

**DATA REPORTING QUALIFIERS- ORGANIC**

For reporting results, the following "Results Qualifiers" are used:

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value | If the result is a value greater than or equal to the detection limit, report the value                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| U     | Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.                                                                                                                                                                                                                                 |
| ND    | Indicates the analyte was analyzed for, but not detected                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| J     | Indicates an estimated value. This flag is used:<br>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)<br>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others. |
| B     | Indicates the analyte was found in the blank as well as the sample report as "12 B".                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| E     | Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| D     | This flag identifies all compounds identified in an analysis at a secondary dilution factor.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| P     | This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".                                                                                                                                                                                                                                                                                                                        |
| N     | This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.                                                                                                                                                                                                                  |
| A     | This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Q     | Indicates the LCS did not meet the control limits requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |



284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

## LAB CHRONICLE

|                                               |                                                       |
|-----------------------------------------------|-------------------------------------------------------|
| <b>OrderID:</b> N6070                         | <b>OrderDate:</b> 12/14/2022 4:13:00 PM               |
| <b>Client:</b> JACOBS Engineering Group, Inc. | <b>Project:</b> Former Schlumberger Site Princeton NJ |
| <b>Contact:</b> Doug Scott                    | <b>Location:</b> M11,VOA Ref. #3 Water                |

| LabID    | ClientID                    | Matrix | Test         | Method   | Sample Date | Prep Date | Anal Date | Received |
|----------|-----------------------------|--------|--------------|----------|-------------|-----------|-----------|----------|
| N6070-01 | GW-BR-04-226-245-1<br>21422 | Water  |              |          | 12/14/22    |           |           | 12/14/22 |
|          |                             |        | VOCMS Group3 | 8260-Low |             |           | 12/15/22  |          |
| N6070-02 | TB-01-121422                | Water  |              |          | 12/14/22    |           |           | 12/14/22 |
|          |                             |        | VOCMS Group3 | 8260-Low |             |           | 12/15/22  |          |
| N6070-03 | GW-BR-01-160-180-1<br>21422 | Water  |              |          | 12/14/22    |           |           | 12/14/22 |
|          |                             |        | VOCMS Group3 | 8260-Low |             |           | 12/15/22  |          |
| N6070-04 | GW-BR-02-160-180-1<br>21422 | Water  |              |          | 12/14/22    |           |           | 12/14/22 |
|          |                             |        | VOCMS Group3 | 8260-Low |             |           | 12/15/22  |          |
| N6070-05 | GW-BR-03-128-148-1<br>21422 | Water  |              |          | 12/14/22    |           |           | 12/14/22 |
|          |                             |        | VOCMS Group3 | 8260-Low |             |           | 12/15/22  |          |



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

### Hit Summary Sheet SW-846

SDG No.: N6070

Client: JACOBS Engineering Group, Inc.

| Sample ID         | Client ID                      | Matrix | Parameter                   | Concentration | C | MDL  | RDL  | Units |
|-------------------|--------------------------------|--------|-----------------------------|---------------|---|------|------|-------|
| <b>Client ID:</b> | <b>GW-BR-04-226-245-121422</b> |        |                             |               |   |      |      |       |
| N6070-01          | GW-BR-04-226-245 Water         |        | 1,1-Dichloroethene          | 1.80          |   | 0.23 | 1.00 | ug/L  |
| N6070-01          | GW-BR-04-226-245 Water         |        | cis-1,2-Dichloroethene      | 9.00          |   | 0.17 | 1.00 | ug/L  |
| N6070-01          | GW-BR-04-226-245 Water         |        | Trichloroethene             | 4.90          |   | 0.27 | 1.00 | ug/L  |
|                   |                                |        | <b>Total Voc :</b>          | 15.7          |   |      |      |       |
|                   |                                |        | <b>Total Concentration:</b> | 15.7          |   |      |      |       |
| <b>Client ID:</b> | <b>GW-BR-01-160-180-121422</b> |        |                             |               |   |      |      |       |
| N6070-03          | GW-BR-01-160-180 Water         |        | Trichloroethene             | 0.64          | J | 0.27 | 1.00 | ug/L  |
|                   |                                |        | <b>Total Voc :</b>          | 0.64          |   |      |      |       |
|                   |                                |        | <b>Total Concentration:</b> | 0.64          |   |      |      |       |
| <b>Client ID:</b> | <b>GW-BR-03-128-148-121422</b> |        |                             |               |   |      |      |       |
| N6070-05          | GW-BR-03-128-148 Water         |        | Benzene                     | 1.60          |   | 0.16 | 1.00 | ug/L  |
|                   |                                |        | <b>Total Voc :</b>          | 1.60          |   |      |      |       |
|                   |                                |        | <b>Total Concentration:</b> | 1.60          |   |      |      |       |

# QC SUMMARY



### Surrogate Summary

SDG No.: N6070

Client: JACOBS Engineering Group, Inc.

Analytical Method: SW8260-Low

| Lab Sample ID | Client ID               | Parameter             | Spike | Result | RecoveryQual | Limits  |           |
|---------------|-------------------------|-----------------------|-------|--------|--------------|---------|-----------|
|               |                         |                       |       |        |              | Low     | High      |
| N6070-01      | GW-BR-04-226-245-121422 | 1,2-Dichloroethane-d4 | 50    | 48.8   | 98           | 70 (74) | 130 (125) |
|               |                         | Dibromofluoromethane  | 50    | 49.3   | 99           | 70 (75) | 130 (124) |
|               |                         | Toluene-d8            | 50    | 47.6   | 95           | 70 (86) | 130 (113) |
|               |                         | 4-Bromofluorobenzene  | 50    | 48.6   | 97           | 70 (64) | 130 (133) |
| N6070-02      | TB-01-121422            | 1,2-Dichloroethane-d4 | 50    | 46.7   | 93           | 70 (74) | 130 (125) |
|               |                         | Dibromofluoromethane  | 50    | 47.0   | 94           | 70 (75) | 130 (124) |
|               |                         | Toluene-d8            | 50    | 45.7   | 91           | 70 (86) | 130 (113) |
|               |                         | 4-Bromofluorobenzene  | 50    | 44.2   | 88           | 70 (64) | 130 (133) |
| N6070-03      | GW-BR-01-160-180-121422 | 1,2-Dichloroethane-d4 | 50    | 47.8   | 96           | 70 (74) | 130 (125) |
|               |                         | Dibromofluoromethane  | 50    | 48.2   | 96           | 70 (75) | 130 (124) |
|               |                         | Toluene-d8            | 50    | 46.7   | 93           | 70 (86) | 130 (113) |
|               |                         | 4-Bromofluorobenzene  | 50    | 45.6   | 91           | 70 (64) | 130 (133) |
| N6070-04      | GW-BR-02-160-180-121422 | 1,2-Dichloroethane-d4 | 50    | 44.4   | 89           | 70 (74) | 130 (125) |
|               |                         | Dibromofluoromethane  | 50    | 44.6   | 89           | 70 (75) | 130 (124) |
|               |                         | Toluene-d8            | 50    | 43.7   | 87           | 70 (86) | 130 (113) |
|               |                         | 4-Bromofluorobenzene  | 50    | 42.0   | 84           | 70 (64) | 130 (133) |
| N6070-05      | GW-BR-03-128-148-121422 | 1,2-Dichloroethane-d4 | 50    | 49.3   | 99           | 70 (74) | 130 (125) |
|               |                         | Dibromofluoromethane  | 50    | 48.8   | 98           | 70 (75) | 130 (124) |
|               |                         | Toluene-d8            | 50    | 47.3   | 95           | 70 (86) | 130 (113) |
|               |                         | 4-Bromofluorobenzene  | 50    | 46.6   | 93           | 70 (64) | 130 (133) |
| VX1215WBL01   | VX1215WBL01             | 1,2-Dichloroethane-d4 | 50    | 43.0   | 86           | 70 (74) | 130 (125) |
|               |                         | Dibromofluoromethane  | 50    | 43.9   | 88           | 70 (75) | 130 (124) |
|               |                         | Toluene-d8            | 50    | 42.9   | 86           | 70 (86) | 130 (113) |
|               |                         | 4-Bromofluorobenzene  | 50    | 43.5   | 87           | 70 (64) | 130 (133) |
| VX1215WBS01   | VX1215WBS01             | 1,2-Dichloroethane-d4 | 50    | 48.2   | 96           | 70 (74) | 130 (125) |
|               |                         | Dibromofluoromethane  | 50    | 51.4   | 103          | 70 (75) | 130 (124) |
|               |                         | Toluene-d8            | 50    | 54.1   | 108          | 70 (86) | 130 (113) |
|               |                         | 4-Bromofluorobenzene  | 50    | 58.6   | 117          | 70 (64) | 130 (133) |
| VX1215WBSD0   | VX1215WBSD01            | 1,2-Dichloroethane-d4 | 50    | 43.0   | 86           | 70 (74) | 130 (125) |
|               |                         | Dibromofluoromethane  | 50    | 46.0   | 92           | 70 (75) | 130 (124) |
|               |                         | Toluene-d8            | 50    | 47.4   | 95           | 70 (86) | 130 (113) |
|               |                         | 4-Bromofluorobenzene  | 50    | 51.1   | 102          | 70 (64) | 130 (133) |





Laboratory Control Sample/Laboratory Control Sample Duplicate Summary  
SW-846

SDG No.: N6070

Client: JACOBS Engineering Group, Inc.

Analytical Method: SW8260-Low

Datafile : VX033432.D

| Lab Sample ID | Parameter              | Spike | Result | Unit | Rec | RPD | Qual | Low     | Limits    |     |
|---------------|------------------------|-------|--------|------|-----|-----|------|---------|-----------|-----|
|               |                        |       |        |      |     |     |      |         | High      | RPD |
| VX1215WBS01   | Vinyl chloride         | 20    | 19.0   | ug/L | 95  |     |      | 70 (65) | 130 (117) |     |
|               | 1,1-Dichloroethene     | 20    | 14.9   | ug/L | 75  |     |      | 70 (74) | 130 (110) |     |
|               | 1,1-Dichloroethane     | 20    | 19.9   | ug/L | 100 |     |      | 70 (78) | 130 (112) |     |
|               | cis-1,2-Dichloroethene | 20    | 20.6   | ug/L | 103 |     |      | 70 (77) | 130 (110) |     |
|               | 1,1,1-Trichloroethane  | 20    | 21.7   | ug/L | 109 |     |      | 70 (80) | 130 (108) |     |
|               | Benzene                | 20    | 21.3   | ug/L | 106 |     |      | 70 (82) | 130 (109) |     |
|               | 1,2-Dichloroethane     | 20    | 21.1   | ug/L | 106 |     |      | 70 (80) | 130 (115) |     |
|               | Trichloroethene        | 20    | 22.2   | ug/L | 111 |     |      | 70 (77) | 130 (113) |     |
|               | 1,1,2-Trichloroethane  | 20    | 22.0   | ug/L | 110 |     |      | 70 (83) | 130 (112) |     |
|               | Tetrachloroethene      | 20    | 22.0   | ug/L | 110 |     |      | 70 (67) | 130 (123) |     |



Laboratory Control Sample/Laboratory Control Sample Duplicate Summary  
SW-846

SDG No.: N6070

Client: JACOBS Engineering Group, Inc.

Analytical Method: SW8260-Low

Datafile : VX033433.D

| Lab Sample ID | Parameter              | Spike | Result | Unit | Rec | RPD | Qual | Low     | Limits    |         |
|---------------|------------------------|-------|--------|------|-----|-----|------|---------|-----------|---------|
|               |                        |       |        |      |     |     |      |         | High      | RPD     |
| VX1215WBSD01  | Vinyl chloride         | 20    | 17.6   | ug/L | 88  | 8   |      | 70 (65) | 130 (117) | 20 (20) |
|               | 1,1-Dichloroethene     | 20    | 16.8   | ug/L | 84  | 11  |      | 70 (74) | 130 (110) | 20 (20) |
|               | 1,1-Dichloroethane     | 20    | 18.5   | ug/L | 93  | 7   |      | 70 (78) | 130 (112) | 20 (20) |
|               | cis-1,2-Dichloroethene | 20    | 18.7   | ug/L | 94  | 9   |      | 70 (77) | 130 (110) | 20 (20) |
|               | 1,1,1-Trichloroethane  | 20    | 19.8   | ug/L | 99  | 10  |      | 70 (80) | 130 (108) | 20 (20) |
|               | Benzene                | 20    | 19.7   | ug/L | 99  | 7   |      | 70 (82) | 130 (109) | 20 (20) |
|               | 1,2-Dichloroethane     | 20    | 19.8   | ug/L | 99  | 7   |      | 70 (80) | 130 (115) | 20 (20) |
|               | Trichloroethene        | 20    | 21.0   | ug/L | 105 | 6   |      | 70 (77) | 130 (113) | 20 (20) |
|               | 1,1,2-Trichloroethane  | 20    | 20.5   | ug/L | 103 | 7   |      | 70 (83) | 130 (112) | 20 (20) |
|               | Tetrachloroethene      | 20    | 19.9   | ug/L | 100 | 10  |      | 70 (67) | 130 (123) | 20 (20) |



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

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX1215WBL01

Lab Name: CHEMTECH

Contract: JACO05

Lab Code: CHEM Case No.: N6070

SAS No.: N6070 SDG NO.: N6070

Lab File ID: VX033431.D

Lab Sample ID: VX1215WBL01

Date Analyzed: 12/15/2022

Time Analyzed: 10:39

GC Column: DB-624UI ID: 0.18 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA\_X

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 |
|-------------------------|------------------|----------------|------------------|
| VX1215WBS01             | VX1215WBS01      | VX033432.D     | 12/15/2022       |
| VX1215WBSD01            | VX1215WBSD01     | VX033433.D     | 12/15/2022       |
| TB-01-121422            | N6070-02         | VX033434.D     | 12/15/2022       |
| GW-BR-01-160-180-121422 | N6070-03         | VX033436.D     | 12/15/2022       |
| GW-BR-02-160-180-121422 | N6070-04         | VX033437.D     | 12/15/2022       |
| GW-BR-03-128-148-121422 | N6070-05         | VX033438.D     | 12/15/2022       |
| GW-BR-04-226-245-121422 | N6070-01         | VX033441.D     | 12/15/2022       |

COMMENTS:



284 Sheffield Street, Mountainside, NJ 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.: | N6070               | SAS No.:          | N6070 |
|                |            |           |                     | SDG NO.:          | N6070 |
| Lab File ID:   | VX033272.D |           | BFB Injection Date: | 12/07/2022        |       |
| Instrument ID: | MSVOA_X    |           | BFB Injection Time: | 09:17             |       |
| GC Column:     | DB-624UI   | ID:       | 0.18                | (mm)              |       |
|                |            |           |                     | Heated Purge: Y/N | N     |

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50  | 15.0 - 40.0% of mass 95            | 18.7                 |
| 75  | 30.0 - 60.0% of mass 95            | 53.1                 |
| 95  | Base Peak, 100% relative abundance | 100                  |
| 96  | 5.0 - 9.0% of mass 95              | 6.9                  |
| 173 | Less than 2.0% of mass 174         | 0.7 ( 0.9 ) 1        |
| 174 | 50.0 - 100.0% of mass 95           | 77                   |
| 175 | 5.0 - 9.0% of mass 174             | 5.9 ( 7.6 ) 1        |
| 176 | 95.0 - 101.0% of mass 174          | 75.2 ( 97.6 ) 1      |
| 177 | 5.0 - 9.0% of mass 176             | 4.9 ( 6.5 ) 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 |
|-------------------|------------------|----------------|------------------|------------------|
| VSTDIC001         | VSTDIC001        | VX033273.D     | 12/07/2022       | 09:46            |
| VSTDIC005         | VSTDIC005        | VX033274.D     | 12/07/2022       | 10:09            |
| VSTDIC020         | VSTDIC020        | VX033275.D     | 12/07/2022       | 10:32            |
| VSTDIC050         | VSTDIC050        | VX033276.D     | 12/07/2022       | 10:55            |
| VSTDIC100         | VSTDIC100        | VX033277.D     | 12/07/2022       | 11:18            |
| VSTDIC150         | VSTDIC150        | VX033278.D     | 12/07/2022       | 11:42            |



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

**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)**

|                |                   |                     |                   |
|----------------|-------------------|---------------------|-------------------|
| Lab Name:      | <u>CHEMTECH</u>   | Contract:           | <u>JACO05</u>     |
| Lab Code:      | <u>CHEM</u>       | Case No.:           | <u>N6070</u>      |
| Lab File ID:   | <u>VX033429.D</u> | BFB Injection Date: | <u>12/15/2022</u> |
| Instrument ID: | <u>MSVOA_X</u>    | BFB Injection Time: | <u>09:39</u>      |
| GC Column:     | <u>DB-624UI</u>   | ID:                 | <u>0.18</u> (mm)  |
|                |                   | Heated Purge:       | <u>Y/N</u>        |

| m/e | ION ABUNDANCE CRITERIA             | % RELATIVE ABUNDANCE |
|-----|------------------------------------|----------------------|
| 50  | 15.0 - 40.0% of mass 95            | 19.2                 |
| 75  | 30.0 - 60.0% of mass 95            | 52.9                 |
| 95  | Base Peak, 100% relative abundance | 100                  |
| 96  | 5.0 - 9.0% of mass 95              | 7                    |
| 173 | Less than 2.0% of mass 174         | 0.9 ( 1.2 ) 1        |
| 174 | 50.0 - 100.0% of mass 95           | 80.4                 |
| 175 | 5.0 - 9.0% of mass 174             | 6.1 ( 7.6 ) 1        |
| 176 | 95.0 - 101.0% of mass 174          | 78.2 ( 97.3 ) 1      |
| 177 | 5.0 - 9.0% of mass 176             | 5.1 ( 6.6 ) 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       | VX033430.D     | 12/15/2022       | 10:10            |
| VX1215WBL01             | VX1215WBL01      | VX033431.D     | 12/15/2022       | 10:39            |
| VX1215WBS01             | VX1215WBS01      | VX033432.D     | 12/15/2022       | 11:07            |
| VX1215WBSD01            | VX1215WBSD01     | VX033433.D     | 12/15/2022       | 11:46            |
| TB-01-121422            | N6070-02         | VX033434.D     | 12/15/2022       | 12:09            |
| GW-BR-01-160-180-121422 | N6070-03         | VX033436.D     | 12/15/2022       | 12:55            |
| GW-BR-02-160-180-121422 | N6070-04         | VX033437.D     | 12/15/2022       | 13:18            |
| GW-BR-03-128-148-121422 | N6070-05         | VX033438.D     | 12/15/2022       | 13:41            |
| GW-BR-04-226-245-121422 | N6070-01         | VX033441.D     | 12/15/2022       | 14:50            |



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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: JACO05  
Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG NO.: N6070  
Lab File ID: VX033276.D Date Analyzed: 12/07/2022  
Instrument ID: MSVOA\_X Time Analyzed: 10:55  
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

|                         | IS1<br>AREA # | RT #  | IS2<br>AREA # | RT #  | IS3<br>AREA # | RT #   |
|-------------------------|---------------|-------|---------------|-------|---------------|--------|
| 12 HOUR STD             | 158881        | 5.56  | 255290        | 6.76  | 233891        | 10.06  |
| UPPER LIMIT             | 317762        | 6.056 | 510580        | 7.263 | 467782        | 10.555 |
| LOWER LIMIT             | 79440.5       | 5.056 | 127645        | 6.263 | 116946        | 9.555  |
| EPA SAMPLE NO.          |               |       |               |       |               |        |
| GW-BR-04-226-245-121422 | 115233        | 5.55  | 182643        | 6.76  | 164061        | 10.06  |
| TB-01-121422            | 128174        | 5.56  | 204029        | 6.76  | 177272        | 10.06  |
| GW-BR-01-160-180-121422 | 112732        | 5.56  | 179781        | 6.76  | 158358        | 10.06  |
| GW-BR-02-160-180-121422 | 111282        | 5.55  | 176885        | 6.76  | 155365        | 10.06  |
| GW-BR-03-128-148-121422 | 117851        | 5.55  | 187379        | 6.76  | 166169        | 10.06  |

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.





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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: JACO05  
Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG NO.: N6070  
Lab File ID: VX033430.D Date Analyzed: 12/15/2022  
Instrument ID: MSVOA\_X Time Analyzed: 10:10  
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

|                         | IS1<br>AREA # | RT # | IS2<br>AREA # | RT #  | IS3<br>AREA # | RT #   |
|-------------------------|---------------|------|---------------|-------|---------------|--------|
| 12 HOUR STD             | 139266        | 5.55 | 214327        | 6.76  | 205390        | 10.06  |
| UPPER LIMIT             | 278532        | 6.05 | 428654        | 7.257 | 410780        | 10.555 |
| LOWER LIMIT             | 69633         | 5.05 | 107164        | 6.257 | 102695        | 9.555  |
| EPA SAMPLE NO.          |               |      |               |       |               |        |
| GW-BR-04-226-245-121422 | 115233        | 5.55 | 182643        | 6.76  | 164061        | 10.06  |
| TB-01-121422            | 128174        | 5.56 | 204029        | 6.76  | 177272        | 10.06  |
| GW-BR-01-160-180-121422 | 112732        | 5.56 | 179781        | 6.76  | 158358        | 10.06  |
| GW-BR-02-160-180-121422 | 111282        | 5.55 | 176885        | 6.76  | 155365        | 10.06  |
| GW-BR-03-128-148-121422 | 117851        | 5.55 | 187379        | 6.76  | 166169        | 10.06  |
| VX1215WBL01             | 143365        | 5.55 | 223781        | 6.76  | 198464        | 10.06  |
| VX1215WBS01             | 144488        | 5.55 | 222709        | 6.76  | 207849        | 10.06  |
| VX1215WBSD01            | 137295        | 5.55 | 210886        | 6.76  | 199474        | 10.06  |

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.



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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: JACO05  
Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG NO.: N6070  
Lab File ID: VX033430.D Date Analyzed: 12/15/2022  
Instrument ID: MSVOA\_X Time Analyzed: 10:10  
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

|                         | IS4<br>AREA # | RT #   |  |  |  |  |
|-------------------------|---------------|--------|--|--|--|--|
| 12 HOUR STD             | 103647        | 12.024 |  |  |  |  |
| UPPER LIMIT             | 207294        | 12.524 |  |  |  |  |
| LOWER LIMIT             | 51823.5       | 11.524 |  |  |  |  |
| EPA SAMPLE NO.          |               |        |  |  |  |  |
| GW-BR-04-226-245-121422 | 77379         | 12.02  |  |  |  |  |
| TB-01-121422            | 78645         | 12.02  |  |  |  |  |
| GW-BR-01-160-180-121422 | 73130         | 12.02  |  |  |  |  |
| GW-BR-02-160-180-121422 | 69614         | 12.02  |  |  |  |  |
| GW-BR-03-128-148-121422 | 76359         | 12.02  |  |  |  |  |
| VX1215WBL01             | 92099         | 12.02  |  |  |  |  |
| VX1215WBS01             | 106397        | 12.02  |  |  |  |  |
| VX1215WBSD01            | 101751        | 12.02  |  |  |  |  |

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



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

## Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: | 12/14/22     |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  | 12/14/22     |
| Client Sample ID:  | GW-BR-04-226-245-121422               | SDG No.:        | N6070        |
| Lab Sample ID:     | N6070-01                              | Matrix:         | Water        |
| Analytical Method: | SW8260                                | % Moisture:     | 100          |
| Sample Wt/Vol:     | 5 Units: mL                           | Final Vol:      | 5000 uL      |
| Soil Aliquot Vol:  | uL                                    | Test:           | VOCMS Group3 |
| GC Column:         | DB-624UI ID : 0.18                    | Level :         | LOW          |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VX033441.D        | 1         |           | 12/15/22 14:50 | VX121522      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |                     |            |         |
| 75-01-4                   | Vinyl Chloride         | 0.22   | U         | 0.22                | 1.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 1.80   |           | 0.23                | 1.00       | ug/L    |
| 75-34-3                   | 1,1-Dichloroethane     | 0.20   | U         | 0.20                | 1.00       | ug/L    |
| 156-59-2                  | cis-1,2-Dichloroethene | 9.00   |           | 0.17                | 1.00       | ug/L    |
| 71-55-6                   | 1,1,1-Trichloroethane  | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| 71-43-2                   | Benzene                | 0.16   | U         | 0.16                | 1.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 4.90   |           | 0.27                | 1.00       | ug/L    |
| 79-00-5                   | 1,1,2-Trichloroethane  | 0.19   | U         | 0.19                | 1.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 48.8   |           | 70 (74) - 130 (125) | 98%        | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 49.3   |           | 70 (75) - 130 (124) | 99%        | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 47.6   |           | 70 (86) - 130 (113) | 95%        | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 48.7   |           | 70 (64) - 130 (133) | 97%        | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 115000 | 5.55      |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 183000 | 6.763     |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 164000 | 10.055    |                     |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 77400  | 12.024    |                     |            |         |

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\_X\Data\VX121522\  
 Data File : VX033441.D  
 Acq On : 15 Dec 2022 14:50  
 Operator : JC/MD  
 Sample : N6070-01  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 GW-BR-04-226-245-121422

Quant Time: Dec 16 01:02:56 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

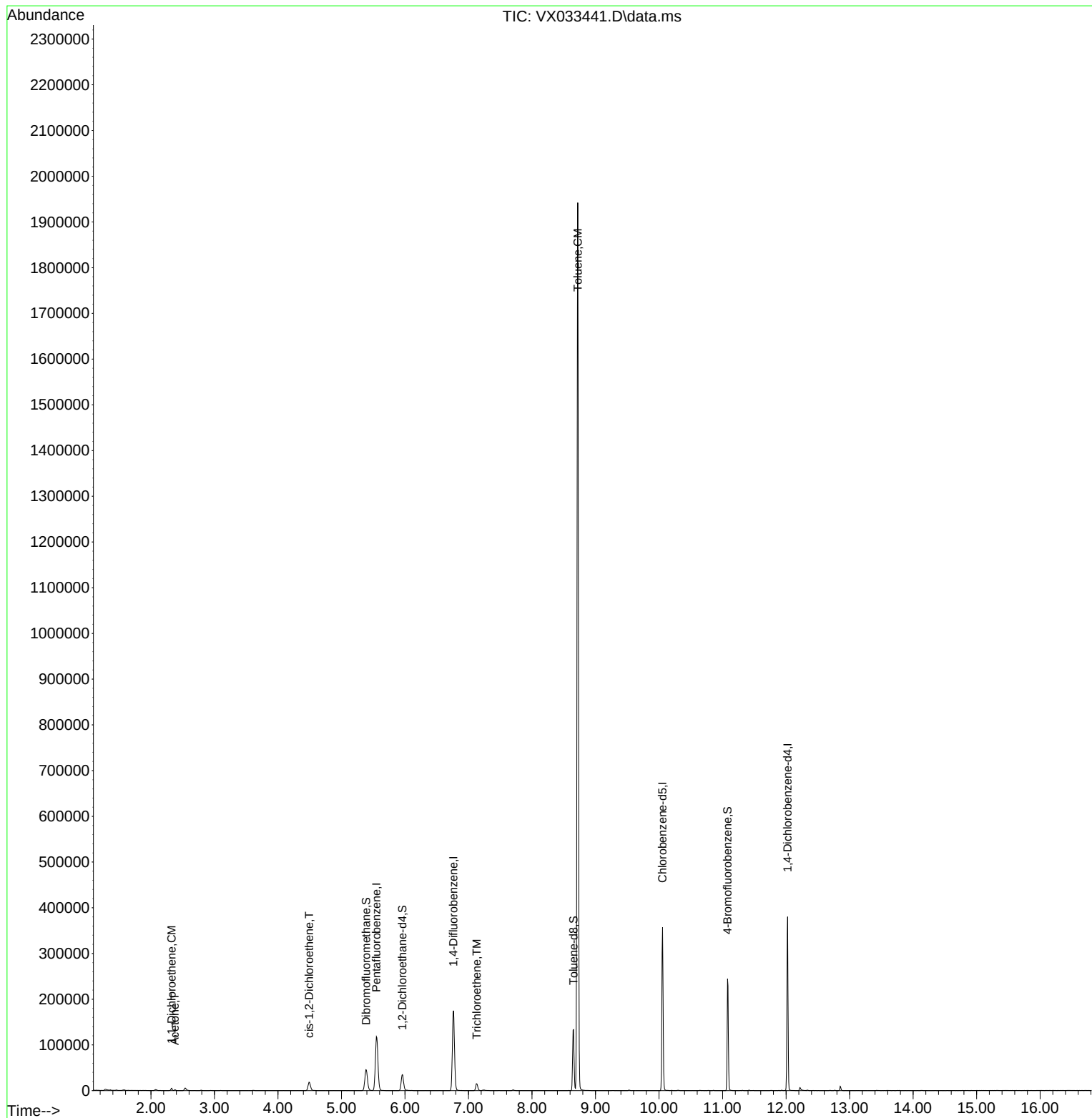
| Compound                    | R.T.           | QIon | Response   | Conc    | Units | Dev(Min) |
|-----------------------------|----------------|------|------------|---------|-------|----------|
| -----                       |                |      |            |         |       |          |
| Internal Standards          |                |      |            |         |       |          |
| 1) Pentafluorobenzene       | 5.550          | 168  | 115233     | 50.000  | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene     | 6.763          | 114  | 182643     | 50.000  | ug/l  | 0.00     |
| 63) Chlorobenzene-d5        | 10.055         | 117  | 164061     | 50.000  | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 12.024         | 152  | 77379      | 50.000  | ug/l  | 0.00     |
|                             |                |      |            |         |       |          |
| System Monitoring Compounds |                |      |            |         |       |          |
| 33) 1,2-Dichloroethane-d4   | 5.958          | 65   | 36088      | 48.816  | ug/l  | 0.00     |
| Spiked Amount 50.000        | Range 78 - 117 |      | Recovery = | 97.640% |       |          |
| 35) Dibromofluoromethane    | 5.385          | 113  | 40491      | 49.290  | ug/l  | 0.00     |
| Spiked Amount 50.000        | Range 75 - 124 |      | Recovery = | 98.580% |       |          |
| 50) Toluene-d8              | 8.653          | 98   | 81865      | 47.637  | ug/l  | 0.00     |
| Spiked Amount 50.000        | Range 92 - 112 |      | Recovery = | 95.280% |       |          |
| 62) 4-Bromofluorobenzene    | 11.079         | 95   | 63928      | 48.651  | ug/l  | 0.00     |
| Spiked Amount 50.000        | Range 83 - 123 |      | Recovery = | 97.300% |       |          |
|                             |                |      |            |         |       |          |
| Target Compounds            |                |      |            |         |       | Qvalue   |
| 12) 1,1-Dichloroethene      | 2.325          | 96   | 1845       | 1.766   | ug/l  | 83       |
| 16) Acetone                 | 2.373          | 43   | 2007       | 3.669   | ug/l  | 96       |
| 27) cis-1,2-Dichloroethene  | 4.489          | 96   | 12282      | 8.993   | ug/l  | 87       |
| 44) Trichloroethene         | 7.129          | 130  | 6252       | 4.856   | ug/l  | 95       |
| 52) Toluene                 | 8.720          | 92   | 739140     | 244.804 | ug/l  | 99       |
| -----                       |                |      |            |         |       |          |

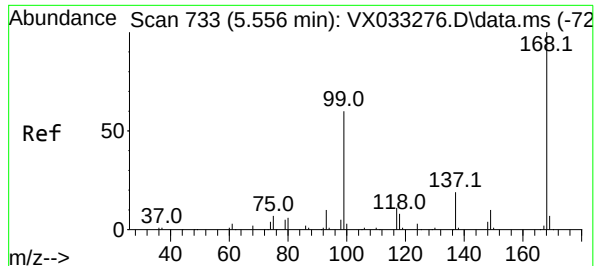
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033441.D  
Acq On : 15 Dec 2022 14:50  
Operator : JC/MD  
Sample : N6070-01  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 13 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
GW-BR-04-226-245-121422

Quant Time: Dec 16 01:02:56 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration



#1  
Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.550 min Scan# 71

Delta R.T. -0.006 min

Lab File: VX033441.D

Acq: 15 Dec 2022 14:50

Instrument :

MSVOA\_X

ClientSampleId :

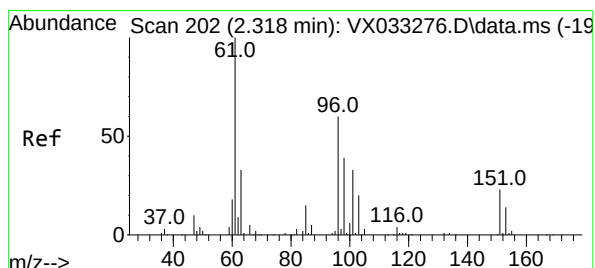
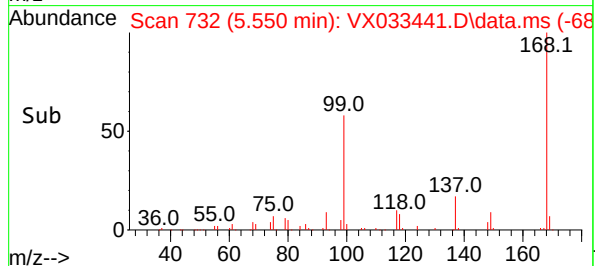
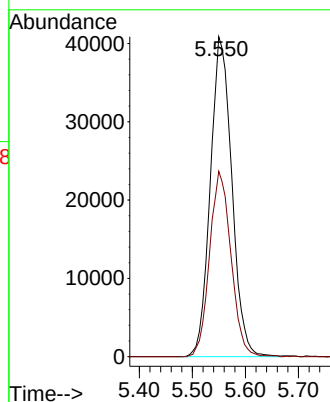
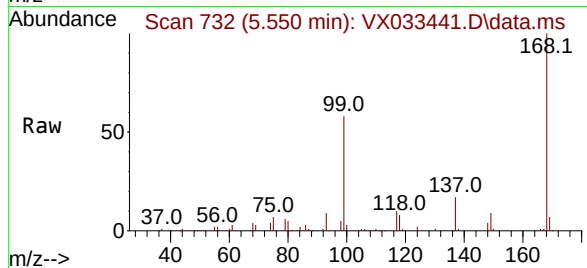
GW-BR-04-226-245-121422

Tgt Ion:168 Resp: 115233

Ion Ratio Lower Upper

168 100

99 58.0 46.1 69.1



#12

1,1-Dichloroethene

Concen: 1.766 ug/l

RT: 2.325 min Scan# 203

Delta R.T. 0.006 min

Lab File: VX033441.D

Acq: 15 Dec 2022 14:50

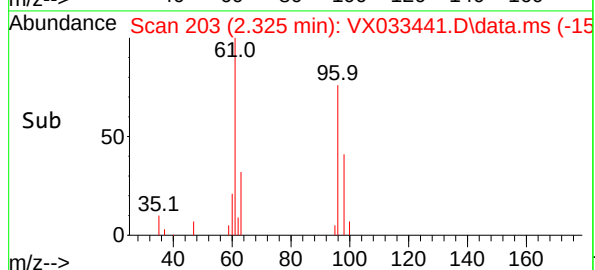
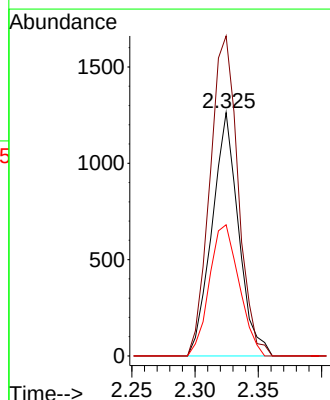
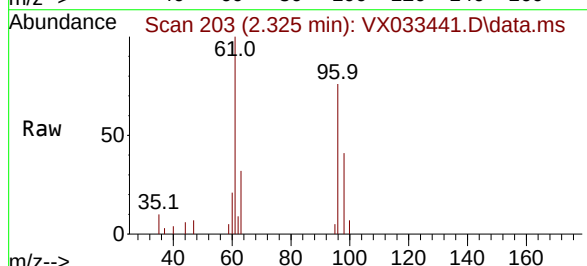
Tgt Ion: 96 Resp: 1845

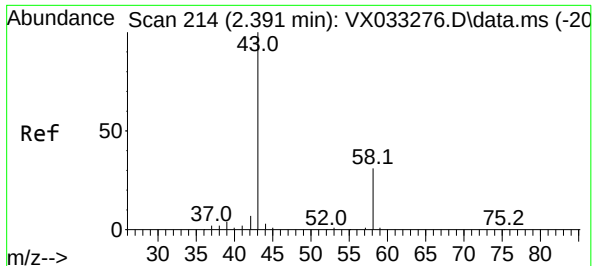
Ion Ratio Lower Upper

96 100

61 131.5 125.1 187.7

98 53.9 50.6 76.0

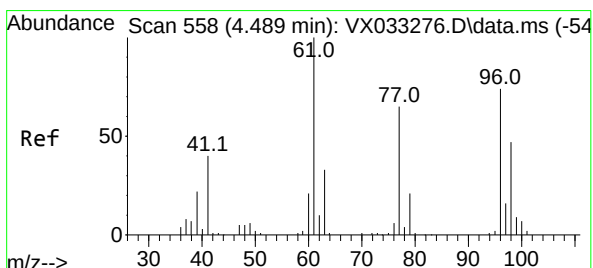
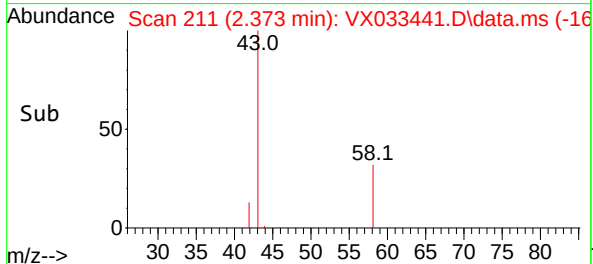
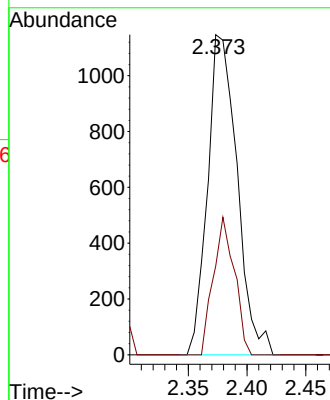
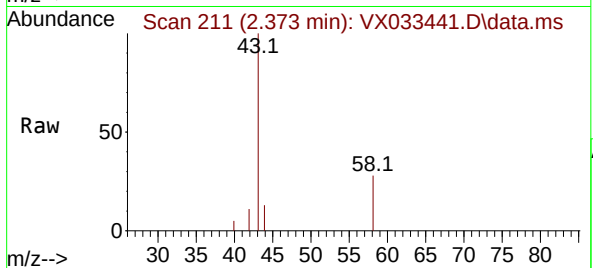




#16  
Acetone  
Concen: 3.669 ug/l  
RT: 2.373 min Scan# 214  
Delta R.T. -0.018 min  
Lab File: VX033441.D  
Acq: 15 Dec 2022 14:50

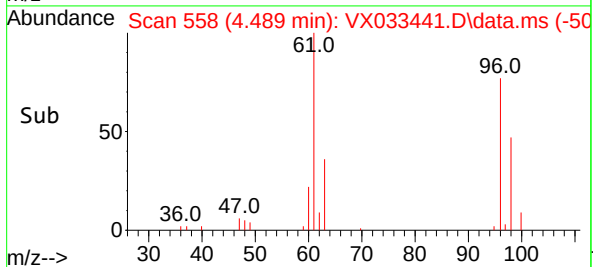
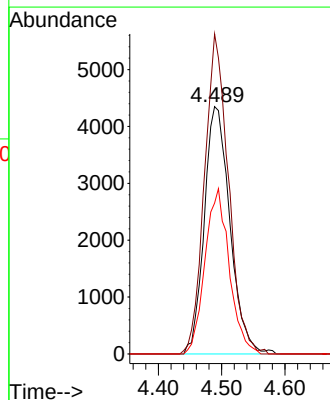
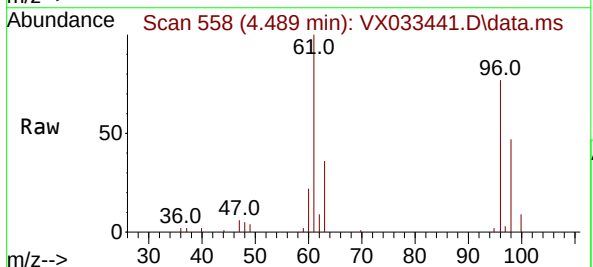
Instrument : MSVOA\_X  
ClientSampleId : GW-BR-04-226-245-121422

Tgt Ion: 43 Resp: 2007  
Ion Ratio Lower Upper  
43 100  
58 27.7 23.8 35.8

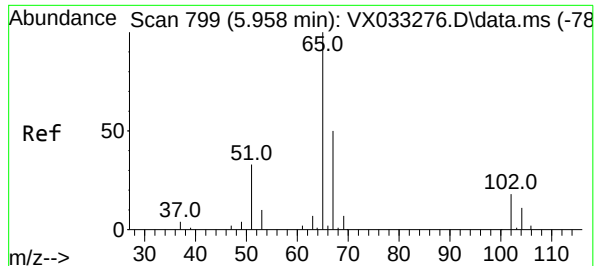


#27  
cis-1,2-Dichloroethene  
Concen: 8.993 ug/l  
RT: 4.489 min Scan# 558  
Delta R.T. 0.000 min  
Lab File: VX033441.D  
Acq: 15 Dec 2022 14:50

Tgt Ion: 96 Resp: 12282  
Ion Ratio Lower Upper  
96 100  
61 120.8 0.0 286.0  
98 63.1 0.0 129.6







#33

1,2-Dichloroethane-d4

Concen: 48.816 ug/l

RT: 5.958 min Scan# 799

Delta R.T. 0.000 min

Lab File: VX033441.D

Acq: 15 Dec 2022 14:50

Instrument :

MSVOA\_X

ClientSampleId :

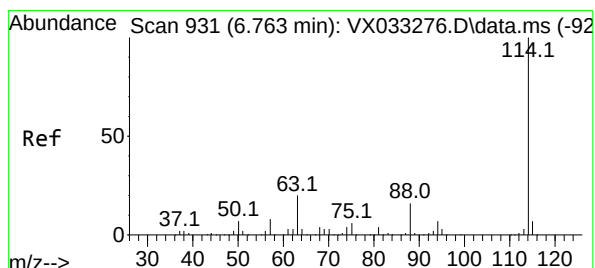
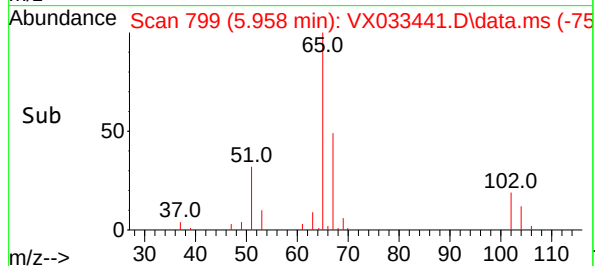
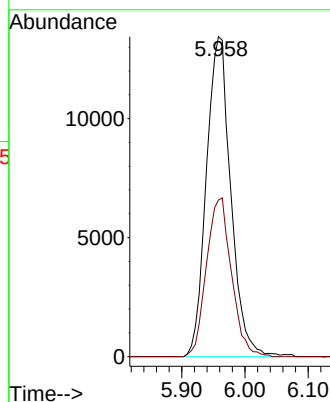
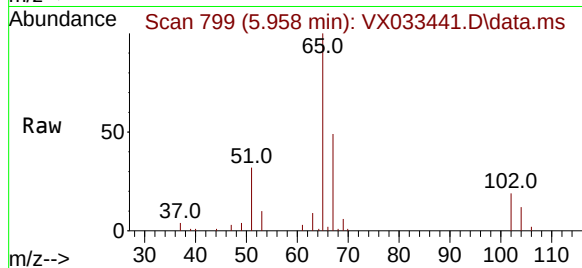
GW-BR-04-226-245-121422

Tgt Ion: 65 Resp: 36088

Ion Ratio Lower Upper

65 100

67 50.7 0.0 101.8



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.763 min Scan# 931

Delta R.T. 0.000 min

Lab File: VX033441.D

Acq: 15 Dec 2022 14:50

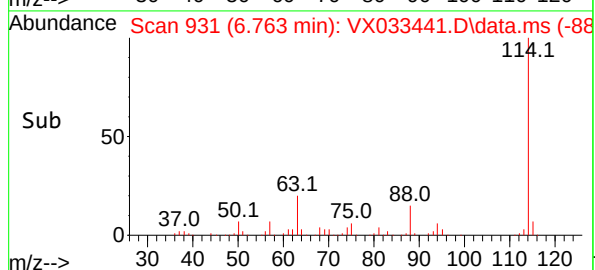
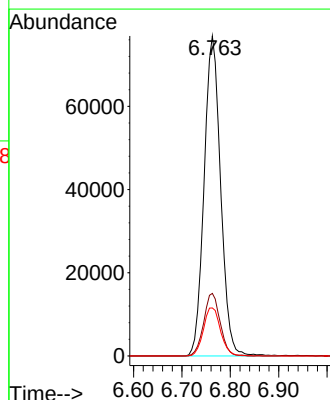
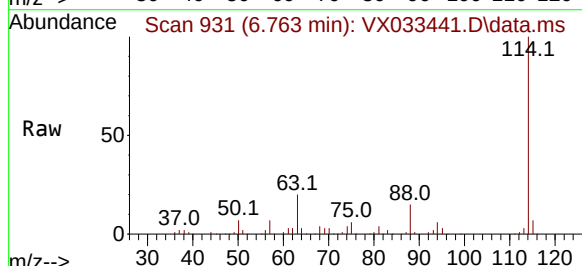
Tgt Ion: 114 Resp: 182643

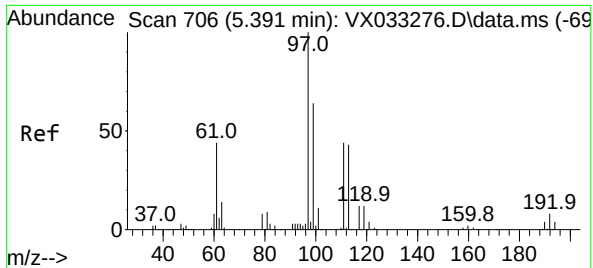
Ion Ratio Lower Upper

114 100

63 19.6 0.0 41.6

88 15.0 0.0 33.4





#35

Dibromofluoromethane

Concen: 49.290 ug/l

RT: 5.385 min Scan# 706

Delta R.T. -0.006 min

Lab File: VX033441.D

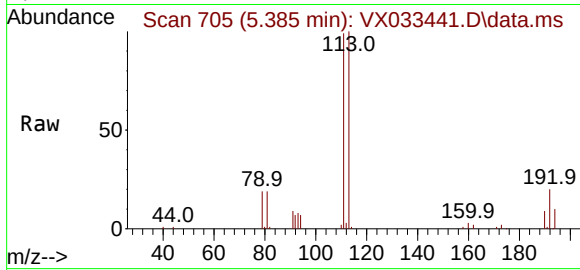
Acq: 15 Dec 2022 14:50

Instrument :

MSVOA\_X

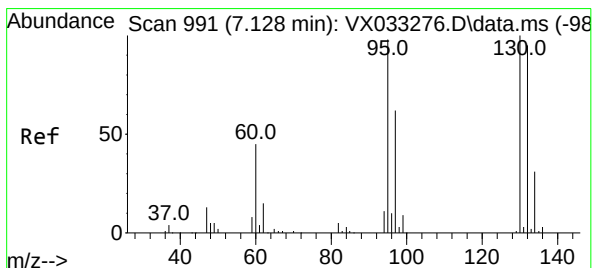
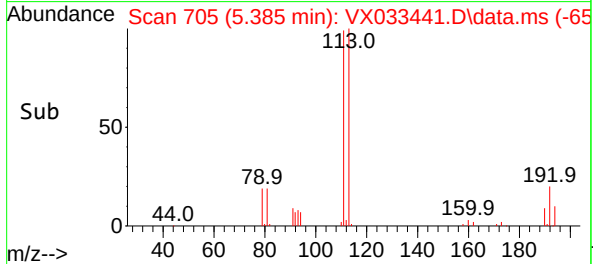
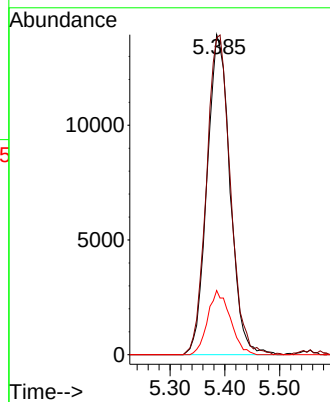
ClientSampleId :

GW-BR-04-226-245-121422



Tgt Ion:113 Resp: 40491

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 113 | 100   |       |       |
| 111 | 103.7 | 82.4  | 123.6 |
| 192 | 19.7  | 15.4  | 23.2  |



#44

Trichloroethene

Concen: 4.856 ug/l

RT: 7.129 min Scan# 991

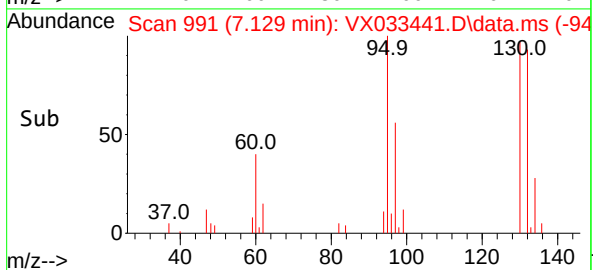
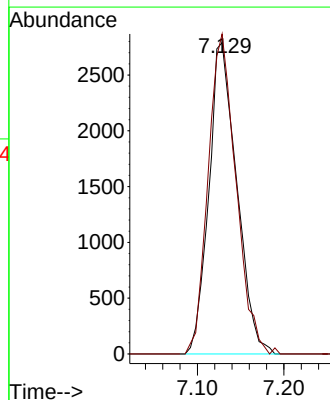
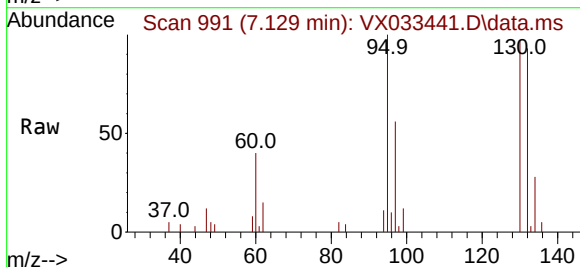
Delta R.T. 0.000 min

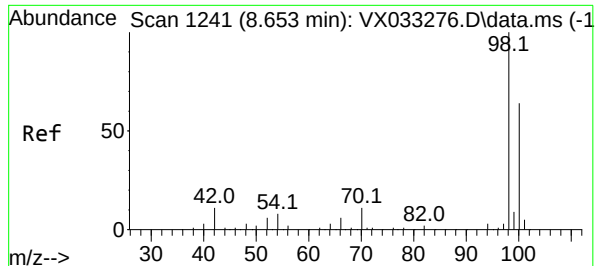
Lab File: VX033441.D

Acq: 15 Dec 2022 14:50

Tgt Ion:130 Resp: 6252

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 130 | 100   |       |       |
| 95  | 102.8 | 0.0   | 195.2 |





#50

Toluene-d8

Concen: 47.637 ug/l

RT: 8.653 min Scan# 1241

Delta R.T. 0.000 min

Lab File: VX033441.D

Acq: 15 Dec 2022 14:50

Instrument :

MSVOA\_X

ClientSampleId :

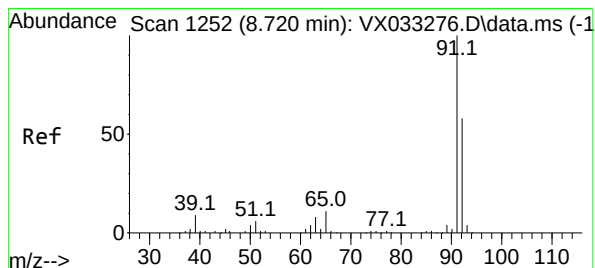
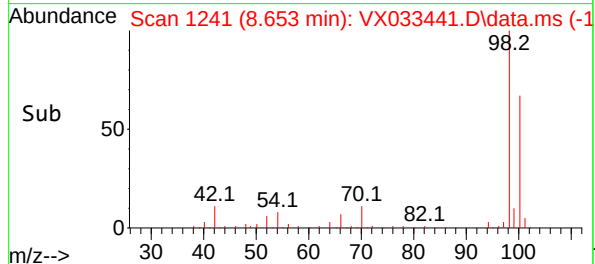
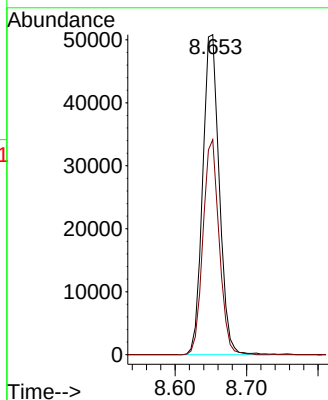
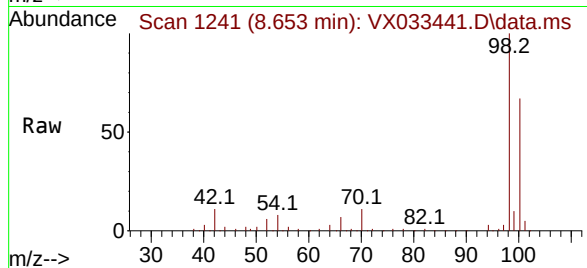
GW-BR-04-226-245-121422

Tgt Ion: 98 Resp: 81865

Ion Ratio Lower Upper

98 100

100 65.5 50.9 76.3



#52

Toluene

Concen: 244.804 ug/l

RT: 8.720 min Scan# 1252

Delta R.T. 0.000 min

Lab File: VX033441.D

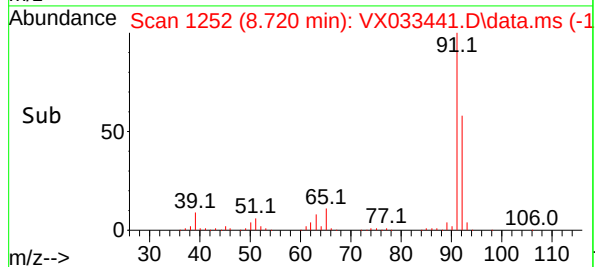
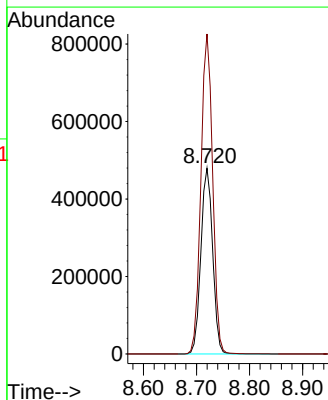
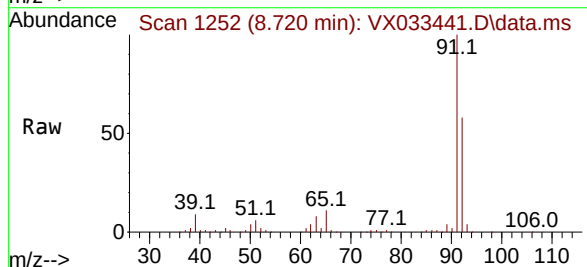
Acq: 15 Dec 2022 14:50

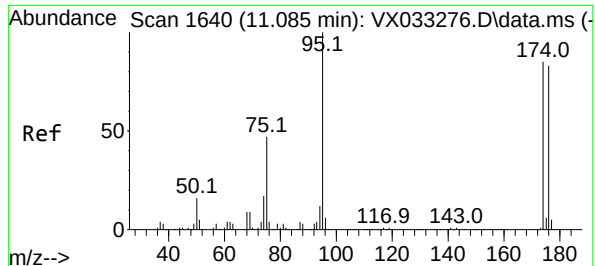
Tgt Ion: 92 Resp: 739140

Ion Ratio Lower Upper

92 100

91 171.8 138.3 207.5





#62

4-Bromofluorobenzene

Concen: 48.651 ug/l

RT: 11.079 min Scan# 1

Delta R.T. -0.006 min

Lab File: VX033441.D

Acq: 15 Dec 2022 14:50

Instrument :

MSVOA\_X

ClientSampleId :

GW-BR-04-226-245-121422

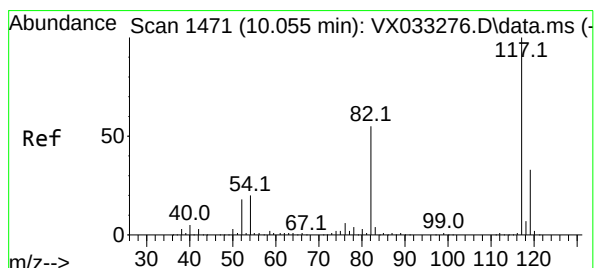
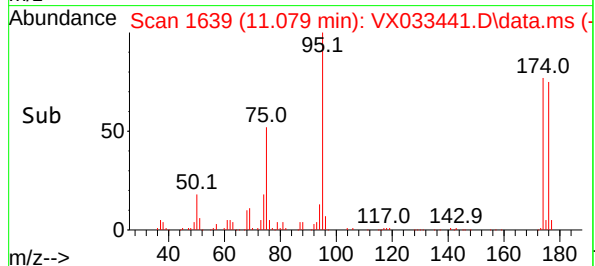
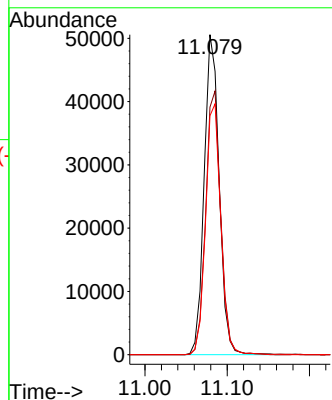
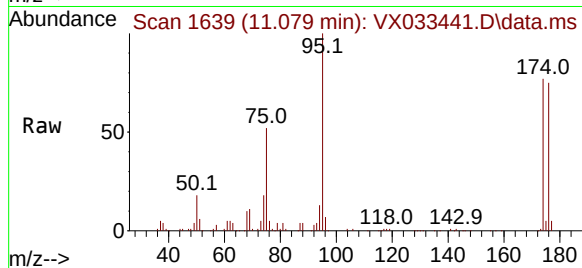
Tgt Ion: 95 Resp: 63928

Ion Ratio Lower Upper

95 100

174 83.2 0.0 164.0

176 79.9 0.0 154.4



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.055 min Scan# 1471

Delta R.T. 0.000 min

Lab File: VX033441.D

Acq: 15 Dec 2022 14:50

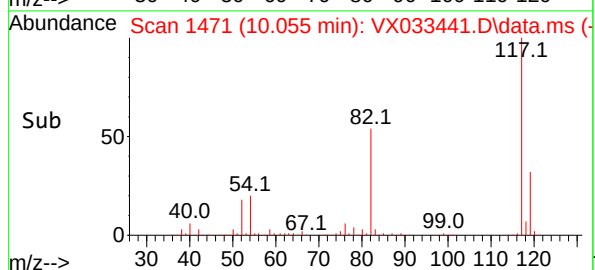
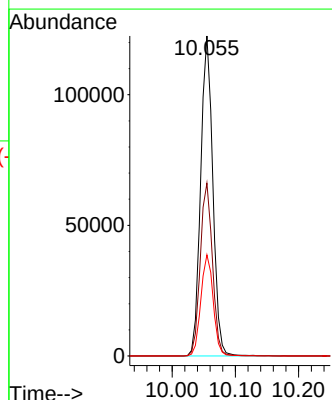
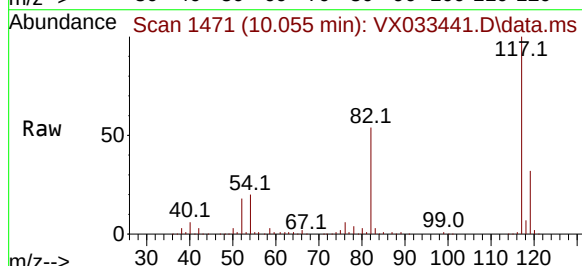
Tgt Ion: 117 Resp: 164061

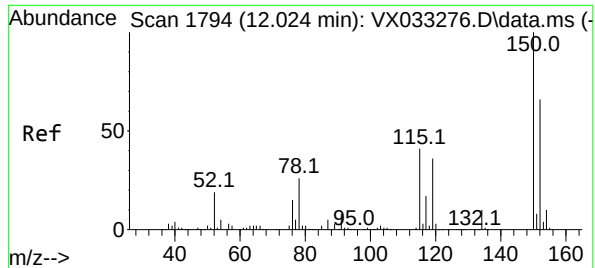
Ion Ratio Lower Upper

117 100

82 54.0 44.3 66.5

119 31.6 25.7 38.5





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.024 min Scan# 11

Delta R.T. 0.000 min

Lab File: VX033441.D

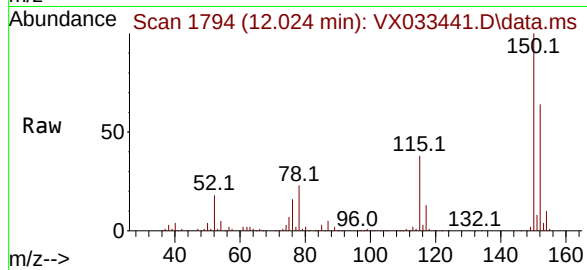
Acq: 15 Dec 2022 14:50

Instrument :

MSVOA\_X

ClientSampleId :

GW-BR-04-226-245-121422



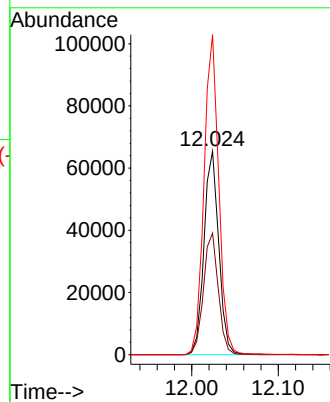
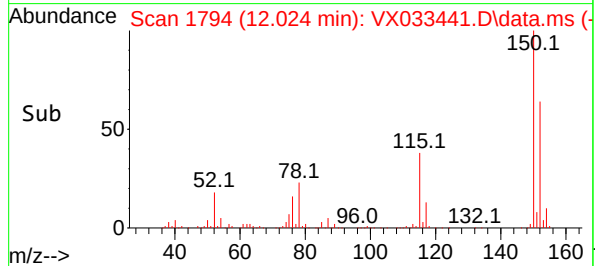
Tgt Ion:152 Resp: 77379

Ion Ratio Lower Upper

152 100

115 60.2 44.0 132.0

150 157.0 0.0 351.8





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

## Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: | 12/14/22     |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  | 12/14/22     |
| Client Sample ID:  | TB-01-121422                          | SDG No.:        | N6070        |
| Lab Sample ID:     | N6070-02                              | Matrix:         | Water        |
| Analytical Method: | SW8260                                | % Moisture:     | 100          |
| Sample Wt/Vol:     | 5 Units: mL                           | Final Vol:      | 5000 uL      |
| Soil Aliquot Vol:  | uL                                    | Test:           | VOCMS Group3 |
| GC Column:         | DB-624UI ID : 0.18                    | Level :         | LOW          |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VX033434.D        | 1         |           | 12/15/22 12:09 | VX121522      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |                     |            |         |
| 75-01-4                   | Vinyl Chloride         | 0.22   | U         | 0.22                | 1.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 0.23   | U         | 0.23                | 1.00       | ug/L    |
| 75-34-3                   | 1,1-Dichloroethane     | 0.20   | U         | 0.20                | 1.00       | ug/L    |
| 156-59-2                  | cis-1,2-Dichloroethene | 0.17   | U         | 0.17                | 1.00       | ug/L    |
| 71-55-6                   | 1,1,1-Trichloroethane  | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| 71-43-2                   | Benzene                | 0.16   | U         | 0.16                | 1.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 0.27   | U         | 0.27                | 1.00       | ug/L    |
| 79-00-5                   | 1,1,2-Trichloroethane  | 0.19   | U         | 0.19                | 1.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 46.7   |           | 70 (74) - 130 (125) | 93%        | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 47.0   |           | 70 (75) - 130 (124) | 94%        | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 45.7   |           | 70 (86) - 130 (113) | 91%        | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 44.2   |           | 70 (64) - 130 (133) | 88%        | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 128000 | 5.556     |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 204000 | 6.763     |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 177000 | 10.055    |                     |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 78600  | 12.024    |                     |            |         |

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\_X\Data\VX121522\  
 Data File : VX033434.D  
 Acq On : 15 Dec 2022 12:09  
 Operator : JC/MD  
 Sample : N6070-02  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 TB-01-121422

Quant Time: Dec 16 01:00:50 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

| Compound                    | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|-------|----------|
| -----                       |        |       |          |          |       |          |
| Internal Standards          |        |       |          |          |       |          |
| 1) Pentafluorobenzene       | 5.556  | 168   | 128174   | 50.000   | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene     | 6.763  | 114   | 204029   | 50.000   | ug/l  | 0.00     |
| 63) Chlorobenzene-d5        | 10.055 | 117   | 177272   | 50.000   | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 12.024 | 152   | 78645    | 50.000   | ug/l  | 0.00     |
| System Monitoring Compounds |        |       |          |          |       |          |
| 33) 1,2-Dichloroethane-d4   | 5.958  | 65    | 38432    | 46.738   | ug/l  | 0.00     |
| Spiked Amount               | 50.000 | Range | 78 - 117 | Recovery | =     | 93.480%  |
| 35) Dibromofluoromethane    | 5.385  | 113   | 43106    | 46.973   | ug/l  | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =     | 93.940%  |
| 50) Toluene-d8              | 8.647  | 98    | 87787    | 45.729   | ug/l  | 0.00     |
| Spiked Amount               | 50.000 | Range | 92 - 112 | Recovery | =     | 91.460%# |
| 62) 4-Bromofluorobenzene    | 11.079 | 95    | 64937    | 44.239   | ug/l  | 0.00     |
| Spiked Amount               | 50.000 | Range | 83 - 123 | Recovery | =     | 88.480%  |

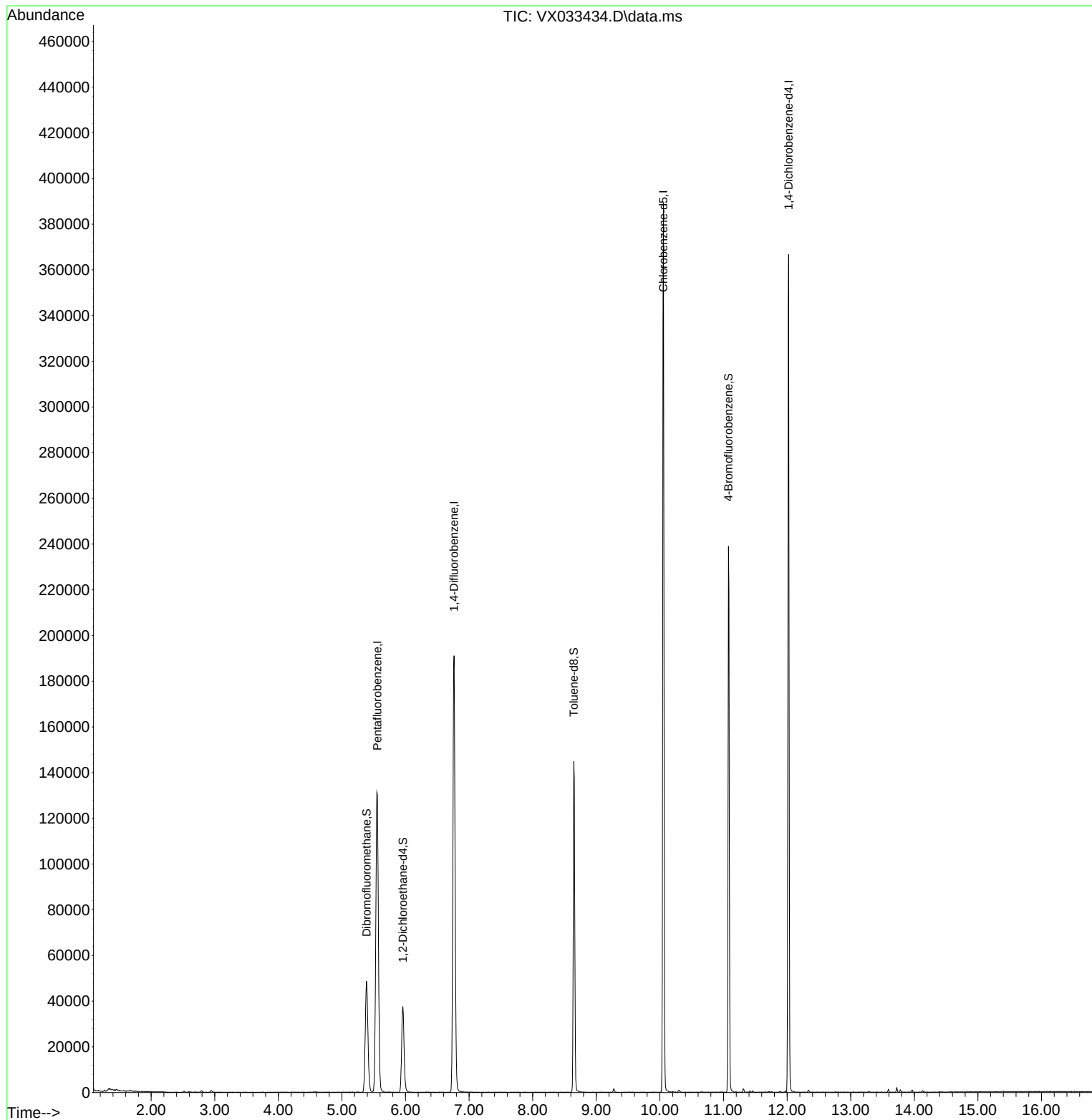
|                  |        |
|------------------|--------|
| Target Compounds | Qvalue |
| -----            |        |

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

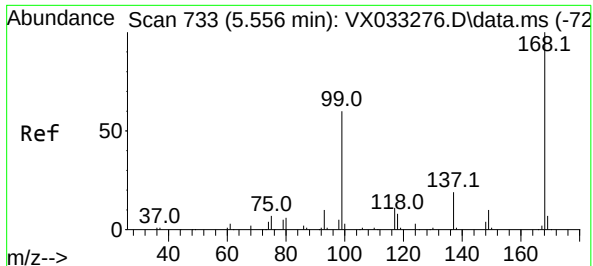
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033434.D  
Acq On : 15 Dec 2022 12:09  
Operator : JC/MD  
Sample : N6070-02  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
TB-01-121422

Quant Time: Dec 16 01:00:50 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration



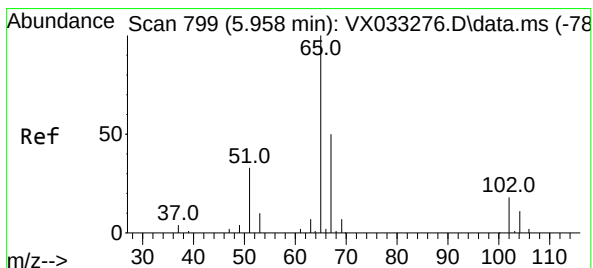
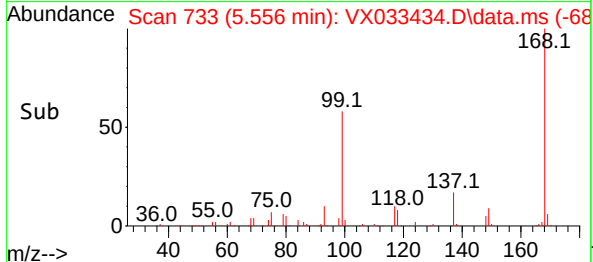
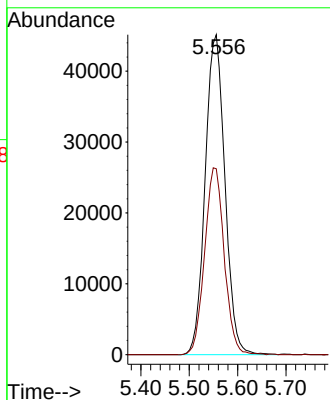
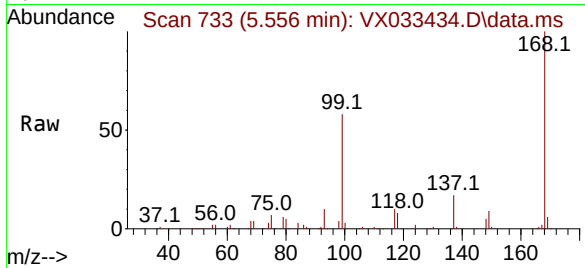




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.556 min Scan# 711  
Delta R.T. -0.000 min  
Lab File: VX033434.D  
Acq: 15 Dec 2022 12:09

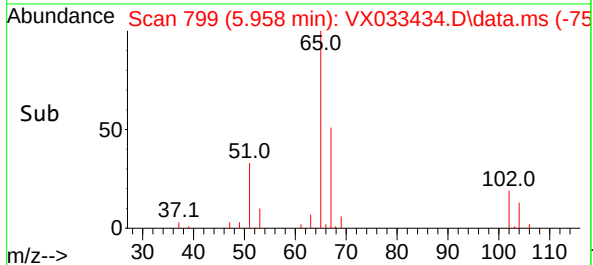
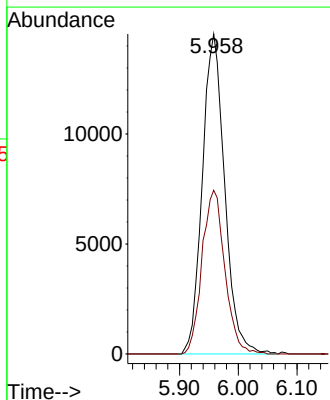
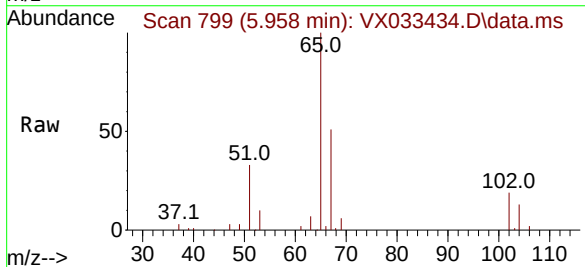
Instrument :  
MSVOA\_X  
ClientSampleId :  
TB-01-121422

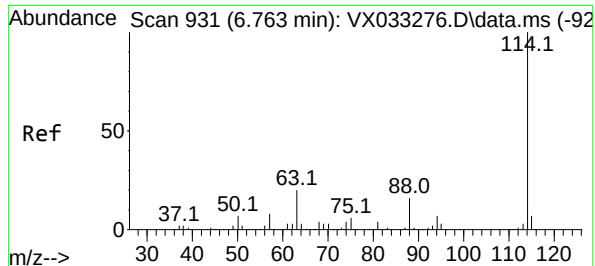
Tgt Ion:168 Resp: 128174  
Ion Ratio Lower Upper  
168 100  
99 58.1 46.1 69.1



#33  
1,2-Dichloroethane-d4  
Concen: 46.738 ug/l  
RT: 5.958 min Scan# 799  
Delta R.T. 0.000 min  
Lab File: VX033434.D  
Acq: 15 Dec 2022 12:09

Tgt Ion: 65 Resp: 38432  
Ion Ratio Lower Upper  
65 100  
67 52.2 0.0 101.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.763 min Scan# 91

Delta R.T. 0.000 min

Lab File: VX033434.D

Acq: 15 Dec 2022 12:09

Instrument :

MSVOA\_X

ClientSampleId :

TB-01-121422

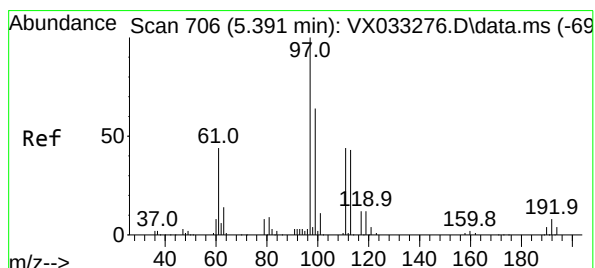
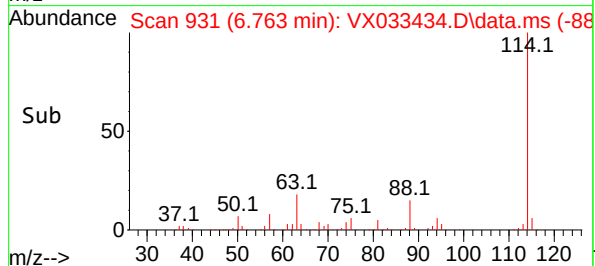
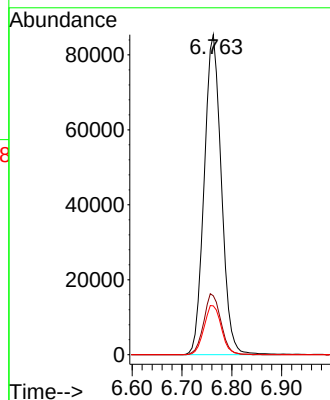
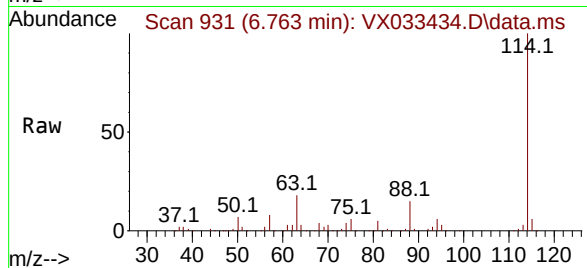
Tgt Ion:114 Resp: 204029

Ion Ratio Lower Upper

114 100

63 18.4 0.0 41.6

88 15.2 0.0 33.4



#35

Dibromofluoromethane

Concen: 46.973 ug/l

RT: 5.385 min Scan# 705

Delta R.T. -0.006 min

Lab File: VX033434.D

Acq: 15 Dec 2022 12:09

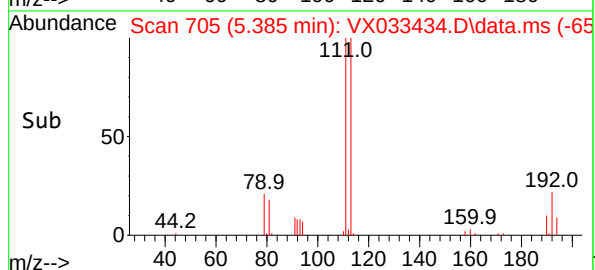
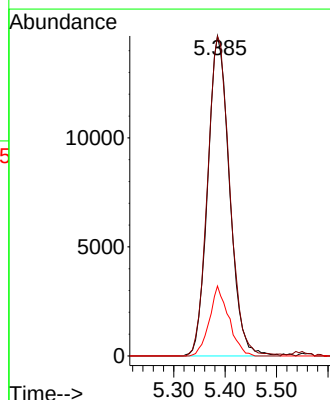
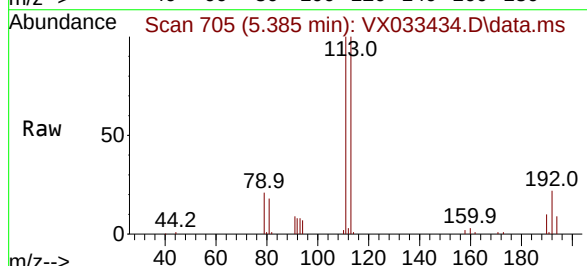
Tgt Ion:113 Resp: 43106

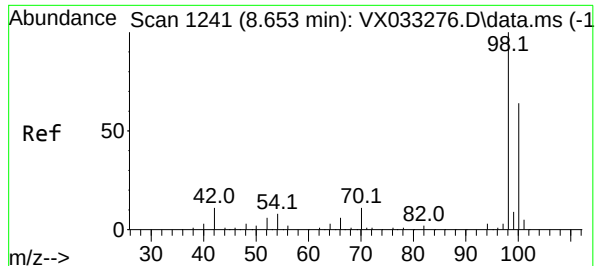
Ion Ratio Lower Upper

113 100

111 101.7 82.4 123.6

192 19.5 15.4 23.2





#50

Toluene-d8

Concen: 45.729 ug/l

RT: 8.647 min Scan# 11

Delta R.T. -0.006 min

Lab File: VX033434.D

Acq: 15 Dec 2022 12:09

Instrument :

MSVOA\_X

ClientSampleId :

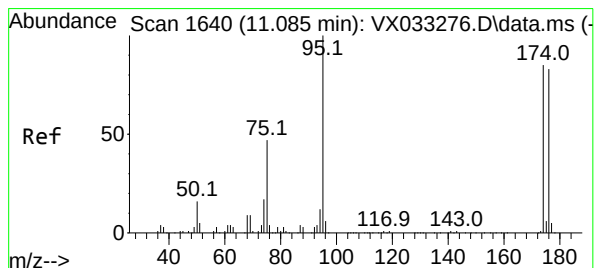
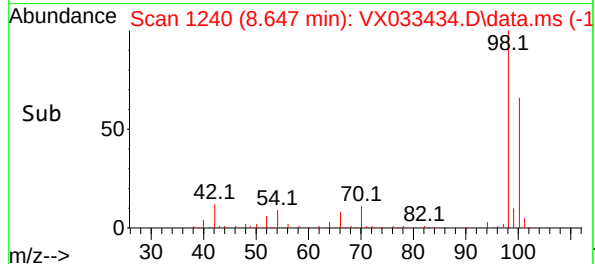
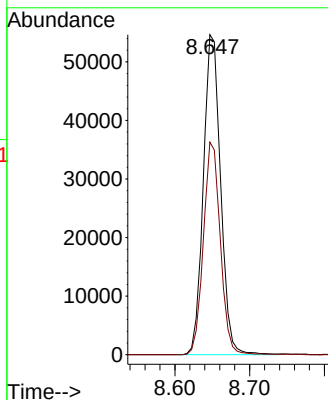
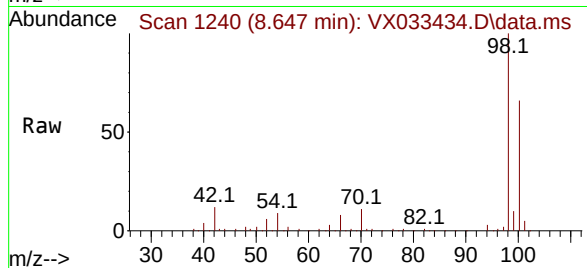
TB-01-121422

Tgt Ion: 98 Resp: 87787

Ion Ratio Lower Upper

98 100

100 65.0 50.9 76.3



#62

4-Bromofluorobenzene

Concen: 44.239 ug/l

RT: 11.079 min Scan# 1639

Delta R.T. -0.006 min

Lab File: VX033434.D

Acq: 15 Dec 2022 12:09

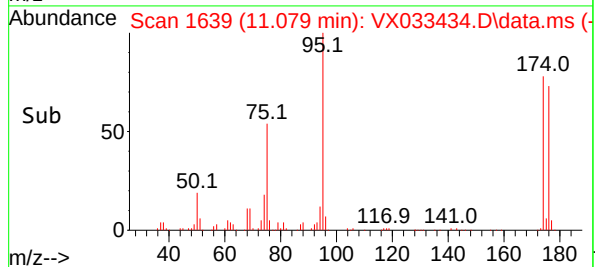
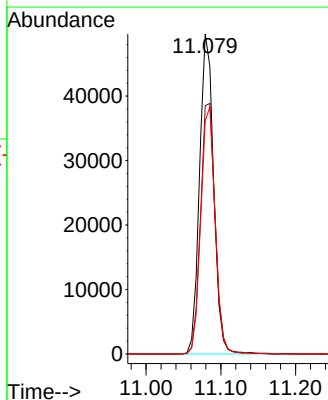
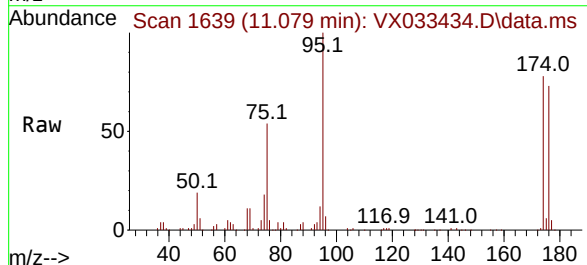
Tgt Ion: 95 Resp: 64937

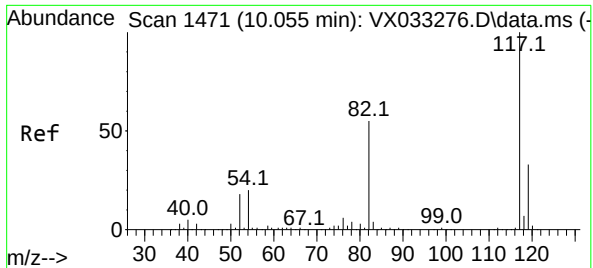
Ion Ratio Lower Upper

95 100

174 81.4 0.0 164.0

176 78.8 0.0 154.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.055 min Scan# 1471

Delta R.T. 0.000 min

Lab File: VX033434.D

Acq: 15 Dec 2022 12:09

Instrument :

MSVOA\_X

ClientSampleId :

TB-01-121422

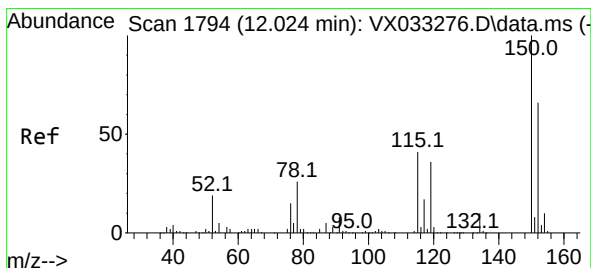
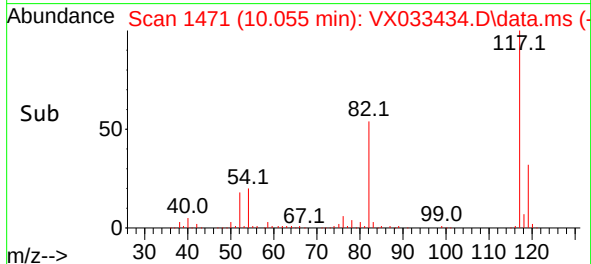
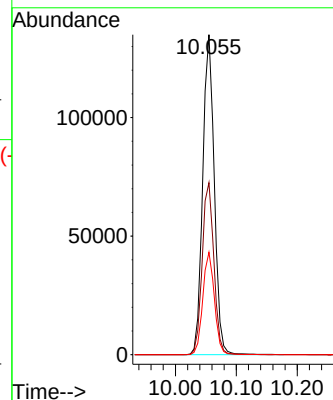
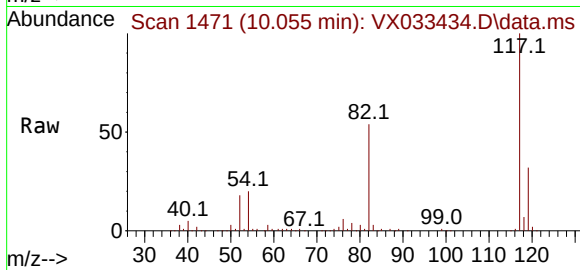
Tgt Ion:117 Resp: 177272

Ion Ratio Lower Upper

117 100

82 53.8 44.3 66.5

119 32.0 25.7 38.5



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.024 min Scan# 1794

Delta R.T. 0.000 min

Lab File: VX033434.D

Acq: 15 Dec 2022 12:09

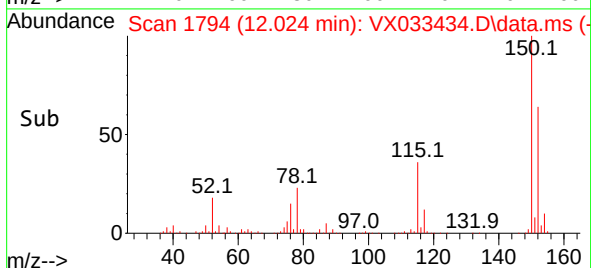
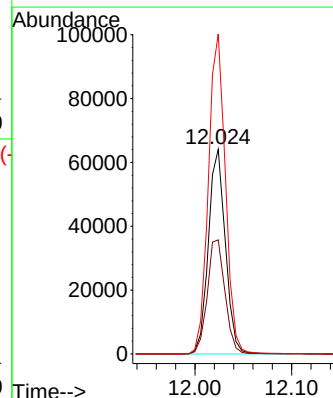
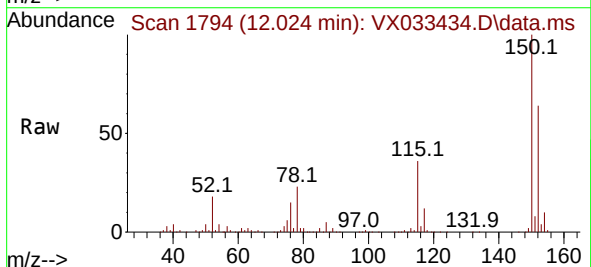
Tgt Ion:152 Resp: 78645

Ion Ratio Lower Upper

152 100

115 58.2 44.0 132.0

150 157.0 0.0 351.8





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

## Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: | 12/14/22     |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  | 12/14/22     |
| Client Sample ID:  | GW-BR-01-160-180-121422               | SDG No.:        | N6070        |
| Lab Sample ID:     | N6070-03                              | Matrix:         | Water        |
| Analytical Method: | SW8260                                | % Moisture:     | 100          |
| Sample Wt/Vol:     | 5 Units: mL                           | Final Vol:      | 5000 uL      |
| Soil Aliquot Vol:  | uL                                    | Test:           | VOCMS Group3 |
| GC Column:         | DB-624UI ID : 0.18                    | Level :         | LOW          |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VX033436.D        | 1         |           | 12/15/22 12:55 | VX121522      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |                     |            |         |
| 75-01-4                   | Vinyl Chloride         | 0.22   | U         | 0.22                | 1.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 0.23   | U         | 0.23                | 1.00       | ug/L    |
| 75-34-3                   | 1,1-Dichloroethane     | 0.20   | U         | 0.20                | 1.00       | ug/L    |
| 156-59-2                  | cis-1,2-Dichloroethene | 0.17   | U         | 0.17                | 1.00       | ug/L    |
| 71-55-6                   | 1,1,1-Trichloroethane  | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| 71-43-2                   | Benzene                | 0.16   | U         | 0.16                | 1.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 0.64   | J         | 0.27                | 1.00       | ug/L    |
| 79-00-5                   | 1,1,2-Trichloroethane  | 0.19   | U         | 0.19                | 1.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 47.8   |           | 70 (74) - 130 (125) | 96%        | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 48.2   |           | 70 (75) - 130 (124) | 96%        | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 46.7   |           | 70 (86) - 130 (113) | 93%        | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 45.6   |           | 70 (64) - 130 (133) | 91%        | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 113000 | 5.556     |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 180000 | 6.763     |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 158000 | 10.055    |                     |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 73100  | 12.024    |                     |            |         |

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\_X\Data\VX121522\  
 Data File : VX033436.D  
 Acq On : 15 Dec 2022 12:55  
 Operator : JC/MD  
 Sample : N6070-03  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 GW-BR-01-160-180-121422

Quant Time: Dec 16 01:01:26 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

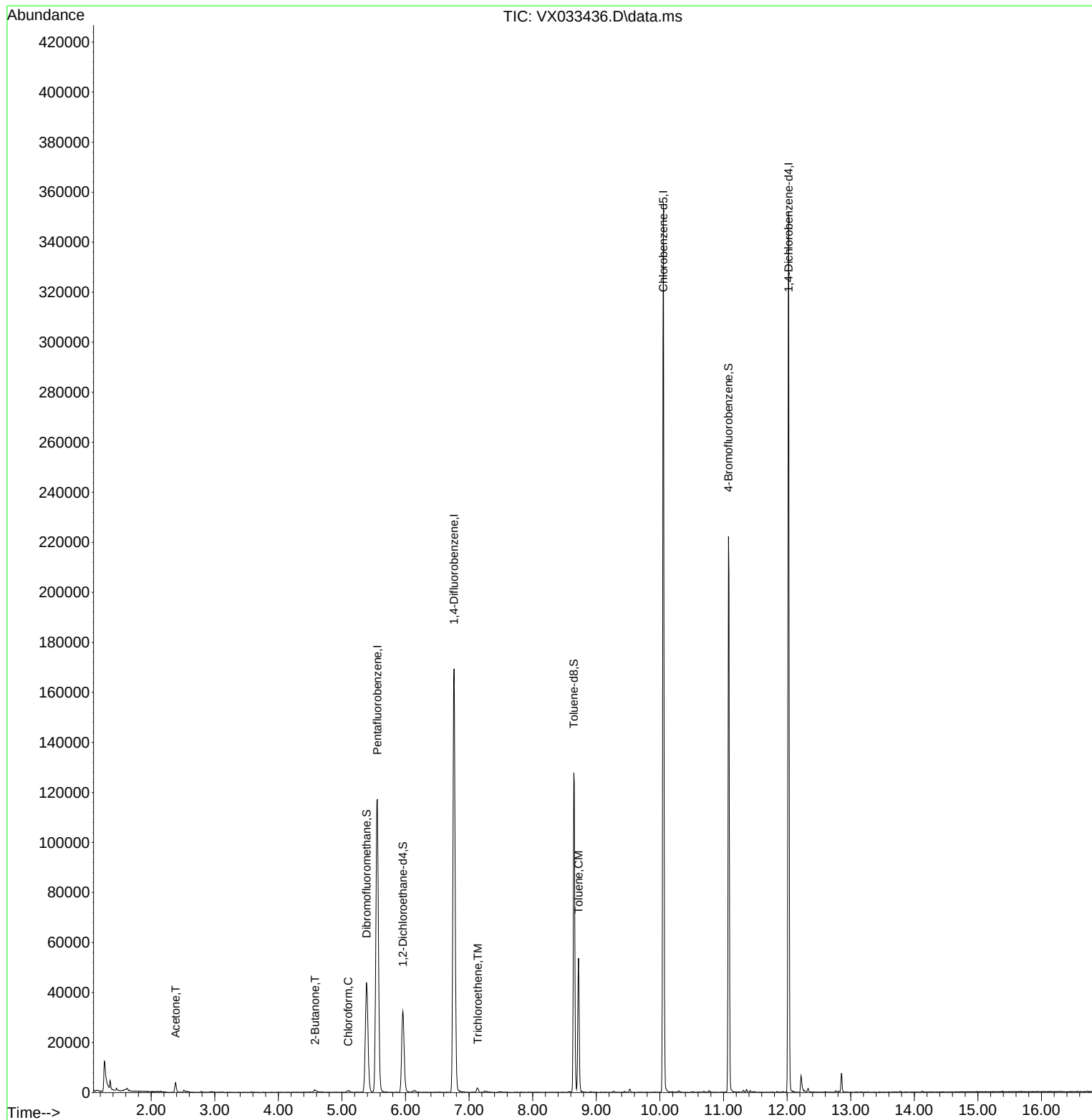
| Compound                    | R.T.           | QIon | Response   | Conc    | Units  | Dev(Min) |
|-----------------------------|----------------|------|------------|---------|--------|----------|
| -----                       |                |      |            |         |        |          |
| Internal Standards          |                |      |            |         |        |          |
| 1) Pentafluorobenzene       | 5.556          | 168  | 112732     | 50.000  | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene     | 6.763          | 114  | 179781     | 50.000  | ug/l   | 0.00     |
| 63) Chlorobenzene-d5        | 10.055         | 117  | 158358     | 50.000  | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 12.024         | 152  | 73130      | 50.000  | ug/l   | 0.00     |
|                             |                |      |            |         |        |          |
| System Monitoring Compounds |                |      |            |         |        |          |
| 33) 1,2-Dichloroethane-d4   | 5.958          | 65   | 34565      | 47.794  | ug/l   | 0.00     |
| Spiked Amount 50.000        | Range 78 - 117 |      | Recovery = | 95.580% |        |          |
| 35) Dibromofluoromethane    | 5.385          | 113  | 39012      | 48.245  | ug/l   | 0.00     |
| Spiked Amount 50.000        | Range 75 - 124 |      | Recovery = | 96.500% |        |          |
| 50) Toluene-d8              | 8.647          | 98   | 78994      | 46.698  | ug/l   | 0.00     |
| Spiked Amount 50.000        | Range 92 - 112 |      | Recovery = | 93.400% |        |          |
| 62) 4-Bromofluorobenzene    | 11.079         | 95   | 58963      | 45.587  | ug/l   | 0.00     |
| Spiked Amount 50.000        | Range 83 - 123 |      | Recovery = | 91.180% |        |          |
|                             |                |      |            |         |        |          |
| Target Compounds            |                |      |            |         |        |          |
|                             |                |      |            |         | Qvalue |          |
| 16) Acetone                 | 2.386          | 43   | 4207       | 7.861   | ug/l   | 91       |
| 25) 2-Butanone              | 4.574          | 43   | 2086       | 2.716   | ug/l   | 98       |
| 30) Chloroform              | 5.099          | 83   | 897        | 0.393   | ug/l # | 83       |
| 44) Trichloroethene         | 7.135          | 130  | 814        | 0.642   | ug/l   | 92       |
| 52) Toluene                 | 8.720          | 92   | 20595      | 6.930   | ug/l   | 97       |
| -----                       |                |      |            |         |        |          |

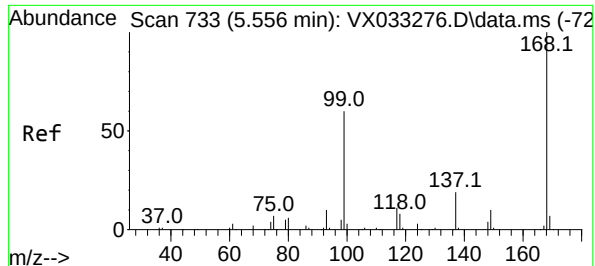
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033436.D  
Acq On : 15 Dec 2022 12:55  
Operator : JC/MD  
Sample : N6070-03  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
GW-BR-01-160-180-121422

Quant Time: Dec 16 01:01:26 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration

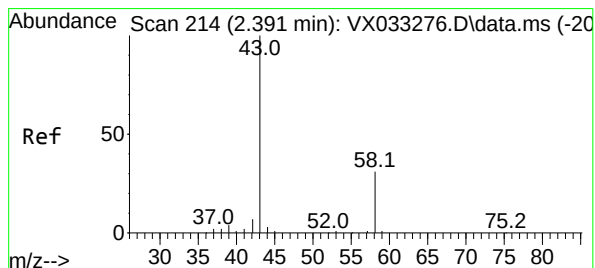
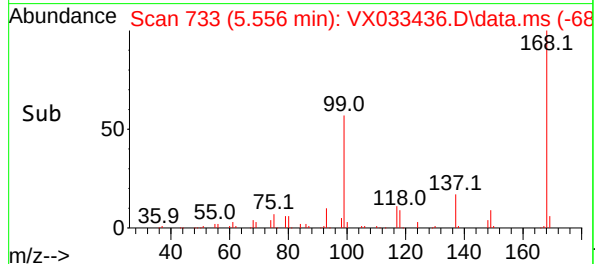
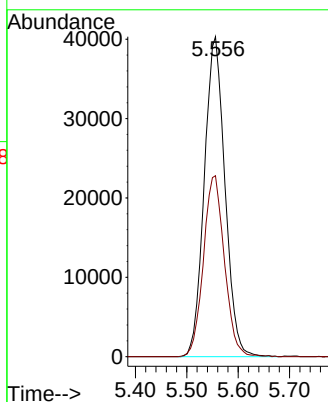
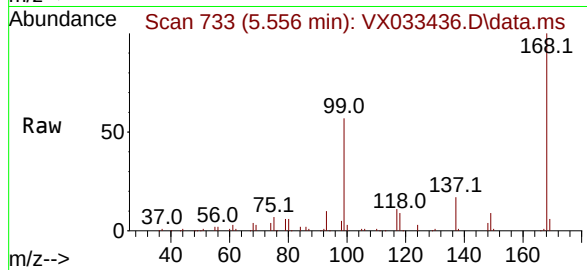




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.556 min Scan# 71  
Delta R.T. -0.000 min  
Lab File: VX033436.D  
Acq: 15 Dec 2022 12:55

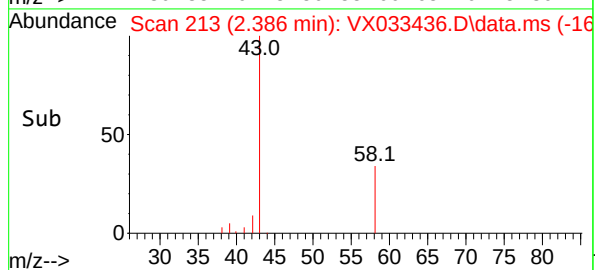
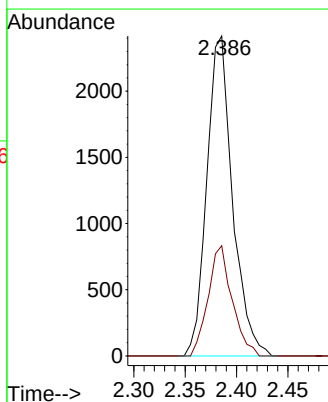
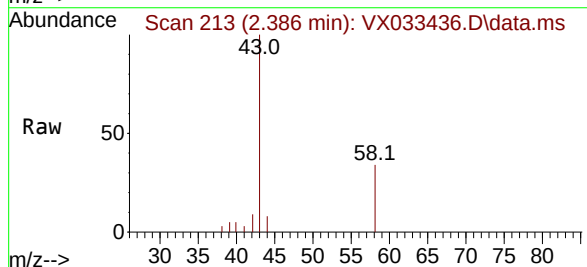
Instrument :  
MSVOA\_X  
ClientSampleId :  
GW-BR-01-160-180-121422

Tgt Ion:168 Resp: 112732  
Ion Ratio Lower Upper  
168 100  
99 56.5 46.1 69.1

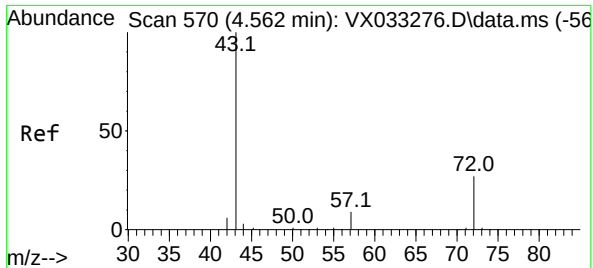


#16  
Acetone  
Concen: 7.861 ug/l  
RT: 2.386 min Scan# 213  
Delta R.T. -0.006 min  
Lab File: VX033436.D  
Acq: 15 Dec 2022 12:55

Tgt Ion: 43 Resp: 4207  
Ion Ratio Lower Upper  
43 100  
58 34.4 23.8 35.8



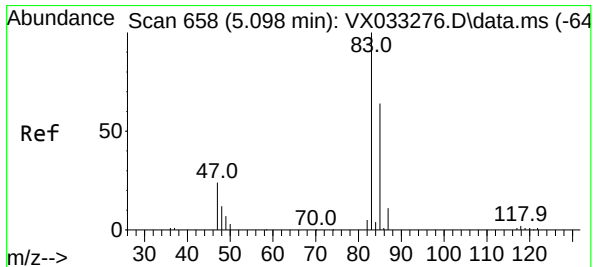
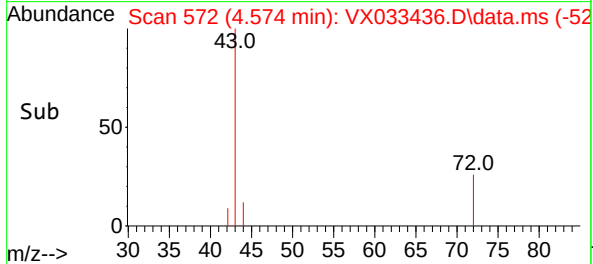
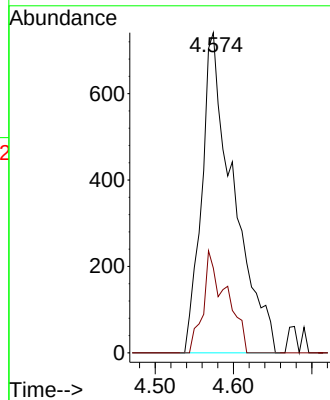
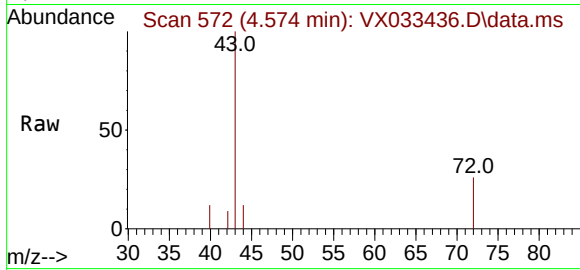




#25  
2-Butanone  
Concen: 2.716 ug/l  
RT: 4.574 min Scan# 51  
Delta R.T. 0.012 min  
Lab File: VX033436.D  
Acq: 15 Dec 2022 12:55

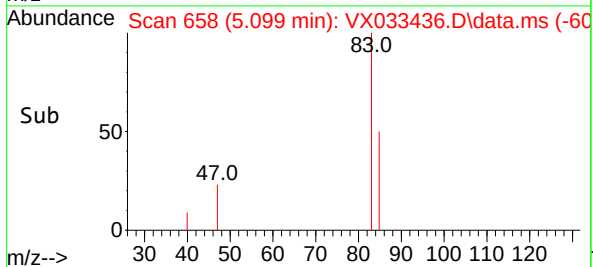
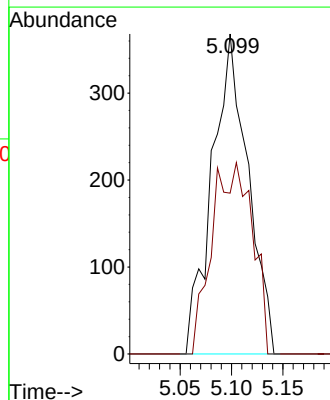
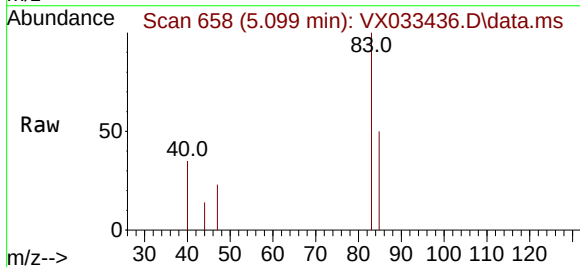
Instrument :  
MSVOA\_X  
ClientSampleId :  
GW-BR-01-160-180-121422

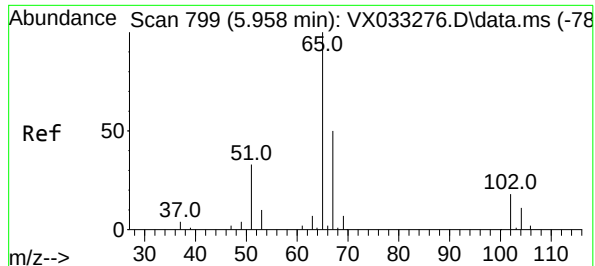
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 26.5  | 22.2  | 33.2  |



#30  
Chloroform  
Concen: 0.393 ug/l  
RT: 5.099 min Scan# 658  
Delta R.T. 0.000 min  
Lab File: VX033436.D  
Acq: 15 Dec 2022 12:55

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 50.3  | 51.1  | 76.7# |





#33

1,2-Dichloroethane-d4

Concen: 47.794 ug/l

RT: 5.958 min Scan# 799

Delta R.T. 0.000 min

Lab File: VX033436.D

Acq: 15 Dec 2022 12:55

Instrument :

MSVOA\_X

ClientSampleId :

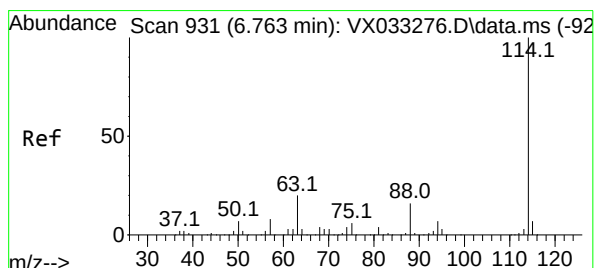
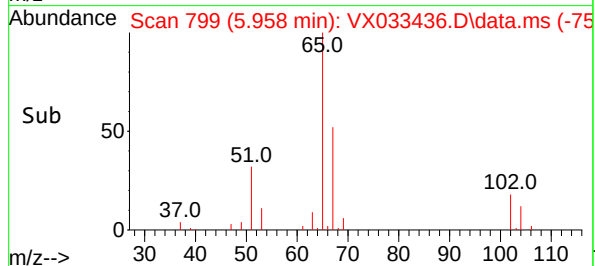
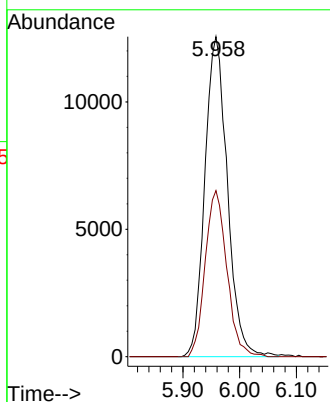
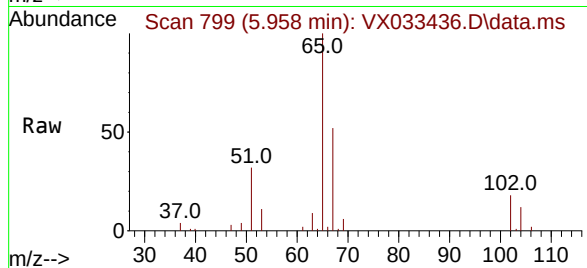
GW-BR-01-160-180-121422

Tgt Ion: 65 Resp: 34565

Ion Ratio Lower Upper

65 100

67 50.0 0.0 101.8



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.763 min Scan# 931

Delta R.T. 0.000 min

Lab File: VX033436.D

Acq: 15 Dec 2022 12:55

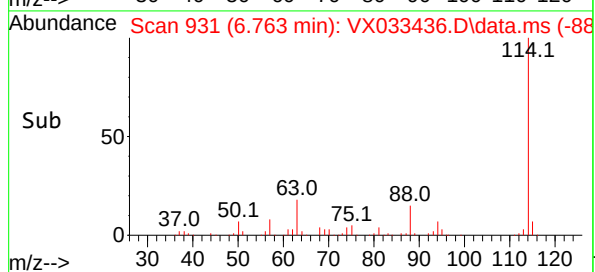
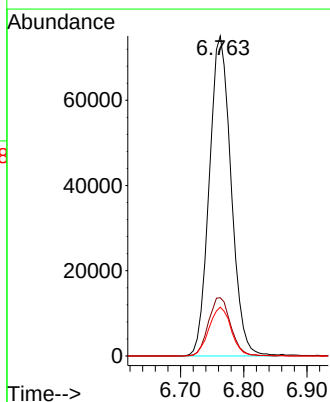
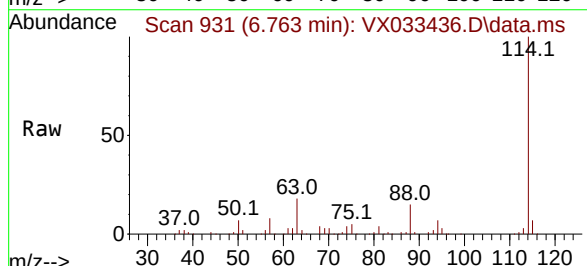
Tgt Ion: 114 Resp: 179781

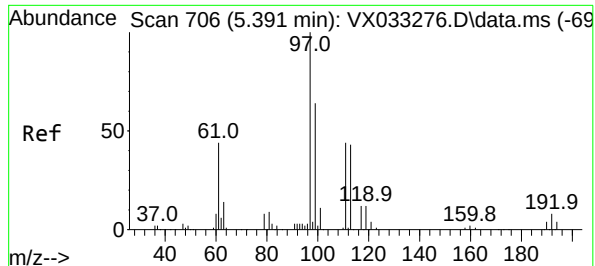
Ion Ratio Lower Upper

114 100

63 18.2 0.0 41.6

88 15.3 0.0 33.4





#35

Dibromofluoromethane

Concen: 48.245 ug/l

RT: 5.385 min Scan# 706

Delta R.T. -0.006 min

Lab File: VX033436.D

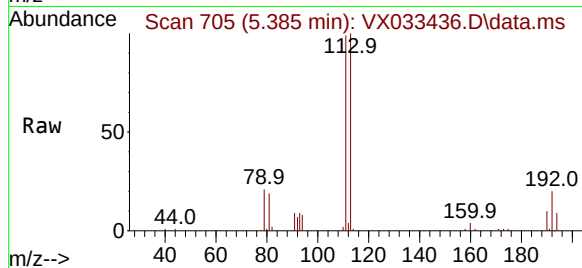
Acq: 15 Dec 2022 12:55

Instrument :

MSVOA\_X

ClientSampleId :

GW-BR-01-160-180-121422



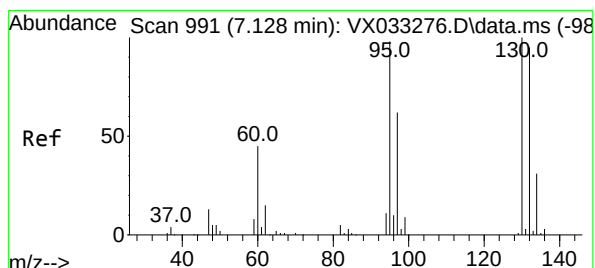
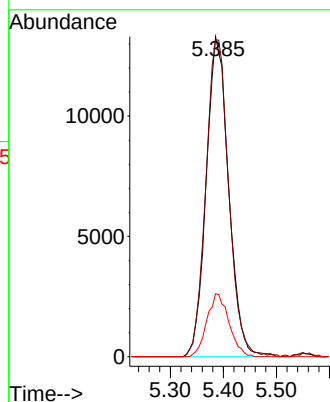
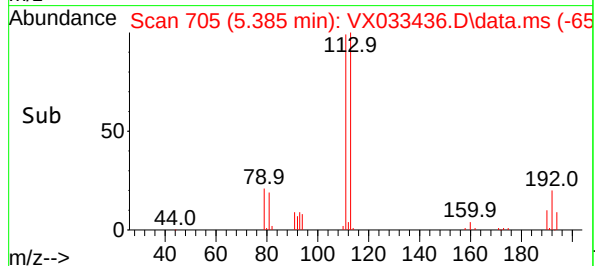
Tgt Ion:113 Resp: 39012

Ion Ratio Lower Upper

113 100

111 101.5 82.4 123.6

192 19.3 15.4 23.2



#44

Trichloroethene

Concen: 0.642 ug/l

RT: 7.135 min Scan# 992

Delta R.T. 0.006 min

Lab File: VX033436.D

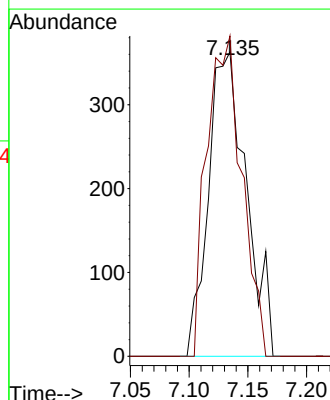
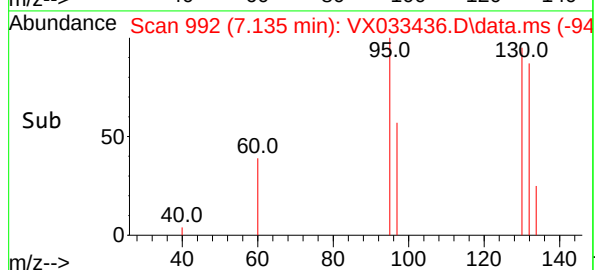
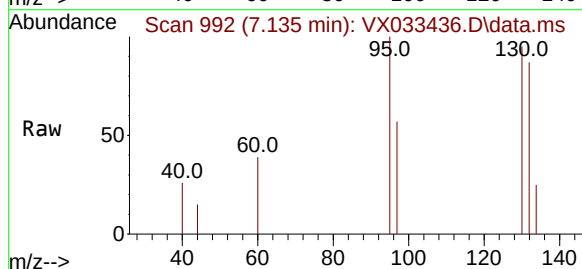
Acq: 15 Dec 2022 12:55

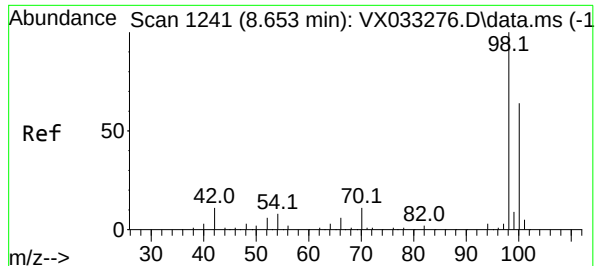
Tgt Ion:130 Resp: 814

Ion Ratio Lower Upper

130 100

95 105.2 0.0 195.2





#50

Toluene-d8

Concen: 46.698 ug/l

RT: 8.647 min Scan# 11

Delta R.T. -0.006 min

Lab File: VX033436.D

Acq: 15 Dec 2022 12:55

Instrument :

MSVOA\_X

ClientSampleId :

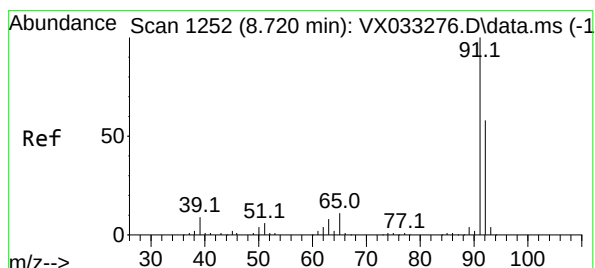
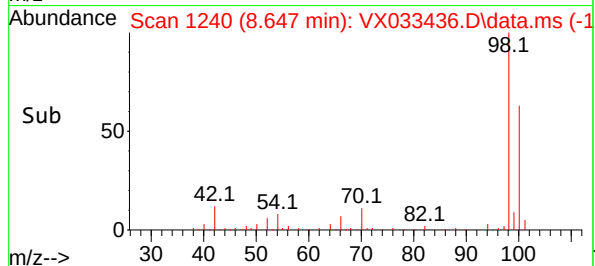
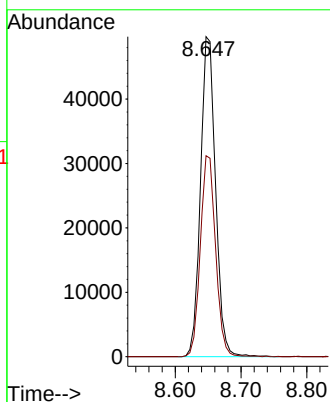
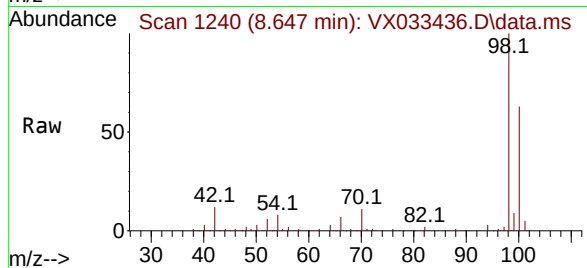
GW-BR-01-160-180-121422

Tgt Ion: 98 Resp: 78994

Ion Ratio Lower Upper

98 100

100 63.7 50.9 76.3



#52

Toluene

Concen: 6.930 ug/l

RT: 8.720 min Scan# 1252

Delta R.T. 0.000 min

Lab File: VX033436.D

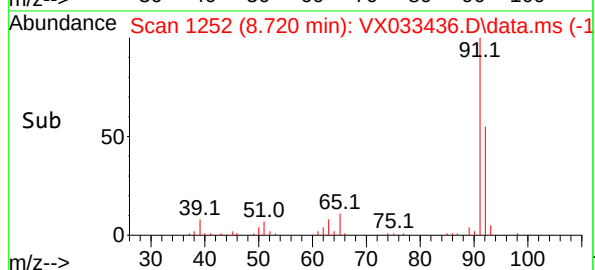
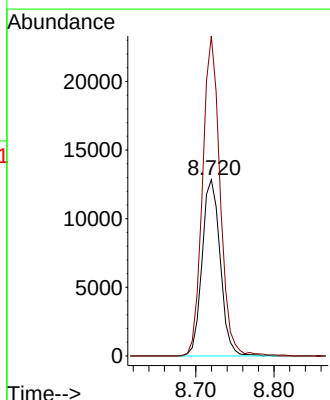
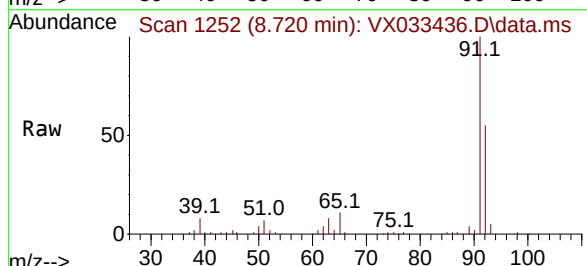
Acq: 15 Dec 2022 12:55

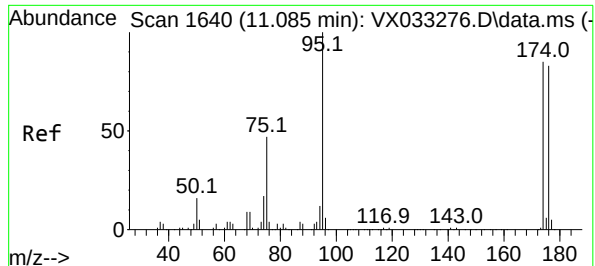
Tgt Ion: 92 Resp: 20595

Ion Ratio Lower Upper

92 100

91 176.4 138.3 207.5





#62

4-Bromofluorobenzene

Concen: 45.587 ug/l

RT: 11.079 min Scan# 1

Delta R.T. -0.006 min

Lab File: VX033436.D

Acq: 15 Dec 2022 12:55

Instrument :

MSVOA\_X

ClientSampleId :

GW-BR-01-160-180-121422

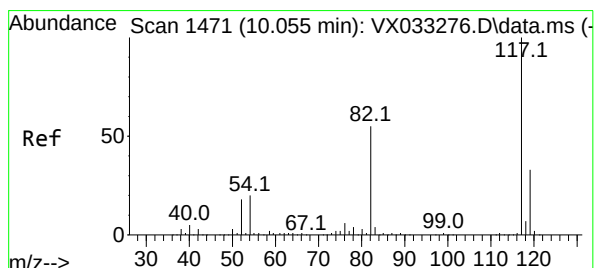
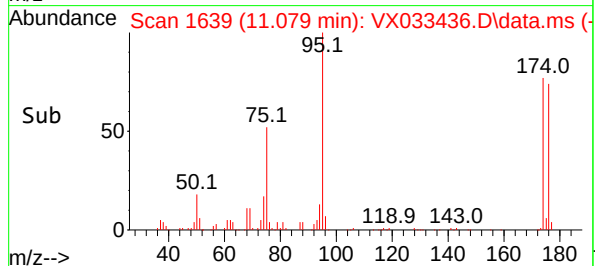
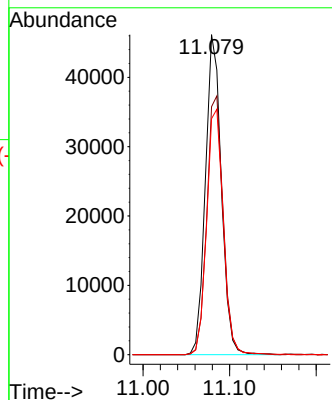
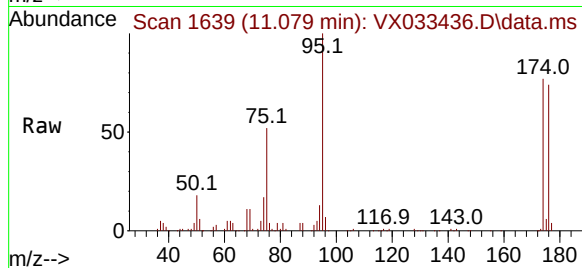
Tgt Ion: 95 Resp: 58963

Ion Ratio Lower Upper

95 100

174 83.2 0.0 164.0

176 80.1 0.0 154.4



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.055 min Scan# 1471

Delta R.T. 0.000 min

Lab File: VX033436.D

Acq: 15 Dec 2022 12:55

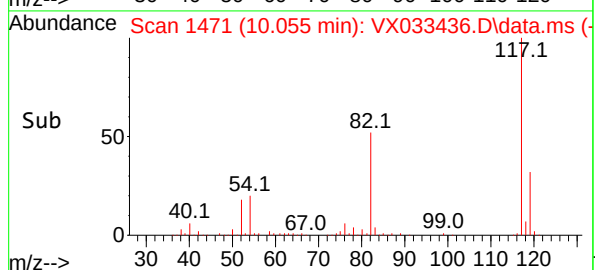
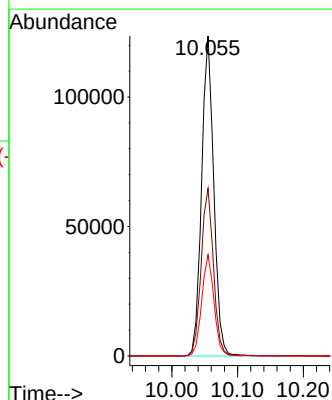
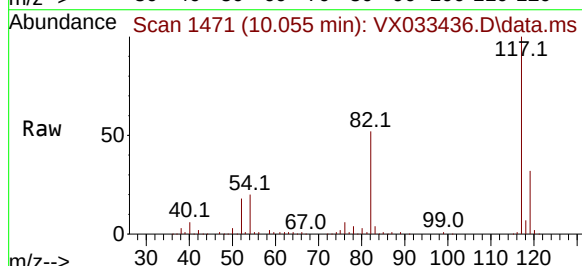
Tgt Ion: 117 Resp: 158358

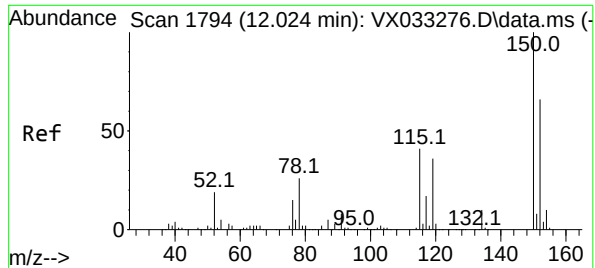
Ion Ratio Lower Upper

117 100

82 52.3 44.3 66.5

119 31.7 25.7 38.5





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.024 min Scan# 11

Delta R.T. 0.000 min

Lab File: VX033436.D

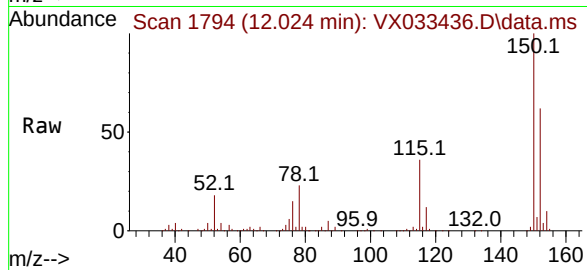
Acq: 15 Dec 2022 12:55

Instrument :

MSVOA\_X

ClientSampleId :

GW-BR-01-160-180-121422



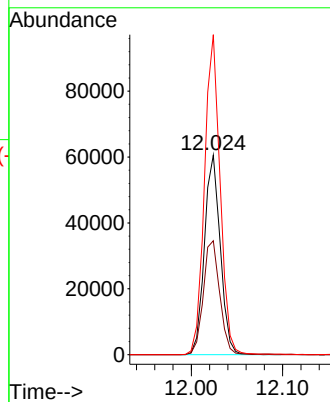
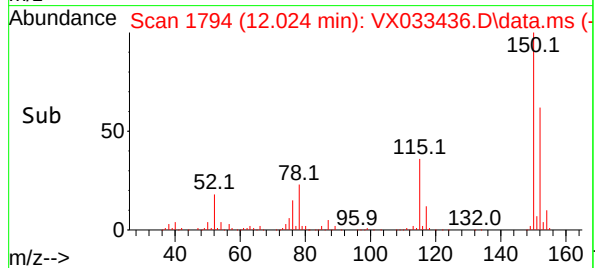
Tgt Ion:152 Resp: 73130

Ion Ratio Lower Upper

152 100

115 59.1 44.0 132.0

150 158.0 0.0 351.8





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

## Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: | 12/14/22     |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  | 12/14/22     |
| Client Sample ID:  | GW-BR-02-160-180-121422               | SDG No.:        | N6070        |
| Lab Sample ID:     | N6070-04                              | Matrix:         | Water        |
| Analytical Method: | SW8260                                | % Moisture:     | 100          |
| Sample Wt/Vol:     | 5 Units: mL                           | Final Vol:      | 5000 uL      |
| Soil Aliquot Vol:  | uL                                    | Test:           | VOCMS Group3 |
| GC Column:         | DB-624UI ID : 0.18                    | Level :         | LOW          |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VX033437.D        | 1         |           | 12/15/22 13:18 | VX121522      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |                     |            |         |
| 75-01-4                   | Vinyl Chloride         | 0.22   | U         | 0.22                | 1.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 0.23   | U         | 0.23                | 1.00       | ug/L    |
| 75-34-3                   | 1,1-Dichloroethane     | 0.20   | U         | 0.20                | 1.00       | ug/L    |
| 156-59-2                  | cis-1,2-Dichloroethene | 0.17   | U         | 0.17                | 1.00       | ug/L    |
| 71-55-6                   | 1,1,1-Trichloroethane  | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| 71-43-2                   | Benzene                | 0.16   | U         | 0.16                | 1.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 0.27   | U         | 0.27                | 1.00       | ug/L    |
| 79-00-5                   | 1,1,2-Trichloroethane  | 0.19   | U         | 0.19                | 1.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 44.4   |           | 70 (74) - 130 (125) | 89%        | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 44.6   |           | 70 (75) - 130 (124) | 89%        | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 43.7   |           | 70 (86) - 130 (113) | 87%        | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 42.0   |           | 70 (64) - 130 (133) | 84%        | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 111000 | 5.55      |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 177000 | 6.763     |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 155000 | 10.055    |                     |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 69600  | 12.024    |                     |            |         |

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\_X\Data\VX121522\  
 Data File : VX033437.D  
 Acq On : 15 Dec 2022 13:18  
 Operator : JC/MD  
 Sample : N6070-04  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 GW-BR-02-160-180-121422

Quant Time: Dec 16 01:01:44 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Pentafluorobenzene       | 5.550  | 168   | 111282   | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene     | 6.763  | 114   | 176885   | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5        | 10.055 | 117   | 155365   | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 12.024 | 152   | 69614    | 50.000   | ug/l   | 0.00     |
|                             |        |       |          |          |        |          |
| System Monitoring Compounds |        |       |          |          |        |          |
| 33) 1,2-Dichloroethane-d4   | 5.958  | 65    | 31663    | 44.351   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 78 - 117 | Recovery | =      | 88.700%  |
| 35) Dibromofluoromethane    | 5.385  | 113   | 35505    | 44.627   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =      | 89.260%  |
| 50) Toluene-d8              | 8.653  | 98    | 72776    | 43.727   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 92 - 112 | Recovery | =      | 87.460%# |
| 62) 4-Bromofluorobenzene    | 11.079 | 95    | 53495    | 42.037   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 83 - 123 | Recovery | =      | 84.080%  |
|                             |        |       |          |          |        |          |
| Target Compounds            |        |       |          |          |        |          |
| 16) Acetone                 | 2.379  | 43    | 1234     | 2.336    | ug/l # | 83       |
| 30) Chloroform              | 5.098  | 83    | 6355     | 2.822    | ug/l   | 94       |
| -----                       |        |       |          |          |        |          |

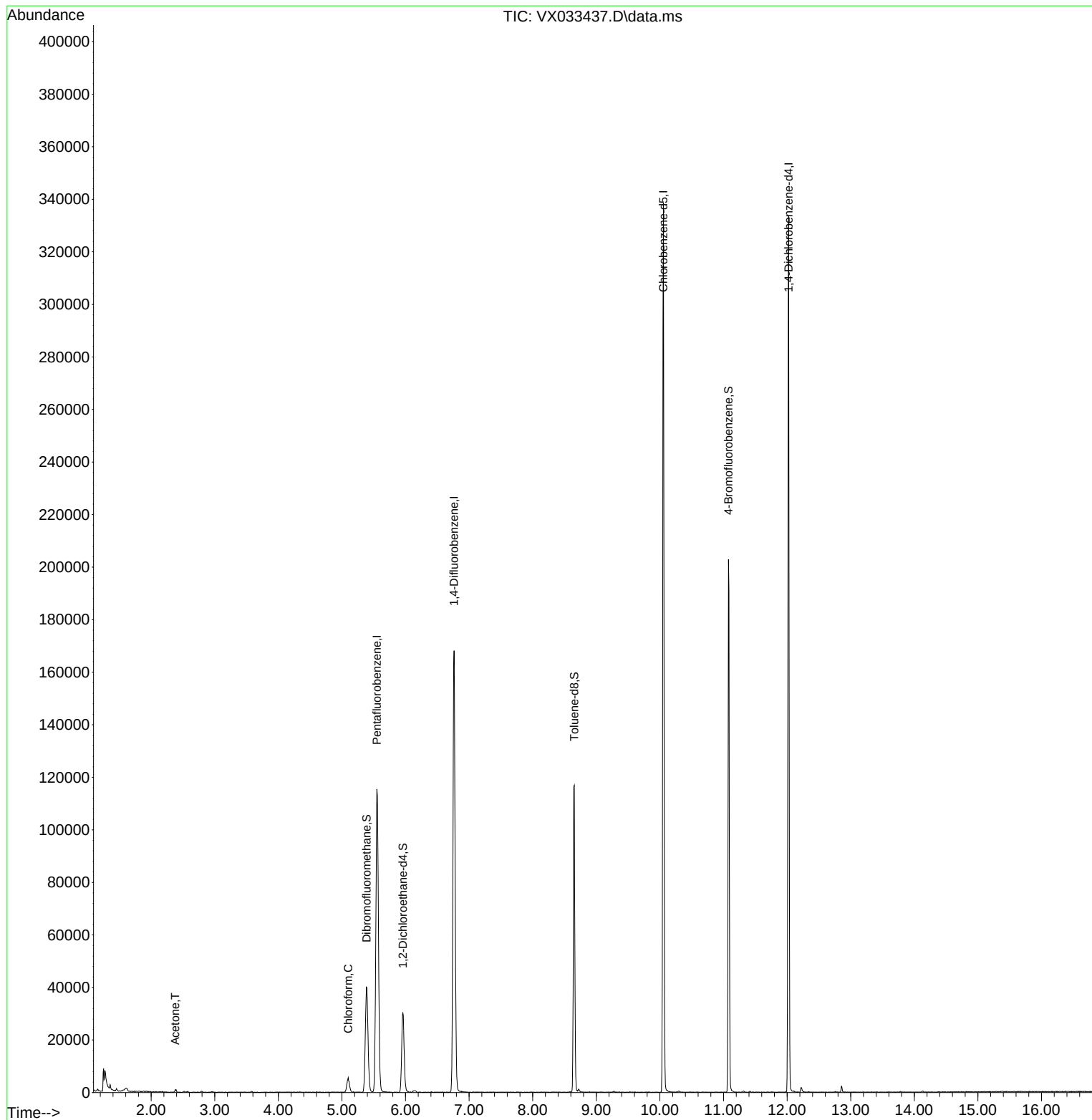
(#) = qualifier out of range (m) = manual integration (+) = signals summed

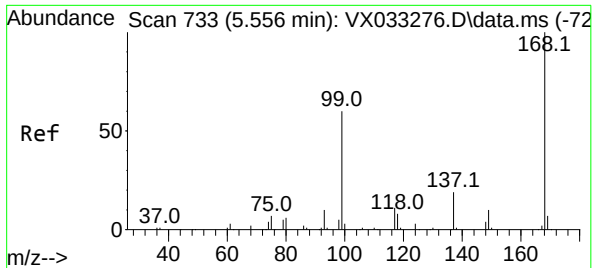


Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033437.D  
Acq On : 15 Dec 2022 13:18  
Operator : JC/MD  
Sample : N6070-04  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
GW-BR-02-160-180-121422

Quant Time: Dec 16 01:01:44 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration

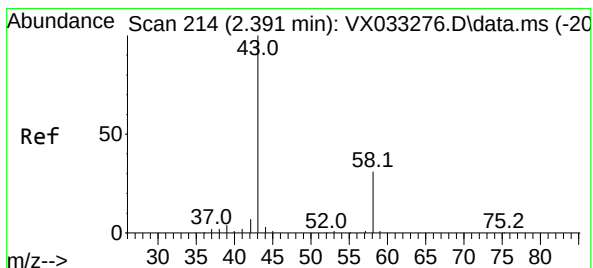
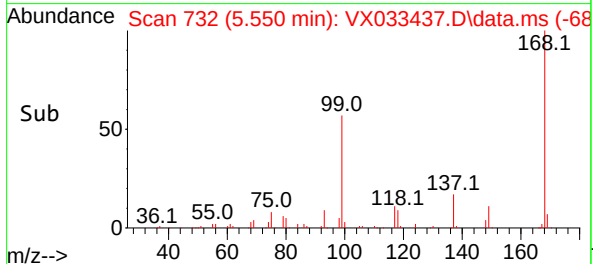
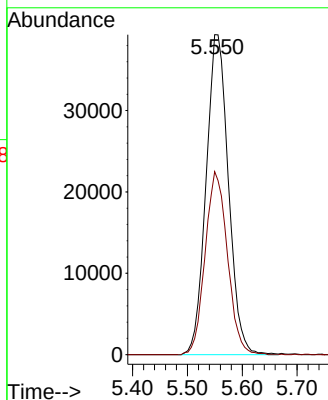
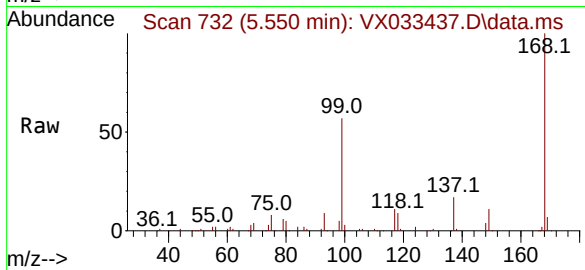




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.550 min Scan# 71  
Delta R.T. -0.006 min  
Lab File: VX033437.D  
Acq: 15 Dec 2022 13:18

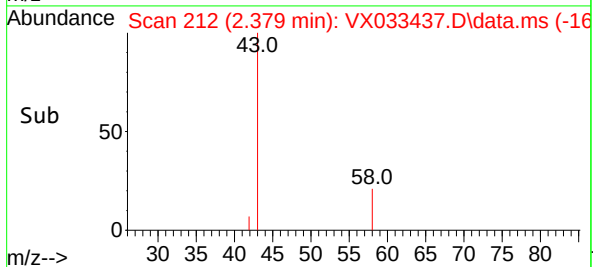
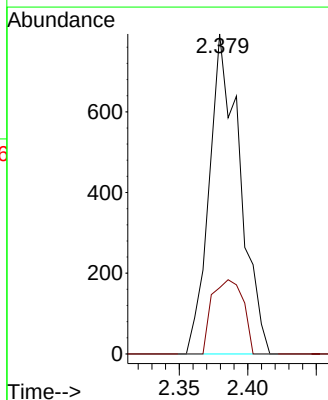
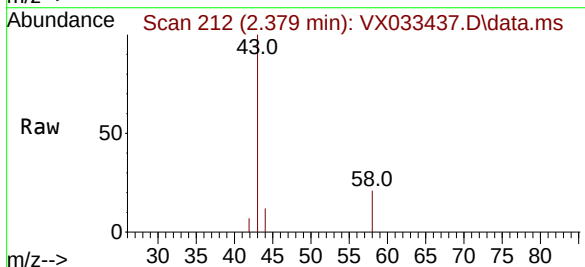
Instrument :  
MSVOA\_X  
ClientSampleId :  
GW-BR-02-160-180-121422

