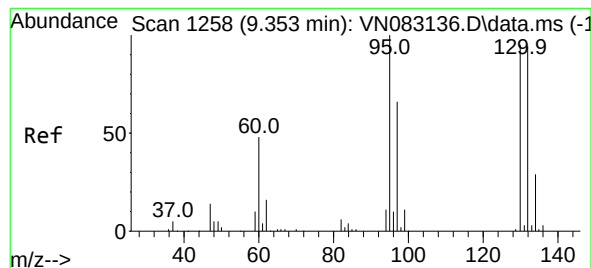
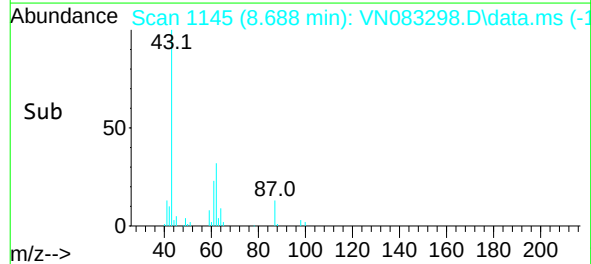
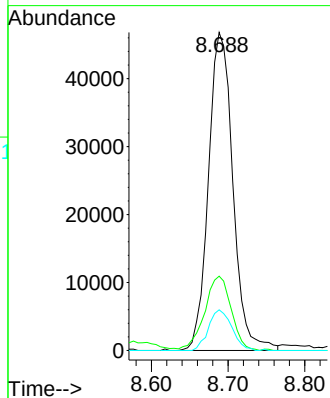
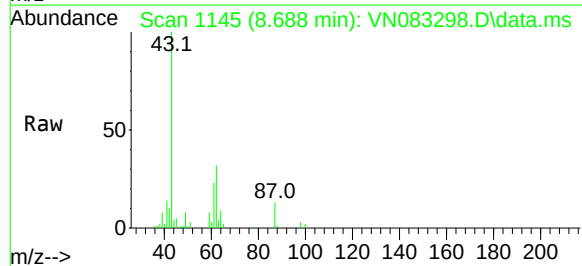
43 100

61 25.3 17.8 26.6

87 12.2 8.2 12.2

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#44

Trichloroethene

Concen: 20.078 ug/l

RT: 9.353 min Scan# 1258

Delta R.T. 0.000 min

Lab File: VN083298.D

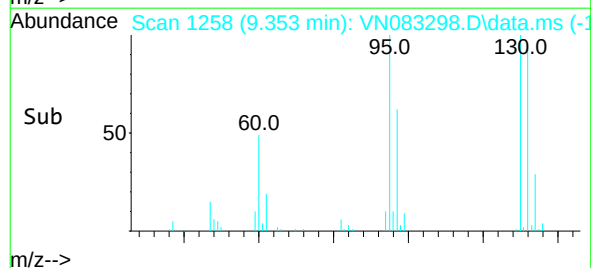
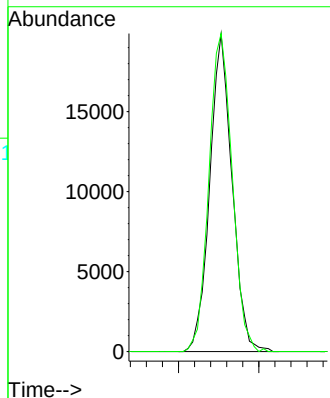
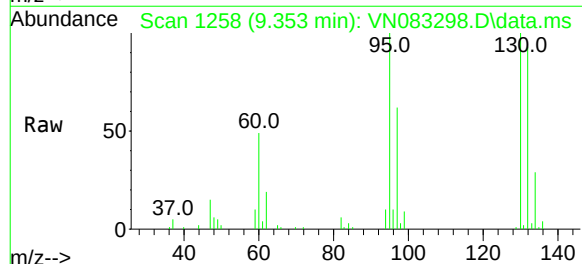
Acq: 14 Aug 2024 14:03

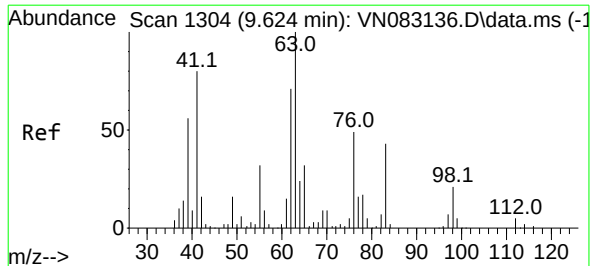
Tgt Ion:130 Resp: 38223

Ion Ratio Lower Upper

130 100

95 100.2 0.0 197.8





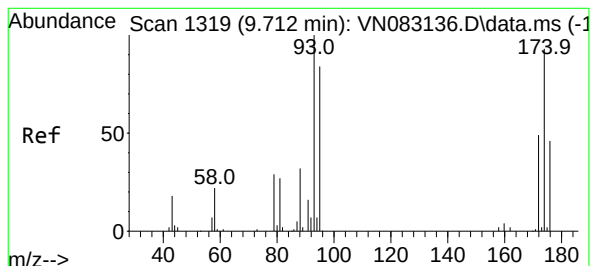
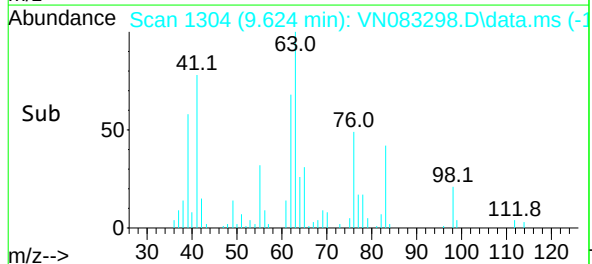
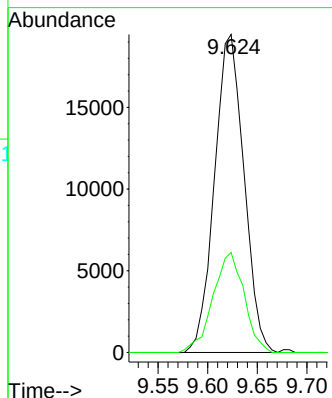
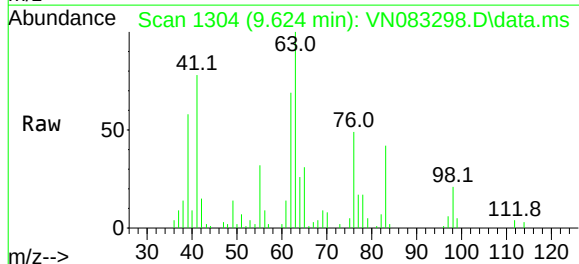
#45  
1,2-Dichloropropane  
Concen: 21.148 ug/l  
RT: 9.624 min Scan# 1304  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01

Tgt Ion: 63 Resp: 40150  
Ion Ratio Lower Upper  
63 100  
65 31.4 24.4 36.6

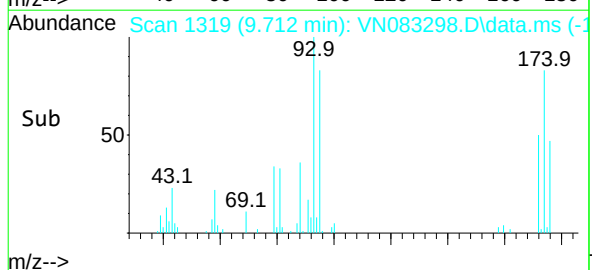
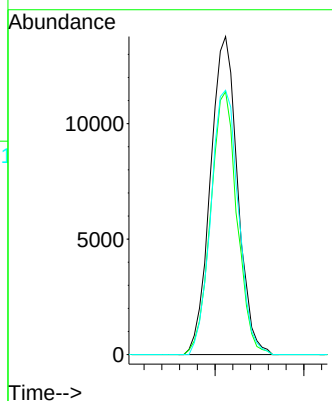
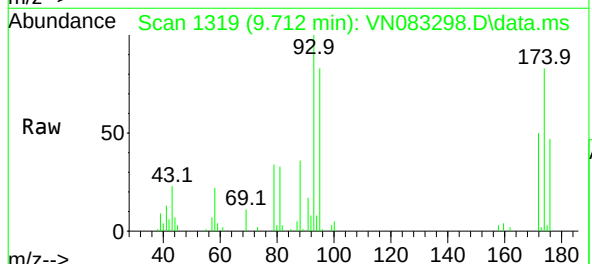
Manual Integrations  
APPROVED

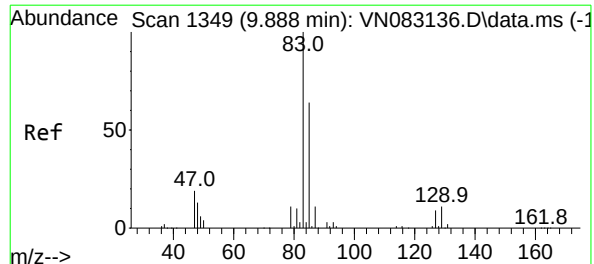
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#46  
Dibromomethane  
Concen: 21.581 ug/l  
RT: 9.712 min Scan# 1319  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Tgt Ion: 93 Resp: 29327  
Ion Ratio Lower Upper  
93 100  
95 79.9 65.8 98.6  
174 84.0 71.7 107.5





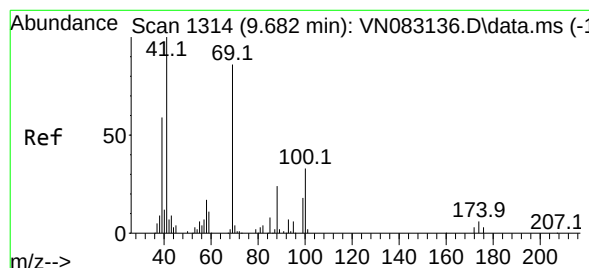
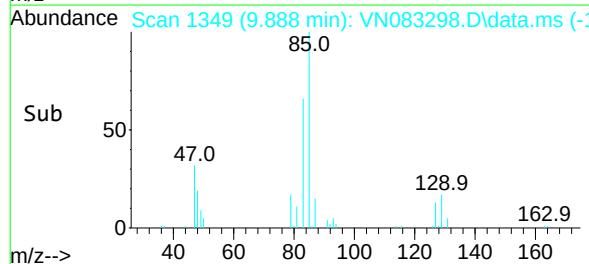
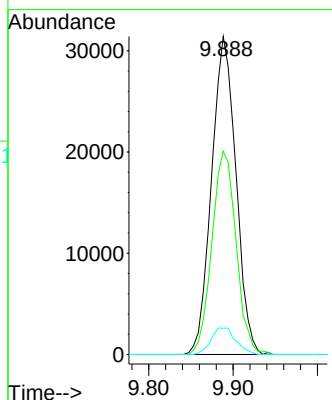
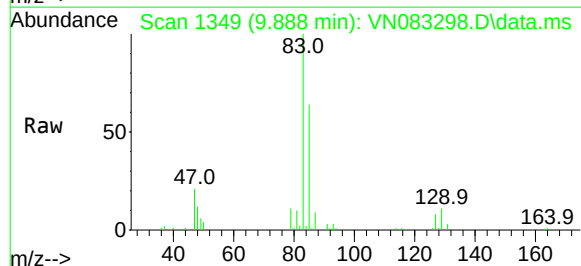
#47  
Bromodichloromethane  
Concen: 20.673 ug/l  
RT: 9.888 min Scan# 1349  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 64.0  | 51.1  | 76.7  |
| 127     | 8.3   | 7.2   | 10.8  |

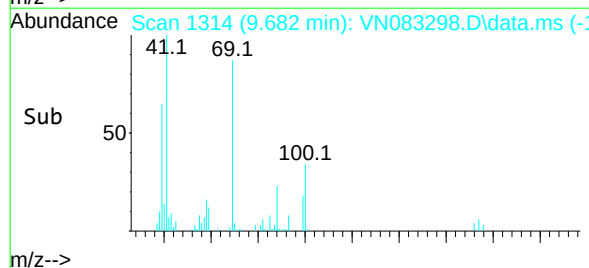
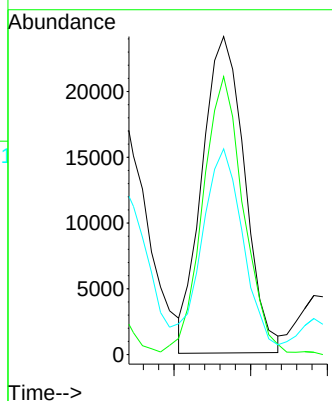
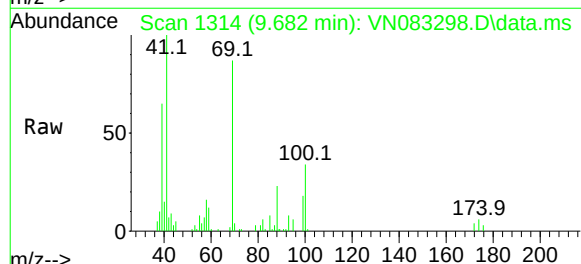
Manual Integrations  
APPROVED

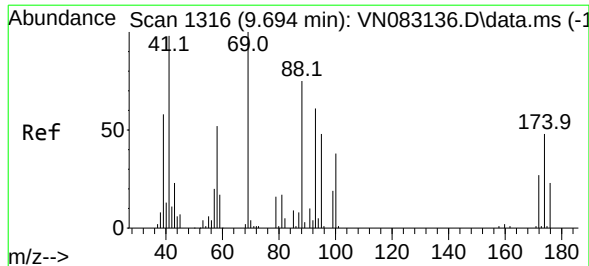
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#48  
Methyl methacrylate  
Concen: 18.669 ug/l  
RT: 9.682 min Scan# 1314  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

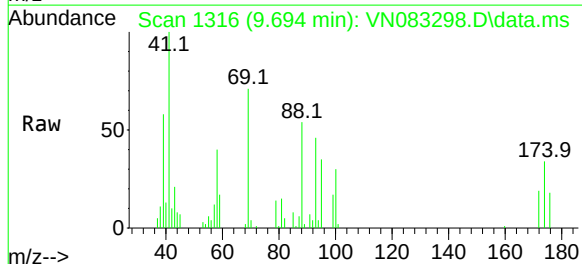
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 41      | 100   |       |       |
| 69      | 84.6  | 56.3  | 84.5  |
| 39      | 64.7  | 50.3  | 75.5  |





#49  
1,4-Dioxane  
Concen: 421.571 ug/l  
RT: 9.694 min Scan# 1316  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

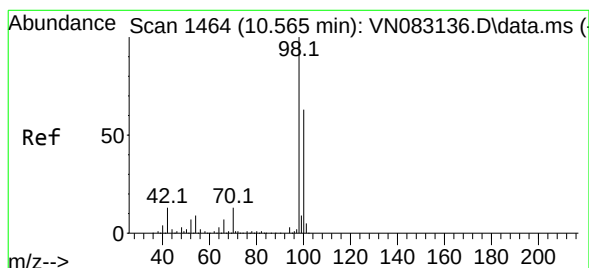
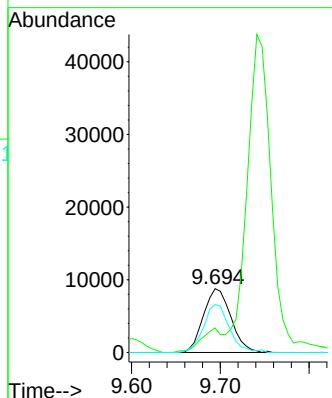
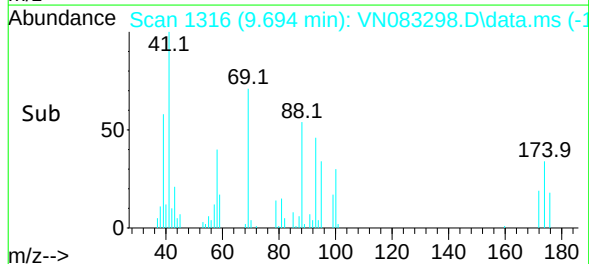
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01



Tgt Ion: 88 Resp: 18902  
Ion Ratio Lower Upper  
88 100  
43 26.9 27.8 41.8#  
58 71.3 59.4 89.0

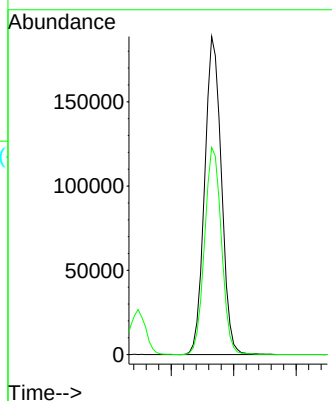
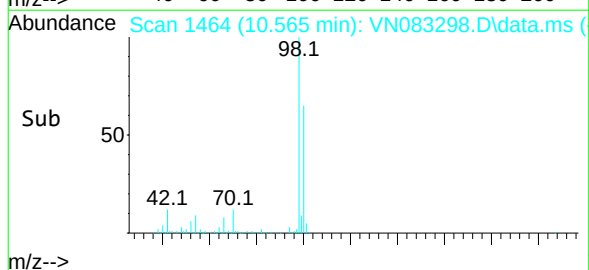
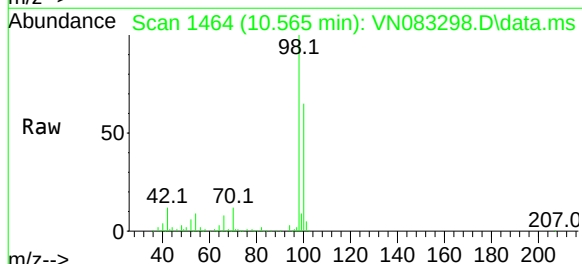
Manual Integrations  
APPROVED

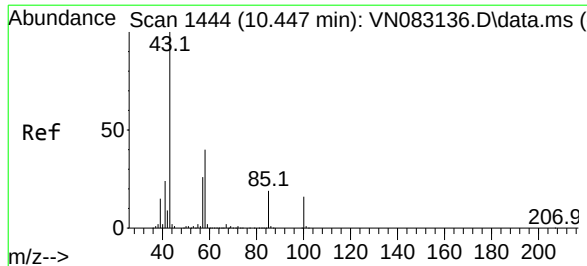
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#50  
Toluene-d8  
Concen: 53.075 ug/l  
RT: 10.565 min Scan# 1464  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

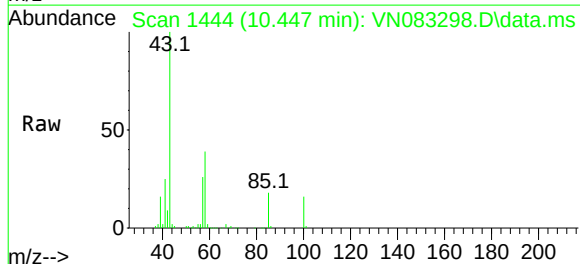
Tgt Ion: 98 Resp: 351385  
Ion Ratio Lower Upper  
98 100  
100 65.5 51.5 77.3





#51  
4-Methyl-2-Pentanone  
Concen: 105.490 ug/l  
RT: 10.447 min Scan# 1444  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

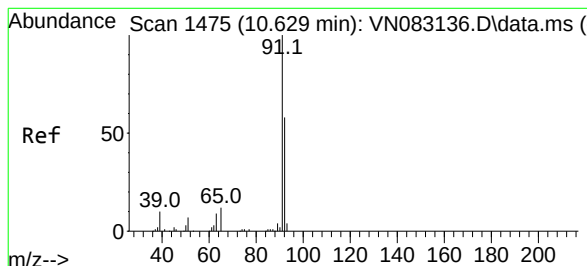
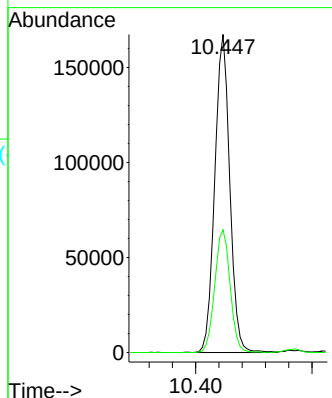
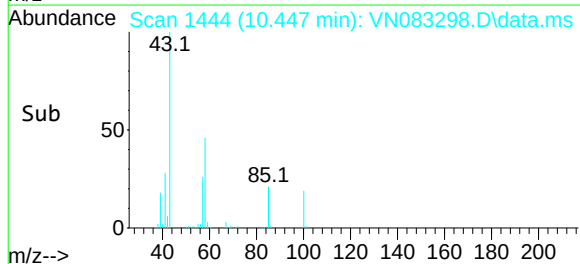
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01



Tgt Ion: 43 Resp: 299875  
Ion Ratio Lower Upper  
43 100  
58 39.5 28.2 42.4

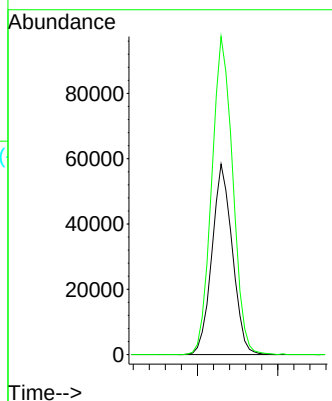
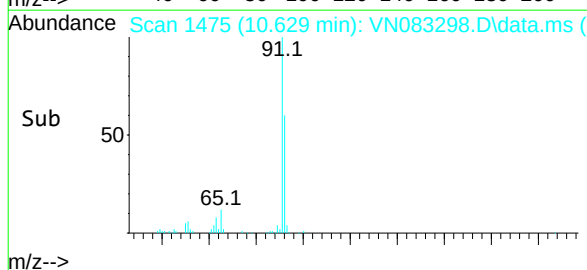
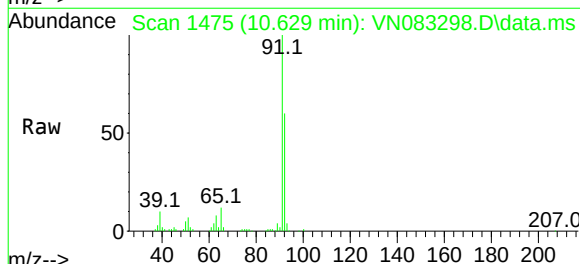
Manual Integrations  
APPROVED

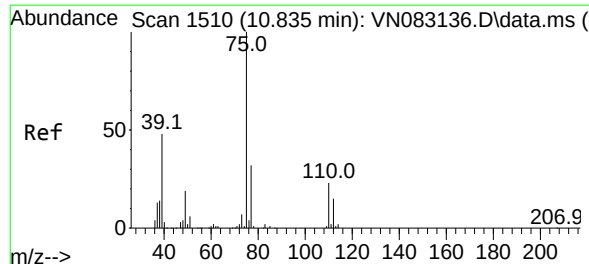
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#52  
Toluene  
Concen: 20.347 ug/l  
RT: 10.629 min Scan# 1475  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Tgt Ion: 92 Resp: 102822  
Ion Ratio Lower Upper  
92 100  
91 172.4 139.4 209.0





#53

t-1,3-Dichloropropene

Concen: 19.747 ug/l

RT: 10.835 min Scan# 1510

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 75 Resp: 61891

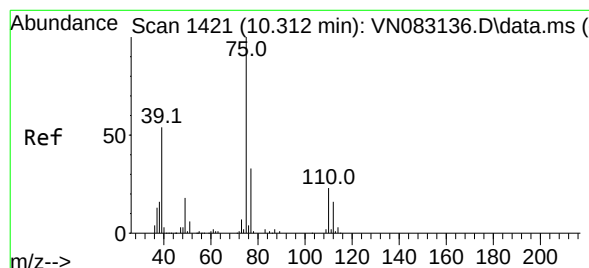
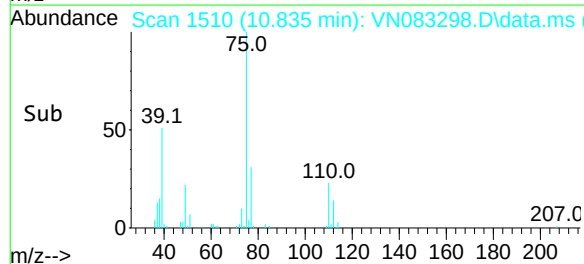
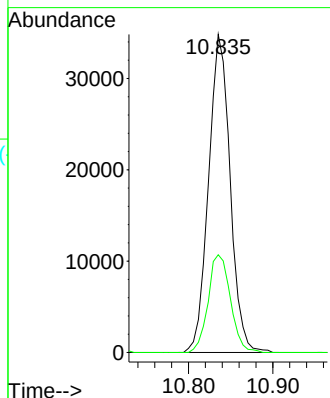
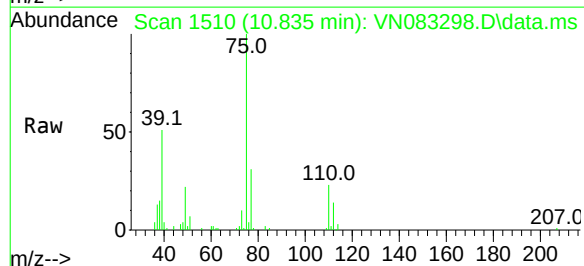
Ion Ratio Lower Upper

75 100

77 30.7 25.7 38.5

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#54

cis-1,3-Dichloropropene

Concen: 19.411 ug/l

RT: 10.312 min Scan# 1421

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

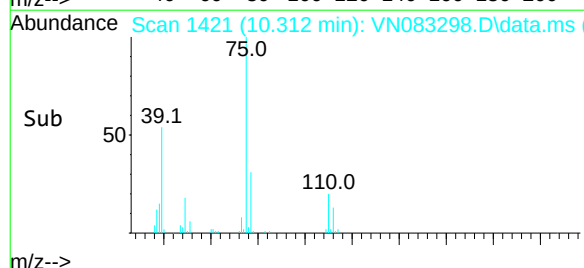
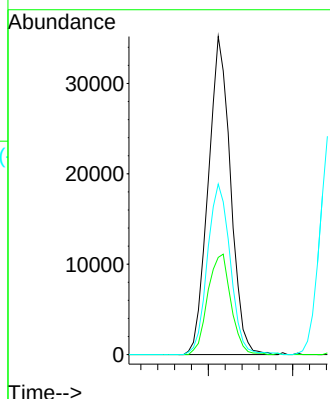
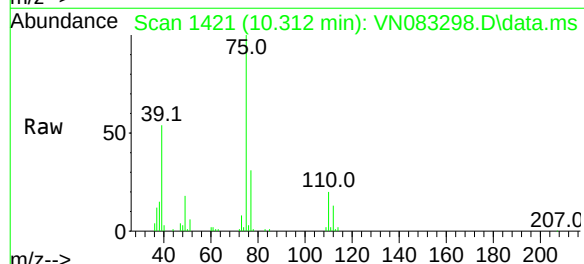
Tgt Ion: 75 Resp: 64711

Ion Ratio Lower Upper

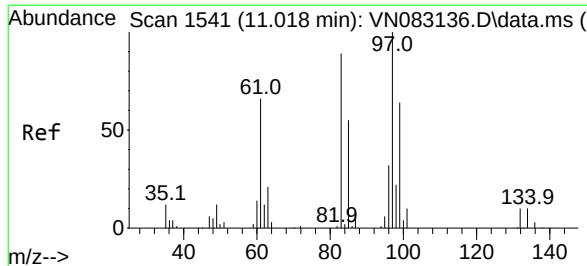
75 100

77 30.6 24.3 36.5

39 53.6 50.5 75.7







#55

1,1,2-Trichloroethane

Concen: 21.469 ug/l

RT: 11.018 min Scan# 1541

Delta R.T. -0.000 min

Lab File: VN083298.D

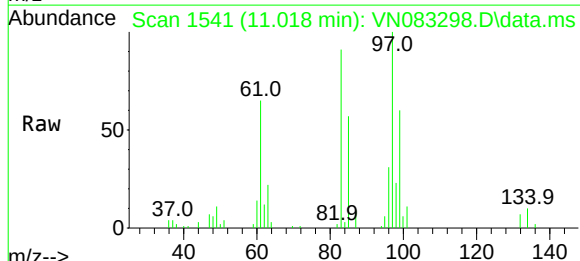
Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01



Tgt Ion: 97 Resp: 38882

Ion Ratio Lower Upper

97 100

83 91.2 71.4 107.0

85 57.3 45.8 68.6

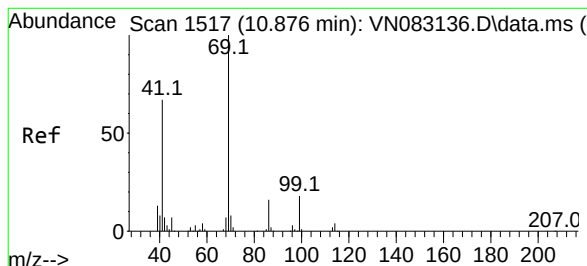
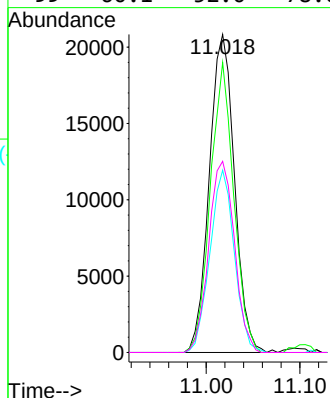
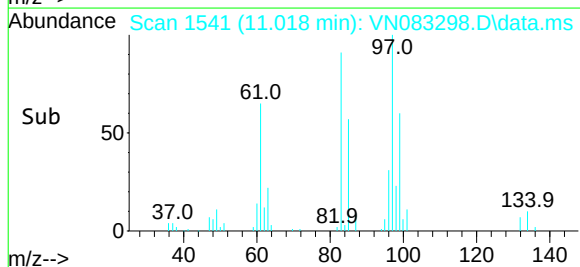
99 60.1 52.0 78.0

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#56

Ethyl methacrylate

Concen: 19.488 ug/l

RT: 10.876 min Scan# 1517

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

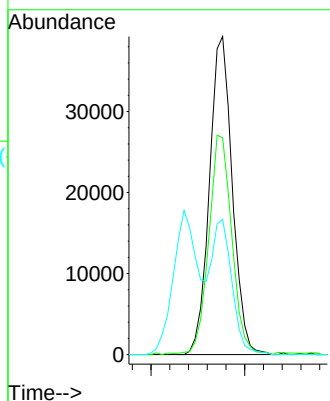
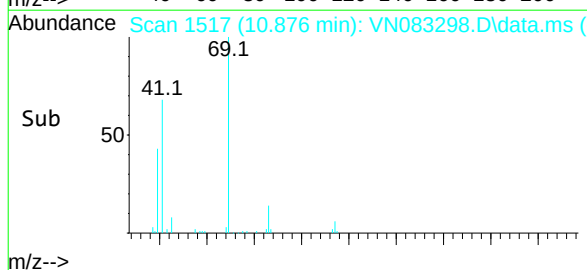
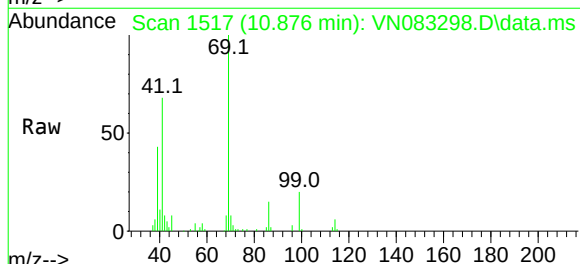
Tgt Ion: 69 Resp: 66534

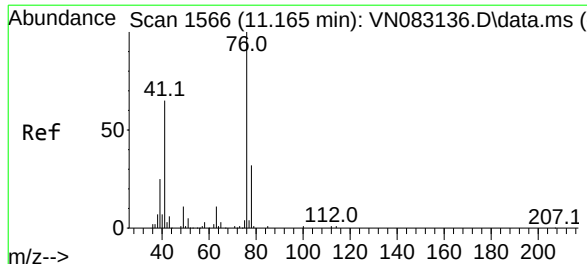
Ion Ratio Lower Upper

69 100

41 69.7 63.4 95.2

39 37.3 37.4 56.0#





#57

1,3-Dichloropropane

Concen: 20.850 ug/l

RT: 11.165 min Scan# 1566

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 76 Resp: 67303

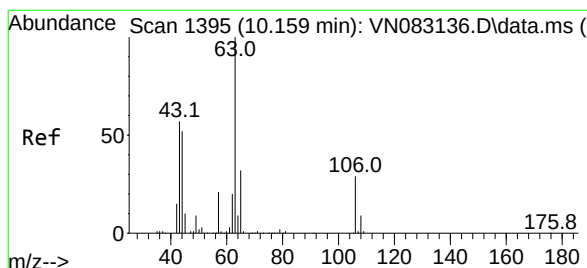
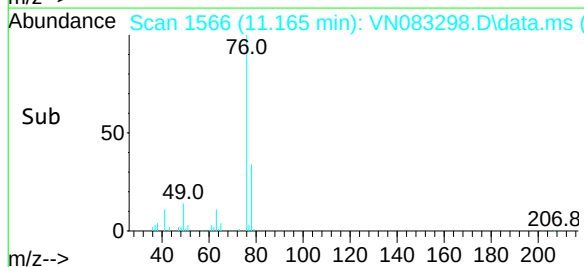
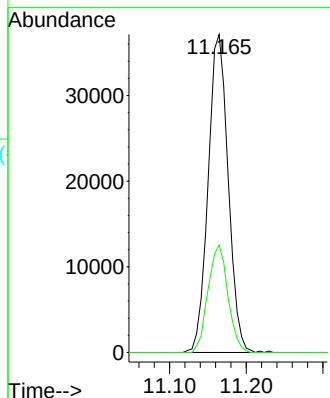
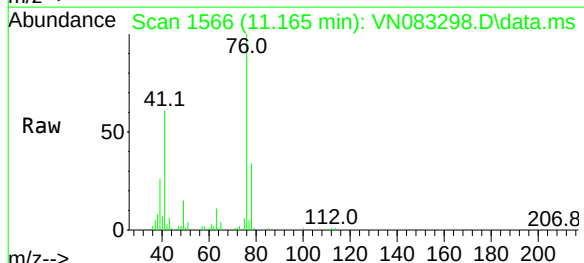
Ion Ratio Lower Upper

76 100

78 33.6 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#58

2-Chloroethyl Vinyl ether

Concen: 92.654 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. -0.000 min

Lab File: VN083298.D

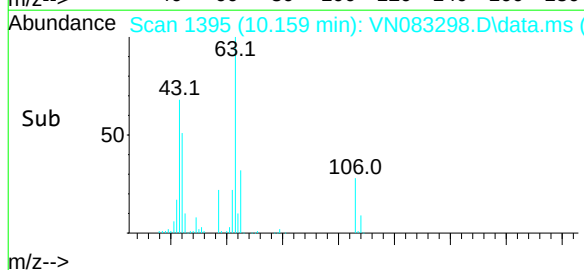
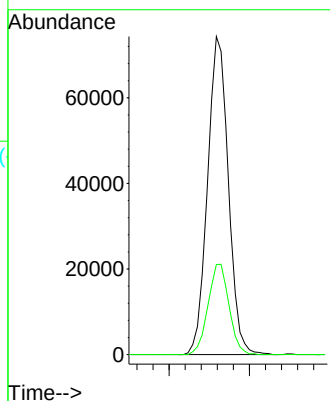
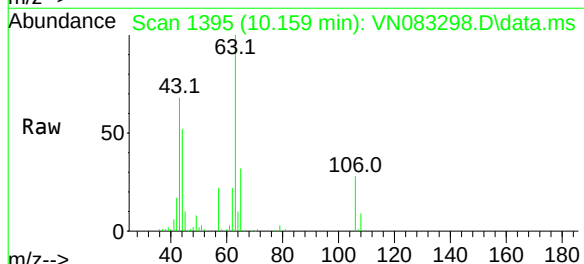
Acq: 14 Aug 2024 14:03

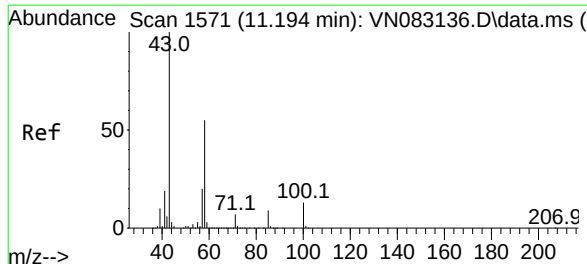
Tgt Ion: 63 Resp: 133714

Ion Ratio Lower Upper

63 100

106 28.6 21.4 32.0





#59

2-Hexanone

Concen: 103.052 ug/l

RT: 11.194 min Scan# 1571

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 43 Resp: 226634

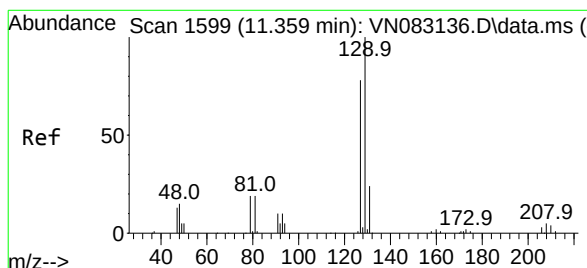
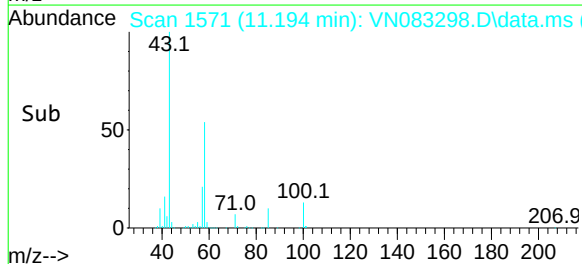
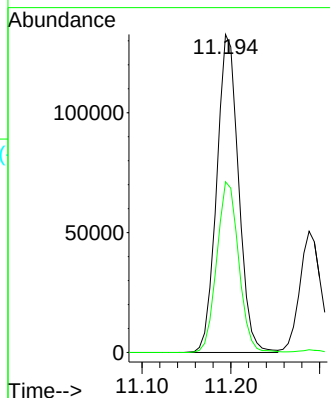
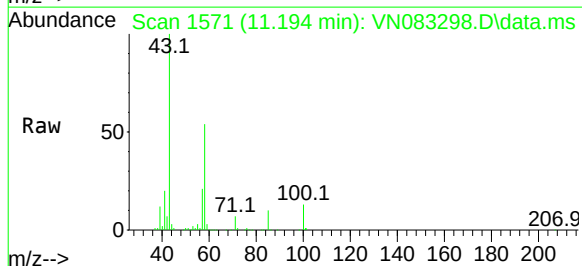
Ion Ratio Lower Upper

43 100

58 53.8 24.6 73.8

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#60

Dibromochloromethane

Concen: 20.642 ug/l

RT: 11.359 min Scan# 1599

Delta R.T. -0.000 min

Lab File: VN083298.D

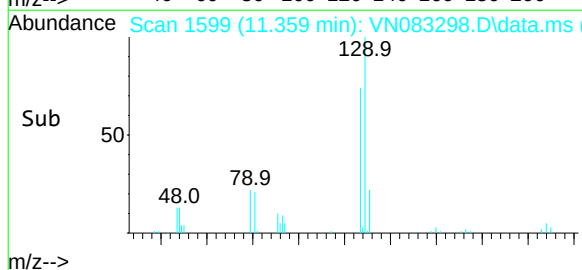
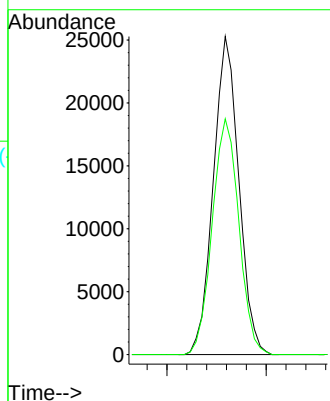
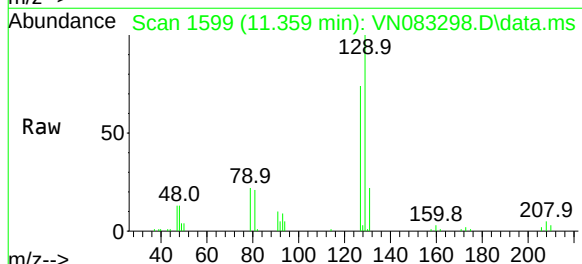
Acq: 14 Aug 2024 14:03

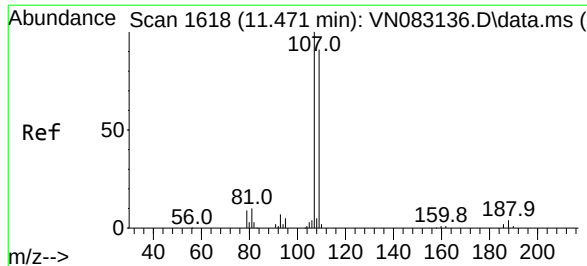
Tgt Ion:129 Resp: 45197

Ion Ratio Lower Upper

129 100

127 77.3 39.2 117.6





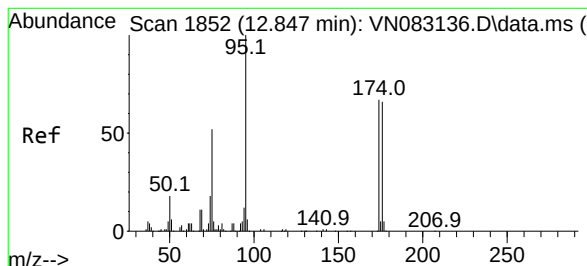
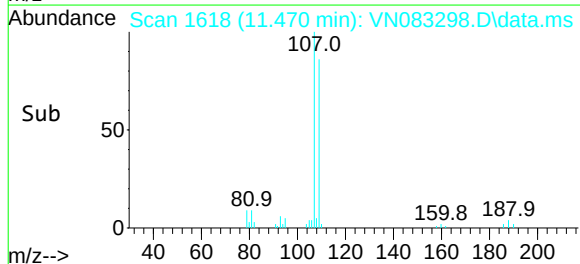
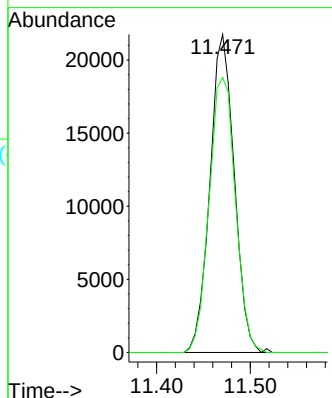
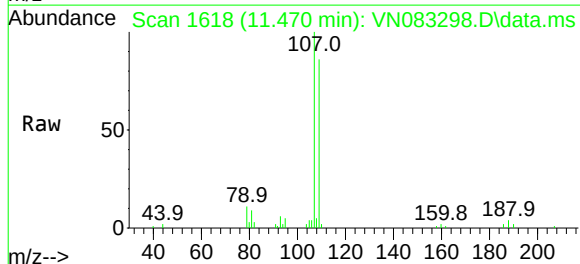
#61  
1,2-Dibromoethane  
Concen: 20.609 ug/l  
RT: 11.470 min Scan# 1618  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01

Tgt Ion: 107 Resp: 39209  
Ion Ratio Lower Upper  
107 100  
109 93.4 73.7 110.5

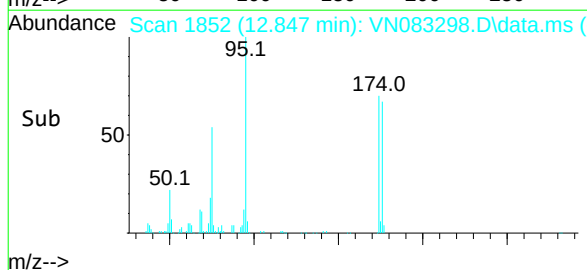
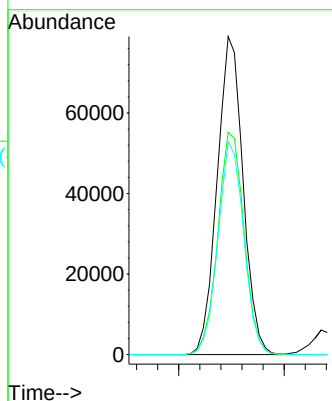
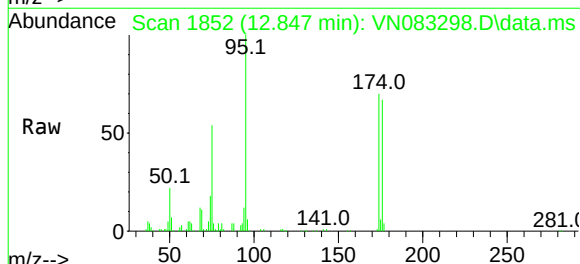
Manual Integrations  
APPROVED

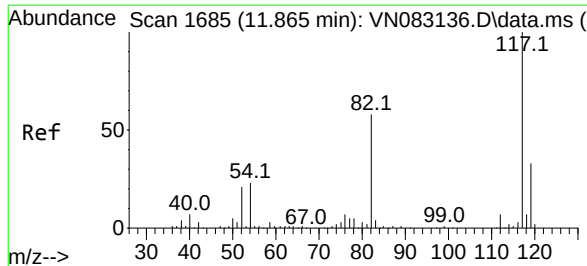
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#62  
4-Bromofluorobenzene  
Concen: 52.296 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Tgt Ion: 95 Resp: 134979  
Ion Ratio Lower Upper  
95 100  
174 70.7 0.0 159.2  
176 66.8 0.0 147.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 16

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion:117 Resp: 250581

Ion Ratio Lower Upper

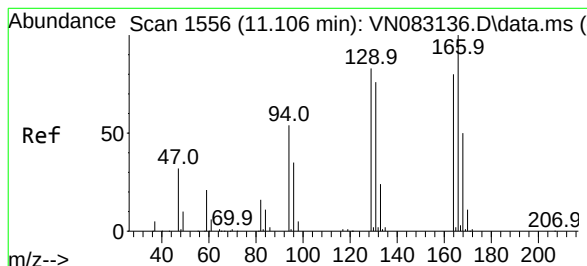
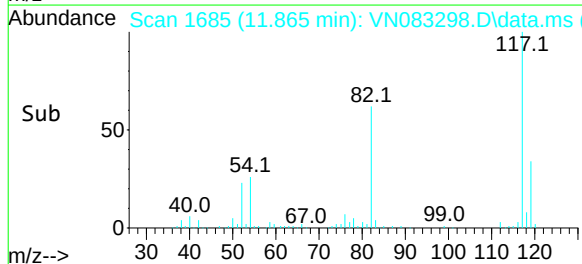
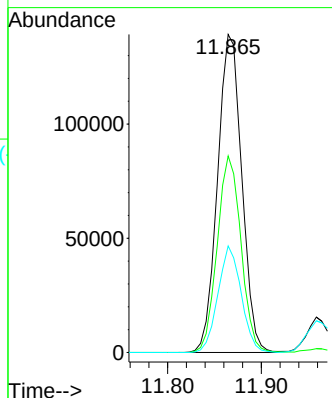
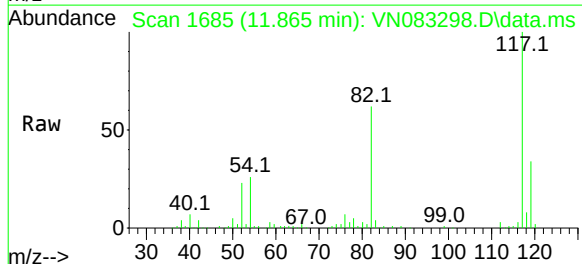
117 100

82 61.8 47.5 71.3

119 33.5 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#64

Tetrachloroethene

Concen: 19.622 ug/l

RT: 11.100 min Scan# 1555

Delta R.T. -0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Tgt Ion:164 Resp: 32564

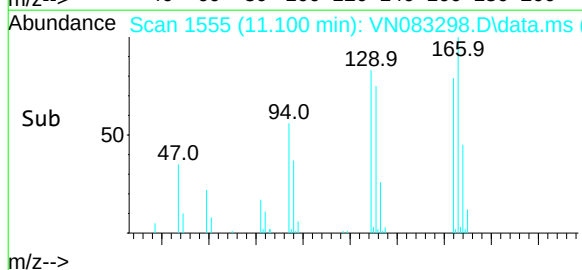
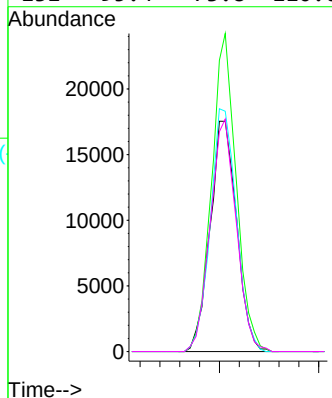
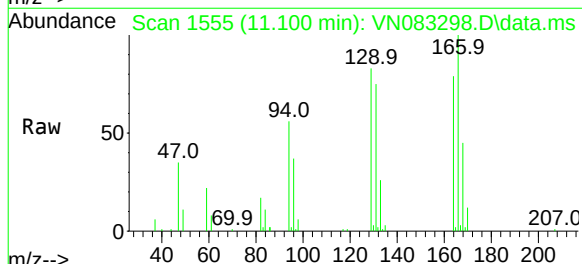
Ion Ratio Lower Upper

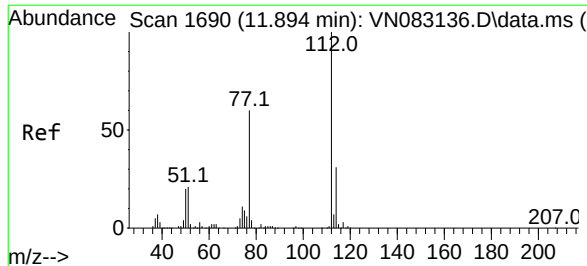
164 100

166 126.4 101.4 152.0

129 105.4 75.7 113.5

131 95.4 73.8 110.6





#65

Chlorobenzene

Concen: 19.770 ug/l

RT: 11.894 min Scan# 16

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion:112 Resp: 109477

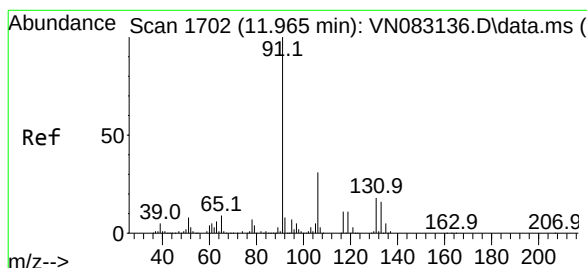
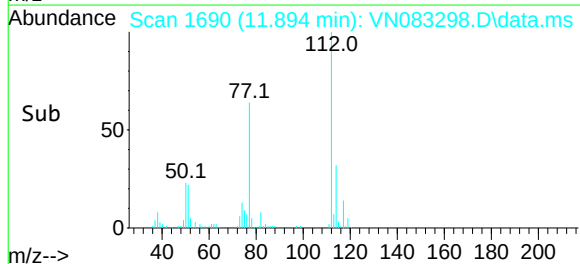
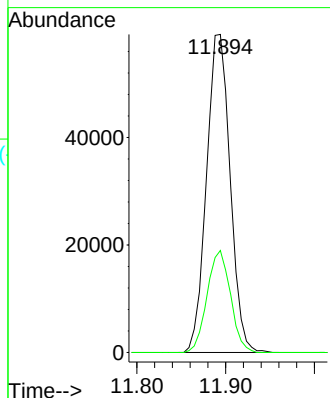
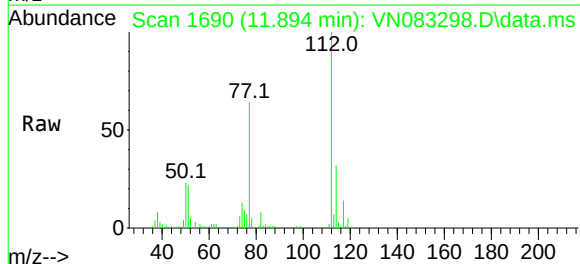
Ion Ratio Lower Upper

112 100

114 32.1 26.2 39.2

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#66

1,1,1,2-Tetrachloroethane

Concen: 19.876 ug/l

RT: 11.959 min Scan# 1701

Delta R.T. -0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

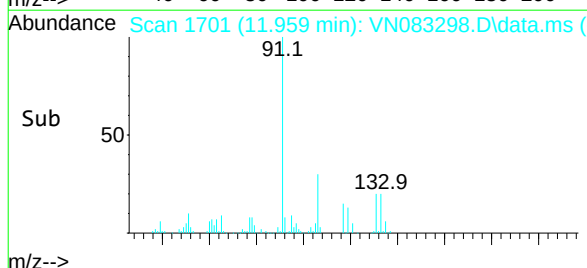
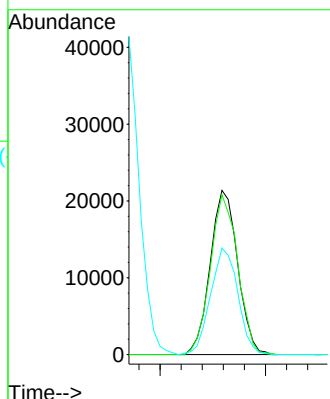
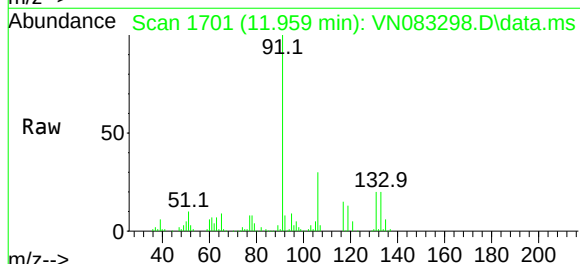
Tgt Ion:131 Resp: 38818

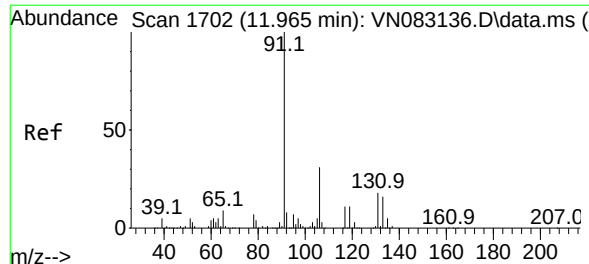
Ion Ratio Lower Upper

131 100

133 96.8 47.3 142.0

119 64.3 32.5 97.4





#67

Ethyl Benzene

Concen: 19.621 ug/l

RT: 11.965 min Scan# 1702

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 91 Resp: 199315

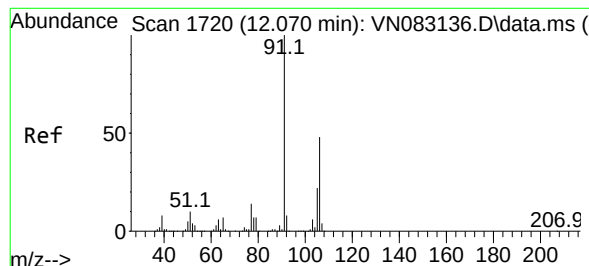
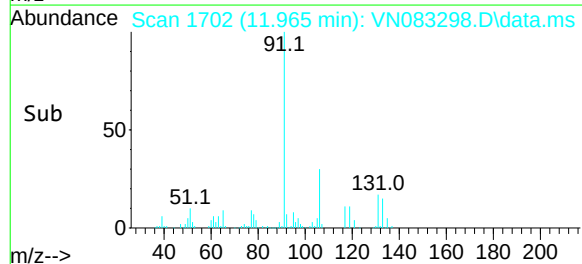
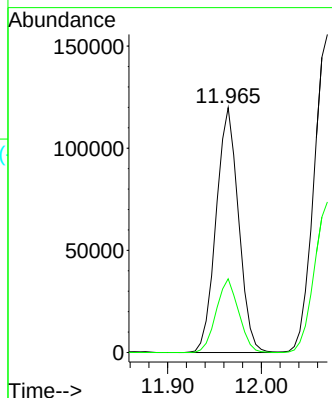
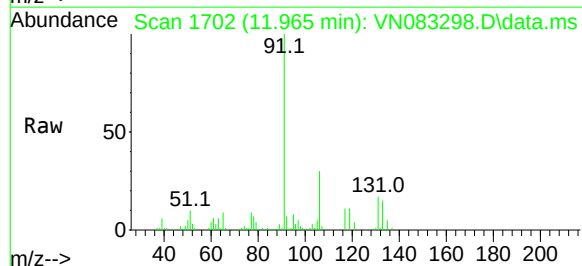
Ion Ratio Lower Upper

91 100

106 30.1 24.0 36.0

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#68

m/p-Xylenes

Concen: 38.610 ug/l

RT: 12.070 min Scan# 1720

Delta R.T. -0.000 min

Lab File: VN083298.D

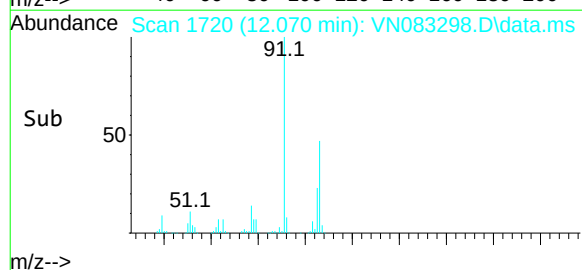
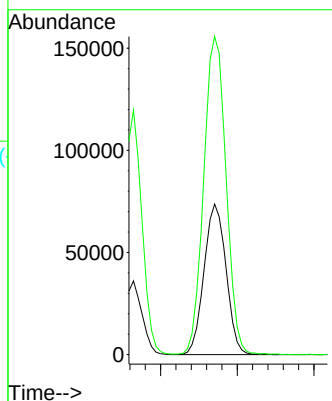
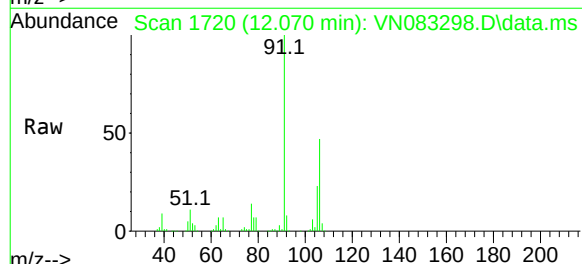
Acq: 14 Aug 2024 14:03

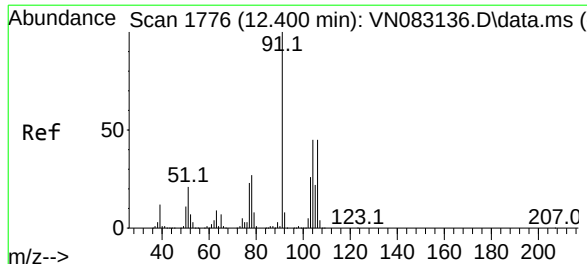
Tgt Ion:106 Resp: 146923

Ion Ratio Lower Upper

106 100

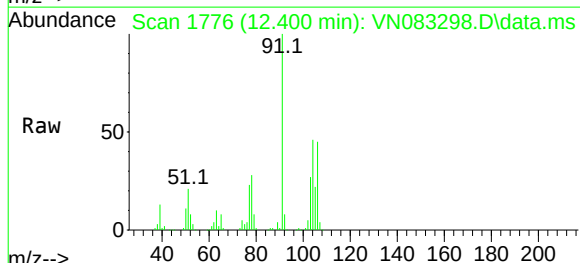
91 214.5 166.1 249.1





#69  
o-Xylene  
Concen: 19.511 ug/l  
RT: 12.400 min Scan# 1776  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

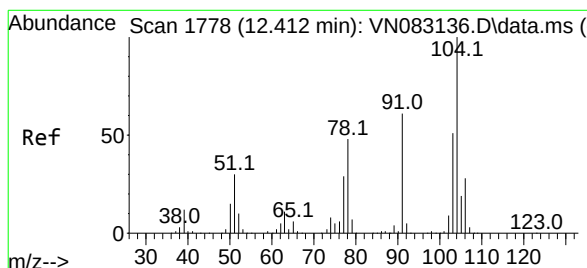
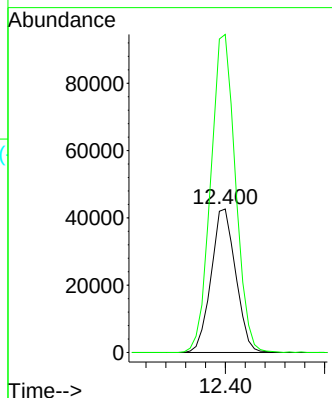
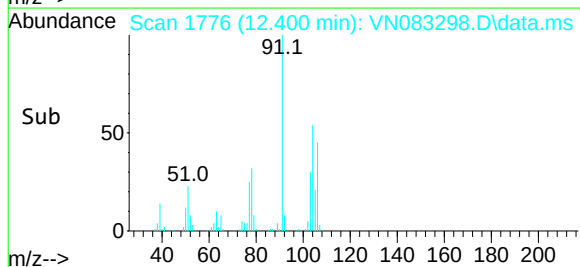
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01



Tgt Ion:106 Resp: 73227  
Ion Ratio Lower Upper  
106 100  
91 223.1 111.3 333.9

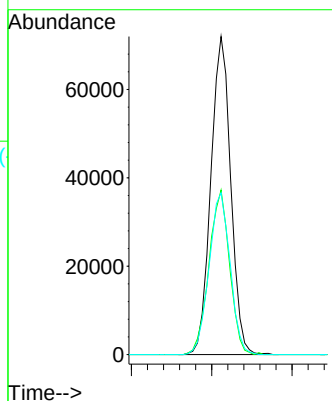
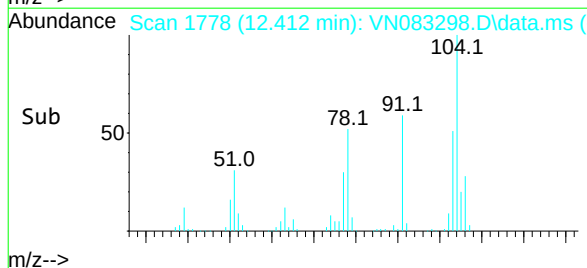
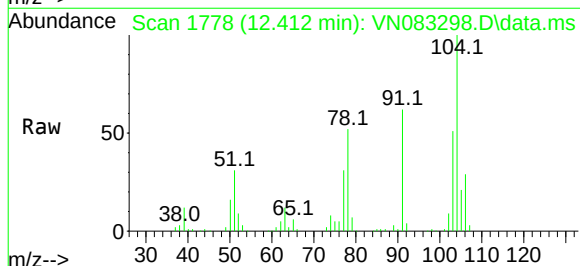
Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

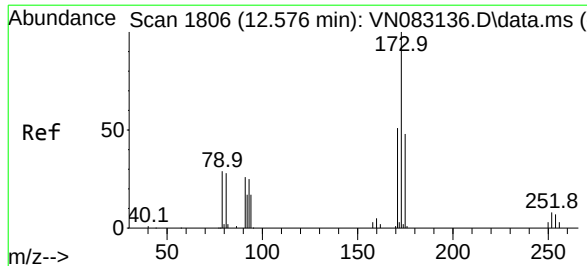


#70  
Styrene  
Concen: 19.632 ug/l  
RT: 12.412 min Scan# 1778  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Tgt Ion:104 Resp: 123747  
Ion Ratio Lower Upper  
104 100  
78 53.6 41.6 62.4  
103 53.7 44.0 66.0

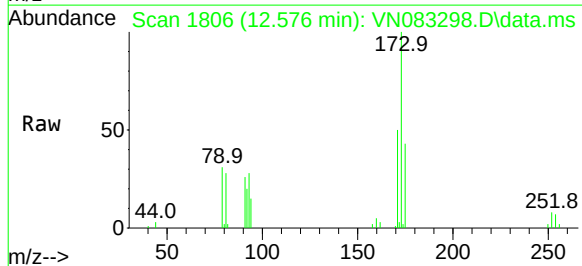






Bromoform  
Concen: 19.376 ug/l  
RT: 12.576 min Scan# 1806  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

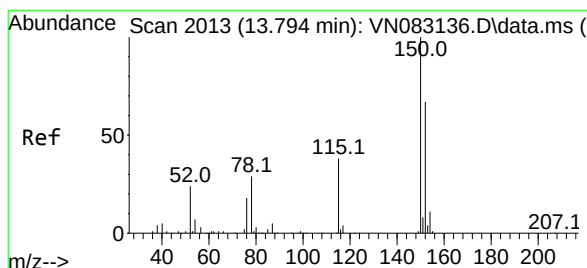
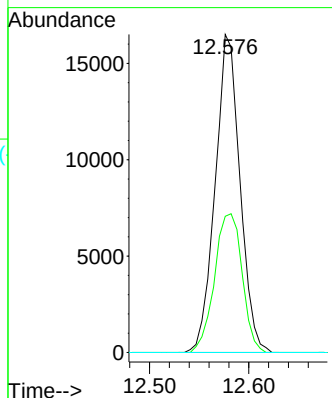
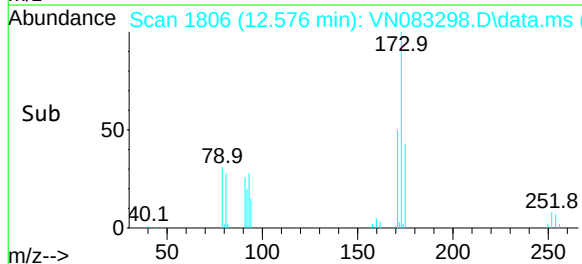
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01



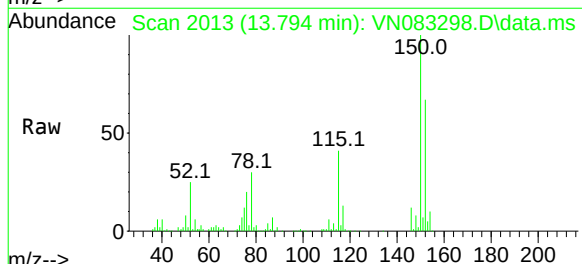
Tgt Ion: 173 Resp: 28667  
Ion Ratio Lower Upper  
173 100  
175 48.5 24.0 72.0  
254 0.0 0.0 0.0

Manual Integrations  
APPROVED

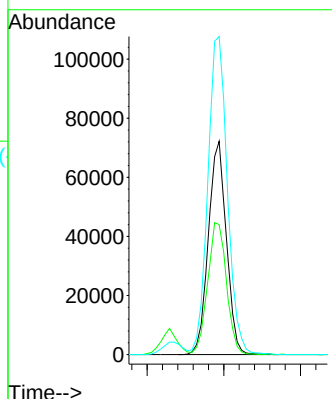
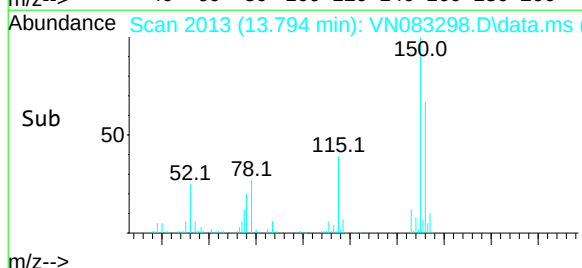
Reviewed By : Mahesh Dadoda 08/15/2024  
Supervised By : Semsettin Yesilyurt 08/15/2024

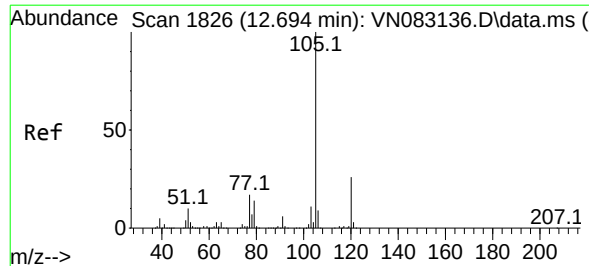


1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.794 min Scan# 2013  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03



Tgt Ion: 152 Resp: 117869  
Ion Ratio Lower Upper  
152 100  
115 64.4 30.6 91.6  
150 161.8 0.0 348.6





#73

Isopropylbenzene

Concen: 19.262 ug/l

RT: 12.694 min Scan# 1826

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 105 Resp: 189904

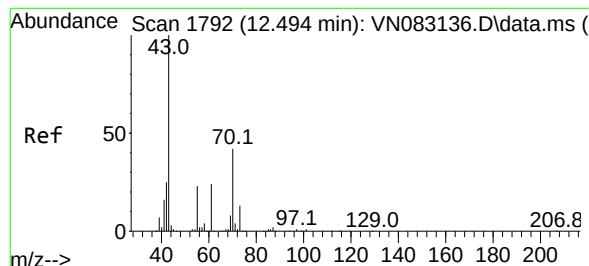
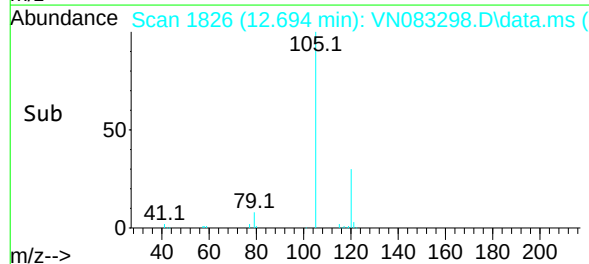
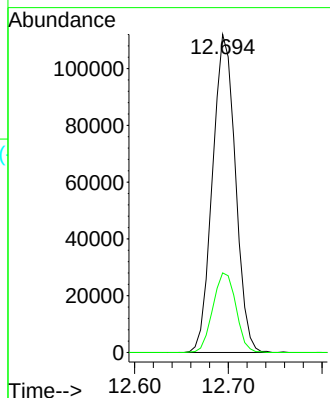
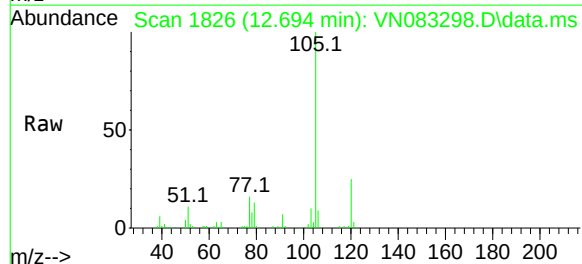
Ion Ratio Lower Upper