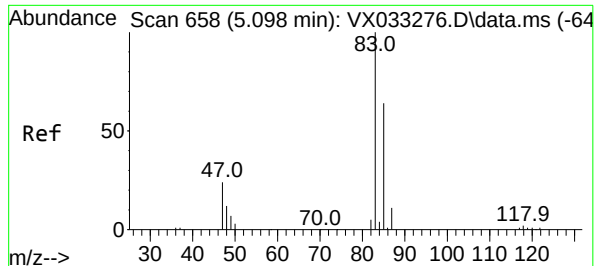
Tgt Ion:168 Resp: 111282  
Ion Ratio Lower Upper  
168 100  
99 57.2 46.1 69.1



#16  
Acetone  
Concen: 2.336 ug/l  
RT: 2.379 min Scan# 212  
Delta R.T. -0.012 min  
Lab File: VX033437.D  
Acq: 15 Dec 2022 13:18

Tgt Ion: 43 Resp: 1234  
Ion Ratio Lower Upper  
43 100  
58 20.7 23.8 35.8





#30

Chloroform

Concen: 2.822 ug/l

RT: 5.098 min Scan# 61

Delta R.T. 0.000 min

Lab File: VX033437.D

Acq: 15 Dec 2022 13:18

Instrument :

MSVOA\_X

ClientSampleId :

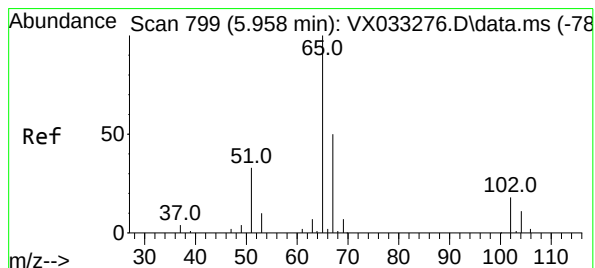
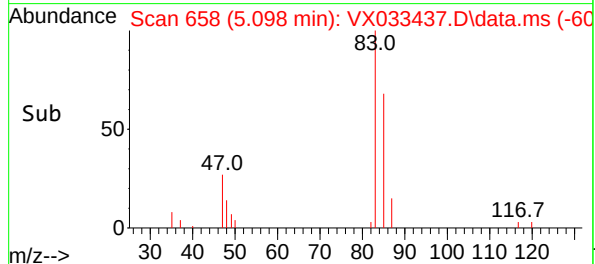
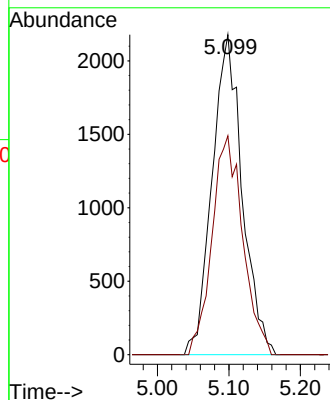
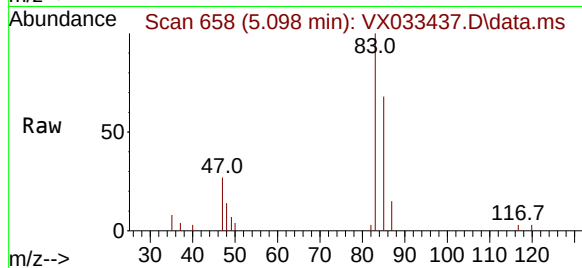
GW-BR-02-160-180-121422

Tgt Ion: 83 Resp: 6355

Ion Ratio Lower Upper

83 100

85 68.4 51.1 76.7



#33

1,2-Dichloroethane-d4

Concen: 44.351 ug/l

RT: 5.958 min Scan# 799

Delta R.T. 0.000 min

Lab File: VX033437.D

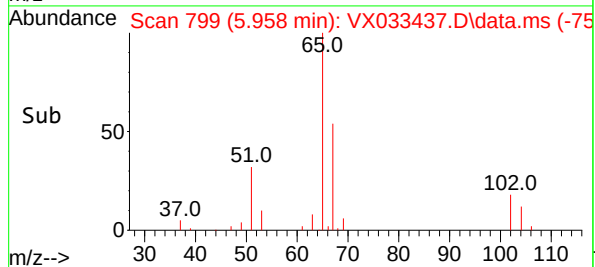
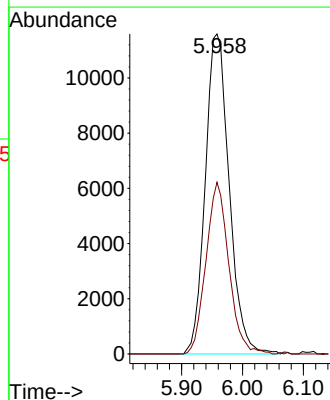
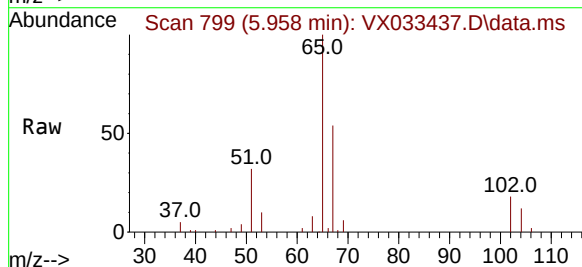
Acq: 15 Dec 2022 13:18

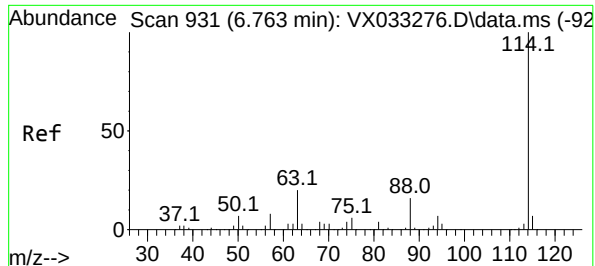
Tgt Ion: 65 Resp: 31663

Ion Ratio Lower Upper

65 100

67 51.2 0.0 101.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.763 min Scan# 91

Delta R.T. 0.000 min

Lab File: VX033437.D

Acq: 15 Dec 2022 13:18

Instrument :

MSVOA\_X

ClientSampleId :

GW-BR-02-160-180-121422

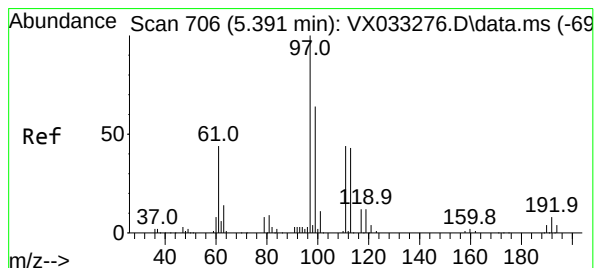
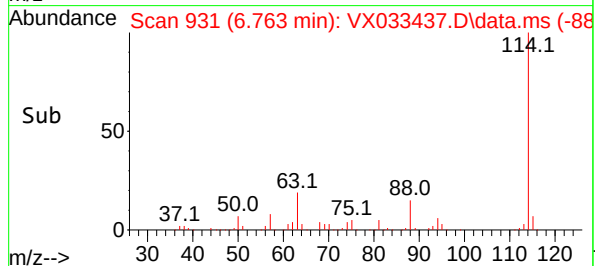
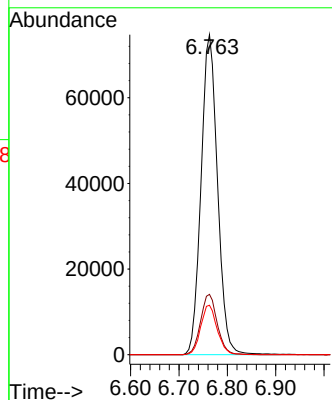
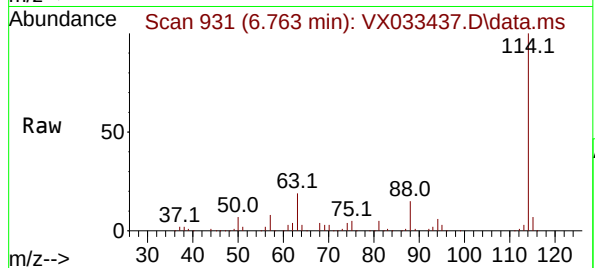
Tgt Ion:114 Resp: 176885

Ion Ratio Lower Upper

114 100

63 18.8 0.0 41.6

88 15.5 0.0 33.4



#35

Dibromofluoromethane

Concen: 44.627 ug/l

RT: 5.385 min Scan# 705

Delta R.T. -0.006 min

Lab File: VX033437.D

Acq: 15 Dec 2022 13:18

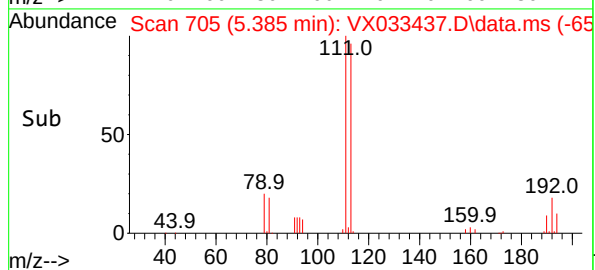
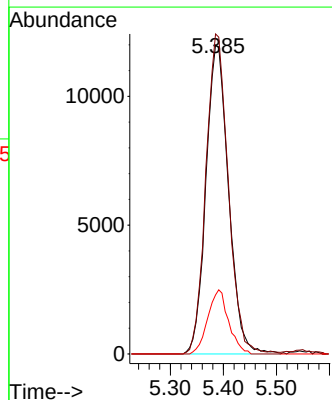
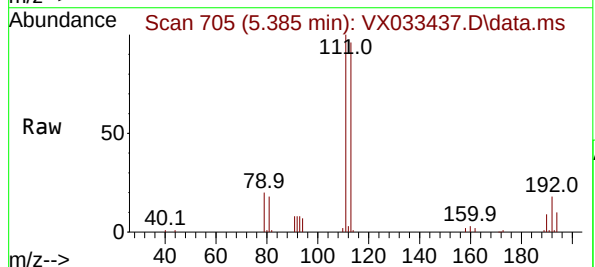
Tgt Ion:113 Resp: 35505

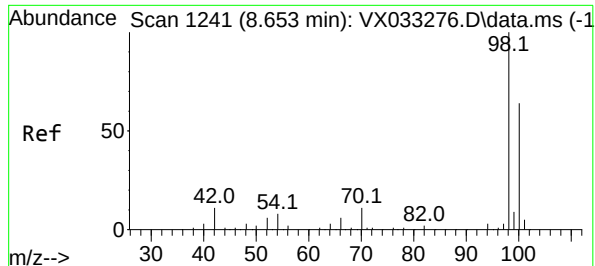
Ion Ratio Lower Upper

113 100

111 102.4 82.4 123.6

192 19.1 15.4 23.2





#50

Toluene-d8

Concen: 43.727 ug/l

RT: 8.653 min Scan# 1

Delta R.T. 0.000 min

Lab File: VX033437.D

Acq: 15 Dec 2022 13:18

Instrument :

MSVOA\_X

ClientSampleId :

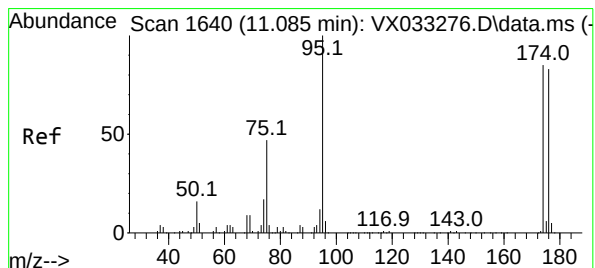
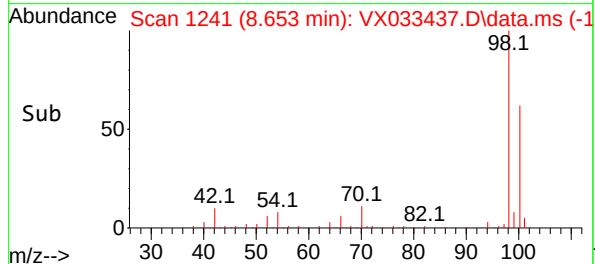
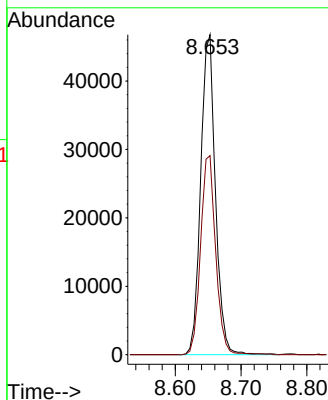
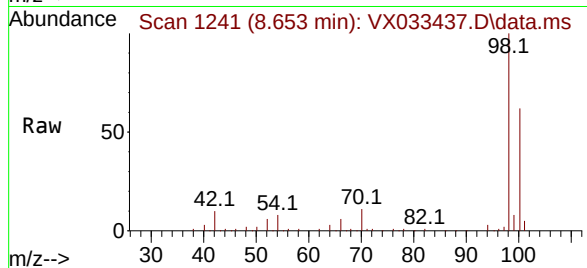
GW-BR-02-160-180-121422

Tgt Ion: 98 Resp: 72776

Ion Ratio Lower Upper

98 100

100 63.7 50.9 76.3



#62

4-Bromofluorobenzene

Concen: 42.037 ug/l

RT: 11.079 min Scan# 1639

Delta R.T. -0.006 min

Lab File: VX033437.D

Acq: 15 Dec 2022 13:18

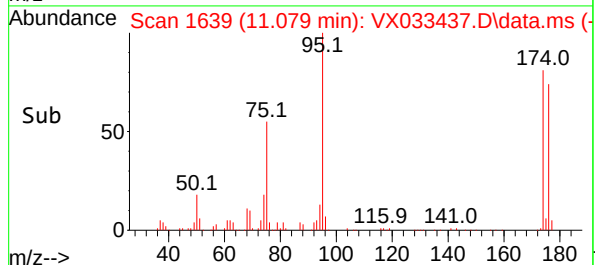
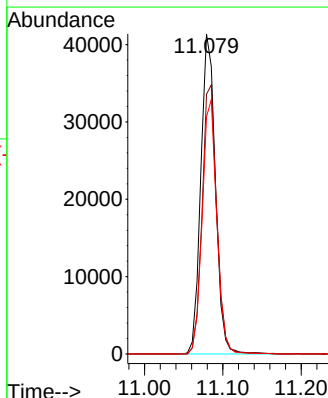
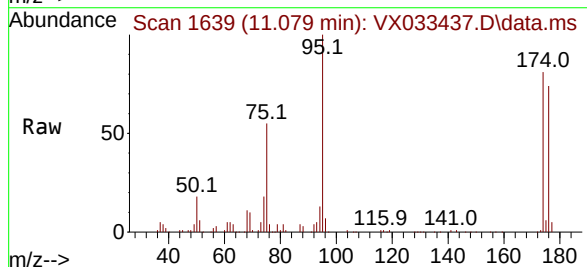
Tgt Ion: 95 Resp: 53495

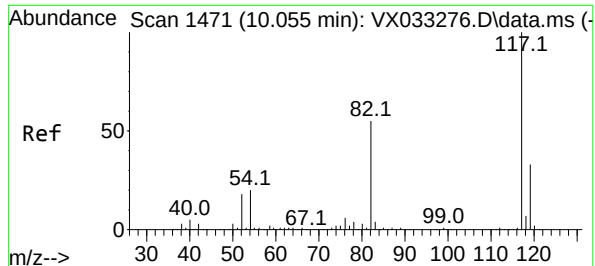
Ion Ratio Lower Upper

95 100

174 84.5 0.0 164.0

176 79.2 0.0 154.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.055 min Scan# 1471

Delta R.T. 0.000 min

Lab File: VX033437.D

Acq: 15 Dec 2022 13:18

Instrument :

MSVOA\_X

ClientSampleId :

GW-BR-02-160-180-121422

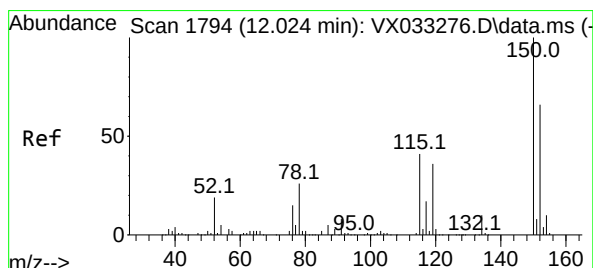
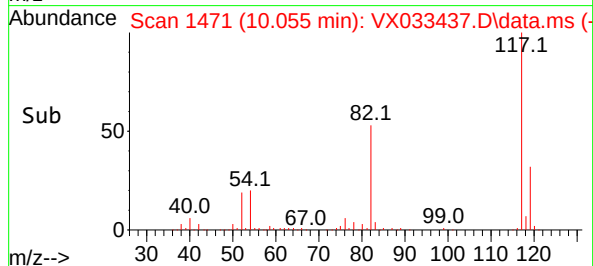
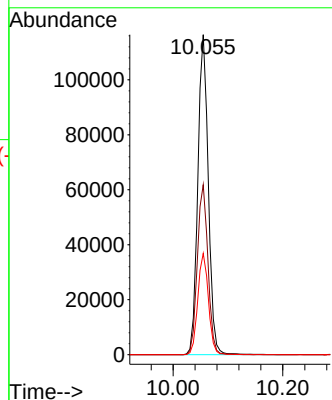
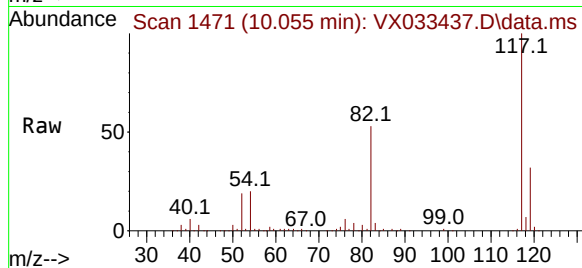
Tgt Ion:117 Resp: 155365

Ion Ratio Lower Upper

117 100

82 53.1 44.3 66.5

119 31.7 25.7 38.5



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.024 min Scan# 1794

Delta R.T. 0.000 min

Lab File: VX033437.D

Acq: 15 Dec 2022 13:18

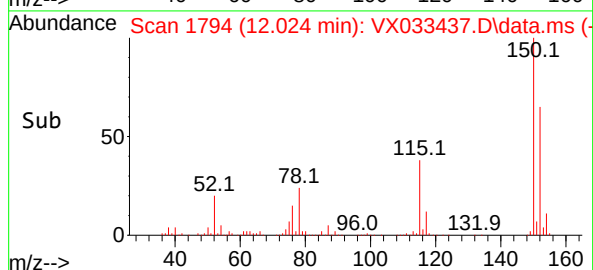
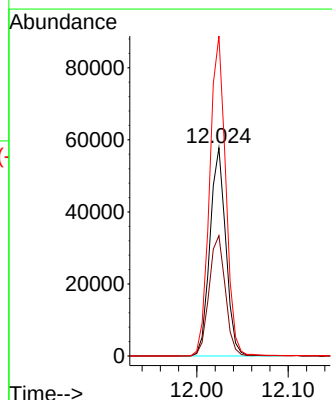
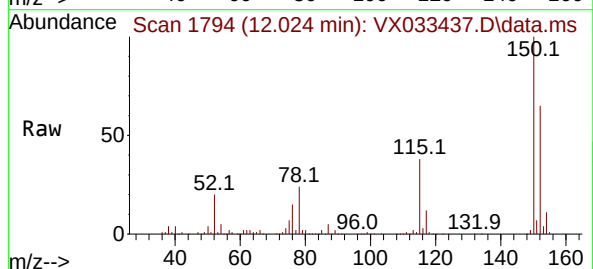
Tgt Ion:152 Resp: 69614

Ion Ratio Lower Upper

152 100

115 59.4 44.0 132.0

150 155.9 0.0 351.8





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

## Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: | 12/14/22     |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  | 12/14/22     |
| Client Sample ID:  | GW-BR-03-128-148-121422               | SDG No.:        | N6070        |
| Lab Sample ID:     | N6070-05                              | Matrix:         | Water        |
| Analytical Method: | SW8260                                | % Moisture:     | 100          |
| Sample Wt/Vol:     | 5 Units: mL                           | Final Vol:      | 5000 uL      |
| Soil Aliquot Vol:  | uL                                    | Test:           | VOCMS Group3 |
| GC Column:         | DB-624UI ID : 0.18                    | Level :         | LOW          |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VX033438.D        | 1         |           | 12/15/22 13:41 | VX121522      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |                     |            |         |
| 75-01-4                   | Vinyl Chloride         | 0.22   | U         | 0.22                | 1.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 0.23   | U         | 0.23                | 1.00       | ug/L    |
| 75-34-3                   | 1,1-Dichloroethane     | 0.20   | U         | 0.20                | 1.00       | ug/L    |
| 156-59-2                  | cis-1,2-Dichloroethene | 0.17   | U         | 0.17                | 1.00       | ug/L    |
| 71-55-6                   | 1,1,1-Trichloroethane  | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| 71-43-2                   | Benzene                | 1.60   |           | 0.16                | 1.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 0.27   | U         | 0.27                | 1.00       | ug/L    |
| 79-00-5                   | 1,1,2-Trichloroethane  | 0.19   | U         | 0.19                | 1.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 49.3   |           | 70 (74) - 130 (125) | 99%        | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 48.8   |           | 70 (75) - 130 (124) | 98%        | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 47.3   |           | 70 (86) - 130 (113) | 95%        | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 46.6   |           | 70 (64) - 130 (133) | 93%        | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 118000 | 5.55      |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 187000 | 6.763     |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 166000 | 10.055    |                     |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 76400  | 12.024    |                     |            |         |

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\_X\Data\VX121522\  
 Data File : VX033438.D  
 Acq On : 15 Dec 2022 13:41  
 Operator : JC/MD  
 Sample : N6070-05  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 GW-BR-03-128-148-121422

Quant Time: Dec 16 01:02:02 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Pentafluorobenzene       | 5.550  | 168   | 117851   | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene     | 6.763  | 114   | 187379   | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5        | 10.055 | 117   | 166169   | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 12.024 | 152   | 76359    | 50.000   | ug/l   | 0.00     |
| System Monitoring Compounds |        |       |          |          |        |          |
| 33) 1,2-Dichloroethane-d4   | 5.958  | 65    | 37285    | 49.315   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 78 - 117 | Recovery | =      | 98.640%  |
| 35) Dibromofluoromethane    | 5.385  | 113   | 41086    | 48.750   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =      | 97.500%  |
| 50) Toluene-d8              | 8.647  | 98    | 83471    | 47.344   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 92 - 112 | Recovery | =      | 94.680%  |
| 62) 4-Bromofluorobenzene    | 11.079 | 95    | 62777    | 46.568   | ug/l   | 0.00     |
| Spiked Amount               | 50.000 | Range | 83 - 123 | Recovery | =      | 93.140%  |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          | Qvalue |          |
| 16) Acetone                 | 2.380  | 43    | 1295     | 2.315    | ug/l   | 100      |
| 30) Chloroform              | 5.086  | 83    | 3369     | 1.413    | ug/l   | 90       |
| 40) Benzene                 | 6.037  | 78    | 7449     | 1.555    | ug/l   | 98       |
| 67) Ethyl Benzene           | 10.201 | 91    | 1522     | 0.260    | ug/l   | 91       |
| -----                       |        |       |          |          |        |          |

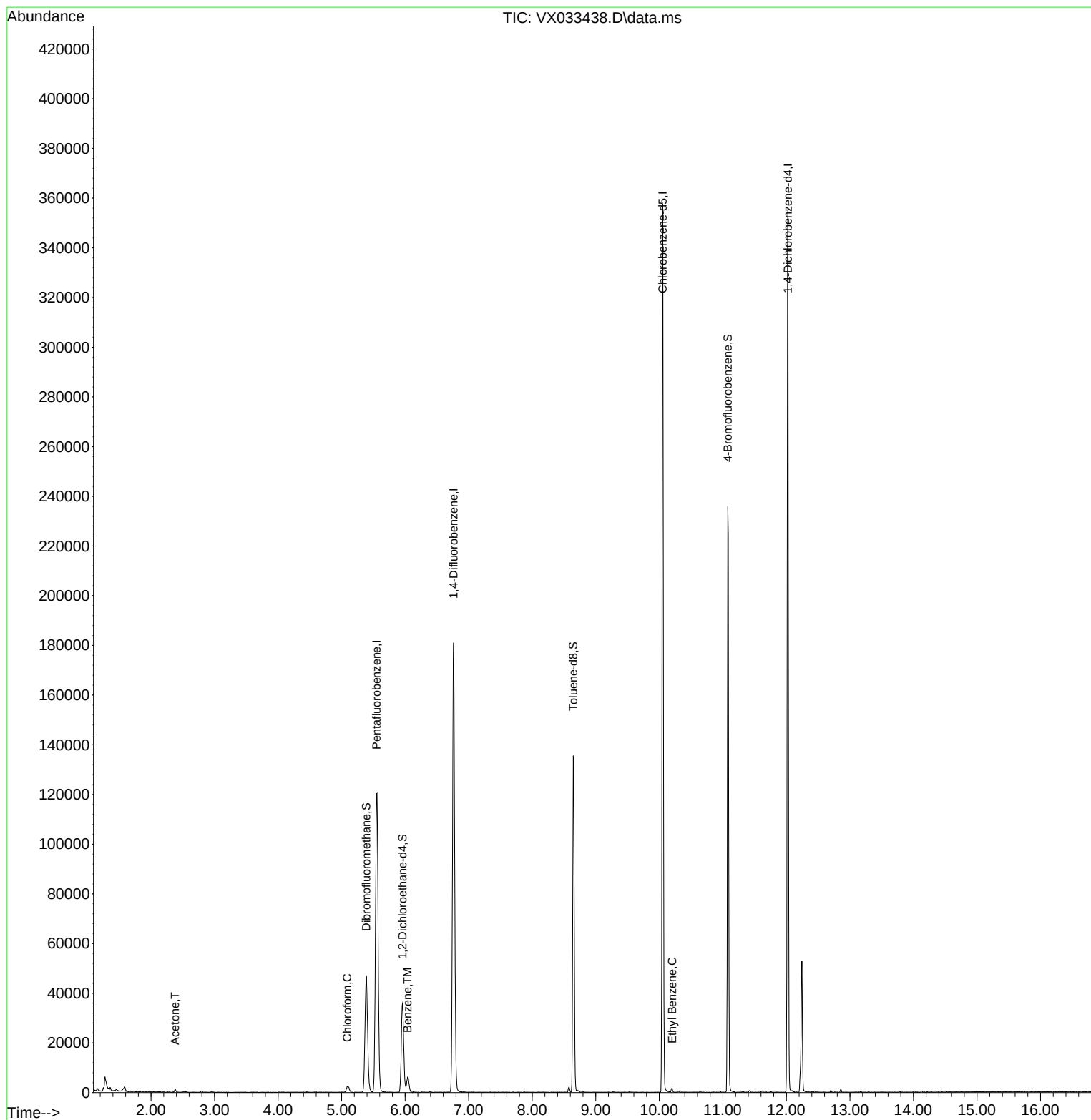
(#) = qualifier out of range (m) = manual integration (+) = signals summed

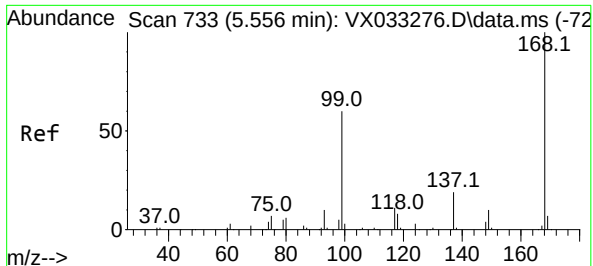


Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033438.D  
Acq On : 15 Dec 2022 13:41  
Operator : JC/MD  
Sample : N6070-05  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
GW-BR-03-128-148-121422

Quant Time: Dec 16 01:02:02 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration

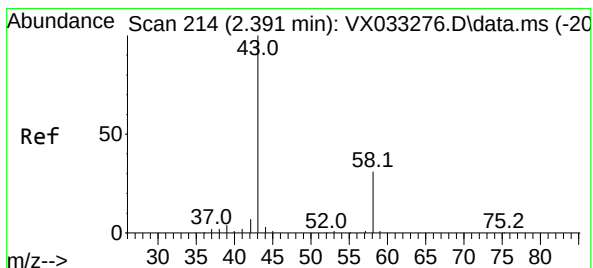
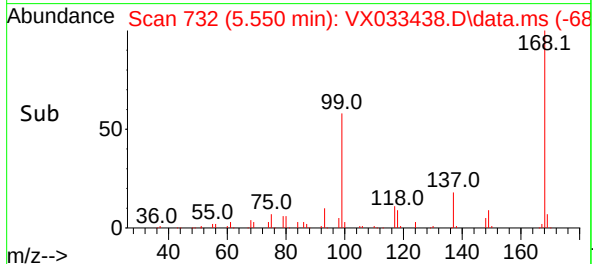
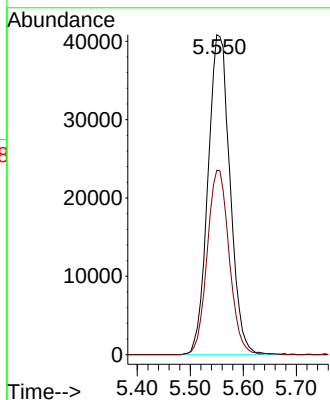
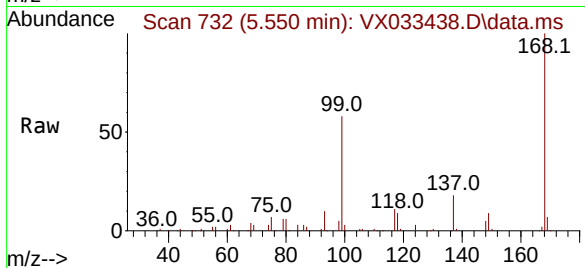




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.550 min Scan# 71  
Delta R.T. -0.006 min  
Lab File: VX033438.D  
Acq: 15 Dec 2022 13:41

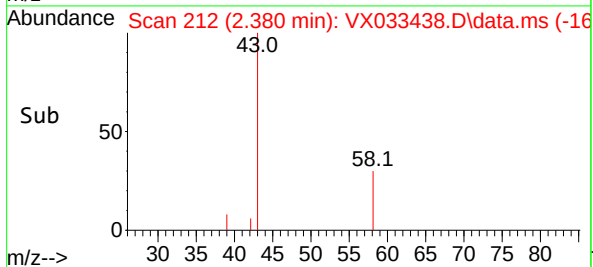
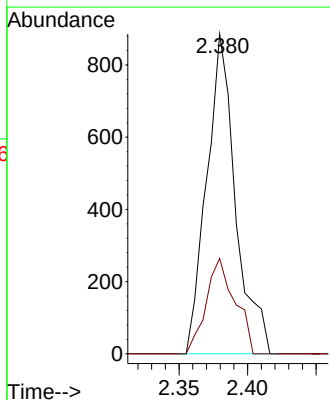
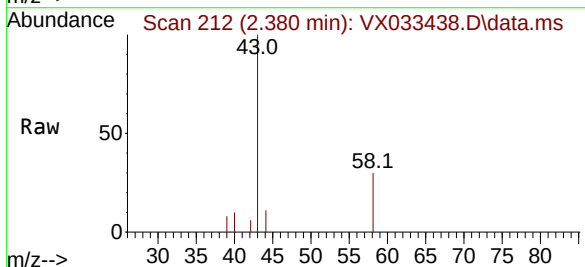
Instrument :  
MSVOA\_X  
ClientSampleId :  
GW-BR-03-128-148-121422

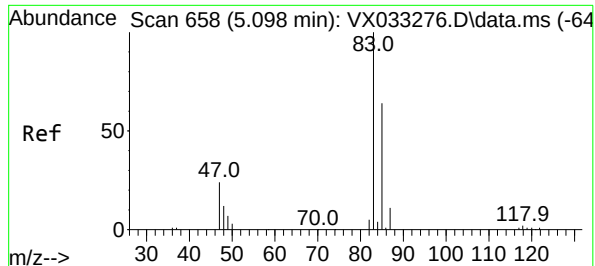
Tgt Ion:168 Resp: 117851  
Ion Ratio Lower Upper  
168 100  
99 57.6 46.1 69.1



#16  
Acetone  
Concen: 2.315 ug/l  
RT: 2.380 min Scan# 212  
Delta R.T. -0.012 min  
Lab File: VX033438.D  
Acq: 15 Dec 2022 13:41

Tgt Ion: 43 Resp: 1295  
Ion Ratio Lower Upper  
43 100  
58 29.8 23.8 35.8





#30

Chloroform

Concen: 1.413 ug/l

RT: 5.086 min Scan# 61

Delta R.T. -0.012 min

Lab File: VX033438.D

Acq: 15 Dec 2022 13:41

Instrument :

MSVOA\_X

ClientSampleId :

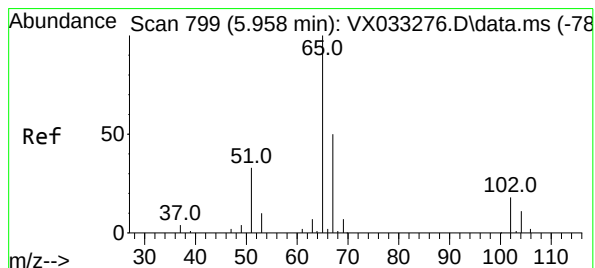
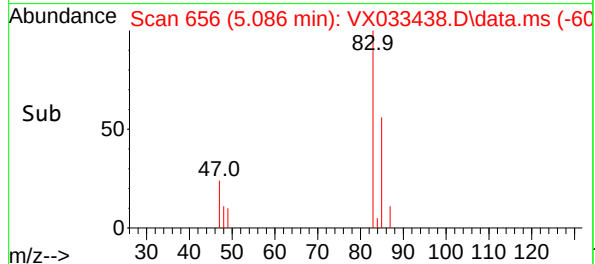
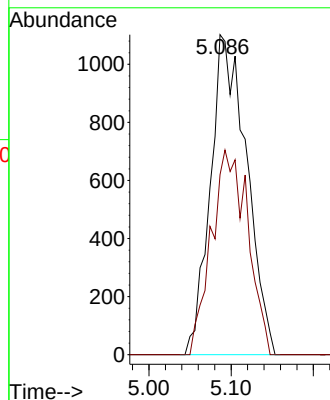
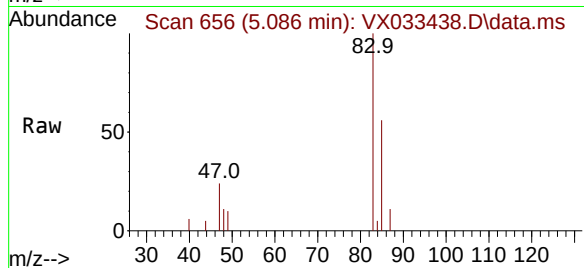
GW-BR-03-128-148-121422

Tgt Ion: 83 Resp: 3369

Ion Ratio Lower Upper

83 100

85 56.3 51.1 76.7



#33

1,2-Dichloroethane-d4

Concen: 49.315 ug/l

RT: 5.958 min Scan# 799

Delta R.T. 0.000 min

Lab File: VX033438.D

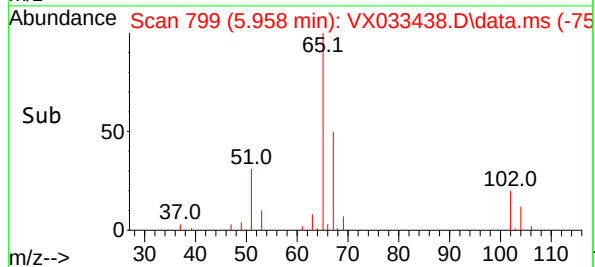
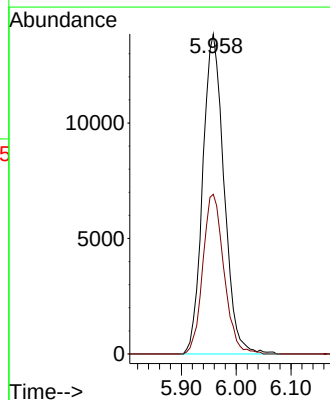
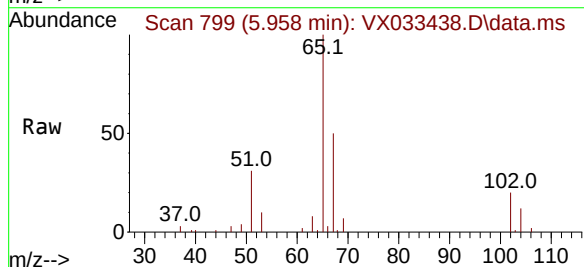
Acq: 15 Dec 2022 13:41

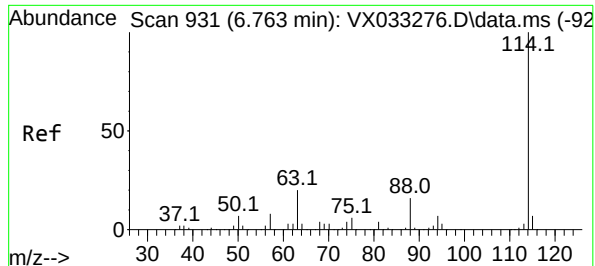
Tgt Ion: 65 Resp: 37285

Ion Ratio Lower Upper

65 100

67 49.7 0.0 101.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.763 min Scan# 91

Delta R.T. 0.000 min

Lab File: VX033438.D

Acq: 15 Dec 2022 13:41

Instrument :

MSVOA\_X

ClientSampleId :

GW-BR-03-128-148-121422

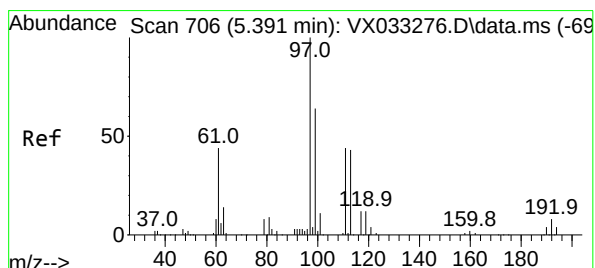
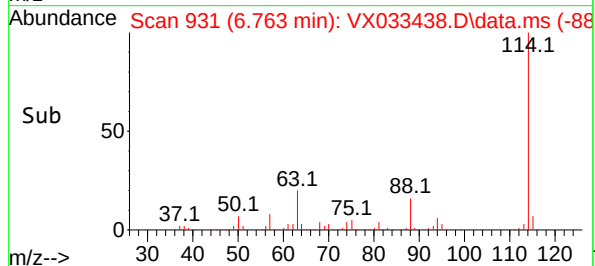
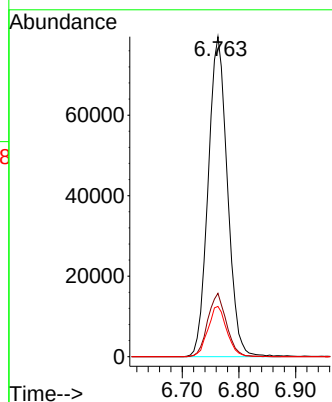
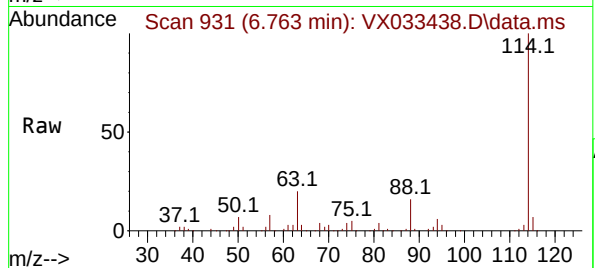
Tgt Ion:114 Resp: 187379

Ion Ratio Lower Upper

114 100

63 19.8 0.0 41.6

88 15.7 0.0 33.4



#35

Dibromofluoromethane

Concen: 48.750 ug/l

RT: 5.385 min Scan# 705

Delta R.T. -0.006 min

Lab File: VX033438.D

Acq: 15 Dec 2022 13:41

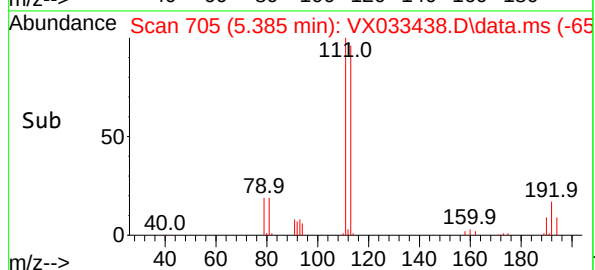
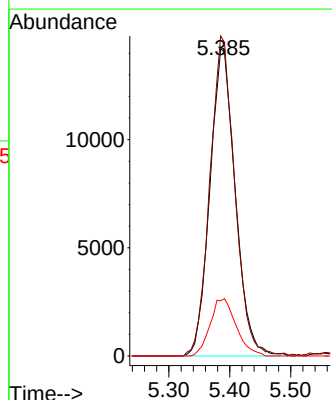
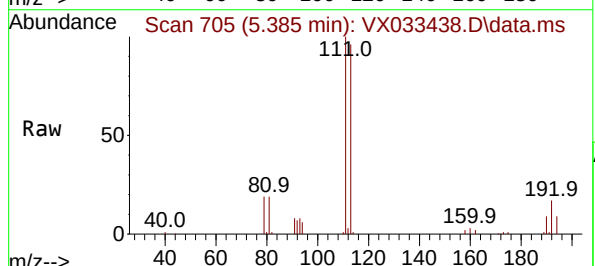
Tgt Ion:113 Resp: 41086

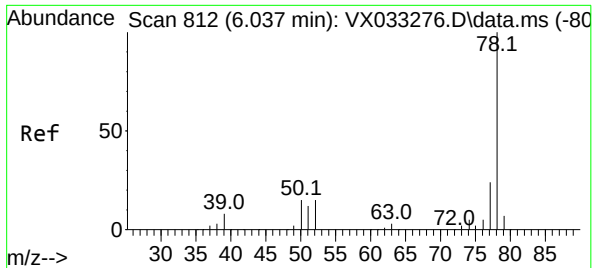
Ion Ratio Lower Upper

113 100

111 102.0 82.4 123.6

192 19.1 15.4 23.2

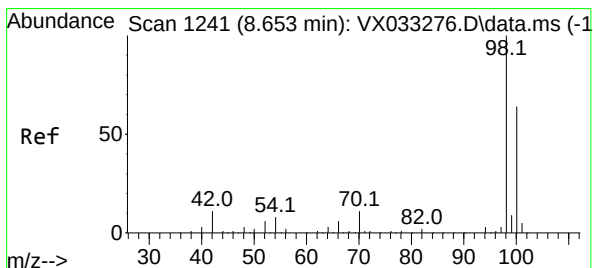
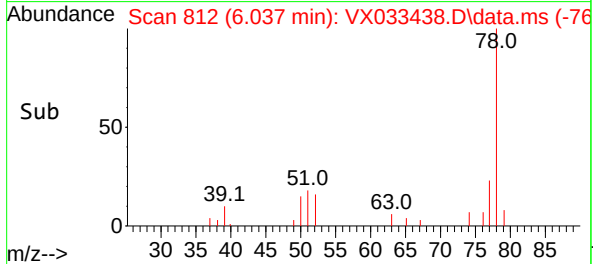
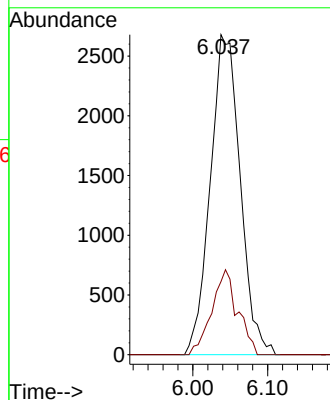
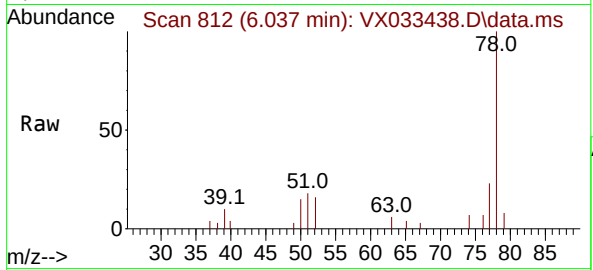




#40  
Benzene  
Concen: 1.555 ug/l  
RT: 6.037 min Scan# 812  
Delta R.T. 0.000 min  
Lab File: VX033438.D  
Acq: 15 Dec 2022 13:41

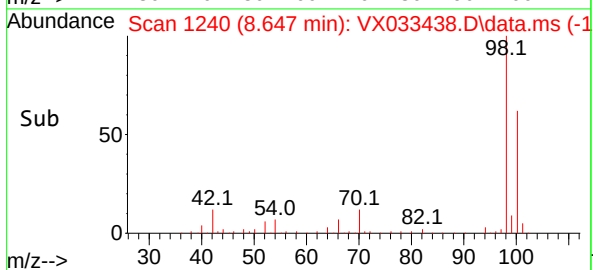
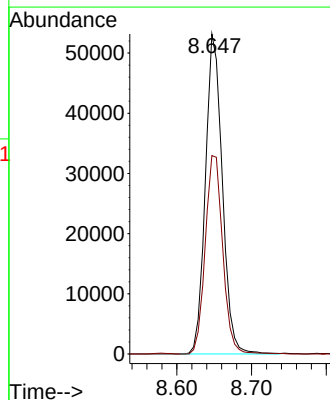
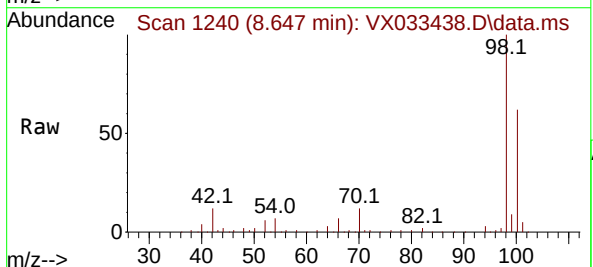
Instrument :  
MSVOA\_X  
ClientSampleId :  
GW-BR-03-128-148-121422

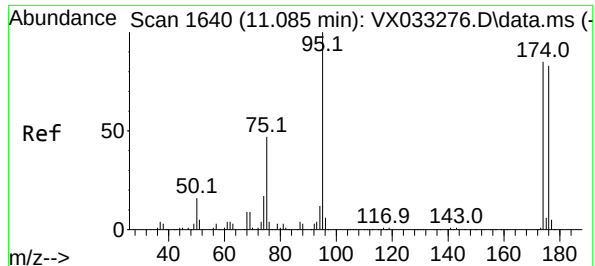
Tgt Ion: 78 Resp: 7449  
Ion Ratio Lower Upper  
78 100  
77 22.9 19.0 28.4



#50  
Toluene-d8  
Concen: 47.344 ug/l  
RT: 8.647 min Scan# 1240  
Delta R.T. -0.006 min  
Lab File: VX033438.D  
Acq: 15 Dec 2022 13:41

Tgt Ion: 98 Resp: 83471  
Ion Ratio Lower Upper  
98 100  
100 64.1 50.9 76.3





#62

4-Bromofluorobenzene

Concen: 46.568 ug/l

RT: 11.079 min Scan# 1

Delta R.T. -0.006 min

Lab File: VX033438.D

Acq: 15 Dec 2022 13:41

Instrument :

MSVOA\_X

ClientSampleId :

GW-BR-03-128-148-121422

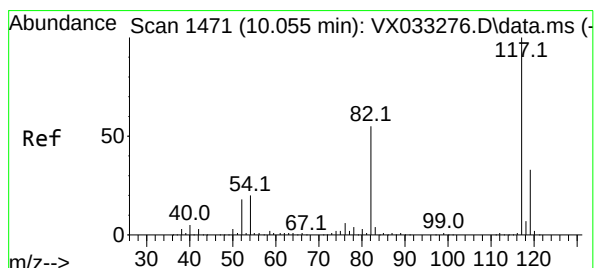
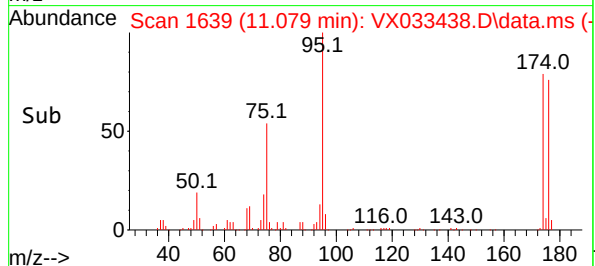
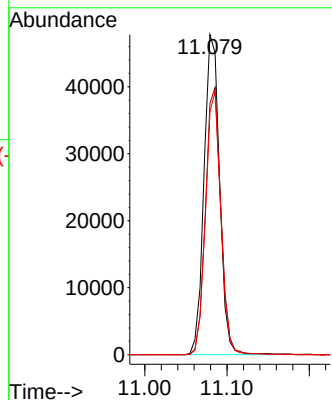
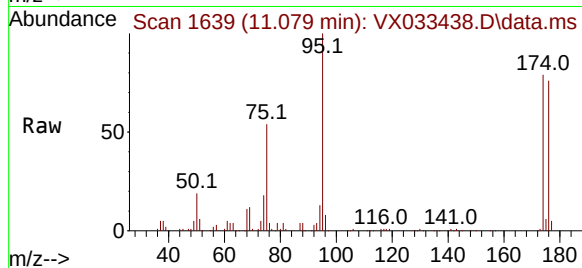
Tgt Ion: 95 Resp: 62777

Ion Ratio Lower Upper

95 100

174 83.2 0.0 164.0

176 80.4 0.0 154.4



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.055 min Scan# 1471

Delta R.T. 0.000 min

Lab File: VX033438.D

Acq: 15 Dec 2022 13:41

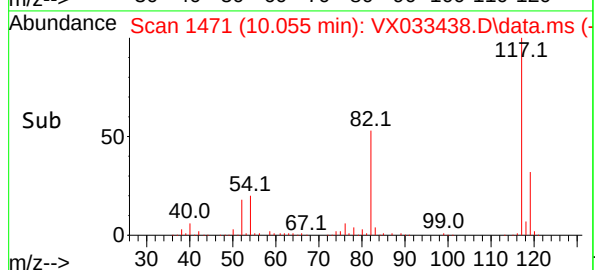
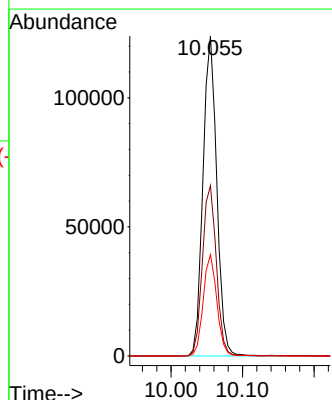
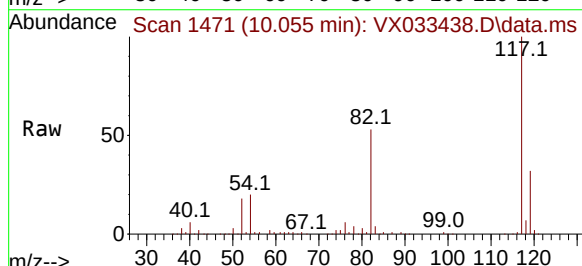
Tgt Ion: 117 Resp: 166169

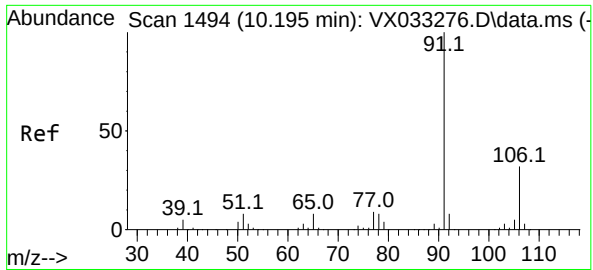
Ion Ratio Lower Upper

117 100

82 53.3 44.3 66.5

119 31.6 25.7 38.5





#67

Ethyl Benzene

Concen: 0.260 ug/l

RT: 10.201 min Scan# 1495

Delta R.T. 0.006 min

Lab File: VX033438.D

Acq: 15 Dec 2022 13:41

Instrument :

MSVOA\_X

ClientSampleId :

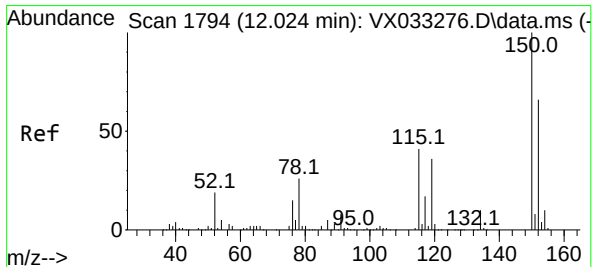
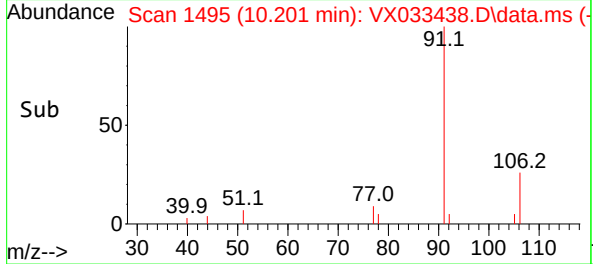
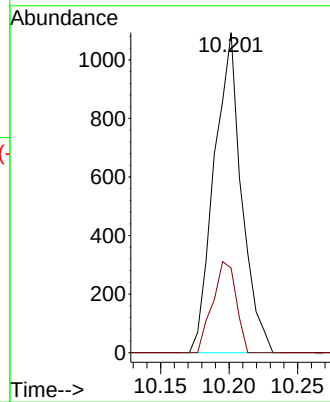
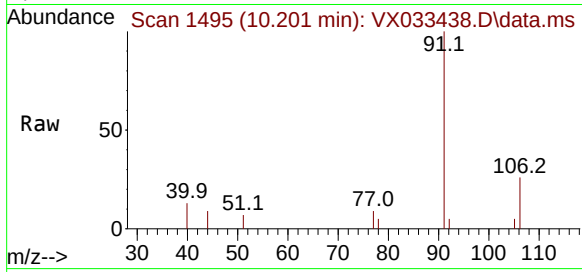
GW-BR-03-128-148-121422

Tgt Ion: 91 Resp: 1522

Ion Ratio Lower Upper

91 100

106 26.4 25.0 37.6



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.024 min Scan# 1794

Delta R.T. 0.000 min

Lab File: VX033438.D

Acq: 15 Dec 2022 13:41

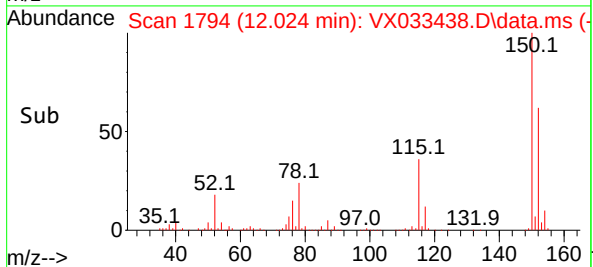
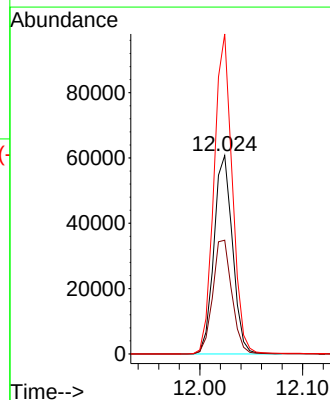
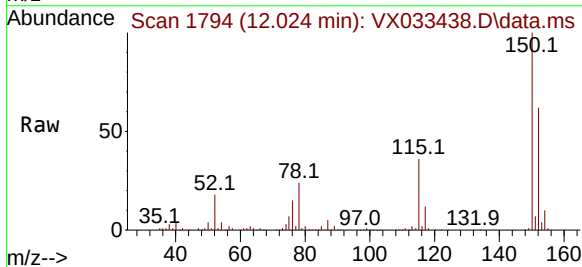
Tgt Ion:152 Resp: 76359

Ion Ratio Lower Upper

152 100

115 59.1 44.0 132.0

150 158.8 0.0 351.8



# CALIBRATION SUMMARY





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

## VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: JAC005  
 Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG No.: N6070  
 Instrument ID: MSVOA\_X Calibration Date(s): 12/07/2022 12/07/2022  
 Heated Purge: (Y/N) N Calibration Time(s): 09:46 11:42  
 GC Column: DB-624UI ID: 0.18 (mm)

| LAB FILE ID:           |        | RRF001 = VX033273.D |        | RRF005 = VX033274.D |        | RRF020 = VX033275.D |       |       |  |
|------------------------|--------|---------------------|--------|---------------------|--------|---------------------|-------|-------|--|
|                        |        | RRF050 = VX033276.D |        | RRF100 = VX033277.D |        | RRF150 = VX033278.D |       |       |  |
| COMPOUND               | RRF001 | RRF005              | RRF020 | RRF050              | RRF100 | RRF150              | RRF   | % RSD |  |
| Vinyl Chloride         | 0.507  | 0.456               | 0.514  | 0.427               | 0.429  | 0.434               | 0.461 | 8.6   |  |
| 1,1-Dichloroethene     | 0.442  | 0.467               | 0.505  | 0.422               | 0.439  | 0.445               | 0.453 | 6.4   |  |
| 1,1-Dichloroethane     | 0.880  | 0.899               | 1.006  | 0.844               | 0.851  | 0.987               | 0.911 | 7.6   |  |
| cis-1,2-Dichloroethene | 0.544  | 0.560               | 0.647  | 0.561               | 0.577  | 0.667               | 0.593 | 8.7   |  |
| 1,1,1-Trichloroethane  | 0.768  | 0.851               | 0.990  | 0.850               | 0.867  | 0.896               | 0.870 | 8.3   |  |
| Benzene                | 1.179  | 1.249               | 1.464  | 1.214               | 1.280  | 1.285               | 1.278 | 7.8   |  |
| 1,2-Dichloroethane     | 0.475  | 0.503               | 0.586  | 0.477               | 0.488  | 0.516               | 0.508 | 8.1   |  |
| Trichloroethene        | 0.321  | 0.337               | 0.410  | 0.338               | 0.361  | 0.348               | 0.352 | 8.8   |  |
| 1,1,2-Trichloroethane  | 0.322  | 0.322               | 0.387  | 0.333               | 0.350  | 0.369               | 0.347 | 7.6   |  |
| Tetrachloroethene      | 0.352  | 0.360               | 0.390  | 0.322               | 0.332  | 0.296               | 0.342 | 9.6   |  |
| 1,2-Dichloroethane-d4  |        | 0.378               | 0.324  | 0.288               | 0.279  | 0.336               | 0.321 | 12.4  |  |
| Dibromofluoromethane   |        | 0.251               | 0.234  | 0.204               | 0.210  | 0.226               | 0.225 | 8.4   |  |
| Toluene-d8             |        | 0.503               | 0.488  | 0.444               | 0.454  | 0.463               | 0.470 | 5.2   |  |
| 4-Bromofluorobenzene   |        | 0.341               | 0.382  | 0.353               | 0.356  | 0.366               | 0.360 | 4.3   |  |

\* 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\_X\Method\  
 Method File : 82X120722W.M  
 Title : SW846 8260  
 Last Update : Wed Dec 07 12:43:54 2022  
 Response Via : Initial Calibration

## Calibration Files

1 =VX033273.D 5 =VX033274.D 20 =VX033275.D 50 =VX033276.D 100 =VX033277.D 150 =VX033278.D

|        | Compound            | 1              | 5     | 20    | 50    | 100   | 150   | Avg   | %RSD   |
|--------|---------------------|----------------|-------|-------|-------|-------|-------|-------|--------|
| 1) I   | Pentafluorobenzene  | -----ISTD----- |       |       |       |       |       |       |        |
| 2) T   | Dichlorodifluo...   | 0.364          | 0.350 | 0.392 | 0.327 | 0.345 | 0.317 | 0.349 | 7.67   |
| 3) P   | Chloromethane       | 0.420          | 0.419 | 0.448 | 0.364 | 0.366 | 0.407 | 0.404 | 8.20   |
| 4) C   | Vinyl Chloride      | 0.507          | 0.456 | 0.514 | 0.427 | 0.429 | 0.434 | 0.461 | 8.63#  |
| 5) T   | Bromomethane        |                | 0.353 | 0.364 | 0.300 | 0.312 | 0.362 | 0.338 | 8.92   |
| 6) T   | Chloroethane        | 0.388          | 0.385 | 0.392 | 0.338 | 0.298 | 0.299 | 0.350 | 12.69  |
| 7) T   | Trichlorofluor...   | 0.980          | 0.897 | 0.981 | 0.815 | 0.789 | 0.732 | 0.866 | 11.96  |
| 8) T   | Diethyl Ether       | 0.312          | 0.324 | 0.344 | 0.275 | 0.277 | 0.344 | 0.313 | 9.93   |
| 9) T   | 1,1,2-Trichlor...   | 0.441          | 0.476 | 0.535 | 0.445 | 0.448 | 0.410 | 0.459 | 9.26   |
| 10) T  | Methyl Iodide       |                | 0.388 | 0.559 | 0.490 | 0.510 | 0.568 | 0.503 | 14.38  |
| 11) T  | Tert butyl alc...   |                | 0.102 | 0.100 | 0.080 | 0.093 | 0.115 | 0.098 | 13.13  |
| 12) CM | 1,1-Dichloroet...   | 0.442          | 0.467 | 0.505 | 0.422 | 0.439 | 0.445 | 0.453 | 6.43#  |
| 13) T  | Acrolein            |                | 0.115 | 0.083 | 0.101 | 0.102 | 0.131 | 0.106 | 16.64  |
| 14) T  | Allyl chloride      | 0.678          | 0.697 | 0.798 | 0.684 | 0.702 | 0.785 | 0.724 | 7.35   |
| 15) T  | Acrylonitrile       | 0.211          | 0.232 | 0.267 | 0.226 | 0.233 | 0.288 | 0.243 | 11.90  |
| 16) T  | Acetone             | 0.262          | 0.248 | 0.265 | 0.205 | 0.201 | 0.243 | 0.237 | 11.72  |
| 17) T  | Carbon Disulfide    | 1.190          | 1.130 | 1.287 | 1.098 | 1.126 | 1.149 | 1.163 | 5.83   |
| 18) T  | Methyl Acetate      | 0.608          | 0.627 | 0.763 | 0.643 | 0.659 | 0.822 | 0.687 | 12.46  |
| 19) T  | Methyl tert-bu...   | 1.313          | 1.502 | 1.711 | 1.477 | 1.529 | 1.889 | 1.570 | 12.81  |
| 20) T  | Methylene Chlo...   | 0.568          | 0.516 | 0.566 | 0.470 | 0.477 | 0.579 | 0.529 | 9.13   |
| 21) T  | trans-1,2-Dich...   | 0.441          | 0.498 | 0.548 | 0.470 | 0.487 | 0.532 | 0.496 | 7.95   |
| 22) T  | Diisopropyl ether   | 1.317          | 1.488 | 1.743 | 1.509 | 1.499 | 1.750 | 1.551 | 10.78  |
| 23) T  | Vinyl Acetate       | 0.992          | 1.093 | 1.333 | 1.173 | 1.191 | 1.440 | 1.204 | 13.43  |
| 24) P  | 1,1-Dichloroet...   | 0.880          | 0.899 | 1.006 | 0.844 | 0.851 | 0.987 | 0.911 | 7.61   |
| 25) T  | 2-Butanone          | 0.297          | 0.333 | 0.386 | 0.323 | 0.321 | 0.384 | 0.341 | 10.70  |
| 26) T  | 2,2-Dichloropr...   | 0.602          | 0.648 | 0.744 | 0.648 | 0.666 | 0.713 | 0.670 | 7.60   |
| 27) T  | cis-1,2-Dichlo...   | 0.544          | 0.560 | 0.647 | 0.561 | 0.577 | 0.667 | 0.593 | 8.66   |
| 28) T  | Bromochloromet...   | 0.378          | 0.376 | 0.407 | 0.373 | 0.345 | 0.409 | 0.381 | 6.22   |
| 29) T  | Tetrahydrofuran     | 0.189          | 0.213 | 0.246 | 0.210 | 0.212 | 0.253 | 0.221 | 11.04  |
| 30) C  | Chloroform          | 0.935          | 0.991 | 1.128 | 0.958 | 0.962 | 1.095 | 1.012 | 7.92#  |
| 31) T  | Cyclohexane         |                | 0.756 | 0.876 | 0.743 | 0.761 | 0.676 | 0.762 | 9.49   |
| 32) T  | 1,1,1-Trichlor...   | 0.768          | 0.851 | 0.990 | 0.850 | 0.867 | 0.896 | 0.870 | 8.29   |
| 33) S  | 1,2-Dichloroet...   |                | 0.378 | 0.324 | 0.288 | 0.279 | 0.336 | 0.321 | 12.37  |
| 34) I  | 1,4-Difluorobenzene | -----ISTD----- |       |       |       |       |       |       |        |
| 35) S  | Dibromofluorom...   |                | 0.251 | 0.234 | 0.204 | 0.210 | 0.226 | 0.225 | 8.43   |
| 36) T  | 1,1-Dichloropr...   | 0.439          | 0.420 | 0.500 | 0.422 | 0.450 | 0.400 | 0.438 | 7.88   |
| 37) T  | Ethyl Acetate       | 0.356          | 0.384 | 0.479 | 0.397 | 0.418 | 0.454 | 0.414 | 10.98  |
| 38) T  | Carbon Tetrach...   | 0.477          | 0.481 | 0.566 | 0.478 | 0.500 | 0.445 | 0.491 | 8.28   |
| 39) T  | Methylcyclohexane   | 0.487          | 0.478 | 0.574 | 0.490 | 0.528 | 0.388 | 0.491 | 12.57  |
| 40) TM | Benzene             | 1.179          | 1.249 | 1.464 | 1.214 | 1.280 | 1.285 | 1.278 | 7.77   |
| 41) T  | Methacrylonitrile   | 0.185          | 0.209 | 0.268 | 0.225 | 0.232 | 0.252 | 0.228 | 12.95  |
| 42) TM | 1,2-Dichloroet...   | 0.475          | 0.503 | 0.586 | 0.477 | 0.488 | 0.516 | 0.508 | 8.14   |
| 43) T  | Isopropyl Acetate   | 0.561          | 0.604 | 0.751 | 0.641 | 0.685 | 0.759 | 0.667 | 11.95  |
| 44) TM | Trichloroethene     | 0.321          | 0.337 | 0.410 | 0.338 | 0.361 | 0.348 | 0.352 | 8.82   |
| 45) C  | 1,2-Dichloropr...   | 0.300          | 0.319 | 0.371 | 0.309 | 0.324 | 0.338 | 0.327 | 7.74#  |
| 46) T  | Dibromomethane      | 0.226          | 0.246 | 0.281 | 0.233 | 0.243 | 0.265 | 0.249 | 8.17   |
| 47) T  | Bromodichlorom...   | 0.428          | 0.448 | 0.562 | 0.468 | 0.491 | 0.515 | 0.485 | 9.99   |
| 48) T  | Methyl methacr...   | 0.310          | 0.309 | 0.386 | 0.331 | 0.350 | 0.378 | 0.344 | 9.61   |
| 49) T  | 1,4-Dioxane         | 0.007          | 0.007 | 0.009 | 0.007 | 0.008 | 0.009 | 0.008 | 12.08  |
| 50) S  | Toluene-d8          |                | 0.503 | 0.488 | 0.444 | 0.454 | 0.463 | 0.470 | 5.19   |
| 51) T  | 4-Methyl-2-Pen...   | 0.356          | 0.404 | 0.499 | 0.413 | 0.417 | 0.443 | 0.422 | 11.22  |
| 52) CM | Toluene             | 0.715          | 0.786 | 0.970 | 0.814 | 0.845 | 0.829 | 0.827 | 10.14# |
| 53) T  | t-1,3-Dichloro...   | 0.386          | 0.390 | 0.526 | 0.467 | 0.512 | 0.555 | 0.473 | 15.14  |
| 54) T  | cis-1,3-Dichlo...   | 0.419          | 0.456 | 0.580 | 0.510 | 0.549 | 0.587 | 0.517 | 13.19  |
| 55) T  | 1,1,2-Trichlor...   | 0.322          | 0.322 | 0.387 | 0.333 | 0.350 | 0.369 | 0.347 | 7.63   |
| 56) T  | Ethyl methacry...   | 0.381          | 0.430 | 0.560 | 0.489 | 0.519 | 0.557 | 0.489 | 14.65  |

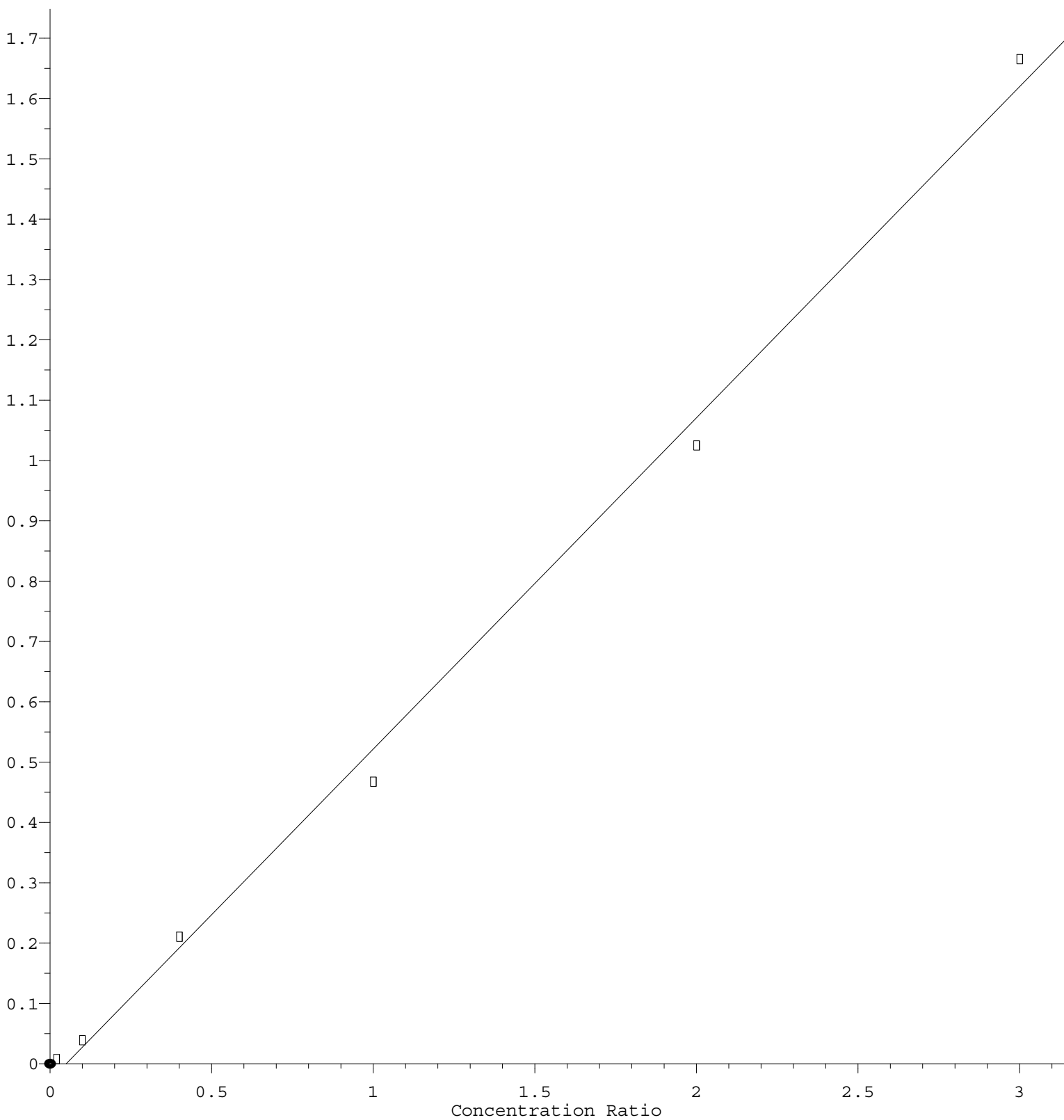
Method Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\  
 Method File : 82X120722W.M

|     |    |                       |                |       |       |       |       |       |       |       |
|-----|----|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 57) | T  | 1,3-Dichloropr...     | 0.481          | 0.540 | 0.638 | 0.535 | 0.559 | 0.596 | 0.558 | 9.66  |
| 58) | T  | 2-Chloroethyl ...     | 0.196          | 0.211 | 0.218 | 0.224 | 0.236 | 0.258 | 0.224 | 9.57  |
| 59) | T  | 2-Hexanone            | 0.263          | 0.291 | 0.375 | 0.306 | 0.305 | 0.325 | 0.311 | 12.05 |
| 60) | T  | Dibromochlorom...     | 0.305          | 0.353 | 0.439 | 0.376 | 0.399 | 0.425 | 0.383 | 12.82 |
| 61) | T  | 1,2-Dibromoethane     | 0.307          | 0.345 | 0.423 | 0.358 | 0.377 | 0.407 | 0.370 | 11.46 |
| 62) | S  | 4-Bromofluorob...     | 0.341          | 0.382 | 0.353 | 0.356 | 0.366 | 0.360 |       | 4.32  |
| 63) | I  | Chlorobenzene-d5      | -----ISTD----- |       |       |       |       |       |       |       |
| 64) | T  | Tetrachloroethene     | 0.352          | 0.360 | 0.390 | 0.322 | 0.332 | 0.296 | 0.342 | 9.56  |
| 65) | PM | Chlorobenzene         | 0.995          | 0.976 | 1.159 | 0.966 | 0.993 | 0.985 | 1.013 | 7.15  |
| 66) | T  | 1,1,1,2-Tetrac...     | 0.352          | 0.357 | 0.442 | 0.372 | 0.381 | 0.392 | 0.383 | 8.49  |
| 67) | C  | Ethyl Benzene         | 1.620          | 1.734 | 2.043 | 1.735 | 1.773 | 1.680 | 1.764 | 8.31# |
| 68) | T  | m/p-Xylenes           | 0.630          | 0.662 | 0.790 | 0.677 | 0.699 | 0.660 | 0.686 | 8.13  |
| 69) | T  | o-Xylene              | 0.620          | 0.652 | 0.786 | 0.671 | 0.678 | 0.663 | 0.678 | 8.34  |
| 70) | T  | Styrene               | 0.931          | 1.043 | 1.295 | 1.115 | 1.145 | 1.137 | 1.111 | 10.85 |
| 71) | P  | Bromoform             | 0.246          | 0.274 | 0.344 | 0.304 | 0.315 | 0.334 | 0.303 | 12.22 |
| 72) | I  | 1,4-Dichlorobenzen... | -----ISTD----- |       |       |       |       |       |       |       |
| 73) | T  | Isopropylbenzene      | 3.344          | 3.639 | 4.186 | 3.560 | 3.681 | 3.335 | 3.624 | 8.59  |
| 74) | T  | N-amyl acetate        | 0.953          | 1.110 | 1.444 | 1.240 | 1.283 | 1.388 | 1.236 | 14.67 |
| 75) | P  | 1,1,2,2-Tetrac...     | 1.069          | 1.152 | 1.301 | 1.088 | 1.106 | 1.181 | 1.150 | 7.39  |
| 76) | T  | 1,2,3-Trichlor...     | 0.962          | 0.971 | 1.176 | 0.963 | 0.995 | 1.036 | 1.017 | 8.13  |
| 77) | T  | Bromobenzene          | 0.862          | 0.918 | 1.033 | 0.865 | 0.901 | 0.912 | 0.915 | 6.82  |
| 78) | T  | n-propylbenzene       | 3.595          | 3.949 | 4.768 | 4.049 | 4.186 | 3.731 | 4.047 | 10.21 |
| 79) | T  | 2-Chlorotoluene       | 2.395          | 2.495 | 2.876 | 2.425 | 2.460 | 2.354 | 2.501 | 7.62  |
| 80) | T  | 1,3,5-Trimethy...     | 2.678          | 2.967 | 3.535 | 2.982 | 3.093 | 2.845 | 3.017 | 9.64  |
| 81) | T  | trans-1,4-Dich...     | 0.254          | 0.347 | 0.312 | 0.343 | 0.379 | 0.327 |       | 14.38 |
| 82) | T  | 4-Chlorotoluene       | 2.811          | 2.834 | 3.331 | 2.792 | 2.896 | 2.784 | 2.908 | 7.27  |
| 83) | T  | tert-Butylbenzene     | 2.752          | 2.939 | 3.536 | 2.975 | 3.078 | 2.769 | 3.008 | 9.55  |
| 84) | T  | 1,2,4-Trimethy...     | 2.729          | 2.938 | 3.552 | 2.951 | 3.038 | 2.859 | 3.011 | 9.45  |
| 85) | T  | sec-Butylbenzene      | 3.216          | 3.419 | 4.179 | 3.535 | 3.677 | 3.032 | 3.510 | 11.39 |
| 86) | T  | p-Isopropyltol...     | 2.873          | 2.858 | 3.591 | 3.011 | 3.153 | 2.669 | 3.026 | 10.61 |
| 87) | T  | 1,3-Dichlorobe...     | 1.506          | 1.619 | 1.923 | 1.603 | 1.672 | 1.624 | 1.658 | 8.50  |
| 88) | T  | 1,4-Dichlorobe...     | 1.682          | 1.682 | 1.911 | 1.594 | 1.651 | 1.640 | 1.693 | 6.59  |
| 89) | T  | n-Butylbenzene        | 2.204          | 2.260 | 2.999 | 2.508 | 2.697 | 2.202 | 2.478 | 12.99 |
| 90) | T  | Hexachloroethane      | 0.494          | 0.476 | 0.589 | 0.506 | 0.542 | 0.480 | 0.514 | 8.43  |
| 91) | T  | 1,2-Dichlorobe...     | 1.630          | 1.619 | 1.901 | 1.561 | 1.612 | 1.621 | 1.657 | 7.35  |
| 92) | T  | 1,2-Dibromo-3-...     | 0.222          | 0.232 | 0.279 | 0.233 | 0.249 | 0.275 | 0.248 | 9.56  |
| 93) | T  | 1,2,4-Trichlor...     | 0.920          | 0.923 | 1.153 | 0.958 | 1.054 | 0.999 | 1.001 | 9.00  |
| 94) | T  | Hexachlorobuta...     | 0.447          | 0.390 | 0.460 | 0.382 | 0.412 | 0.314 | 0.401 | 13.09 |
| 95) | T  | Naphthalene           | 2.568          | 3.024 | 3.914 | 3.317 | 3.527 | 3.683 | 3.339 | 14.53 |
| 96) | T  | 1,2,3-Trichlor...     | 0.957          | 0.960 | 1.140 | 0.981 | 1.045 | 0.999 | 1.014 | 6.86  |

(#) = Out of Range

# t-1,3-Dichloropropene

Response Ratio



$$\text{Response} = 5.491\text{e-}001 * \text{Amt} - 2.751\text{e-}002$$

Coef of Det ( $r^2$ ) = 0.996197 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA X\Method\82X120722W.M

Calibration Table Last Updated: Wed Dec 07 12:43:54 2022

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033273.D  
 Acq On : 07 Dec 2022 09:46  
 Operator : JC/MD  
 Sample : VSTDICC001  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDICC001

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/08/2022  
 Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 10:41:23 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 09:47:15 2022  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|------------------------------|--------|-------|----------|----------|--------|----------|
| -----                        |        |       |          |          |        |          |
| Internal Standards           |        |       |          |          |        |          |
| 1) Pentafluorobenzene        | 5.550  | 168   | 142504   | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 6.763  | 114   | 225802   | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 10.055 | 117   | 197000   | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 12.024 | 152   | 90814    | 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 | 78 - 117 | 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 | 92 - 112 | Recovery | =      | 0.000%#  |
| 62) 4-Bromofluorobenzene     | 0.000  | 95    | 0d       | 0.000    | ug/l   |          |
| Spiked Amount                | 50.000 | Range | 83 - 123 | Recovery | =      | 0.000%#  |
|                              |        |       |          |          |        |          |
| Target Compounds             |        |       |          |          |        | Qvalue   |
| 2) Dichlorodifluoromethane   | 1.166  | 85    | 1038     | 0.953    | ug/l   | 92       |
| 3) Chloromethane             | 1.294  | 50    | 1198     | 1.019    | ug/l   | 96       |
| 4) Vinyl Chloride            | 1.374  | 62    | 1445     | 1.104    | ug/l   | 92       |
| 6) Chloroethane              | 1.697  | 64    | 1105     | 1.037    | ug/l # | 87       |
| 7) Trichlorofluoromethane    | 1.892  | 101   | 2793     | 1.100    | ug/l # | 80       |
| 8) Diethyl Ether             | 2.136  | 74    | 889      | 1.112    | ug/l   | 83       |
| 9) 1,1,2-Trichlorotrifluo... | 2.331  | 101   | 1257     | 0.942    | ug/l   | 92       |
| 12) 1,1-Dichloroethene       | 2.318  | 96    | 1259     | 1.012    | ug/l   | 92       |
| 14) Allyl chloride           | 2.666  | 41    | 1931     | 0.962    | ug/l   | 94       |
| 15) Acrylonitrile            | 3.074  | 53    | 3013     | 4.842    | ug/l   | 96       |
| 16) Acetone                  | 2.392  | 43    | 3731     | 5.757    | ug/l   | 97       |
| 17) Carbon Disulfide         | 2.514  | 76    | 3391     | 0.987    | ug/l # | 93       |
| 18) Methyl Acetate           | 2.709  | 43    | 1734     | 0.967    | ug/l   | 96       |
| 19) Methyl tert-butyl Ether  | 3.111  | 73    | 3742     | 0.868    | ug/l   | 93       |
| 20) Methylene Chloride       | 2.794  | 84    | 1618     | 1.036    | ug/l # | 85       |
| 21) trans-1,2-Dichloroethene | 3.093  | 96    | 1257     | 0.884    | ug/l   | 85       |
| 22) Diisopropyl ether        | 3.763  | 45    | 3754     | 0.859    | ug/l # | 77       |
| 23) Vinyl Acetate            | 3.733  | 43    | 14131    | 4.129    | ug/l # | 93       |
| 24) 1,1-Dichloroethane       | 3.611  | 63    | 2507     | 1.002    | ug/l # | 93       |
| 25) 2-Butanone               | 4.574  | 43    | 4232     | 4.735    | ug/l   | 97       |
| 26) 2,2-Dichloropropane      | 4.464  | 77    | 1715     | 0.853    | ug/l # | 65       |
| 27) cis-1,2-Dichloroethene   | 4.489  | 96    | 1551     | 0.960    | ug/l   | 97       |
| 28) Bromochloromethane       | 4.903  | 49    | 1078     | 0.981    | ug/l # | 98       |
| 29) Tetrahydrofuran          | 5.031  | 42    | 2697     | 4.756    | ug/l   | 94       |
| 30) Chloroform               | 5.098  | 83    | 2666     | 0.952    | ug/l   | 98       |
| 32) 1,1,1-Trichloroethane    | 5.379  | 97    | 2190     | 0.873    | ug/l # | 48       |
| 36) 1,1-Dichloropropene      | 5.696  | 75    | 1983     | 0.974    | ug/l   | 97       |
| 37) Ethyl Acetate            | 4.721  | 43    | 1606     | 0.904    | ug/l # | 77       |
| 38) Carbon Tetrachloride     | 5.672  | 117   | 2156     | 0.955    | ug/l   | 85       |
| 39) Methylcyclohexane        | 7.385  | 83    | 2200     | 0.947    | ug/l   | 94       |
| 40) Benzene                  | 6.043  | 78    | 5324     | 0.933    | ug/l   | 99       |
| 41) Methacrylonitrile        | 4.940  | 41    | 836      | 0.837    | ug/l # | 69       |
| 42) 1,2-Dichloroethane       | 6.092  | 62    | 2147     | 0.934    | ug/l   | 89       |
| 43) Isopropyl Acetate        | 6.342  | 43    | 2534     | 0.863    | ug/l # | 94       |
| 44) Trichloroethene          | 7.129  | 130   | 1448     | 0.904    | ug/l   | 78       |
| 45) 1,2-Dichloropropane      | 7.433  | 63    | 1355     | 0.961    | ug/l   | 93       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033273.D  
 Acq On : 07 Dec 2022 09:46  
 Operator : JC/MD  
 Sample : VSTDIC001  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDIC001

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/08/2022  
 Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 10:41:23 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 09:47:15 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|--------|--------|----------|
| 46) Dibromomethane            | 7.580  | 93   | 1022     | 0.929  | ug/l   | 91       |
| 47) Bromodichloromethane      | 7.824  | 83   | 1934     | 0.909  | ug/l # | 93       |
| 48) Methyl methacrylate       | 7.702  | 41   | 1402     | 0.927  | ug/l   | 89       |
| 49) 1,4-Dioxane               | 7.714  | 88   | 593m     | 21.310 | ug/l   |          |
| 51) 4-Methyl-2-Pentanone      | 8.580  | 43   | 8030     | 4.431  | ug/l   | 99       |
| 52) Toluene                   | 8.720  | 92   | 3231     | 0.861  | ug/l   | 94       |
| 53) t-1,3-Dichloropropene     | 8.988  | 75   | 1741     | 0.834  | ug/l   | 95       |
| 54) cis-1,3-Dichloropropene   | 8.372  | 75   | 1891     | 0.825  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane     | 9.153  | 97   | 1456     | 0.952  | ug/l   | 96       |
| 56) Ethyl methacrylate        | 9.116  | 69   | 1720     | 0.817  | ug/l   | 99       |
| 57) 1,3-Dichloropropane       | 9.311  | 76   | 2174     | 0.881  | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether | 8.244  | 63   | 4421     | 4.420  | ug/l   | 96       |
| 59) 2-Hexanone                | 9.433  | 43   | 5946     | 4.442  | ug/l   | 93       |
| 60) Dibromochloromethane      | 9.518  | 129  | 1379     | 0.838  | ug/l   | 93       |
| 61) 1,2-Dibromoethane         | 9.616  | 107  | 1386     | 0.859  | ug/l   | 99       |
| 64) Tetrachloroethene         | 9.275  | 164  | 1386     | 0.994  | ug/l   | 86       |
| 65) Chlorobenzene             | 10.079 | 112  | 3922     | 0.999  | ug/l   | 96       |
| 66) 1,1,1,2-Tetrachloroethane | 10.165 | 131  | 1386     | 0.963  | ug/l # | 66       |
| 67) Ethyl Benzene             | 10.195 | 91   | 6381     | 0.916  | ug/l   | 96       |
| 68) m/p-Xylenes               | 10.305 | 106  | 4964     | 1.819  | ug/l   | 98       |
| 69) o-Xylene                  | 10.646 | 106  | 2441     | 0.925  | ug/l   | 97       |
| 70) Styrene                   | 10.658 | 104  | 3668     | 0.849  | ug/l   | 95       |
| 71) Bromoform                 | 10.799 | 173  | 971      | 0.880  | ug/l # | 97       |
| 73) Isopropylbenzene          | 10.963 | 105  | 6074     | 0.936  | ug/l   | 96       |
| 74) N-amyl acetate            | 10.847 | 43   | 1731     | 0.784  | ug/l   | 95       |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 1942     | 0.992  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 11.238 | 75   | 1748m    | 1.016  | ug/l   |          |
| 77) Bromobenzene              | 11.201 | 156  | 1565     | 0.981  | ug/l   | 98       |
| 78) n-propylbenzene           | 11.305 | 91   | 6530     | 0.880  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 11.366 | 91   | 4350     | 0.965  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 4864     | 0.892  | ug/l   | 96       |
| 82) 4-Chlorotoluene           | 11.457 | 91   | 5105     | 0.967  | ug/l   | 98       |
| 83) tert-Butylbenzene         | 11.713 | 119  | 4998     | 0.921  | ug/l   | 96       |
| 84) 1,2,4-Trimethylbenzene    | 11.756 | 105  | 4957     | 0.912  | ug/l   | 100      |
| 85) sec-Butylbenzene          | 11.890 | 105  | 5842     | 0.900  | ug/l   | 99       |
| 86) p-Isopropyltoluene        | 12.012 | 119  | 5219     | 0.949  | ug/l   | 94       |
| 87) 1,3-Dichlorobenzene       | 11.969 | 146  | 2736     | 0.914  | ug/l   | 96       |
| 88) 1,4-Dichlorobenzene       | 12.042 | 146  | 3055m    | 0.996  | ug/l   |          |
| 89) n-Butylbenzene            | 12.335 | 91   | 4003     | 0.845  | ug/l   | 97       |
| 90) Hexachloroethane          | 12.542 | 117  | 897      | 0.993  | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene       | 12.341 | 146  | 2961     | 1.017  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75   | 404      | 1.034  | ug/l   | 88       |
| 93) 1,2,4-Trichlorobenzene    | 13.591 | 180  | 1671     | 0.931  | ug/l   | 91       |
| 94) Hexachlorobutadiene       | 13.725 | 225  | 811      | 1.024  | ug/l   | 91       |
| 95) Naphthalene               | 13.780 | 128  | 4665     | 0.803  | ug/l   | 98       |
| 96) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 1739     | 0.966  | ug/l   | 97       |

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

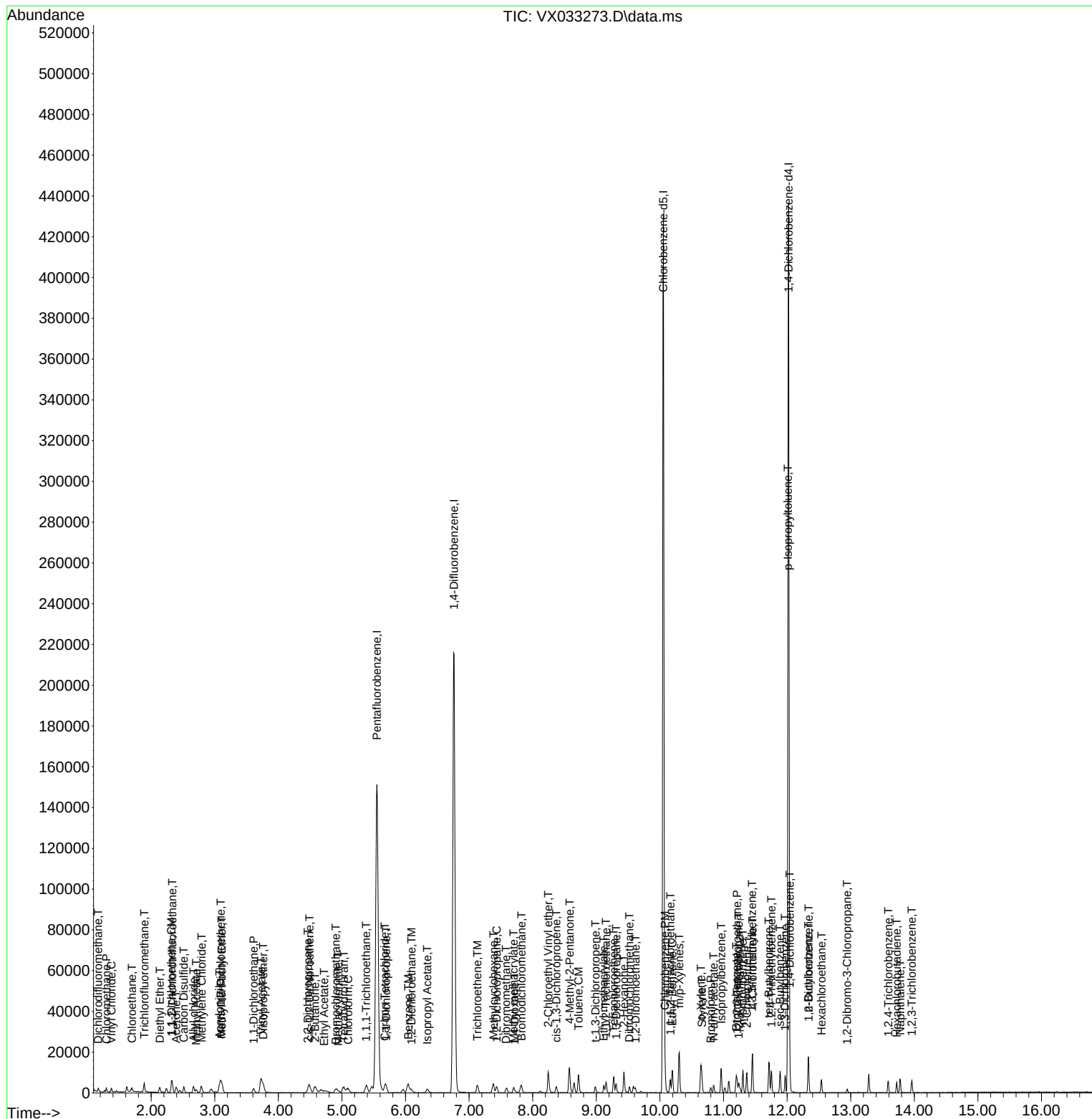
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033273.D  
Acq On : 07 Dec 2022 09:46  
Operator : JC/MD  
Sample : VSTDICC001  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 2 Sample Multiplier: 1

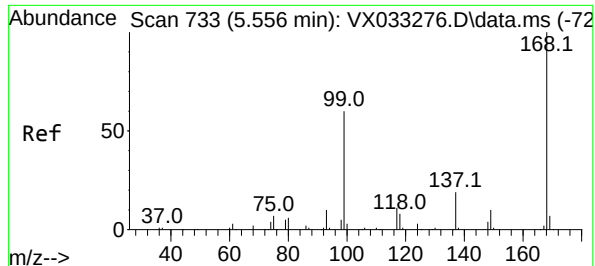
**Instrument :**  
MSVOA\_X  
**ClientSampleId :**  
VSTDICC001

Quant Time: Dec 07 10:41:23 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 09:47:15 2022  
Response via : Initial Calibration

## Manual Integrations APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022





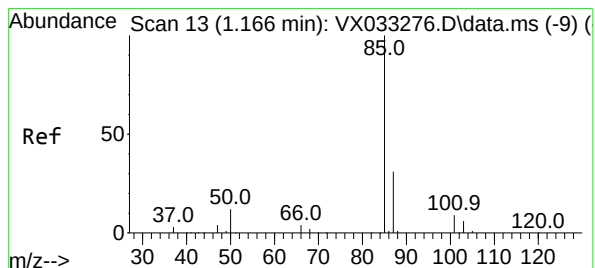
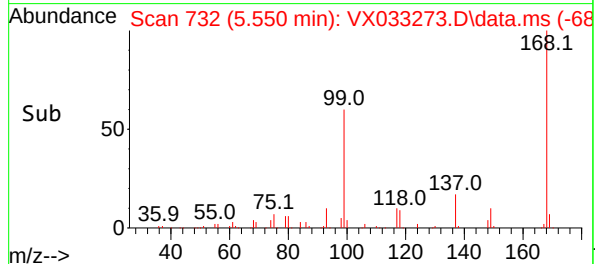
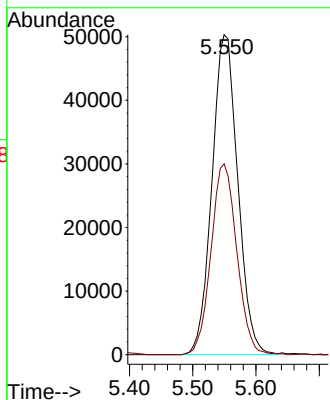
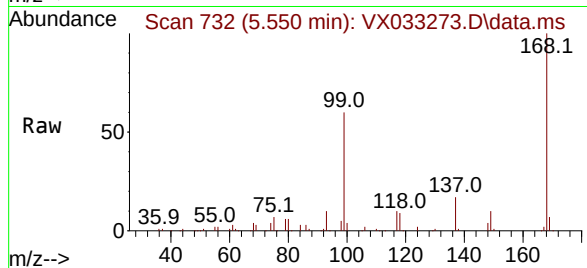
#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.550 min Scan# 71  
Delta R.T. -0.006 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC001

Tgt Ion:168 Resp: 142504  
Ion Ratio Lower Upper  
168 100  
99 59.6 46.1 69.1

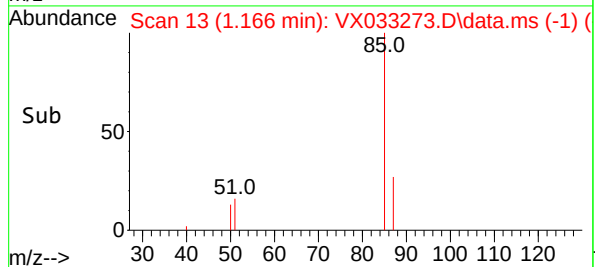
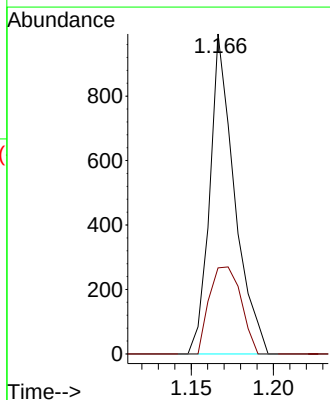
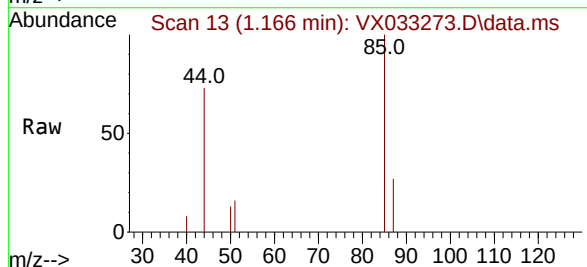
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

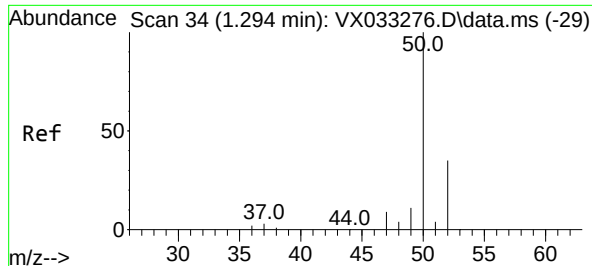


#2  
Dichlorodifluoromethane  
Concen: 0.953 ug/l  
RT: 1.166 min Scan# 13  
Delta R.T. 0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Tgt Ion: 85 Resp: 1038  
Ion Ratio Lower Upper  
85 100  
87 26.9 15.6 46.7







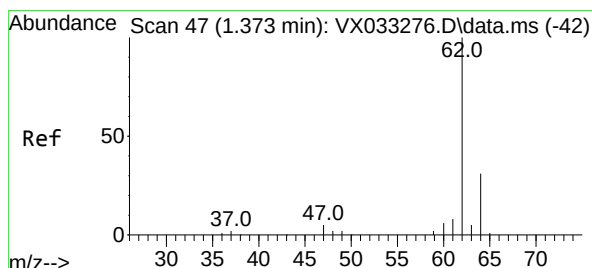
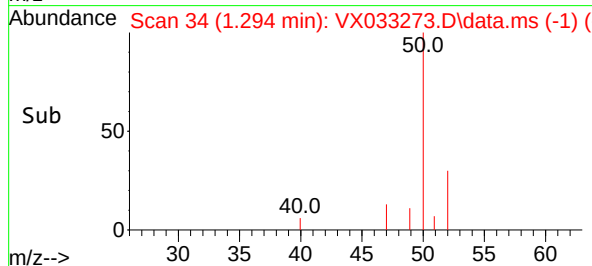
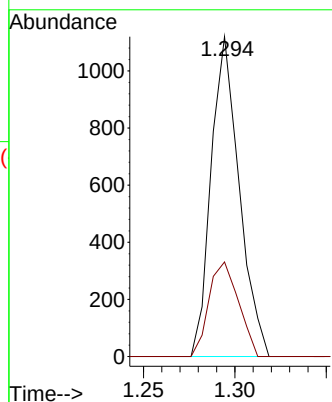
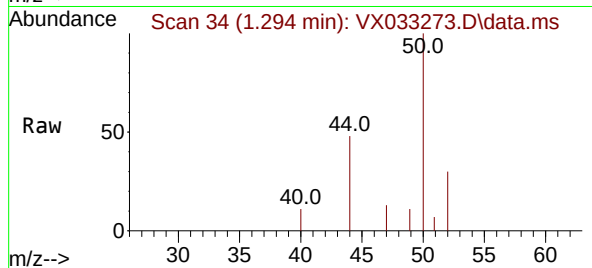
#3  
Chloromethane  
Concen: 1.019 ug/l  
RT: 1.294 min Scan# 34  
Delta R.T. 0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC001

Tgt Ion: 50 Resp: 1198  
Ion Ratio Lower Upper  
50 100  
52 29.6 25.4 38.2

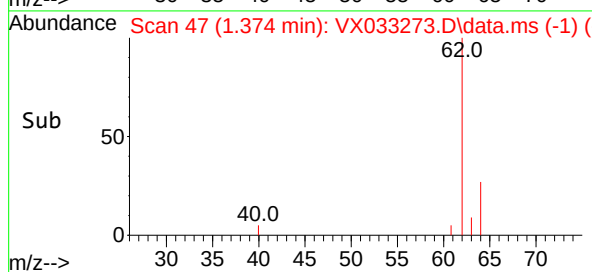
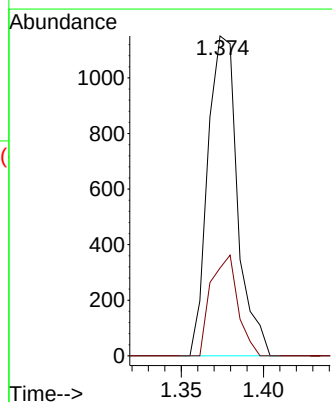
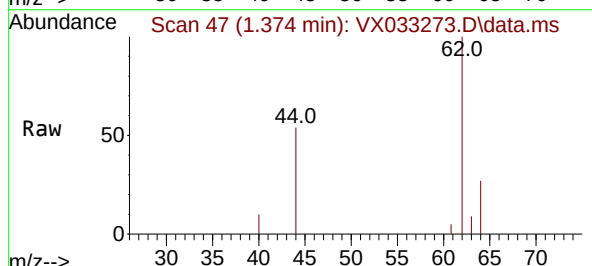
Manual Integrations  
APPROVED

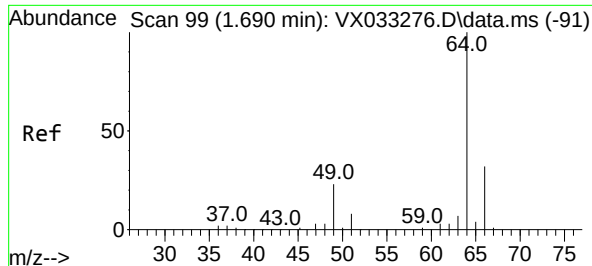
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#4  
Vinyl Chloride  
Concen: 1.104 ug/l  
RT: 1.374 min Scan# 47  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Tgt Ion: 62 Resp: 1445  
Ion Ratio Lower Upper  
62 100  
64 27.5 25.8 38.6





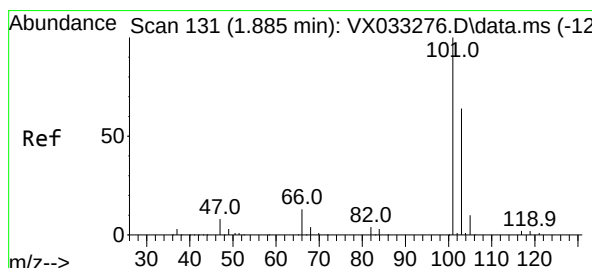
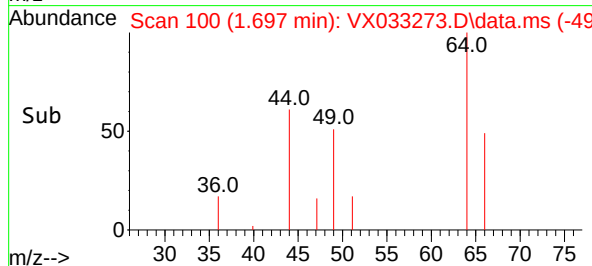
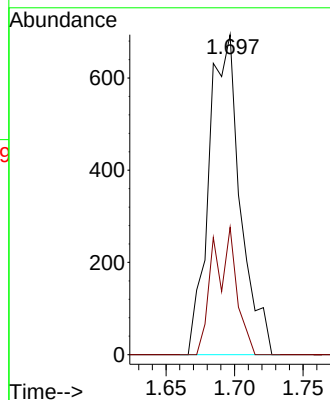
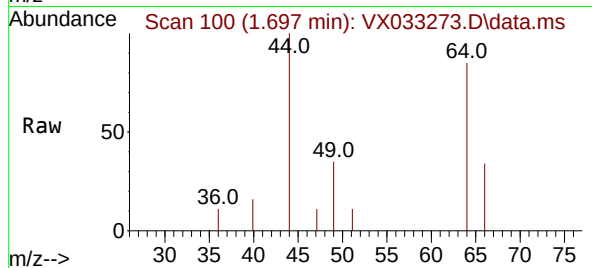
#6  
Chloroethane  
Concen: 1.037 ug/l  
RT: 1.697 min Scan# 110  
Delta R.T. 0.012 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC001

Tgt Ion: 64 Resp: 110  
Ion Ratio Lower Upper  
64 100  
66 39.8 26.0 39.0

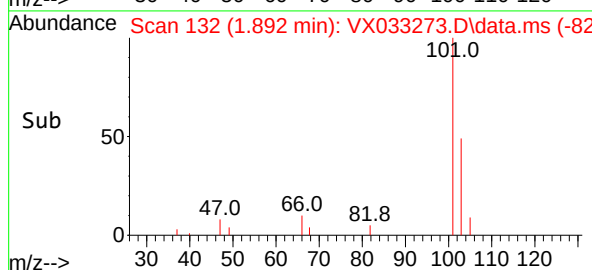
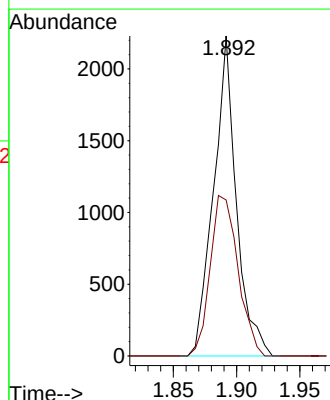
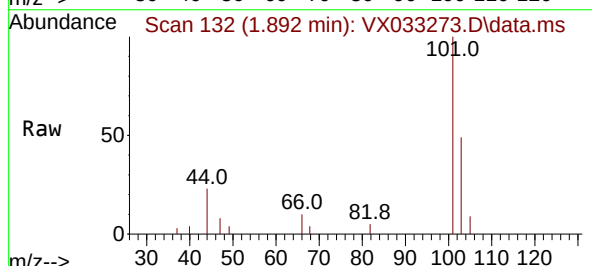
Manual Integrations  
APPROVED

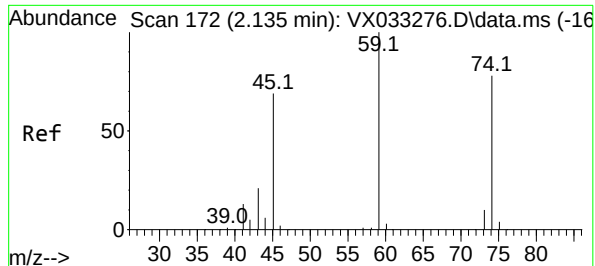
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#7  
Trichlorofluoromethane  
Concen: 1.100 ug/l  
RT: 1.892 min Scan# 132  
Delta R.T. 0.006 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Tgt Ion:101 Resp: 2793  
Ion Ratio Lower Upper  
101 100  
103 48.7 51.4 77.2#





#8  
Diethyl Ether

Concen: 1.112 ug/l

RT: 2.136 min Scan# 11

Delta R.T. 0.006 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion: 74 Resp: 889

Ion Ratio Lower Upper

74 100

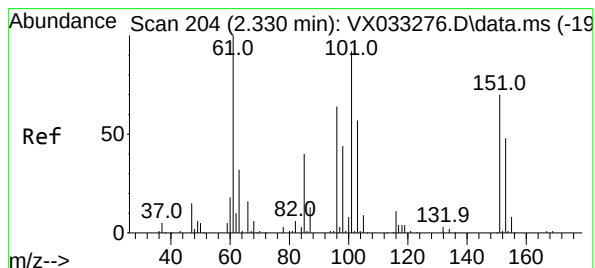
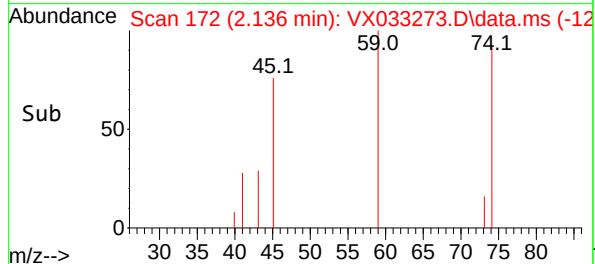
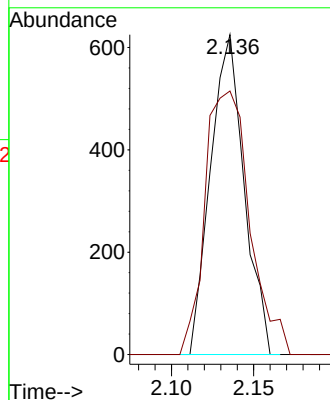
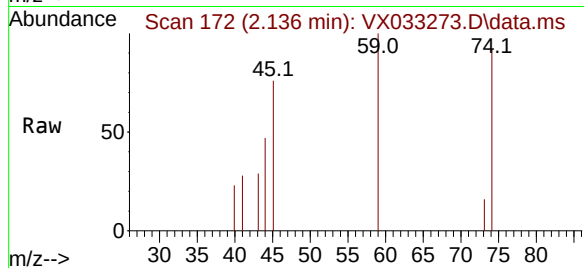
45 109.8 46.6 139.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#9

1,1,2-Trichlorotrifluoroethane

Concen: 0.942 ug/l

RT: 2.331 min Scan# 204

Delta R.T. -0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

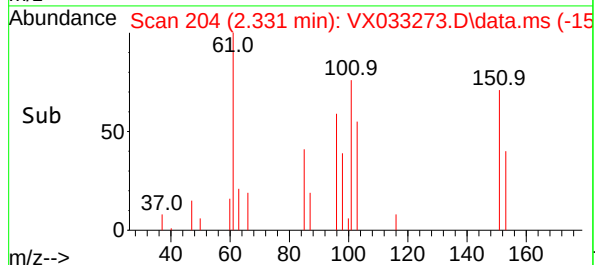
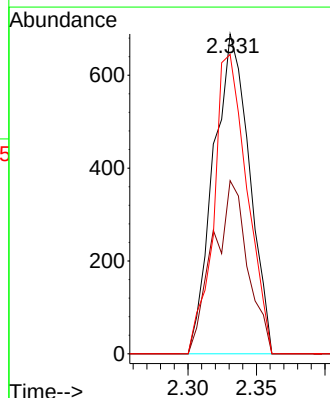
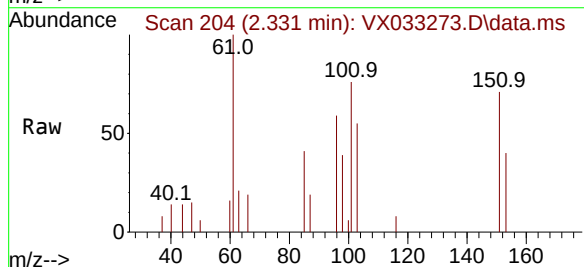
Tgt Ion:101 Resp: 1257

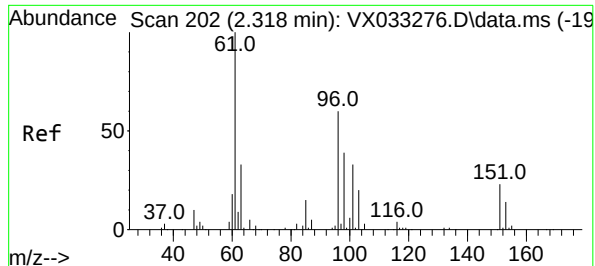
Ion Ratio Lower Upper

101 100

85 52.3 37.0 55.4

151 86.6 64.4 96.6





#12

1,1-Dichloroethene

Concen: 1.012 ug/l

RT: 2.318 min Scan# 20

Delta R.T. -0.001 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion: 96 Resp: 125

Ion Ratio Lower Upper

96 100

61 162.4 125.1 187.7

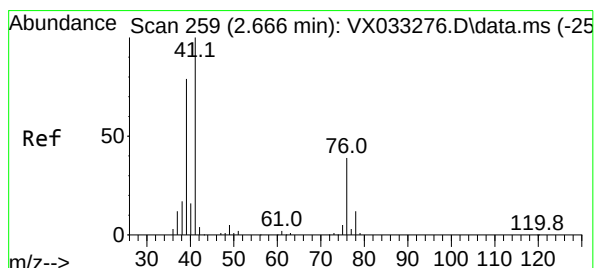
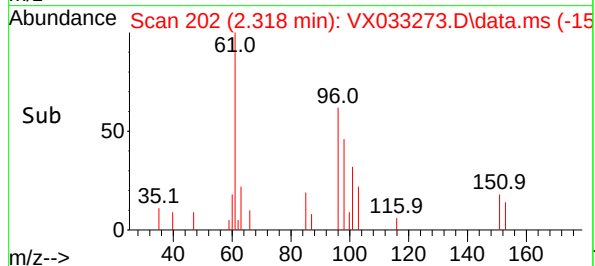
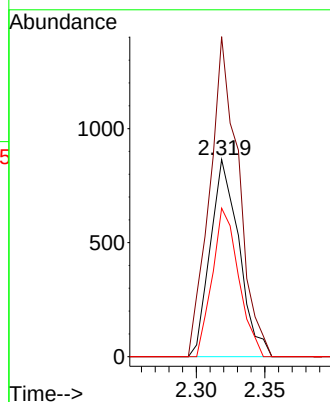
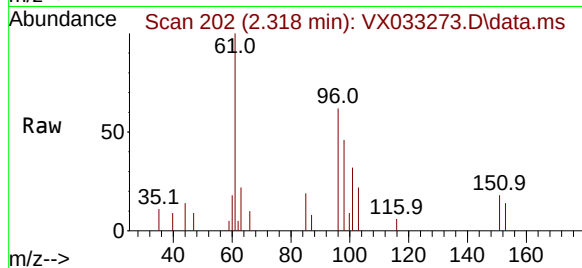
98 75.3 50.6 76.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#14

Allyl chloride

Concen: 0.962 ug/l

RT: 2.666 min Scan# 259

Delta R.T. 0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

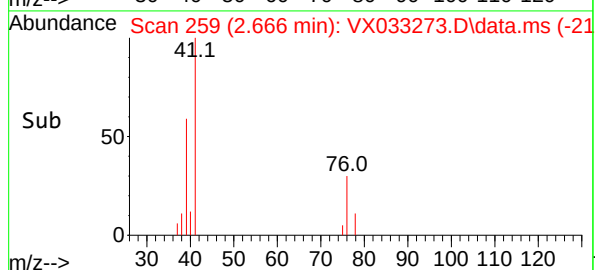
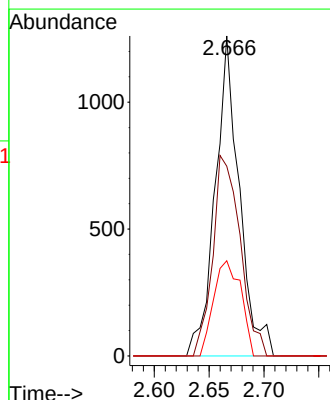
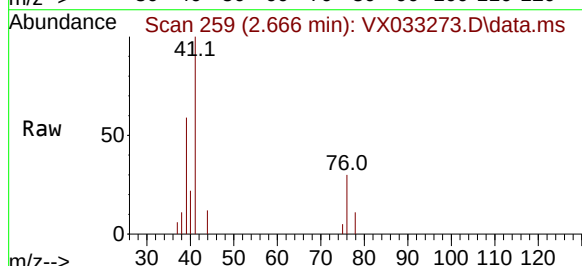
Tgt Ion: 41 Resp: 1931

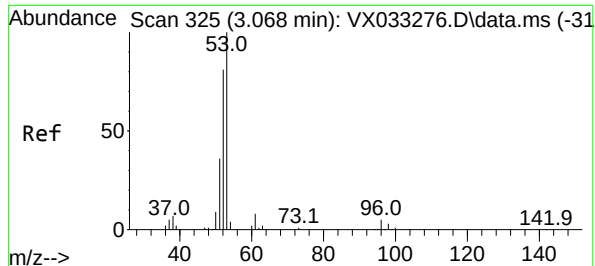
Ion Ratio Lower Upper

41 100

39 71.1 61.4 92.2

76 33.6 29.2 43.8





#15

Acrylonitrile

Concen: 4.842 ug/l

RT: 3.074 min Scan# 31

Delta R.T. 0.012 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

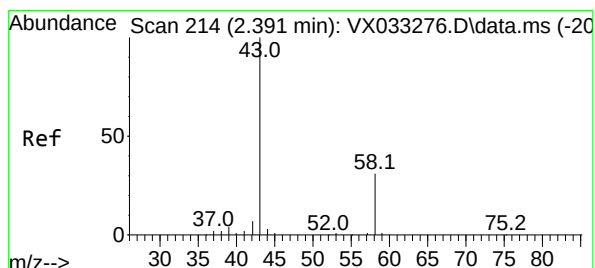
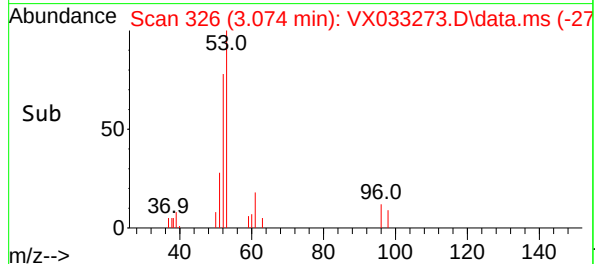
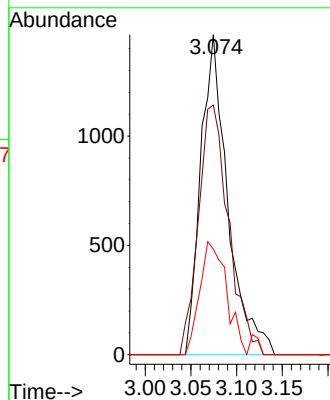
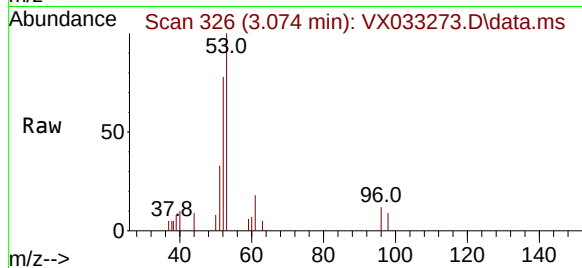
|             |             |
|-------------|-------------|
| Tgt Ion: 53 | Resp: 301   |
| Ion Ratio   | Lower Upper |
| 53 100      |             |
| 52 86.9     | 67.4 101.0  |
| 51 35.0     | 30.3 45.5   |

## Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#16

Acetone

Concen: 5.757 ug/l

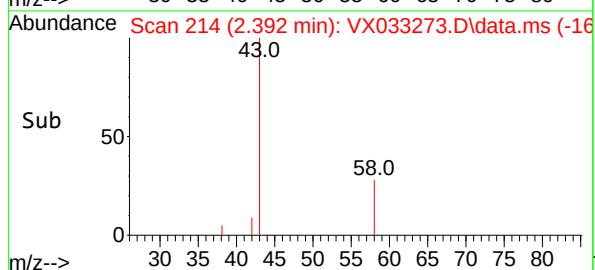
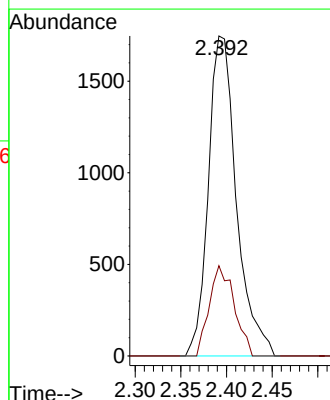
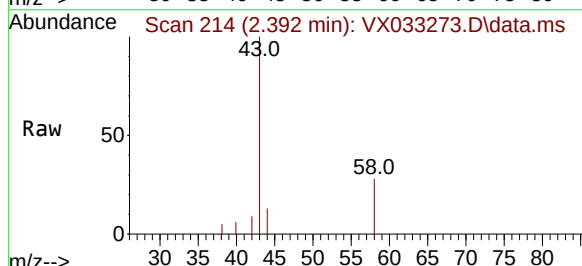
RT: 2.392 min Scan# 214

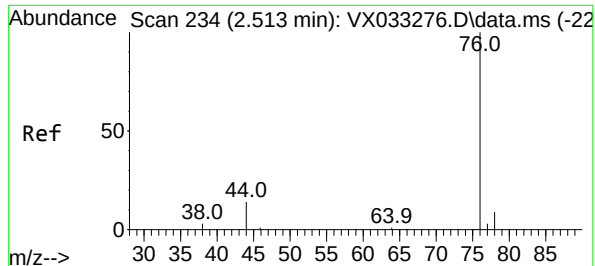
Delta R.T. 0.012 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

|             |             |
|-------------|-------------|
| Tgt Ion: 43 | Resp: 3731  |
| Ion Ratio   | Lower Upper |
| 43 100      |             |
| 58 28.2     | 23.8 35.8   |





#17

Carbon Disulfide

Concen: 0.987 ug/l

RT: 2.514 min Scan# 21

Delta R.T. -0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion: 76 Resp: 339

Ion Ratio Lower Upper

76 100

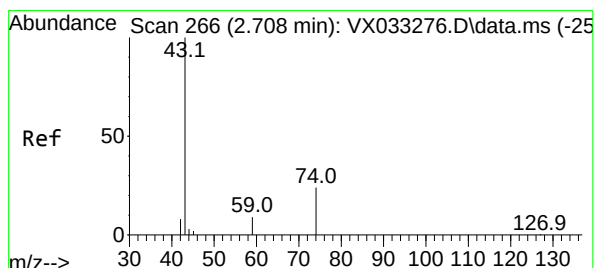
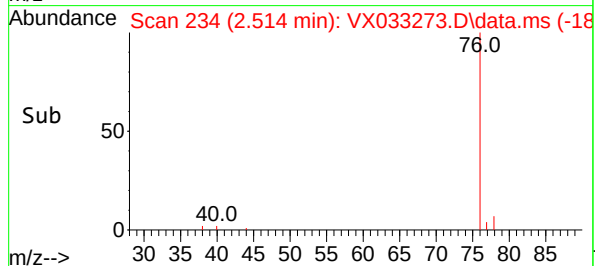
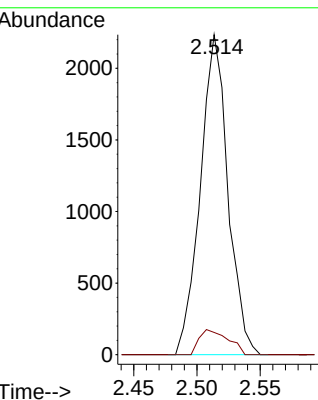
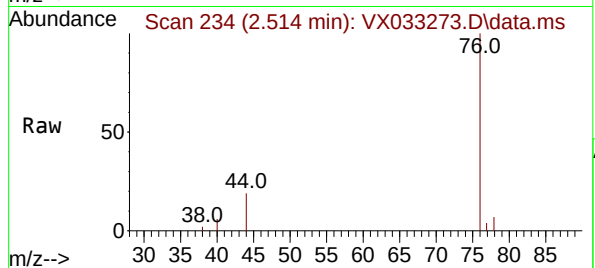
78 6.9 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#18

Methyl Acetate

Concen: 0.967 ug/l

RT: 2.709 min Scan# 266

Delta R.T. 0.006 min

Lab File: VX033273.D

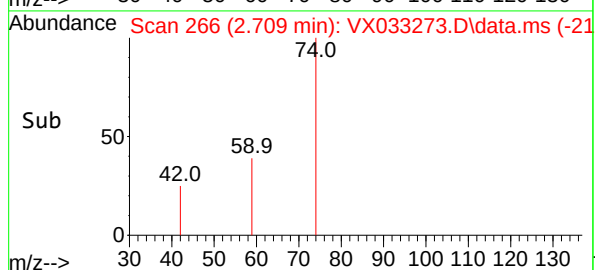
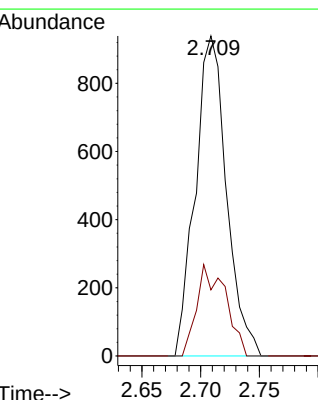
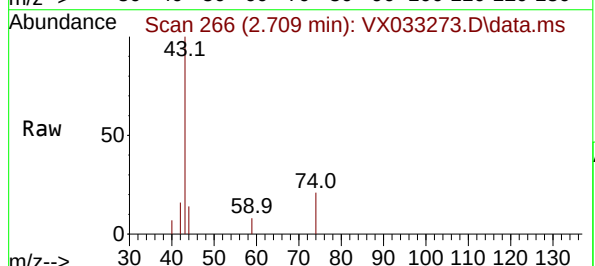
Acq: 07 Dec 2022 09:46

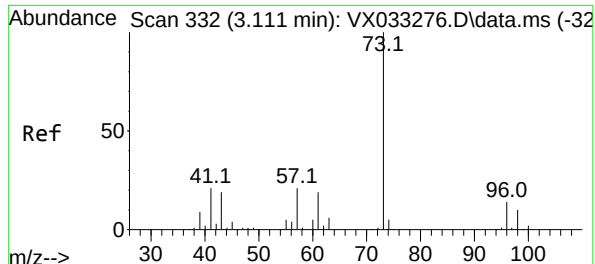
Tgt Ion: 43 Resp: 1734

Ion Ratio Lower Upper

43 100

74 26.4 19.4 29.0





#19

Methyl tert-butyl Ether

Concen: 0.868 ug/l

RT: 3.111 min Scan# 31

Delta R.T. 0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion: 73 Resp: 374

Ion Ratio Lower Upper

73 100

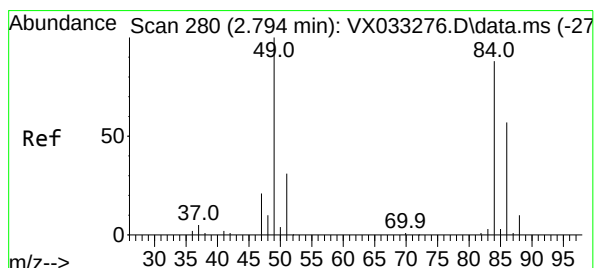
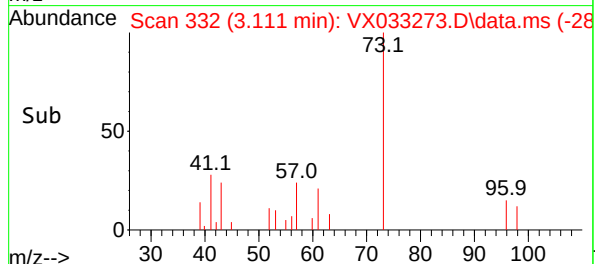
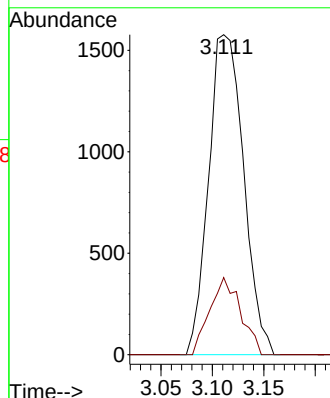
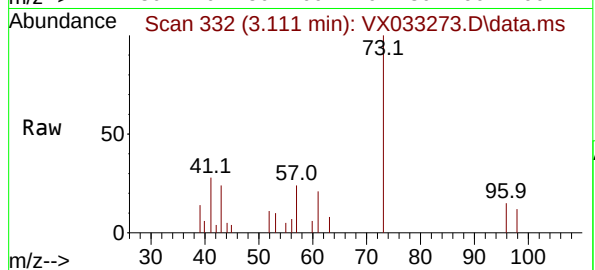
57 24.1 16.6 25.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#20

Methylene Chloride

Concen: 1.036 ug/l

RT: 2.794 min Scan# 280

Delta R.T. 0.006 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Tgt Ion: 84 Resp: 1618

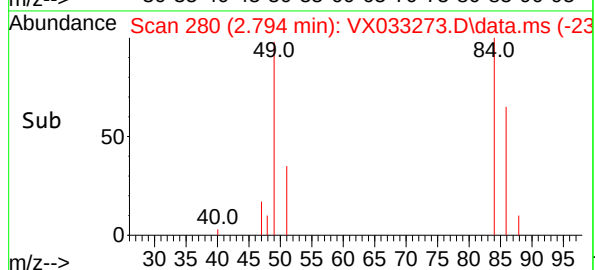
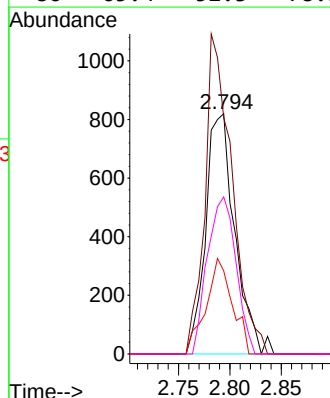
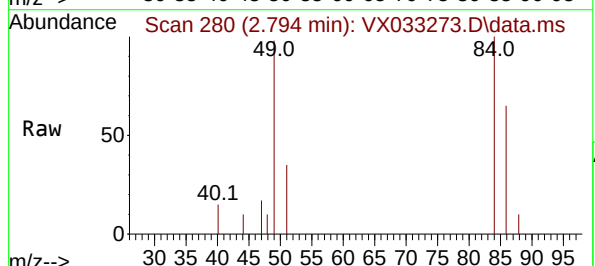
Ion Ratio Lower Upper

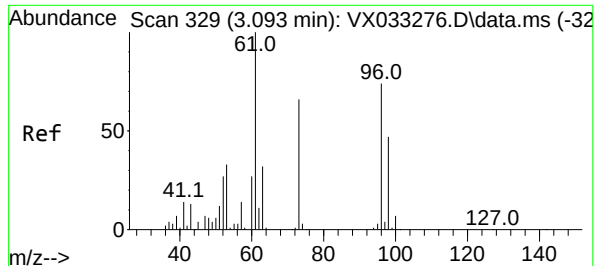
84 100

49 98.3 101.0 151.6#

51 34.5 31.1 46.7

86 65.4 52.3 78.5





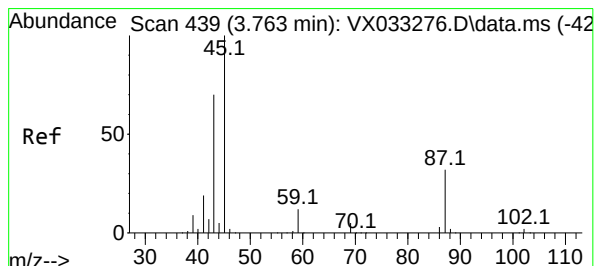
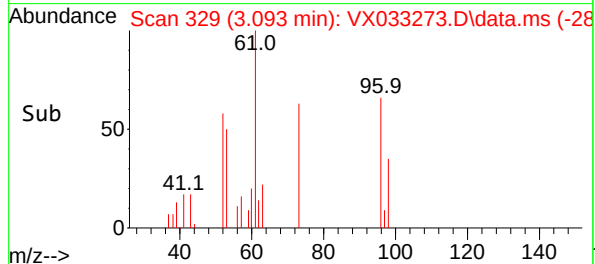
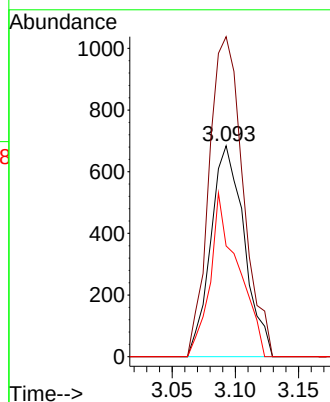
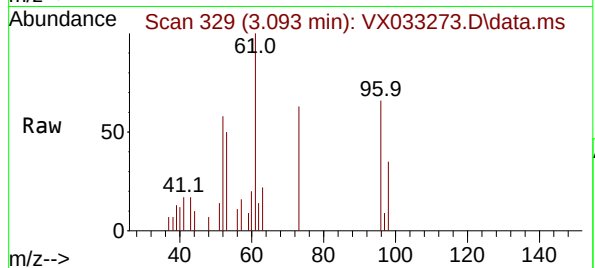
#21  
trans-1,2-Dichloroethene  
Concen: 0.884 ug/l  
RT: 3.093 min Scan# 31  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC001

Tgt Ion: 96 Resp: 125  
Ion Ratio Lower Upper  
96 100  
61 151.8 106.6 160.0  
98 52.5 51.0 76.6

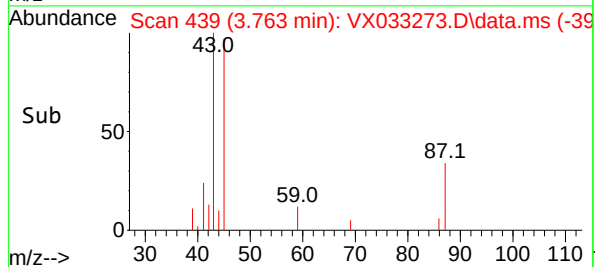
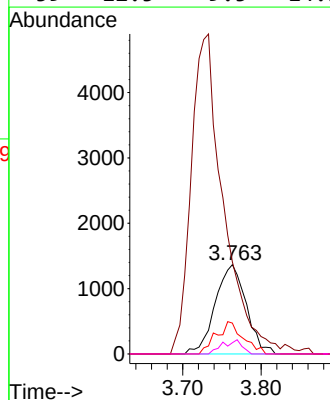
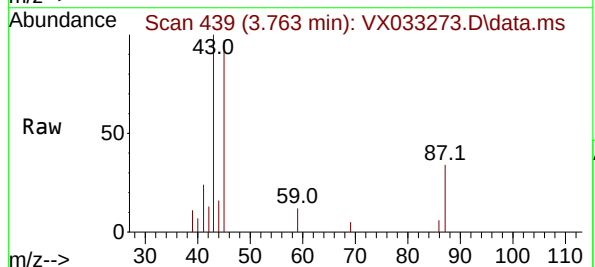
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

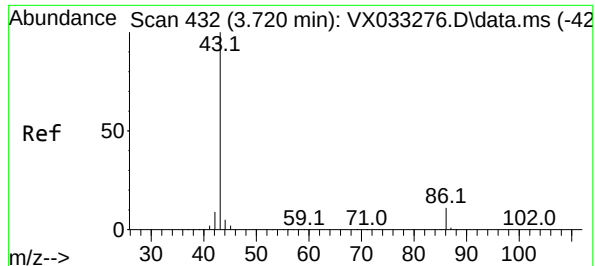


#22  
Diisopropyl ether  
Concen: 0.859 ug/l  
RT: 3.763 min Scan# 439  
Delta R.T. 0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Tgt Ion: 45 Resp: 3754  
Ion Ratio Lower Upper  
45 100  
43 97.5 56.4 84.6#  
87 34.6 24.4 36.6  
59 12.5 9.5 14.3







#23

Vinyl Acetate

Concen: 4.129 ug/l

RT: 3.733 min Scan# 413

Delta R.T. 0.012 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC001

Tgt Ion: 43 Resp: 1413

Ion Ratio Lower Upper

43 100

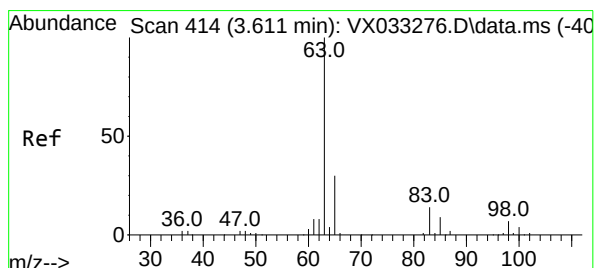
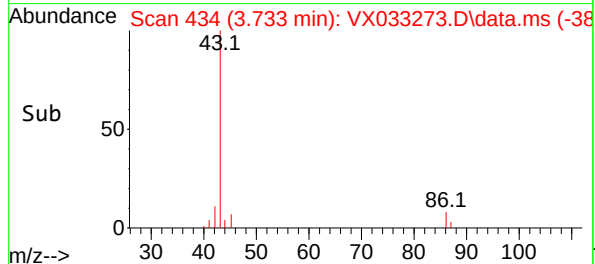
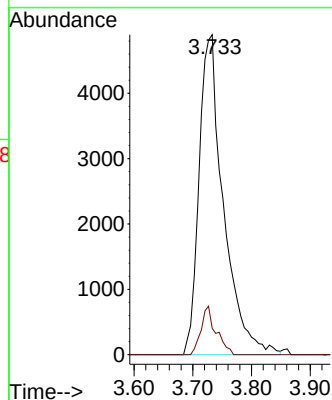
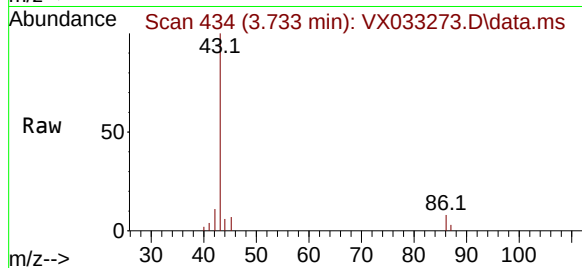
86 8.2 8.6 12.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#24

1,1-Dichloroethane

Concen: 1.002 ug/l

RT: 3.611 min Scan# 414

Delta R.T. -0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

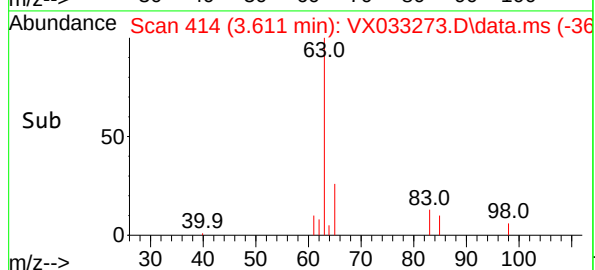
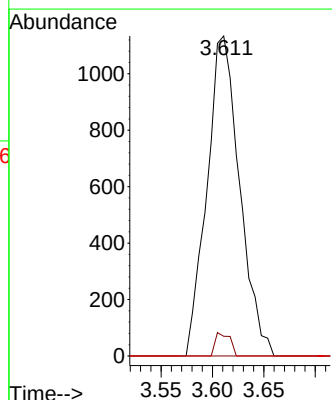
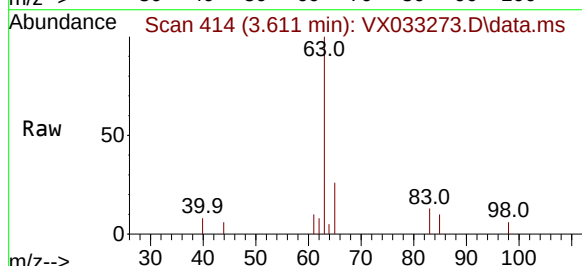
Tgt Ion: 63 Resp: 2507