105 100

120 25.2 12.9 38.6

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#74

N-ethyl acetate

Concen: 18.185 ug/l

RT: 12.494 min Scan# 1792

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Tgt Ion: 43 Resp: 87695

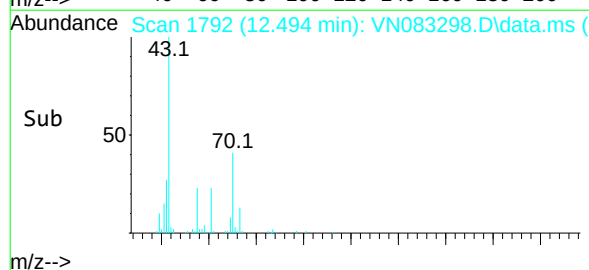
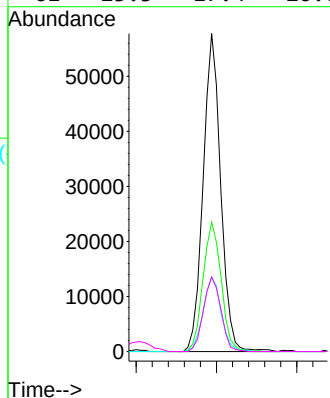
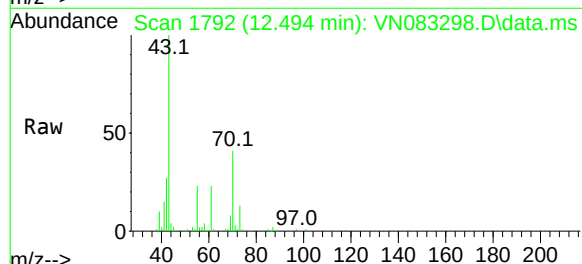
Ion Ratio Lower Upper

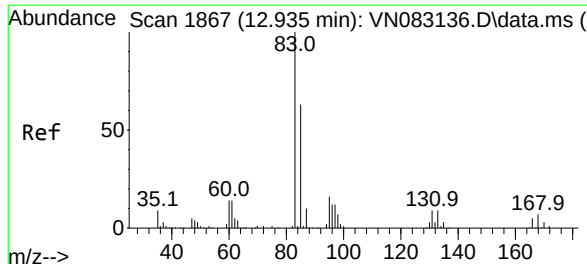
43 100

70 42.1 29.8 44.6

55 24.0 18.7 28.1

61 23.3 17.4 26.0





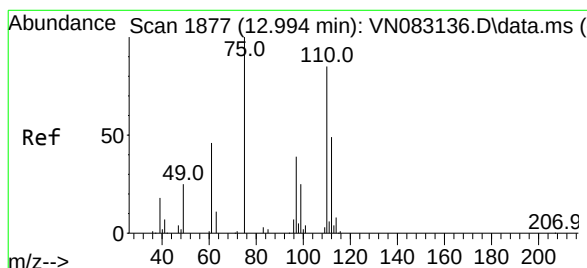
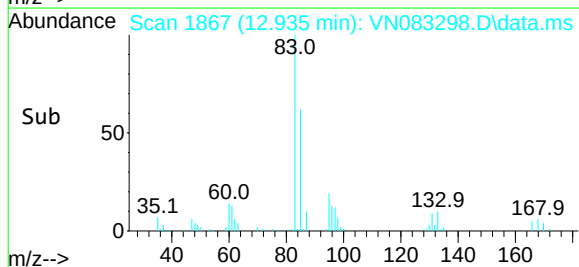
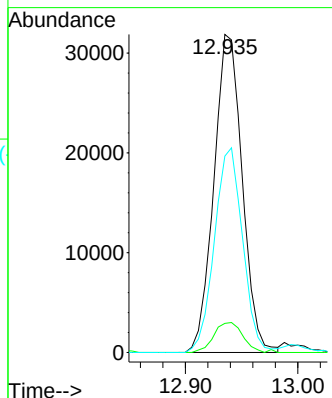
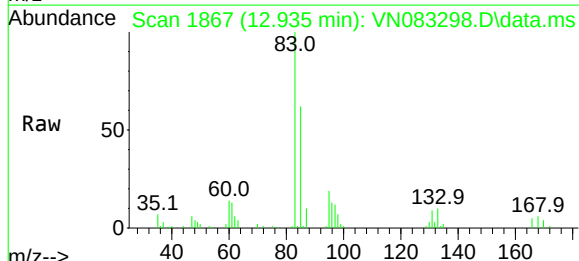
#75  
1,1,2,2-Tetrachloroethane  
Concen: 20.040 ug/l  
RT: 12.935 min Scan# 1867  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01

| Tgt Ion | 83    | Resp  | 55881 |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 83      | 100   |       |       |
| 131     | 9.8   | 5.0   | 14.9  |
| 85      | 63.8  | 31.9  | 95.7  |

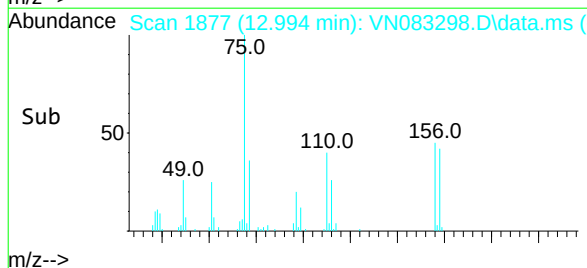
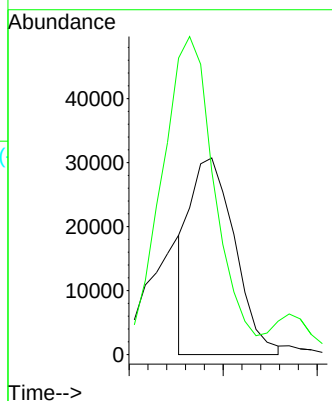
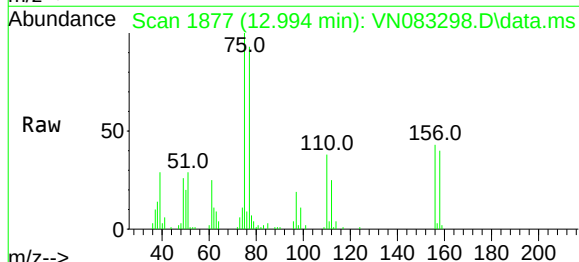
Manual Integrations  
APPROVED

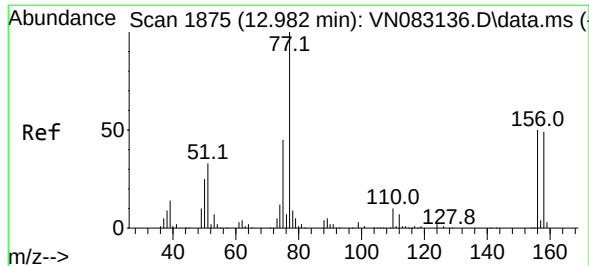
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#76  
1,2,3-Trichloropropane  
Concen: 19.732 ug/l m  
RT: 12.994 min Scan# 1877  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

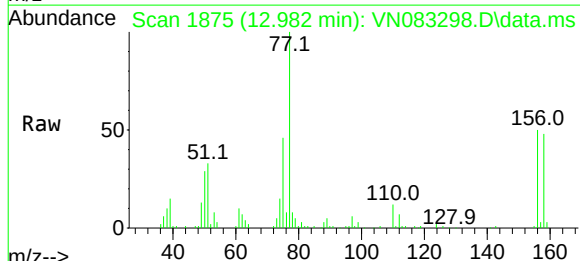
| Tgt Ion | 75    | Resp  | 51046 |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 75      | 100   |       |       |
| 77      | 193.3 | 110.9 | 332.6 |





#77  
Bromobenzene  
Concen: 20.216 ug/l  
RT: 12.982 min Scan# 1875  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

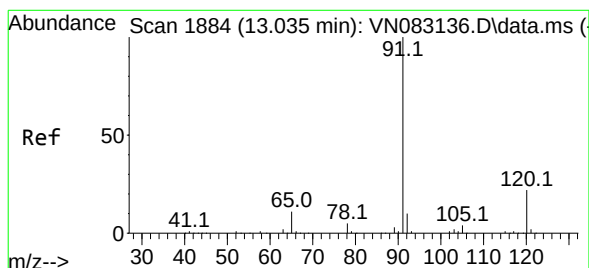
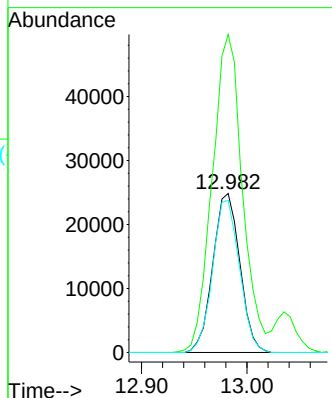
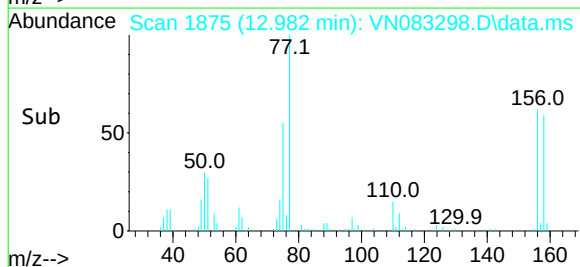
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01



Tgt Ion: 156 Resp: 44274  
Ion Ratio Lower Upper  
156 100  
77 222.9 111.3 333.8  
158 95.4 48.3 144.9

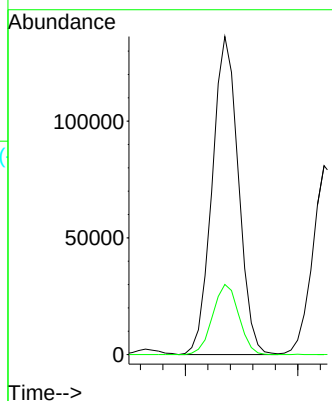
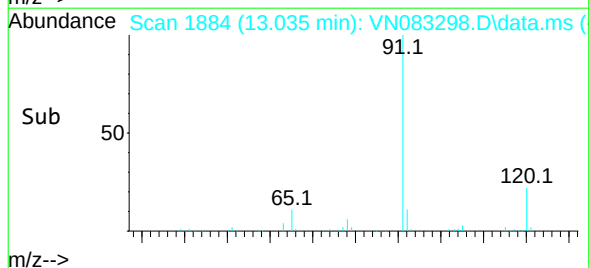
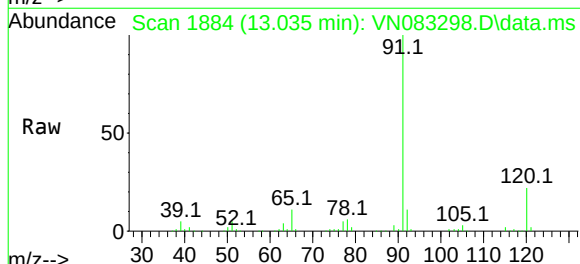
Manual Integrations  
APPROVED

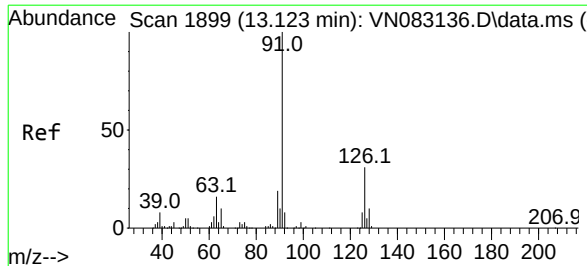
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#78  
n-propylbenzene  
Concen: 19.470 ug/l  
RT: 13.035 min Scan# 1884  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

Tgt Ion: 91 Resp: 221023  
Ion Ratio Lower Upper  
91 100  
120 21.9 10.9 32.9





#79

2-Chlorotoluene

Concen: 19.416 ug/l

RT: 13.123 min Scan# 1899

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 91 Resp: 139743

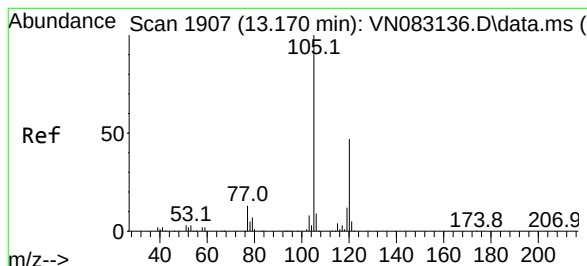
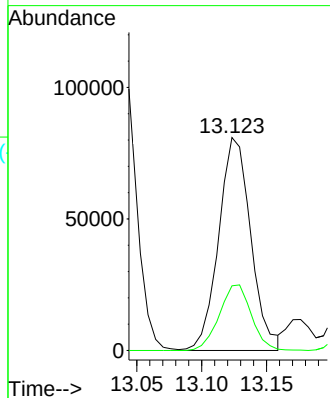
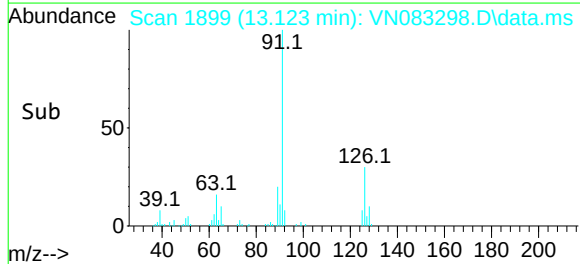
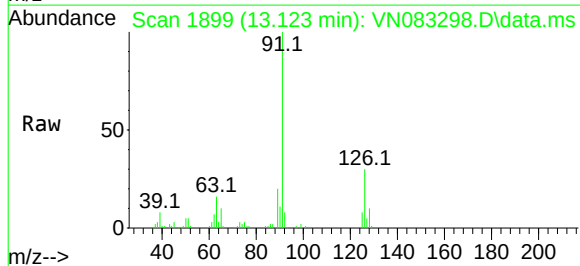
Ion Ratio Lower Upper

91 100

126 30.7 16.2 48.6

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#80

1,3,5-Trimethylbenzene

Concen: 19.735 ug/l

RT: 13.170 min Scan# 1907

Delta R.T. -0.000 min

Lab File: VN083298.D

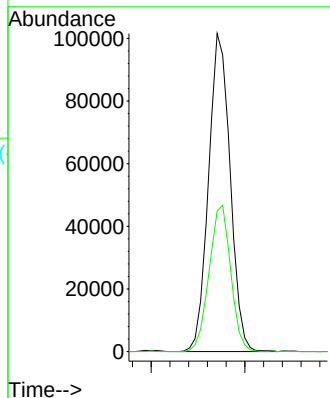
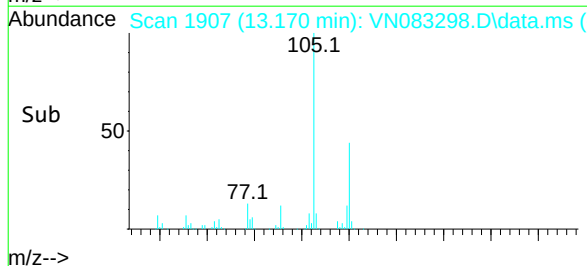
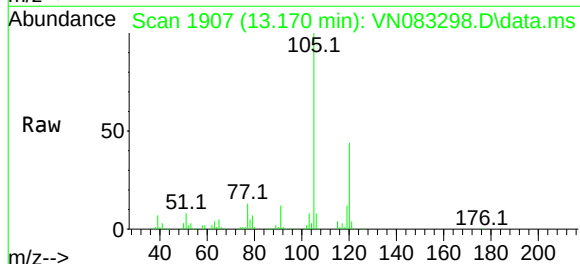
Acq: 14 Aug 2024 14:03

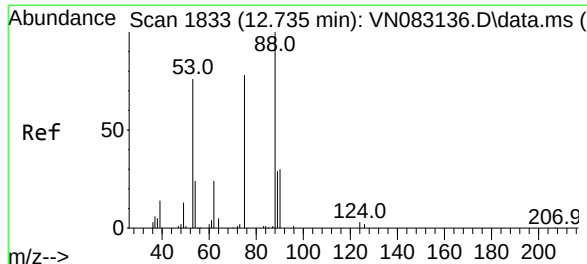
Tgt Ion:105 Resp: 162894

Ion Ratio Lower Upper

105 100

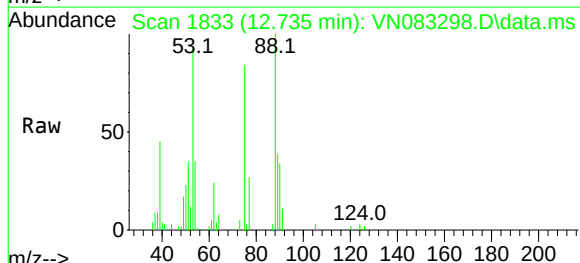
120 45.9 24.3 72.8





#81  
trans-1,4-Dichloro-2-butene  
Concen: 18.289 ug/l  
RT: 12.735 min Scan# 1833  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

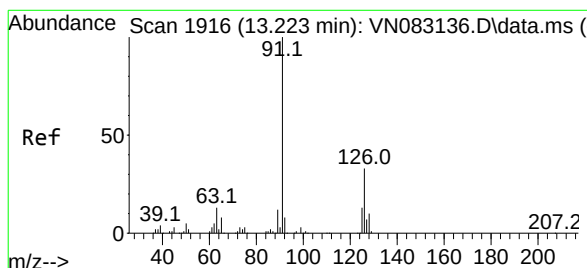
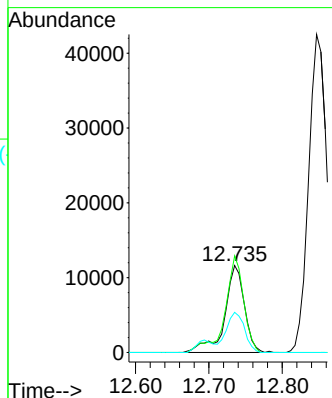
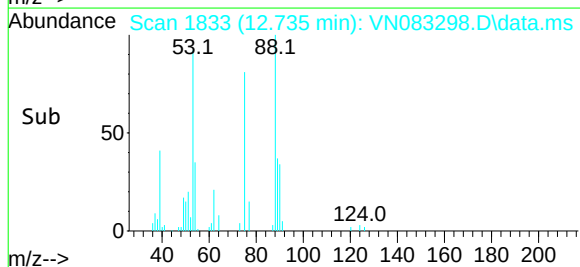
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBS01



| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 53      | 104.9 | 88.4  | 132.6 |
| 89      | 42.2  | 36.3  | 54.5  |

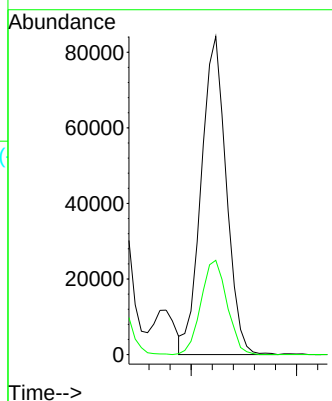
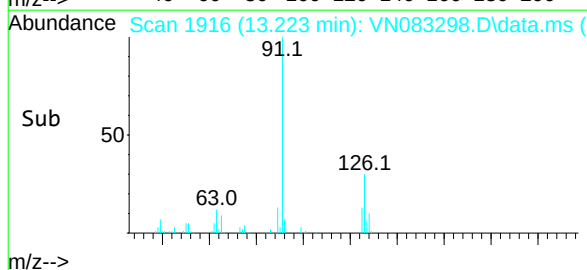
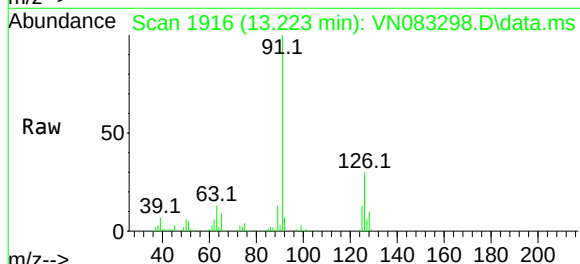
Manual Integrations  
APPROVED

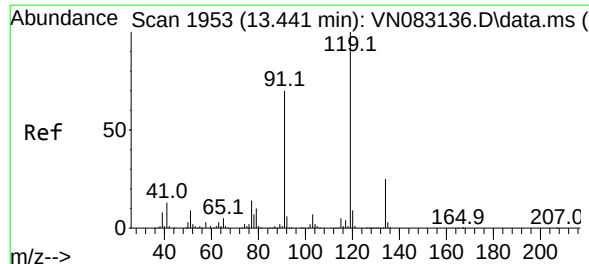
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#82  
4-Chlorotoluene  
Concen: 19.252 ug/l  
RT: 13.223 min Scan# 1916  
Delta R.T. -0.000 min  
Lab File: VN083298.D  
Acq: 14 Aug 2024 14:03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 126     | 30.8  | 16.2  | 48.6  |





#83

tert-Butylbenzene

Concen: 19.177 ug/l

RT: 13.441 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion:119 Resp: 140176

Ion Ratio Lower Upper

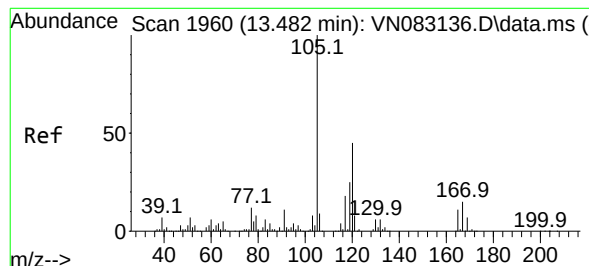
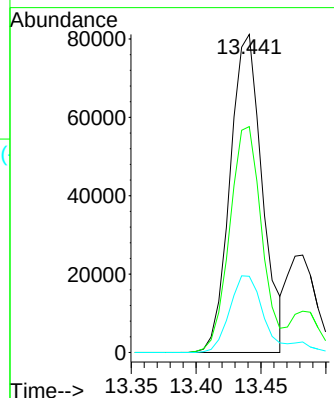
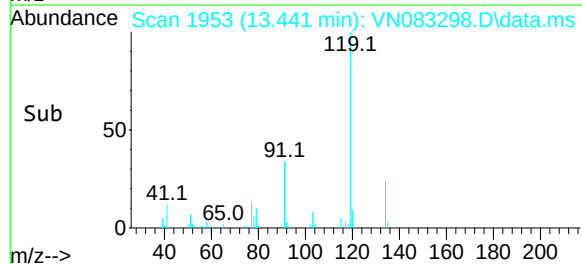
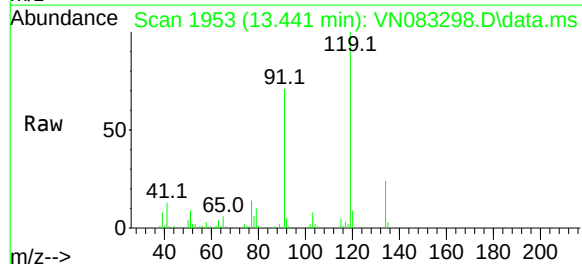
119 100

91 70.7 35.0 105.1

134 26.9 13.3 39.8

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#84

1,2,4-Trimethylbenzene

Concen: 19.484 ug/l

RT: 13.482 min Scan# 1960

Delta R.T. -0.000 min

Lab File: VN083298.D

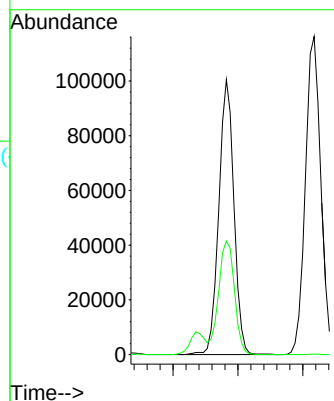
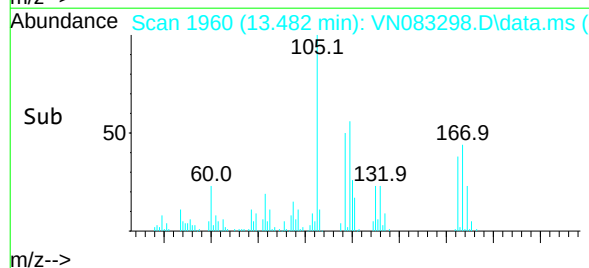
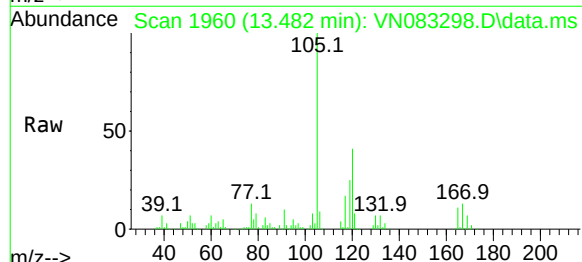
Acq: 14 Aug 2024 14:03

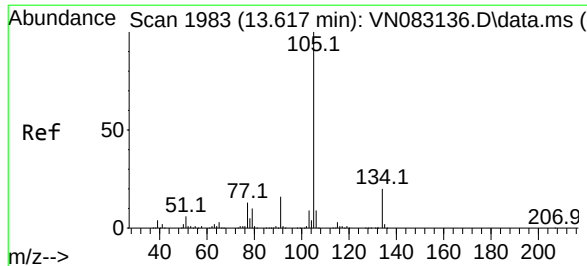
Tgt Ion:105 Resp: 162074

Ion Ratio Lower Upper

105 100

120 43.7 21.9 65.8





#85

sec-Butylbenzene

Concen: 19.208 ug/l

RT: 13.617 min Scan# 19

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion:105 Resp: 191578

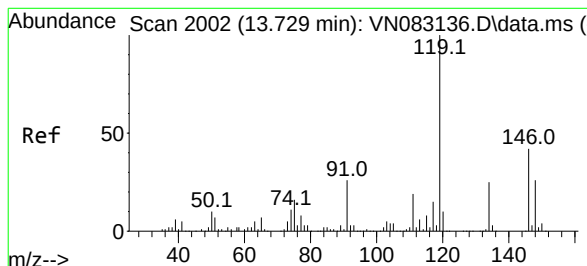
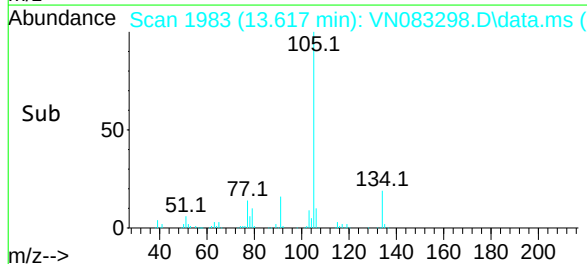
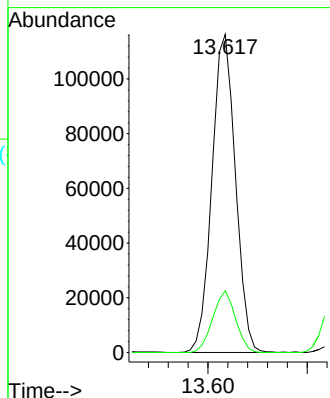
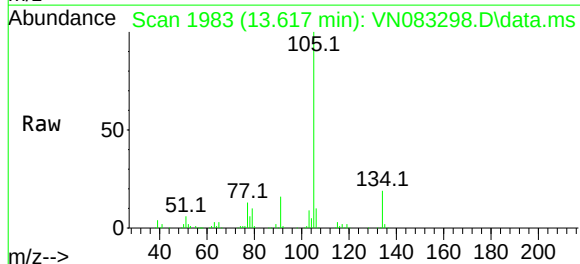
Ion Ratio Lower Upper

105 100

134 18.7 9.8 29.3

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#86

p-Isopropyltoluene

Concen: 19.287 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

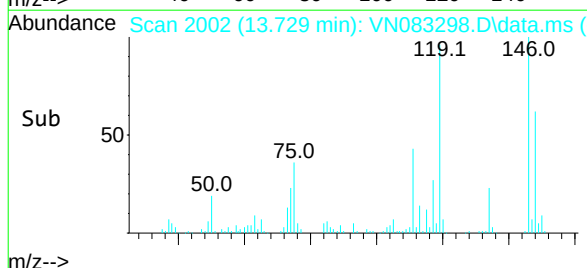
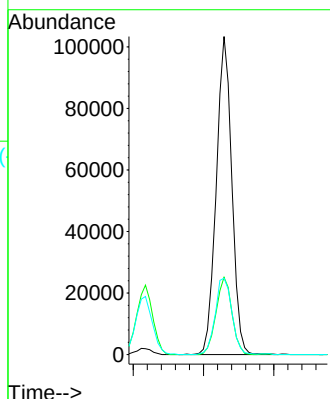
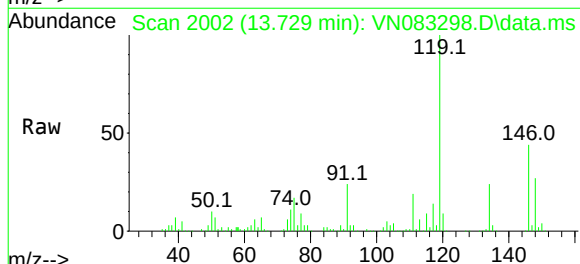
Tgt Ion:119 Resp: 158838

Ion Ratio Lower Upper

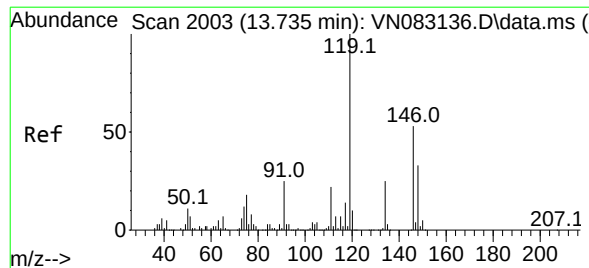
119 100

134 24.7 13.0 39.0

91 25.9 12.3 36.9







#87

1,3-Dichlorobenzene

Concen: 19.337 ug/l

RT: 13.735 min Scan# 2003

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion:146 Resp: 79688

Ion Ratio Lower Upper

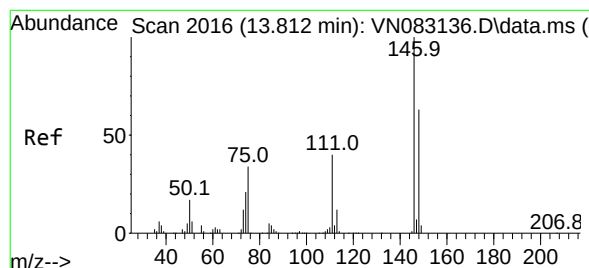
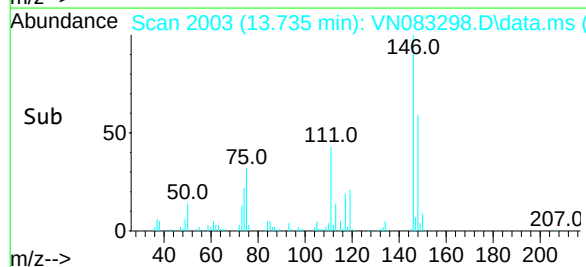
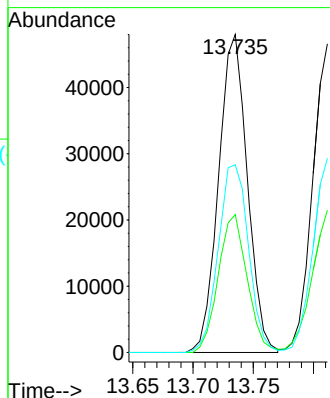
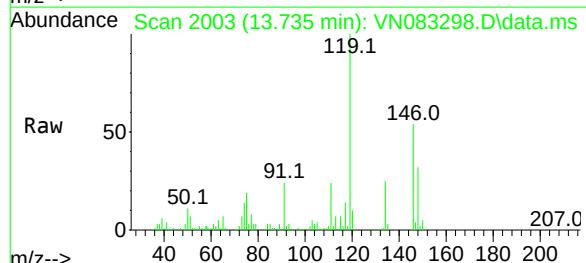
146 100

111 43.6 20.6 61.9

148 62.3 31.8 95.3

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#88

1,4-Dichlorobenzene

Concen: 19.128 ug/l

RT: 13.812 min Scan# 2016

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

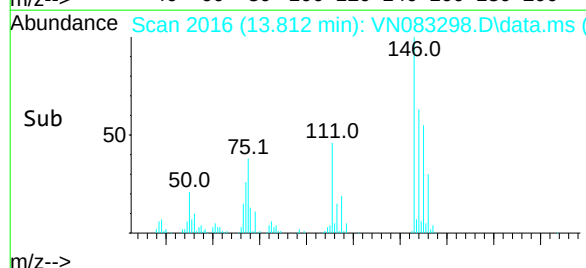
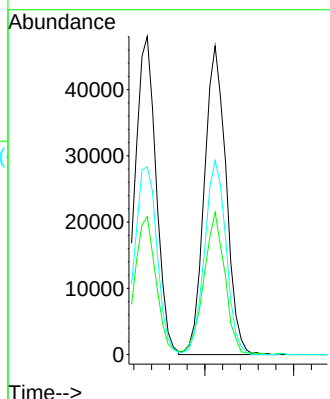
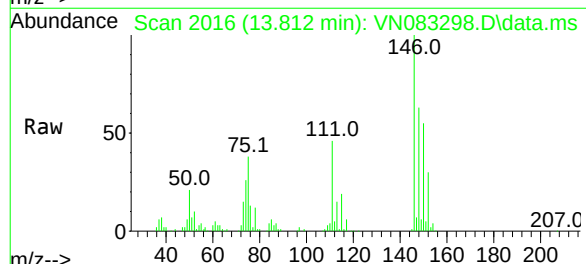
Tgt Ion:146 Resp: 79466

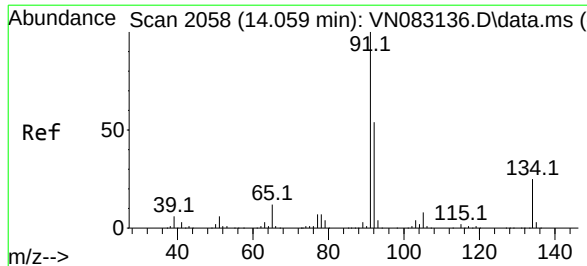
Ion Ratio Lower Upper

146 100

111 44.7 20.1 60.3

148 62.0 32.2 96.6





#89

n-Butylbenzene

Concen: 18.886 ug/l

RT: 14.059 min Scan# 2058

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion: 91 Resp: 134766

Ion Ratio Lower Upper

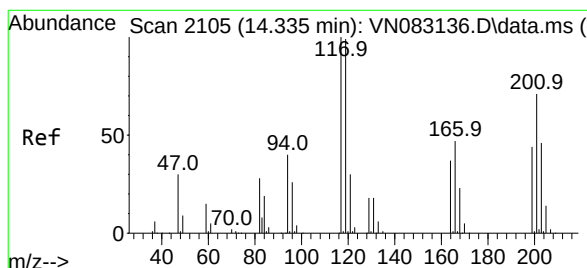
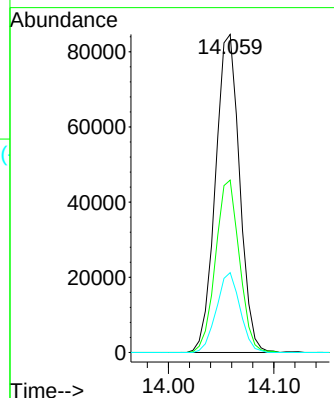
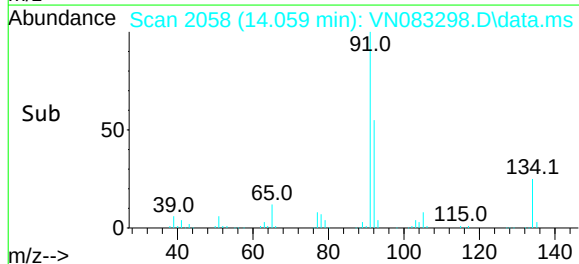
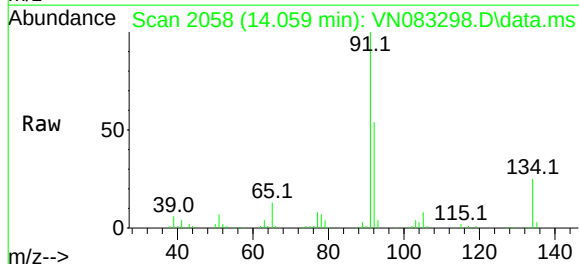
91 100

92 53.6 26.1 78.3

134 24.6 12.1 36.3

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#90

Hexachloroethane

Concen: 18.128 ug/l

RT: 14.335 min Scan# 2105

Delta R.T. -0.000 min

Lab File: VN083298.D

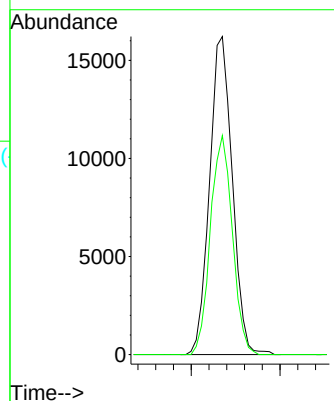
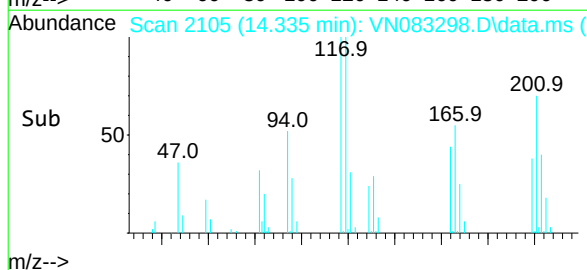
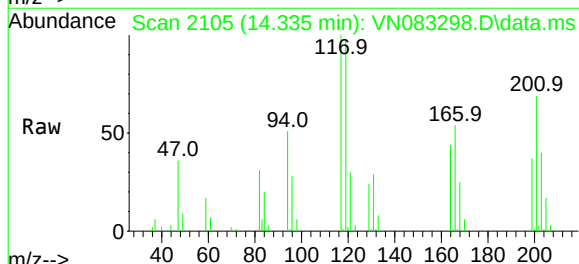
Acq: 14 Aug 2024 14:03

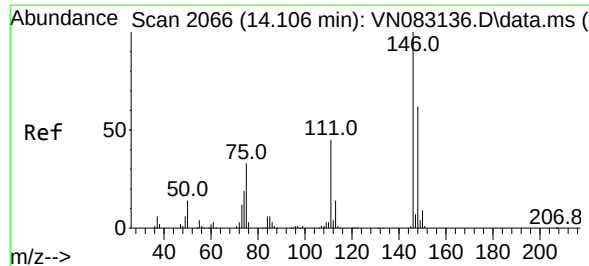
Tgt Ion:117 Resp: 28843

Ion Ratio Lower Upper

117 100

201 66.4 35.8 107.3





#91

1,2-Dichlorobenzene

Concen: 19.107 ug/l

RT: 14.106 min Scan# 2066

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion:146 Resp: 76195

Ion Ratio Lower Upper

146 100

111 45.0 21.4 64.2

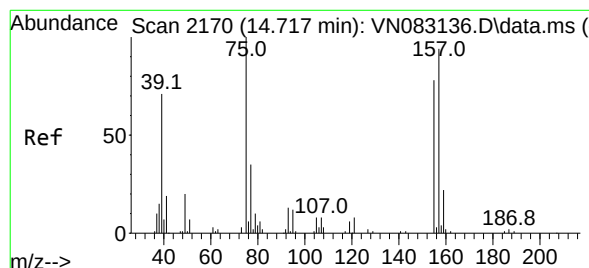
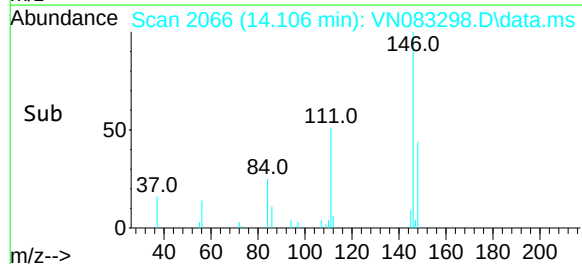
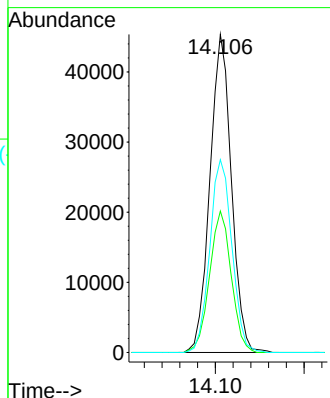
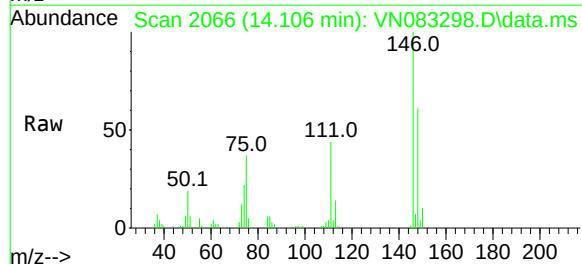
148 62.6 32.1 96.5

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#92

1,2-Dibromo-3-Chloropropane

Concen: 18.206 ug/l

RT: 14.717 min Scan# 2170

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

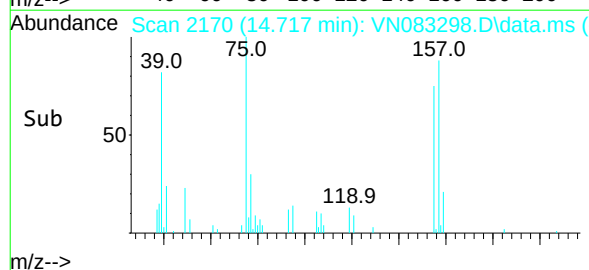
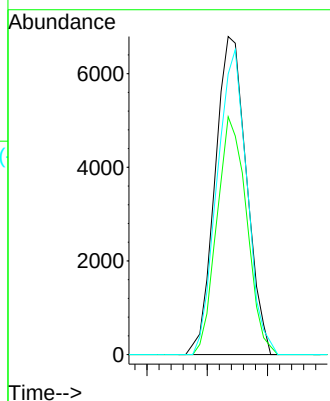
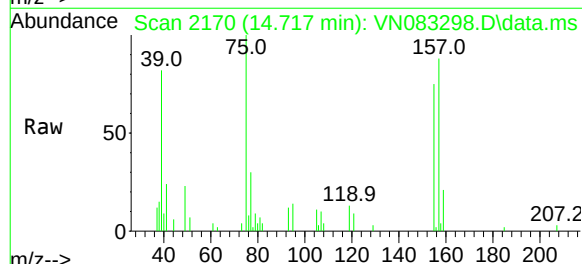
Tgt Ion: 75 Resp: 12319

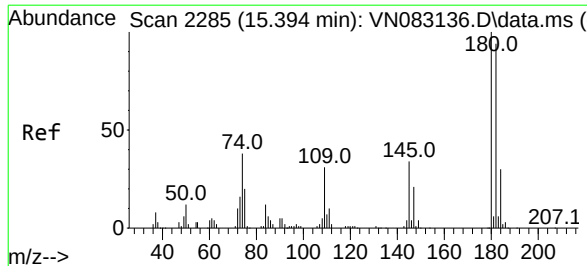
Ion Ratio Lower Upper

75 100

155 70.8 36.6 109.8

157 91.2 46.9 140.6





#93

1,2,4-Trichlorobenzene

Concen: 18.393 ug/l

RT: 15.388 min Scan# 2284

Delta R.T. -0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion:180 Resp: 41092

Ion Ratio Lower Upper

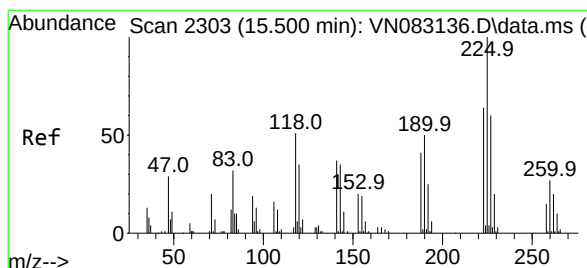
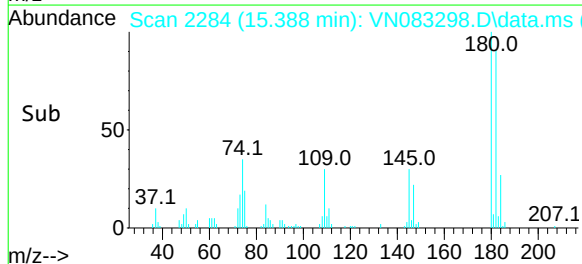
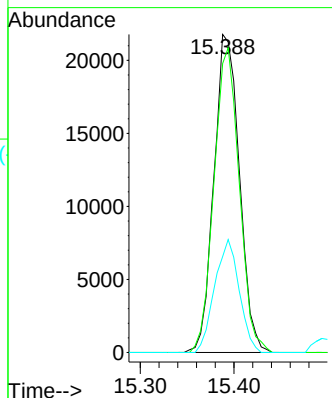
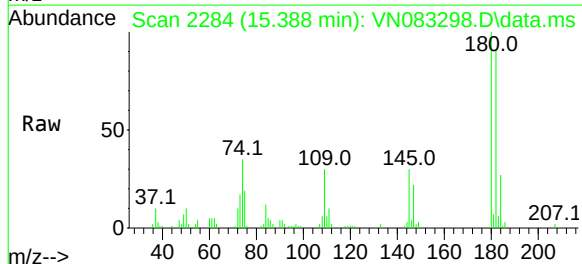
180 100

182 95.3 47.3 141.8

145 34.2 15.7 47.1

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#94

Hexachlorobutadiene

Concen: 17.378 ug/l

RT: 15.506 min Scan# 2304

Delta R.T. 0.006 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

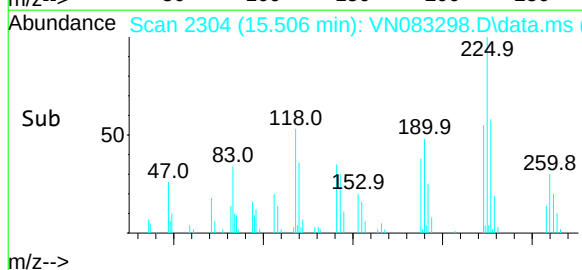
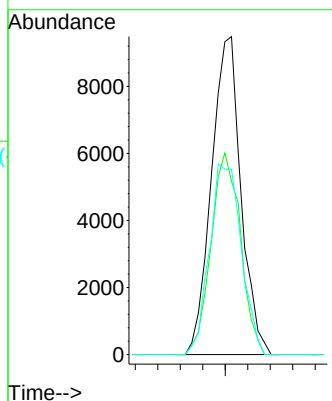
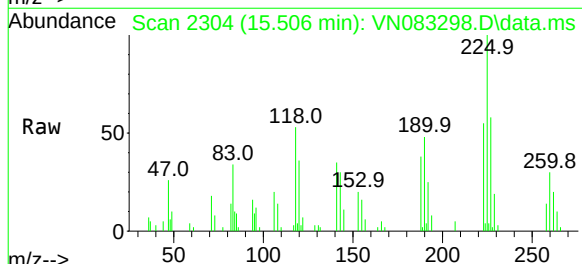
Tgt Ion:225 Resp: 17266

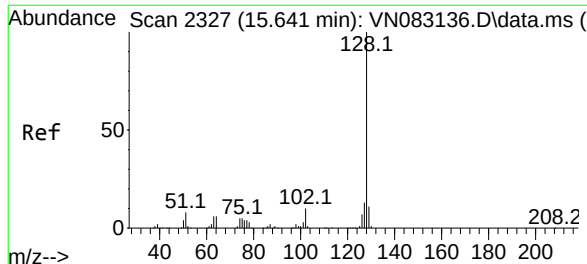
Ion Ratio Lower Upper

225 100

223 63.2 31.9 95.7

227 64.5 32.5 97.5





#95

Naphthalene

Concen: 18.358 ug/l

RT: 15.641 min Scan# 2327

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBS01

Tgt Ion:128 Resp: 145278

Ion Ratio Lower Upper

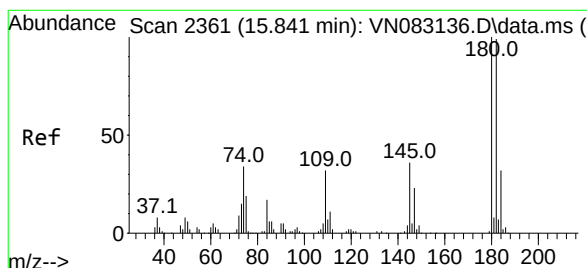
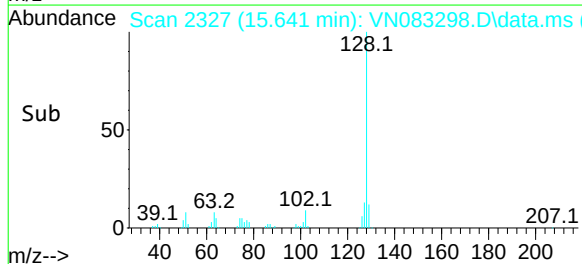
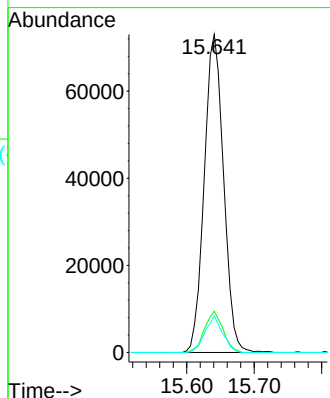
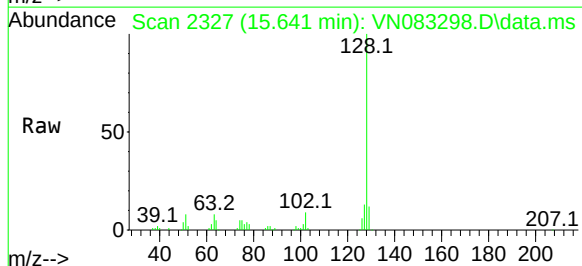
128 100

127 12.5 10.6 16.0

129 10.4 8.6 12.8

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#96

1,2,3-Trichlorobenzene

Concen: 18.450 ug/l

RT: 15.841 min Scan# 2361

Delta R.T. -0.000 min

Lab File: VN083298.D

Acq: 14 Aug 2024 14:03

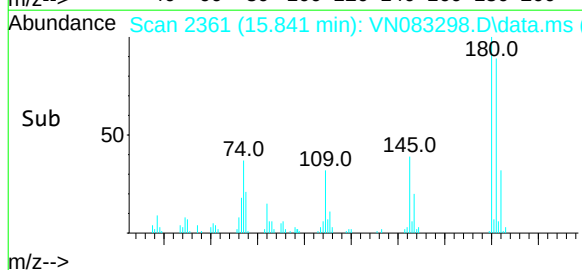
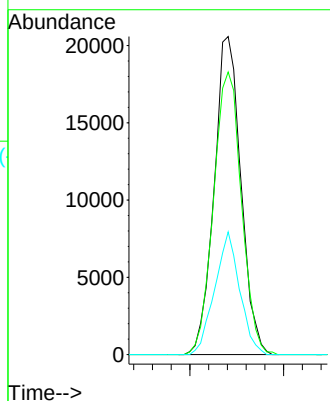
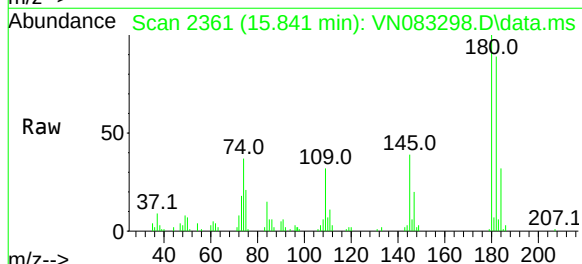
Tgt Ion:180 Resp: 40786

Ion Ratio Lower Upper

180 100

182 92.6 48.9 146.8

145 36.0 16.8 50.4



### Report of Analysis

|                    |                                       |           |                 |              |
|--------------------|---------------------------------------|-----------|-----------------|--------------|
| Client:            | JACOBS Engineering Group, Inc.        |           | Date Collected: |              |
| Project:           | Former Schlumberger Site Princeton NJ |           | Date Received:  |              |
| Client Sample ID:  | VN0814WBSD01                          |           | SDG No.:        | P3609        |
| Lab Sample ID:     | VN0814WBSD01                          |           | Matrix:         | Water        |
| Analytical Method: | SW8260                                |           | % Solid:        | 0            |
| Sample Wt/Vol:     | 5                                     | Units: mL | Final Vol:      | 5000 uL      |
| Soil Aliquot Vol:  |                                       | uL        | Test:           | VOCMS Group6 |
| GC Column:         | RXI-624                               | ID : 0.25 | Level :         | LOW          |
| Prep Method :      |                                       |           |                 |              |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN083300.D        | 1         |           | 08/14/24 14:51 | VN081424      |

| CAS Number     | Parameter                      | Conc. | Qualifier | MDL  | LOQ / CRQL | Units |
|----------------|--------------------------------|-------|-----------|------|------------|-------|
| <b>TARGETS</b> |                                |       |           |      |            |       |
| 75-71-8        | Dichlorodifluoromethane        | 18.9  |           | 0.21 | 1.00       | ug/L  |
| 74-87-3        | Chloromethane                  | 19.1  |           | 0.35 | 1.00       | ug/L  |
| 75-01-4        | Vinyl Chloride                 | 19.9  |           | 0.34 | 1.00       | ug/L  |
| 74-83-9        | Bromomethane                   | 19.1  |           | 1.40 | 5.00       | ug/L  |
| 75-00-3        | Chloroethane                   | 21.1  |           | 0.56 | 1.00       | ug/L  |
| 76-13-1        | 1,1,2-Trichlorotrifluoroethane | 20.5  |           | 0.25 | 1.00       | ug/L  |
| 75-35-4        | 1,1-Dichloroethene             | 18.7  |           | 0.26 | 1.00       | ug/L  |
| 67-64-1        | Acetone                        | 110   |           | 1.40 | 5.00       | ug/L  |
| 75-15-0        | Carbon Disulfide               | 16.2  |           | 0.32 | 1.00       | ug/L  |
| 1634-04-4      | Methyl tert-butyl Ether        | 21.7  |           | 0.16 | 1.00       | ug/L  |
| 75-09-2        | Methylene Chloride             | 19.9  |           | 0.32 | 1.00       | ug/L  |
| 156-60-5       | trans-1,2-Dichloroethene       | 19.2  |           | 0.25 | 1.00       | ug/L  |
| 75-34-3        | 1,1-Dichloroethane             | 21.3  |           | 0.23 | 1.00       | ug/L  |
| 110-82-7       | Cyclohexane                    | 18.7  |           | 1.60 | 5.00       | ug/L  |
| 78-93-3        | 2-Butanone                     | 110   |           | 1.30 | 5.00       | ug/L  |
| 56-23-5        | Carbon Tetrachloride           | 19.6  |           | 0.25 | 1.00       | ug/L  |
| 156-59-2       | cis-1,2-Dichloroethene         | 20.9  |           | 0.25 | 1.00       | ug/L  |
| 67-66-3        | Chloroform                     | 22.4  |           | 0.26 | 1.00       | ug/L  |
| 71-55-6        | 1,1,1-Trichloroethane          | 20.9  |           | 0.19 | 1.00       | ug/L  |
| 108-87-2       | Methylcyclohexane              | 17.8  |           | 0.19 | 1.00       | ug/L  |
| 71-43-2        | Benzene                        | 20.2  |           | 0.16 | 1.00       | ug/L  |
| 107-06-2       | 1,2-Dichloroethane             | 22.6  |           | 0.24 | 1.00       | ug/L  |
| 79-01-6        | Trichloroethene                | 19.9  |           | 0.32 | 1.00       | ug/L  |
| 75-27-4        | Bromodichloromethane           | 21.0  |           | 0.24 | 1.00       | ug/L  |
| 108-88-3       | Toluene                        | 20.2  |           | 0.18 | 1.00       | ug/L  |
| 79-00-5        | 1,1,2-Trichloroethane          | 22.7  |           | 0.21 | 1.00       | ug/L  |
| 124-48-1       | Dibromochloromethane           | 20.8  |           | 0.18 | 1.00       | ug/L  |
| 127-18-4       | Tetrachloroethene              | 19.8  |           | 0.25 | 1.00       | ug/L  |
| 108-90-7       | Chlorobenzene                  | 20.0  |           | 0.13 | 1.00       | ug/L  |
| 100-41-4       | Ethyl Benzene                  | 19.5  |           | 0.16 | 1.00       | ug/L  |

## Report of Analysis

|                    |                                           |                 |                              |
|--------------------|-------------------------------------------|-----------------|------------------------------|
| Client:            | JACOBS Engineering Group, Inc.            | Date Collected: |                              |
| Project:           | Former Schlumberger Site Princeton NJ     | Date Received:  |                              |
| Client Sample ID:  | VN0814WBSD01                              | SDG No.:        | P3609                        |
| Lab Sample ID:     | VN0814WBSD01                              | Matrix:         | Water                        |
| Analytical Method: | SW8260                                    | % Solid:        | 0                            |
| Sample Wt/Vol:     | 5                      Units:    mL       | Final Vol:      | 5000                      uL |
| Soil Aliquot Vol:  | uL                                        | Test:           | VOCMS Group6                 |
| GC Column:         | RXI-624                      ID :    0.25 | Level :         | LOW                          |
| Prep Method :      |                                           |                 |                              |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VN083300.D        | 1         |           | 08/14/24 14:51 | VN081424      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| 179601-23-1               | m/p-Xylenes            | 39.2   |           | 0.31                | 2.00       | ug/L    |
| 1330-20-7                 | Total Xylenes          | 59.0   |           | 0.45                | 3.00       | ug/L    |
| 95-47-6                   | o-Xylene               | 19.8   |           | 0.14                | 1.00       | ug/L    |
| 98-82-8                   | Isopropylbenzene       | 19.3   |           | 0.13                | 1.00       | ug/L    |
| 106-46-7                  | 1,4-Dichlorobenzene    | 19.3   |           | 0.27                | 1.00       | ug/L    |
| 95-50-1                   | 1,2-Dichlorobenzene    | 19.4   |           | 0.19                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 58.7   |           | 70 (74) - 130 (125) | 117%       | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 54.0   |           | 70 (75) - 130 (124) | 108%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 53.0   |           | 70 (86) - 130 (113) | 106%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 53.0   |           | 70 (77) - 130 (121) | 106%       | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 149000 | 8.224     |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 263000 | 9.1       |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 232000 | 11.865    |                     |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 107000 | 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\VN081424\  
 Data File : VN083300.D  
 Acq On : 14 Aug 2024 14:51  
 Operator : JC\MD  
 Sample : VN0814WBSD01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0814WBSD01

### Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
 Supervised By :Semsettin Yesilyurt 08/15/2024

Quant Time: Aug 14 23:23:41 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 06:30:41 2024  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| -----                      |        |      |          |        |       |          |
| Internal Standards         |        |      |          |        |       |          |
| 1) Pentafluorobenzene      | 8.224  | 168  | 148957   | 50.000 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 9.100  | 114  | 263108   | 50.000 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.865 | 117  | 232246   | 50.000 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.794 | 152  | 107371   | 50.000 | ug/l  | 0.00     |

### System Monitoring Compounds

|                           |        |       |          |          |            |      |
|---------------------------|--------|-------|----------|----------|------------|------|
| 33) 1,2-Dichloroethane-d4 | 8.583  | 65    | 124519   | 58.729   | ug/l       | 0.00 |
| Spiked Amount             | 50.000 | Range | 74 - 125 | Recovery | = 117.460% |      |
| 35) Dibromofluoromethane  | 8.171  | 113   | 88647    | 53.979   | ug/l       | 0.00 |
| Spiked Amount             | 50.000 | Range | 75 - 124 | Recovery | = 107.960% |      |
| 50) Toluene-d8            | 10.565 | 98    | 324722   | 53.007   | ug/l       | 0.00 |
| Spiked Amount             | 50.000 | Range | 86 - 113 | Recovery | = 106.020% |      |
| 62) 4-Bromofluorobenzene  | 12.847 | 95    | 126506   | 52.969   | ug/l       | 0.00 |
| Spiked Amount             | 50.000 | Range | 77 - 121 | Recovery | = 105.940% |      |

### Target Compounds

|                              |       |     |        |         |        | Qvalue |
|------------------------------|-------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane   | 2.124 | 85  | 31902  | 18.886  | ug/l   | 96     |
| 3) Chloromethane             | 2.359 | 50  | 33006  | 19.085  | ug/l   | 98     |
| 4) Vinyl Chloride            | 2.512 | 62  | 35107  | 19.895  | ug/l   | 97     |
| 5) Bromomethane              | 2.954 | 94  | 20902  | 19.089  | ug/l   | 88     |
| 6) Chloroethane              | 3.118 | 64  | 23294  | 21.099  | ug/l   | 100    |
| 7) Trichlorofluoromethane    | 3.495 | 101 | 60341  | 20.699  | ug/l   | 94     |
| 8) Diethyl Ether             | 3.965 | 74  | 23349  | 21.525  | ug/l   | 84     |
| 9) 1,1,2-Trichlorotrifluo... | 4.371 | 101 | 32903  | 20.472  | ug/l   | 98     |
| 10) Methyl Iodide            | 4.589 | 142 | 34081  | 16.120  | ug/l   | 99     |
| 11) Tert butyl alcohol       | 5.524 | 59  | 46648  | 105.868 | ug/l   | 100    |
| 12) 1,1-Dichloroethene       | 4.336 | 96  | 30841  | 18.678  | ug/l   | 88     |
| 13) Acrolein                 | 4.177 | 56  | 23570  | 82.076  | ug/l   | 98     |
| 14) Allyl chloride           | 5.018 | 41  | 60175m | 19.285  | ug/l   |        |
| 15) Acrylonitrile            | 5.724 | 53  | 101986 | 112.542 | ug/l   | 99     |
| 16) Acetone                  | 4.424 | 43  | 90484  | 109.064 | ug/l   | 95     |
| 17) Carbon Disulfide         | 4.712 | 76  | 78453  | 16.238  | ug/l   | 99     |
| 18) Methyl Acetate           | 5.030 | 43  | 58332  | 23.598  | ug/l   | 91     |
| 19) Methyl tert-butyl Ether  | 5.806 | 73  | 129419 | 21.715  | ug/l   | 93     |
| 20) Methylene Chloride       | 5.271 | 84  | 38038  | 19.922  | ug/l   | 85     |
| 21) trans-1,2-Dichloroethene | 5.789 | 96  | 32795  | 19.216  | ug/l   | 91     |
| 22) Diisopropyl ether        | 6.677 | 45  | 126864 | 21.629  | ug/l   | 95     |
| 23) Vinyl Acetate            | 6.606 | 43  | 706584 | 117.529 | ug/l   | 97     |
| 24) 1,1-Dichloroethane       | 6.571 | 63  | 68043  | 21.283  | ug/l   | 99     |
| 25) 2-Butanone               | 7.483 | 43  | 143105 | 112.337 | ug/l # | 90     |
| 26) 2,2-Dichloropropane      | 7.489 | 77  | 58546  | 19.719  | ug/l   | 100    |
| 27) cis-1,2-Dichloroethene   | 7.489 | 96  | 43110  | 20.934  | ug/l   | 93     |
| 28) Bromochloromethane       | 7.812 | 49  | 30457  | 23.311  | ug/l   | 85     |
| 29) Tetrahydrofuran          | 7.841 | 42  | 92541  | 112.377 | ug/l # | 88     |
| 30) Chloroform               | 7.971 | 83  | 74303  | 22.370  | ug/l   | 97     |
| 31) Cyclohexane              | 8.259 | 56  | 58642  | 18.664  | ug/l   | 98     |
| 32) 1,1,1-Trichloroethane    | 8.171 | 97  | 65707  | 20.899  | ug/l   | 95     |
| 36) 1,1-Dichloropropene      | 8.377 | 75  | 46982  | 18.912  | ug/l   | 97     |
| 37) Ethyl Acetate            | 7.565 | 43  | 58293  | 20.957  | ug/l   | 96     |
| 38) Carbon Tetrachloride     | 8.365 | 117 | 54843  | 19.600  | ug/l   | 97     |
| 39) Methylcyclohexane        | 9.600 | 83  | 54374  | 17.820  | ug/l   | 93     |
| 40) Benzene                  | 8.606 | 78  | 149300 | 20.174  | ug/l   | 98     |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
 Data File : VN083300.D  
 Acq On : 14 Aug 2024 14:51  
 Operator : JC\MD  
 Sample : VN0814WBSD01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0814WBSD01

### Manual Integrations APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
 Supervised By :Semsettin Yesilyurt 08/15/2024

Quant Time: Aug 14 23:23:41 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 06:30:41 2024  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 7.777  | 41   | 31761    | 20.082  | ug/l   | 94       |
| 42) 1,2-Dichloroethane        | 8.671  | 62   | 60953    | 22.609  | ug/l   | 99       |
| 43) Isopropyl Acetate         | 8.688  | 43   | 101718   | 19.694  | ug/l   | 94       |
| 44) Trichloroethene           | 9.353  | 130  | 34966    | 19.850  | ug/l   | 89       |
| 45) 1,2-Dichloropropane       | 9.624  | 63   | 37374    | 21.275  | ug/l   | 99       |
| 46) Dibromomethane            | 9.712  | 93   | 27276    | 21.692  | ug/l   | 97       |
| 47) Bromodichloromethane      | 9.894  | 83   | 59367    | 21.027  | ug/l   | 98       |
| 48) Methyl methacrylate       | 9.683  | 41   | 46324    | 20.144  | ug/l   | 93       |
| 49) 1,4-Dioxane               | 9.694  | 88   | 18696    | 450.635 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone      | 10.447 | 43   | 297156   | 112.972 | ug/l   | 93       |
| 52) Toluene                   | 10.630 | 92   | 94458    | 20.200  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 10.835 | 75   | 60413    | 20.831  | ug/l   | 96       |
| 54) cis-1,3-Dichloropropene   | 10.312 | 75   | 61789    | 20.031  | ug/l   | 92       |
| 55) 1,1,2-Trichloroethane     | 11.018 | 97   | 38003    | 22.678  | ug/l   | 97       |
| 56) Ethyl methacrylate        | 10.877 | 69   | 64894    | 20.542  | ug/l # | 87       |
| 57) 1,3-Dichloropropane       | 11.165 | 76   | 66794    | 22.362  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether | 10.159 | 63   | 131258   | 98.294  | ug/l   | 96       |
| 59) 2-Hexanone                | 11.194 | 43   | 223217   | 109.692 | ug/l   | 93       |
| 60) Dibromochloromethane      | 11.365 | 129  | 42122    | 20.790  | ug/l   | 100      |
| 61) 1,2-Dibromoethane         | 11.471 | 107  | 37105    | 21.078  | ug/l   | 95       |
| 64) Tetrachloroethene         | 11.100 | 164  | 30468    | 19.809  | ug/l   | 96       |
| 65) Chlorobenzene             | 11.894 | 112  | 102762   | 20.022  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane | 11.959 | 131  | 36939    | 20.407  | ug/l   | 99       |
| 67) Ethyl Benzene             | 11.965 | 91   | 183753   | 19.517  | ug/l   | 99       |
| 68) m/p-Xylenes               | 12.071 | 106  | 138109   | 39.159  | ug/l   | 99       |
| 69) o-Xylene                  | 12.400 | 106  | 69006    | 19.838  | ug/l   | 99       |
| 70) Styrene                   | 12.412 | 104  | 112930   | 19.330  | ug/l   | 97       |
| 71) Bromoform                 | 12.582 | 173  | 27428    | 20.002  | ug/l # | 99       |
| 73) Isopropylbenzene          | 12.694 | 105  | 173009   | 19.264  | ug/l   | 98       |
| 74) N-amyl acetate            | 12.494 | 43   | 84935    | 19.335  | ug/l   | 95       |
| 75) 1,1,2,2-Tetrachloroethane | 12.935 | 83   | 54674    | 21.525  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane    | 12.994 | 75   | 51117m   | 21.692  | ug/l   |          |
| 77) Bromobenzene              | 12.982 | 156  | 41167    | 20.635  | ug/l   | 95       |
| 78) n-propylbenzene           | 13.035 | 91   | 202570   | 19.589  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 13.123 | 91   | 129590   | 19.766  | ug/l   | 96       |
| 80) 1,3,5-Trimethylbenzene    | 13.171 | 105  | 150641   | 20.035  | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-b... | 12.735 | 75   | 20587m   | 19.003  | ug/l   |          |
| 82) 4-Chlorotoluene           | 13.223 | 91   | 126446   | 19.227  | ug/l   | 99       |
| 83) tert-Butylbenzene         | 13.441 | 119  | 129462   | 19.443  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene    | 13.482 | 105  | 147503   | 19.467  | ug/l   | 99       |
| 85) sec-Butylbenzene          | 13.618 | 105  | 171652   | 18.893  | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 13.729 | 119  | 144390   | 19.247  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene       | 13.735 | 146  | 72454    | 19.301  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene       | 13.812 | 146  | 73226    | 19.349  | ug/l   | 98       |
| 89) n-Butylbenzene            | 14.059 | 91   | 123047   | 18.930  | ug/l   | 100      |
| 90) Hexachloroethane          | 14.335 | 117  | 26207    | 18.082  | ug/l   | 91       |
| 91) 1,2-Dichlorobenzene       | 14.106 | 146  | 70519    | 19.413  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.717 | 75   | 12292    | 19.942  | ug/l   | 97       |
| 93) 1,2,4-Trichlorobenzene    | 15.394 | 180  | 37837    | 18.592  | ug/l   | 98       |
| 94) Hexachlorobutadiene       | 15.500 | 225  | 15515    | 17.142  | ug/l   | 99       |
| 95) Naphthalene               | 15.641 | 128  | 136537   | 18.940  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 15.841 | 180  | 38366    | 19.052  | ug/l   | 96       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081424\  
Data File : VN083300.D  
Acq On : 14 Aug 2024 14:51  
Operator : JC\MD  
Sample : VN0814WBSD01  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 23:23:41 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 08 06:30:41 2024  
Response via : Initial Calibration

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01

Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

| 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\VN081424\  
 Data File : VN083300.D  
 Acq On : 14 Aug 2024 14:51  
 Operator : JC\MD  
 Sample : VN0814WBSD01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

## Instrument :

MSVOA\_N

## Client Sample Id :

VN0814WBSD01

## Manual Integrations

APPROVED

Reviewed By : Mahesh Dadoda 08/15/2024  
 Supervised By : Semsettin Yesilyurt 08/15/2024

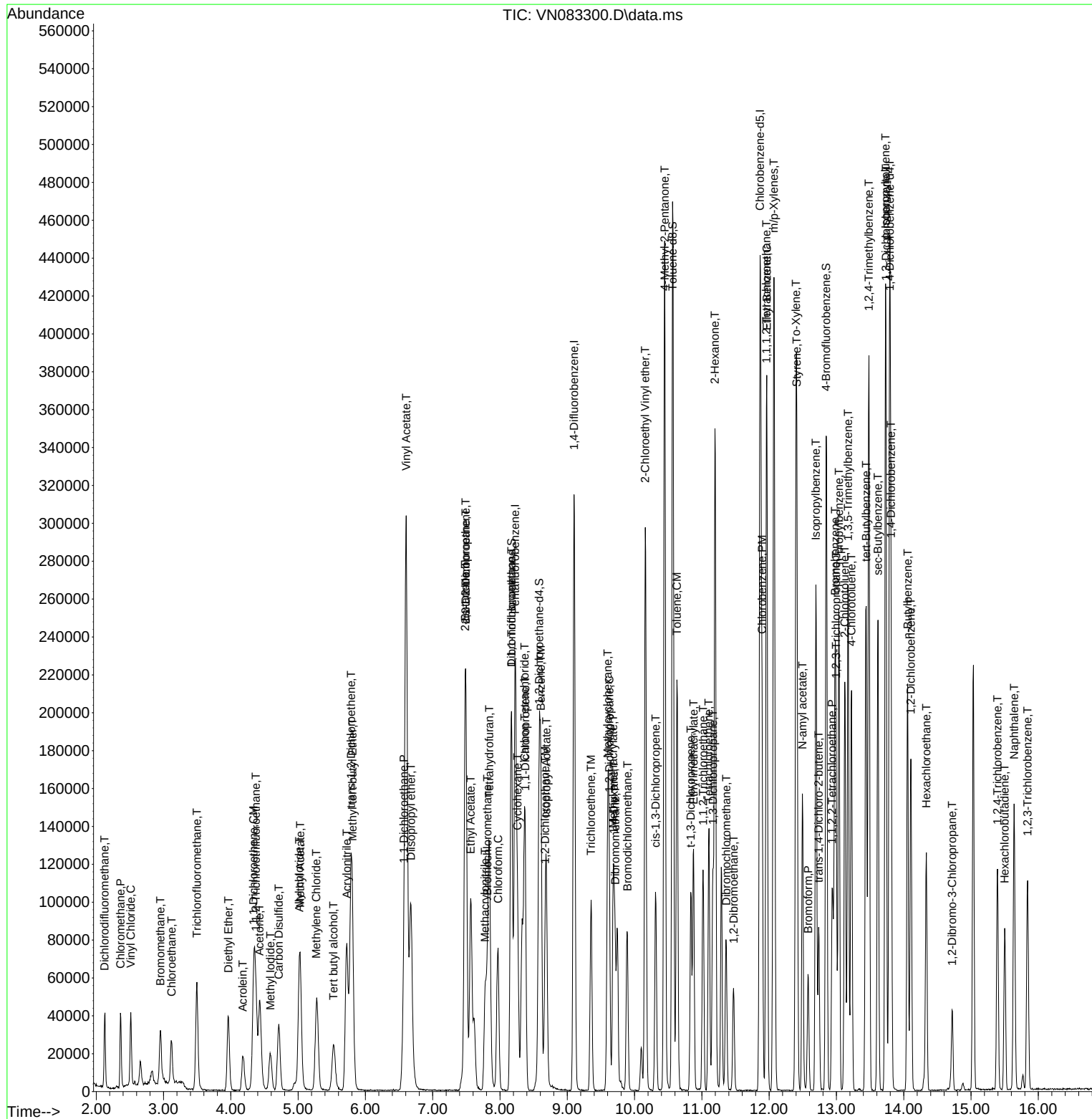
Quant Time: Aug 14 23:23:41 2024

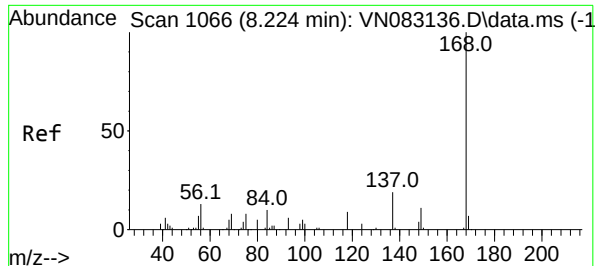
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080724W.M

Quant Title : SW846 8260

QLast Update : Thu Aug 08 06:30:41 2024

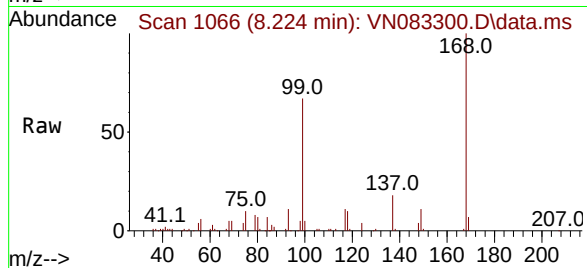
Response via : Initial Calibration





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

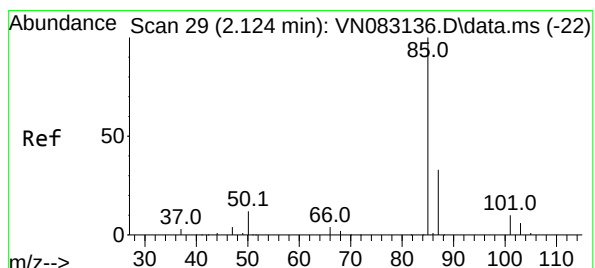
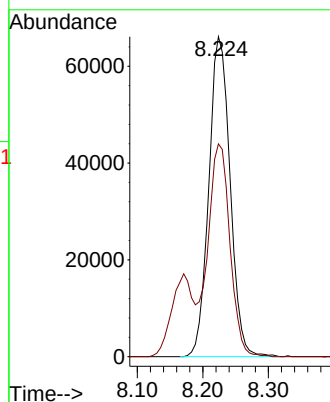
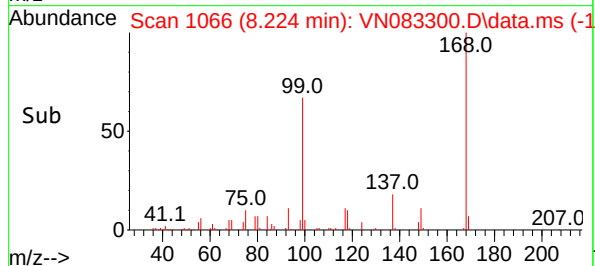
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



Tgt Ion:168 Resp: 14895  
Ion Ratio Lower Upper  
168 100  
99 66.5 48.2 72.4

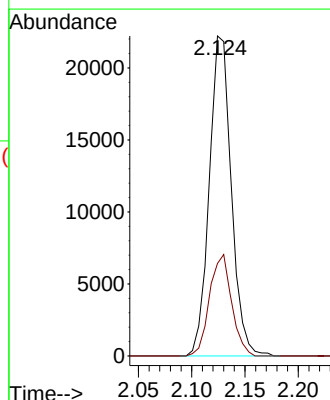
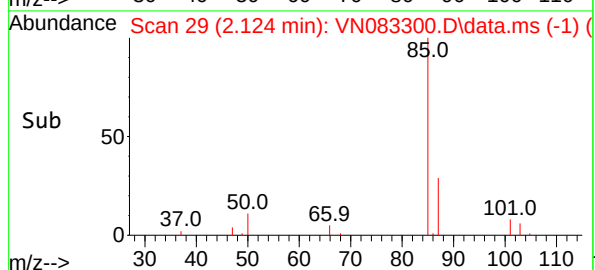
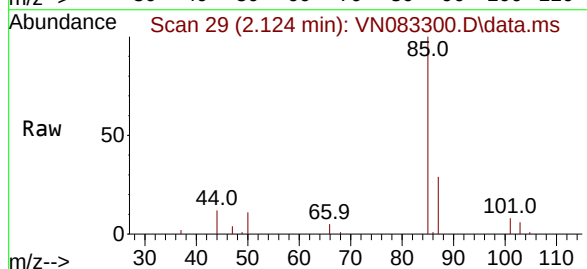
Manual Integrations  
APPROVED

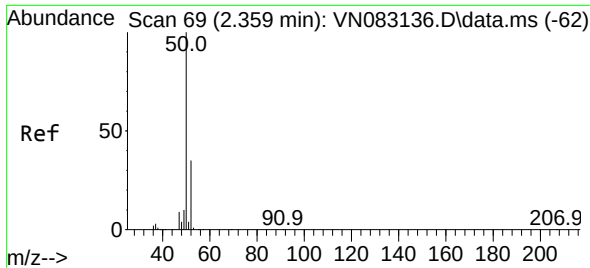
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#2  
Dichlorodifluoromethane  
Concen: 18.886 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

Tgt Ion: 85 Resp: 31902  
Ion Ratio Lower Upper  
85 100  
87 28.9 15.7 47.0





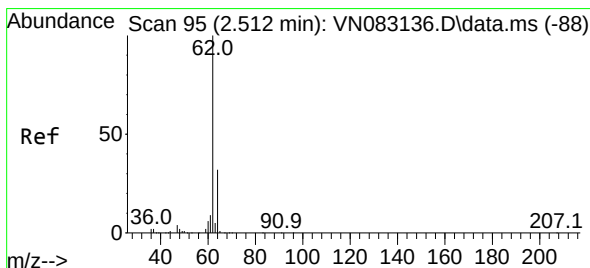
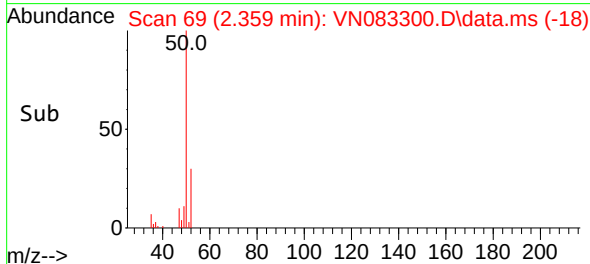
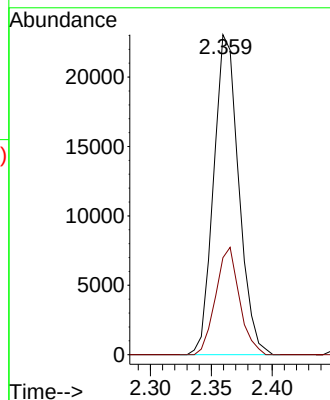
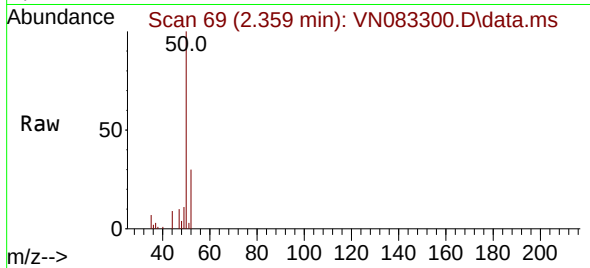
#3  
Chloromethane  
Concen: 19.085 ug/l  
RT: 2.359 min Scan# 69  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01

Tgt Ion: 50 Resp: 33000  
Ion Ratio Lower Upper  
50 100  
52 30.3 25.0 37.4

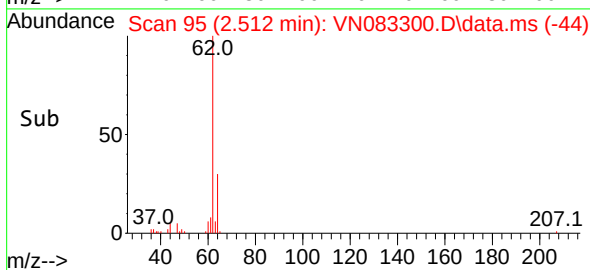
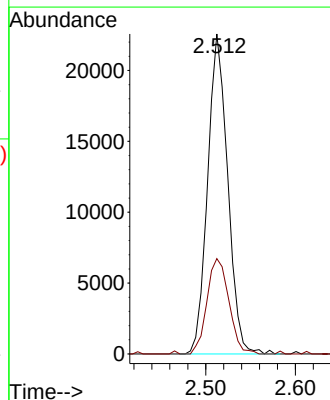
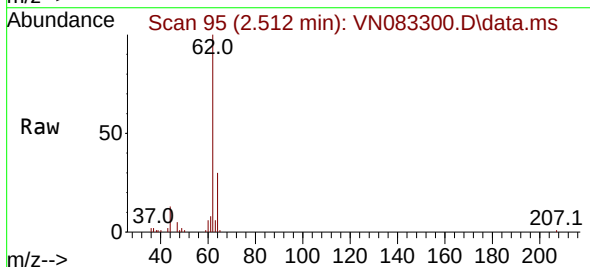
Manual Integrations  
APPROVED

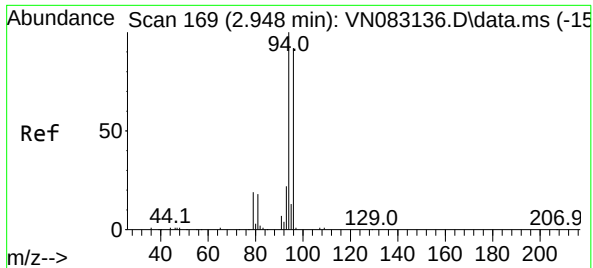
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#4  
Vinyl Chloride  
Concen: 19.895 ug/l  
RT: 2.512 min Scan# 95  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

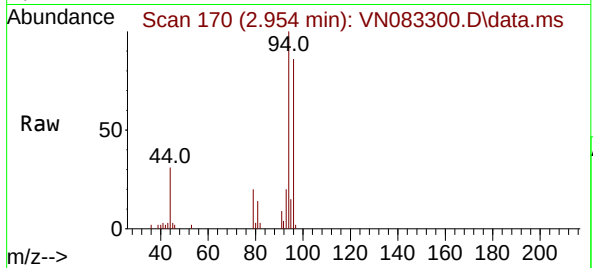
Tgt Ion: 62 Resp: 35107  
Ion Ratio Lower Upper  
62 100  
64 29.8 25.0 37.6





#5  
Bromomethane  
Concen: 19.089 ug/l  
RT: 2.954 min Scan# 11  
Delta R.T. 0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

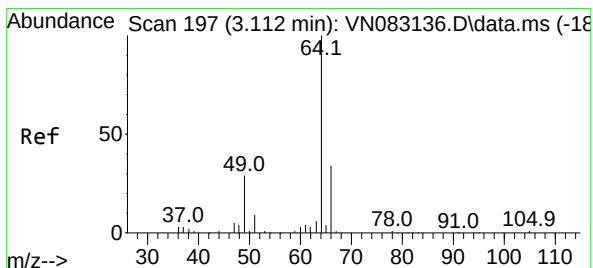
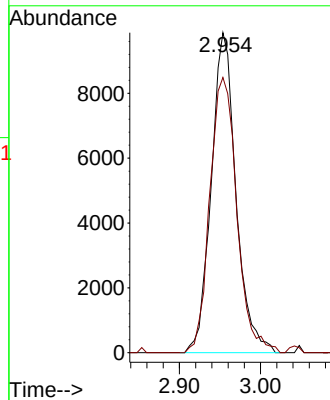
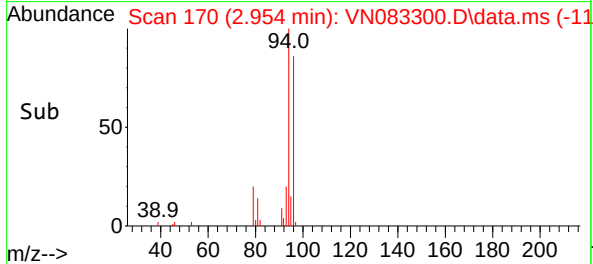
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



Tgt Ion: 94 Resp: 2090  
Ion Ratio Lower Upper  
94 100  
96 86.0 78.0 117.0

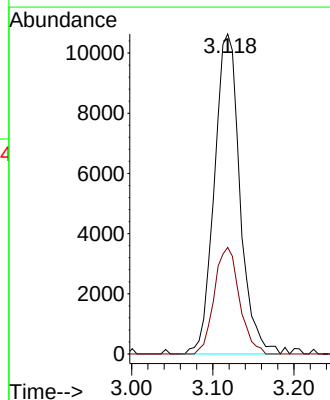
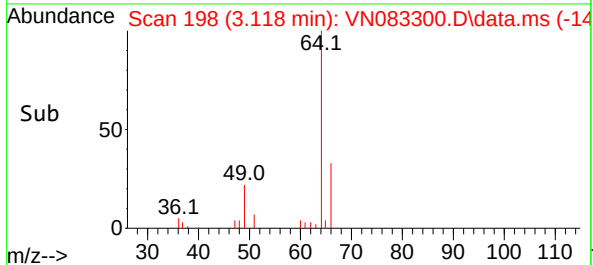
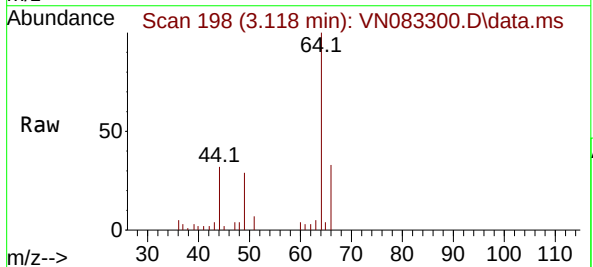
Manual Integrations  
APPROVED

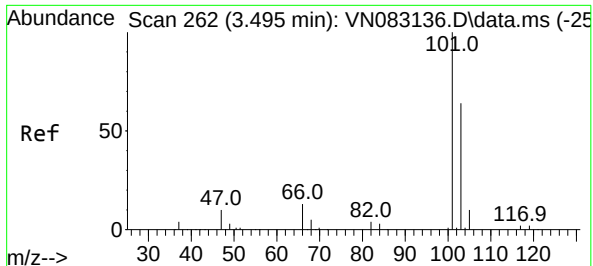
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#6  
Chloroethane  
Concen: 21.099 ug/l  
RT: 3.118 min Scan# 198  
Delta R.T. 0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

Tgt Ion: 64 Resp: 23294  
Ion Ratio Lower Upper  
64 100  
66 33.3 26.6 40.0





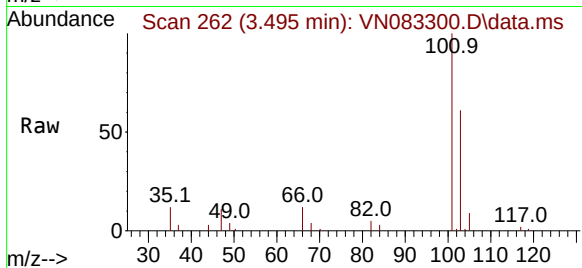
#7  
Trichlorofluoromethane  
Concen: 20.699 ug/l  
RT: 3.495 min Scan# 262  
Delta R.T. -0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

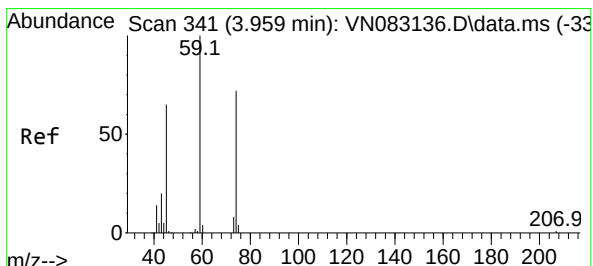
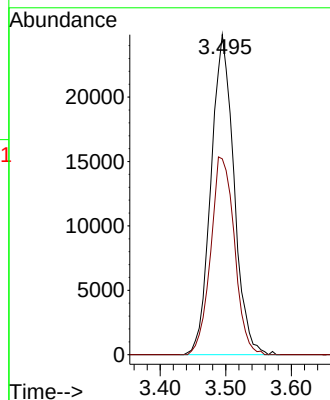
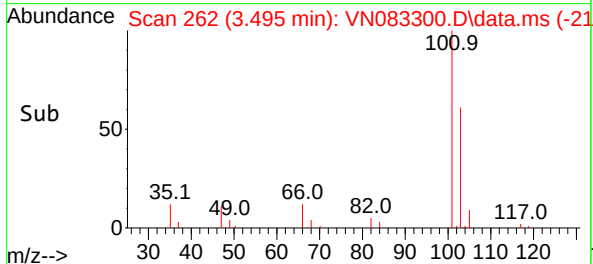


Tgt Ion:101 Resp: 6034  
Ion Ratio Lower Upper  
101 100  
103 61.2 52.7 79.1

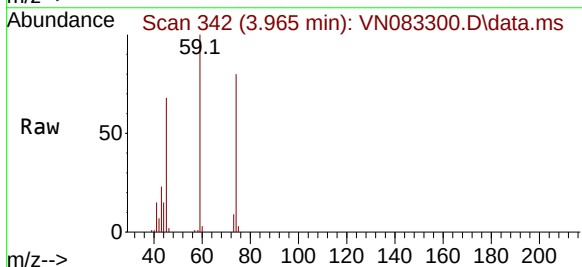
Manual Integrations

APPROVED

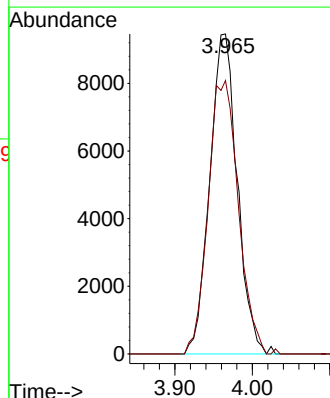
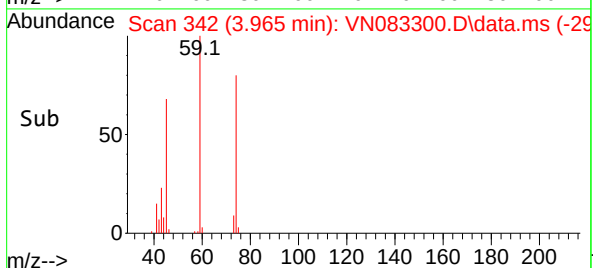
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

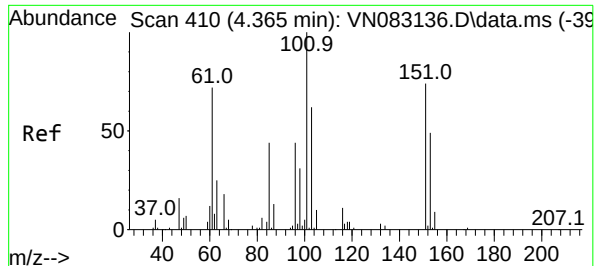


#8  
Diethyl Ether  
Concen: 21.525 ug/l  
RT: 3.965 min Scan# 342  
Delta R.T. 0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51



Tgt Ion: 74 Resp: 23349  
Ion Ratio Lower Upper  
74 100  
45 93.8 55.5 166.3





#9

1,1,2-Trichlorotrifluoroethane

Concen: 20.472 ug/l

RT: 4.371 min Scan# 410

Delta R.T. 0.006 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

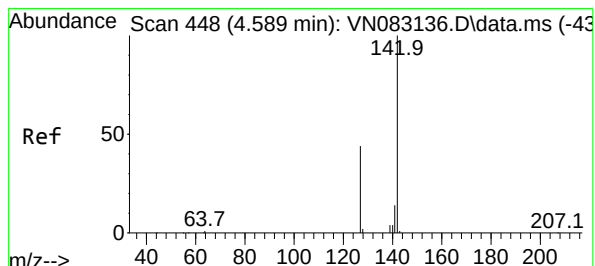
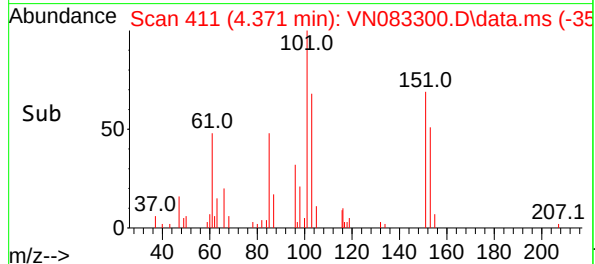
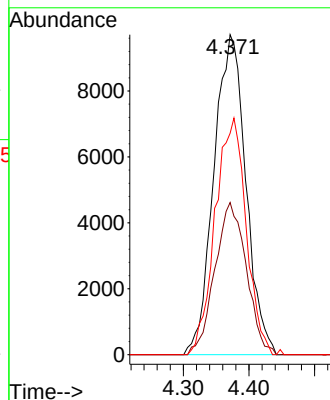
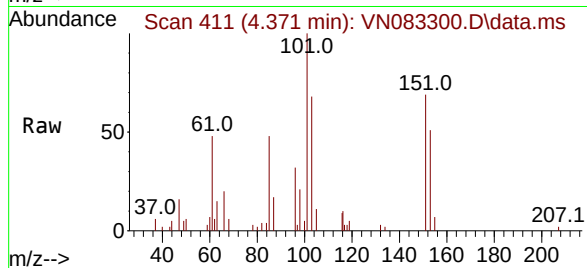
VN0814WBSD01

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 101   | Resp: | 3290 |
| Ion Ratio | Lower | Upper |      |
| 101       | 100   |       |      |
| 85        | 46.8  | 38.3  | 57.5 |
| 151       | 71.6  | 59.3  | 88.9 |

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#10

Methyl Iodide

Concen: 16.120 ug/l

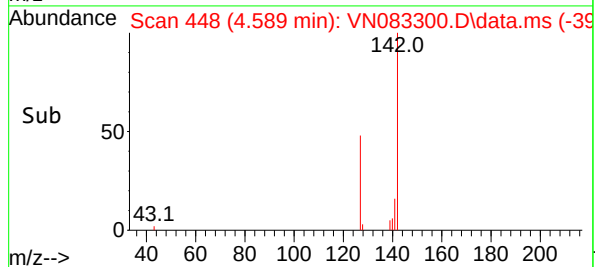
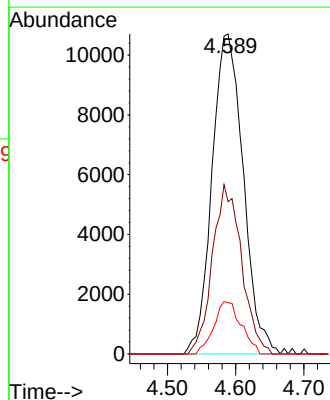
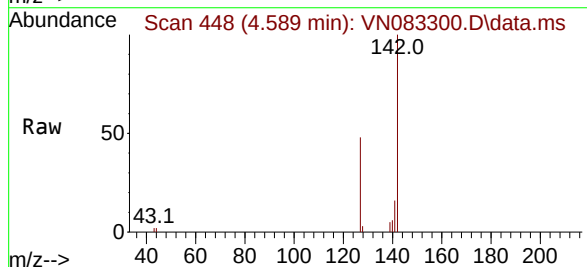
RT: 4.589 min Scan# 448

Delta R.T. 0.000 min

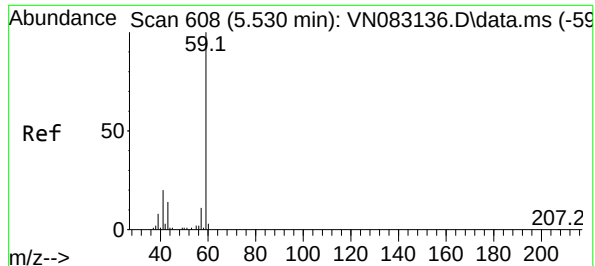
Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 142   | Resp: | 34081 |
| Ion Ratio | Lower | Upper |       |
| 142       | 100   |       |       |
| 127       | 47.6  | 37.5  | 56.3  |
| 141       | 16.0  | 13.1  | 19.7  |







#11

Tert butyl alcohol

Concen: 105.868 ug/l

RT: 5.524 min Scan# 608

Delta R.T. -0.006 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion: 59 Resp: 4664

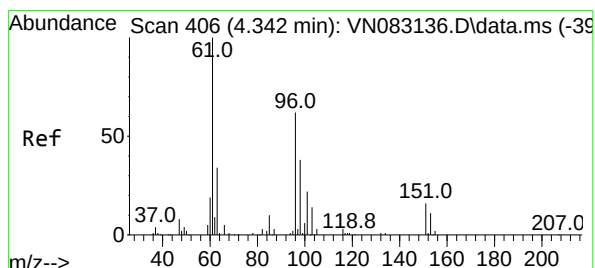
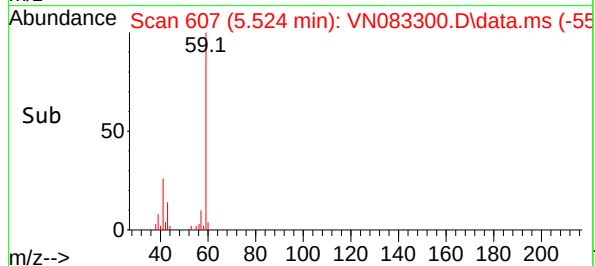
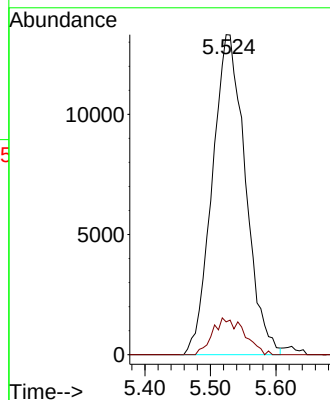
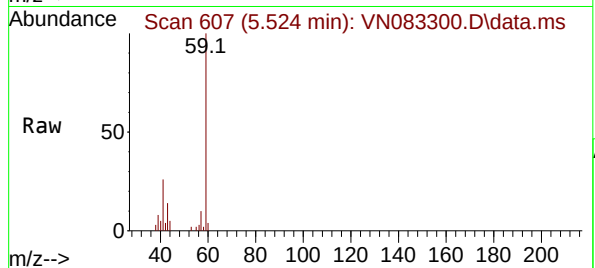
Ion Ratio Lower Upper

59 100

57 11.0 8.9 13.3

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#12

1,1-Dichloroethene

Concen: 18.678 ug/l

RT: 4.336 min Scan# 405

Delta R.T. -0.006 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

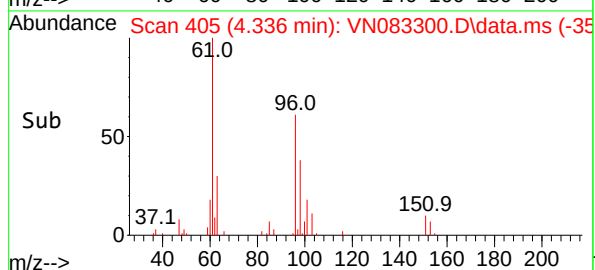
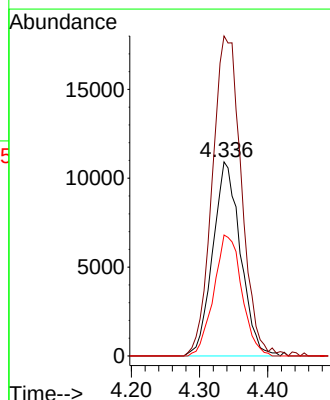
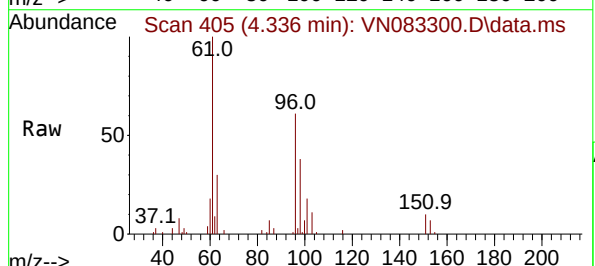
Tgt Ion: 96 Resp: 30841

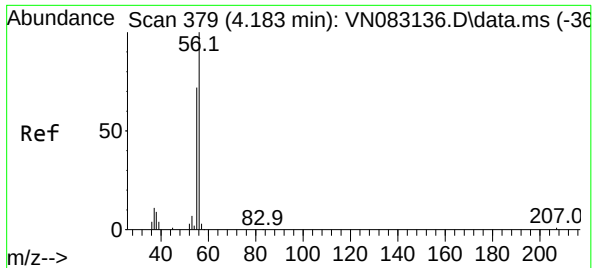
Ion Ratio Lower Upper

96 100

61 164.8 149.7 224.5

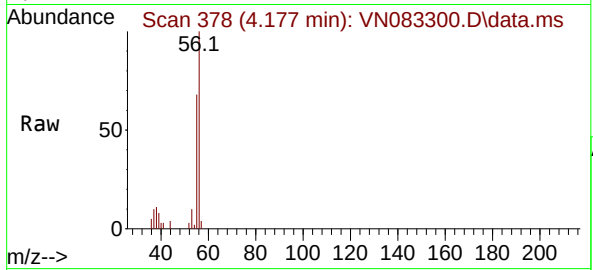
98 62.3 50.1 75.1





#13  
Acrolein  
Concen: 82.076 ug/l  
RT: 4.177 min Scan# 379  
Delta R.T. -0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

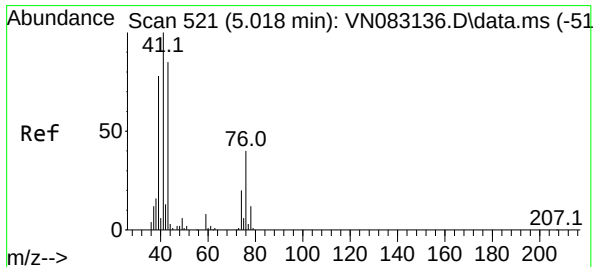
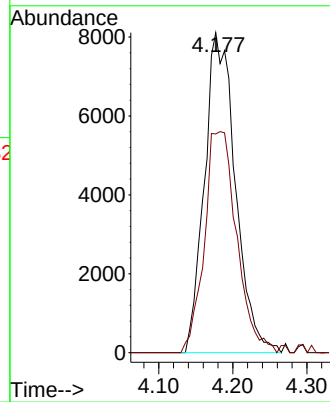
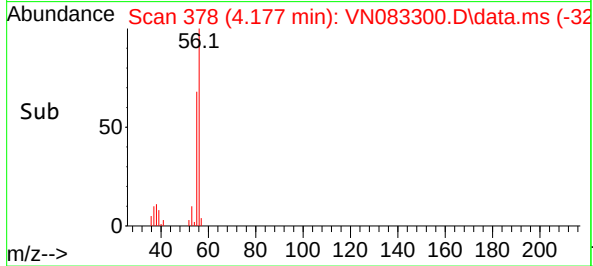
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



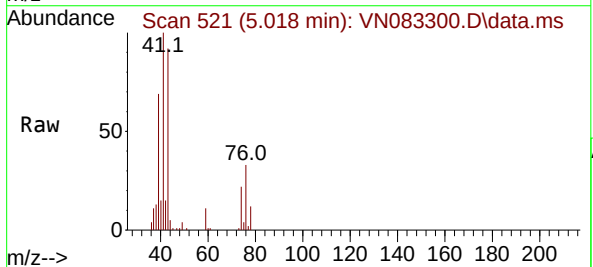
Tgt Ion: 56 Resp: 23570  
Ion Ratio Lower Upper  
56 100  
55 71.9 56.4 84.6

Manual Integrations  
APPROVED

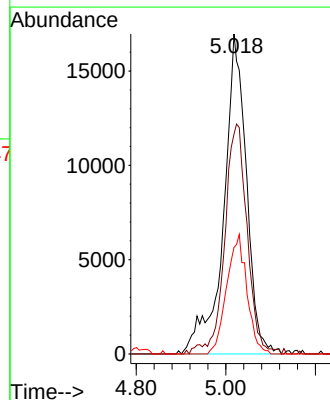
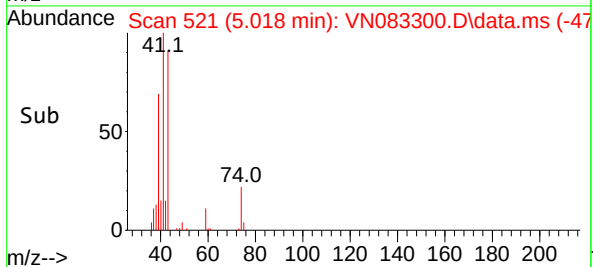
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

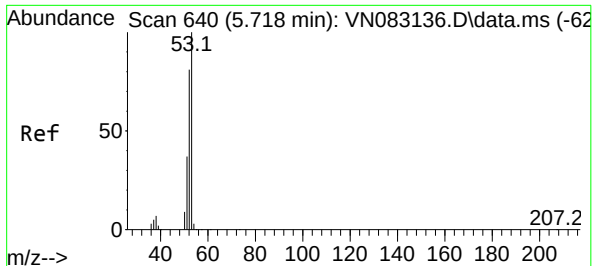


#14  
Allyl chloride  
Concen: 19.285 ug/l m  
RT: 5.018 min Scan# 521  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51



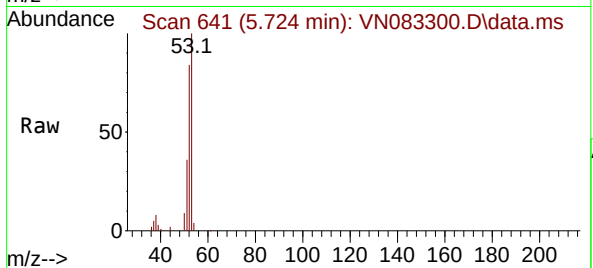
Tgt Ion: 41 Resp: 60175  
Ion Ratio Lower Upper  
41 100  
39 69.4 67.8 101.6  
76 33.0 25.8 38.8





#15  
Acrylonitrile  
Concen: 112.542 ug/l  
RT: 5.724 min Scan# 640  
Delta R.T. 0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

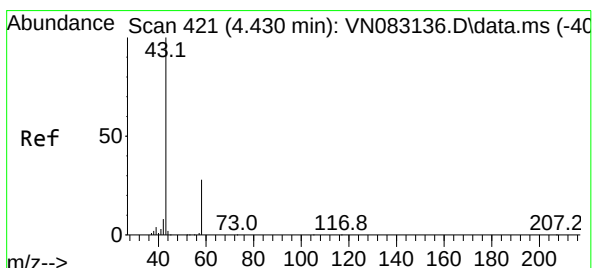
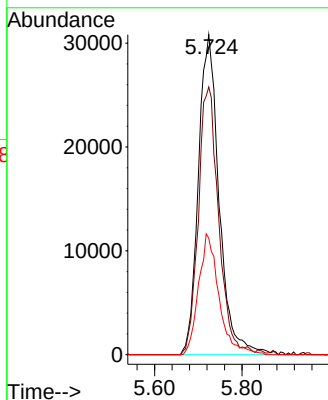
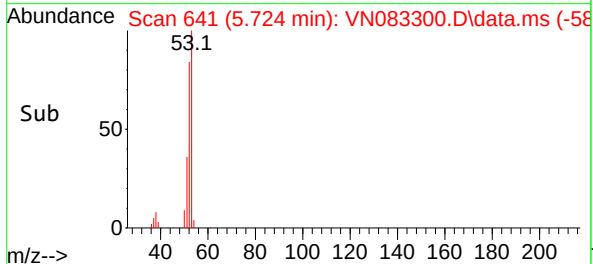
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



Tgt Ion: 53 Resp: 101980  
Ion Ratio Lower Upper  
53 100  
52 81.7 66.6 100.0  
51 37.2 30.1 45.1

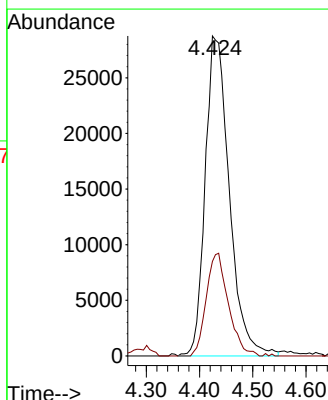
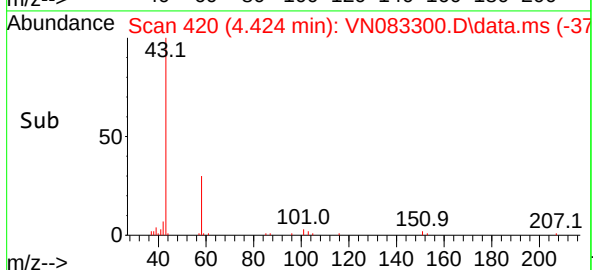
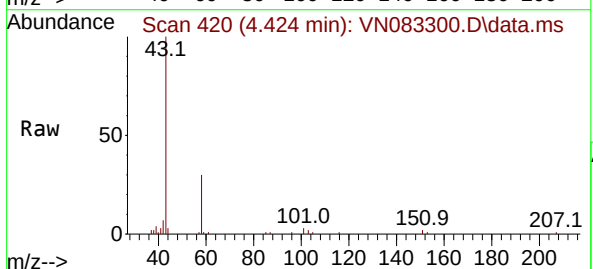
Manual Integrations  
APPROVED

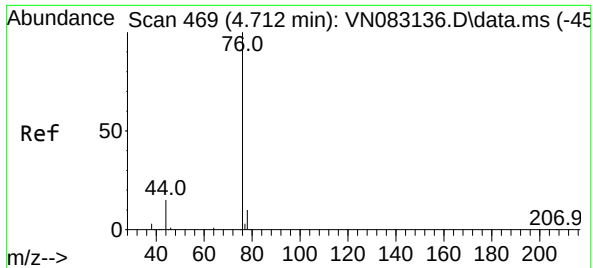
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#16  
Acetone  
Concen: 109.064 ug/l  
RT: 4.424 min Scan# 420  
Delta R.T. -0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

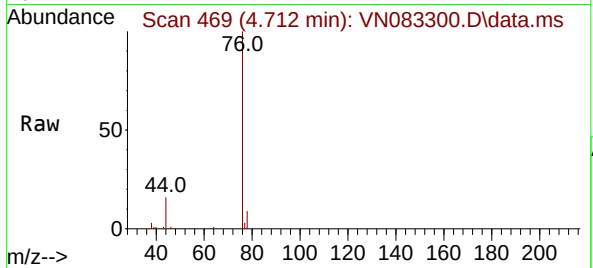
Tgt Ion: 43 Resp: 90484  
Ion Ratio Lower Upper  
43 100  
58 29.6 21.8 32.6





#17  
Carbon Disulfide  
Concen: 16.238 ug/l  
RT: 4.712 min Scan# 469  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

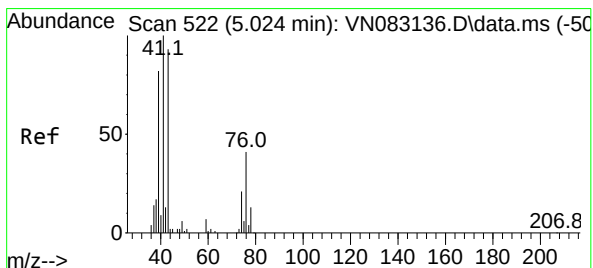
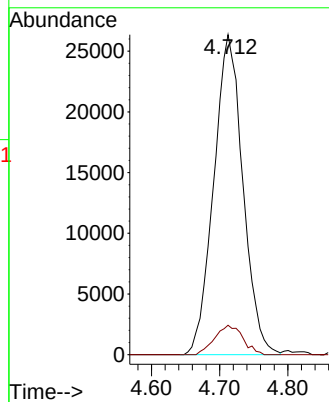
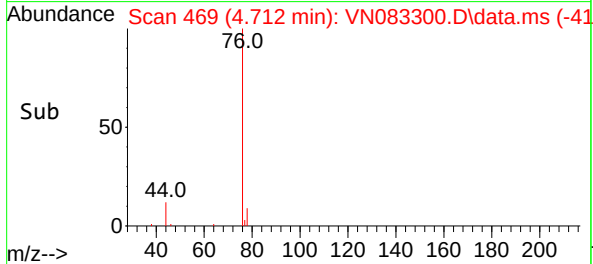
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



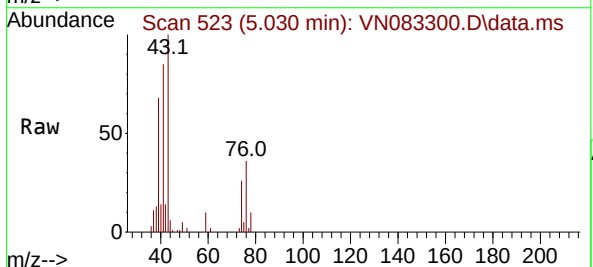
Tgt Ion: 76 Resp: 7845  
Ion Ratio Lower Upper  
76 100  
78 9.2 7.2 10.8

Manual Integrations  
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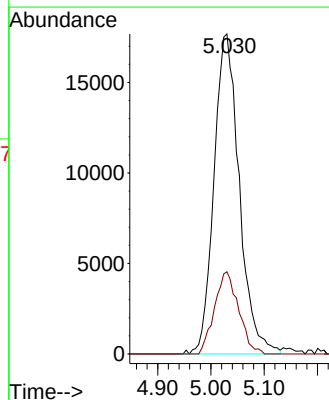
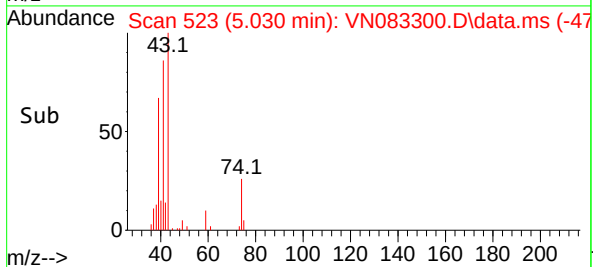
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

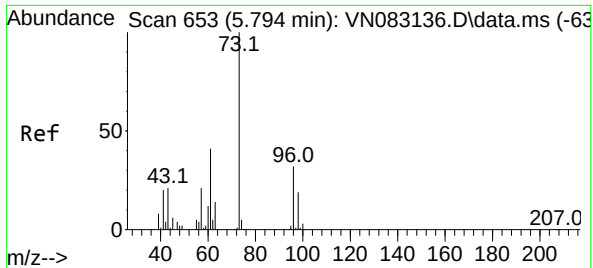


#18  
Methyl Acetate  
Concen: 23.598 ug/l  
RT: 5.030 min Scan# 523  
Delta R.T. 0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51



Tgt Ion: 43 Resp: 58332  
Ion Ratio Lower Upper  
43 100  
74 24.4 16.3 24.5





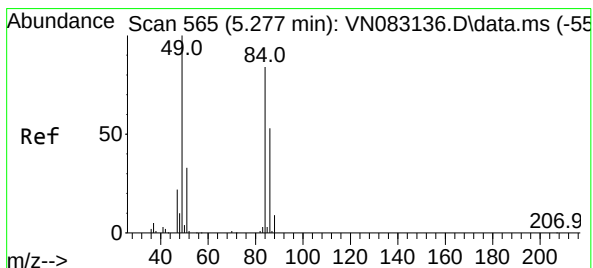
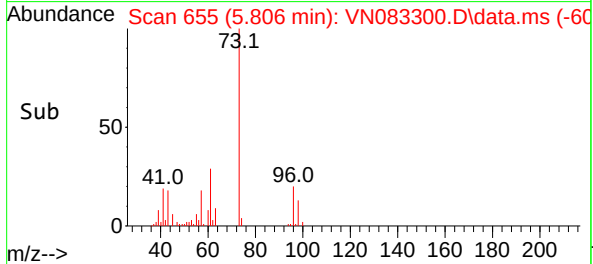
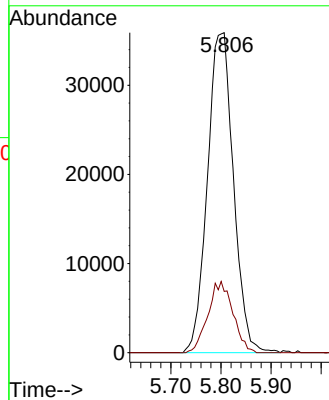
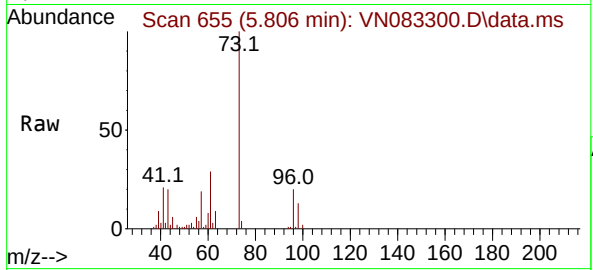
#19  
Methyl tert-butyl Ether  
Concen: 21.715 ug/l  
RT: 5.806 min Scan# 653  
Delta R.T. 0.012 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01

Tgt Ion: 73 Resp: 129419  
Ion Ratio Lower Upper  
73 100  
57 19.2 17.9 26.9

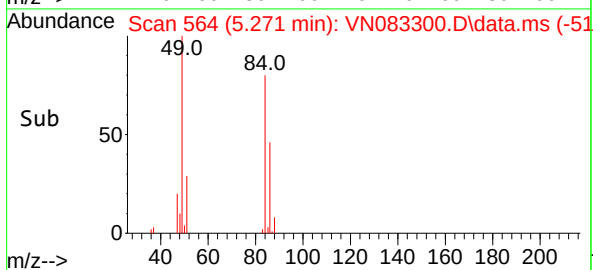
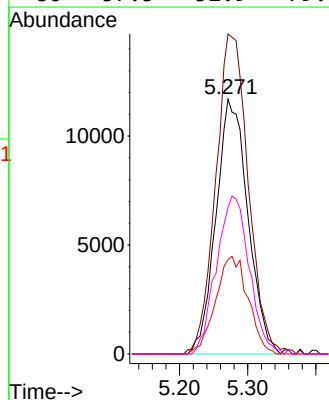
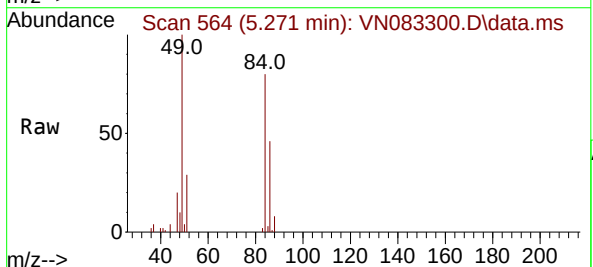
Manual Integrations  
APPROVED

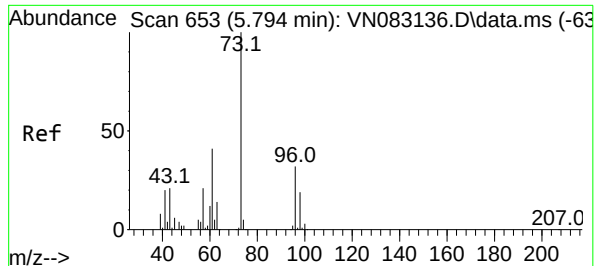
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#20  
Methylene Chloride  
Concen: 19.922 ug/l  
RT: 5.271 min Scan# 564  
Delta R.T. -0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

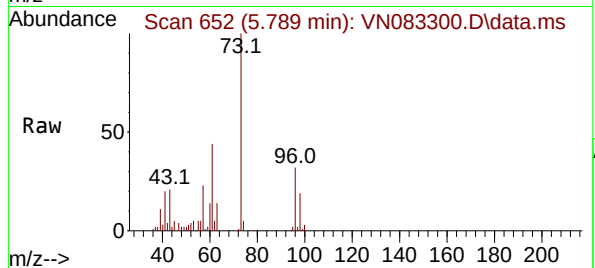
Tgt Ion: 84 Resp: 38038  
Ion Ratio Lower Upper  
84 100  
49 125.6 119.6 179.4  
51 37.1 34.8 52.2  
86 57.5 52.9 79.3





#21  
trans-1,2-Dichloroethene  
Concen: 19.216 ug/l  
RT: 5.789 min Scan# 61  
Delta R.T. -0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

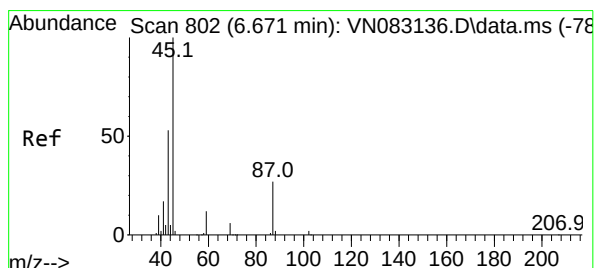
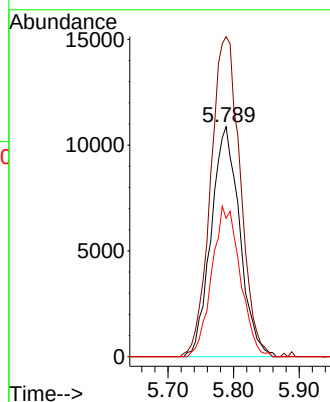
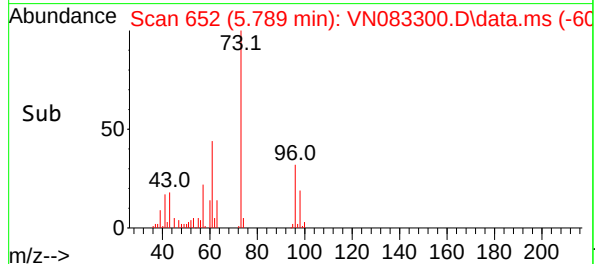
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



Tgt Ion: 96 Resp: 3279  
Ion Ratio Lower Upper  
96 100  
61 139.2 123.4 185.2  
98 60.2 49.3 73.9

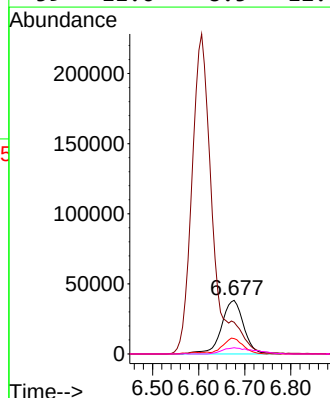
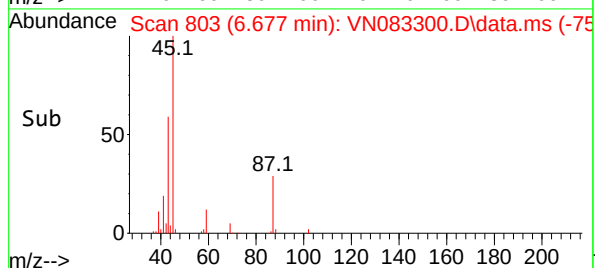
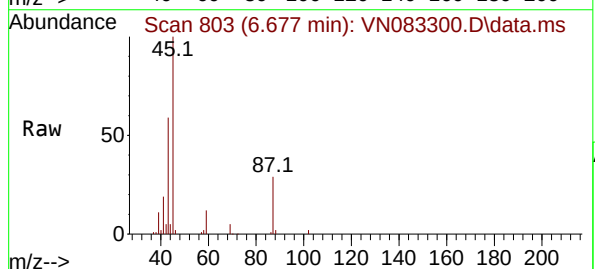
Manual Integrations  
APPROVED

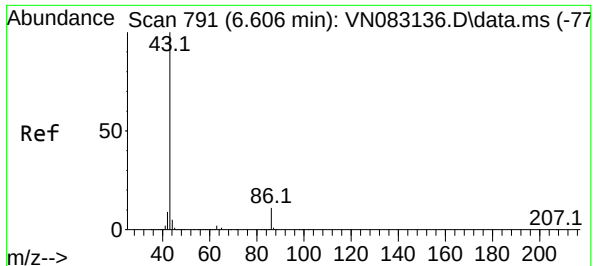
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#22  
Diisopropyl ether  
Concen: 21.629 ug/l  
RT: 6.677 min Scan# 803  
Delta R.T. 0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

Tgt Ion: 45 Resp: 126864  
Ion Ratio Lower Upper  
45 100  
43 57.5 44.0 66.0  
87 28.6 19.7 29.5  
59 11.6 8.5 12.7





#23

Vinyl Acetate

Concen: 117.529 ug/l

RT: 6.606 min Scan# 791

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion: 43 Resp: 706584

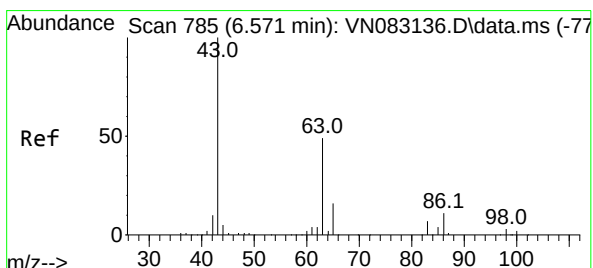
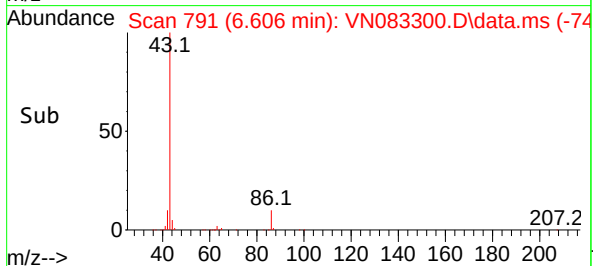
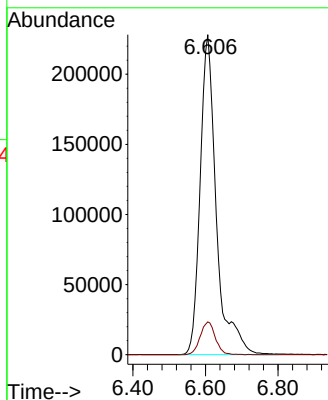
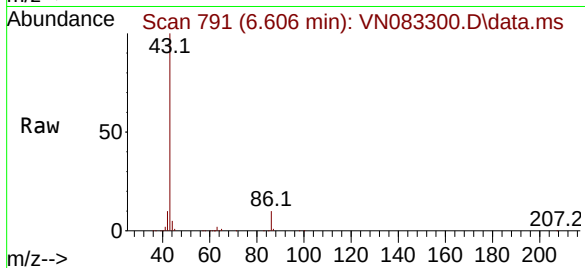
Ion Ratio Lower Upper

43 100

86 10.2 7.3 10.9

Manual Integrations

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Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#24

1,1-Dichloroethane

Concen: 21.283 ug/l

RT: 6.571 min Scan# 785

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

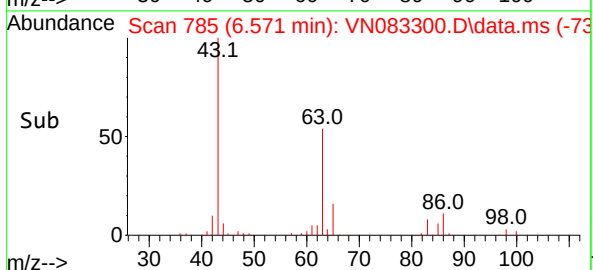
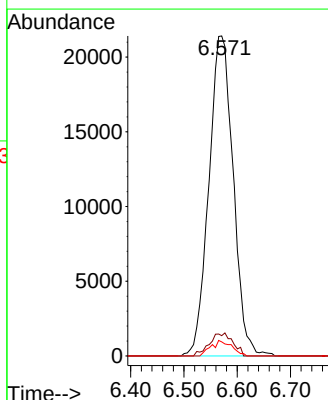
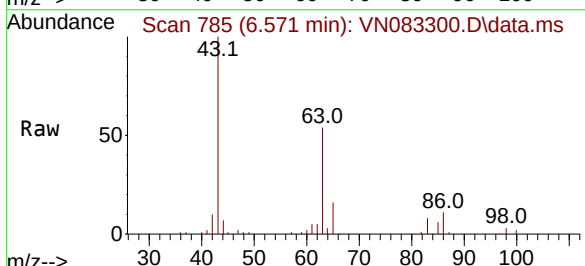
Tgt Ion: 63 Resp: 68043

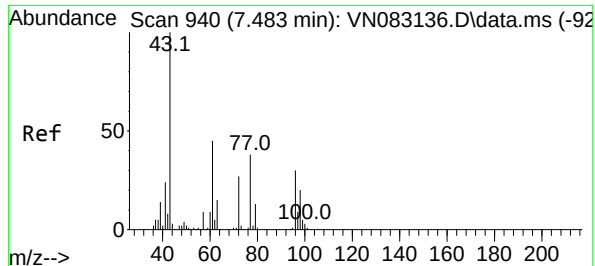
Ion Ratio Lower Upper

63 100

98 6.4 3.3 9.9

100 4.4 2.0 6.0





#25

2-Butanone

Concen: 112.337 ug/l

RT: 7.483 min Scan# 940

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion: 43 Resp: 14310

Ion Ratio Lower Upper

43 100

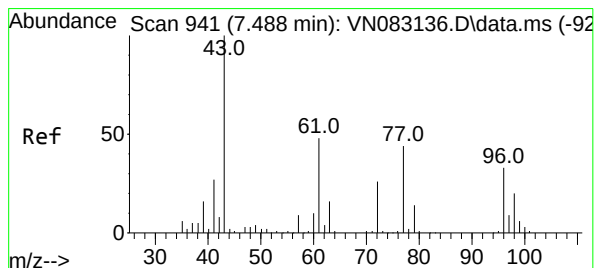
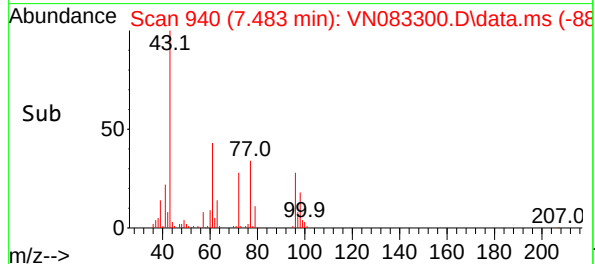
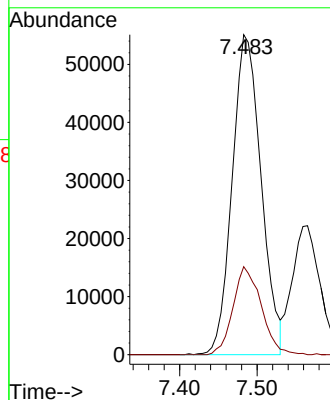
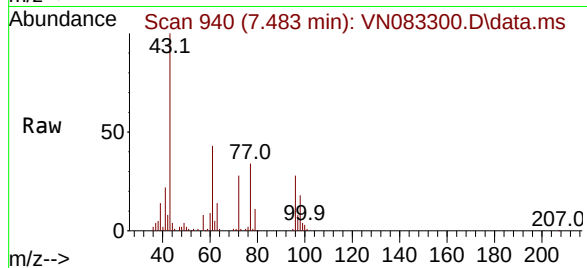
72 27.5 18.2 27.2

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#26

2,2-Dichloropropane

Concen: 19.719 ug/l

RT: 7.489 min Scan# 941

Delta R.T. 0.000 min

Lab File: VN083300.D

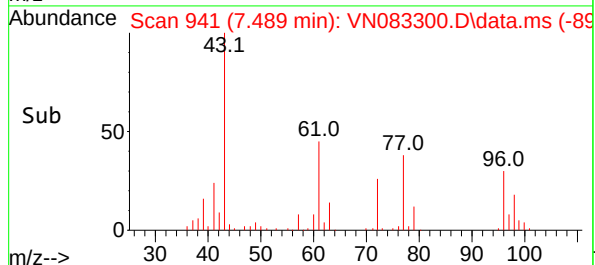
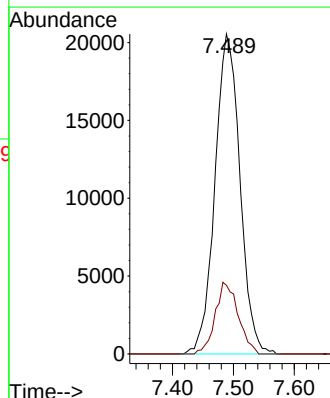
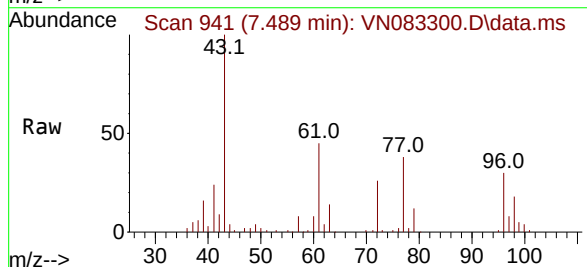
Acq: 14 Aug 2024 14:51

Tgt Ion: 77 Resp: 58546

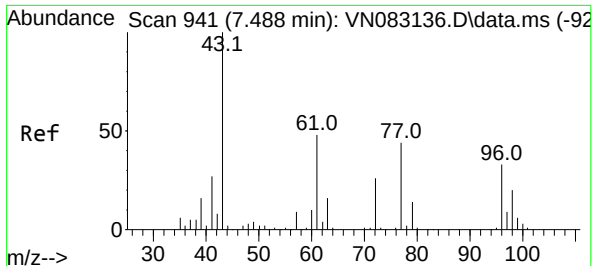
Ion Ratio Lower Upper

77 100

97 20.5 10.3 30.9







#27

cis-1,2-Dichloroethene

Concen: 20.934 ug/l

RT: 7.489 min Scan# 941

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Tgt Ion: 96 Resp: 43110

Ion Ratio Lower Upper

96 100

61 153.2 0.0 329.6

98 62.7 0.0 128.6

Instrument :

MSVOA\_N

ClientSampleId :

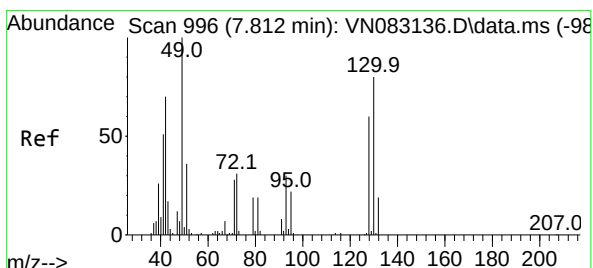
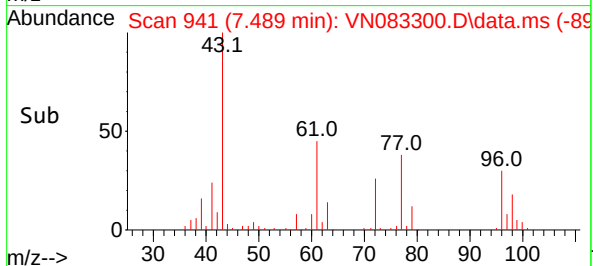
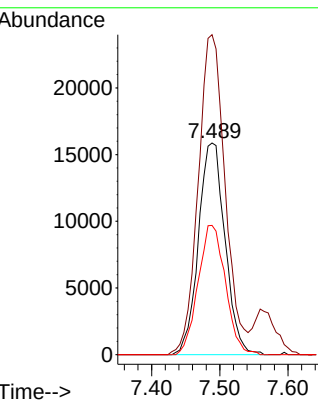
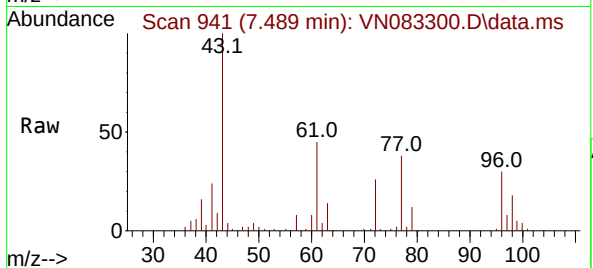
VN0814WBSD01

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#28

Bromochloromethane

Concen: 23.311 ug/l

RT: 7.812 min Scan# 996

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

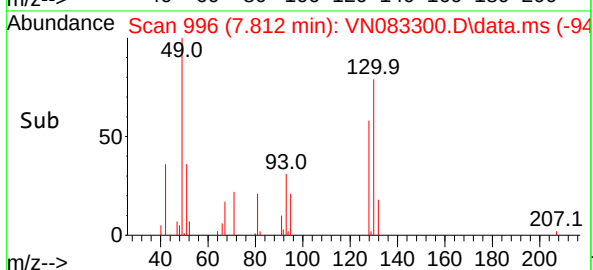
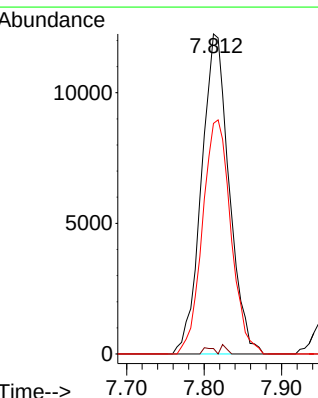
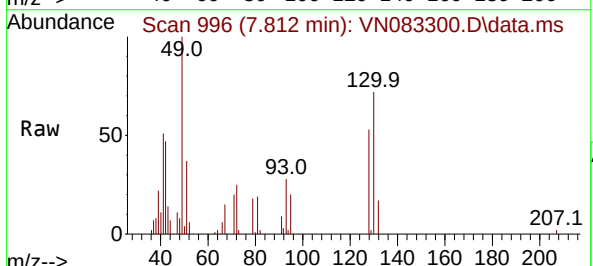
Tgt Ion: 49 Resp: 30457