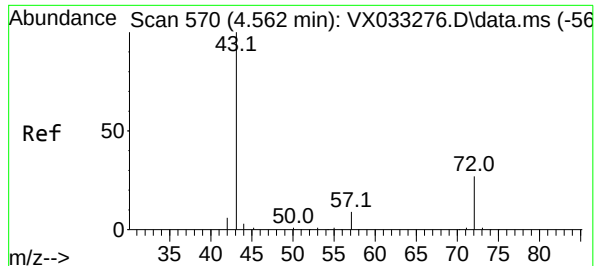
Ion Ratio Lower Upper

63 100

98 6.2 3.5 10.4

100 0.0 2.3 6.8





#25

2-Butanone

Concen: 4.735 ug/l

RT: 4.574 min Scan# 51

Delta R.T. 0.018 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion: 43 Resp: 423

Ion Ratio Lower Upper

43 100

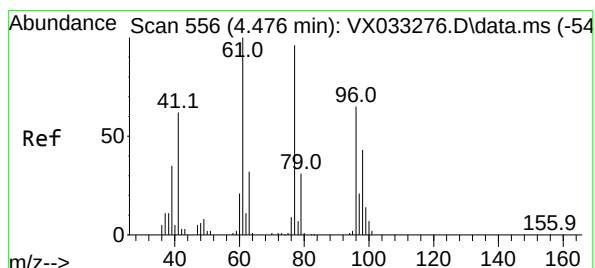
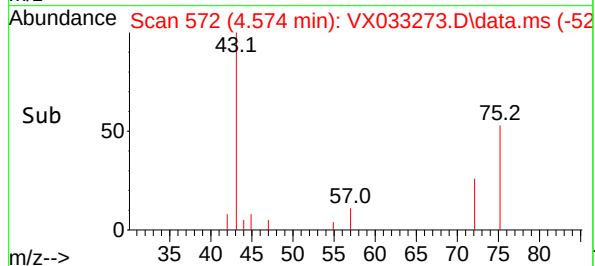
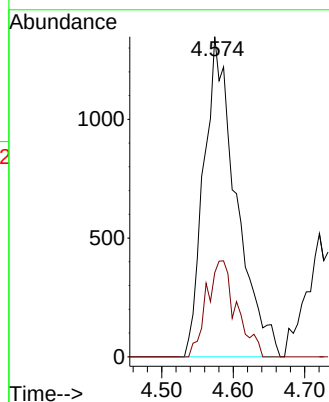
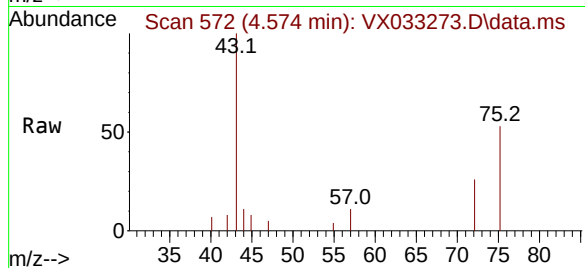
72 26.3 22.2 33.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#26

2,2-Dichloropropane

Concen: 0.853 ug/l

RT: 4.464 min Scan# 554

Delta R.T. -0.013 min

Lab File: VX033273.D

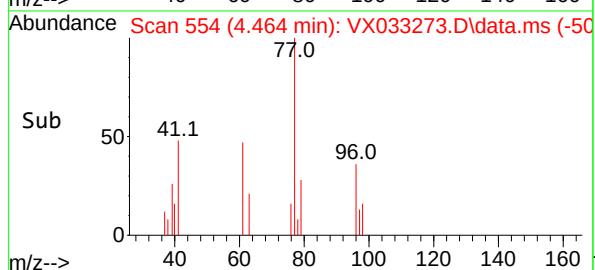
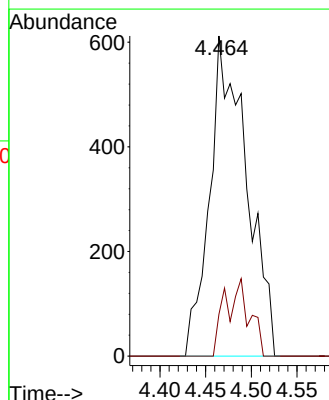
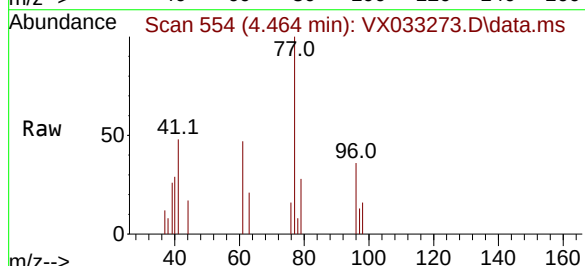
Acq: 07 Dec 2022 09:46

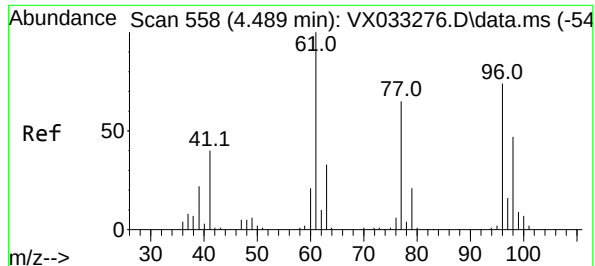
Tgt Ion: 77 Resp: 1715

Ion Ratio Lower Upper

77 100

97 5.9 11.4 34.1#





#27

cis-1,2-Dichloroethene

Concen: 0.960 ug/l

RT: 4.489 min Scan# 558

Delta R.T. -0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion: 96 Resp: 155

Ion Ratio Lower Upper

96 100

61 141.5 0.0 286.0

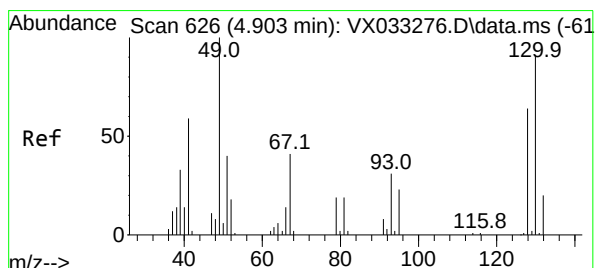
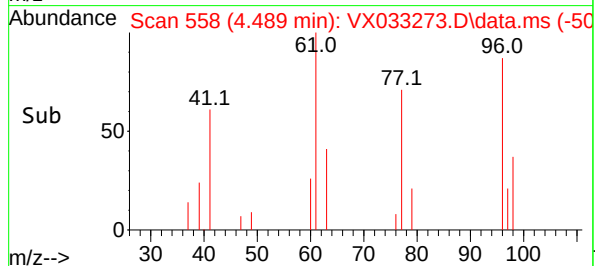
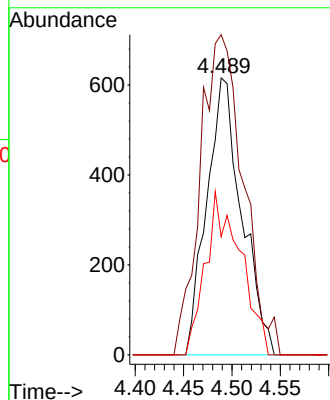
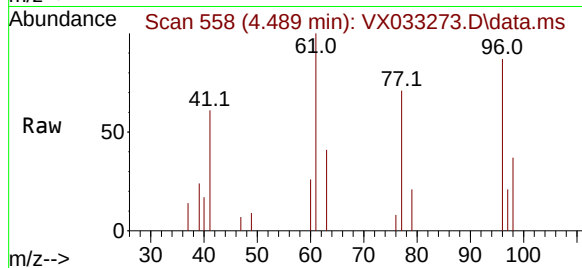
98 58.6 0.0 129.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#28

Bromochloromethane

Concen: 0.981 ug/l

RT: 4.903 min Scan# 626

Delta R.T. -0.001 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

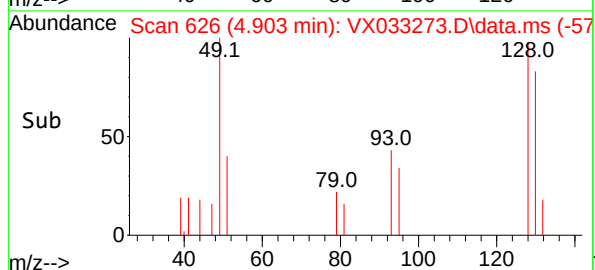
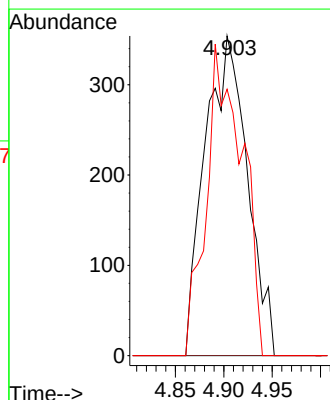
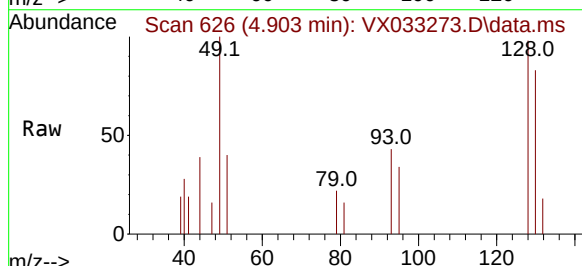
Tgt Ion: 49 Resp: 1078

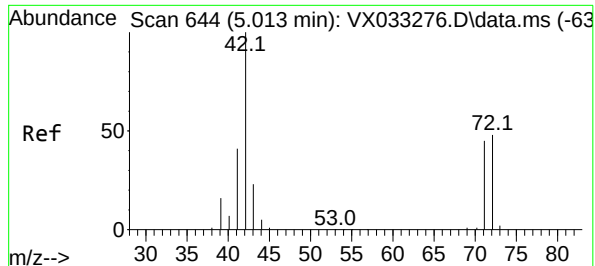
Ion Ratio Lower Upper

49 100

129 0.0 0.0 3.8

130 82.5 67.5 101.3





#29

Tetrahydrofuran

Concen: 4.756 ug/l

RT: 5.031 min Scan# 644

Delta R.T. 0.030 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

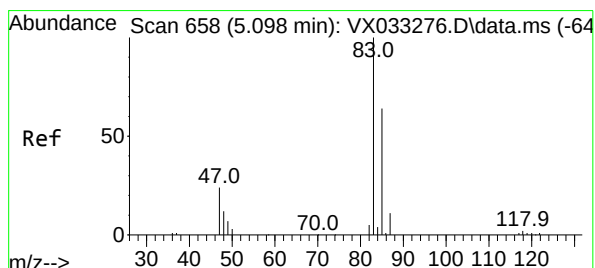
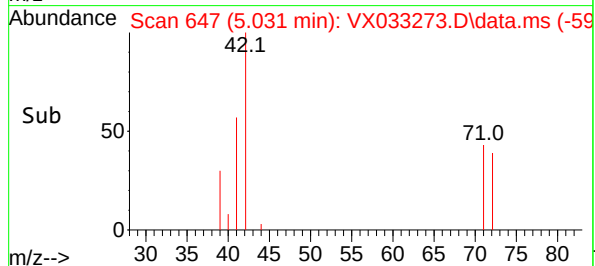
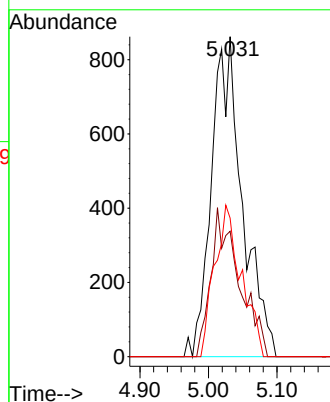
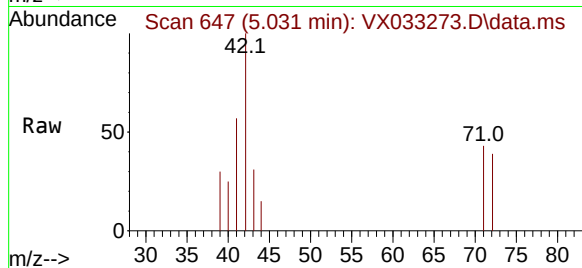
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 42    | Resp: | 269  |
| Ion Ratio | Lower | Upper |      |
| 42        | 100   |       |      |
| 72        | 42.4  | 37.6  | 56.4 |
| 71        | 40.8  | 34.7  | 52.1 |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#30

Chloroform

Concen: 0.952 ug/l

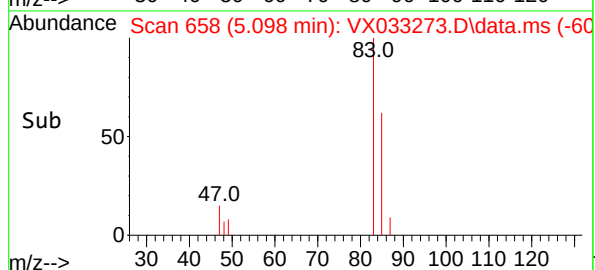
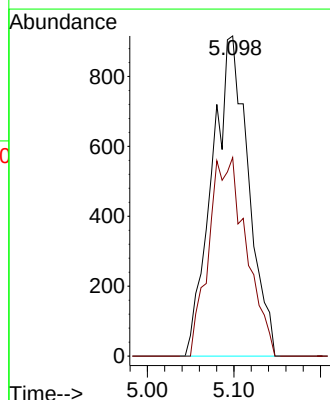
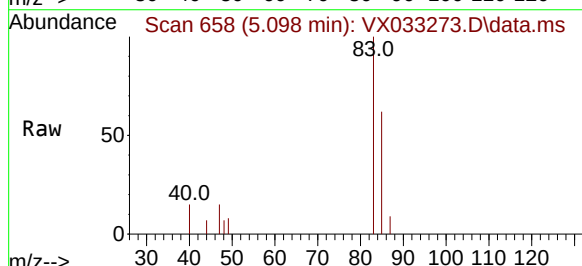
RT: 5.098 min Scan# 658

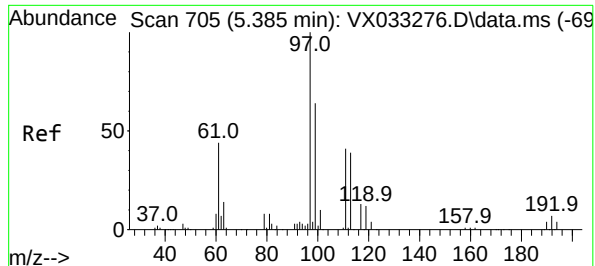
Delta R.T. -0.001 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 83    | Resp: | 2666 |
| Ion Ratio | Lower | Upper |      |
| 83        | 100   |       |      |
| 85        | 62.0  | 51.1  | 76.7 |





#32

1,1,1-Trichloroethane

Concen: 0.873 ug/l

RT: 5.379 min Scan# 70

Delta R.T. -0.006 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC001

Tgt Ion: 97 Resp: 2190

Ion Ratio Lower Upper

97 100

99 0.0 51.4 77.0

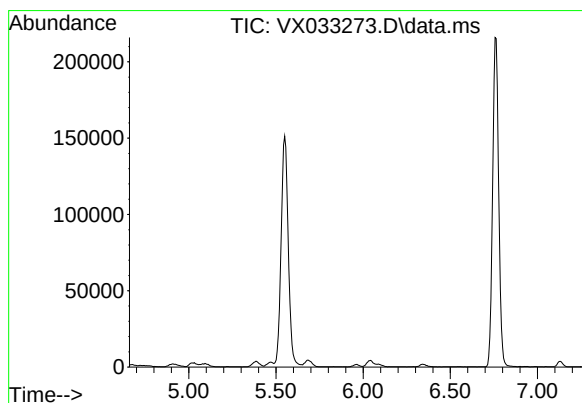
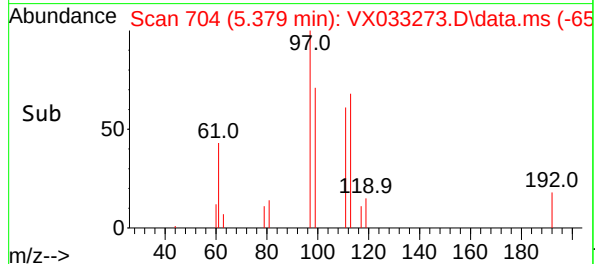
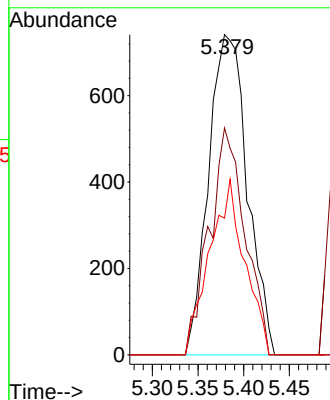
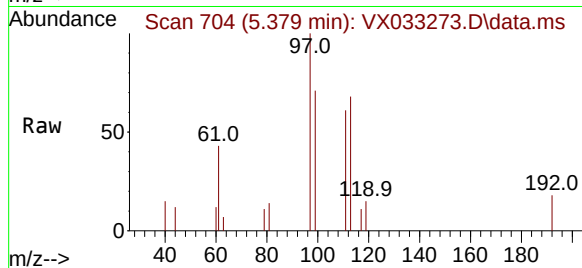
61 49.5 35.2 52.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#33

1,2-Dichloroethane-d4

Concen: 0.000 ug/l

Expected RT: 5.96 min

Lab File: VX033273.D

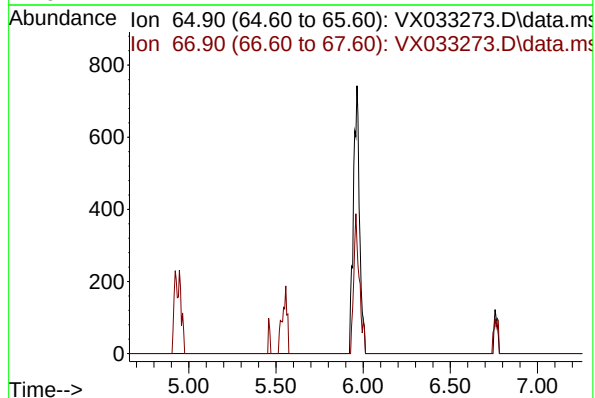
Acq: 07 Dec 2022 09:46

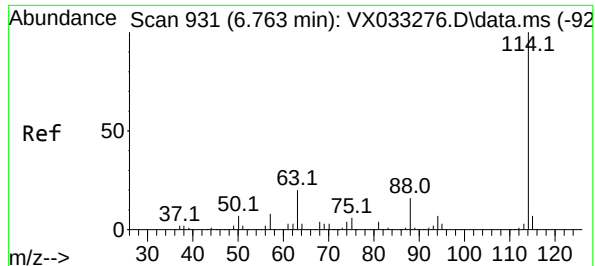
Tgt Ion: 65

Sig Exp Ratio

65 100

67 50.9





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.763 min Scan# 91

Delta R.T. -0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC001

Tgt Ion:114 Resp: 22580

Ion Ratio Lower Upper

114 100

63 19.3 0.0 41.6

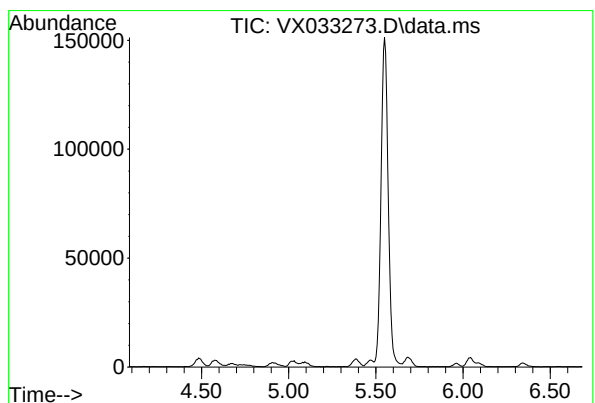
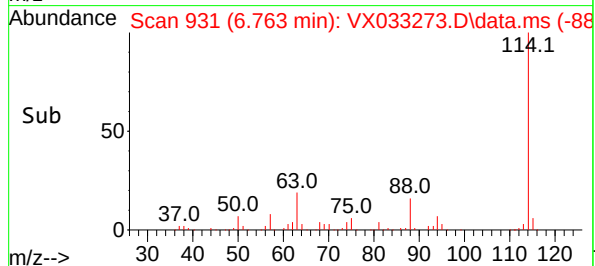
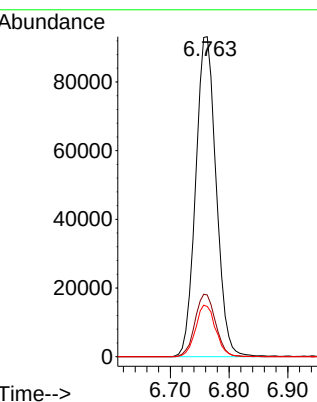
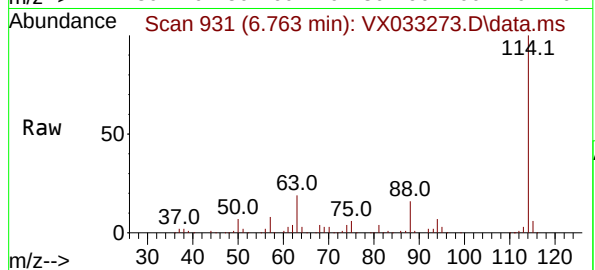
88 15.7 0.0 33.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#35

Dibromofluoromethane

Concen: 0.000 ug/l

Expected RT: 5.38 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

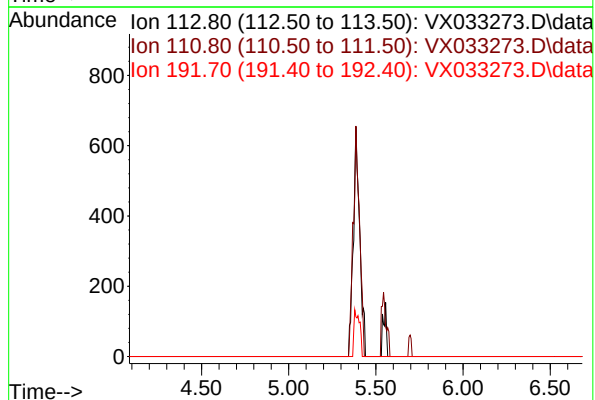
Tgt Ion: 113

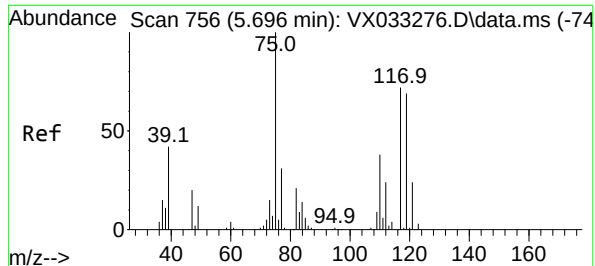
Sig Exp Ratio

113 100

111 103.0

192 19.3





#36

1,1-Dichloropropene

Concen: 0.974 ug/l

RT: 5.696 min Scan# 756

Delta R.T. -0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

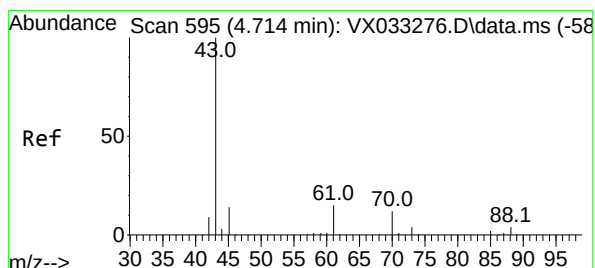
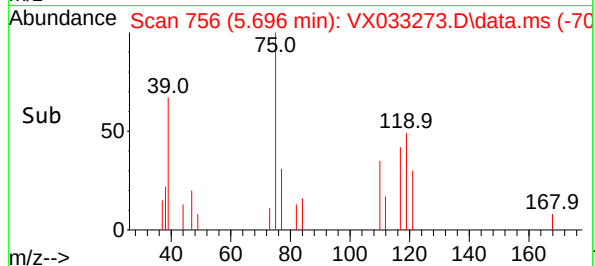
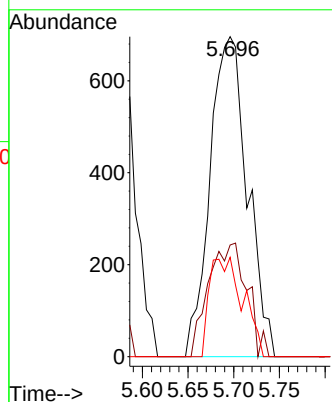
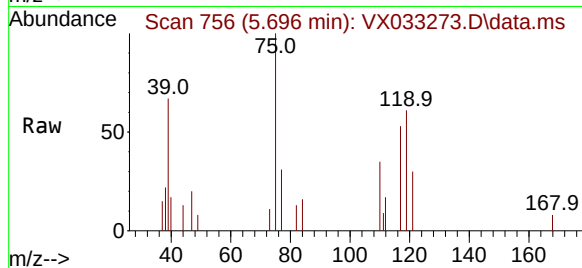
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 198   |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 110      | 36.4  | 18.4  | 55.2  |
| 77       | 27.5  | 24.5  | 36.7  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#37

Ethyl Acetate

Concen: 0.904 ug/l

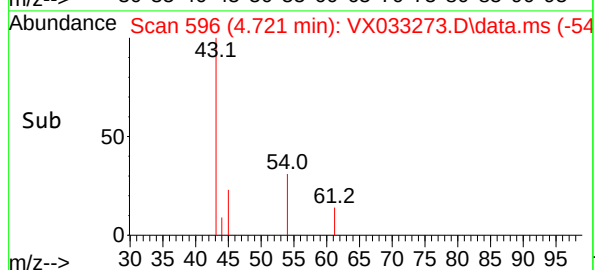
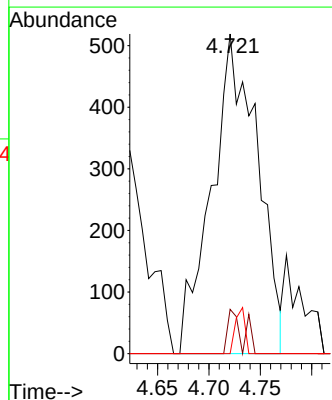
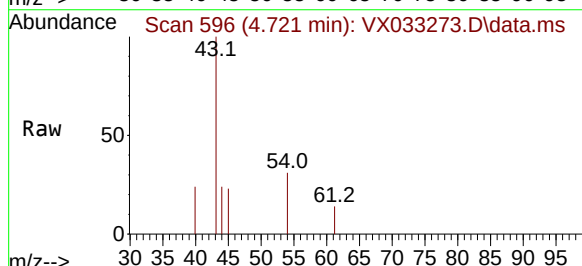
RT: 4.721 min Scan# 596

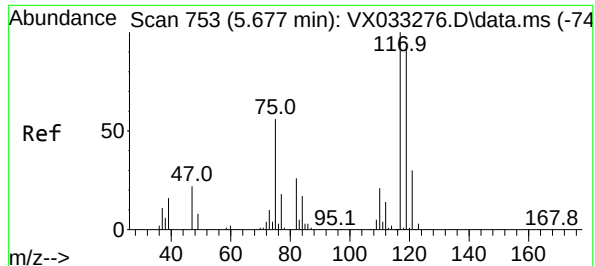
Delta R.T. 0.006 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 1606  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 4.5   | 11.5  | 17.3# |
| 70       | 3.1   | 9.1   | 13.7# |





#38

Carbon Tetrachloride

Concen: 0.955 ug/l

RT: 5.672 min Scan# 753

Delta R.T. -0.012 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion: 117 Resp: 2150

Ion Ratio Lower Upper

117 100

119 78.3 77.2 115.8

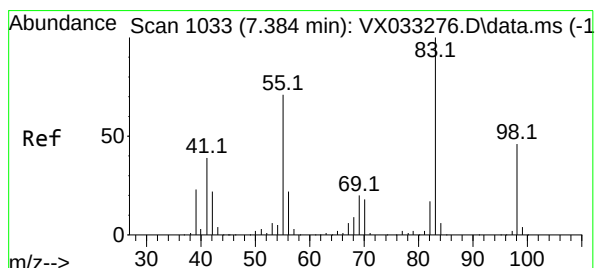
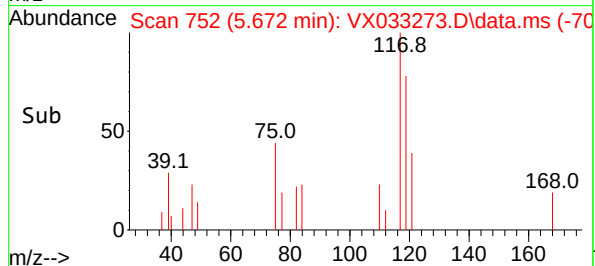
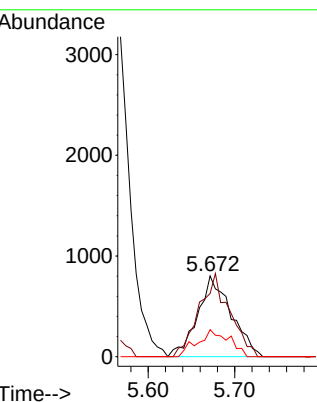
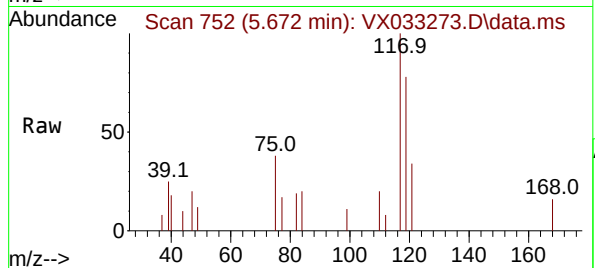
121 33.5 25.8 38.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#39

Methylcyclohexane

Concen: 0.947 ug/l

RT: 7.385 min Scan# 1033

Delta R.T. -0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

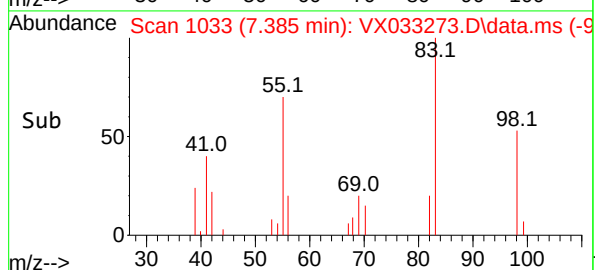
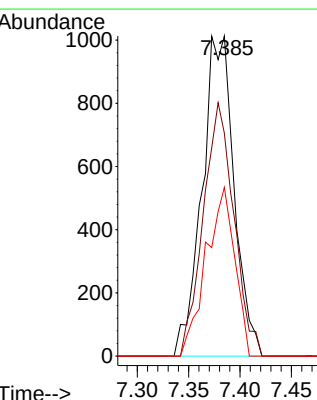
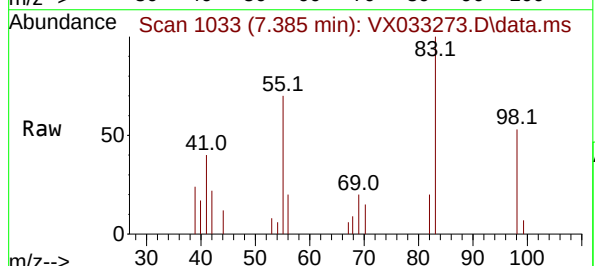
Tgt Ion: 83 Resp: 2200

Ion Ratio Lower Upper

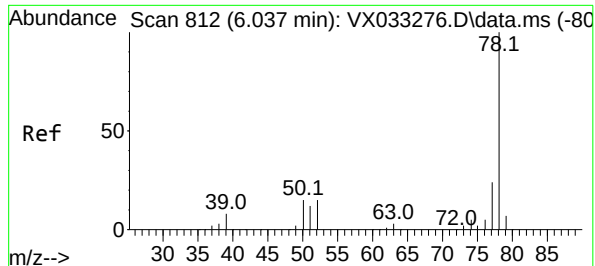
83 100

55 69.6 58.4 87.6

98 52.7 37.2 55.8







#40

Benzene

Concen: 0.933 ug/l

RT: 6.043 min Scan# 812

Delta R.T. 0.006 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion: 78 Resp: 5324

Ion Ratio Lower Upper

78 100

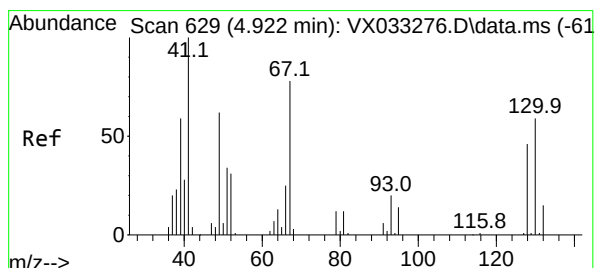
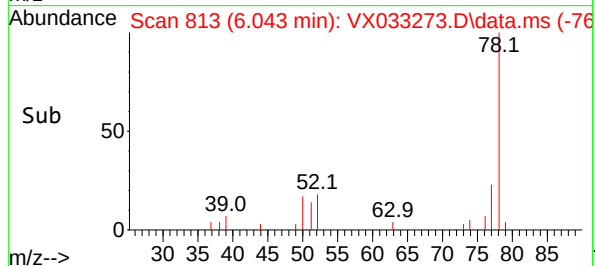
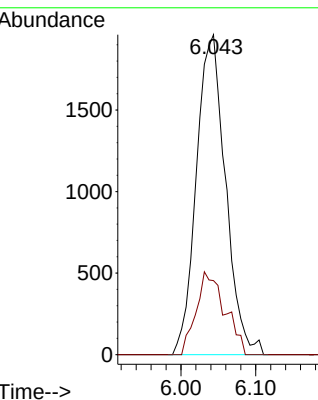
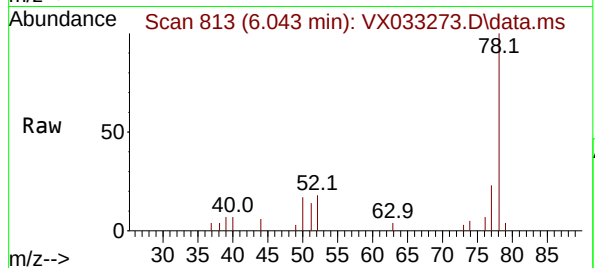
77 23.1 19.0 28.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#41

Methacrylonitrile

Concen: 0.837 ug/l

RT: 4.940 min Scan# 632

Delta R.T. 0.018 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Tgt Ion: 41 Resp: 836

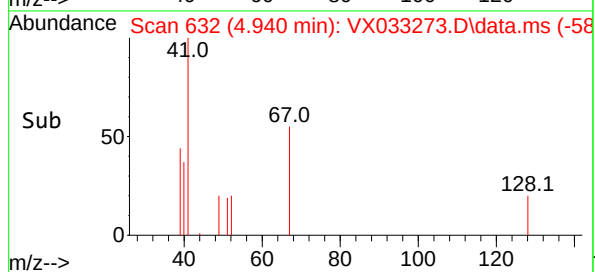
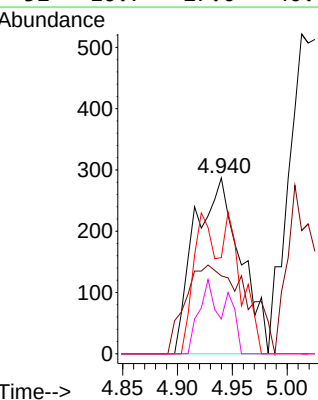
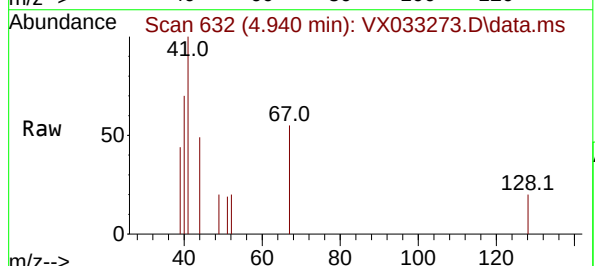
Ion Ratio Lower Upper

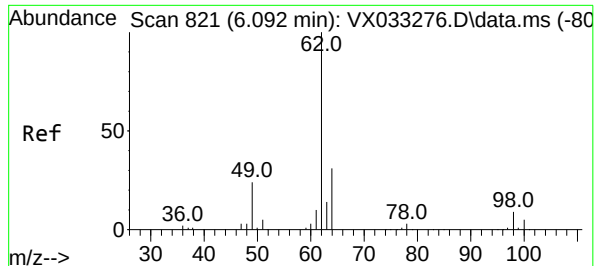
41 100

39 67.6 47.5 71.3

67 35.8 60.5 90.7#

52 16.7 27.0 40.6#





#42

1,2-Dichloroethane

Concen: 0.934 ug/l

RT: 6.092 min Scan# 821

Delta R.T. 0.006 min

Lab File: VX033273.D

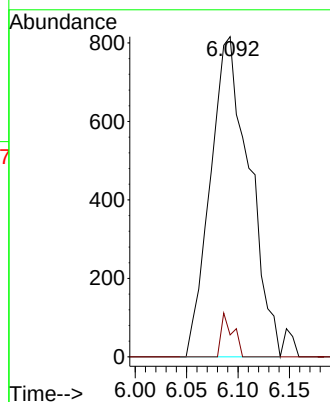
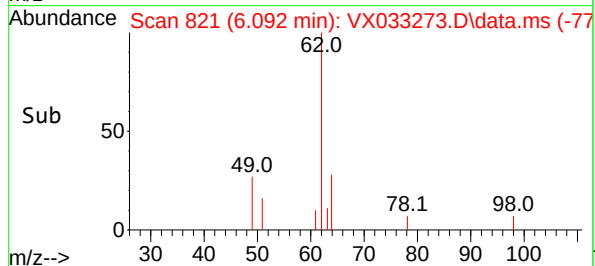
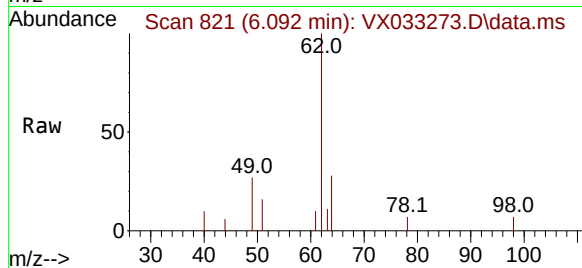
Acq: 07 Dec 2022 09:46

Tgt Ion: 62 Resp: 214

Ion Ratio Lower Upper

62 100

98 4.1 0.0 16.0



Instrument :

MSVOA\_X

ClientSampleId :

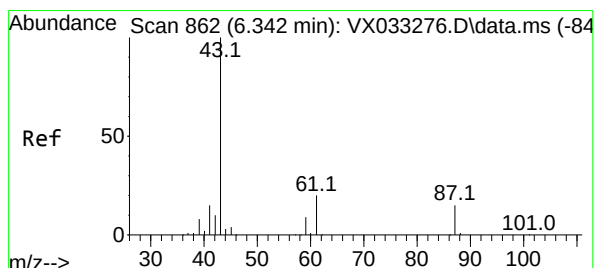
VSTDIC001

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#43

Isopropyl Acetate

Concen: 0.863 ug/l

RT: 6.342 min Scan# 862

Delta R.T. 0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

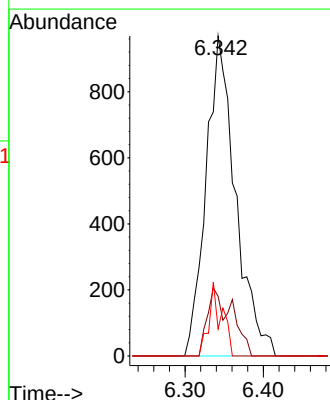
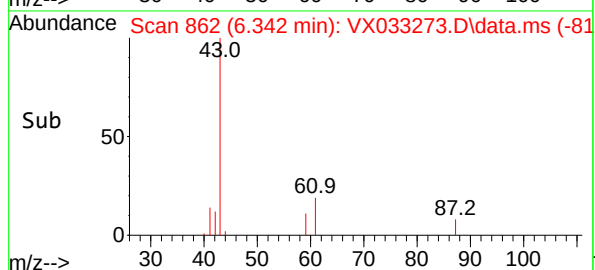
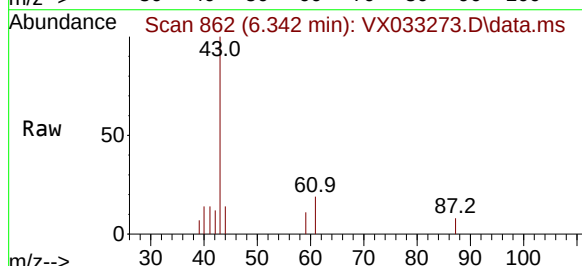
Tgt Ion: 43 Resp: 2534

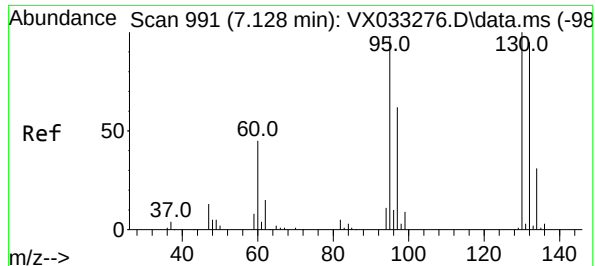
Ion Ratio Lower Upper

43 100

61 17.6 15.4 23.0

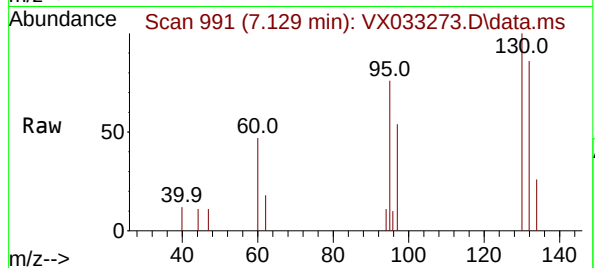
87 10.0 10.8 16.2#





#44  
Trichloroethene  
Concen: 0.904 ug/l  
RT: 7.129 min Scan# 991  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

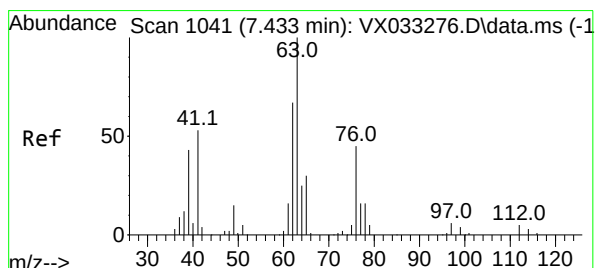
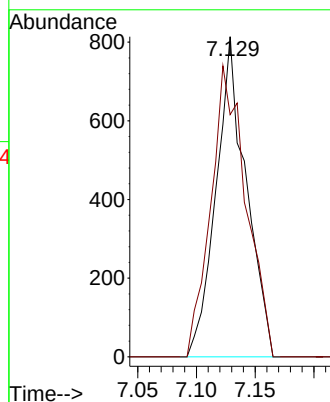
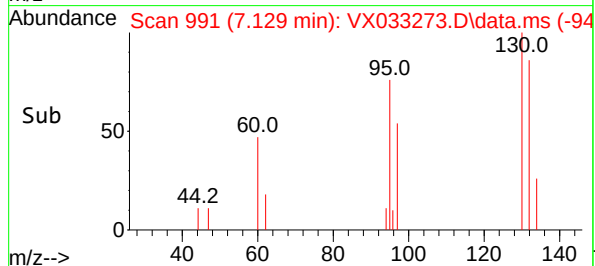
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC001



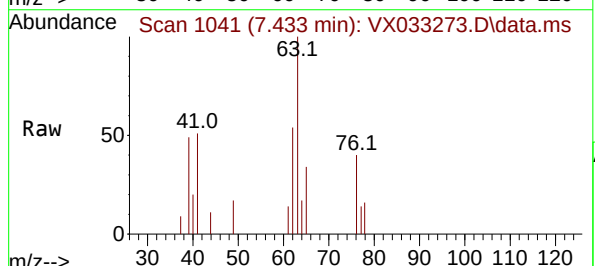
Tgt Ion:130 Resp: 144  
Ion Ratio Lower Upper  
130 100  
95 75.7 0.0 195.2

Manual Integrations  
APPROVED

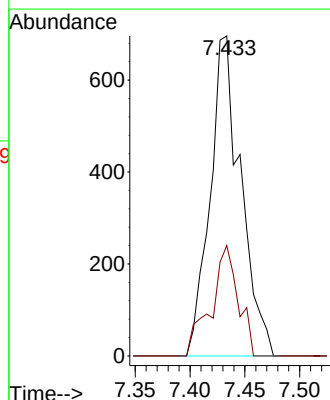
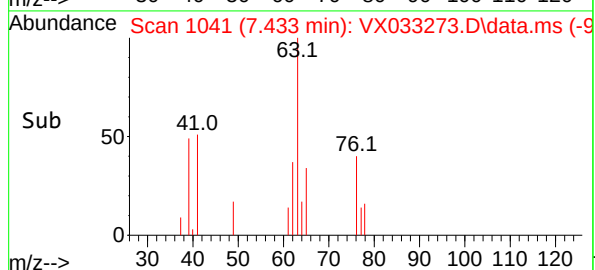
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

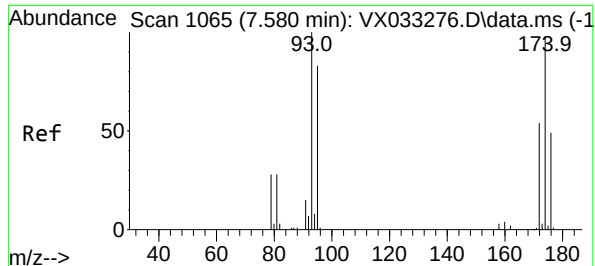


#45  
1,2-Dichloropropane  
Concen: 0.961 ug/l  
RT: 7.433 min Scan# 1041  
Delta R.T. -0.001 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46



Tgt Ion: 63 Resp: 1355  
Ion Ratio Lower Upper  
63 100  
65 34.5 24.6 36.8





#46

Dibromomethane

Concen: 0.929 ug/l

RT: 7.580 min Scan# 1065

Delta R.T. -0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC001

Tgt Ion: 93 Resp: 102

Ion Ratio Lower Upper

93 100

95 82.4 65.8 98.8

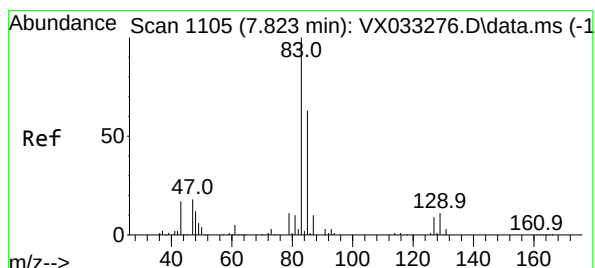
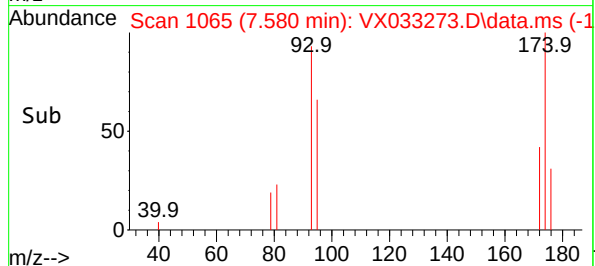
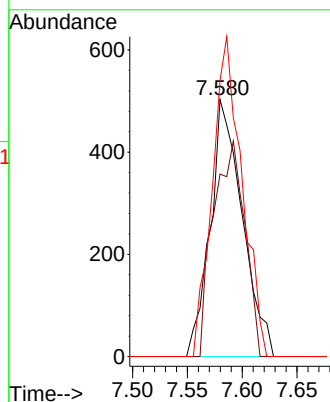
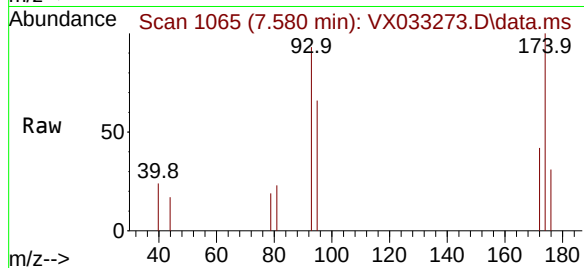
174 115.3 79.8 119.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#47

Bromodichloromethane

Concen: 0.909 ug/l

RT: 7.824 min Scan# 1105

Delta R.T. -0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

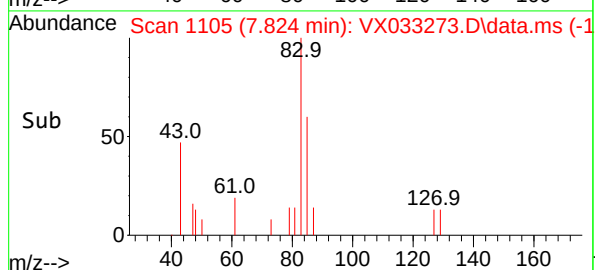
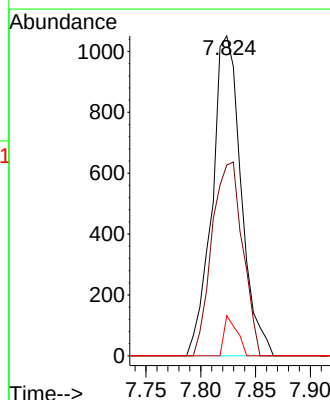
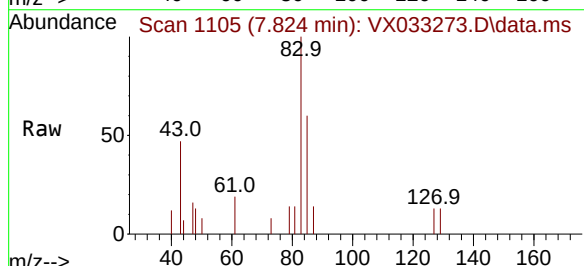
Tgt Ion: 83 Resp: 1934

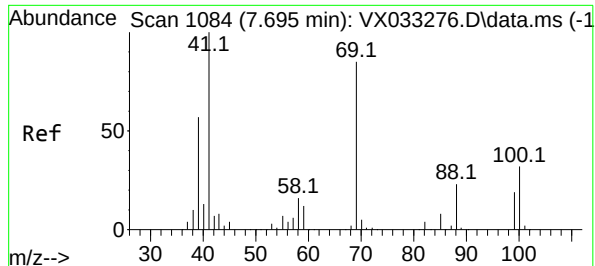
Ion Ratio Lower Upper

83 100

85 59.7 52.2 78.4

127 12.6 7.4 11.2#





#48

Methyl methacrylate

Concen: 0.927 ug/l

RT: 7.702 min Scan# 1085

Delta R.T. 0.006 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

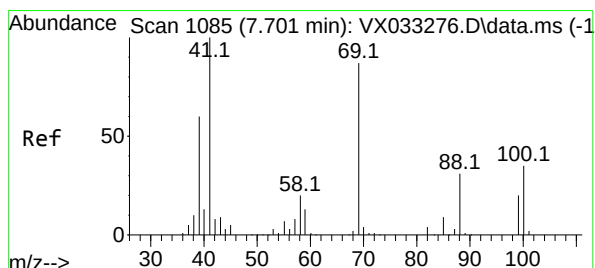
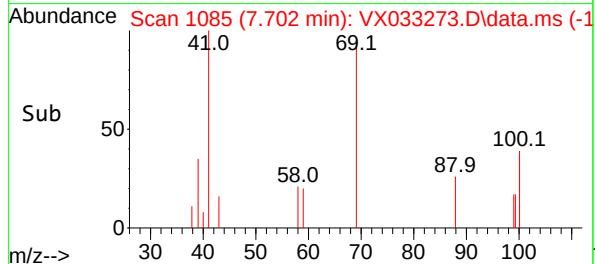
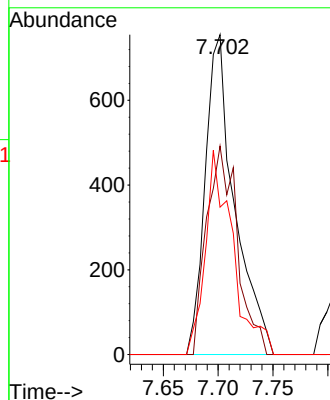
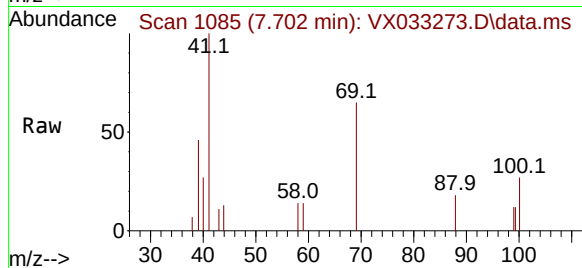
VSTDIC001

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 41    | Resp: | 140  |
| Ion Ratio | Lower | Upper |      |
| 41        | 100   |       |      |
| 69        | 68.5  | 65.1  | 97.7 |
| 39        | 59.7  | 51.9  | 77.9 |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#49

1,4-Dioxane

Concen: 21.310 ug/l m

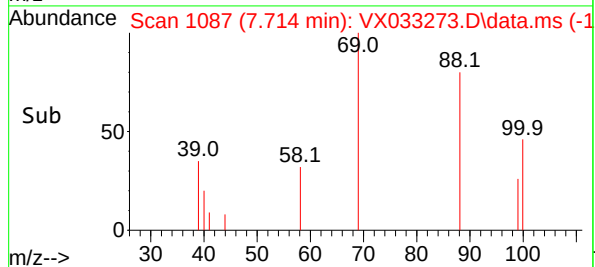
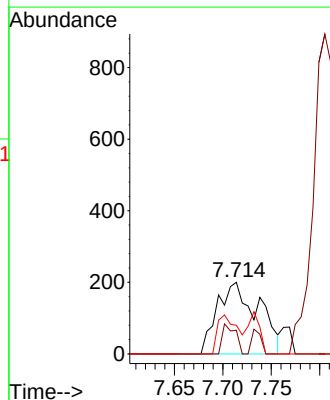
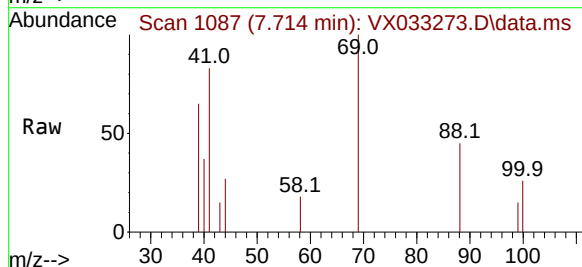
RT: 7.714 min Scan# 1087

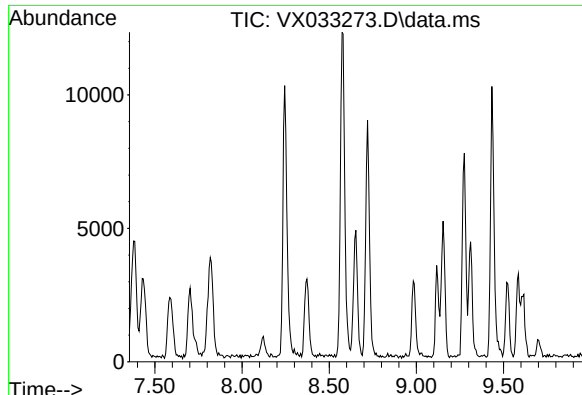
Delta R.T. 0.043 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 88    | Resp: | 593   |
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 43        | 13.2  | 26.6  | 39.8# |
| 58        | 25.8  | 51.7  | 77.5# |





#50  
Toluene-d8  
Concen: 0.000 ug/l  
Expected RT: 8.65 min

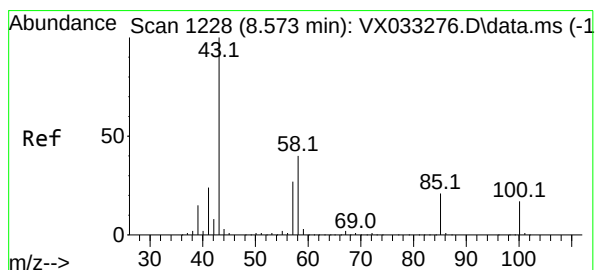
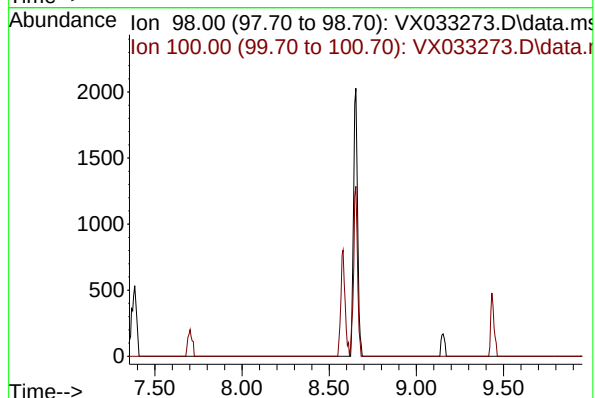
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC001

Tgt Ion: 98  
Sig Exp Ratio  
98 100  
100 63.6

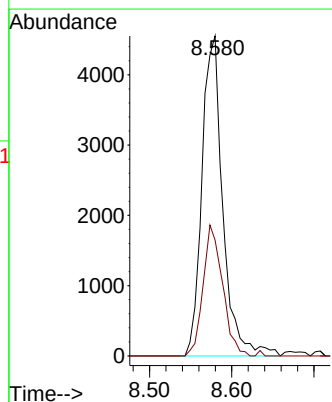
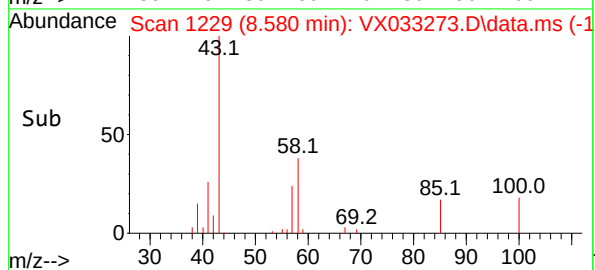
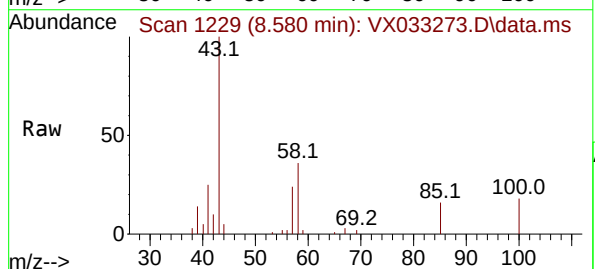
Manual Integrations  
APPROVED

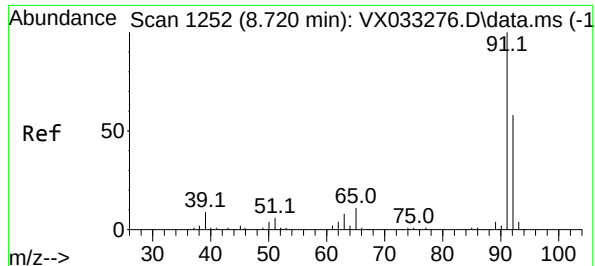
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#51  
4-Methyl-2-Pentanone  
Concen: 4.431 ug/l  
RT: 8.580 min Scan# 1229  
Delta R.T. 0.006 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

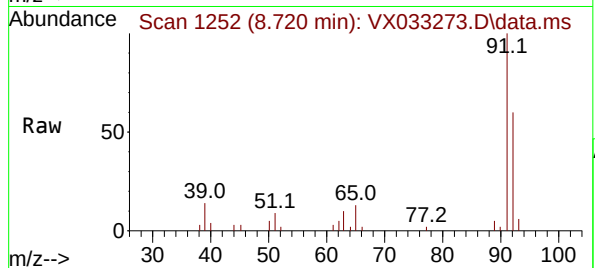
Tgt Ion: 43 Resp: 8030  
Ion Ratio Lower Upper  
43 100  
58 38.2 30.9 46.3





#52  
Toluene  
Concen: 0.861 ug/l  
RT: 8.720 min Scan# 1252  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

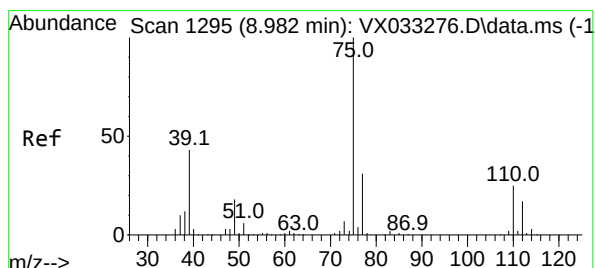
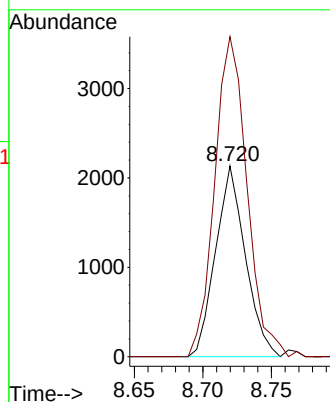
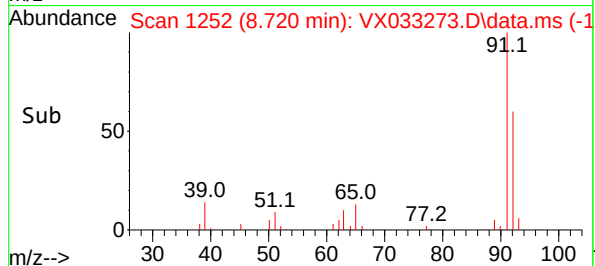
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC001



Tgt Ion: 92 Resp: 323  
Ion Ratio Lower Upper  
92 100  
91 181.7 138.3 207.5

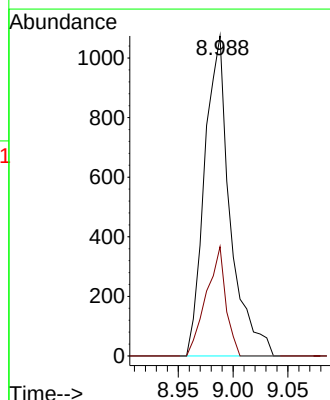
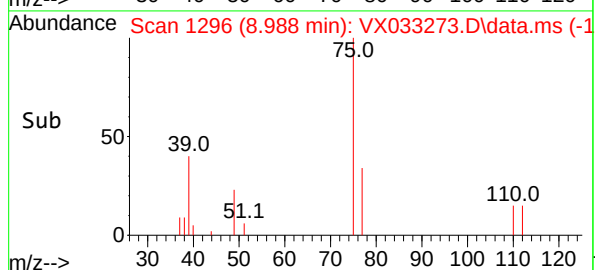
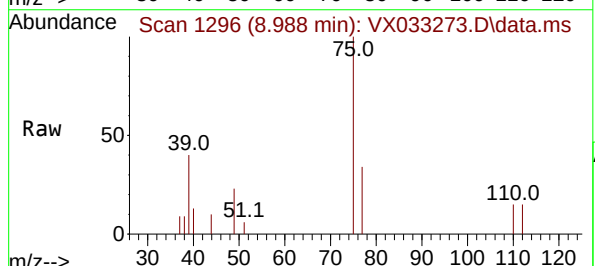
Manual Integrations  
APPROVED

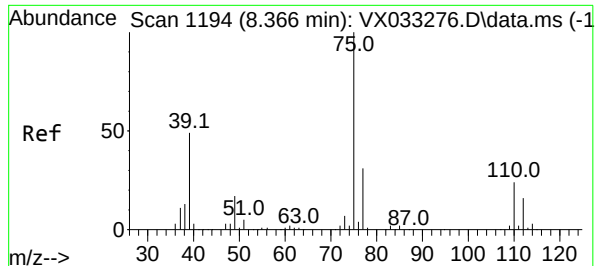
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#53  
t-1,3-Dichloropropene  
Concen: 0.834 ug/l  
RT: 8.988 min Scan# 1296  
Delta R.T. 0.006 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Tgt Ion: 75 Resp: 1741  
Ion Ratio Lower Upper  
75 100  
77 34.2 25.1 37.7





#54

cis-1,3-Dichloropropene

Concen: 0.825 ug/l

RT: 8.372 min Scan# 1195

Delta R.T. 0.006 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion: 75 Resp: 189

Ion Ratio Lower Upper

75 100

77 29.9 25.1 37.7

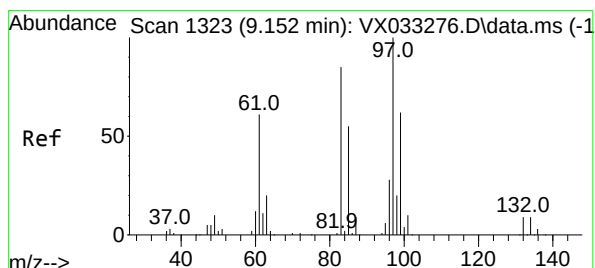
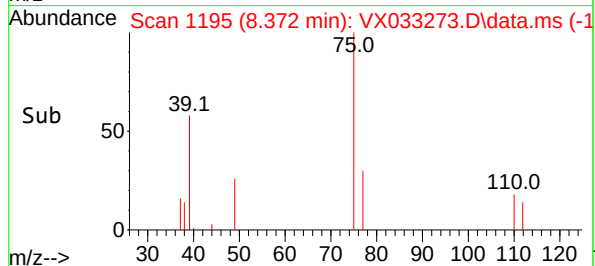
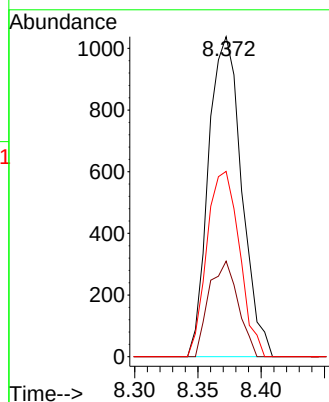
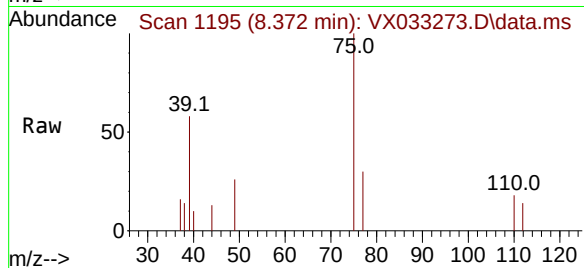
39 57.9 45.5 68.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#55

1,1,2-Trichloroethane

Concen: 0.952 ug/l

RT: 9.153 min Scan# 1323

Delta R.T. -0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Tgt Ion: 97 Resp: 1456

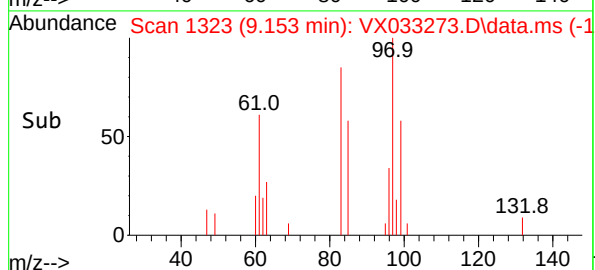
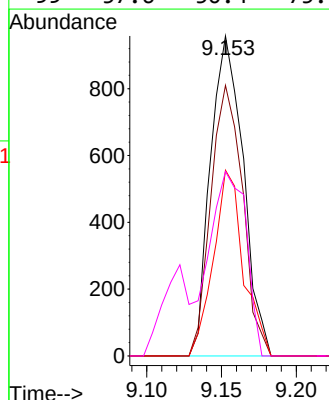
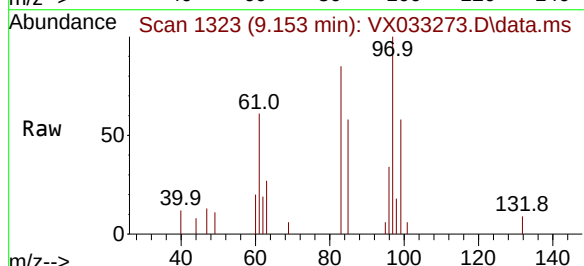
Ion Ratio Lower Upper

97 100

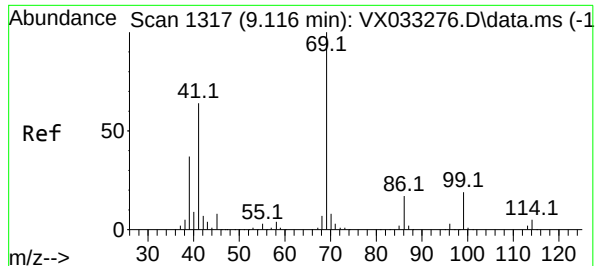
83 84.6 68.1 102.1

85 58.0 43.3 64.9

99 57.6 50.4 75.6







#56

Ethyl methacrylate

Concen: 0.817 ug/l

RT: 9.116 min Scan# 1317

Delta R.T. 0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC001

Tgt Ion: 69 Resp: 1720

Ion Ratio Lower Upper

69 100

41 66.0 54.3 81.5

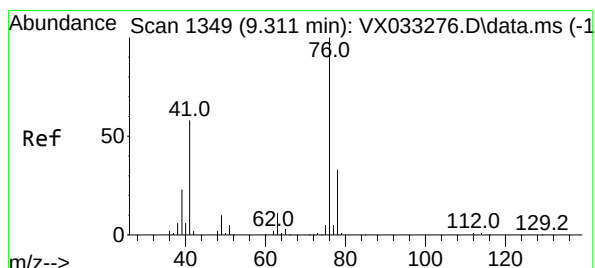
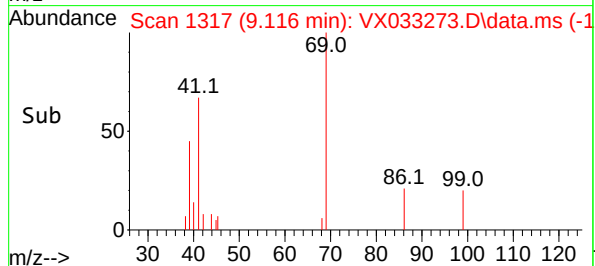
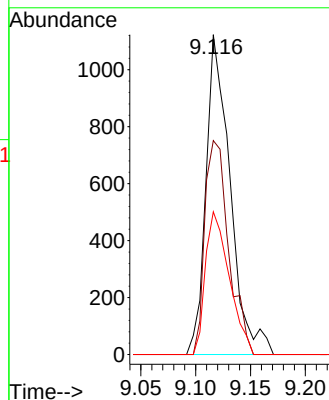
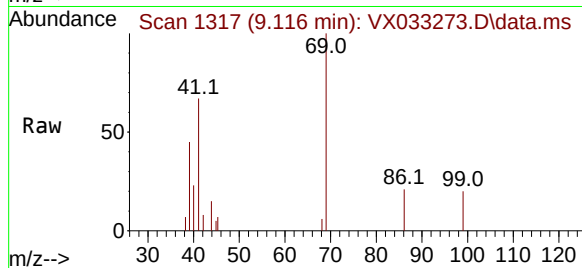
39 44.1 35.2 52.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#57

1,3-Dichloropropane

Concen: 0.881 ug/l

RT: 9.311 min Scan# 1349

Delta R.T. 0.000 min

Lab File: VX033273.D

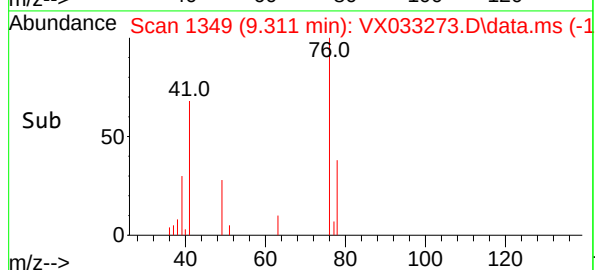
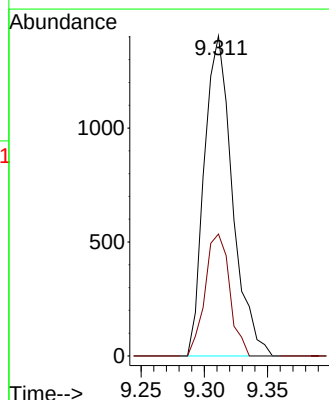
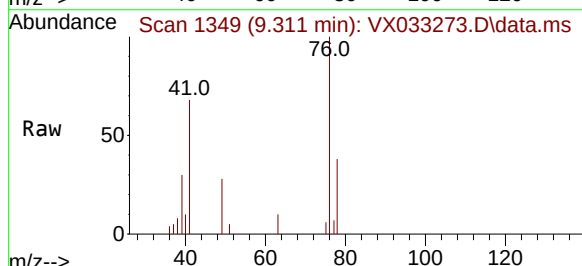
Acq: 07 Dec 2022 09:46

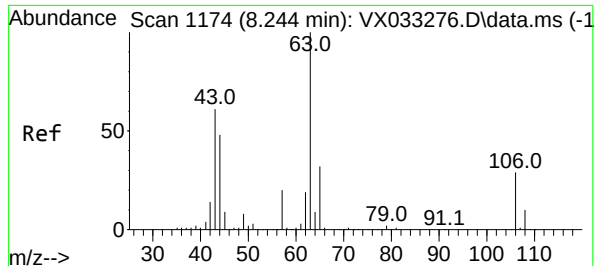
Tgt Ion: 76 Resp: 2174

Ion Ratio Lower Upper

76 100

78 33.3 26.0 39.0





#58

2-Chloroethyl Vinyl ether

Concen: 4.420 ug/l

RT: 8.244 min Scan# 1174

Delta R.T. 0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC001

Tgt Ion: 63 Resp: 442

Ion Ratio Lower Upper

63 100

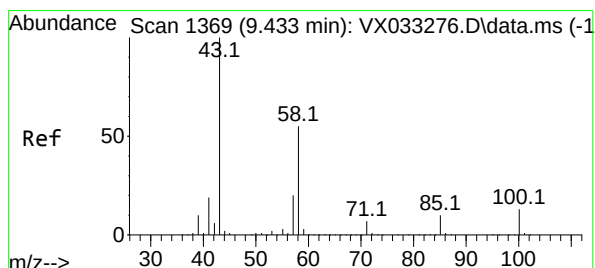
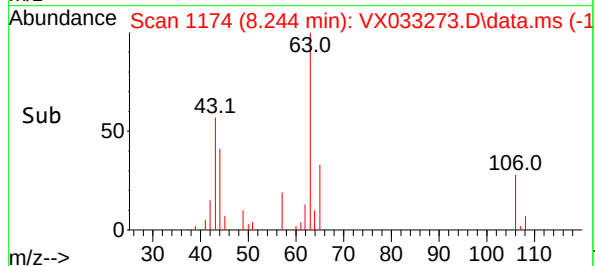
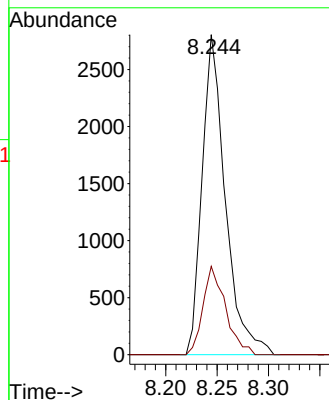
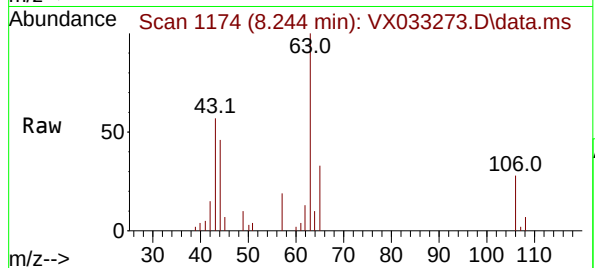
106 26.8 23.3 34.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#59

2-Hexanone

Concen: 4.442 ug/l

RT: 9.433 min Scan# 1369

Delta R.T. 0.000 min

Lab File: VX033273.D

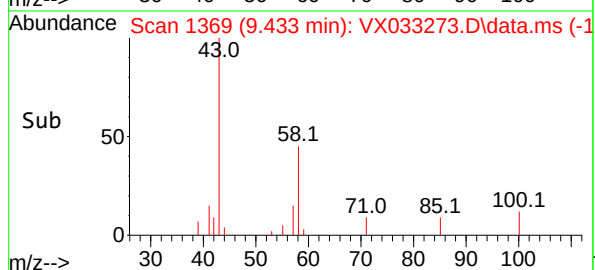
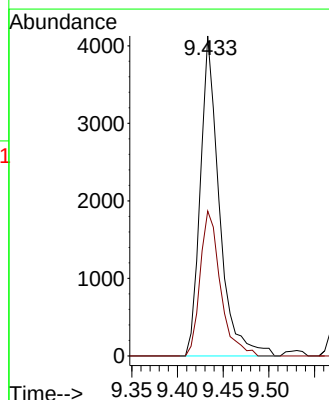
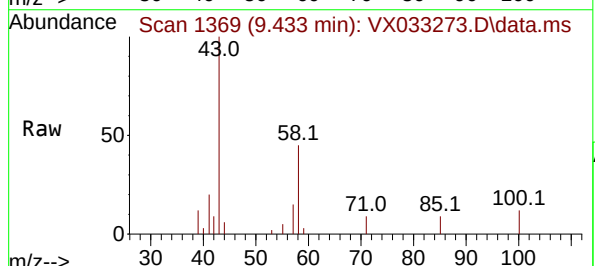
Acq: 07 Dec 2022 09:46

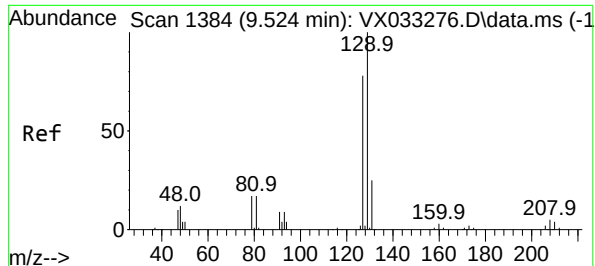
Tgt Ion: 43 Resp: 5946

Ion Ratio Lower Upper

43 100

58 48.4 26.5 79.5





#60

Dibromochloromethane

Concen: 0.838 ug/l

RT: 9.518 min Scan# 1379

Delta R.T. -0.007 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion:129 Resp: 1379

Ion Ratio Lower Upper

129 100

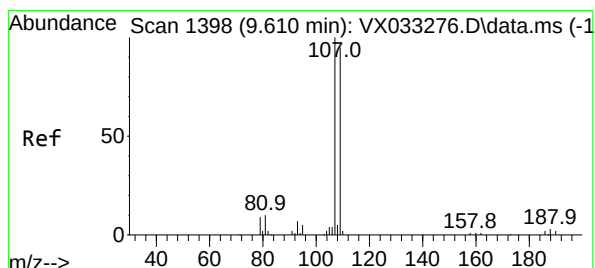
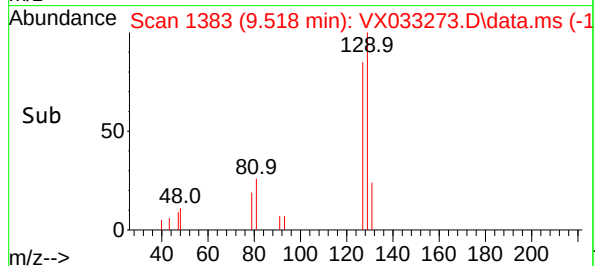
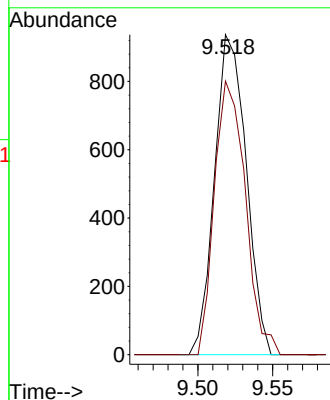
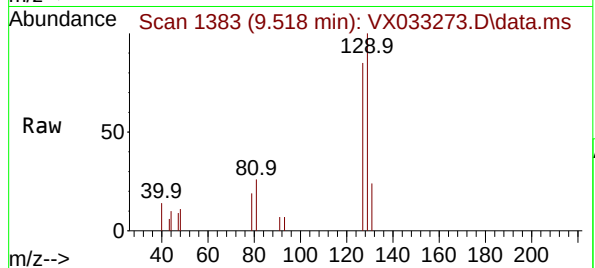
127 83.7 38.6 115.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#61

1,2-Dibromoethane

Concen: 0.859 ug/l

RT: 9.616 min Scan# 1399

Delta R.T. 0.006 min

Lab File: VX033273.D

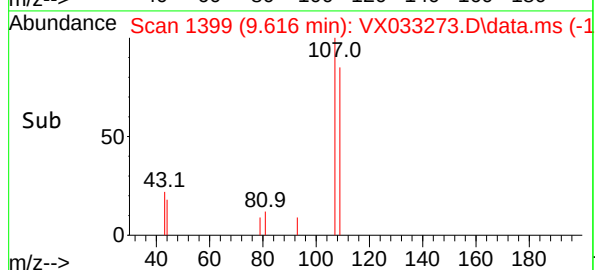
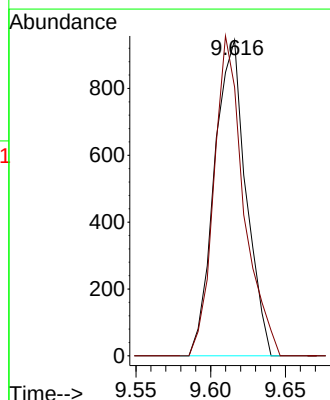
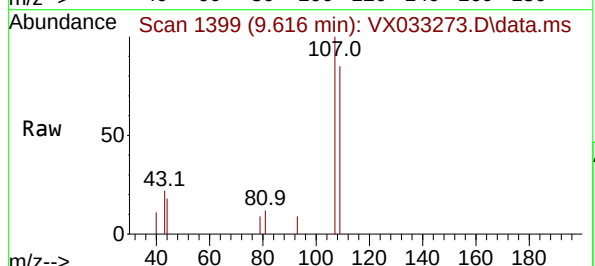
Acq: 07 Dec 2022 09:46

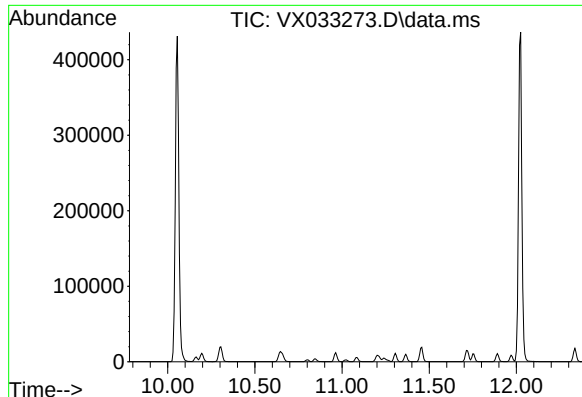
Tgt Ion:107 Resp: 1386

Ion Ratio Lower Upper

107 100

109 95.6 76.0 114.0





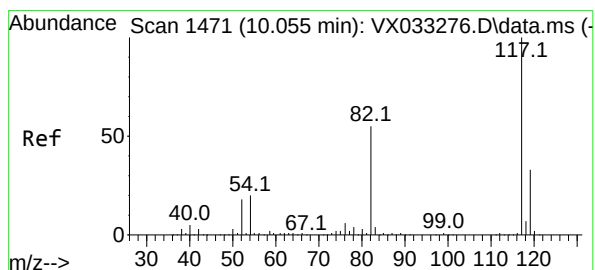
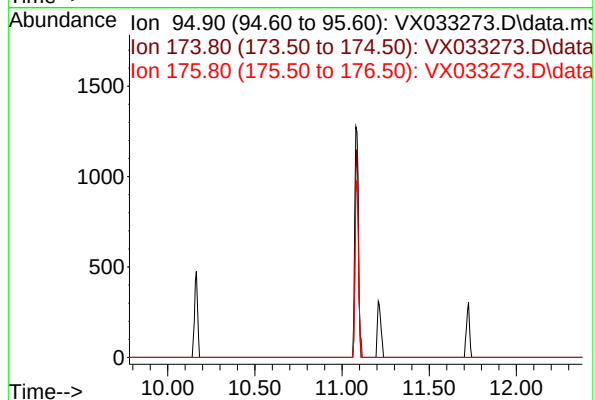
#62  
 4-Bromofluorobenzene  
 Concen: 0.000 ug/l  
 Expected RT: 11.08 min  
 Lab File: VX033273.D  
 Acq: 07 Dec 2022 09:46

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDIC001

Tgt Ion: 95  
 Sig Exp Ratio  
 95 100  
 174 82.0  
 176 77.2

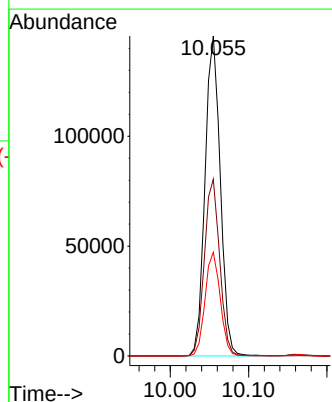
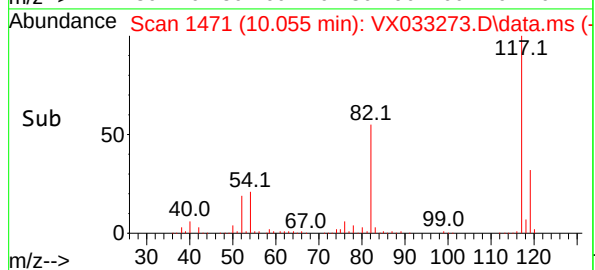
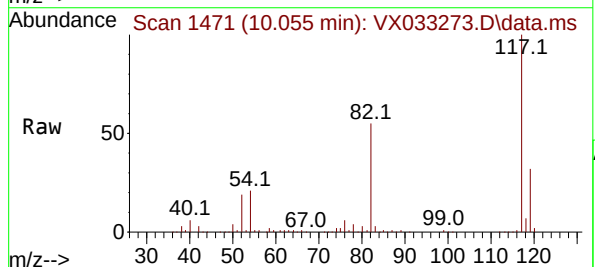
### Manual Integrations APPROVED

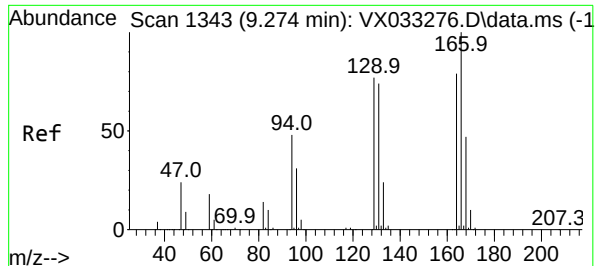
Reviewed By : John Carlone 12/08/2022  
 Supervised By : Mahesh Dadoda 12/08/2022



#63  
 Chlorobenzene-d5  
 Concen: 50.000 ug/l  
 RT: 10.055 min Scan# 1471  
 Delta R.T. -0.000 min  
 Lab File: VX033273.D  
 Acq: 07 Dec 2022 09:46

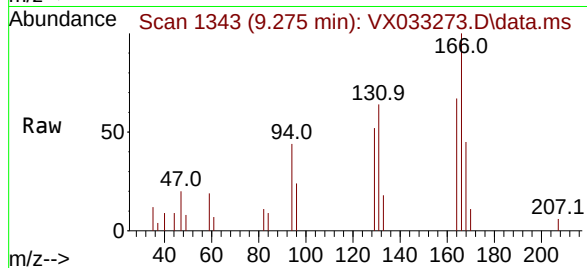
Tgt Ion: 117 Resp: 197000  
 Ion Ratio Lower Upper  
 117 100  
 82 55.3 44.3 66.5  
 119 32.4 25.7 38.5





#64  
Tetrachloroethene  
Concen: 0.994 ug/l  
RT: 9.275 min Scan# 1343  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

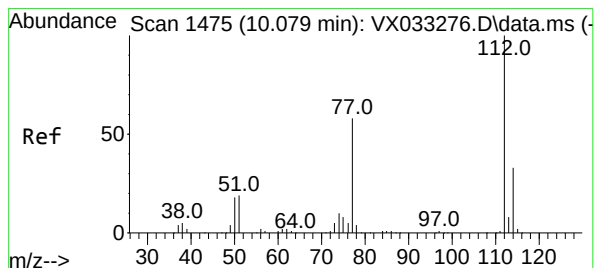
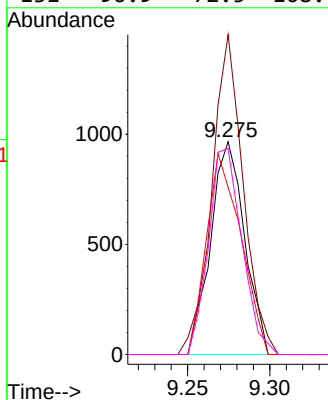
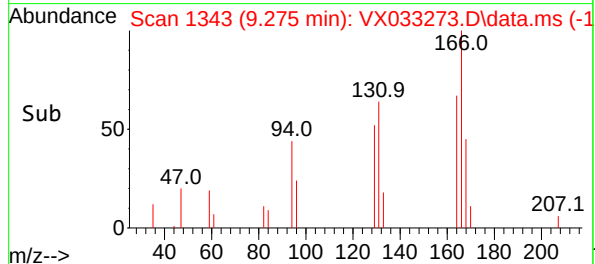
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC001



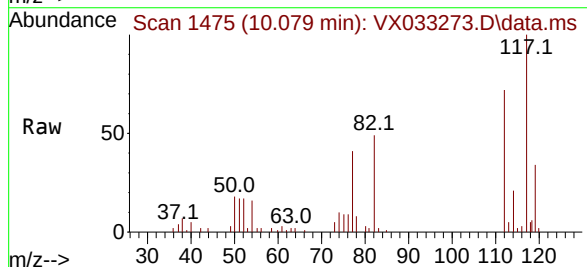
Tgt Ion:164 Resp: 1380  
Ion Ratio Lower Upper  
164 100  
166 150.3 105.4 158.2  
129 78.6 78.2 117.2  
131 96.9 72.5 108.7

Manual Integrations  
APPROVED

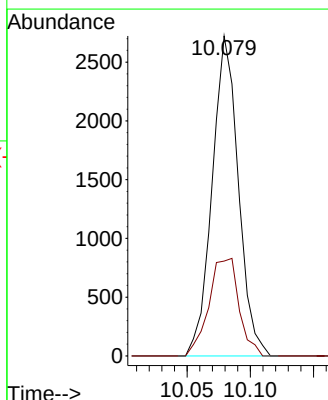
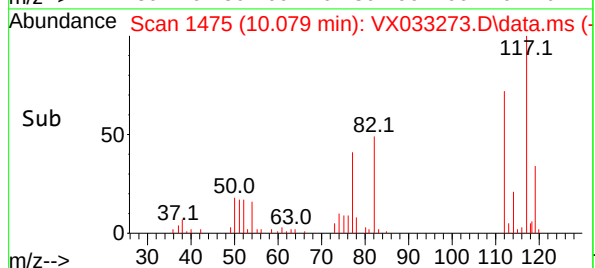
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

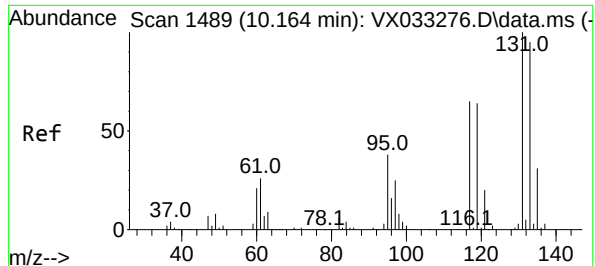


#65  
Chlorobenzene  
Concen: 0.999 ug/l  
RT: 10.079 min Scan# 1475  
Delta R.T. 0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46



Tgt Ion:112 Resp: 3922  
Ion Ratio Lower Upper  
112 100  
114 29.6 25.4 38.2





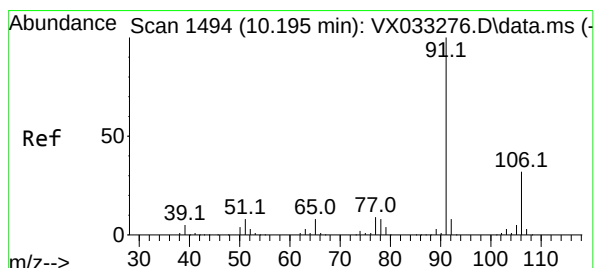
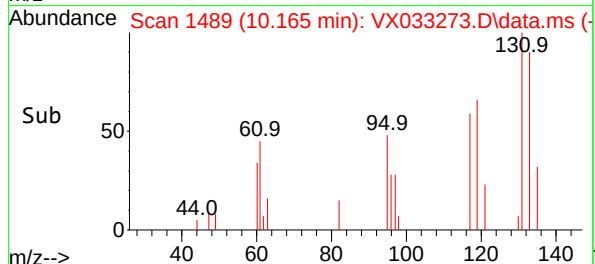
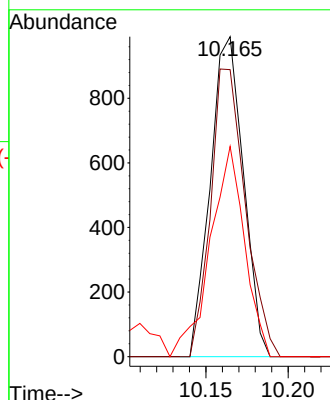
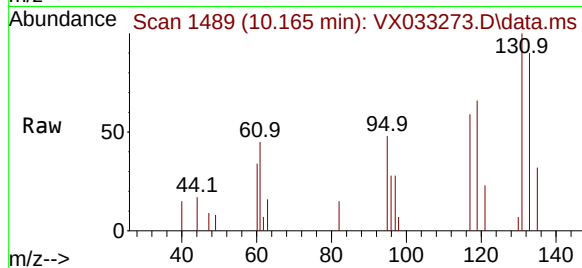
#66  
1,1,1,2-Tetrachloroethane  
Concen: 0.963 ug/l  
RT: 10.165 min Scan# 1489  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC001

Tgt Ion:131 Resp: 1380  
Ion Ratio Lower Upper  
131 100  
133 94.3 47.6 142.9  
119 0.0 32.4 97.0

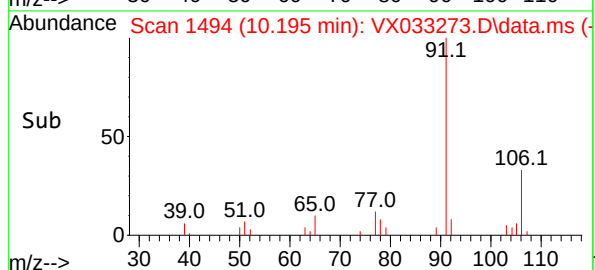
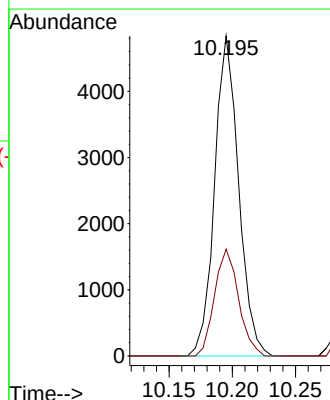
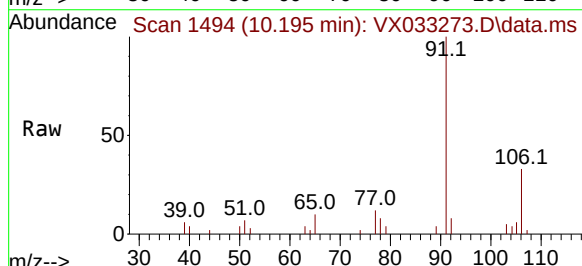
Manual Integrations  
APPROVED

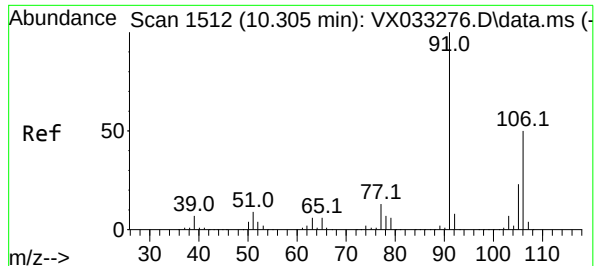
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#67  
Ethyl Benzene  
Concen: 0.916 ug/l  
RT: 10.195 min Scan# 1494  
Delta R.T. 0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Tgt Ion: 91 Resp: 6381  
Ion Ratio Lower Upper  
91 100  
106 33.4 25.0 37.6





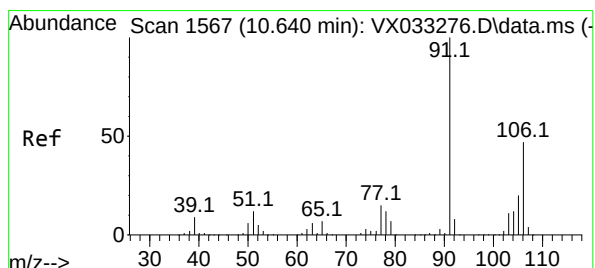
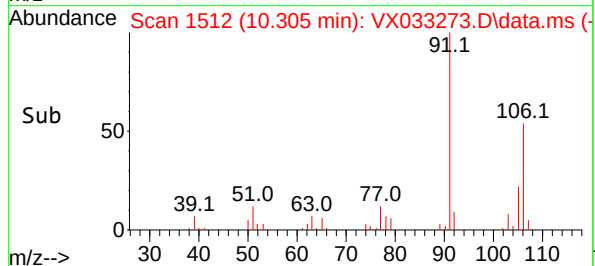
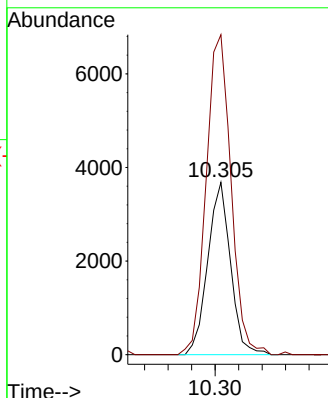
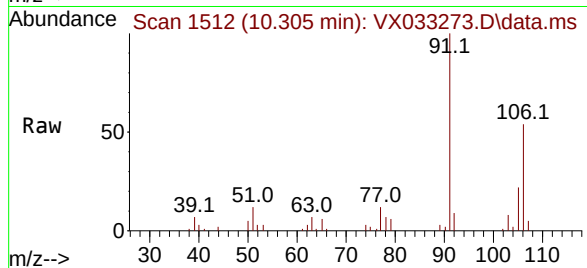
#68  
m/p-Xylenes  
Concen: 1.819 ug/l  
RT: 10.305 min Scan# 1512  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC001

Tgt Ion:106 Resp: 4964  
Ion Ratio Lower Upper  
106 100  
91 202.0 164.5 246.7

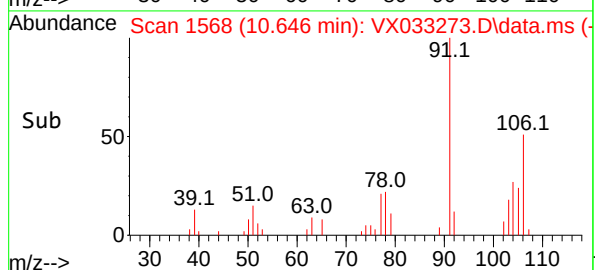
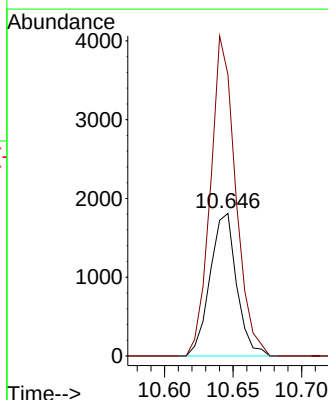
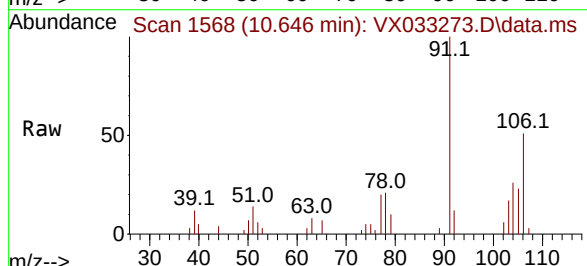
Manual Integrations  
APPROVED

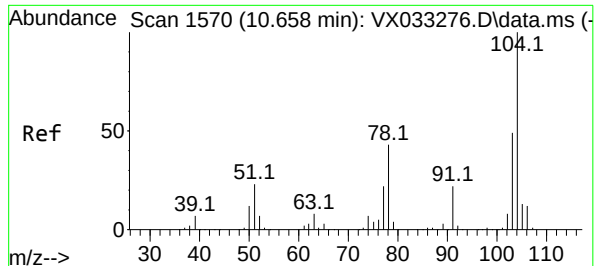
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#69  
o-Xylene  
Concen: 0.925 ug/l  
RT: 10.646 min Scan# 1568  
Delta R.T. 0.006 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

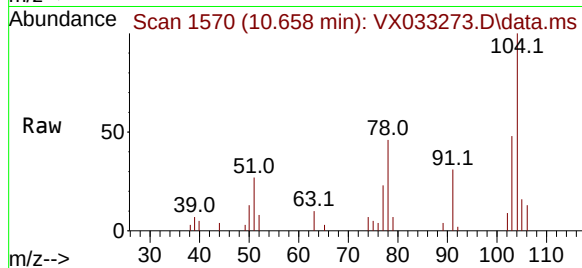
Tgt Ion:106 Resp: 2441  
Ion Ratio Lower Upper  
106 100  
91 213.0 109.2 327.6





#70  
Styrene  
Concen: 0.849 ug/l  
RT: 10.658 min Scan# 1570  
Delta R.T. -0.001 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

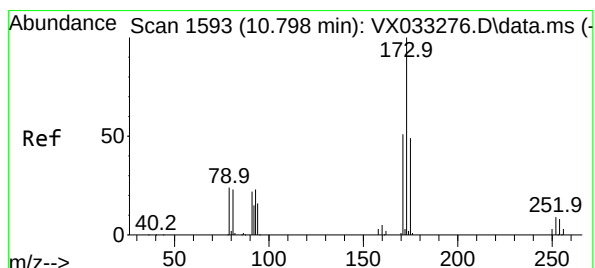
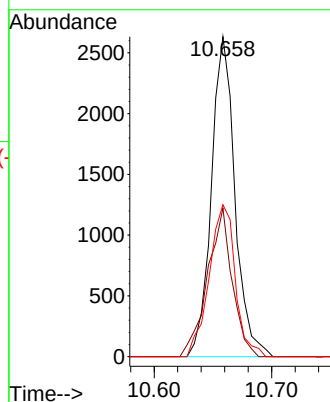
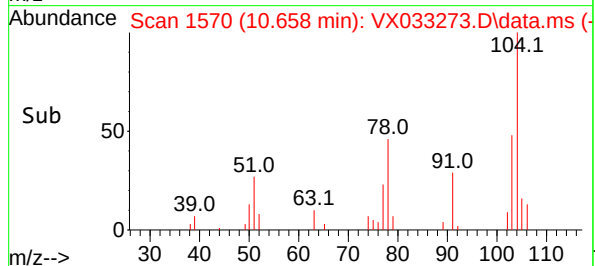
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC001



Tgt Ion:104 Resp: 366  
Ion Ratio Lower Upper  
104 100  
78 48.7 41.8 62.8  
103 52.5 44.5 66.7

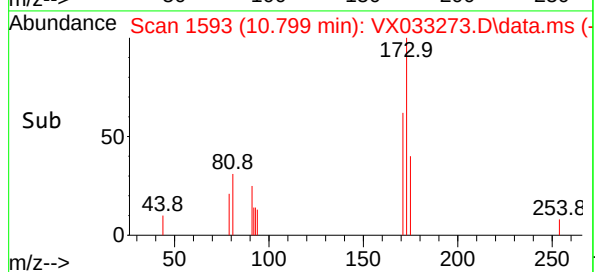
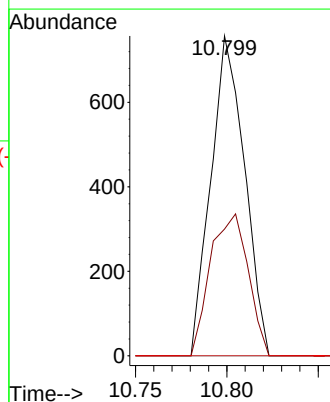
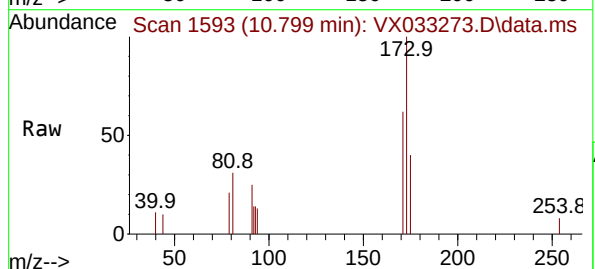
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

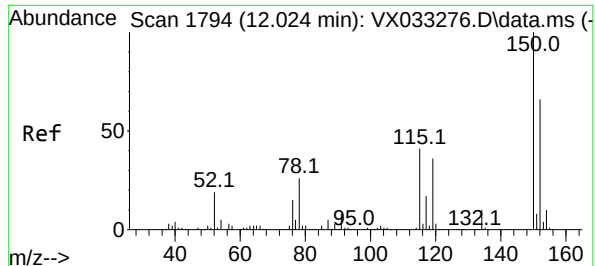


#71  
Bromoform  
Concen: 0.880 ug/l  
RT: 10.799 min Scan# 1593  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Tgt Ion:173 Resp: 971  
Ion Ratio Lower Upper  
173 100  
175 49.8 23.9 71.8  
254 0.0 0.0 0.0

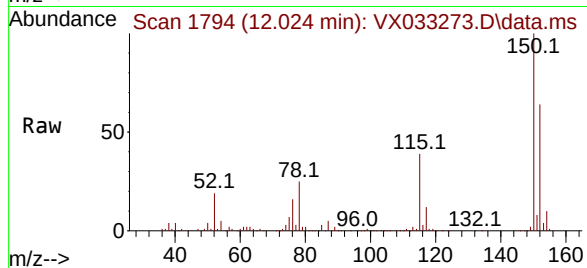






#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.024 min Scan# 1794  
Delta R.T. 0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

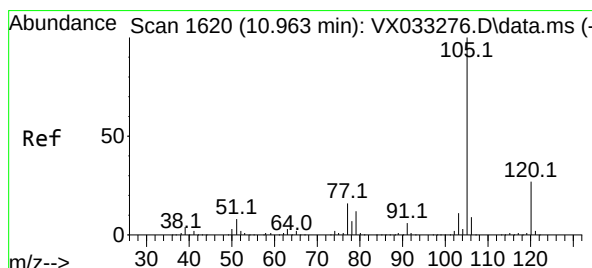
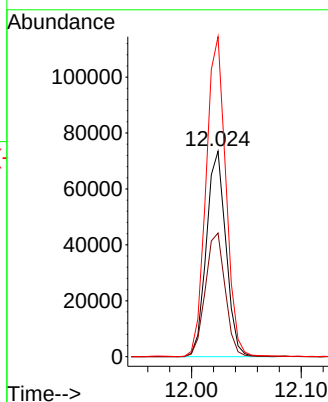
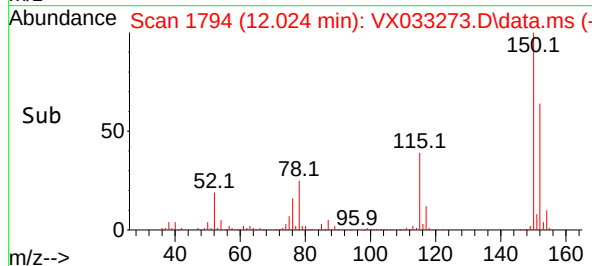
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC001



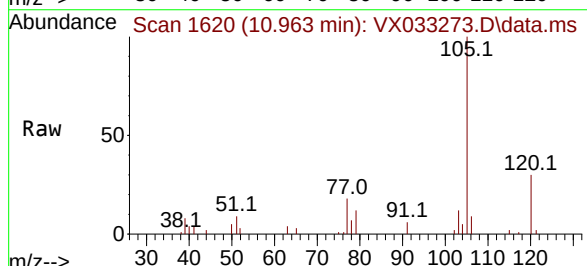
Tgt Ion:152 Resp: 90814  
Ion Ratio Lower Upper  
152 100  
115 61.3 44.0 132.0  
150 158.4 0.0 351.8

Manual Integrations  
APPROVED

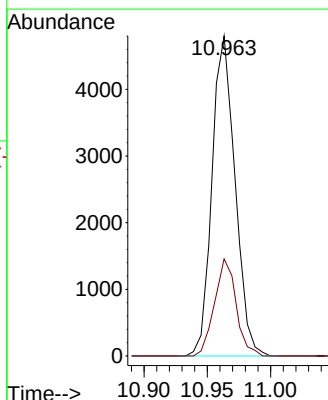
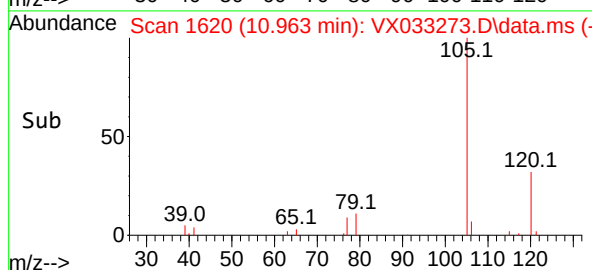
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

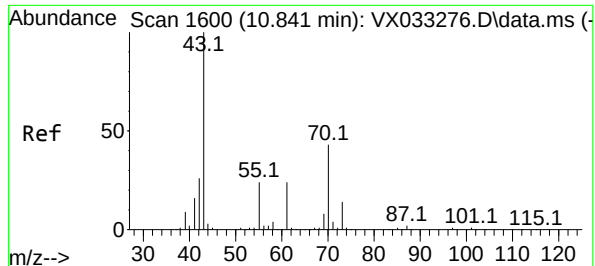


#73  
Isopropylbenzene  
Concen: 0.936 ug/l  
RT: 10.963 min Scan# 1620  
Delta R.T. 0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46



Tgt Ion:105 Resp: 6074  
Ion Ratio Lower Upper  
105 100  
120 28.4 13.1 39.3





#74

N-amy1 acetate

Concen: 0.784 ug/l

RT: 10.847 min Scan# 1600

Delta R.T. 0.006 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion: 43 Resp: 173

Ion Ratio Lower Upper

43 100

70 46.9 33.6 50.4

55 25.6 19.4 29.2

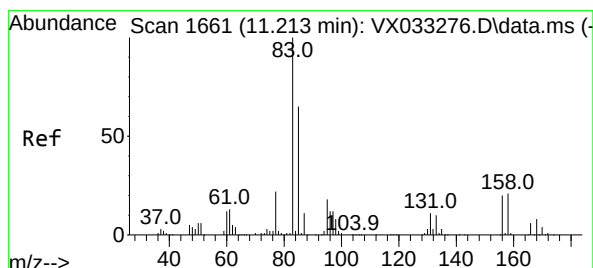
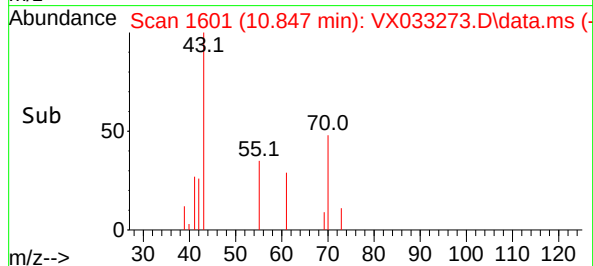
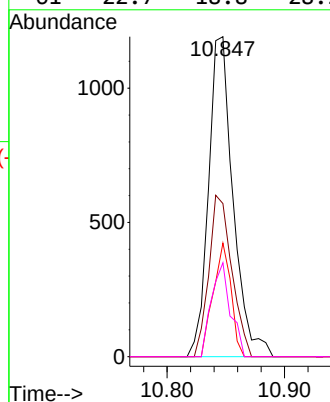
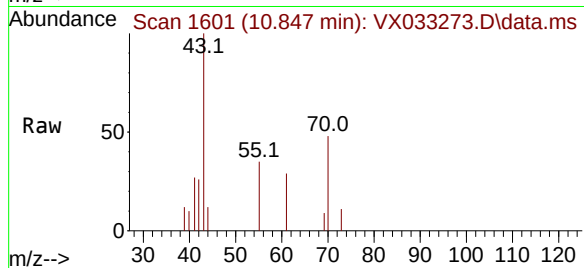
61 22.7 18.8 28.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#75

1,1,2,2-Tetrachloroethane

Concen: 0.992 ug/l

RT: 11.213 min Scan# 1661

Delta R.T. 0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

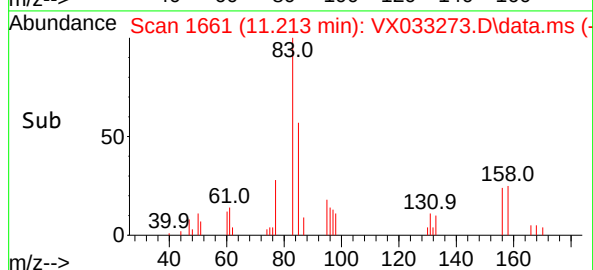
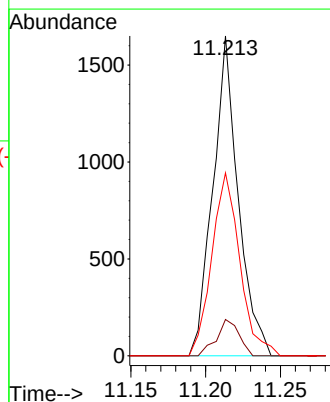
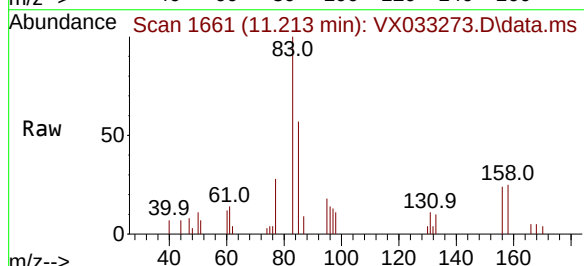
Tgt Ion: 83 Resp: 1942

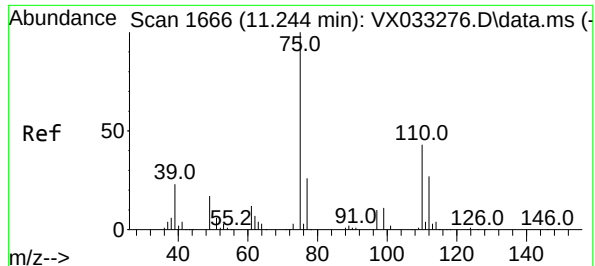
Ion Ratio Lower Upper

83 100

131 10.1 5.4 16.2

85 63.4 31.9 95.9





#76

1,2,3-Trichloropropane

Concen: 1.016 ug/l m

RT: 11.238 min Scan# 1665

Delta R.T. -0.006 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion: 75 Resp: 1748

Ion Ratio Lower Upper

75 100

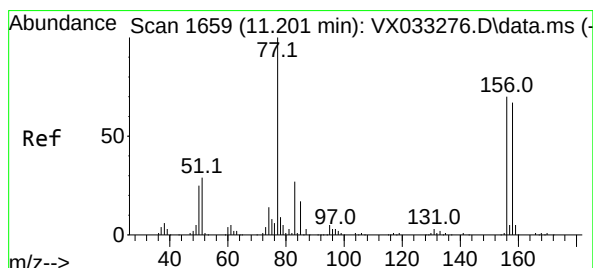
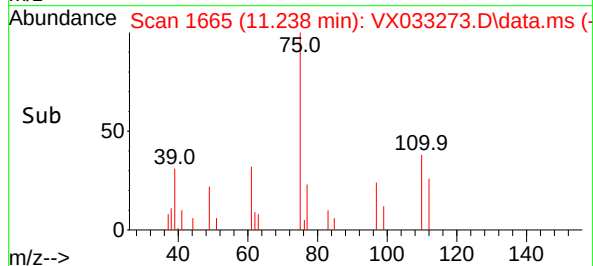
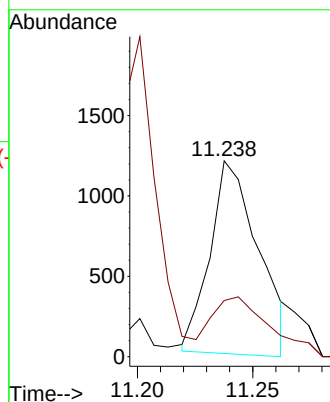
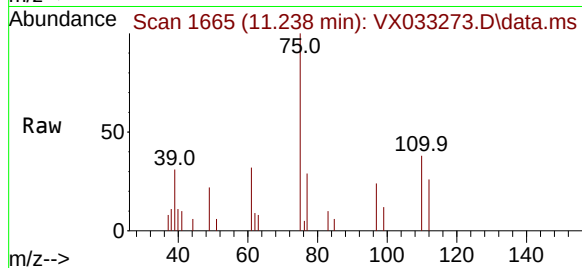
77 37.1 20.0 60.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#77

Bromobenzene

Concen: 0.981 ug/l

RT: 11.201 min Scan# 1659

Delta R.T. 0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

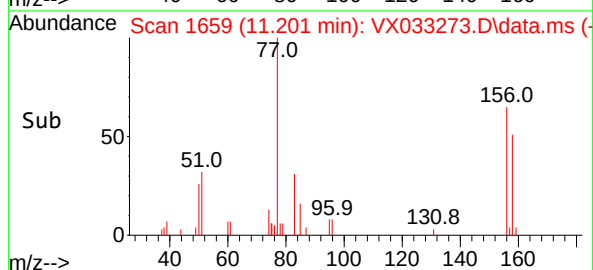
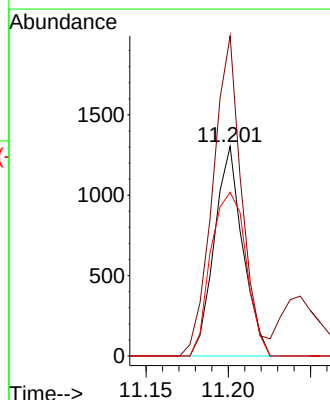
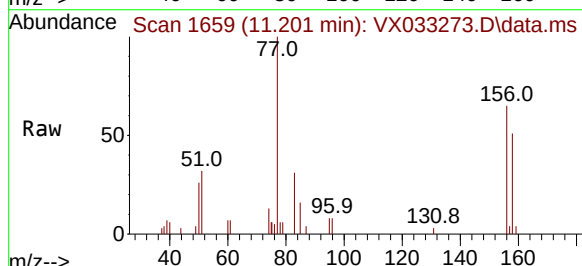
Tgt Ion:156 Resp: 1565

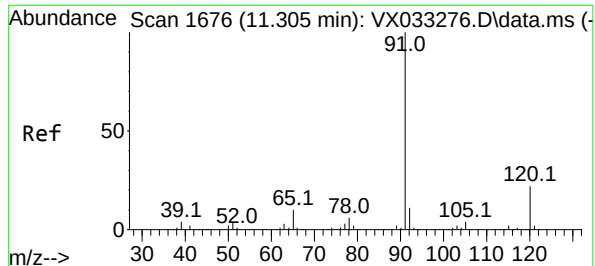
Ion Ratio Lower Upper

156 100

77 155.7 76.1 228.4

158 97.1 48.8 146.3





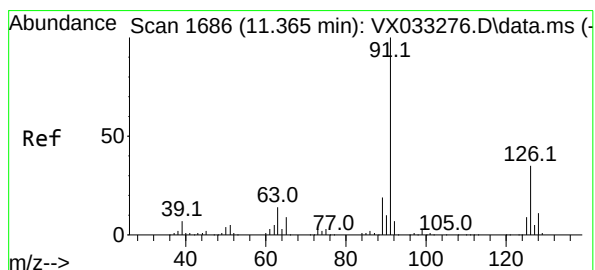
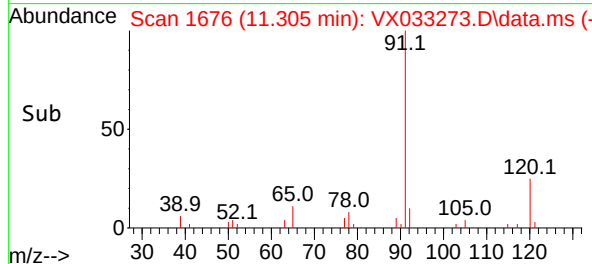
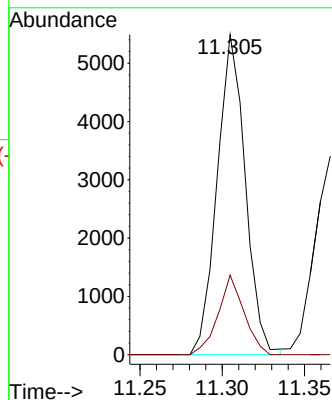
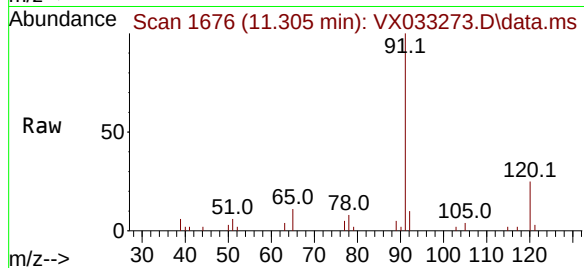
#78  
n-propylbenzene  
Concen: 0.880 ug/l  
RT: 11.305 min Scan# 1676  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC001

Tgt Ion: 91 Resp: 6530  
Ion Ratio Lower Upper  
91 100  
120 22.9 11.6 34.8

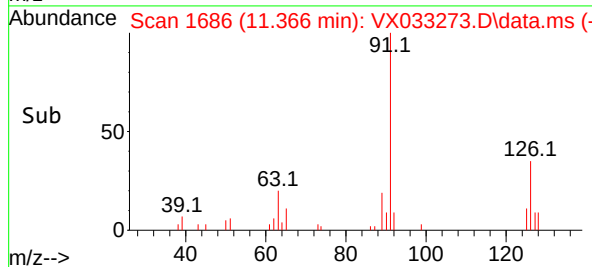
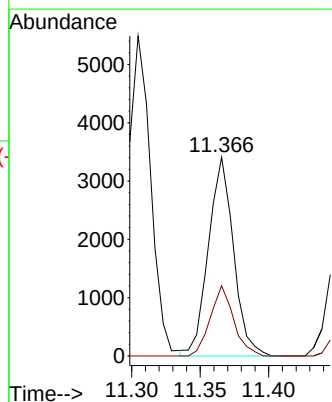
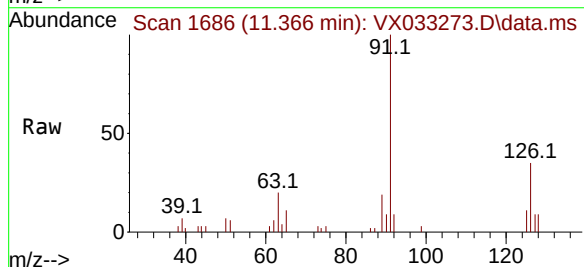
Manual Integrations  
APPROVED

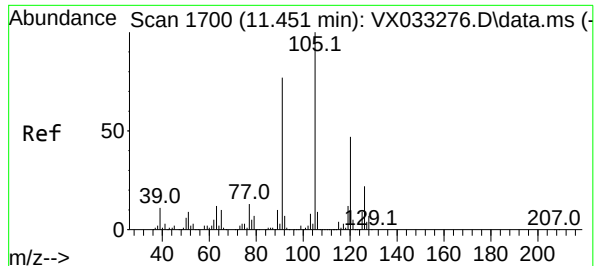
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#79  
2-Chlorotoluene  
Concen: 0.965 ug/l  
RT: 11.366 min Scan# 1686  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Tgt Ion: 91 Resp: 4350  
Ion Ratio Lower Upper  
91 100  
126 32.9 17.1 51.2





#80

1,3,5-Trimethylbenzene

Concen: 0.892 ug/l

RT: 11.451 min Scan# 1700

Delta R.T. 0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion:105 Resp: 4864

Ion Ratio Lower Upper

105 100

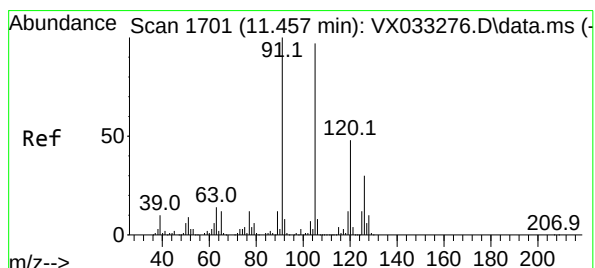
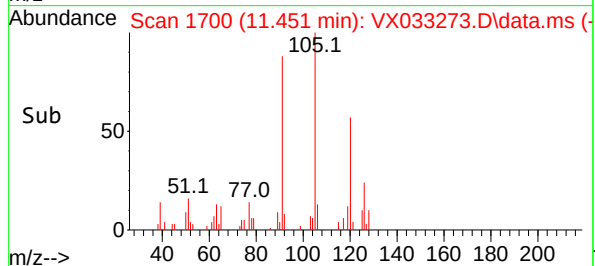
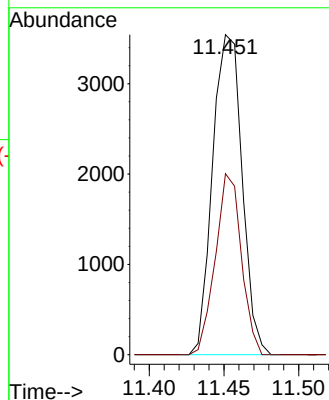
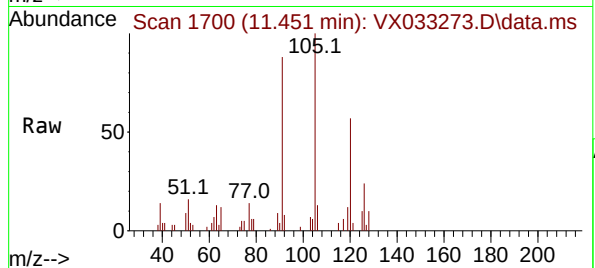
120 49.8 23.6 71.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#82

4-Chlorotoluene

Concen: 0.967 ug/l

RT: 11.457 min Scan# 1701

Delta R.T. 0.000 min

Lab File: VX033273.D

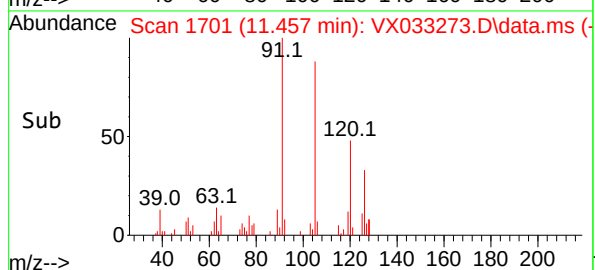
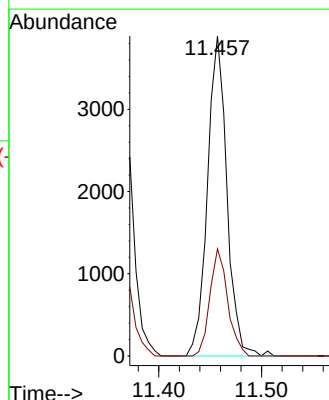
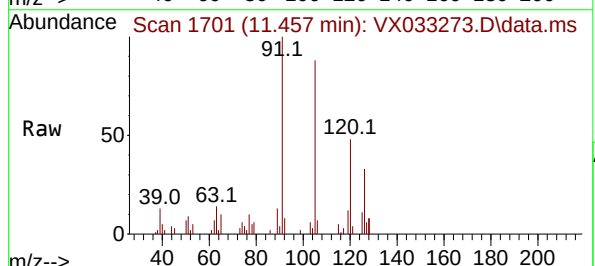
Acq: 07 Dec 2022 09:46

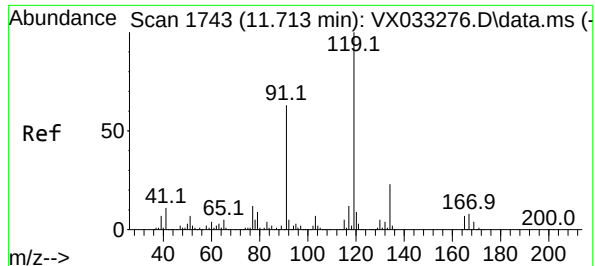
Tgt Ion: 91 Resp: 5105

Ion Ratio Lower Upper

91 100

126 30.7 14.8 44.4





#83

tert-Butylbenzene

Concen: 0.921 ug/l

RT: 11.713 min Scan# 1743

Delta R.T. 0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

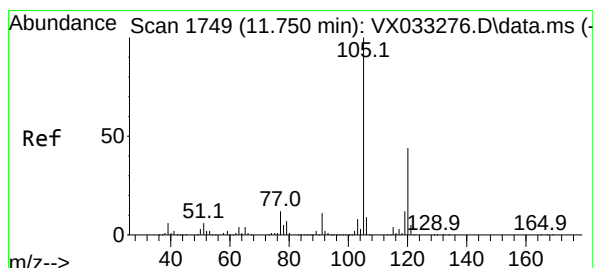
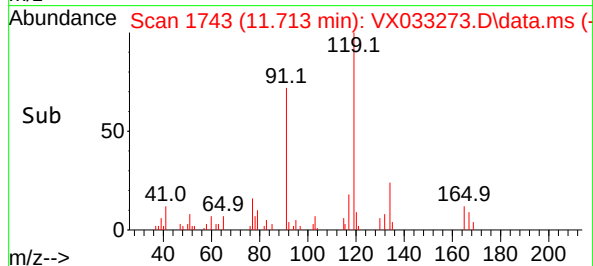
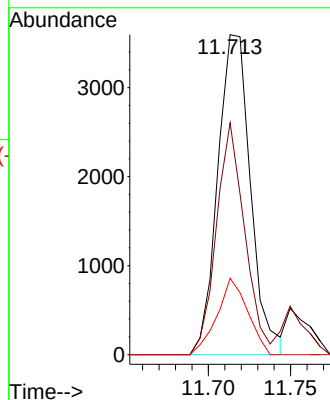
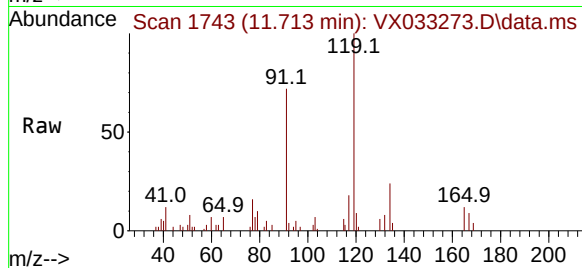
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 119   | Resp: | 4998 |
| Ion Ratio | Lower | Upper |      |
| 119       | 100   |       |      |
| 91        | 62.4  | 29.4  | 88.2 |
| 134       | 22.2  | 11.0  | 33.0 |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#84

1,2,4-Trimethylbenzene

Concen: 0.912 ug/l

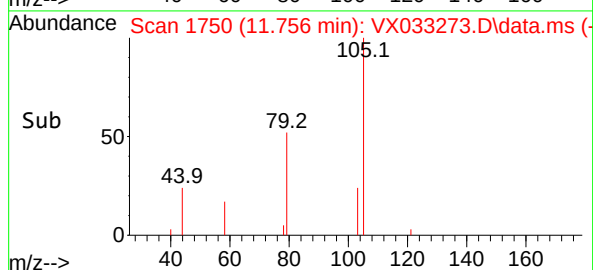
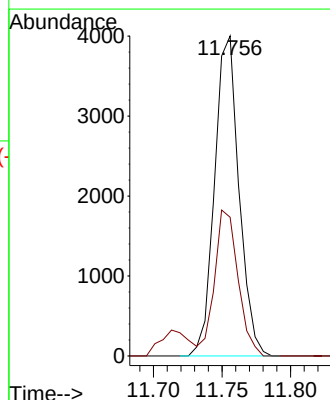
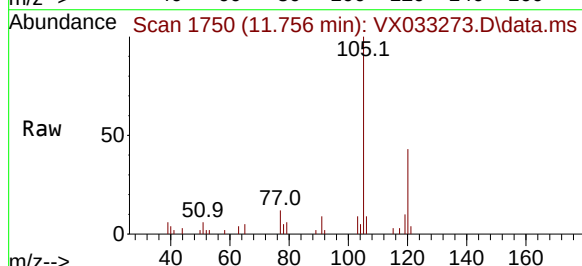
RT: 11.756 min Scan# 1750

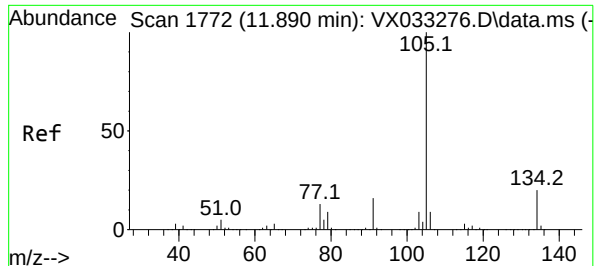
Delta R.T. 0.006 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 105   | Resp: | 4957 |
| Ion Ratio | Lower | Upper |      |
| 105       | 100   |       |      |
| 120       | 43.9  | 21.9  | 65.5 |





#85

sec-Butylbenzene

Concen: 0.900 ug/l

RT: 11.890 min Scan# 1772

Delta R.T. -0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion:105 Resp: 584

Ion Ratio Lower Upper

105 100

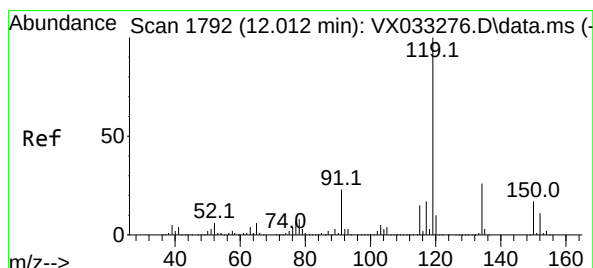
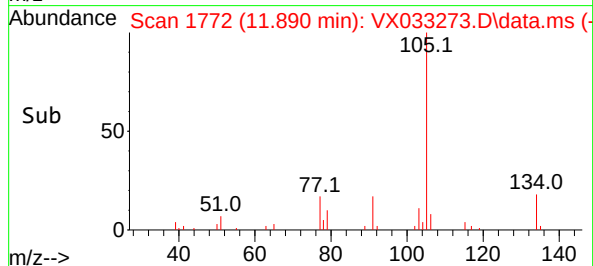
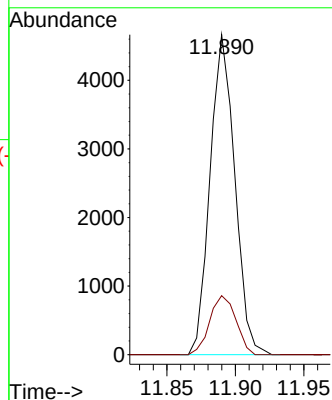
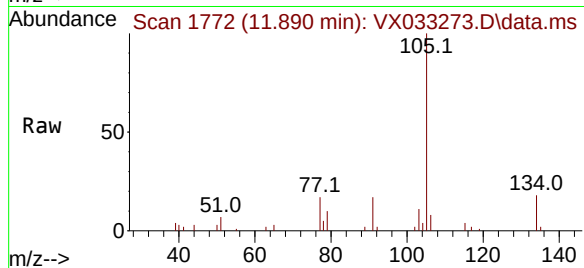
134 19.6 9.9 29.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#86

p-Isopropyltoluene

Concen: 0.949 ug/l

RT: 12.012 min Scan# 1792

Delta R.T. -0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

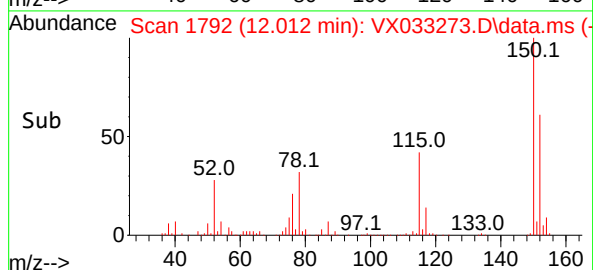
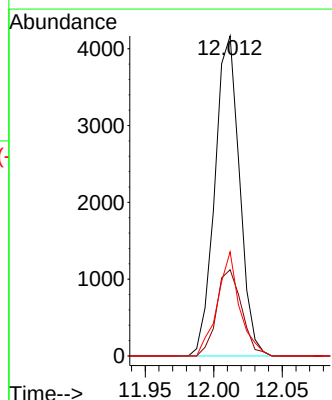
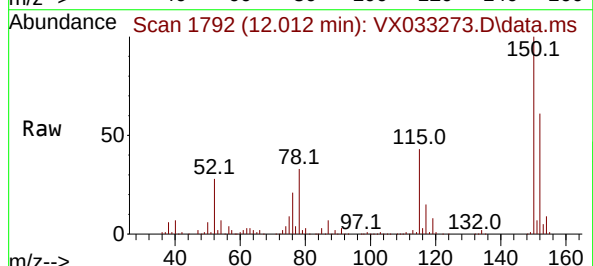
Tgt Ion:119 Resp: 5219

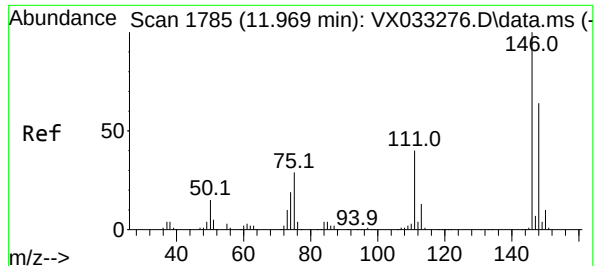
Ion Ratio Lower Upper

119 100

134 27.5 12.9 38.7

91 29.4 12.5 37.5





#87

1,3-Dichlorobenzene

Concen: 0.914 ug/l

RT: 11.969 min Scan# 1785

Delta R.T. 0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion:146 Resp: 2730

Ion Ratio Lower Upper

146 100

111 43.3 20.6 61.8

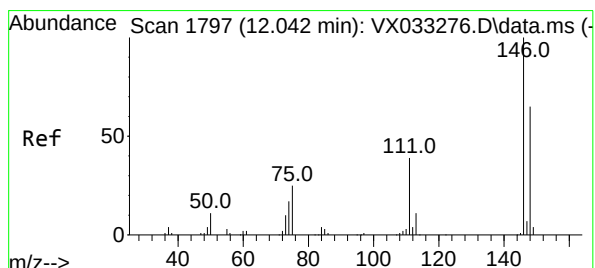
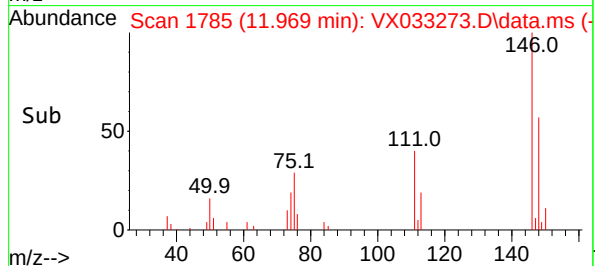
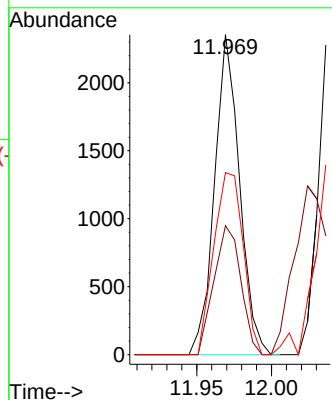
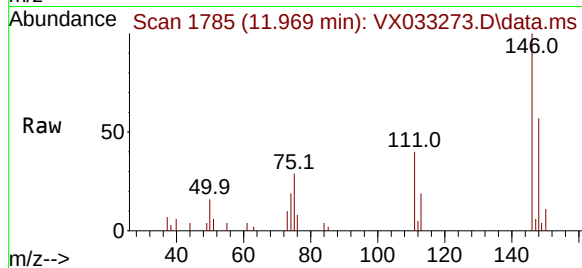
148 66.9 31.7 95.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#88