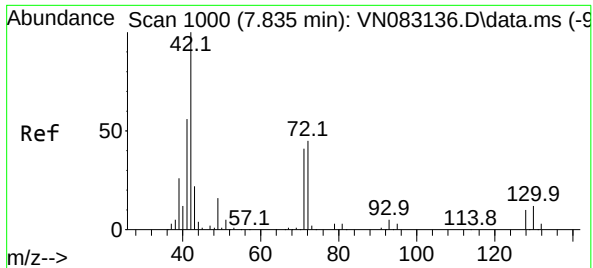
Ion Ratio Lower Upper

49 100

129 0.6 0.0 3.8

130 74.9 50.5 75.7





#29

Tetrahydrofuran

Concen: 112.377 ug/l

RT: 7.841 min Scan# 1000

Delta R.T. 0.006 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

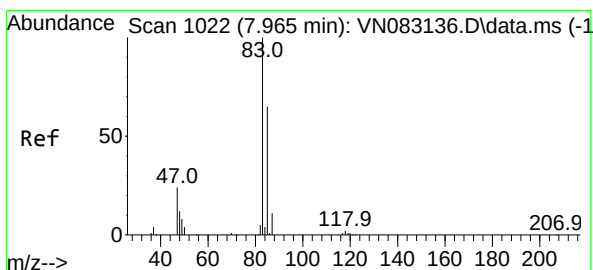
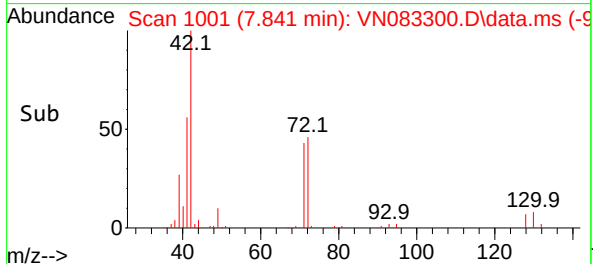
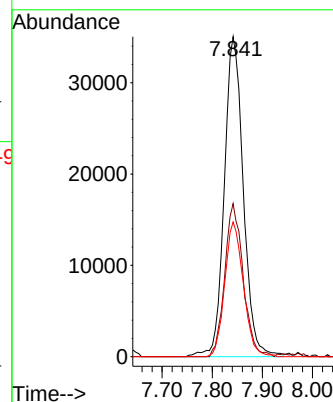
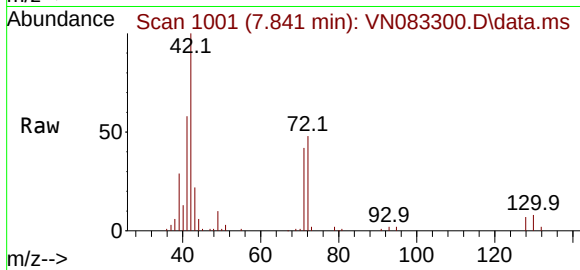
ClientSampleId :

VN0814WBSD01

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 9254  |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 46.1  | 30.0  | 45.0  |
| 71       | 41.0  | 28.3  | 42.5  |

Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#30

Chloroform

Concen: 22.370 ug/l

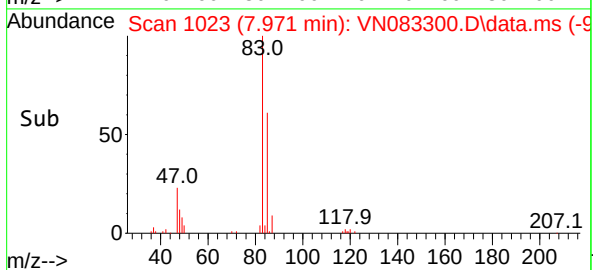
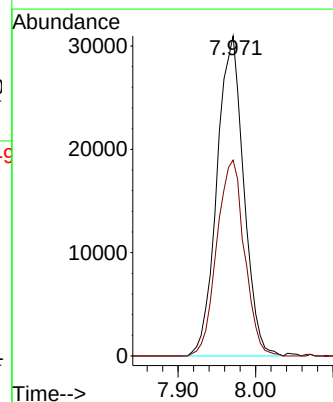
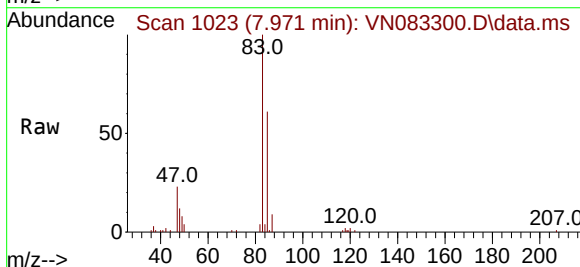
RT: 7.971 min Scan# 1023

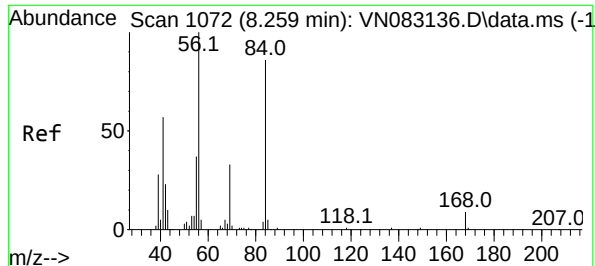
Delta R.T. 0.006 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 74303 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 61.2  | 50.9  | 76.3  |





#31

Cyclohexane

Concen: 18.664 ug/l

RT: 8.259 min Scan# 1072

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

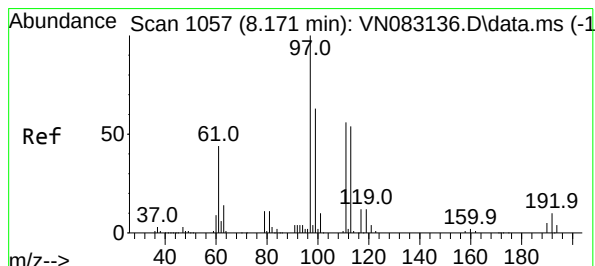
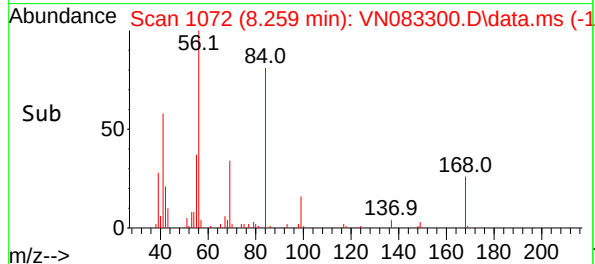
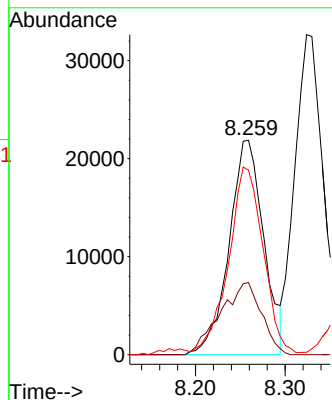
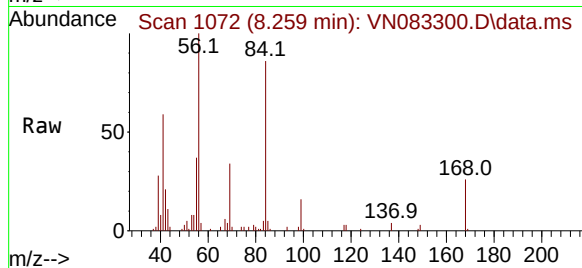
Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 56    | Resp: | 5864 |
| Ion Ratio | Lower | Upper |      |
| 56        | 100   |       |      |
| 69        | 33.6  | 24.5  | 36.7 |
| 84        | 83.3  | 66.0  | 99.0 |

Manual Integrations  
APPROVEDReviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#32

1,1,1-Trichloroethane

Concen: 20.899 ug/l

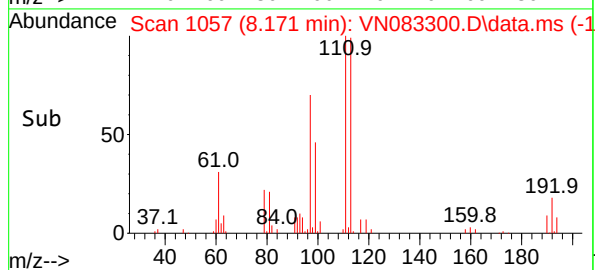
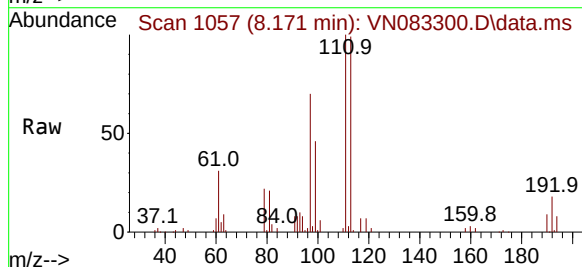
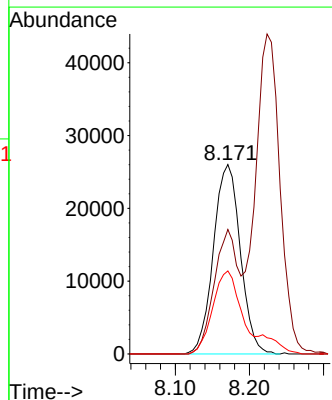
RT: 8.171 min Scan# 1057

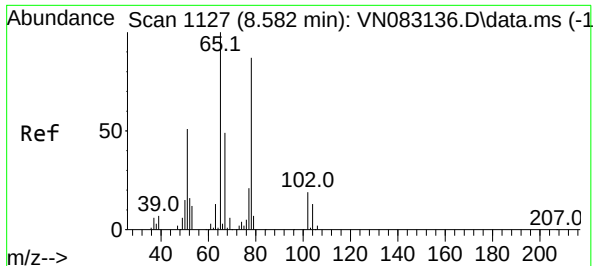
Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 97    | Resp: | 65707 |
| Ion Ratio | Lower | Upper |       |
| 97        | 100   |       |       |
| 99        | 58.3  | 52.0  | 78.0  |
| 61        | 52.9  | 42.1  | 63.1  |





#33

1,2-Dichloroethane-d4

Concen: 58.729 ug/l

RT: 8.583 min Scan# 1127

Delta R.T. 0.001 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion: 65 Resp: 124519

Ion Ratio Lower Upper

65 100

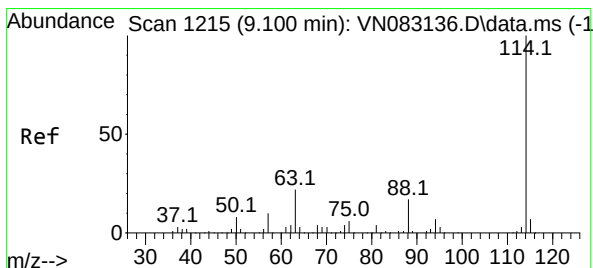
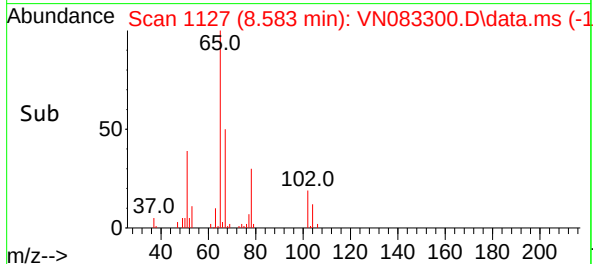
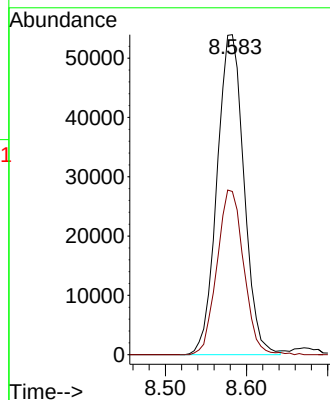
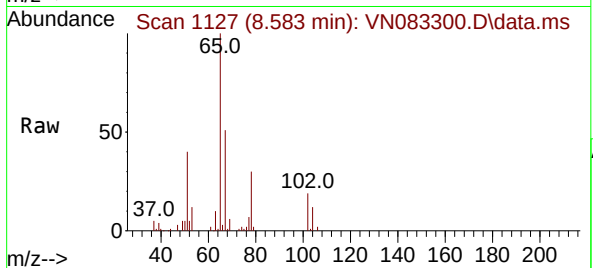
67 51.1 0.0 104.4

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.100 min Scan# 1215

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

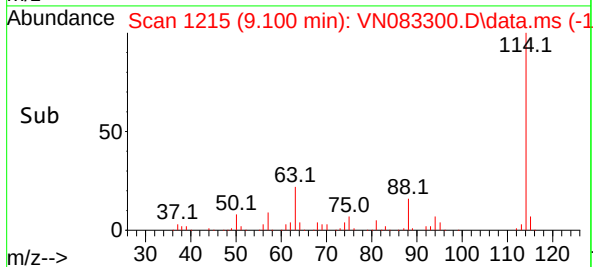
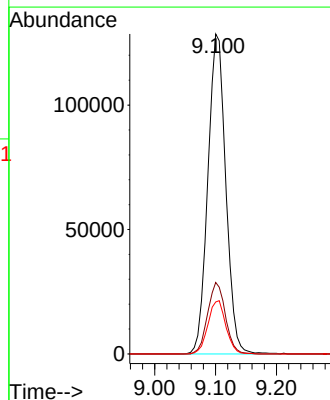
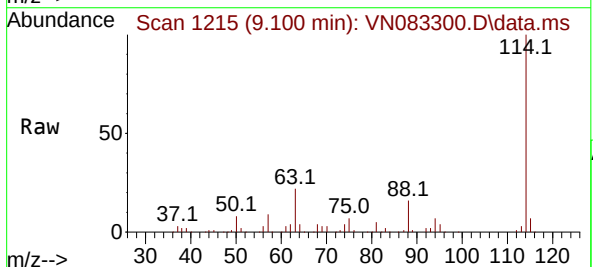
Tgt Ion:114 Resp: 263108

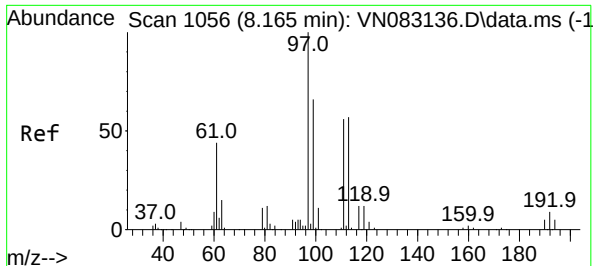
Ion Ratio Lower Upper

114 100

63 22.4 0.0 44.6

88 16.3 0.0 31.4





#35

Dibromofluoromethane

Concen: 53.979 ug/l

RT: 8.171 min Scan# 1056

Delta R.T. 0.006 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

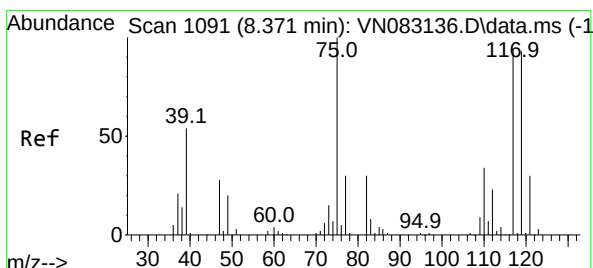
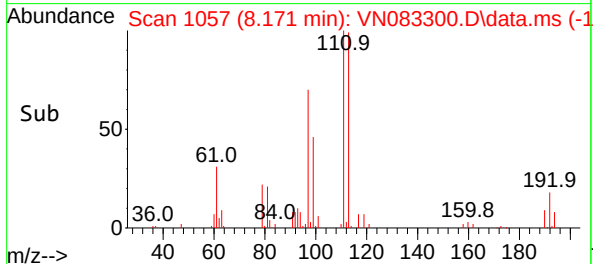
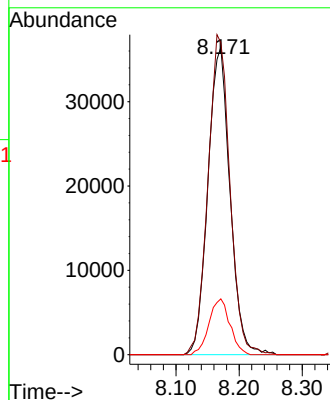
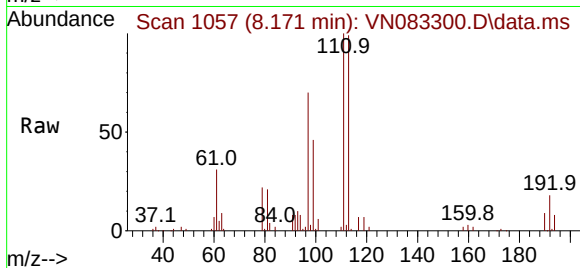
VN0814WBSD01

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 113   | Resp: | 8864  |
| Ion      | Ratio | Lower | Upper |
| 113      | 100   |       |       |
| 111      | 103.3 | 82.4  | 123.6 |
| 192      | 17.2  | 14.9  | 22.3  |

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#36

1,1-Dichloropropene

Concen: 18.912 ug/l

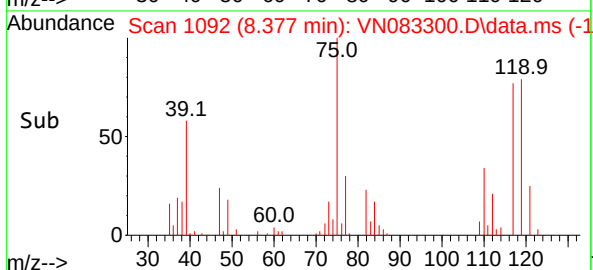
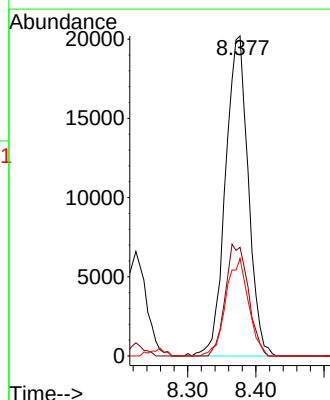
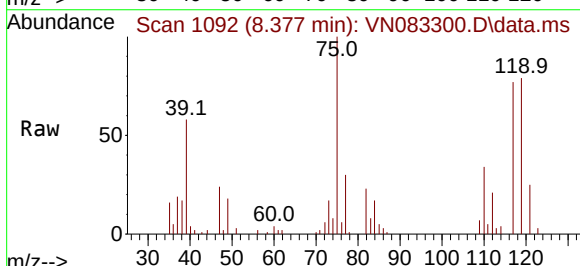
RT: 8.377 min Scan# 1092

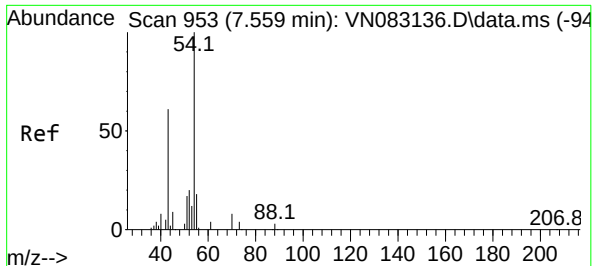
Delta R.T. 0.006 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 46982 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 110      | 35.2  | 16.3  | 48.9  |
| 77       | 30.4  | 24.6  | 37.0  |





#37

Ethyl Acetate

Concen: 20.957 ug/l

RT: 7.565 min Scan# 91

Delta R.T. 0.006 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

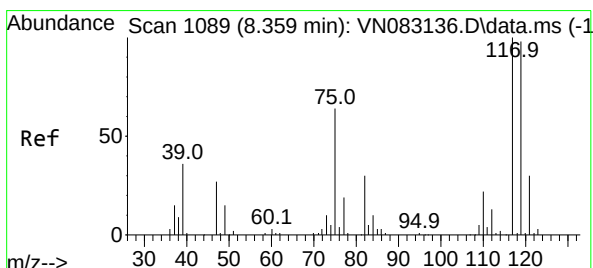
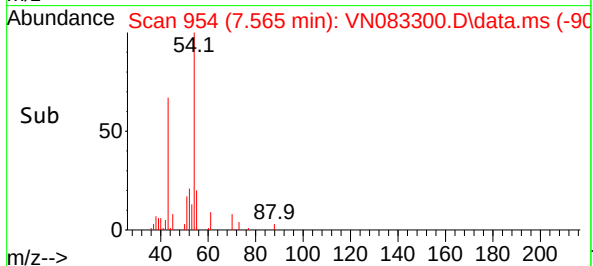
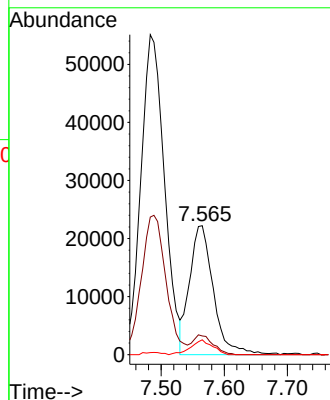
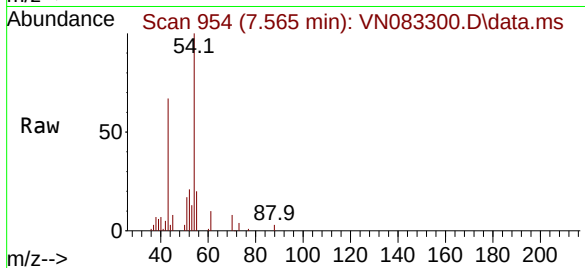
ClientSampleId :

VN0814WBSD01

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 5829  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 13.0  | 9.3   | 13.9  |
| 70       | 10.4  | 7.0   | 10.6  |

Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#38

Carbon Tetrachloride

Concen: 19.600 ug/l

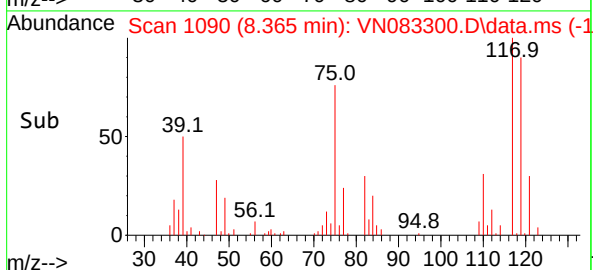
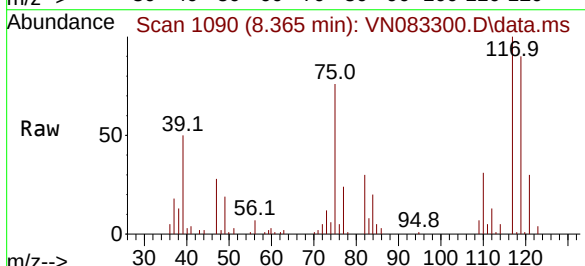
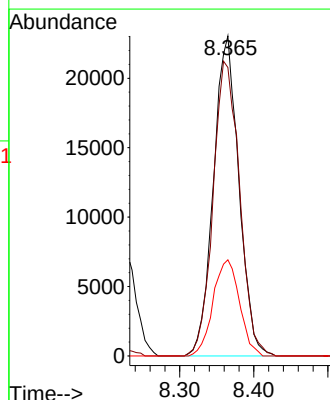
RT: 8.365 min Scan# 1090

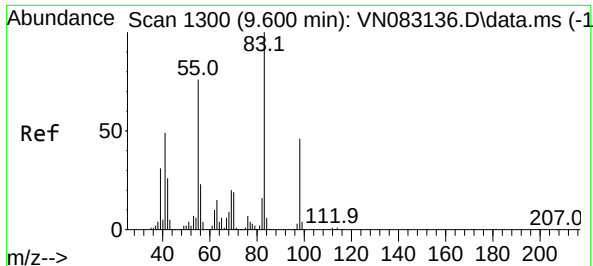
Delta R.T. 0.006 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 54843 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 119      | 90.1  | 74.9  | 112.3 |
| 121      | 30.1  | 24.3  | 36.5  |





#39

Methylcyclohexane

Concen: 17.820 ug/l

RT: 9.600 min Scan# 11300

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

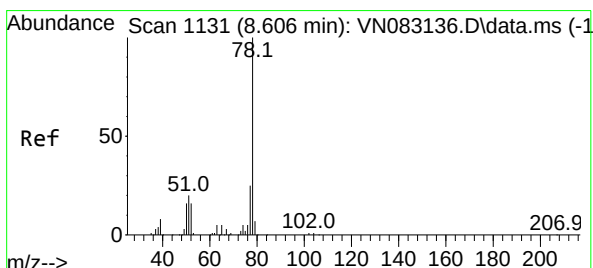
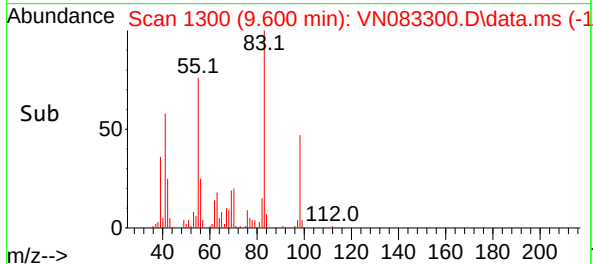
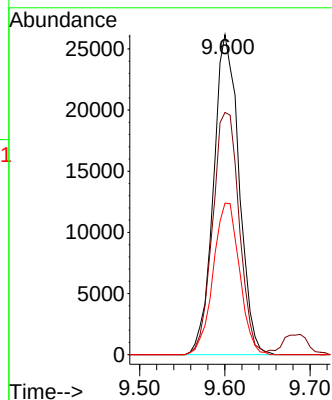
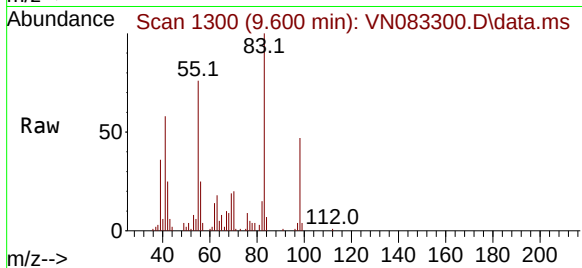
ClientSampleId :

VN0814WBSD01

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 54374 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 55       | 75.7  | 66.4  | 99.6  |
| 98       | 47.4  | 40.7  | 61.1  |

Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#40

Benzene

Concen: 20.174 ug/l

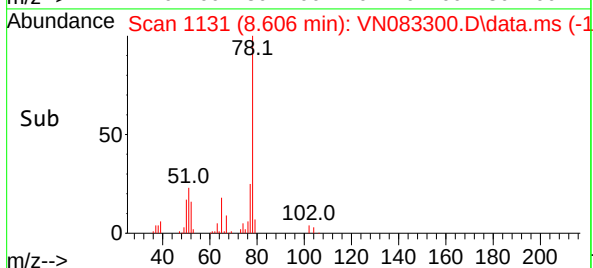
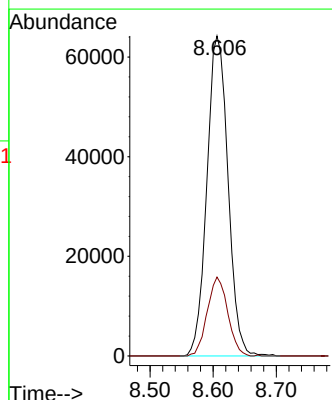
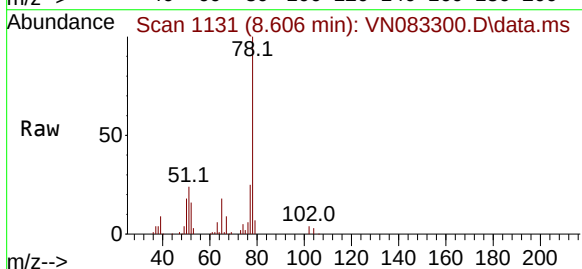
RT: 8.606 min Scan# 1131

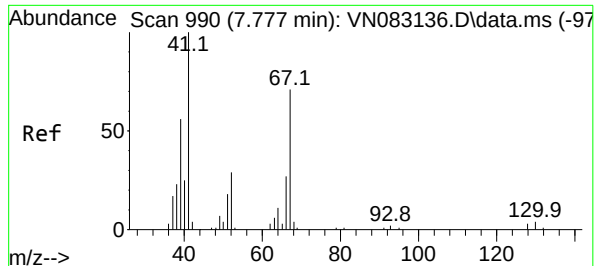
Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 78    | Resp: | 149300 |
| Ion      | Ratio | Lower | Upper  |
| 78       | 100   |       |        |
| 77       | 24.6  | 19.0  | 28.4   |





#41

Methacrylonitrile

Concen: 20.082 ug/l

RT: 7.777 min Scan# 990

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion: 41 Resp: 3176

Ion Ratio Lower Upper

41 100

39 60.4 45.5 68.3

67 69.0 50.5 75.7

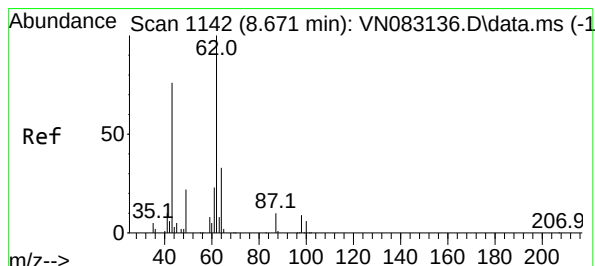
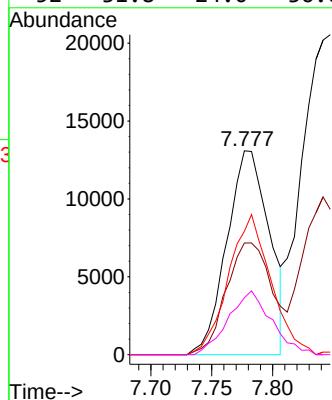
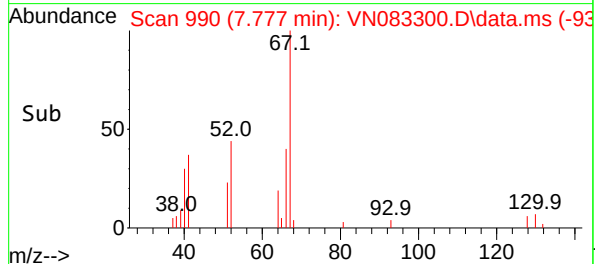
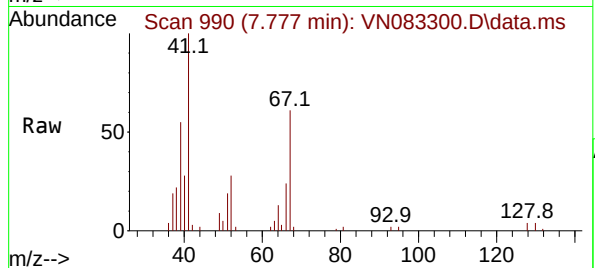
52 31.8 24.0 36.0

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#42

1,2-Dichloroethane

Concen: 22.609 ug/l

RT: 8.671 min Scan# 1142

Delta R.T. 0.000 min

Lab File: VN083300.D

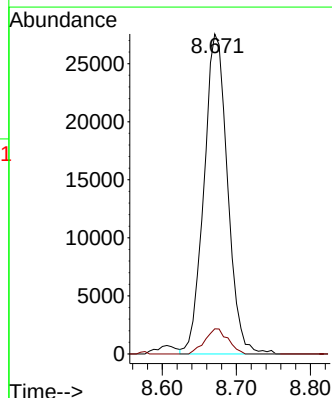
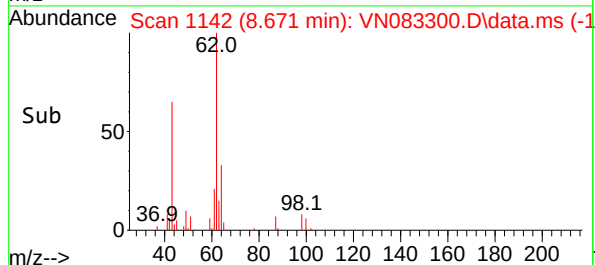
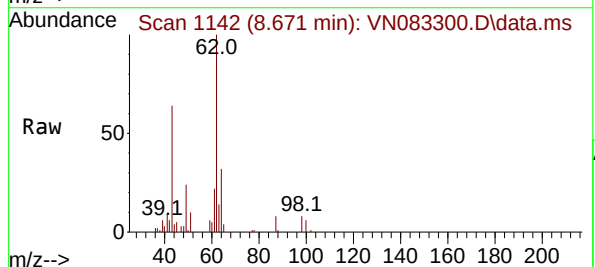
Acq: 14 Aug 2024 14:51

Tgt Ion: 62 Resp: 60953

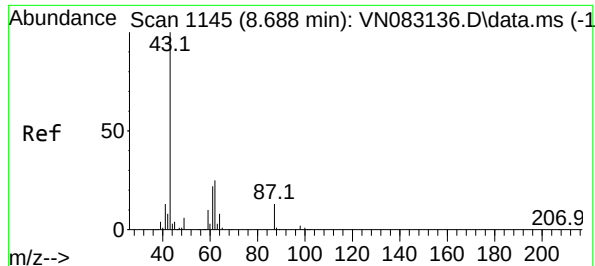
Ion Ratio Lower Upper

62 100

98 7.7 0.0 15.8







#43

Isopropyl Acetate

Concen: 19.694 ug/l

RT: 8.688 min Scan# 1145

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion: 43 Resp: 101718

Ion Ratio Lower Upper

43

100

61

87

25.1

12.2

17.8

8.2

26.6

12.2

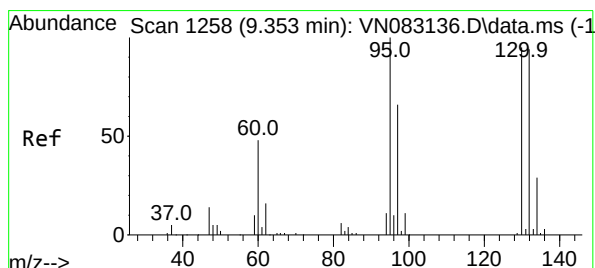
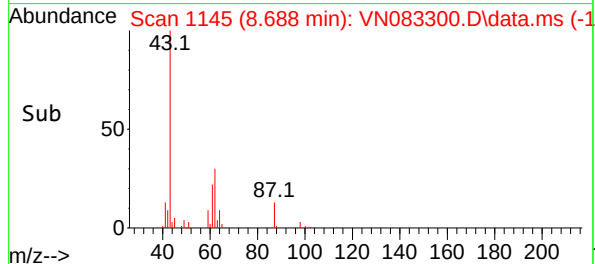
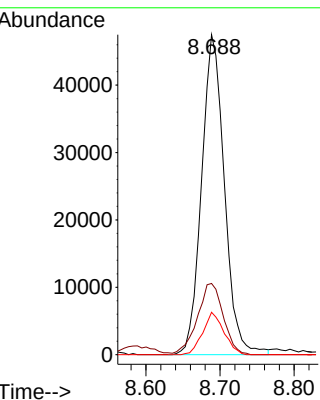
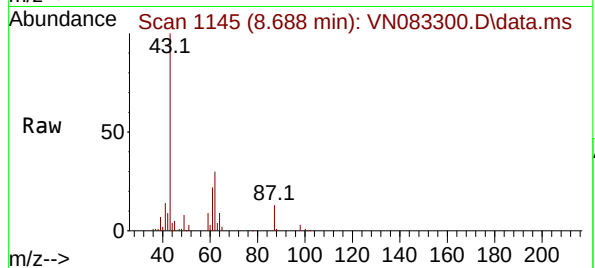
12.2

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#44

Trichloroethene

Concen: 19.850 ug/l

RT: 9.353 min Scan# 1258

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Tgt Ion:130 Resp: 34966

Ion Ratio Lower Upper

130

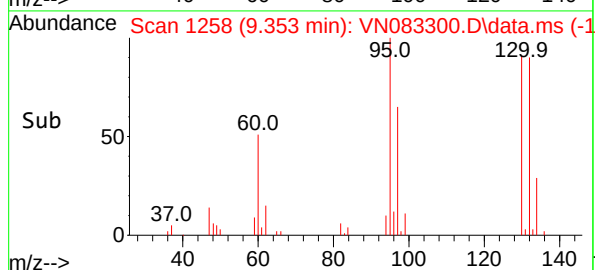
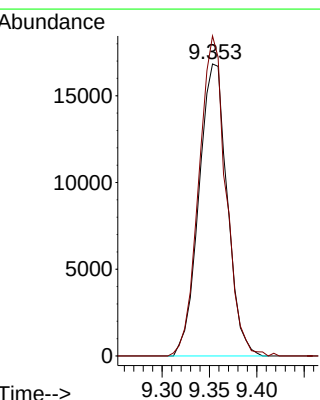
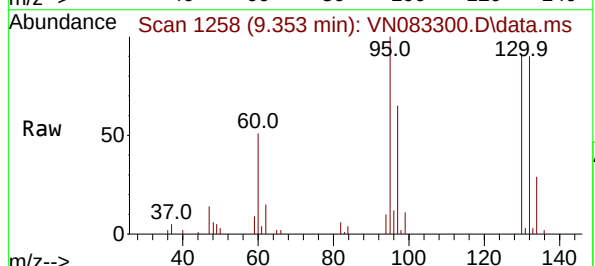
100

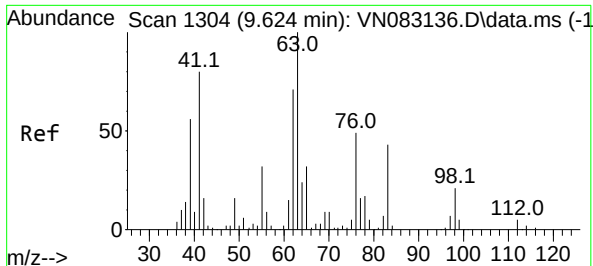
95

109.6

0.0

197.8





#45

1,2-Dichloropropane

Concen: 21.275 ug/l

RT: 9.624 min Scan# 1304

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion: 63 Resp: 37374

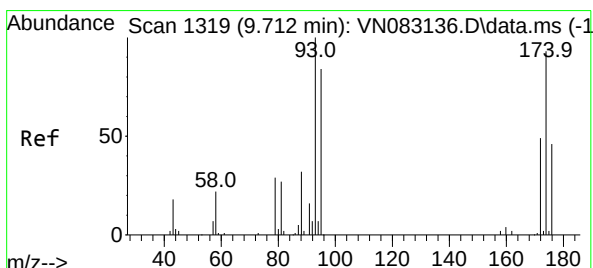
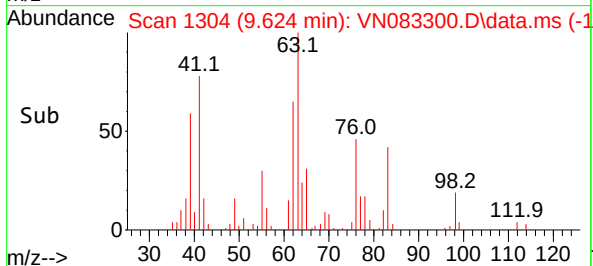
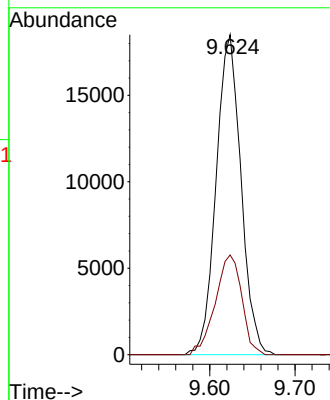
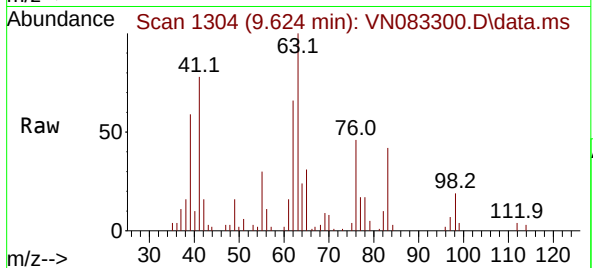
Ion Ratio Lower Upper

63 100

65 31.2 24.4 36.6

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#46

Dibromomethane

Concen: 21.692 ug/l

RT: 9.712 min Scan# 1319

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

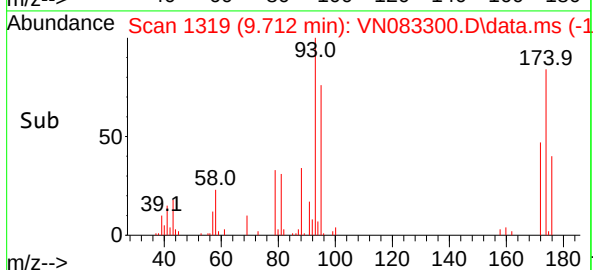
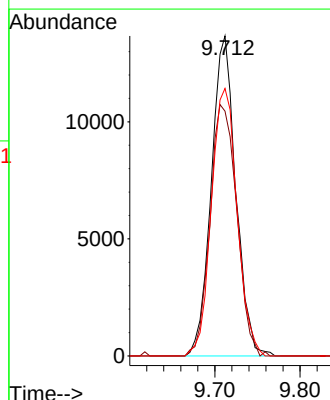
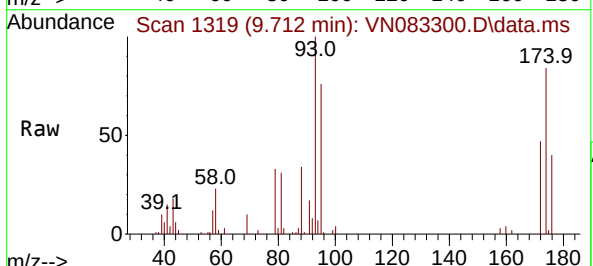
Tgt Ion: 93 Resp: 27276

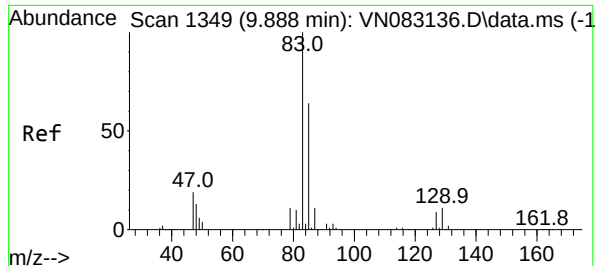
Ion Ratio Lower Upper

93 100

95 85.6 65.8 98.6

174 88.0 71.7 107.5





#47

Bromodichloromethane

Concen: 21.027 ug/l

RT: 9.894 min Scan# 1350

Delta R.T. 0.006 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

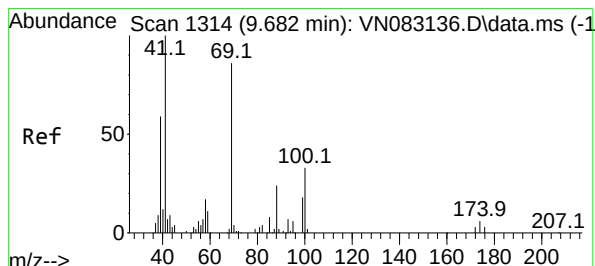
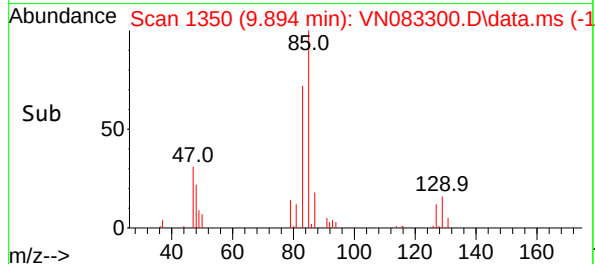
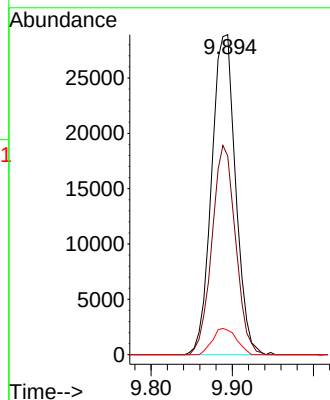
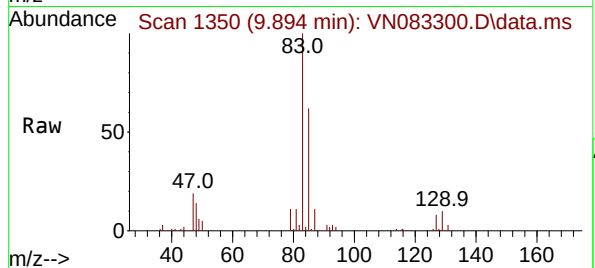
ClientSampleId :

VN0814WBSD01

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 5936  |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 62.1  | 51.1  | 76.7  |
| 127      | 7.6   | 7.2   | 10.8  |

Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#48

Methyl methacrylate

Concen: 20.144 ug/l

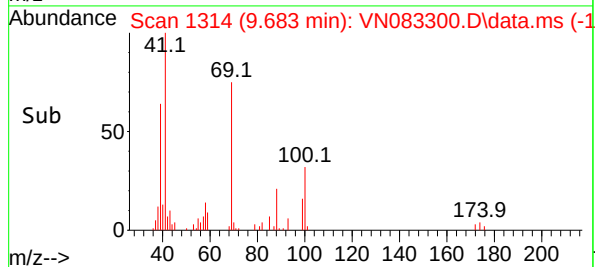
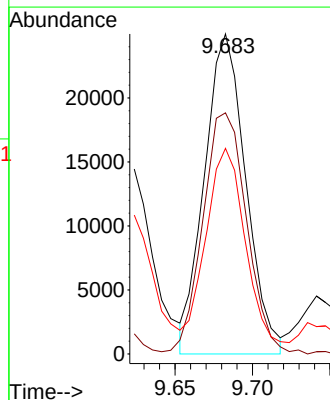
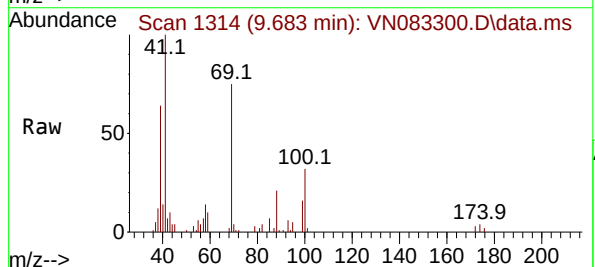
RT: 9.683 min Scan# 1314

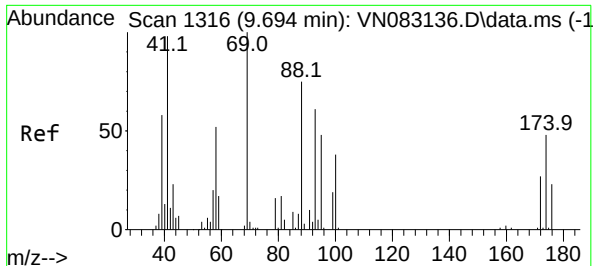
Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 46324 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 69       | 80.1  | 56.3  | 84.5  |
| 39       | 63.9  | 50.3  | 75.5  |





#49

1,4-Dioxane

Concen: 450.635 ug/l

RT: 9.694 min Scan# 1316

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion: 88 Resp: 18690

Ion Ratio Lower Upper

88 100

43 30.5 27.8 41.8

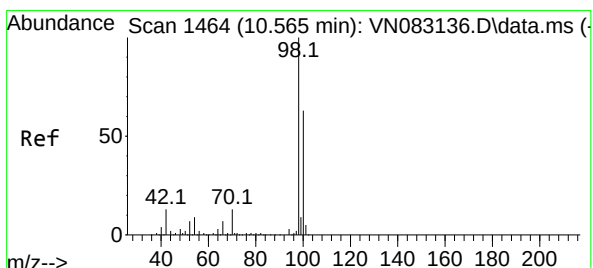
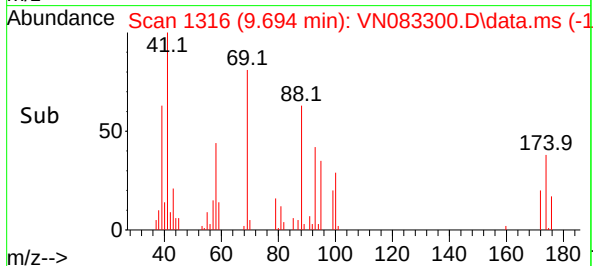
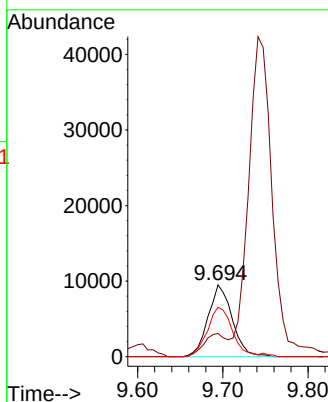
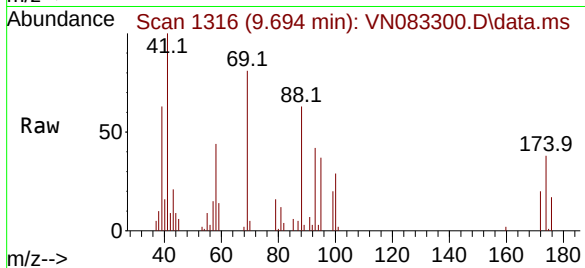
58 72.9 59.4 89.0

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#50

Toluene-d8

Concen: 53.007 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. -0.000 min

Lab File: VN083300.D

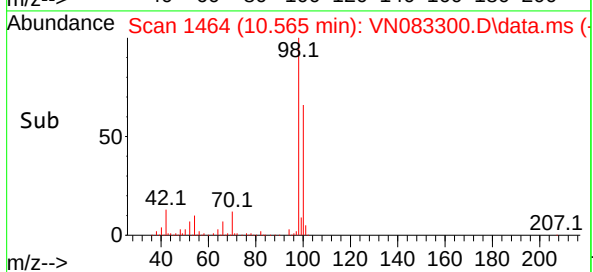
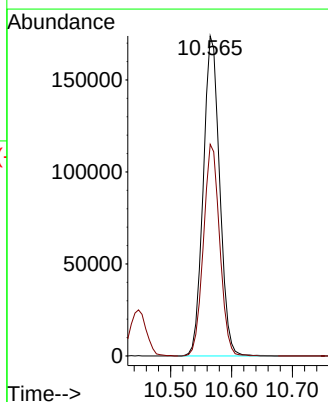
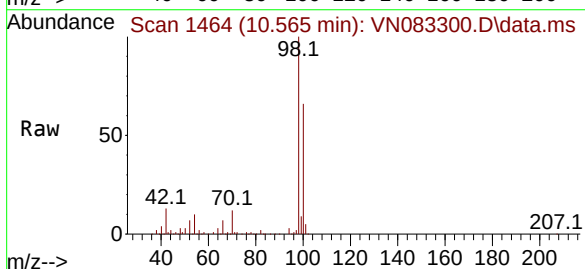
Acq: 14 Aug 2024 14:51

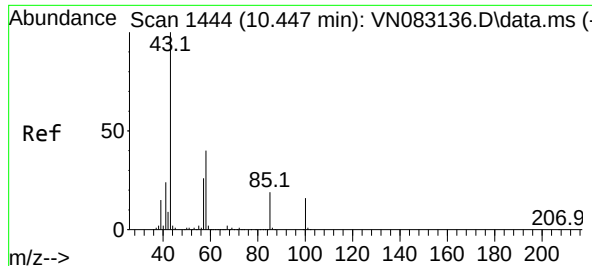
Tgt Ion: 98 Resp: 324722

Ion Ratio Lower Upper

98 100

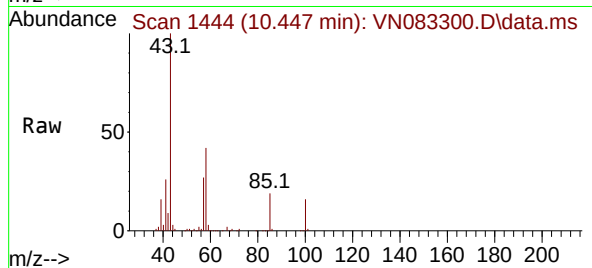
100 65.5 51.5 77.3





#51  
4-Methyl-2-Pentanone  
Concen: 112.972 ug/l  
RT: 10.447 min Scan# 1444  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

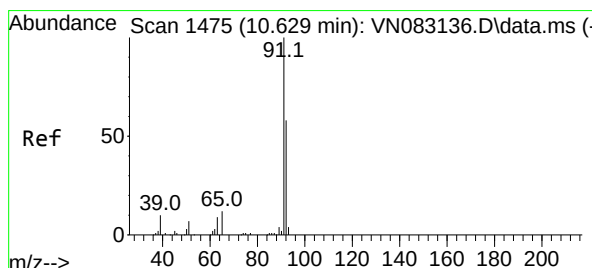
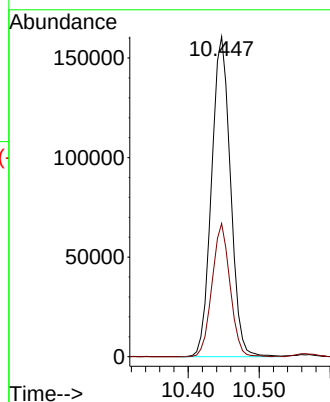
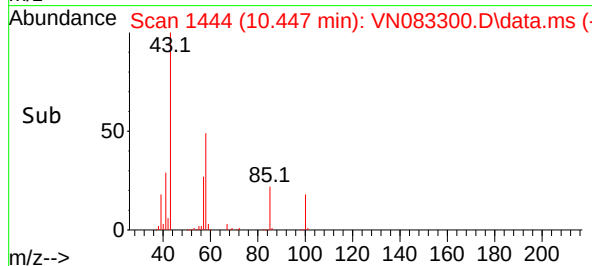
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



Tgt Ion: 43 Resp: 297150  
Ion Ratio Lower Upper  
43 100  
58 39.5 28.2 42.4

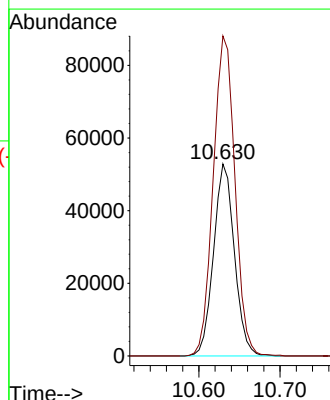
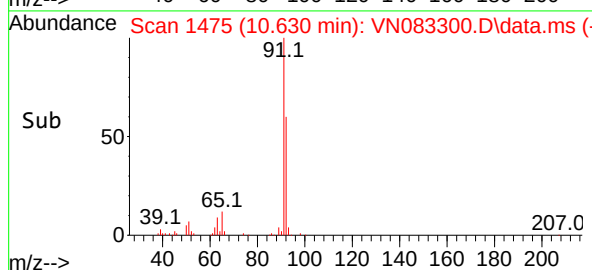
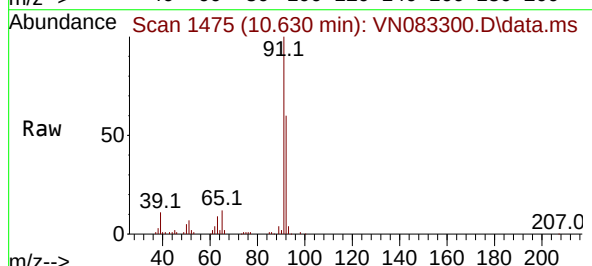
Manual Integrations  
APPROVED

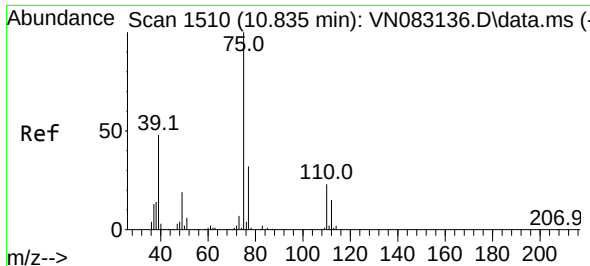
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#52  
Toluene  
Concen: 20.200 ug/l  
RT: 10.630 min Scan# 1475  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

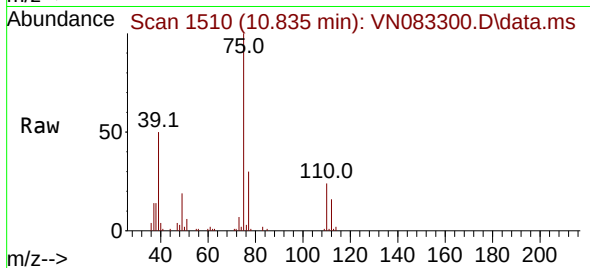
Tgt Ion: 92 Resp: 94458  
Ion Ratio Lower Upper  
92 100  
91 173.5 139.4 209.0





#53  
t-1,3-Dichloropropene  
Concen: 20.831 ug/l  
RT: 10.835 min Scan# 1510  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

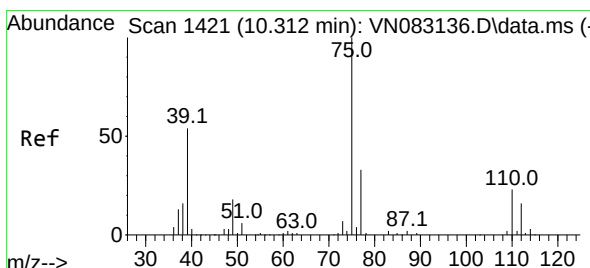
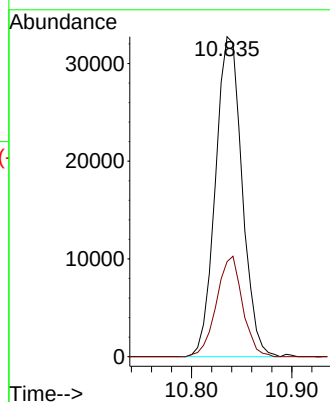
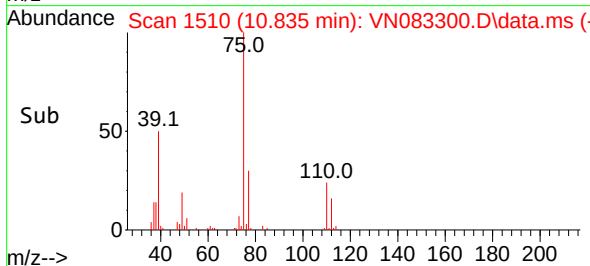
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



Tgt Ion: 75 Resp: 6041  
Ion Ratio Lower Upper  
75 100  
77 29.7 25.7 38.5

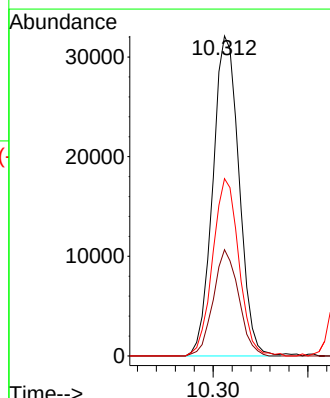
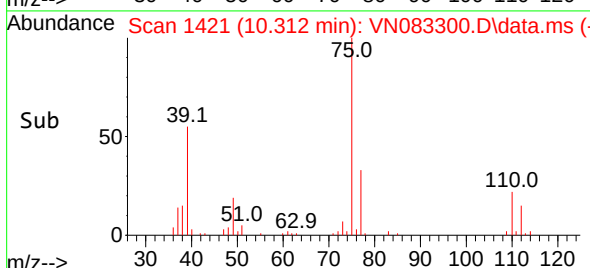
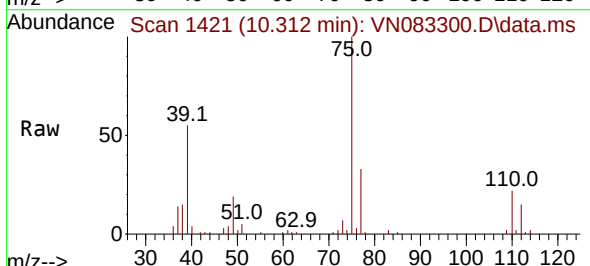
Manual Integrations  
APPROVED

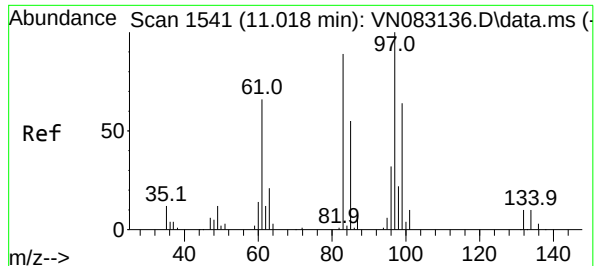
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#54  
cis-1,3-Dichloropropene  
Concen: 20.031 ug/l  
RT: 10.312 min Scan# 1421  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

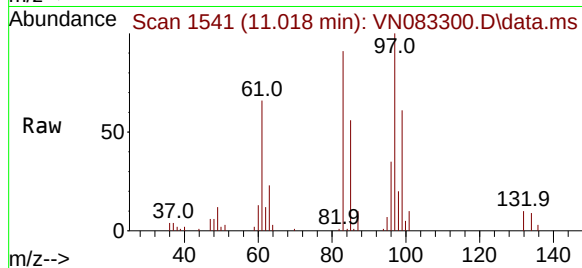
Tgt Ion: 75 Resp: 61789  
Ion Ratio Lower Upper  
75 100  
77 33.2 24.3 36.5  
39 55.4 50.5 75.7





#55  
1,1,2-Trichloroethane  
Concen: 22.678 ug/l  
RT: 11.018 min Scan# 1541  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

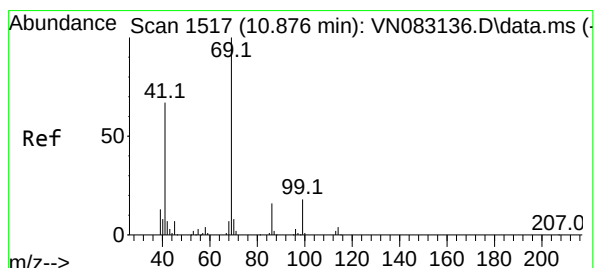
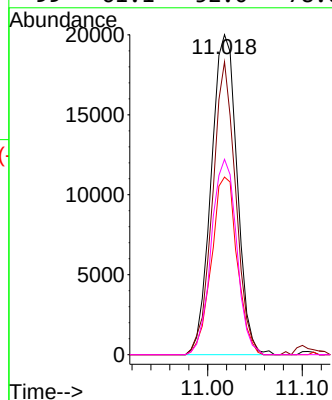
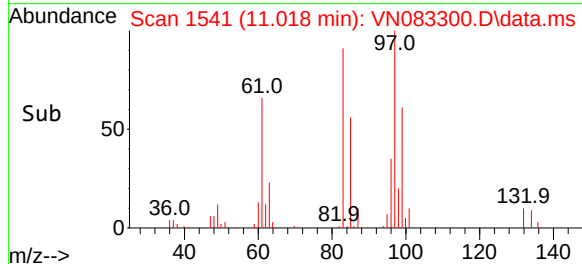
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



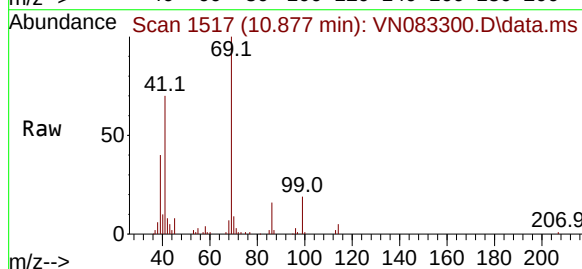
Tgt Ion: 97 Resp: 3800  
Ion Ratio Lower Upper  
97 100  
83 91.5 71.4 107.0  
85 55.5 45.8 68.6  
99 61.1 52.0 78.0

Manual Integrations  
APPROVED

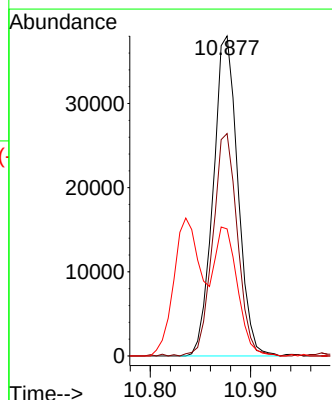
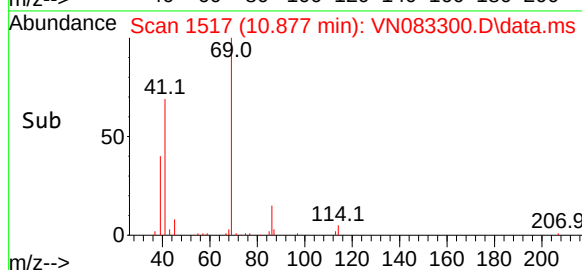
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

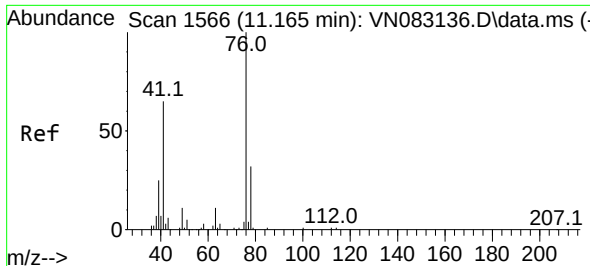


#56  
Ethyl methacrylate  
Concen: 20.542 ug/l  
RT: 10.877 min Scan# 1517  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51



Tgt Ion: 69 Resp: 64894  
Ion Ratio Lower Upper  
69 100  
41 69.5 63.4 95.2  
39 36.8 37.4 56.0#





#57

1,3-Dichloropropane

Concen: 22.362 ug/l

RT: 11.165 min Scan# 1566

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion: 76 Resp: 66794

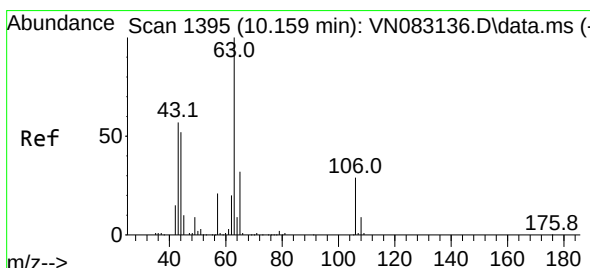
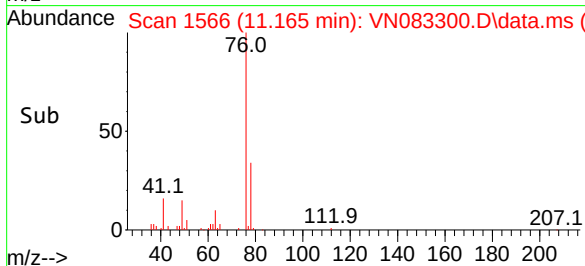
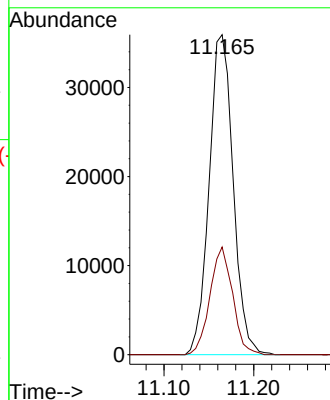
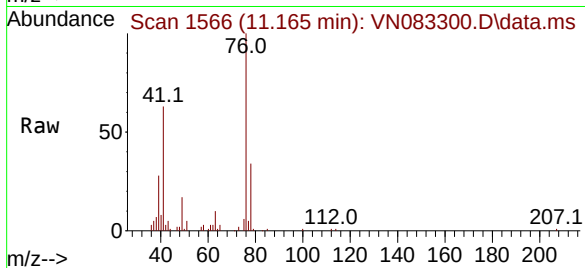
Ion Ratio Lower Upper

76 100

78 31.7 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#58

2-Chloroethyl Vinyl ether

Concen: 98.294 ug/l

RT: 10.159 min Scan# 1395

Delta R.T. 0.000 min

Lab File: VN083300.D

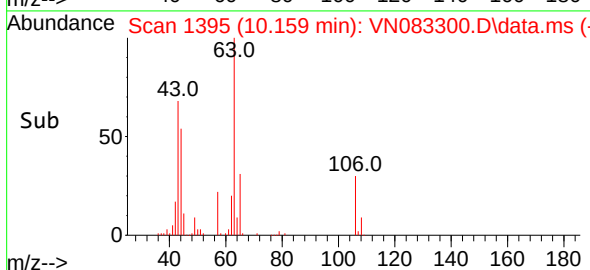
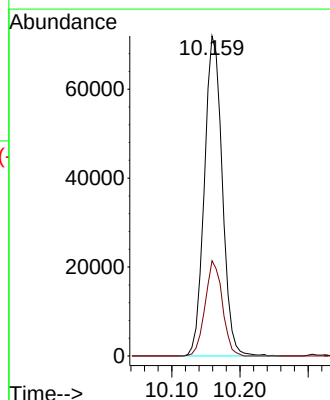
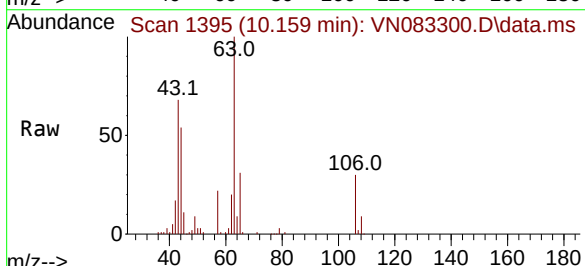
Acq: 14 Aug 2024 14:51

Tgt Ion: 63 Resp: 131258

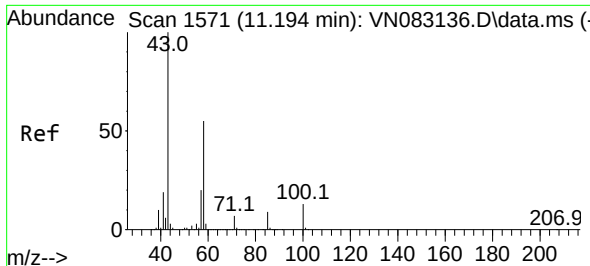
Ion Ratio Lower Upper

63 100

106 28.7 21.4 32.0

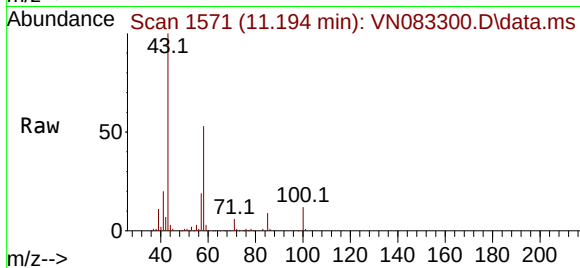






#59  
2-Hexanone  
Concen: 109.692 ug/l  
RT: 11.194 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

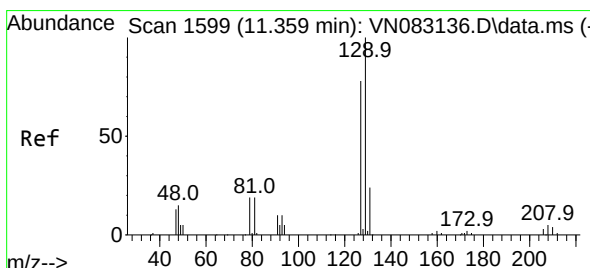
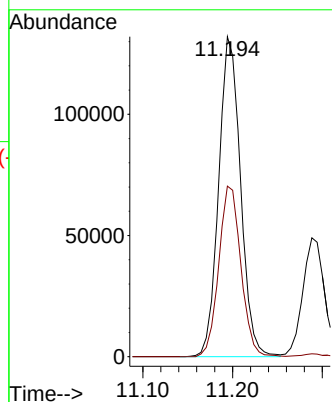
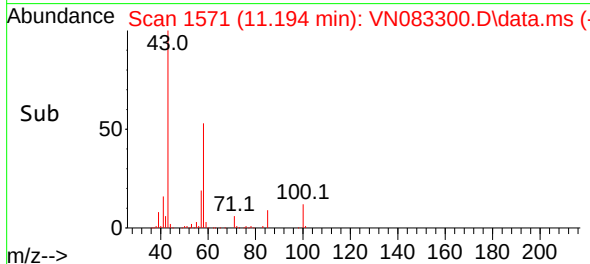
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