1,4-Dichlorobenzene

Concen: 0.996 ug/l m

RT: 12.042 min Scan# 1797

Delta R.T. 0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

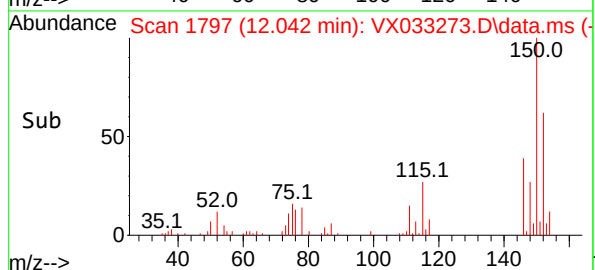
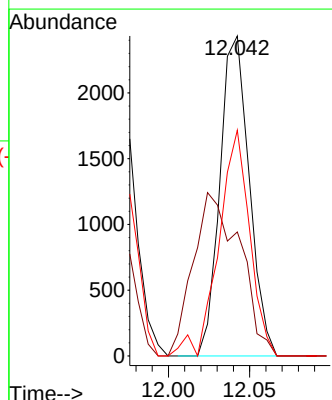
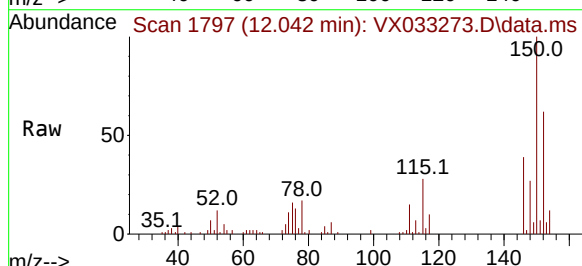
Tgt Ion:146 Resp: 3055

Ion Ratio Lower Upper

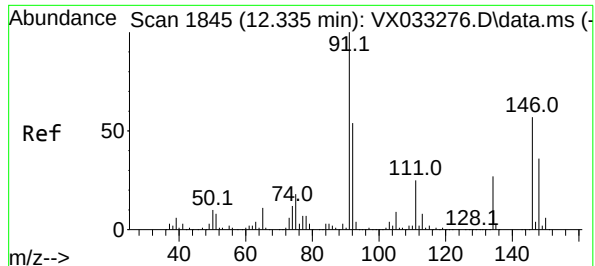
146 100

111 38.8 20.5 61.6

148 59.9 32.2 96.6







#89

n-Butylbenzene

Concen: 0.845 ug/l

RT: 12.335 min Scan# 1845

Delta R.T. 0.000 min

Lab File: VX033273.D

Acq: 07 Dec 2022 09:46

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC001

Tgt Ion: 91 Resp: 400

Ion Ratio Lower Upper

91 100

92 49.8 26.2 78.6

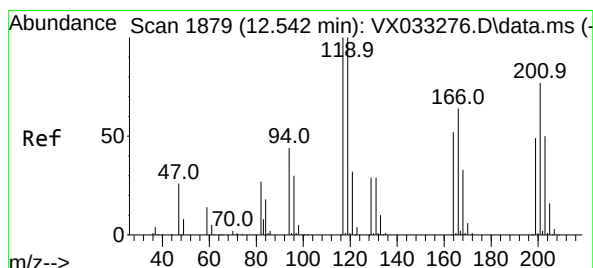
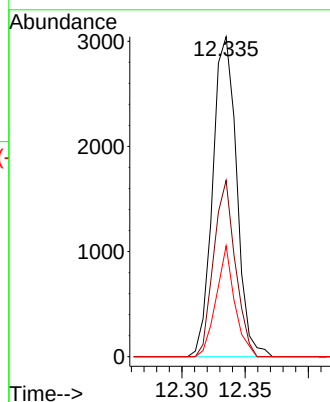
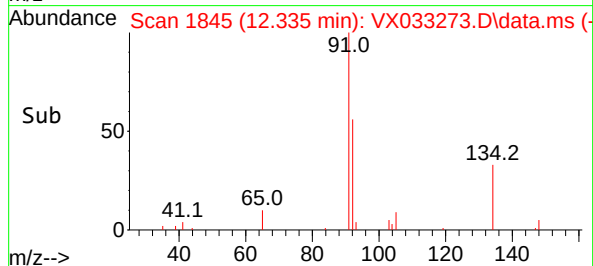
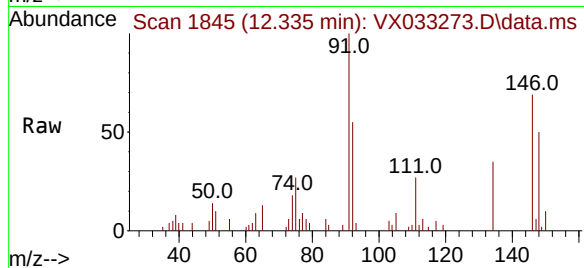
134 26.9 12.9 38.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#90

Hexachloroethane

Concen: 0.993 ug/l

RT: 12.542 min Scan# 1879

Delta R.T. 0.000 min

Lab File: VX033273.D

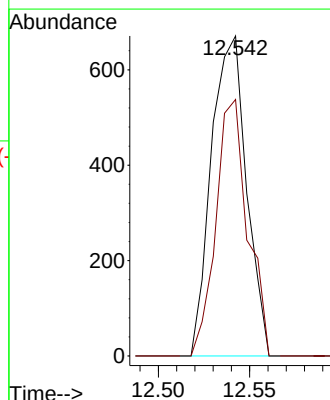
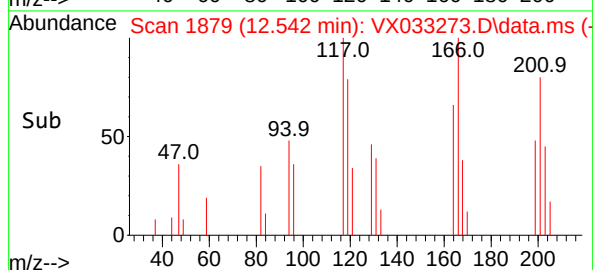
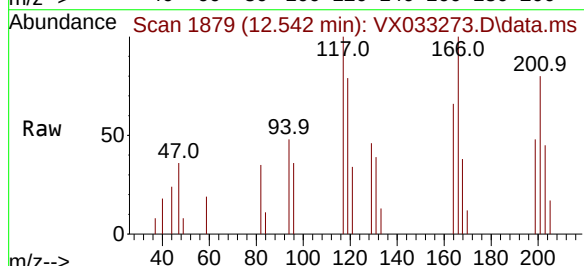
Acq: 07 Dec 2022 09:46

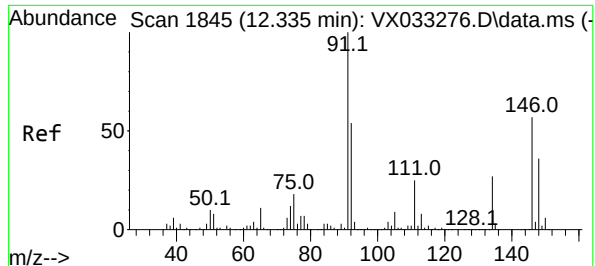
Tgt Ion:117 Resp: 897

Ion Ratio Lower Upper

117 100

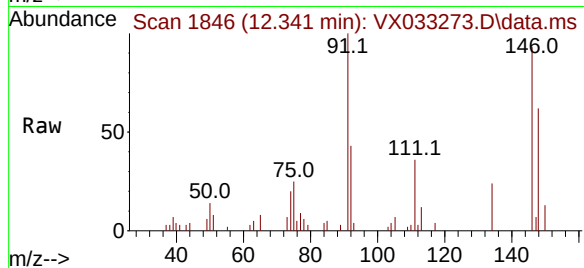
201 72.5 37.6 112.9





#91  
1,2-Dichlorobenzene  
Concen: 1.017 ug/l  
RT: 12.341 min Scan# 1845  
Delta R.T. 0.006 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

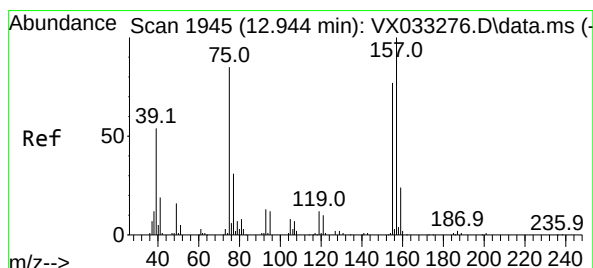
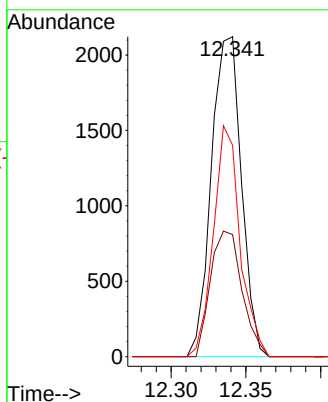
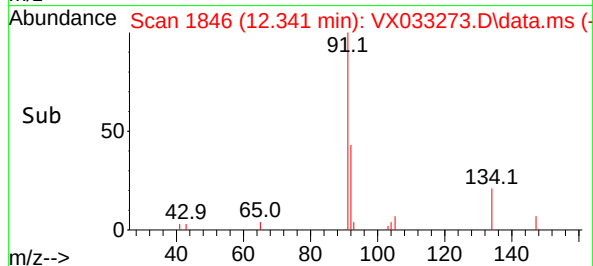
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC001



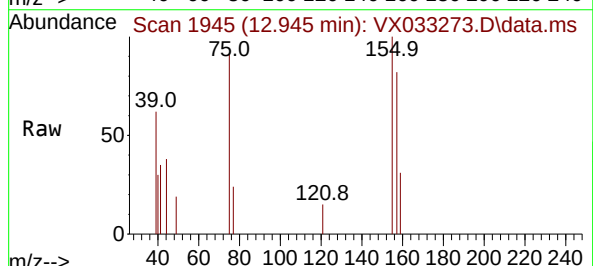
Tgt Ion:146 Resp: 296  
Ion Ratio Lower Upper  
146 100  
111 41.3 21.5 64.5  
148 64.1 32.0 96.2

Manual Integrations  
APPROVED

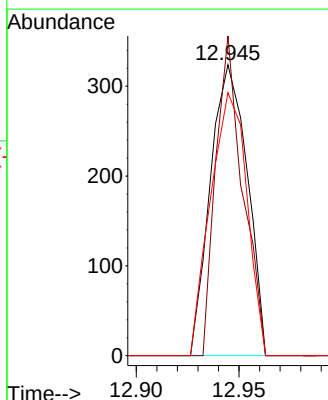
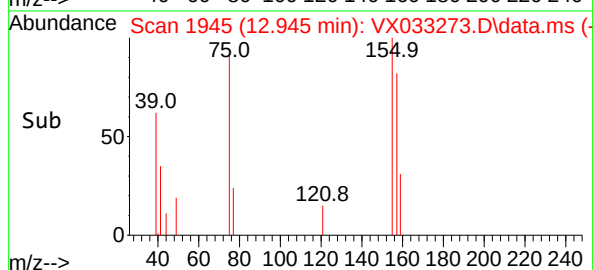
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

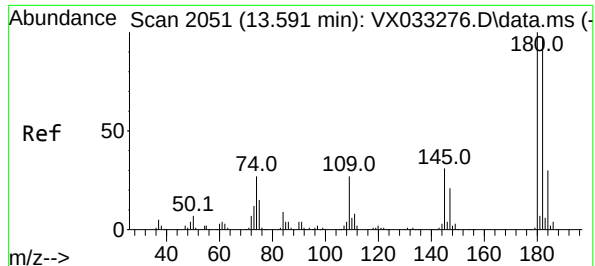


#92  
1,2-Dibromo-3-Chloropropane  
Concen: 1.034 ug/l  
RT: 12.945 min Scan# 1945  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46



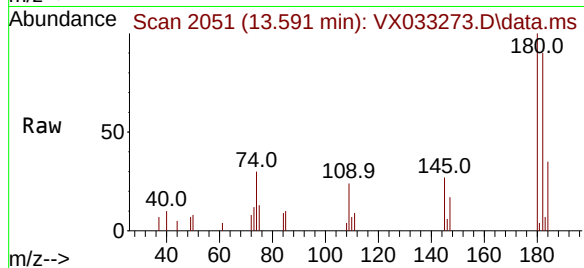
Tgt Ion: 75 Resp: 404  
Ion Ratio Lower Upper  
75 100  
155 80.2 41.6 124.8  
157 89.1 54.1 162.4





#93  
1,2,4-Trichlorobenzene  
Concen: 0.931 ug/l  
RT: 13.591 min Scan# 2051  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

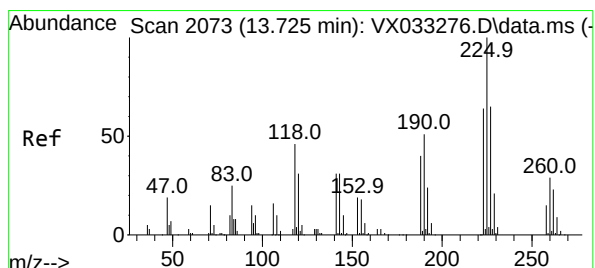
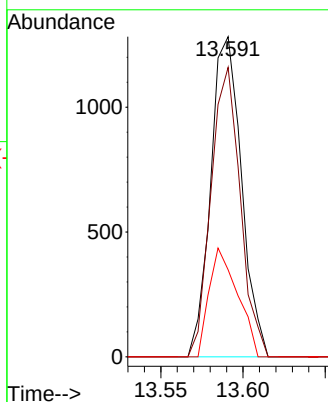
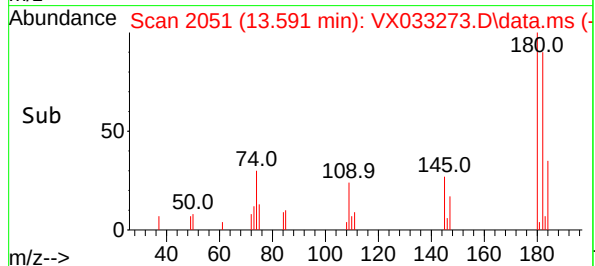
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC001



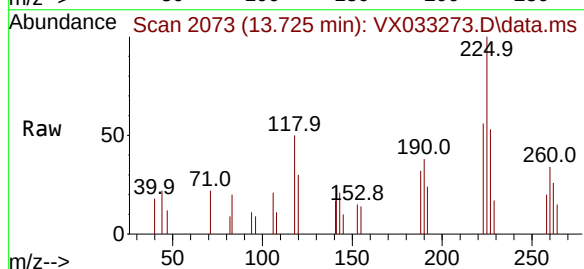
Tgt Ion:180 Resp: 167  
Ion Ratio Lower Upper  
180 100  
182 85.9 48.4 145.0  
145 31.5 16.2 48.5

Manual Integrations  
APPROVED

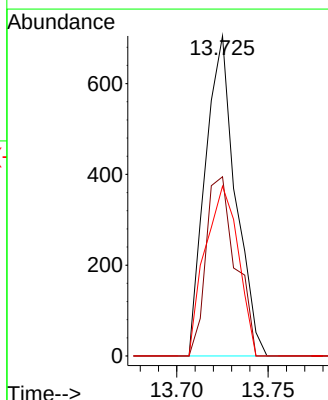
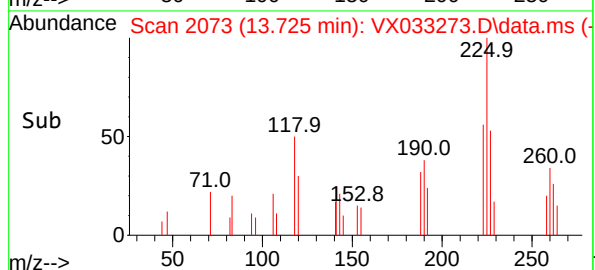
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

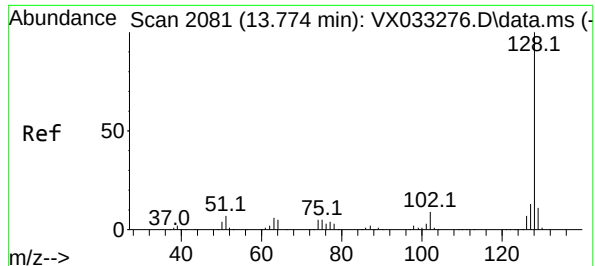


#94  
Hexachlorobutadiene  
Concen: 1.024 ug/l  
RT: 13.725 min Scan# 2073  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46



Tgt Ion:225 Resp: 811  
Ion Ratio Lower Upper  
225 100  
223 55.2 31.9 95.9  
227 58.3 31.9 95.5





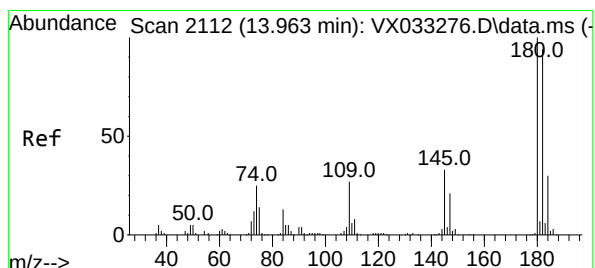
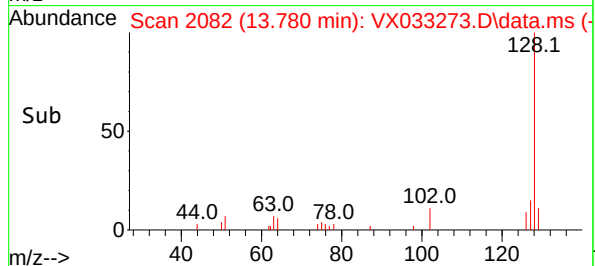
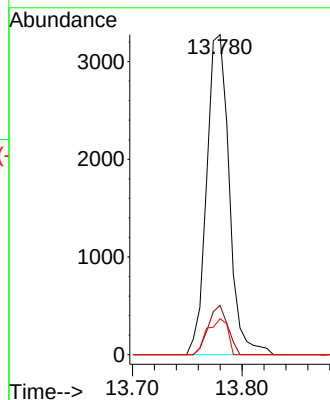
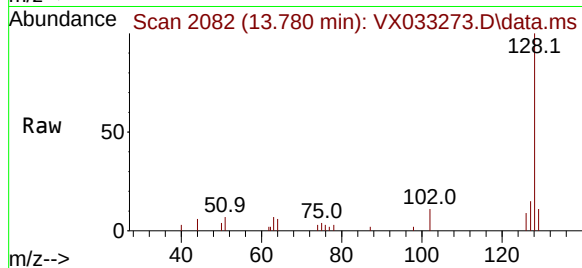
#95  
Naphthalene  
Concen: 0.803 ug/l  
RT: 13.780 min Scan# 2081  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC001

Tgt Ion:128 Resp: 466  
Ion Ratio Lower Upper  
128 100  
127 13.4 10.2 15.4  
129 10.2 8.9 13.3

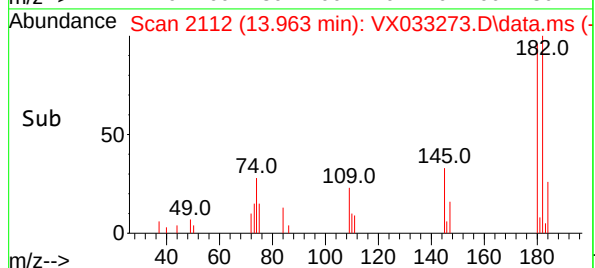
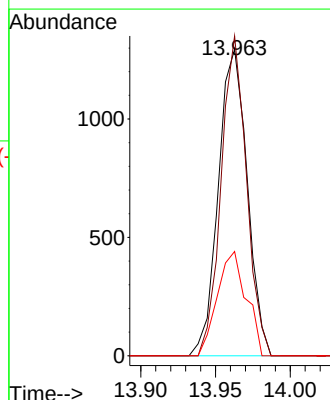
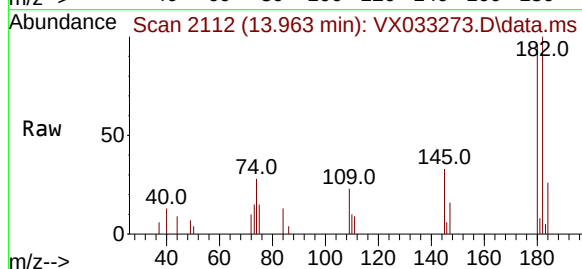
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#96  
1,2,3-Trichlorobenzene  
Concen: 0.966 ug/l  
RT: 13.963 min Scan# 2112  
Delta R.T. -0.000 min  
Lab File: VX033273.D  
Acq: 07 Dec 2022 09:46

Tgt Ion:180 Resp: 1739  
Ion Ratio Lower Upper  
180 100  
182 91.4 47.5 142.6  
145 34.1 16.9 50.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033274.D  
 Acq On : 07 Dec 2022 10:09  
 Operator : JC/MD  
 Sample : VSTDICC005  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDICC005

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/08/2022  
 Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 10:46:23 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 09:47:15 2022  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response   | Conc    | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|---------|--------|----------|
| -----                        |                |      |            |         |        |          |
| Internal Standards           |                |      |            |         |        |          |
| 1) Pentafluorobenzene        | 5.556          | 168  | 144070     | 50.000  | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 6.763          | 114  | 229334     | 50.000  | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 10.055         | 117  | 202892     | 50.000  | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 12.024         | 152  | 94568      | 50.000  | ug/l   | 0.00     |
|                              |                |      |            |         |        |          |
| System Monitoring Compounds  |                |      |            |         |        |          |
| 33) 1,2-Dichloroethane-d4    | 5.958          | 65   | 5440       | 3.505   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 78 - 117 |      | Recovery = | 7.020%# |        |          |
| 35) Dibromofluoromethane     | 5.391          | 113  | 5752       | 4.449   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = | 8.900%# |        |          |
| 50) Toluene-d8               | 8.653          | 98   | 11540      | 2.749   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 92 - 112 |      | Recovery = | 5.500%# |        |          |
| 62) 4-Bromofluorobenzene     | 11.079         | 95   | 7812       | 4.600   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 83 - 123 |      | Recovery = | 9.200%# |        |          |
|                              |                |      |            |         |        |          |
| Target Compounds             |                |      |            |         | Qvalue |          |
| 2) Dichlorodifluoromethane   | 1.166          | 85   | 5044       | 4.583   | ug/l   | 97       |
| 3) Chloromethane             | 1.294          | 50   | 6038       | 5.081   | ug/l   | 96       |
| 4) Vinyl Chloride            | 1.374          | 62   | 6564       | 4.961   | ug/l   | 94       |
| 5) Bromomethane              | 1.617          | 94   | 5092       | 5.190   | ug/l   | 97       |
| 6) Chloroethane              | 1.691          | 64   | 5540       | 5.143   | ug/l   | 95       |
| 7) Trichlorofluoromethane    | 1.886          | 101  | 12920      | 5.032   | ug/l   | 100      |
| 8) Diethyl Ether             | 2.136          | 74   | 4665       | 5.770   | ug/l   | 94       |
| 9) 1,1,2-Trichlorotrifluo... | 2.331          | 101  | 6854       | 5.078   | ug/l   | 97       |
| 10) Methyl Iodide            | 2.453          | 142  | 5583       | 3.613   | ug/l   | 99       |
| 11) Tert butyl alcohol       | 3.007          | 59   | 7343m      | 33.016  | ug/l   |          |
| 12) 1,1-Dichloroethene       | 2.319          | 96   | 6721       | 5.346   | ug/l   | 99       |
| 13) Acrolein                 | 2.239          | 56   | 8257m      | 32.321  | ug/l   |          |
| 14) Allyl chloride           | 2.666          | 41   | 10045      | 4.949   | ug/l   | 97       |
| 15) Acrylonitrile            | 3.068          | 53   | 16698      | 26.544  | ug/l   | 99       |
| 16) Acetone                  | 2.392          | 43   | 17889      | 27.301  | ug/l   | 97       |
| 17) Carbon Disulfide         | 2.514          | 76   | 16275      | 4.685   | ug/l   | 97       |
| 18) Methyl Acetate           | 2.709          | 43   | 9028       | 4.977   | ug/l   | 96       |
| 19) Methyl tert-butyl Ether  | 3.111          | 73   | 21635      | 4.962   | ug/l   | 98       |
| 20) Methylene Chloride       | 2.788          | 84   | 7429       | 4.706   | ug/l   | 97       |
| 21) trans-1,2-Dichloroethene | 3.093          | 96   | 7168       | 4.984   | ug/l   | 97       |
| 22) Diisopropyl ether        | 3.763          | 45   | 21433      | 4.849   | ug/l   | 94       |
| 23) Vinyl Acetate            | 3.727          | 43   | 78754      | 22.764  | ug/l   | 98       |
| 24) 1,1-Dichloroethane       | 3.605          | 63   | 12949      | 5.120   | ug/l   | 98       |
| 25) 2-Butanone               | 4.568          | 43   | 23979      | 26.540  | ug/l   | 98       |
| 26) 2,2-Dichloropropane      | 4.483          | 77   | 9330       | 4.588   | ug/l   | 99       |
| 27) cis-1,2-Dichloroethene   | 4.495          | 96   | 8066       | 4.936   | ug/l   | 100      |
| 28) Bromochloromethane       | 4.903          | 49   | 5414       | 4.872   | ug/l # | 99       |
| 29) Tetrahydrofuran          | 5.019          | 42   | 15358      | 26.788  | ug/l   | 98       |
| 30) Chloroform               | 5.099          | 83   | 14271      | 5.038   | ug/l   | 99       |
| 31) Cyclohexane              | 5.476          | 56   | 10895      | 4.793   | ug/l   | 96       |
| 32) 1,1,1-Trichloroethane    | 5.385          | 97   | 12264      | 4.834   | ug/l   | 97       |
| 36) 1,1-Dichloropropene      | 5.690          | 75   | 9627       | 4.657   | ug/l   | 98       |
| 37) Ethyl Acetate            | 4.714          | 43   | 8802       | 4.880   | ug/l   | 97       |
| 38) Carbon Tetrachloride     | 5.678          | 117  | 11021      | 4.806   | ug/l   | 93       |
| 39) Methylcyclohexane        | 7.379          | 83   | 10958      | 4.646   | ug/l   | 95       |
| 40) Benzene                  | 6.043          | 78   | 28636      | 4.940   | ug/l   | 98       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033274.D  
 Acq On : 07 Dec 2022 10:09  
 Operator : JC/MD  
 Sample : VSTDIC005  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 3 Sample Multiplier: 1

## Instrument :

MSVOA\_X

## ClientSampleId :

VSTDIC005

## Manual Integrations

## APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 10:46:23 2022

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M

Quant Title : SW846 8260

QLast Update : Wed Dec 07 09:47:15 2022

Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 4.922  | 41   | 4794     | 4.724   | ug/l   | 97       |
| 42) 1,2-Dichloroethane        | 6.092  | 62   | 11537    | 4.944   | ug/l   | 99       |
| 43) Isopropyl Acetate         | 6.348  | 43   | 13843    | 4.641   | ug/l   | 98       |
| 44) Trichloroethene           | 7.129  | 130  | 7732     | 4.754   | ug/l   | 99       |
| 45) 1,2-Dichloropropane       | 7.433  | 63   | 7318     | 5.109   | ug/l   | 96       |
| 46) Dibromomethane            | 7.586  | 93   | 5641     | 5.047   | ug/l   | 99       |
| 47) Bromodichloromethane      | 7.824  | 83   | 10273    | 4.757   | ug/l   | 100      |
| 48) Methyl methacrylate       | 7.696  | 41   | 7089     | 4.617   | ug/l   | 97       |
| 49) 1,4-Dioxane               | 7.708  | 88   | 3321     | 117.505 | ug/l # | 83       |
| 51) 4-Methyl-2-Pentanone      | 8.573  | 43   | 46309    | 25.160  | ug/l   | 98       |
| 52) Toluene                   | 8.720  | 92   | 18018    | 4.725   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene     | 8.982  | 75   | 8954m    | 4.224   | ug/l   |          |
| 54) cis-1,3-Dichloropropene   | 8.366  | 75   | 10463    | 4.494   | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane     | 9.153  | 97   | 7396     | 4.764   | ug/l   | 94       |
| 56) Ethyl methacrylate        | 9.116  | 69   | 9861     | 4.610   | ug/l   | 97       |
| 57) 1,3-Dichloropropane       | 9.311  | 76   | 12377    | 4.938   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether | 8.244  | 63   | 24237    | 23.860  | ug/l   | 99       |
| 59) 2-Hexanone                | 9.433  | 43   | 33348    | 24.527  | ug/l   | 98       |
| 60) Dibromochloromethane      | 9.525  | 129  | 8098     | 4.845   | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 9.610  | 107  | 7913     | 4.829   | ug/l   | 96       |
| 64) Tetrachloroethene         | 9.275  | 164  | 7306     | 5.087   | ug/l   | 93       |
| 65) Chlorobenzene             | 10.079 | 112  | 19809    | 4.897   | ug/l   | 96       |
| 66) 1,1,1,2-Tetrachloroethane | 10.165 | 131  | 7253     | 4.894   | ug/l   | 98       |
| 67) Ethyl Benzene             | 10.195 | 91   | 35174    | 4.902   | ug/l   | 99       |
| 68) m/p-Xylenes               | 10.305 | 106  | 26854    | 9.557   | ug/l   | 99       |
| 69) o-Xylene                  | 10.640 | 106  | 13235    | 4.868   | ug/l   | 94       |
| 70) Styrene                   | 10.659 | 104  | 21152    | 4.756   | ug/l   | 98       |
| 71) Bromoform                 | 10.799 | 173  | 5553     | 4.886   | ug/l # | 98       |
| 73) Isopropylbenzene          | 10.963 | 105  | 34409    | 5.092   | ug/l   | 99       |
| 74) N-amyl acetate            | 10.841 | 43   | 10497    | 4.566   | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 10892    | 5.340   | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane    | 11.238 | 75   | 9183m    | 5.127   | ug/l   |          |
| 77) Bromobenzene              | 11.201 | 156  | 8678     | 5.222   | ug/l   | 98       |
| 78) n-propylbenzene           | 11.305 | 91   | 37347    | 4.834   | ug/l   | 100      |
| 79) 2-Chlorotoluene           | 11.366 | 91   | 23595    | 5.028   | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 28056    | 4.942   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75   | 2404     | 4.363   | ug/l # | 84       |
| 82) 4-Chlorotoluene           | 11.457 | 91   | 26803    | 4.874   | ug/l   | 99       |
| 83) tert-Butylbenzene         | 11.713 | 119  | 27792    | 4.918   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene    | 11.750 | 105  | 27785    | 4.908   | ug/l   | 100      |
| 85) sec-Butylbenzene          | 11.890 | 105  | 32333    | 4.783   | ug/l   | 99       |
| 86) p-Isopropyltoluene        | 12.012 | 119  | 27023    | 4.718   | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene       | 11.969 | 146  | 15307    | 4.910   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 12.042 | 146  | 15903    | 4.981   | ug/l   | 96       |
| 89) n-Butylbenzene            | 12.335 | 91   | 21376    | 4.332   | ug/l   | 97       |
| 90) Hexachloroethane          | 12.542 | 117  | 4506     | 4.788   | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene       | 12.335 | 146  | 15312    | 5.050   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75   | 2190     | 5.382   | ug/l   | 95       |
| 93) 1,2,4-Trichlorobenzene    | 13.591 | 180  | 8724     | 4.667   | ug/l   | 99       |
| 94) Hexachlorobutadiene       | 13.725 | 225  | 3692     | 4.477   | ug/l   | 99       |
| 95) Naphthalene               | 13.780 | 128  | 28600    | 4.730   | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 9081     | 4.845   | ug/l   | 98       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033274.D  
Acq On : 07 Dec 2022 10:09  
Operator : JC/MD  
Sample : VSTDICC005  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC005

Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 10:46:23 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 09:47:15 2022  
Response via : Initial Calibration

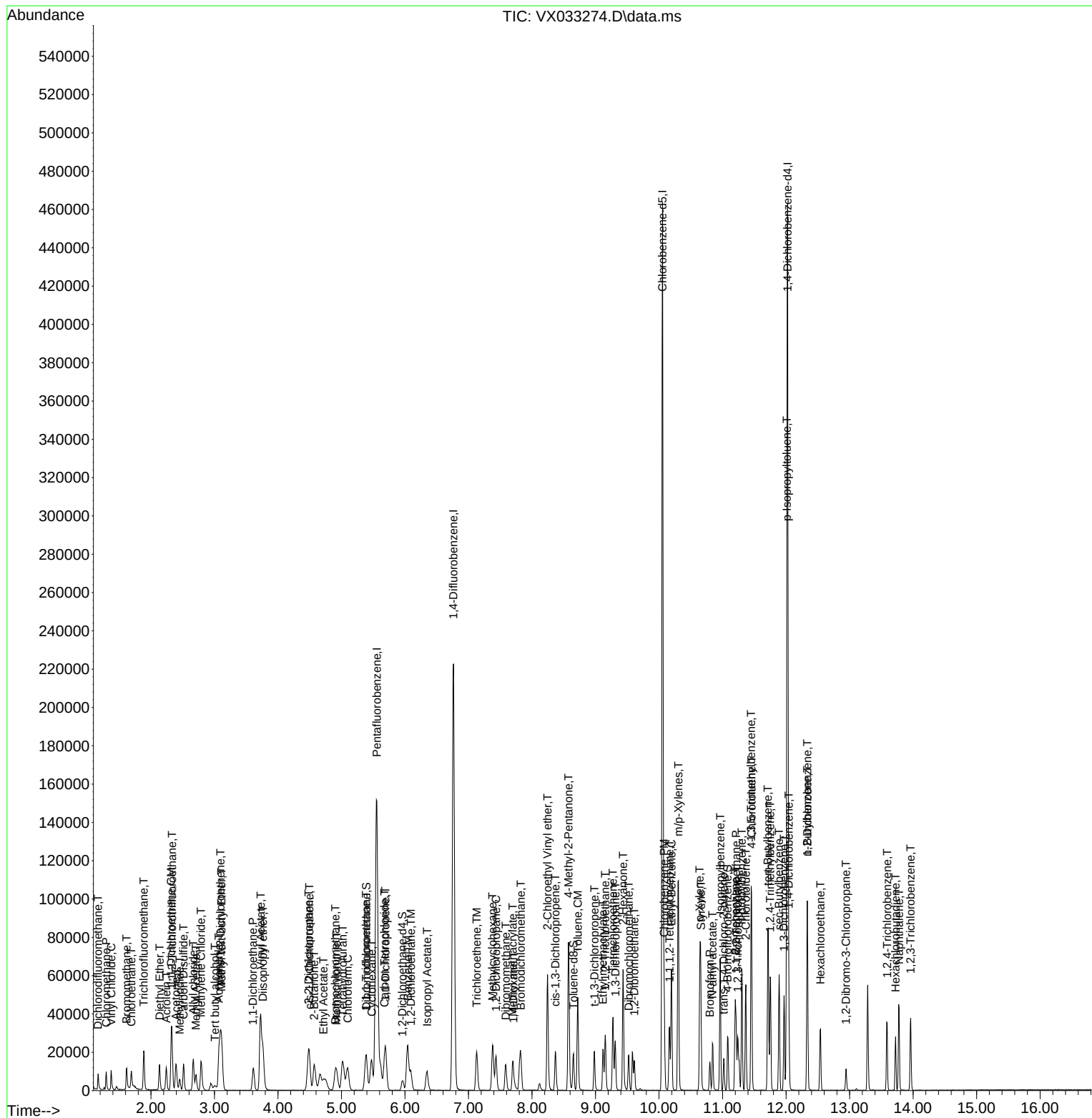
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|----------|------|------|----------|------|-------|----------|
|----------|------|------|----------|------|-------|----------|

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

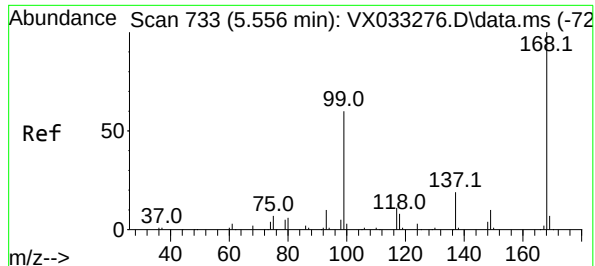
**Instrument :**  
MSVOA\_X  
**ClientSampleId :**  
VSTDIC005

## Manual Integrations

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

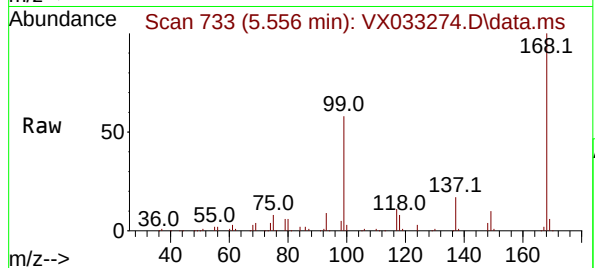






#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.556 min Scan# 71  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

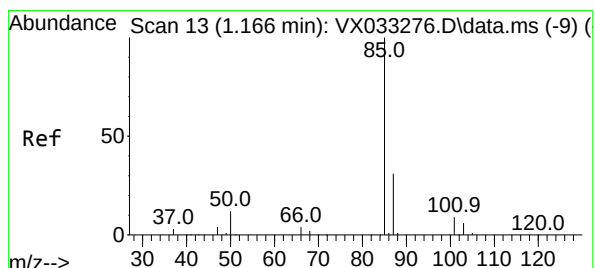
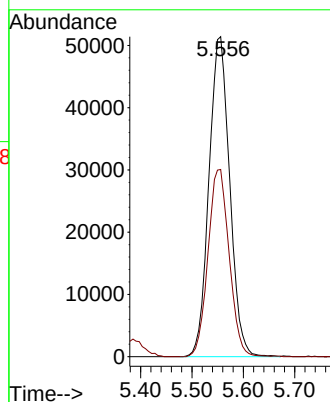
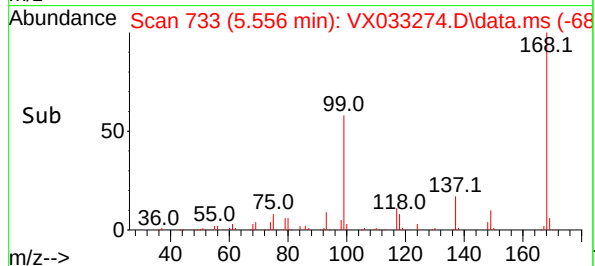
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC005



Tgt Ion:168 Resp: 144070  
Ion Ratio Lower Upper  
168 100  
99 58.5 46.1 69.1

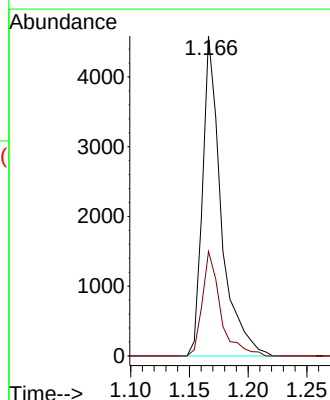
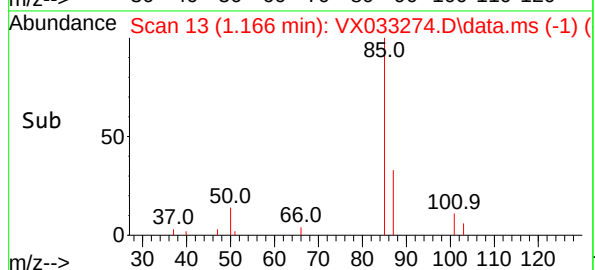
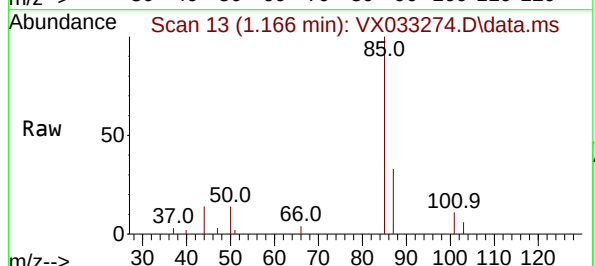
Manual Integrations  
APPROVED

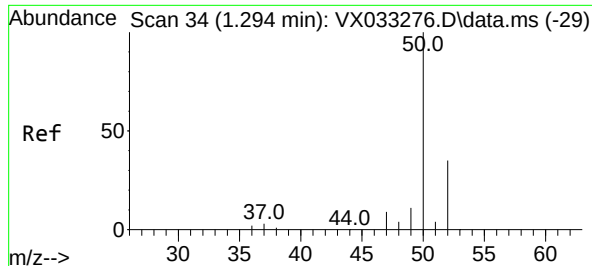
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#2  
Dichlorodifluoromethane  
Concen: 4.583 ug/l  
RT: 1.166 min Scan# 13  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Tgt Ion: 85 Resp: 5044  
Ion Ratio Lower Upper  
85 100  
87 32.7 15.6 46.7





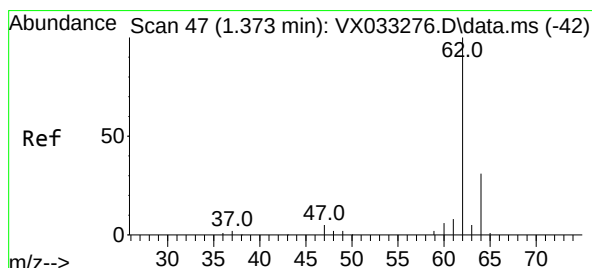
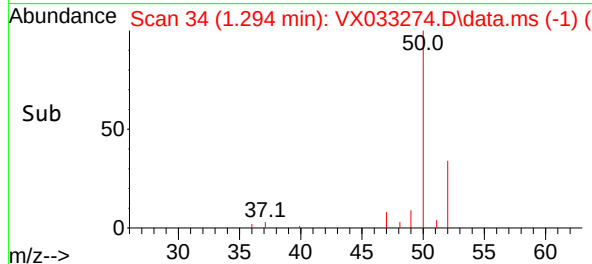
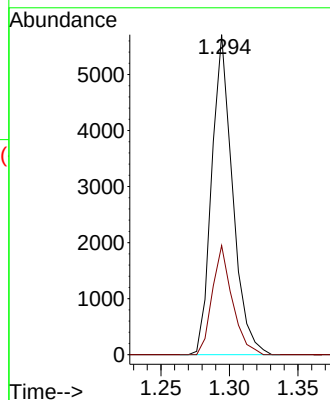
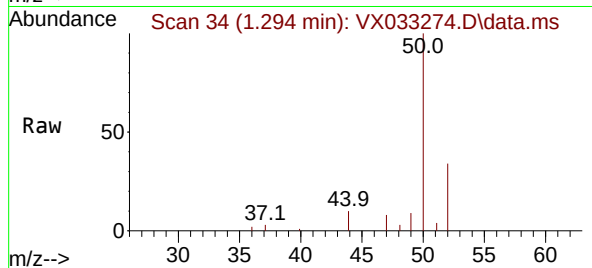
#3  
Chloromethane  
Concen: 5.081 ug/l  
RT: 1.294 min Scan# 34  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC005

Tgt Ion: 50 Resp: 6038  
Ion Ratio Lower Upper  
50 100  
52 34.1 25.4 38.2

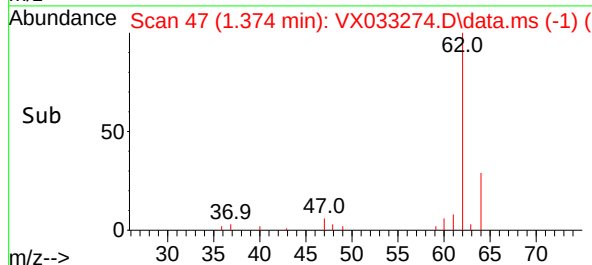
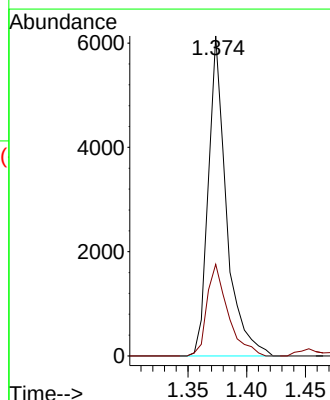
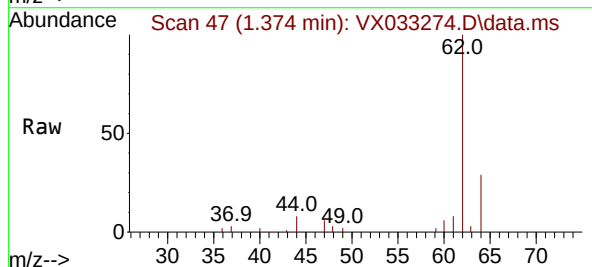
Manual Integrations  
APPROVED

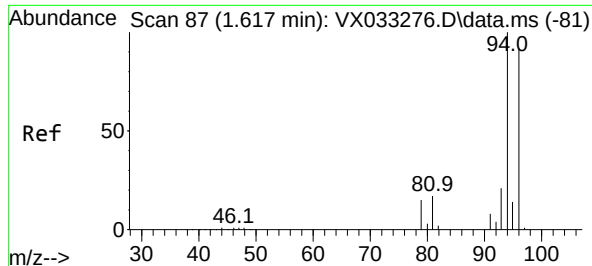
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#4  
Vinyl Chloride  
Concen: 4.961 ug/l  
RT: 1.374 min Scan# 47  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

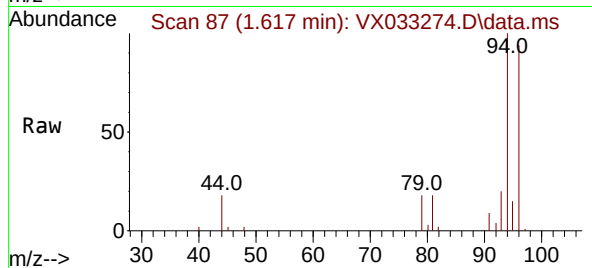
Tgt Ion: 62 Resp: 6564  
Ion Ratio Lower Upper  
62 100  
64 28.6 25.8 38.6





#5  
Bromomethane  
Concen: 5.190 ug/l  
RT: 1.617 min Scan# 81  
Delta R.T. 0.012 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

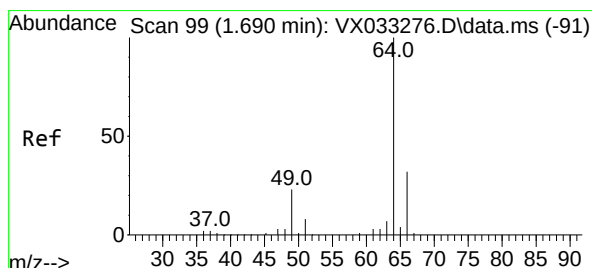
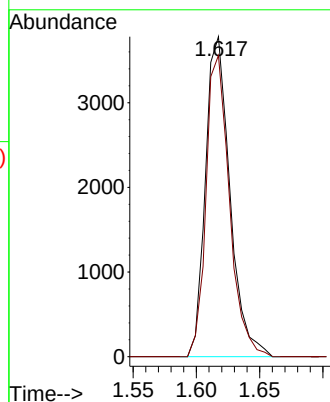
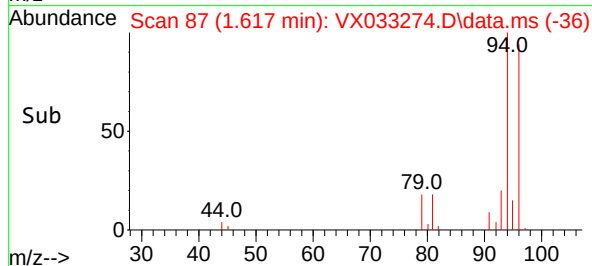
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC005



Tgt Ion: 94 Resp: 5092  
Ion Ratio Lower Upper  
94 100  
96 94.2 77.6 116.4

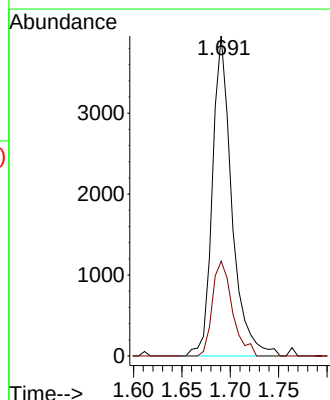
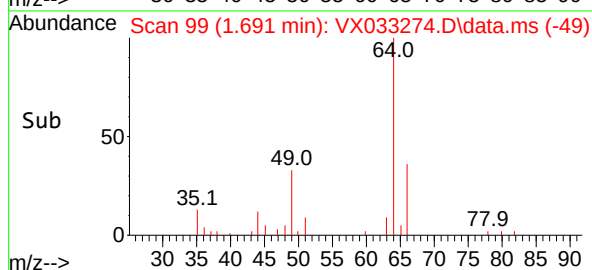
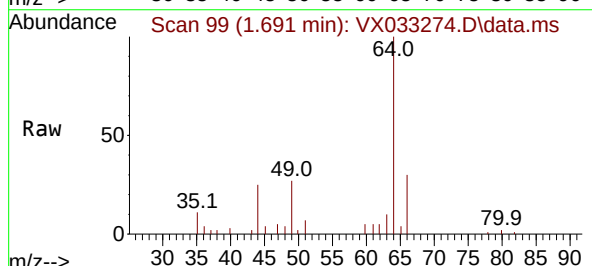
Manual Integrations  
APPROVED

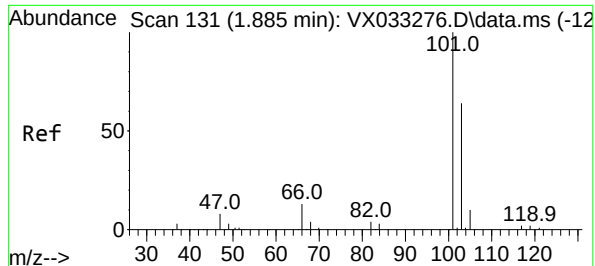
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#6  
Chloroethane  
Concen: 5.143 ug/l  
RT: 1.691 min Scan# 99  
Delta R.T. 0.006 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Tgt Ion: 64 Resp: 5540  
Ion Ratio Lower Upper  
64 100  
66 29.6 26.0 39.0





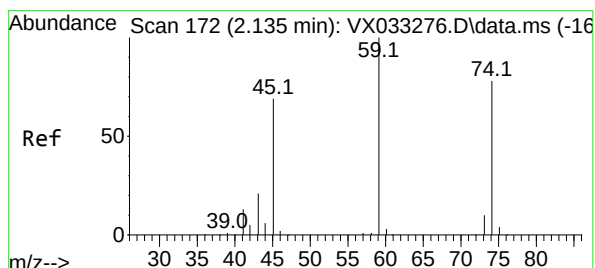
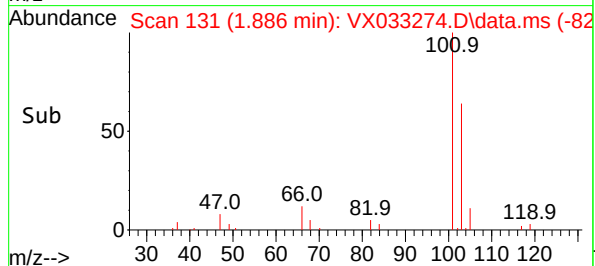
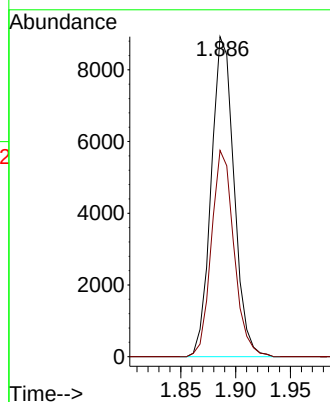
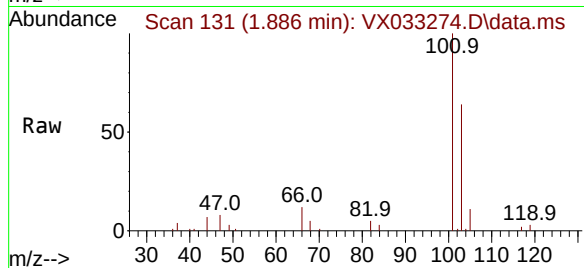
#7  
Trichlorofluoromethane  
Concen: 5.032 ug/l  
RT: 1.886 min Scan# 131  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC005

Tgt Ion:101 Resp: 12920  
Ion Ratio Lower Upper  
101 100  
103 64.4 51.4 77.2

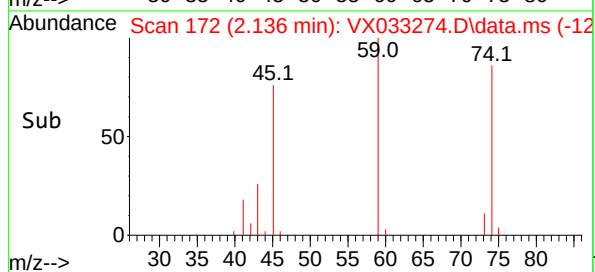
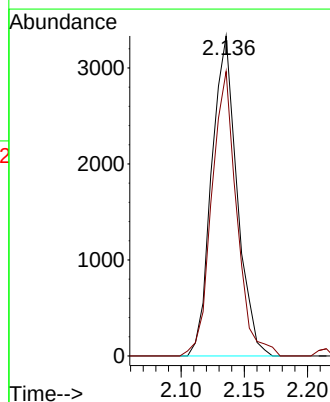
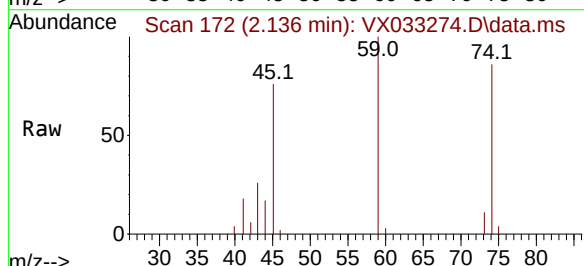
Manual Integrations  
APPROVED

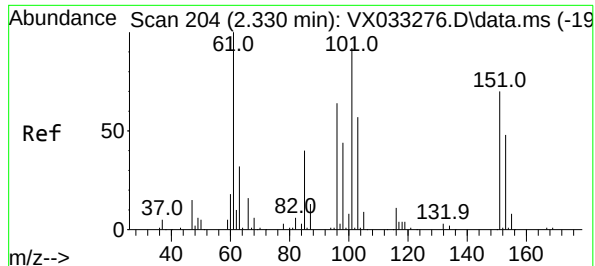
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#8  
Diethyl Ether  
Concen: 5.770 ug/l  
RT: 2.136 min Scan# 172  
Delta R.T. 0.006 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Tgt Ion: 74 Resp: 4665  
Ion Ratio Lower Upper  
74 100  
45 87.1 46.6 139.7





#9

1,1,2-Trichlorotrifluoroethane

Concen: 5.078 ug/l

RT: 2.331 min Scan# 204

Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

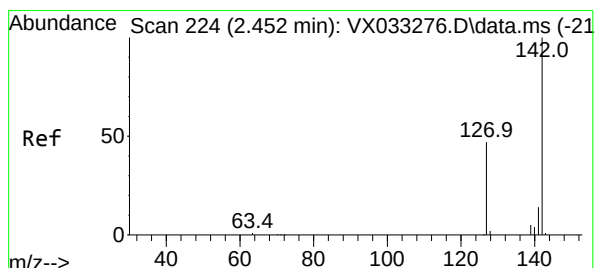
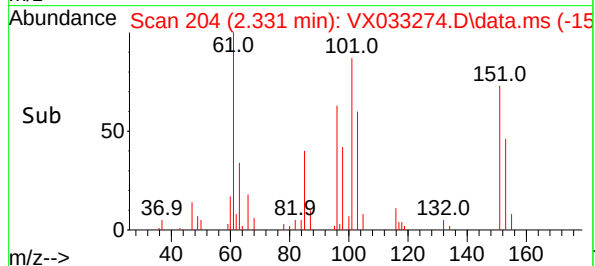
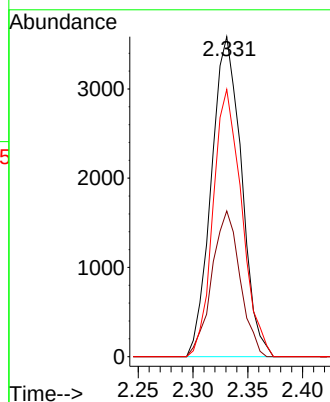
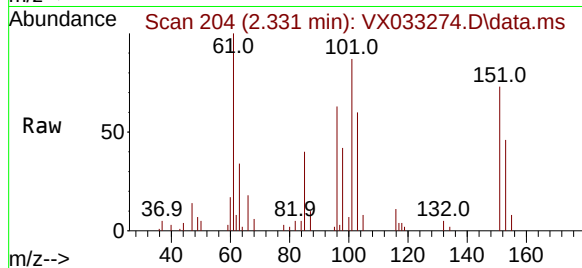
VSTDIC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 101   | Resp: | 685   |
| Ion      | Ratio | Lower | Upper |
| 101      | 100   |       |       |
| 85       | 42.7  | 37.0  | 55.4  |
| 151      | 79.5  | 64.4  | 96.6  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#10

Methyl Iodide

Concen: 3.613 ug/l

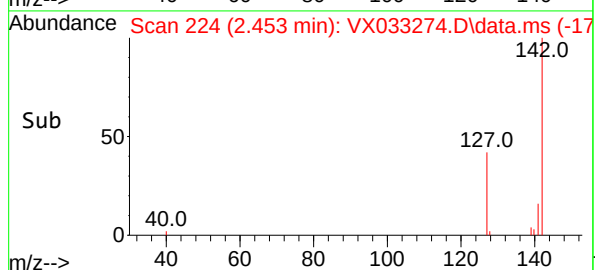
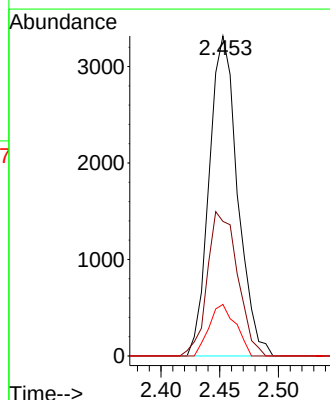
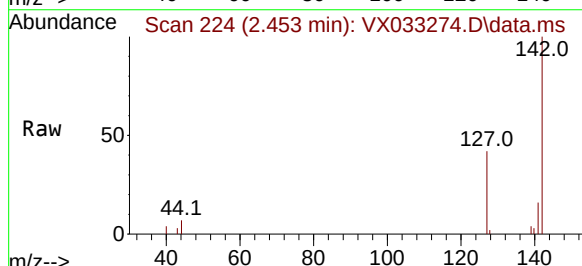
RT: 2.453 min Scan# 224

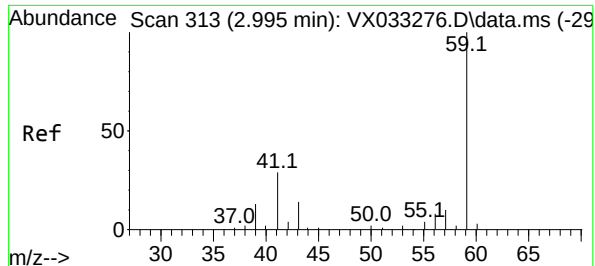
Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 142   | Resp: | 5583  |
| Ion      | Ratio | Lower | Upper |
| 142      | 100   |       |       |
| 127      | 47.8  | 38.6  | 57.8  |
| 141      | 15.1  | 11.4  | 17.2  |





#11

Tert butyl alcohol

Concen: 33.016 ug/l m

RT: 3.007 min Scan# 31

Delta R.T. 0.042 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 59 Resp: 734

Ion Ratio Lower Upper

59 100

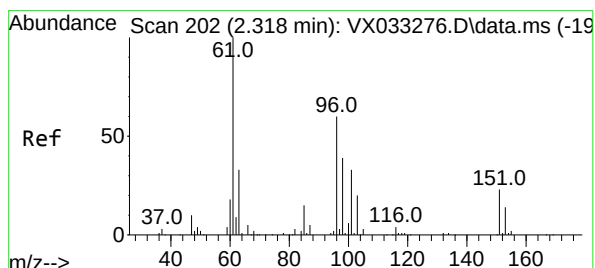
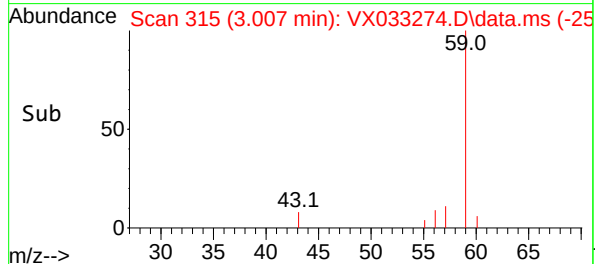
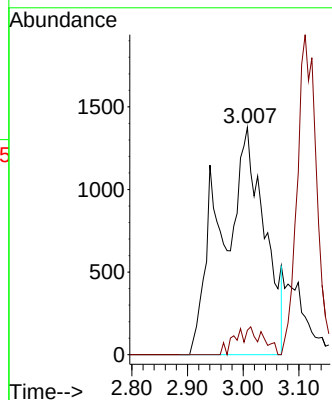
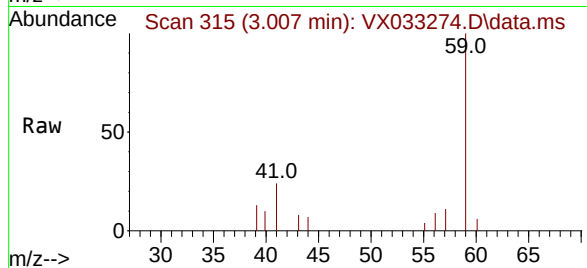
57 0.0 8.2 12.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#12

1,1-Dichloroethene

Concen: 5.346 ug/l

RT: 2.319 min Scan# 202

Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

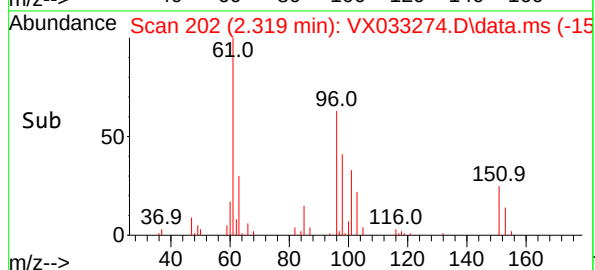
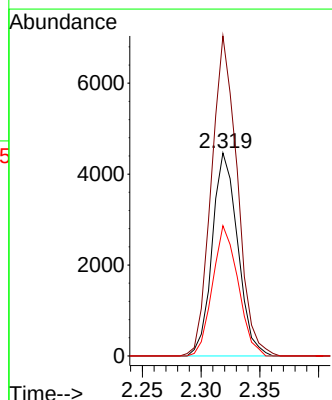
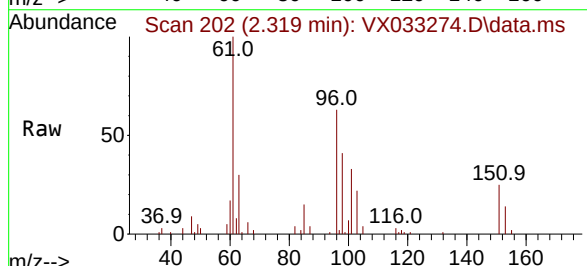
Tgt Ion: 96 Resp: 6721

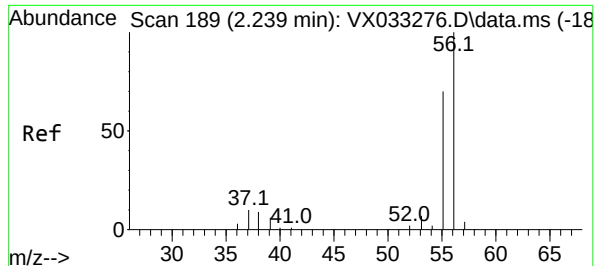
Ion Ratio Lower Upper

96 100

61 157.6 125.1 187.7

98 64.2 50.6 76.0





#13

Acrolein

Concen: 32.321 ug/l m

RT: 2.239 min Scan# 189

Delta R.T. 0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 56 Resp: 825

Ion Ratio Lower Upper

56 100

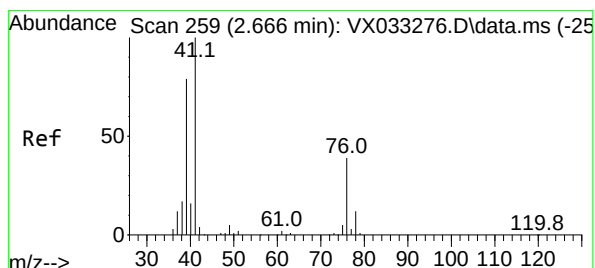
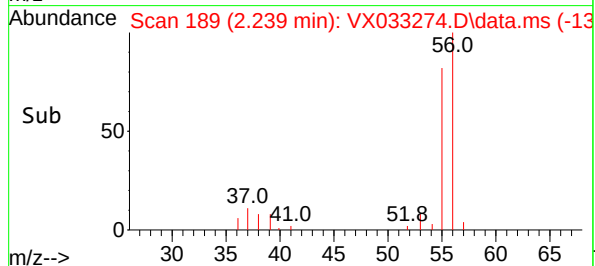
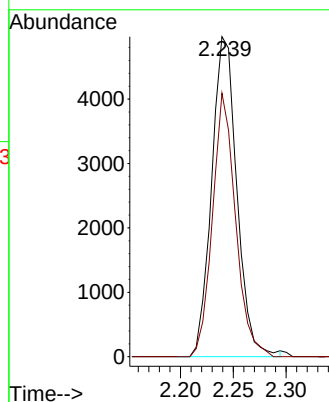
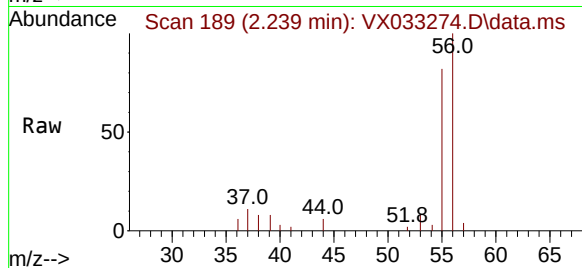
55 75.3 56.9 85.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#14

Allyl chloride

Concen: 4.949 ug/l

RT: 2.666 min Scan# 259

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

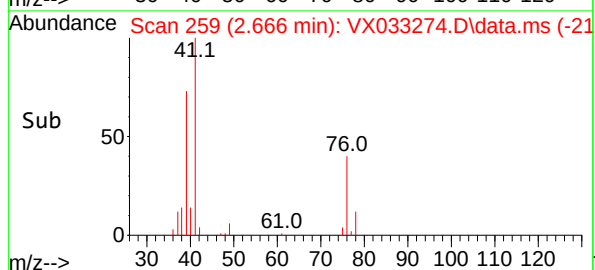
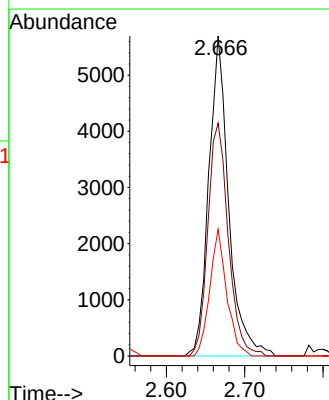
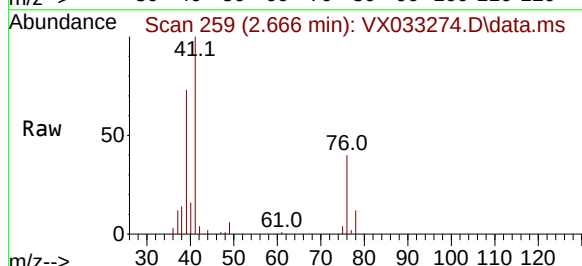
Tgt Ion: 41 Resp: 10045

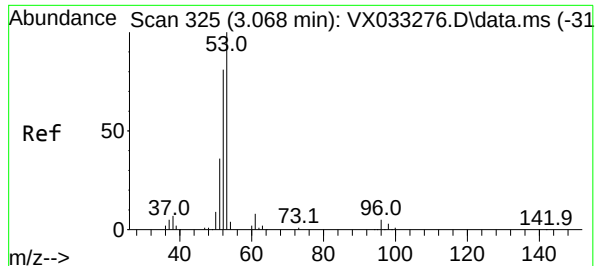
Ion Ratio Lower Upper

41 100

39 74.6 61.4 92.2

76 33.8 29.2 43.8





#15

Acrylonitrile

Concen: 26.544 ug/l

RT: 3.068 min Scan# 31

Delta R.T. 0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

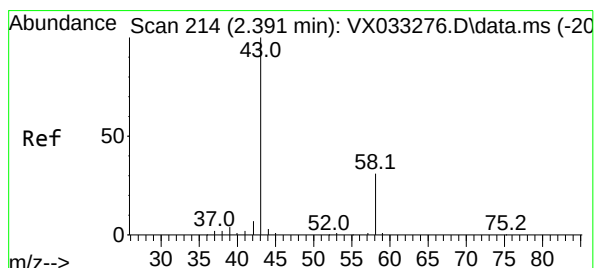
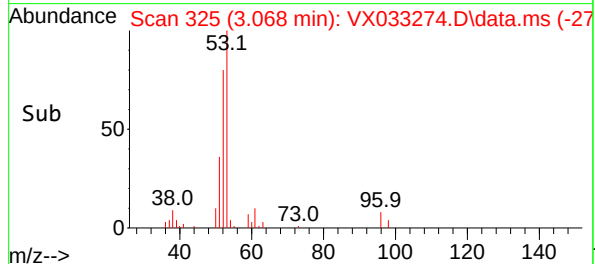
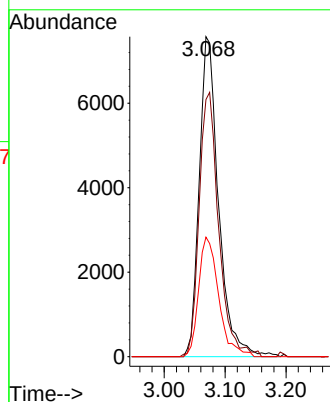
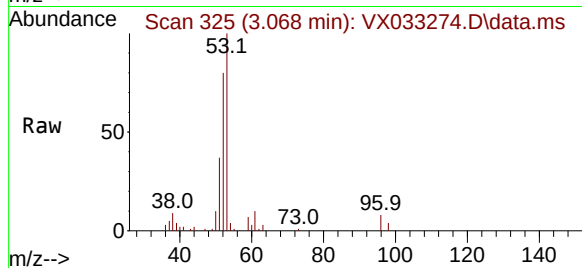
VSTDICC005

|             |                 |
|-------------|-----------------|
| Tgt Ion: 53 | Resp: 16698     |
| Ion Ratio   | Lower Upper     |
| 53          | 100             |
| 52          | 83.6 67.4 101.0 |
| 51          | 38.9 30.3 45.5  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#16

Acetone

Concen: 27.301 ug/l

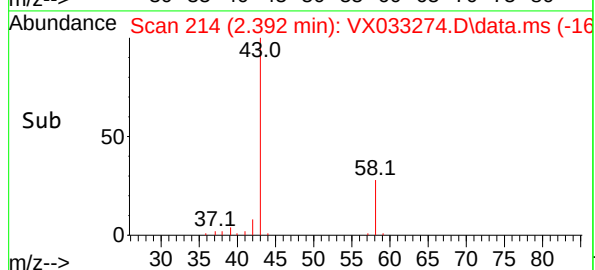
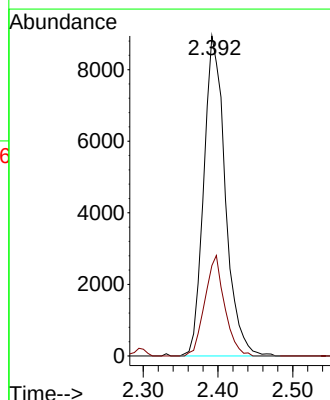
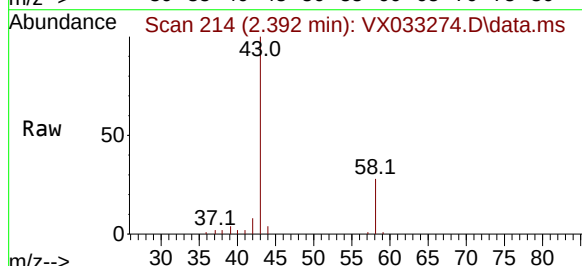
RT: 2.392 min Scan# 214

Delta R.T. 0.012 min

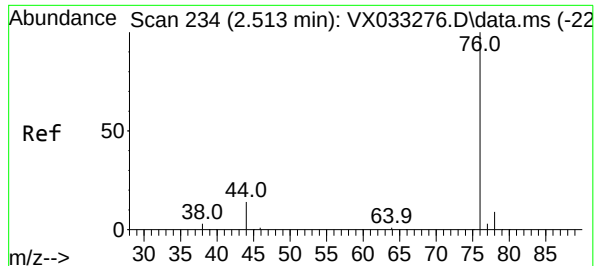
Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

|             |                |
|-------------|----------------|
| Tgt Ion: 43 | Resp: 17889    |
| Ion Ratio   | Lower Upper    |
| 43          | 100            |
| 58          | 28.2 23.8 35.8 |







#17

Carbon Disulfide

Concen: 4.685 ug/l

RT: 2.514 min Scan# 21

Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 76 Resp: 1627

Ion Ratio Lower Upper

76 100

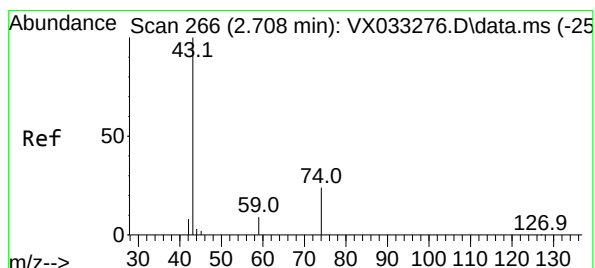
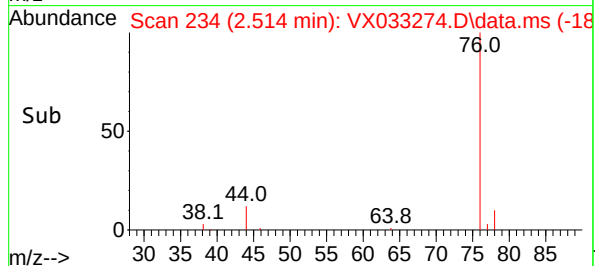
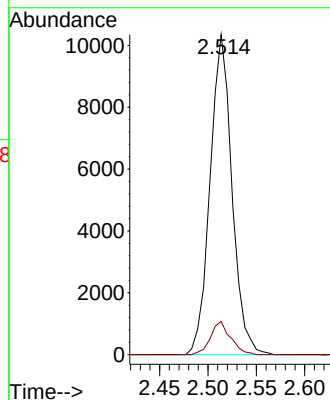
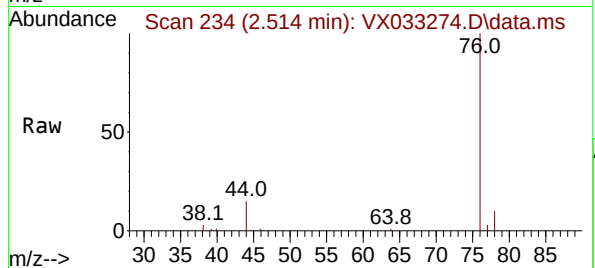
78 10.4 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#18

Methyl Acetate

Concen: 4.977 ug/l

RT: 2.709 min Scan# 266

Delta R.T. 0.006 min

Lab File: VX033274.D

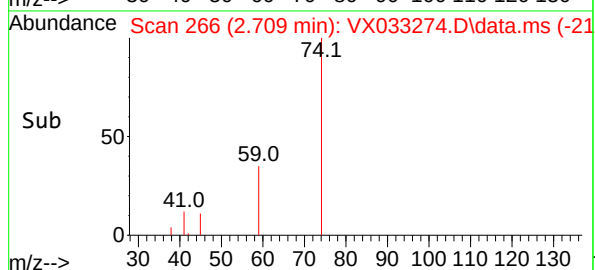
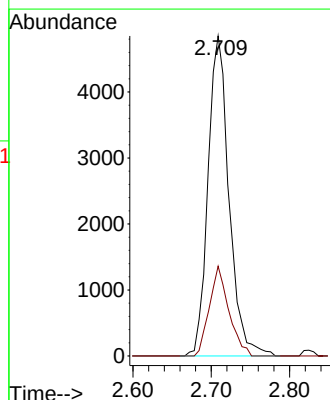
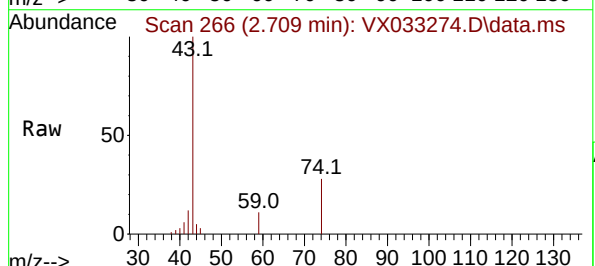
Acq: 07 Dec 2022 10:09

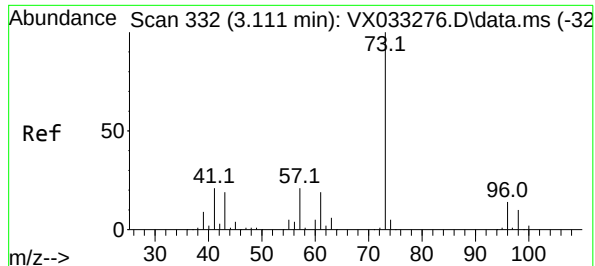
Tgt Ion: 43 Resp: 9028

Ion Ratio Lower Upper

43 100

74 26.1 19.4 29.0





#19

Methyl tert-butyl Ether

Concen: 4.962 ug/l

RT: 3.111 min Scan# 31

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 73 Resp: 2163

Ion Ratio Lower Upper

73 100

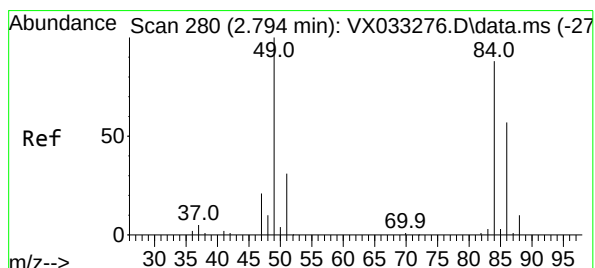
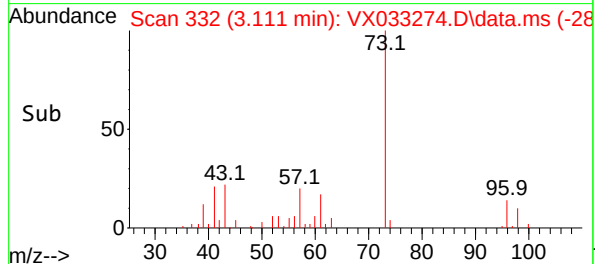
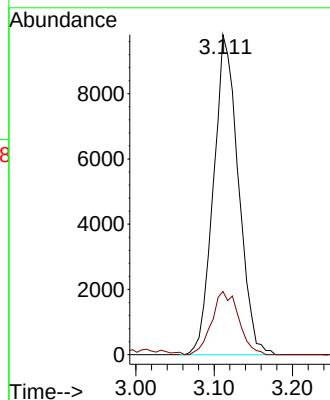
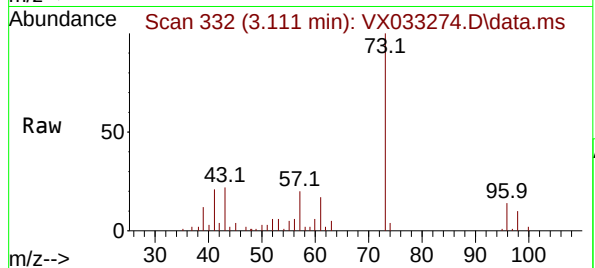
57 19.7 16.6 25.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#20

Methylene Chloride

Concen: 4.706 ug/l

RT: 2.788 min Scan# 279

Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Tgt Ion: 84 Resp: 7429

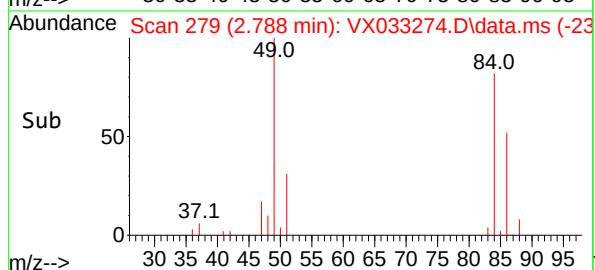
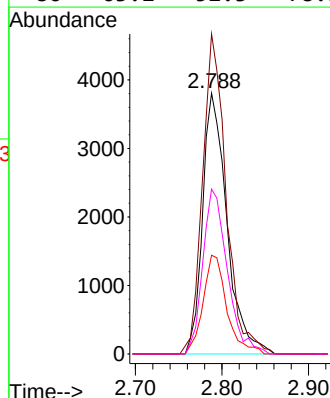
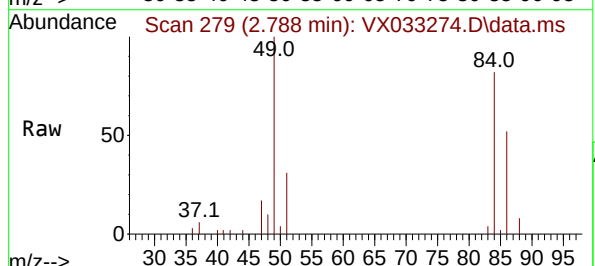
Ion Ratio Lower Upper

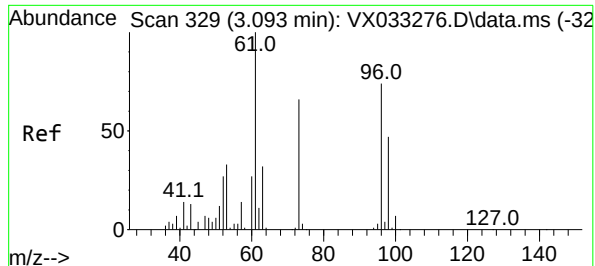
84 100

49 122.7 101.0 151.6

51 37.8 31.1 46.7

86 63.2 52.3 78.5





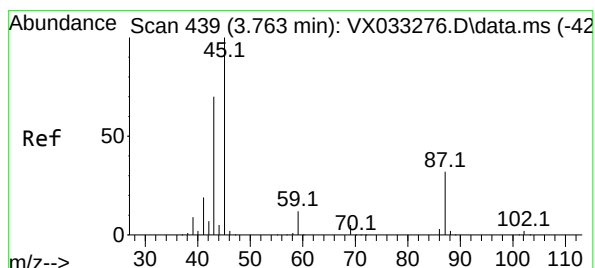
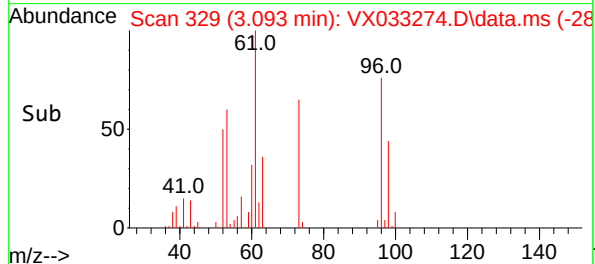
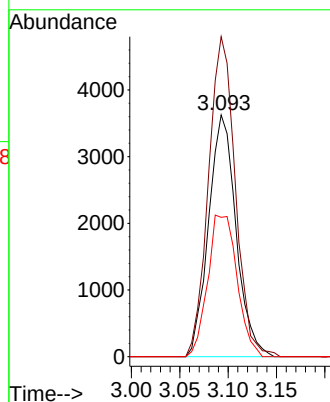
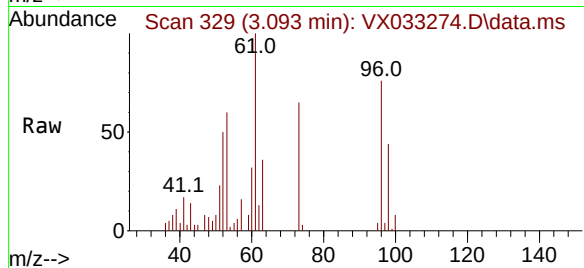
#21  
trans-1,2-Dichloroethene  
Concen: 4.984 ug/l  
RT: 3.093 min Scan# 31  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC005

Tgt Ion: 96 Resp: 716  
Ion Ratio Lower Upper  
96 100  
61 132.4 106.6 160.0  
98 57.7 51.0 76.6

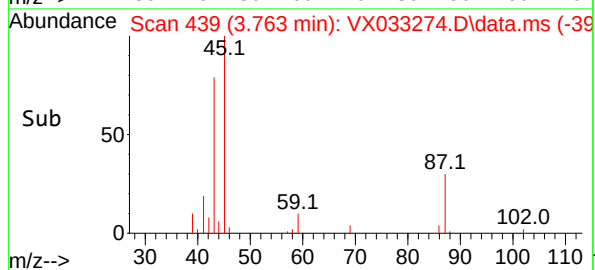
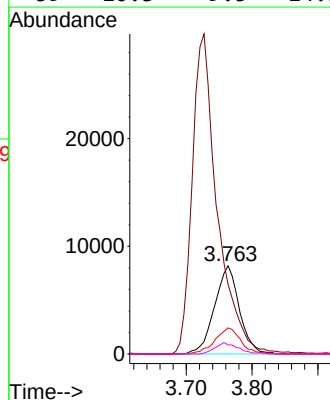
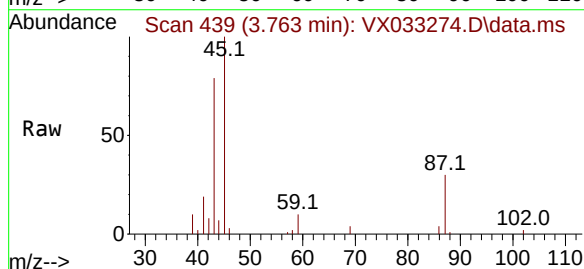
Manual Integrations  
APPROVED

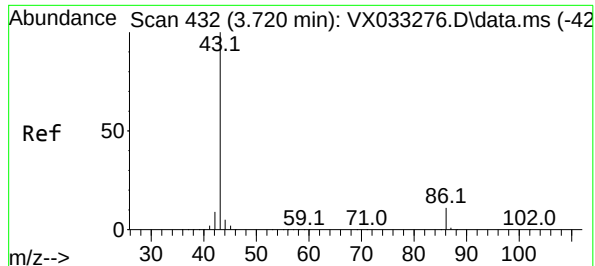
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#22  
Diisopropyl ether  
Concen: 4.849 ug/l  
RT: 3.763 min Scan# 439  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Tgt Ion: 45 Resp: 21433  
Ion Ratio Lower Upper  
45 100  
43 76.9 56.4 84.6  
87 29.5 24.4 36.6  
59 10.3 9.5 14.3





#23

Vinyl Acetate

Concen: 22.764 ug/l

RT: 3.727 min Scan# 41

Delta R.T. 0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC005

Tgt Ion: 43 Resp: 78754

Ion Ratio Lower Upper

43

100

86

10.0

8.6

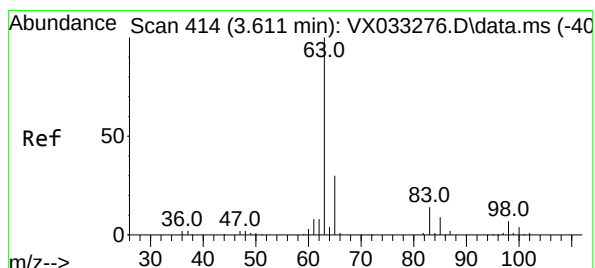
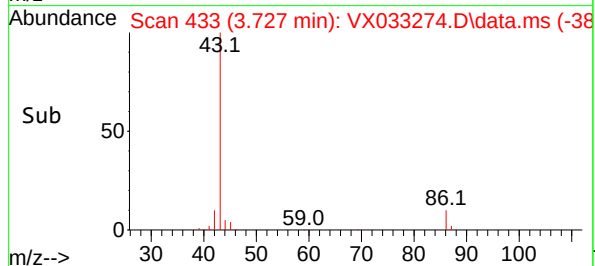
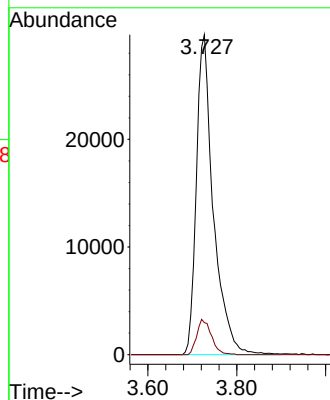
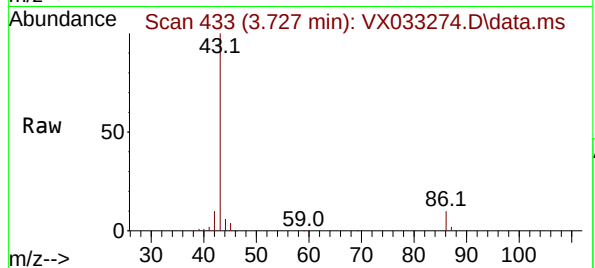
12.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#24

1,1-Dichloroethane

Concen: 5.120 ug/l

RT: 3.605 min Scan# 413

Delta R.T. -0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Tgt Ion: 63 Resp: 12949

Ion Ratio Lower Upper

63

100

98

5.8

3.5

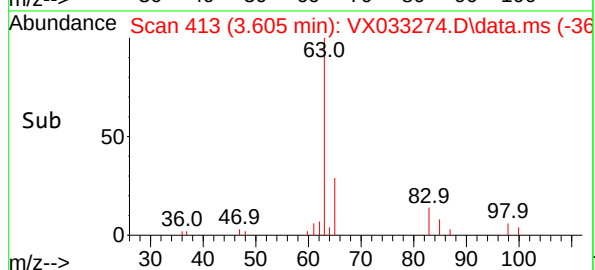
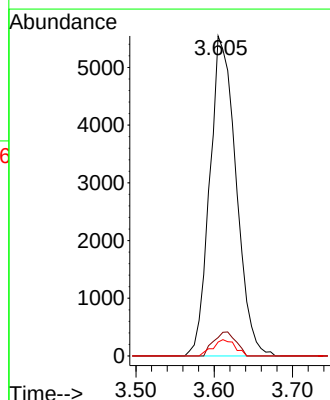
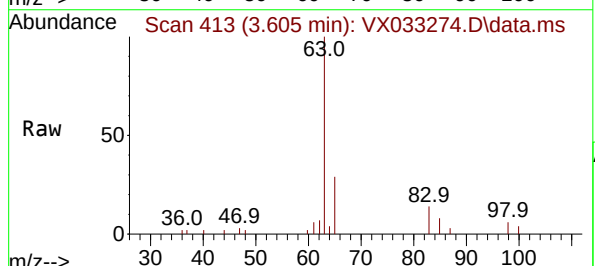
10.4

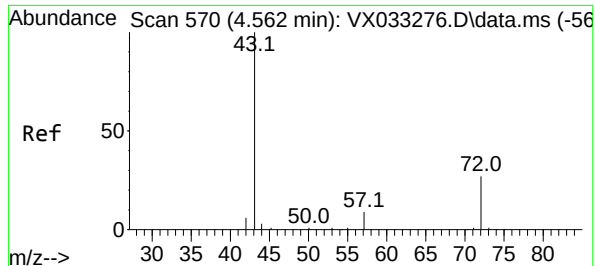
100

4.4

2.3

6.8





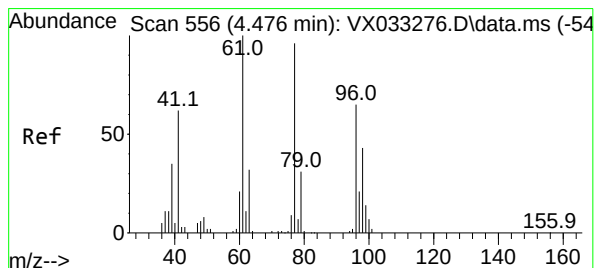
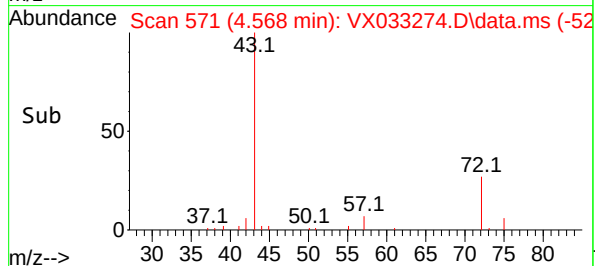
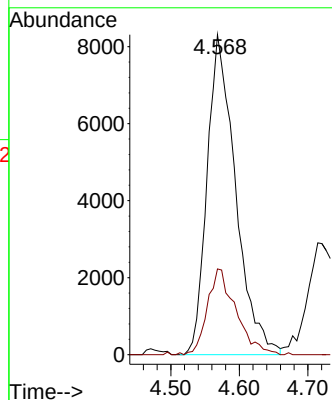
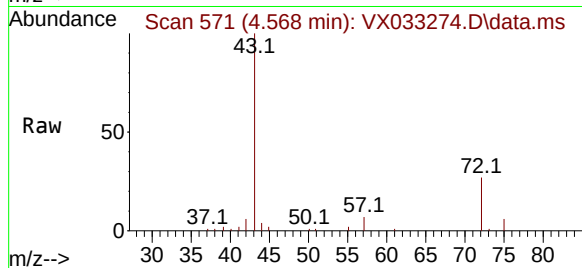
#25  
2-Butanone  
Concen: 26.540 ug/l  
RT: 4.568 min Scan# 51  
Delta R.T. 0.012 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC005

Tgt Ion: 43 Resp: 23979  
Ion Ratio Lower Upper  
43 100  
72 26.8 22.2 33.2

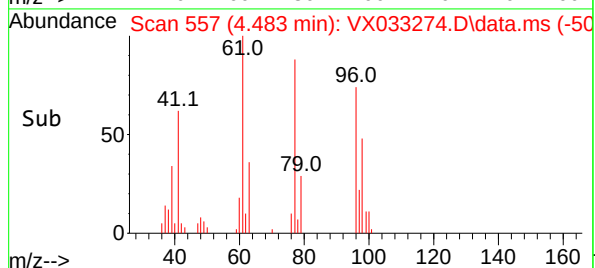
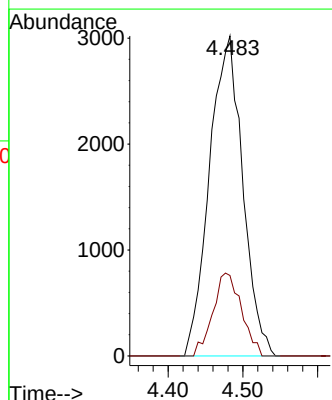
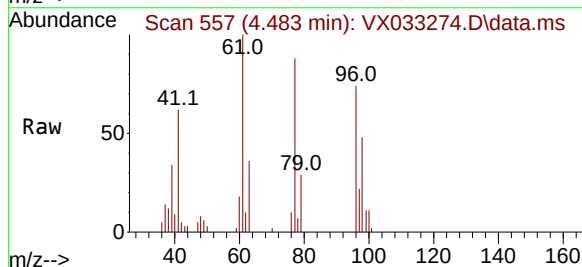
Manual Integrations  
APPROVED

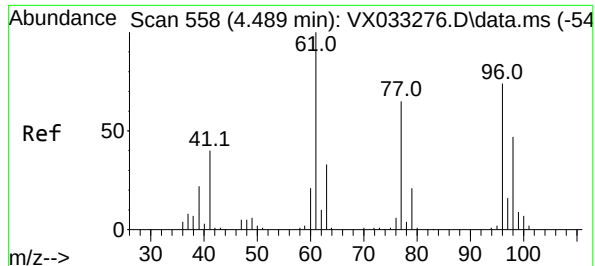
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#26  
2,2-Dichloropropane  
Concen: 4.588 ug/l  
RT: 4.483 min Scan# 557  
Delta R.T. 0.006 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Tgt Ion: 77 Resp: 9330  
Ion Ratio Lower Upper  
77 100  
97 22.2 11.4 34.1





#27

cis-1,2-Dichloroethene

Concen: 4.936 ug/l

RT: 4.495 min Scan# 558

Delta R.T. 0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 96 Resp: 806

Ion Ratio Lower Upper

96 100

61 143.6 0.0 286.0

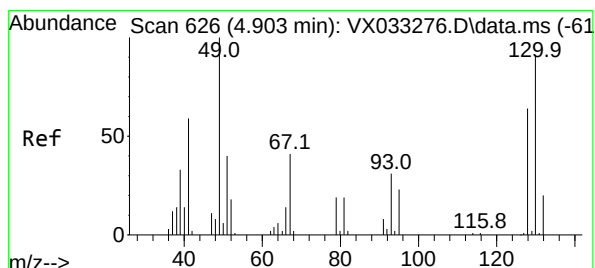
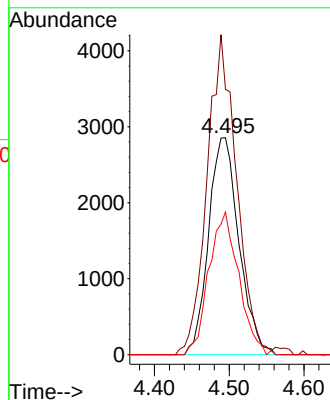
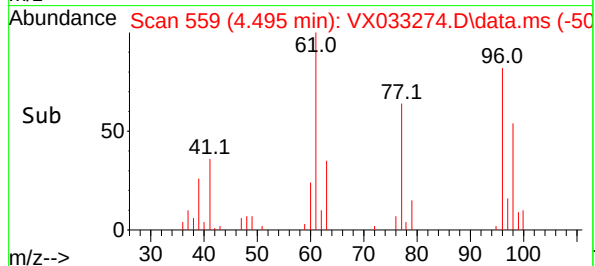
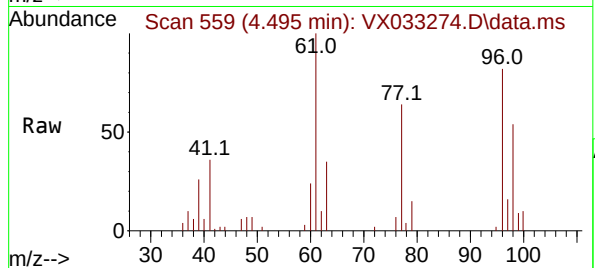
98 64.8 0.0 129.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#28

Bromochloromethane

Concen: 4.872 ug/l

RT: 4.903 min Scan# 626

Delta R.T. -0.001 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

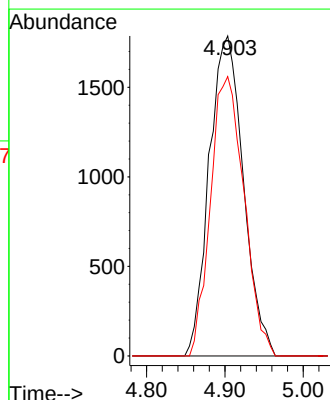
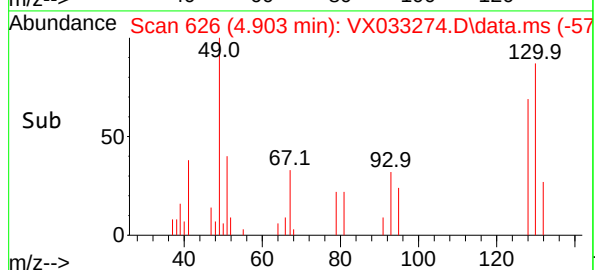
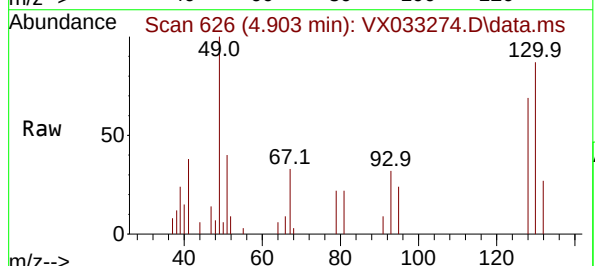
Tgt Ion: 49 Resp: 5414

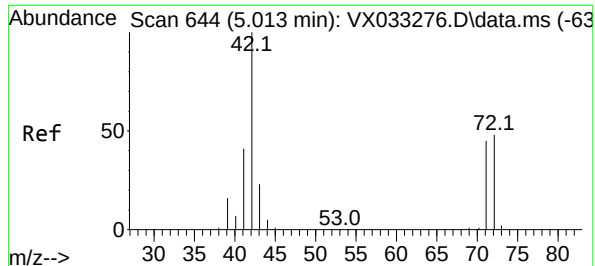
Ion Ratio Lower Upper

49 100

129 0.0 0.0 3.8

130 85.6 67.5 101.3





#29

Tetrahydrofuran

Concen: 26.788 ug/l

RT: 5.019 min Scan# 644

Delta R.T. 0.018 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

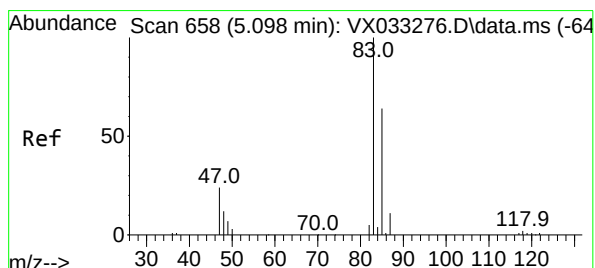
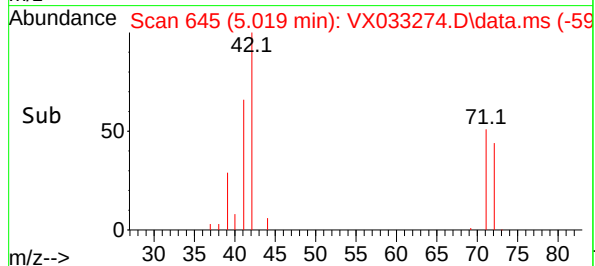
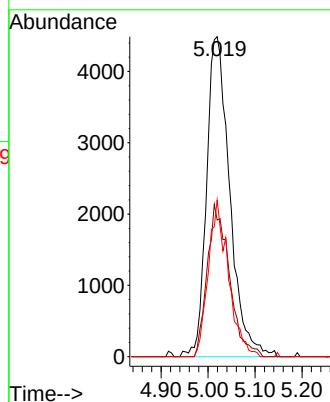
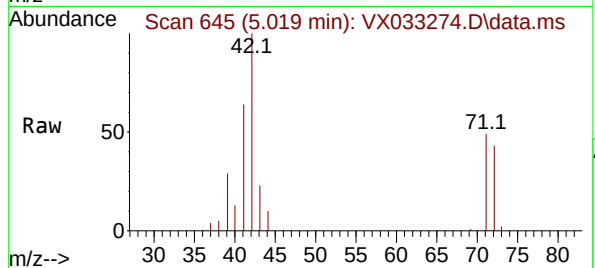
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 1535  |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 45.6  | 37.6  | 56.4  |
| 71       | 42.4  | 34.7  | 52.1  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#30

Chloroform

Concen: 5.038 ug/l

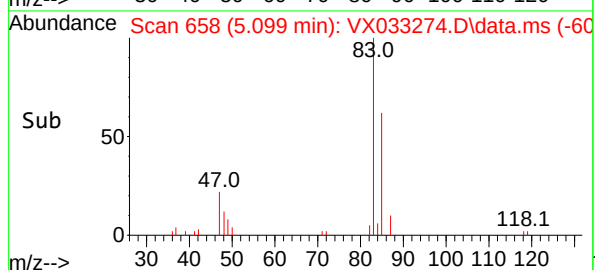
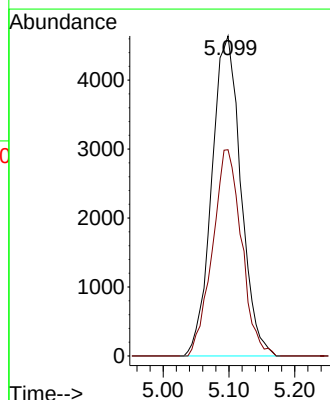
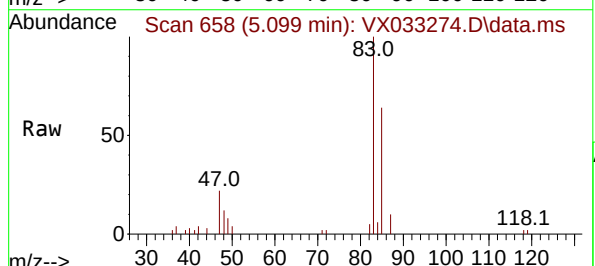
RT: 5.099 min Scan# 658

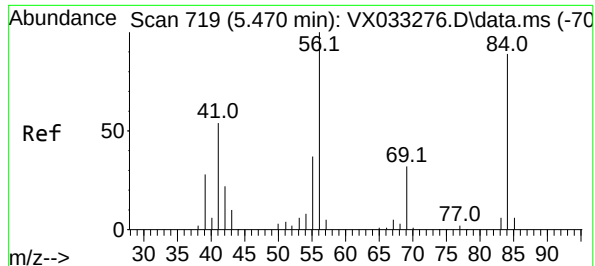
Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 14271 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 64.5  | 51.1  | 76.7  |





#31

Cyclohexane

Concen: 4.793 ug/l

RT: 5.476 min Scan# 719

Delta R.T. 0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 56 Resp: 1089

Ion Ratio Lower Upper

56 100

69 24.5 24.1 36.1

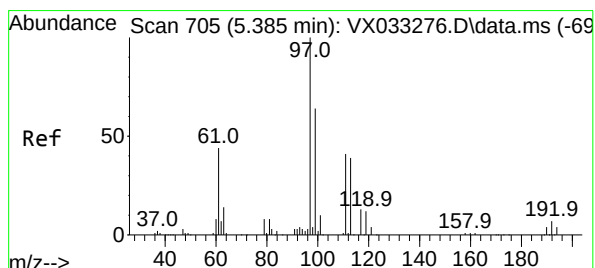
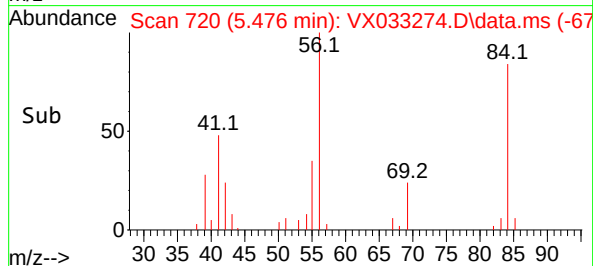
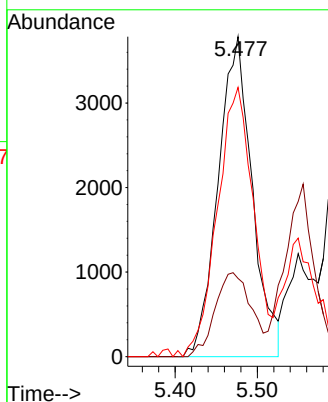
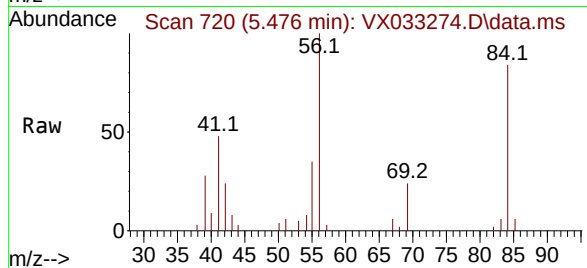
84 82.3 66.9 100.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#32

1,1,1-Trichloroethane

Concen: 4.834 ug/l

RT: 5.385 min Scan# 705

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

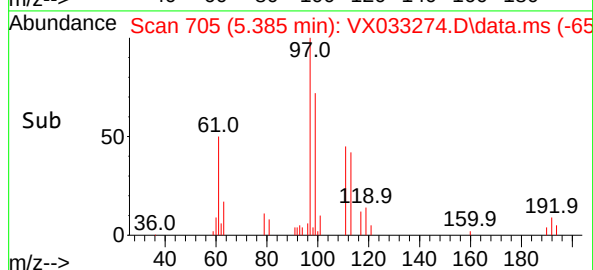
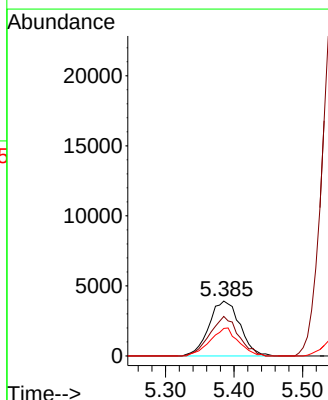
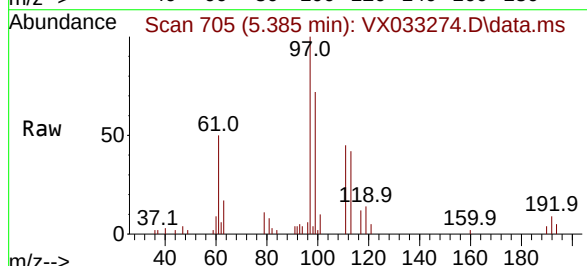
Tgt Ion: 97 Resp: 12264

Ion Ratio Lower Upper

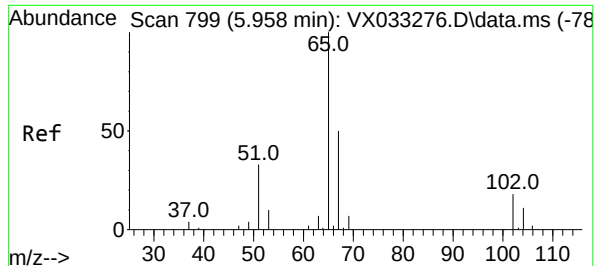
97 100

99 66.8 51.4 77.0

61 46.3 35.2 52.8







#33

1,2-Dichloroethane-d4

Concen: 3.505 ug/l

RT: 5.958 min Scan# 799

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 65 Resp: 5440

Ion Ratio Lower Upper

65 100

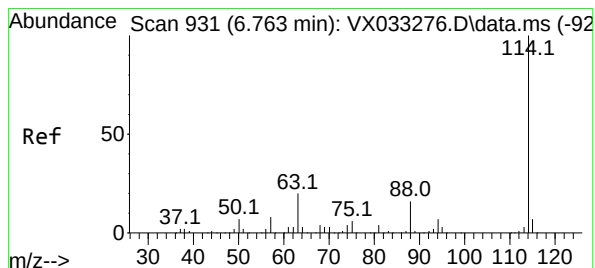
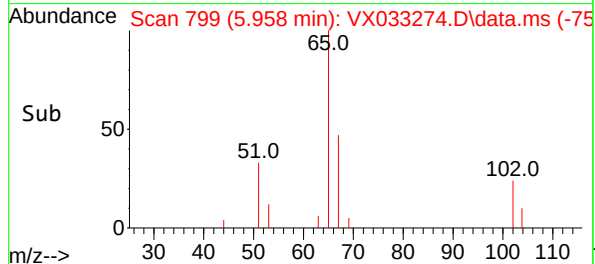
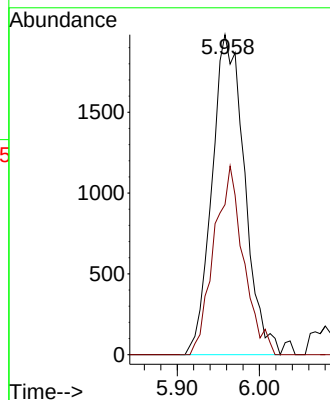
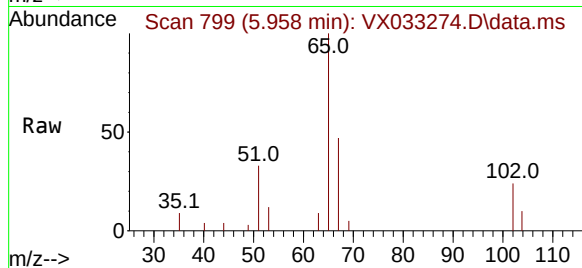
67 53.5 0.0 101.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.763 min Scan# 931

Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

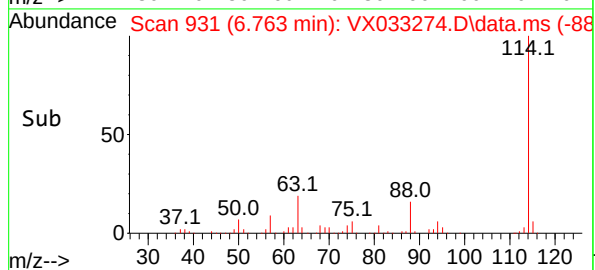
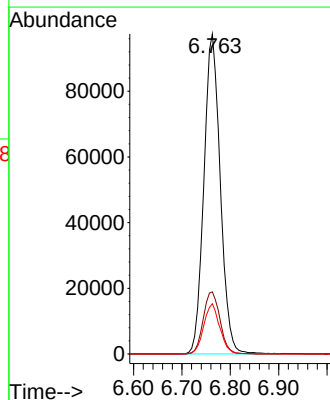
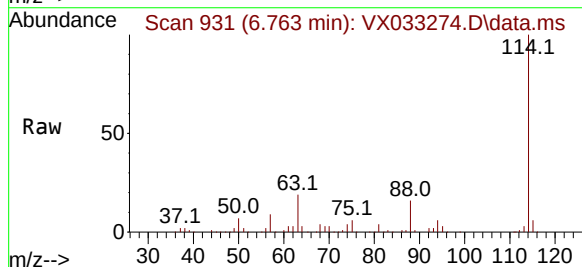
Tgt Ion:114 Resp: 229334

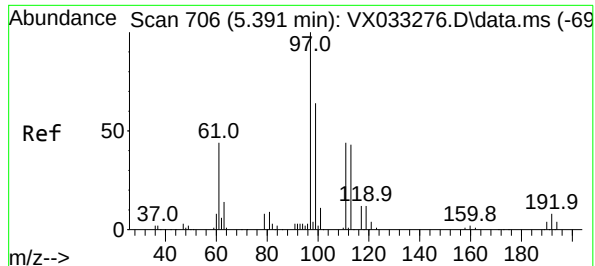
Ion Ratio Lower Upper

114 100

63 19.4 0.0 41.6

88 15.7 0.0 33.4





#35

Dibromofluoromethane

Concen: 4.449 ug/l

RT: 5.391 min Scan# 706

Delta R.T. 0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

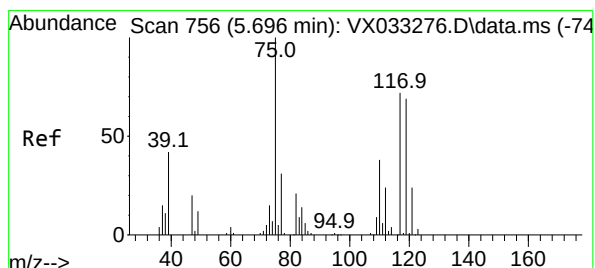
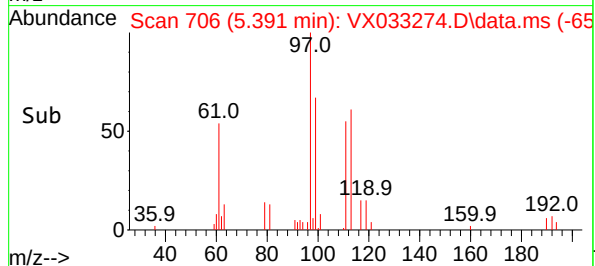
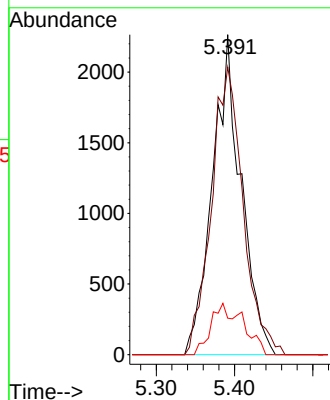
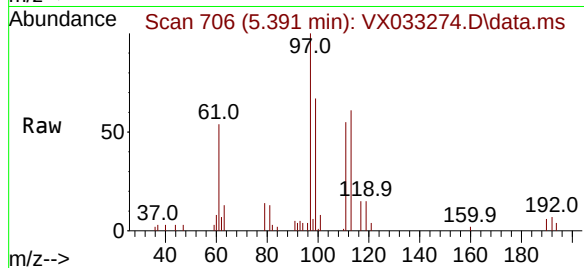
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 113   | Resp: | 575   |
| Ion Ratio | Lower | Upper |       |
| 113       | 100   |       |       |
| 111       | 99.5  | 82.4  | 123.6 |
| 192       | 11.1  | 15.4  | 23.2  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#36

1,1-Dichloropropene

Concen: 4.657 ug/l

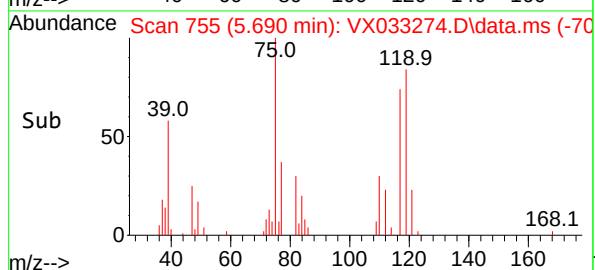
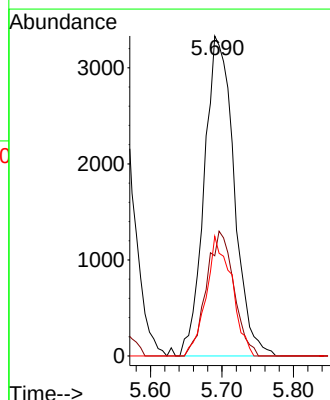
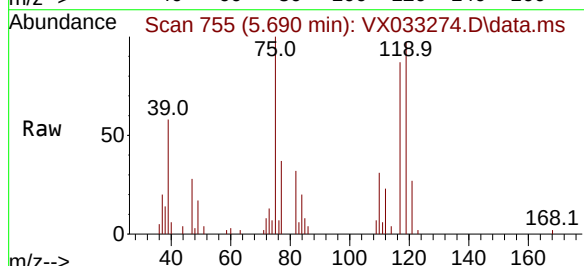
RT: 5.690 min Scan# 755

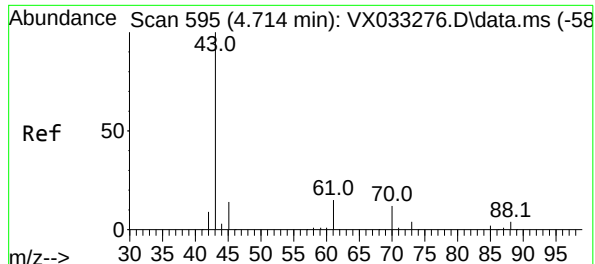
Delta R.T. -0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 75    | Resp: | 9627 |
| Ion Ratio | Lower | Upper |      |
| 75        | 100   |       |      |
| 110       | 36.0  | 18.4  | 55.2 |
| 77        | 32.2  | 24.5  | 36.7 |





#37

Ethyl Acetate

Concen: 4.880 ug/l

RT: 4.714 min Scan# 595

Delta R.T. -0.001 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

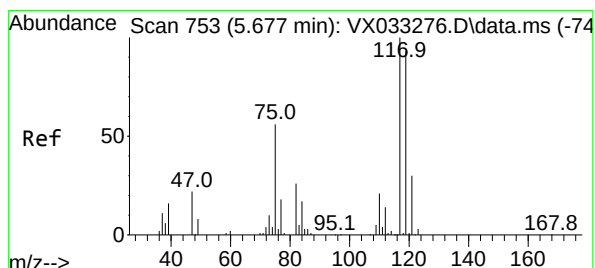
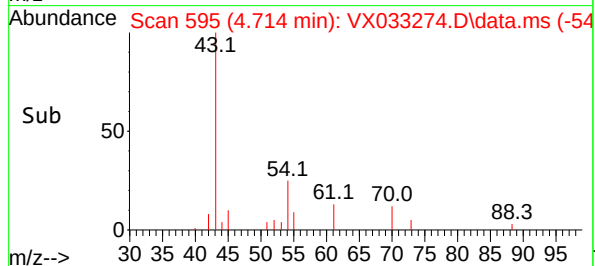
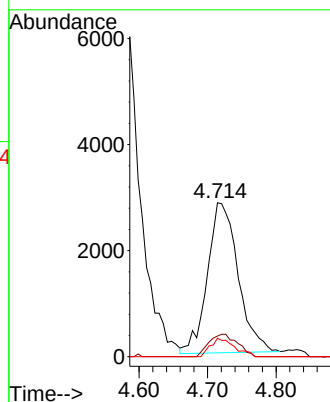
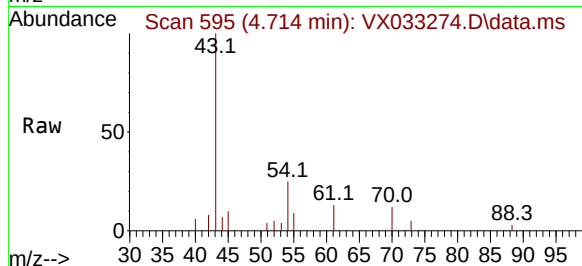
VSTDIC005

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 880   |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 13.9  | 11.5  | 17.3  |
| 70       | 9.7   | 9.1   | 13.7  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#38

Carbon Tetrachloride

Concen: 4.806 ug/l

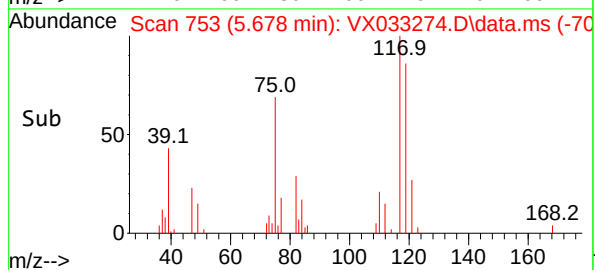
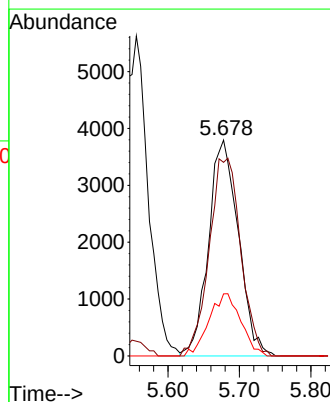
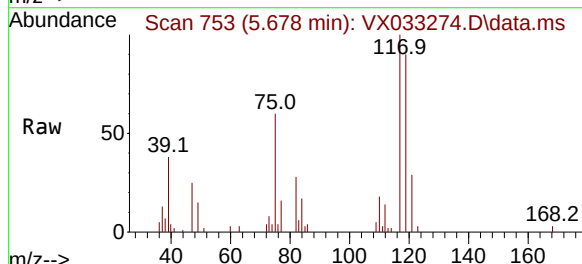
RT: 5.678 min Scan# 753

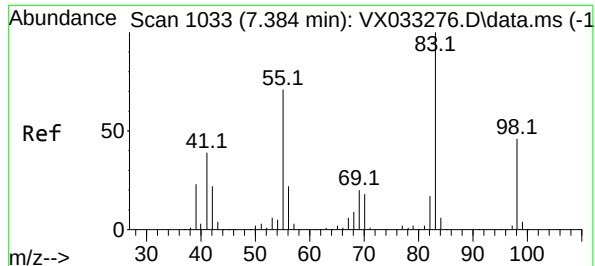
Delta R.T. -0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 11021 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 119      | 89.7  | 77.2  | 115.8 |
| 121      | 28.8  | 25.8  | 38.6  |





#39

Methylcyclohexane

Concen: 4.646 ug/l

RT: 7.379 min Scan# 1095

Delta R.T. -0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 83 Resp: 1095

Ion Ratio Lower Upper

83 100

55 76.4 58.4 87.6

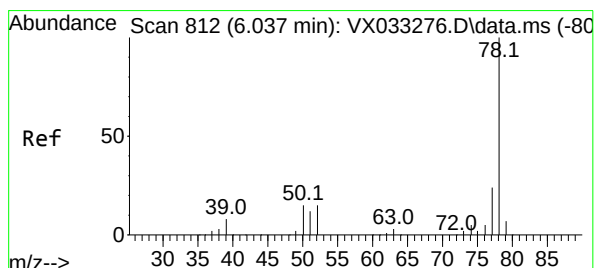
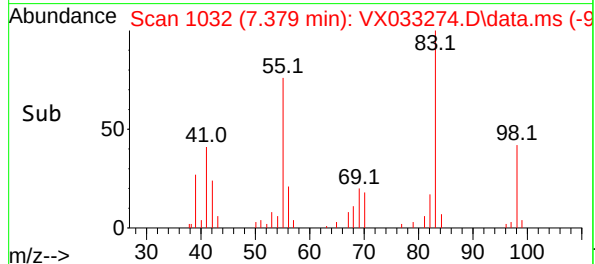
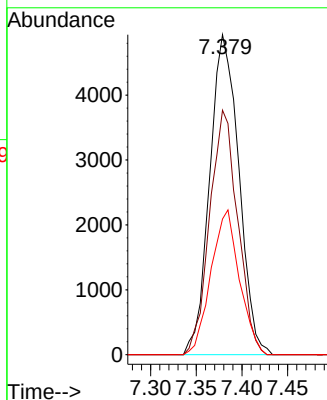
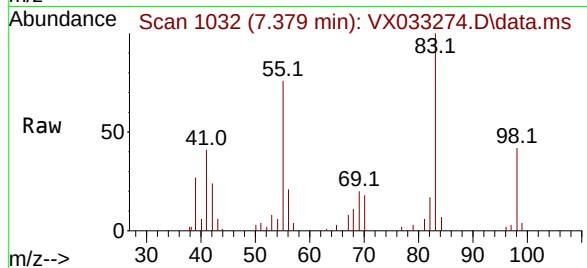
98 42.4 37.2 55.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#40

Benzene

Concen: 4.940 ug/l

RT: 6.043 min Scan# 813

Delta R.T. 0.006 min

Lab File: VX033274.D

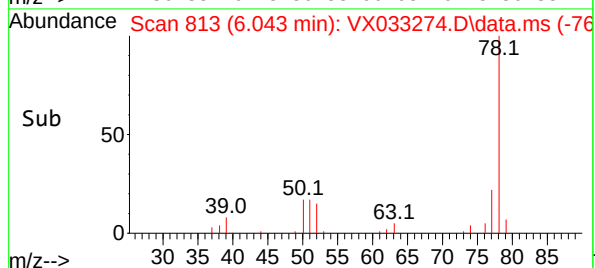
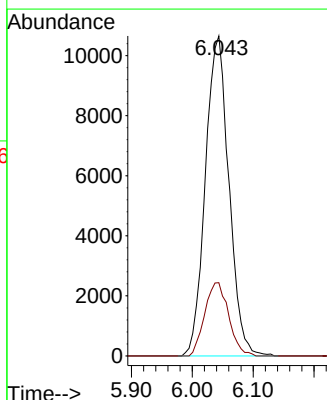
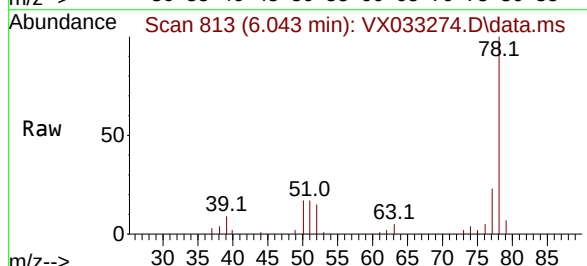
Acq: 07 Dec 2022 10:09

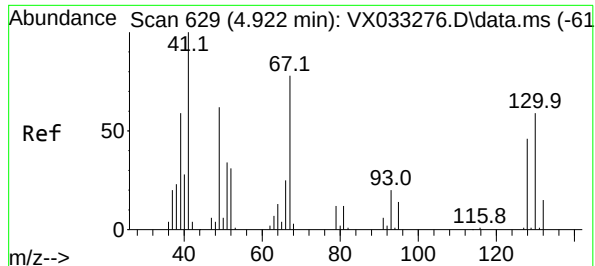
Tgt Ion: 78 Resp: 28636

Ion Ratio Lower Upper

78 100

77 22.9 19.0 28.4





#41

Methacrylonitrile

Concen: 4.724 ug/l

RT: 4.922 min Scan# 61

Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 41 Resp: 4794

Ion Ratio Lower Upper

41 100

39 55.5 47.5 71.3

67 75.1 60.5 90.7

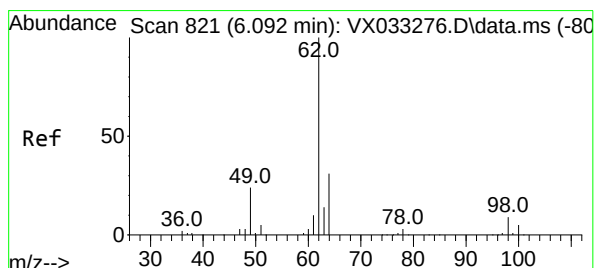
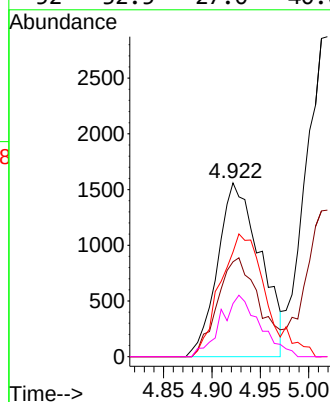
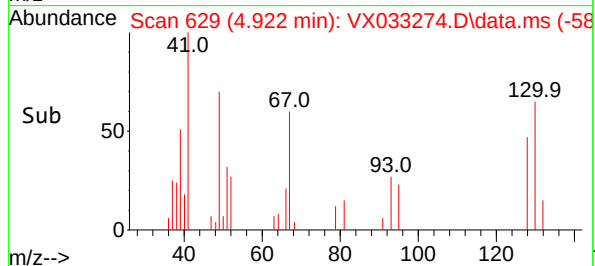
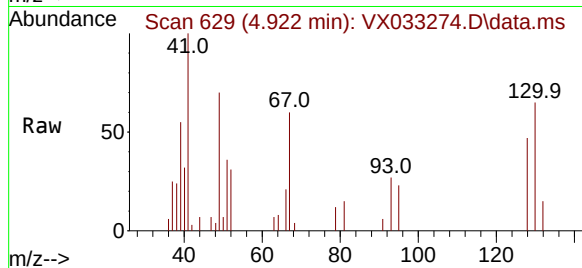
52 32.5 27.0 40.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#42

1,2-Dichloroethane

Concen: 4.944 ug/l

RT: 6.092 min Scan# 821

Delta R.T. 0.006 min

Lab File: VX033274.D

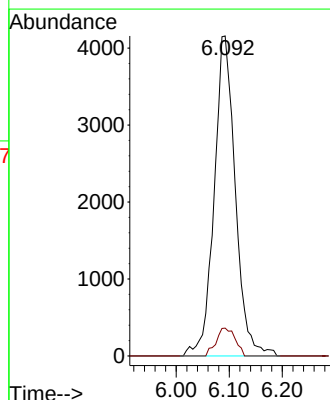
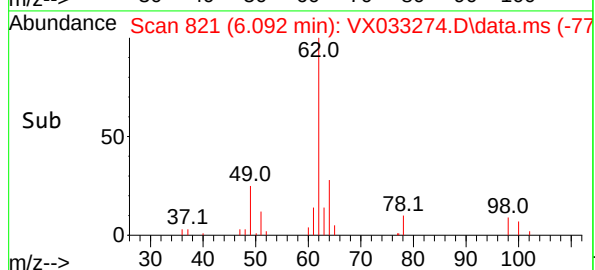
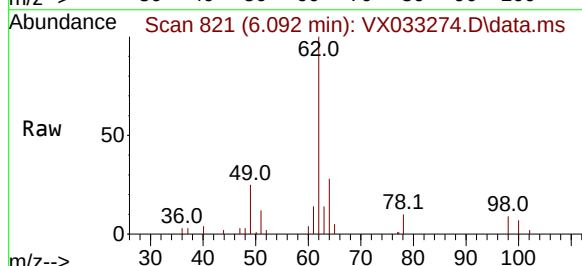
Acq: 07 Dec 2022 10:09

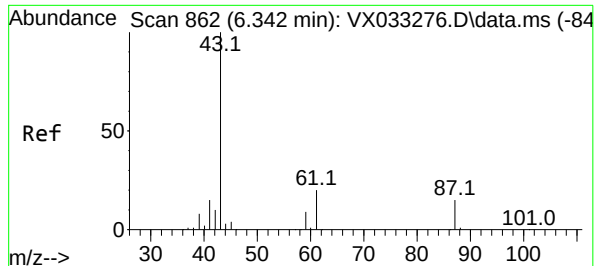
Tgt Ion: 62 Resp: 11537

Ion Ratio Lower Upper

62 100

98 7.8 0.0 16.0





#43

Isopropyl Acetate

Concen: 4.641 ug/l

RT: 6.348 min Scan# 862

Delta R.T. 0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC005

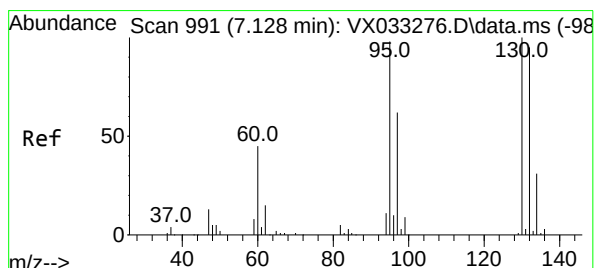
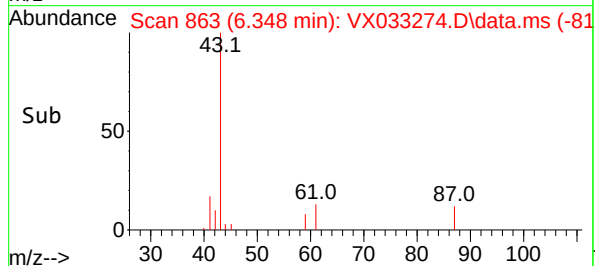
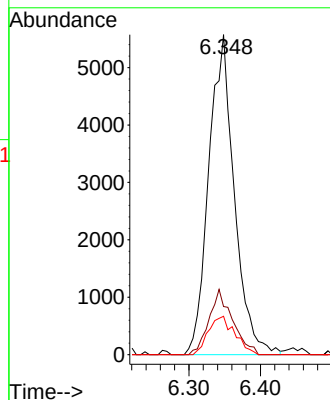
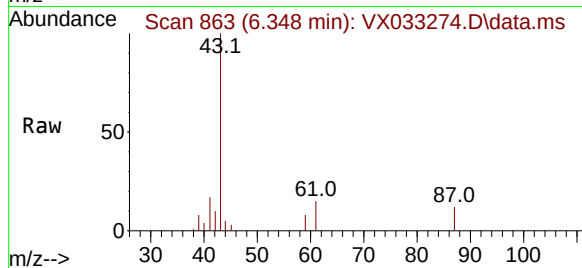
|             |                |
|-------------|----------------|
| Tgt Ion: 43 | Resp: 1384     |
| Ion Ratio   | Lower Upper    |
| 43          | 100            |
| 61          | 18.9 15.4 23.0 |
| 87          | 12.4 10.8 16.2 |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#44

Trichloroethene

Concen: 4.754 ug/l

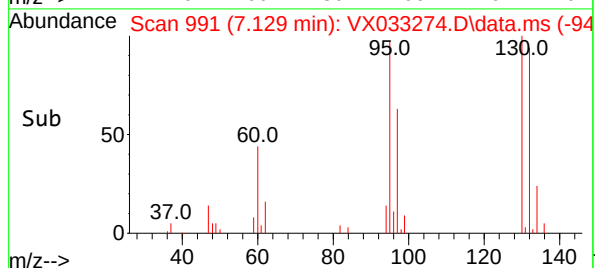
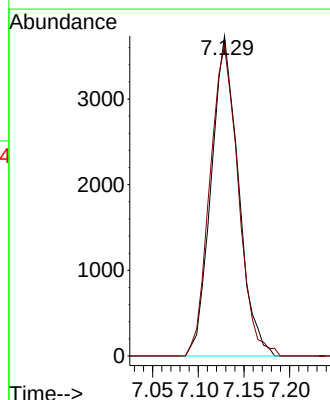
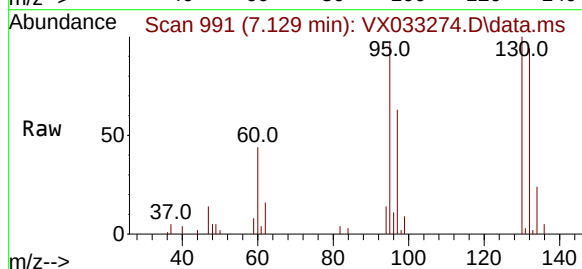
RT: 7.129 min Scan# 991

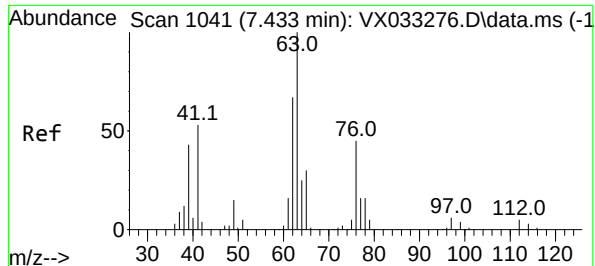
Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

|             |                |
|-------------|----------------|
| Tgt Ion:130 | Resp: 7732     |
| Ion Ratio   | Lower Upper    |
| 130         | 100            |
| 95          | 96.9 0.0 195.2 |





#45

1,2-Dichloropropane

Concen: 5.109 ug/l

RT: 7.433 min Scan# 1041

Delta R.T. -0.001 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 63 Resp: 7318

Ion Ratio Lower Upper

63 100

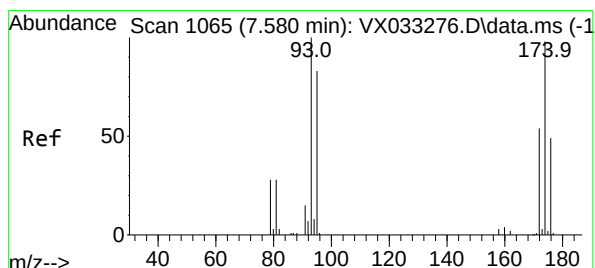
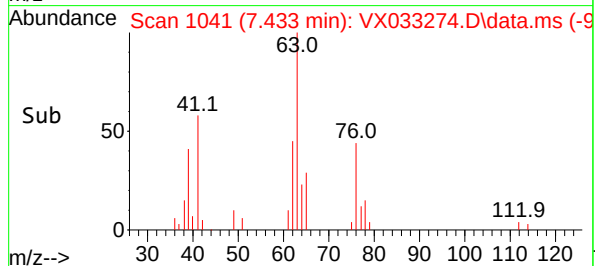
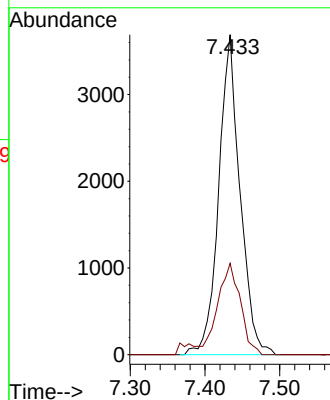
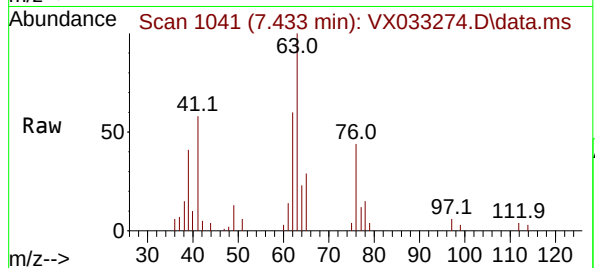
65 28.6 24.6 36.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#46