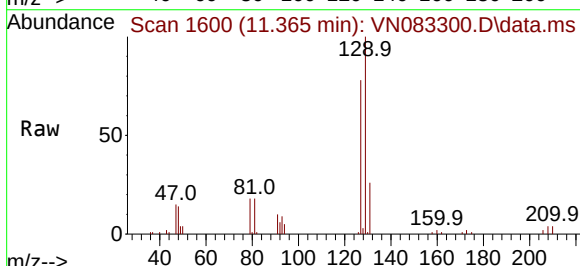
Tgt Ion: 43 Resp: 22321  
Ion Ratio Lower Upper  
43 100  
58 53.9 24.6 73.8

Manual Integrations  
APPROVED

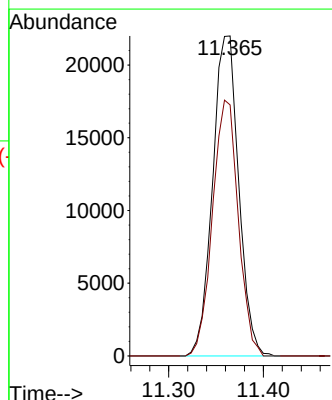
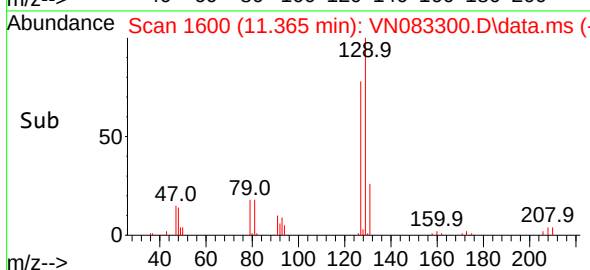
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

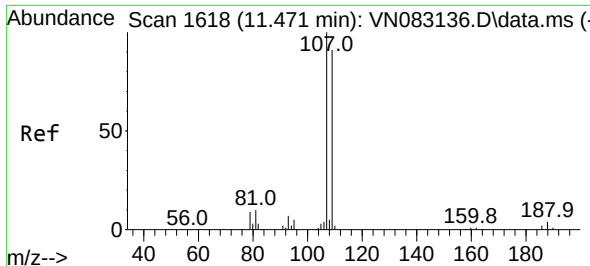


#60  
Dibromochloromethane  
Concen: 20.790 ug/l  
RT: 11.365 min Scan# 1600  
Delta R.T. 0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51



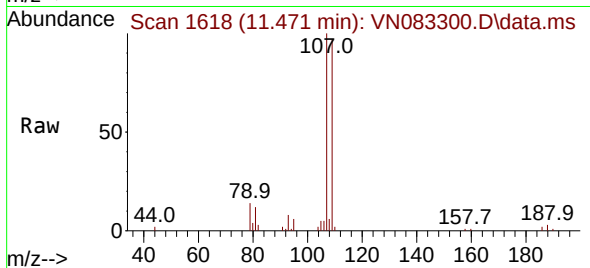
Tgt Ion:129 Resp: 42122  
Ion Ratio Lower Upper  
129 100  
127 78.8 39.2 117.6





#61  
1,2-Dibromoethane  
Concen: 21.078 ug/l  
RT: 11.471 min Scan# 1618  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

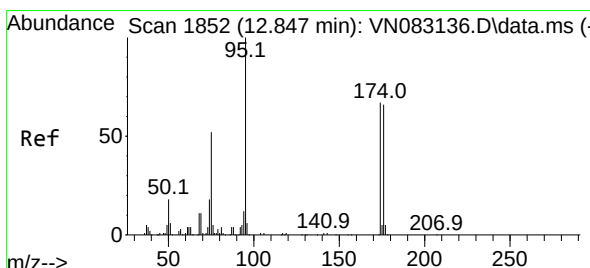
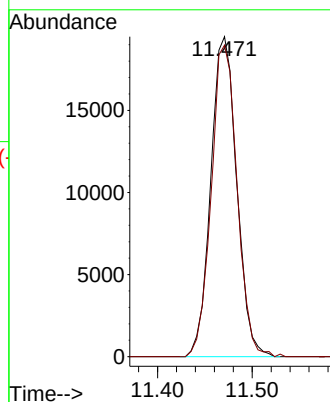
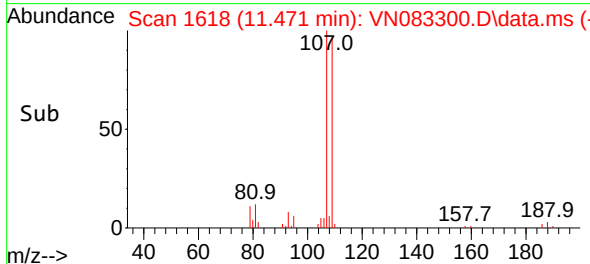
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



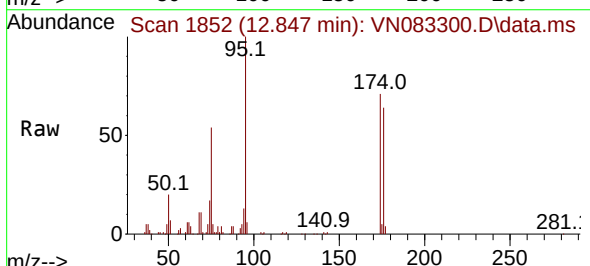
Tgt Ion:107 Resp: 3710  
Ion Ratio Lower Upper  
107 100  
109 97.0 73.7 110.5

Manual Integrations  
APPROVED

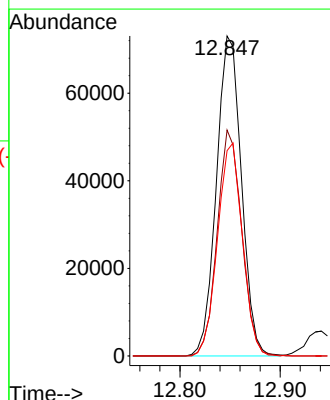
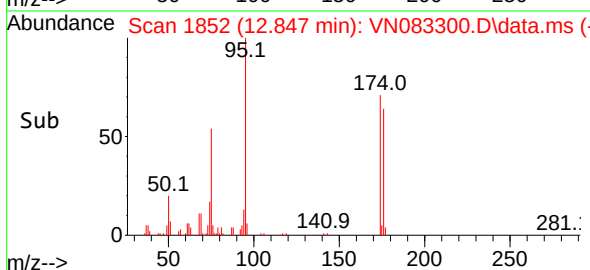
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

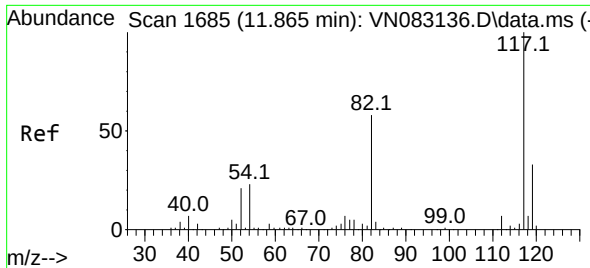


#62  
4-Bromofluorobenzene  
Concen: 52.969 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51



Tgt Ion: 95 Resp: 126506  
Ion Ratio Lower Upper  
95 100  
174 69.1 0.0 159.2  
176 66.3 0.0 147.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion:117 Resp: 232240

Ion Ratio Lower Upper

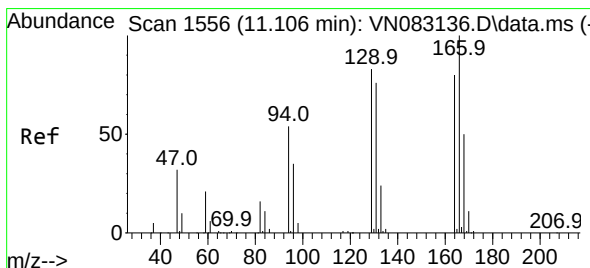
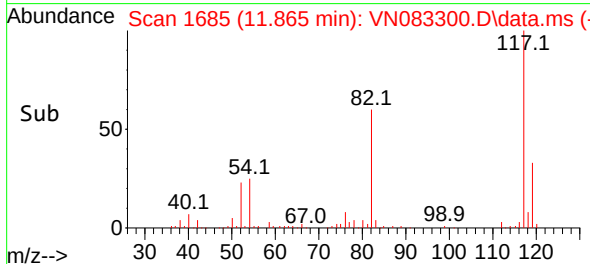
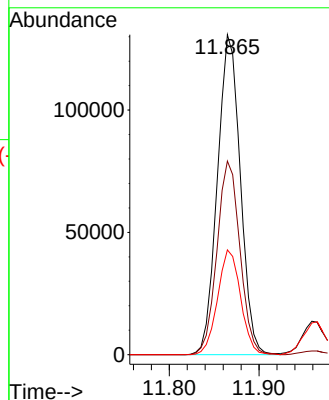
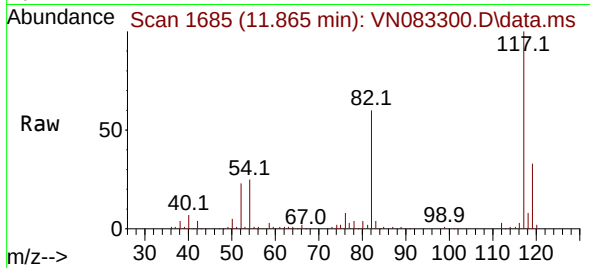
117 100

82 60.5 47.5 71.3

119 32.8 25.6 38.4

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#64

Tetrachloroethene

Concen: 19.809 ug/l

RT: 11.100 min Scan# 1555

Delta R.T. -0.006 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Tgt Ion:164 Resp: 30468

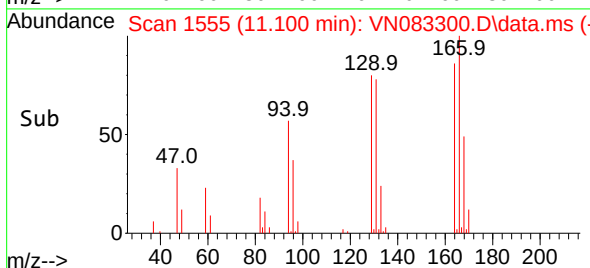
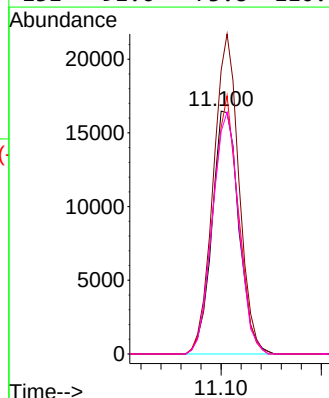
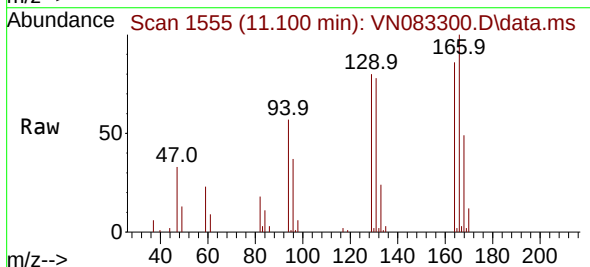
Ion Ratio Lower Upper

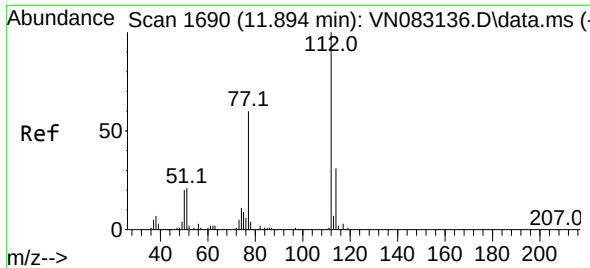
164 100

166 116.8 101.4 152.0

129 93.4 75.7 113.5

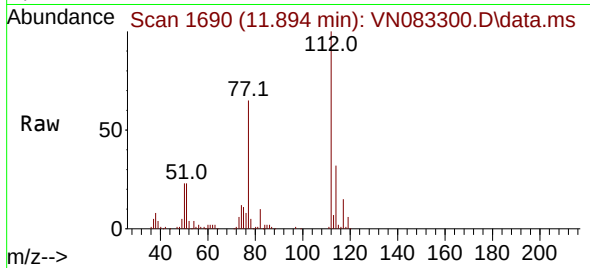
131 91.6 73.8 110.6





#65  
Chlorobenzene  
Concen: 20.022 ug/l  
RT: 11.894 min Scan# 1690  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

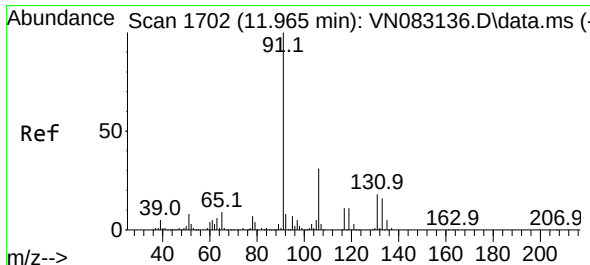
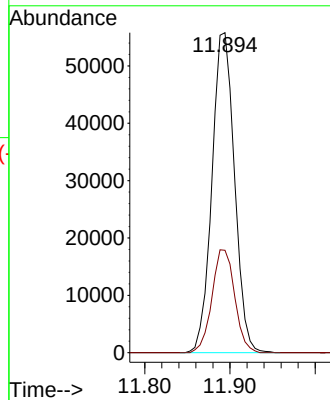
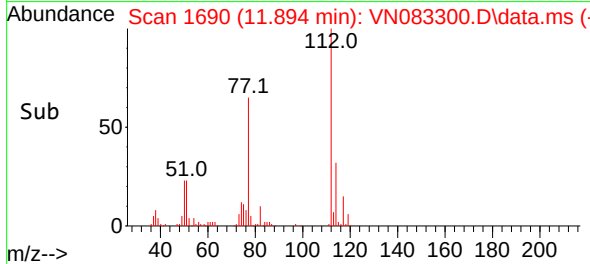
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



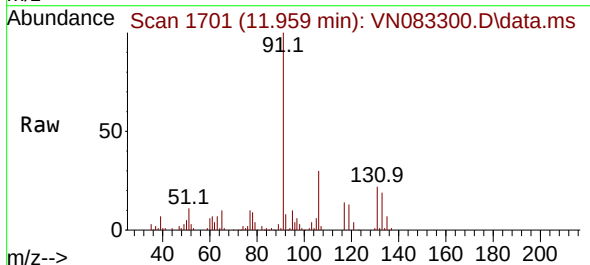
Tgt Ion:112 Resp: 102762  
Ion Ratio Lower Upper  
112 100  
114 32.0 26.2 39.2

Manual Integrations  
APPROVED

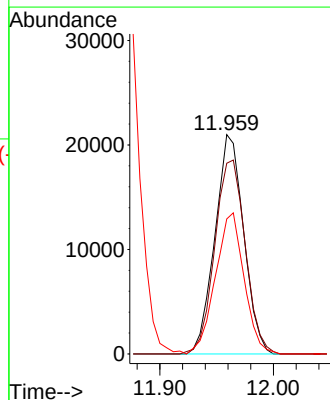
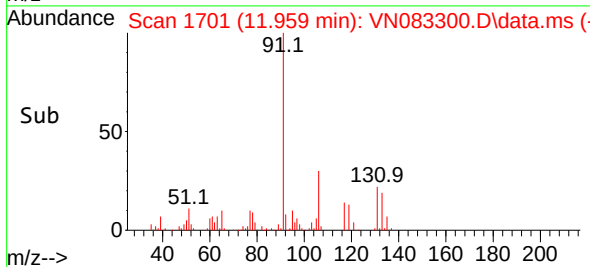
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

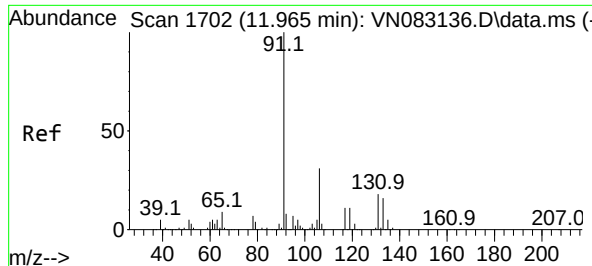


#66  
1,1,1,2-Tetrachloroethane  
Concen: 20.407 ug/l  
RT: 11.959 min Scan# 1701  
Delta R.T. -0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51



Tgt Ion:131 Resp: 36939  
Ion Ratio Lower Upper  
131 100  
133 93.7 47.3 142.0  
119 64.2 32.5 97.4





#67

Ethyl Benzene

Concen: 19.517 ug/l

RT: 11.965 min Scan# 1702

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion: 91 Resp: 18375

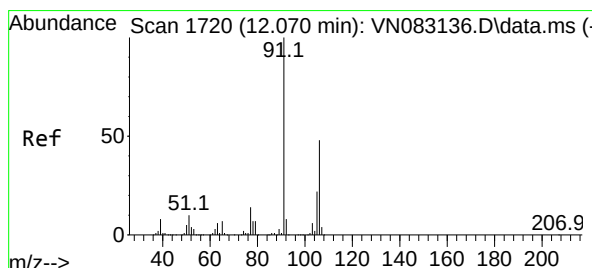
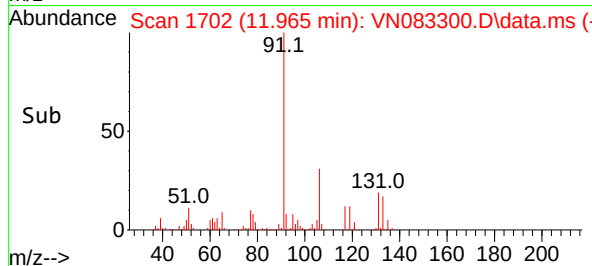
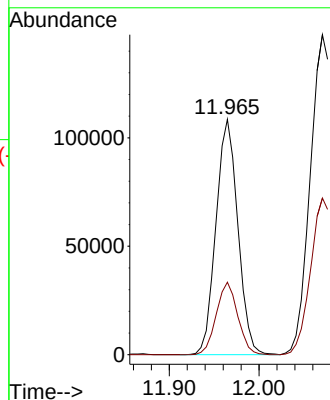
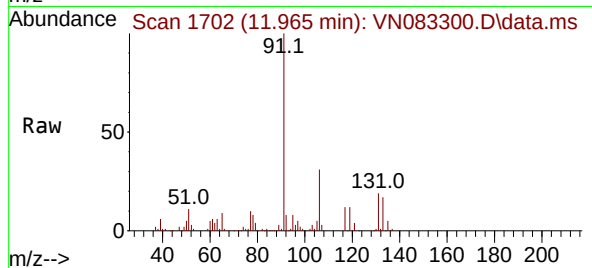
Ion Ratio Lower Upper

91 100

106 30.8 24.0 36.0

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#68

m/p-Xylenes

Concen: 39.159 ug/l

RT: 12.071 min Scan# 1720

Delta R.T. 0.000 min

Lab File: VN083300.D

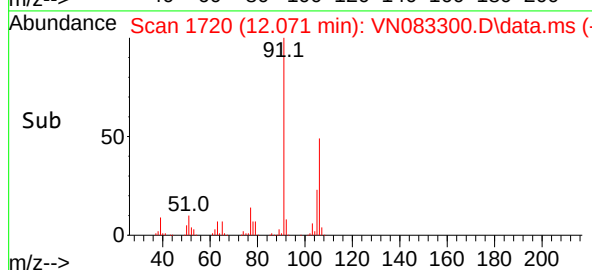
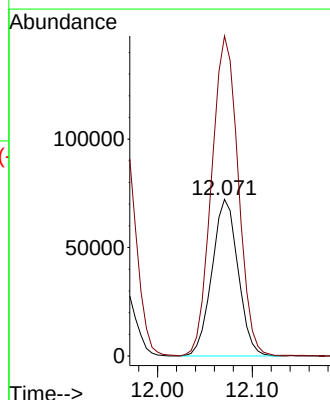
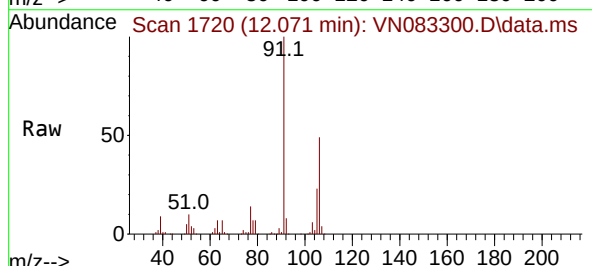
Acq: 14 Aug 2024 14:51

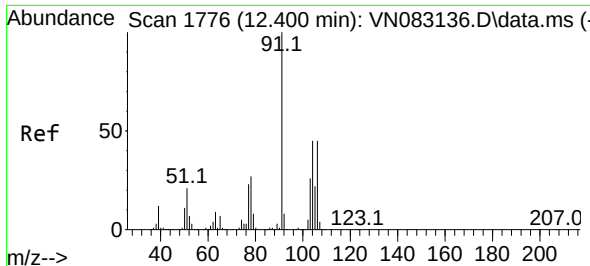
Tgt Ion:106 Resp: 138109

Ion Ratio Lower Upper

106 100

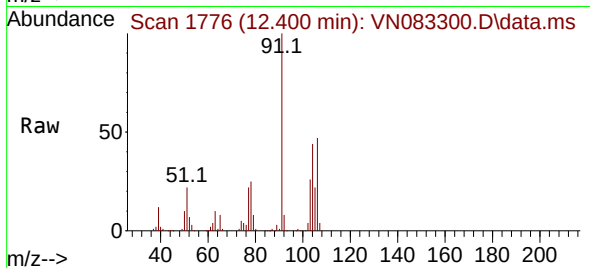
91 209.1 166.1 249.1





#69  
o-Xylene  
Concen: 19.838 ug/l  
RT: 12.400 min Scan# 1776  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

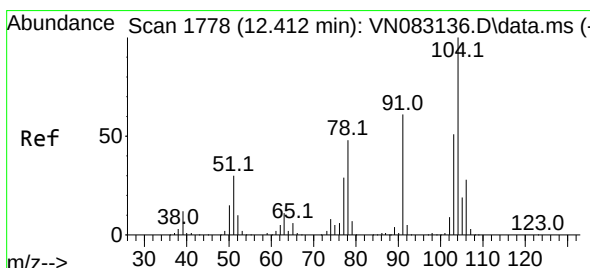
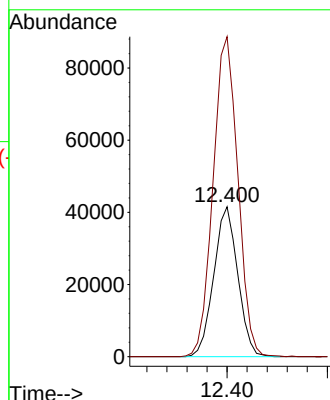
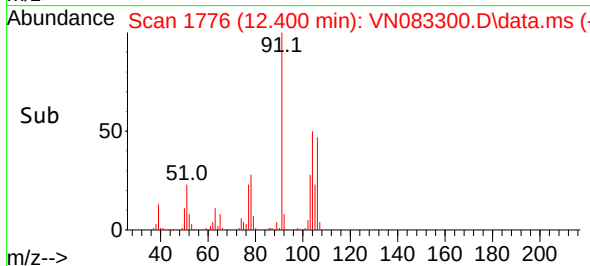
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



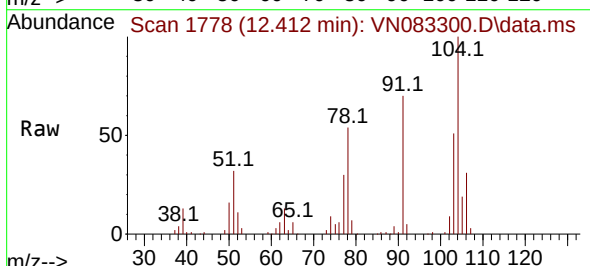
Tgt Ion:106 Resp: 69000  
Ion Ratio Lower Upper  
106 100  
91 220.5 111.3 333.9

Manual Integrations  
APPROVED

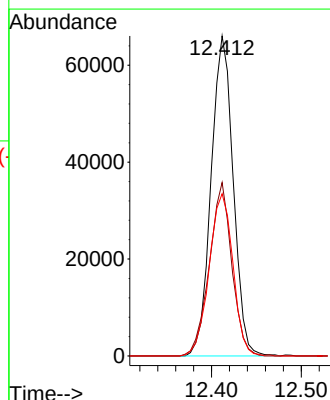
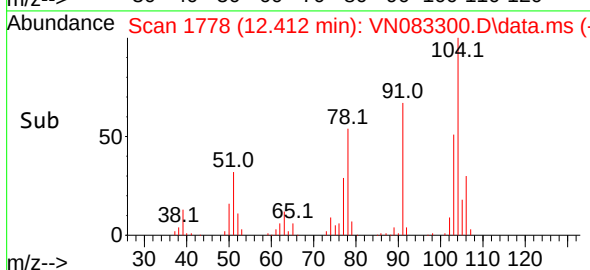
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

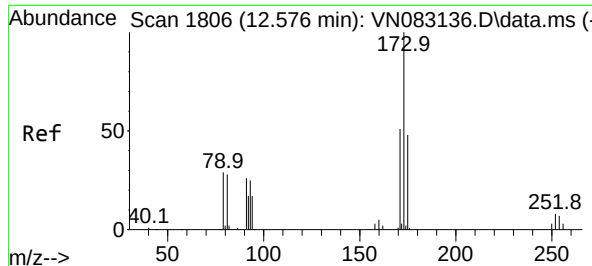


#70  
Styrene  
Concen: 19.330 ug/l  
RT: 12.412 min Scan# 1778  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51



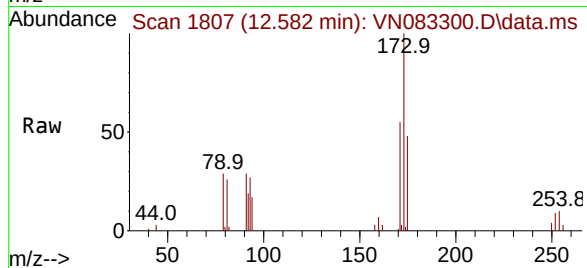
Tgt Ion:104 Resp: 112930  
Ion Ratio Lower Upper  
104 100  
78 55.3 41.6 62.4  
103 54.5 44.0 66.0





#71  
Bromoform  
Concen: 20.002 ug/l  
RT: 12.582 min Scan# 1807  
Delta R.T. 0.006 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

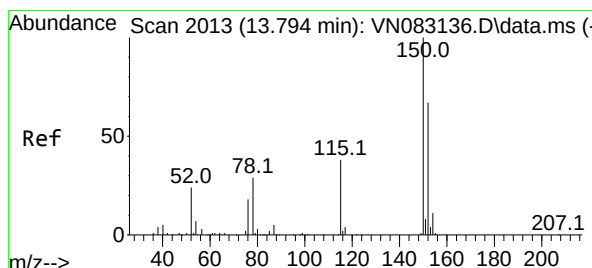
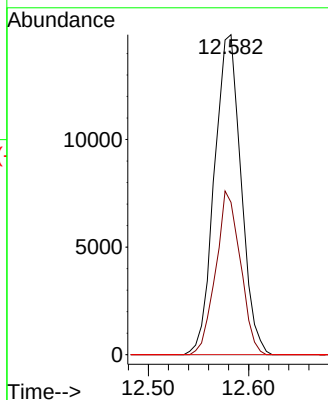
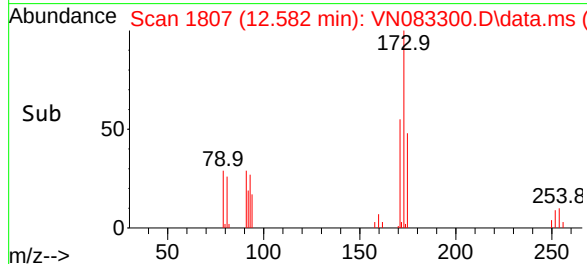
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



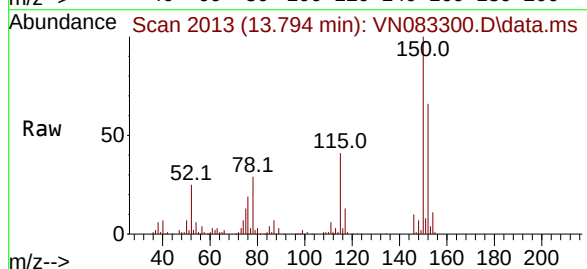
Tgt Ion:173 Resp: 27428  
Ion Ratio Lower Upper  
173 100  
175 47.2 24.0 72.0  
254 0.0 0.0 0.0

Manual Integrations  
APPROVED

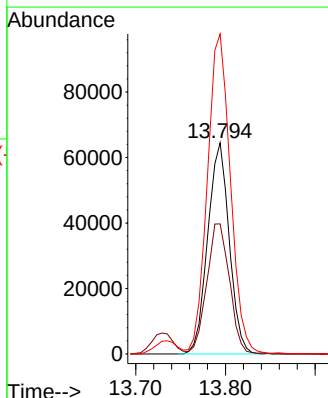
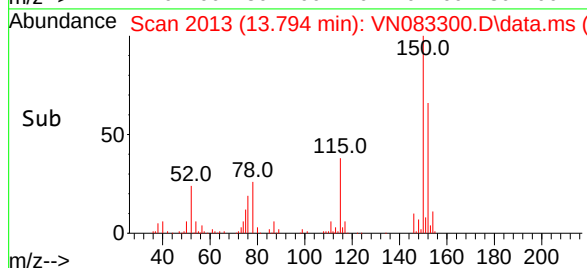
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

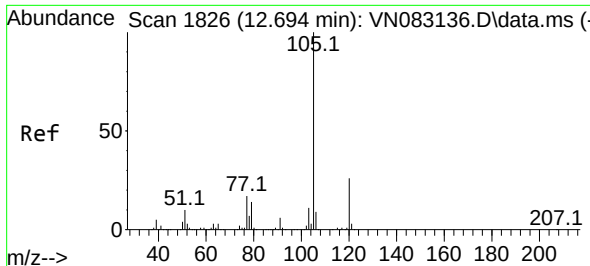


#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.794 min Scan# 2013  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51



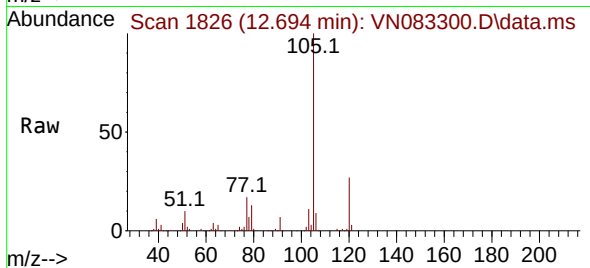
Tgt Ion:152 Resp: 107371  
Ion Ratio Lower Upper  
152 100  
115 64.9 30.6 91.6  
150 162.6 0.0 348.6





#73  
Isopropylbenzene  
Concen: 19.264 ug/l  
RT: 12.694 min Scan# 1826  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

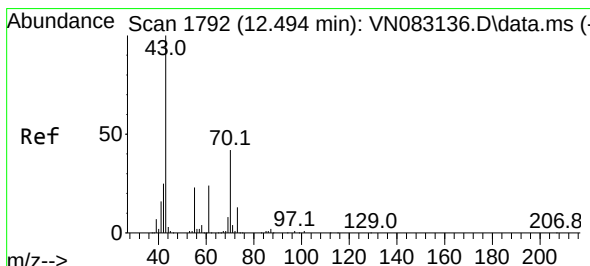
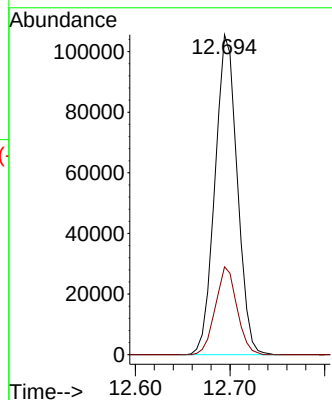
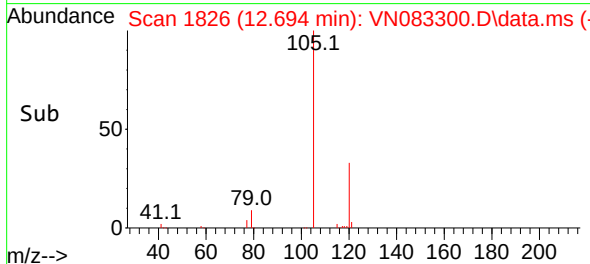
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



Tgt Ion: 105 Resp: 173009  
Ion Ratio Lower Upper  
105 100  
120 26.6 12.9 38.6

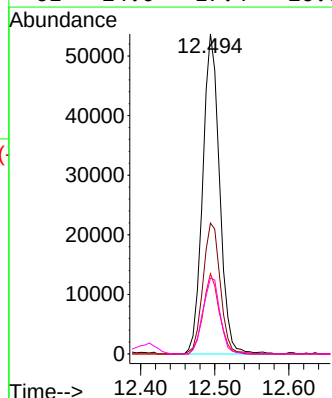
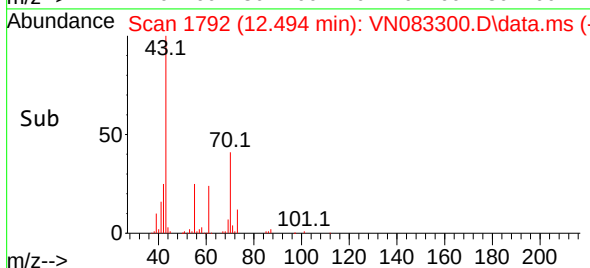
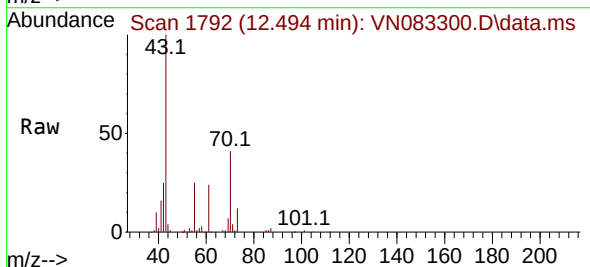
Manual Integrations  
APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

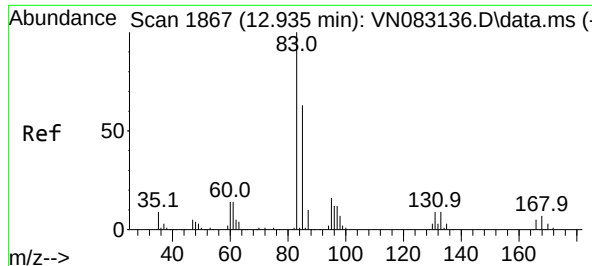


#74  
N-ethyl acetate  
Concen: 19.335 ug/l  
RT: 12.494 min Scan# 1792  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

Tgt Ion: 43 Resp: 84935  
Ion Ratio Lower Upper  
43 100  
70 41.6 29.8 44.6  
55 24.3 18.7 28.1  
61 24.0 17.4 26.0







#75

1,1,2,2-Tetrachloroethane

Concen: 21.525 ug/l

RT: 12.935 min Scan# 1867

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

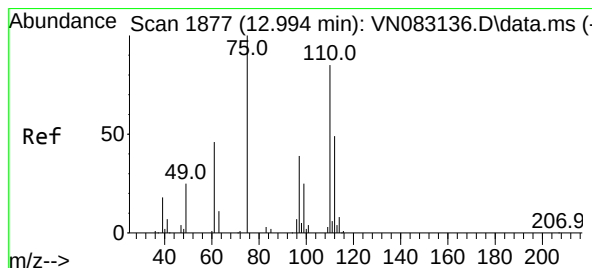
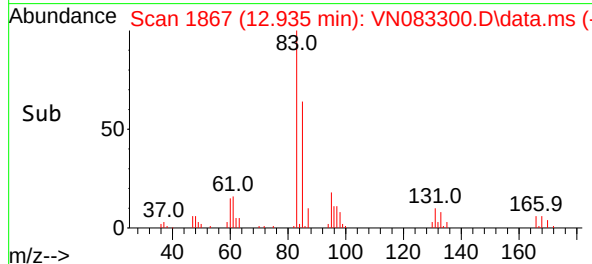
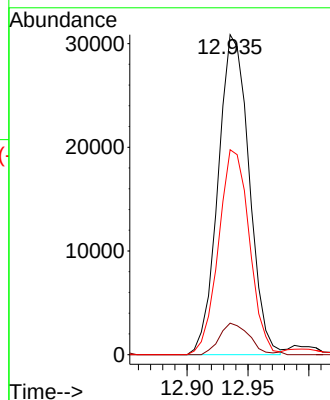
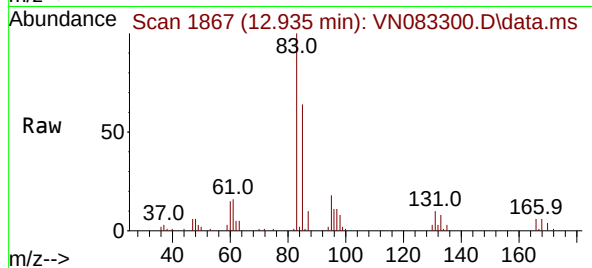
VN0814WBSD01

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 54674 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 131      | 9.6   | 5.0   | 14.9  |
| 85       | 63.8  | 31.9  | 95.7  |

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#76

1,2,3-Trichloropropane

Concen: 21.692 ug/l m

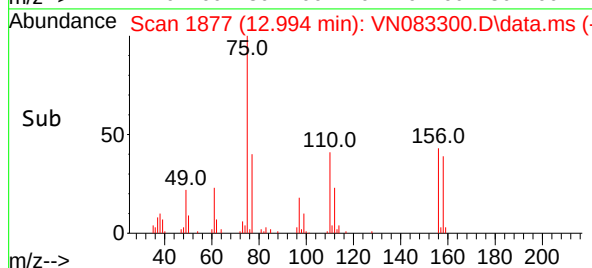
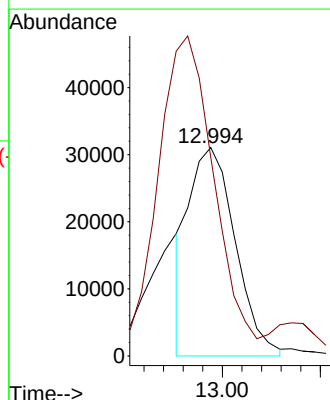
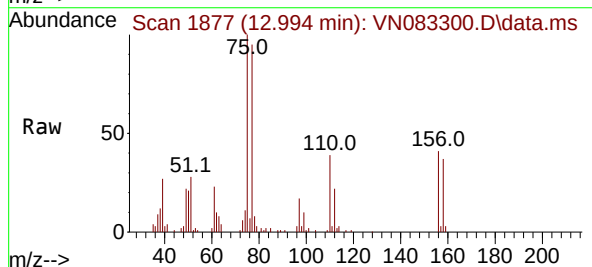
RT: 12.994 min Scan# 1877

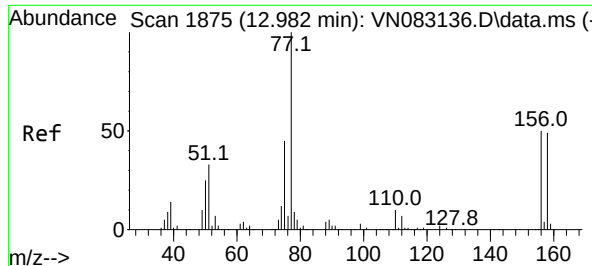
Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 51117 |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 77       | 187.0 | 110.9 | 332.6 |





#77

Bromobenzene

Concen: 20.635 ug/l

RT: 12.982 min Scan# 1875

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion:156 Resp: 4116

Ion Ratio Lower Upper

156 100

77 232.2 111.3 333.8

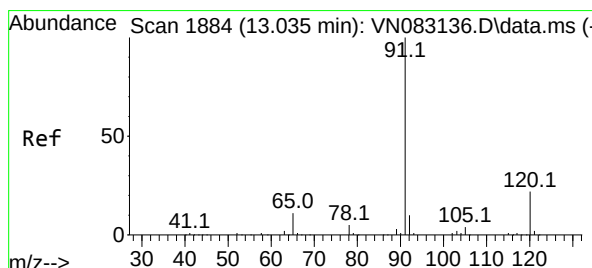
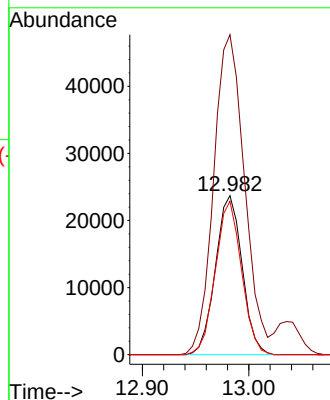
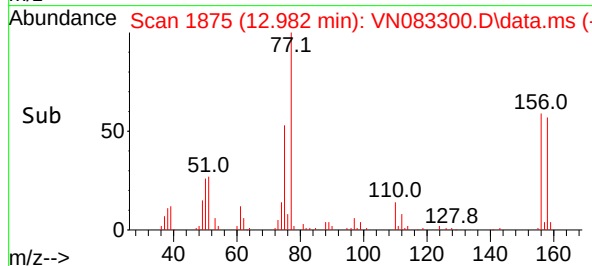
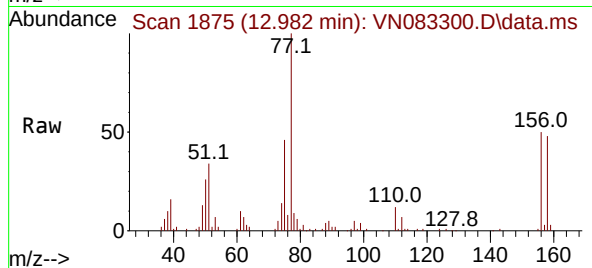
158 94.7 48.3 144.9

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#78

n-propylbenzene

Concen: 19.589 ug/l

RT: 13.035 min Scan# 1884

Delta R.T. 0.000 min

Lab File: VN083300.D

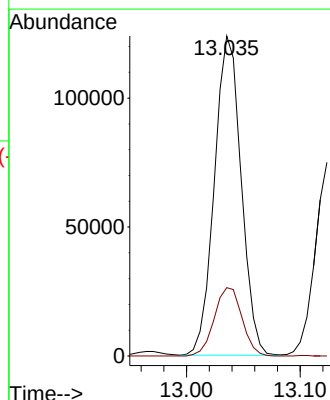
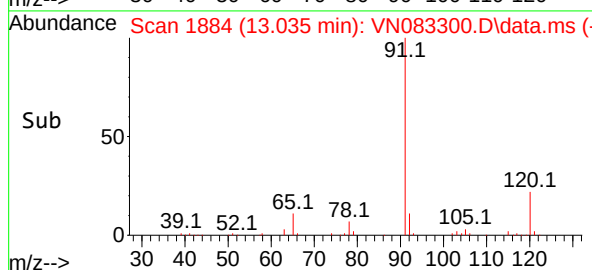
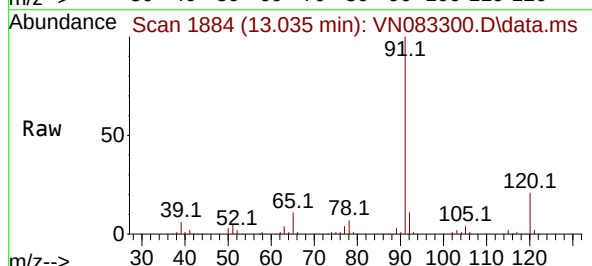
Acq: 14 Aug 2024 14:51

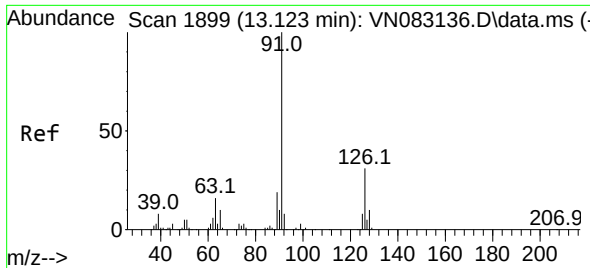
Tgt Ion: 91 Resp: 202570

Ion Ratio Lower Upper

91 100

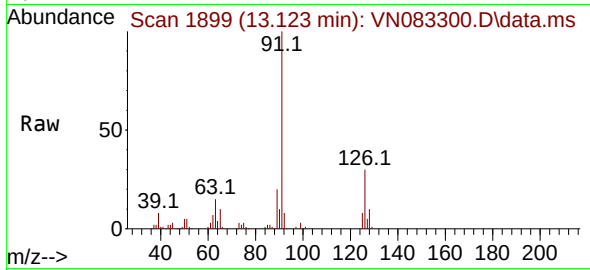
120 22.2 10.9 32.9





#79  
2-Chlorotoluene  
Concen: 19.766 ug/l  
RT: 13.123 min Scan# 1899  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

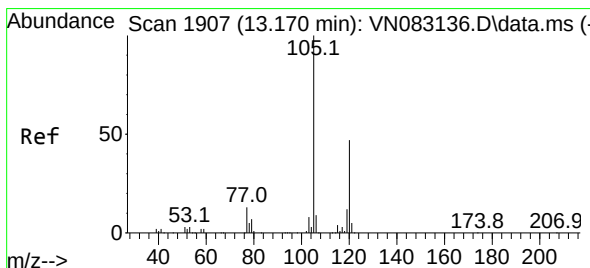
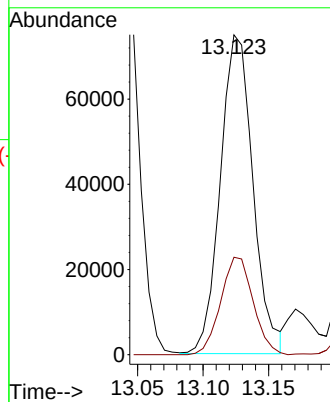
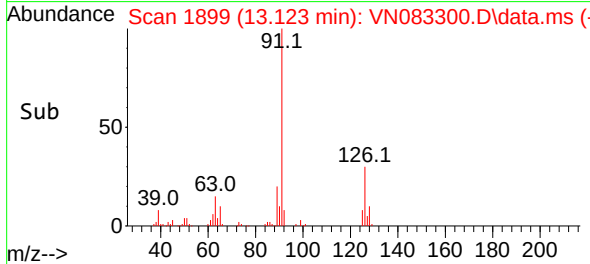
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



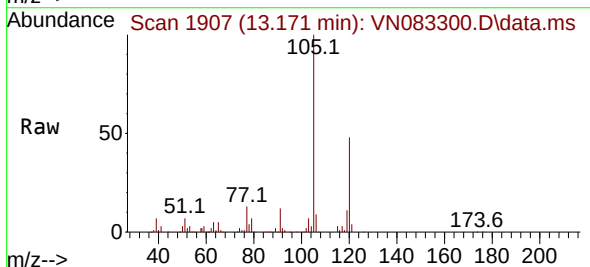
Tgt Ion: 91 Resp: 129590  
Ion Ratio Lower Upper  
91 100  
126 30.4 16.2 48.6

Manual Integrations  
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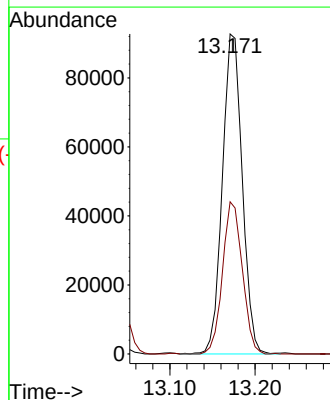
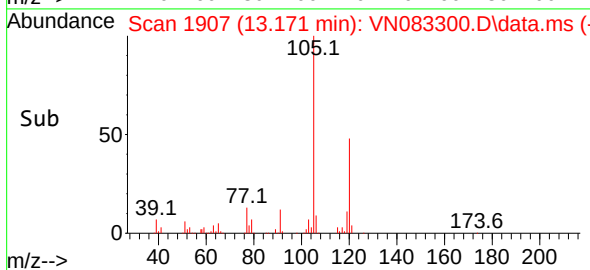
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

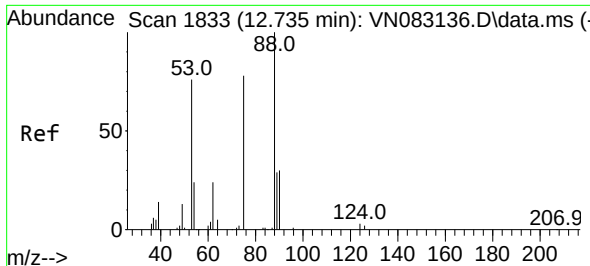


#80  
1,3,5-Trimethylbenzene  
Concen: 20.035 ug/l  
RT: 13.171 min Scan# 1907  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51



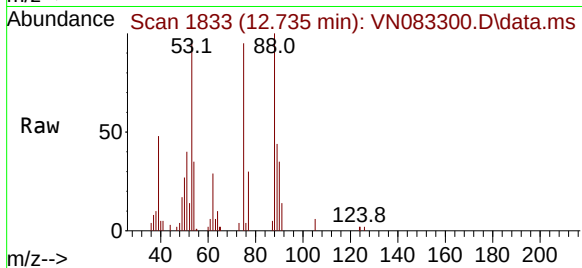
Tgt Ion:105 Resp: 150641  
Ion Ratio Lower Upper  
105 100  
120 47.2 24.3 72.8





#81  
trans-1,4-Dichloro-2-butene  
Concen: 19.003 ug/l m  
RT: 12.735 min Scan# 1833  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

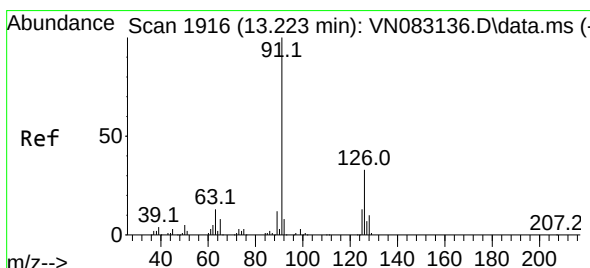
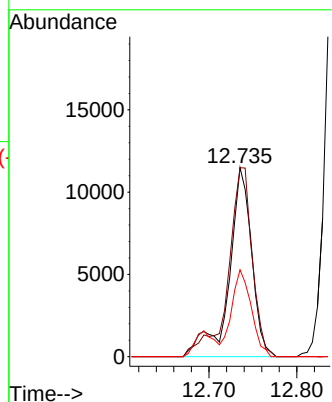
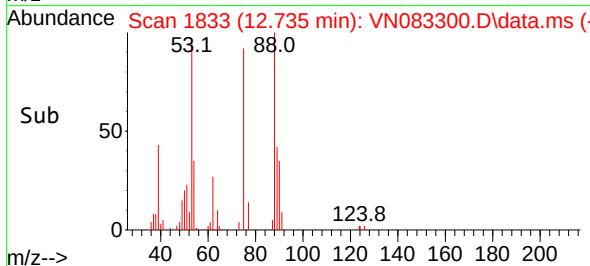
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



Tgt Ion: 75 Resp: 2058  
Ion Ratio Lower Upper  
75 100  
53 105.1 88.4 132.6  
89 40.1 36.3 54.5

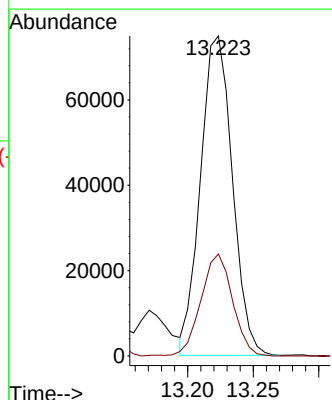
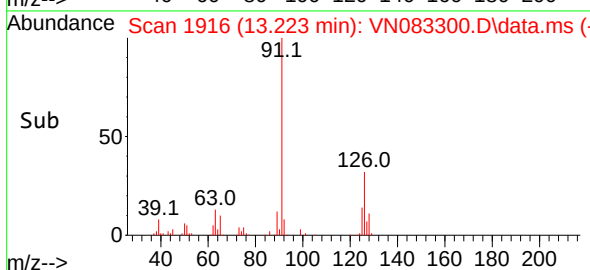
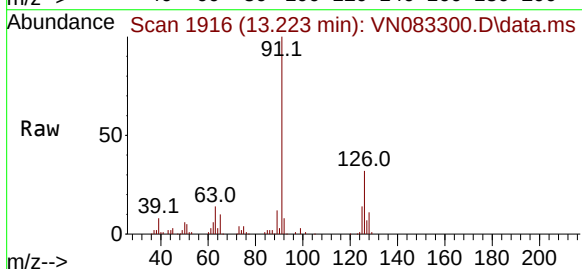
Manual Integrations  
APPROVED

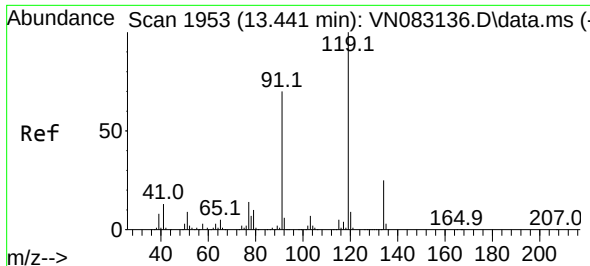
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#82  
4-Chlorotoluene  
Concen: 19.227 ug/l  
RT: 13.223 min Scan# 1916  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

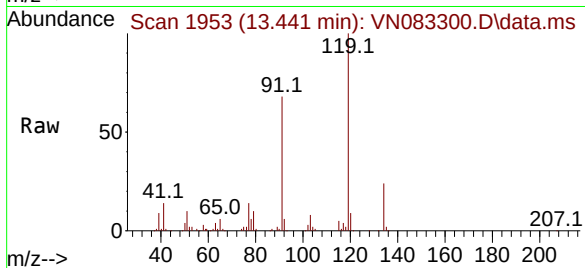
Tgt Ion: 91 Resp: 126446  
Ion Ratio Lower Upper  
91 100  
126 31.7 16.2 48.6





#83  
tert-Butylbenzene  
Concen: 19.443 ug/l  
RT: 13.441 min Scan# 1953  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

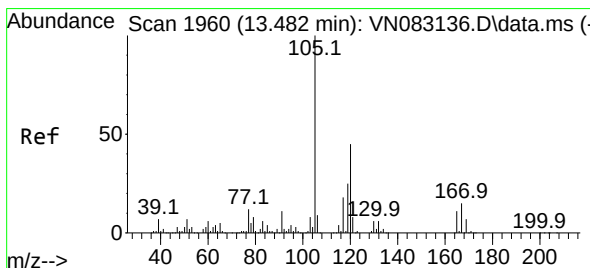
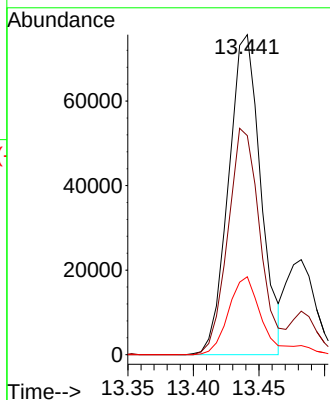
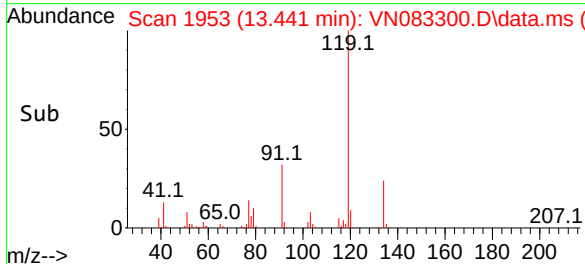
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01



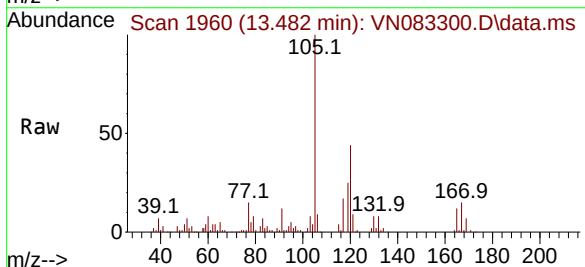
Tgt Ion:119 Resp: 129462  
Ion Ratio Lower Upper  
119 100  
91 71.5 35.0 105.1  
134 26.1 13.3 39.8

Manual Integrations  
APPROVED

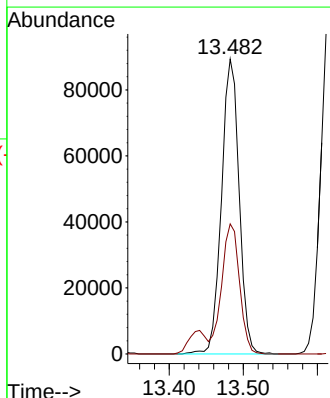
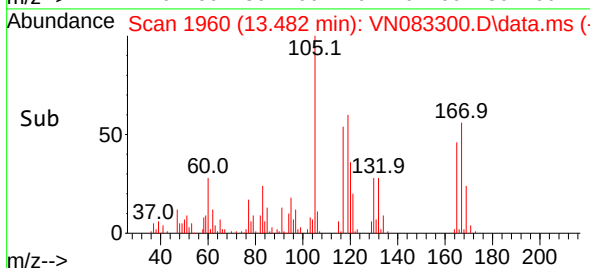
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

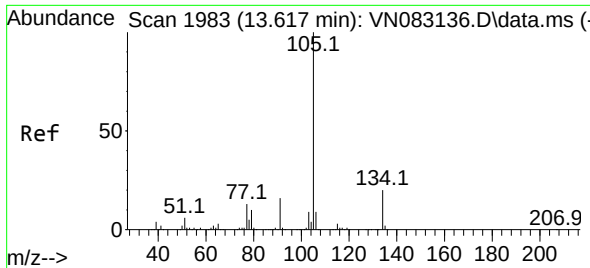


#84  
1,2,4-Trimethylbenzene  
Concen: 19.467 ug/l  
RT: 13.482 min Scan# 1960  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51



Tgt Ion:105 Resp: 147503  
Ion Ratio Lower Upper  
105 100  
120 44.8 21.9 65.8





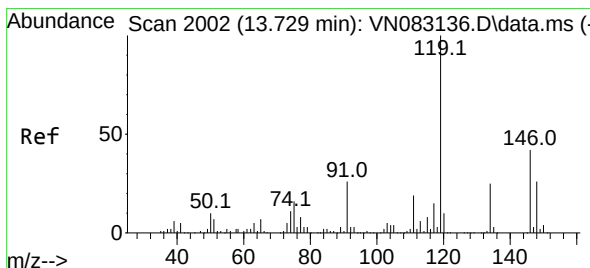
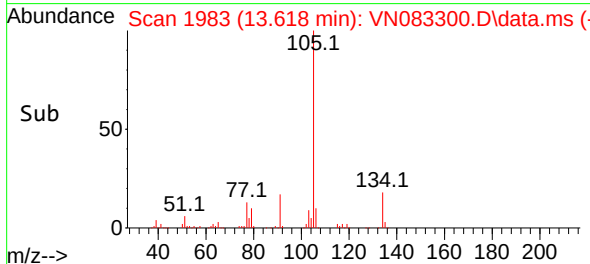
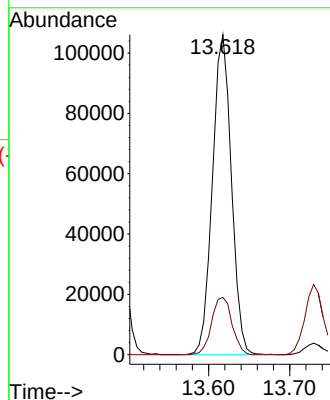
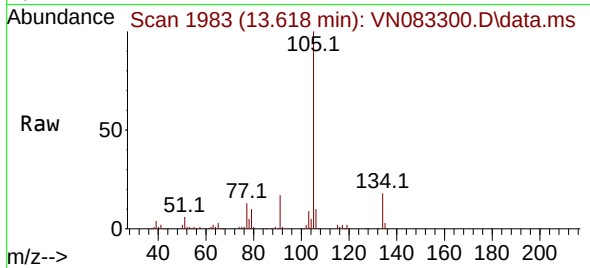
#85  
sec-Butylbenzene  
Concen: 18.893 ug/l  
RT: 13.618 min Scan# 1983  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0814WBSD01

Tgt Ion:105 Resp: 171652  
Ion Ratio Lower Upper  
105 100  
134 19.3 9.8 29.3

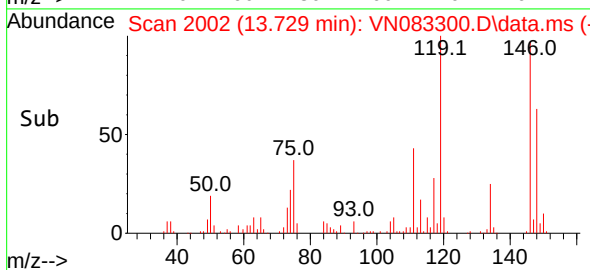
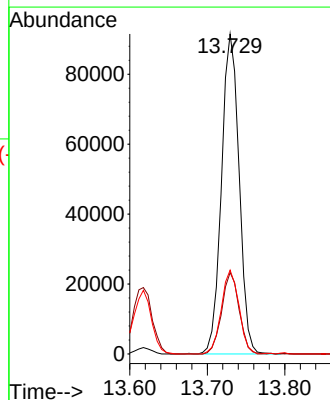
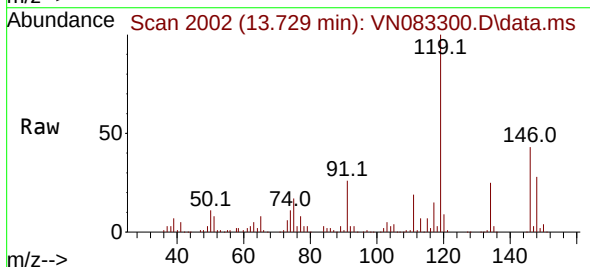
Manual Integrations  
APPROVED

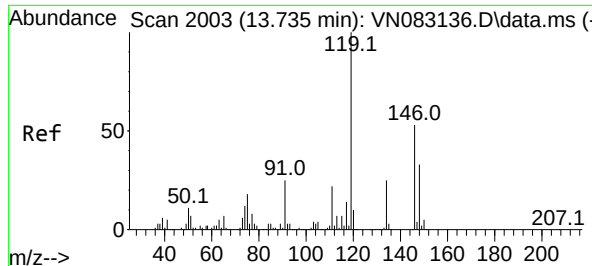
Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#86  
p-Isopropyltoluene  
Concen: 19.247 ug/l  
RT: 13.729 min Scan# 2002  
Delta R.T. 0.000 min  
Lab File: VN083300.D  
Acq: 14 Aug 2024 14:51

Tgt Ion:119 Resp: 144390  
Ion Ratio Lower Upper  
119 100  
134 25.2 13.0 39.0  
91 26.2 12.3 36.9





#87

1,3-Dichlorobenzene

Concen: 19.301 ug/l

RT: 13.735 min Scan# 2003

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

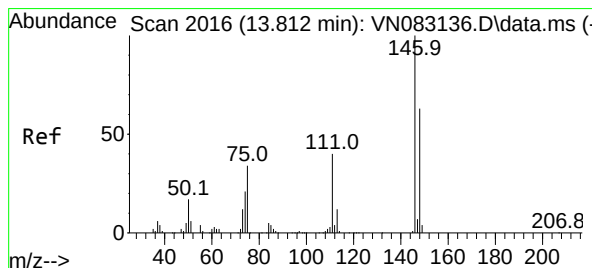
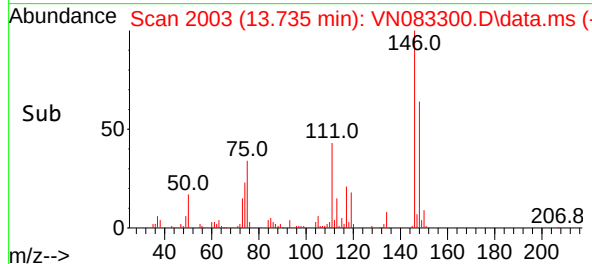
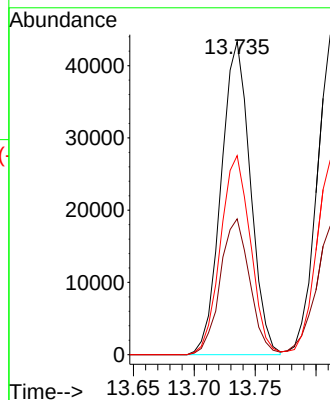
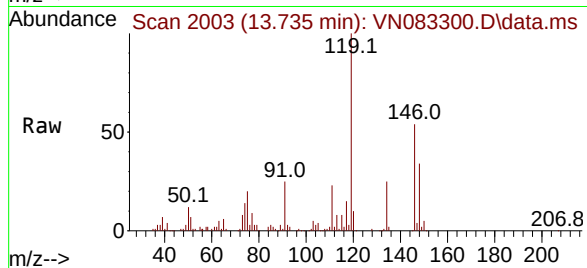
VN0814WBSD01

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 146   | Resp: | 72454 |
| Ion Ratio | Lower | Upper |       |
| 146       | 100   |       |       |
| 111       | 43.7  | 20.6  | 61.9  |
| 148       | 65.1  | 31.8  | 95.3  |

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#88

1,4-Dichlorobenzene

Concen: 19.349 ug/l

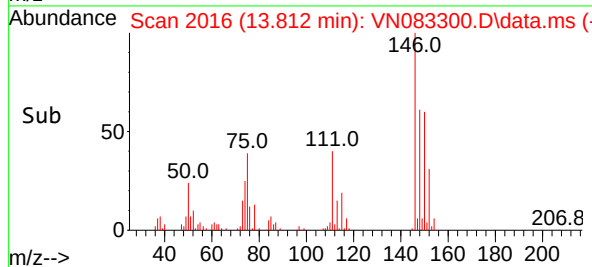
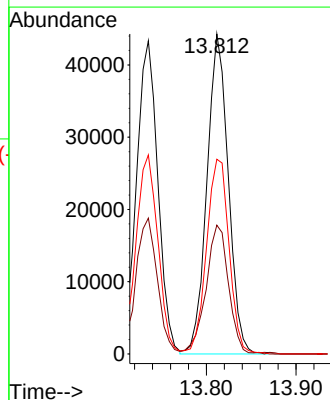
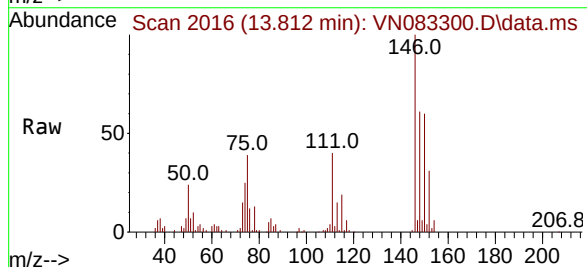
RT: 13.812 min Scan# 2016

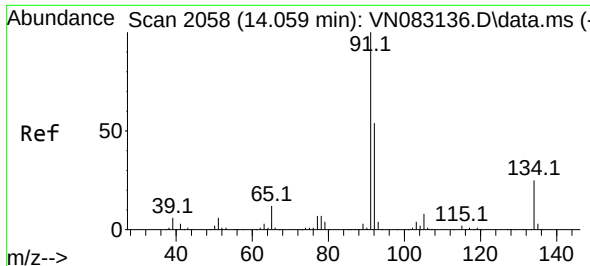
Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 146   | Resp: | 73226 |
| Ion Ratio | Lower | Upper |       |
| 146       | 100   |       |       |
| 111       | 42.6  | 20.1  | 60.3  |
| 148       | 64.4  | 32.2  | 96.6  |





#89

n-Butylbenzene

Concen: 18.930 ug/l

RT: 14.059 min Scan# 2058

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

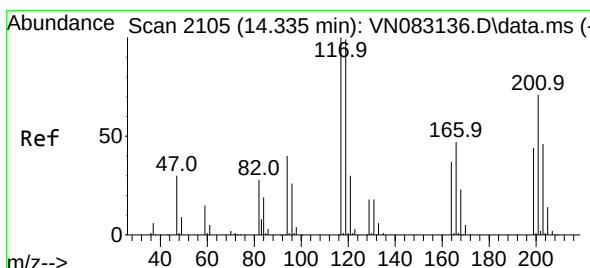
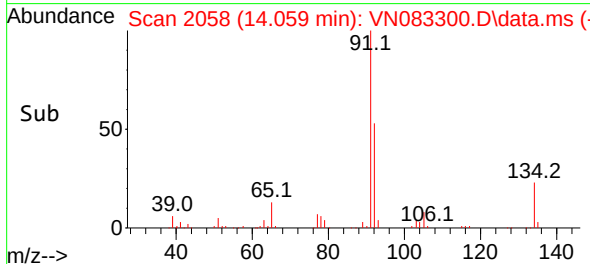
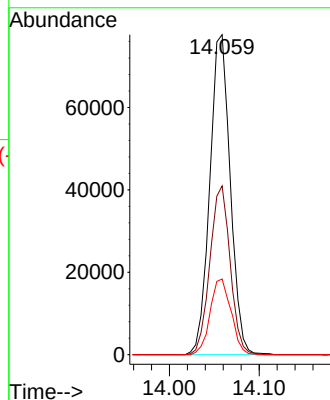
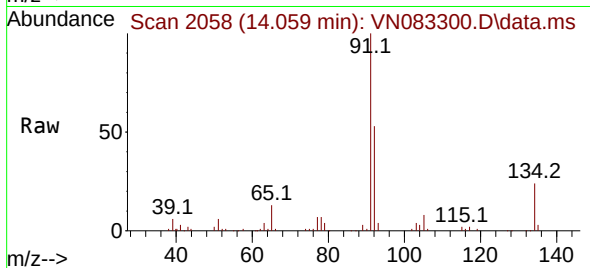
Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 91    | Resp: | 12304 |
| Ion Ratio | Lower | Upper |       |
| 91        | 100   |       |       |
| 92        | 52.3  | 26.1  | 78.3  |
| 134       | 24.2  | 12.1  | 36.3  |