Dibromomethane

Concen: 5.047 ug/l

RT: 7.586 min Scan# 1066

Delta R.T. 0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

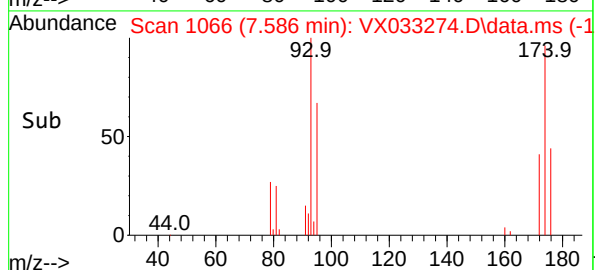
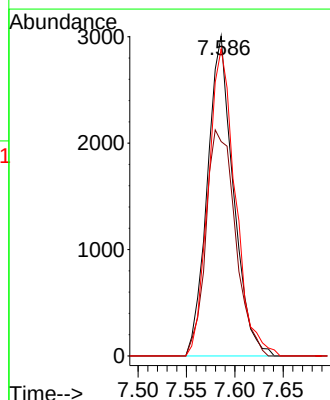
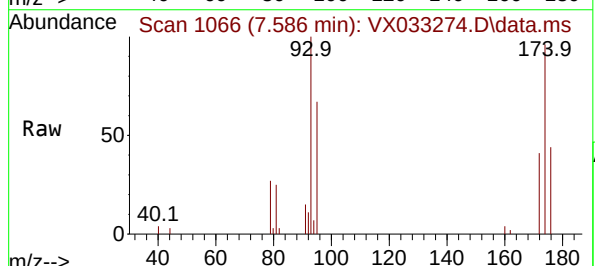
Tgt Ion: 93 Resp: 5641

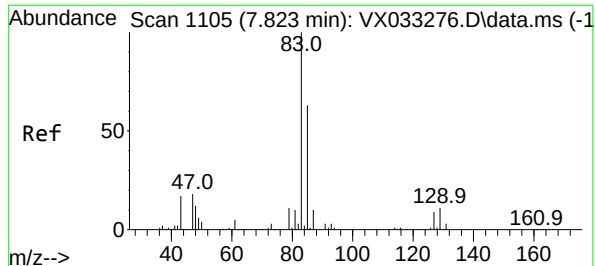
Ion Ratio Lower Upper

93 100

95 79.9 65.8 98.8

174 99.7 79.8 119.6





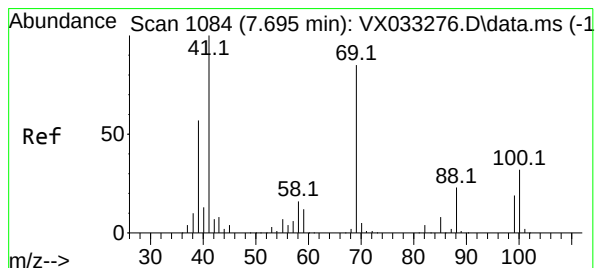
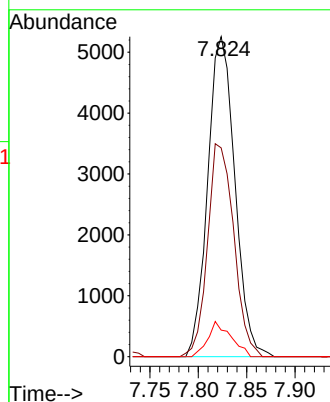
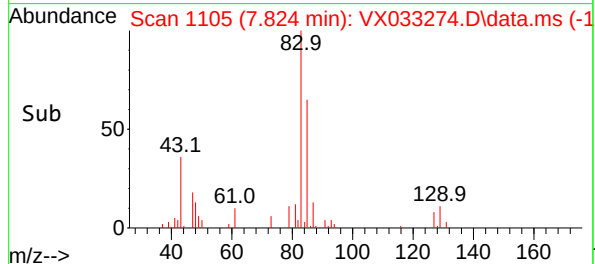
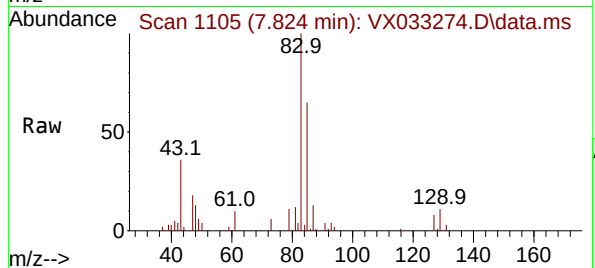
#47  
Bromodichloromethane  
Concen: 4.757 ug/l  
RT: 7.824 min Scan# 1105  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC005

Tgt Ion: 83 Resp: 1027  
Ion Ratio Lower Upper  
83 100  
85 65.2 52.2 78.4  
127 8.3 7.4 11.2

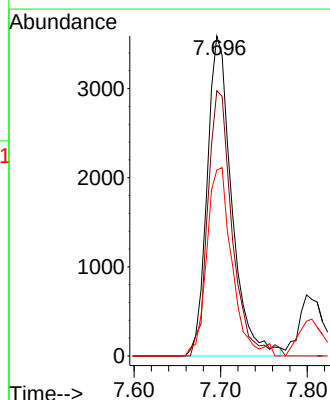
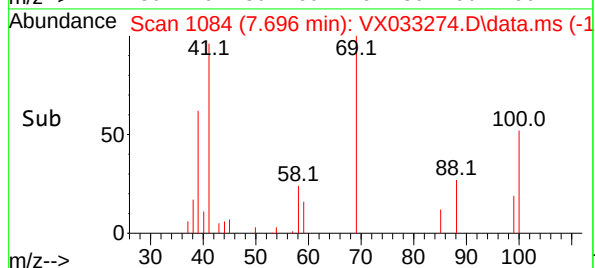
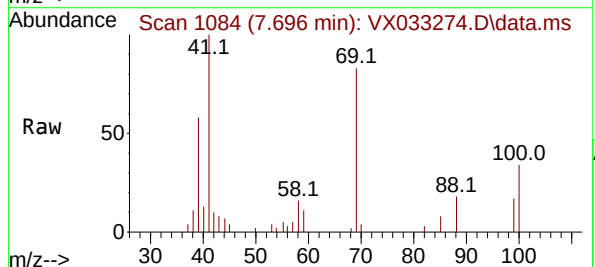
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

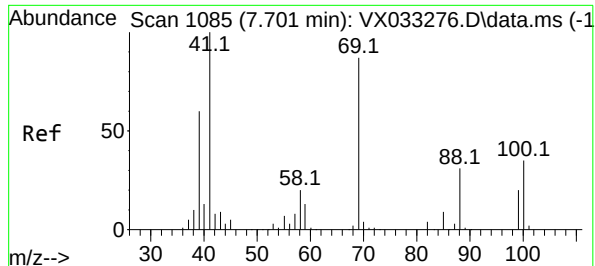


#48  
Methyl methacrylate  
Concen: 4.617 ug/l  
RT: 7.696 min Scan# 1084  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Tgt Ion: 41 Resp: 7089  
Ion Ratio Lower Upper  
41 100  
69 82.0 65.1 97.7  
39 60.3 51.9 77.9







#49

1,4-Dioxane

Concen: 117.505 ug/l

RT: 7.708 min Scan# 1085

Delta R.T. 0.037 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 88 Resp: 332

Ion Ratio Lower Upper

88 100

43 18.7 26.6 39.8

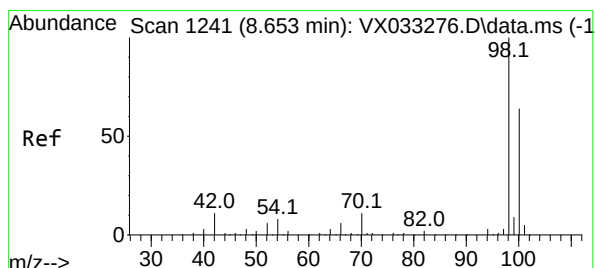
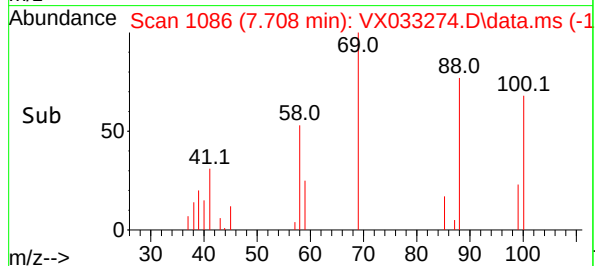
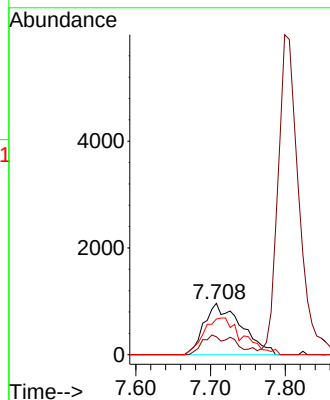
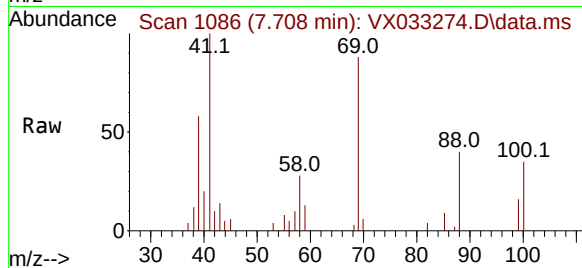
58 75.0 51.7 77.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#50

Toluene-d8

Concen: 2.749 ug/l

RT: 8.653 min Scan# 1241

Delta R.T. -0.000 min

Lab File: VX033274.D

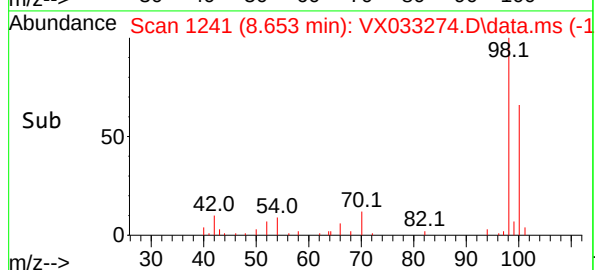
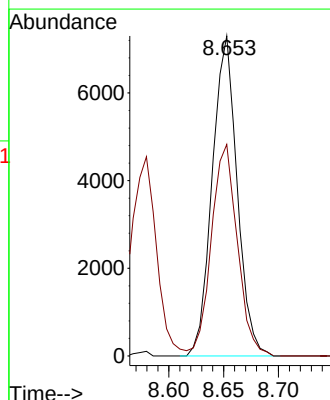
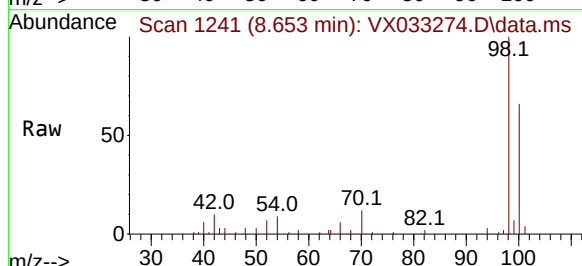
Acq: 07 Dec 2022 10:09

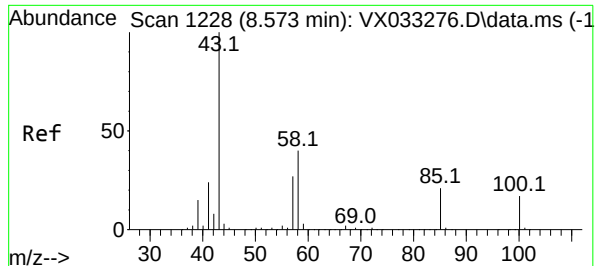
Tgt Ion: 98 Resp: 11540

Ion Ratio Lower Upper

98 100

100 68.8 50.9 76.3





#51

4-Methyl-2-Pentanone

Concen: 25.160 ug/l

RT: 8.573 min Scan# 1228

Delta R.T. -0.001 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Tgt Ion: 43 Resp: 46309

Ion Ratio Lower Upper

43 100

58 37.4 30.9 46.3

Instrument :

MSVOA\_X

ClientSampleId :

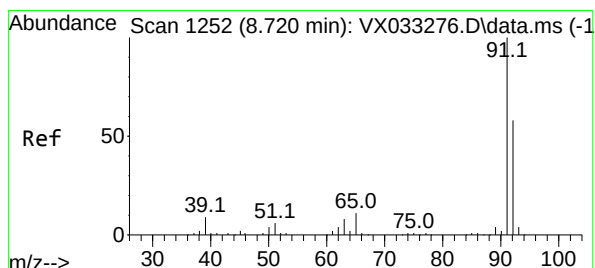
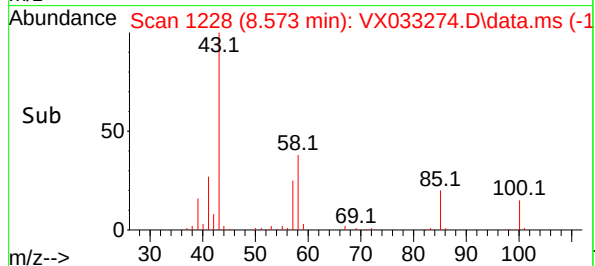
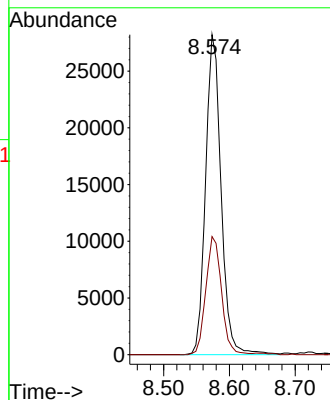
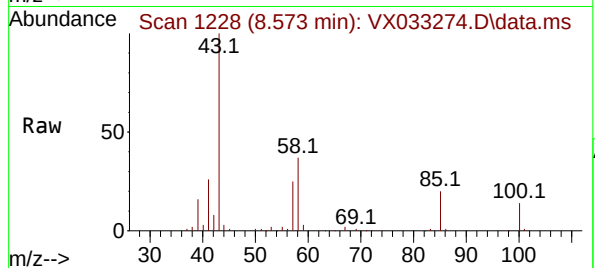
VSTDIC005

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#52

Toluene

Concen: 4.725 ug/l

RT: 8.720 min Scan# 1252

Delta R.T. -0.000 min

Lab File: VX033274.D

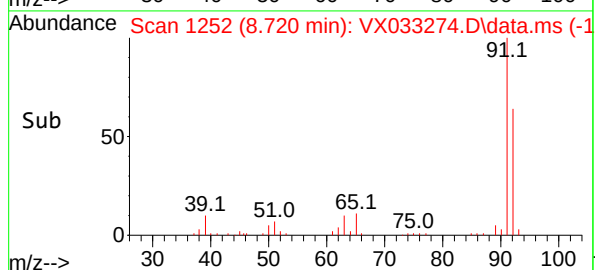
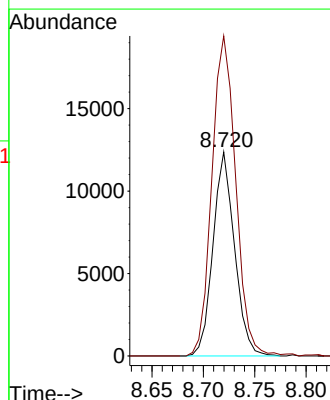
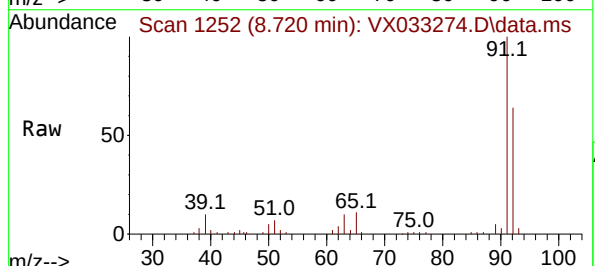
Acq: 07 Dec 2022 10:09

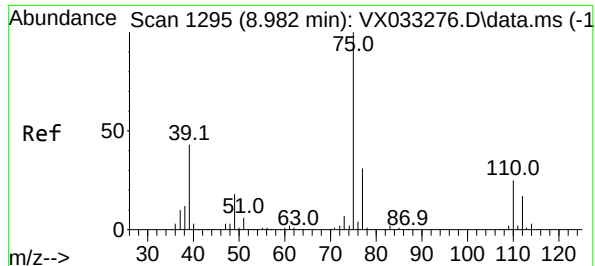
Tgt Ion: 92 Resp: 18018

Ion Ratio Lower Upper

92 100

91 173.6 138.3 207.5





#53

t-1,3-Dichloropropene

Concen: 4.224 ug/l m

RT: 8.982 min Scan# 1195

Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 75 Resp: 8954

Ion Ratio Lower Upper

75 100

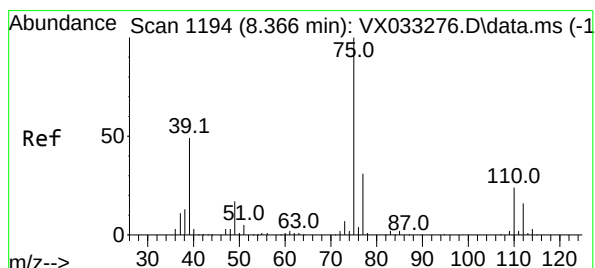
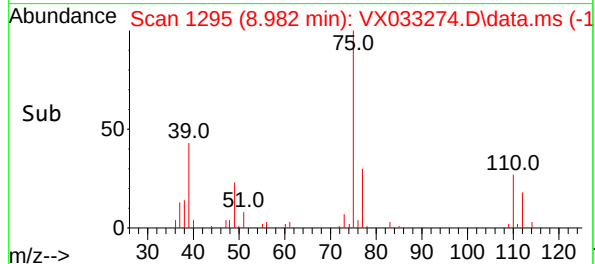
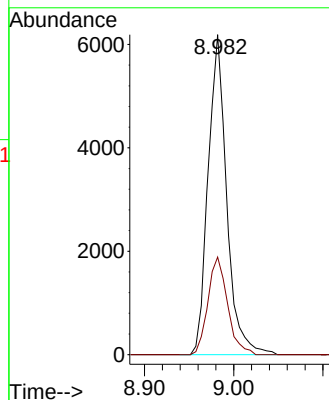
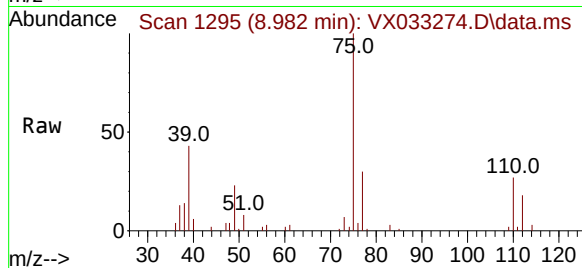
77 30.5 25.1 37.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#54

cis-1,3-Dichloropropene

Concen: 4.494 ug/l

RT: 8.366 min Scan# 1194

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

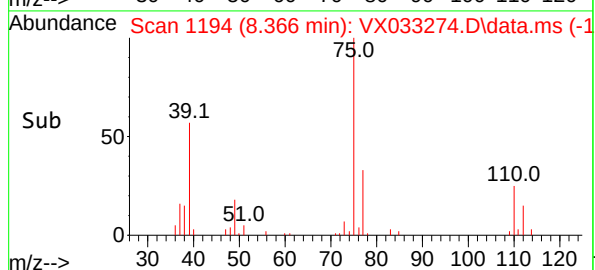
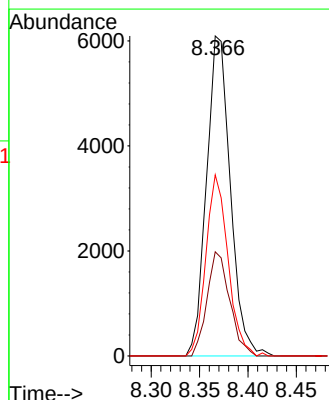
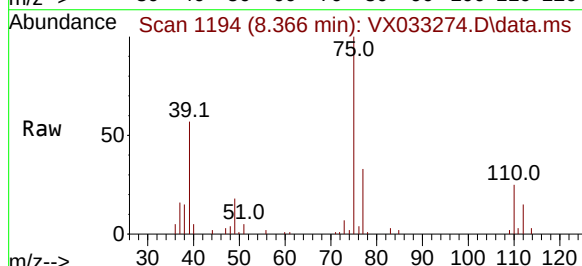
Tgt Ion: 75 Resp: 10463

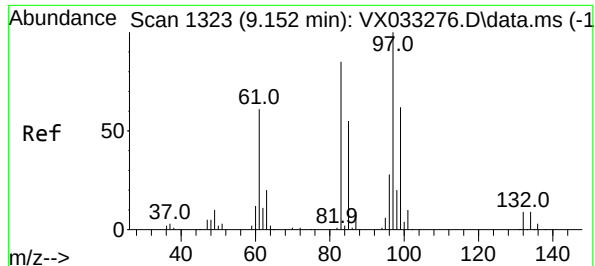
Ion Ratio Lower Upper

75 100

77 32.6 25.1 37.7

39 56.6 45.5 68.3





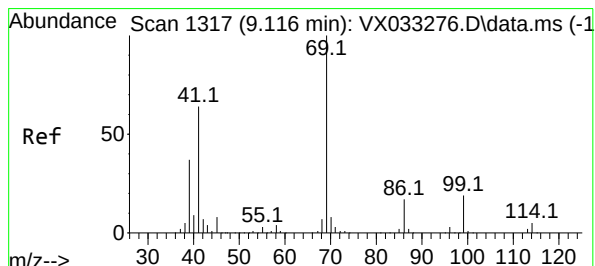
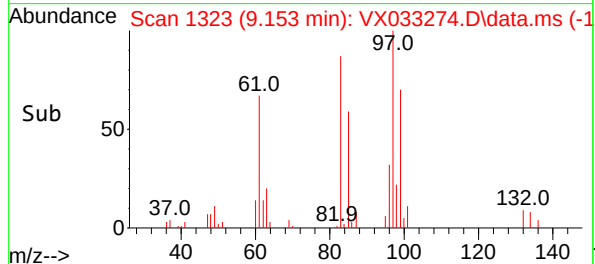
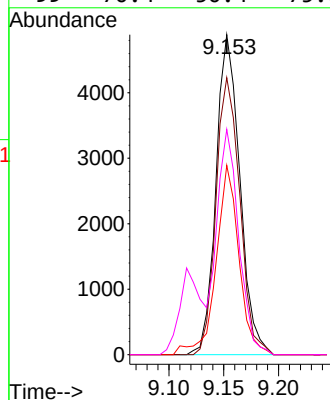
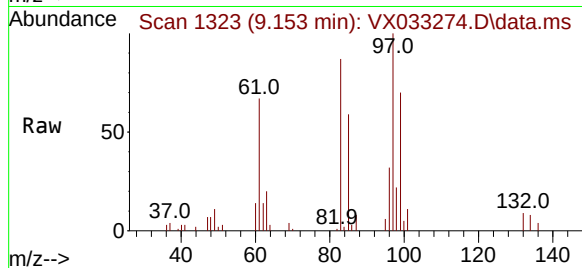
#55  
1,1,2-Trichloroethane  
Concen: 4.764 ug/l  
RT: 9.153 min Scan# 1323  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC005

|             |             |
|-------------|-------------|
| Tgt Ion: 97 | Resp: 7390  |
| Ion Ratio   | Lower Upper |
| 97 100      |             |
| 83 86.5     | 68.1 102.1  |
| 85 59.2     | 43.3 64.9   |
| 99 70.4     | 50.4 75.6   |

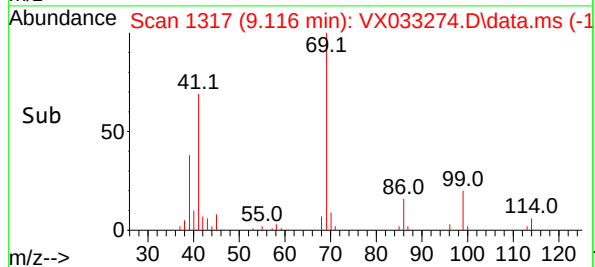
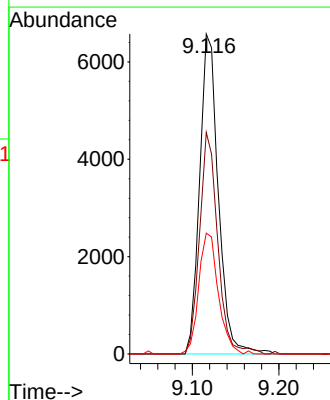
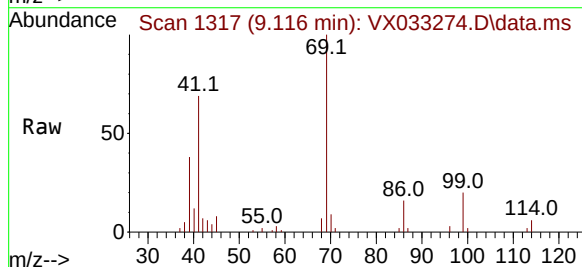
Manual Integrations  
APPROVED

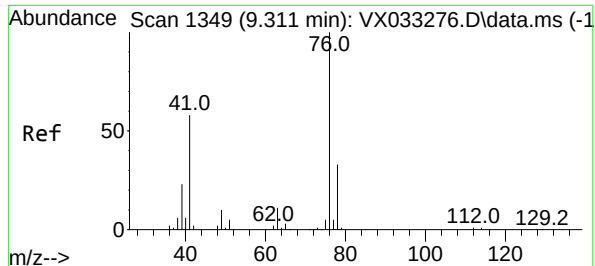
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#56  
Ethyl methacrylate  
Concen: 4.610 ug/l  
RT: 9.116 min Scan# 1317  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

|             |             |
|-------------|-------------|
| Tgt Ion: 69 | Resp: 9861  |
| Ion Ratio   | Lower Upper |
| 69 100      |             |
| 41 67.2     | 54.3 81.5   |
| 39 39.7     | 35.2 52.8   |





#57

1,3-Dichloropropane

Concen: 4.938 ug/l

RT: 9.311 min Scan# 11349

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 76 Resp: 1237

Ion Ratio Lower Upper

76 100

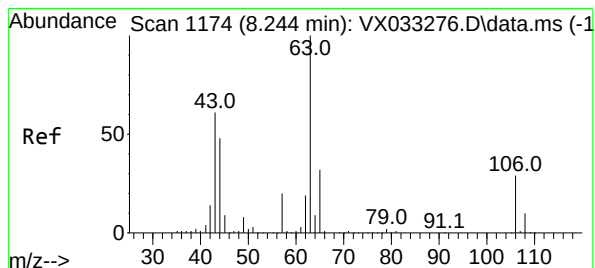
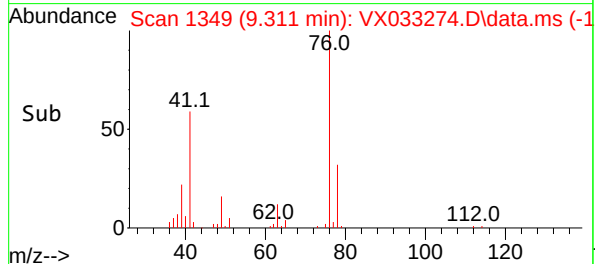
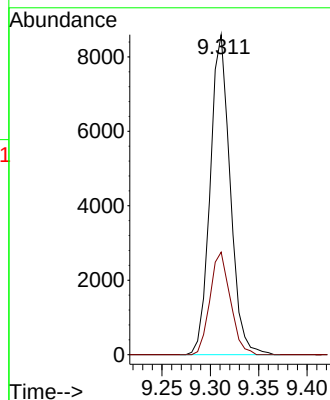
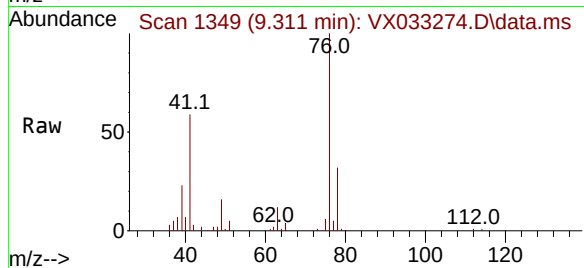
78 32.6 26.0 39.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#58

2-Chloroethyl Vinyl ether

Concen: 23.860 ug/l

RT: 8.244 min Scan# 1174

Delta R.T. 0.000 min

Lab File: VX033274.D

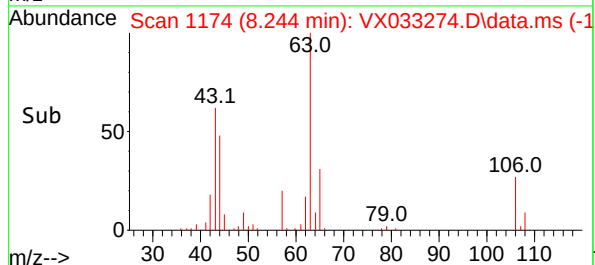
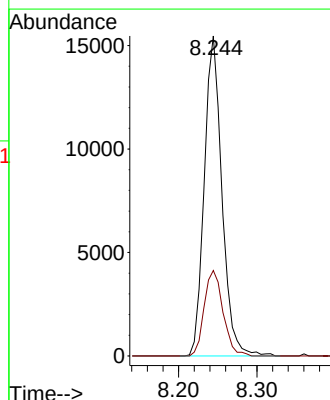
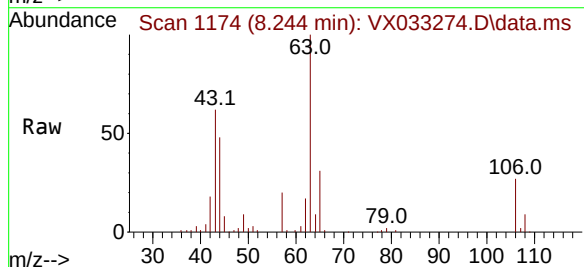
Acq: 07 Dec 2022 10:09

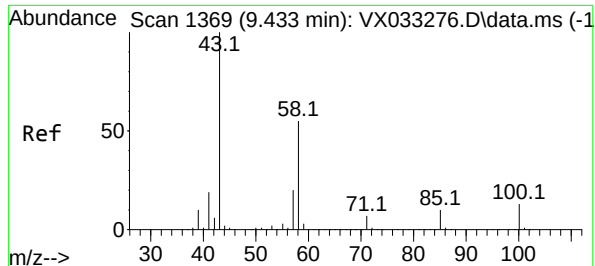
Tgt Ion: 63 Resp: 24237

Ion Ratio Lower Upper

63 100

106 28.3 23.3 34.9





#59

2-Hexanone

Concen: 24.527 ug/l

RT: 9.433 min Scan# 1369

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 43 Resp: 3334

Ion Ratio Lower Upper

43 100

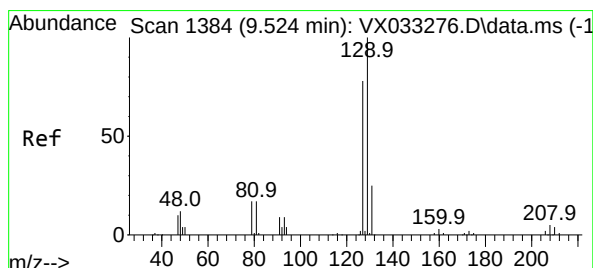
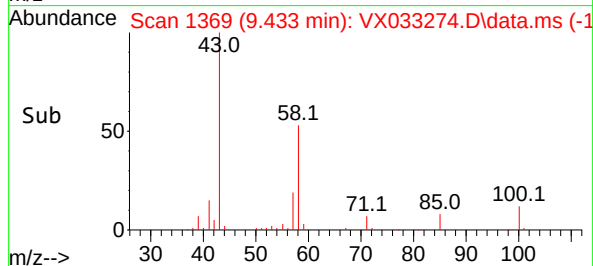
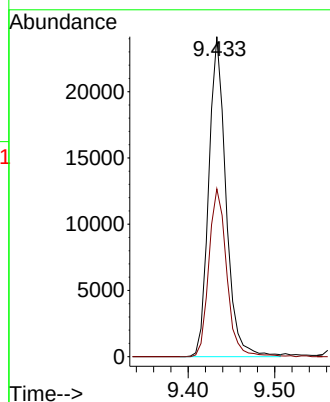
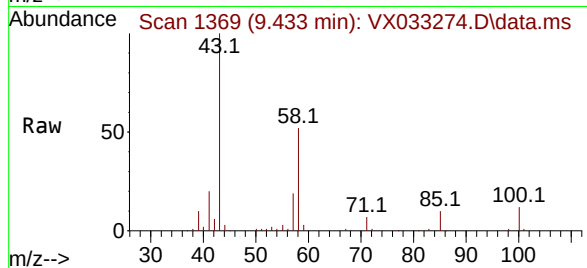
58 54.4 26.5 79.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#60

Dibromochloromethane

Concen: 4.845 ug/l

RT: 9.525 min Scan# 1384

Delta R.T. -0.000 min

Lab File: VX033274.D

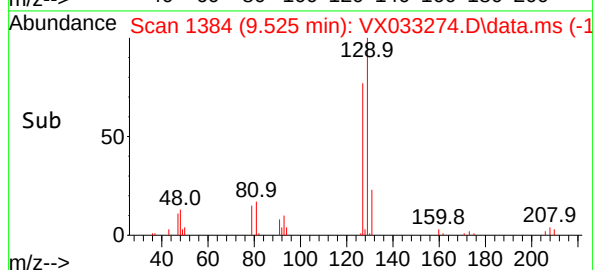
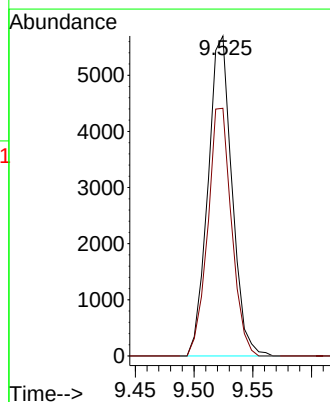
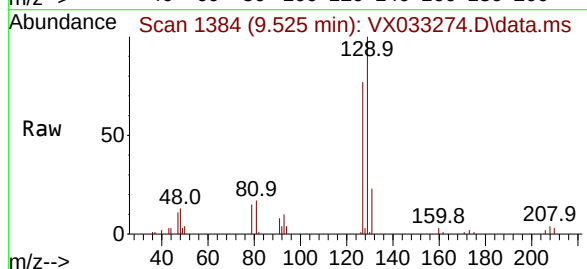
Acq: 07 Dec 2022 10:09

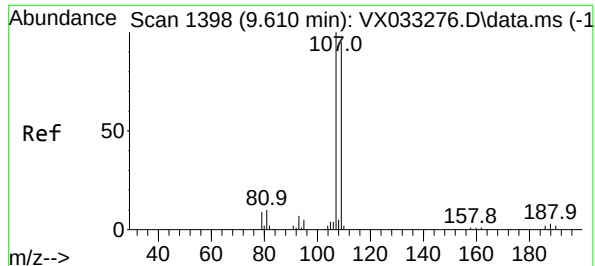
Tgt Ion:129 Resp: 8098

Ion Ratio Lower Upper

129 100

127 76.5 38.6 115.8





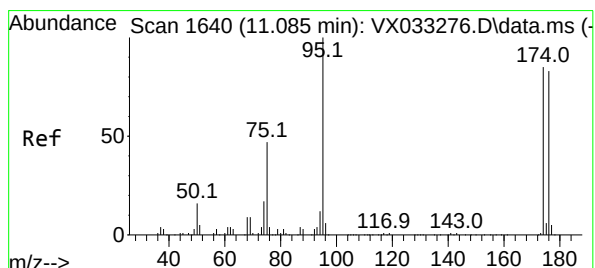
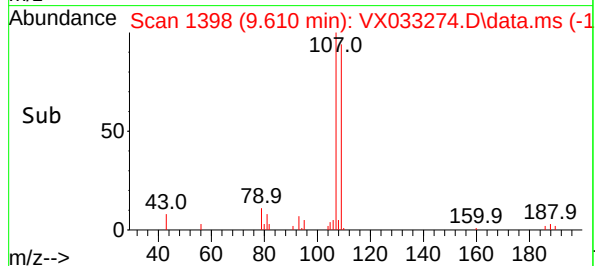
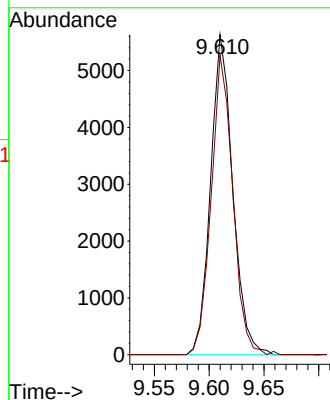
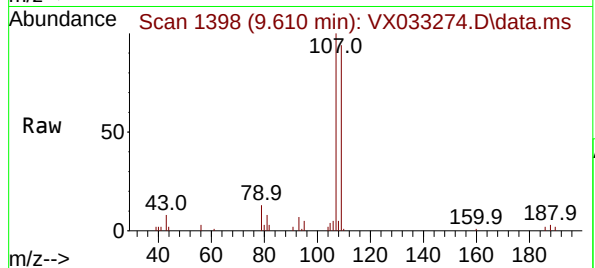
#61  
1,2-Dibromoethane  
Concen: 4.829 ug/l  
RT: 9.610 min Scan# 1398  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC005

Tgt Ion:107 Resp: 791  
Ion Ratio Lower Upper  
107 100  
109 91.3 76.0 114.0

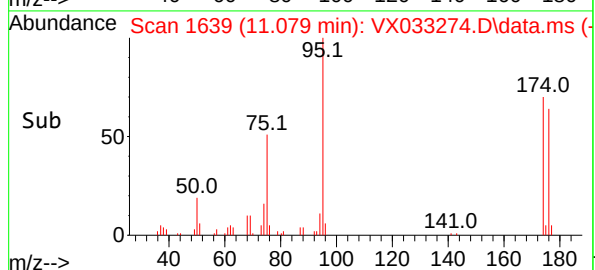
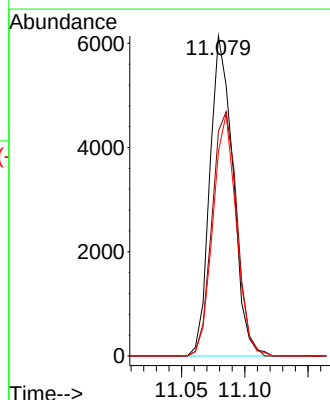
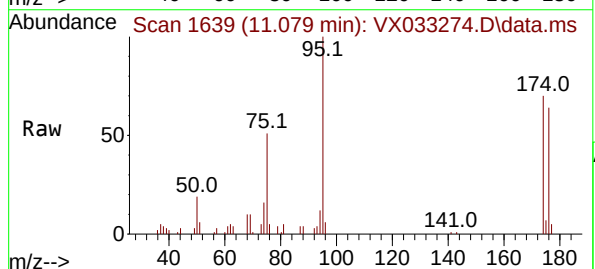
Manual Integrations  
APPROVED

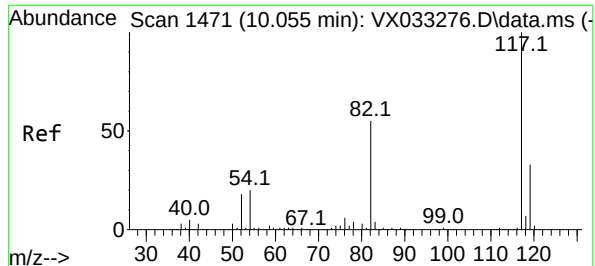
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#62  
4-Bromofluorobenzene  
Concen: 4.600 ug/l  
RT: 11.079 min Scan# 1639  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

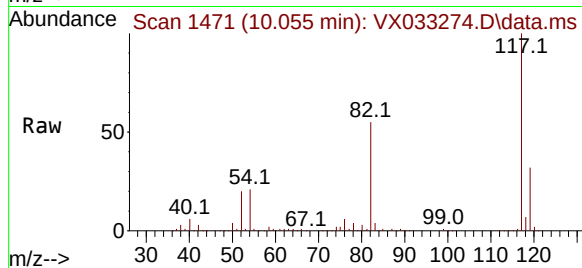
Tgt Ion: 95 Resp: 7812  
Ion Ratio Lower Upper  
95 100  
174 82.3 0.0 164.0  
176 76.3 0.0 154.4





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.055 min Scan# 1471  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

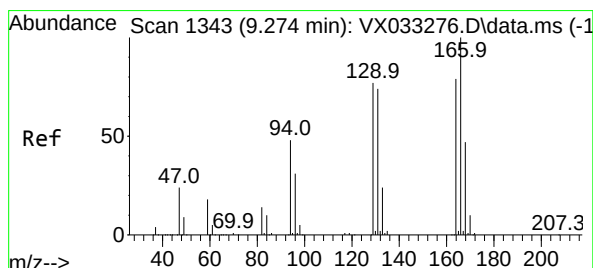
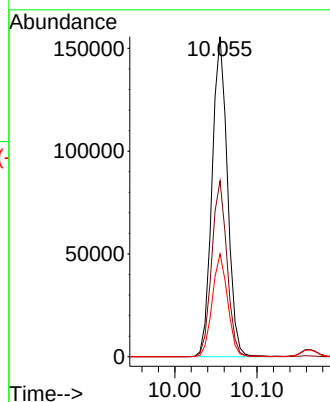
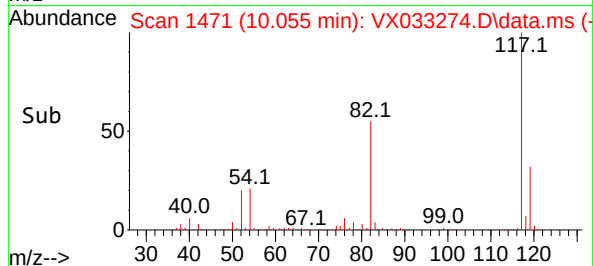
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC005



Tgt Ion:117 Resp: 202892  
Ion Ratio Lower Upper  
117 100  
82 55.0 44.3 66.5  
119 32.1 25.7 38.5

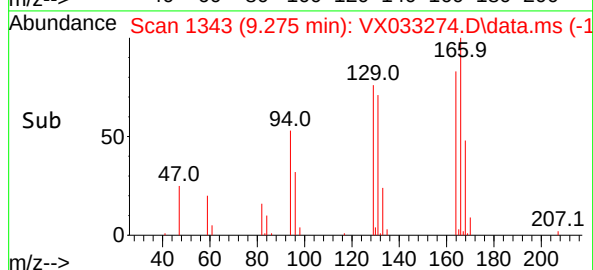
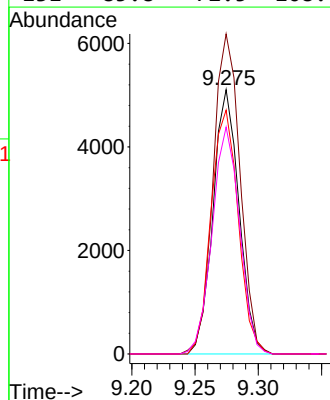
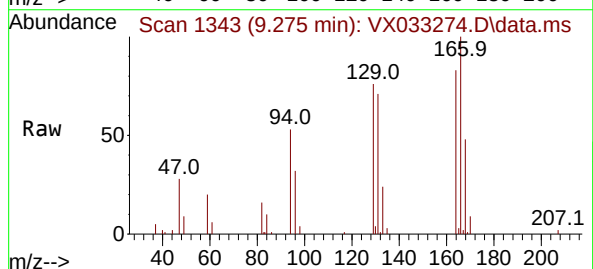
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

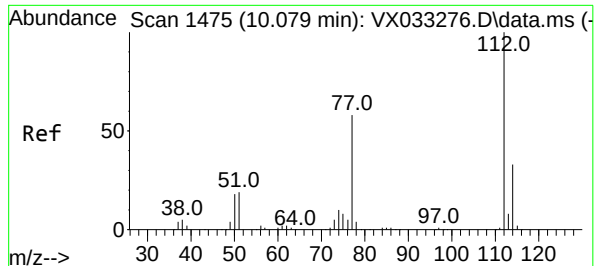


#64  
Tetrachloroethene  
Concen: 5.087 ug/l  
RT: 9.275 min Scan# 1343  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Tgt Ion:164 Resp: 7306  
Ion Ratio Lower Upper  
164 100  
166 121.0 105.4 158.2  
129 92.2 78.2 117.2  
131 85.8 72.5 108.7







#65

Chlorobenzene

Concen: 4.897 ug/l

RT: 10.079 min Scan# 1475

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion:112 Resp: 19809

Ion Ratio Lower Upper

112 100

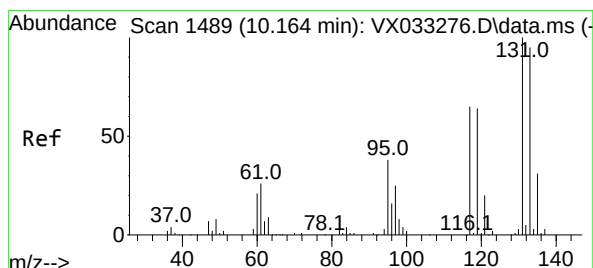
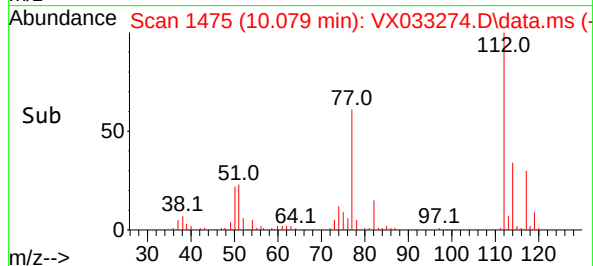
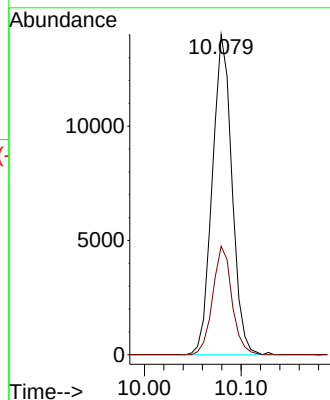
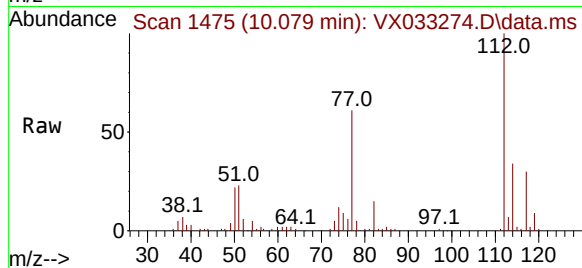
114 33.9 25.4 38.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#66

1,1,1,2-Tetrachloroethane

Concen: 4.894 ug/l

RT: 10.165 min Scan# 1489

Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

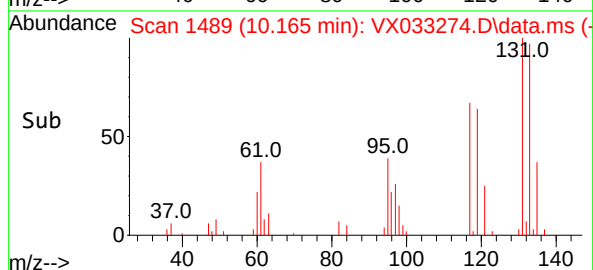
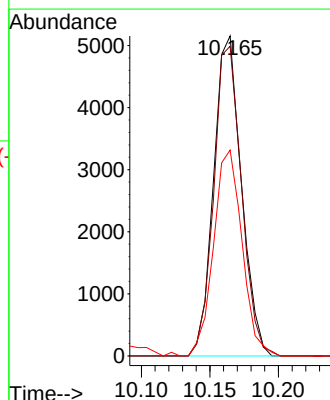
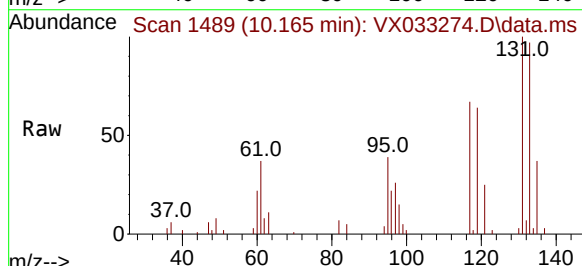
Tgt Ion:131 Resp: 7253

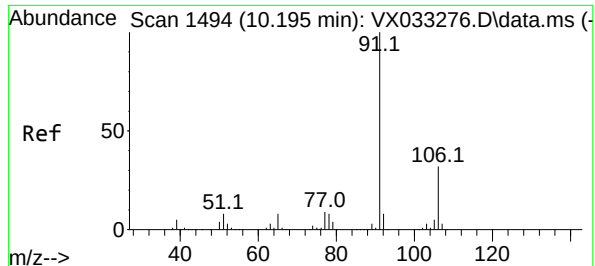
Ion Ratio Lower Upper

131 100

133 96.9 47.6 142.9

119 66.0 32.4 97.0





#67

Ethyl Benzene

Concen: 4.902 ug/l

RT: 10.195 min Scan# 1494

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 91 Resp: 35174

Ion Ratio Lower Upper

91 100

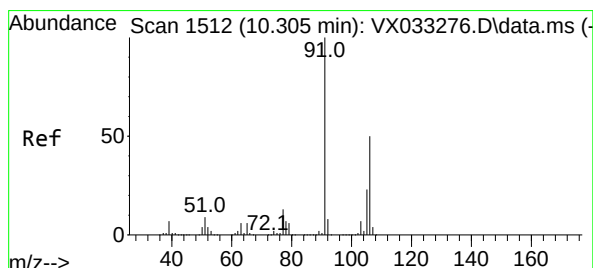
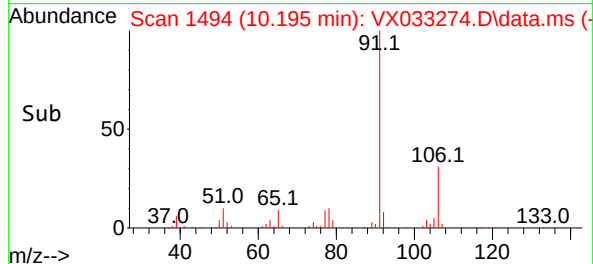
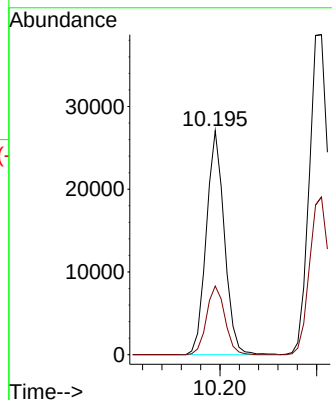
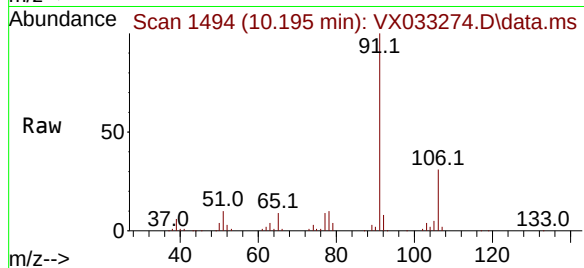
106 30.6 25.0 37.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#68

m/p-Xylenes

Concen: 9.557 ug/l

RT: 10.305 min Scan# 1512

Delta R.T. -0.000 min

Lab File: VX033274.D

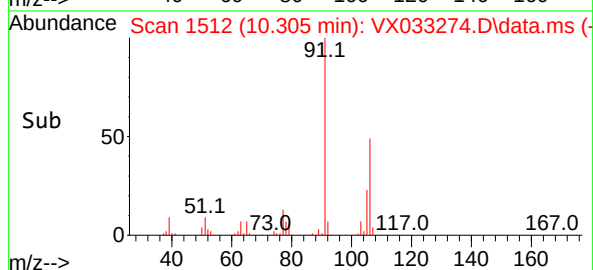
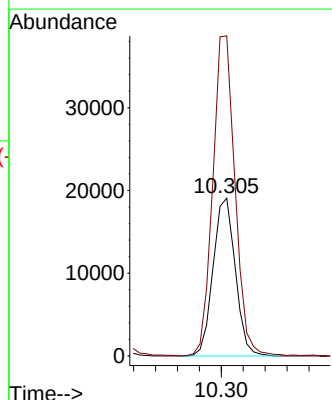
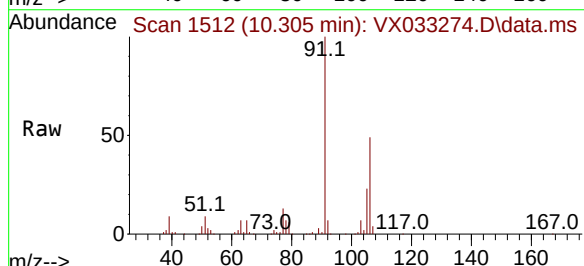
Acq: 07 Dec 2022 10:09

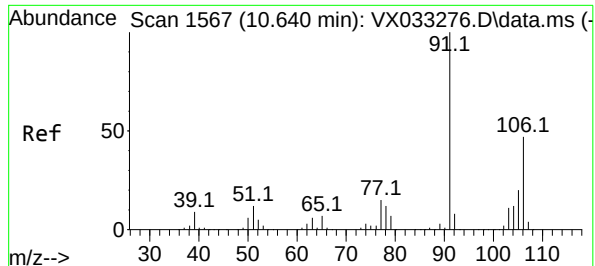
Tgt Ion:106 Resp: 26854

Ion Ratio Lower Upper

106 100

91 204.2 164.5 246.7





#69

o-Xylene

Concen: 4.868 ug/l

RT: 10.640 min Scan# 1567

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion:106 Resp: 1323

Ion Ratio Lower Upper

106 100

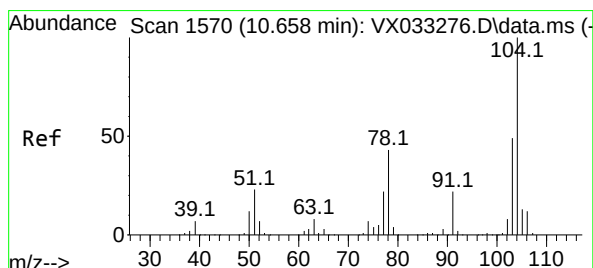
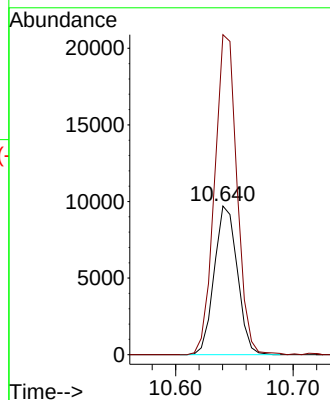
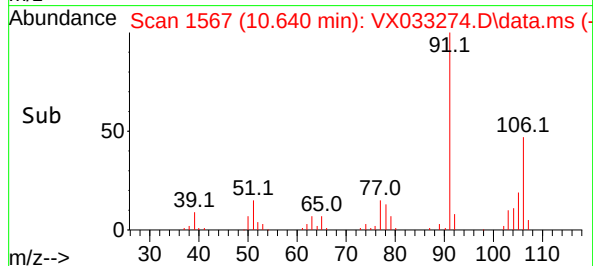
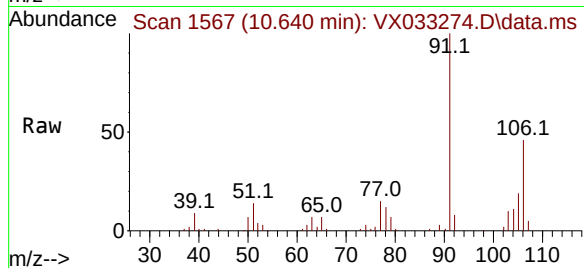
91 209.4 109.2 327.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#70

Styrene

Concen: 4.756 ug/l

RT: 10.659 min Scan# 1570

Delta R.T. -0.001 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

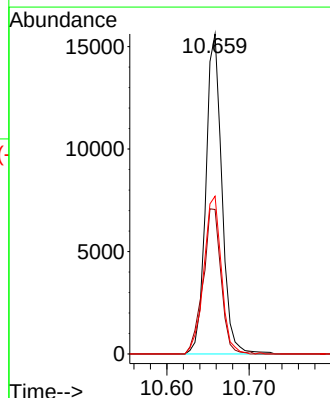
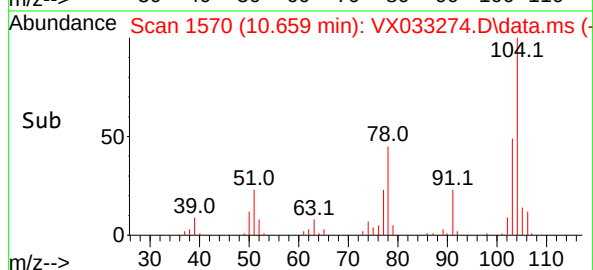
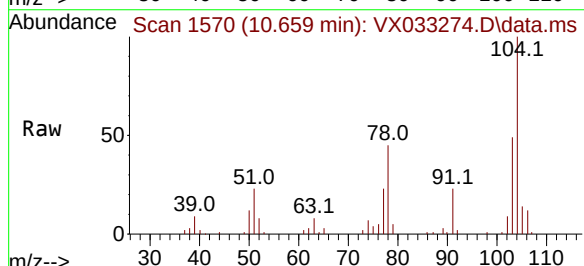
Tgt Ion:104 Resp: 21152

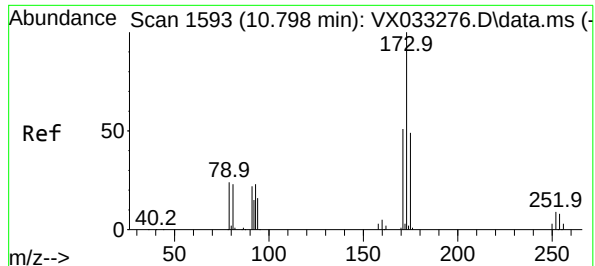
Ion Ratio Lower Upper

104 100

78 50.7 41.8 62.8

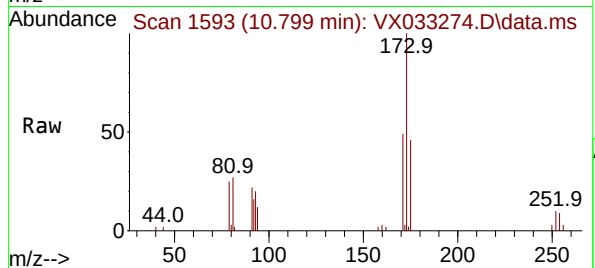
103 53.9 44.5 66.7





#71  
Bromoform  
Concen: 4.886 ug/l  
RT: 10.799 min Scan# 1593  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

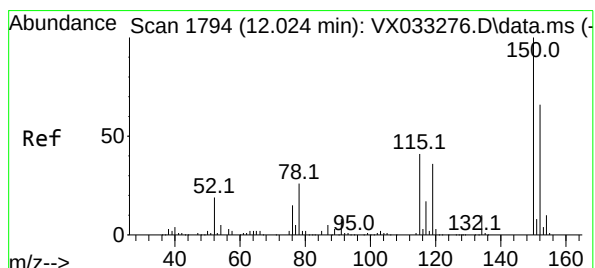
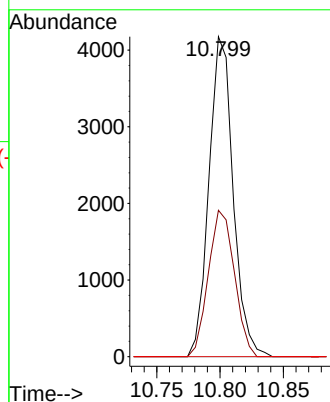
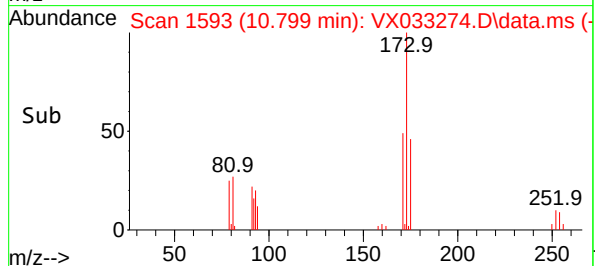
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC005



Tgt Ion:173 Resp: 555  
Ion Ratio Lower Upper  
173 100  
175 49.3 23.9 71.8  
254 0.0 0.0 0.0

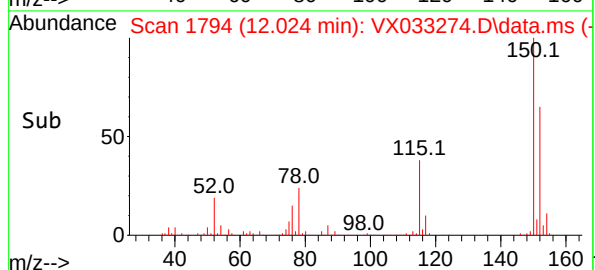
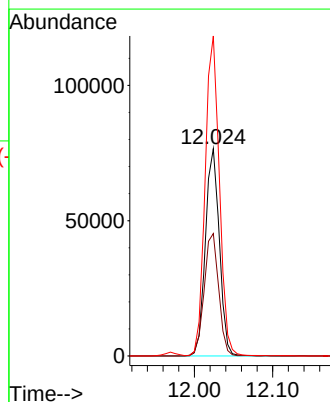
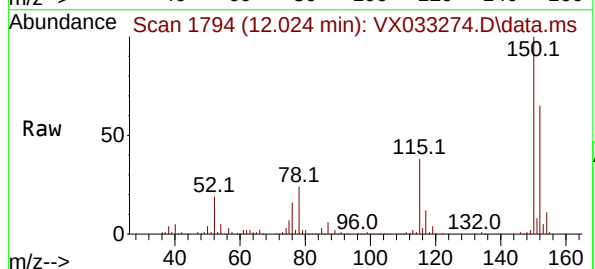
Manual Integrations  
APPROVED

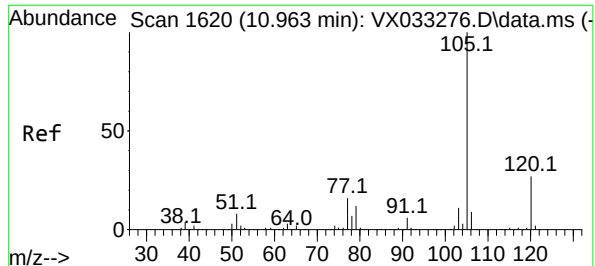
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.024 min Scan# 1794  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Tgt Ion:152 Resp: 94568  
Ion Ratio Lower Upper  
152 100  
115 61.6 44.0 132.0  
150 157.0 0.0 351.8





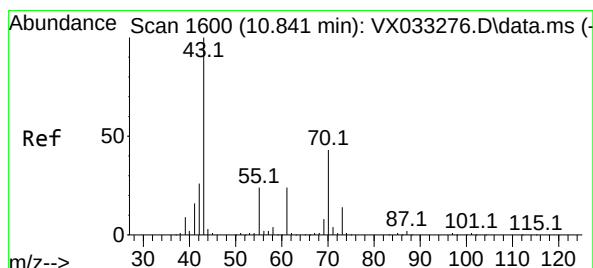
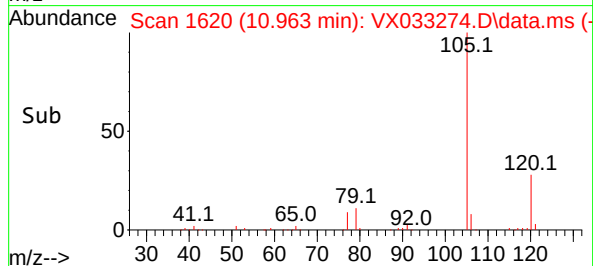
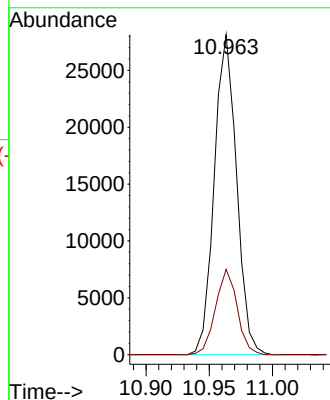
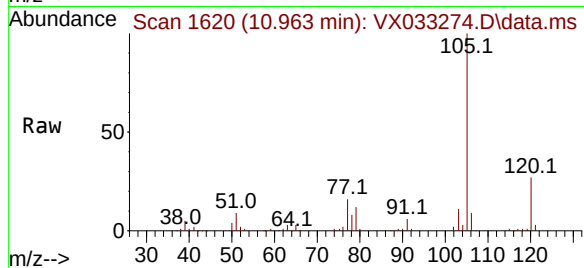
#73  
Isopropylbenzene  
Concen: 5.092 ug/l  
RT: 10.963 min Scan# 1620  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC005

Tgt Ion:105 Resp: 34409  
Ion Ratio Lower Upper  
105 100  
120 25.9 13.1 39.3

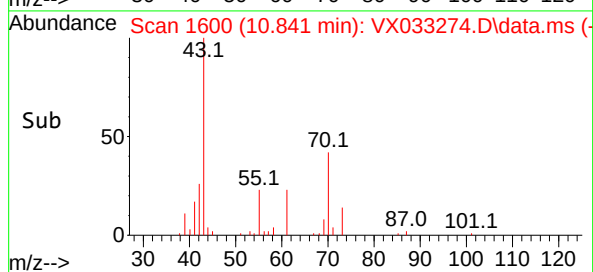
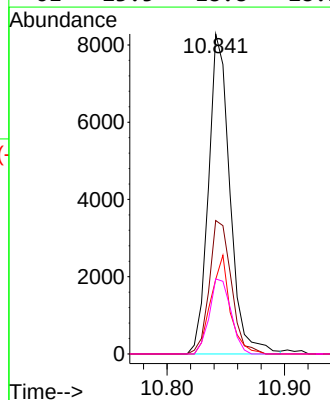
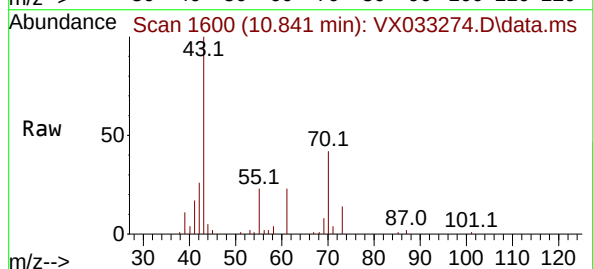
Manual Integrations  
APPROVED

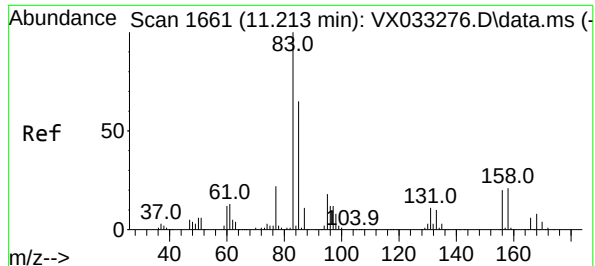
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#74  
N-ethyl acetate  
Concen: 4.566 ug/l  
RT: 10.841 min Scan# 1600  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Tgt Ion: 43 Resp: 10497  
Ion Ratio Lower Upper  
43 100  
70 42.7 33.6 50.4  
55 27.5 19.4 29.2  
61 23.5 18.8 28.2





#75

1,1,2,2-Tetrachloroethane

Concen: 5.340 ug/l

RT: 11.213 min Scan# 1661

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

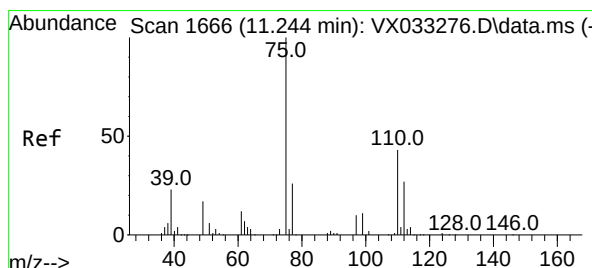
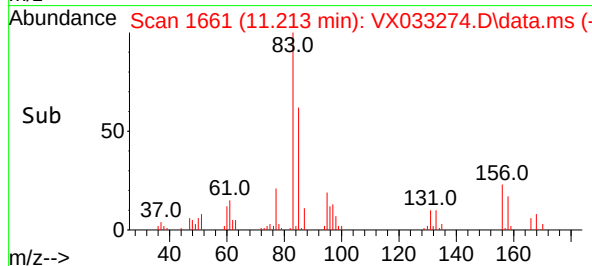
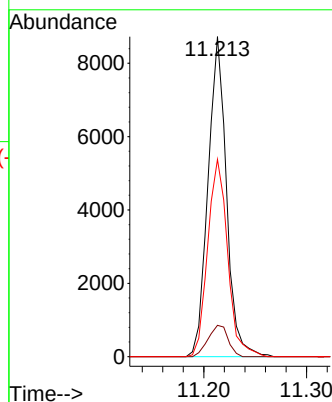
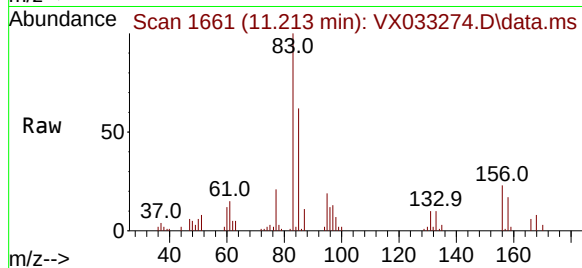
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 83    | Resp: | 1089 |
| Ion Ratio | Lower | Upper |      |
| 83        | 100   |       |      |
| 131       | 10.6  | 5.4   | 16.2 |
| 85        | 66.5  | 31.9  | 95.9 |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#76

1,2,3-Trichloropropane

Concen: 5.127 ug/l m

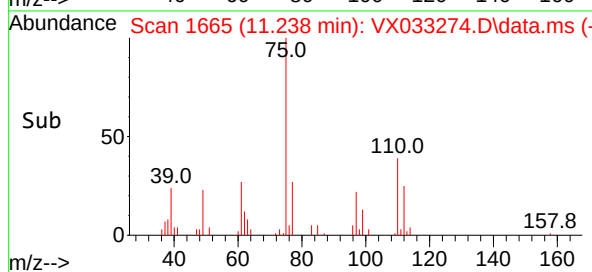
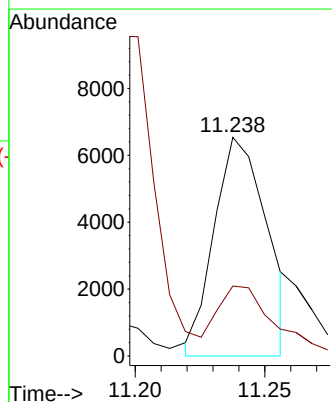
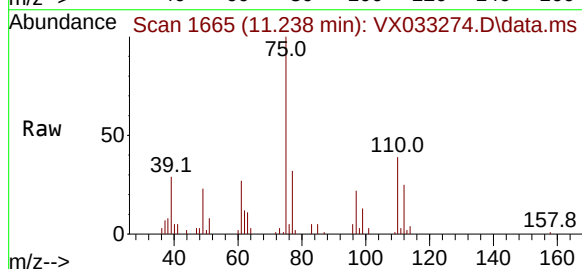
RT: 11.238 min Scan# 1665

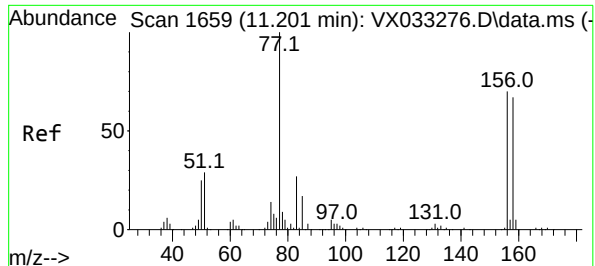
Delta R.T. -0.006 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

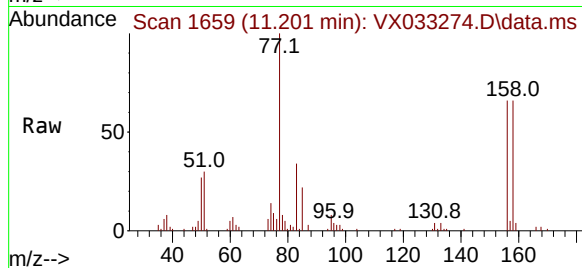
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 75    | Resp: | 9183 |
| Ion Ratio | Lower | Upper |      |
| 75        | 100   |       |      |
| 77        | 36.0  | 20.0  | 60.0 |





#77  
Bromobenzene  
Concen: 5.222 ug/l  
RT: 11.201 min Scan# 1659  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

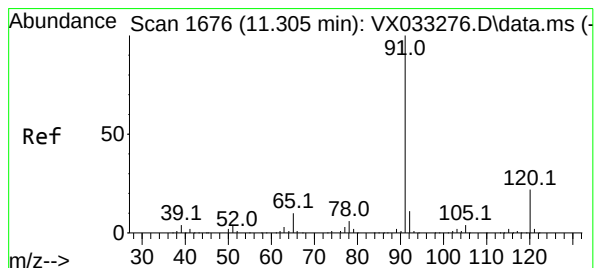
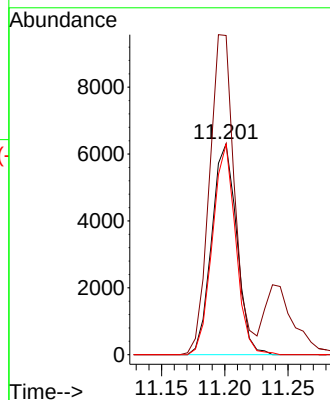
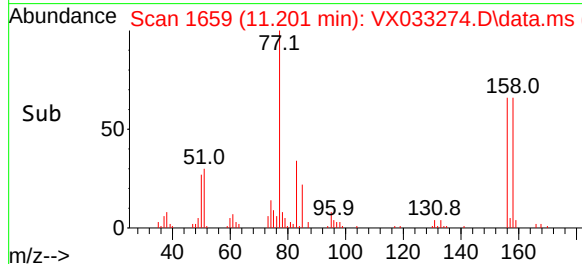
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC005



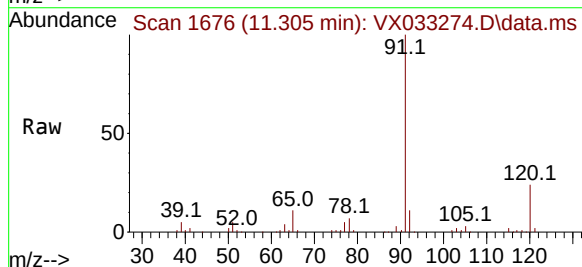
Tgt Ion:156 Resp: 8678  
Ion Ratio Lower Upper  
156 100  
77 152.5 76.1 228.4  
158 92.8 48.8 146.3

Manual Integrations  
APPROVED

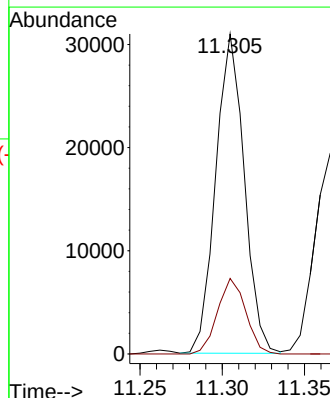
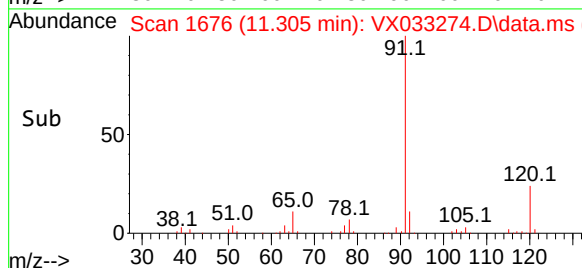
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

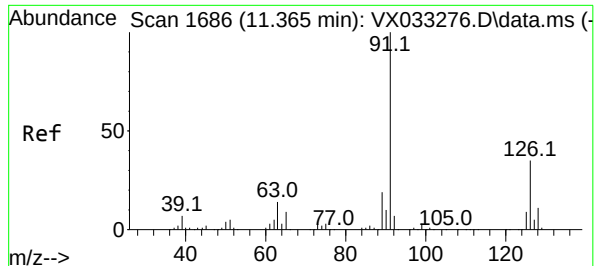


#78  
n-propylbenzene  
Concen: 4.834 ug/l  
RT: 11.305 min Scan# 1676  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09



Tgt Ion: 91 Resp: 37347  
Ion Ratio Lower Upper  
91 100  
120 23.4 11.6 34.8





#79

2-Chlorotoluene

Concen: 5.028 ug/l

RT: 11.366 min Scan# 1

Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 91 Resp: 2359

Ion Ratio Lower Upper

91 100

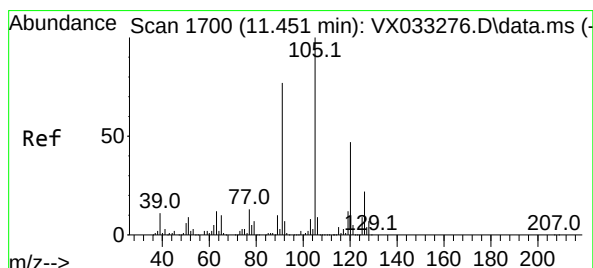
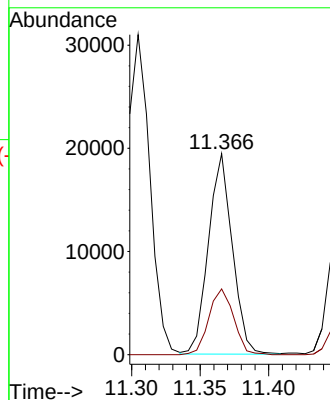
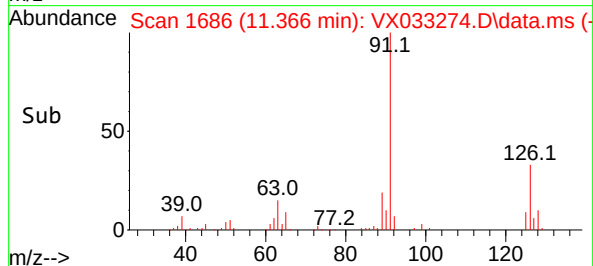
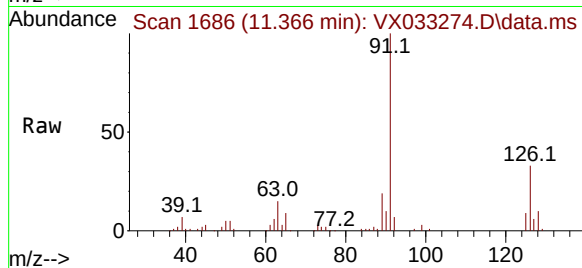
126 33.9 17.1 51.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#80

1,3,5-Trimethylbenzene

Concen: 4.942 ug/l

RT: 11.451 min Scan# 1700

Delta R.T. 0.000 min

Lab File: VX033274.D

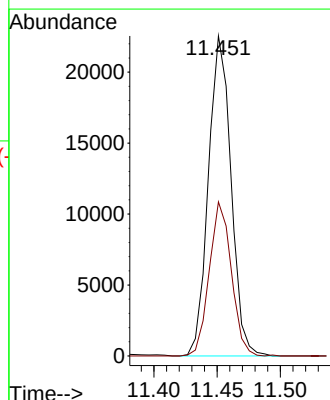
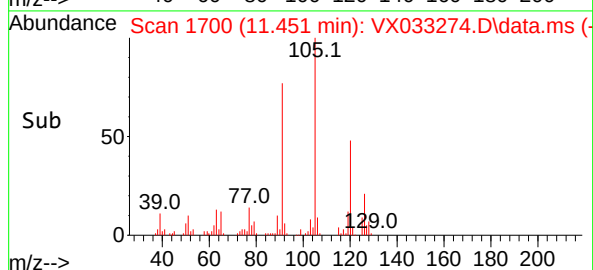
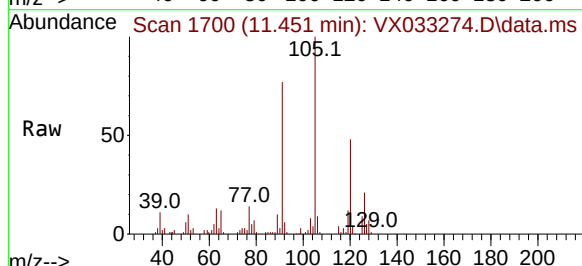
Acq: 07 Dec 2022 10:09

Tgt Ion:105 Resp: 28056

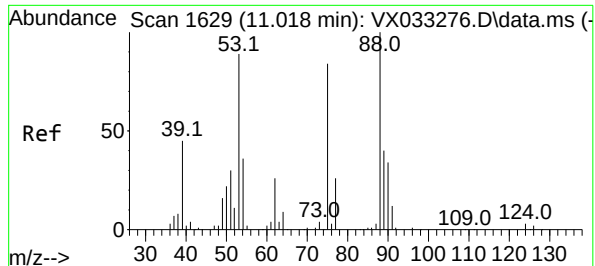
Ion Ratio Lower Upper

105 100

120 46.9 23.6 71.0







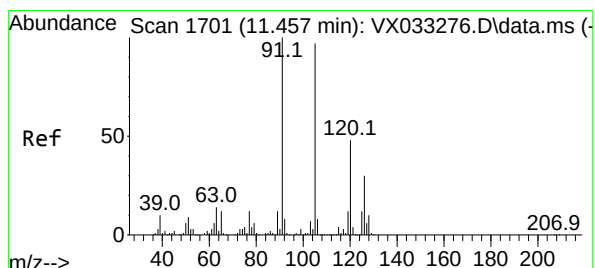
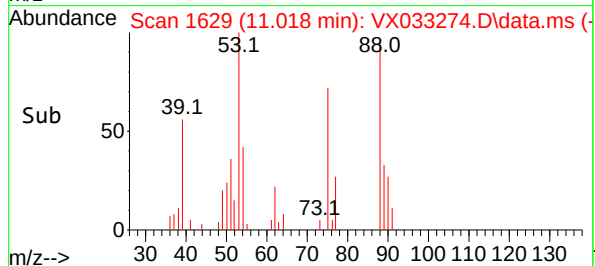
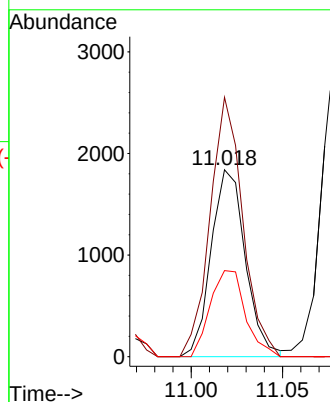
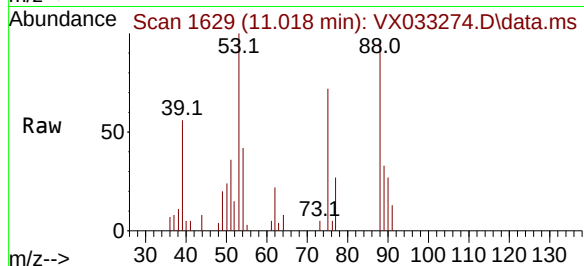
#81  
trans-1,4-Dichloro-2-butene  
Concen: 4.363 ug/l  
RT: 11.018 min Scan# 1629  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC005

Tgt Ion: 75 Resp: 2404  
Ion Ratio Lower Upper  
75 100  
53 132.4 86.9 130.3  
89 47.3 38.3 57.5

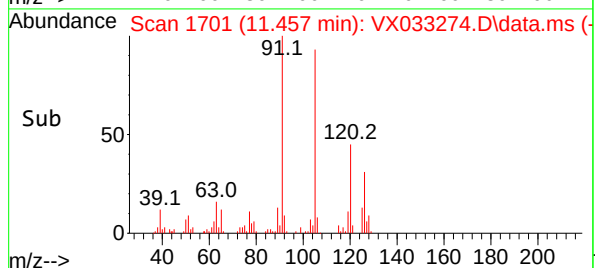
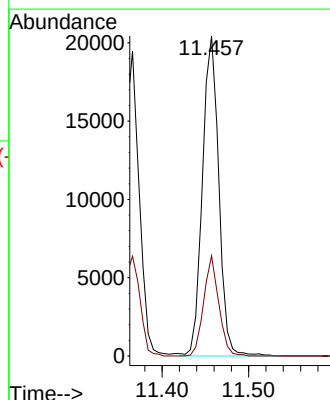
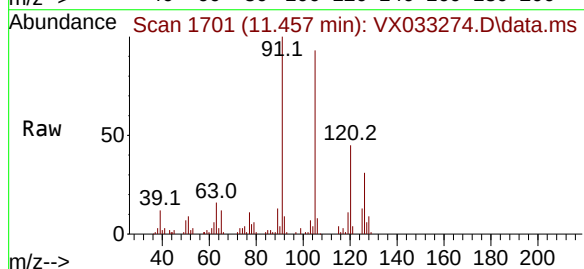
Manual Integrations  
APPROVED

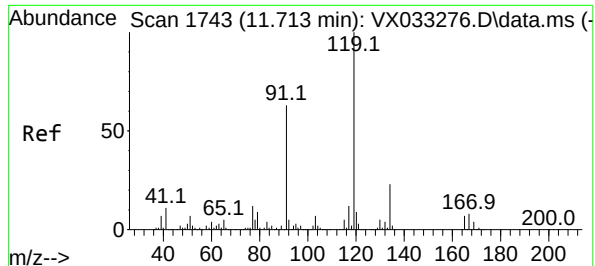
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#82  
4-Chlorotoluene  
Concen: 4.874 ug/l  
RT: 11.457 min Scan# 1701  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Tgt Ion: 91 Resp: 26803  
Ion Ratio Lower Upper  
91 100  
126 28.9 14.8 44.4





#83

tert-Butylbenzene

Concen: 4.918 ug/l

RT: 11.713 min Scan# 1743

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion:119 Resp: 27792

Ion Ratio Lower Upper

119 100

91 58.4 29.4 88.2

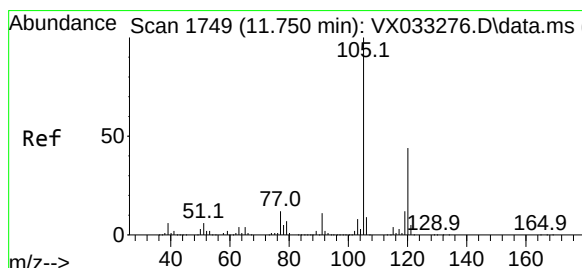
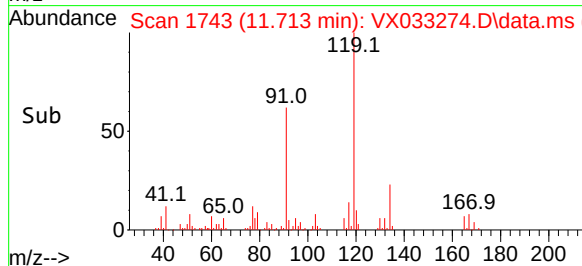
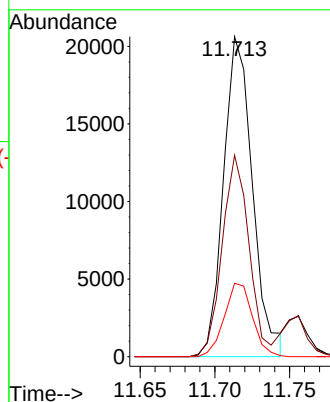
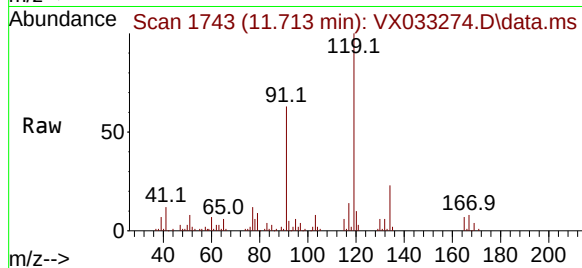
134 22.4 11.0 33.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#84

1,2,4-Trimethylbenzene

Concen: 4.908 ug/l

RT: 11.750 min Scan# 1749

Delta R.T. -0.000 min

Lab File: VX033274.D

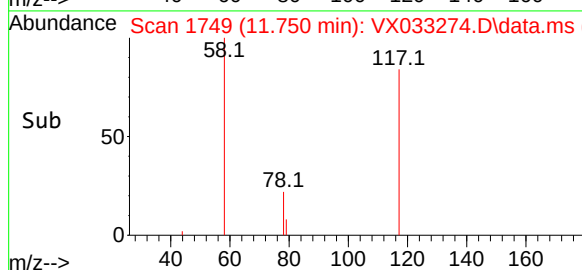
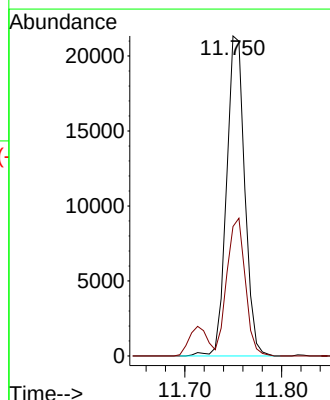
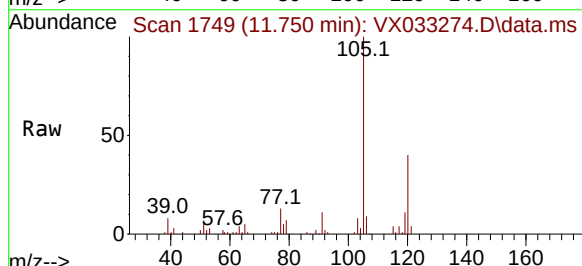
Acq: 07 Dec 2022 10:09

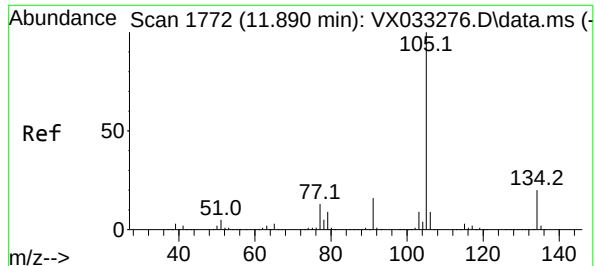
Tgt Ion:105 Resp: 27785

Ion Ratio Lower Upper

105 100

120 43.6 21.9 65.5





#85

sec-Butylbenzene

Concen: 4.783 ug/l

RT: 11.890 min Scan# 1772

Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion:105 Resp: 3233

Ion Ratio Lower Upper

105 100

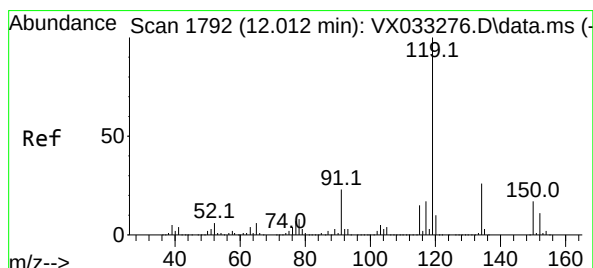
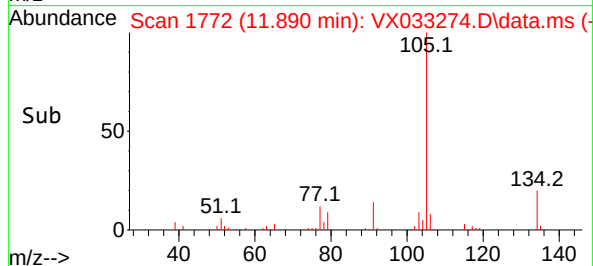
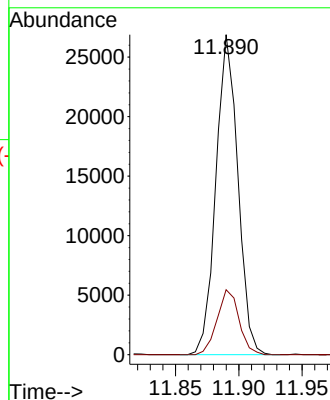
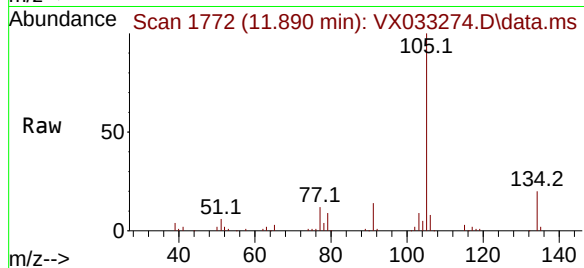
134 20.3 9.9 29.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#86

p-Isopropyltoluene

Concen: 4.718 ug/l

RT: 12.012 min Scan# 1792

Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

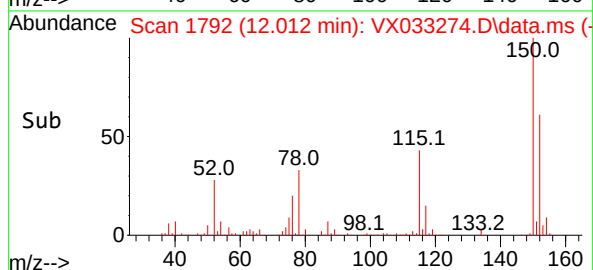
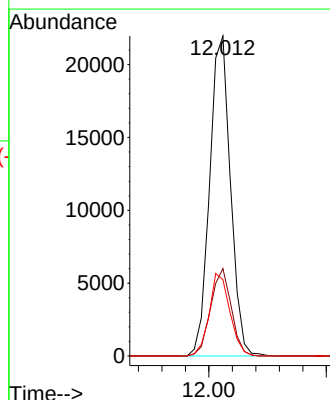
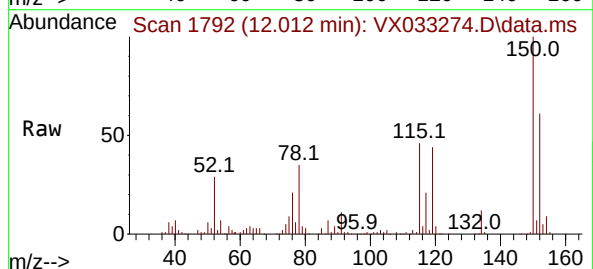
Tgt Ion:119 Resp: 27023

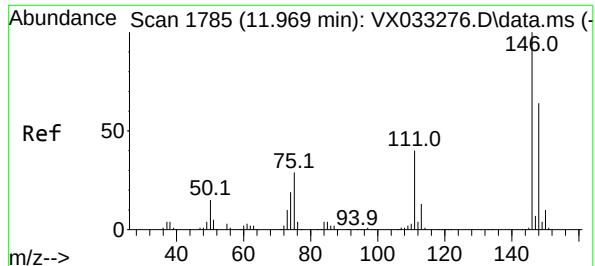
Ion Ratio Lower Upper

119 100

134 27.0 12.9 38.7

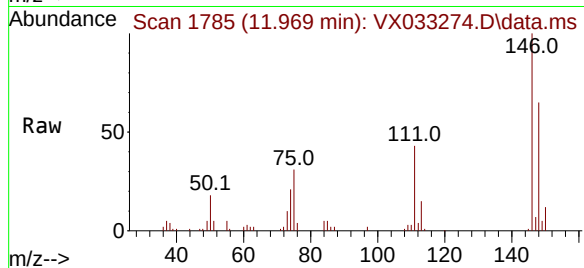
91 25.6 12.5 37.5





#87  
1,3-Dichlorobenzene  
Concen: 4.910 ug/l  
RT: 11.969 min Scan# 1785  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

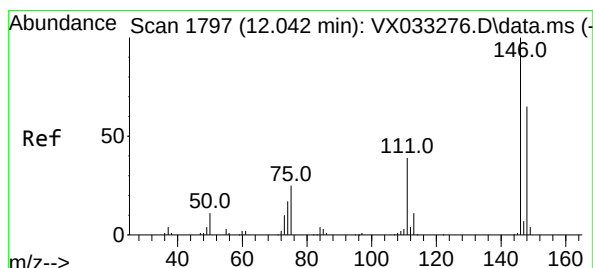
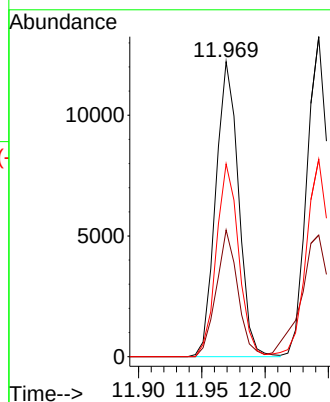
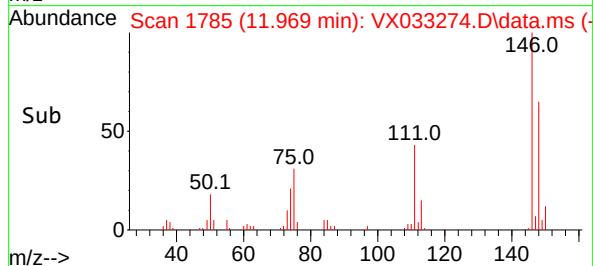
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC005



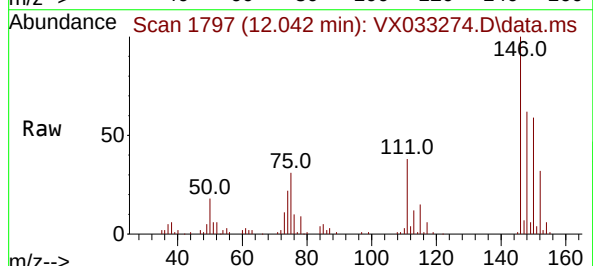
Tgt Ion:146 Resp: 1530  
Ion Ratio Lower Upper  
146 100  
111 40.5 20.6 61.8  
148 63.9 31.7 95.1

Manual Integrations  
APPROVED

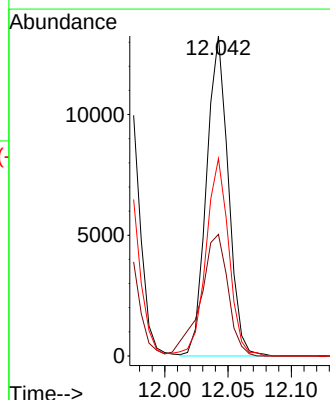
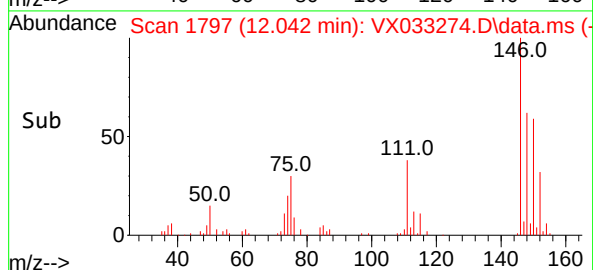
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

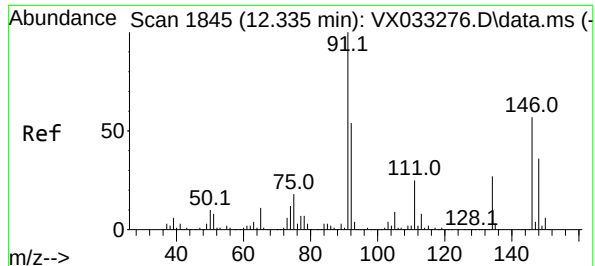


#88  
1,4-Dichlorobenzene  
Concen: 4.981 ug/l  
RT: 12.042 min Scan# 1797  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09



Tgt Ion:146 Resp: 15903  
Ion Ratio Lower Upper  
146 100  
111 47.8 20.5 61.6  
148 64.5 32.2 96.6





#89

n-Butylbenzene

Concen: 4.332 ug/l

RT: 12.335 min Scan# 1845

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion: 91 Resp: 21370

Ion Ratio Lower Upper

91 100

92 53.9 26.2 78.6

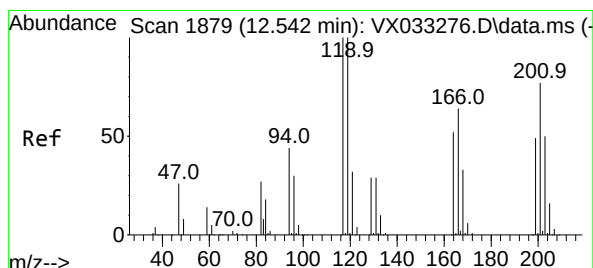
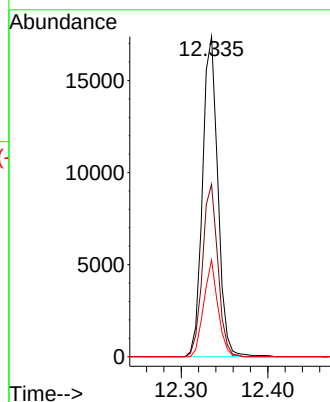
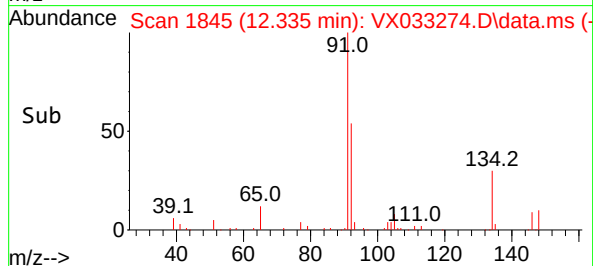
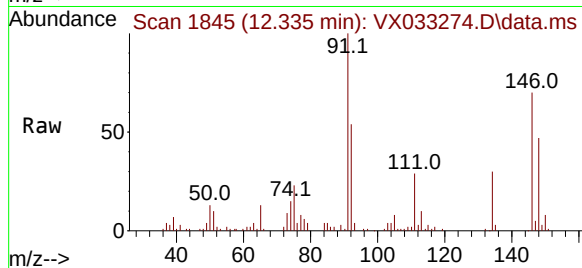
134 27.9 12.9 38.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#90

Hexachloroethane

Concen: 4.788 ug/l

RT: 12.542 min Scan# 1879

Delta R.T. 0.000 min

Lab File: VX033274.D

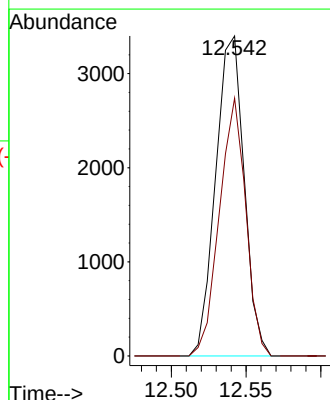
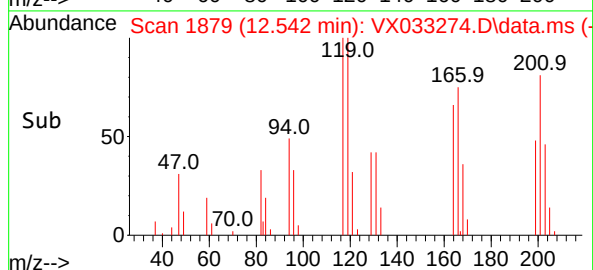
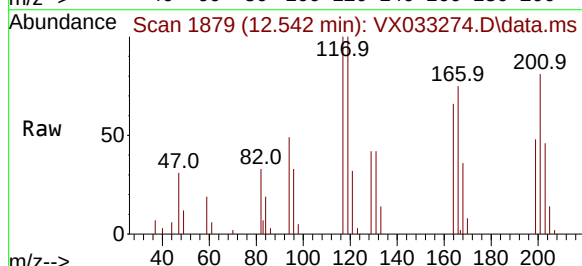
Acq: 07 Dec 2022 10:09

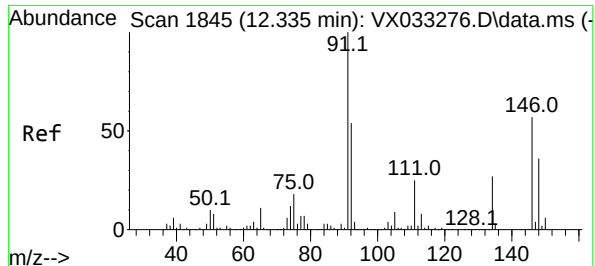
Tgt Ion:117 Resp: 4506

Ion Ratio Lower Upper

117 100

201 74.5 37.6 112.9





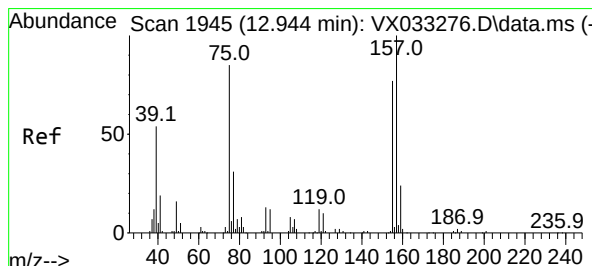
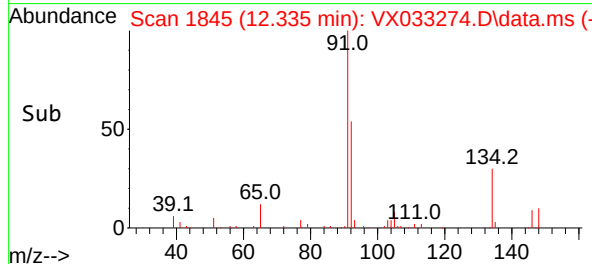
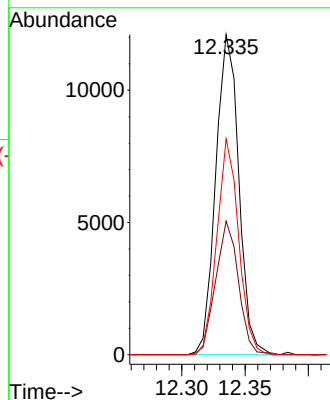
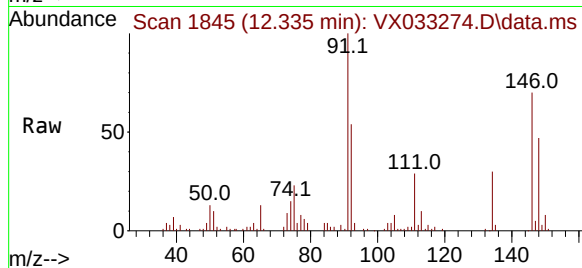
#91  
1,2-Dichlorobenzene  
Concen: 5.050 ug/l  
RT: 12.335 min Scan# 1845  
Delta R.T. 0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC005

Tgt Ion:146 Resp: 1531  
Ion Ratio Lower Upper  
146 100  
111 41.3 21.5 64.5  
148 63.7 32.0 96.2

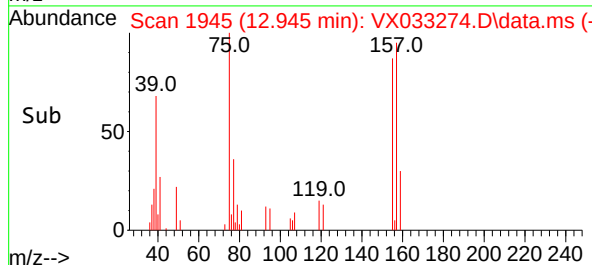
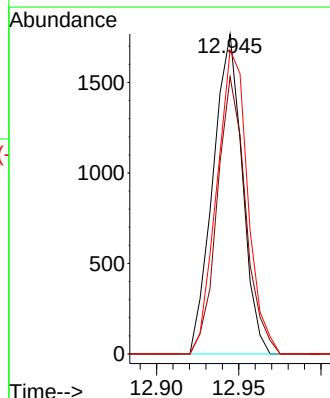
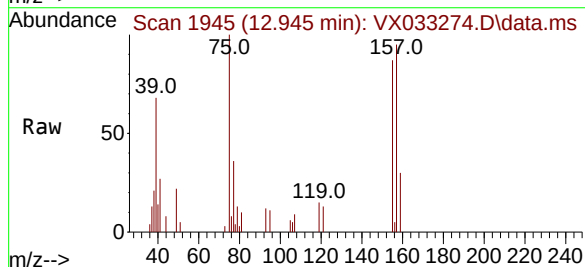
Manual Integrations  
APPROVED

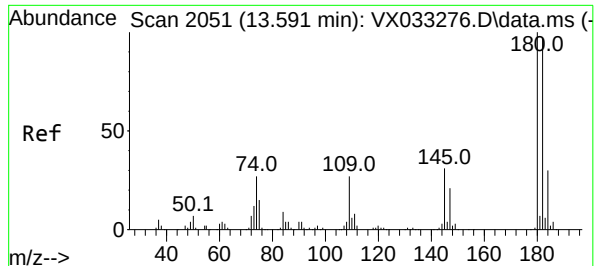
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#92  
1,2-Dibromo-3-Chloropropane  
Concen: 5.382 ug/l  
RT: 12.945 min Scan# 1945  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Tgt Ion: 75 Resp: 2190  
Ion Ratio Lower Upper  
75 100  
155 84.2 41.6 124.8  
157 100.3 54.1 162.4





#93

1,2,4-Trichlorobenzene

Concen: 4.667 ug/l

RT: 13.591 min Scan# 2051

Delta R.T. -0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC005

Tgt Ion:180 Resp: 8724

Ion Ratio Lower Upper

180 100

182 95.3 48.4 145.0

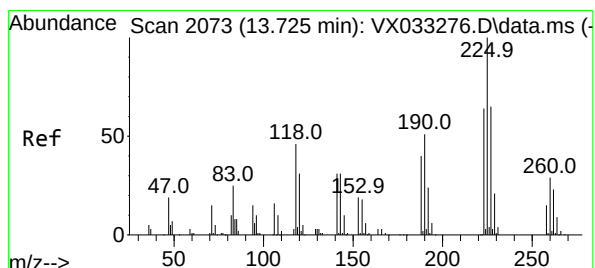
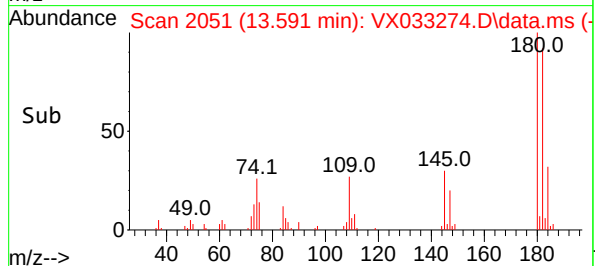
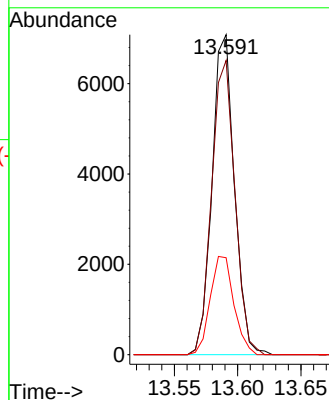
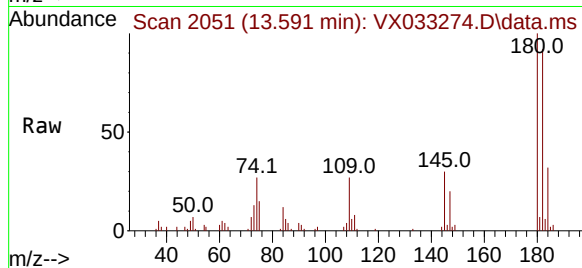
145 32.5 16.2 48.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#94

Hexachlorobutadiene

Concen: 4.477 ug/l

RT: 13.725 min Scan# 2073

Delta R.T. 0.000 min

Lab File: VX033274.D

Acq: 07 Dec 2022 10:09

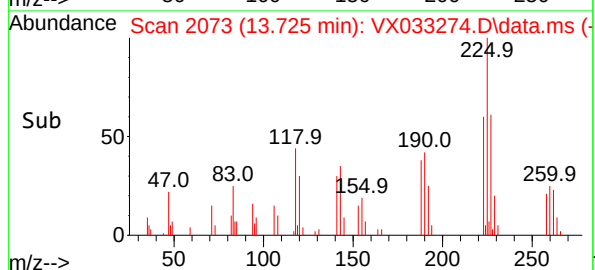
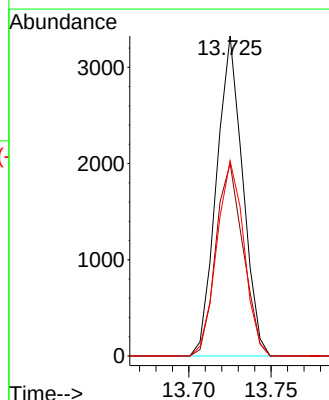
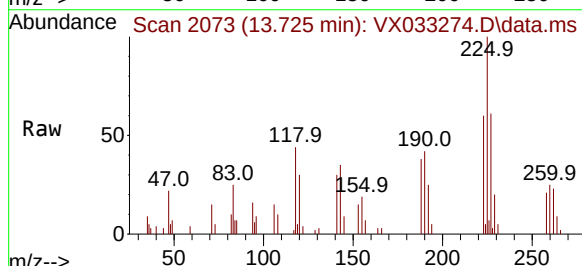
Tgt Ion:225 Resp: 3692

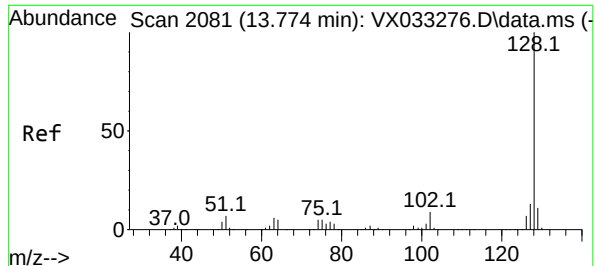
Ion Ratio Lower Upper

225 100

223 62.6 31.9 95.9

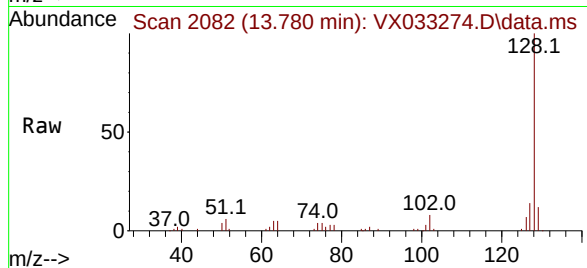
227 63.3 31.9 95.5





#95  
Naphthalene  
Concen: 4.730 ug/l  
RT: 13.780 min Scan# 2081  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

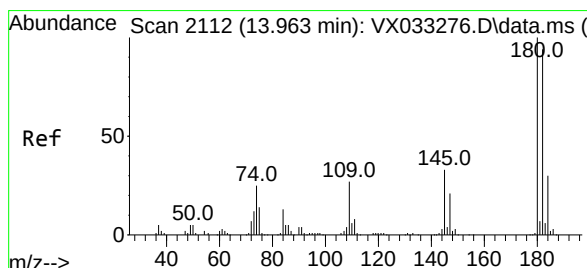
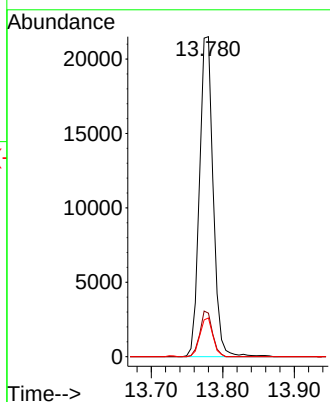
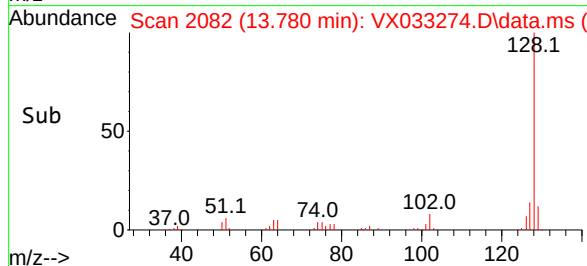
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC005



Tgt Ion:128 Resp: 28600  
Ion Ratio Lower Upper  
128 100  
127 13.1 10.2 15.4  
129 11.5 8.9 13.3

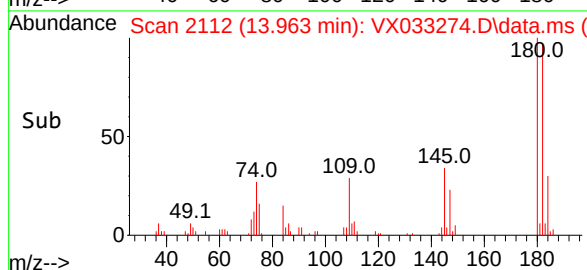
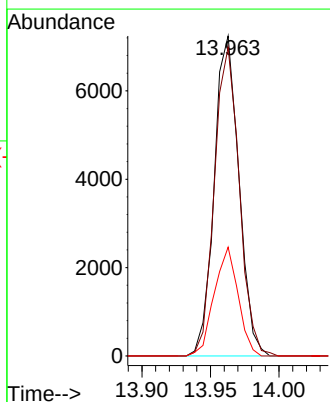
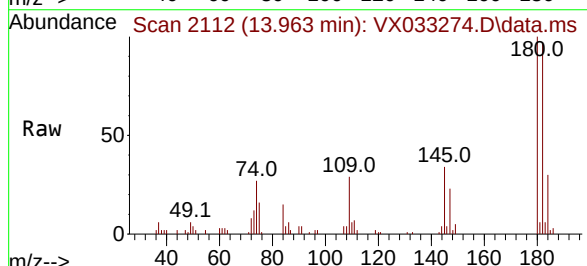
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#96  
1,2,3-Trichlorobenzene  
Concen: 4.845 ug/l  
RT: 13.963 min Scan# 2112  
Delta R.T. -0.000 min  
Lab File: VX033274.D  
Acq: 07 Dec 2022 10:09

Tgt Ion:180 Resp: 9081  
Ion Ratio Lower Upper  
180 100  
182 96.9 47.5 142.6  
145 32.9 16.9 50.6





Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033275.D  
 Acq On : 07 Dec 2022 10:32  
 Operator : JC/MD  
 Sample : VSTDIC020  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDIC020

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/08/2022  
 Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:16:31 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 09:47:15 2022  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response   | Conc     | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|----------|--------|----------|
| -----                        |                |      |            |          |        |          |
| Internal Standards           |                |      |            |          |        |          |
| 1) Pentafluorobenzene        | 5.556          | 168  | 147521     | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 6.763          | 114  | 231761     | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 10.055         | 117  | 212087     | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 12.024         | 152  | 104636     | 50.000   | ug/l   | 0.00     |
| System Monitoring Compounds  |                |      |            |          |        |          |
| 33) 1,2-Dichloroethane-d4    | 5.964          | 65   | 19119      | 12.031   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 78 - 117 |      | Recovery = | 24.060%# |        |          |
| 35) Dibromofluoromethane     | 5.391          | 113  | 21699      | 16.607   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = | 33.220%# |        |          |
| 50) Toluene-d8               | 8.653          | 98   | 45228      | 10.662   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 92 - 112 |      | Recovery = | 21.320%# |        |          |
| 62) 4-Bromofluorobenzene     | 11.079         | 95   | 35433      | 20.645   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 83 - 123 |      | Recovery = | 41.280%# |        |          |
| Target Compounds             |                |      |            |          |        |          |
|                              |                |      |            |          | Qvalue |          |
| 2) Dichlorodifluoromethane   | 1.166          | 85   | 23127      | 20.520   | ug/l   | 99       |
| 3) Chloromethane             | 1.294          | 50   | 26409      | 21.705   | ug/l   | 98       |
| 4) Vinyl Chloride            | 1.373          | 62   | 30354      | 22.406   | ug/l   | 98       |
| 5) Bromomethane              | 1.617          | 94   | 21504      | 21.406   | ug/l   | 99       |
| 6) Chloroethane              | 1.690          | 64   | 23121      | 20.964   | ug/l   | 97       |
| 7) Trichlorofluoromethane    | 1.892          | 101  | 57892      | 22.018   | ug/l   | 99       |
| 8) Diethyl Ether             | 2.135          | 74   | 20304      | 24.528   | ug/l   | 95       |
| 9) 1,1,2-Trichlorotrifluo... | 2.330          | 101  | 31565      | 22.840   | ug/l   | 96       |
| 10) Methyl Iodide            | 2.452          | 142  | 32964      | 20.836   | ug/l   | 99       |
| 11) Tert butyl alcohol       | 2.989          | 59   | 29613      | 130.033  | ug/l   | 99       |
| 12) 1,1-Dichloroethene       | 2.324          | 96   | 29810      | 23.156   | ug/l   | 98       |
| 13) Acrolein                 | 2.239          | 56   | 24508      | 93.690   | ug/l   | 100      |
| 14) Allyl chloride           | 2.666          | 41   | 47089      | 22.656   | ug/l   | 96       |
| 15) Acrylonitrile            | 3.068          | 53   | 78907      | 122.500  | ug/l   | 99       |
| 16) Acetone                  | 2.391          | 43   | 78227      | 116.594  | ug/l   | 100      |
| 17) Carbon Disulfide         | 2.513          | 76   | 75958      | 21.356   | ug/l   | 100      |
| 18) Methyl Acetate           | 2.708          | 43   | 45026      | 24.243   | ug/l   | 99       |
| 19) Methyl tert-butyl Ether  | 3.117          | 73   | 100985     | 22.619   | ug/l   | 99       |
| 20) Methylene Chloride       | 2.794          | 84   | 33410      | 20.670   | ug/l   | 93       |
| 21) trans-1,2-Dichloroethene | 3.093          | 96   | 32308      | 21.939   | ug/l   | 96       |
| 22) Diisopropyl ether        | 3.763          | 45   | 102846     | 22.725   | ug/l   | 97       |
| 23) Vinyl Acetate            | 3.720          | 43   | 393390     | 111.048  | ug/l   | 100      |
| 24) 1,1-Dichloroethane       | 3.611          | 63   | 59379      | 22.928   | ug/l   | 99       |
| 25) 2-Butanone               | 4.562          | 43   | 113918     | 123.133  | ug/l   | 98       |
| 26) 2,2-Dichloropropane      | 4.483          | 77   | 43915      | 21.089   | ug/l   | 100      |
| 27) cis-1,2-Dichloroethene   | 4.495          | 96   | 38152      | 22.802   | ug/l   | 99       |
| 28) Bromochloromethane       | 4.897          | 49   | 24001      | 21.092   | ug/l   | 97       |
| 29) Tetrahydrofuran          | 5.013          | 42   | 72726      | 123.883  | ug/l   | 99       |
| 30) Chloroform               | 5.098          | 83   | 66575      | 22.953   | ug/l   | 98       |
| 31) Cyclohexane              | 5.476          | 56   | 51704      | 22.212   | ug/l   | 91       |
| 32) 1,1,1-Trichloroethane    | 5.385          | 97   | 58398      | 22.482   | ug/l   | 99       |
| 36) 1,1-Dichloropropene      | 5.696          | 75   | 46341      | 22.181   | ug/l   | 99       |
| 37) Ethyl Acetate            | 4.720          | 43   | 44368      | 24.342   | ug/l   | 98       |
| 38) Carbon Tetrachloride     | 5.677          | 117  | 52464      | 22.637   | ug/l   | 97       |
| 39) Methylcyclohexane        | 7.384          | 83   | 53198      | 22.317   | ug/l   | 97       |
| 40) Benzene                  | 6.037          | 78   | 135692     | 23.165   | ug/l   | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033275.D  
 Acq On : 07 Dec 2022 10:32  
 Operator : JC/MD  
 Sample : VSTDIC020  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 4 Sample Multiplier: 1

## Instrument :

MSVOA\_X

## ClientSampleId :

VSTDIC020

## Manual Integrations

## APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:16:31 2022

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M

Quant Title : SW846 8260

QLast Update : Wed Dec 07 09:47:15 2022

Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 4.928  | 41   | 24810    | 24.191  | ug/l   | 98       |
| 42) 1,2-Dichloroethane        | 6.092  | 62   | 54314    | 23.029  | ug/l   | 99       |
| 43) Isopropyl Acetate         | 6.342  | 43   | 69604    | 23.091  | ug/l   | 99       |
| 44) Trichloroethene           | 7.128  | 130  | 37995    | 23.116  | ug/l   | 100      |
| 45) 1,2-Dichloropropane       | 7.433  | 63   | 34412    | 23.772  | ug/l   | 96       |
| 46) Dibromomethane            | 7.586  | 93   | 26034    | 23.049  | ug/l   | 98       |
| 47) Bromodichloromethane      | 7.823  | 83   | 52123    | 23.881  | ug/l   | 99       |
| 48) Methyl methacrylate       | 7.695  | 41   | 35797    | 23.071  | ug/l   | 97       |
| 49) 1,4-Dioxane               | 7.701  | 88   | 16990    | 594.851 | ug/l   | 99       |
| 51) 4-Methyl-2-Pentanone      | 8.573  | 43   | 231237   | 124.317 | ug/l   | 99       |
| 52) Toluene                   | 8.720  | 92   | 89946    | 23.340  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene     | 8.976  | 75   | 48793    | 22.777  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene   | 8.366  | 75   | 53756    | 22.847  | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane     | 9.152  | 97   | 35906    | 22.885  | ug/l   | 99       |
| 56) Ethyl methacrylate        | 9.116  | 69   | 51875    | 23.997  | ug/l   | 95       |
| 57) 1,3-Dichloropropane       | 9.311  | 76   | 59108    | 23.336  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether | 8.244  | 63   | 101008   | 98.398  | ug/l   | 100      |
| 59) 2-Hexanone                | 9.433  | 43   | 173715   | 126.425 | ug/l   | 98       |
| 60) Dibromochloromethane      | 9.524  | 129  | 40652    | 24.066  | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 9.610  | 107  | 39225    | 23.686  | ug/l   | 98       |
| 64) Tetrachloroethene         | 9.274  | 164  | 33071    | 22.029  | ug/l   | 96       |
| 65) Chlorobenzene             | 10.079 | 112  | 98299    | 23.247  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane | 10.164 | 131  | 37470    | 24.185  | ug/l   | 99       |
| 67) Ethyl Benzene             | 10.195 | 91   | 173292   | 23.103  | ug/l   | 100      |
| 68) m/p-Xylenes               | 10.299 | 106  | 134099   | 45.655  | ug/l   | 100      |
| 69) o-Xylene                  | 10.640 | 106  | 66685    | 23.464  | ug/l   | 98       |
| 70) Styrene                   | 10.658 | 104  | 109831   | 23.622  | ug/l   | 100      |
| 71) Bromoform                 | 10.798 | 173  | 29189    | 24.572  | ug/l # | 99       |
| 73) Isopropylbenzene          | 10.963 | 105  | 175194   | 23.430  | ug/l   | 100      |
| 74) N-amyl acetate            | 10.841 | 43   | 60421    | 23.754  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 54465    | 24.134  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 11.237 | 75   | 49227m   | 24.842  | ug/l   |          |
| 77) Bromobenzene              | 11.195 | 156  | 43240    | 23.514  | ug/l   | 99       |
| 78) n-propylbenzene           | 11.304 | 91   | 199580   | 23.345  | ug/l   | 100      |
| 79) 2-Chlorotoluene           | 11.365 | 91   | 120391   | 23.187  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 147966   | 23.556  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75   | 14526    | 23.827  | ug/l   | 96       |
| 82) 4-Chlorotoluene           | 11.457 | 91   | 139436   | 22.916  | ug/l   | 100      |
| 83) tert-Butylbenzene         | 11.713 | 119  | 148011   | 23.672  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene    | 11.756 | 105  | 148682   | 23.739  | ug/l   | 99       |
| 85) sec-Butylbenzene          | 11.890 | 105  | 174891   | 23.380  | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 12.012 | 119  | 150310   | 23.717  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 11.969 | 146  | 80485    | 23.335  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene       | 12.042 | 146  | 79989    | 22.644  | ug/l   | 99       |
| 89) n-Butylbenzene            | 12.335 | 91   | 125513   | 22.988  | ug/l   | 100      |
| 90) Hexachloroethane          | 12.542 | 117  | 24641    | 23.665  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene       | 12.335 | 146  | 79568    | 23.715  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropr... | 12.944 | 75   | 11683    | 25.947  | ug/l   | 98       |
| 93) 1,2,4-Trichlorobenzene    | 13.591 | 180  | 48268    | 23.338  | ug/l   | 97       |
| 94) Hexachlorobutadiene       | 13.725 | 225  | 19262    | 21.110  | ug/l   | 99       |
| 95) Naphthalene               | 13.774 | 128  | 163799   | 24.481  | ug/l   | 100      |
| 96) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 47697    | 22.997  | ug/l   | 100      |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033275.D  
Acq On : 07 Dec 2022 10:32  
Operator : JC/MD  
Sample : VSTDICC020  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020

Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:16:31 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 09:47:15 2022  
Response via : Initial Calibration

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

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

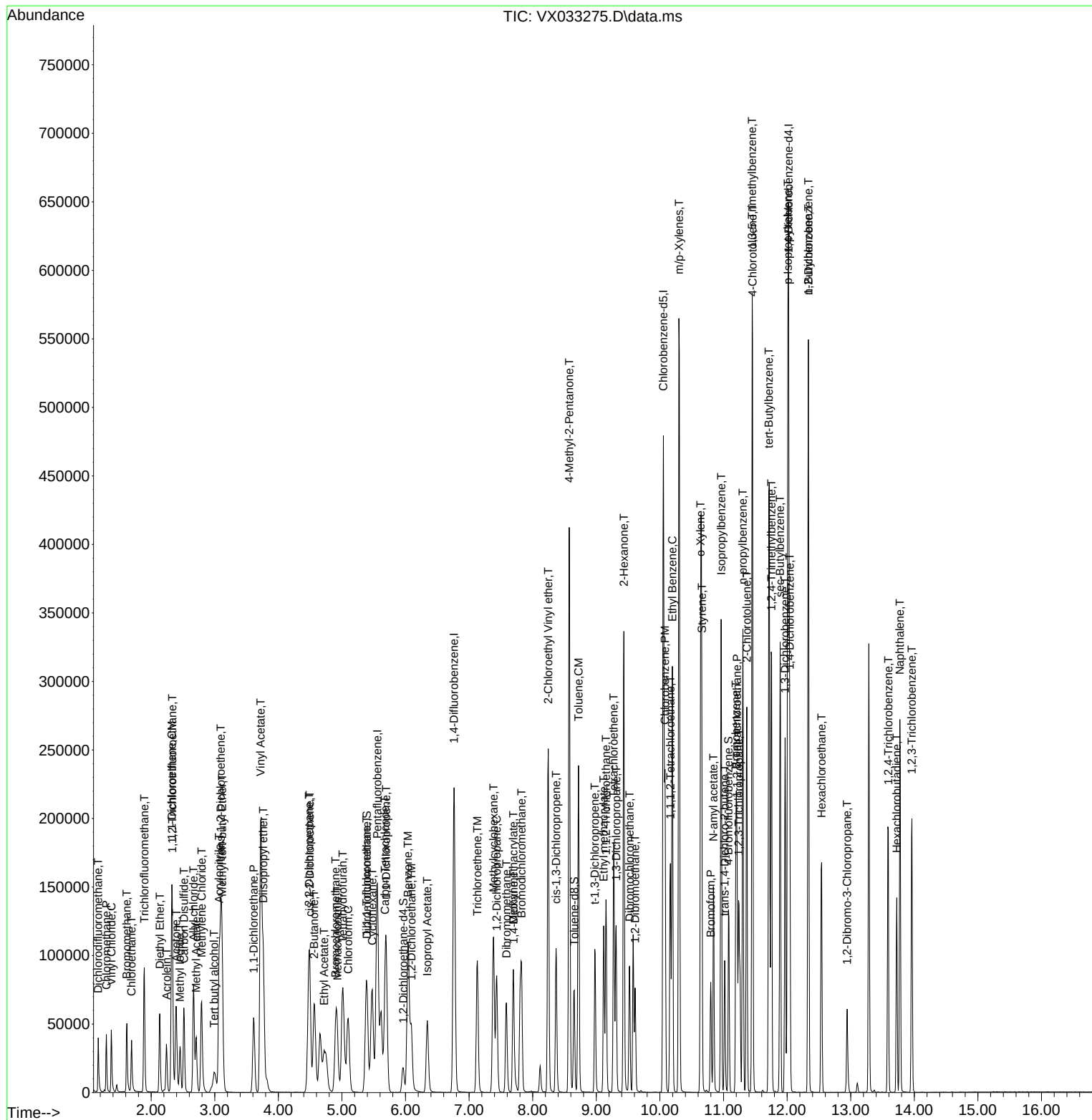
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033275.D  
Acq On : 07 Dec 2022 10:32  
Operator : JC/MD  
Sample : VSTDICC020  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 4 Sample Multiplier: 1

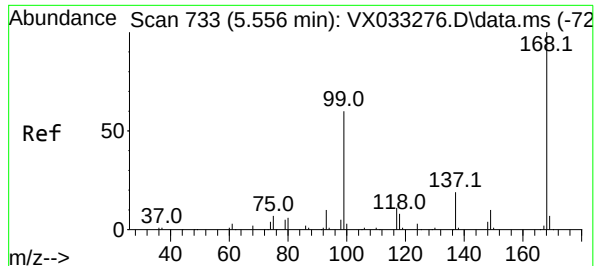
**Instrument :**  
MSVOA\_X  
**ClientSampleId :**  
VSTDICC020

## Manual Integrations APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:16:31 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 09:47:15 2022  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.556 min Scan# 71

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion:168 Resp: 14752

Ion Ratio Lower Upper

168 100

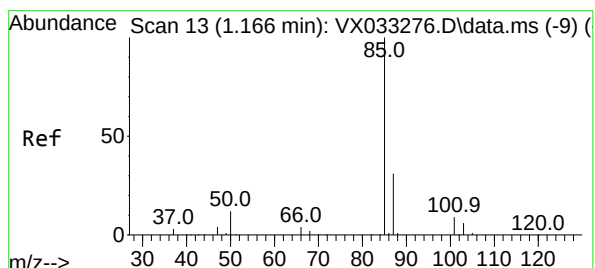
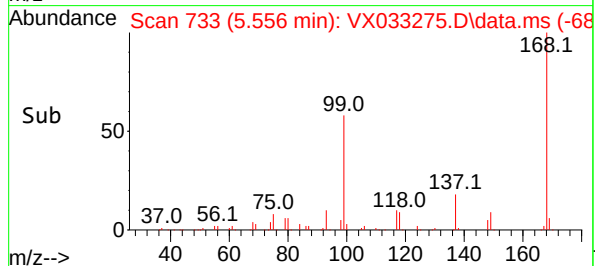
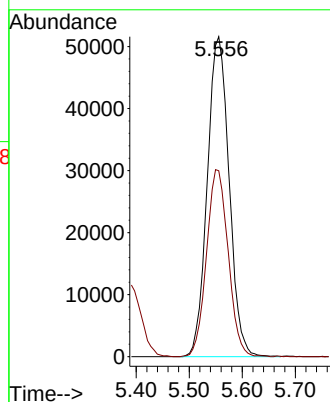
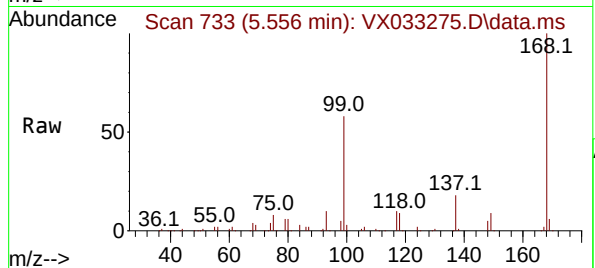
99 58.1 46.1 69.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#2

Dichlorodifluoromethane

Concen: 20.520 ug/l

RT: 1.166 min Scan# 13

Delta R.T. 0.000 min

Lab File: VX033275.D

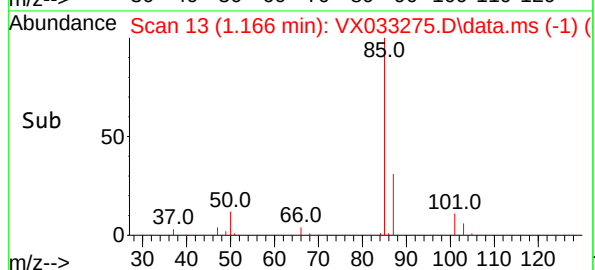
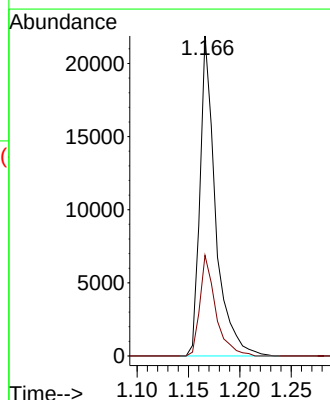
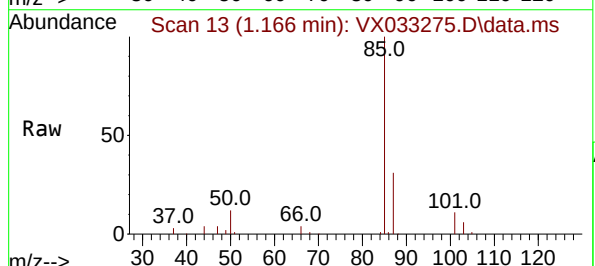
Acq: 07 Dec 2022 10:32

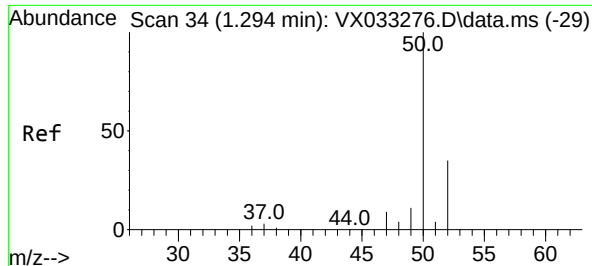
Tgt Ion: 85 Resp: 23127

Ion Ratio Lower Upper

85 100

87 31.5 15.6 46.7





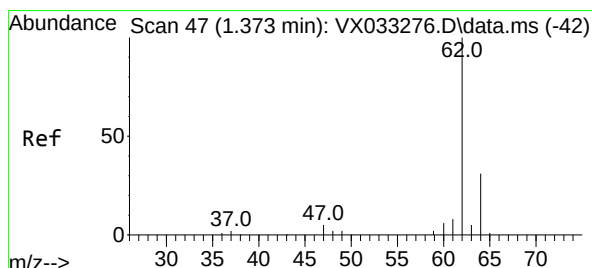
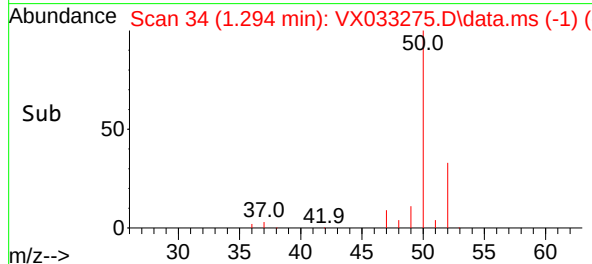
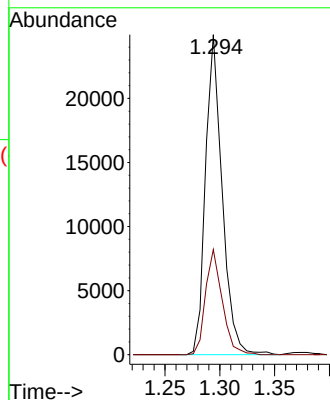
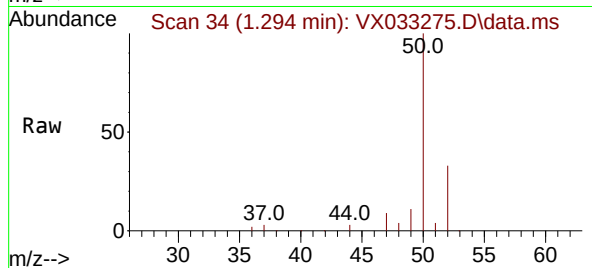
#3  
Chloromethane  
Concen: 21.705 ug/l  
RT: 1.294 min Scan# 34  
Delta R.T. 0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020