Manual Integrations  
APPROVEDReviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024

#90

Hexachloroethane

Concen: 18.082 ug/l

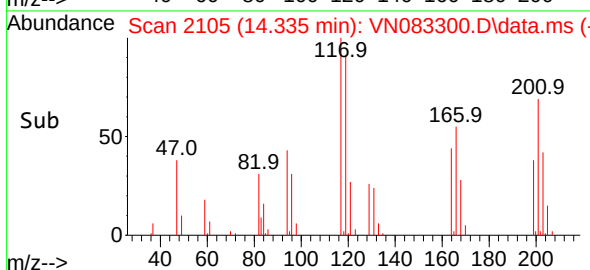
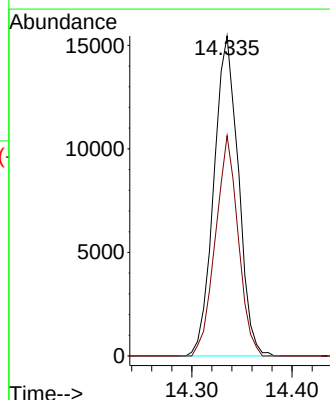
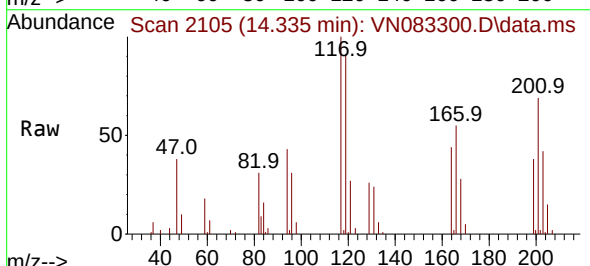
RT: 14.335 min Scan# 2105

Delta R.T. 0.000 min

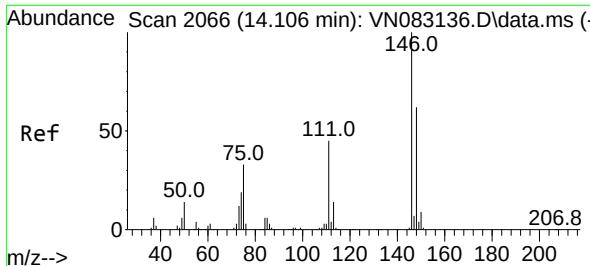
Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 117   | Resp: | 26207 |
| Ion Ratio | Lower | Upper |       |
| 117       | 100   |       |       |
| 201       | 64.0  | 35.8  | 107.3 |







#91

1,2-Dichlorobenzene

Concen: 19.413 ug/l

RT: 14.106 min Scan# 2066

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion:146 Resp: 70519

Ion Ratio Lower Upper

146 100

111 46.1 21.4 64.2

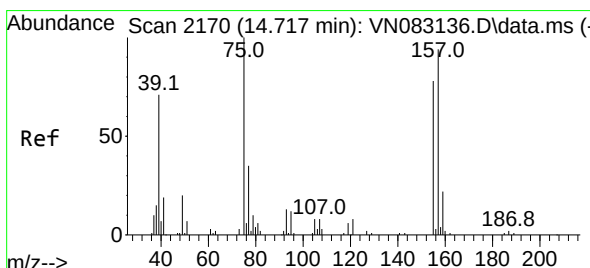
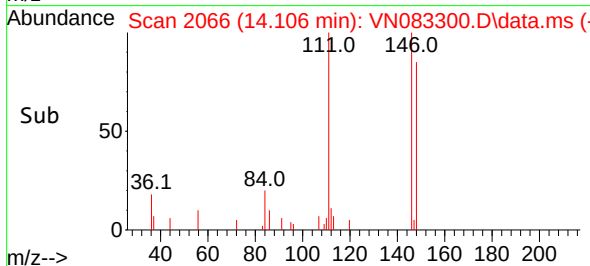
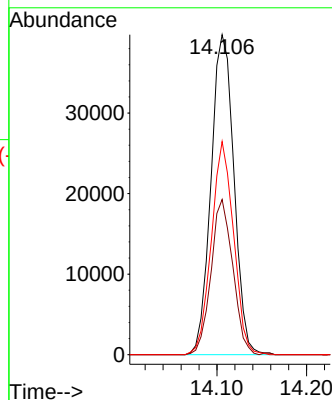
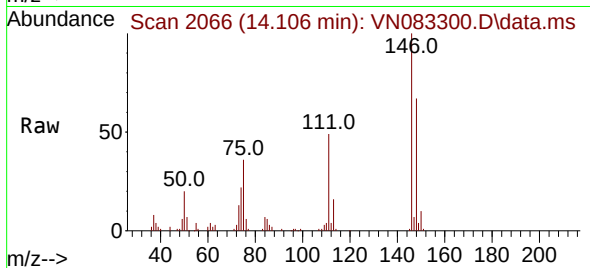
148 64.6 32.1 96.5

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#92

1,2-Dibromo-3-Chloropropane

Concen: 19.942 ug/l

RT: 14.717 min Scan# 2170

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

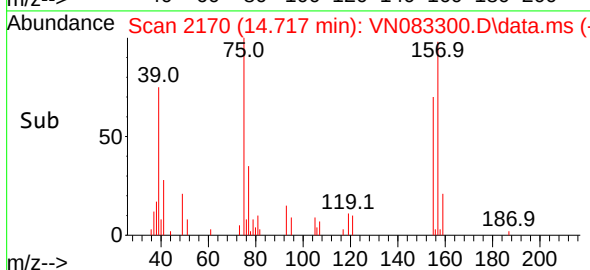
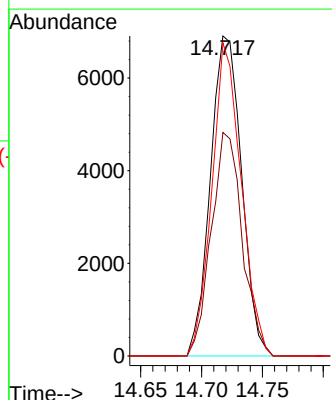
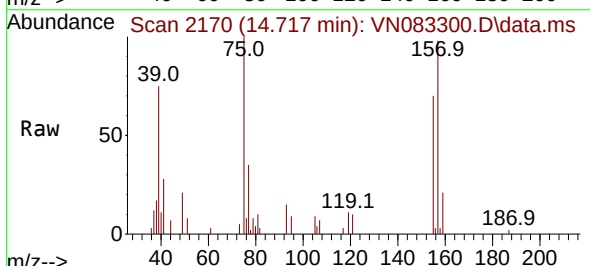
Tgt Ion: 75 Resp: 12292

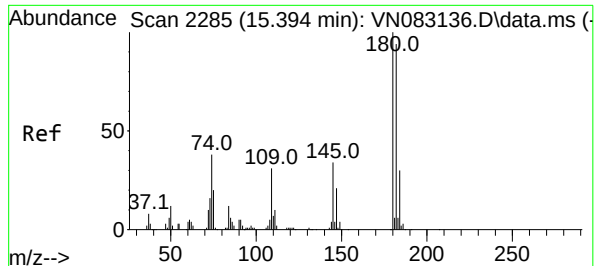
Ion Ratio Lower Upper

75 100

155 69.6 36.6 109.8

157 92.4 46.9 140.6





#93

1,2,4-Trichlorobenzene

Concen: 18.592 ug/l

RT: 15.394 min Scan# 2285

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

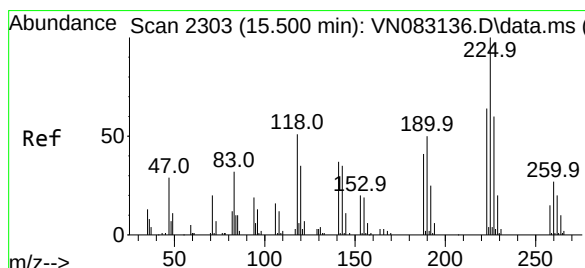
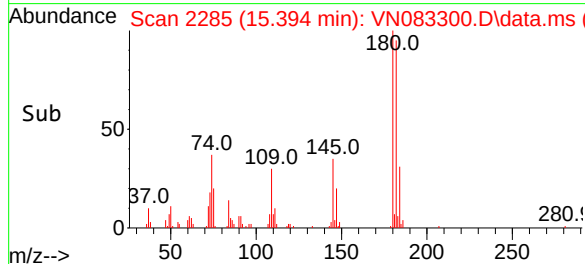
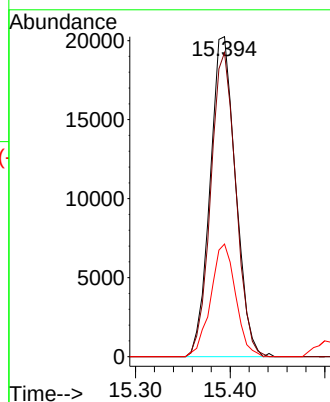
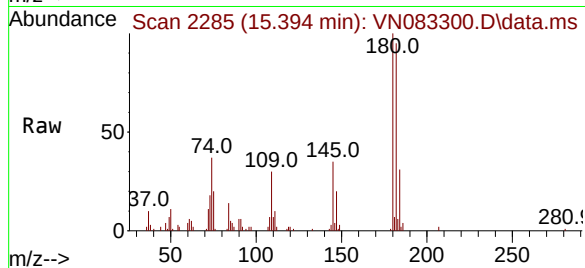
VN0814WBSD01

|             |       |            |
|-------------|-------|------------|
| Tgt Ion:180 | Resp: | 3783       |
| Ion Ratio   | Lower | Upper      |
| 180         | 100   |            |
| 182         | 93.5  | 47.3 141.8 |
| 145         | 34.4  | 15.7 47.1  |

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024  
Supervised By :Semsettin Yesilyurt 08/15/2024



#94

Hexachlorobutadiene

Concen: 17.142 ug/l

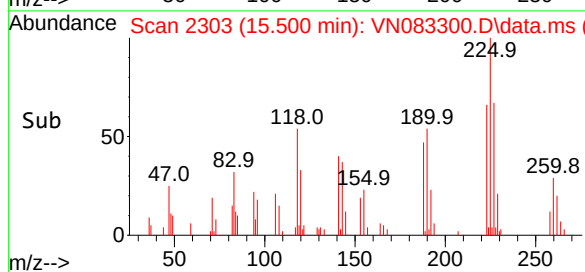
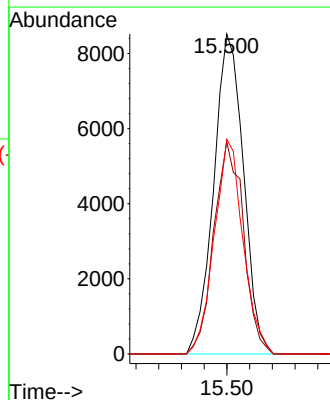
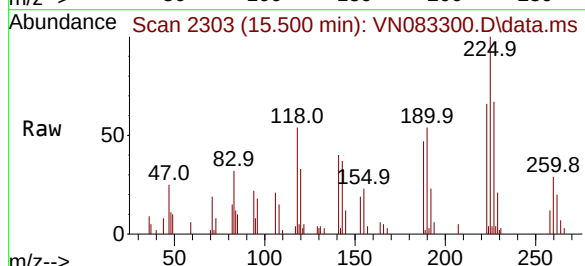
RT: 15.500 min Scan# 2303

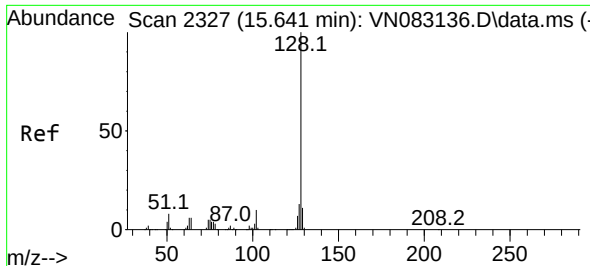
Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:225 | Resp: | 15515     |
| Ion Ratio   | Lower | Upper     |
| 225         | 100   |           |
| 223         | 65.7  | 31.9 95.7 |
| 227         | 64.9  | 32.5 97.5 |





#95

Naphthalene

Concen: 18.940 ug/l

RT: 15.641 min Scan# 2327

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

Instrument :

MSVOA\_N

ClientSampleId :

VN0814WBSD01

Tgt Ion:128 Resp: 13653

Ion Ratio Lower Upper

128 100

127 12.8 10.6 16.0

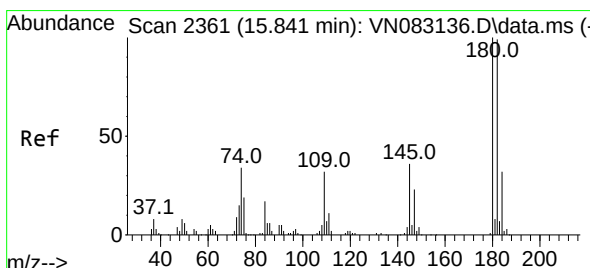
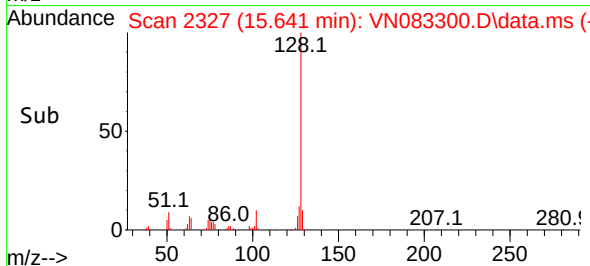
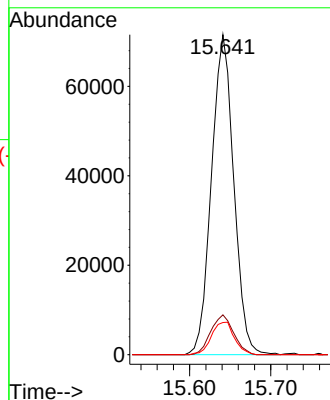
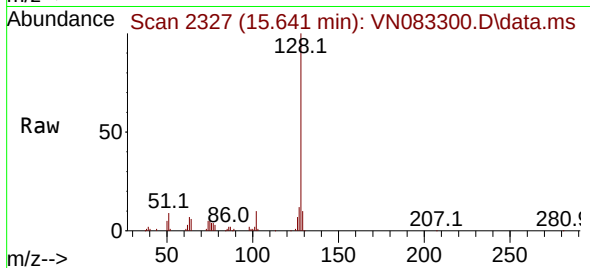
129 10.5 8.6 12.8

Manual Integrations

APPROVED

Reviewed By :Mahesh Dadoda 08/15/2024

Supervised By :Semsettin Yesilyurt 08/15/2024



#96

1,2,3-Trichlorobenzene

Concen: 19.052 ug/l

RT: 15.841 min Scan# 2361

Delta R.T. 0.000 min

Lab File: VN083300.D

Acq: 14 Aug 2024 14:51

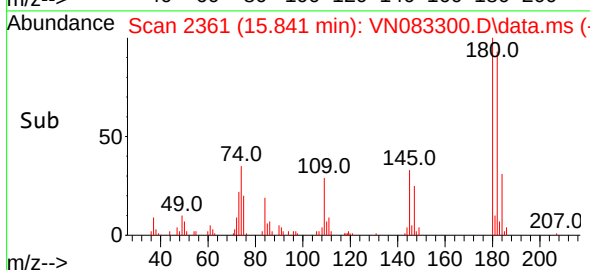
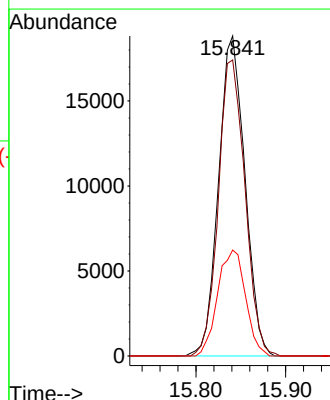
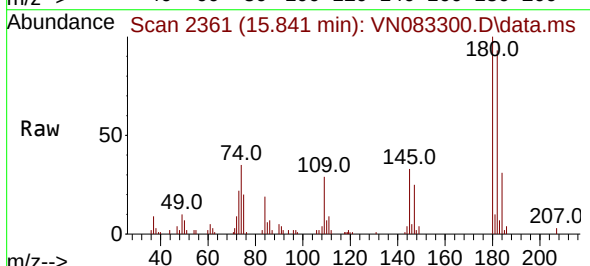
Tgt Ion:180 Resp: 38366

Ion Ratio Lower Upper

180 100

182 93.4 48.9 146.8

145 35.0 16.8 50.4



## Manual Integration Report

|           |          |            |         |
|-----------|----------|------------|---------|
| Sequence: | vn080724 | Instrument | MSVOA_n |
|-----------|----------|------------|---------|

| Sample ID   | File ID    | Parameter              | Review By | Review On           | Supervised By | Supervised On       | Reason                      |
|-------------|------------|------------------------|-----------|---------------------|---------------|---------------------|-----------------------------|
| VSTDICC100  | VN083135.D | 1,2,3-Trichloropropane | JOHN      | 8/8/2024 9:35:12 AM | MMDadoda      | 8/9/2024 6:15:44 AM | Peak Integrated by Software |
| VSTDICCC050 | VN083136.D | 1,2,3-Trichloropropane | JOHN      | 8/8/2024 9:35:17 AM | MMDadoda      | 8/9/2024 6:15:45 AM | Peak Integrated by Software |
| VSTDICCC050 | VN083136.D | Vinyl Acetate          | JOHN      | 8/8/2024 9:35:17 AM | MMDadoda      | 8/9/2024 6:15:45 AM | Peak Integrated by Software |
| VSTDICC020  | VN083137.D | 1,2,3-Trichloropropane | JOHN      | 8/8/2024 9:35:21 AM | MMDadoda      | 8/9/2024 6:15:46 AM | Peak Integrated by Software |
| VSTDICC020  | VN083137.D | Vinyl Acetate          | JOHN      | 8/8/2024 9:35:21 AM | MMDadoda      | 8/9/2024 6:15:46 AM | Peak Integrated by Software |
| VSTDICC010  | VN083138.D | 1,2,3-Trichloropropane | JOHN      | 8/8/2024 9:35:26 AM | MMDadoda      | 8/9/2024 6:15:48 AM | Peak Integrated by Software |
| VSTDICC005  | VN083139.D | 1,2,3-Trichloropropane | JOHN      | 8/8/2024 9:35:30 AM | MMDadoda      | 8/9/2024 6:15:49 AM | Peak Integrated by Software |
| VSTDICC005  | VN083139.D | Vinyl Acetate          | JOHN      | 8/8/2024 9:35:30 AM | MMDadoda      | 8/9/2024 6:15:49 AM | Peak Integrated by Software |
| VSTDICC001  | VN083140.D | 1,2,3-Trichloropropane | JOHN      | 8/8/2024 9:35:34 AM | MMDadoda      | 8/9/2024 6:15:51 AM | Peak Integrated by Software |
| VSTDICC001  | VN083140.D | 1,4-Dichlorobenzene    | JOHN      | 8/8/2024 9:35:34 AM | MMDadoda      | 8/9/2024 6:15:51 AM | Peak Integrated by Software |
| VSTDICV050  | VN083142.D | 1,2,3-Trichloropropane | JOHN      | 8/8/2024 9:35:41 AM | MMDadoda      | 8/9/2024 6:15:52 AM | Peak Integrated by Software |

## Manual Integration Report

|           |          |            |         |
|-----------|----------|------------|---------|
| Sequence: | VN081424 | Instrument | MSVOA_n |
|-----------|----------|------------|---------|

| Sample ID    | File ID    | Parameter                   | Review By | Review On            | Supervised By | Supervised On        | Reason                      |
|--------------|------------|-----------------------------|-----------|----------------------|---------------|----------------------|-----------------------------|
| VSTDCCC050   | VN083295.D | 1,2,3-Trichloropropane      | MMDadoda  | 8/15/2024 1:43:36 AM | SAM           | 8/15/2024 1:45:44 AM | Peak Integrated by Software |
| VN0814WBS01  | VN083298.D | 1,2,3-Trichloropropane      | MMDadoda  | 8/15/2024 1:43:39 AM | SAM           | 8/15/2024 1:45:49 AM | Peak Integrated by Software |
| VN0814WBS01  | VN083298.D | Allyl chloride              | MMDadoda  | 8/15/2024 1:43:39 AM | SAM           | 8/15/2024 1:45:49 AM | Peak Integrated by Software |
| VN0814WBSD01 | VN083300.D | 1,2,3-Trichloropropane      | MMDadoda  | 8/15/2024 1:43:42 AM | SAM           | 8/15/2024 1:45:50 AM | Peak Integrated by Software |
| VN0814WBSD01 | VN083300.D | Allyl chloride              | MMDadoda  | 8/15/2024 1:43:42 AM | SAM           | 8/15/2024 1:45:50 AM | Peak Integrated by Software |
| VN0814WBSD01 | VN083300.D | trans-1,4-Dichloro-2-butene | MMDadoda  | 8/15/2024 1:43:42 AM | SAM           | 8/15/2024 1:45:50 AM | Peak Integrated by Software |
| VSTDCCC050   | VN083318.D | 1,2,3-Trichloropropane      | MMDadoda  | 8/15/2024 1:43:56 AM | SAM           | 8/15/2024 1:46:04 AM | Peak Integrated by Software |
| VSTDCCC050   | VN083318.D | Allyl chloride              | MMDadoda  | 8/15/2024 1:43:56 AM | SAM           | 8/15/2024 1:46:04 AM | Peak Integrated by Software |

Instrument ID: MSVOA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # VN080724**

|                          |                                                       |                   |                                   |
|--------------------------|-------------------------------------------------------|-------------------|-----------------------------------|
| Review By                | John Carlone                                          | Review On         | 8/8/2024 9:36:00 AM               |
| Supervise By             | Maresh Dadoda                                         | Supervise On      | 8/9/2024 6:16:03 AM               |
| SubDirectory             | VN080724                                              | HP Acquire Method | HP Processing Method 82N080724W.M |
| <b>STD. NAME</b>         | <b>STD REF.#</b>                                      |                   |                                   |
| Tune/Reschk              | VP129516                                              |                   |                                   |
| Initial Calibration Stds | VP129526,VP129527,VP129528,VP129529,VP129530,VP129531 |                   |                                   |
| CCC                      |                                                       |                   |                                   |
| Internal Standard/PEM    |                                                       |                   |                                   |
| ICV/I.BLK                | VP129532                                              |                   |                                   |
| Surrogate Standard       |                                                       |                   |                                   |
| MS/MSD Standard          |                                                       |                   |                                   |
| LCS Standard             |                                                       |                   |                                   |

| Sr# | SampleId    | Data File Name | Date-Time         | Operator | Status |
|-----|-------------|----------------|-------------------|----------|--------|
| 1   | BFB         | VN083134.D     | 07 Aug 2024 10:09 | JC\MD    | Ok     |
| 2   | VSTDICC100  | VN083135.D     | 07 Aug 2024 10:33 | JC\MD    | Ok,M   |
| 3   | VSTDICCC050 | VN083136.D     | 07 Aug 2024 10:58 | JC\MD    | Ok,M   |
| 4   | VSTDICC020  | VN083137.D     | 07 Aug 2024 11:22 | JC\MD    | Ok,M   |
| 5   | VSTDICC010  | VN083138.D     | 07 Aug 2024 11:46 | JC\MD    | Ok,M   |
| 6   | VSTDICC005  | VN083139.D     | 07 Aug 2024 12:10 | JC\MD    | Ok,M   |
| 7   | VSTDICC001  | VN083140.D     | 07 Aug 2024 12:34 | JC\MD    | Ok,M   |
| 8   | IBLK        | VN083141.D     | 07 Aug 2024 13:22 | JC\MD    | Ok     |
| 9   | VSTDICV050  | VN083142.D     | 07 Aug 2024 14:49 | JC\MD    | Ok,M   |

M : Manual Integration

Instrument ID: **MSVOA\_N**

**Daily Analysis Runlog For Sequence/QC Batch ID # VN081424**

|                                                                                                    |                                                                         |                   |                                   |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------|-----------------------------------|
| Review By                                                                                          | Maresh Dadoda                                                           | Review On         | 8/15/2024 1:44:31 AM              |
| Supervise By                                                                                       | John Carlone                                                            | Supervise On      | 8/15/2024 9:39:57 AM              |
| SubDirectory                                                                                       | VN081424                                                                | HP Acquire Method | HP Processing Method 82N080724W.M |
| <b>STD. NAME</b>                                                                                   | <b>STD REF.#</b>                                                        |                   |                                   |
| Tune/Reschk<br>Initial Calibration Stds                                                            | VP129723                                                                |                   |                                   |
| CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | VP129724,VP129725,VP129726,VP129727,VP129728,VP129729,VP129730,VP129731 |                   |                                   |

| Sr# | SampleId         | Data File Name | Date-Time         | Operator | Status |
|-----|------------------|----------------|-------------------|----------|--------|
| 1   | BFB              | VN083294.D     | 14 Aug 2024 12:07 | JC\MD    | Ok     |
| 2   | VSTDCCC050       | VN083295.D     | 14 Aug 2024 12:41 | JC\MD    | Ok,M   |
| 3   | VN0814MBL01      | VN083296.D     | 14 Aug 2024 13:16 | JC\MD    | Not Ok |
| 4   | VN0814WBL01      | VN083297.D     | 14 Aug 2024 13:39 | JC\MD    | Ok     |
| 5   | VN0814WBS01      | VN083298.D     | 14 Aug 2024 14:03 | JC\MD    | Ok,M   |
| 6   | P3429-03DL       | VN083299.D     | 14 Aug 2024 14:27 | JC\MD    | Ok     |
| 7   | VN0814WBSD01     | VN083300.D     | 14 Aug 2024 14:51 | JC\MD    | Ok,M   |
| 8   | P3390-09 0.2PPB  | VN083301.D     | 14 Aug 2024 15:15 | JC\MD    | Ok,M   |
| 9   | P3390-09 0.5PPB  | VN083302.D     | 14 Aug 2024 15:40 | JC\MD    | Ok,M   |
| 10  | P3390-09 0.75PPB | VN083303.D     | 14 Aug 2024 16:04 | JC\MD    | Ok,M   |
| 11  | P3390-09 2.5PPB  | VN083304.D     | 14 Aug 2024 16:28 | JC\MD    | Ok,M   |
| 12  | P3390-08 1.0PPB  | VN083305.D     | 14 Aug 2024 16:52 | JC\MD    | Ok,M   |
| 13  | P3390-08 5.0PPB  | VN083306.D     | 14 Aug 2024 17:16 | JC\MD    | Ok,M   |
| 14  | P3596-03         | VN083307.D     | 14 Aug 2024 17:41 | JC\MD    | Ok     |
| 15  | P3601-03         | VN083308.D     | 14 Aug 2024 18:05 | JC\MD    | Ok     |
| 16  | P3596-01         | VN083309.D     | 14 Aug 2024 18:29 | JC\MD    | Ok     |
| 17  | P3596-02         | VN083310.D     | 14 Aug 2024 18:54 | JC\MD    | Ok     |
| 18  | P3601-01         | VN083311.D     | 14 Aug 2024 19:18 | JC\MD    | Ok     |
| 19  | P3601-02         | VN083312.D     | 14 Aug 2024 19:42 | JC\MD    | Ok     |
| 20  | PB162684TB       | VN083313.D     | 14 Aug 2024 20:07 | JC\MD    | Ok     |
| 21  | P3574-01         | VN083314.D     | 14 Aug 2024 20:31 | JC\MD    | Ok,M   |

Instrument ID: MSVOA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # VN081424**

| Review By                                                                                          | Mahesh Dadoda                                                           | Review On         | 8/15/2024 1:44:31 AM              |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------|-----------------------------------|
| Supervise By                                                                                       | John Carlone                                                            | Supervise On      | 8/15/2024 9:39:57 AM              |
| SubDirectory                                                                                       | VN081424                                                                | HP Acquire Method | HP Processing Method 82N080724W.M |
| STD. NAME                                                                                          | STD REF.#                                                               |                   |                                   |
| Tune/Reschk<br>Initial Calibration Stds                                                            | VP129723                                                                |                   |                                   |
| CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | VP129724,VP129725,VP129726,VP129727,VP129728,VP129729,VP129730,VP129731 |                   |                                   |

|    |            |            |                   |       |      |
|----|------------|------------|-------------------|-------|------|
| 22 | P3609-03   | VN083315.D | 14 Aug 2024 20:55 | JC\MD | Ok   |
| 23 | P3609-01   | VN083316.D | 14 Aug 2024 21:19 | JC\MD | Ok   |
| 24 | P3609-02   | VN083317.D | 14 Aug 2024 21:43 | JC\MD | Ok   |
| 25 | VSTDCCC050 | VN083318.D | 14 Aug 2024 22:08 | JC\MD | Ok,M |

M : Manual Integration



Instrument ID: MSVOA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # VN080724**

|              |               |                   |                                   |
|--------------|---------------|-------------------|-----------------------------------|
| Review By    | John Carlone  | Review On         | 8/8/2024 9:36:00 AM               |
| Supervise By | Maresh Dadoda | Supervise On      | 8/9/2024 6:16:03 AM               |
| SubDirectory | VN080724      | HP Acquire Method | HP Processing Method 82N080724W.M |

| STD. NAME                | STD REF.#                                             |
|--------------------------|-------------------------------------------------------|
| Tune/Reschk              | VP129516                                              |
| Initial Calibration Stds | VP129526,VP129527,VP129528,VP129529,VP129530,VP129531 |
| CCC                      |                                                       |
| Internal Standard/PEM    |                                                       |
| ICV/I.BLK                | VP129532                                              |
| Surrogate Standard       |                                                       |
| MS/MSD Standard          |                                                       |
| LCS Standard             |                                                       |

| Sr# | SampleID    | ClientID    | Data File Name | Date-Time         | Comment      | Operator | Status |
|-----|-------------|-------------|----------------|-------------------|--------------|----------|--------|
| 1   | BFB         | BFB         | VN083134.D     | 07 Aug 2024 10:09 |              | JC\MD    | Ok     |
| 2   | VSTDICC100  | VSTDICC100  | VN083135.D     | 07 Aug 2024 10:33 | Good for DOD | JC\MD    | Ok,M   |
| 3   | VSTDICCC050 | VSTDICCC050 | VN083136.D     | 07 Aug 2024 10:58 | QR- 43       | JC\MD    | Ok,M   |
| 4   | VSTDICC020  | VSTDICC020  | VN083137.D     | 07 Aug 2024 11:22 |              | JC\MD    | Ok,M   |
| 5   | VSTDICC010  | VSTDICC010  | VN083138.D     | 07 Aug 2024 11:46 |              | JC\MD    | Ok,M   |
| 6   | VSTDICC005  | VSTDICC005  | VN083139.D     | 07 Aug 2024 12:10 |              | JC\MD    | Ok,M   |
| 7   | VSTDICC001  | VSTDICC001  | VN083140.D     | 07 Aug 2024 12:34 |              | JC\MD    | Ok,M   |
| 8   | IBLK        | IBLK        | VN083141.D     | 07 Aug 2024 13:22 |              | JC\MD    | Ok     |
| 9   | VSTDICV050  | ICVVN080724 | VN083142.D     | 07 Aug 2024 14:49 |              | JC\MD    | Ok,M   |

M : Manual Integration

Instrument ID: MSVOA\_N

### Daily Analysis Runlog For Sequence/QC Batch ID # VN081424

|              |               |                   |                                   |
|--------------|---------------|-------------------|-----------------------------------|
| Review By    | Maresh Dadoda | Review On         | 8/15/2024 1:44:31 AM              |
| Supervise By | John Carlone  | Supervise On      | 8/15/2024 9:39:57 AM              |
| SubDirectory | VN081424      | HP Acquire Method | HP Processing Method 82N080724W.M |

| STD. NAME                                                                                          | STD REF.#                                                               |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Tune/Reschk<br>Initial Calibration Stds                                                            | VP129723                                                                |
| CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | VP129724,VP129725,VP129726,VP129727,VP129728,VP129729,VP129730,VP129731 |

| Sr# | SampleID         | ClientID              | Data File Name | Date-Time         | Comment                | Operator | Status |
|-----|------------------|-----------------------|----------------|-------------------|------------------------|----------|--------|
| 1   | BFB              | BFB                   | VN083294.D     | 14 Aug 2024 12:07 |                        | JC\MD    | Ok     |
| 2   | VSTDCCC050       | VSTDCCC050            | VN083295.D     | 14 Aug 2024 12:41 |                        | JC\MD    | Ok,M   |
| 3   | VN0814MBL01      | VN0814MBL01           | VN083296.D     | 14 Aug 2024 13:16 | RT Differ;Not Required | JC\MD    | Not Ok |
| 4   | VN0814WBL01      | VN0814WBL01           | VN083297.D     | 14 Aug 2024 13:39 |                        | JC\MD    | Ok     |
| 5   | VN0814WBS01      | VN0814WBS01           | VN083298.D     | 14 Aug 2024 14:03 |                        | JC\MD    | Ok,M   |
| 6   | P3429-03DL       | 925-K1-WS-073124DL    | VN083299.D     | 14 Aug 2024 14:27 | vial B pH<2            | JC\MD    | Ok     |
| 7   | VN0814WBSD01     | VN0814WBSD01          | VN083300.D     | 14 Aug 2024 14:51 |                        | JC\MD    | Ok,M   |
| 8   | P3390-09 0.2PPB  | MDL-WATER-03-QT3-2    | VN083301.D     | 14 Aug 2024 15:15 |                        | JC\MD    | Ok,M   |
| 9   | P3390-09 0.5PPB  | MDL-WATER-03-QT3-2    | VN083302.D     | 14 Aug 2024 15:40 |                        | JC\MD    | Ok,M   |
| 10  | P3390-09 0.75PPB | MDL-WATER-03-QT3-2    | VN083303.D     | 14 Aug 2024 16:04 |                        | JC\MD    | Ok,M   |
| 11  | P3390-09 2.5PPB  | MDL-WATER-03-QT3-2    | VN083304.D     | 14 Aug 2024 16:28 |                        | JC\MD    | Ok,M   |
| 12  | P3390-08 1.0PPB  | LOQ-WATER-02-QT3-2    | VN083305.D     | 14 Aug 2024 16:52 |                        | JC\MD    | Ok,M   |
| 13  | P3390-08 5.0PPB  | LOQ-WATER-02-QT3-2    | VN083306.D     | 14 Aug 2024 17:16 |                        | JC\MD    | Ok,M   |
| 14  | P3596-03         | TB-01-081324          | VN083307.D     | 14 Aug 2024 17:41 | vial A pH<2 TB         | JC\MD    | Ok     |
| 15  | P3601-03         | TB-02-081324          | VN083308.D     | 14 Aug 2024 18:05 | vial A pH<2 TB         | JC\MD    | Ok     |
| 16  | P3596-01         | 918-J-WS-081324       | VN083309.D     | 14 Aug 2024 18:29 | vial A pH<2            | JC\MD    | Ok     |
| 17  | P3596-02         | 918-J-WS-081324-FD    | VN083310.D     | 14 Aug 2024 18:54 | vial A pH<2            | JC\MD    | Ok     |
| 18  | P3601-01         | 918-J-WPO-0.25-081324 | VN083311.D     | 14 Aug 2024 19:18 | vial A pH<2            | JC\MD    | Ok     |

Instrument ID: MSVOA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # VN081424**

|                                                                                                    |                                                                         |                   |                                   |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------|-----------------------------------|
| Review By                                                                                          | Maresh Dadoda                                                           | Review On         | 8/15/2024 1:44:31 AM              |
| Supervise By                                                                                       | John Carlone                                                            | Supervise On      | 8/15/2024 9:39:57 AM              |
| SubDirectory                                                                                       | VN081424                                                                | HP Acquire Method | HP Processing Method 82N080724W.M |
| <b>STD. NAME</b>                                                                                   | <b>STD REF.#</b>                                                        |                   |                                   |
| Tune/Reschk<br>Initial Calibration Stds                                                            | VP129723                                                                |                   |                                   |
| CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | VP129724,VP129725,VP129726,VP129727,VP129728,VP129729,VP129730,VP129731 |                   |                                   |

|    |            |                      |            |                   |                |       |      |
|----|------------|----------------------|------------|-------------------|----------------|-------|------|
| 19 | P3601-02   | 918-J-WPO-0.25-08132 | VN083312.D | 14 Aug 2024 19:42 | vial A pH<2    | JC\MD | Ok   |
| 20 | PB162684TB | PB162684TB           | VN083313.D | 14 Aug 2024 20:07 |                | JC\MD | Ok   |
| 21 | P3574-01   | WC-S-06-202408       | VN083314.D | 14 Aug 2024 20:31 | vial A pH#5.0  | JC\MD | Ok,M |
| 22 | P3609-03   | TB-01-081424         | VN083315.D | 14 Aug 2024 20:55 | vial A pH<2 TB | JC\MD | Ok   |
| 23 | P3609-01   | 915-J-WS-081424      | VN083316.D | 14 Aug 2024 21:19 | vial A pH<2    | JC\MD | Ok   |
| 24 | P3609-02   | 920-J-WS-081424      | VN083317.D | 14 Aug 2024 21:43 | vial A pH<2    | JC\MD | Ok   |
| 25 | VSTDCCC050 | VSTDCCC050EC         | VN083318.D | 14 Aug 2024 22:08 |                | JC\MD | Ok,M |

M : Manual Integration

## Prep Standard - Chemical Standard Summary

**Order ID :** P3609  
**Test :** VOCMS Group6

**Prepbatch ID :**  
**Sequence ID/Qc Batch ID:** VN081424,

### Standard ID :

VP126666,VP128290,VP128298,VP128523,VP128632,VP128634,VP128762,VP128764,VP128765,VP128766,VP128768,VP128769,VP129196,VP129228,VP129230,VP129231,VP129232,VP129235,VP129236,VP129238,VP129517,VP129519,VP129520,VP129723,VP129724,VP129725,VP129726,VP129727,VP129728,VP129729,VP129730,VP129731,

### Chemical ID :

V12794,V12798,V12966,V13390,V13444,V13448,V13462,V13463,V13539,V13581,V13707,V13708,V13800,V13801,V13812,V13952,V13953,V13959,V14016,V14017,V14093,V14103,V14104,V14123,V14141,V14142,V14143,V14147,V14148,V14169,V14170,V14177,V14202,V14207,V14219,V14288,V14411,V14412,V14413,V14414,V14415,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="#">VP126666</a> | 03/19/2024       | 09/19/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 03/28/2024       |                        |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.80000ml of V13708 + 49.20000ml of V14141 = 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> |
|------------------|-------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 218              | BFB, 25PPM  | <a href="#">VP128290</a> | 06/10/2024       | 11/23/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 06/12/2024       |             |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.25000ml of V13390 + 24.75000ml of V14148 = Final Quantity: 25.000 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> |
|------------------|--------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 247              | 8260 Internal Standard, 250PPM | <a href="#">VP128298</a> | 06/10/2024       | 11/23/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 06/12/2024       |                                |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.10000ml of V14288 + 9.90000ml of V14148 = Final Quantity: 10.000 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> |
|------------------|-------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 251              | 8260 Internal STD & Surrogate Mix, 250PPM | <a href="#">VP128523</a> | 06/10/2024       | 12/10/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 06/22/2024       |                                           |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.25000ml of V13707 + 0.25000ml of V14288 + 24.50000ml of V14142 = Final Quantity: 25.000 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> |
|------------------|------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 1817             | 8260 Working Std(2-CVE)-SS, 800ppm | <a href="#">VP128632</a> | 06/25/2024       | 12/11/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/02/2024       |                                    |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.80000ml of V13581 + 9.20000ml of V14147 = Final Quantity: 10.000 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> |
|------------------|-----------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 1818             | 8260 Working Std(2-CVE)-SS, 50ppm | <a href="#">VP128634</a> | 06/25/2024       | 12/11/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/02/2024       |                                   |                          |                  |                        |                     |                |                  |                      |

**FROM** 4.68750ml of V14147 + 0.31250ml of VP128632 = Final Quantity: 5.000 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> |
|------------------|--------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 1810             | 8260 Working Std(2-CVE)-800ppm | <a href="#">VP128762</a> | 07/01/2024       | 12/11/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/02/2024       |                                |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.50000ml of V12798 + 1.50000ml of V12794 + 23.00000ml of V14147 = 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> |
|------------------|--------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 1812             | 8260 Working Std(2-CVE)-100ppm | <a href="#">VP128764</a> | 07/01/2024       | 12/11/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/02/2024       |                                |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.20000ml of V12798 + 19.08000ml of V14147 = Final Quantity: 20.000 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> |
|------------------|-------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 1813             | 8260 Working Std(2-CVE)-50ppm | <a href="#">VP128765</a> | 07/01/2024       | 12/11/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/02/2024       |                               |                          |                  |                        |                     |                |                  |                      |

**FROM** 9.37500ml of V14147 + 0.62500ml of VP128762 = Final Quantity: 10.000 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> |
|------------------|---------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 719              | 8260 Working STD (BCM)-First source, 400PPM | <a href="#">VP128766</a> | 07/01/2024       | 12/11/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/02/2024       |                                             |                          |                  |                        |                     |                |                  |                      |

**FROM** 1.50000ml of V13462 + 1.50000ml of V13463 + 12.00000ml of V14147 = Final Quantity: 15.000 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> |
|------------------|--------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 253              | 8260 Working STD (BCM)-First source, 20PPM | <a href="#">VP128768</a> | 07/01/2024       | 12/11/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/02/2024       |                                            |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.10000ml of V13463 + 9.90000ml of V14147 = Final Quantity: 10.000 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> |
|------------------|--------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 254              | 8260 Working STD (BCM)-First source, 10PPM | <a href="#">VP128769</a> | 07/01/2024       | 12/11/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/02/2024       |                                            |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.05000ml of V13463 + 9.95000ml of V14147 = Final Quantity: 10.000 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> |
|------------------|---------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 825              | 8260 Working STD (BCM)-Second source, 10PPM | <a href="#">VP129196</a> | 07/22/2024       | 01/22/2025             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/26/2024       |                                             |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.10000ml of V12966 + 9.90000ml of V14143 = Final Quantity: 10.000 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="#">VP129228</a> | 07/25/2024       | 08/24/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/30/2024       |                                                   |                          |                  |                        |                     |                |                  |                      |

**FROM** 1.00000ml of V14411 + 1.00000ml of V14412 + 1.00000ml of V14413 + 1.00000ml of V14414 + 21.00000ml of V14143 = Final Quantity: 25.000 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> |
|------------------|--------------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 180              | 8260 Working STD (Acrolein)-First source, 100PPM | <a href="#">VP129230</a> | 07/25/2024       | 08/24/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/30/2024       |                                                  |                          |                  |                        |                     |                |                  |                      |

**FROM** 17.50000ml of V14143 + 2.50000ml of VP129228 = Final Quantity: 20.000 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> |
|------------------|-------------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 181              | 8260 Working STD (Acrolein)-First source, 50PPM | <a href="#">VP129231</a> | 07/25/2024       | 08/24/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/30/2024       |                                                 |                          |                  |                        |                     |                |                  |                      |

**FROM** 9.37500ml of V14143 + 0.62500ml of VP129228 = Final Quantity: 10.000 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> |
|---------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 263                                                                                                     | 8260 Working STD<br>(Acrolein)-Second source, | <a href="#">VP129232</a> | 07/25/2024       | 08/23/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| <b>FROM</b> 0.60000ml of V14414 + 1.00000ml of V14415 + 8.40000ml of V14143 = Final Quantity: 10.000 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> |
|------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 826                                                                                | 8260 Working STD<br>(Acrolein)-Second source, 50PPM | <a href="#">VP129235</a> | 07/25/2024       | 08/23/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| <b>FROM</b> 4.68750ml of V14143 + 0.31250ml of VP129232 = Final Quantity: 5.000 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> |
|------------------|--------------------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 259              | 8260 Calibration Working STD Mix-Second source, 160PPM | <a href="#">VP129236</a> | 07/22/2024       | 08/31/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/30/2024       |                                                        |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.16000ml of V13448 + 0.80000ml of V13812 + 0.80000ml of V13959 + 0.80000ml of V14093 + 0.80000ml of V14123 + 0.80000ml of V14177 + 1.60000ml of V13539 + 4.24000ml of V14143 = Final Quantity: 10.000 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> |
|------------------|-------------------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 820              | 8260 Calibration Working STD Mix-Second source, 10PPM | <a href="#">VP129238</a> | 07/22/2024       | 08/31/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 07/30/2024       |                                                       |                          |                  |                        |                     |                |                  |                      |

**FROM** 4.68750ml of V14143 + 0.31250ml of VP129236 = Final Quantity: 5.000 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>            |
|------------------|----------------------------------------------------------|--------------------------|------------------|------------------------|------------------------|----------------|------------------|---------------------------------|
| 257              | 8260 Calibration Working STD<br>Mix-First source, 160PPM | <a href="#">VP129517</a> | 08/05/2024       | 09/14/2024             | Semsettin<br>Yesilyurt | None           | None             | Maresh Dadoda<br><br>08/08/2024 |

**FROM** 0.40000ml of V13444 + 1.00000ml of V13800 + 1.00000ml of V13801 + 1.00000ml of V13952 + 1.00000ml of V13953 + 1.00000ml of V14016 + 1.00000ml of V14017 + 1.00000ml of V14103 + 1.00000ml of V14104 + 1.00000ml of V14169 + 1.00000ml of V14170 + 1.00000ml of V14219 + 1.50000ml of V14202 + 1.50000ml of V14207 + 10.60000ml of V14143 = 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>            |
|------------------|---------------------------------------------------------|--------------------------|------------------|------------------------|------------------------|----------------|------------------|---------------------------------|
| 245              | 8260 Calibration Working STD<br>Mix-First source, 20PPM | <a href="#">VP129519</a> | 08/05/2024       | 09/14/2024             | Semsettin<br>Yesilyurt | None           | None             | Maresh Dadoda<br><br>08/08/2024 |

**FROM** 17.50000ml of V14143 + 2.50000ml of VP129517 = Final Quantity: 20.000 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> |
|------------------|------------------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 246              | 8260 Calibration Working STD Mix-First source, 10PPM | <a href="#">VP129520</a> | 08/05/2024       | 09/14/2024             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 08/08/2024       |                                                      |                          |                  |                        |                     |                |                  |                      |

**FROM** 9.37500ml of V14143 + 0.62500ml of VP129517 = Final Quantity: 10.000 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="#">VP129723</a> | 08/14/2024       | 08/15/2024             | John Carlone       | None           | None             | Maresh Dadoda        |
| 08/15/2024       |                |                          |                  |                        |                    |                |                  |                      |

**FROM** 39.98400ml of W3112 + 0.01600ml of VP128290 = 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="#">VP129724</a> | 08/14/2024       | 08/15/2024             | John Carlone       | None           | None             | Maresh Dadoda        |
| <b>FROM</b> 39.94450ml of W3112 + 0.00500ml of VP126666 + 0.00500ml of VP128766 + 0.00800ml of VP128298 + 0.01250ml of VP128762 + 0.01250ml of VP129228 + 0.01250ml of VP129517 = 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="#">VP129725</a> | 08/14/2024       | 08/15/2024             | John Carlone       | None           | None             | Maresh Dadoda        |
| <b>FROM</b> 39.94450ml of W3112 + 0.00500ml of VP126666 + 0.00500ml of VP128766 + 0.00800ml of VP128298 + 0.01250ml of VP128762 + 0.01250ml of VP129228 + 0.01250ml of VP129517 = 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> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 2390                                                                                                                                                                                | 0.2PPB LOD, 8260-Water | <a href="#">VP129726</a> | 08/14/2024       | 08/15/2024             | John Carlone       | None           | None             | Maresh Dadoda        |
| <b>FROM</b> 39.98840ml of W3112 + 0.00080ml of VP128634 + 0.00080ml of VP129196 + 0.00080ml of VP129235 + 0.00080ml of VP129238 + 0.00800ml of VP128523 = 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> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 2947                                                                                                                                                                                                        | 0.5 ppb MDL 8260 Water | <a href="#">VP129727</a> | 08/14/2024       | 08/15/2024             | John Carlone       | None           | None             | Maresh Dadoda        |
| <b>FROM</b> 39.98000ml of W3112 + 0.00100ml of VP128764 + 0.00100ml of VP128768 + 0.00100ml of VP129230 + 0.00100ml of VP129519 + 0.00500ml of VP126666 + 0.00800ml of VP128298 = 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> |
|------------------|-------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3585             | 0.75 PPB MDL 8260 WATER | <a href="#">VP129728</a> | 08/14/2024       | 08/15/2024             | John Carlone       | None           | None             | Maresh Dadoda        |
| 08/15/2024       |                         |                          |                  |                        |                    |                |                  |                      |

**FROM** 39.97000ml of W3112 + 0.00300ml of VP128765 + 0.00300ml of VP128769 + 0.00300ml of VP129231 + 0.00300ml of VP129520 + 0.00500ml of VP126666 + 0.00800ml of VP128298 = 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> |
|------------------|------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3786             | 2.5 PPB 8260 MDL-WATER | <a href="#">VP129729</a> | 08/14/2024       | 08/15/2024             | John Carlone       | None           | None             | Maresh Dadoda        |
| 08/15/2024       |                        |                          |                  |                        |                    |                |                  |                      |

**FROM** 39.92000ml of W3112 + 0.00800ml of VP128523 + 0.01000ml of VP128765 + 0.01000ml of VP128769 + 0.01000ml of VP129231 + 0.01000ml of VP129520 = 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> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3742                                                                                                                                                                                                        | 1.0 PPB LOQ 8260 Water | <a href="#">VP129730</a> | 08/14/2024       | 08/15/2024             | John Carlone       | None           | None             | Maresh Dadoda        |
| <b>FROM</b> 39.98000ml of W3112 + 0.00200ml of VP128764 + 0.00200ml of VP128768 + 0.00200ml of VP129230 + 0.00200ml of VP129519 + 0.00500ml of VP126666 + 0.00800ml of VP128298 = 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> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 3748                                                                                                                                                                                                        | 8260 5.0 PPB LOQ/WATER | <a href="#">VP129731</a> | 08/14/2024       | 08/15/2024             | John Carlone       | None           | None             | Maresh Dadoda        |
| <b>FROM</b> 39.94000ml of W3112 + 0.00500ml of VP126666 + 0.00800ml of VP128298 + 0.01000ml of VP128764 + 0.01000ml of VP128768 + 0.01000ml of VP129230 + 0.01000ml of VP129519 = 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 # |
|--------------------------|---------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 95318 / 2-Chloroethyl Vinyl Ether (Min = 5) | 121321 | 12/13/2024      | 06/25/2024 / SAM        | 03/30/2022 / SAM            | V12794         |

| Supplier                 | ItemCode / ItemName                         | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 95318 / 2-Chloroethyl Vinyl Ether (Min = 5) | 121321 | 12/13/2024      | 06/25/2024 / SAM        | 03/30/2022 / SAM            | V12798         |

| Supplier                 | ItemCode / ItemName                                  | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 70046 / Bromochloromethane Std. sol/methanol 1000ppm | 070122 | 01/22/2025      | 07/22/2024 / SAM        | 07/06/2022 / SAM            | V12966         |

| Supplier | ItemCode / ItemName          | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30067 / BFB tuneing solution | A0191805 | 12/08/2024      | 12/08/2023 / SAM        | 01/13/2023 / SAM            | V13390         |

| 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 | 12/14/2024      | 06/14/2024 / SAM        | 01/23/2023 / SAM            | V13444         |

| 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 | A0191703 | 12/03/2024      | 06/03/2024 / SAM        | 01/23/2023 / SAM            | V13448         |

## CHEMICAL RECEIPT LOG BOOK

| 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 | 01/01/2025      | 07/01/2024 / SAM        | 01/27/2023 / SAM            | V13462         |

| 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 | 01/01/2025      | 07/01/2024 / SAM        | 01/27/2023 / SAM            | V13463         |

| 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 | A0186767 | 11/29/2024      | 05/29/2024 / SAM        | 01/27/2023 / SAM            | V13539         |

| Supplier                 | ItemCode / ItemName                         | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---------------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 95318 / 2-Chloroethyl Vinyl Ether (Min = 5) | 111722 | 12/25/2024      | 06/25/2024 / SAM        | 01/30/2023 / SAM            | V13581         |

| 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 # |
|----------|-------------------------------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2] | A0196865 | 09/19/2024      | 03/19/2024 / SAM        | 04/12/2023 / SAM            | V13708         |

## CHEMICAL RECEIPT LOG BOOK

| 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 | A0194279 | 01/30/2025      | 07/30/2024 / SAM        | 05/31/2023 / SAM            | V13800         |

| 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 | A0194279 | 12/28/2024      | 06/28/2024 / SAM        | 05/31/2023 / SAM            | V13801         |

| 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 | A0197644 | 11/29/2024      | 05/29/2024 / SAM        | 05/31/2023 / SAM            | V13812         |

| 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 | A0196115 | 09/30/2024      | 06/14/2024 / SAM        | 09/25/2023 / SAM            | V13952         |

| 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 | A0196115 | 09/30/2024      | 06/14/2024 / SAM        | 09/25/2023 / SAM            | V13953         |

| 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 | A0199224 | 12/31/2024      | 07/22/2024 / SAM        | 09/25/2023 / SAM            | V13959         |

## CHEMICAL RECEIPT LOG BOOK

| 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) | 032922 | 12/14/2024      | 06/14/2024 / SAM        | 11/22/2023 / SAM            | V14016         |

| 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) | 032922 | 12/14/2024      | 06/14/2024 / SAM        | 11/22/2023 / SAM            | V14017         |

| 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 | A0205177 | 11/14/2024      | 05/14/2024 / SAM        | 12/22/2023 / SAM            | V14093         |

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 | A0205179 | 12/14/2024      | 06/14/2024 / SAM        | 12/22/2023 / SAM            | V14103         |

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 | A0205179 | 12/14/2024      | 06/14/2024 / SAM        | 12/22/2023 / SAM            | V14104         |

LOTS

| 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) | 011624 | 12/03/2024      | 06/03/2024 / SAM        | 01/17/2024 / SAM            | V14123         |



## 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) | 22L0562016 | 09/19/2024      | 03/19/2024 / SAM        | 02/06/2024 / SAM            | V14141         |

| 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 | 12/10/2024      | 06/10/2024 / SAM        | 02/06/2024 / SAM            | V14142         |

| 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 | 01/22/2025      | 07/22/2024 / SAM        | 02/06/2024 / SAM            | V14143         |

| 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 | 12/11/2024      | 06/11/2024 / pedro      | 02/06/2024 / SAM            | V14147         |

| 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 | 11/23/2024      | 05/23/2024 / pedro      | 02/06/2024 / SAM            | V14148         |

| 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 | 12/14/2024      | 06/14/2024 / SAM        | 02/20/2024 / SAM            | V14169         |

## CHEMICAL RECEIPT LOG BOOK

| 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 | 12/14/2024      | 06/14/2024 / SAM        | 02/20/2024 / SAM            | V14170         |

| 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) | 021524 | 12/03/2024      | 06/03/2024 / SAM        | 02/20/2024 / SAM            | V14177         |

| 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 | A0200785 | 12/25/2024      | 06/25/2024 / SAM        | 02/28/2024 / SAM            | V14202         |

| 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 | A0200785 | 12/25/2024      | 06/25/2024 / SAM        | 02/28/2024 / SAM            | V14207         |

| 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 | A0200785 | 12/25/2024      | 06/25/2024 / SAM        | 02/28/2024 / SAM            | V14219         |

| 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 | 06/10/2025      | 06/10/2024 / SAM        | 04/15/2024 / SAM            | V14288         |

## 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) | 072424 | 08/24/2024      | 07/25/2024 / SAM        | 07/25/2024 / SAM            | V14411         |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 072424 | 08/24/2024      | 07/25/2024 / SAM        | 07/25/2024 / SAM            | V14412         |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 072424 | 08/24/2024      | 07/25/2024 / SAM        | 07/25/2024 / SAM            | V14413         |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 072424 | 08/24/2024      | 07/25/2024 / SAM        | 07/25/2024 / SAM            | V14414         |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 072424 | 08/24/2024      | 07/25/2024 / SAM        | 07/25/2024 / SAM            | V14415         |

| 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          |



CERTIFIED WEIGHT REPORT

Part Number: 95319  
Lot Number: 011624  
Description: Revised Additions Mix  
11 components  
Expiration Date: 011627  
Recommended Storage: Refrigerate (4 °C)  
Nominal Concentration (µg/mL): Varied  
NIST Test ID#: 6UTB  
Weight(s) shown below were combined and diluted to (mL): 100.0  
5E-05 Balance Uncertainty  
0.021 Flask Uncertainty

Solvent(s): Methanol  
Lot# EH471-US

|                                                 |                                              |
|-------------------------------------------------|----------------------------------------------|
| Formulated By: Prashant Chauhan<br>DATE: 011624 | Reviewed By: Pedro L. Rentas<br>DATE: 011624 |
|-------------------------------------------------|----------------------------------------------|

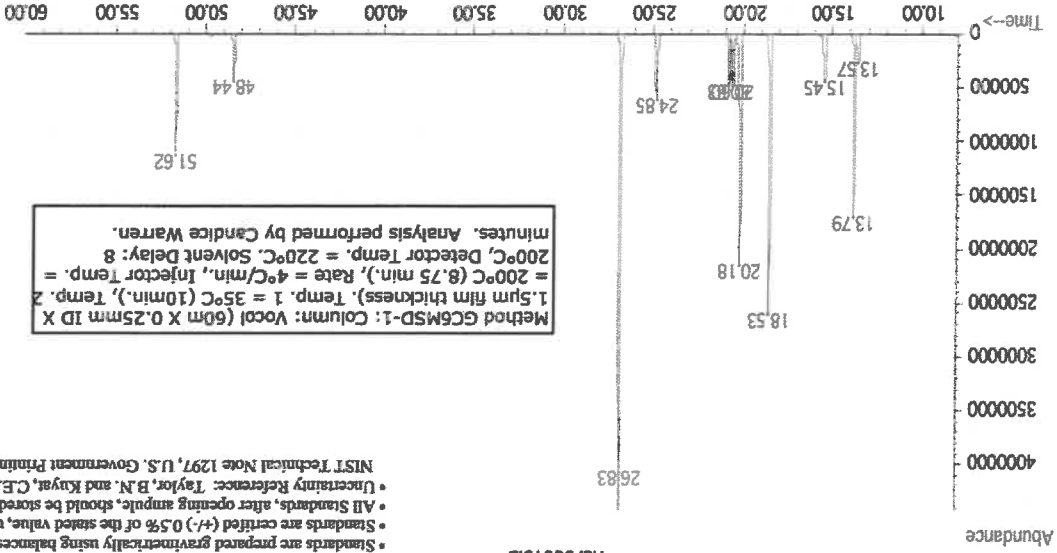
SDS Information

Expanded Uncertainty  
Actual  
Conc (µg/mL) (+/-) (µg/mL)  
CAS#  
OSHA PEL (TWA)  
LD50

| Compound                          | RM#  | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Purity Uncertainty | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | CAS#      | OSHA PEL (TWA)            | LD50              |
|-----------------------------------|------|------------|----------------------|------------|--------------------|------------------|------------------|---------------------|------------------------------------|-----------|---------------------------|-------------------|
| 1. Acrylonitrile                  | 7    | 4718CK     | 10000                | 99         | 0.2                | 1.01035          | 1.01080          | 10004.4             | 40.6                               | 107-13-1  | N/A                       | or-tal 78 mg/kg   |
| 2. 1-Chlorobutane                 | 1072 | MKCM5711   | 2000                 | 99.99      | 0.2                | 0.20007          | 0.20035          | 2002.8              | 8.1                                | 109-69-3  | N/A                       | or-tal 2670mg/kg  |
| 3. Cyclohexane                    | 1023 | 28930      | 2000                 | 99         | 0.2                | 0.20207          | 0.20222          | 2001.5              | 8.2                                | 110-82-7  | N/A                       | or-tal 12705mg/kg |
| 4. Di-isopropyl ether (DIPE)      | 987  | 00412MX    | 2000                 | 99         | 0.2                | 0.20207          | 0.20227          | 2002.0              | 8.2                                | 108-20-3  | 500 ppm (2100mg/m3/8h)    | or-tal 8470mg/kg  |
| 5. 1,4-Dioxane                    | 373  | 03953KE    | 40000                | 99         | 0.2                | 4.04142          | 4.04213          | 40007.0             | 162.5                              | 123-91-1  | 25 ppm (90mg/m3/8h)(skdn) | or-mus 5700mg/kg  |
| 6. Hexachloroethane               | 199  | 12604HBV   | 2000                 | 99         | 0.2                | 0.20207          | 0.20221          | 2001.4              | 8.2                                | 67-72-1   | 1 ppm (10mg/m3/8h)(skdn)  | or-gp 4870mg/kg   |
| 7. Methylcyclohexane              | 1627 | SHBG0199V  | 2000                 | 99         | 0.2                | 0.20207          | 0.20230          | 2002.3              | 8.2                                | 108-87-2  | N/A                       | or-mus 2250mg/kg  |
| 8. Methyl tert-butyl ether (MTBE) | 209  | 21880      | 2000                 | 99         | 0.2                | 0.20207          | 0.20227          | 2002.0              | 8.2                                | 1634-04-4 | N/A                       | or-tal 4g/kg      |
| 9. Propionitrile                  | 349  | 1395468    | 20000                | 99         | 0.2                | 2.02071          | 2.02150          | 20007.8             | 81.3                               | 107-12-0  | N/A                       | or-tal 39mg/kg    |
| 10. Tetrahydrofuran               | 380  | SHBH8330   | 10000                | 99.9       | 0.2                | 1.00125          | 1.00200          | 10007.5             | 40.3                               | 109-99-9  | 20 ppm (590mg/m3/8h)      | or-tal 1650mg/kg  |
| 11. 1,2,3,4-Tetramethylbenzene    | 481  | AP01       | 2000                 | 93         | 0.2                | 0.21511          | 0.21522          | 2001.0              | 8.7                                | 488-23-3  | N/A                       | or-tal 6408mg/kg  |

\* 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).