Tgt Ion: 50 Resp: 26409  
Ion Ratio Lower Upper  
50 100  
52 32.9 25.4 38.2

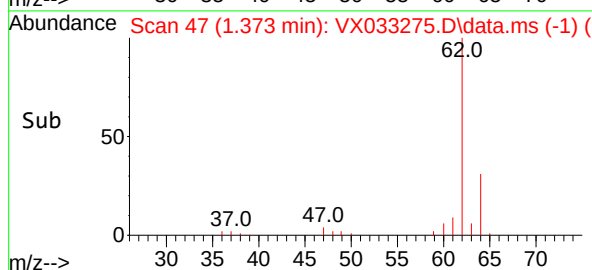
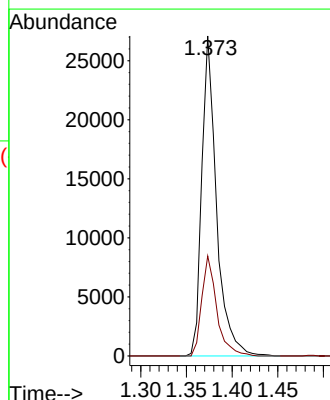
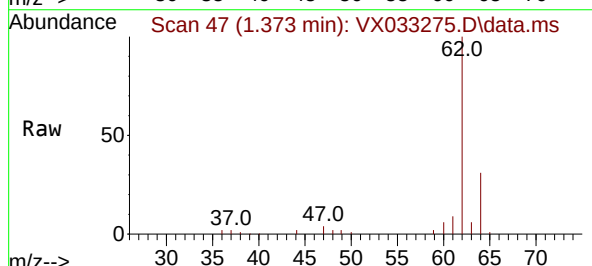
Manual Integrations  
APPROVED

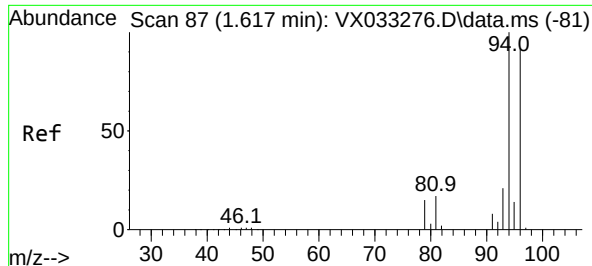
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#4  
Vinyl Chloride  
Concen: 22.406 ug/l  
RT: 1.373 min Scan# 47  
Delta R.T. -0.001 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

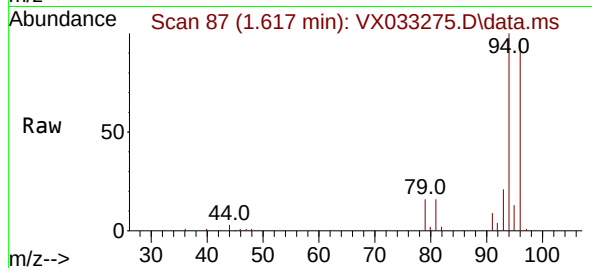
Tgt Ion: 62 Resp: 30354  
Ion Ratio Lower Upper  
62 100  
64 31.2 25.8 38.6





#5  
Bromomethane  
Concen: 21.406 ug/l  
RT: 1.617 min Scan# 81  
Delta R.T. 0.012 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

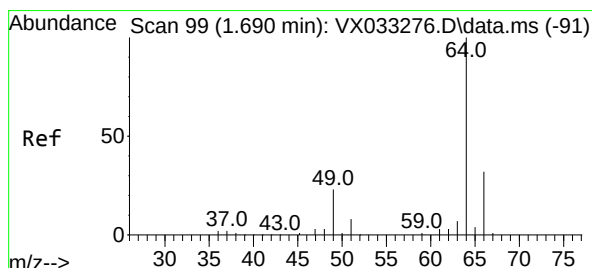
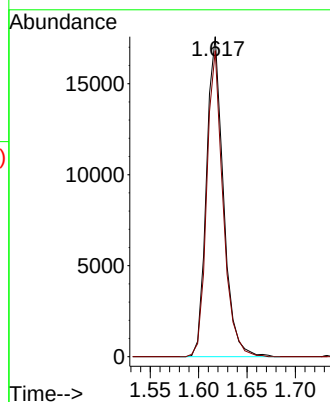
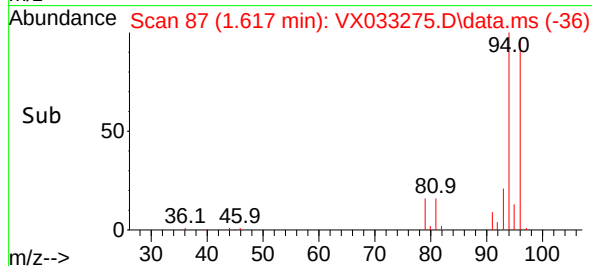
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC020



Tgt Ion: 94 Resp: 21504  
Ion Ratio Lower Upper  
94 100  
96 95.6 77.6 116.4

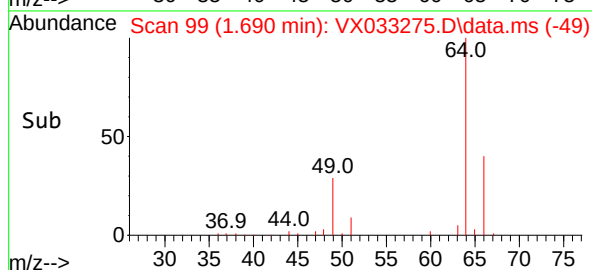
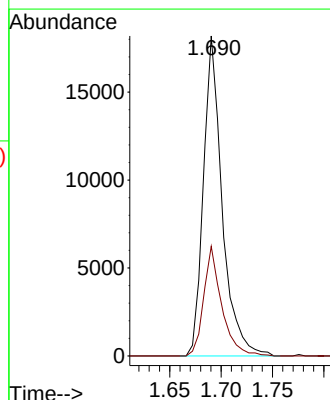
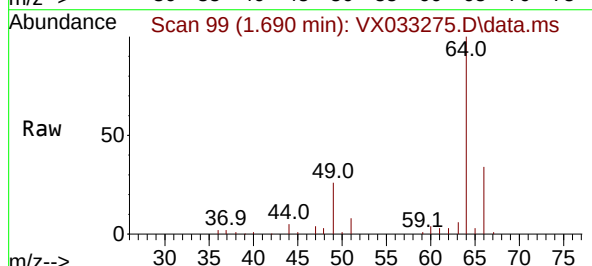
Manual Integrations  
APPROVED

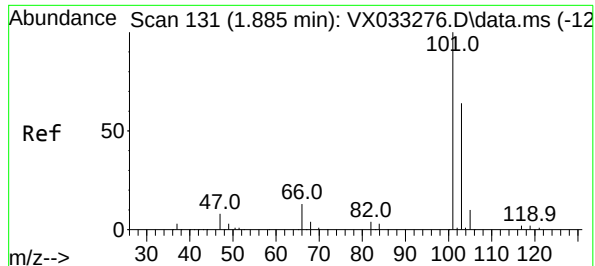
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#6  
Chloroethane  
Concen: 20.964 ug/l  
RT: 1.690 min Scan# 99  
Delta R.T. 0.005 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Tgt Ion: 64 Resp: 23121  
Ion Ratio Lower Upper  
64 100  
66 34.3 26.0 39.0





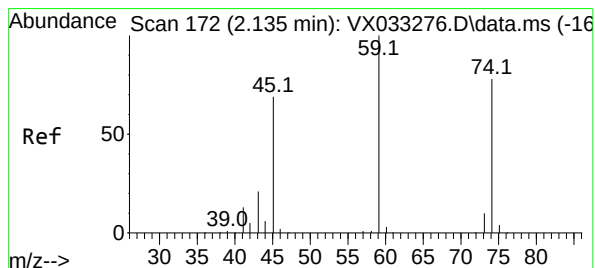
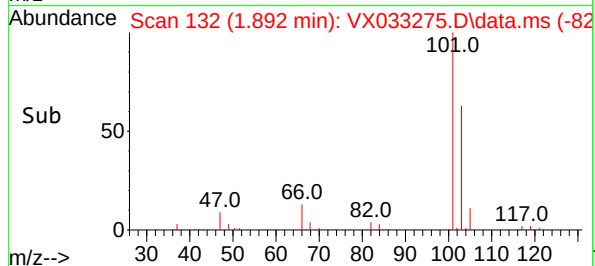
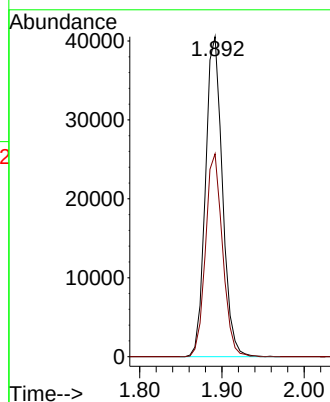
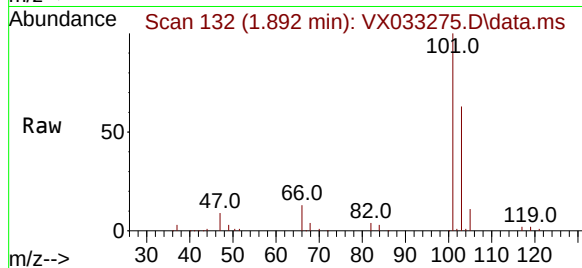
#7  
Trichlorofluoromethane  
Concen: 22.018 ug/l  
RT: 1.892 min Scan# 11  
Delta R.T. 0.006 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC020

Tgt Ion:101 Resp: 57892  
Ion Ratio Lower Upper  
101 100  
103 63.4 51.4 77.2

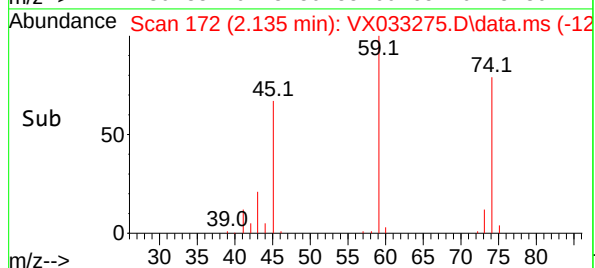
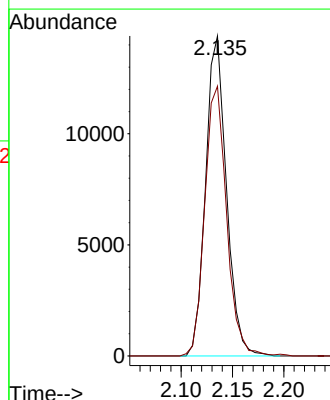
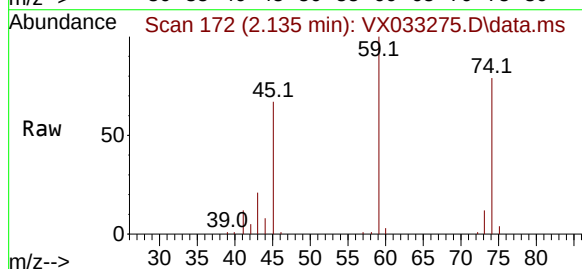
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

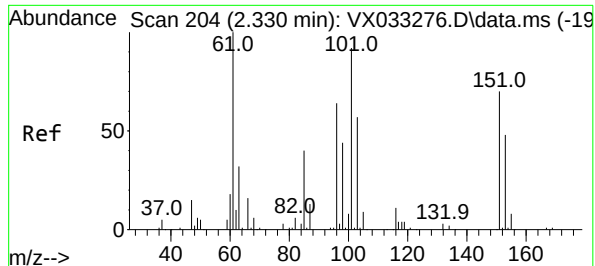


#8  
Diethyl Ether  
Concen: 24.528 ug/l  
RT: 2.135 min Scan# 172  
Delta R.T. 0.005 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Tgt Ion: 74 Resp: 20304  
Ion Ratio Lower Upper  
74 100  
45 88.7 46.6 139.7







#9

1,1,2-Trichlorotrifluoroethane

Concen: 22.840 ug/l

RT: 2.330 min Scan# 204

Delta R.T. -0.001 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion:101 Resp: 3156

Ion Ratio Lower Upper

101 100

85 44.3 37.0 55.4

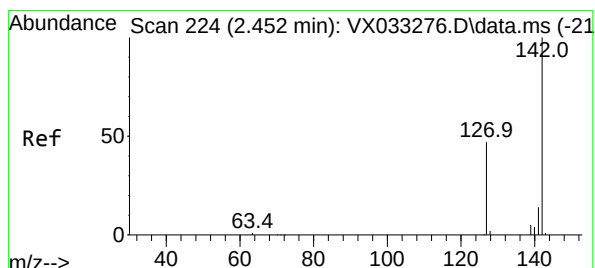
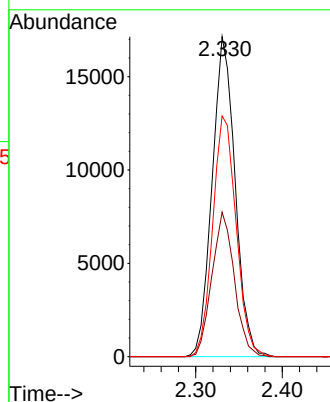
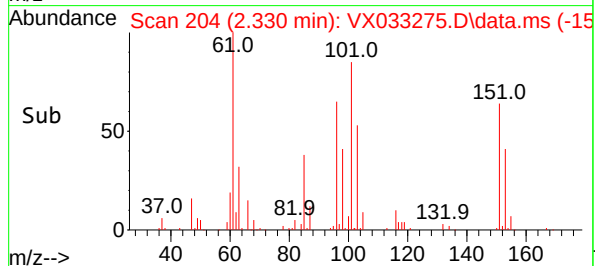
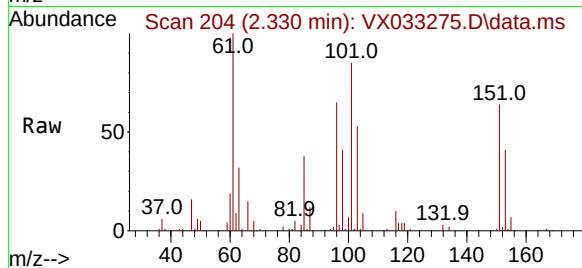
151 76.9 64.4 96.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#10

Methyl Iodide

Concen: 20.836 ug/l

RT: 2.452 min Scan# 224

Delta R.T. -0.001 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

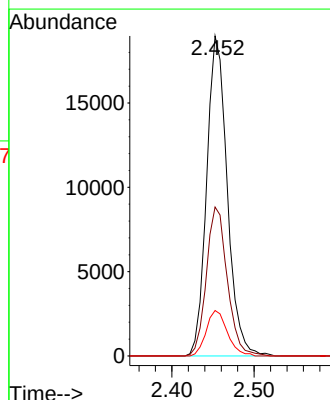
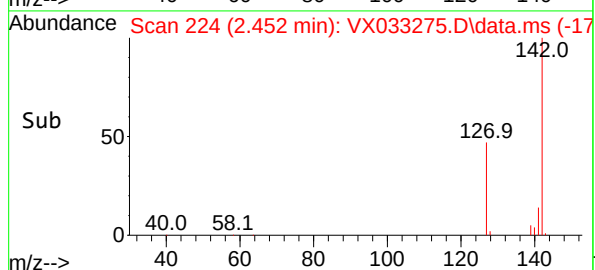
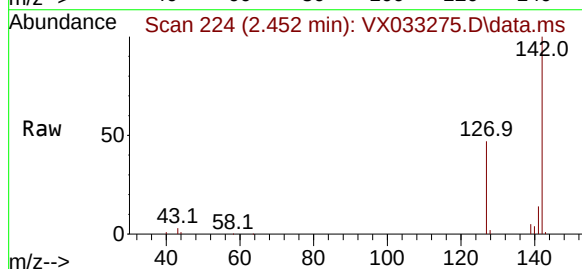
Tgt Ion:142 Resp: 32964

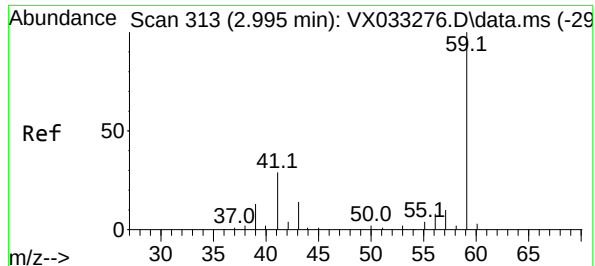
Ion Ratio Lower Upper

142 100

127 47.4 38.6 57.8

141 14.6 11.4 17.2





#11

Tert butyl alcohol

Concen: 130.033 ug/l

RT: 2.989 min Scan# 31

Delta R.T. 0.024 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC020

Tgt Ion: 59 Resp: 2961

Ion Ratio Lower Upper

59 100

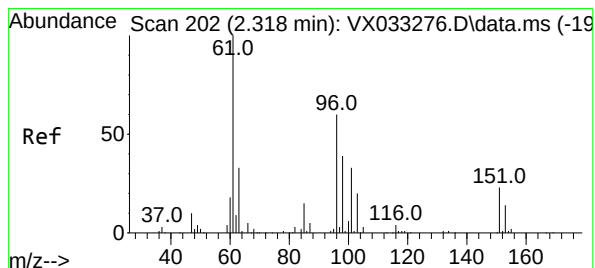
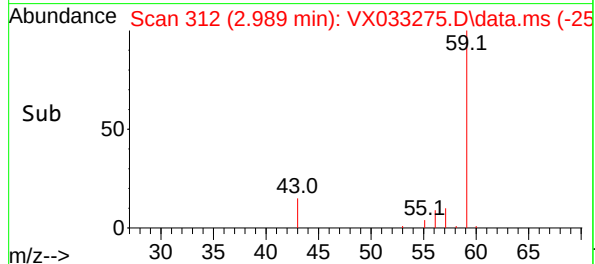
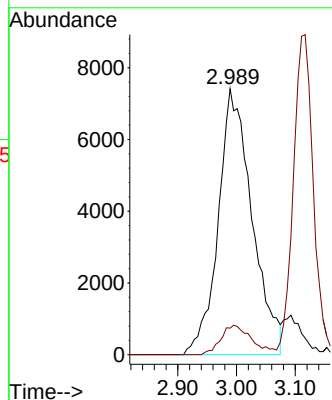
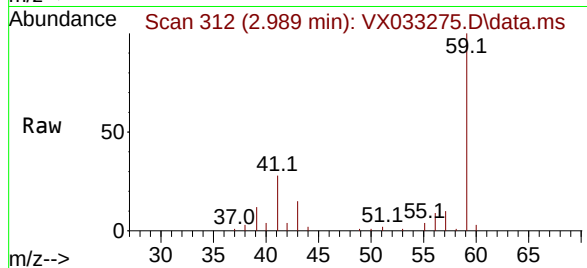
57 9.9 8.2 12.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#12

1,1-Dichloroethene

Concen: 23.156 ug/l

RT: 2.324 min Scan# 203

Delta R.T. 0.005 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

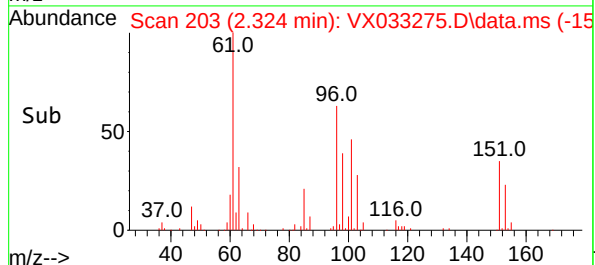
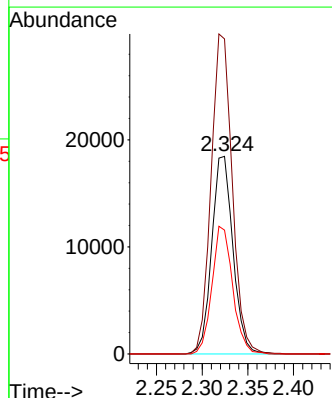
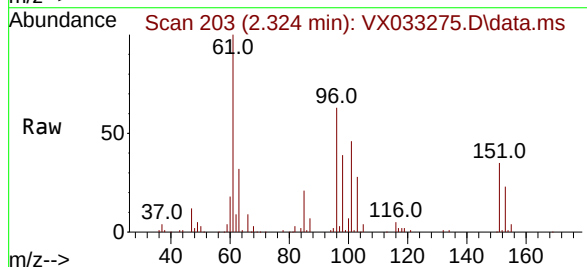
Tgt Ion: 96 Resp: 29810

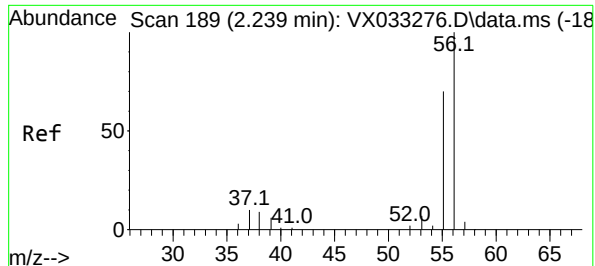
Ion Ratio Lower Upper

96 100

61 159.4 125.1 187.7

98 62.7 50.6 76.0





#13

Acrolein

Concen: 93.690 ug/l

RT: 2.239 min Scan# 189

Delta R.T. 0.006 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC020

Tgt Ion: 56 Resp: 24508

Ion Ratio Lower Upper

56 100

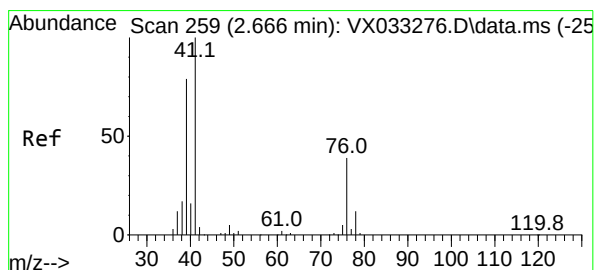
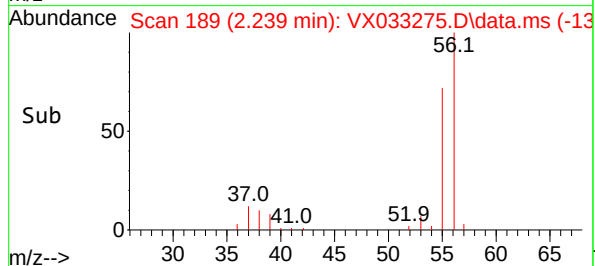
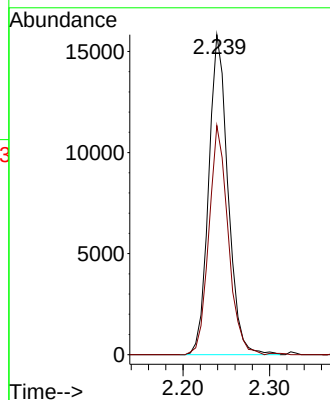
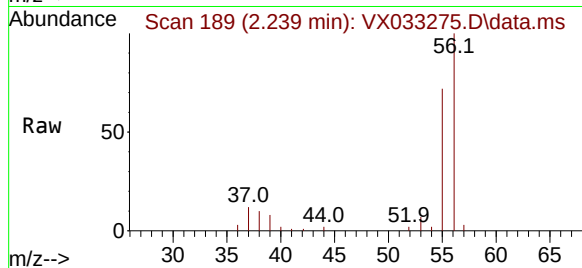
55 71.5 56.9 85.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#14

Allyl chloride

Concen: 22.656 ug/l

RT: 2.666 min Scan# 259

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

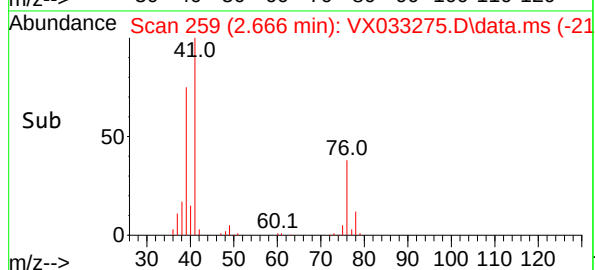
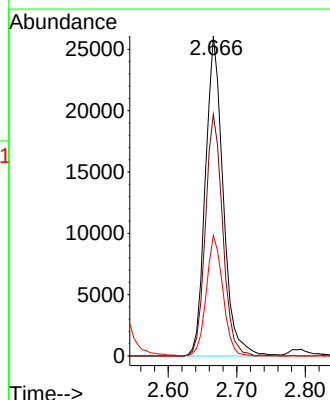
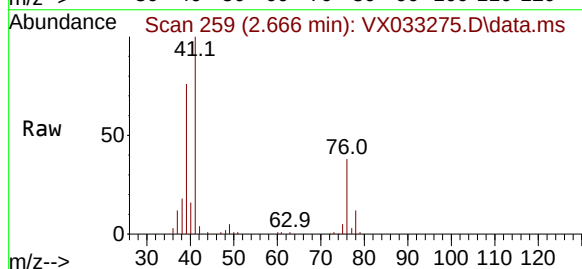
Tgt Ion: 41 Resp: 47089

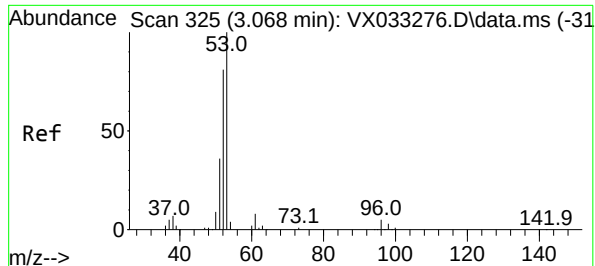
Ion Ratio Lower Upper

41 100

39 73.2 61.4 92.2

76 35.1 29.2 43.8





#15

Acrylonitrile

Concen: 122.500 ug/l

RT: 3.068 min Scan# 31

Delta R.T. 0.006 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

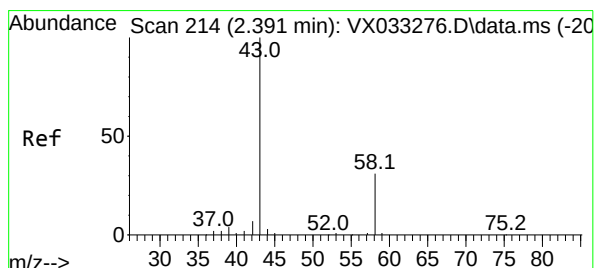
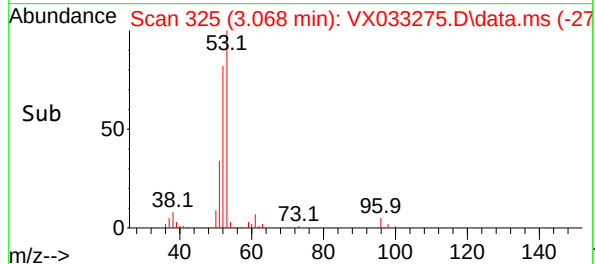
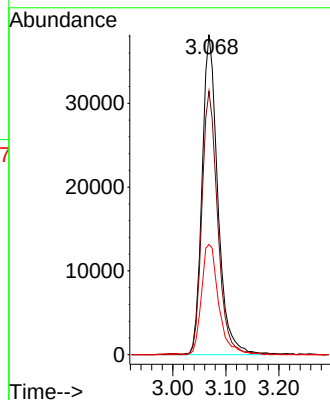
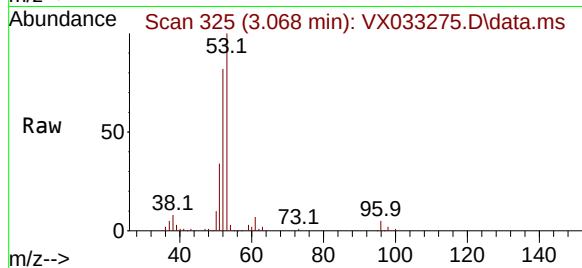
VSTDICC020

|             |             |
|-------------|-------------|
| Tgt Ion: 53 | Resp: 7890  |
| Ion Ratio   | Lower Upper |
| 53 100      |             |
| 52 82.5     | 67.4 101.0  |
| 51 37.5     | 30.3 45.5   |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#16

Acetone

Concen: 116.594 ug/l

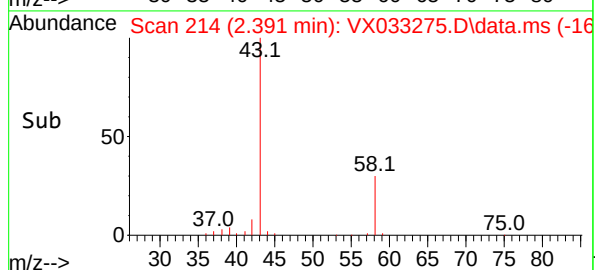
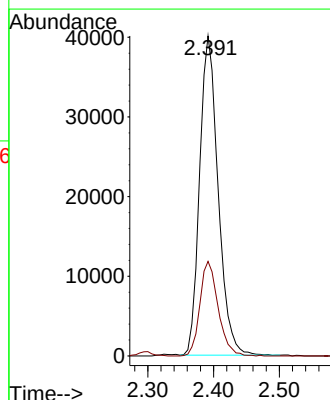
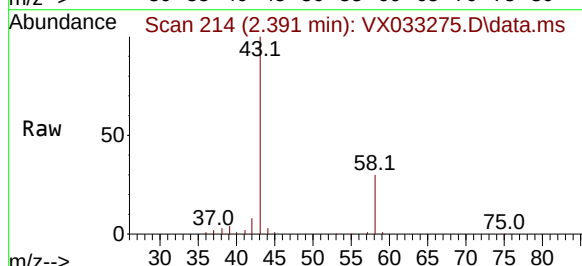
RT: 2.391 min Scan# 214

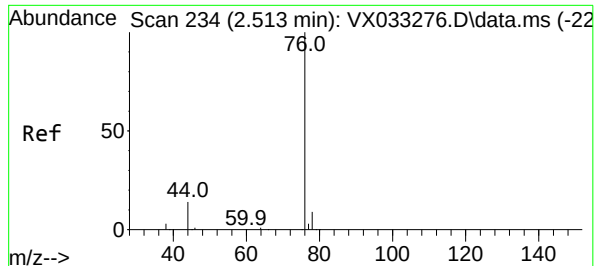
Delta R.T. 0.011 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

|             |             |
|-------------|-------------|
| Tgt Ion: 43 | Resp: 78227 |
| Ion Ratio   | Lower Upper |
| 43 100      |             |
| 58 29.6     | 23.8 35.8   |





#17

Carbon Disulfide

Concen: 21.356 ug/l

RT: 2.513 min Scan# 21

Delta R.T. -0.001 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 76 Resp: 75958

Ion Ratio Lower Upper

76 100

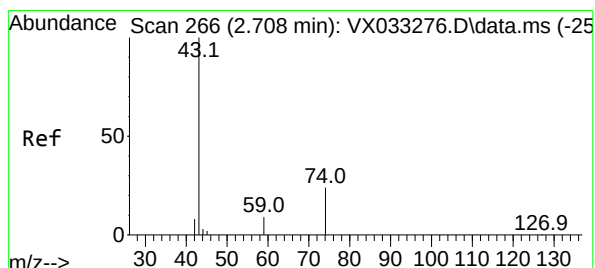
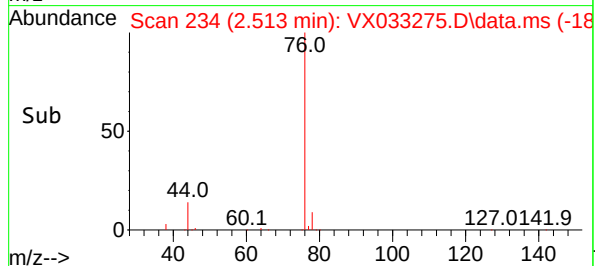
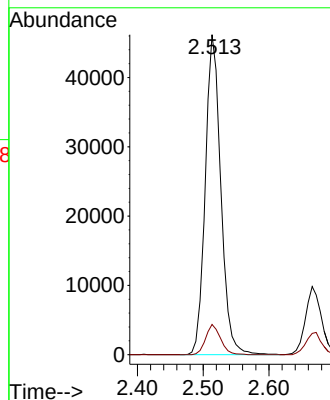
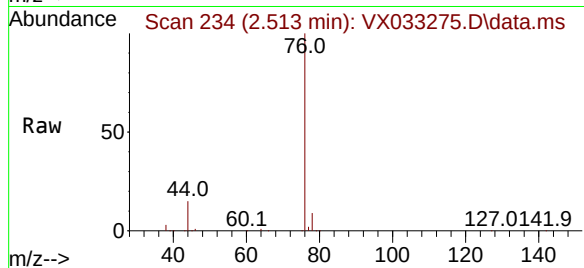
78 9.4 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#18

Methyl Acetate

Concen: 24.243 ug/l

RT: 2.708 min Scan# 266

Delta R.T. 0.005 min

Lab File: VX033275.D

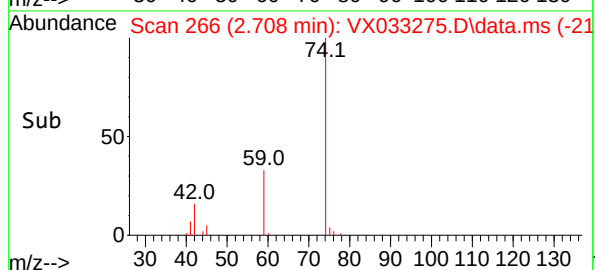
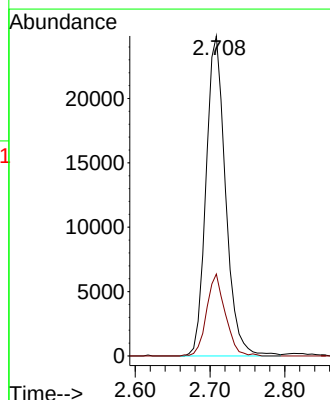
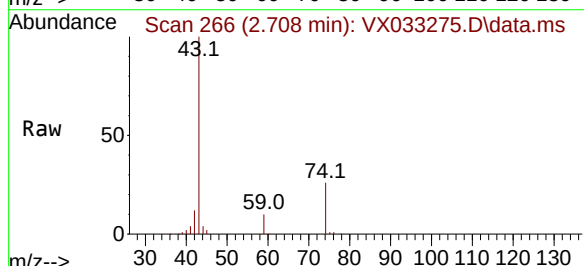
Acq: 07 Dec 2022 10:32

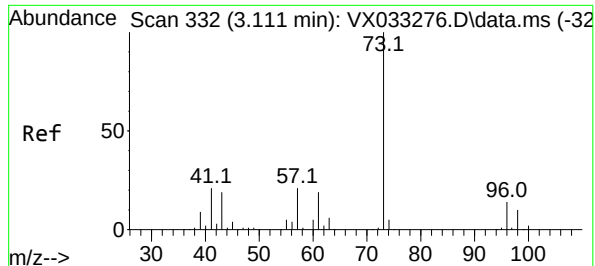
Tgt Ion: 43 Resp: 45026

Ion Ratio Lower Upper

43 100

74 24.5 19.4 29.0





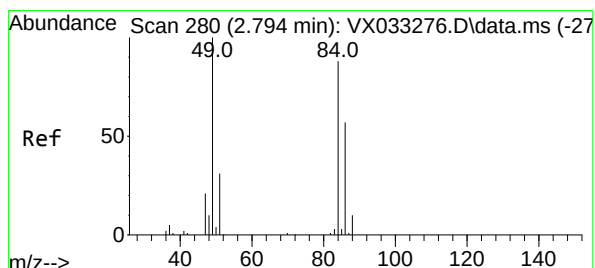
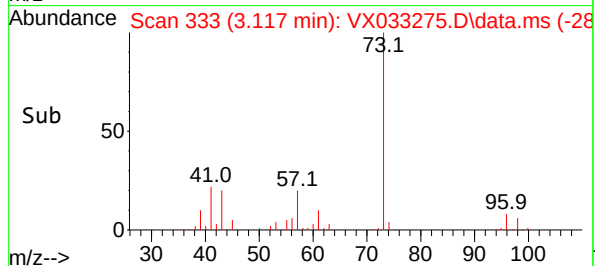
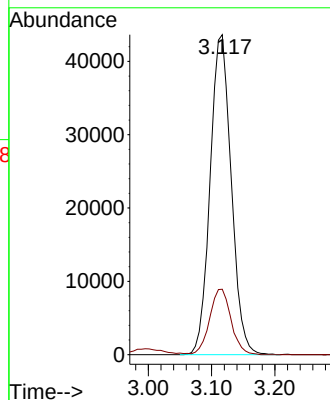
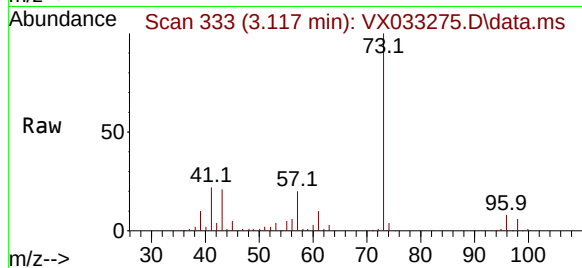
#19  
Methyl tert-butyl Ether  
Concen: 22.619 ug/l  
RT: 3.117 min Scan# 311  
Delta R.T. 0.006 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020

Tgt Ion: 73 Resp: 10098  
Ion Ratio Lower Upper  
73 100  
57 20.4 16.6 25.0

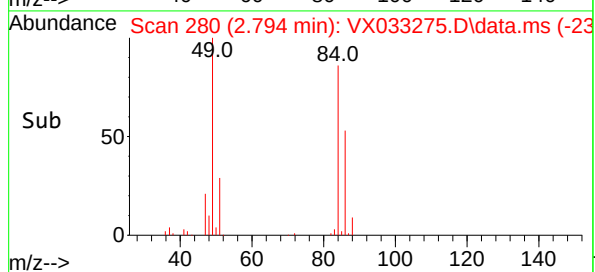
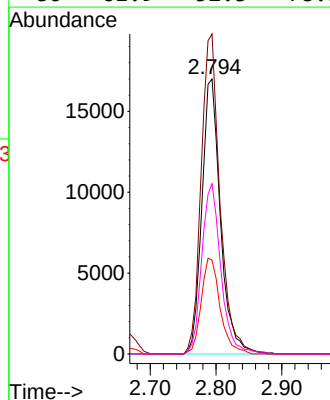
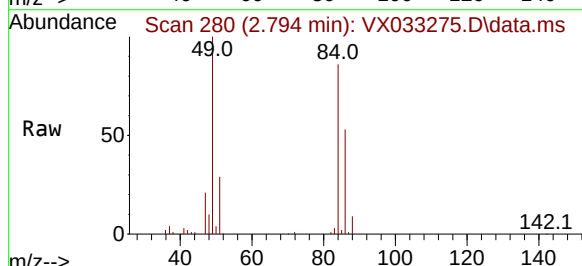
Manual Integrations  
APPROVED

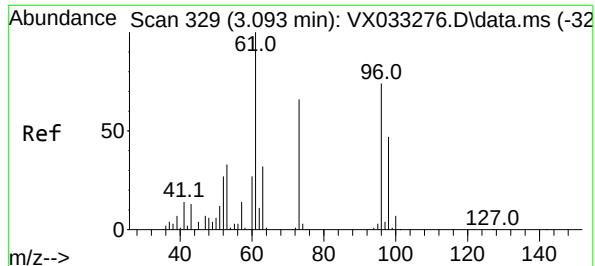
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#20  
Methylene Chloride  
Concen: 20.670 ug/l  
RT: 2.794 min Scan# 280  
Delta R.T. 0.006 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Tgt Ion: 84 Resp: 33410  
Ion Ratio Lower Upper  
84 100  
49 116.4 101.0 151.6  
51 34.1 31.1 46.7  
86 61.9 52.3 78.5





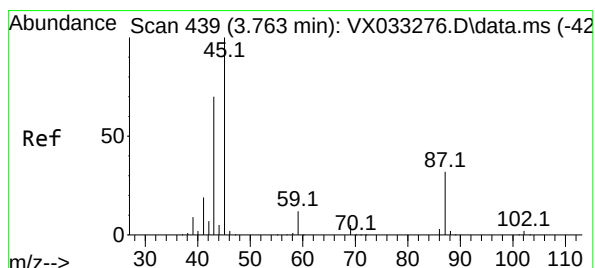
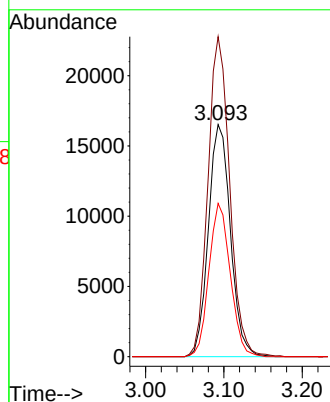
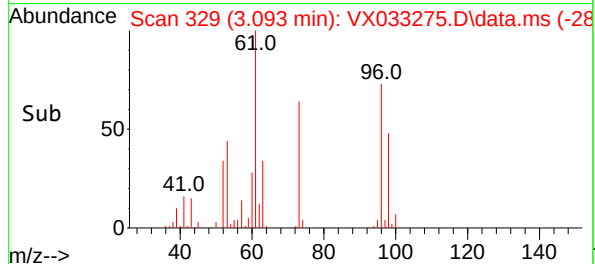
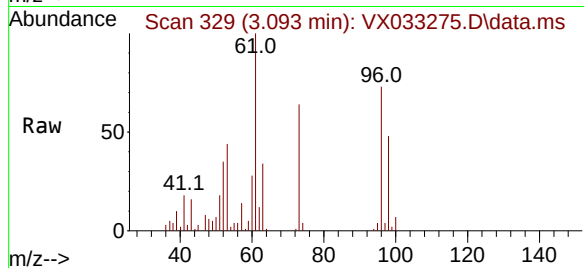
#21  
trans-1,2-Dichloroethene  
Concen: 21.939 ug/l  
RT: 3.093 min Scan# 31  
Delta R.T. -0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020

Tgt Ion: 96 Resp: 32308  
Ion Ratio Lower Upper  
96 100  
61 137.9 106.6 160.0  
98 66.0 51.0 76.6

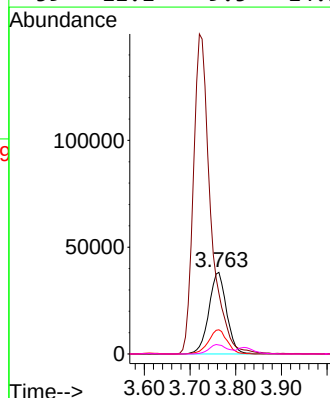
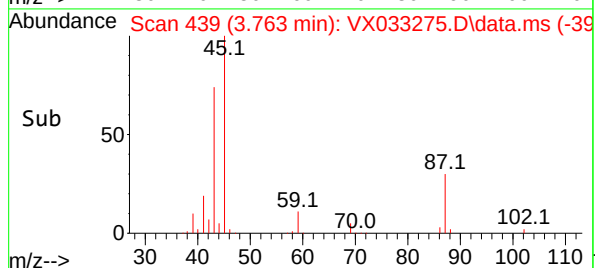
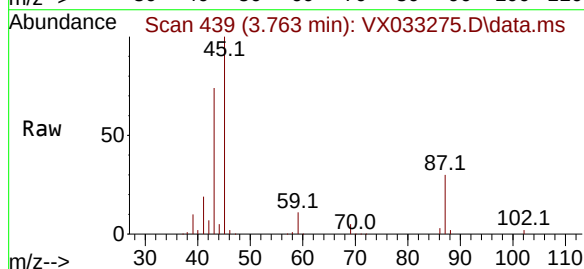
Manual Integrations  
APPROVED

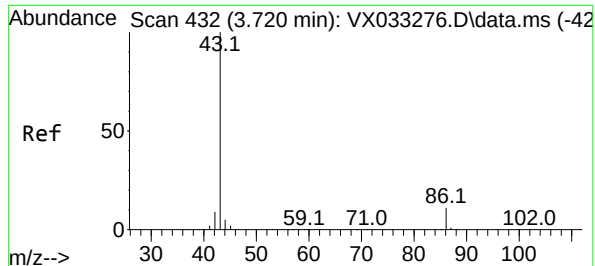
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#22  
Diisopropyl ether  
Concen: 22.725 ug/l  
RT: 3.763 min Scan# 439  
Delta R.T. 0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Tgt Ion: 45 Resp: 102846  
Ion Ratio Lower Upper  
45 100  
43 73.6 56.4 84.6  
87 29.6 24.4 36.6  
59 11.1 9.5 14.3





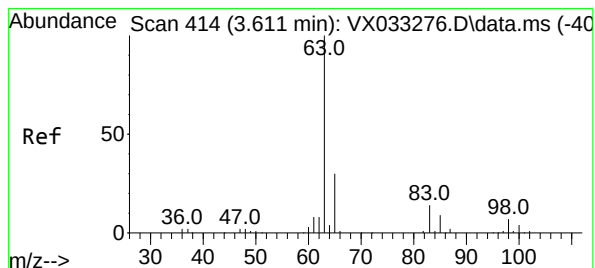
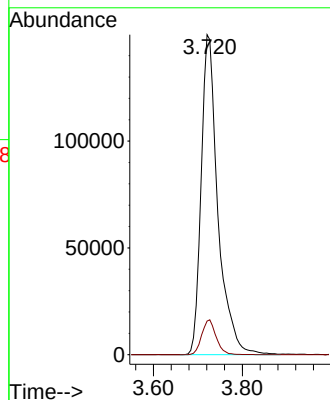
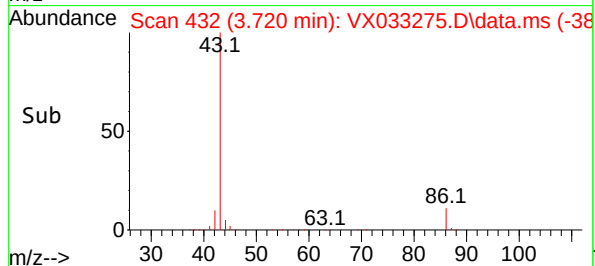
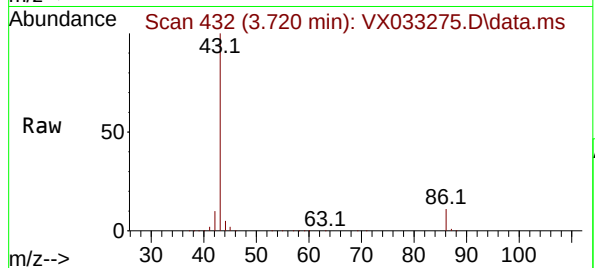
#23  
Vinyl Acetate  
Concen: 111.048 ug/l  
RT: 3.720 min Scan# 41  
Delta R.T. -0.001 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020

Tgt Ion: 43 Resp: 393390  
Ion Ratio Lower Upper  
43 100  
86 10.5 8.6 12.8

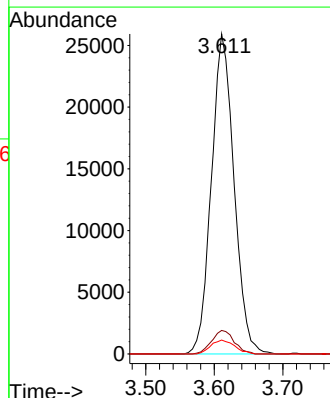
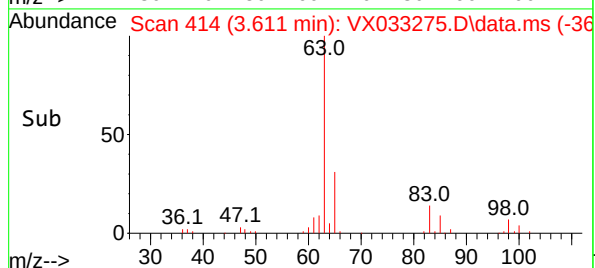
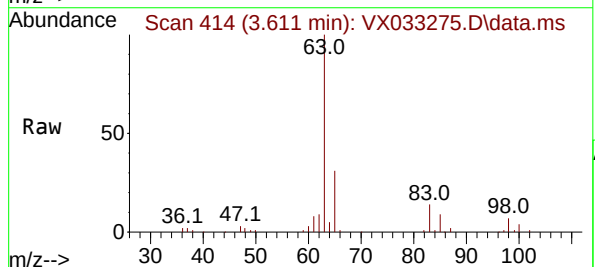
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

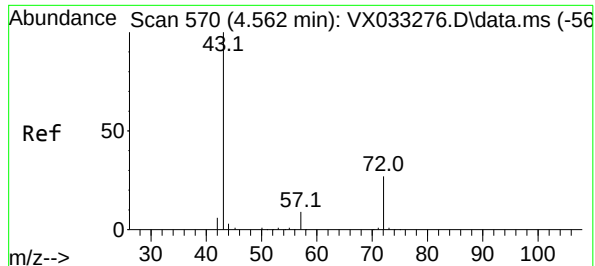


#24  
1,1-Dichloroethane  
Concen: 22.928 ug/l  
RT: 3.611 min Scan# 414  
Delta R.T. -0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Tgt Ion: 63 Resp: 59379  
Ion Ratio Lower Upper  
63 100  
98 7.3 3.5 10.4  
100 4.4 2.3 6.8







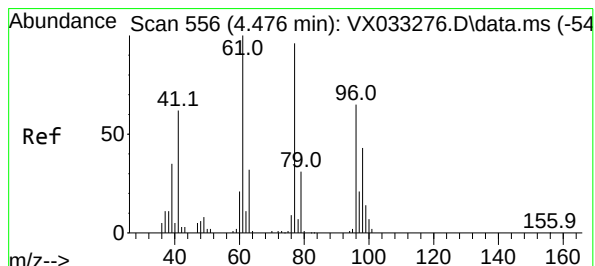
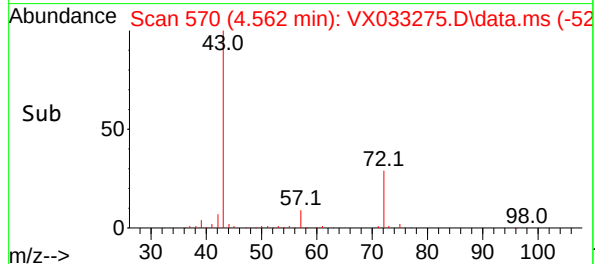
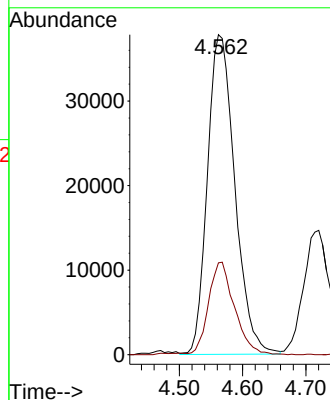
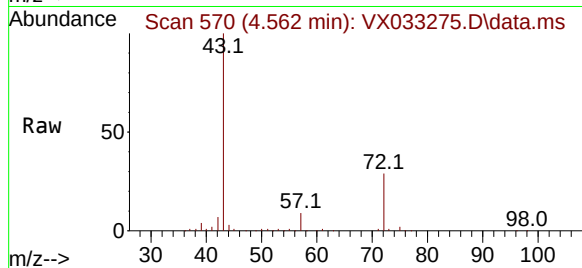
#25  
2-Butanone  
Concen: 123.133 ug/l  
RT: 4.562 min Scan# 51  
Delta R.T. 0.006 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Instrument :  
MSVOA\_X  
Client Sample Id :  
VSTDIC020

Tgt Ion: 43 Resp: 113918  
Ion Ratio Lower Upper  
43 100  
72 28.6 22.2 33.2

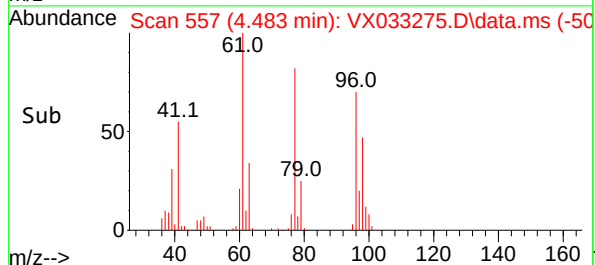
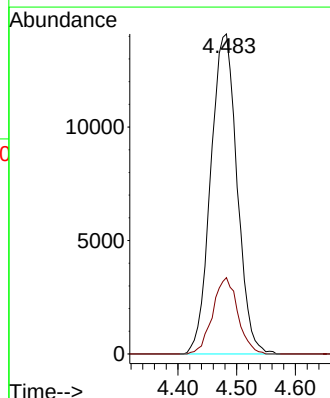
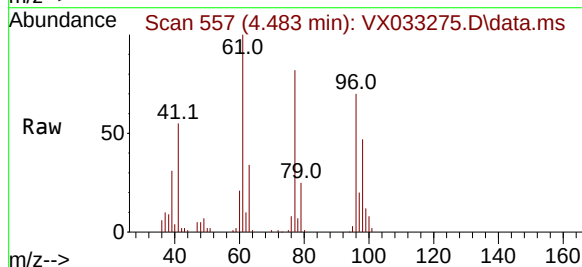
Manual Integrations  
APPROVED

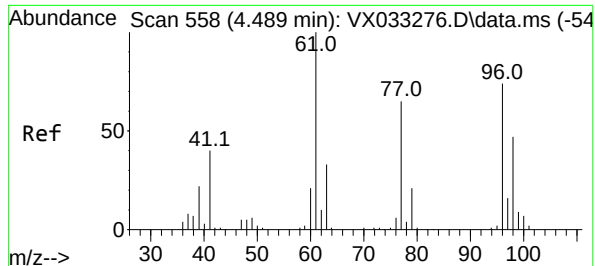
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#26  
2,2-Dichloropropane  
Concen: 21.089 ug/l  
RT: 4.483 min Scan# 557  
Delta R.T. 0.006 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Tgt Ion: 77 Resp: 43915  
Ion Ratio Lower Upper  
77 100  
97 22.8 11.4 34.1





#27

cis-1,2-Dichloroethene

Concen: 22.802 ug/l

RT: 4.495 min Scan# 51

Delta R.T. 0.006 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 96 Resp: 3815

Ion Ratio Lower Upper

96 100

61 141.4 0.0 286.0

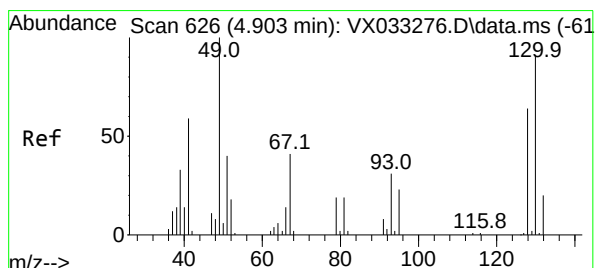
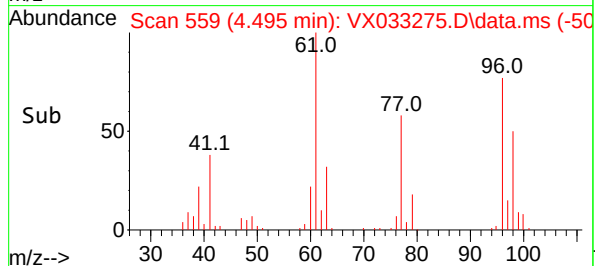
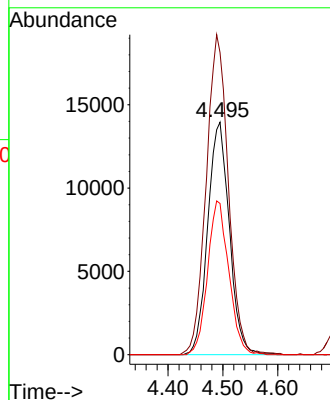
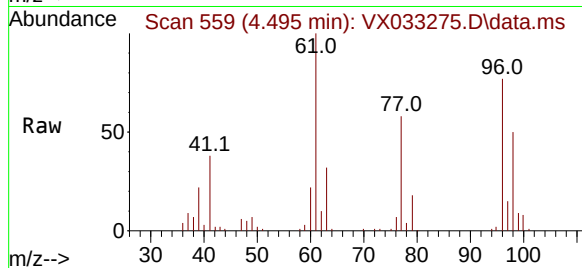
98 65.0 0.0 129.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#28

Bromochloromethane

Concen: 21.092 ug/l

RT: 4.897 min Scan# 625

Delta R.T. -0.007 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

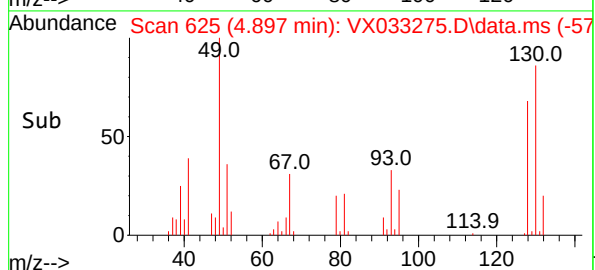
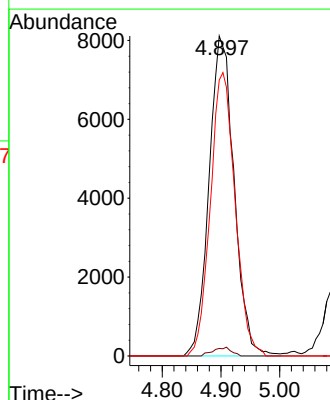
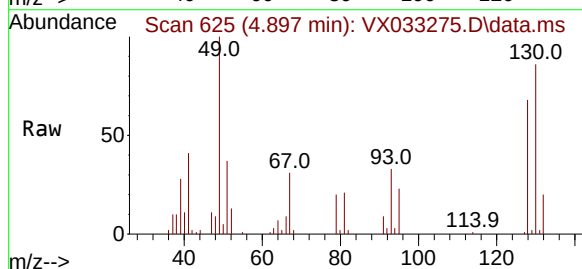
Tgt Ion: 49 Resp: 24001

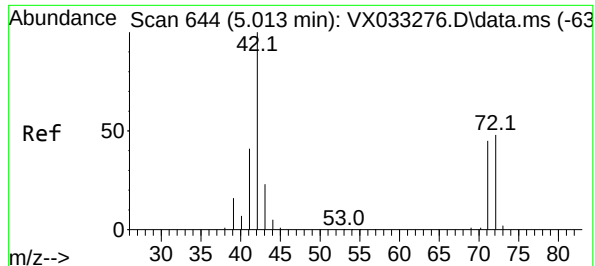
Ion Ratio Lower Upper

49 100

129 2.0 0.0 3.8

130 87.4 67.5 101.3





#29

Tetrahydrofuran

Concen: 123.883 ug/l

RT: 5.013 min Scan# 644

Delta R.T. 0.012 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

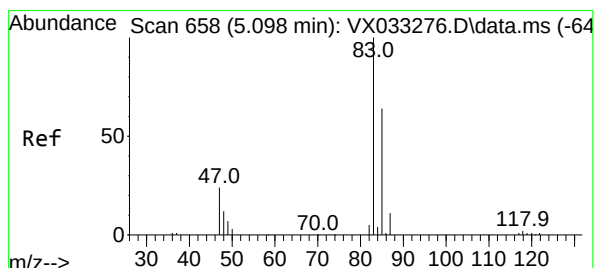
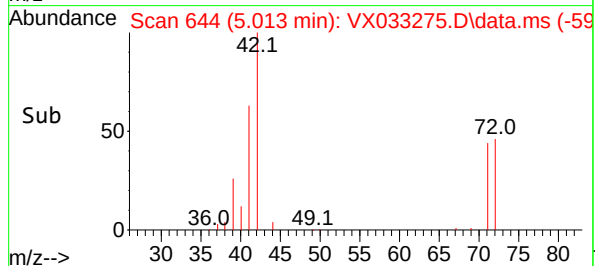
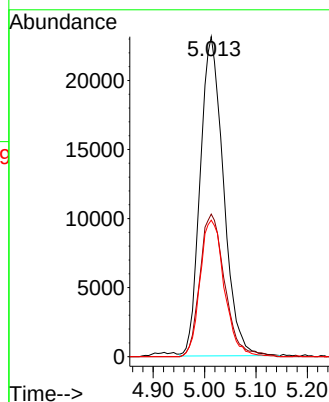
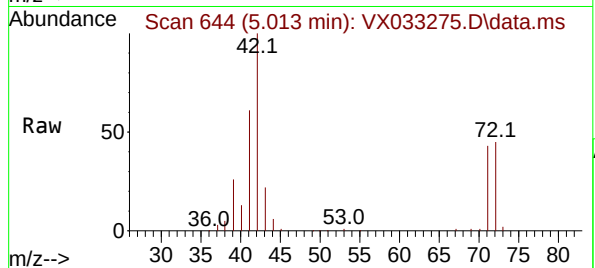
VSTDIC020

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 72720 |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 47.8  | 37.6  | 56.4  |
| 71       | 44.5  | 34.7  | 52.1  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#30

Chloroform

Concen: 22.953 ug/l

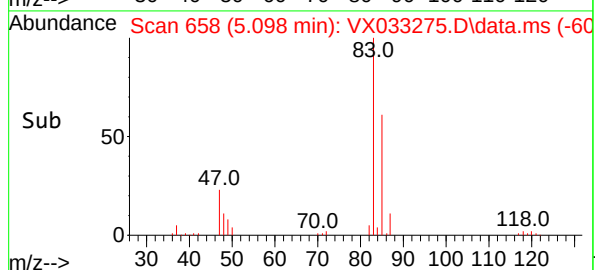
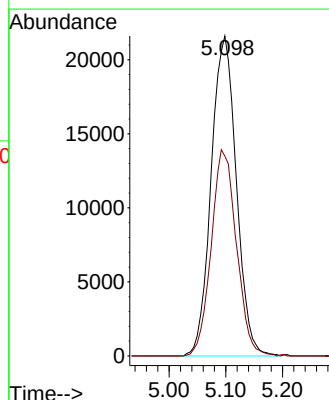
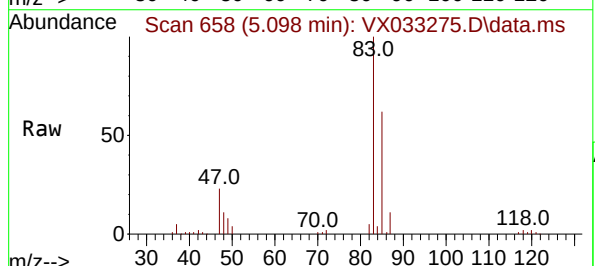
RT: 5.098 min Scan# 658

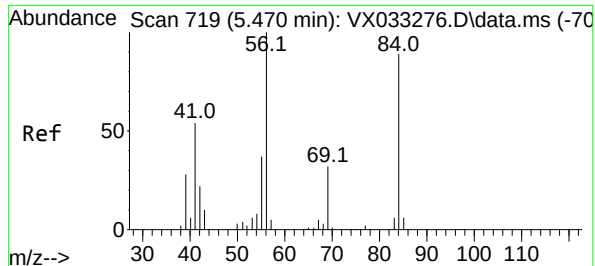
Delta R.T. -0.001 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 66575 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 62.5  | 51.1  | 76.7  |





#31

Cyclohexane

Concen: 22.212 ug/l

RT: 5.476 min Scan# 719

Delta R.T. 0.006 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 56 Resp: 51704

Ion Ratio Lower Upper

56 100

69 31.4 24.1 36.1

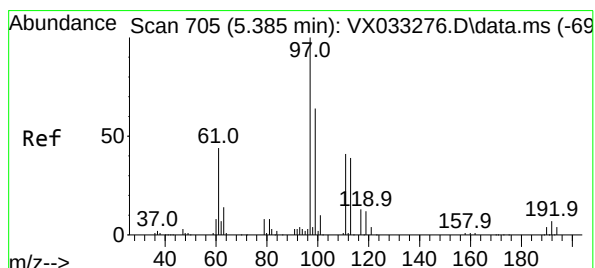
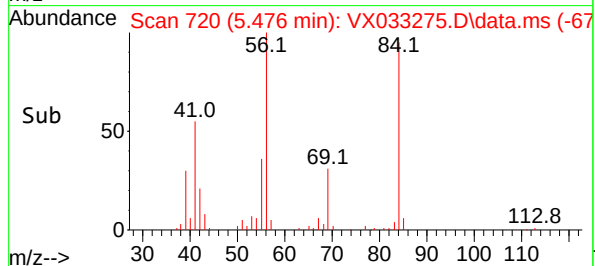
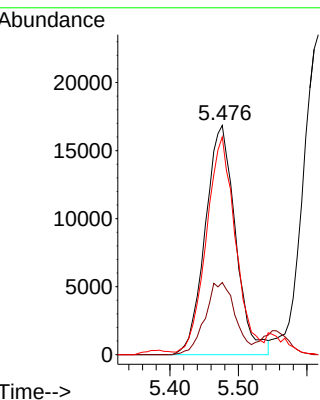
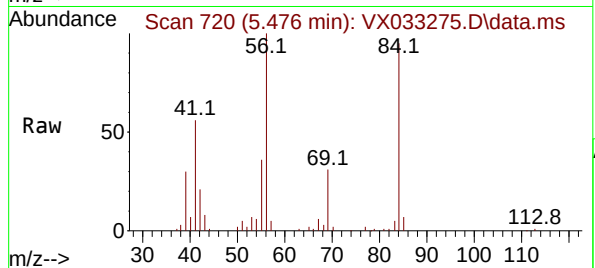
84 93.6 66.9 100.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#32

1,1,1-Trichloroethane

Concen: 22.482 ug/l

RT: 5.385 min Scan# 705

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

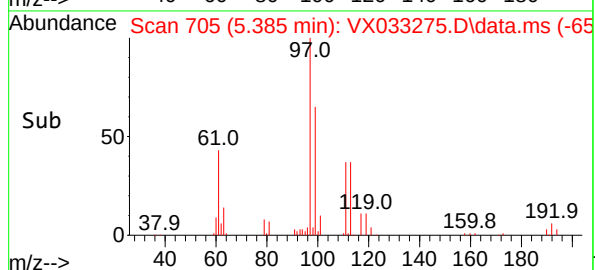
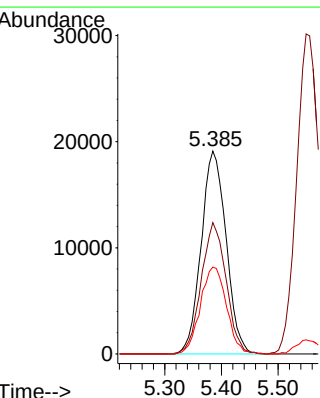
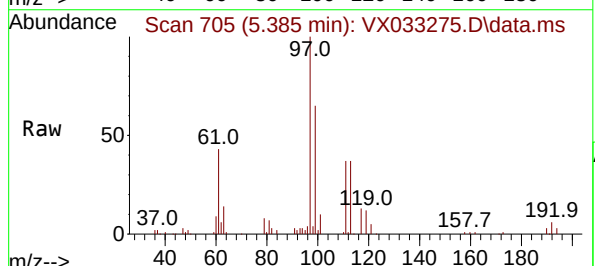
Tgt Ion: 97 Resp: 58398

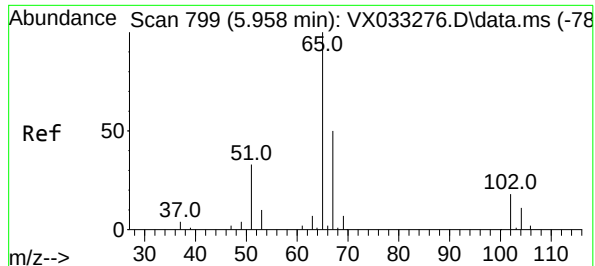
Ion Ratio Lower Upper

97 100

99 64.5 51.4 77.0

61 44.8 35.2 52.8





#33

1,2-Dichloroethane-d4

Concen: 12.031 ug/l

RT: 5.964 min Scan# 800

Delta R.T. 0.006 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 65 Resp: 19119

Ion Ratio Lower Upper

65 100

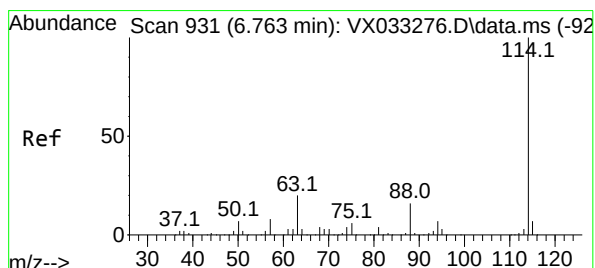
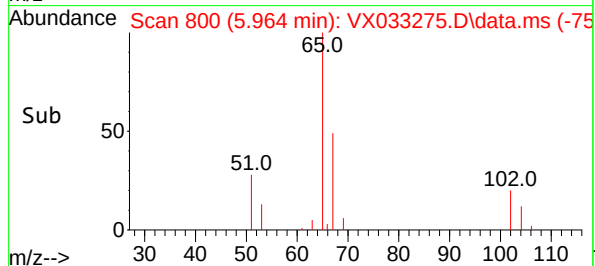
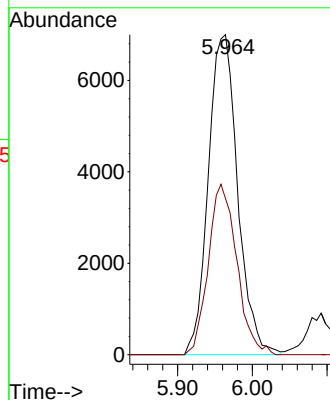
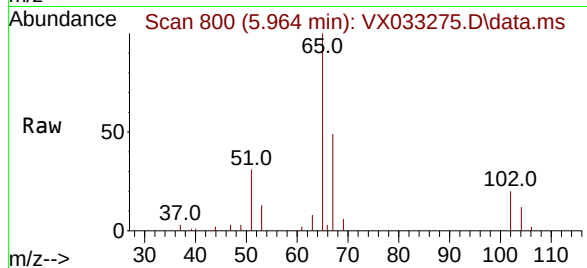
67 51.7 0.0 101.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.763 min Scan# 931

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

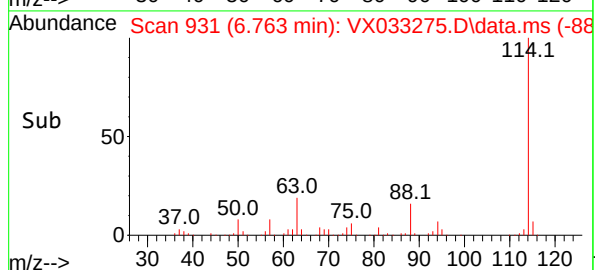
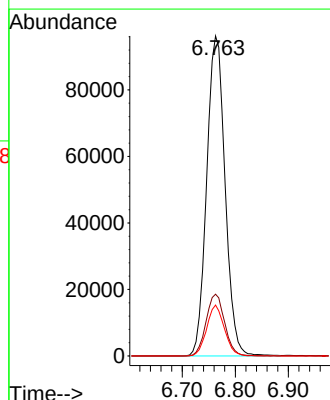
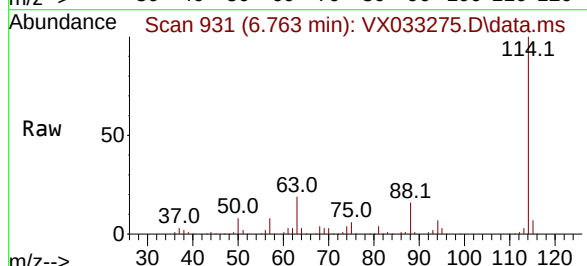
Tgt Ion:114 Resp: 231761

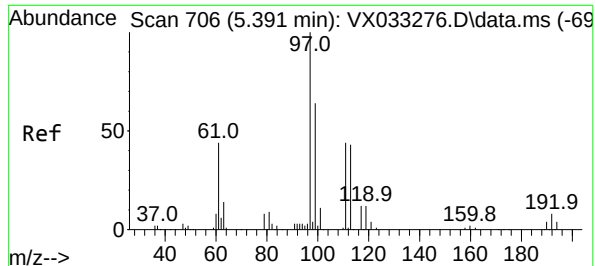
Ion Ratio Lower Upper

114 100

63 19.3 0.0 41.6

88 15.9 0.0 33.4





#35

Dibromofluoromethane

Concen: 16.607 ug/l

RT: 5.391 min Scan# 706

Delta R.T. 0.006 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion:113 Resp: 21699

Ion Ratio Lower Upper

113 100

111 99.9 82.4 123.6

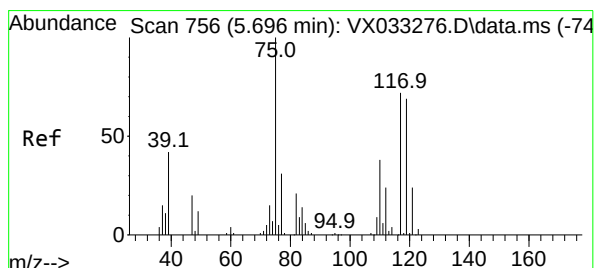
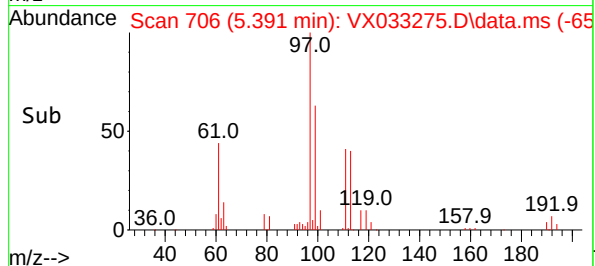
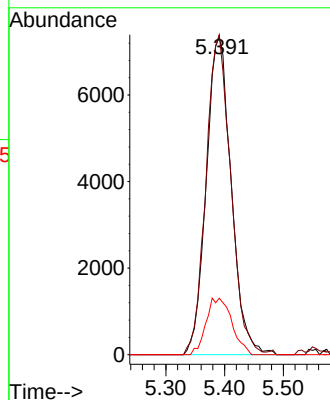
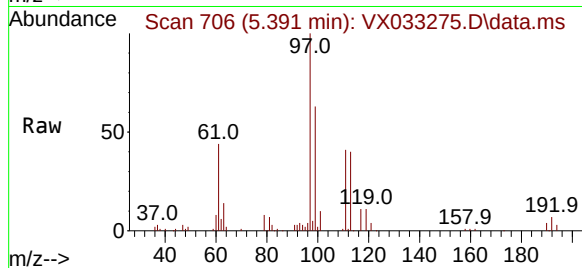
192 18.3 15.4 23.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#36

1,1-Dichloropropene

Concen: 22.181 ug/l

RT: 5.696 min Scan# 756

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

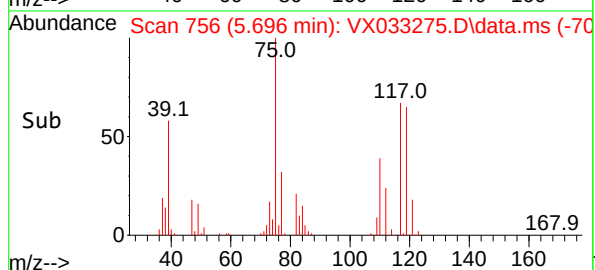
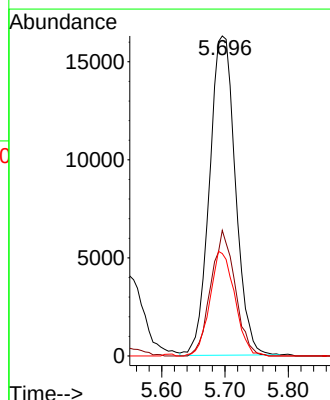
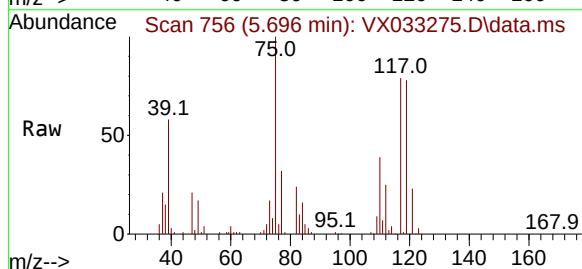
Tgt Ion: 75 Resp: 46341

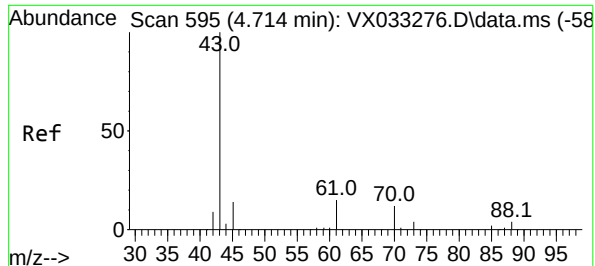
Ion Ratio Lower Upper

75 100

110 36.7 18.4 55.2

77 31.5 24.5 36.7





#37

Ethyl Acetate

Concen: 24.342 ug/l

RT: 4.720 min Scan# 596

Delta R.T. 0.005 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 43 Resp: 44368

Ion Ratio Lower Upper

43 100

61 13.7 11.5 17.3

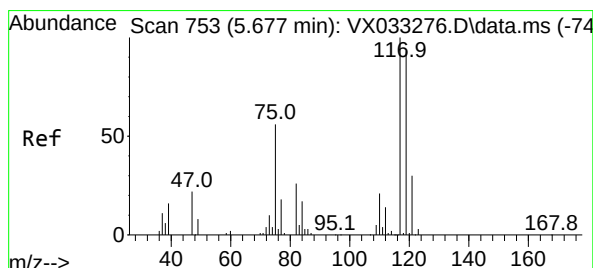
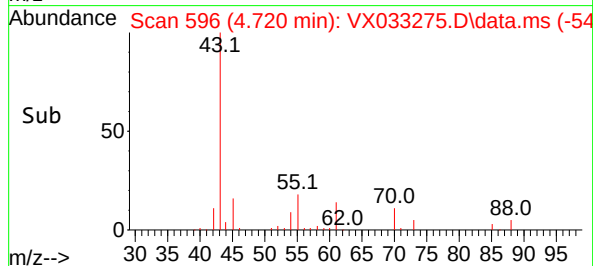
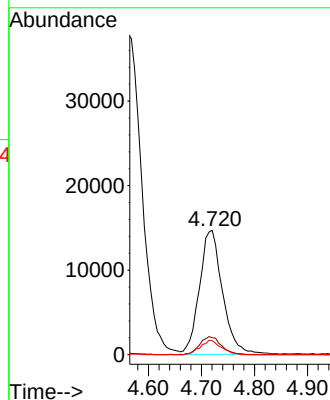
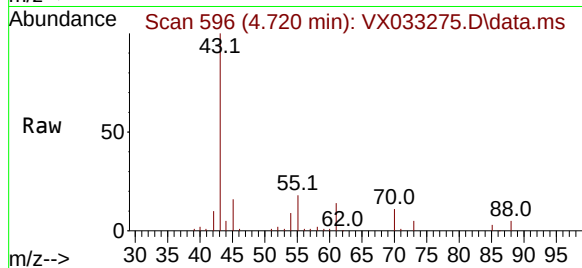
70 10.3 9.1 13.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#38

Carbon Tetrachloride

Concen: 22.637 ug/l

RT: 5.677 min Scan# 753

Delta R.T. -0.007 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

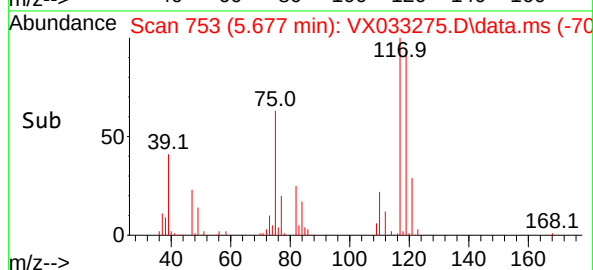
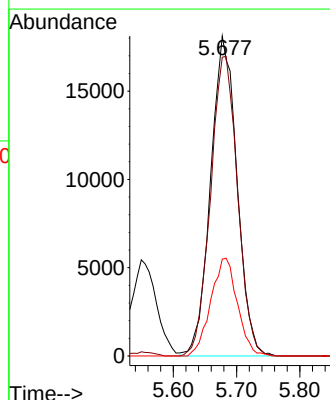
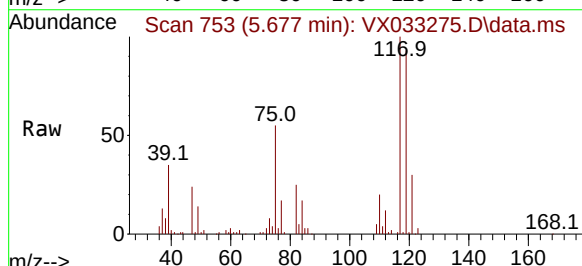
Tgt Ion:117 Resp: 52464

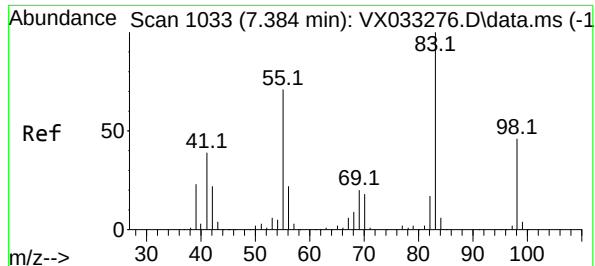
Ion Ratio Lower Upper

117 100

119 93.3 77.2 115.8

121 30.3 25.8 38.6





#39

Methylcyclohexane

Concen: 22.317 ug/l

RT: 7.384 min Scan# 1033

Delta R.T. -0.001 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 83 Resp: 53198

Ion Ratio Lower Upper

83 100

55 70.0 58.4 87.6

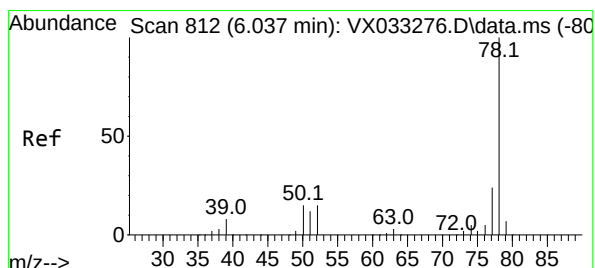
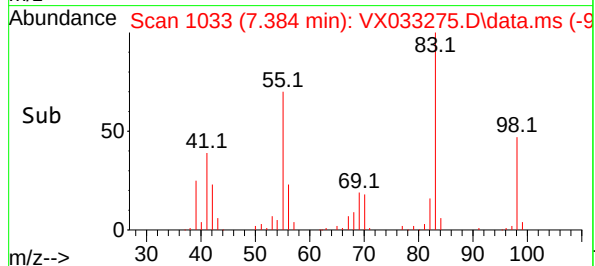
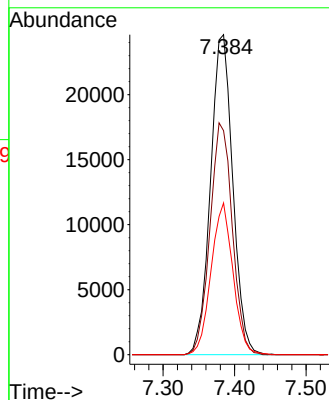
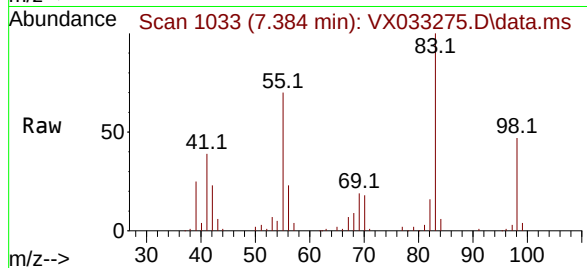
98 47.4 37.2 55.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#40

Benzene

Concen: 23.165 ug/l

RT: 6.037 min Scan# 812

Delta R.T. 0.000 min

Lab File: VX033275.D

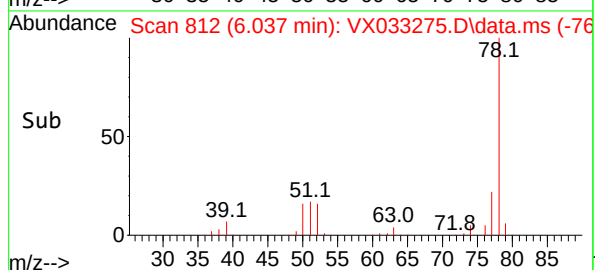
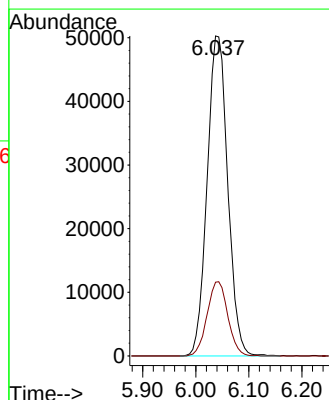
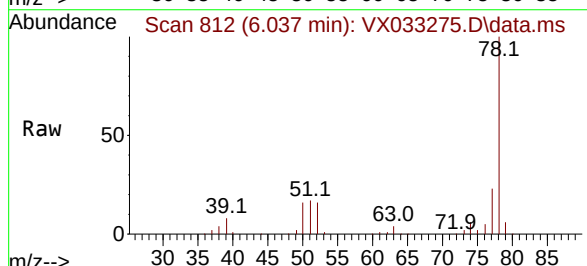
Acq: 07 Dec 2022 10:32

Tgt Ion: 78 Resp: 135692

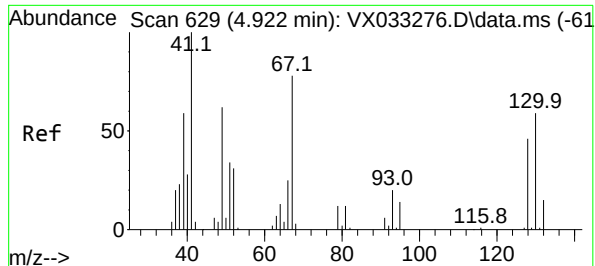
Ion Ratio Lower Upper

78 100

77 23.0 19.0 28.4







#41

Methacrylonitrile

Concen: 24.191 ug/l

RT: 4.928 min Scan# 61

Delta R.T. 0.006 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 41 Resp: 24810

Ion Ratio Lower Upper

41 100

39 56.4 47.5 71.3

67 75.3 60.5 90.7

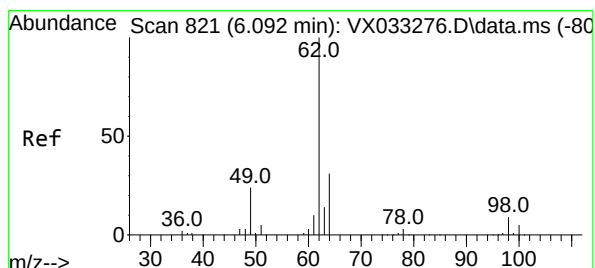
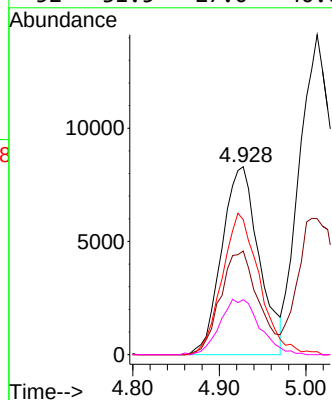
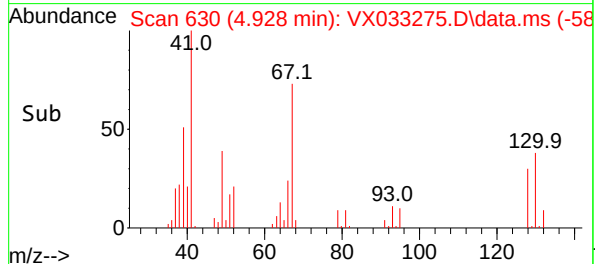
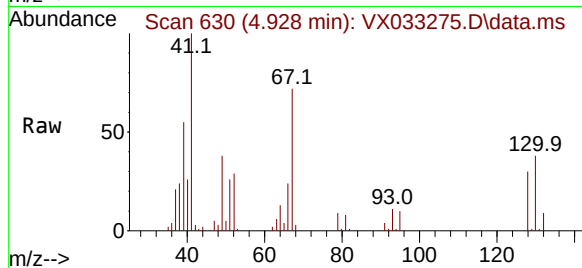
52 31.5 27.0 40.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#42

1,2-Dichloroethane

Concen: 23.029 ug/l

RT: 6.092 min Scan# 821

Delta R.T. 0.006 min

Lab File: VX033275.D

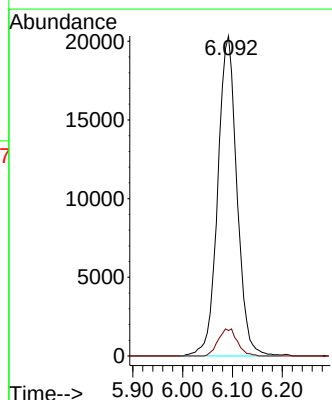
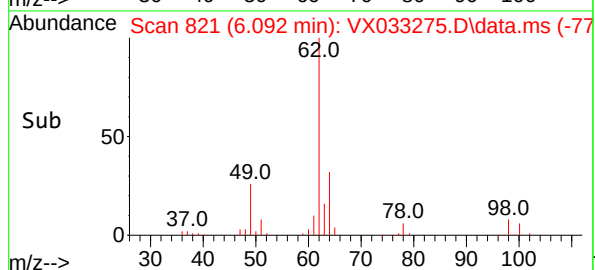
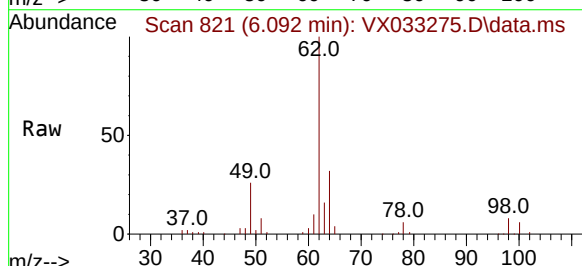
Acq: 07 Dec 2022 10:32

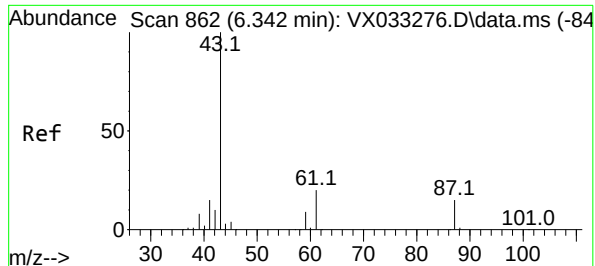
Tgt Ion: 62 Resp: 54314

Ion Ratio Lower Upper

62 100

98 8.5 0.0 16.0





#43

Isopropyl Acetate

Concen: 23.091 ug/l

RT: 6.342 min Scan# 862

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 43 Resp: 69604

Ion Ratio Lower Upper

43 100

61 19.4 15.4 23.0

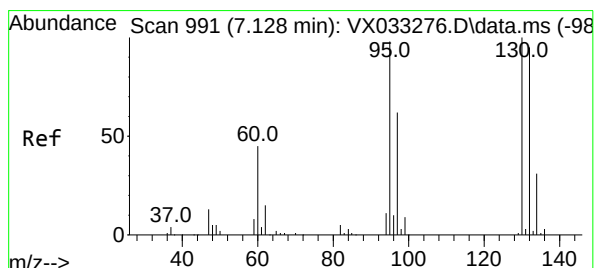
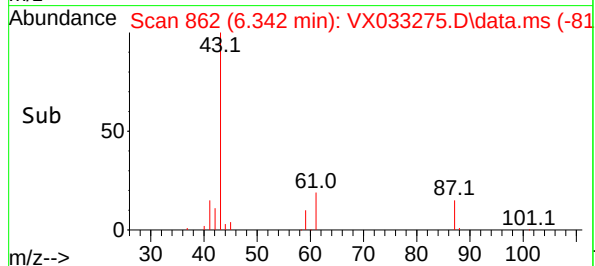
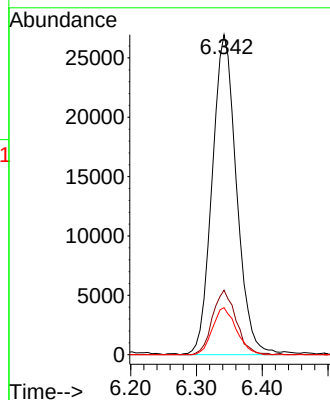
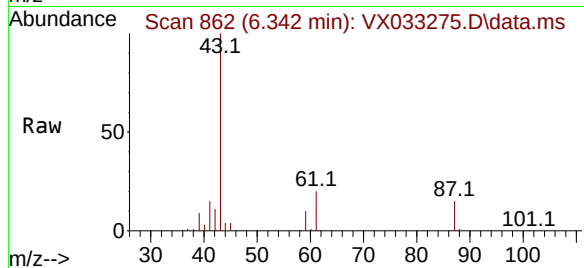
87 14.3 10.8 16.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#44

Trichloroethene

Concen: 23.116 ug/l

RT: 7.128 min Scan# 991

Delta R.T. -0.001 min

Lab File: VX033275.D

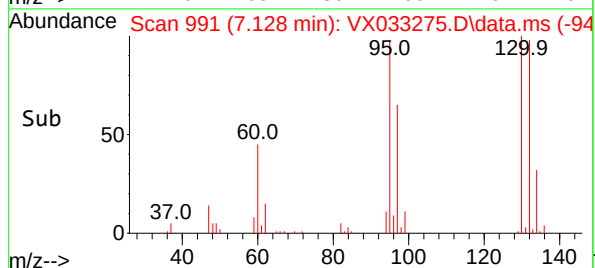
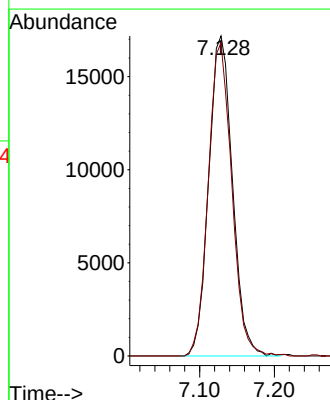
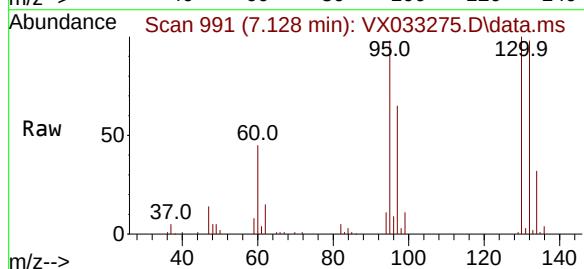
Acq: 07 Dec 2022 10:32

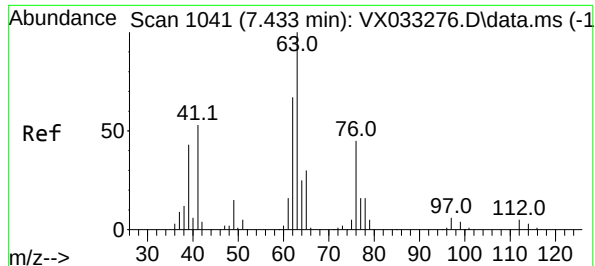
Tgt Ion:130 Resp: 37995

Ion Ratio Lower Upper

130 100

95 97.9 0.0 195.2





#45

1,2-Dichloropropane

Concen: 23.772 ug/l

RT: 7.433 min Scan# 1041

Delta R.T. -0.001 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 63 Resp: 3441

Ion Ratio Lower Upper

63 100

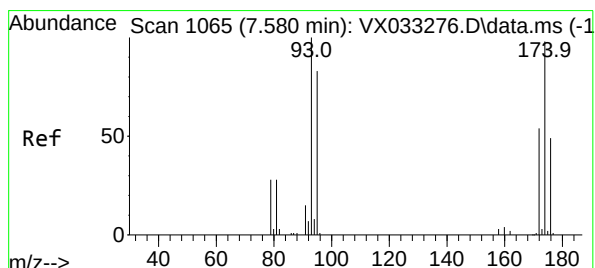
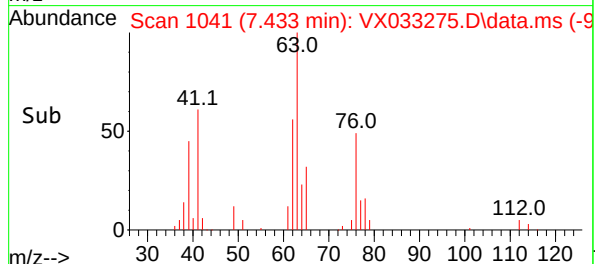
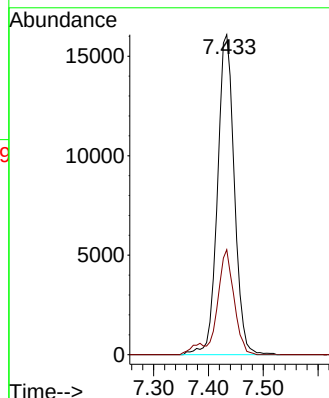
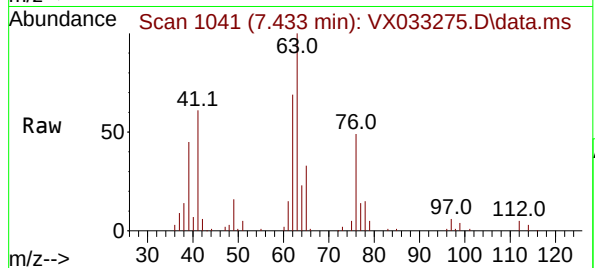
65 32.8 24.6 36.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#46

Dibromomethane

Concen: 23.049 ug/l

RT: 7.586 min Scan# 1066

Delta R.T. 0.006 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

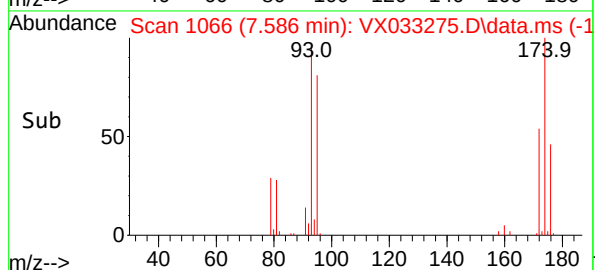
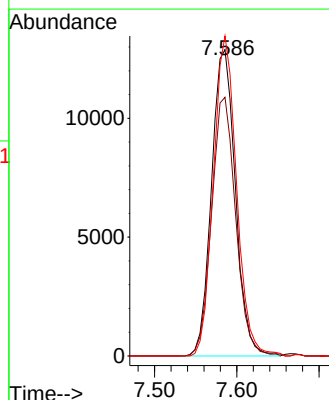
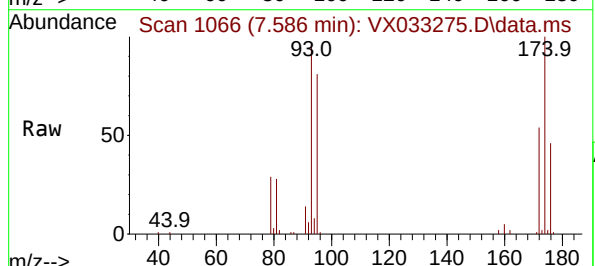
Tgt Ion: 93 Resp: 26034

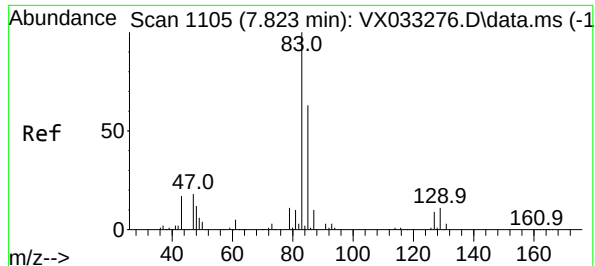
Ion Ratio Lower Upper

93 100

95 85.2 65.8 98.8

174 101.4 79.8 119.6





#47

Bromodichloromethane

Concen: 23.881 ug/l

RT: 7.823 min Scan# 1105

Delta R.T. -0.001 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

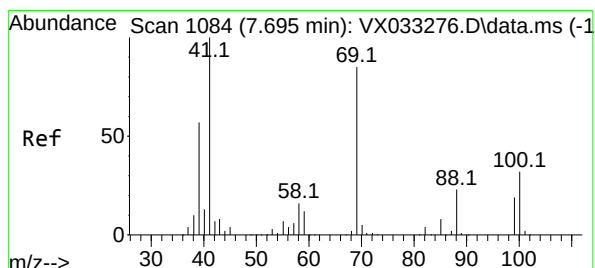
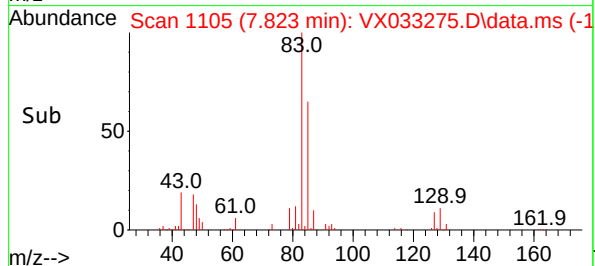
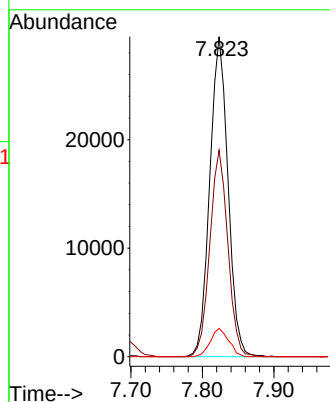
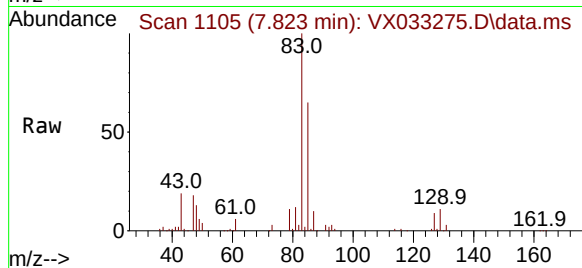
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 5212  |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 64.5  | 52.2  | 78.4  |
| 127      | 8.9   | 7.4   | 11.2  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#48

Methyl methacrylate

Concen: 23.071 ug/l

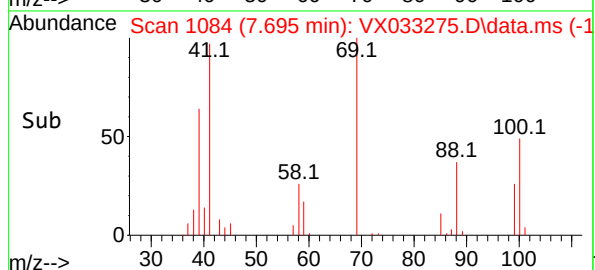
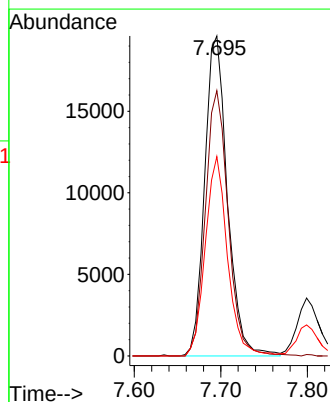
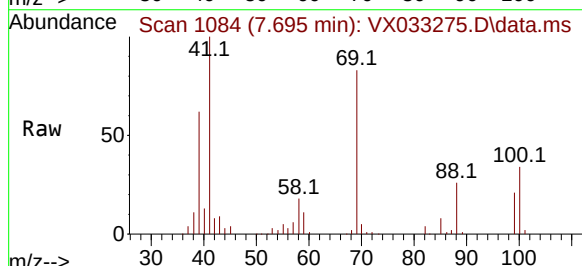
RT: 7.695 min Scan# 1084

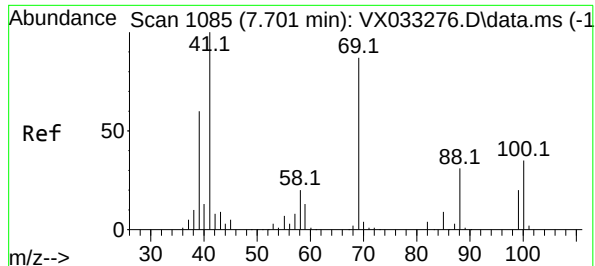
Delta R.T. -0.001 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 35797 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 69       | 83.0  | 65.1  | 97.7  |
| 39       | 61.1  | 51.9  | 77.9  |





#49

1,4-Dioxane

Concen: 594.851 ug/l

RT: 7.701 min Scan# 1085

Delta R.T. 0.030 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 88 Resp: 16990

Ion Ratio Lower Upper

88 100

43 31.6 26.6 39.8

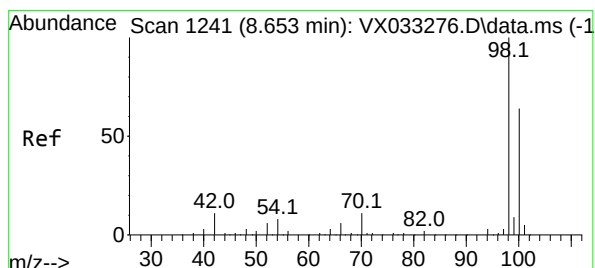
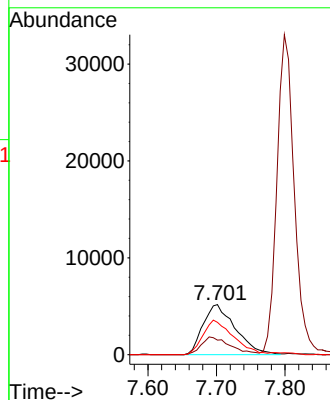
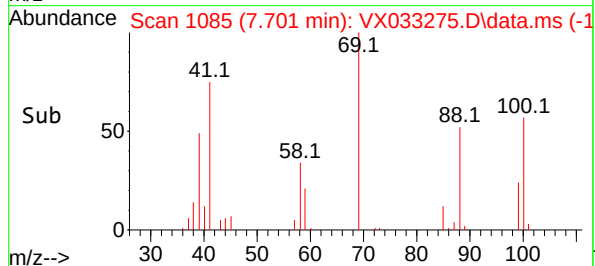
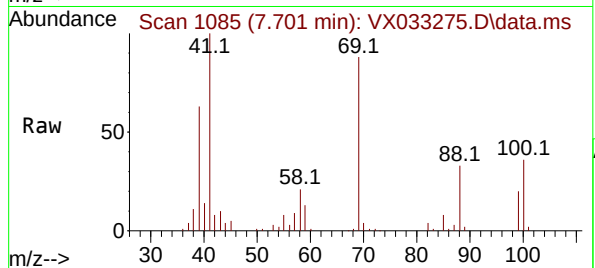
58 64.5 51.7 77.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#50

Toluene-d8

Concen: 10.662 ug/l

RT: 8.653 min Scan# 1241

Delta R.T. -0.000 min

Lab File: VX033275.D

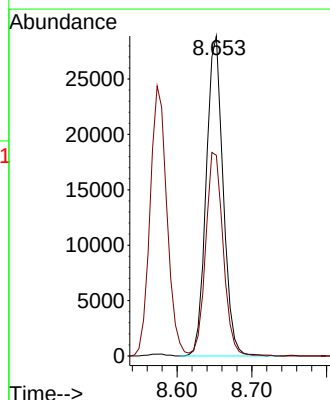
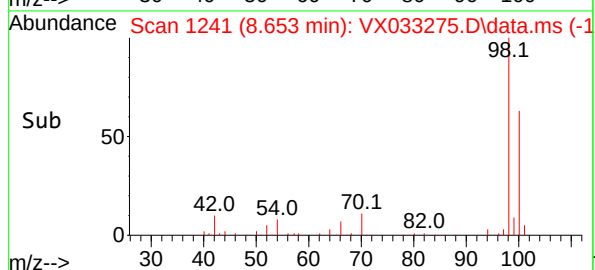
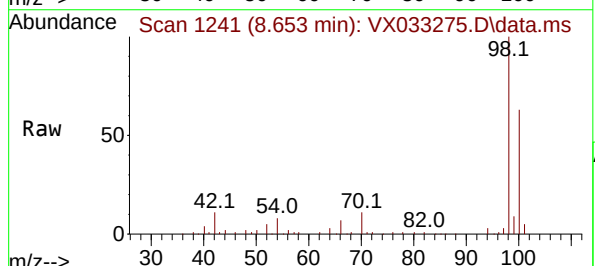
Acq: 07 Dec 2022 10:32

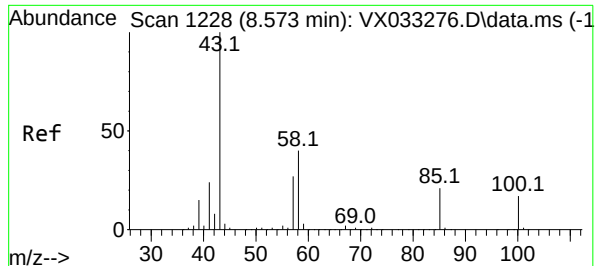
Tgt Ion: 98 Resp: 45228

Ion Ratio Lower Upper

98 100

100 65.9 50.9 76.3





#51

4-Methyl-2-Pentanone

Concen: 124.317 ug/l

RT: 8.573 min Scan# 1228

Delta R.T. -0.001 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 43 Resp: 23123

Ion Ratio Lower Upper

43 100

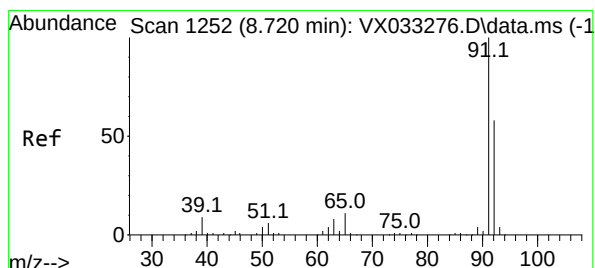
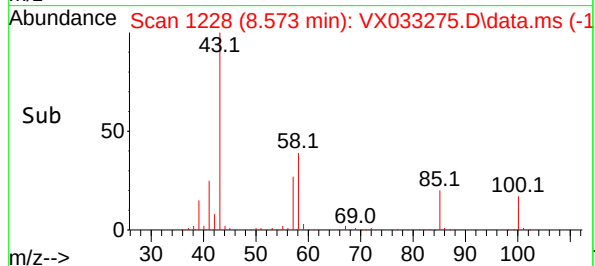
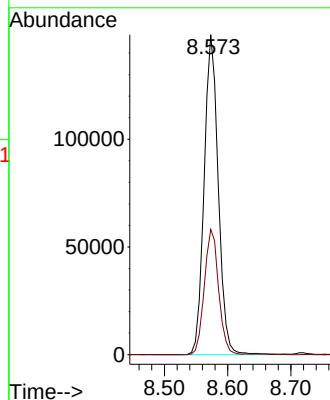
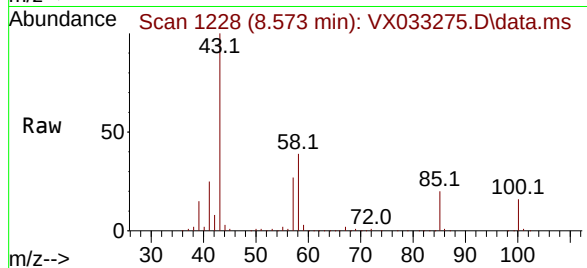
58 39.5 30.9 46.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#52

Toluene

Concen: 23.340 ug/l

RT: 8.720 min Scan# 1252

Delta R.T. -0.000 min

Lab File: VX033275.D

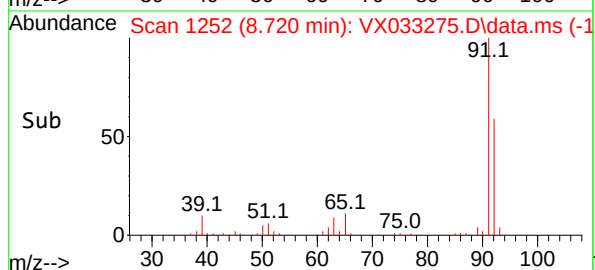
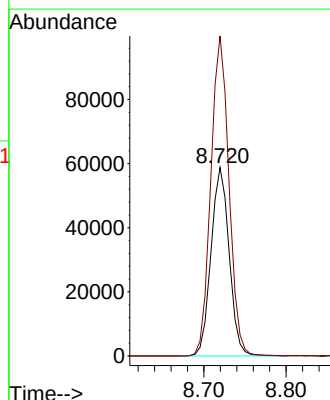
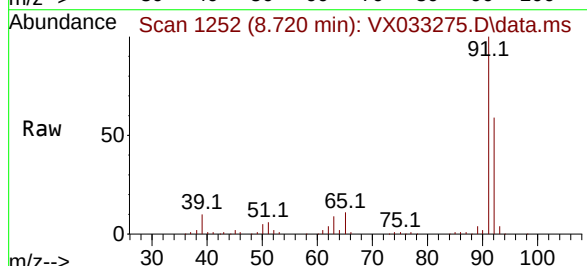
Acq: 07 Dec 2022 10:32

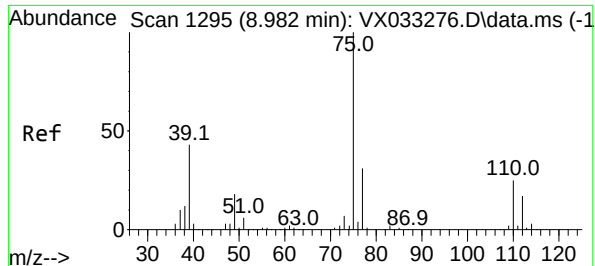
Tgt Ion: 92 Resp: 89946

Ion Ratio Lower Upper

92 100

91 169.9 138.3 207.5





#53

t-1,3-Dichloropropene

Concen: 22.777 ug/l

RT: 8.976 min Scan# 1194

Delta R.T. -0.006 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 75 Resp: 4879

Ion Ratio Lower Upper

75 100

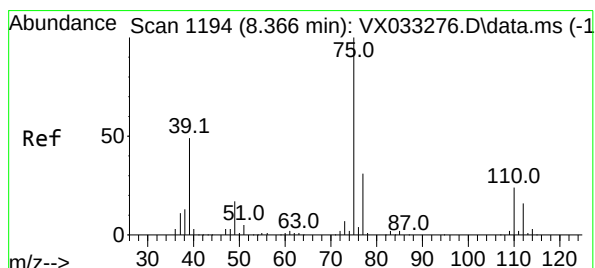
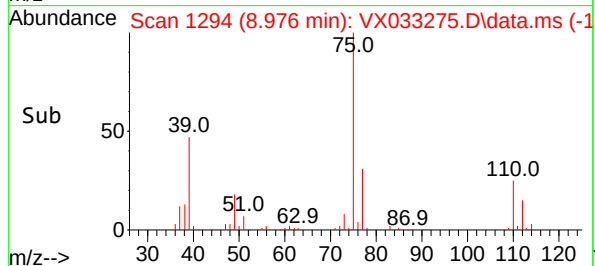
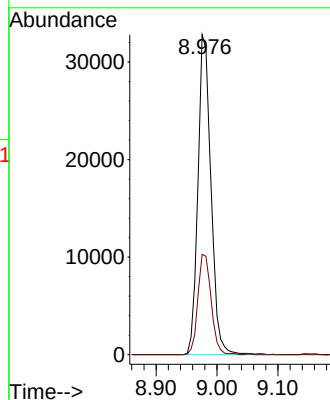
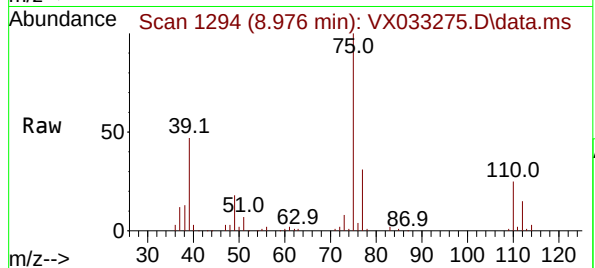
77 31.3 25.1 37.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#54

cis-1,3-Dichloropropene

Concen: 22.847 ug/l

RT: 8.366 min Scan# 1194

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

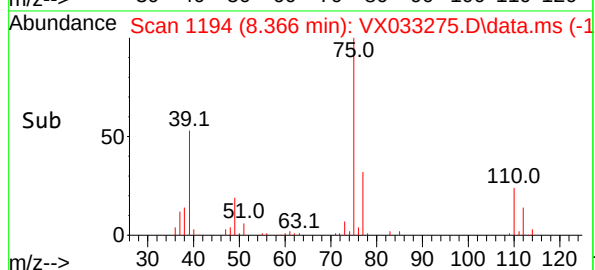
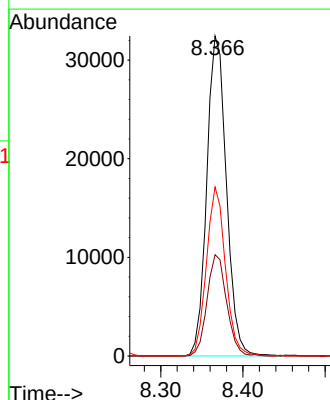
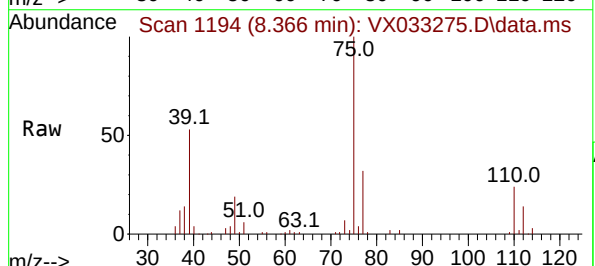
Tgt Ion: 75 Resp: 53756

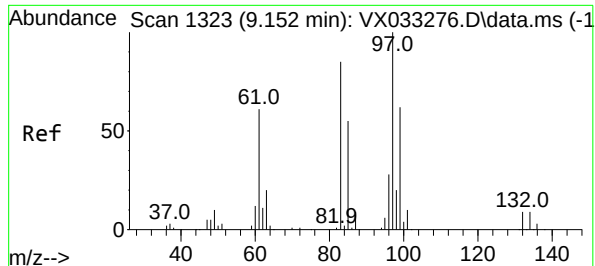
Ion Ratio Lower Upper

75 100

77 31.7 25.1 37.7

39 52.8 45.5 68.3





#55

1,1,2-Trichloroethane

Concen: 22.885 ug/l

RT: 9.152 min Scan# 1323

Delta R.T. -0.001 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 97 Resp: 35900

Ion Ratio Lower Upper

97 100

83 83.9 68.1 102.1

85 54.0 43.3 64.9

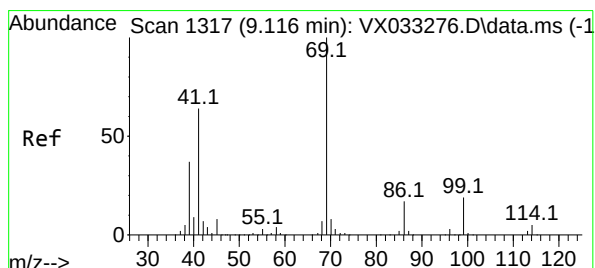
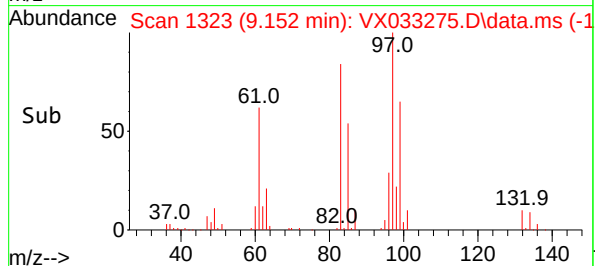
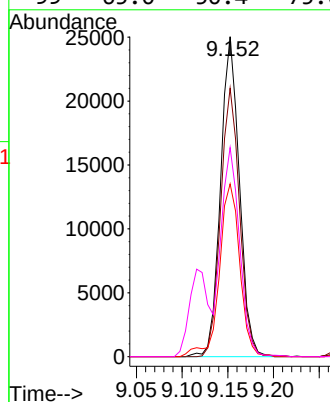
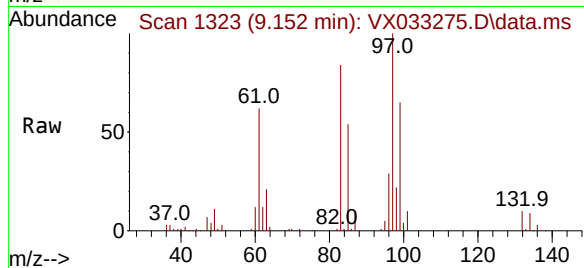
99 65.0 50.4 75.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#56

Ethyl methacrylate

Concen: 23.997 ug/l

RT: 9.116 min Scan# 1317

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

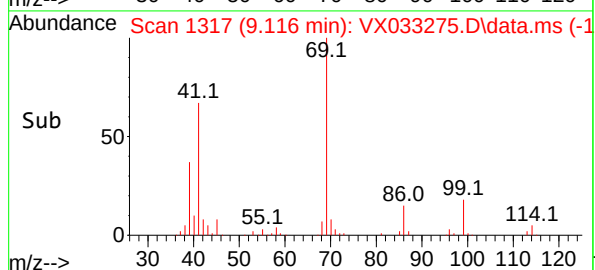
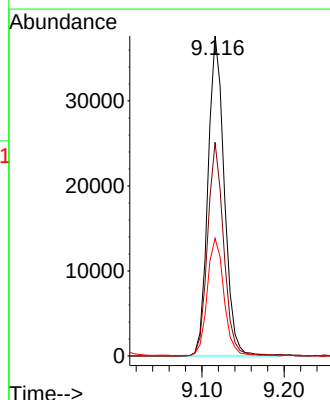
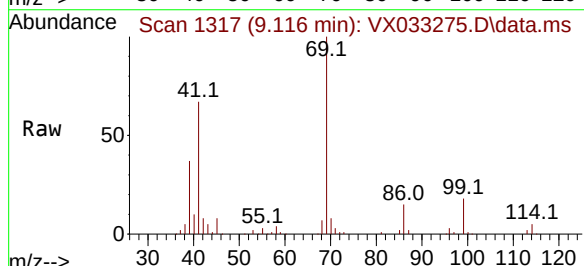
Tgt Ion: 69 Resp: 51875

Ion Ratio Lower Upper

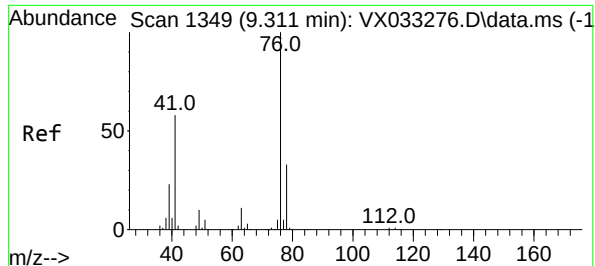
69 100

41 65.8 54.3 81.5

39 38.0 35.2 52.8







#57

1,3-Dichloropropane

Concen: 23.336 ug/l

RT: 9.311 min Scan# 11349

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 76 Resp: 59108

Ion Ratio Lower Upper

76 100

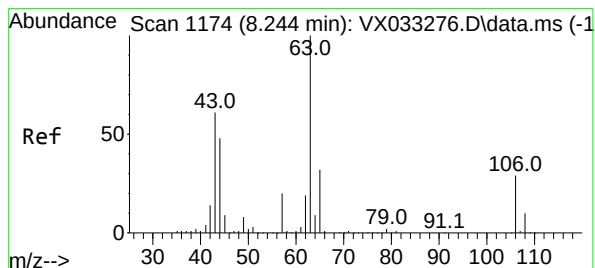
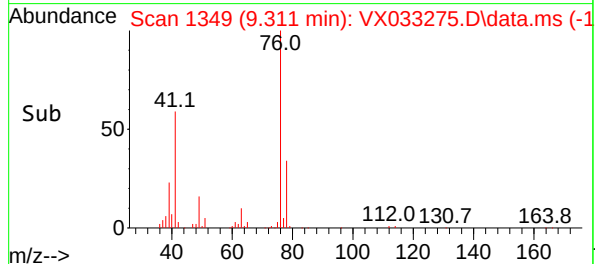
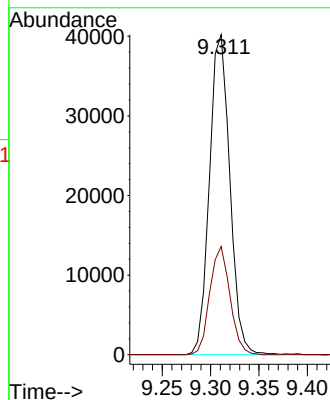
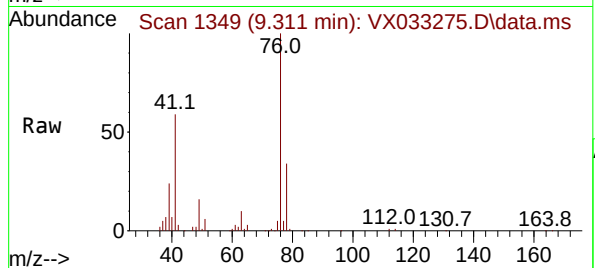
78 33.3 26.0 39.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#58

2-Chloroethyl Vinyl ether

Concen: 98.398 ug/l

RT: 8.244 min Scan# 1174

Delta R.T. 0.000 min

Lab File: VX033275.D

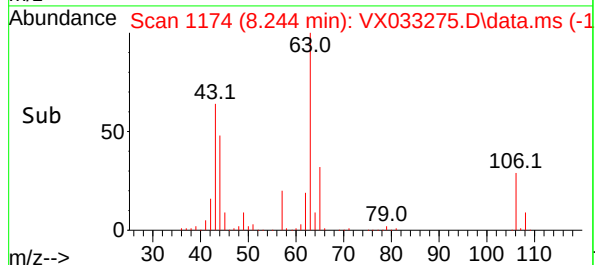
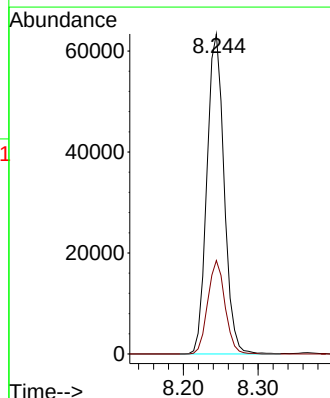
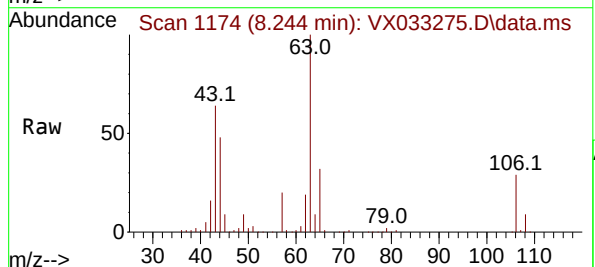
Acq: 07 Dec 2022 10:32

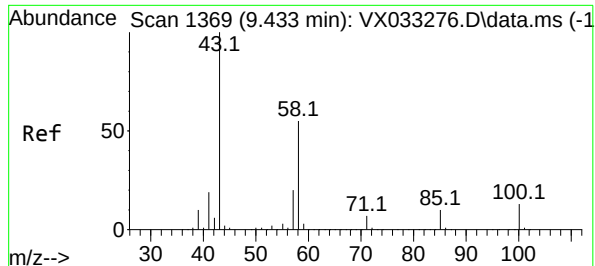
Tgt Ion: 63 Resp: 101008

Ion Ratio Lower Upper

63 100

106 29.2 23.3 34.9





#59

2-Hexanone

Concen: 126.425 ug/l

RT: 9.433 min Scan# 1369

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 43 Resp: 17371

Ion Ratio Lower Upper

43 100

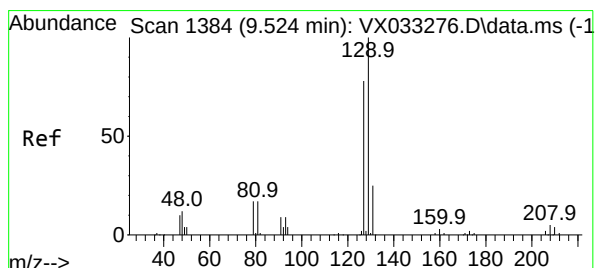
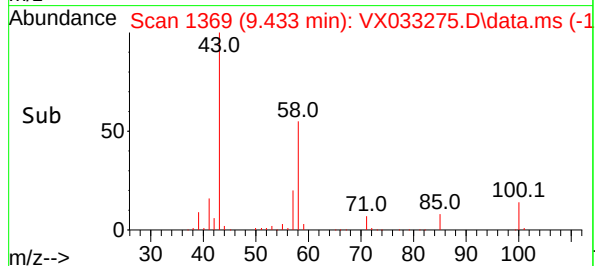
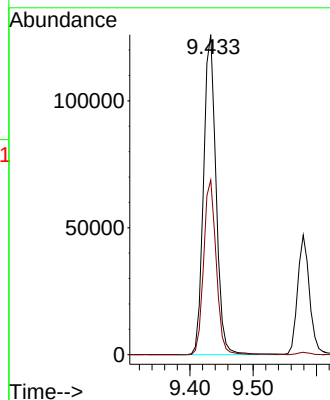
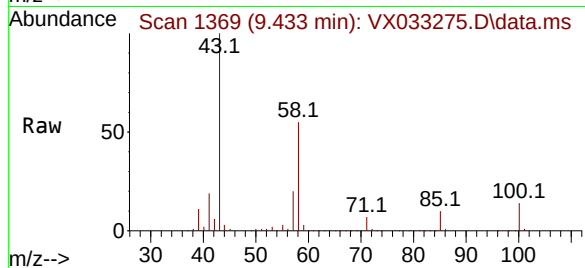
58 54.5 26.5 79.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#60

Dibromochloromethane

Concen: 24.066 ug/l

RT: 9.524 min Scan# 1384

Delta R.T. -0.001 min

Lab File: VX033275.D

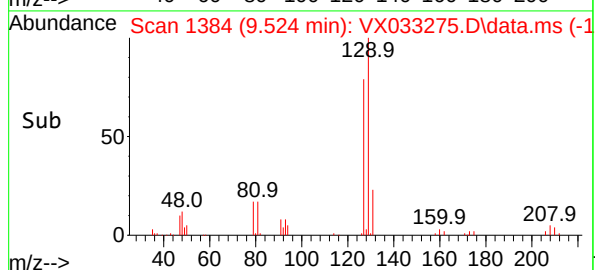
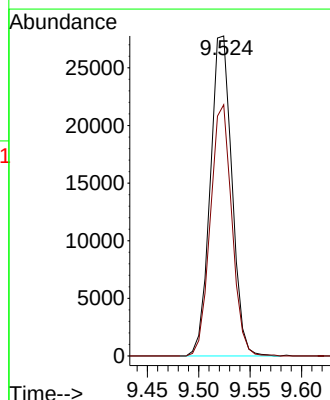
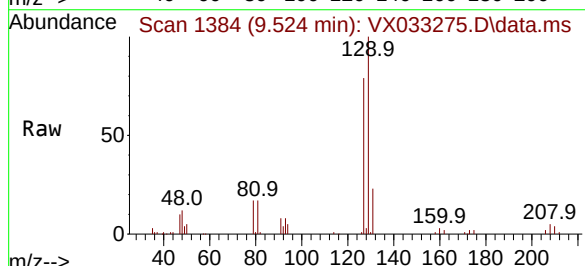
Acq: 07 Dec 2022 10:32

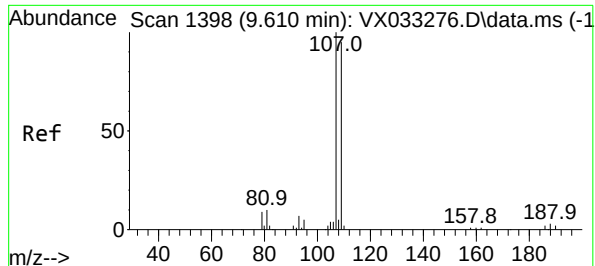
Tgt Ion:129 Resp: 40652

Ion Ratio Lower Upper

129 100

127 77.7 38.6 115.8





#61

1,2-Dibromoethane

Concen: 23.686 ug/l

RT: 9.610 min Scan# 1398

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion:107 Resp: 39225

Ion Ratio Lower Upper

107 100

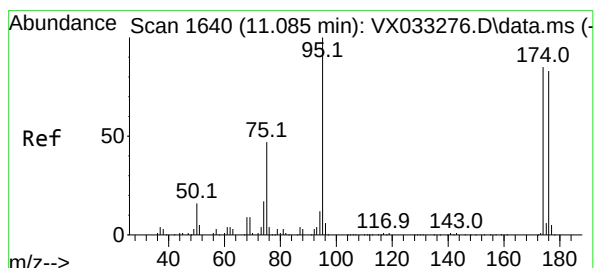
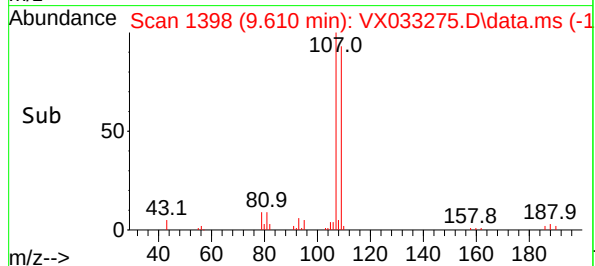
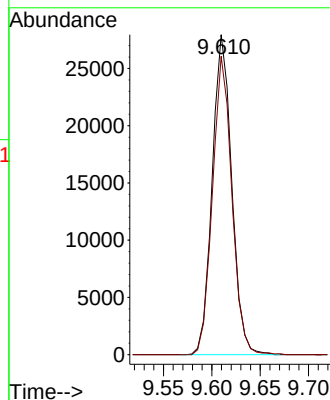
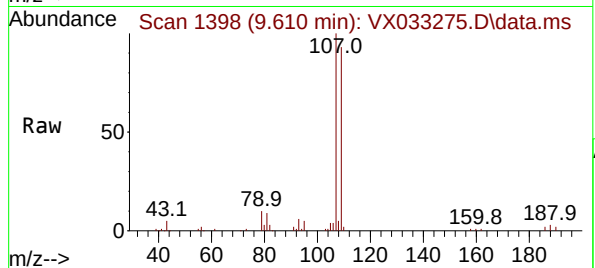
109 92.6 76.0 114.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#62

4-Bromofluorobenzene

Concen: 20.645 ug/l

RT: 11.079 min Scan# 1639

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

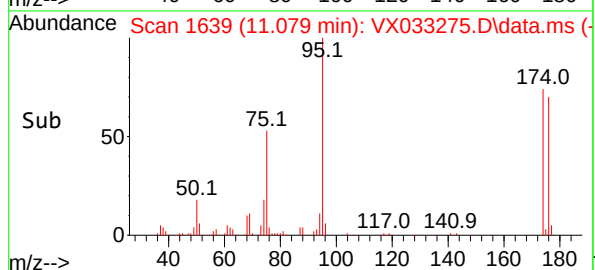
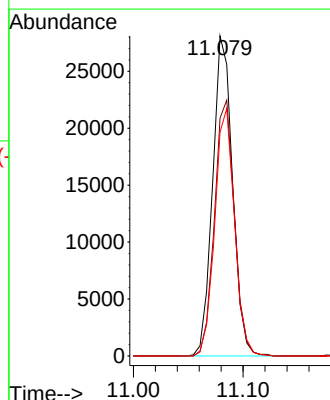
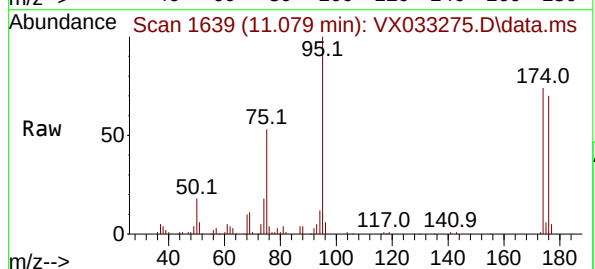
Tgt Ion: 95 Resp: 35433

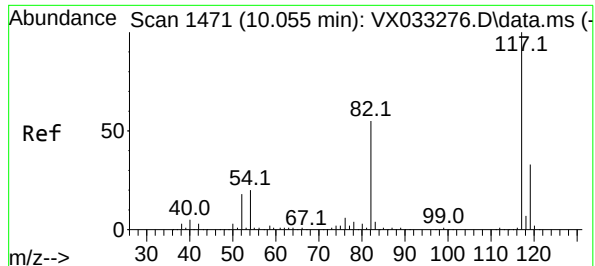
Ion Ratio Lower Upper

95 100

174 80.4 0.0 164.0

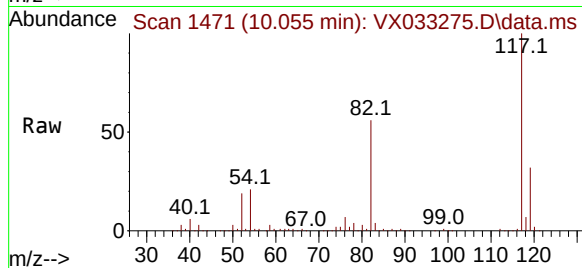
176 76.6 0.0 154.4





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.055 min Scan# 1471  
Delta R.T. -0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

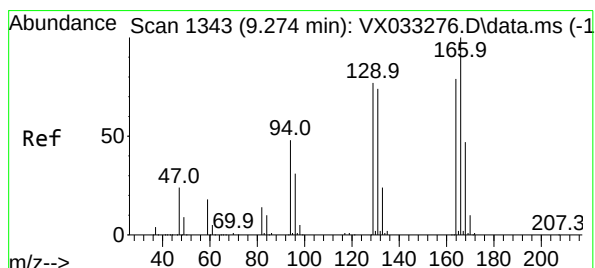
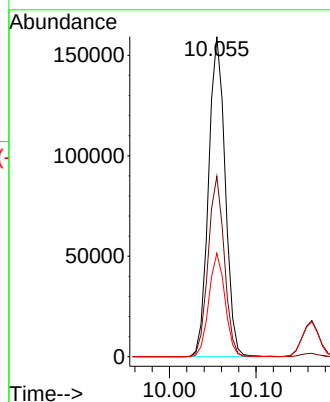
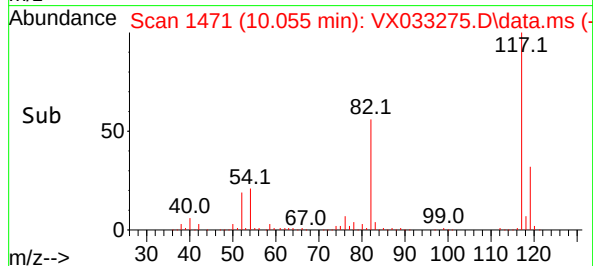
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020



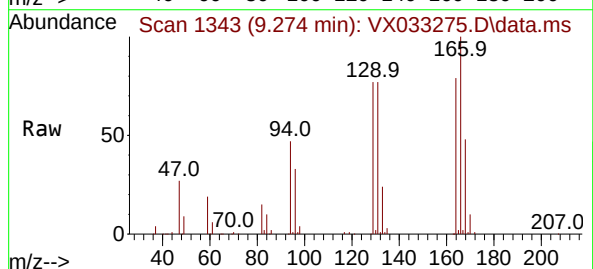
Tgt Ion:117 Resp: 21208  
Ion Ratio Lower Upper  
117 100  
82 56.4 44.3 66.5  
119 32.3 25.7 38.5