TC: 95319.D



| MSD RT | Name                           | (min.) |
|--------|--------------------------------|--------|
| 13.56  | Methyl tert-butyl ether (MTBE) |        |
| 13.79  | Acrylonitrile                  |        |
| 15.44  | Di-isopropyl ether             |        |
| 18.53  | Propionitrile                  |        |
| 20.17  | Tetrahydrofuran                |        |
| 20.58  | Cyclohexane                    |        |
| 20.83  | 1-Chlorobutane                 |        |
| 24.84  | Methylcyclohexane              |        |
| 26.84  | 1,4-Dioxane                    |        |
| 48.44  | Hexachloroethane               |        |
| 51.62  | 1,2,3,4-Tetramethylbenzene     |        |





**CERTIFIED WEIGHT REPORT**

Part Number: **95317**  
Lot Number: **021524**  
Description: **Universal VOA Megamix**  
69 components  
Expiration Date: 021527  
Recommended Storage: Freezer (0 °C)  
Nominal Concentration (µg/mL): 2000  
NIST Test ID#: BUTB

Solvent(s): **Methanol**  
Lot#: **EG359-USQ12**

|                        |                 |        |
|------------------------|-----------------|--------|
| <i>Mario Luis</i>      |                 | 021524 |
| Formulated By:         | Mario Luis      | DATE   |
| <i>Pedro L. Rentes</i> |                 | 021524 |
| Reviewed By:           | Pedro L. Rentes | DATE   |

Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty

| Compound                                      | (RM#)       | Lot          | Dr.    | Initial   | Initial       | Nominal       | Purity | Purity      | Uncertainty  | Target     | Actual     | Actual        | Expanded      | SDS Information | SDS Information             | SDS Information   |
|-----------------------------------------------|-------------|--------------|--------|-----------|---------------|---------------|--------|-------------|--------------|------------|------------|---------------|---------------|-----------------|-----------------------------|-------------------|
|                                               | Part Number | Number       | Factor | Vol. (mL) | Conc. (µg/mL) | Conc. (µg/mL) | (%)    | Uncertainty | Pipette (mL) | Weight (g) | Weight (g) | Conc. (µg/mL) | (+/-) (µg/mL) | CAS#            | OSHA PEL (TWA)              | LDSO              |
| 1. Acetonitrile                               | (0324)      | 021644       | NA     | NA        | NA            | 2000          | 99.99  | 0.2         | NA           | 0.20007    | 0.20022    | 2001.5        | 8.1           | 75-05-8         | 40 ppm (70mg/m3)(H)         | or-rat 2450mg/kg  |
| 2. Allyl chloride (3-Chloropropene)           | (0325)      | 102398       | NA     | NA        | NA            | 2000          | 99     | 0.2         | NA           | 0.20207    | 0.20222    | 2001.5        | 8.2           | 107-05-1        | 1 ppm (3mg/m3)(H)           | or-rat 700mg/kg   |
| 3. Carbon disulfide                           | (0060)      | MKCR8581     | NA     | NA        | NA            | 2000          | 99.99  | 0.2         | NA           | 0.20007    | 0.20020    | 2001.3        | 8.1           | 75-15-0         | 4 ppm (12mg/m3) (skin)      | or-rat 1200mg/kg  |
| 4. cis-1,4-Dichloro-2-butene                  | (1196)      | 14718EF      | NA     | NA        | NA            | 2000          | 95     | 0.2         | NA           | 0.21058    | 0.21060    | 2000.2        | 8.5           | 1478-11-5       | N/A                         | N/A               |
| 5. trans-1,4-Dichloro-2-butene                | (0466)      | MKBP8041V    | NA     | NA        | NA            | 2000          | 96.5   | 0.2         | NA           | 0.20731    | 0.20734    | 2000.3        | 8.4           | 110-57-5        | N/A                         | N/A               |
| 6. Diethyl ether                              | (0153)      | JK18CASA000K | NA     | NA        | NA            | 2000          | 99.9   | 0.2         | NA           | 0.20025    | 0.20042    | 2001.7        | 8.1           | 60-29-7         | N/A                         | N/A               |
| 7. Ethyl methacrylate                         | (0381)      | 06188PX      | NA     | NA        | NA            | 2000          | 99     | 0.2         | NA           | 0.20207    | 0.20231    | 2002.4        | 8.2           | 97-83-2         | N/A                         | or-rat 14800mg/kg |
| 8. Iodomethane                                | (0489)      | SHBF8718V    | NA     | NA        | NA            | 2000          | 99.5   | 0.2         | NA           | 0.20106    | 0.20118    | 2001.2        | 8.1           | 74-88-4         | 5 ppm (25mg/m3)(H)(skin)    | or-rat 78mg/kg    |
| 9. 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)(H)        | or-rat 9450mg/kg  |
| 10. Methacrylonitrile                         | (0442)      | 00427ET      | NA     | NA        | NA            | 2000          | 99     | 0.2         | NA           | 0.20207    | 0.20209    | 2000.2        | 8.2           | 128-96-7        | 1 ppm (3mg/m3)(H)(skin)     | or-rat 120mg/kg   |
| 11. Methyl acrylate                           | (1075)      | SHBK0679     | NA     | NA        | NA            | 2000          | 99.9   | 0.2         | NA           | 0.20025    | 0.20042    | 2001.7        | 8.1           | 96-33-3         | 10 ppm (35mg/m3)(H)(skin)   | or-rat 277mg/kg   |
| 12. Methyl methacrylate                       | (0404)      | MKBW5137V    | NA     | NA        | NA            | 2000          | 99.9   | 0.2         | NA           | 0.20025    | 0.20030    | 2000.5        | 8.1           | 80-62-6         | 100 ppm (410mg/m3)(H)       | or-rat 787mg/kg   |
| 13. Nitrobenzene                              | (0228)      | 01213TV      | NA     | NA        | NA            | 2000          | 99     | 0.2         | NA           | 0.20207    | 0.20230    | 2002.3        | 8.2           | 98-95-3         | 1 ppm (5mg/m3)(H)(skin)     | or-rat 780mg/kg   |
| 14. 2-Nitropropane                            | (0461)      | 14002JX      | NA     | NA        | NA            | 2000          | 97.3   | 0.2         | NA           | 0.20560    | 0.20670    | 2001.0        | 8.3           | 79-46-9         | 10 ppm (35mg/m3)(H)         | or-rat 720mg/kg   |
| 15. Pentachloroethane                         | (0450)      | HGA01        | NA     | NA        | NA            | 2000          | 98     | 0.2         | NA           | 0.20413    | 0.20415    | 2000.2        | 8.3           | 78-01-7         | N/A                         | N/A               |
| 16. 1,1,2-Trichloro-1,2,2,2-tetrafluoroethane | (0474)      | 18930        | NA     | NA        | NA            | 2000          | 99     | 0.2         | NA           | 0.20207    | 0.20210    | 2000.3        | 8.2           | 79-13-1         | 1000 ppm (7600mg/m3)(H)     | or-rat 43mg/kg    |
| 17. 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 916mg/kg   |
| 18. Dibromochloromethane                      | 35171       | 101623       | 0.05   | 5.00      | 40002.1       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.6        | 22.9          | 124-48-1        | N/A                         | or-rat 848mg/kg   |
| 19. cis-1,2-Dichloroethane                    | 35171       | 101623       | 0.05   | 5.00      | 40003.1       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.7        | 22.9          | 156-60-2        | N/A                         | N/A               |
| 20. trans-1,2-Dichloroethane                  | 35171       | 101623       | 0.05   | 5.00      | 40002.4       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.6        | 22.9          | 156-60-5        | N/A                         | or-rat 1235mg/kg  |
| 21. 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 800mg/kg   |
| 22. 1,1-Dichloroethane                        | 32251       | 102023       | 0.10   | 10.00     | 20001.6       | 2000          | NA     | NA          | 0.042        | NA         | NA         | 1999.7        | 20.4          | 75-34-4         | 1 ppm (4mg/m3)(H)           | or-rat 200mg/kg   |
| 23. 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   |
| 24. 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 (12.5mg/m3)(H)        | or-rat 2350mg/kg  |
| 25. 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   |
| 26. Dibromomethane                            | 95321       | 020724       | 0.10   | 10.00     | 20002.9       | 2000          | NA     | NA          | 0.042        | NA         | NA         | 1999.8        | 20.5          | 74-06-3         | N/A                         | or-rat 106mg/kg   |
| 27. 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   |
| 28. 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               |
| 29. Tetrachloroethane                         | 95321       | 020724       | 0.10   | 10.00     | 20001.1       | 2000          | NA     | NA          | 0.042        | NA         | NA         | 2019.6        | 20.6          | 127-18-4        | 25 ppm (170mg/m3)(H)(fetal) | or-rat 262mg/kg   |
| 30. 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)(H)      | or-rat 10300mg/kg |
| 31. 1,2-Dibromo-3-chloropropane               | 35161       | 112322       | 0.05   | 5.00      | 40018.5       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 2000.3        | 22.9          | 96-12-9         | 0.001 ppm                   | or-rat 170mg/kg   |
| 32. 1,2-Dibromooethane                        | 35161       | 112322       | 0.05   | 5.00      | 40024.8       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 2000.7        | 22.9          | 108-93-4        | 20 ppm (8H)                 | or-rat 108mg/kg   |
| 33. 1,2-Dichloroethane                        | 35161       | 112322       | 0.05   | 5.00      | 40018.0       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 2000.4        | 22.9          | 107-06-2        | 50 ppm (8H)                 | or-rat 670mg/kg   |
| 34. 1,2-Dichloropropane                       | 35161       | 112322       | 0.05   | 5.00      | 40051.0       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 2002.0        | 22.9          | 78-87-5         | 75 ppm (350mg/m3)(H)        | or-rat 1947mg/kg  |
| 35. 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                         | ure-mus 3600mg/kg |
| 36. 1,1-Dichloropropane                       | 35161       | 112322       | 0.05   | 5.00      | 40012.1       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 2000.1        | 29.7          | 563-58-6        | N/A                         | N/A               |
| 37. cis-1,3-Dichloropropene                   | 35161       | 112322       | 0.05   | 5.00      | 40010.0       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 2000.0        | 23.0          | 10061-01-6      | N/A                         | N/A               |
| 38. 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               |
| 39. 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)(H)     | or-rat 82mg/kg    |
| 40. 1,1,1,2-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   |
| 41. 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)(H)(skin)    | or-rat 800mg/kg   |
| 42. 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 (45mg/m3)(H)(skin)   | or-rat 836mg/kg   |
| 43. Trichloroethane                           | 35161       | 112322       | 0.05   | 5.00      | 40029.0       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 2000.9        | 22.9          | 78-01-8         | 50 ppm (270mg/m3)(H)        | or-mus 2400mg/kg  |
| 44. 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 (60mg/m3)(H)         | or-rat 149.8mg/kg |
| 45. 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  |
| 46. Bromobenzene                              | 35162       | 050823       | 0.05   | 5.00      | 40006.9       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.8        | 22.9          | 108-88-1        | N/A                         | or-rat 2699mg/kg  |
| 47. n-Butyl benzene                           | 35162       | 050823       | 0.05   | 5.00      | 40003.8       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.7        | 22.9          | 104-51-8        | N/A                         | N/A               |
| 48. Ethyl benzene                             | 35162       | 050823       | 0.05   | 5.00      | 40004.8       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.7        | 22.9          | 100-41-4        | 100 ppm (435mg/m3)(H)       | or-rat 2000mg/kg  |
| 49. p-Isopropyl toluene                       | 35162       | 050823       | 0.05   | 5.00      | 40005.8       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.8        | 22.9          | 99-87-8         | N/A                         | or-rat 4750mg/kg  |
| 50. Naphthalene                               | 35162       | 050823       | 0.05   | 5.00      | 40006.2       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.8        | 22.9          | 91-20-3         | 10 ppm (50mg/m3)(H)         | or-rat 490mg/kg   |
| 51. Styrene                                   | 35162       | 050823       | 0.05   | 5.00      | 40004.8       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.7        | 22.9          | 100-42-5        | 100 ppm                     | or-rat 5000mg/kg  |
| 52. Toluene                                   | 35162       | 050823       | 0.05   | 5.00      | 40006.2       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.8        | 22.9          | 108-88-3        | 200 ppm                     | or-rat 5000mg/kg  |
| 53. 1,2,3-Trichlorobenzene                    | 35162       | 050823       | 0.05   | 5.00      | 40003.1       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.7        | 22.9          | 87-61-6         | N/A                         | ipr-mus 1300mg/kg |
| 54. 1,2,4-Trichlorobenzene                    | 35162       | 050823       | 0.05   | 5.00      | 40006.8       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.8        | 22.9          | 120-82-1        | 5 ppm (CL) (40mg/m3)        | or-rat 750mg/kg   |
| 55. 1,2,4-Trimethylbenzene                    | 35162       | 050823       | 0.05   | 5.00      | 40001.8       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.8        | 22.9          | 95-63-6         | N/A                         | or-rat 50mg/kg    |
| 56. 1,3,5-Trimethylbenzene                    | 35162       | 050823       | 0.05   | 5.00      | 40006.7       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.8        | 22.9          | 108-67-8        | N/A                         | or-rat 5000mg/kg  |
| 57. m-Xylene                                  | 35162       | 050823       | 0.05   | 5.00      | 40005.6       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.8        | 22.9          | 108-38-3        | 100 ppm (435mg/m3)(H)       | or-rat 50mg/kg    |
| 58. tert-Butyl benzene                        | 35163       | 101923       | 0.05   | 5.00      | 40001.2       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.6        | 22.9          | 98-06-6         | N/A                         | N/A               |
| 59. sec-Butyl benzene                         | 35163       | 101923       | 0.05   | 5.00      | 40002.4       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.6        | 22.9          | 135-98-8        | N/A                         | or-rat 2240mg/kg  |
| 60. Chlorobenzene                             | 35163       | 101923       | 0.05   | 5.00      | 40003.8       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.7        | 22.9          | 108-90-7        | 75 ppm (350mg/m3)(H)        | or-rat 2290mg/kg  |
| 61. 2-Chlorotoluene                           | 35163       | 101923       | 0.05   | 5.00      | 40000.3       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.5        | 22.9          | 95-49-5         | 50 ppm (250mg/m3)(H)        | or-rat 3900mg/kg  |
| 62. 4-Chlorotoluene                           | 35163       | 101923       | 0.05   | 5.00      | 40003.3       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.7        | 22.9          | 105-43-4        | N/A                         | or-rat 2100mg/kg  |
| 63. 1,2-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 900mg/kg   |
| 64. 1,3-Dichlorobenzene                       | 35163       | 101923       | 0.05   | 5.00      | 40001.7       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.6        | 23.0          | 541-73-1        | N/A                         | ipr-mus 1062mg/kg |
| 65. 1,4-Dichlorobenzene                       | 35163       | 101923       | 0.05   | 5.00      | 40001.8       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.6        | 22.9          | 106-46-7        | 75 ppm (450mg/m3)(H)        | or-rat 600mg/kg   |
| 66. Isopropylbenzene                          | 35163       | 101923       | 0.05   | 5.00      | 40000.8       | 2000          | NA     | NA          | 0.017        | NA         | NA         | 1999.5        | 22.9          | 98-82-5         | 50 ppm (245mg/m3)(H)        | or-rat 14         |

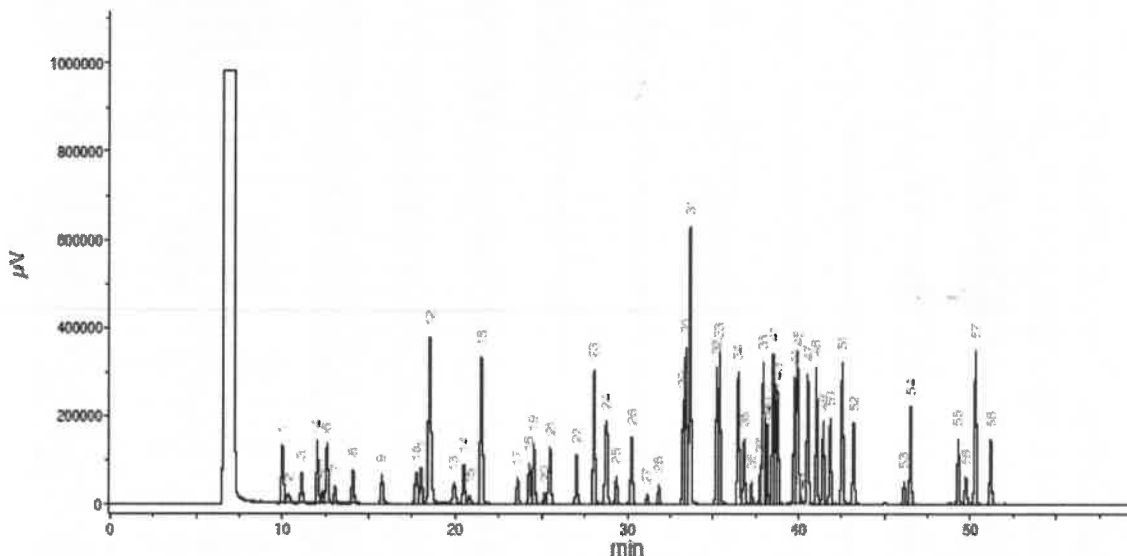


Run 17, "P95317 L021524 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35998 points at 10 points/second.  
Created: Sat, Feb 17, 2024 at 10:04:27 AM.  
Sampled: Sequence "021624-GC5M1", Method "GC5-M1".  
Analyzed using Method "GC5-M1".

Comments

GC5-M1 Analysis by Candice Warren  
Column ID SPB-Vocool 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-Dichloroethene                           | 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-Dichloroethene                     | 14.07         |
| 9      | 1,1-Dichloroethane                           | 15.34         |
| 10     | 2,2-Dichloropropane                          | 17.74         |
| 11     | cis-1,2-Dichloroethene                       | 18.00         |
| 12     | Methacrylonitrile/Methyl acrylate/Chloroform | 18.49         |
| 13     | Isobutanol/1,1,1-Trichloroethane             | 19.91         |
| 14     | 1,1-Dichloropropane                          | 20.46         |
| 15     | Carbon tetrachloride                         | 20.79         |
| 16     | Benzene/1,2-Dichloroethane                   | 21.48         |
| 17     | Trichloroethene                              | 22.58         |
| 18     | 1,2-Dichloropropane                          | 24.26         |
| 19     | Methyl methacrylate                          | 24.52         |
| 20     | Bromodichloromethane                         | 25.13         |
| 21     | Dibromomethane/2-Nitropropane                | 25.46         |
| 22     | cis-1,2-Dichloropropane                      | 27.02         |
| 23     | Toluene                                      | 28.05         |
| 24     | Ethyl methacrylate/trans-1,2-Dichloropropane | 28.73         |
| 25     | 1,1,2-Trichloroethane                        | 29.34         |
| 26     | Tetrachloroethene/1,3-Dichloropropane        | 30.24         |
| 27     | Dibromochloromethane                         | 31.18         |
| 28     | 1,2-Dibromopropane                           | 31.84         |
| 29     | Chlorobenzene                                | 33.39         |
| 30     | Ethylbenzene/1,1,1,2-tetrachloroethane       | 33.40         |
| 31     | m-Xylene/p-Xylene                            | 33.66         |
| 32     | o-Xylene                                     | 33.72         |
| 33     | Styrene                                      | 33.99         |
| 34     | Isopropylbenzene/Bromoform                   | 36.48         |
| 35     | cis-1,4-Dichloro-2-butene                    | 36.80         |
| 36     | 1,1,2,2-Tetrachloroethane                    | 37.23         |
| 37     | 1,2,3-Trichloropropane                       | 37.77         |
| 38     | n-Propylbenzene                              | 37.92         |
| 39     | trans-1,4-Dichloro-2-butene                  | 38.05         |
| 40     | Bromobenzene                                 | 38.14         |
| 41     | 1,3,5-Trimethylbenzene                       | 38.50         |
| 42     | 2-Chlorotoluene                              | 38.62         |
| 43     | 4-Chlorotoluene                              | 38.77         |
| 44     | tert-Butylbenzene                            | 39.76         |
| 45     | 1,2,4-Trimethylbenzene                       | 39.91         |
| 46     | Pentachloroethane                            | 40.17         |
| 47     | sec-Butylbenzene                             | 40.32         |
| 48     | p-Isopropyltoluene                           | 41.02         |
| 49     | 1,3-Dichlorobenzene                          | 41.42         |
| 50     | 1,4-Dichlorobenzene                          | 41.83         |
| 51     | n-Butylbenzene                               | 42.52         |
| 52     | 1,2-Dichlorobenzene                          | 43.10         |
| 53     | 1,2-Dibromo-3-chloropropane                  | 46.12         |
| 54     | Nitrobenzene                                 | 46.48         |
| 55     | 1,2,4-Trichlorobenzene                       | 49.26         |
| 56     | Hexachlorobutadiene                          | 49.72         |
| 57     | Naphthalene                                  | 50.26         |
| 58     | 1,2,3-Trichlorobenzene                       | 51.16         |

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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**

|                |                         |        |
|----------------|-------------------------|--------|
| Formulated By: | <i>Prashant Chauhan</i> | 021624 |
|                | Prashant Chauhan        | DATE   |
| Reviewed By:   | <i>Pedro L. Rentes</i>  | 021624 |
|                | Pedro L. Rentes         | DATE   |

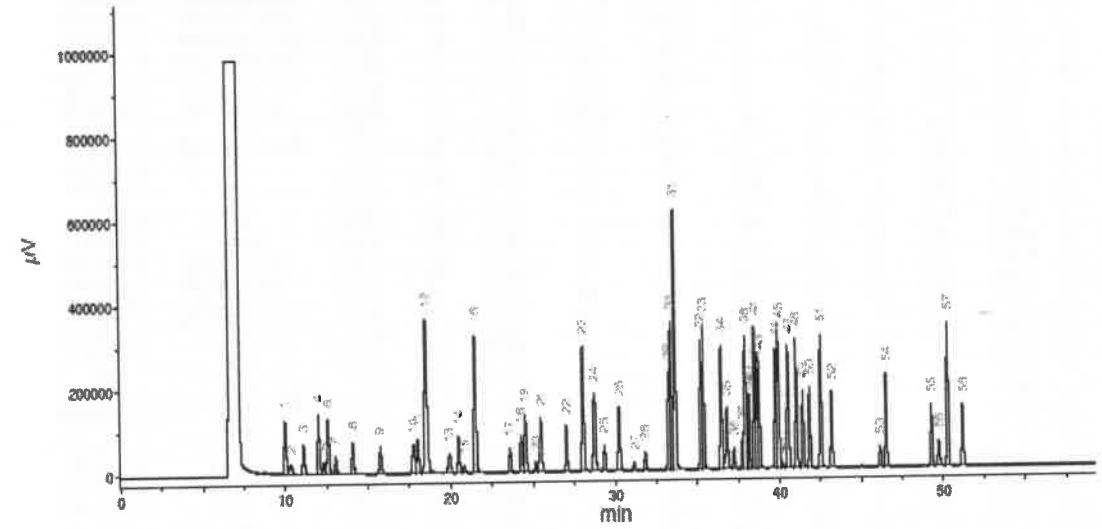
Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Balance Uncertainty: 5E-05  
Flask Uncertainty: 0.021

| 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) | (%)    | Uncertainty | Pipette (mL) | Weight(g) | Weight(g) | Conc (µg/mL) | (+/-) (µg/mL) | CAS#            | OSHA PEL (TWA)               | LD50              |
| 1. 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  |
| 2. Allyl chloride (3-Chloropropene) | (0325)      | 102395      | 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 7000mg/kg  |
| 3. Carbon disulfide                 | (0060)      | MKCR8561    | 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  |
| 4. cis-1,4-Dichloro-2-butene        | (1196)      | 14718EF     | NA     | NA        | NA            | 2000          | 95     | 0.2         | NA           | 0.21058   | 0.21069   | 2001.1       | 6.5           | 1476-11-5       | N/A                          | N/A               |
| 5. 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               |
| 6. 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               |
| 7. 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                          | N/A               |
| 8. Iodomethane                      | (0489)      | 5HBF6718V   | 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 14800mg/kg |
| 9. 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 70mg/kg    |
| 10. 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  |
| 11. 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   |
| 12. 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  |
| 13. 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 780mg/kg   |
| 14. 2-Nitropropane                  | (0481)      | 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   |
| 15. Perfluorooctane                 | (0450)      | HGA01       | NA     | NA        | NA            | 2000          | 98     | 0.2         | NA           | 0.20413   | 0.20430   | 2001.8       | 8.3           | 76-01-7         | N/A                          | N/A               |
| 16. 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     |
| 17. 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 916mg/kg   |
| 18. 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   |
| 19. 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               |
| 20. 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                          | N/A               |
| 21. 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 1235mg/kg  |
| 22. 1,1-Dichloroethene              | 32251       | 102023      | 0.10   | 10.00     | 20001.6       | 2000          | NA     | NA          | 0.042        | NA        | NA        | 1999.6       | 22.9          | 75-35-4         | 1 ppm (4mg/m3/8H)            | or-rat 200mg/kg   |
| 23. 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   |
| 24. 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  |
| 25. 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   |
| 26. 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   |
| 27. 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         | N/A                          | or-rat 108mg/kg   |
| 28. 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        | 100 ppm                      | or-rat 725mg/kg   |
| 29. Tetrachloroethane               | 95321       | 020724      | 0.10   | 10.00     | 20201.1       | 2000          | NA     | NA          | 0.042        | NA        | NA        | 1999.8       | 20.4          | 584-20-7        | N/A                          | N/A               |
| 30. 1,1,1-Trichloroethane           | 95321       | 020724      | 0.10   | 10.00     | 20003.0       | 2000          | NA     | NA          | 0.042        | NA        | NA        | 2019.6       | 20.8          | 127-18-4        | 25 ppm (170mg/m3/8H) (final) | or-rat 2629mg/kg  |
| 31. 1,2-Dibromo-3-chloropropane     | 35161       | 112322      | 0.05   | 5.00      | 40016.5       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 20.5          | 71-55-6         | 350 ppm (1900mg/m3/8H)       | or-rat 10300mg/kg |
| 32. 1,2-Dibromomethane              | 35161       | 112322      | 0.05   | 5.00      | 40024.8       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 2000.3       | 22.9          | 96-12-6         | 0.001 ppm                    | or-rat 170mg/kg   |
| 33. 1,2-Dichloroethane              | 35161       | 112322      | 0.05   | 5.00      | 40018.0       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 2000.4       | 22.9          | 106-93-4        | 20 ppm (8H)                  | or-rat 108mg/kg   |
| 34. 1,2-Dichloropropane             | 35161       | 112322      | 0.05   | 5.00      | 40005.0       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 2000.2       | 22.9          | 107-06-2        | 50 ppm (8H)                  | or-rat 870mg/kg   |
| 35. 1,3-Dichloropropane             | 35161       | 112322      | 0.05   | 5.00      | 40005.9       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 2002.0       | 22.9          | 78-57-5         | 75 ppm (350mg/m3/8H)         | or-rat 1947mg/kg  |
| 36. 1,1-Dichloropropene             | 35161       | 112322      | 0.05   | 5.00      | 40012.1       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 22.9          | 142-28-9        | N/A                          | un-rat 3600mg/kg  |
| 37. cis-1,3-Dichloropropene         | 35161       | 112322      | 0.05   | 5.00      | 40010.0       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 2000.1       | 29.7          | 563-56-6        | N/A                          | N/A               |
| 38. trans-1,3-Dichloropropene       | 35161       | 112322      | 0.05   | 5.00      | 40017.8       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 2000.4       | 23.0          | 10061-01-5      | N/A                          | N/A               |
| 39. 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    |
| 40. 1,1,1,2-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   |
| 41. 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   |
| 42. 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   |
| 43. 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  |
| 44. 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 |
| 45. 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  |
| 46. Bromobenzene                    | 35162       | 050823      | 0.05   | 5.00      | 40006.9       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 22.9          | 104-51-8        | N/A                          | or-rat 2699mg/kg  |
| 47. 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 |
| 48. 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  |
| 49. 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   |
| 50. 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  |
| 51. Styrene                         | 35162       | 050823      | 0.05   | 5.00      | 40004.6       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 22.9          | 108-98-3        | 200 ppm                      | or-rat 5000mg/kg  |
| 52. Toluene                         | 35162       | 050823      | 0.05   | 5.00      | 40006.2       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 22.9          | 87-68-3         | N/A                          | or-rat 1390mg/kg  |
| 53. 1,2,3-Trichlorobenzene          | 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 5000mg/kg  |
| 54. 1,2,4-Trichlorobenzene          | 35162       | 050823      | 0.05   | 5.00      | 40006.8       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 22.9          | 120-82-1        | 5 ppm (CL) (40mg/m3)         | or-rat 750mg/kg   |
| 55. 1,3,5-Trimethylbenzene          | 35162       | 050823      | 0.05   | 5.00      | 40001.6       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 23.0          | 95-63-6         | N/A                          | or-rat 5g/kg      |
| 56. 1,3,5-Trimethylbenzene          | 35162       | 050823      | 0.05   | 5.00      | 40006.7       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 22.9          | 106-67-8        | N/A                          | or-rat 5000mg/kg  |
| 57. m-Xylene                        | 35162       | 050823      | 0.05   | 5.00      | 40005.8       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 22.9          | 108-38-3        | 100 ppm (435mg/m3/8H)        | or-rat 5g/kg      |
| 58. tert-Butyl benzene              | 35163       | 101923      | 0.05   | 5.00      | 40001.2       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.6       | 22.9          | 98-06-6         | N/A                          | N/A               |
| 59. sec-Butyl benzene               | 35163       | 101923      | 0.05   | 5.00      | 40002.4       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.6       | 22.9          | 135-98-8        | N/A                          | or-rat 2240mg/kg  |
| 60. Chlorobenzene                   | 35163       | 101923      | 0.05   | 5.00      | 40003.8       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.7       | 22.9          | 108-90-7        | 75 ppm (350mg/m3/8H)         | or-rat 2290mg/kg  |
| 61. 2-Chlorotoluene                 | 35163       | 101923      | 0.05   | 5.00      | 40000.3       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.5       | 22.9          | 95-49-8         | 50 ppm (250mg/m3/8H)         | or-rat 3900mg/kg  |
| 62. 4-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  |
| 63. 1,2-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   |
| 64. 1,3-Dichlorobenzene             | 35163       | 1           |        |           |               |               |        |             |              |           |           |              |               |                 |                              |                   |

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     | Isopropylchloromethane                       | 25.13         |
| 21     | Dibromomethane/2-Hexopropane                 | 25.46         |
| 22     | cis-1,3-Dichloropropene                      | 27.02         |
| 23     | Toluene                                      | 28.05         |
| 24     | Ethyl methacrylate/trans-1,3-Dichloropropene | 28.73         |
| 25     | 1,1,2-Trichloroethane                        | 29.34         |
| 26     | Tetrachloroethene/1,3-Dichloropropene        | 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-Trichloropropene                       | 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**

|                |                         |        |
|----------------|-------------------------|--------|
| Formulated By: | <i>Prashant Chauhan</i> | 021624 |
| DATE           |                         |        |
| Reviewed By:   | <i>Pedro L. Rentes</i>  | 021624 |
| DATE           |                         |        |

Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Balance Uncertainty: 5E-05 Flask Uncertainty: 0.021

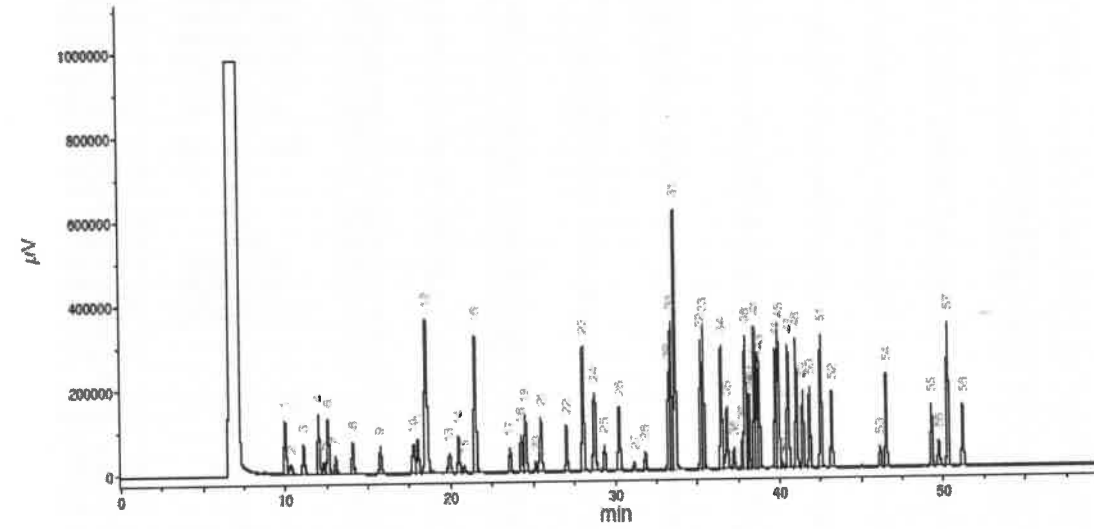
| Compound                            | (RM#)       | Lot         | Di.    | Initial   | Initial       | Nominal       | Purity | Purity      | Uncertainty  | Target    | Actual    | Actual       | Expanded      | SDS Information |                              |                   |
|-------------------------------------|-------------|-------------|--------|-----------|---------------|---------------|--------|-------------|--------------|-----------|-----------|--------------|---------------|-----------------|------------------------------|-------------------|
|                                     | Part Number | Number      | Factor | Vol. (mL) | Conc. (µg/mL) | Conc. (µg/mL) | (%)    | Uncertainty | Pipette (mL) | Weight(g) | Weight(g) | Conc (µg/mL) | (+/-) (µg/mL) | CAS#            | OSHA PEL (TWA)               | LD50              |
| 1. 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  |
| 2. Allyl chloride (3-Chloropropene) | (0325)      | 102395      | 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 7000mg/kg  |
| 3. Carbon disulfide                 | (0060)      | MKCR8561    | 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  |
| 4. cis-1,4-Dichloro-2-butene        | (1196)      | 14718EF     | NA     | NA        | NA            | 2000          | 95     | 0.2         | NA           | 0.21058   | 0.21069   | 2001.1       | 6.5           | 1476-11-5       | N/A                          | N/A               |
| 5. 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               |
| 6. 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               |
| 7. 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                          | N/A               |
| 8. 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 14800mg/kg |
| 9. 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 70mg/kg    |
| 10. 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  |
| 11. 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   |
| 12. 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  |
| 13. 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   |
| 14. 2-Nitropropane                  | (0481)      | 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   |
| 15. Perfluorooctane                 | (0450)      | HGA01       | NA     | NA        | NA            | 2000          | 98     | 0.2         | NA           | 0.20413   | 0.20430   | 2001.8       | 8.3           | 76-01-7         | N/A                          | N/A               |
| 16. 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     |
| 17. 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 916mg/kg   |
| 18. 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   |
| 19. 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               |
| 20. 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  |
| 21. 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   |
| 22. 1,1-Dichloroethene              | 32251       | 102023      | 0.10   | 10.00     | 20001.6       | 2000          | NA     | NA          | 0.042        | NA        | NA        | 1999.6       | 22.9          | 75-35-4         | 1 ppm (4mg/m3/8H)            | or-rat 200mg/kg   |
| 23. 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   |
| 24. 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  |
| 25. 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   |
| 26. Dibromomethane                  | 95321       | 020724      | 0.10   | 10.00     | 20002.9       | 2000          | NA     | NA          | 0.042        | NA        | NA        | 1999.8       | 20.5          | 74-85-3         | N/A                          | or-rat 105mg/kg   |
| 27. 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         | N/A                          | or-rat 108mg/kg   |
| 28. 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        | 100 ppm                      | or-rat 725mg/kg   |
| 29. Tetrachloroethane               | 95321       | 020724      | 0.10   | 10.00     | 20201.1       | 2000          | NA     | NA          | 0.042        | NA        | NA        | 1999.8       | 20.4          | 584-20-7        | N/A                          | N/A               |
| 30. 1,1,1-Trichloroethane           | 95321       | 020724      | 0.10   | 10.00     | 20003.0       | 2000          | NA     | NA          | 0.042        | NA        | NA        | 2019.6       | 20.8          | 127-18-4        | 25 ppm (170mg/m3/8H) (final) | or-rat 2629mg/kg  |
| 31. 1,2-Dibromo-3-chloropropane     | 35161       | 112322      | 0.05   | 5.00      | 40016.5       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 20.5          | 71-55-6         | 350 ppm (1900mg/m3/8H)       | or-rat 10300mg/kg |
| 32. 1,2-Dibromomethane              | 35161       | 112322      | 0.05   | 5.00      | 40024.8       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 2000.3       | 22.9          | 96-12-6         | 0.001 ppm                    | or-rat 170mg/kg   |
| 33. 1,2-Dichloroethane              | 35161       | 112322      | 0.05   | 5.00      | 40018.0       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 2000.4       | 22.9          | 106-93-4        | 20 ppm (8H)                  | or-rat 108mg/kg   |
| 34. 1,2-Dichloropropane             | 35161       | 112322      | 0.05   | 5.00      | 40051.0       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 2002.0       | 22.9          | 107-06-2        | 50 ppm (8H)                  | or-rat 870mg/kg   |
| 35. 1,3-Dichloropropane             | 35161       | 112322      | 0.05   | 5.00      | 40005.9       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 22.9          | 78-57-5         | 75 ppm (350mg/m3/8H)         | or-rat 1947mg/kg  |
| 36. 1,1-Dichloropropene             | 35161       | 112322      | 0.05   | 5.00      | 40012.1       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 22.9          | 142-28-9        | N/A                          | un-rat 3600mg/kg  |
| 37. cis-1,3-Dichloropropene         | 35161       | 112322      | 0.05   | 5.00      | 40010.0       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 2000.1       | 22.9          | 563-56-6        | N/A                          | N/A               |
| 38. trans-1,3-Dichloropropene       | 35161       | 112322      | 0.05   | 5.00      | 40017.8       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 2000.4       | 23.0          | 10061-01-5      | N/A                          | N/A               |
| 39. Hexachloro-1,3-butadiene        | 35161       | 112322      | 0.05   | 5.00      | 40021.9       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 2000.6       | 22.9          | 87-68-3         | 0.02 ppm (0.24mg/m3/8H)      | or-rat 82mg/kg    |
| 40. 1,1,1,2-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   |
| 41. 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   |
| 42. 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   |
| 43. 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  |
| 44. 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 |
| 45. 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  |
| 46. 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                          | N/A               |
| 47. 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 |
| 48. 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  |
| 49. 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 4900mg/kg  |
| 50. 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  |
| 51. 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  |
| 52. 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  |
| 53. 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   |
| 54. 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      |
| 55. 1,2,4-Trimethylbenzene          | 35162       | 050823      | 0.05   | 5.00      | 40001.6       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.8       | 22.9          | 106-67-8        | N/A                          | or-rat 5000mg/kg  |
| 56. 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      |
| 57. 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               |
| 58. 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  |
| 59. sec-Butyl benzene               | 35163       | 101923      | 0.05   | 5.00      | 40002.4       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.6       | 22.9          | 108-90-7        | 75 ppm (350mg/m3/8H)         | or-rat 2290mg/kg  |
| 60. 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  |
| 61. 2-Chlorotoluene                 | 35163       | 101923      | 0.05   | 5.00      | 40000.3       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.7       | 22.9          | 106-43-4        | N/A                          | or-rat 2100mg/kg  |
| 62. 4-Chlorotoluene                 | 35163       | 101923      | 0.05   | 5.00      | 40003.3       | 2000          | NA     | NA          | 0.017        | NA        | NA        | 1999.7       | 22.9          | 541-73-1        | N/A                          | or-rat 1063mg/kg  |
| 63. 1,2-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   |
| 64. 1,3-Dichlorobenzene</           |             |             |        |           |               |               |        |             |              |           |           |              |               |                 |                              |                   |



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-Helopropene                 | 25.46         |
| 22     | cis-1,3-Dichloropropene                      | 27.02         |
| 23     | Toluene                                      | 28.05         |
| 24     | Ethyl methacrylate/trans-1,3-Dichloropropene | 28.73         |
| 25     | 1,1,2-Trichloroethane                        | 29.34         |
| 26     | Tetrachloroethene/1,3-Dichloropropene        | 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-Trichloropropene                       | 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  | <b>1-800-535-5053</b> |
| Address             | 44 Rossotto Dr.<br>Hamden CT, 06514 | Emergency Telephone International | <b>1-352-323-3500</b> |
|                     |                                     | Date Prepared/Revised             | January 1, 2023       |

## Section II - Hazards Identification

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

|                 |                                             |                       |                                                      |
|-----------------|---------------------------------------------|-----------------------|------------------------------------------------------|
| <b>H225</b>     | <b>Highly Flammable Liquid and Vapor</b>    | <b>H301, 311, 331</b> | <b>Toxic if swallowed, skin contact, inhaled</b>     |
| <b>H370</b>     | <b>Cause damage to organs</b>               | <b>H351</b>           | <b>Suspected of causing cancer</b>                   |
| <b>P271</b>     | <b>Use in ventilated area</b>               | <b>P280</b>           | <b>Use gloves, eye protection/face shield</b>        |
| <b>P302,332</b> | <b>If on skin, wash with soap and water</b> | <b>P305,351,338</b>   | <b>If in eyes, remove contacts, rinse with water</b> |



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**

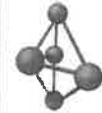
OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**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**



**CERTIFIED WEIGHT REPORT**

**Part Number:**  
032922  
**Description:**  
Revised Additions Mix

**95319**  
032922  
11 components

**Solvent(s):** Methanol  
**Lot#** EC592-US

**Expiration Date:**  
032925  
**Recommended Storage:**  
Refrigerate (4 °C)  
**Nominal Concentration (µg/mL):**  
Varied  
**NIST Test ID#:**  
6UTB

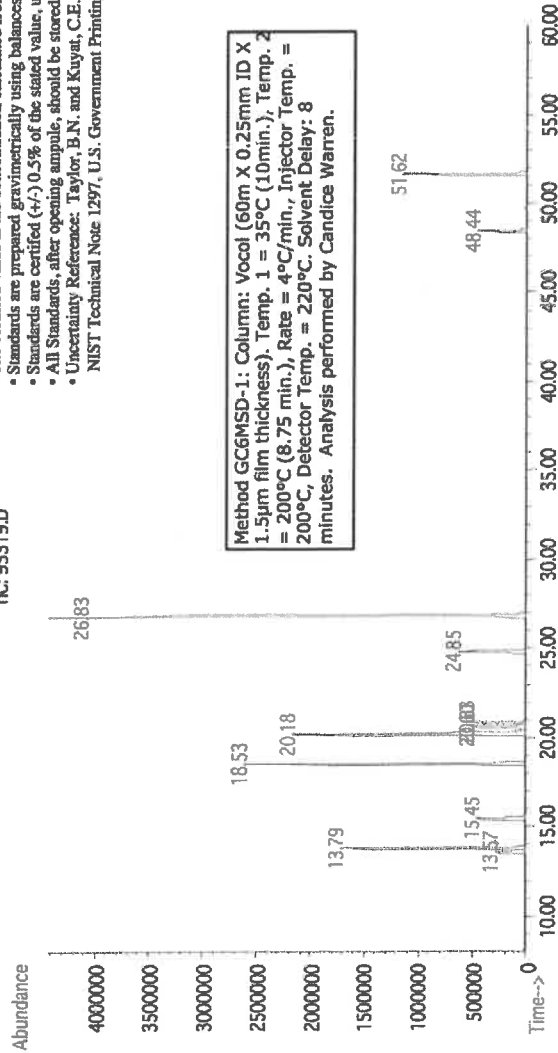
Weight(s) shown below were combined and diluted to (mL):

5E-05 Balance Uncertainty  
0.012 Flask Uncertainty

|                         |                  |        |
|-------------------------|------------------|--------|
| <i>Prashant Chauhan</i> |                  | 032922 |
| Formulated By:          | Prashant Chauhan | DATE   |
| <i>Pedro L. Rentas</i>  |                  | 032922 |
| Reviewed By:            | Pedro L. Rentas  | DATE   |

| Compound                          | RM#  | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty | Target Weight (g) | Actual Weight (g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information                        |                                             |
|-----------------------------------|------|------------|----------------------|------------|-------------|-------------------|-------------------|---------------------|------------------------------------|----------------------------------------|---------------------------------------------|
|                                   |      |            |                      |            |             |                   |                   |                     |                                    | (Solvent Safety Info. On Attached pg.) | OSHA PEL (TWA) LD50                         |
| 1. Acrylonitrile                  | 7    | 4718CK     | 10000                | 99         | 0.2         | 1.01015           | 1.01030           | 10001.5             | 40.5                               | 107-13-1                               | N/A orl-rat 78 mg/kg                        |
| 2. 1-Chlorobutane                 | 1072 | MKCM5711   | 2000                 | 99.99      | 0.2         | 0.20003           | 0.20020           | 2001.7              | 8.1                                | 109-69-3                               | N/A orl-rat 2870mg/kg                       |
| 3. Cyclohexane                    | 1023 | 28930      | 2000                 | 99         | 0.2         | 0.20203           | 0.20215           | 2001.2              | 8.2                                | 110-82-7                               | 300 ppm (1050mg/m3/8H) orl-rat 12705mg/kg   |
| 4. Di-Isopropyl ether (DIPE)      | 987  | 00412MX    | 2000                 | 99         | 0.2         | 0.20203           | 0.20215           | 2001.2              | 8.2                                | 109-20-3                               | 500 ppm (2100mg/m3/8H) orl-rat 8470mg/kg    |
| 5. 1,4-Dioxane                    | 373  | 03853KE    | 40000                | 99         | 0.2         | 4.04060           | 4.04100           | 40004.0             | 161.9                              | 123-91-1                               | 25 ppm (90mg/m3/8H)(skin) orl-mus 5700mg/kg |
| 6. Hexachloroethane               | 199  | 12604HBV   | 2000                 | 99         | 0.2         | 0.20203           | 0.20213           | 2001.0              | 8.2                                | 67-72-1                                | 1 ppm (10mg/m3/8H)(skin) orl-gpg 4970mg/kg  |
| 7. Methylcyclohexane              | 1627 | 08046KN    | 2000                 | 99         | 0.2         | 0.20203           | 0.20215           | 2001.2              | 8.2                                | 108-87-2                               | N/A                                         |
| 8. Methyl tert-butyl ether (MTBE) | 209  | 02197LJ    | 2000                 | 99.8       | 0.2         | 0.20041           | 0.20055           | 2001.4              | 8.1                                | 1634-04-4                              | N/A orl-rat 4g/kg                           |
| 9. Propionitrile                  | 349  | 1395468    | 20000                | 99         | 0.2         | 2.02030           | 2.02045           | 20001.5             | 81.0                               | 107-12-0                               | N/A orl-rat 38mg/kg                         |
| 10. Tetrahydrofuran               | 380  | SHBH8330   | 10000                | 99.9       | 0.2         | 1.00105           | 1.00120           | 10001.5             | 40.1                               | 109-99-9                               | 20 ppm (590mg/m3/8H) orl-rat 1650mg/kg      |
| 11. 1,2,3,4-Tetramethylbenzene    | 491  | AP01       | 2000                 | 93         | 0.2         | 0.21506           | 0.21520           | 2001.3              | 8.7                                | 488-23-3                               | N/A orl-rat 6408mg/kg                       |

TIC: 95319.D



| Name                           | MSD RT (min.) |
|--------------------------------|---------------|
| Methyl tert-butyl ether (MTBE) | 13.56         |
| Acrylonitrile                  | 13.79         |
| Di-isopropyl ether             | 15.44         |
| Propionitrile                  | 18.53         |
| Tetrahydrofuran                | 20.17         |
| Cyclohexane                    | 20.58         |
| 1-Chlorobutane                 | 20.83         |
| Methylcyclohexane              | 24.84         |
| 1,4-Dioxane                    | 26.84         |
| Hexachloroethane               | 48.44         |
| 1,2,3,4-Tetramethylbenzene     | 51.62         |

\* 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  | 1-800-536-5053  |
| 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<br>H370<br>P271<br>P302,332 | Highly Flammable Liquid and Vapor<br>Cause damage to organs<br>Use in ventilated area<br>If on skin, wash with soap and water | H301, 311, 331<br>H351<br>P280<br>P305,351,338 | Toxic if swallowed, skin contact, inhaled<br>Suspected of causing cancer<br>Use gloves, eye protection/face shield<br>If in eyes, remove contacts, rinse with water |
| Signal Word: DANGER              |                                                                                                                               |                                                |                                                                                                                                                                     |

## Section III - Composition

|             |         |                 |          |              |
|-------------|---------|-----------------|----------|--------------|
| Components: | CAS#:   | LD50 Oral - Rat | OSHA PEL | % (optional) |
| Methanol    | 67-56-1 | 2,769 mg/kg     | 200 ppm  | > 99         |

See Certified Weight Report For Other Analytes Present At Trace Quantities.  
INTENDED USE: REFERENCE MATERIAL

## Section IV. FIRST AID MEASURES

**General advice**  
If inhaled  
If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
Wash with soap and water. Consult a physician.  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.  
Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

**Flammability**  
Suitable extinguishing media  
Protective equipment for fire  
Wear self contained breathing apparatus for fire fighting if necessary.

## 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.  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**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.  
Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).  
Clean up

## 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.  
Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).  
Clean up

**Storage Conditions**  
Precutions 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.  
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 VII. HANDLING AND STORAGE

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Methanol**  
67-56-1 TWA 200 ppm  
TWA 200 ppm  
Skin notation  
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



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 chemicals or 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.

Section XVI. Misc. 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 XV. REGULATORY INFORMATION

DOT (US) IATA  
UN number: 1230 Class: 3 Packing group: II  
Proper shipping name: Methanol  
Proper shipping name: Methanol

Section XIV. TRANSPORT INFORMATION

Dispose with normal Laboratory Solvent Waste.

Section XIII. DISPOSAL CONSIDERATIONS

LC50 15,400 mg/l - 96 h  
EC50 24,500.00 mg/l - 48 h  
EC100 10,000.00 mg/l - 24 h

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

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 XI. TOXICOLOGICAL INFORMATION

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

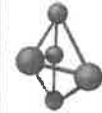
Section X. STABILITY AND REACTIVITY

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

|                              |      |                                      |       |
|------------------------------|------|--------------------------------------|-------|
| Solubility in Water COMPLETE |      |                                      |       |
| Vapor Density (AIR = 1)      | 1.11 | Evaporation rate (Butyl Acetate = 1) | 4.6   |
| Vapor Pressure (mm Hg)       | 96   | Melting Point                        | -98°C |
| Boiling Point                | 65°C | Specific Gravity (H2O = 1)           | 0.79  |



**Certified Reference Material CRM**



**CERTIFIED WEIGHT REPORT**

**Part Number:**  
032922  
**Description:**  
Revised Additions Mix

**95319**  
032922  
11 components

**Solvent(s):** Lot#  
Methanol EC592-US

**Expiration Date:**  
032925  
**Recommended Storage:**  
Refrigerate (4 °C)  
**Nominal Concentration (µg/mL):**  
Varied  
**NIST Test ID#:**  
6UTB

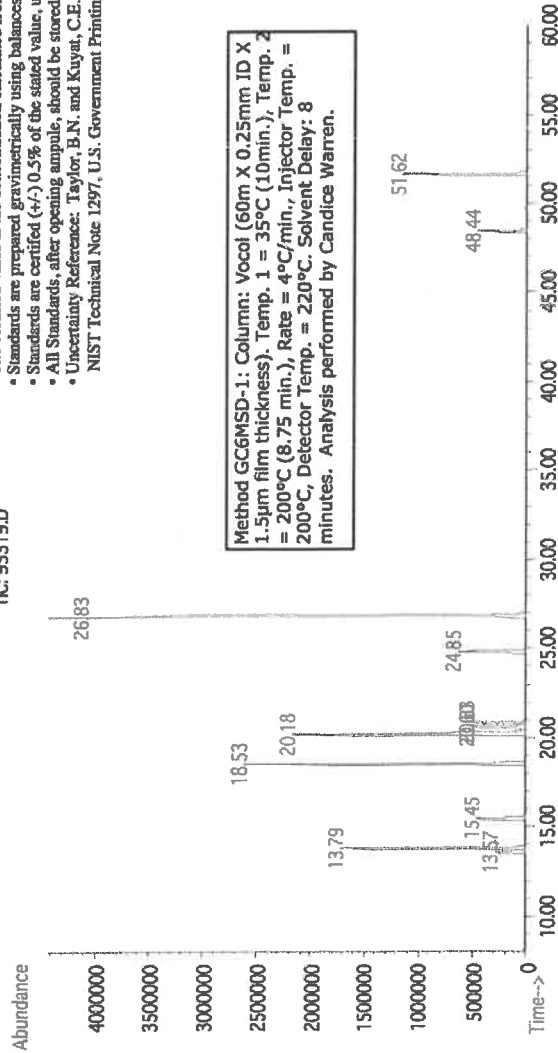
Weight(s) shown below were combined and diluted to (mL):

5E-05 Balance Uncertainty  
0.012 Flask Uncertainty

|                |                  |        |
|----------------|------------------|--------|
|                |                  | 032922 |
| Formulated By: | Prashant Chauhan | DATE   |
|                |                  | 032922 |
| Reviewed By:   | Pedro L. Rentas  | DATE   |

| Compound                          | RM#  | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty | Target Weight (µg) | Actual Weight (g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information                        |                                             |
|-----------------------------------|------|------------|----------------------|------------|-------------|--------------------|-------------------|---------------------|------------------------------------|----------------------------------------|---------------------------------------------|
|                                   |      |            |                      |            |             |                    |                   |                     |                                    | (Solvent Safety Info. On Attached pg.) | OSHA PEL (TWA) LD50                         |
| 1. Acrylonitrile                  | 7    | 4718CK     | 10000                | 99         | 0.2         | 1.01015            | 1.01030           | 10001.5             | 40.5                               | 107-13-1                               | N/A orl-rat 78 mg/kg                        |
| 2. 1-Chlorobutane                 | 1072 | MKCM5711   | 2000                 | 99.99      | 0.2         | 0.20003            | 0.20020           | 2001.7              | 8.1                                | 109-69-3                               | N/A orl-rat 2870mg/kg                       |
| 3. Cyclohexane                    | 1023 | 28930      | 2000                 | 99         | 0.2         | 0.20203            | 0.20215           | 2001.2              | 8.2                                | 110-82-7                               | 300 ppm (1050mg/m3/8H) orl-rat 12705mg/kg   |
| 4. Di-Isopropyl ether (DIPE)      | 987  | 00412MX    | 2000                 | 99         | 0.2         | 0.20203            | 0.20215           | 2001.2              | 8.2                                | 109-20-3                               | 500 ppm (2100mg/m3/8H) orl-rat 8470mg/kg    |
| 5. 1,4-Dioxane                    | 373  | 03853KE    | 40000                | 99         | 0.2         | 4.04060            | 4.04100           | 40004.0             | 161.9                              | 123-91-1                               | 25 ppm (90mg/m3/8H)(skin) orl-mus 5700mg/kg |
| 6. Hexachloroethane               | 199  | 12604HBV   | 2000                 | 99         | 0.2         | 0.20203            | 0.20213           | 2001.0              | 8.2                                | 67-72-1                                | 1 ppm (10mg/m3/8H)(skin) orl-gpg 4970mg/kg  |
| 7. Methylcyclohexane              | 1627 | 08046KN    | 2000                 | 99         | 0.2         | 0.20203            | 0.20215           | 2001.2              | 8.2                                | 108-87-2                               | N/A                                         |
| 8. Methyl tert-butyl ether (MTBE) | 209  | 02197LJ    | 2000                 | 99.8       | 0.2         | 0.20041            | 0.20055           | 2001.4              | 8.1                                | 1634-04-4                              | N/A orl-rat 4g/kg                           |
| 9. Propionitrile                  | 349  | 1395468    | 20000                | 99         | 0.2         | 2.02030            | 2.02045           | 20001.5             | 81.0                               | 107-12-0                               | N/A orl-rat 38mg/kg                         |
| 10. Tetrahydrofuran               | 380  | SHBH8330   | 10000                | 99.9       | 0.2         | 1.00105            | 1.00120           | 10001.5             | 40.1                               | 109-99-9                               | 20 ppm (590mg/m3/8H) orl-rat 1650mg/kg      |
| 11. 1,2,3,4-Tetramethylbenzene    | 491  | AP01       | 2000                 | 93         | 0.2         | 0.21506            | 0.21520           | 2001.3              | 8.7                                | 488-23-3                               | N/A orl-rat 6408mg/kg                       |

TIC: 95319.D



| Name                           | MSD RT (min.) |
|--------------------------------|---------------|
| Methyl tert-butyl ether (MTBE) | 13.56         |
| Acrylonitrile                  | 13.79         |
| Di-isopropyl ether             | 15.44         |
| Propionitrile                  | 18.53         |
| Tetrahydrofuran                | 20.17         |
| Cyclohexane                    | 20.58         |
| 1-Chlorobutane                 | 20.83         |
| Methylcyclohexane              | 24.84         |
| 1,4-Dioxane                    | 26.84         |
| Hexachloroethane               | 48.44         |
| 1,2,3,4-Tetramethylbenzene     | 51.62         |

\* 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  | 1-800-536-5053  |
| 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<br>H370<br>P271<br>P302,332 | Highly Flammable Liquid and Vapor<br>Cause damage to organs<br>Use in ventilated area<br>If on skin, wash with soap and water | H301, 311, 331<br>H351<br>P280<br>P305,351,338 | Toxic if swallowed, skin contact, inhaled<br>Suspected of causing cancer<br>Use gloves, eye protection/face shield<br>If in eyes, remove contacts, rinse with water |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Signal Word: DANGER



## Section III - Composition

|             |         |                 |          |              |
|-------------|---------|-----------------|----------|--------------|
| Components: | CAS#:   | LD50 Oral - Rat | OSHA PEL | % (optional) |
| Methanol    | 67-56-1 | 2,769 mg/kg     | 200 ppm  | > 99         |

See Certified Weight Report For Other Analytes Present At Trace Quantities.  
INTENDED USE: REFERENCE MATERIAL

## Section IV. FIRST AID MEASURES

**General advice**  
If inhaled  
If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
Wash with soap and water. Consult a physician.  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.  
Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

**Flammability**  
Suitable extinguishing media  
Protective equipment for fire  
Wear self contained breathing apparatus for fire fighting if necessary.  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
heat/sparks/open flame/hot surface. No smoking.

## Section V. FIREFIGHTING MEASURES

**Flammability**  
Suitable extinguishing media  
Protective equipment for fire  
Wear self contained breathing apparatus for fire fighting if necessary.  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
heat/sparks/open flame/hot surface. No smoking.

## 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

**Methanol**  
67-56-1 TWA 200 ppm  
TWA 200 ppm  
Skin notation  
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 (H2O = 1)           | 0.79  |
| Vapor Pressure (mm Hg)  | 96       | Melting Point                        | -98°C |
| Vapor Density (AIR = 1) | 1.11     | Evaporation rate (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 - 6400 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: 1280 Class: 3 Packing group: II  
Proper shipping name: Methanol  
UN number: 1280 Class: 3 Packing group: II  
Proper shipping name: Methanol

## Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation, 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 chemicals or 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:  
Lot Number:  
Description:

91980  
072423  
Acrolein

Solvent(s):  
Water

Lot#  
102422Q

Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test ID#:

082423  
Refrigerate (4 °C)  
5000  
6UTB

Weight(s) shown below were combined and diluted to (mL):

10.0  
5E-05 Balance Uncertainty  
0.001 Flask Uncertainty

|                |                 |        |      |
|----------------|-----------------|--------|------|
| Formulated By: | Gabriel Helland | 072423 | DATE |
| Reviewed By:   | Pedro L. Rentas | 072423 | DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (±) (µg/mL) | CAS# | OSHA PEL (TWA) | LD50 |
|----------|-----|------------|----------------------|------------|-------------|------------------|------------------|---------------------|----------------------------------|------|----------------|------|
|----------|-----|------------|----------------------|------------|-------------|------------------|------------------|---------------------|----------------------------------|------|----------------|------|

|             |   |            |      |      |     |         |         |        |      |          |         |                 |
|-------------|---|------------|------|------|-----|---------|---------|--------|------|----------|---------|-----------------|
| 1. Acrolein | 5 | 103755R09M | 5000 | 97.1 | 0.5 | 0.05160 | 0.05170 | 5009.2 | 52.5 | 107-02-8 | 0.1 ppm | orl-rat 46mg/kg |
|-------------|---|------------|------|------|-----|---------|---------|--------|------|----------|---------|-----------------|

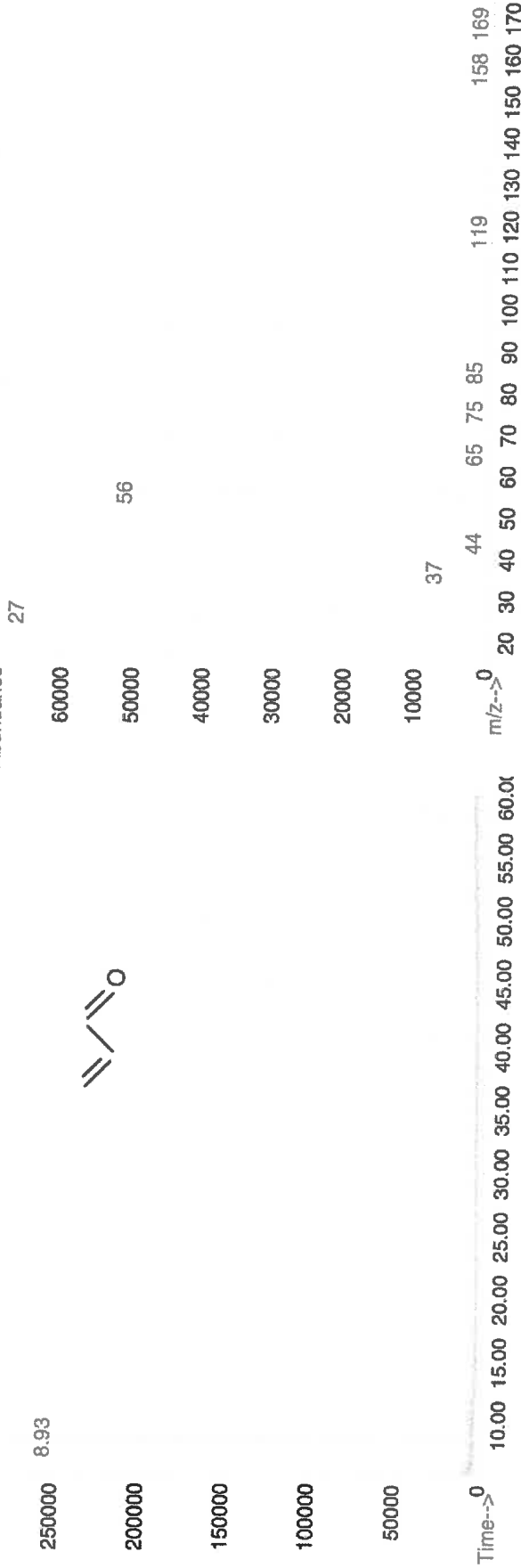
Method: GC6MSD-1, Detector: Mass Selective Detector (Scan mode). Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2 = 200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 250°C, Detector Temp. = 220°C. Analyst: Pedro Rentas. NOTE: 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.

TIC: [BSB2]79005.D

Abundance

Abundance

Scan 232 (8.927 min): [BSB2]79005.D



\* 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

Address

44 Rossetto Dr.  
Hamden CT, 06514

Date Prepared/Revised

May 1, 2022

Emergency Telephone USA & CANADA

1-800-535-5053

Emergency Telephone International

1-352-323-3500

Section II - Hazards Identification

P271

P302,332

Use in ventilated area

If on skin, wash with soap and water

H315

P280

P305,351,338

Causes skin and eye irritation.

Use gloves, eye protection/face shield

If in eyes, remove contacts, rinse with water

Signal Word: DANGER

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))

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

If inhaled

If in case of skin contact

In case of eye contact

If swallowed

Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.

If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Wash with soap and water. Consult a physician.

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media

Protective equipment for fire

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

TLWA: 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                           |   |

Absolute Standards Inc.

PO Box 5585  
Hamden, CT 06518-0585

Phone: 203-281-2917  
FAX: 203-281-2922

|                                                    |    |                                         |    |
|----------------------------------------------------|----|-----------------------------------------|----|
| Vapor Density (AIR = 1)                            | NA | Evaporation rate<br>(Butyl Acetate = 1) | NA |
|                                                    |    |                                         |    |
| Solubility in Water                                |    |                                         |    |
| Completely miscible                                |    |                                         |    |
| 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)  
Not dangerous goods  
Proper shipping name: Water  
ATA  
Not dangerous goods  
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:  
Lot Number:  
Description:

91980  
072423  
Acrolein

Solvent(s):  
Water

Lot#  
102422Q

Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test ID#:

082423  
Refrigerate (4 °C)  
5000  
6UTB

Weight(s) shown below were combined and diluted to (mL):

10.0  
5E-05 Balance Uncertainty  
0.001 Flask Uncertainty

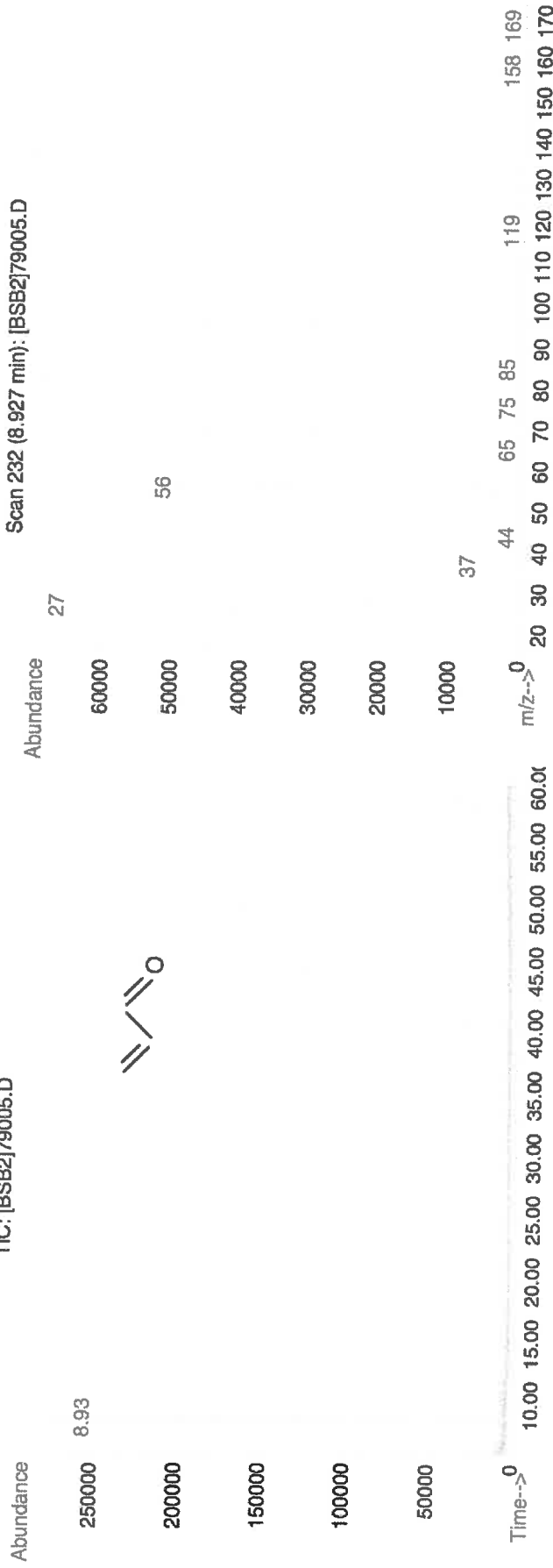
|                |                 |        |      |
|----------------|-----------------|--------|------|
| Formulated By: | Gabriel Helland | 072423 | DATE |
| Reviewed By:   | Pedro L. Rentas | 072423 | DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (±) (µg/mL) | Solvent Safety Info. On Attached pg.) | CAS# | LD50 |
|----------|-----|------------|----------------------|------------|-------------|------------------|------------------|---------------------|----------------------------------|---------------------------------------|------|------|
|----------|-----|------------|----------------------|------------|-------------|------------------|------------------|---------------------|----------------------------------|---------------------------------------|------|------|

|             |   |            |      |      |     |         |         |        |      |          |         |                 |
|-------------|---|------------|------|------|-----|---------|---------|--------|------|----------|---------|-----------------|
| 1. Acrolein | 5 | 103755R09M | 5000 | 97.1 | 0.5 | 0.05160 | 0.05170 | 5009.2 | 52.5 | 107-02-8 | 0.1 ppm | orl-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. = 250°C, Detector Temp. = 250°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.

TIC: [BSB2]79005.D



\* 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).



Absolute Standards Inc.

PO Box 5585

Hamden, CT 06518-0585

Phone: 203-281-2917  
FAX: 203-281-2922

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  
Address 44 Rossetto Dr.  
Hamden CT, 06514  
Emergency Telephone USA & CANADA 1-800-535-5053  
Emergency Telephone International 1-352-323-3500  
Date Prepared/Revised May 1, 2022

Section II - Hazards Identification

P271 Use in ventilated area  
P302,332 If on skin, wash with soap and water  
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
H315 Causes skin and eye irritation.  
H335 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

See Certified Weight Report For Other Analytes Present At Trace Quantities.  
INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice  
If inhaled  
If in case of skin contact  
If in case of eye contact  
If swallowed  
Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.  
If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
Wash with soap and water. Consult a physician.  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.  
Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media  
Protective equipment for fire  
Hazardous Decomposition products  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Wear self contained breathing apparatus for fire fighting if necessary.  
Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions  
Environmental precautions  
Clean up  
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.  
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.  
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  
Storage Conditions  
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.  
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  
Vapor Pressure (mm Hg)  
100°C  
Specific Gravity (H<sub>2</sub>O = 1)  
Melting Point

Absolute Standards Inc.

PO Box 5585  
Hamden, CT 06518-0585

Phone: 203-281-2917  
FAX: 203-281-2922

|                                                    |    |                                         |    |
|----------------------------------------------------|----|-----------------------------------------|----|
| Vapor Density (AIR = 1)                            | NA | Evaporation rate<br>(Butyl Acetate = 1) | NA |
|                                                    |    |                                         |    |
| Solubility in Water                                |    |                                         |    |
| Completely miscible                                |    |                                         |    |
| 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                          |
|                                                      | Materials to avoid                           |
| 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 |    |

|                                                                                                                   |  |  |  |
|-------------------------------------------------------------------------------------------------------------------|--|--|--|
| DOT (US)                                                                                                          |  |  |  |
| Not dangerous goods                                                                                               |  |  |  |
| Proper shipping name: Water                                                                                       |  |  |  |
| ATA                                                                                                               |  |  |  |
| Not dangerous goods                                                                                               |  |  |  |
| 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:** 072423  
**Description:** Acrolein

**Expiration Date:** 082423  
**Recommended Storage:** Refrigerate (4 °C)  
**Nominal Concentration (µg/mL):** 5000  
**NIST Test ID#:** 6UTB

Weight(s) shown below were combined and diluted to (mL): 10.0

**Solvent(s):** Water  
**Lot#** 102422Q

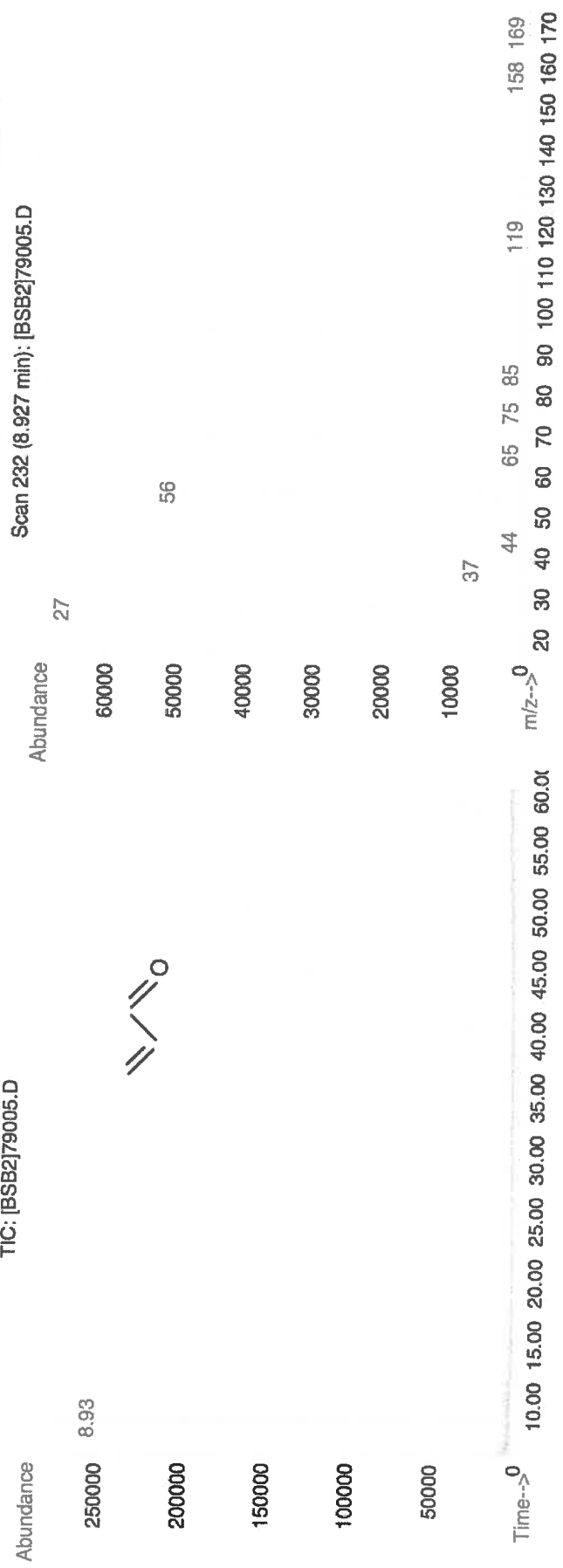
|                        |                 |        |
|------------------------|-----------------|--------|
| <i>Gabriel Helland</i> |                 | 072423 |
| Formulated By:         | Gabriel Helland | DATE   |
| <i>Pedro L. Rentas</i> |                 | 072423 |
| Reviewed By:           | Pedro L. Rentas | DATE   |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information                        |      |
|----------|-----|------------|----------------------|------------|-------------|------------------|------------------|---------------------|------------------------------------|----------------------------------------|------|
|          |     |            |                      |            |             |                  |                  |                     |                                    | (Solvent Safety Info. On Attached pg.) | LD50 |

|             |   |            |      |      |     |         |         |        |      |          |         |                 |
|-------------|---|------------|------|------|-----|---------|---------|--------|------|----------|---------|-----------------|
| 1. Acrolein | 5 | 103755R09M | 5000 | 97.1 | 0.5 | 0.05160 | 0.05170 | 5009.2 | 52.5 | 107-02-8 | 0.1 ppm | orl-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. = 250°C, Detector Temp. = 250°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.

TIC: [BSB2]79005.D



\* 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).

Absolute Standards Inc.

PO Box 5585

Hamden, CT 06518-0585

Phone: 203-281-2917  
FAX: 203-281-2922

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             | May 1, 2022    |

Section II - Hazards Identification

**P271**  
P302,332

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**  
H315  
P280  
P305,351,338

**Causes skin and eye irritation.**  
**Use gloves, eye protection/face shield**  
**If in eyes, remove contacts, rinse with water**

**Signal Word: DANGER**

Section III - Composition

See Certified Weight Report For Other Analytes Present At Trace Quantities.  
INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

**General advice**  
If inhaled  
If in case of skin contact  
If in case of eye contact  
If swallowed

Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.  
If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
Wash with soap and water. Consult a physician.  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.  
Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

**Stable extinguishing media**  
Protective equipment for fire  
Hazardous Decomposition products

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Wear self contained breathing apparatus for fire fighting if necessary.  
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

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              |   |

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|                                                    |    |                                         |     |
|----------------------------------------------------|----|-----------------------------------------|-----|
| Vapor Density (AIR = 1)                            | NA | Evaporation rate<br>(Butyl Acetate = 1) | 0°C |
|                                                    | NA |                                         |     |
| Solubility in Water                                |    |                                         |     |
| Completely miscible                                |    |                                         |     |
| 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)  
Not dangerous goods  
Proper shipping name: Water  
ATA  
Not dangerous goods  
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:** 072423  
**Description:** Acrolein

**Solvent(s):** Water  
**Lot#** 102422Q

**Expiration Date:** 082423  
**Recommended Storage:** Refrigerate (4 °C)  
**Nominal Concentration (µg/mL):** 5000  
**NIST Test ID#:** 6UTB

Weight(s) shown below were combined and diluted to (mL): 10.0

5E-05 Balance Uncertainty  
0.001 Flask Uncertainty

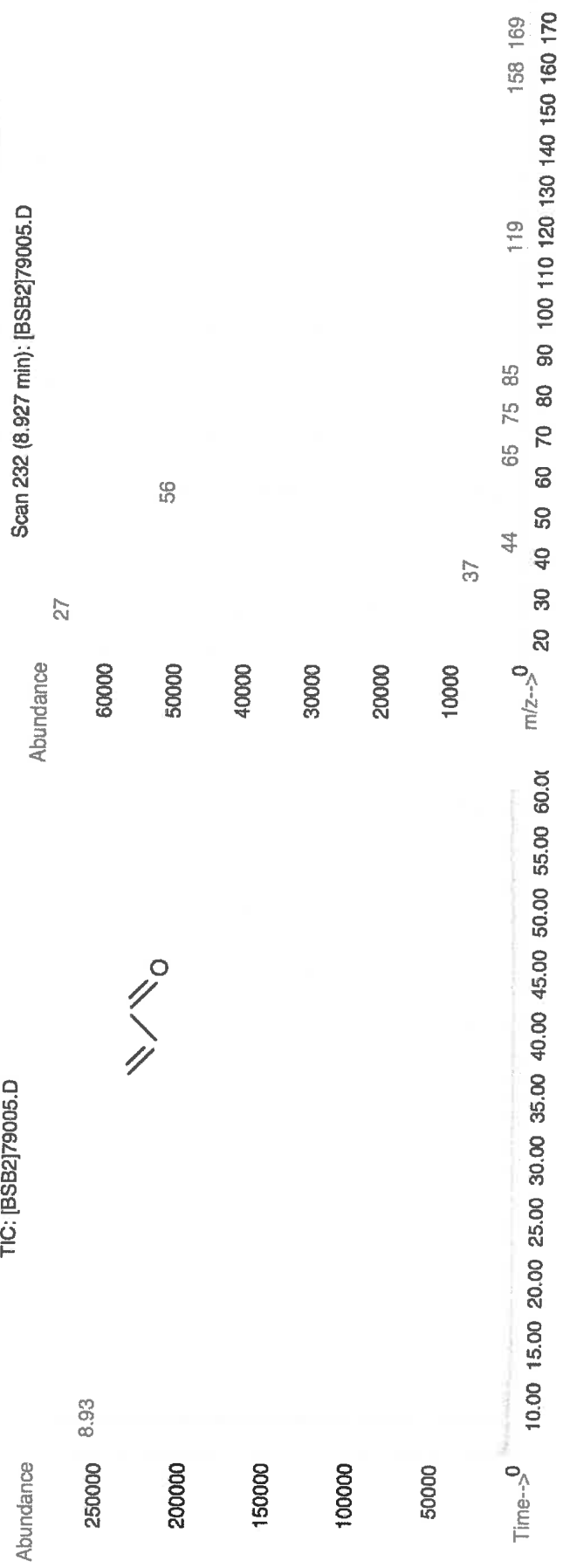
|                |                 |        |      |
|----------------|-----------------|--------|------|
| Formulated By: | Gabriel Helland | 072423 | DATE |
| Reviewed By:   | Pedro L. Rentas | 072423 | DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (±) (µg/mL) | CAS# | OSHA PEL (TWA) | LD50 |
|----------|-----|------------|----------------------|------------|-------------|------------------|------------------|---------------------|----------------------------------|------|----------------|------|
|----------|-----|------------|----------------------|------------|-------------|------------------|------------------|---------------------|----------------------------------|------|----------------|------|

|             |   |            |      |      |     |         |         |        |      |          |         |                 |
|-------------|---|------------|------|------|-----|---------|---------|--------|------|----------|---------|-----------------|
| 1. Acrolein | 5 | 103755R09M | 5000 | 97.1 | 0.5 | 0.05160 | 0.05170 | 5009.2 | 52.5 | 107-02-8 | 0.1 ppm | orl-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. = 250°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.