Manual Integrations  
APPROVED

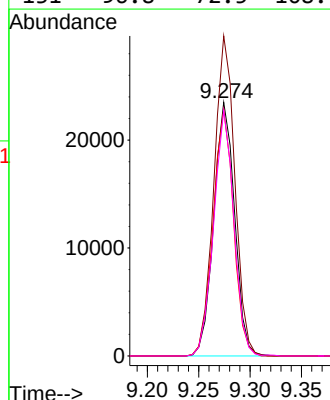
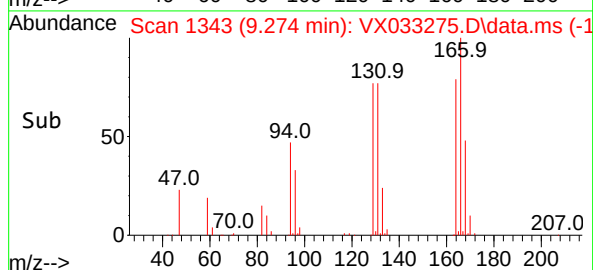
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

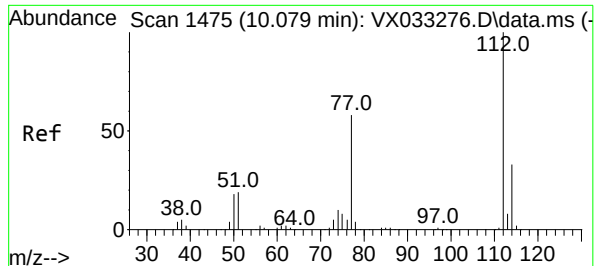


#64  
Tetrachloroethene  
Concen: 22.029 ug/l  
RT: 9.274 min Scan# 1343  
Delta R.T. -0.001 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32



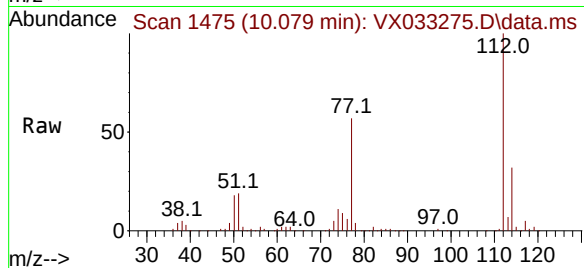
Tgt Ion:164 Resp: 33071  
Ion Ratio Lower Upper  
164 100  
166 126.2 105.4 158.2  
129 97.2 78.2 117.2  
131 96.8 72.5 108.7





#65  
Chlorobenzene  
Concen: 23.247 ug/l  
RT: 10.079 min Scan# 1475  
Delta R.T. 0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

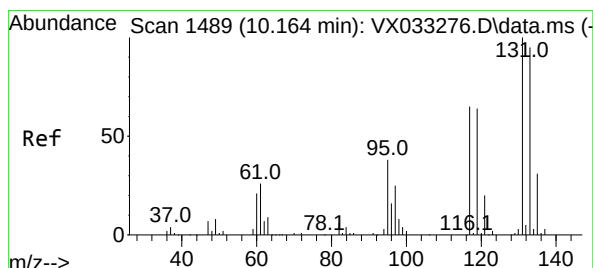
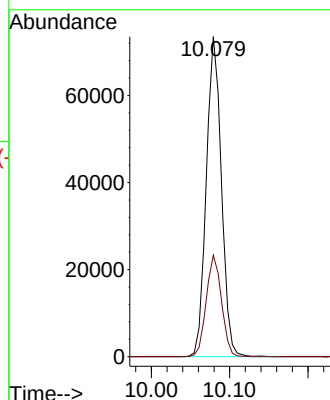
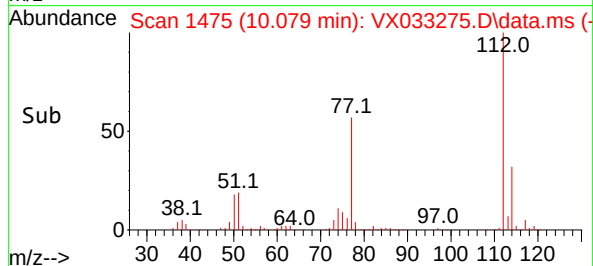
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020



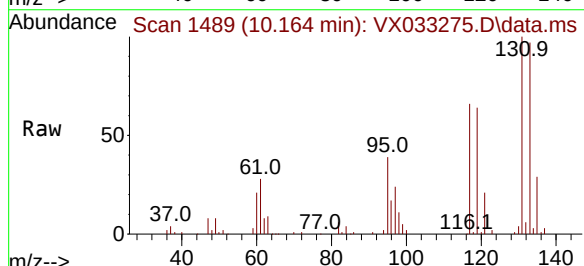
Tgt Ion:112 Resp: 98295  
Ion Ratio Lower Upper  
112 100  
114 31.7 25.4 38.2

Manual Integrations  
APPROVED

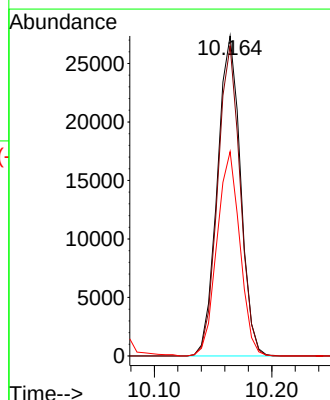
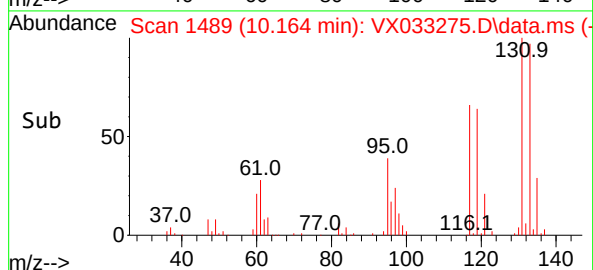
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

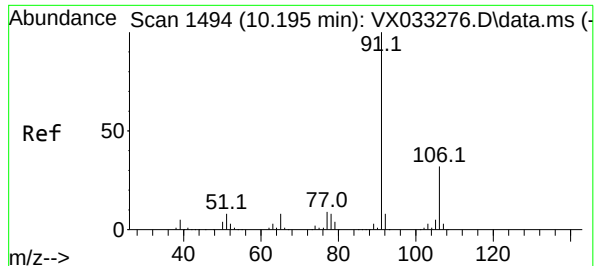


#66  
1,1,1,2-Tetrachloroethane  
Concen: 24.185 ug/l  
RT: 10.164 min Scan# 1489  
Delta R.T. -0.001 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32



Tgt Ion:131 Resp: 37470  
Ion Ratio Lower Upper  
131 100  
133 94.3 47.6 142.9  
119 63.1 32.4 97.0





#67

Ethyl Benzene

Concen: 23.103 ug/l

RT: 10.195 min Scan# 1494

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 91 Resp: 173292

Ion Ratio Lower Upper

91 100

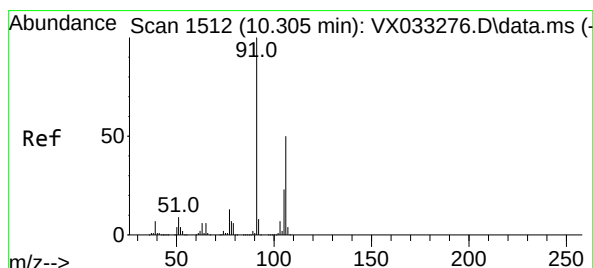
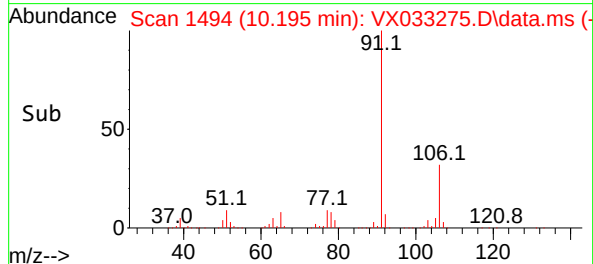
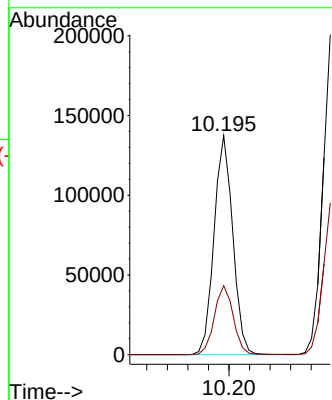
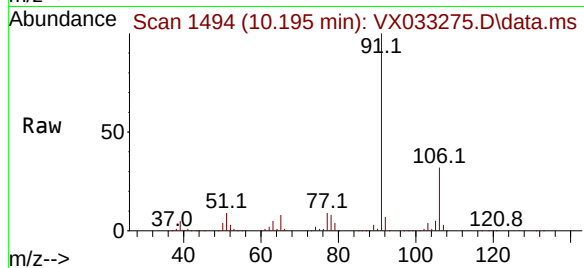
106 31.5 25.0 37.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#68

m/p-Xylenes

Concen: 45.655 ug/l

RT: 10.299 min Scan# 1511

Delta R.T. -0.006 min

Lab File: VX033275.D

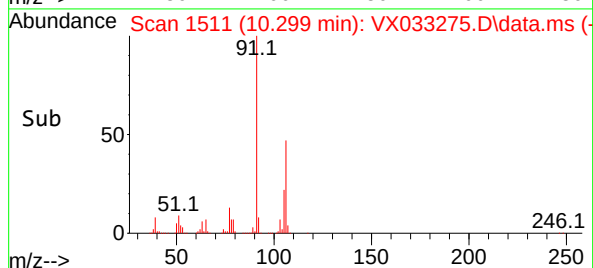
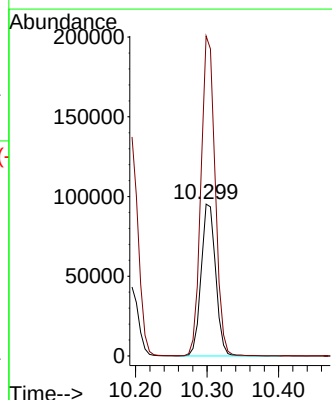
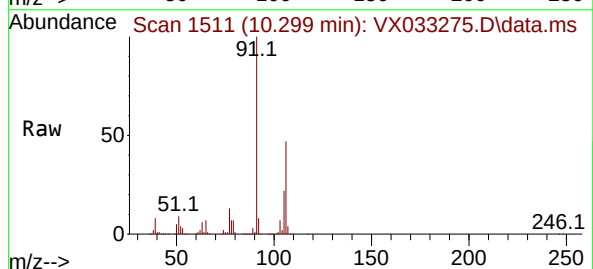
Acq: 07 Dec 2022 10:32

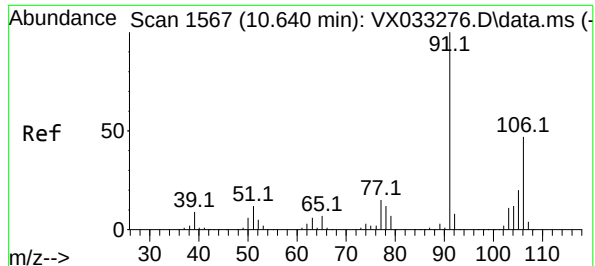
Tgt Ion:106 Resp: 134099

Ion Ratio Lower Upper

106 100

91 205.9 164.5 246.7





#69

o-Xylene

Concen: 23.464 ug/l

RT: 10.640 min Scan# 1567

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion:106 Resp: 6668

Ion Ratio Lower Upper

106 100

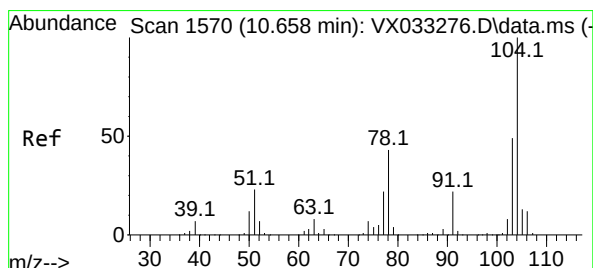
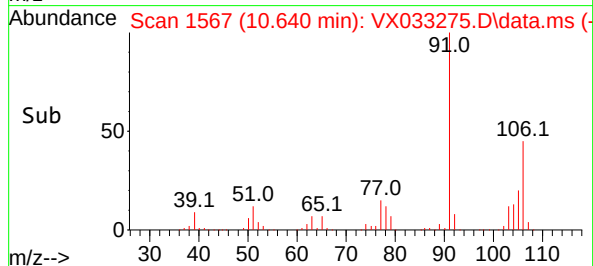
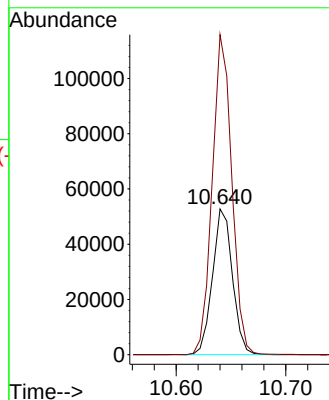
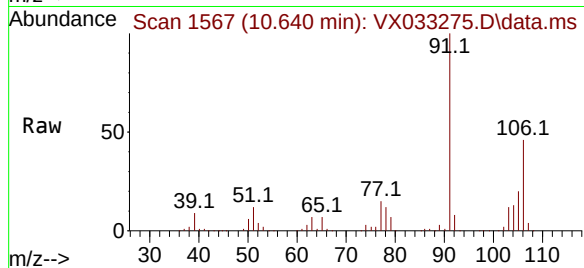
91 215.9 109.2 327.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#70

Styrene

Concen: 23.622 ug/l

RT: 10.658 min Scan# 1570

Delta R.T. -0.001 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

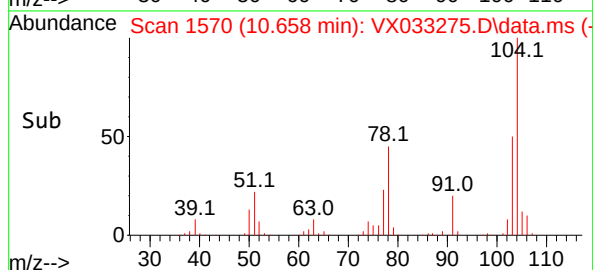
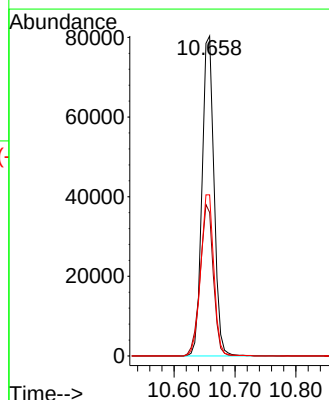
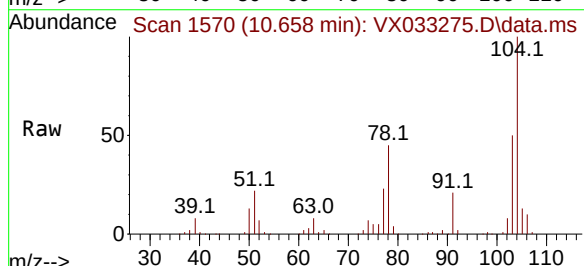
Tgt Ion:104 Resp: 109831

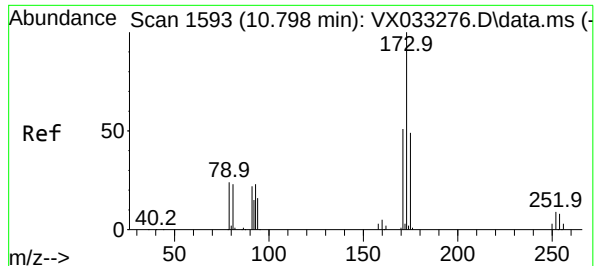
Ion Ratio Lower Upper

104 100

78 52.0 41.8 62.8

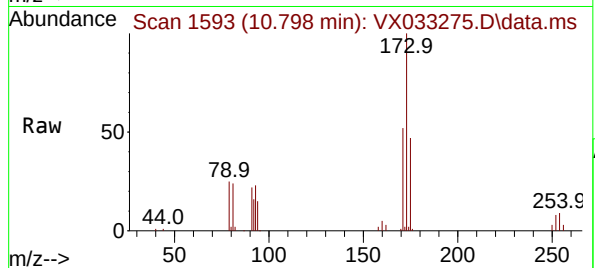
103 55.5 44.5 66.7





#71  
Bromoform  
Concen: 24.572 ug/l  
RT: 10.798 min Scan# 1593  
Delta R.T. -0.001 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

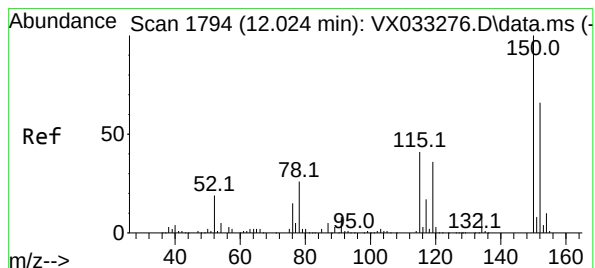
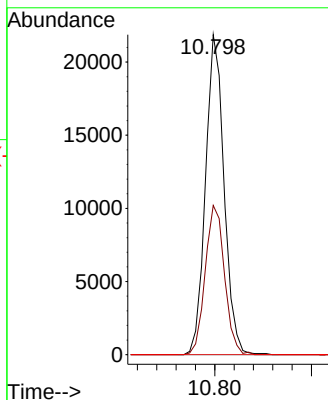
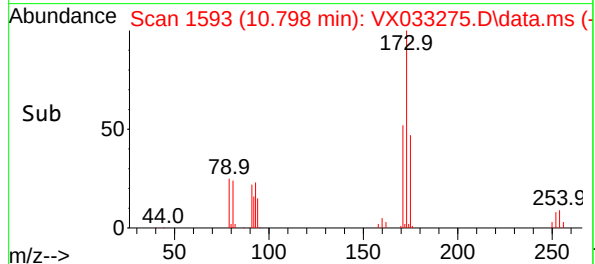
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020



Tgt Ion:173 Resp: 29189  
Ion Ratio Lower Upper  
173 100  
175 48.5 23.9 71.8  
254 0.0 0.0 0.0

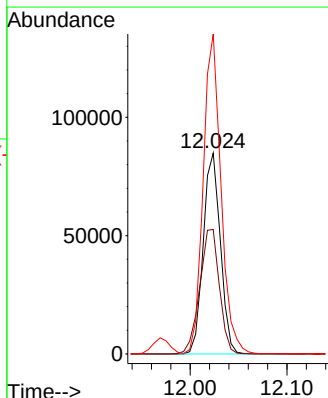
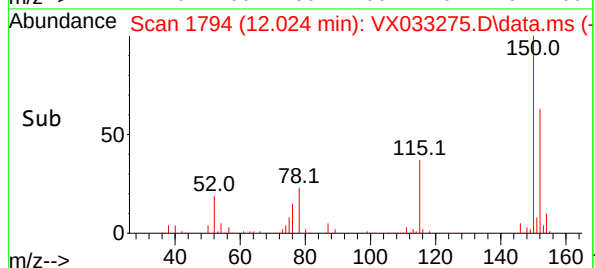
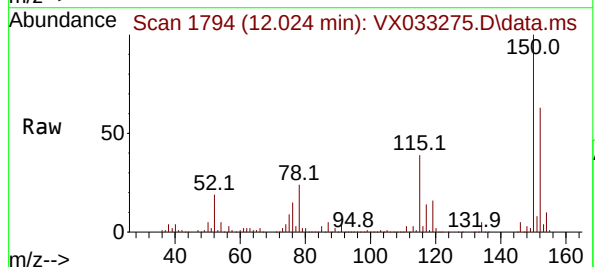
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

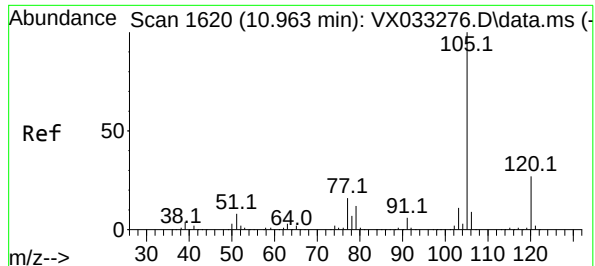


#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.024 min Scan# 1794  
Delta R.T. -0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Tgt Ion:152 Resp: 104636  
Ion Ratio Lower Upper  
152 100  
115 71.2 44.0 132.0  
150 165.8 0.0 351.8







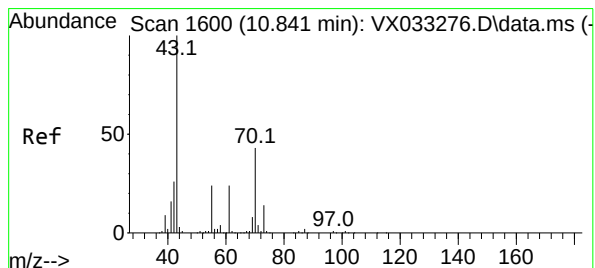
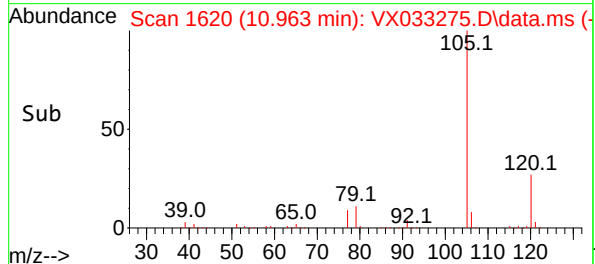
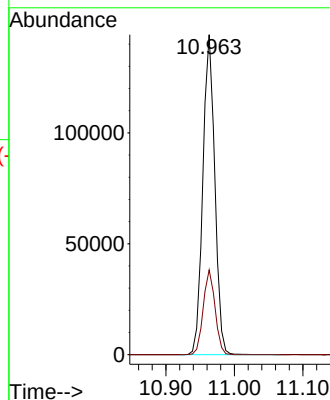
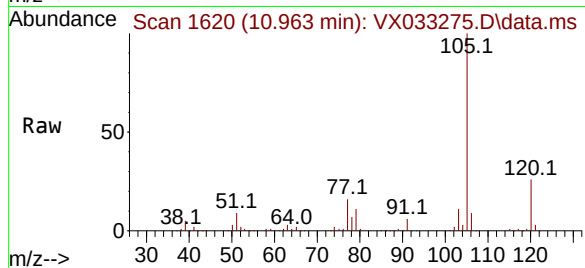
#73  
Isopropylbenzene  
Concen: 23.430 ug/l  
RT: 10.963 min Scan# 1620  
Delta R.T. 0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020

Tgt Ion:105 Resp: 175194  
Ion Ratio Lower Upper  
105 100  
120 26.2 13.1 39.3

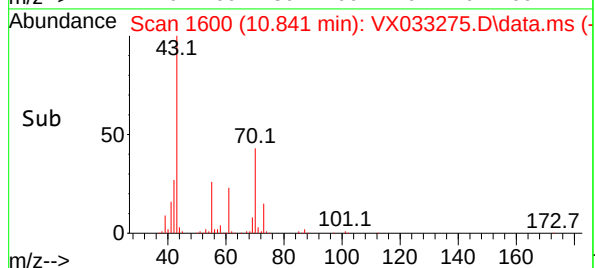
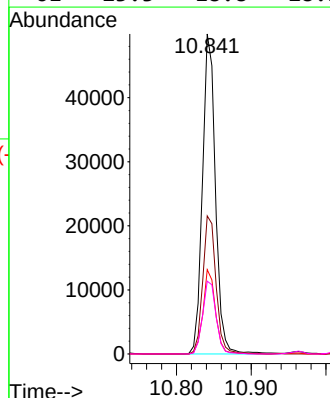
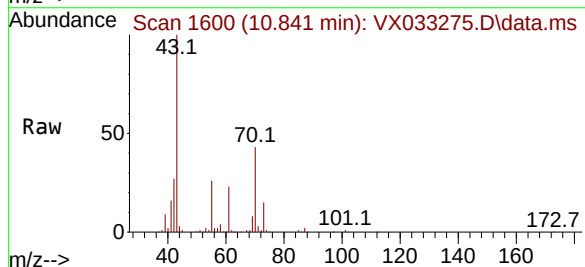
Manual Integrations  
APPROVED

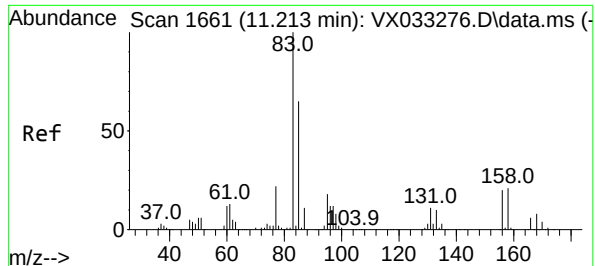
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#74  
N-ethyl acetate  
Concen: 23.754 ug/l  
RT: 10.841 min Scan# 1600  
Delta R.T. 0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Tgt Ion: 43 Resp: 60421  
Ion Ratio Lower Upper  
43 100  
70 43.9 33.6 50.4  
55 25.3 19.4 29.2  
61 23.3 18.8 28.2





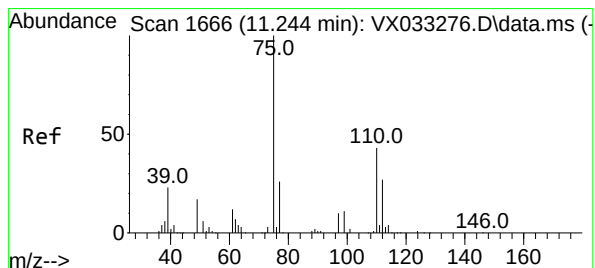
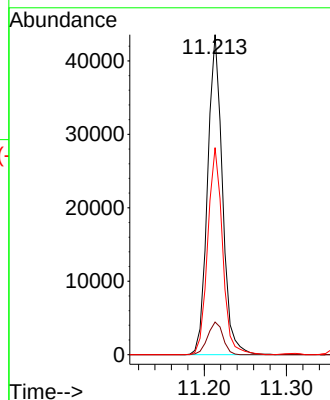
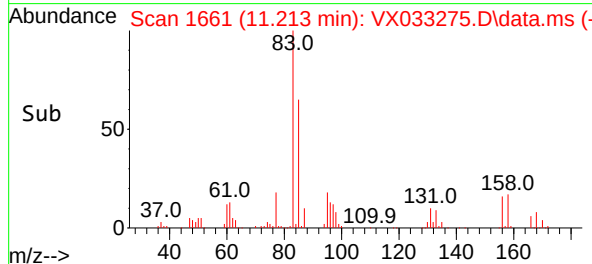
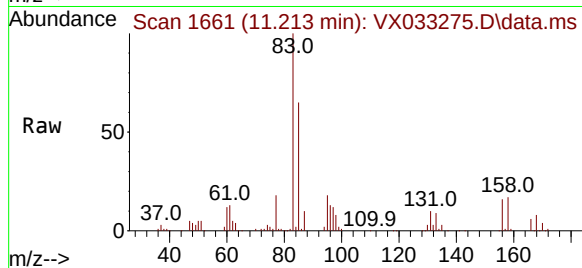
#75  
1,1,2,2-Tetrachloroethane  
Concen: 24.134 ug/l  
RT: 11.213 min Scan# 1661  
Delta R.T. 0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020

Tgt Ion: 83 Resp: 5446  
Ion Ratio Lower Upper  
83 100  
131 10.6 5.4 16.2  
85 64.6 31.9 95.9

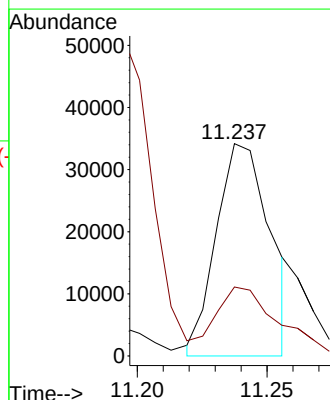
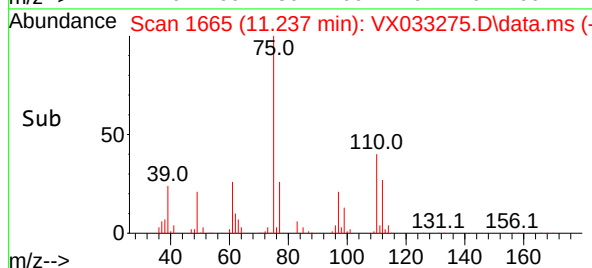
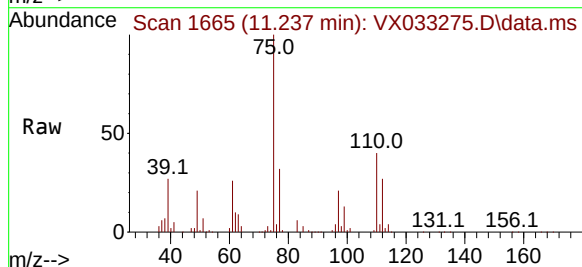
Manual Integrations  
APPROVED

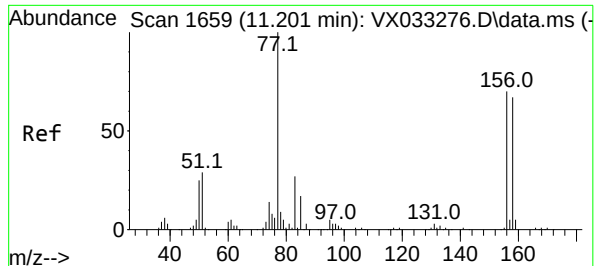
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#76  
1,2,3-Trichloropropane  
Concen: 24.842 ug/l m  
RT: 11.237 min Scan# 1665  
Delta R.T. -0.007 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

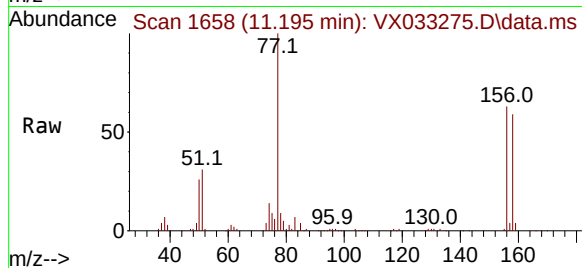
Tgt Ion: 75 Resp: 49227  
Ion Ratio Lower Upper  
75 100  
77 38.8 20.0 60.0





#77  
Bromobenzene  
Concen: 23.514 ug/l  
RT: 11.195 min Scan# 1658  
Delta R.T. -0.006 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

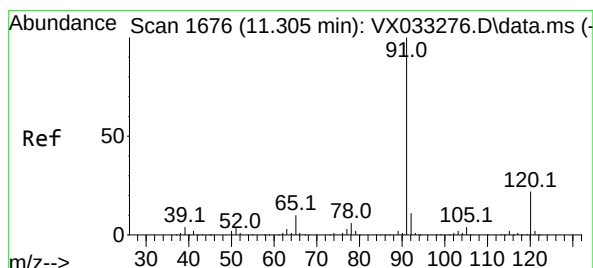
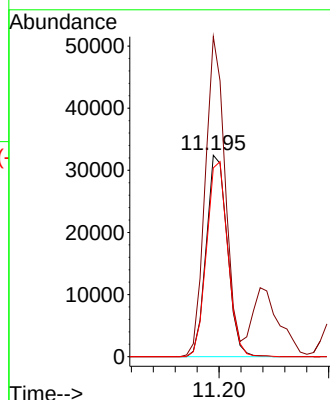
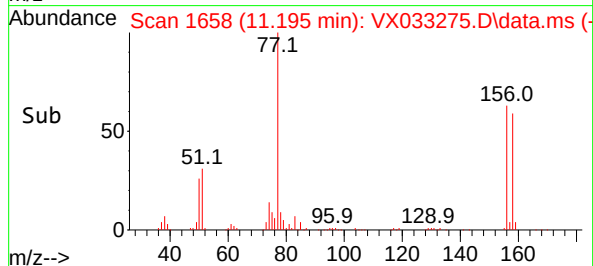
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020



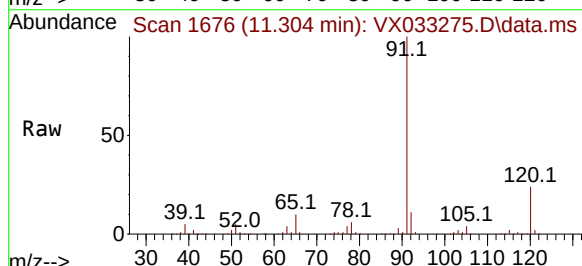
Tgt Ion:156 Resp: 43240  
Ion Ratio Lower Upper  
156 100  
77 150.5 76.1 228.4  
158 97.5 48.8 146.3

Manual Integrations  
APPROVED

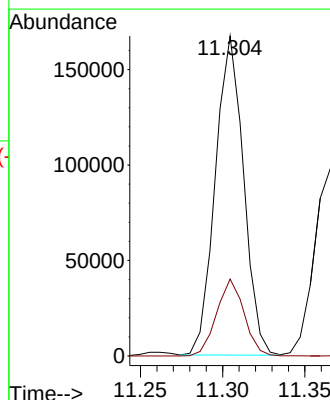
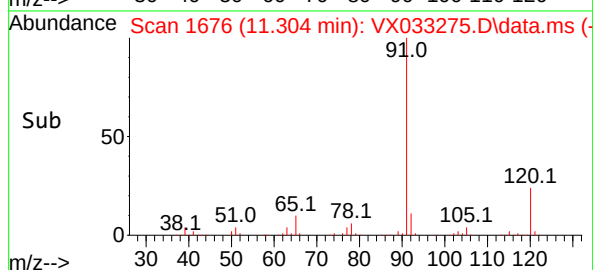
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

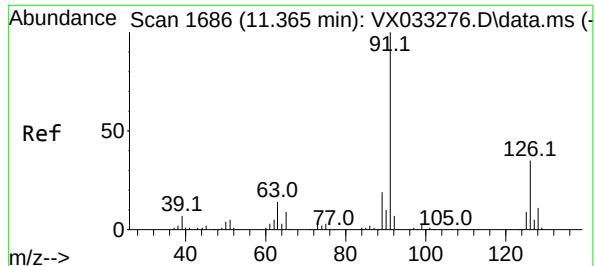


#78  
n-propylbenzene  
Concen: 23.345 ug/l  
RT: 11.304 min Scan# 1676  
Delta R.T. -0.001 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32



Tgt Ion: 91 Resp: 199580  
Ion Ratio Lower Upper  
91 100  
120 23.4 11.6 34.8





#79

2-Chlorotoluene

Concen: 23.187 ug/l

RT: 11.365 min Scan# 1

Delta R.T. -0.001 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 91 Resp: 12039

Ion Ratio Lower Upper

91 100

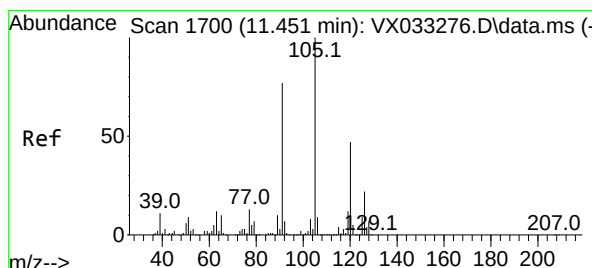
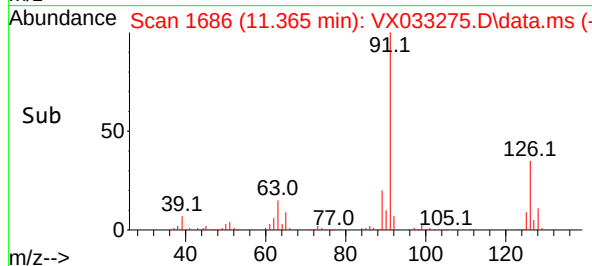
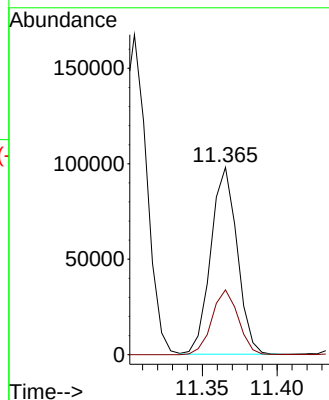
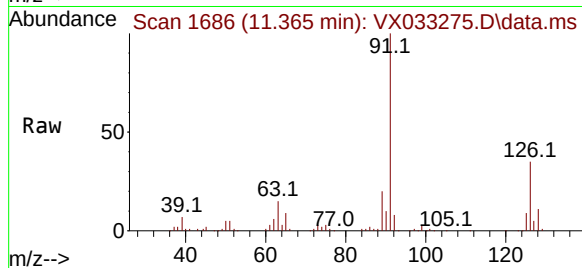
126 34.7 17.1 51.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#80

1,3,5-Trimethylbenzene

Concen: 23.556 ug/l

RT: 11.451 min Scan# 1700

Delta R.T. -0.000 min

Lab File: VX033275.D

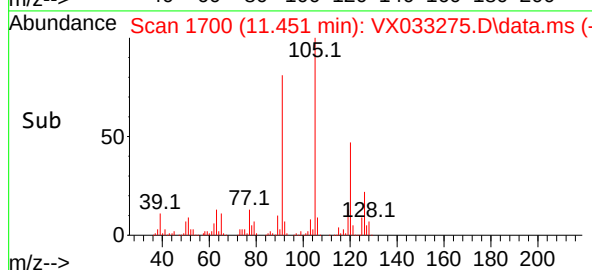
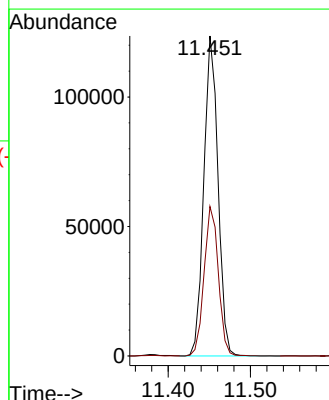
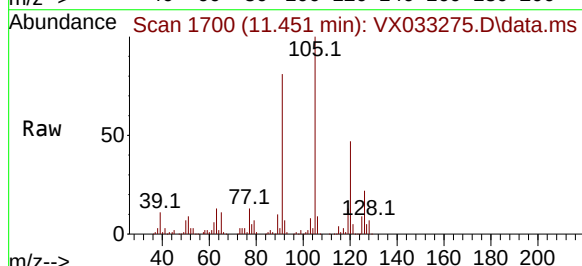
Acq: 07 Dec 2022 10:32

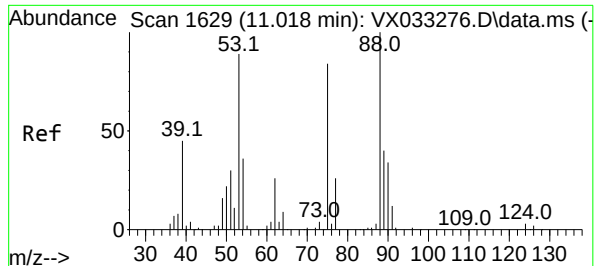
Tgt Ion:105 Resp: 147966

Ion Ratio Lower Upper

105 100

120 47.1 23.6 71.0





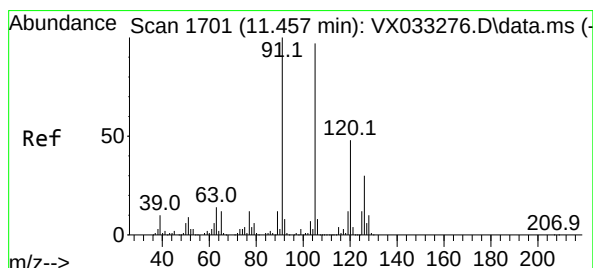
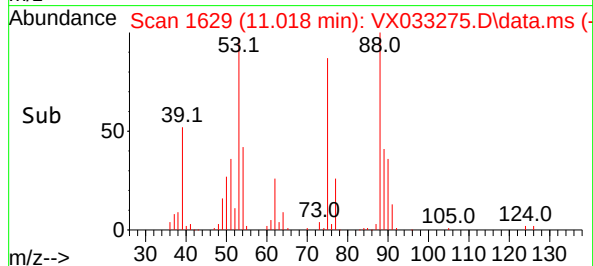
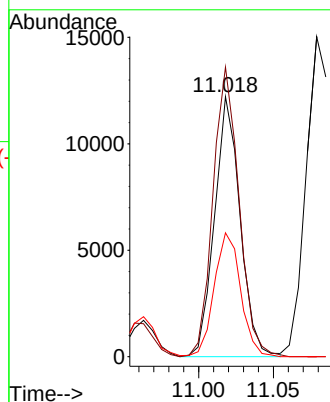
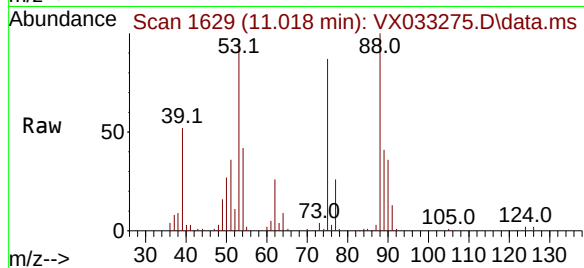
#81  
trans-1,4-Dichloro-2-butene  
Concen: 23.827 ug/l  
RT: 11.018 min Scan# 1629  
Delta R.T. -0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC020

Tgt Ion: 75 Resp: 14520  
Ion Ratio Lower Upper  
75 100  
53 113.0 86.9 130.3  
89 49.1 38.3 57.5

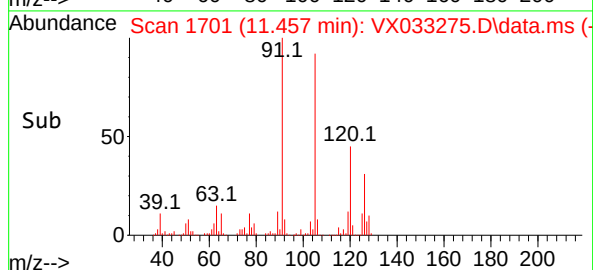
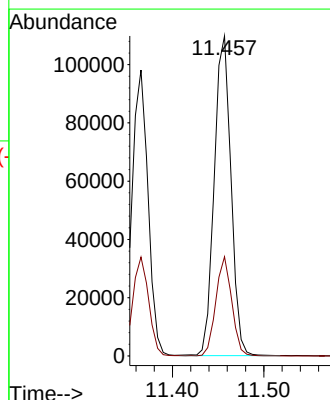
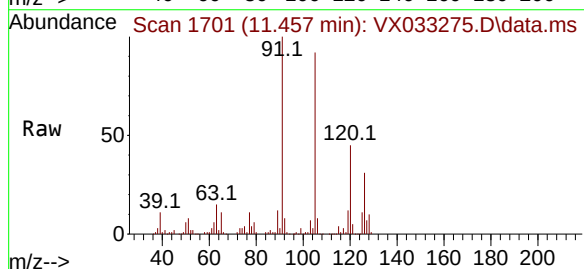
Manual Integrations  
APPROVED

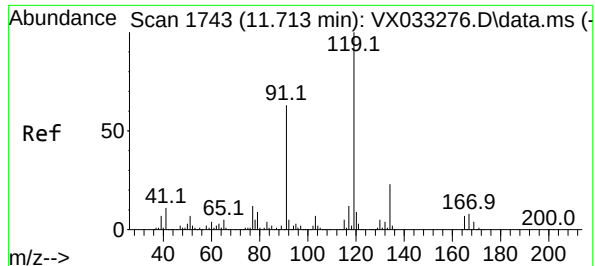
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#82  
4-Chlorotoluene  
Concen: 22.916 ug/l  
RT: 11.457 min Scan# 1701  
Delta R.T. -0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Tgt Ion: 91 Resp: 139436  
Ion Ratio Lower Upper  
91 100  
126 29.6 14.8 44.4





#83

tert-Butylbenzene

Concen: 23.672 ug/l

RT: 11.713 min Scan# 1743

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion:119 Resp: 14801

Ion Ratio Lower Upper

119 100

91 57.2 29.4 88.2

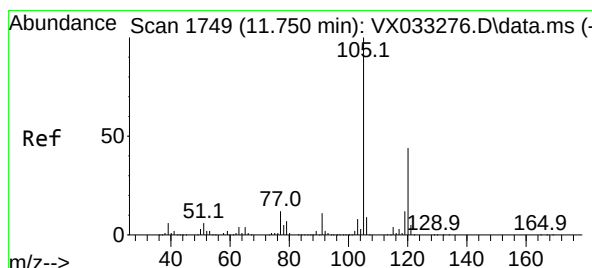
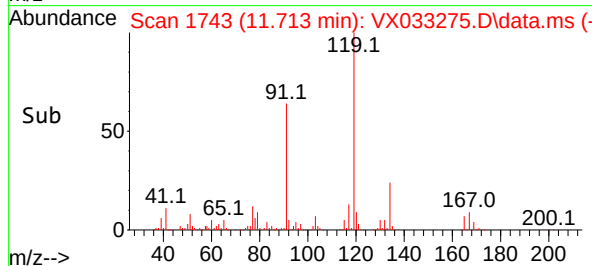
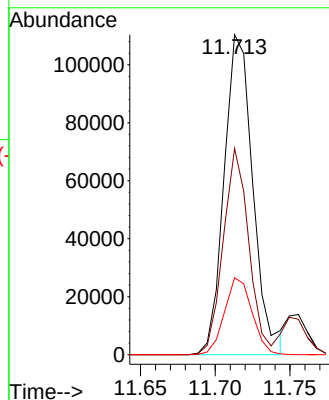
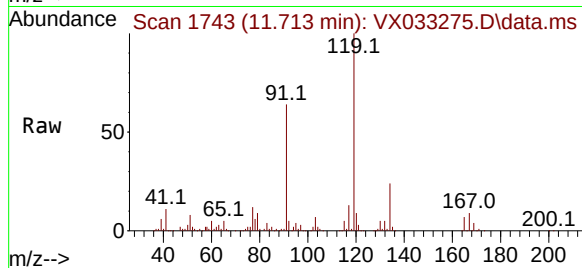
134 23.0 11.0 33.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#84

1,2,4-Trimethylbenzene

Concen: 23.739 ug/l

RT: 11.756 min Scan# 1750

Delta R.T. 0.006 min

Lab File: VX033275.D

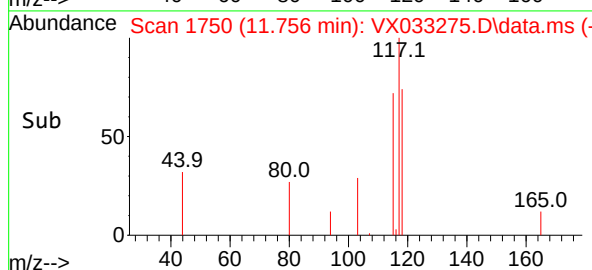
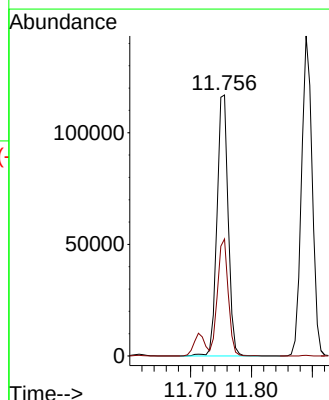
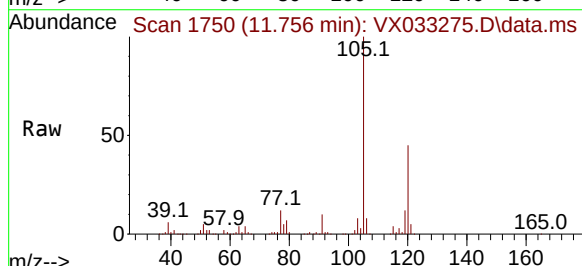
Acq: 07 Dec 2022 10:32

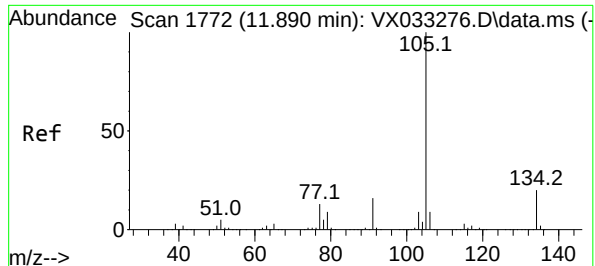
Tgt Ion:105 Resp: 148682

Ion Ratio Lower Upper

105 100

120 43.2 21.9 65.5





#85

sec-Butylbenzene

Concen: 23.380 ug/l

RT: 11.890 min Scan# 1772

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC020

Tgt Ion:105 Resp: 17489

Ion Ratio Lower Upper

105 100

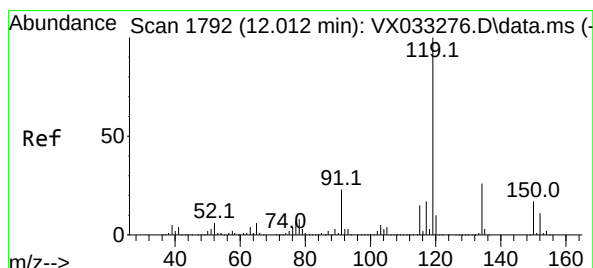
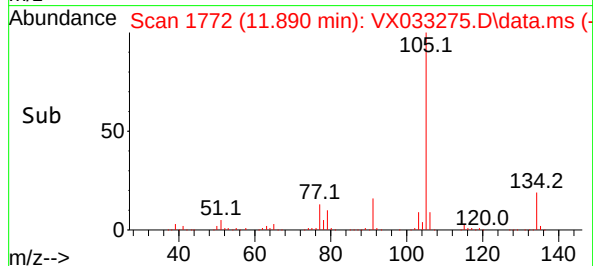
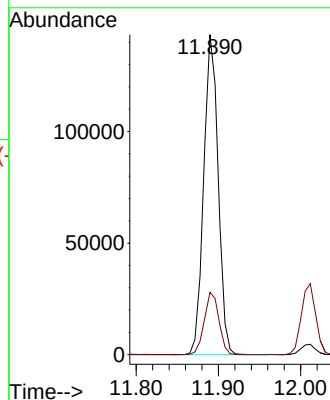
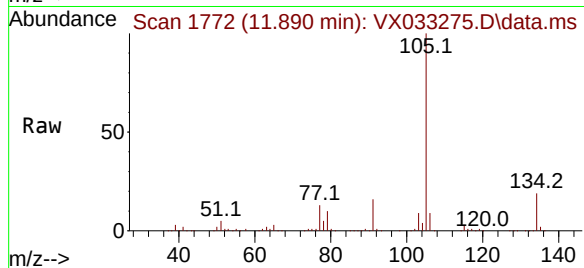
134 19.8 9.9 29.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#86

p-Isopropyltoluene

Concen: 23.717 ug/l

RT: 12.012 min Scan# 1792

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

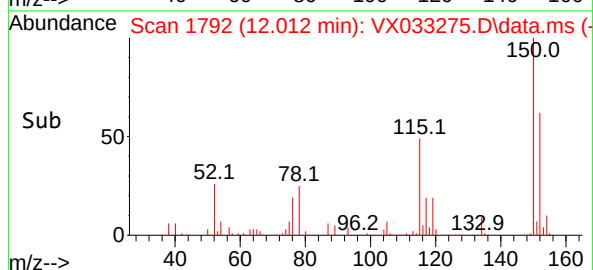
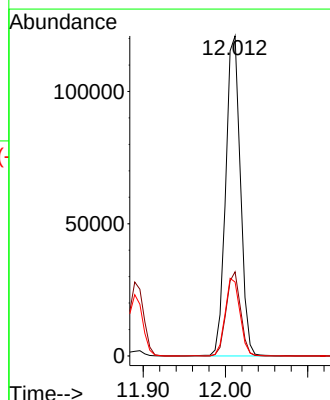
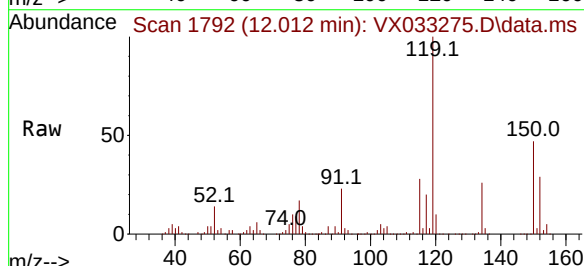
Tgt Ion:119 Resp: 150310

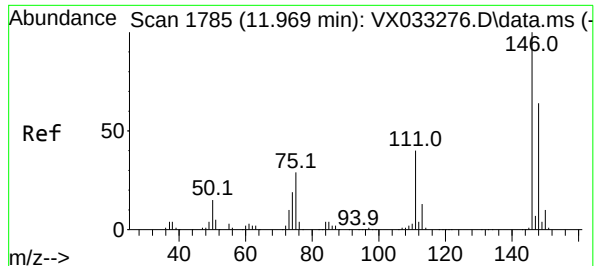
Ion Ratio Lower Upper

119 100

134 25.7 12.9 38.7

91 24.6 12.5 37.5





#87

1,3-Dichlorobenzene

Concen: 23.335 ug/l

RT: 11.969 min Scan# 1785

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion:146 Resp: 80489

Ion Ratio Lower Upper

146 100

111 39.9 20.6 61.8

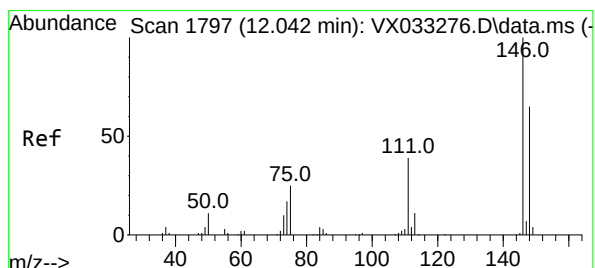
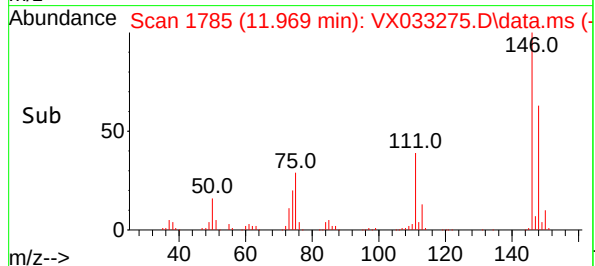
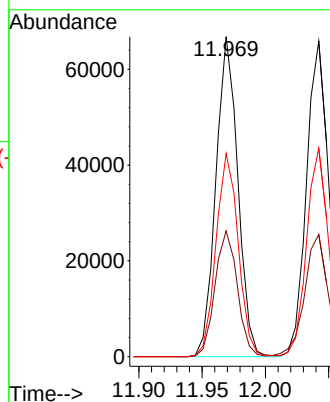
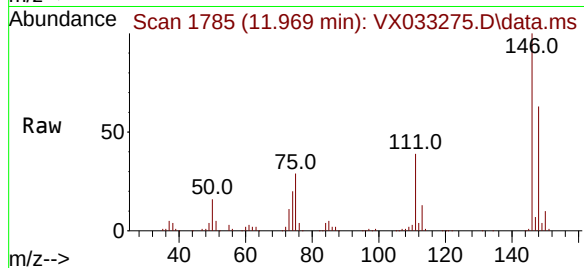
148 64.3 31.7 95.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#88

1,4-Dichlorobenzene

Concen: 22.644 ug/l

RT: 12.042 min Scan# 1797

Delta R.T. 0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

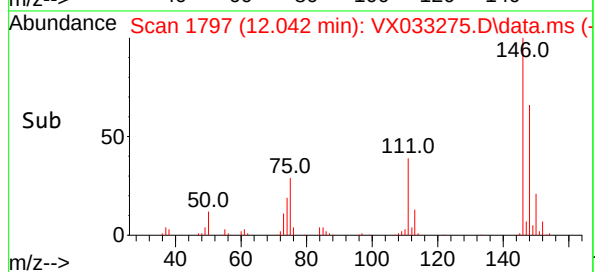
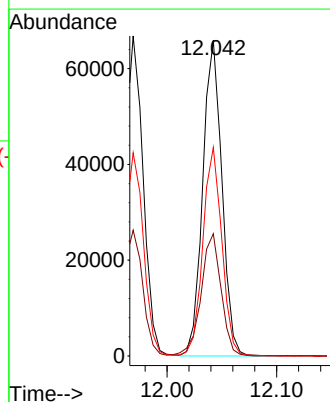
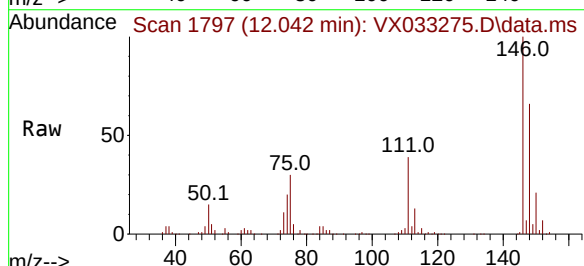
Tgt Ion:146 Resp: 79989

Ion Ratio Lower Upper

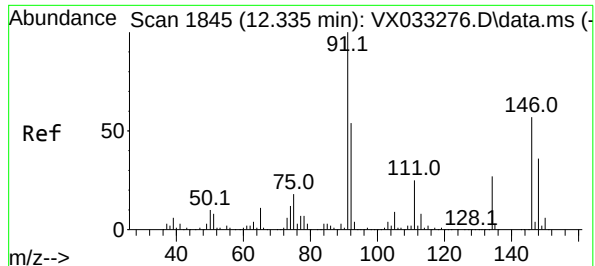
146 100

111 40.7 20.5 61.6

148 65.5 32.2 96.6







#89

n-Butylbenzene

Concen: 22.988 ug/l

RT: 12.335 min Scan# 1845

Delta R.T. -0.000 min

Lab File: VX033275.D

Acq: 07 Dec 2022 10:32

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC020

Tgt Ion: 91 Resp: 12551

Ion Ratio Lower Upper

91 100

92 52.2 26.2 78.6

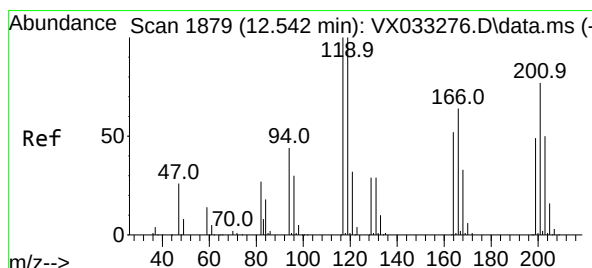
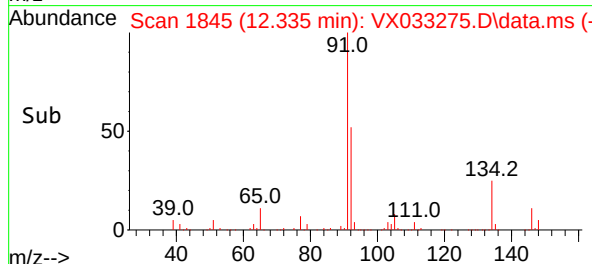
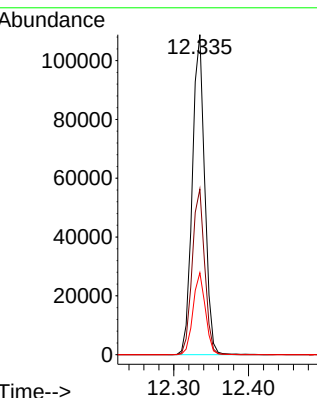
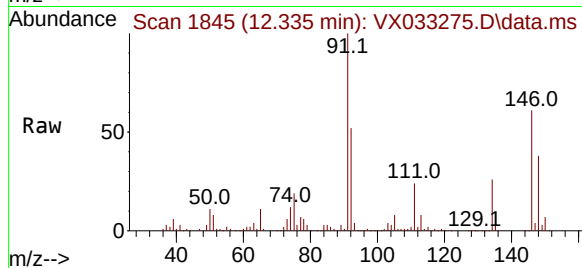
134 25.5 12.9 38.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#90

Hexachloroethane

Concen: 23.665 ug/l

RT: 12.542 min Scan# 1879

Delta R.T. 0.000 min

Lab File: VX033275.D

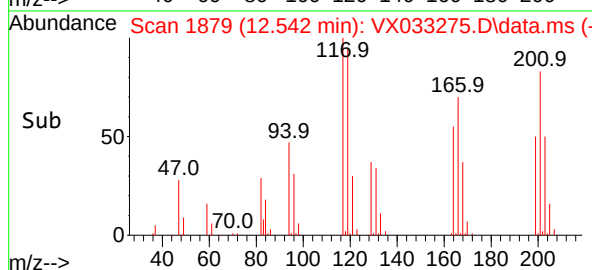
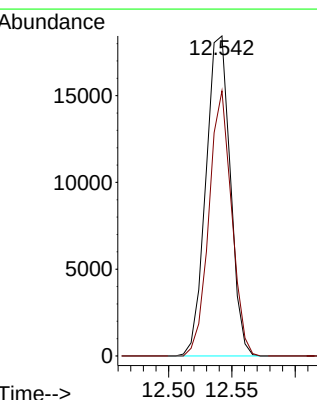
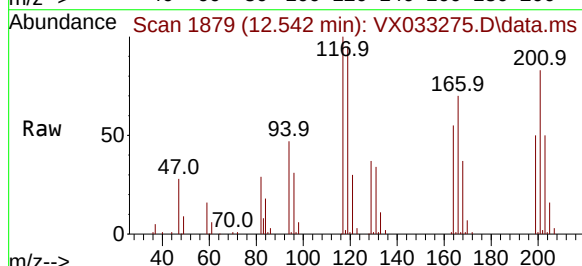
Acq: 07 Dec 2022 10:32

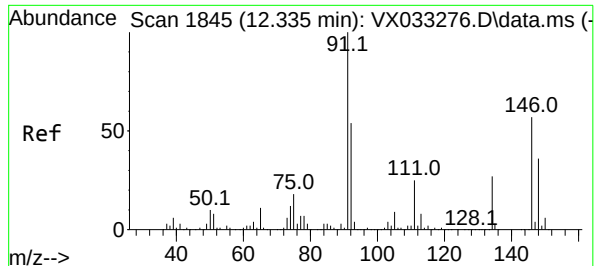
Tgt Ion:117 Resp: 24641

Ion Ratio Lower Upper

117 100

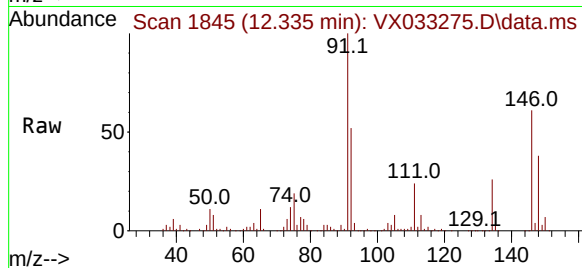
201 76.9 37.6 112.9





#91  
1,2-Dichlorobenzene  
Concen: 23.715 ug/l  
RT: 12.335 min Scan# 1845  
Delta R.T. -0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

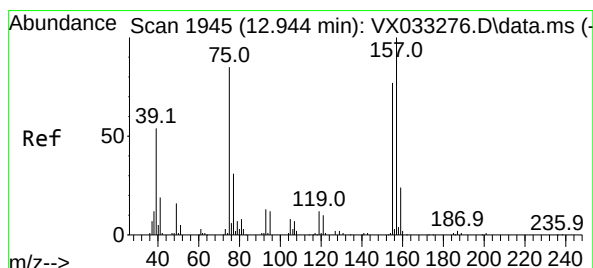
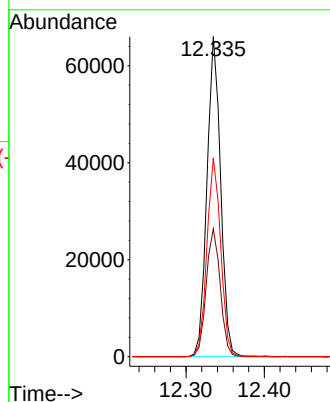
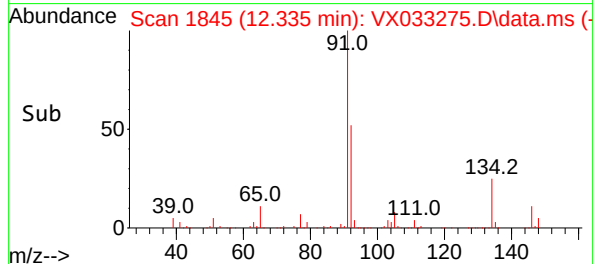
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC020



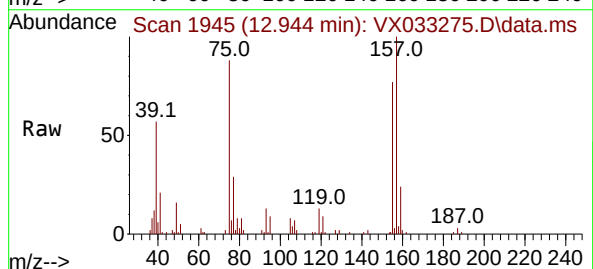
Tgt Ion: 146 Resp: 7956  
Ion Ratio Lower Upper  
146 100  
111 41.0 21.5 64.5  
148 62.8 32.0 96.2

Manual Integrations  
APPROVED

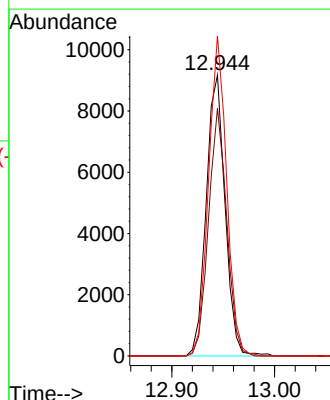
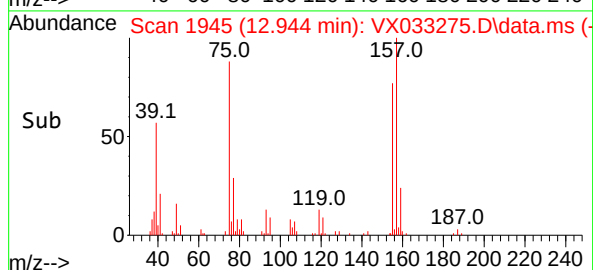
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

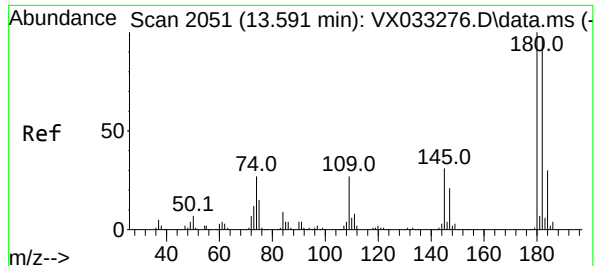


#92  
1,2-Dibromo-3-Chloropropane  
Concen: 25.947 ug/l  
RT: 12.944 min Scan# 1945  
Delta R.T. -0.001 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32



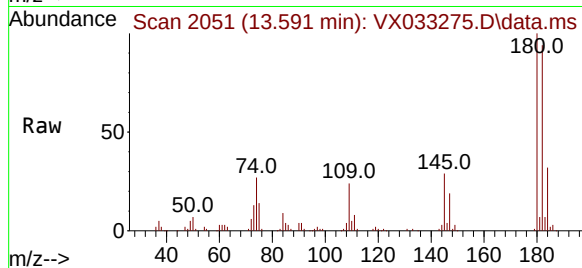
Tgt Ion: 75 Resp: 11683  
Ion Ratio Lower Upper  
75 100  
155 85.4 41.6 124.8  
157 109.4 54.1 162.4





#93  
1,2,4-Trichlorobenzene  
Concen: 23.338 ug/l  
RT: 13.591 min Scan# 2051  
Delta R.T. -0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

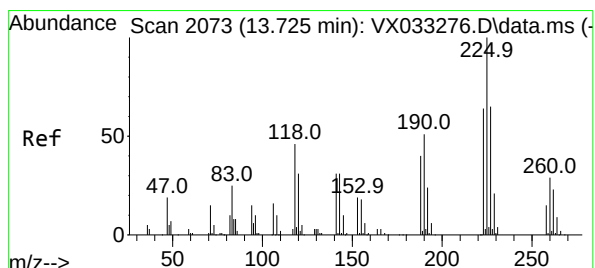
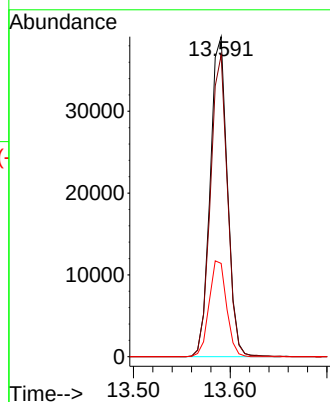
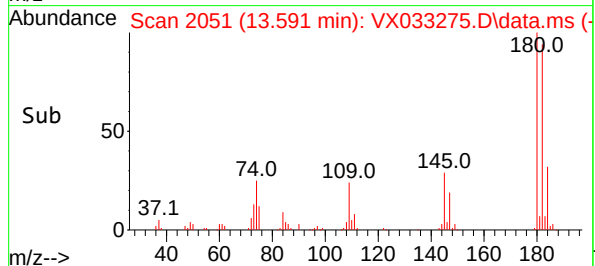
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020



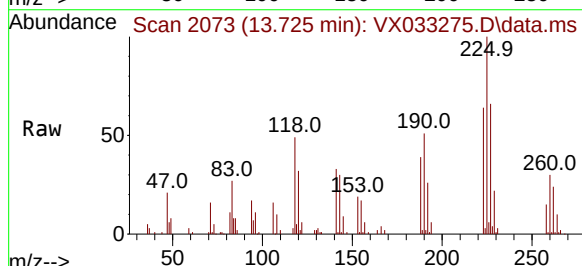
Tgt Ion:180 Resp: 48268  
Ion Ratio Lower Upper  
180 100  
182 93.7 48.4 145.0  
145 30.3 16.2 48.5

Manual Integrations  
APPROVED

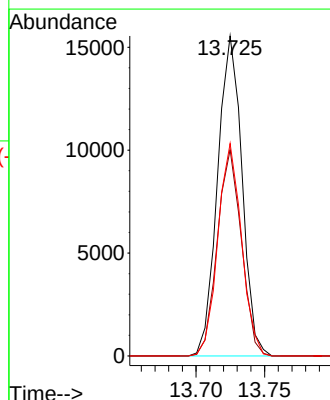
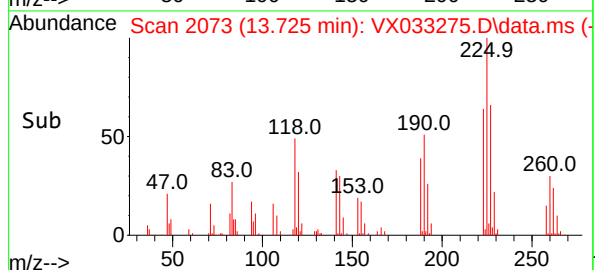
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

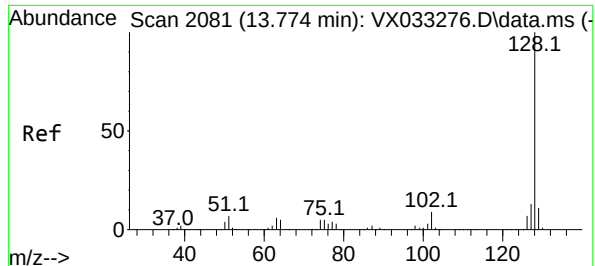


#94  
Hexachlorobutadiene  
Concen: 21.110 ug/l  
RT: 13.725 min Scan# 2073  
Delta R.T. -0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32



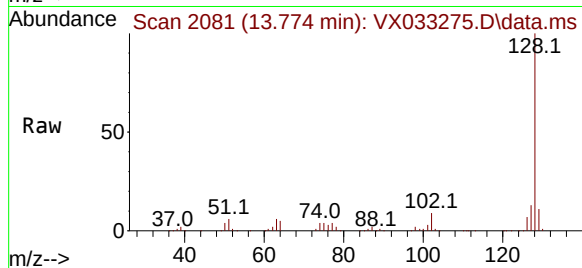
Tgt Ion:225 Resp: 19262  
Ion Ratio Lower Upper  
225 100  
223 63.3 31.9 95.9  
227 64.2 31.9 95.5





#95  
Naphthalene  
Concen: 24.481 ug/l  
RT: 13.774 min Scan# 2081  
Delta R.T. -0.006 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

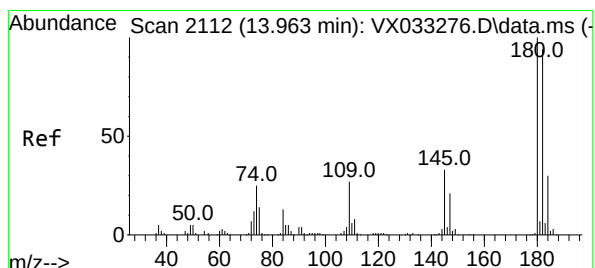
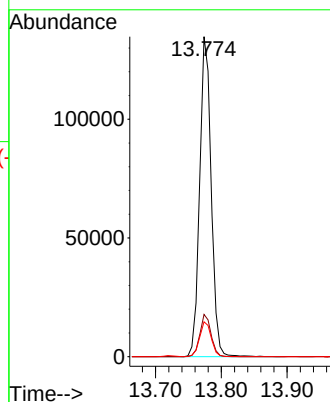
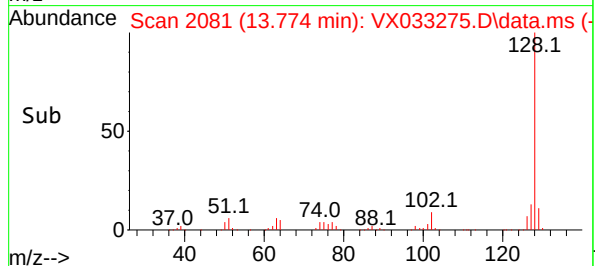
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC020



Tgt Ion:128 Resp: 163799  
Ion Ratio Lower Upper  
128 100  
127 12.9 10.2 15.4  
129 11.0 8.9 13.3

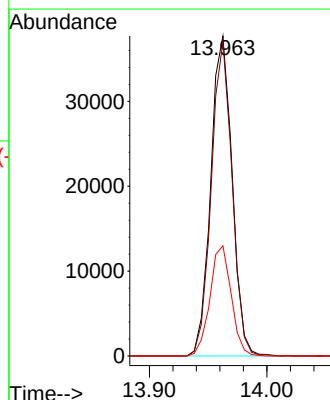
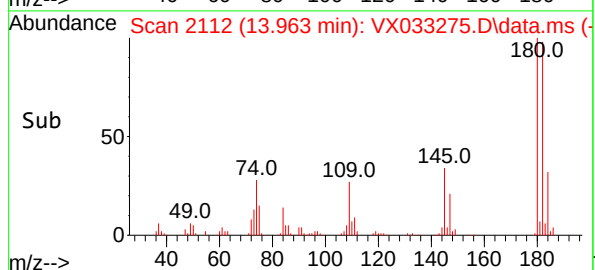
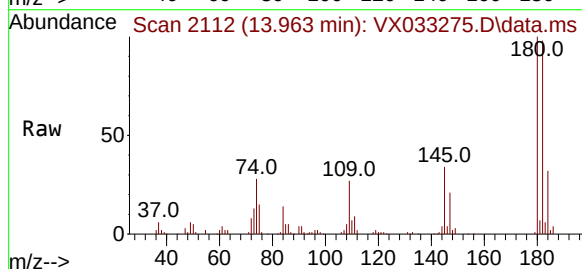
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#96  
1,2,3-Trichlorobenzene  
Concen: 22.997 ug/l  
RT: 13.963 min Scan# 2112  
Delta R.T. -0.000 min  
Lab File: VX033275.D  
Acq: 07 Dec 2022 10:32

Tgt Ion:180 Resp: 47697  
Ion Ratio Lower Upper  
180 100  
182 95.2 47.5 142.6  
145 34.2 16.9 50.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033276.D  
 Acq On : 07 Dec 2022 10:55  
 Operator : JC/MD  
 Sample : VSTDICCC050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDICCC050

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/08/2022  
 Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:21:04 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 09:47:15 2022  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response   | Conc     | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|----------|--------|----------|
| -----                        |                |      |            |          |        |          |
| Internal Standards           |                |      |            |          |        |          |
| 1) Pentafluorobenzene        | 5.556          | 168  | 158881     | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 6.763          | 114  | 255290     | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 10.055         | 117  | 233891     | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 12.024         | 152  | 115251     | 50.000   | ug/l   | 0.00     |
|                              |                |      |            |          |        |          |
| System Monitoring Compounds  |                |      |            |          |        |          |
| 33) 1,2-Dichloroethane-d4    | 5.958          | 65   | 45704      | 26.704   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 78 - 117 |      | Recovery = | 53.400%# |        |          |
| 35) Dibromofluoromethane     | 5.391          | 113  | 52030      | 36.151   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = | 72.300%# |        |          |
| 50) Toluene-d8               | 8.653          | 98   | 113428     | 24.276   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 92 - 112 |      | Recovery = | 48.560%# |        |          |
| 62) 4-Bromofluorobenzene     | 11.085         | 95   | 90159      | 47.689   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 83 - 123 |      | Recovery = | 95.380%  |        |          |
|                              |                |      |            |          |        |          |
| Target Compounds             |                |      |            |          | Qvalue |          |
| 2) Dichlorodifluoromethane   | 1.166          | 85   | 51981      | 42.824   | ug/l   | 100      |
| 3) Chloromethane             | 1.294          | 50   | 57823      | 44.126   | ug/l   | 95       |
| 4) Vinyl Chloride            | 1.373          | 62   | 67871      | 46.517   | ug/l   | 98       |
| 5) Bromomethane              | 1.617          | 94   | 47634      | 44.026   | ug/l   | 95       |
| 6) Chloroethane              | 1.690          | 64   | 53654      | 45.170   | ug/l   | 99       |
| 7) Trichlorofluoromethane    | 1.885          | 101  | 129548     | 45.748   | ug/l   | 100      |
| 8) Diethyl Ether             | 2.135          | 74   | 43677      | 48.991   | ug/l   | 98       |
| 9) 1,1,2-Trichlorotrifluo... | 2.330          | 101  | 70688      | 47.492   | ug/l   | 98       |
| 10) Methyl Iodide            | 2.452          | 142  | 77866      | 45.699   | ug/l   | 100      |
| 11) Tert butyl alcohol       | 2.995          | 59   | 63661      | 259.553  | ug/l   | 97       |
| 12) 1,1-Dichloroethene       | 2.318          | 96   | 67045      | 48.355   | ug/l   | 95       |
| 13) Acrolein                 | 2.239          | 56   | 80235      | 284.793  | ug/l   | 99       |
| 14) Allyl chloride           | 2.666          | 41   | 108703     | 48.562   | ug/l   | 96       |
| 15) Acrylonitrile            | 3.068          | 53   | 179363     | 258.544  | ug/l   | 98       |
| 16) Acetone                  | 2.391          | 43   | 162918     | 225.460  | ug/l   | 98       |
| 17) Carbon Disulfide         | 2.513          | 76   | 174501     | 45.554   | ug/l   | 99       |
| 18) Methyl Acetate           | 2.708          | 43   | 102198     | 51.092   | ug/l   | 98       |
| 19) Methyl tert-butyl Ether  | 3.111          | 73   | 234733     | 48.816   | ug/l   | 98       |
| 20) Methylene Chloride       | 2.794          | 84   | 74742      | 42.935   | ug/l   | 93       |
| 21) trans-1,2-Dichloroethene | 3.093          | 96   | 74596      | 47.033   | ug/l   | 98       |
| 22) Diisopropyl ether        | 3.763          | 45   | 239712     | 49.181   | ug/l   | 99       |
| 23) Vinyl Acetate            | 3.720          | 43   | 932198     | 244.330  | ug/l   | 98       |
| 24) 1,1-Dichloroethane       | 3.611          | 63   | 134140     | 48.093   | ug/l   | 99       |
| 25) 2-Butanone               | 4.562          | 43   | 256828     | 257.754  | ug/l   | 99       |
| 26) 2,2-Dichloropropane      | 4.476          | 77   | 102996     | 45.925   | ug/l   | 100      |
| 27) cis-1,2-Dichloroethene   | 4.489          | 96   | 89089      | 49.439   | ug/l   | 97       |
| 28) Bromochloromethane       | 4.903          | 49   | 59340      | 48.418   | ug/l   | 94       |
| 29) Tetrahydrofuran          | 5.013          | 42   | 166665     | 263.602  | ug/l   | 99       |
| 30) Chloroform               | 5.098          | 83   | 152229     | 48.731   | ug/l   | 99       |
| 31) Cyclohexane              | 5.470          | 56   | 118008     | 47.071   | ug/l   | 95       |
| 32) 1,1,1-Trichloroethane    | 5.385          | 97   | 135108     | 48.294   | ug/l   | 99       |
| 36) 1,1-Dichloropropene      | 5.696          | 75   | 107681     | 46.792   | ug/l   | 99       |
| 37) Ethyl Acetate            | 4.714          | 43   | 101371     | 50.491   | ug/l   | 100      |
| 38) Carbon Tetrachloride     | 5.677          | 117  | 122084     | 47.822   | ug/l   | 96       |
| 39) Methylcyclohexane        | 7.384          | 83   | 125111     | 47.648   | ug/l   | 98       |
| 40) Benzene                  | 6.037          | 78   | 309956     | 48.039   | ug/l   | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033276.D  
 Acq On : 07 Dec 2022 10:55  
 Operator : JC/MD  
 Sample : VSTDICCC050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDICCC050

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/08/2022  
 Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:21:04 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 09:47:15 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| 41) Methacrylonitrile         | 4.922  | 41   | 57319    | 50.738   | ug/l   | 98       |
| 42) 1,2-Dichloroethane        | 6.092  | 62   | 121854   | 46.905   | ug/l   | 99       |
| 43) Isopropyl Acetate         | 6.342  | 43   | 163749   | 49.316   | ug/l   | 98       |
| 44) Trichloroethene           | 7.128  | 130  | 86406    | 47.724   | ug/l   | 100      |
| 45) 1,2-Dichloropropane       | 7.433  | 63   | 78837    | 49.442   | ug/l   | 99       |
| 46) Dibromomethane            | 7.580  | 93   | 59524    | 47.841   | ug/l   | 99       |
| 47) Bromodichloromethane      | 7.823  | 83   | 119589   | 49.743   | ug/l   | 98       |
| 48) Methyl methacrylate       | 7.695  | 41   | 84608    | 49.504   | ug/l   | 95       |
| 49) 1,4-Dioxane               | 7.701  | 88   | 38262    | 1216.156 | ug/l   | 99       |
| 51) 4-Methyl-2-Pentanone      | 8.573  | 43   | 526567   | 257.000  | ug/l   | 97       |
| 52) Toluene                   | 8.720  | 92   | 207899   | 48.976   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene     | 8.982  | 75   | 119339   | 50.573   | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene   | 8.366  | 75   | 130089   | 50.193   | ug/l   | 93       |
| 55) 1,1,2-Trichloroethane     | 9.152  | 97   | 85123    | 49.254   | ug/l   | 99       |
| 56) Ethyl methacrylate        | 9.116  | 69   | 124802   | 52.411   | ug/l   | 93       |
| 57) 1,3-Dichloropropane       | 9.311  | 76   | 136551   | 48.943   | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether | 8.244  | 63   | 286076   | 252.998  | ug/l   | 100      |
| 59) 2-Hexanone                | 9.433  | 43   | 390656   | 258.105  | ug/l   | 96       |
| 60) Dibromochloromethane      | 9.524  | 129  | 96040    | 51.615   | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 9.610  | 107  | 91480    | 50.149   | ug/l   | 99       |
| 64) Tetrachloroethene         | 9.274  | 164  | 75304    | 45.485   | ug/l   | 97       |
| 65) Chlorobenzene             | 10.079 | 112  | 225991   | 48.463   | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane | 10.164 | 131  | 86946    | 50.887   | ug/l   | 99       |
| 67) Ethyl Benzene             | 10.195 | 91   | 405828   | 49.061   | ug/l   | 99       |
| 68) m/p-Xylenes               | 10.305 | 106  | 316676   | 97.764   | ug/l   | 98       |
| 69) o-Xylene                  | 10.640 | 106  | 156950   | 50.078   | ug/l   | 96       |
| 70) Styrene                   | 10.658 | 104  | 260878   | 50.879   | ug/l   | 98       |
| 71) Bromoform                 | 10.798 | 173  | 71067    | 54.249   | ug/l # | 99       |
| 73) Isopropylbenzene          | 10.963 | 105  | 410304   | 49.820   | ug/l   | 99       |
| 74) N-amyl acetate            | 10.841 | 43   | 142952   | 51.025   | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 125418   | 50.456   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 11.244 | 75   | 110953m  | 50.834   | ug/l   |          |
| 77) Bromobenzene              | 11.201 | 156  | 99728    | 49.237   | ug/l   | 100      |
| 78) n-propylbenzene           | 11.305 | 91   | 466678   | 49.561   | ug/l   | 100      |
| 79) 2-Chlorotoluene           | 11.365 | 91   | 279467   | 48.866   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 343696   | 49.677   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75   | 36013    | 53.631   | ug/l   | 97       |
| 82) 4-Chlorotoluene           | 11.457 | 91   | 321742   | 48.008   | ug/l   | 98       |
| 83) tert-Butylbenzene         | 11.713 | 119  | 342890   | 49.789   | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene    | 11.750 | 105  | 340117   | 49.302   | ug/l   | 99       |
| 85) sec-Butylbenzene          | 11.890 | 105  | 407442   | 49.452   | ug/l   | 98       |
| 86) p-Isopropyltoluene        | 12.012 | 119  | 347069   | 49.719   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 11.969 | 146  | 184702   | 48.618   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 12.042 | 146  | 183674   | 47.208   | ug/l   | 99       |
| 89) n-Butylbenzene            | 12.335 | 91   | 289041   | 48.064   | ug/l   | 99       |
| 90) Hexachloroethane          | 12.542 | 117  | 58312    | 50.845   | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene       | 12.335 | 146  | 179882   | 48.675   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 12.944 | 75   | 26891    | 54.222   | ug/l   | 95       |
| 93) 1,2,4-Trichlorobenzene    | 13.591 | 180  | 110381   | 48.454   | ug/l   | 99       |
| 94) Hexachlorobutadiene       | 13.725 | 225  | 44005    | 43.785   | ug/l   | 99       |
| 95) Naphthalene               | 13.774 | 128  | 382237   | 51.866   | ug/l   | 100      |
| 96) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 113042   | 49.483   | ug/l   | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033276.D  
Acq On : 07 Dec 2022 10:55  
Operator : JC/MD  
Sample : VSTDICCC050  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

Manual Integrations  
APPROVED

Reviewed By : John Carlone 12/08/2022  
Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:21:04 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 09:47:15 2022  
Response via : Initial Calibration

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

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

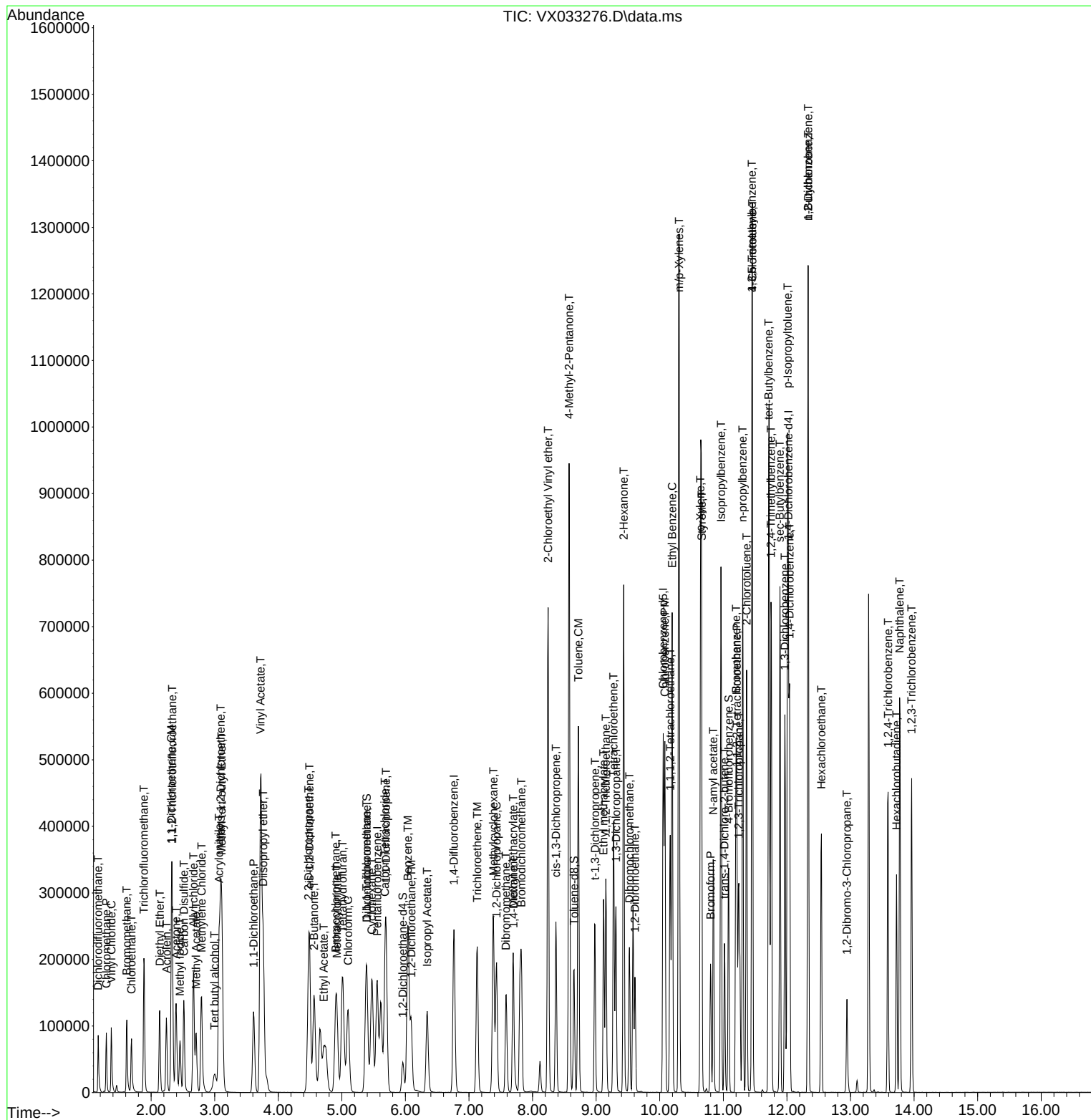
```
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\  
Data File : VX033276.D  
Acq On    : 07 Dec 2022  10:55  
Operator  : JC/MD  
Sample    : VSTDICCC050  
Misc      : 5.0mL/MSVOA_X/WATER  
ALS Vial  : 5      Sample Multiplier: 1
```

**Instrument :**  
MSVOA\_X  
**ClientSampleId :**  
VSTDICCC050

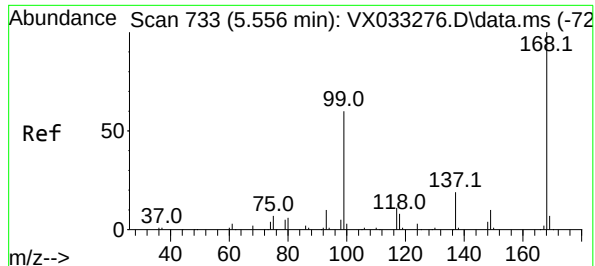
## Manual Integrations APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:21:04 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 09:47:15 2022  
Response via : Initial Calibration

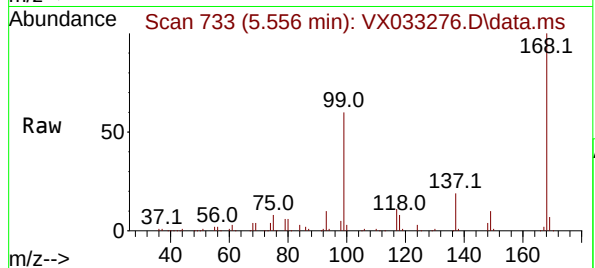






#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.556 min Scan# 71  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

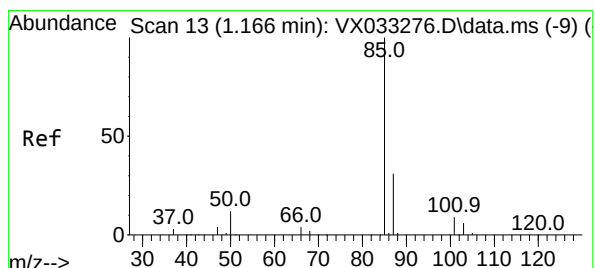
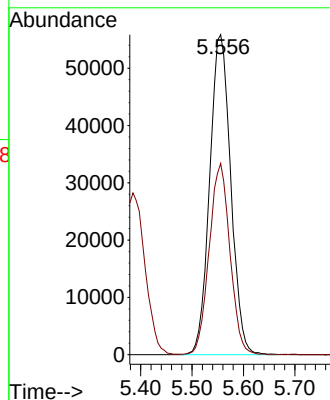
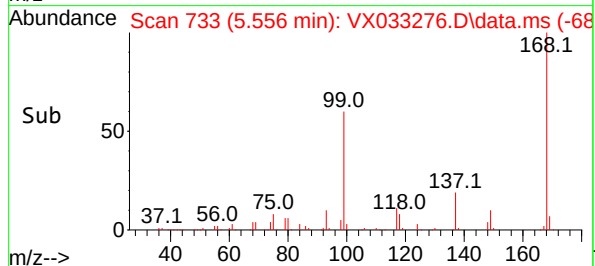
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050



Tgt Ion:168 Resp: 15888  
Ion Ratio Lower Upper  
168 100  
99 59.6 46.1 69.1

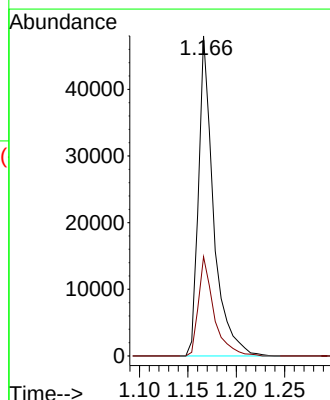
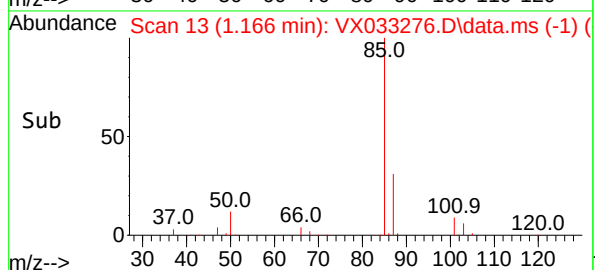
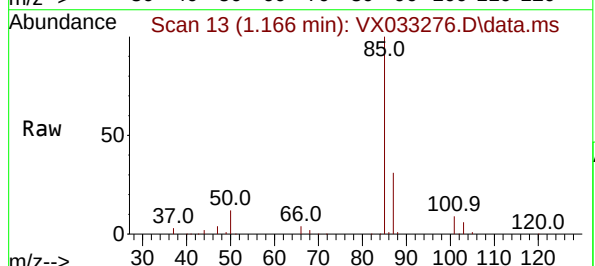
Manual Integrations  
APPROVED

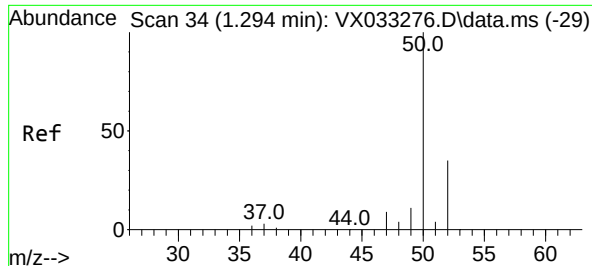
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#2  
Dichlorodifluoromethane  
Concen: 42.824 ug/l  
RT: 1.166 min Scan# 13  
Delta R.T. 0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Tgt Ion: 85 Resp: 51981  
Ion Ratio Lower Upper  
85 100  
87 31.0 15.6 46.7





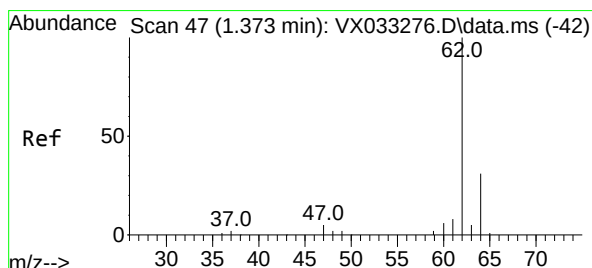
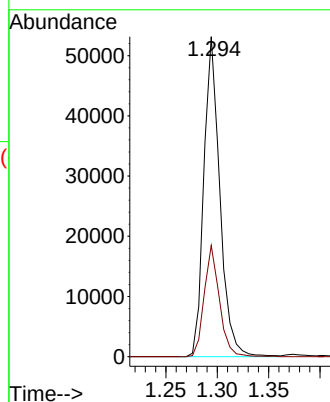
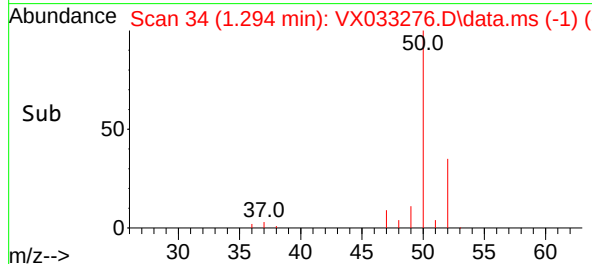
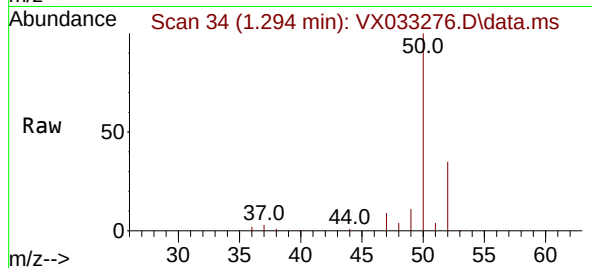
#3  
Chloromethane  
Concen: 44.126 ug/l  
RT: 1.294 min Scan# 34  
Delta R.T. 0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 50 Resp: 5782  
Ion Ratio Lower Upper  
50 100  
52 34.7 25.4 38.2

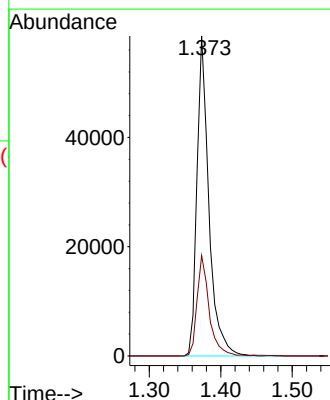
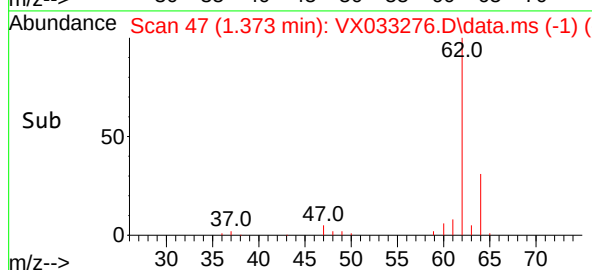
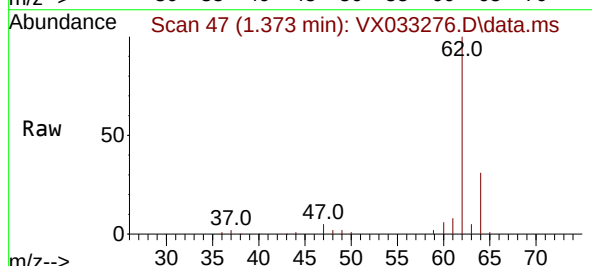
Manual Integrations  
APPROVED

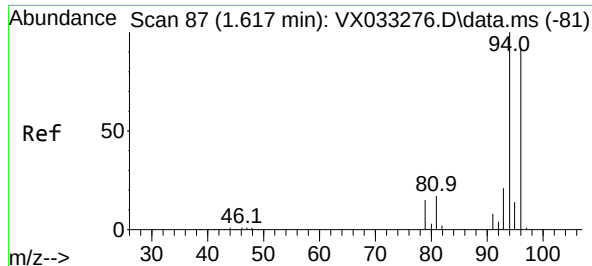
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#4  
Vinyl Chloride  
Concen: 46.517 ug/l  
RT: 1.373 min Scan# 47  
Delta R.T. -0.001 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Tgt Ion: 62 Resp: 67871  
Ion Ratio Lower Upper  
62 100  
64 31.4 25.8 38.6





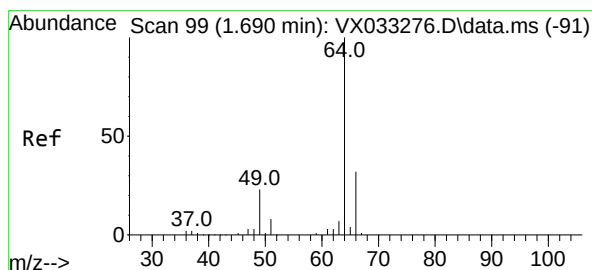
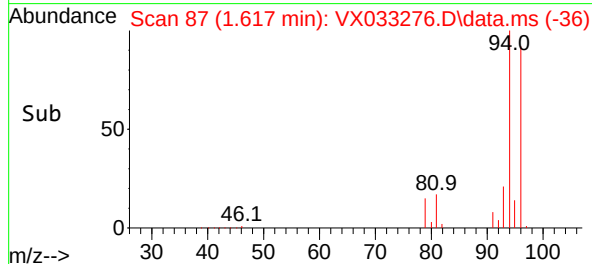
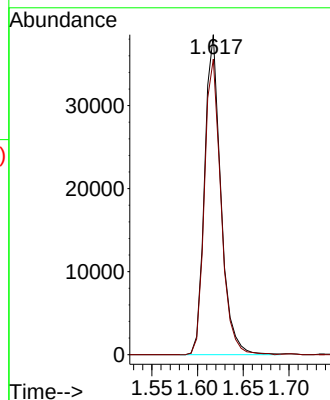
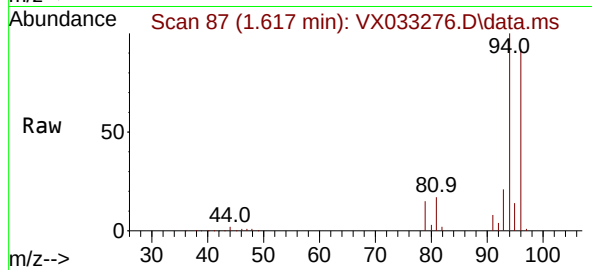
#5  
Bromomethane  
Concen: 44.026 ug/l  
RT: 1.617 min Scan# 81  
Delta R.T. 0.012 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 94 Resp: 47634  
Ion Ratio Lower Upper  
94 100  
96 92.4 77.6 116.4

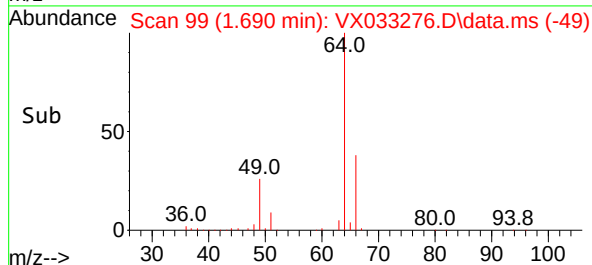
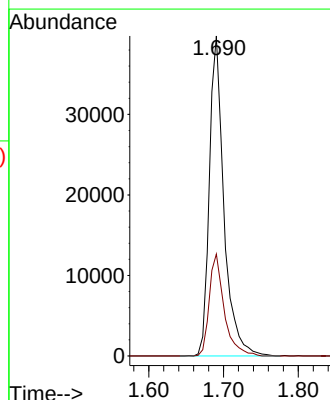
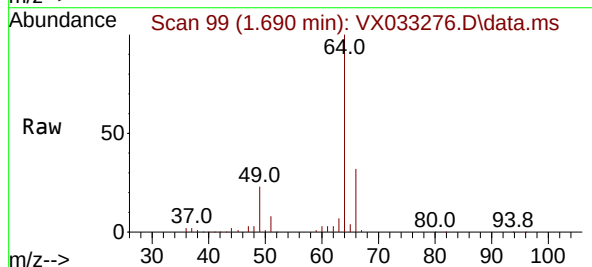
Manual Integrations  
APPROVED

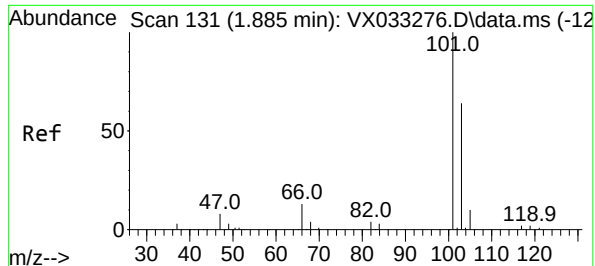
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#6  
Chloroethane  
Concen: 45.170 ug/l  
RT: 1.690 min Scan# 99  
Delta R.T. 0.005 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Tgt Ion: 64 Resp: 53654  
Ion Ratio Lower Upper  
64 100  
66 31.9 26.0 39.0





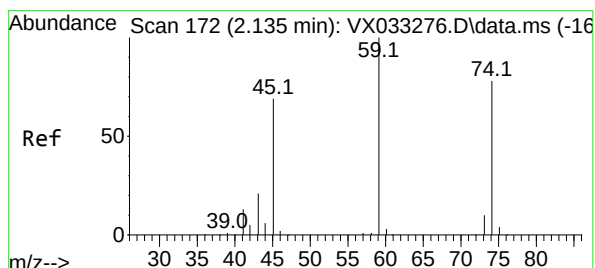
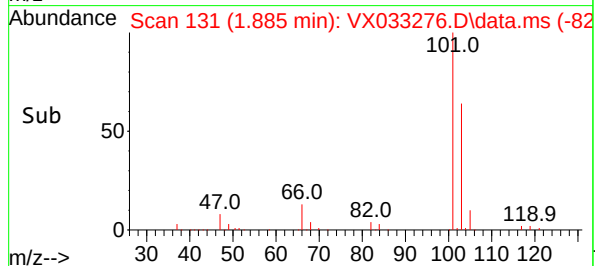
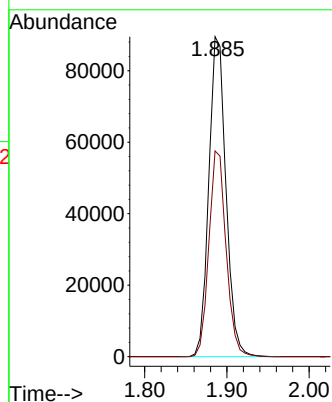
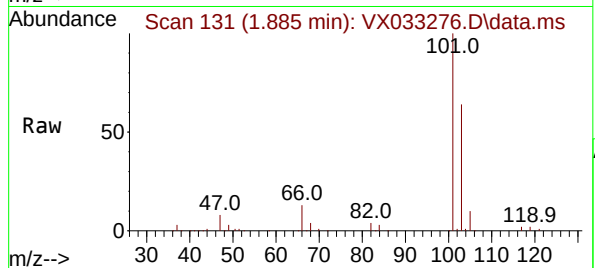
#7  
Trichlorofluoromethane  
Concen: 45.748 ug/l  
RT: 1.885 min Scan# 11  
Delta R.T. -0.001 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

Tgt Ion:101 Resp: 129548  
Ion Ratio Lower Upper  
101 100  
103 64.3 51.4 77.2

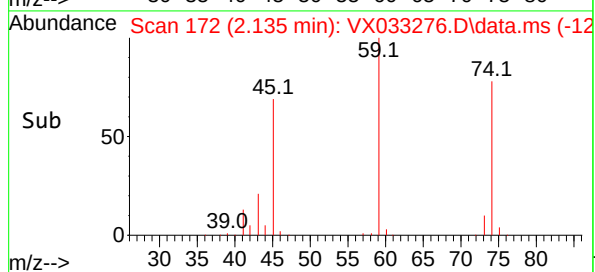
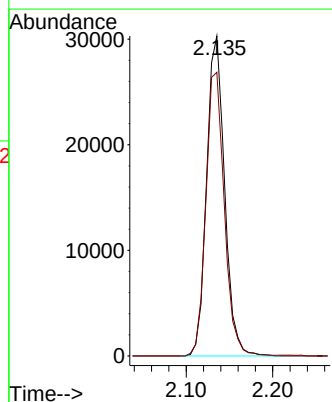
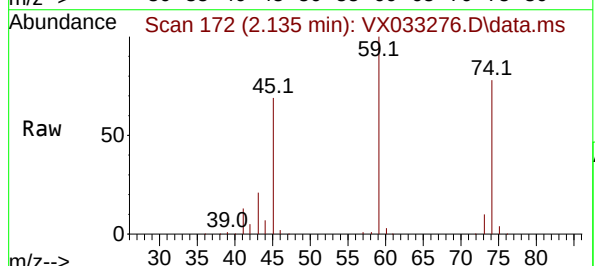
Manual Integrations  
APPROVED

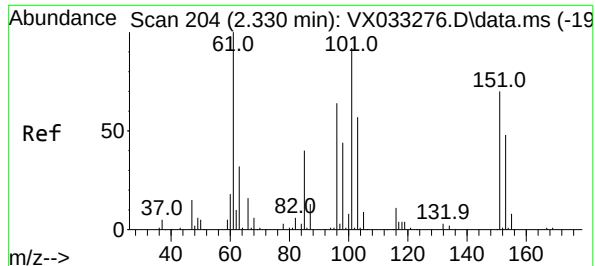
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#8  
Diethyl Ether  
Concen: 48.991 ug/l  
RT: 2.135 min Scan# 172  
Delta R.T. 0.005 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Tgt Ion: 74 Resp: 43677  
Ion Ratio Lower Upper  
74 100  
45 91.2 46.6 139.7





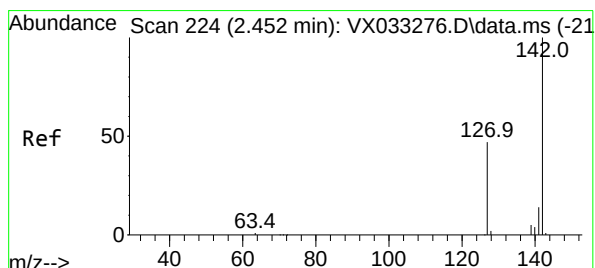
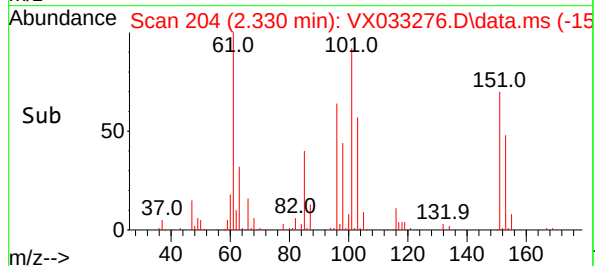
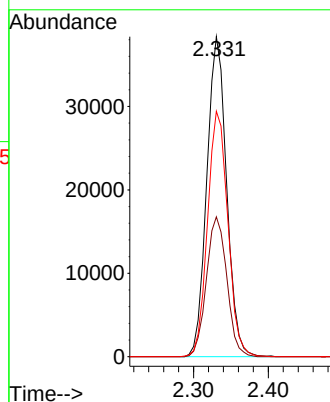
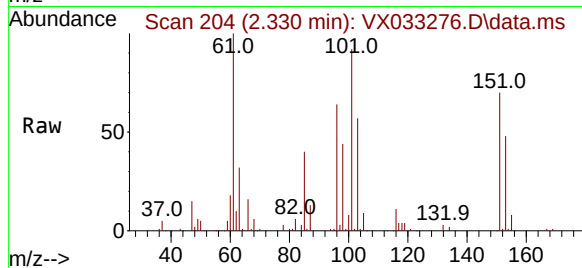
#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 47.492 ug/l  
RT: 2.330 min Scan# 204  
Delta R.T. -0.001 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

Tgt Ion:101 Resp: 70688  
Ion Ratio Lower Upper  
101 100  
85 45.0 37.0 55.4  
151 78.7 64.4 96.6

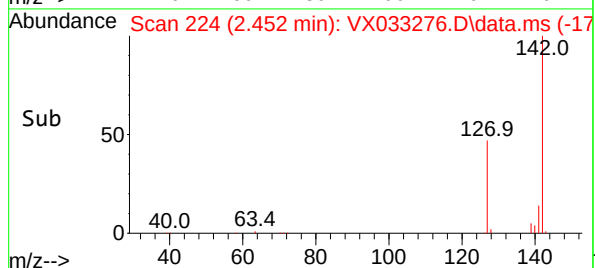
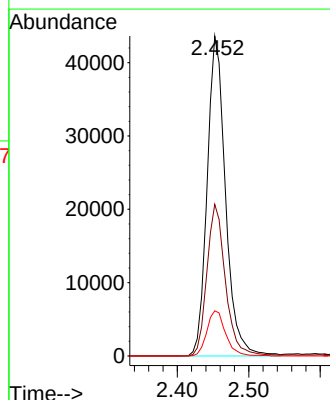
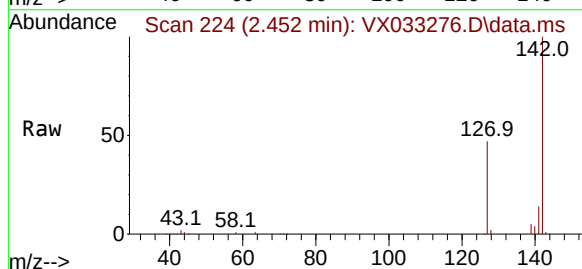
Manual Integrations  
APPROVED

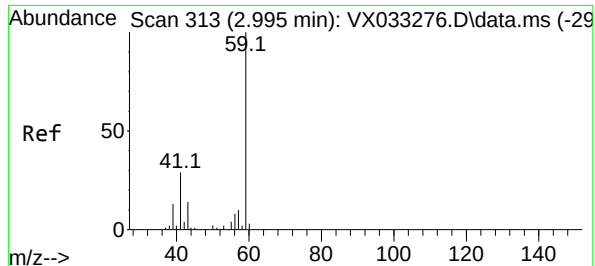
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#10  
Methyl Iodide  
Concen: 45.699 ug/l  
RT: 2.452 min Scan# 224  
Delta R.T. -0.001 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Tgt Ion:142 Resp: 77866  
Ion Ratio Lower Upper  
142 100  
127 47.9 38.6 57.8  
141 14.4 11.4 17.2





#11

Tert butyl alcohol

Concen: 259.553 ug/l

RT: 2.995 min Scan# 313

Delta R.T. 0.030 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 59 Resp: 6366

Ion Ratio Lower Upper

59 100

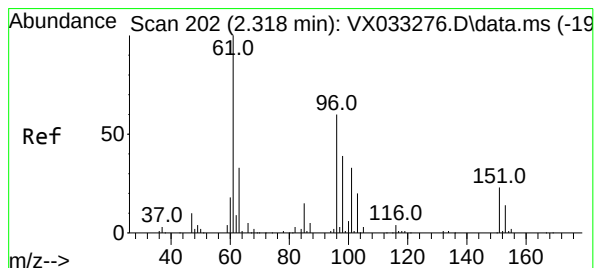
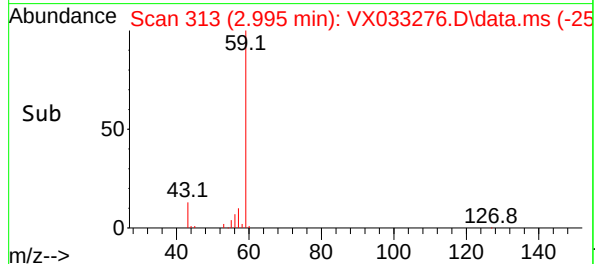
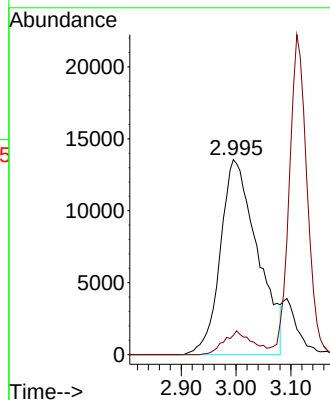
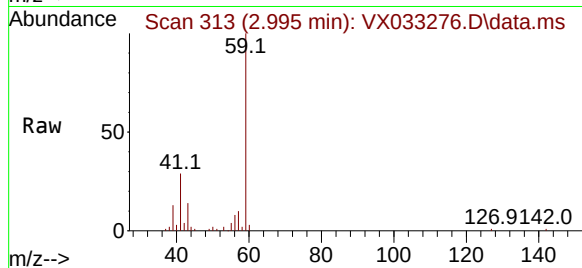
57 9.2 8.2 12.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#12

1,1-Dichloroethene

Concen: 48.355 ug/l

RT: 2.318 min Scan# 202

Delta R.T. -0.001 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

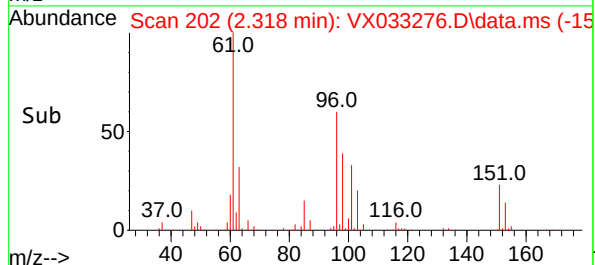
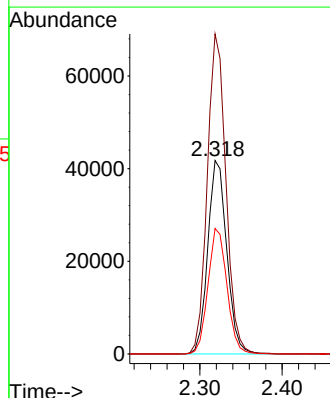
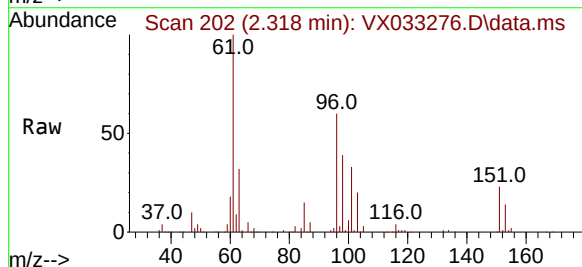
Tgt Ion: 96 Resp: 67045

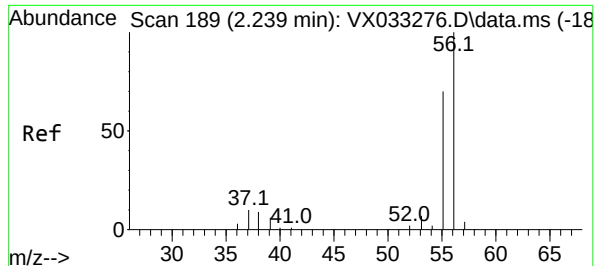
Ion Ratio Lower Upper

96 100

61 165.4 125.1 187.7

98 64.8 50.6 76.0





#13

Acrolein

Concen: 284.793 ug/l

RT: 2.239 min Scan# 189

Delta R.T. 0.006 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 56 Resp: 80239

Ion Ratio Lower Upper

56 100

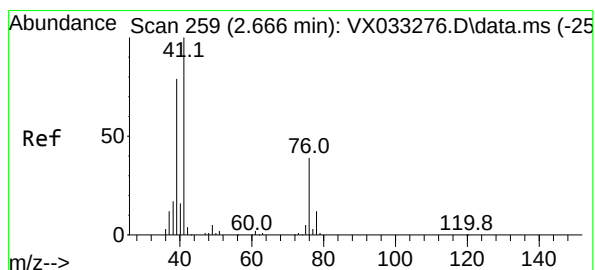
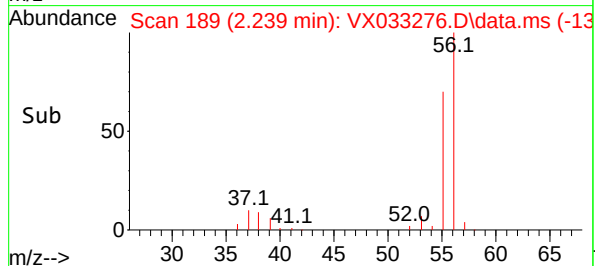
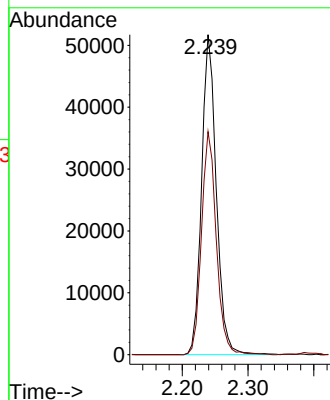
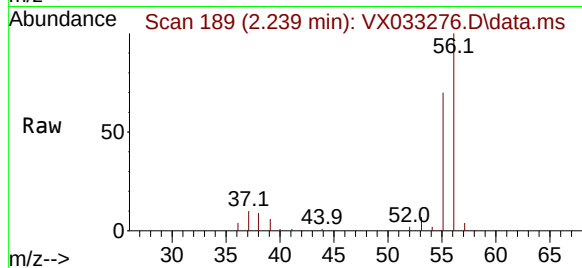
55 70.3 56.9 85.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#14

Allyl chloride

Concen: 48.562 ug/l

RT: 2.666 min Scan# 259

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

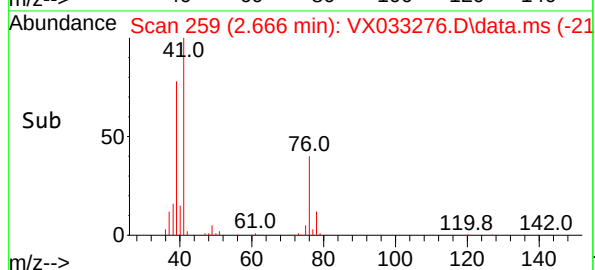
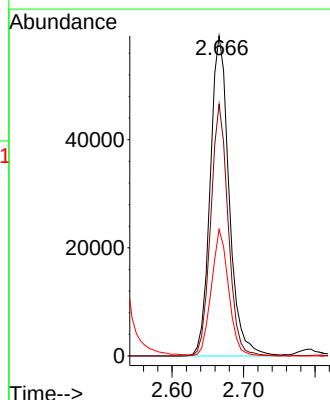
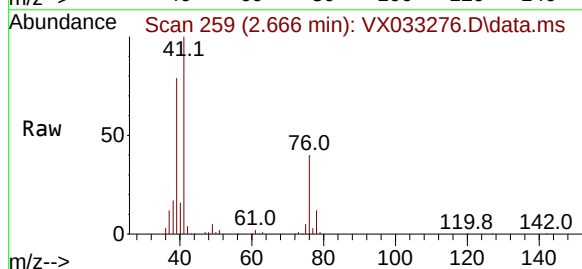
Tgt Ion: 41 Resp: 108703

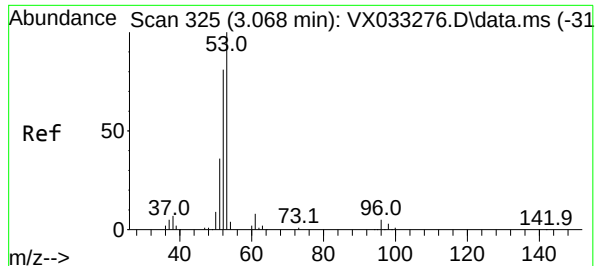
Ion Ratio Lower Upper

41 100

39 72.6 61.4 92.2

76 36.0 29.2 43.8





#15

Acrylonitrile

Concen: 258.544 ug/l

RT: 3.068 min Scan# 31

Delta R.T. 0.006 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 53 Resp: 17936

Ion Ratio Lower Upper

53 100

52 82.4 67.4 101.0

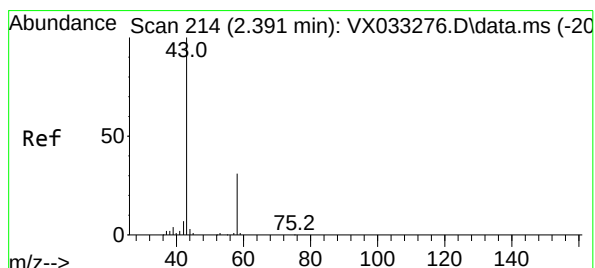
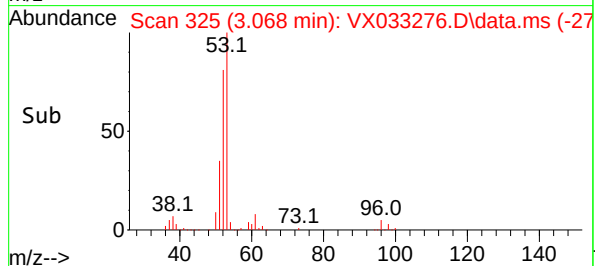
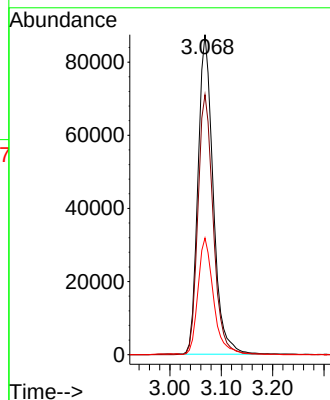
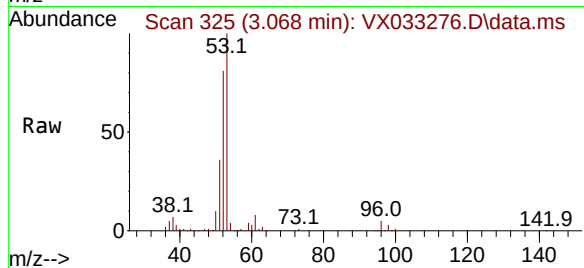
51 37.1 30.3 45.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#16

Acetone

Concen: 225.460 ug/l

RT: 2.391 min Scan# 214

Delta R.T. 0.011 min

Lab File: VX033276.D

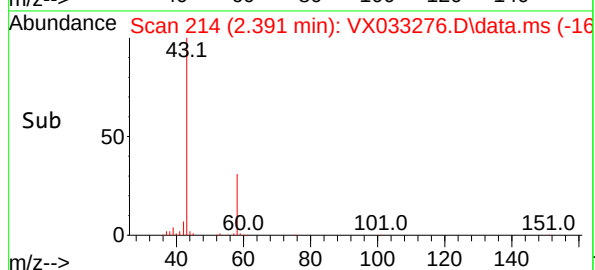
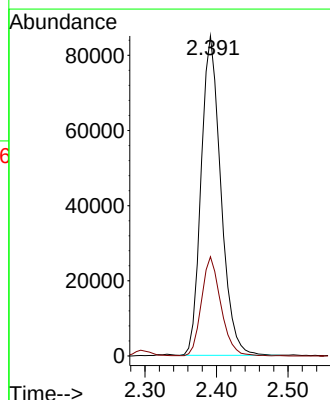
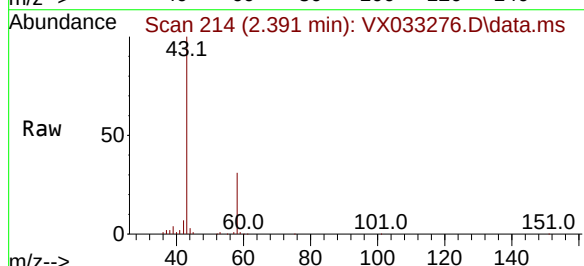
Acq: 07 Dec 2022 10:55

Tgt Ion: 43 Resp: 162918

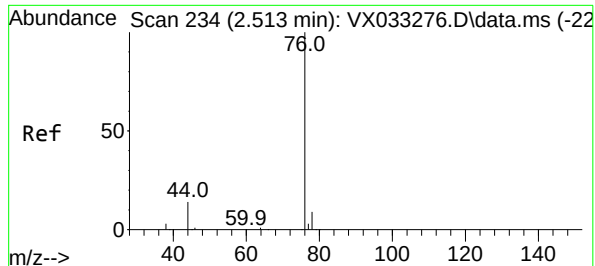
Ion Ratio Lower Upper

43 100

58 31.0 23.8 35.8







#17

Carbon Disulfide

Concen: 45.554 ug/l

RT: 2.513 min Scan# 21

Delta R.T. -0.001 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 76 Resp: 17450

Ion Ratio Lower Upper

76 100

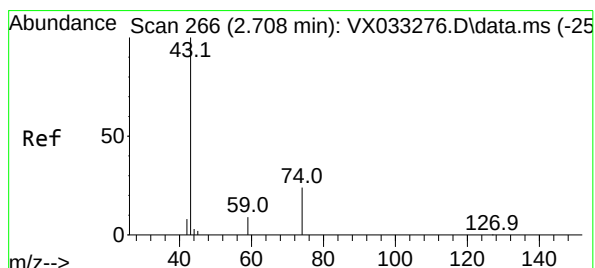
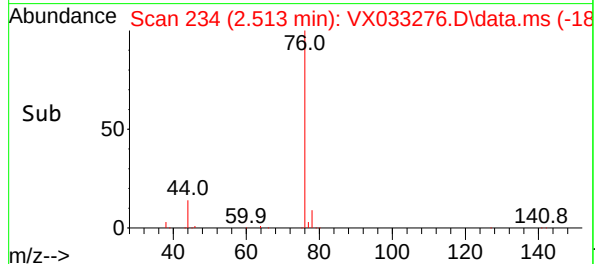
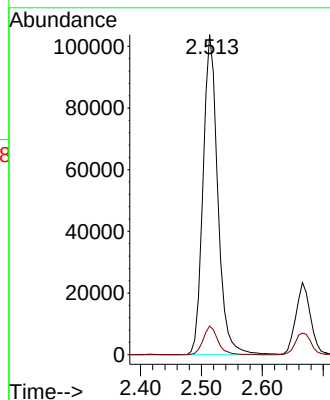
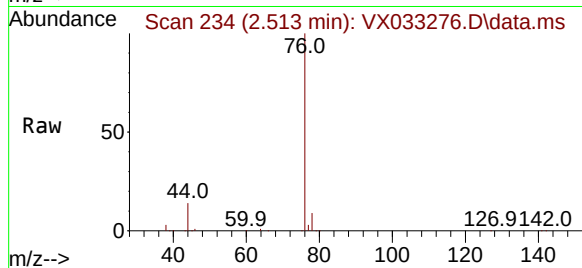
78 8.9 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#18

Methyl Acetate

Concen: 51.092 ug/l

RT: 2.708 min Scan# 266

Delta R.T. 0.005 min

Lab File: VX033276.D

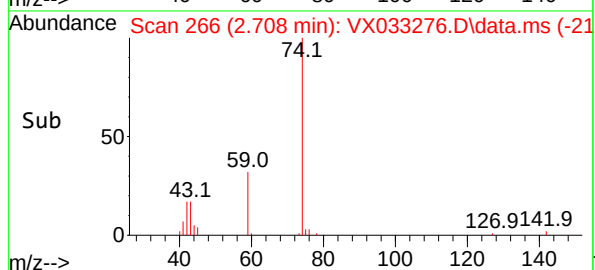
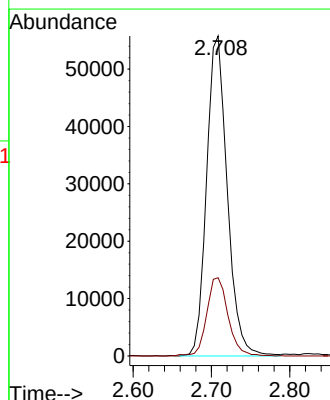
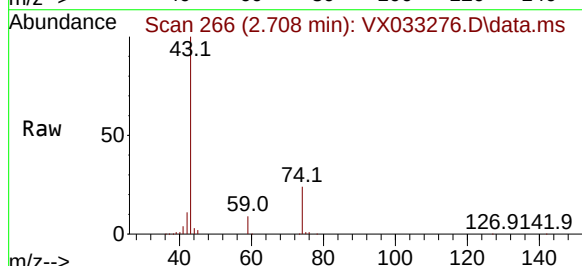
Acq: 07 Dec 2022 10:55

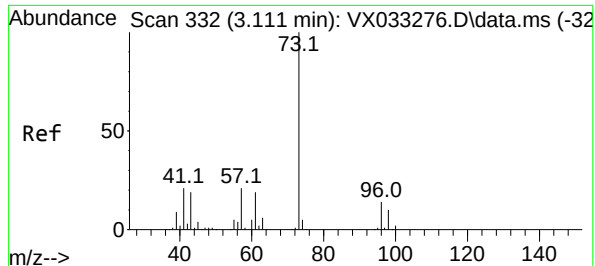
Tgt Ion: 43 Resp: 102198

Ion Ratio Lower Upper

43 100

74 25.2 19.4 29.0





#19

Methyl tert-butyl Ether

Concen: 48.816 ug/l

RT: 3.111 min Scan# 31

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 73 Resp: 23473

Ion Ratio Lower Upper

73 100

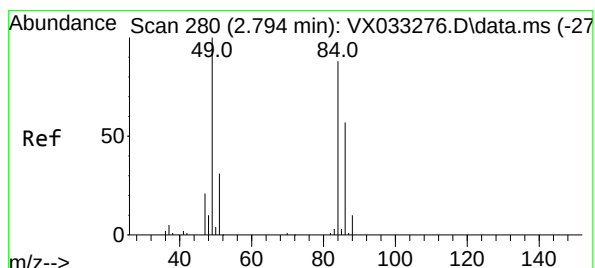
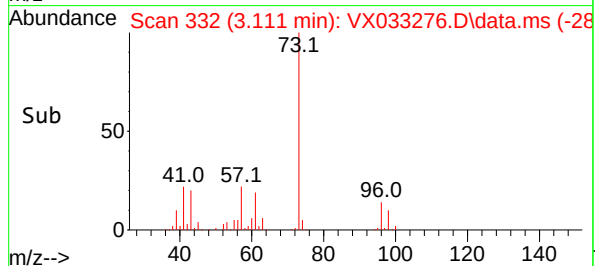
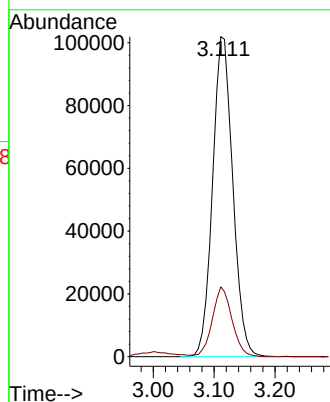
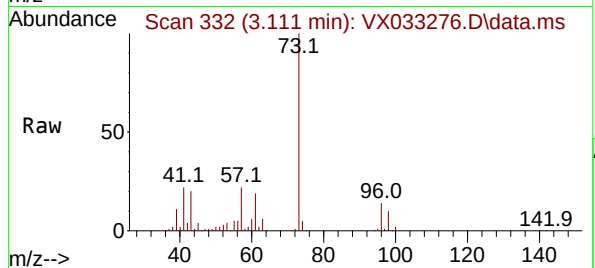
57 21.8 16.6 25.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#20

Methylene Chloride

Concen: 42.935 ug/l

RT: 2.794 min Scan# 280

Delta R.T. 0.006 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Tgt Ion: 84 Resp: 74742

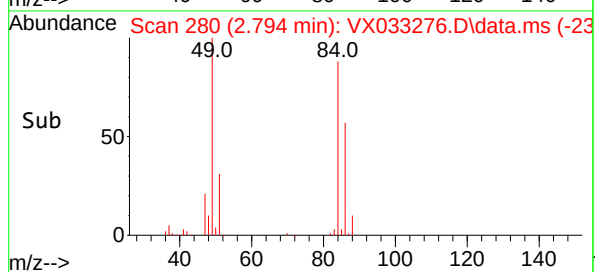
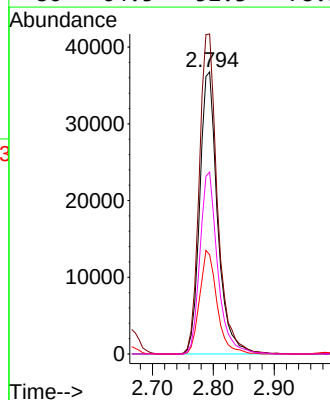
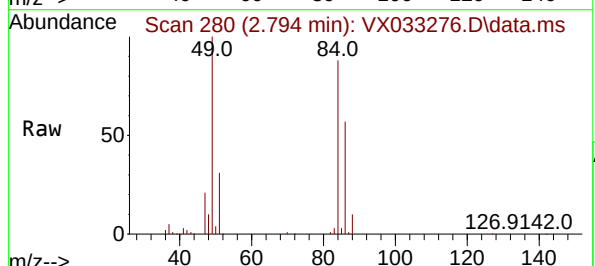
Ion Ratio Lower Upper

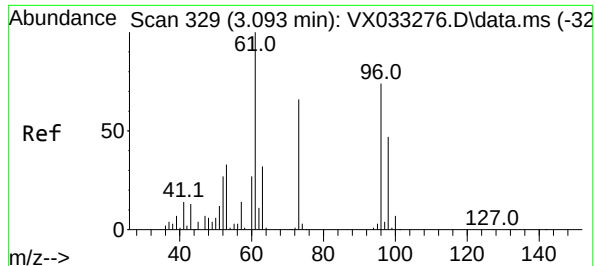
84 100

49 113.5 101.0 151.6

51 35.2 31.1 46.7

86 64.5 52.3 78.5





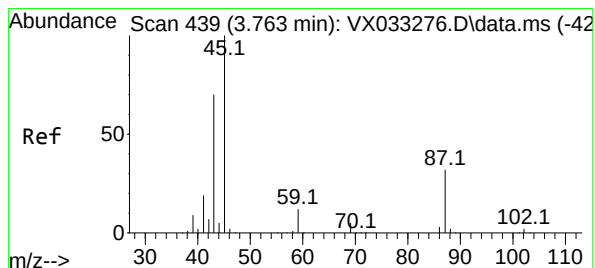
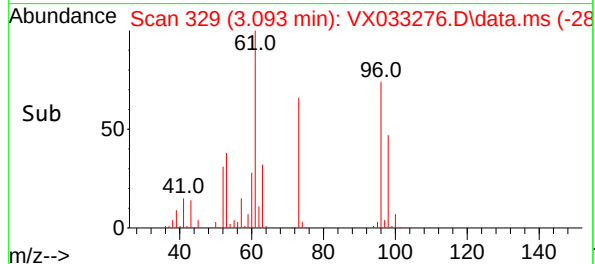
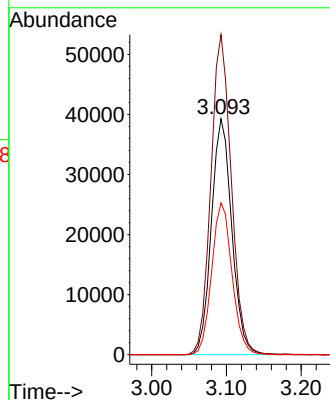
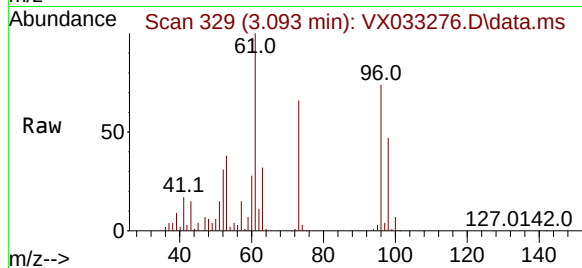
#21  
trans-1,2-Dichloroethene  
Concen: 47.033 ug/l  
RT: 3.093 min Scan# 31  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 96 Resp: 74590  
Ion Ratio Lower Upper  
96 100  
61 135.7 106.6 160.0  
98 64.4 51.0 76.6