TIC: [BSB2]79005.D



\* 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).

Absolute Standards Inc.

PO Box 5585

Hamden, CT 06518-0585

Phone: 203-281-2917  
FAX: 203-281-2922

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  
Address 44 Rossetto Dr.  
Hamden CT, 06514  
Emergency Telephone USA & CANADA  
Emergency Telephone International  
Date Prepared/Revised  
May 1, 2022  
1-800-535-5053  
1-352-323-3500

Section II - Hazards Identification

P271 Use in ventilated area  
P302,332 If on skin, wash with soap and water  
H315 Causes skin and eye irritation.  
H335 Use gloves, eye protection/face shield  
P305,351,338 If in eyes, remove contacts, rinse with water  
Signal Word: DANGER



See Certified Weight Report For Other Analytes Present At Trace Quantities.  
INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice  
If inhaled  
If in case of skin contact  
If in case of eye contact  
If swallowed  
Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.  
If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
Wash with soap and water. Consult a physician.  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.  
Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media  
Protective equipment for fire  
Hazardous Decomposition products  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Wear self contained breathing apparatus for fire fighting if necessary.  
Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions  
Environmental precautions  
Clean up  
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.  
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.  
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  
Storage Conditions  
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.  
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 | Melting Point |
| Vapor Pressure (mm Hg) |       |                                         |   |               |

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FAX: 203-281-2922

|                         |  |                                                    |                                         |     |
|-------------------------|--|----------------------------------------------------|-----------------------------------------|-----|
| Vapor Density (AIR = 1) |  | NA                                                 | Evaporation rate<br>(Butyl Acetate = 1) | 0°C |
| Solubility in Water     |  | Completely miscible                                |                                         |     |
| 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)  
Not dangerous goods  
Proper shipping name: Water  
ATA  
Not dangerous goods  
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:** 072423  
**Description:** Acrolein

**Solvent(s):** Water  
**Lot#** 102422Q

**Expiration Date:** 082423  
**Recommended Storage:** Refrigerate (4 °C)  
**Nominal Concentration (µg/mL):** 5000  
**NIST Test ID#:** 6UTB

Weight(s) shown below were combined and diluted to (mL): 10.0

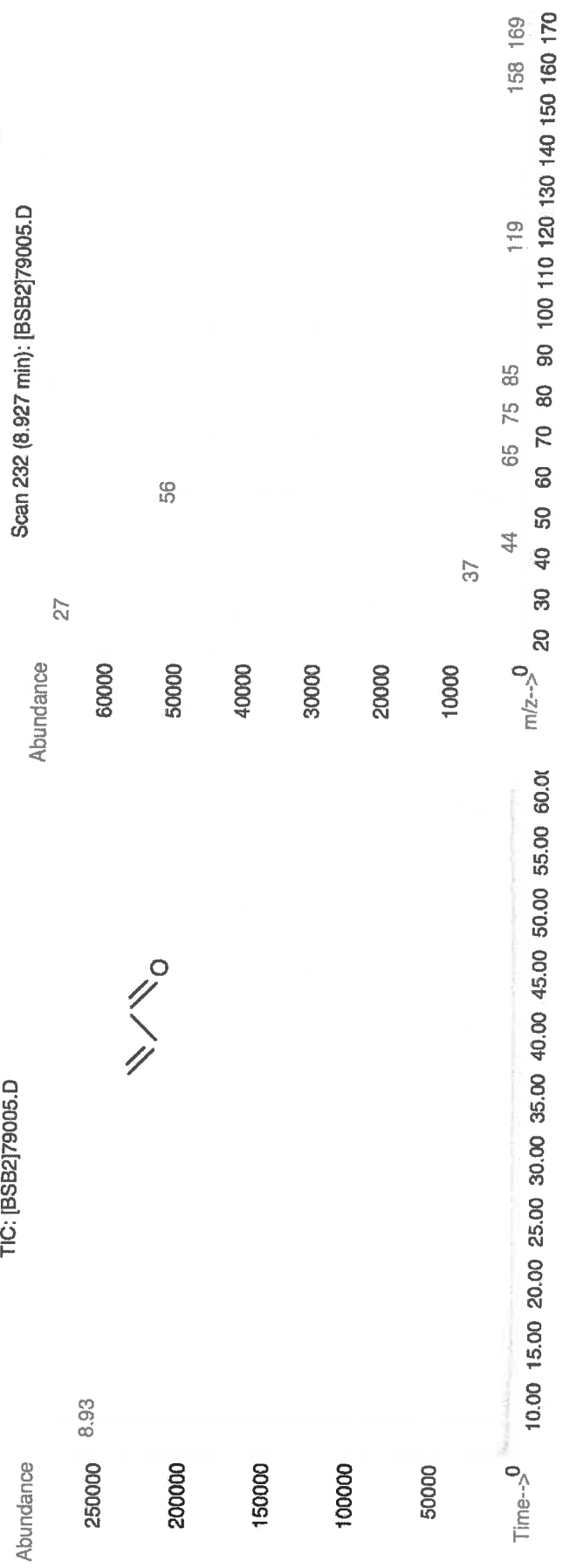
5E-05 Balance Uncertainty  
0.001 Flask Uncertainty

|                |                 |        |      |
|----------------|-----------------|--------|------|
| Formulated By: | Gabriel Helland | 072423 | DATE |
| Reviewed By:   | Pedro L. Rentas | 072423 | DATE |

| Compound    | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (±) (µg/mL) | CAS#     | OSHA PEL (TWA) | LD50            |
|-------------|-----|------------|----------------------|------------|-------------|------------------|------------------|---------------------|----------------------------------|----------|----------------|-----------------|
| 1. Acrolein | 5   | 103755R09M | 5000                 | 97.1       | 0.5         | 0.05160          | 0.05170          | 5009.2              | 52.5                             | 107-02-8 | 0.1 ppm        | orl-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. = 250°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.

TIC: [BSB2]79005.D



\* 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).

Absolute Standards Inc.

PO Box 5585

Hamden, CT 06518-0585

Phone: 203-281-2917  
FAX: 203-281-2922

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              |                                        |  |
| Address               | 44 Rossetto Dr.<br>Hamden CT, 06514 |                                        |  |
| Date Prepared/Revised |                                     | May 1, 2022                            |  |

Section II - Hazards Identification

|                                                              |                                               |                                                                                       |  |
|--------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------|--|
| GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) |                                               | Signal Word: DANGER                                                                   |  |
| P271                                                         | Use in ventilated area                        |  |  |
| P302,332                                                     | If on skin, wash with soap and water          |                                                                                       |  |
| H315                                                         |                                               |                                                                                       |  |
| P280                                                         |                                               |                                                                                       |  |
| P305,351,338                                                 | If in eyes, remove contacts, rinse with water |                                                                                       |  |
| Causes skin and eye irritation.                              |                                               |                                                                                       |  |
| Use gloves, eye protection/face shield                       |                                               |                                                                                       |  |

Section III - Composition

|                                                         |  |                 |  |
|---------------------------------------------------------|--|-----------------|--|
| Components (Specific Chemical Identity; Common Name(s)) |  | CAS#: 7732-18-5 |  |
| Water                                                   |  | % (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                                                     |  |
| Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product. |  | Handle with gloves. Gloves must be inspected prior to use. Eye protection. |  |

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

|                        |  |                                         |  |
|------------------------|--|-----------------------------------------|--|
| Boiling Point          |  | 100°C                                   |  |
| Vapor Pressure (mm Hg) |  | Specific Gravity (H <sub>2</sub> O = 1) |  |
|                        |  | Melting Point                           |  |
|                        |  | 1                                       |  |

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|                                                    |    |                                         |    |
|----------------------------------------------------|----|-----------------------------------------|----|
| Vapor Density (AIR = 1)                            | NA | Evaporation rate<br>(Butyl Acetate = 1) | NA |
|                                                    |    |                                         |    |
| Solubility in Water                                |    |                                         |    |
| Completely miscible                                |    |                                         |    |
| 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)  
Not dangerous goods  
Proper shipping name: Water  
ATA  
Not dangerous goods  
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: 95318  
Lot Number: 111722  
Description: 2-Chloroethyl vinyl ether

Solvent(s): Lot#  
Methanol EB679-US

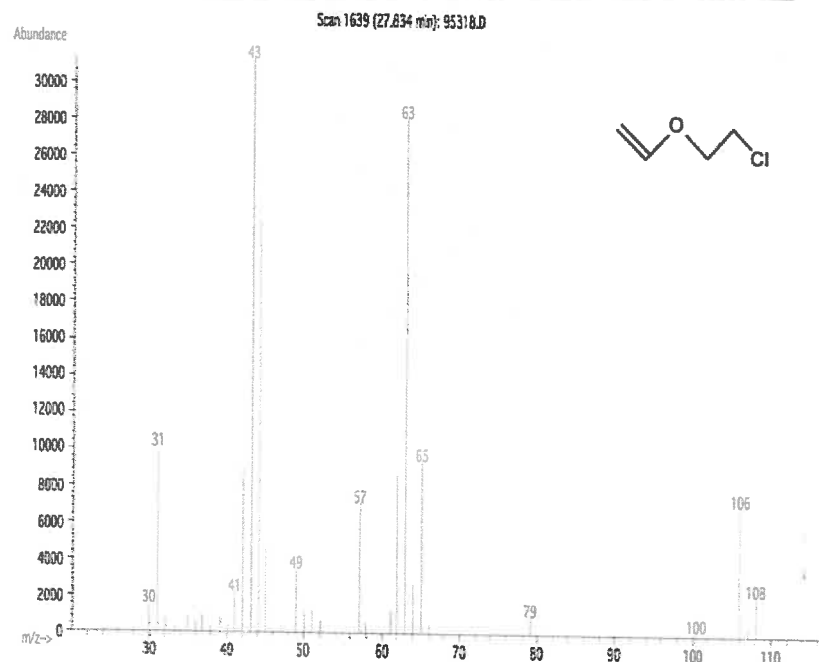
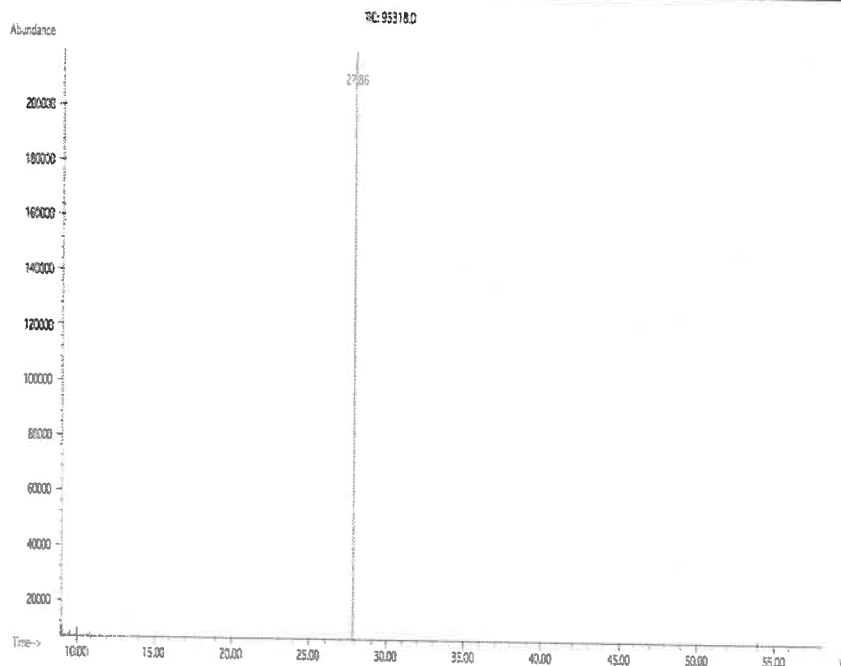
Expiration Date: 111725  
Recommended Storage: Refrigerate (4 °C)  
Nominal Concentration (µg/mL): 10000  
NIST Test ID#: 6UTB

Weight(s) shown below were combined and diluted to (mL): 50.0  
5E-05 Balance Uncertainty  
0.001 Flask Uncertainty

|                        |                 |        |
|------------------------|-----------------|--------|
| <i>Eli Aliaga</i>      |                 | 111722 |
| Formulated By:         | Eli Aliaga      | DATE   |
| <i>Pedro L. Rentas</i> |                 | 111722 |
| 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                | 0.50541           | 0.50551           | 10001.9             | 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).





**Certified Reference Material CRM**



**CERTIFIED WEIGHT REPORT**

**Part Number:** 95318  
**Lot Number:** 121321  
**Description:** 2-Chloroethyl vinyl ether

**Solvent(s):** Lot#  
Methanol EA899-US

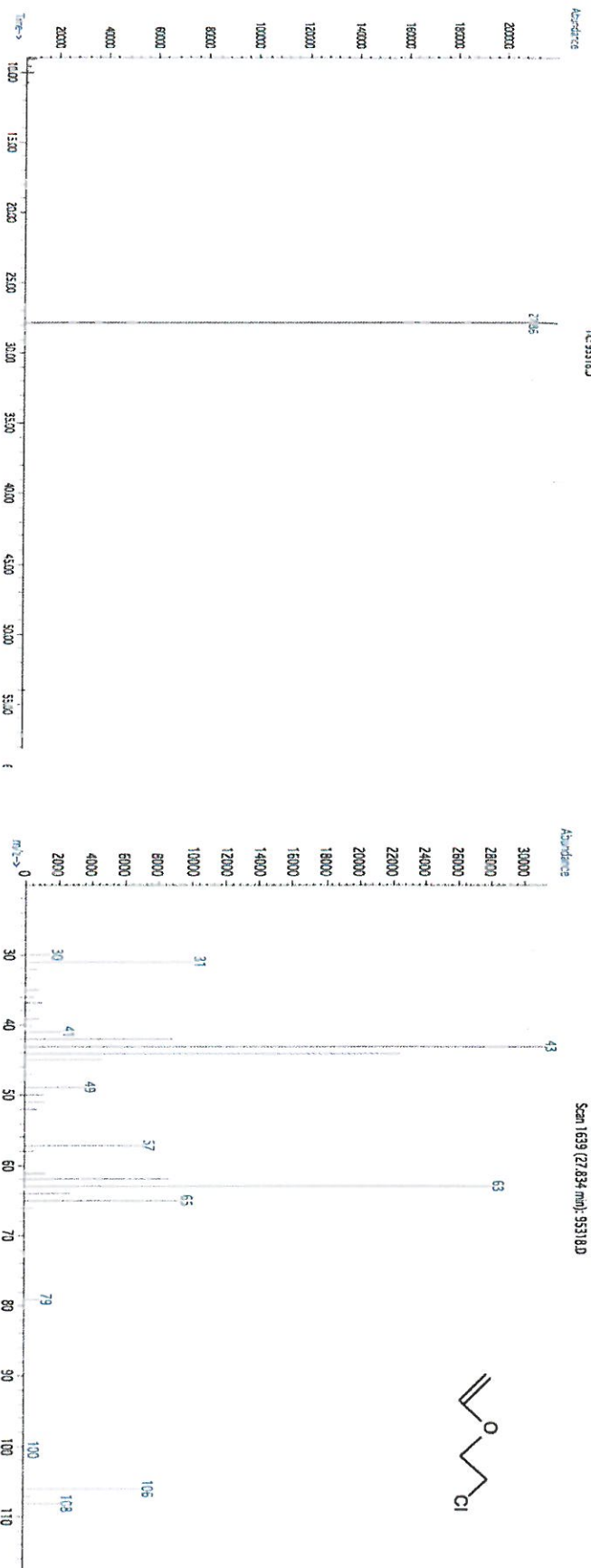
**Expiration Date:** 121324  
**Recommended Storage:** Refrigerate (4 °C)  
**Nominal Concentration (µg/mL):** 10000  
**NIST Test ID#:** 6UTB  
**Weight(s) shown below were combined and diluted to (mL):** 30.0  
**5E-05 Balance Uncertainty**  
**0.0003 Flask Uncertainty**

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Benson Chan     | 121321 |
| Reviewed By:   | Pedro L. Rentes | 121321 |
| 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) | (Solvent Safety Info. On Attached pg.) | CAS# | OSHA PEL (TWA) | LD50 |
|----------|-----|------------|----------------------|------------|--------------------|-------------------|-------------------|---------------------|----------------------------------|----------------------------------------|------|----------------|------|
|----------|-----|------------|----------------------|------------|--------------------|-------------------|-------------------|---------------------|----------------------------------|----------------------------------------|------|----------------|------|

1. 2-Chloroethyl vinyl ether 74 MKCD0033 10000 99 0.2 0.30320 0.30411 10030.2 40.7 110-75-8 N/A or rat 250mg/kg

**Method:** GC/MSD-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).



**Certified Reference Material CRM**



**CERTIFIED WEIGHT REPORT**

**Part Number:** 95318  
**Lot Number:** 121321  
**Description:** 2-Chloroethyl vinyl ether

**Solvent(s):** Lot#  
Methanol EA899-US

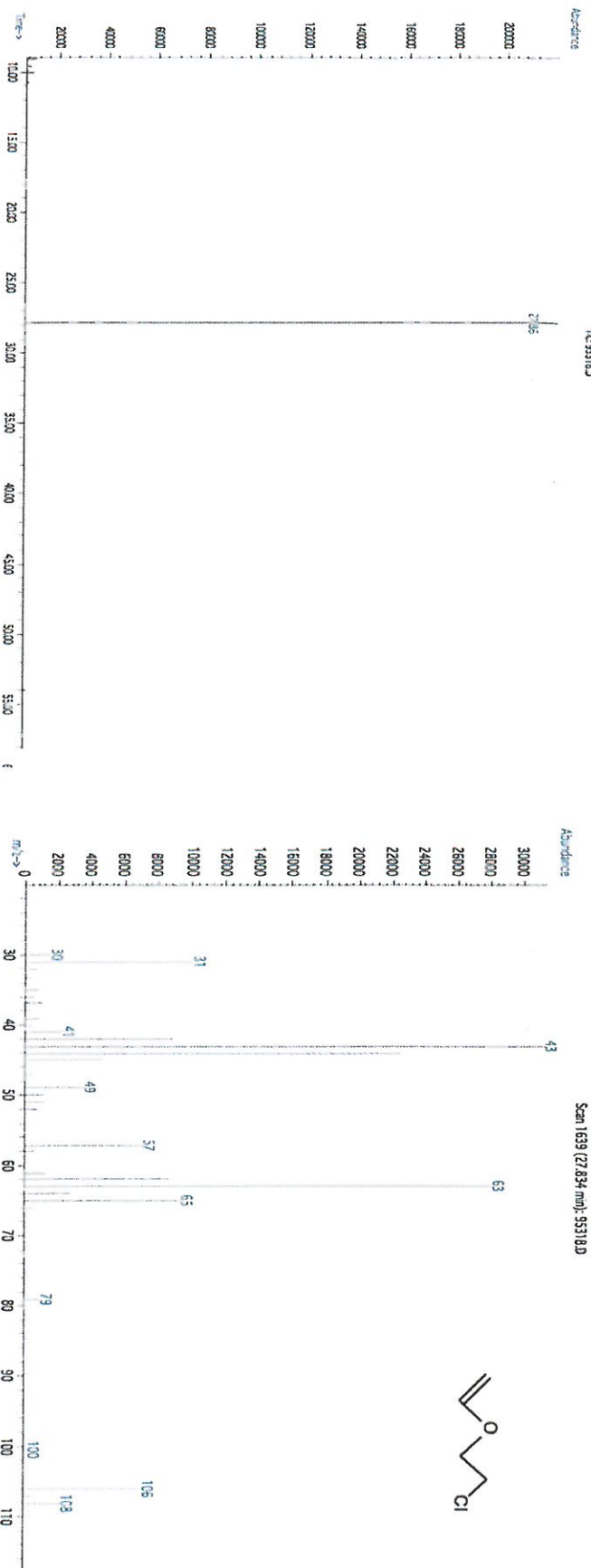
**Expiration Date:** 121324  
**Recommended Storage:** Refrigerate (4 °C)  
**Nominal Concentration (µg/mL):** 10000  
**NIST Test ID#:** 6UTB  
**Weight(s) shown below were combined and diluted to (mL):** 30.0  
**5E-05 Balance Uncertainty**  
**0.0003 Flask Uncertainty**

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Benson Chan     | 121321 |
| Reviewed By:   | Pedro L. Rentes | 121321 |
|                |                 | 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) | (Solvent Safety Info. On Attached pg.) | CAS# | OSHA PEL (TWA) | LD50 |
|----------|-----|------------|----------------------|------------|--------------------|-------------------|-------------------|---------------------|----------------------------------|----------------------------------------|------|----------------|------|
|----------|-----|------------|----------------------|------------|--------------------|-------------------|-------------------|---------------------|----------------------------------|----------------------------------------|------|----------------|------|

1. 2-Chloroethyl vinyl ether 74 MKCD0033 10000 99 0.2 0.30320 0.30411 10030.2 40.7 110-75-8 N/A or rat 250mg/kg

**Method:** GC/MSD-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).



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# 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. :** 30006 **Lot No.:** A0186767

**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 :** September 30, 2025 **Storage:** 0°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound                                                                   | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) |
|---------------|----------------------------------------------------------------------------|-----------------------------|--------------------------------------|
| 1             | Acetone<br>CAS # 67-64-1 (Lot MKCQ7914)<br>Purity 99%                      | 5,046.8 µg/mL               | +/- 29.3427 µg/mL Gravimetric        |
|               |                                                                            |                             | +/- 304.4978 µg/mL Unstressed        |
|               |                                                                            |                             | +/- 305.2207 µg/mL Stressed          |
| 2             | 2-Butanone (MEK)<br>CAS # 78-93-3 (Lot SHBN2844)<br>Purity 99%             | 5,048.8 µg/mL               | +/- 29.3544 µg/mL Gravimetric        |
|               |                                                                            |                             | +/- 304.6185 µg/mL Unstressed        |
|               |                                                                            |                             | +/- 305.3417 µg/mL Stressed          |
| 3             | 4-Methyl-2-pentanone (MIBK)<br>CAS # 108-10-1 (Lot SHBN3601)<br>Purity 99% | 5,045.0 µg/mL               | +/- 29.3321 µg/mL Gravimetric        |
|               |                                                                            |                             | +/- 304.3872 µg/mL Unstressed        |
|               |                                                                            |                             | +/- 305.1099 µg/mL Stressed          |
| 4             | 2-Hexanone<br>CAS # 591-78-6 (Lot MKCQ6663)<br>Purity 99%                  | 5,045.3 µg/mL               | +/- 29.3340 µg/mL Gravimetric        |
|               |                                                                            |                             | +/- 304.4073 µg/mL Unstressed        |
|               |                                                                            |                             | +/- 305.1300 µg/mL Stressed          |

**Solvent:** P&T Methanol/Water (90:10)  
**CAS #** 67-56-1/7732-18-5  
**Purity** 99%

**Column:**  
105m x 0.53mm x 3.0µm  
Rtx-502.2 (cat.#10910)

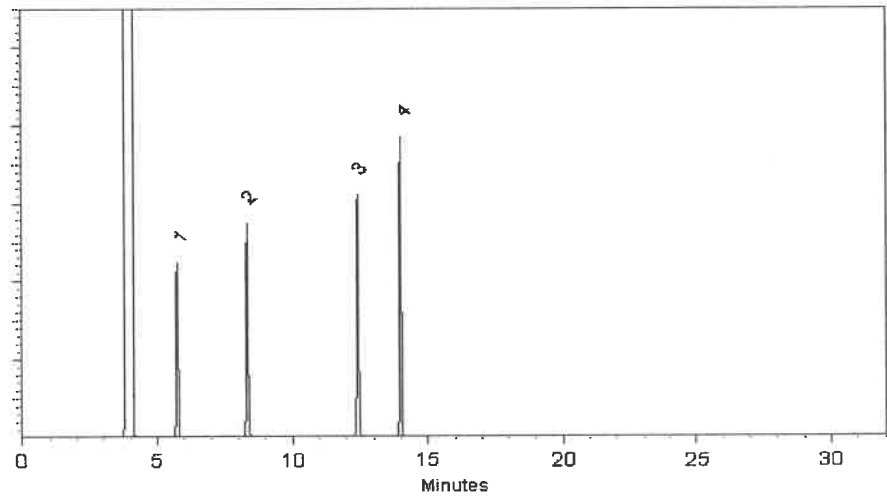
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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.

*Bethany Lowery*  
Bethany Lowery - Operations Tech I

Date Mixed: 28-Jun-2022      Balance: B251644995

*Christie Mills*  
Christie Mills - Operations Tech II - ARM QC

Date Passed: 30-Jun-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/ $\mu$ 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 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.



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## 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)<br>CAS # 75-65-0<br>Purity 99%<br>(Lot SHBM7694) | 50,126.0 µg/mL                 | <table><tr><td>+/-</td><td>293.4988</td><td>µg/mL</td><td>Gravimetric</td></tr><tr><td>+/-</td><td>1,073.7654</td><td>µg/mL</td><td>Unstressed</td></tr><tr><td>+/-</td><td>1,104.9494</td><td>µg/mL</td><td>Stressed</td></tr></table> | +/- | 293.4988 | µg/mL | Gravimetric | +/- | 1,073.7654 | µg/mL | Unstressed | +/- | 1,104.9494 | µg/mL | Stressed |
| +/-           | 293.4988                                                            | µg/mL                          | Gravimetric                                                                                                                                                                                                                             |     |          |       |             |     |            |       |            |     |            |       |          |
| +/-           | 1,073.7654                                                          | µg/mL                          | Unstressed                                                                                                                                                                                                                              |     |          |       |             |     |            |       |            |     |            |       |          |
| +/-           | 1,104.9494                                                          | µg/mL                          | Stressed                                                                                                                                                                                                                                |     |          |       |             |     |            |       |            |     |            |       |          |

**Solvent:** P&T Methanol  
CAS # 67-56-1  
Purity 99%

**Column:**  
105m x 0.53mm x 3.0µm  
Rtx-502.2 (cat.#10910)

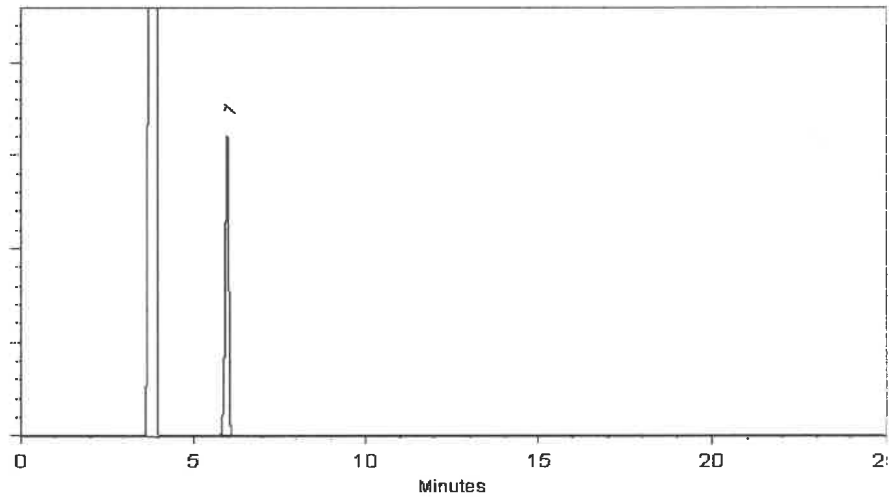
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**  
40°C (hold 2 min.) to 240°C  
@ 8°C/min. (hold 5 min.)

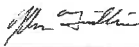
**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

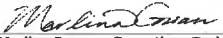
**Det. Type:**  
FID



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.



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## 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.:** A0191703  
**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 :** November 30, 2025 **Storage:** 0°C or colder  
**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound                                                                | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2)                                                               |
|---------------|-------------------------------------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------|
| 1             | tert-Butanol (TBA)<br>CAS # 75-65-0<br>Purity 99%<br>(Lot 101619K21F-1) | 50,122.0 µg/mL              | +/- 293.4753 µg/mL Gravimetric<br>+/- 1,073.6797 µg/mL Unstressed<br>+/- 1,104.8612 µg/mL Stressed |

**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:**

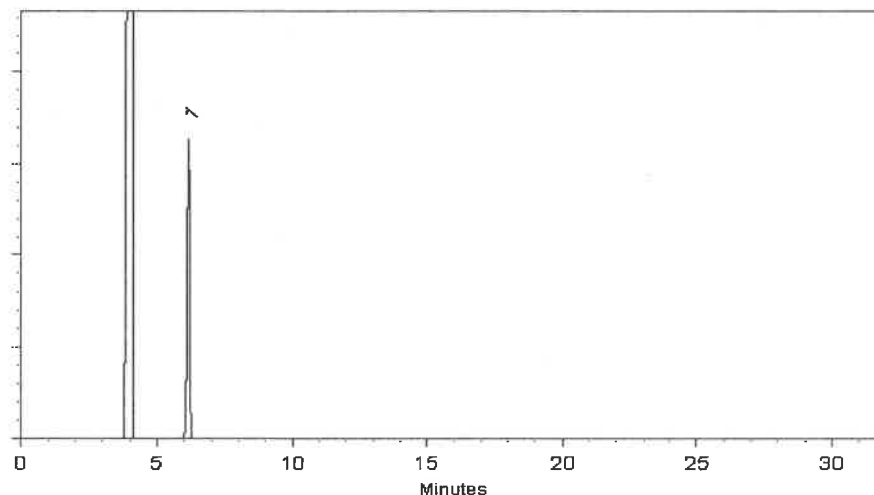
200°C

**Det. Temp:**

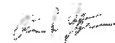
250°C

**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.

  
Alicia Leathers - Operation Technician I

**Date Mixed:** 15-Nov-2022

**Balance:** 1127510105

  
Jennifer Pollino - Operations Tech III - ARM QC

**Date Passed:** 17-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 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.





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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. :** 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:**

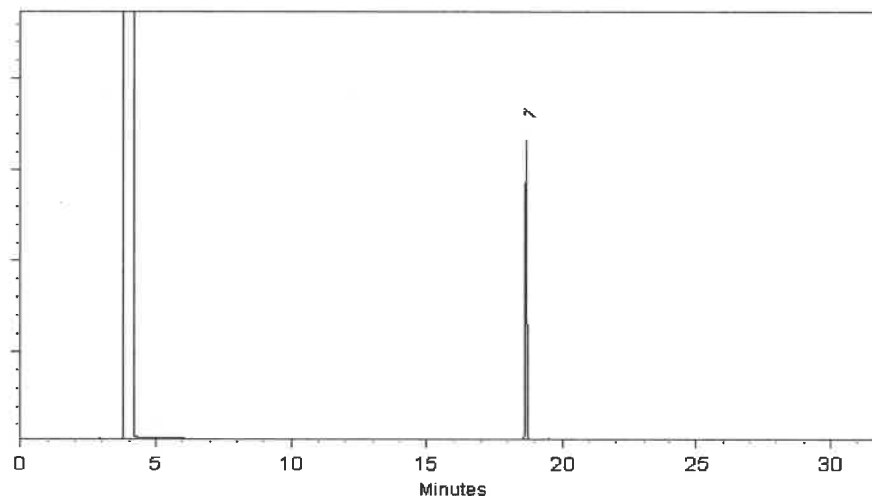
FID

**Split Vent:**

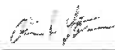
40 ml/min

**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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## 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:**

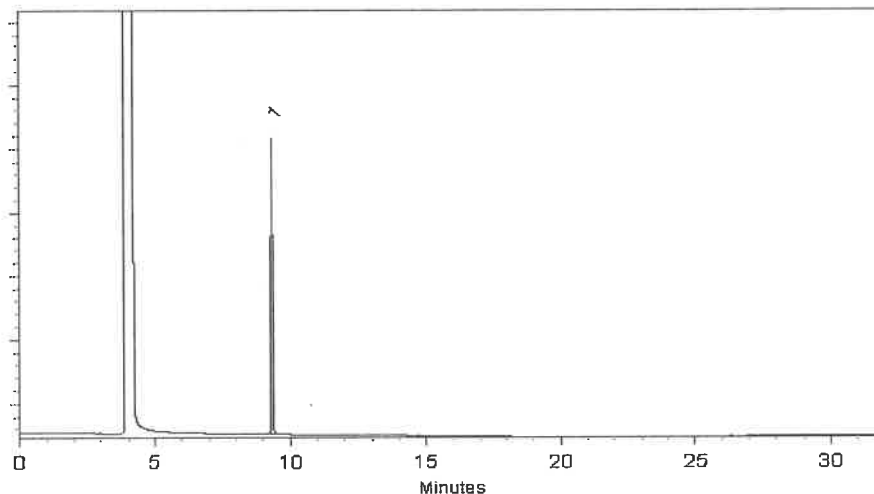
FID

**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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### 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:**

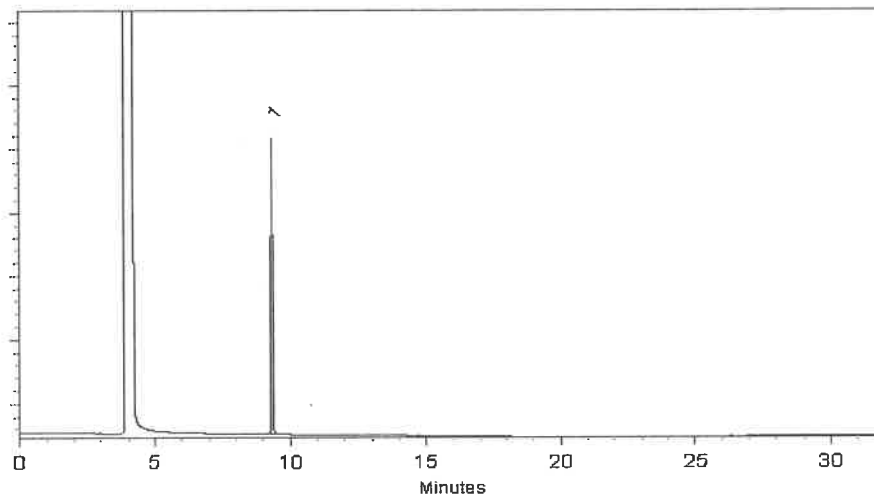
FID

**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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### 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.:** A0194279  
**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 :** October 31, 2029 **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 | 00012554        | 99%    | 2,001.5 µg/mL               | +/- 112.7231                           |
| 2             | Chloromethane (methyl chloride)  | 74-87-3 | SHBK6571        | 99%    | 2,001.2 µg/mL               | +/- 112.5863                           |
| 3             | Vinyl chloride                   | 75-01-4 | 00015559        | 99%    | 2,001.4 µg/mL               | +/- 112.6561                           |
| 4             | Bromomethane (methyl bromide)    | 74-83-9 | 101604          | 99%    | 2,006.4 µg/mL               | +/- 112.8262                           |
| 5             | Chloroethane (ethyl chloride)    | 75-00-3 | 107-401039114-1 | 99%    | 2,001.9 µg/mL               | +/- 112.5897                           |
| 6             | Trichlorofluoromethane (CFC-11)  | 75-69-4 | MKCL8411        | 99%    | 2,000.8 µg/mL               | +/- 112.6473                           |

\* 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:**

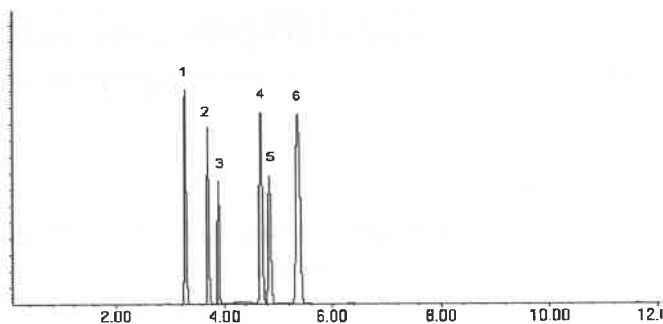
MSD

**Split Vent:**

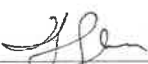
Split ratio 10:1

**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 Suckar - Mix Technician

Date Mixed: 03-Feb-2023

Balance Serial # B707717271

  
Christie Mills - Operations Tech II - ARM QC

Date Passed: 07-Feb-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.
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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. :** 30042 **Lot No.:** A0194279

**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 :** October 31, 2029 **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 | 00012554        | 99%    | 2,001.5 µg/mL               | +/- 112.7231                           |
| 2             | Chloromethane (methyl chloride)  | 74-87-3 | SHBK6571        | 99%    | 2,001.2 µg/mL               | +/- 112.5863                           |
| 3             | Vinyl chloride                   | 75-01-4 | 00015559        | 99%    | 2,001.4 µg/mL               | +/- 112.6561                           |
| 4             | Bromomethane (methyl bromide)    | 74-83-9 | 101604          | 99%    | 2,006.4 µg/mL               | +/- 112.8262                           |
| 5             | Chloroethane (ethyl chloride)    | 75-00-3 | 107-401039114-1 | 99%    | 2,001.9 µg/mL               | +/- 112.5897                           |
| 6             | Trichlorofluoromethane (CFC-11)  | 75-69-4 | MKCL8411        | 99%    | 2,000.8 µg/mL               | +/- 112.6473                           |

\* 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:**

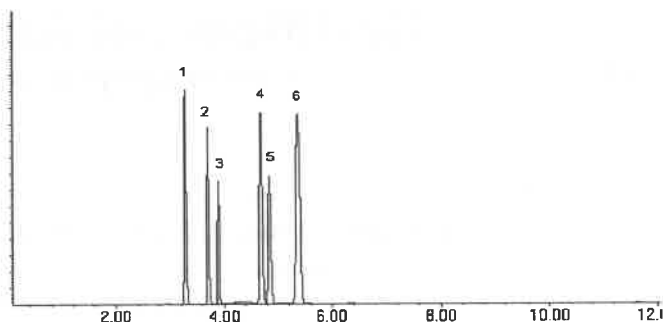
MSD

**Split Vent:**

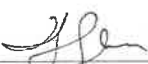
Split ratio 10:1

**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 Suckar - Mix Technician

Date Mixed: 03-Feb-2023

Balance Serial # B707717271

  
Christie Mills - Operations Tech II - ARM QC

Date Passed: 07-Feb-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.
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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.:** A0196115

**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, 2024 **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%    | 2,013.7 µg/mL               | +/- 69.6015                            |
| 2             | Vinyl acetate     | 108-05-4 | RD220630 | 99%    | 2,020.0 µg/mL               | +/- 69.8205                            |
| 3             | Ethyl acetate     | 141-78-6 | SHBP9289 | 99%    | 2,019.3 µg/mL               | +/- 69.7974                            |
| 4             | Isopropyl acetate | 108-21-4 | BCCG7069 | 99%    | 2,014.0 µg/mL               | +/- 69.6131                            |
| 5             | Propyl acetate    | 109-60-4 | TFFKL    | 99%    | 2,014.7 µg/mL               | +/- 69.6361                            |
| 6             | Butyl acetate     | 123-86-4 | SHBP6314 | 99%    | 2,014.0 µg/mL               | +/- 69.6131                            |
| 7             | Amyl acetate      | 628-63-7 | 41325/1  | 97%    | 2,016.3 µg/mL               | +/- 69.6928                            |

\* 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:**

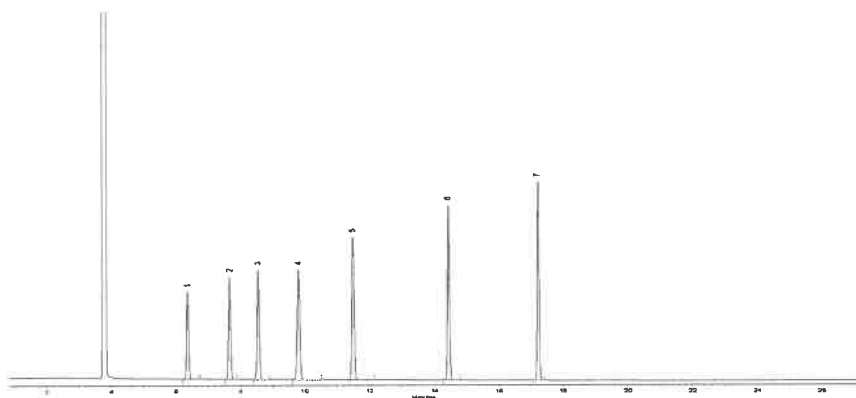
FID

**Split Vent:**

40 ml/min

**Inj. Vol**

1µl

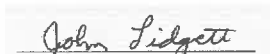


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Bethany Lowery - Operations Tech I

Date Mixed: 21-Mar-2023

Balance Serial # B251644995

  
John Lidgett - AD Chemist

Date Passed: 29-Mar-2023

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



## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

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

### Certified Uncertainty Value Notes:

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

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

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

### Handling Notes:

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



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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.:** A0196115  
**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, 2024 **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%    | 2,013.7 µg/mL               | +/- 69.6015                            |
| 2             | Vinyl acetate     | 108-05-4 | RD220630 | 99%    | 2,020.0 µg/mL               | +/- 69.8205                            |
| 3             | Ethyl acetate     | 141-78-6 | SHBP9289 | 99%    | 2,019.3 µg/mL               | +/- 69.7974                            |
| 4             | Isopropyl acetate | 108-21-4 | BCCG7069 | 99%    | 2,014.0 µg/mL               | +/- 69.6131                            |
| 5             | Propyl acetate    | 109-60-4 | TFFKL    | 99%    | 2,014.7 µg/mL               | +/- 69.6361                            |
| 6             | Butyl acetate     | 123-86-4 | SHBP6314 | 99%    | 2,014.0 µg/mL               | +/- 69.6131                            |
| 7             | Amyl acetate      | 628-63-7 | 41325/1  | 97%    | 2,016.3 µg/mL               | +/- 69.6928                            |

\* 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:**

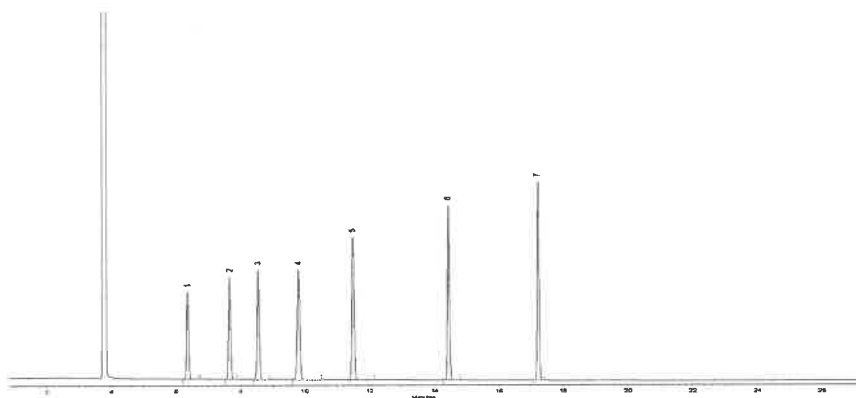
FID

**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.

*Bethany Lowery*  
Bethany Lowery - Operations Tech I

Date Mixed: 21-Mar-2023

Balance Serial # B251644995

*John Lidgett*  
John Lidgett - AD Chemist

Date Passed: 29-Mar-2023

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

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

### Certified Uncertainty Value Notes:

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

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

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

### Handling Notes:

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



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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*

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:

- 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 values are rounded to the nearest whole number.

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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

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:

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### Manufacturing Notes:

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### 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. :** 30042 **Lot No.:** A0197644  
**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 :** January 31, 2030 **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 | 00012554        | 99%    | 2,001.6 µg/mL               | +/- 112.7159                           |
| 2             | Chloromethane (methyl chloride)  | 74-87-3 | SHBM9611        | 99%    | 2,002.0 µg/mL               | +/- 112.7840                           |
| 3             | Vinyl chloride                   | 75-01-4 | 00015559        | 99%    | 2,002.2 µg/mL               | +/- 112.6713                           |
| 4             | Bromomethane (methyl bromide)    | 74-83-9 | 101604          | 99%    | 2,006.4 µg/mL               | +/- 112.8861                           |
| 5             | Chloroethane (ethyl chloride)    | 75-00-3 | 107-401039114-1 | 99%    | 2,000.9 µg/mL               | +/- 112.5990                           |
| 6             | Trichlorofluoromethane (CFC-11)  | 75-69-4 | MKCL8411        | 99%    | 1,999.2 µg/mL               | +/- 112.4861                           |

\* 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:**

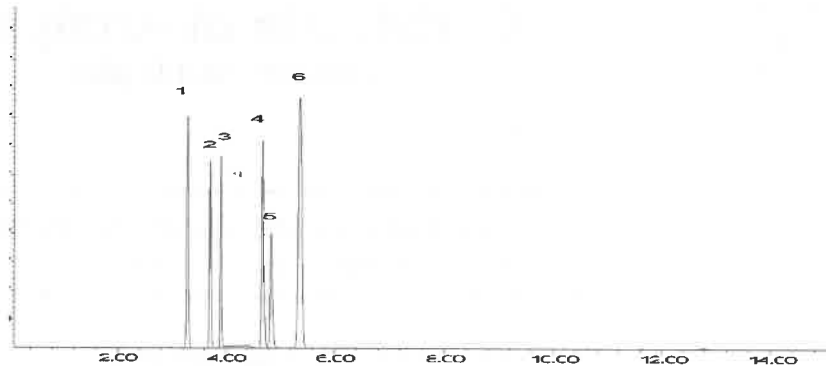
MSD

**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.

*Brittany Federinko*  
Brittany Federinko - Operations Tech I

Date Mixed: 02-May-2023

Balance Serial # B707717271

*Jennifer Pollino*  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 08-May-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.
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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.:** A0199224

**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 :** December 31, 2024 **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%    | 2,015.0 µg/mL               | +/- 69.6476                            |
| 2             | Vinyl acetate     | 108-05-4 | RD220630 | 99%    | 2,014.3 µg/mL               | +/- 69.6246                            |
| 3             | Ethyl acetate     | 141-78-6 | SHBP9289 | 99%    | 2,012.7 µg/mL               | +/- 69.5670                            |
| 4             | Isopropyl acetate | 108-21-4 | BCCG7069 | 99%    | 2,017.0 µg/mL               | +/- 69.7168                            |
| 5             | Propyl acetate    | 109-60-4 | KLOBM    | 99%    | 2,007.7 µg/mL               | +/- 69.3942                            |
| 6             | Butyl acetate     | 123-86-4 | SHBP6314 | 99%    | 2,014.3 µg/mL               | +/- 69.6246                            |
| 7             | Amyl acetate      | 628-63-7 | 41325/1  | 97%    | 2,012.1 µg/mL               | +/- 69.5475                            |

\* 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.)

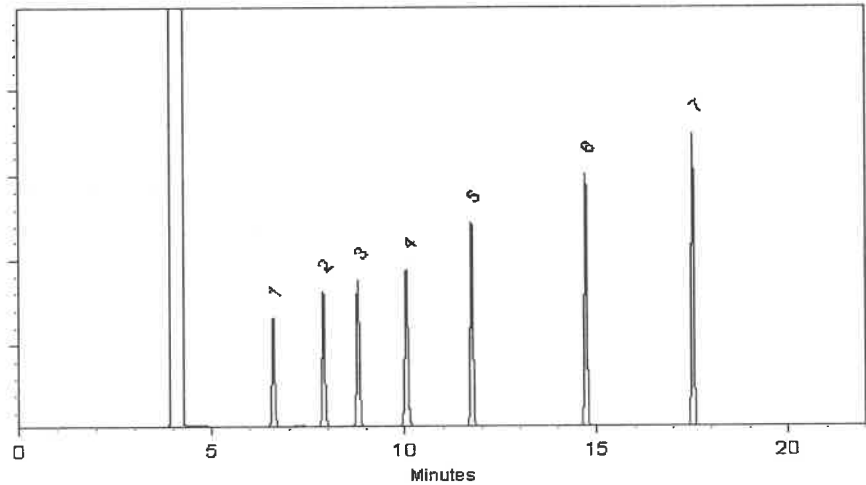
**Inj. Temp:**  
200°C

**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 Suckar - Mix Technician

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 22-Jun-2023      Balance Serial # B251644995

Date Passed: 26-Jun-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.
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- 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. :** 30006 **Lot No.:** A0200785

**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 :** November 30, 2026 **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  | SHBP8774 | 99%    | 5,018.5 µg/mL               | +/- 173.4162                           |
| 2             | 2-Butanone (MEK)            | 78-93-3  | SHBL5543 | 99%    | 5,016.0 µg/mL               | +/- 173.3298                           |
| 3             | 4-Methyl-2-pentanone (MIBK) | 108-10-1 | SHBP4724 | 99%    | 5,010.7 µg/mL               | +/- 173.1455                           |
| 4             | 2-Hexanone                  | 591-78-6 | MKCQ6663 | 99%    | 5,015.0 µg/mL               | +/- 173.2952                           |

\* 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:**

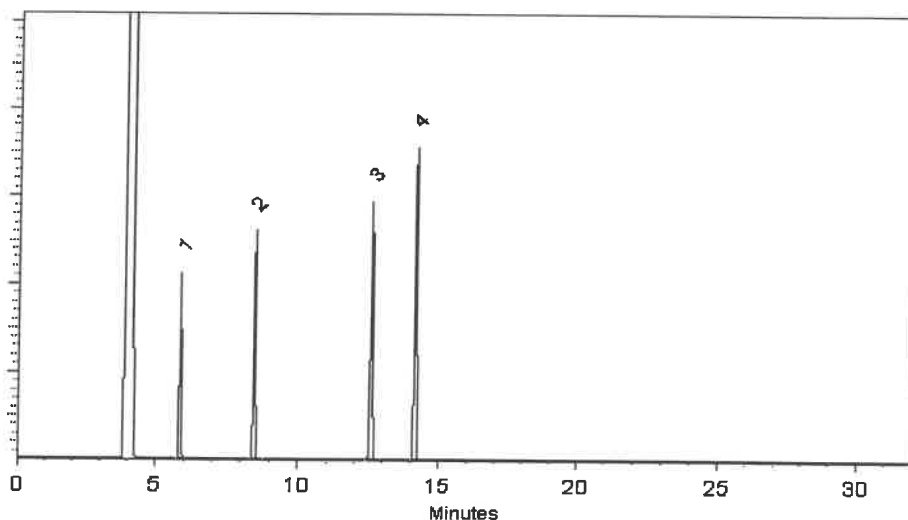
FID

**Split Vent:**

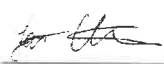
40 ml/min

**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.

  
Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023

Balance Serial # B707717271

  
Marlina Cowan - Operations Tech II ARM QC

Date Passed: 16-Aug-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.
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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. :** 30006 **Lot No.:** A0200785

**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 :** November 30, 2026 **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  | SHBP8774 | 99%    | 5,018.5 µg/mL               | +/- 173.4162                           |
| 2             | 2-Butanone (MEK)            | 78-93-3  | SHBL5543 | 99%    | 5,016.0 µg/mL               | +/- 173.3298                           |
| 3             | 4-Methyl-2-pentanone (MIBK) | 108-10-1 | SHBP4724 | 99%    | 5,010.7 µg/mL               | +/- 173.1455                           |
| 4             | 2-Hexanone                  | 591-78-6 | MKCQ6663 | 99%    | 5,015.0 µg/mL               | +/- 173.2952                           |

\* 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:**

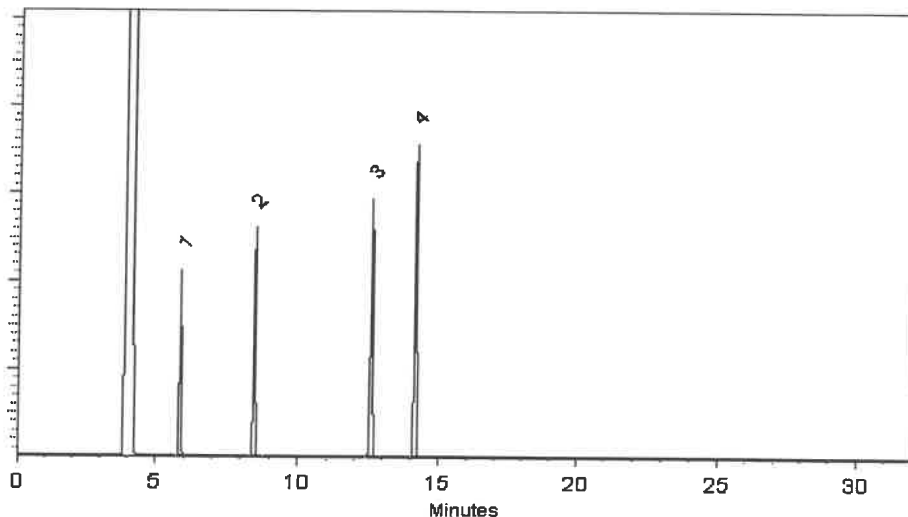
FID

**Split Vent:**

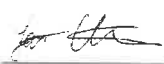
40 ml/min

**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.

  
Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023

Balance Serial # B707717271

  
Marlina Cowan - Operations Tech II ARM QC

Date Passed: 16-Aug-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:

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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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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. :** 30006 **Lot No.:** A0200785

**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 :** November 30, 2026 **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  | SHBP8774 | 99%    | 5,018.5 µg/mL               | +/- 173.4162                           |
| 2             | 2-Butanone (MEK)            | 78-93-3  | SHBL5543 | 99%    | 5,016.0 µg/mL               | +/- 173.3298                           |
| 3             | 4-Methyl-2-pentanone (MIBK) | 108-10-1 | SHBP4724 | 99%    | 5,010.7 µg/mL               | +/- 173.1455                           |
| 4             | 2-Hexanone                  | 591-78-6 | MKCQ6663 | 99%    | 5,015.0 µg/mL               | +/- 173.2952                           |

\* 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:**

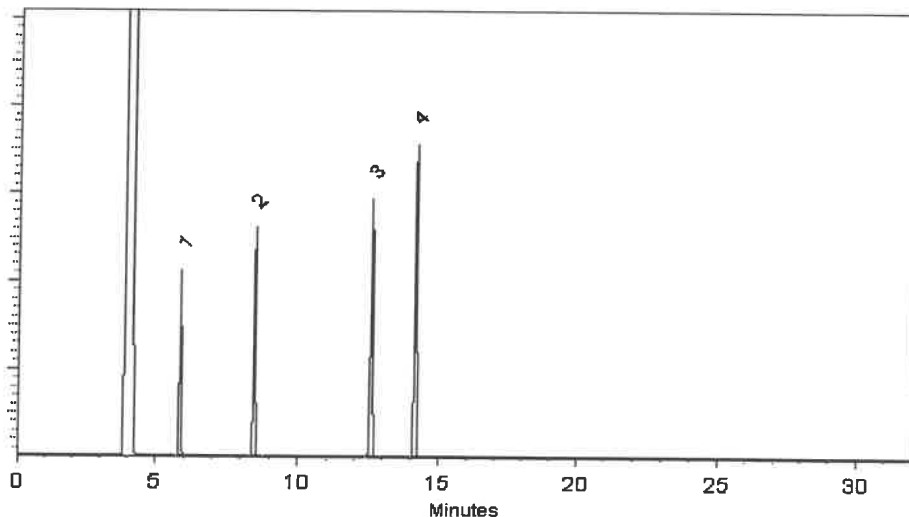
FID

**Split Vent:**

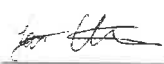
40 ml/min

**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.

  
Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023

Balance Serial # B707717271

  
Marlina Cowan - Operations Tech II ARM QC

Date Passed: 16-Aug-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.
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## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic



### 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.:** A0205177  
**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, 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             | Vinyl acetate | 108-05-4 | RP231030CTH | 98%    | 8,047.8 µg/mL               | +/- 278.1675                           |

\* 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:**

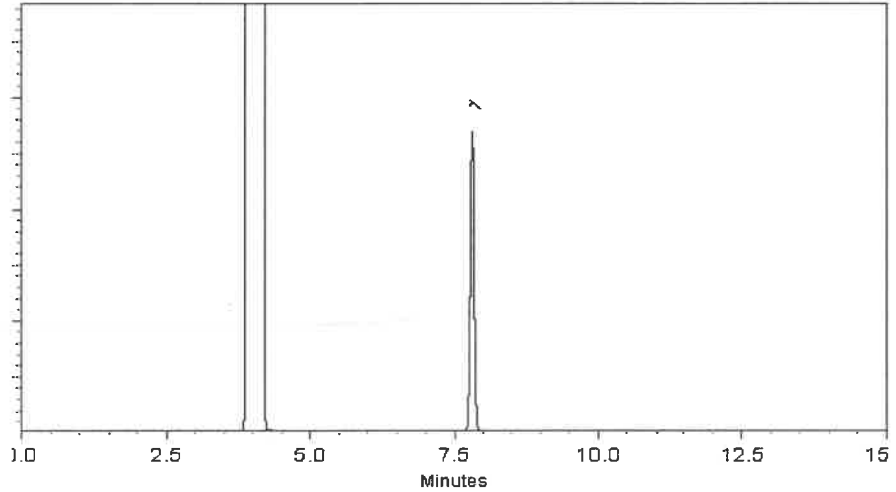
FID

**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 Suckar - Mix Technician

Date Mixed: 06-Dec-2023

Balance Serial # 1127510105

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 11-Dec-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.
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## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

### chromatographic



#### 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.:** A0205179

**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, 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             | Vinyl acetate | 108-05-4 | RP231030CTH | 98%    | 8,075.2 µg/mL               | +/- 279.1159                           |

\* 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:**

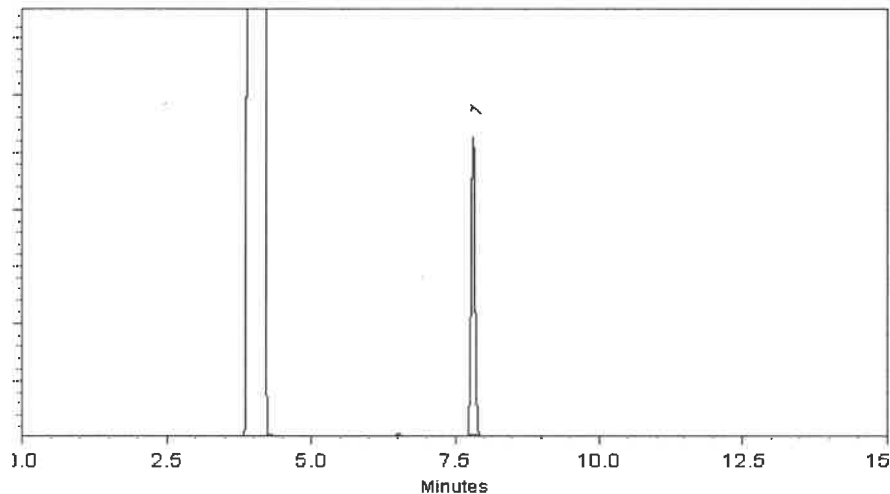
FID

**Split Vent:**

40 ml/min

**Inj. Vol**

1µl



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**Daniel Wasson - Operations Tech I**

**Date Mixed:** 06-Dec-2023

**Balance Serial #** 1127510105

  
**Jennifer Pollino - Operations Tech III - ARM QC**

**Date Passed:** 11-Dec-2023

APPROVED  
By: Jennifer Pollino (Date: 11-Dec-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.
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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:

- 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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- 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

12  
CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

## chromatographic



### 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.:** A0205179  
**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, 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             | Vinyl acetate | 108-05-4 | RP231030CTH | 98%    | 8,075.2 µg/mL               | +/- 279.1159                           |

\* 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:**

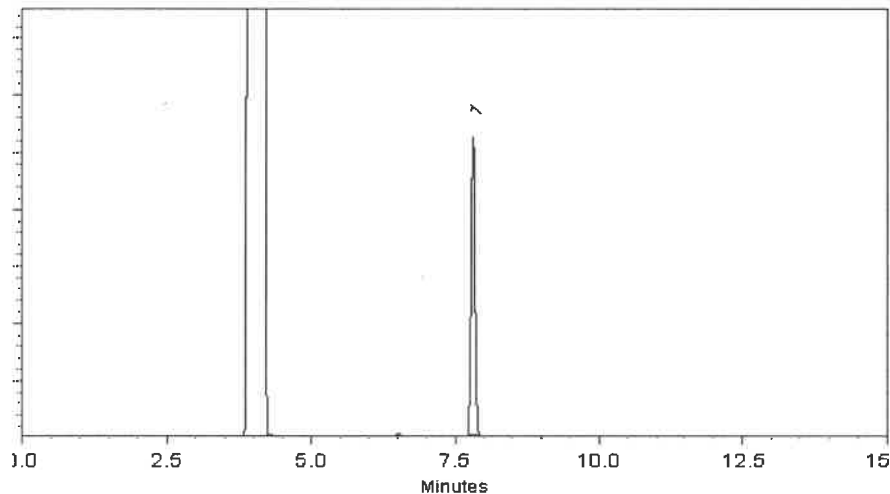
FID

**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.

  
Daniel Wasson - Operations Tech I

Date Mixed: 06-Dec-2023 Balance Serial # 1127510105

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 11-Dec-2023

APPROVED  
By: Jennifer Pollino (Date: 11-Dec-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.
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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*

John Friedline - Operations Technician I

**Date Mixed:** 11-Apr-2024

**Balance:** 1127510105



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

## General Certified Reference Material 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:

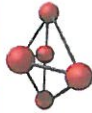
- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

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Certified Reference Material CRM



CERTIFIED WEIGHT REPORT

Part Number:  
Lot Number:  
Description:

70046  
070122  
Bromochloromethane

Solvent: Lot#  
Methanol EC592-US

Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test ID#:

070127  
Refrigerate (4 °C)  
1000  
6UTB

Weight(s) shown below were combined and diluted to (mL):

5E-05 Balance Uncertainty  
0.0002 Flask Uncertainty

25.0

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Gabriel Helland | 070122 |
| DATE           |                 |        |
| Reviewed By:   | Pedro L. Rentas | 070122 |
| DATE           |                 |        |

SDS Information

Expanded  
Uncertainty  
(+/-) (µg/mL)

5.7

74-97-5

200 ppm (1050mg/m<sup>3</sup>/8H)

orl-rat 5000mg/kg

OSHA PEL (TWA)

LD50

CAS#

Actual  
Weight(g)

0.02540

Actual  
Conc (µg/mL)

1004.1

Target  
Weight(g)

0.02530

Purity (%)

99

Nominal  
Conc (µg/mL)

1000

Lot  
Number

AY01

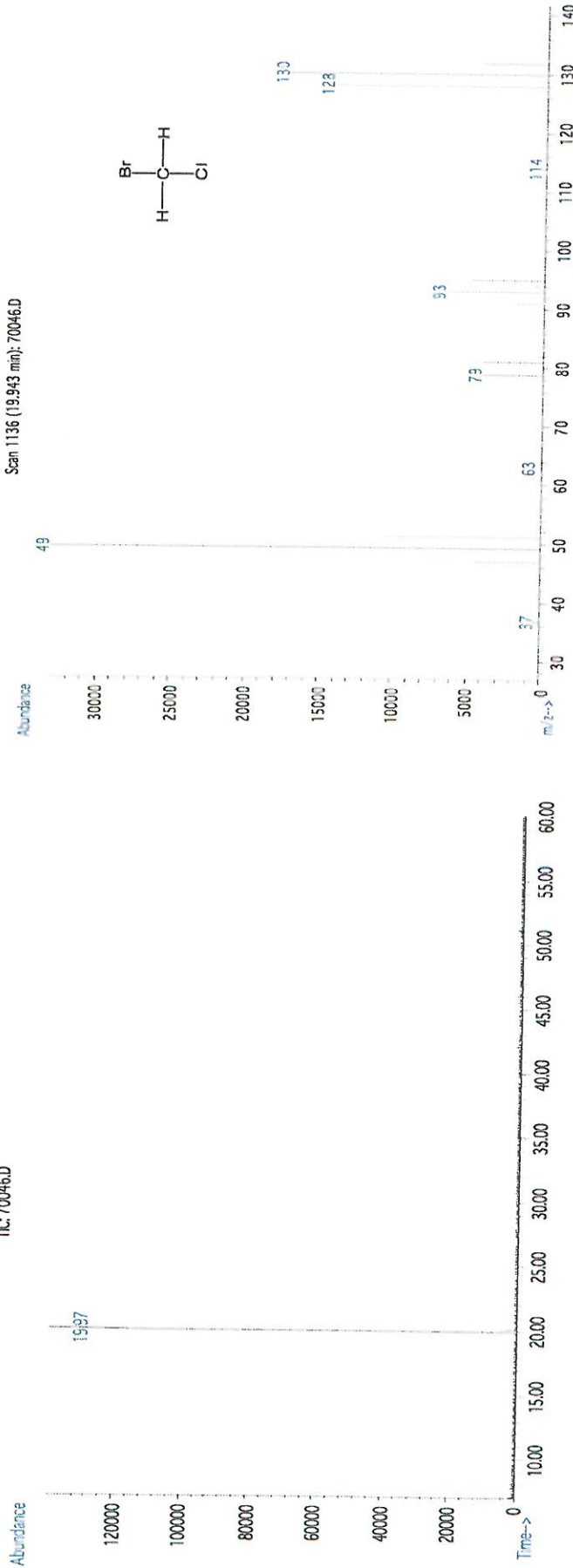
RM#

46

1. Bromochloromethane

Method GC/MSD-1.M: Column : (60m X 0.25mm X 1.5 µm) Temp 1 = 35°C (10min.), Temp 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector B= 200°C, Detector B = 220°C. Analyst: Candice Warren

TIC: 70046.D



\* 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).

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

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# SHIPPING DOCUMENTS

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**Laboratory Certification**

| Certified By         | License No.      |
|----------------------|------------------|
|                      |                  |
| CAS EPA CLP Contract | 68HERH20D0011    |
|                      |                  |
| Connecticut          | PH-0830          |
|                      |                  |
| DOD ELAP (L-A-B)     | L2219            |
|                      |                  |
| Maine                | 2024021          |
|                      |                  |
| Maryland             | 296              |
|                      |                  |
| New Hampshire        | 255423           |
|                      |                  |
| 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> P3609                       | JACO05 | <b>Order Date :</b> 8/14/2024 12:48:00 PM        | <b>Project Mgr :</b> Yazmeen               |
| <b>Client Name :</b> JACOBS Engineering Grou  |        | <b>Project Name :</b> Former Schlumberger Site I | <b>Report Type :</b> Level 4               |
| <b>Client Contact :</b> Mary I. Murphy        |        | <b>Receive DateTime :</b> 8/14/2024 2:15:00 PM   | <b>EDD Type :</b> CH2MHILL                 |
| <b>Invoice Name :</b> JACOBS Engineering Grou |        | <b>Purchase Order :</b>                          | <b>Hard Copy Date :</b>                    |
| <b>Invoice Contact :</b> Mary I. Murphy       |        |                                                  | <b>Date Signoff :</b> 8/14/2024 4:40:21 PM |

| LAB ID   | CLIENT ID       | MATRIX | SAMPLE DATE | SAMPLE TIME | TEST         | TEST GROUP | METHOD   | FAX DATE     | DUE DATES |
|----------|-----------------|--------|-------------|-------------|--------------|------------|----------|--------------|-----------|
| P3609-01 | 915-J-WS-081424 | Water  | 08/14/2024  | 10:25       |              |            |          |              |           |
|          |                 |        |             |             | VOCMS Group6 |            | 8260-Low | 10 Bus. Days |           |
| P3609-02 | 920-J-WS-081424 | Water  | 08/14/2024  | 11:20       |              |            |          |              |           |
|          |                 |        |             |             | VOCMS Group6 |            | 8260-Low | 10 Bus. Days |           |
| P3609-03 | TB-01-081424    | Water  | 08/14/2024  | 11:25       |              |            |          |              |           |
|          |                 |        |             |             | VOCMS Group6 |            | 8260-Low | 10 Bus. Days |           |

Relinquished By :

Date / Time :

  
8/14/24

Received By :

Date / Time :

  
8/14/24

Storage Area : VOA Refridgerator Room