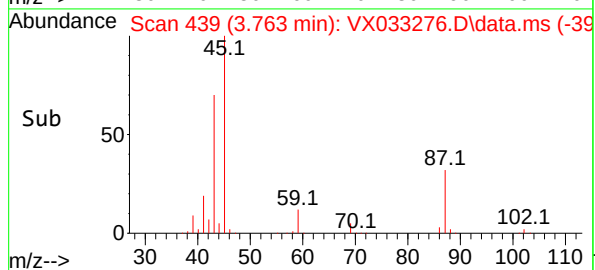
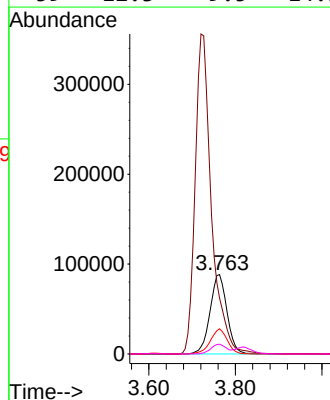
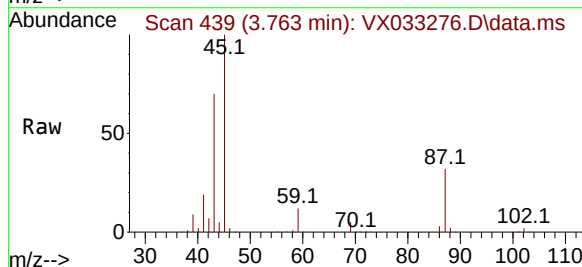
Manual Integrations  
APPROVED

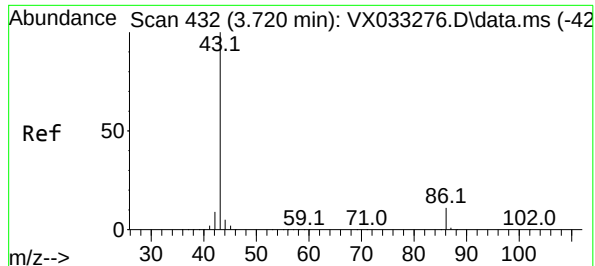
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#22  
Diisopropyl ether  
Concen: 49.181 ug/l  
RT: 3.763 min Scan# 439  
Delta R.T. 0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Tgt Ion: 45 Resp: 239712  
Ion Ratio Lower Upper  
45 100  
43 70.1 56.4 84.6  
87 31.7 24.4 36.6  
59 12.3 9.5 14.3





#23

Vinyl Acetate

Concen: 244.330 ug/l

RT: 3.720 min Scan# 41

Delta R.T. -0.001 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 43 Resp: 932198

Ion Ratio Lower Upper

43 100

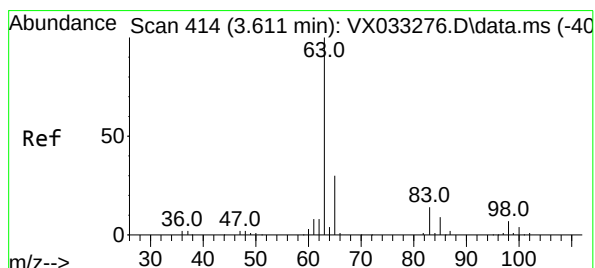
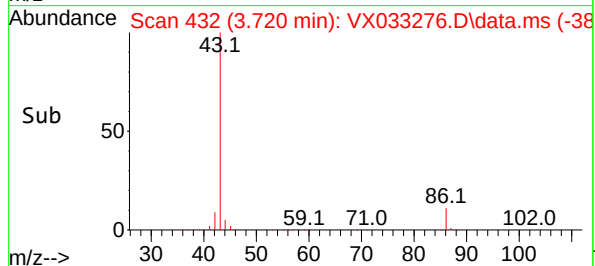
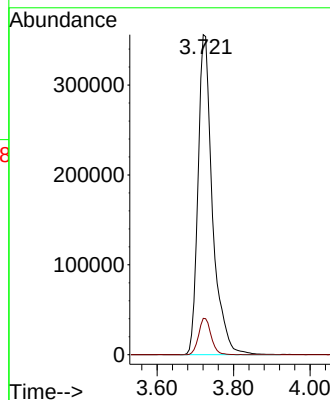
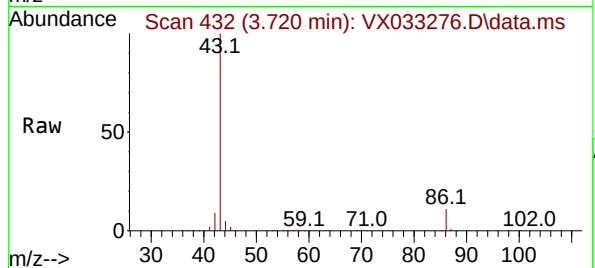
86 11.4 8.6 12.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#24

1,1-Dichloroethane

Concen: 48.093 ug/l

RT: 3.611 min Scan# 414

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

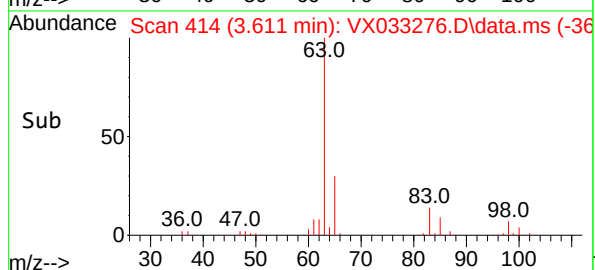
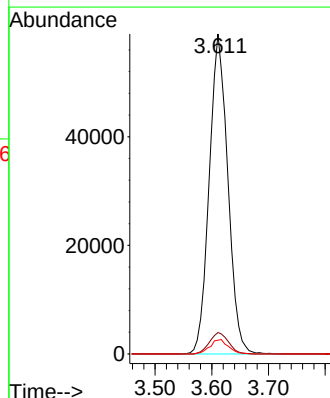
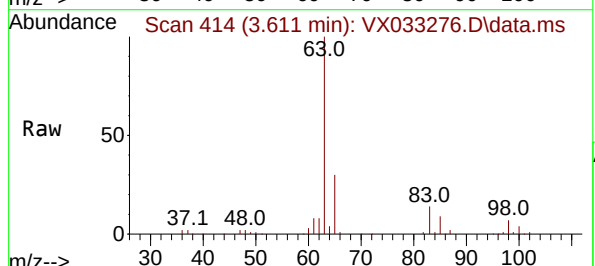
Tgt Ion: 63 Resp: 134140

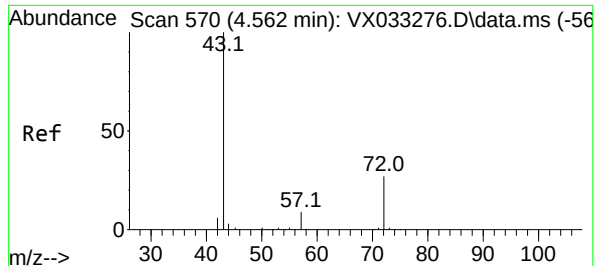
Ion Ratio Lower Upper

63 100

98 6.7 3.5 10.4

100 4.3 2.3 6.8





#25

2-Butanone

Concen: 257.754 ug/l

RT: 4.562 min Scan# 51

Delta R.T. 0.006 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 43 Resp: 256828

Ion Ratio Lower Upper

43 100

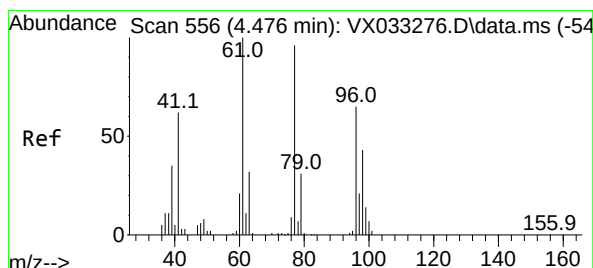
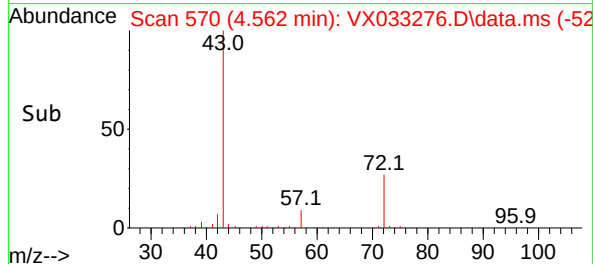
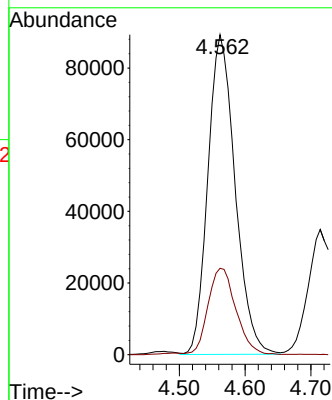
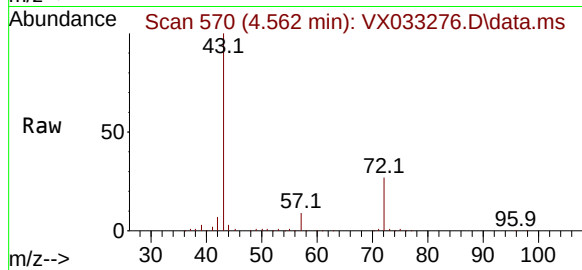
72 27.0 22.2 33.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#26

2,2-Dichloropropane

Concen: 45.925 ug/l

RT: 4.476 min Scan# 556

Delta R.T. -0.001 min

Lab File: VX033276.D

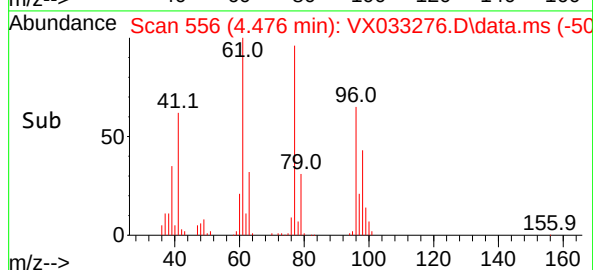
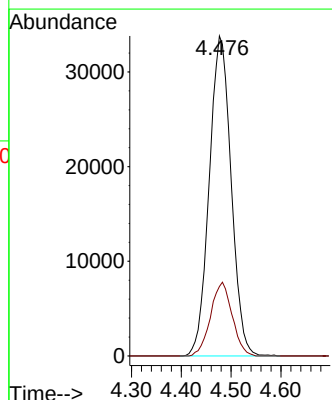
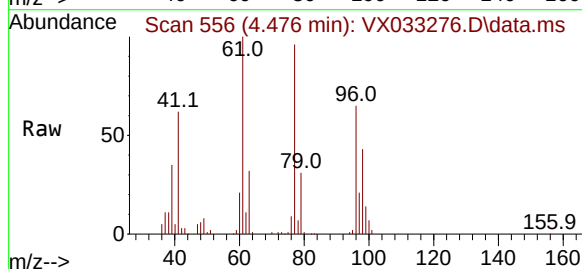
Acq: 07 Dec 2022 10:55

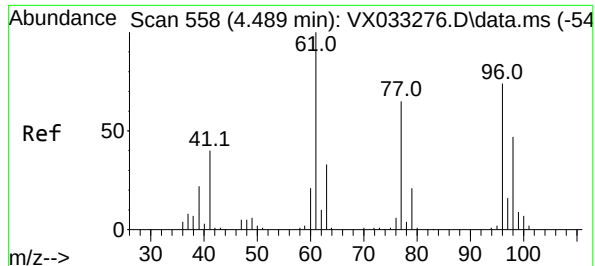
Tgt Ion: 77 Resp: 102996

Ion Ratio Lower Upper

77 100

97 22.7 11.4 34.1





#27

cis-1,2-Dichloroethene

Concen: 49.439 ug/l

RT: 4.489 min Scan# 558

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 96 Resp: 89089

Ion Ratio Lower Upper

96 100

61 138.7 0.0 286.0

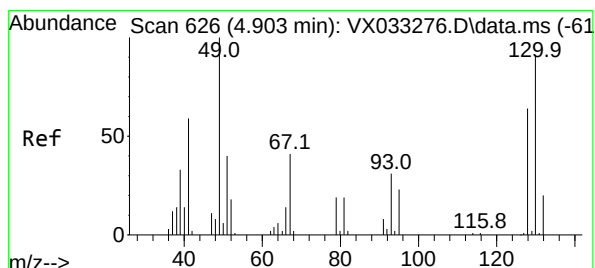
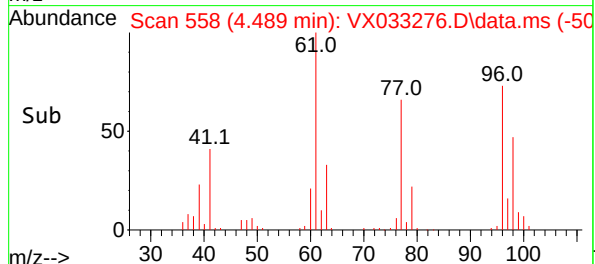
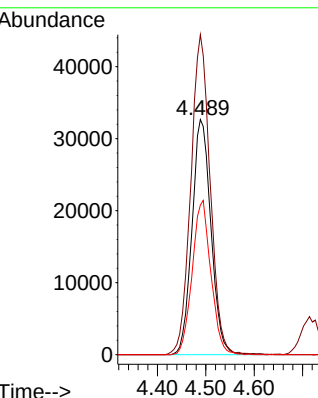
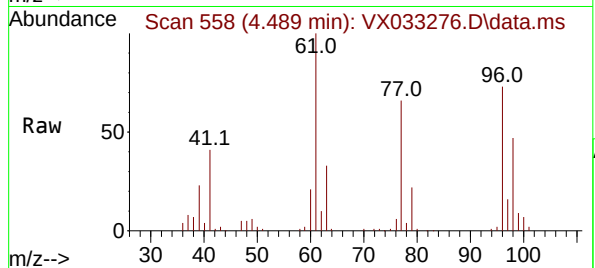
98 64.4 0.0 129.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#28

Bromochloromethane

Concen: 48.418 ug/l

RT: 4.903 min Scan# 626

Delta R.T. -0.001 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

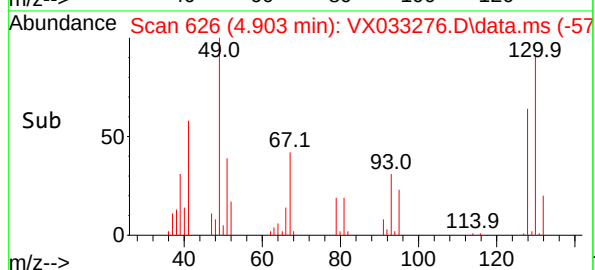
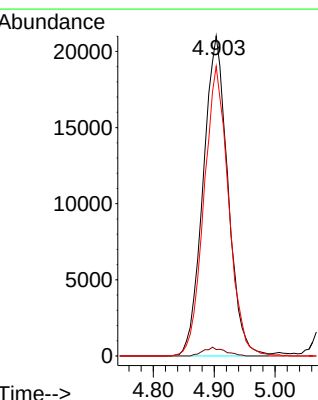
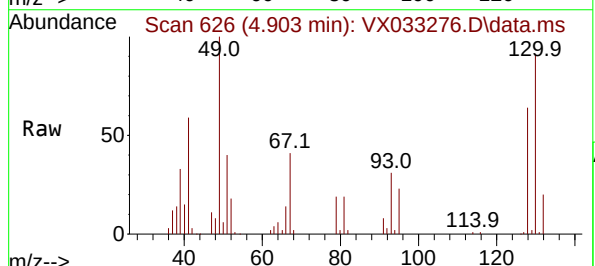
Tgt Ion: 49 Resp: 59340

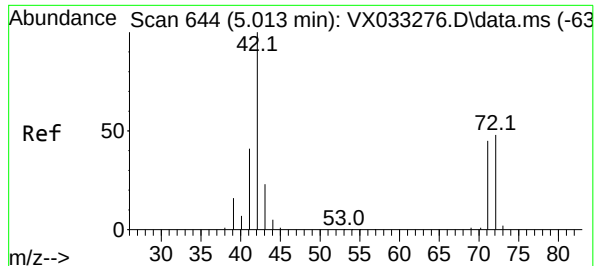
Ion Ratio Lower Upper

49 100

129 2.4 0.0 3.8

130 90.0 67.5 101.3





#29

Tetrahydrofuran

Concen: 263.602 ug/l

RT: 5.013 min Scan# 644

Delta R.T. 0.012 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 42 Resp: 16666

Ion Ratio Lower Upper

42 100

72 48.0 37.6 56.4

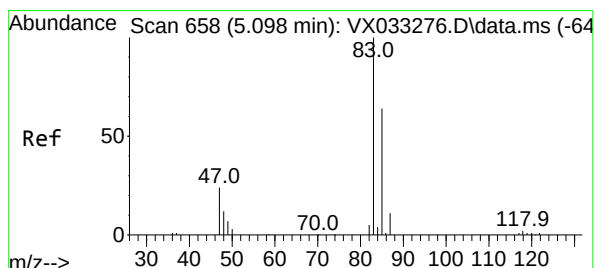
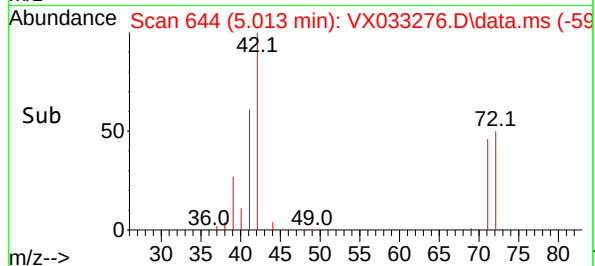
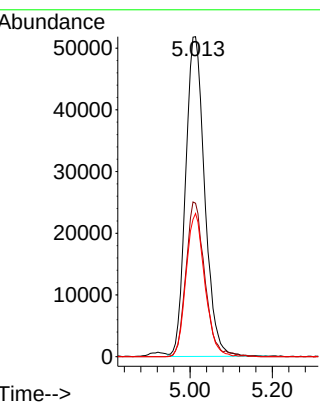
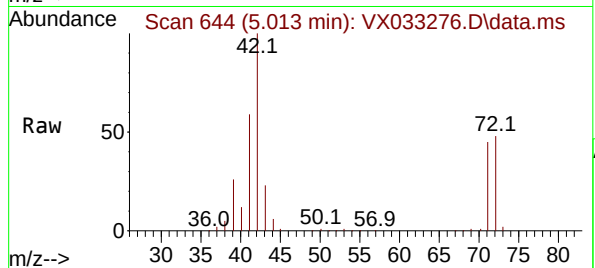
71 44.2 34.7 52.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#30

Chloroform

Concen: 48.731 ug/l

RT: 5.098 min Scan# 658

Delta R.T. -0.001 min

Lab File: VX033276.D

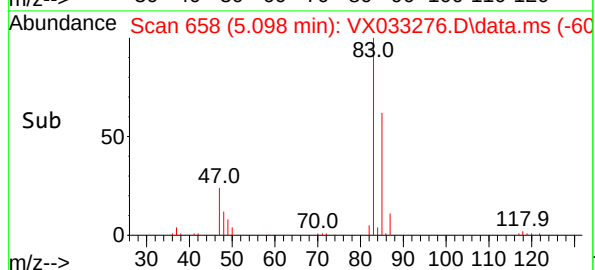
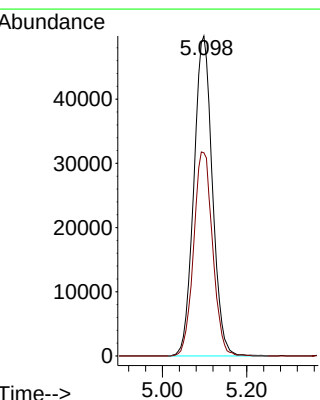
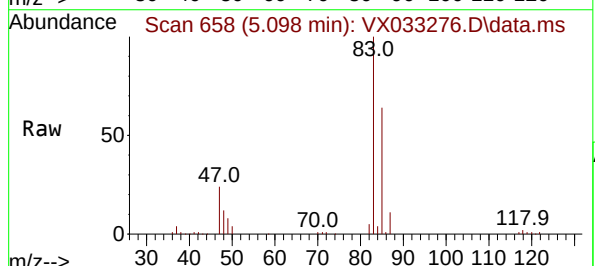
Acq: 07 Dec 2022 10:55

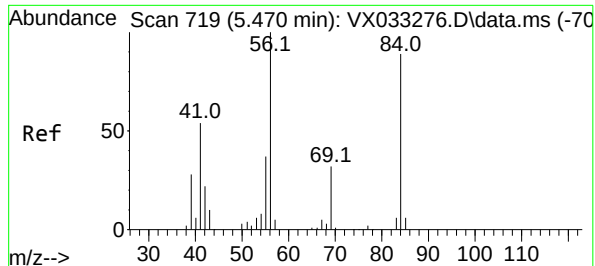
Tgt Ion: 83 Resp: 152229

Ion Ratio Lower Upper

83 100

85 63.5 51.1 76.7





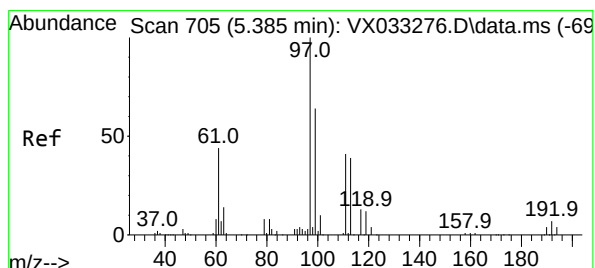
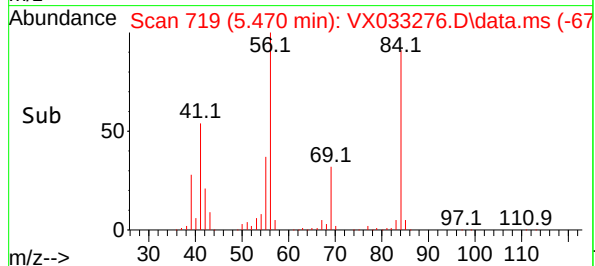
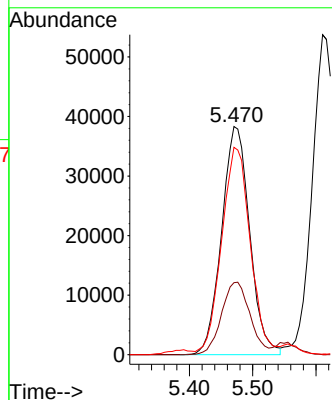
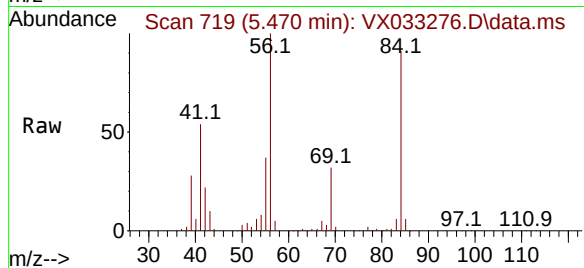
#31  
Cyclohexane  
Concen: 47.071 ug/l  
RT: 5.470 min Scan# 719  
Delta R.T. 0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 56 Resp: 118008  
Ion Ratio Lower Upper  
56 100  
69 31.6 24.1 36.1  
84 88.9 66.9 100.3

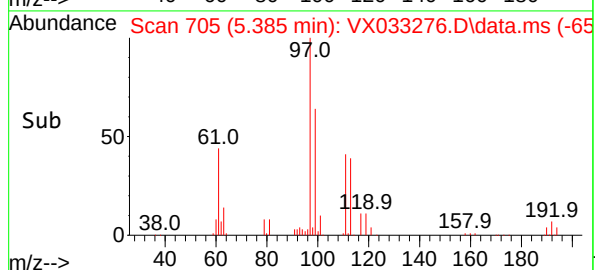
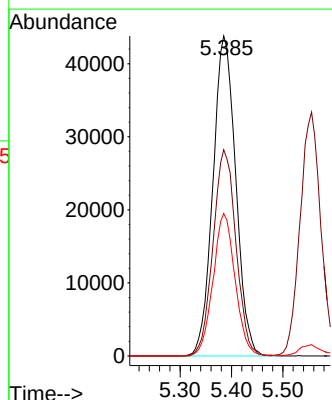
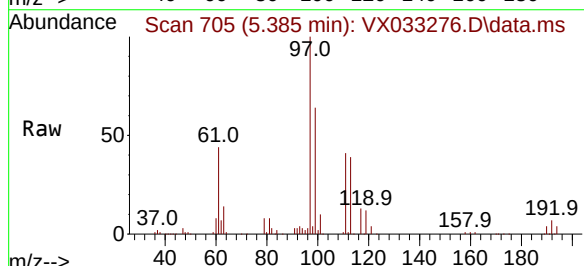
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

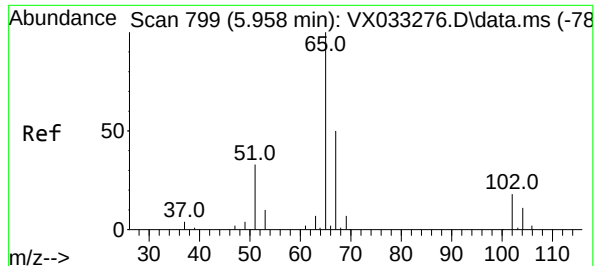


#32  
1,1,1-Trichloroethane  
Concen: 48.294 ug/l  
RT: 5.385 min Scan# 705  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Tgt Ion: 97 Resp: 135108  
Ion Ratio Lower Upper  
97 100  
99 64.6 51.4 77.0  
61 43.0 35.2 52.8







#33

1,2-Dichloroethane-d4

Concen: 26.704 ug/l

RT: 5.958 min Scan# 799

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 65 Resp: 45704

Ion Ratio Lower Upper

65 100

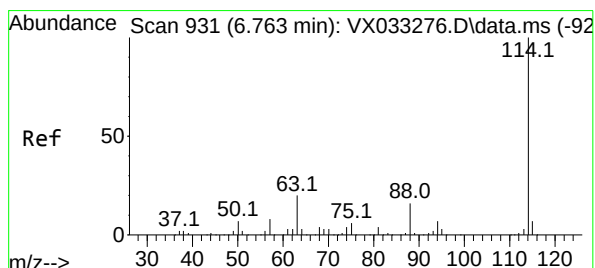
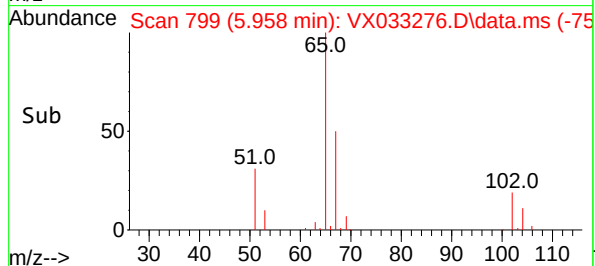
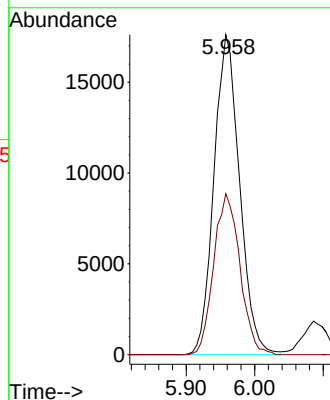
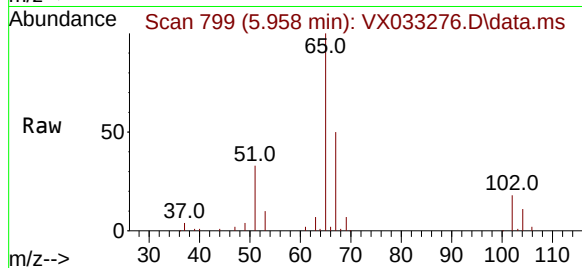
67 51.3 0.0 101.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.763 min Scan# 931

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

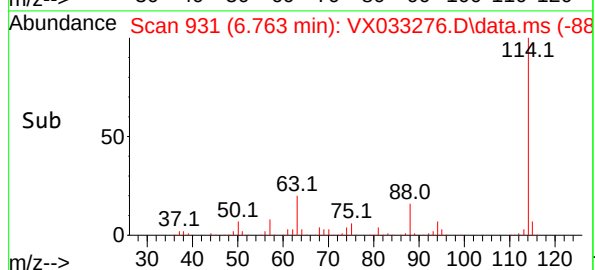
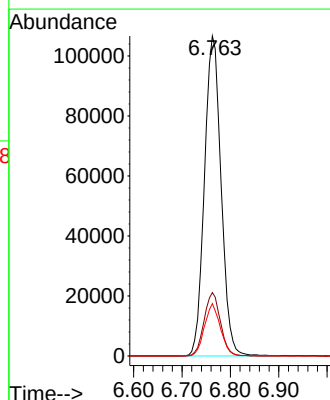
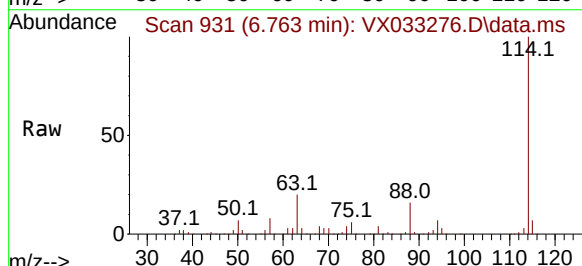
Tgt Ion:114 Resp: 255290

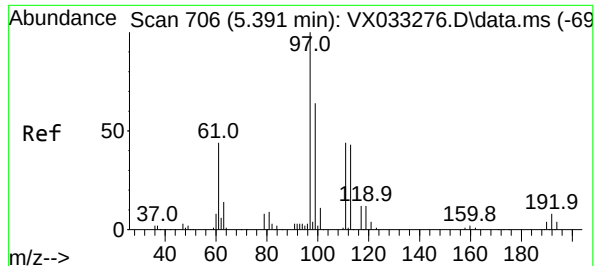
Ion Ratio Lower Upper

114 100

63 19.8 0.0 41.6

88 16.3 0.0 33.4





#35

Dibromofluoromethane

Concen: 36.151 ug/l

RT: 5.391 min Scan# 706

Delta R.T. 0.006 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion:113 Resp: 52030

Ion Ratio Lower Upper

113 100

111 103.5 82.4 123.6

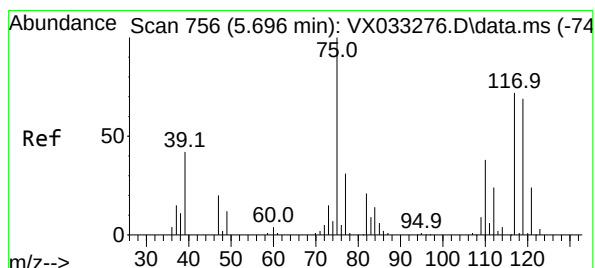
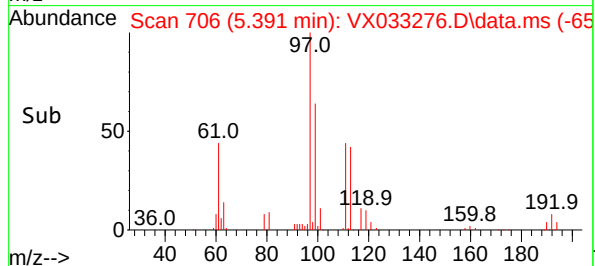
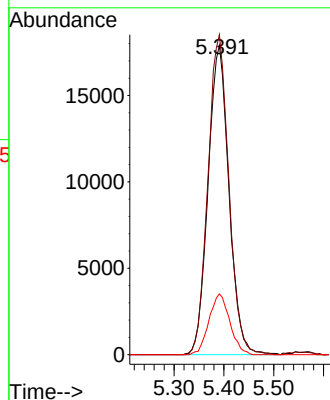
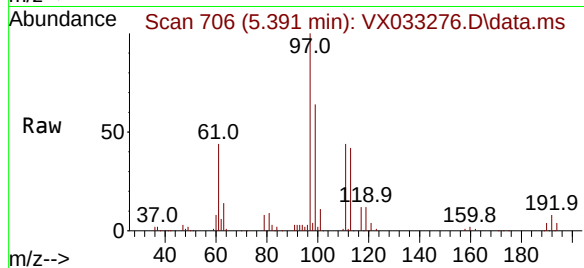
192 19.6 15.4 23.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#36

1,1-Dichloropropene

Concen: 46.792 ug/l

RT: 5.696 min Scan# 756

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

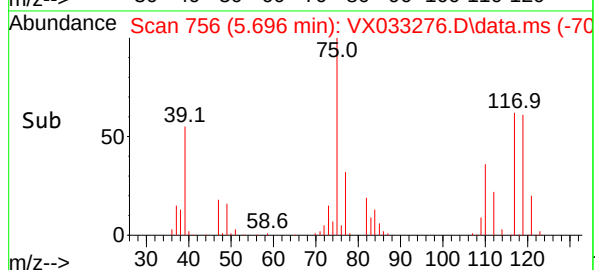
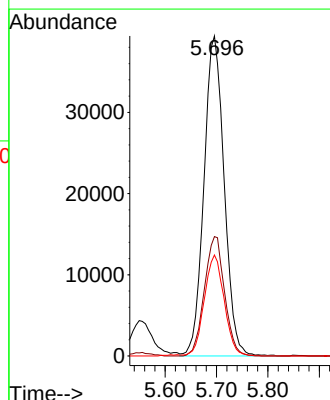
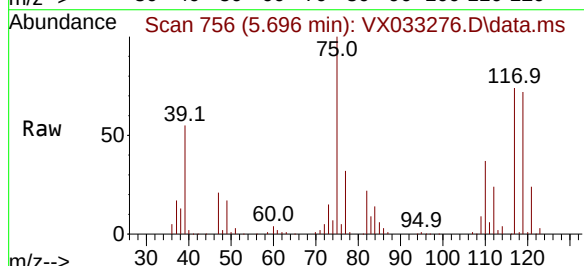
Tgt Ion: 75 Resp: 107681

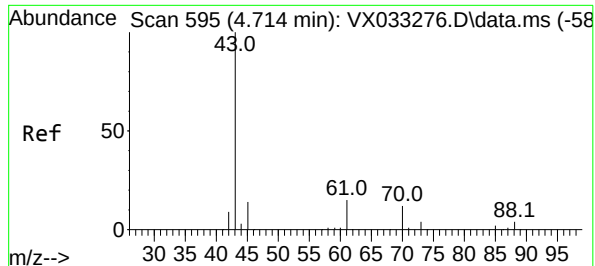
Ion Ratio Lower Upper

75 100

110 37.2 18.4 55.2

77 31.0 24.5 36.7





#37

Ethyl Acetate

Concen: 50.491 ug/l

RT: 4.714 min Scan# 595

Delta R.T. -0.001 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 43 Resp: 10137

Ion Ratio Lower Upper

43 100

61 14.4 11.5 17.3

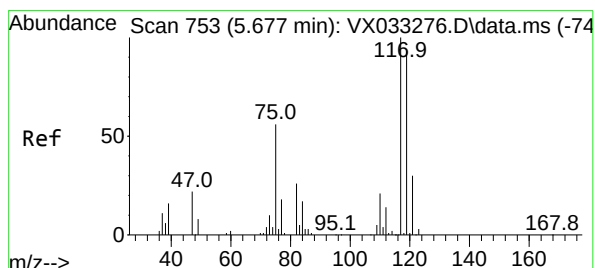
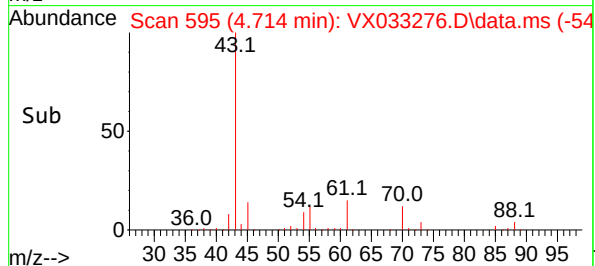
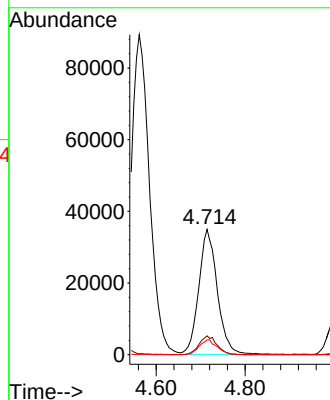
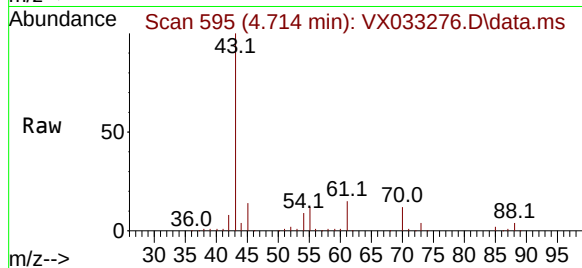
70 11.3 9.1 13.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#38

Carbon Tetrachloride

Concen: 47.822 ug/l

RT: 5.677 min Scan# 753

Delta R.T. -0.007 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

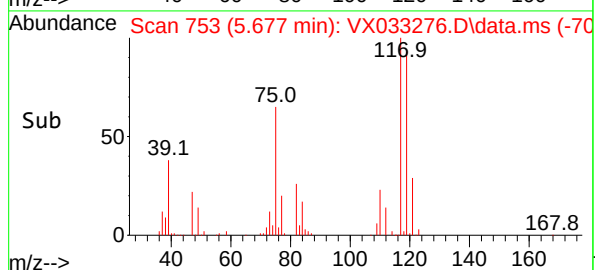
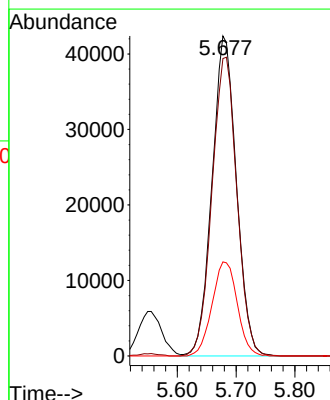
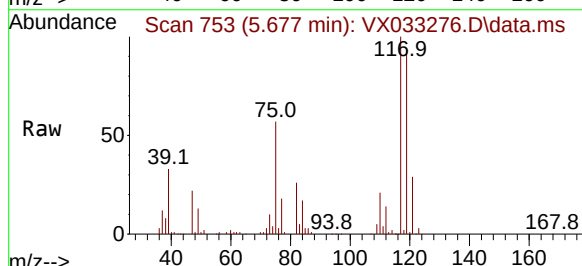
Tgt Ion:117 Resp: 122084

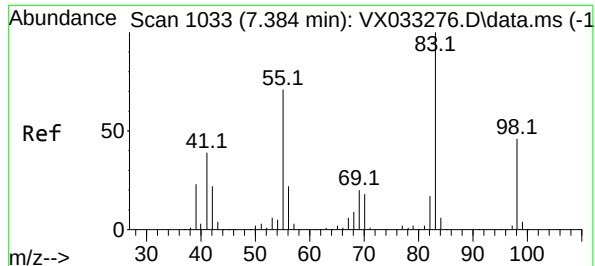
Ion Ratio Lower Upper

117 100

119 93.0 77.2 115.8

121 29.4 25.8 38.6





#39

Methylcyclohexane

Concen: 47.648 ug/l

RT: 7.384 min Scan# 1033

Delta R.T. -0.001 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 83 Resp: 12511

Ion Ratio Lower Upper

83 100

55 70.7 58.4 87.6

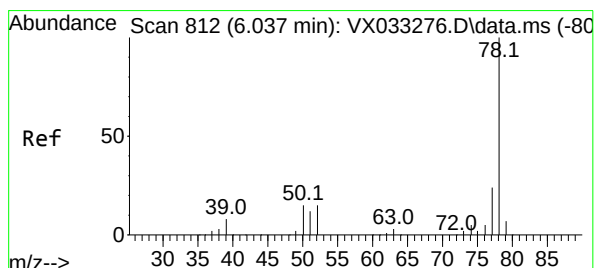
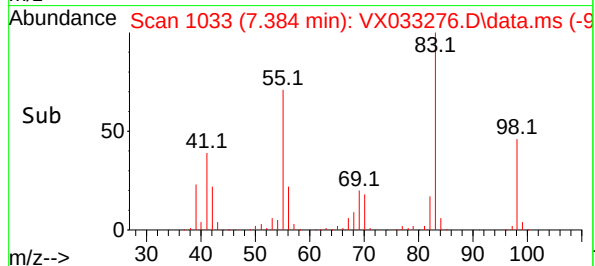
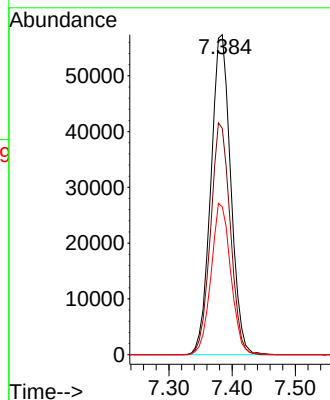
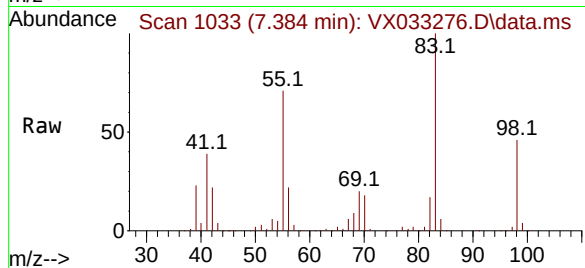
98 46.2 37.2 55.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#40

Benzene

Concen: 48.039 ug/l

RT: 6.037 min Scan# 812

Delta R.T. 0.000 min

Lab File: VX033276.D

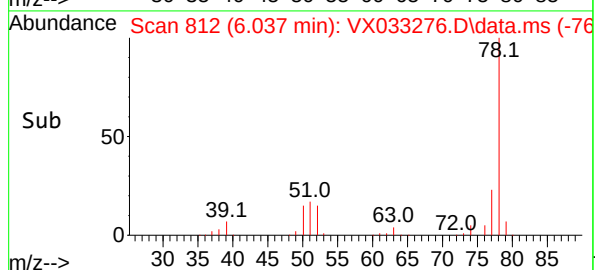
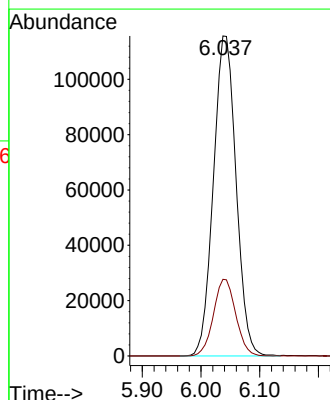
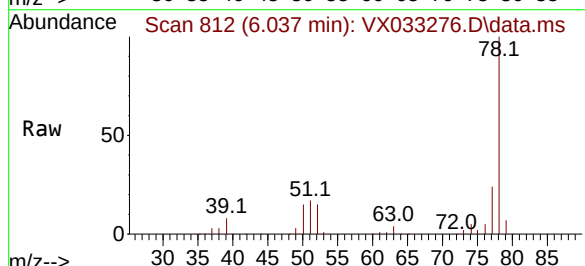
Acq: 07 Dec 2022 10:55

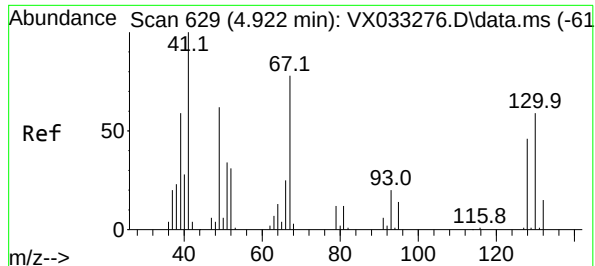
Tgt Ion: 78 Resp: 309956

Ion Ratio Lower Upper

78 100

77 24.0 19.0 28.4





#41

Methacrylonitrile

Concen: 50.738 ug/l

RT: 4.922 min Scan# 61

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 41 Resp: 57319

Ion Ratio Lower Upper

41 100

39 57.9 47.5 71.3

67 76.2 60.5 90.7

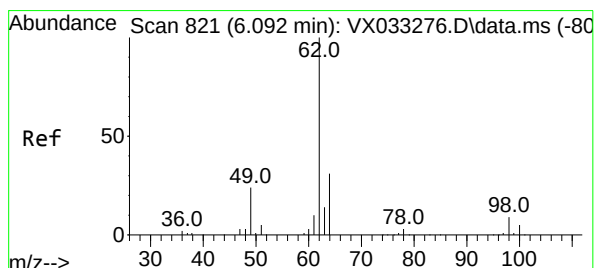
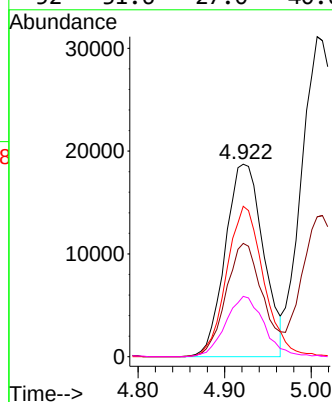
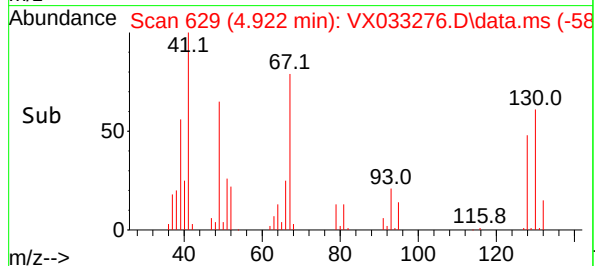
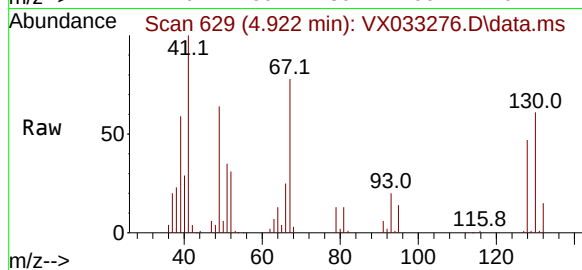
52 31.6 27.0 40.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#42

1,2-Dichloroethane

Concen: 46.905 ug/l

RT: 6.092 min Scan# 821

Delta R.T. 0.006 min

Lab File: VX033276.D

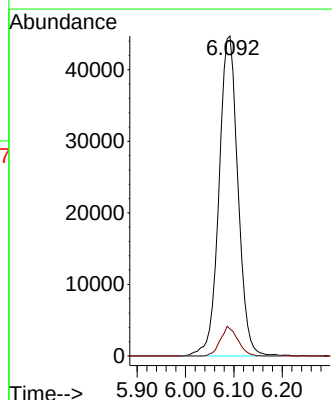
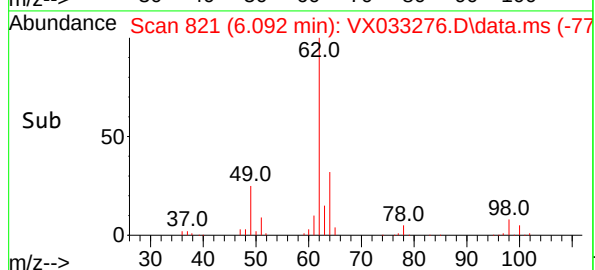
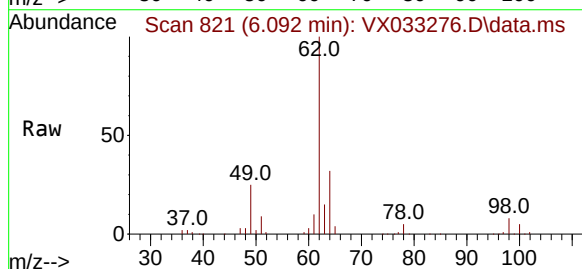
Acq: 07 Dec 2022 10:55

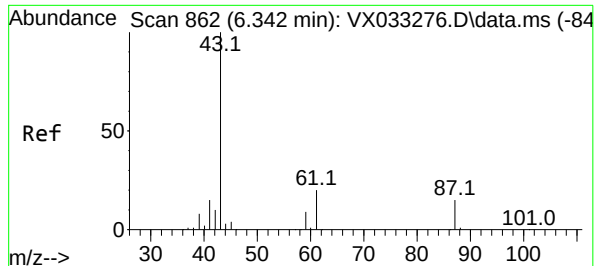
Tgt Ion: 62 Resp: 121854

Ion Ratio Lower Upper

62 100

98 8.5 0.0 16.0





#43

Isopropyl Acetate

Concen: 49.316 ug/l

RT: 6.342 min Scan# 862

Delta R.T. -0.000 min

Lab File: VX033276.D

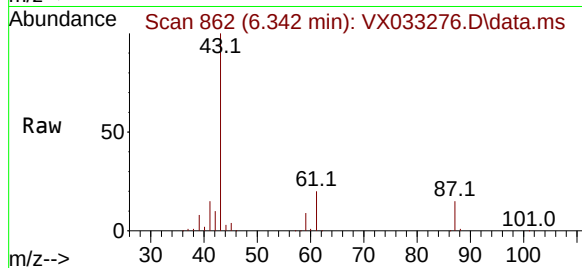
Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050



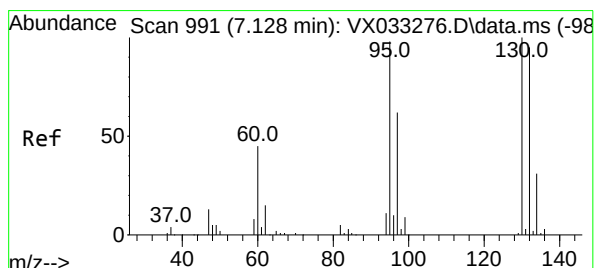
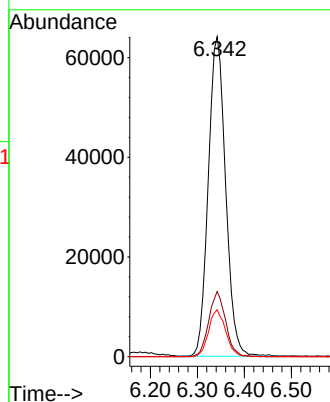
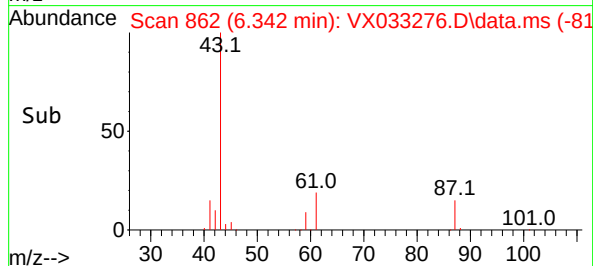
|             |                |
|-------------|----------------|
| Tgt Ion: 43 | Resp: 163749   |
| Ion Ratio   | Lower Upper    |
| 43          | 100            |
| 61          | 19.9 15.4 23.0 |
| 87          | 14.4 10.8 16.2 |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#44

Trichloroethene

Concen: 47.724 ug/l

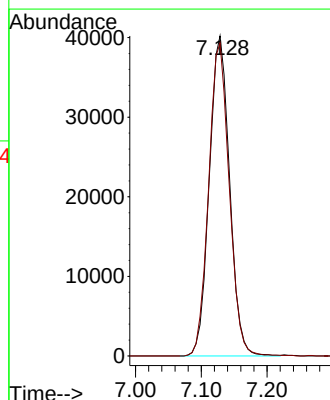
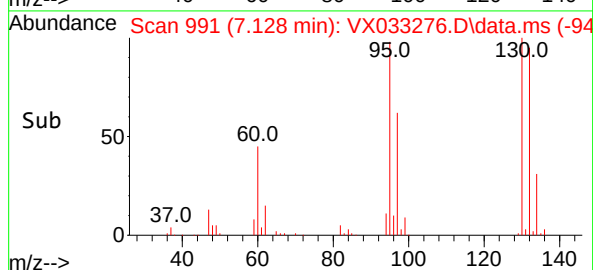
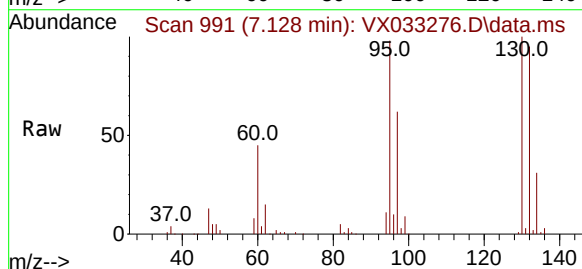
RT: 7.128 min Scan# 991

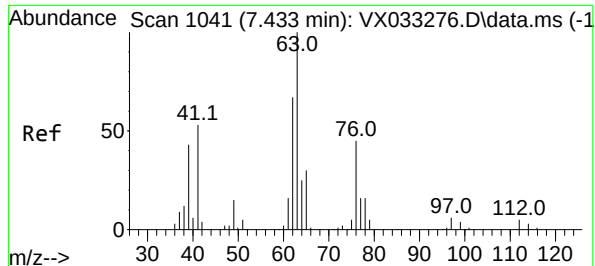
Delta R.T. -0.001 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

|             |                |
|-------------|----------------|
| Tgt Ion:130 | Resp: 86406    |
| Ion Ratio   | Lower Upper    |
| 130         | 100            |
| 95          | 97.8 0.0 195.2 |





#45

1,2-Dichloropropane

Concen: 49.442 ug/l

RT: 7.433 min Scan# 1041

Delta R.T. -0.001 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 63 Resp: 7883

Ion Ratio Lower Upper

63 100

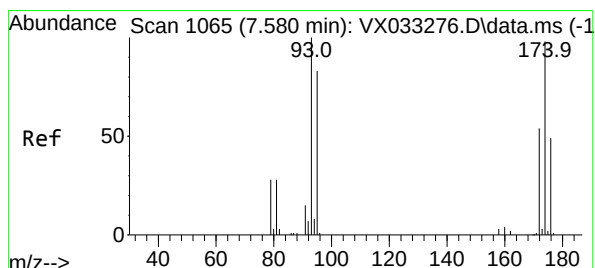
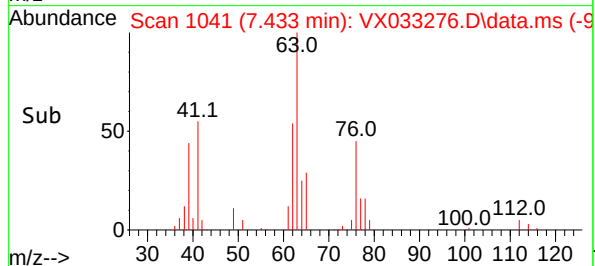
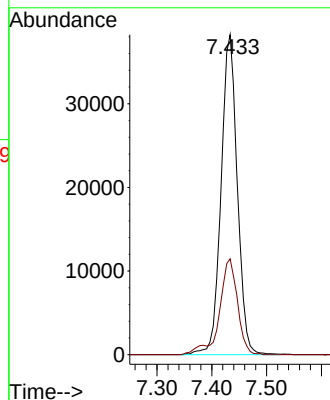
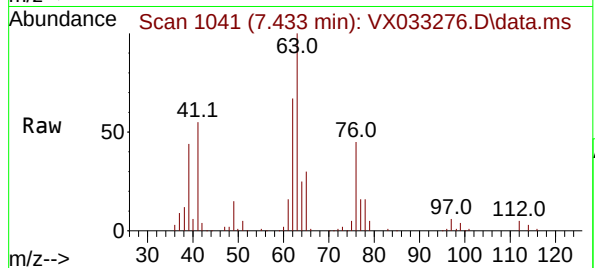
65 30.0 24.6 36.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#46

Dibromomethane

Concen: 47.841 ug/l

RT: 7.580 min Scan# 1065

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

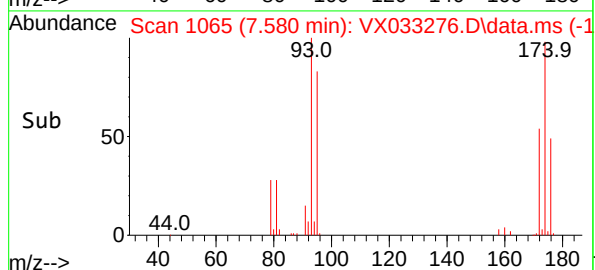
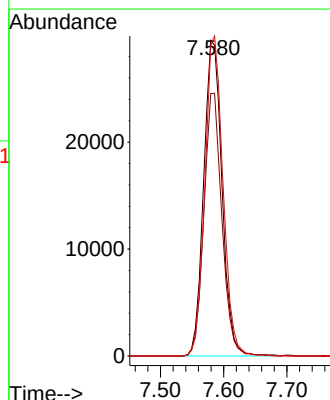
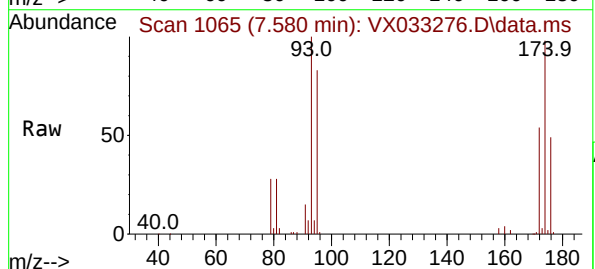
Tgt Ion: 93 Resp: 59524

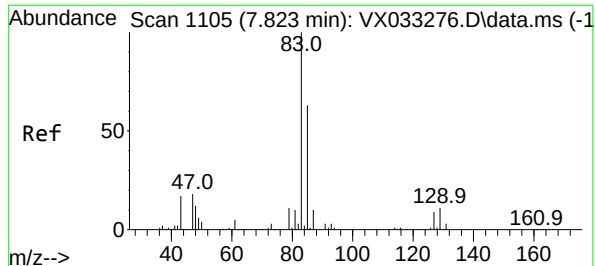
Ion Ratio Lower Upper

93 100

95 81.8 65.8 98.8

174 100.3 79.8 119.6





#47

Bromodichloromethane

Concen: 49.743 ug/l

RT: 7.823 min Scan# 1105

Delta R.T. -0.001 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

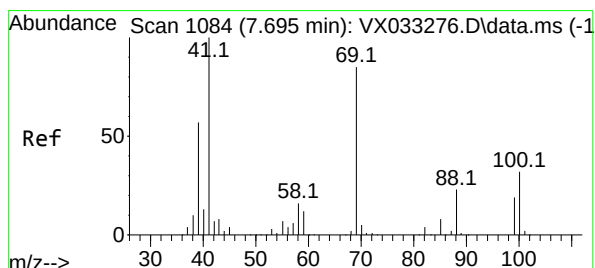
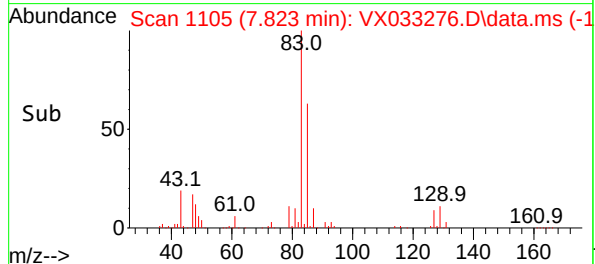
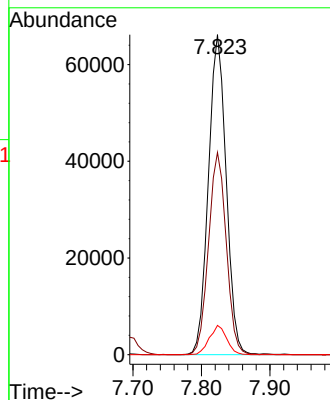
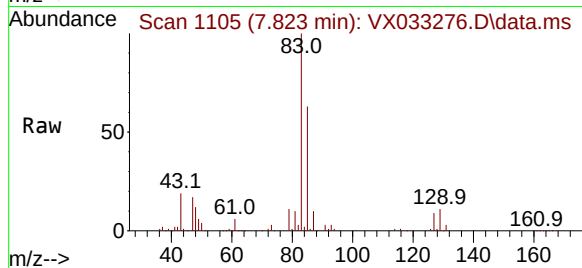
|             |              |
|-------------|--------------|
| Tgt Ion: 83 | Resp: 119589 |
| Ion Ratio   | Lower Upper  |
| 83 100      |              |
| 85 63.2     | 52.2 78.4    |
| 127 9.1     | 7.4 11.2     |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#48

Methyl methacrylate

Concen: 49.504 ug/l

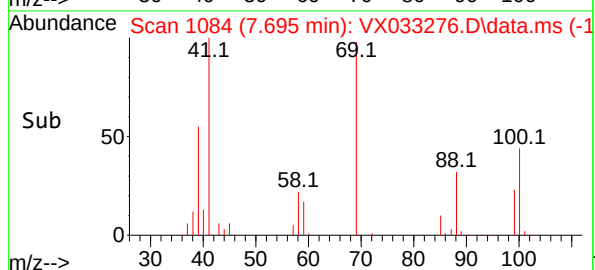
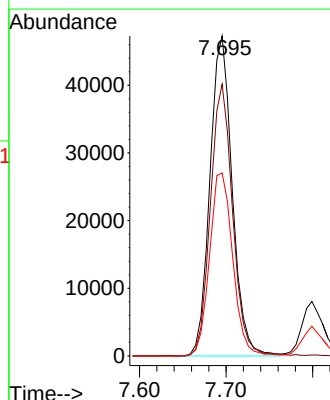
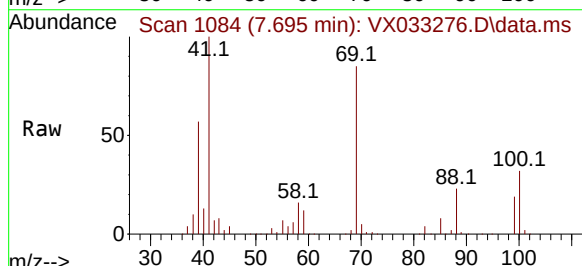
RT: 7.695 min Scan# 1084

Delta R.T. -0.001 min

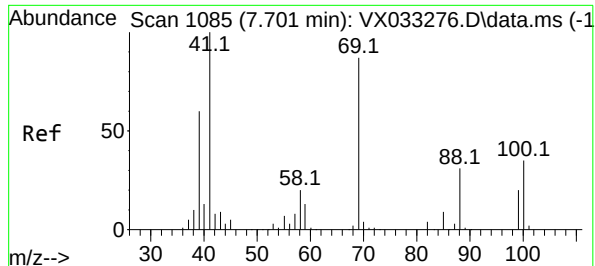
Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

|             |             |
|-------------|-------------|
| Tgt Ion: 41 | Resp: 84608 |
| Ion Ratio   | Lower Upper |
| 41 100      |             |
| 69 84.7     | 65.1 97.7   |
| 39 59.5     | 51.9 77.9   |







#49

1,4-Dioxane

Concen: 1216.156 ug/l

RT: 7.701 min Scan# 1085

Delta R.T. 0.030 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 88 Resp: 3826

Ion Ratio Lower Upper

88 100

43 30.9 26.6 39.8

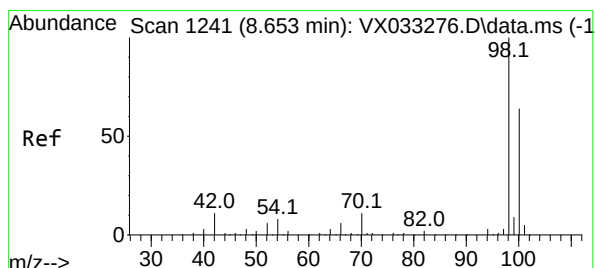
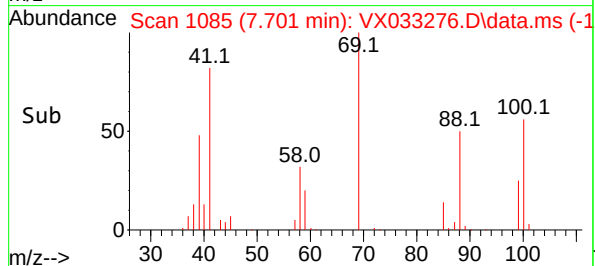
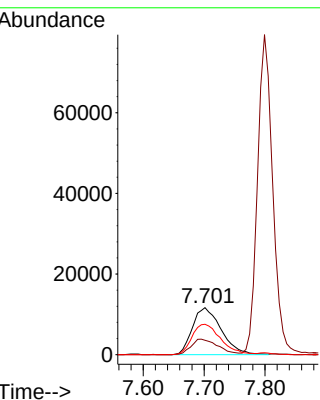
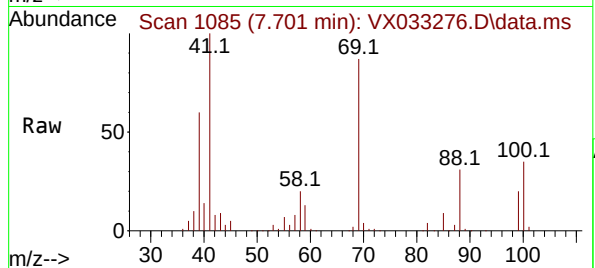
58 64.5 51.7 77.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#50

Toluene-d8

Concen: 24.276 ug/l

RT: 8.653 min Scan# 1241

Delta R.T. -0.000 min

Lab File: VX033276.D

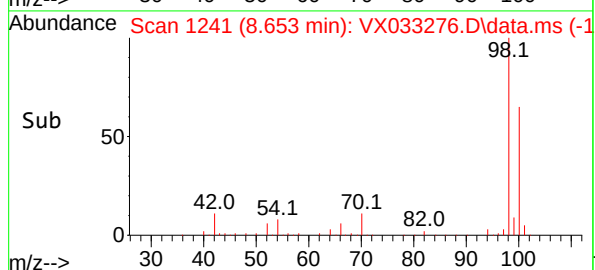
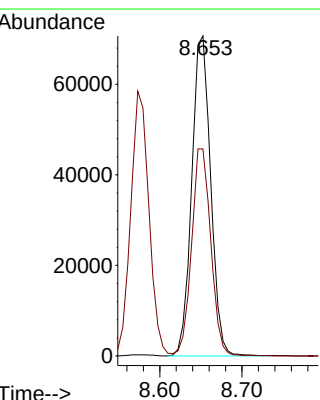
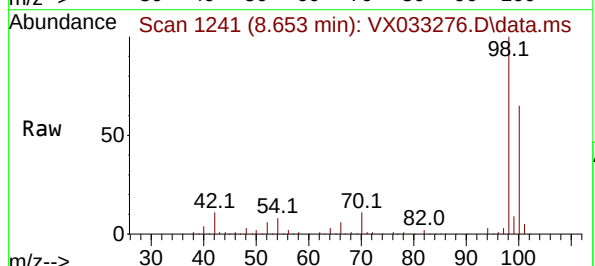
Acq: 07 Dec 2022 10:55

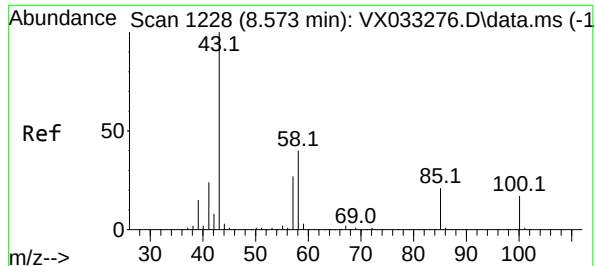
Tgt Ion: 98 Resp: 113428

Ion Ratio Lower Upper

98 100

100 65.6 50.9 76.3





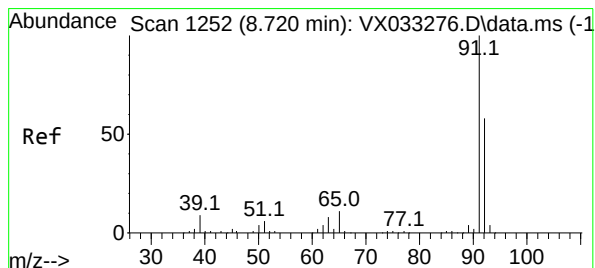
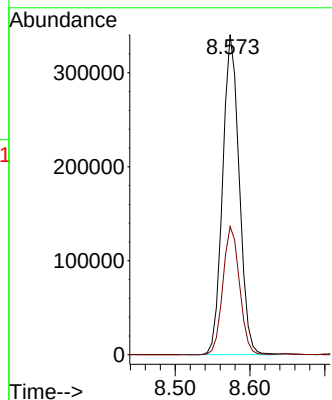
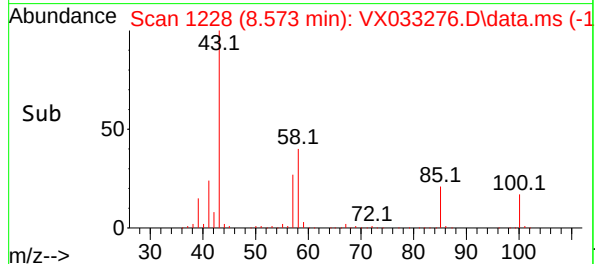
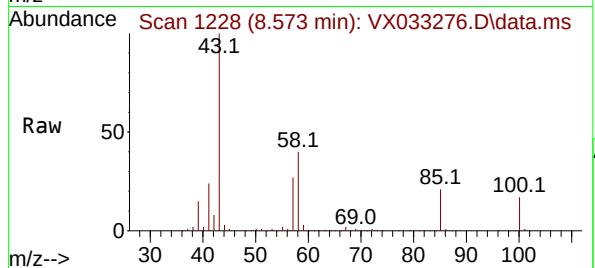
#51  
4-Methyl-2-Pentanone  
Concen: 257.000 ug/l  
RT: 8.573 min Scan# 1228  
Delta R.T. -0.001 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 43 Resp: 52656  
Ion Ratio Lower Upper  
43 100  
58 40.2 30.9 46.3

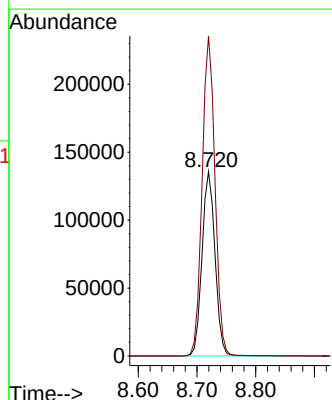
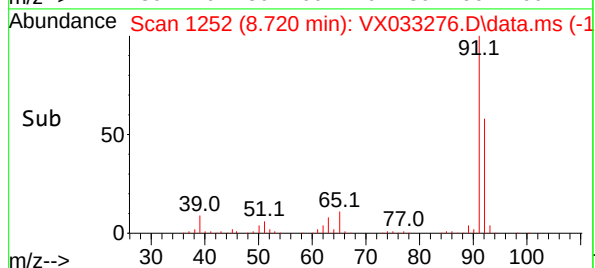
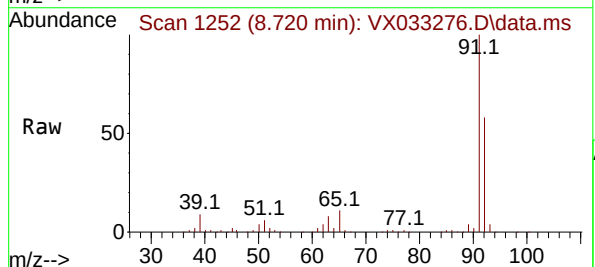
Manual Integrations  
APPROVED

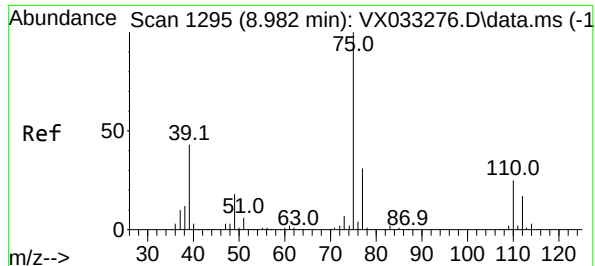
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#52  
Toluene  
Concen: 48.976 ug/l  
RT: 8.720 min Scan# 1252  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Tgt Ion: 92 Resp: 207899  
Ion Ratio Lower Upper  
92 100  
91 172.3 138.3 207.5





#53

t-1,3-Dichloropropene

Concen: 50.573 ug/l

RT: 8.982 min Scan# 119339

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 75 Resp: 119339

Ion Ratio Lower Upper

75 100

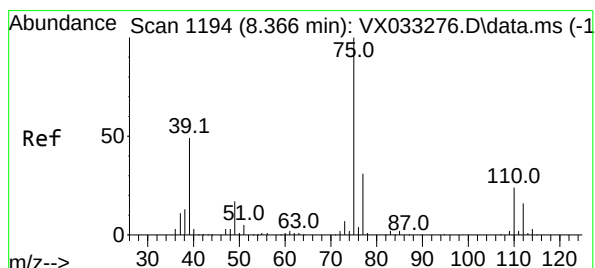
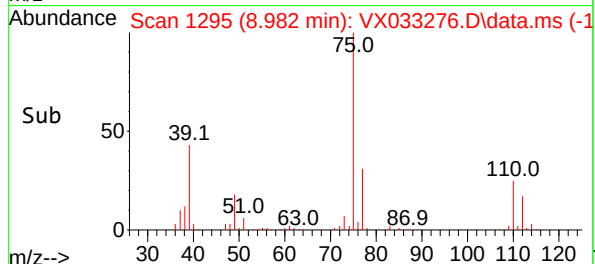
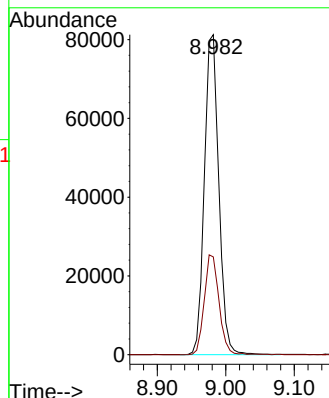
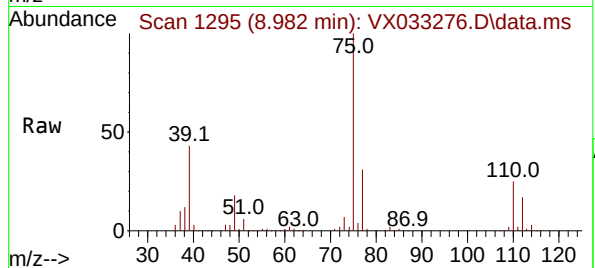
77 30.6 25.1 37.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#54

cis-1,3-Dichloropropene

Concen: 50.193 ug/l

RT: 8.366 min Scan# 1194

Delta R.T. 0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

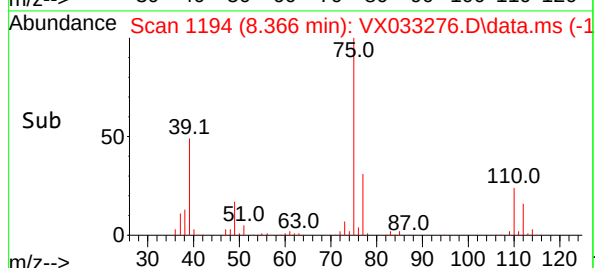
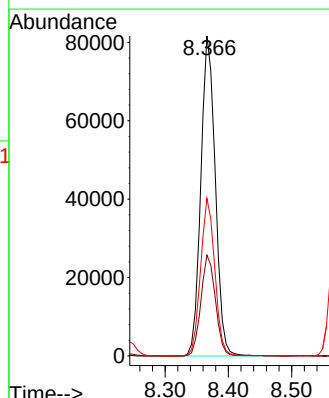
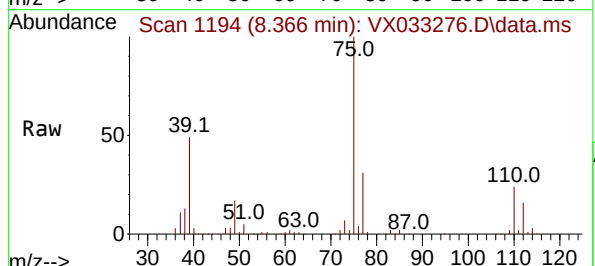
Tgt Ion: 75 Resp: 130089

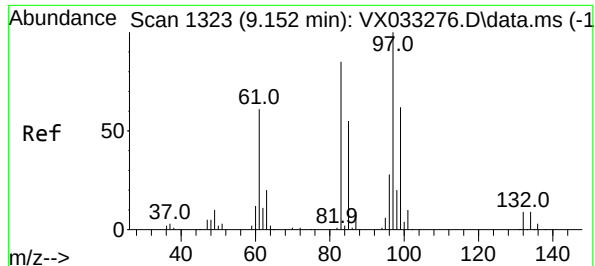
Ion Ratio Lower Upper

75 100

77 31.5 25.1 37.7

39 49.3 45.5 68.3





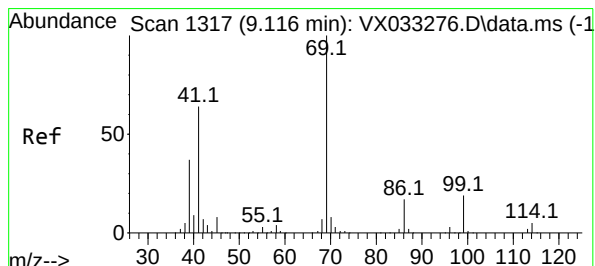
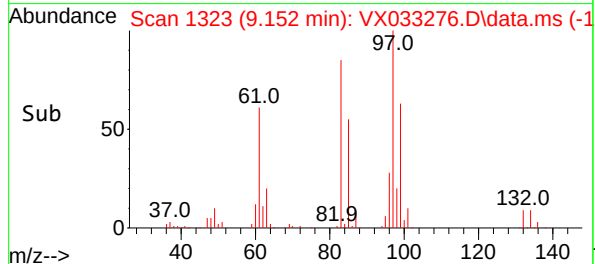
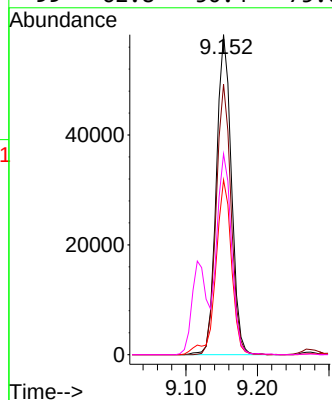
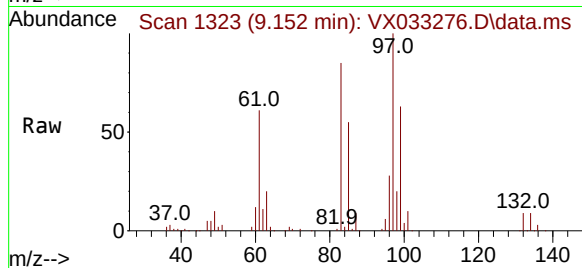
#55  
1,1,2-Trichloroethane  
Concen: 49.254 ug/l  
RT: 9.152 min Scan# 1323  
Delta R.T. -0.001 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

|             |             |
|-------------|-------------|
| Tgt Ion: 97 | Resp: 8512  |
| Ion Ratio   | Lower Upper |
| 97 100      |             |
| 83 84.5     | 68.1 102.1  |
| 85 54.6     | 43.3 64.9   |
| 99 62.8     | 50.4 75.6   |

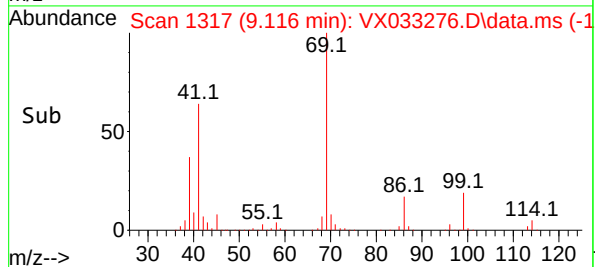
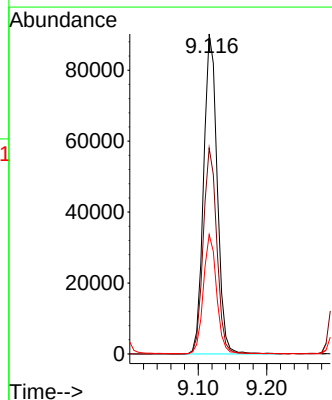
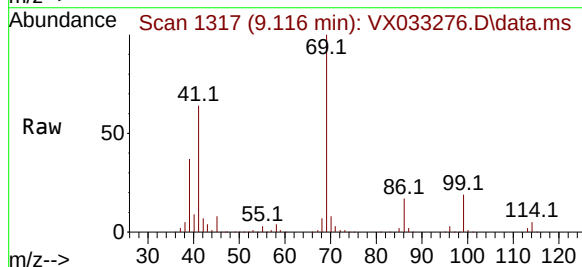
Manual Integrations  
APPROVED

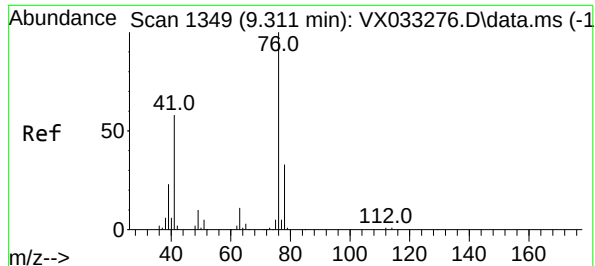
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#56  
Ethyl methacrylate  
Concen: 52.411 ug/l  
RT: 9.116 min Scan# 1317  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

|             |              |
|-------------|--------------|
| Tgt Ion: 69 | Resp: 124802 |
| Ion Ratio   | Lower Upper  |
| 69 100      |              |
| 41 64.4     | 54.3 81.5    |
| 39 36.0     | 35.2 52.8    |





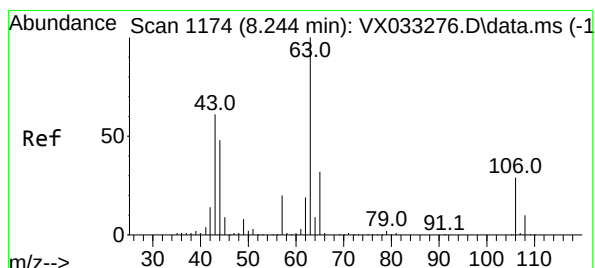
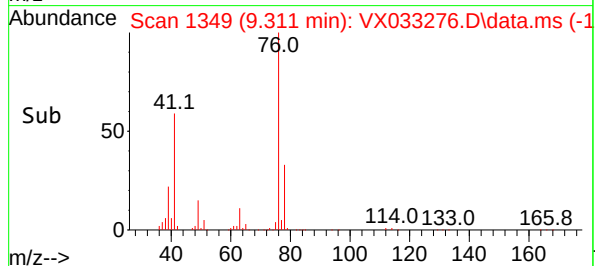
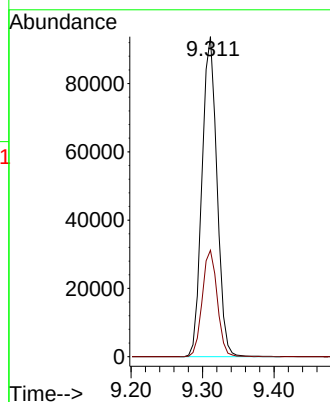
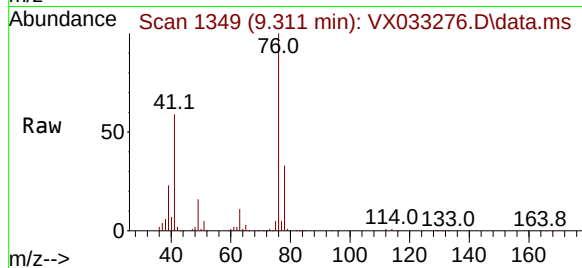
#57  
1,3-Dichloropropane  
Concen: 48.943 ug/l  
RT: 9.311 min Scan# 1349  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 76 Resp: 13655  
Ion Ratio Lower Upper  
76 100  
78 33.2 26.0 39.0

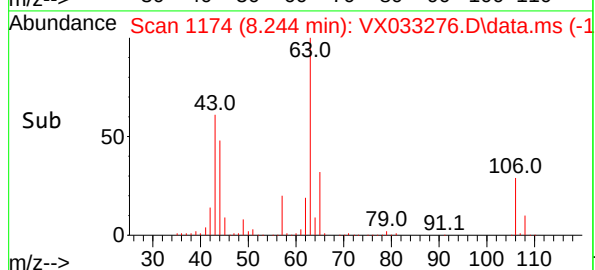
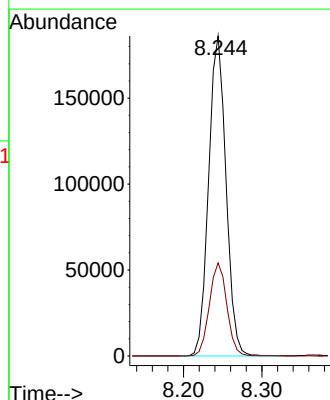
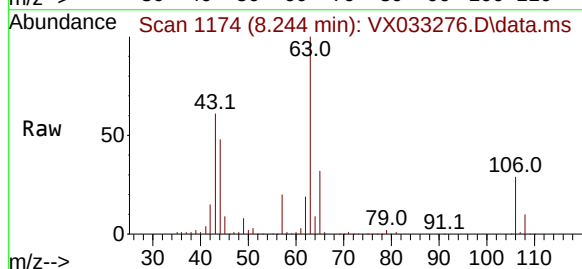
Manual Integrations  
APPROVED

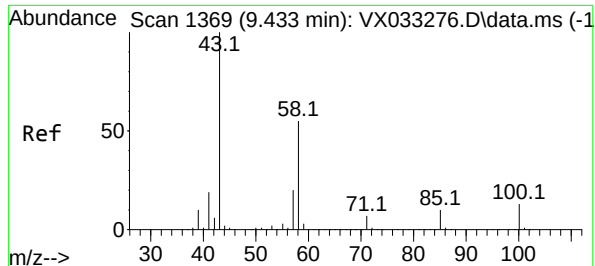
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#58  
2-Chloroethyl Vinyl ether  
Concen: 252.998 ug/l  
RT: 8.244 min Scan# 1174  
Delta R.T. 0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Tgt Ion: 63 Resp: 286076  
Ion Ratio Lower Upper  
63 100  
106 29.2 23.3 34.9





#59

2-Hexanone

Concen: 258.105 ug/l

RT: 9.433 min Scan# 1369

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 43 Resp: 390650

Ion Ratio Lower Upper

43 100

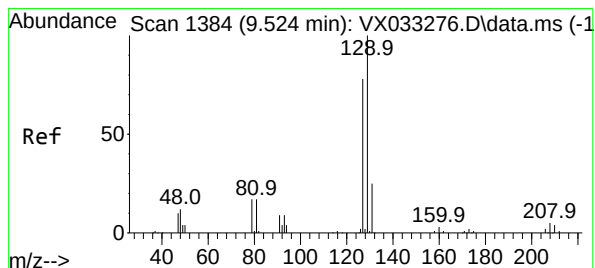
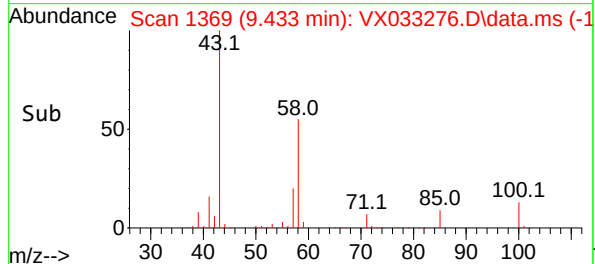
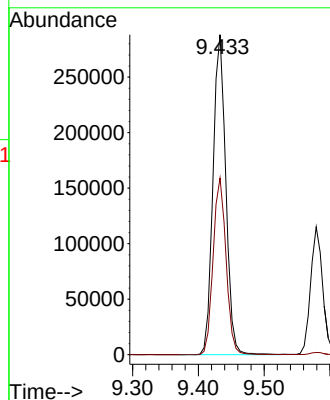
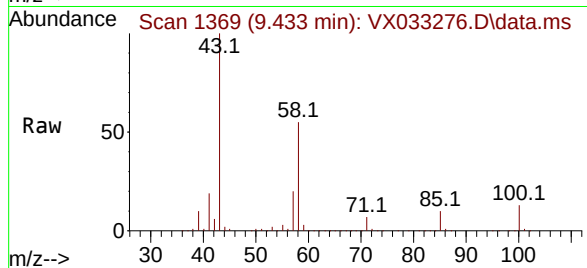
58 55.8 26.5 79.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#60

Dibromochloromethane

Concen: 51.615 ug/l

RT: 9.524 min Scan# 1384

Delta R.T. -0.001 min

Lab File: VX033276.D

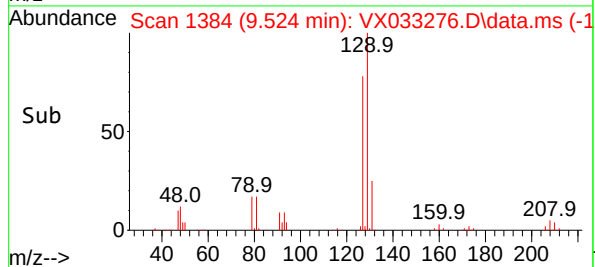
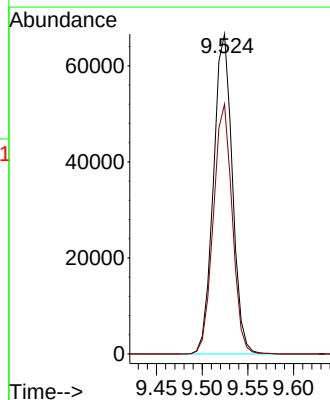
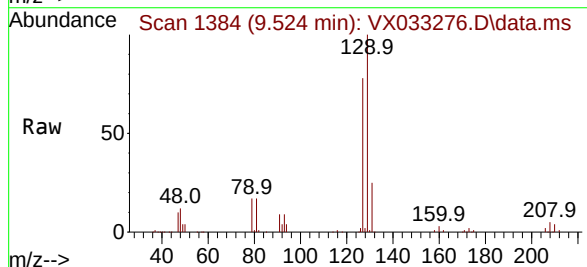
Acq: 07 Dec 2022 10:55

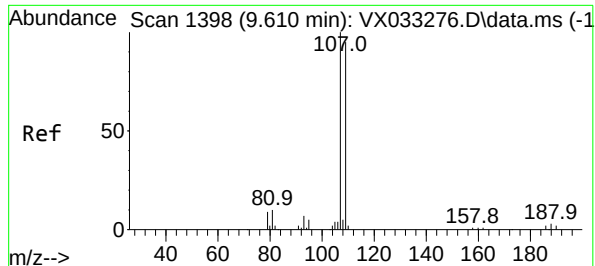
Tgt Ion:129 Resp: 96040

Ion Ratio Lower Upper

129 100

127 78.0 38.6 115.8





#61

1,2-Dibromoethane

Concen: 50.149 ug/l

RT: 9.610 min Scan# 1398

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion:107 Resp: 91480

Ion Ratio Lower Upper

107 100

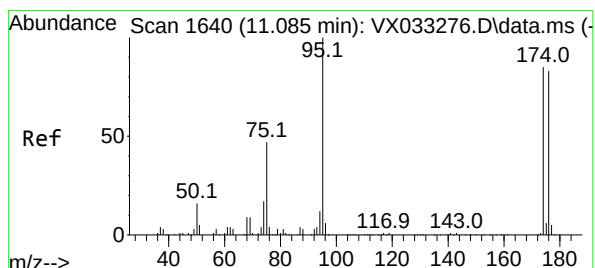
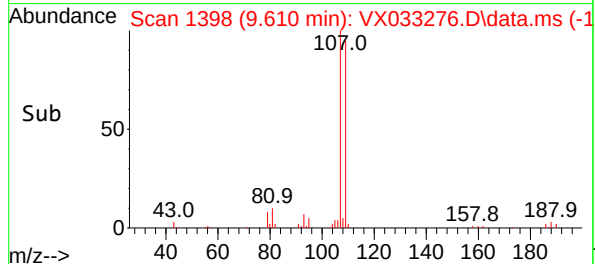
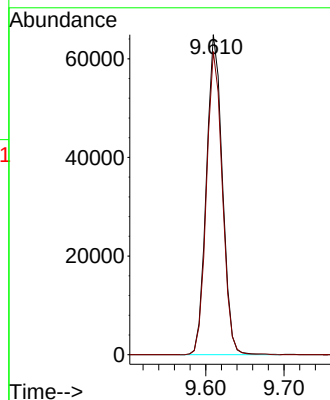
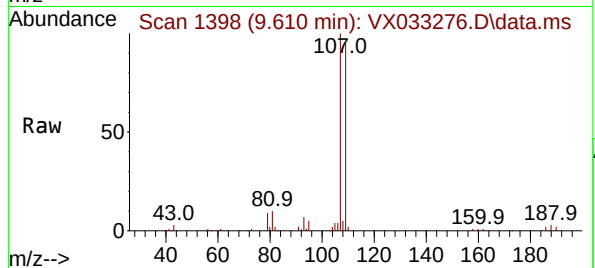
109 94.4 76.0 114.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#62

4-Bromofluorobenzene

Concen: 47.689 ug/l

RT: 11.085 min Scan# 1640

Delta R.T. 0.006 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

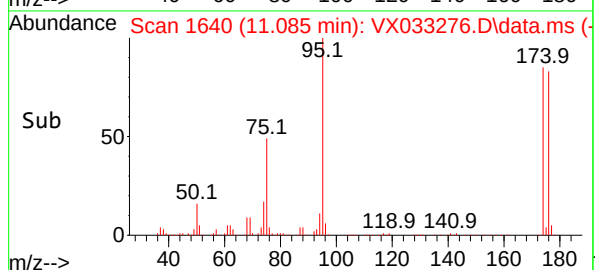
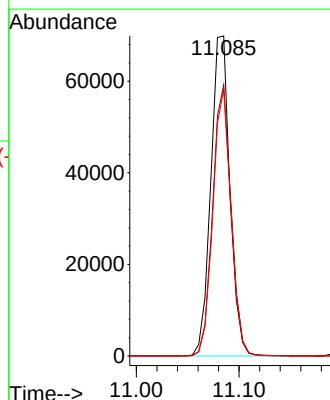
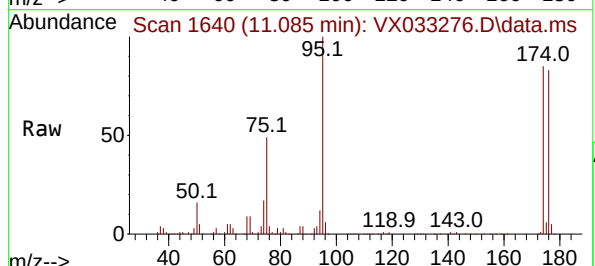
Tgt Ion: 95 Resp: 90159

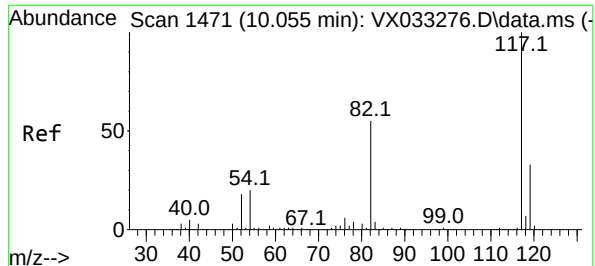
Ion Ratio Lower Upper

95 100

174 81.7 0.0 164.0

176 79.3 0.0 154.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.055 min Scan# 1471

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion:117 Resp: 23389

Ion Ratio Lower Upper

117 100

82 54.5 44.3 66.5

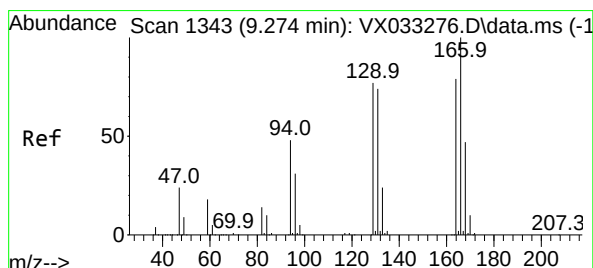
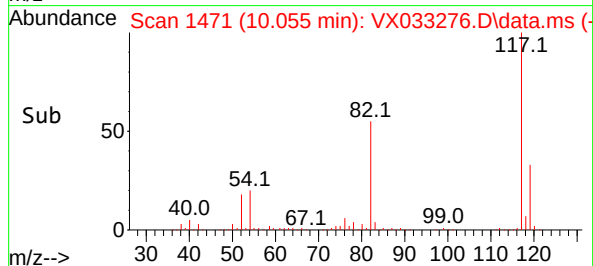
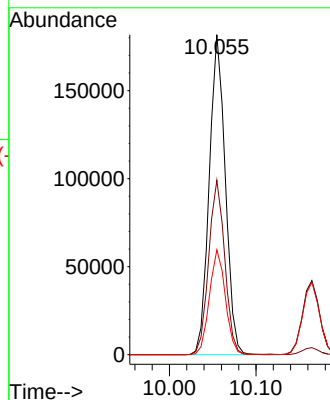
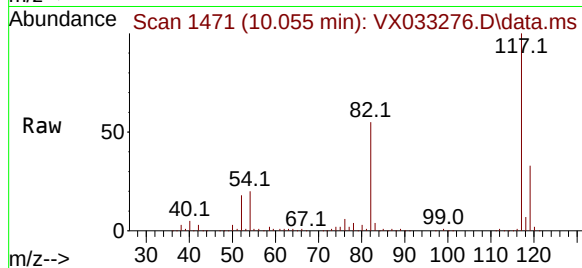
119 32.7 25.7 38.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#64

Tetrachloroethene

Concen: 45.485 ug/l

RT: 9.274 min Scan# 1343

Delta R.T. -0.001 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Tgt Ion:164 Resp: 75304

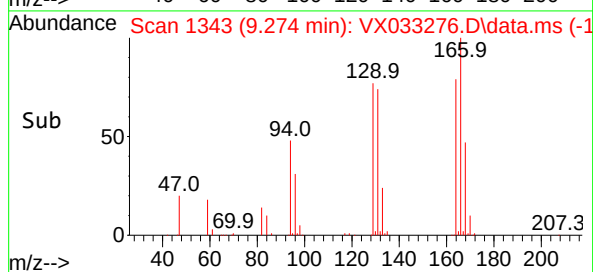
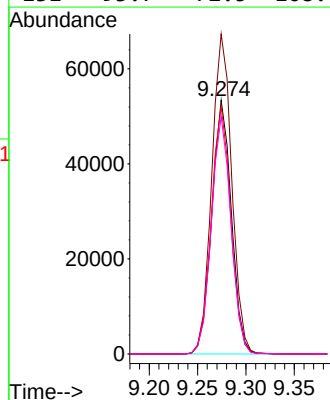
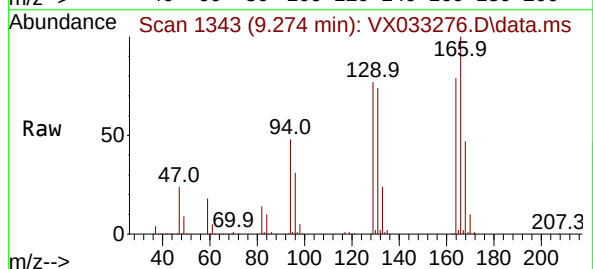
Ion Ratio Lower Upper

164 100

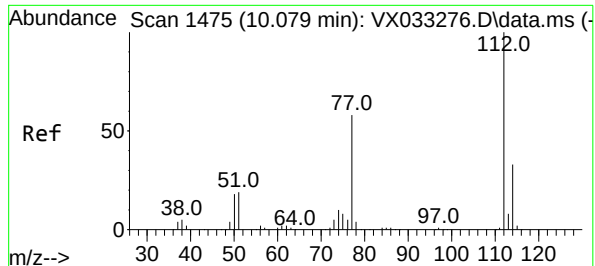
166 126.2 105.4 158.2

129 97.5 78.2 117.2

131 93.7 72.5 108.7







#65

Chlorobenzene

Concen: 48.463 ug/l

RT: 10.079 min Scan# 1475

Delta R.T. 0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion:112 Resp: 22599

Ion Ratio Lower Upper

112 100

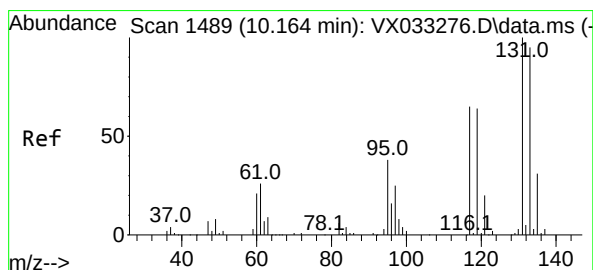
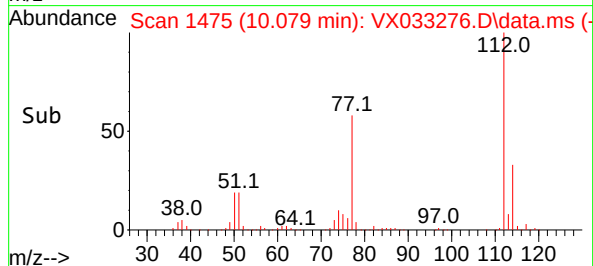
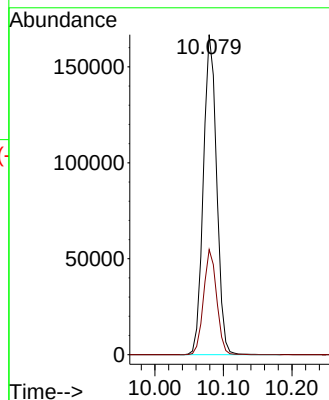
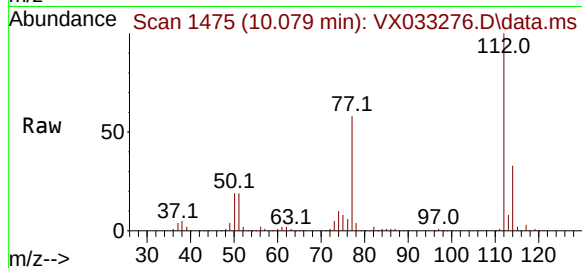
114 32.8 25.4 38.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#66

1,1,1,2-Tetrachloroethane

Concen: 50.887 ug/l

RT: 10.164 min Scan# 1489

Delta R.T. -0.001 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

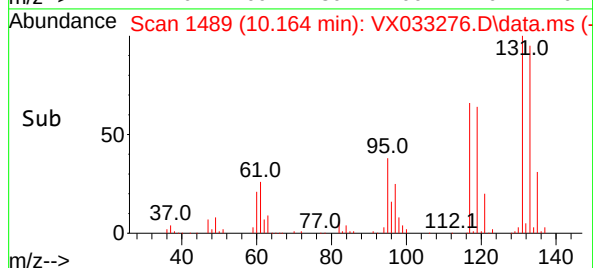
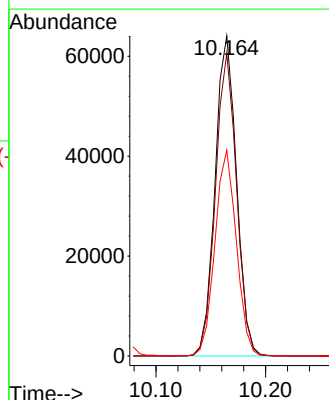
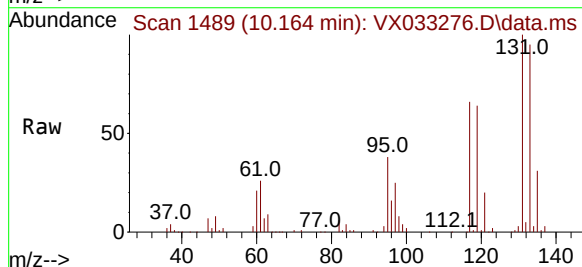
Tgt Ion:131 Resp: 86946

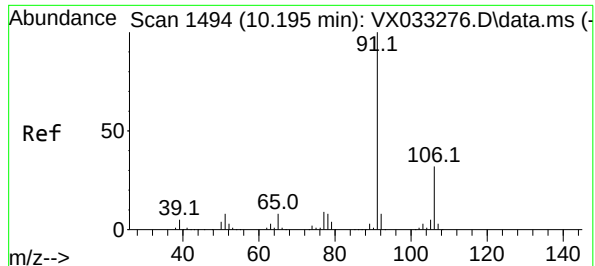
Ion Ratio Lower Upper

131 100

133 93.4 47.6 142.9

119 64.5 32.4 97.0





#67

Ethyl Benzene

Concen: 49.061 ug/l

RT: 10.195 min Scan# 1494

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 91 Resp: 405828

Ion Ratio Lower Upper

91 100

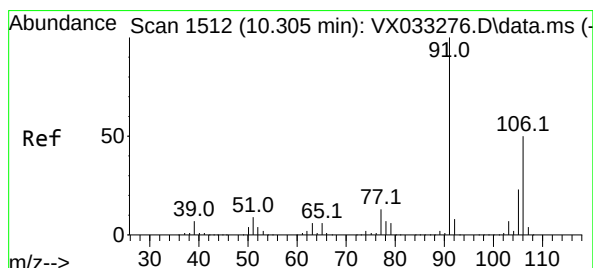
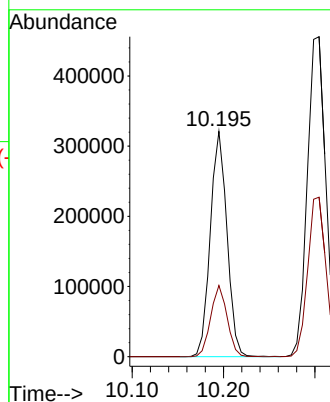
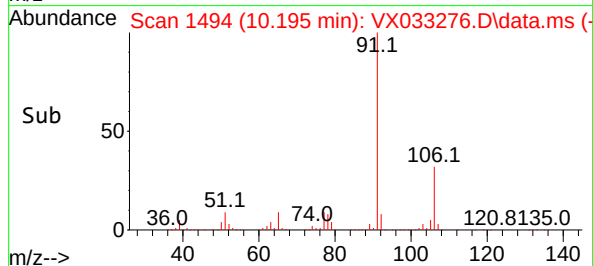
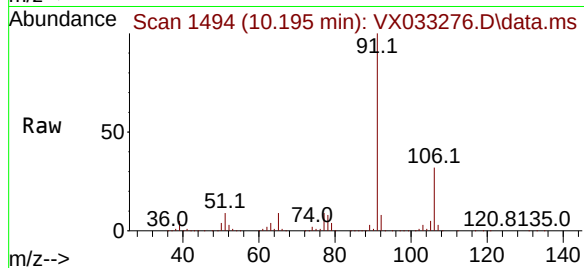
106 31.6 25.0 37.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#68

m/p-Xylenes

Concen: 97.764 ug/l

RT: 10.305 min Scan# 1512

Delta R.T. -0.000 min

Lab File: VX033276.D

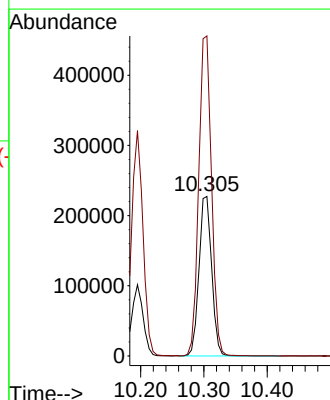
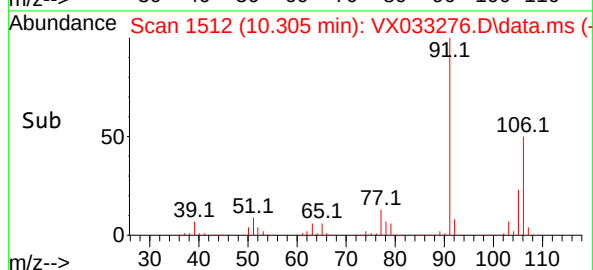
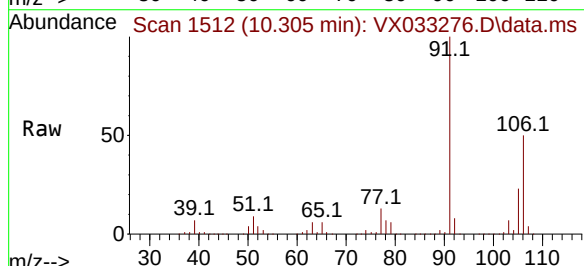
Acq: 07 Dec 2022 10:55

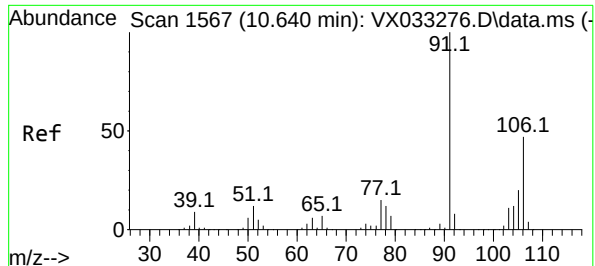
Tgt Ion:106 Resp: 316676

Ion Ratio Lower Upper

106 100

91 202.3 164.5 246.7





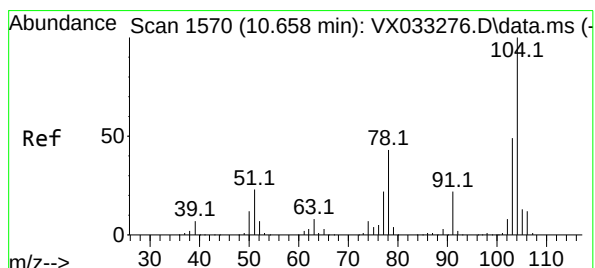
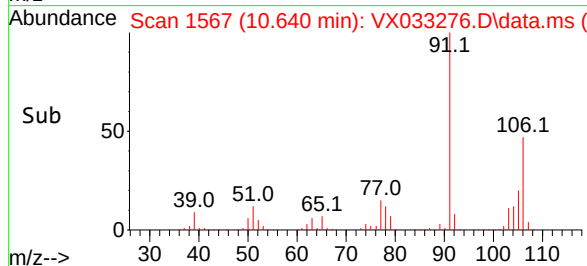
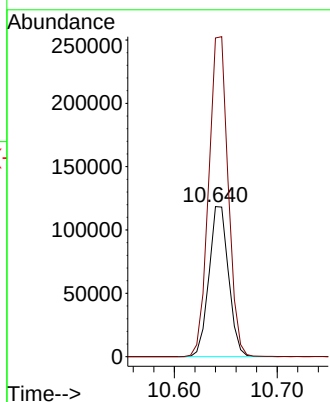
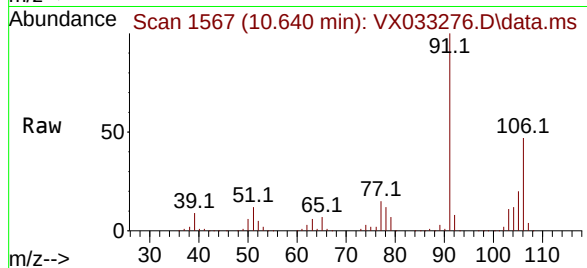
#69  
o-Xylene  
Concen: 50.078 ug/l  
RT: 10.640 min Scan# 1567  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

Tgt Ion:106 Resp: 156950  
Ion Ratio Lower Upper  
106 100  
91 212.0 109.2 327.6

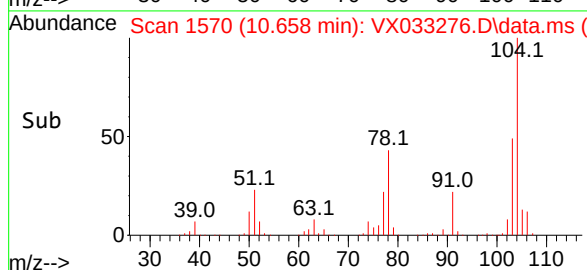
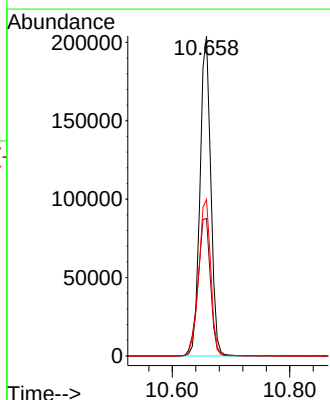
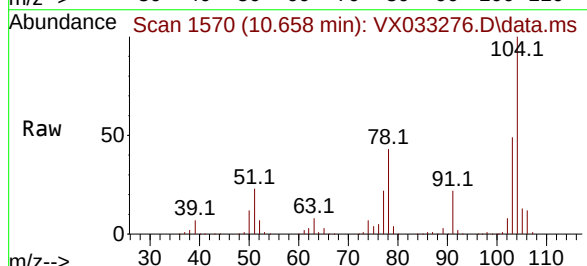
Manual Integrations  
APPROVED

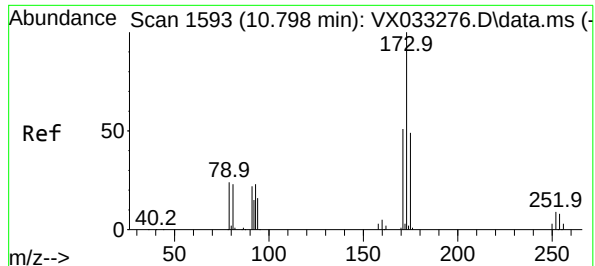
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#70  
Styrene  
Concen: 50.879 ug/l  
RT: 10.658 min Scan# 1570  
Delta R.T. -0.001 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

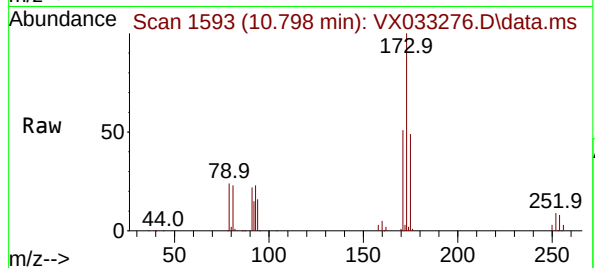
Tgt Ion:104 Resp: 260878  
Ion Ratio Lower Upper  
104 100  
78 49.9 41.8 62.8  
103 54.4 44.5 66.7





#71  
Bromoform  
Concen: 54.249 ug/l  
RT: 10.798 min Scan# 1593  
Delta R.T. -0.001 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

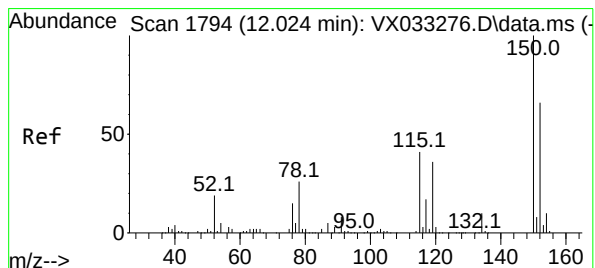
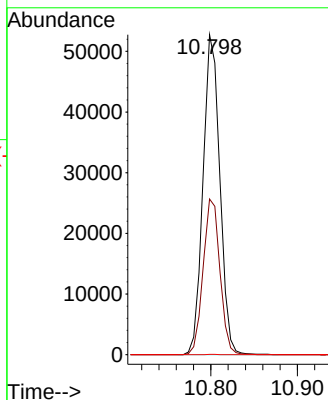
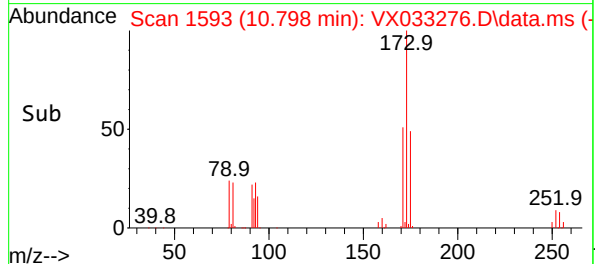
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050



Tgt Ion:173 Resp: 7106  
Ion Ratio Lower Upper  
173 100  
175 48.6 23.9 71.8  
254 0.1 0.0 0.0

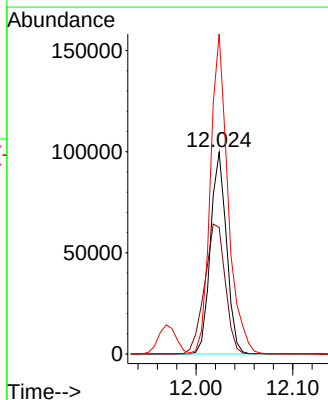
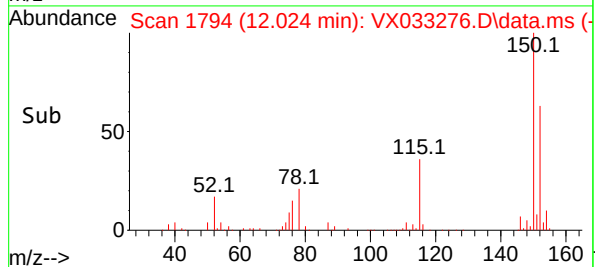
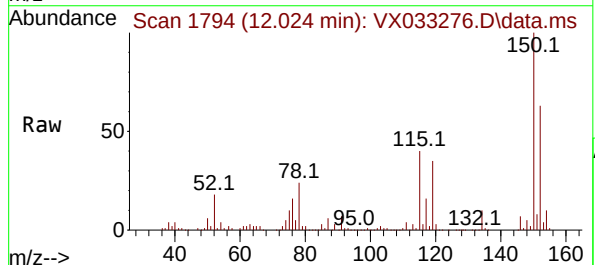
Manual Integrations  
APPROVED

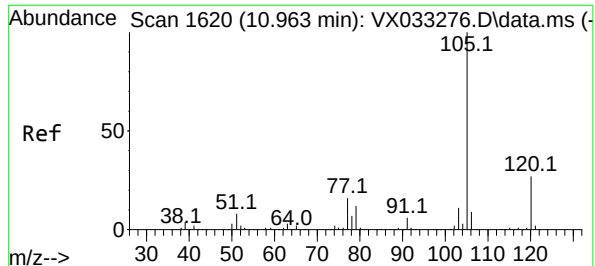
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.024 min Scan# 1794  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

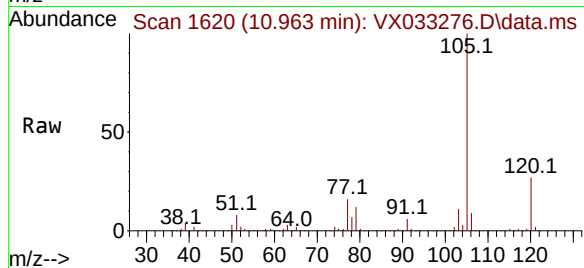
Tgt Ion:152 Resp: 115251  
Ion Ratio Lower Upper  
152 100  
115 82.8 44.0 132.0  
150 173.3 0.0 351.8





#73  
Isopropylbenzene  
Concen: 49.820 ug/l  
RT: 10.963 min Scan# 1620  
Delta R.T. 0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

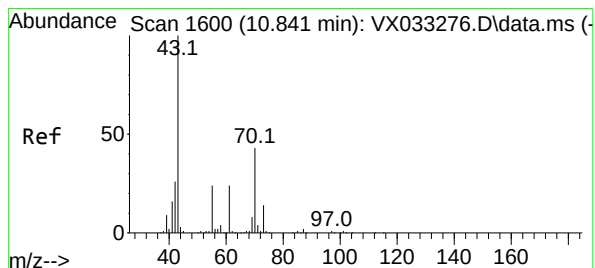
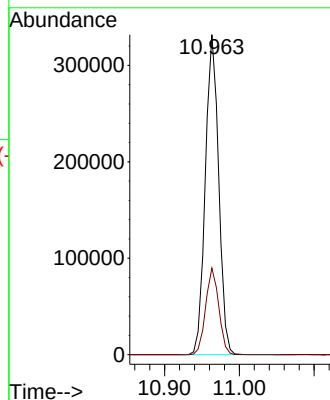
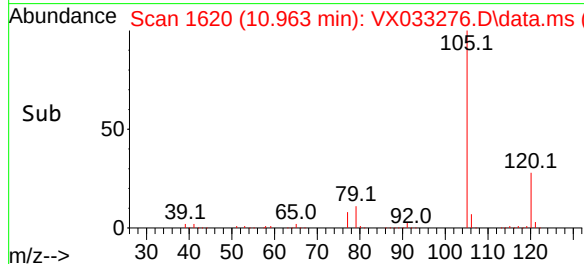
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050



Tgt Ion:105 Resp: 410304  
Ion Ratio Lower Upper  
105 100  
120 26.6 13.1 39.3

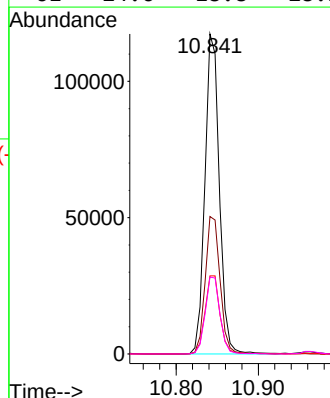
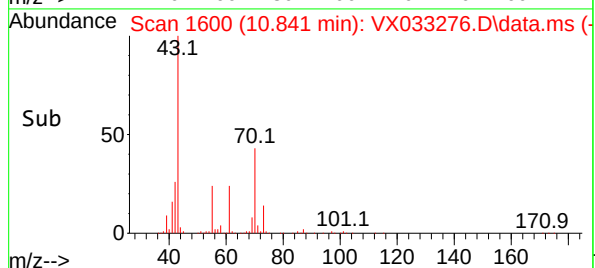
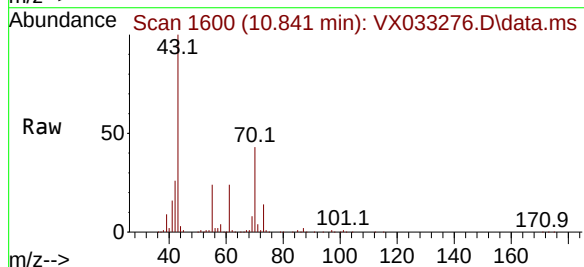
Manual Integrations  
APPROVED

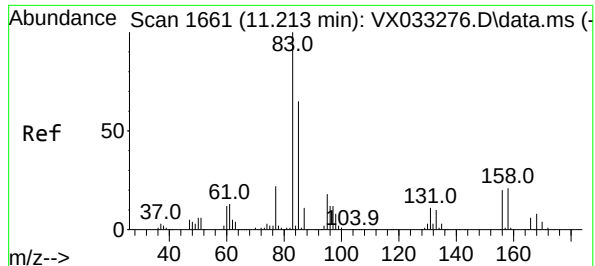
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#74  
N-ethyl acetate  
Concen: 51.025 ug/l  
RT: 10.841 min Scan# 1600  
Delta R.T. 0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Tgt Ion: 43 Resp: 142952  
Ion Ratio Lower Upper  
43 100  
70 44.2 33.6 50.4  
55 25.6 19.4 29.2  
61 24.6 18.8 28.2





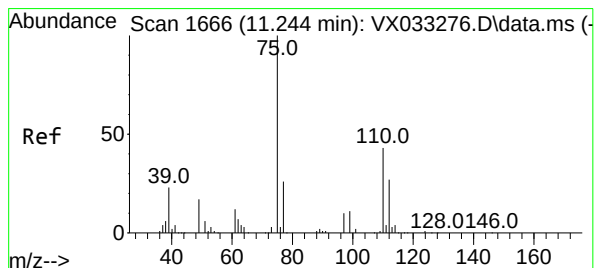
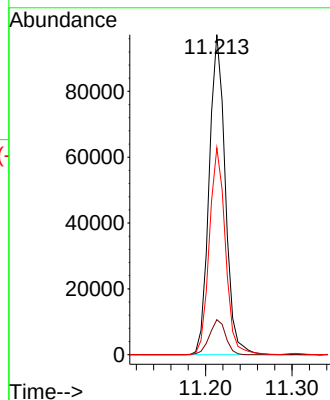
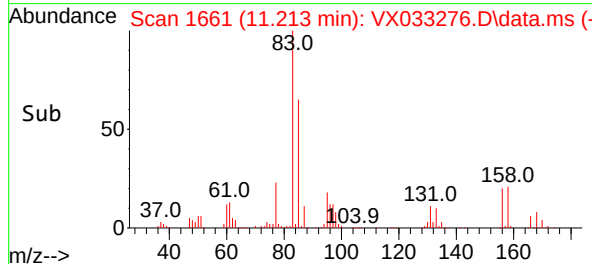
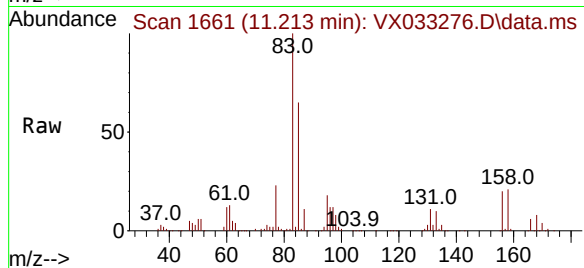
#75  
1,1,2,2-Tetrachloroethane  
Concen: 50.456 ug/l  
RT: 11.213 min Scan# 1661  
Delta R.T. 0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 83 Resp: 125418  
Ion Ratio Lower Upper  
83 100  
131 11.1 5.4 16.2  
85 64.5 31.9 95.9

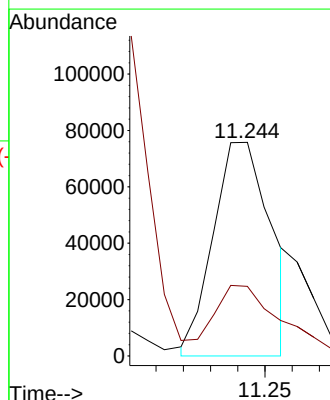
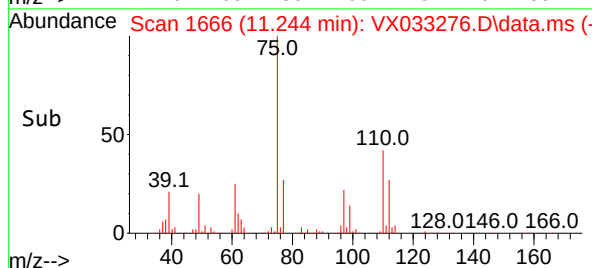
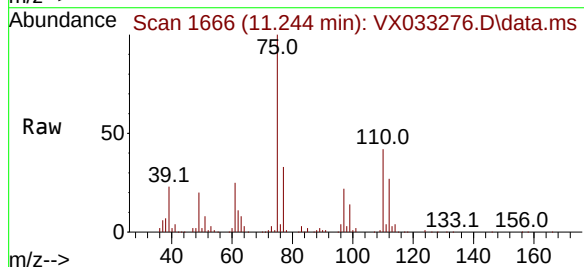
Manual Integrations  
APPROVED

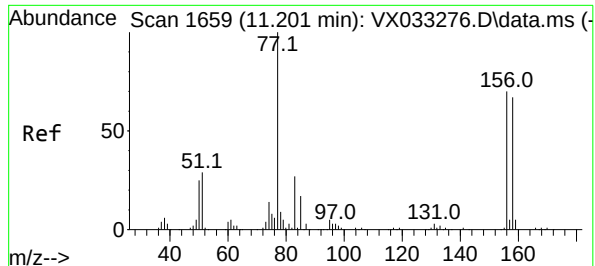
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#76  
1,2,3-Trichloropropane  
Concen: 50.834 ug/l m  
RT: 11.244 min Scan# 1666  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

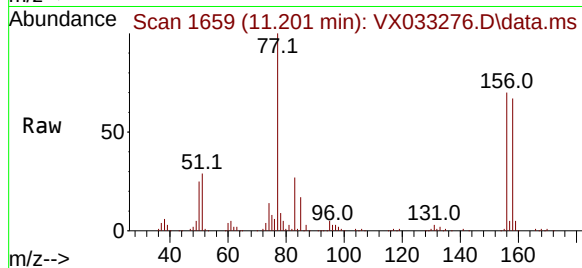
Tgt Ion: 75 Resp: 110953  
Ion Ratio Lower Upper  
75 100  
77 39.7 20.0 60.0





#77  
Bromobenzene  
Concen: 49.237 ug/l  
RT: 11.201 min Scan# 1659  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

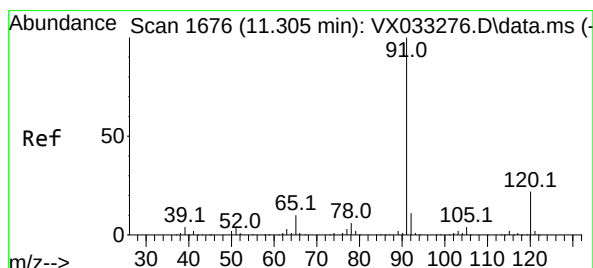
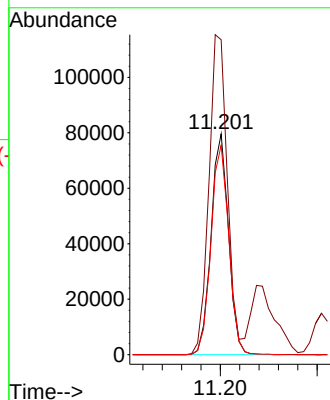
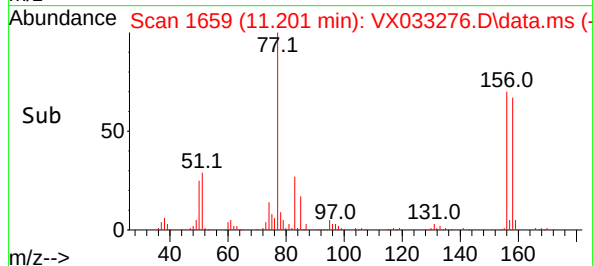
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050



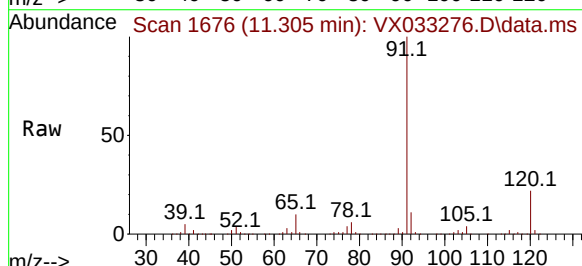
Tgt Ion:156 Resp: 99728  
Ion Ratio Lower Upper  
156 100  
77 152.2 76.1 228.4  
158 96.5 48.8 146.3

Manual Integrations  
APPROVED

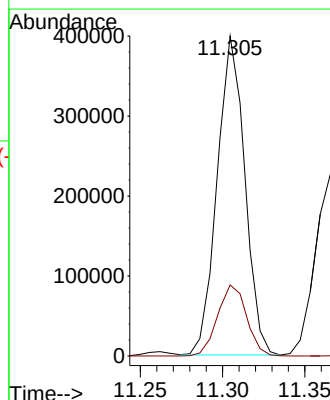
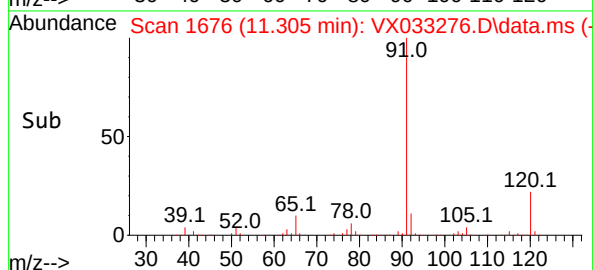
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

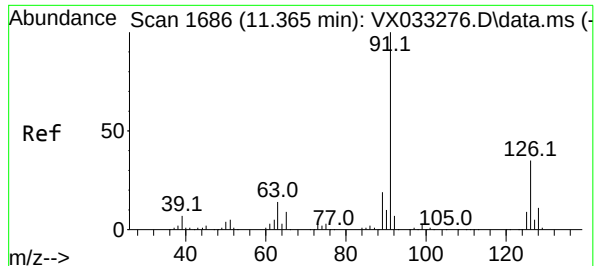


#78  
n-propylbenzene  
Concen: 49.561 ug/l  
RT: 11.305 min Scan# 1676  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55



Tgt Ion: 91 Resp: 466678  
Ion Ratio Lower Upper  
91 100  
120 23.3 11.6 34.8





#79

2-Chlorotoluene

Concen: 48.866 ug/l

RT: 11.365 min Scan# 11

Delta R.T. -0.001 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 91 Resp: 27946

Ion Ratio Lower Upper

91 100

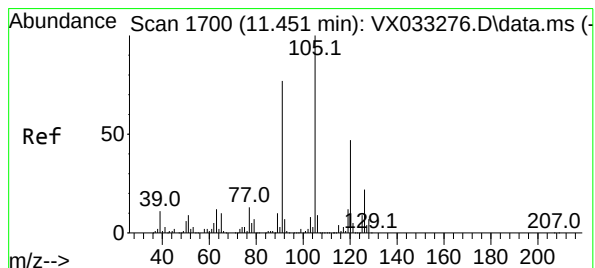
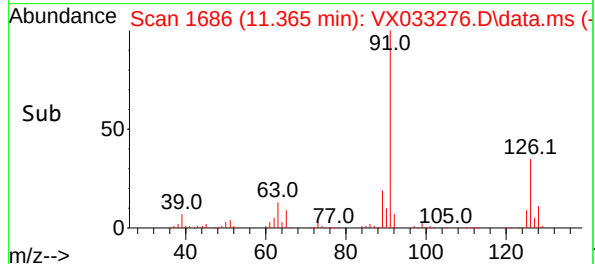
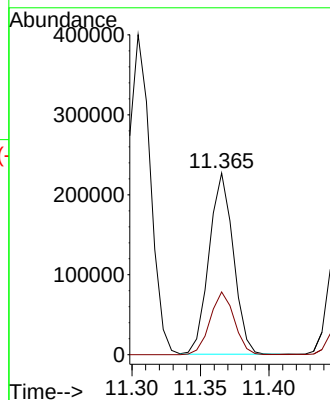
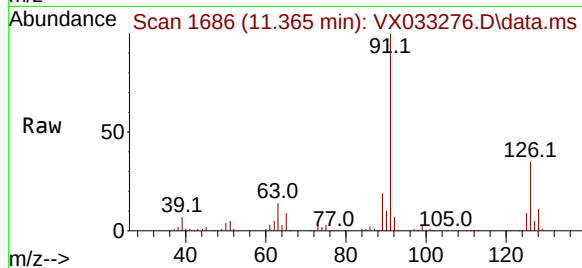
126 34.5 17.1 51.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#80

1,3,5-Trimethylbenzene

Concen: 49.677 ug/l

RT: 11.451 min Scan# 1700

Delta R.T. -0.000 min

Lab File: VX033276.D

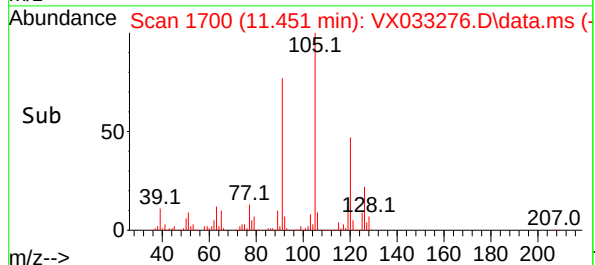
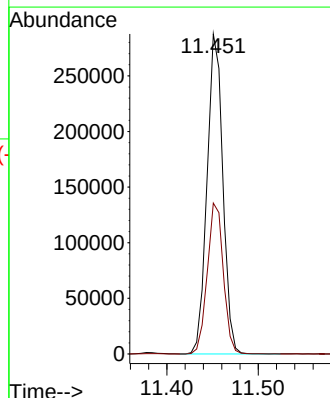
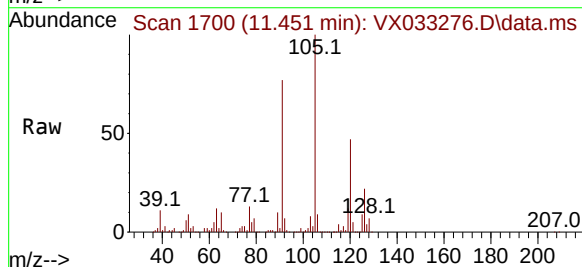
Acq: 07 Dec 2022 10:55

Tgt Ion:105 Resp: 343696

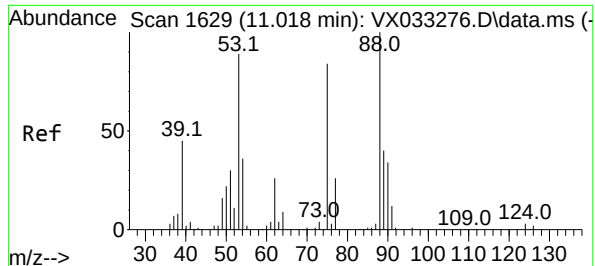
Ion Ratio Lower Upper

105 100

120 48.1 23.6 71.0







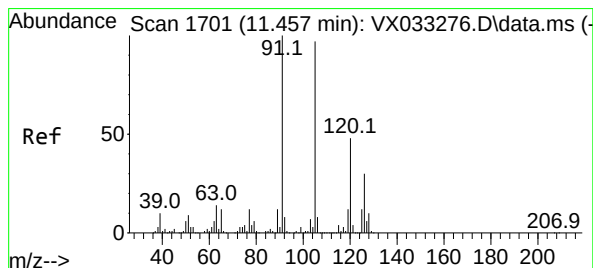
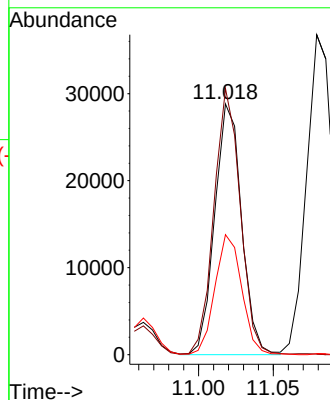
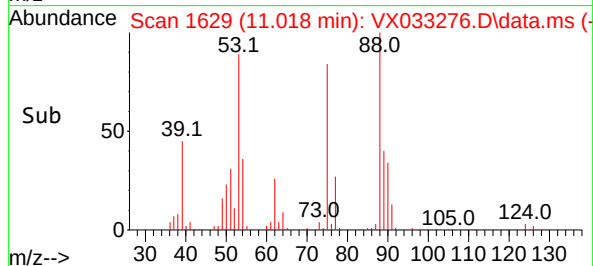
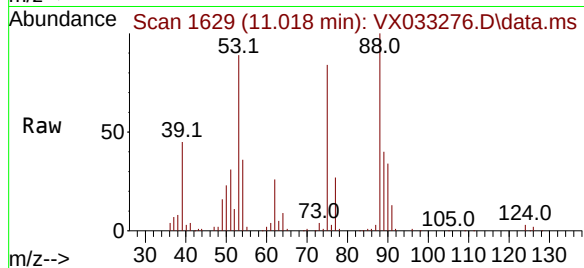
#81  
trans-1,4-Dichloro-2-butene  
Concen: 53.631 ug/l  
RT: 11.018 min Scan# 1629  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050

Tgt Ion: 75 Resp: 3601  
Ion Ratio Lower Upper  
75 100  
53 103.6 86.9 130.3  
89 47.7 38.3 57.5

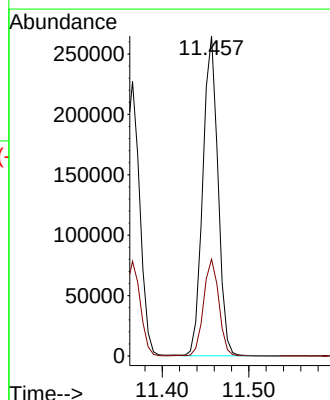
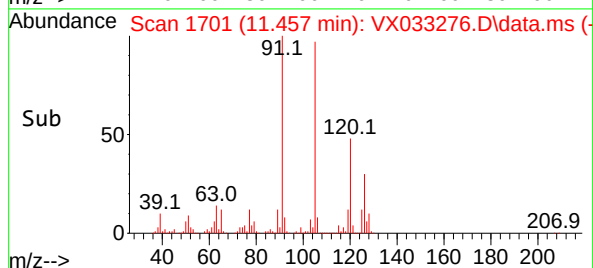
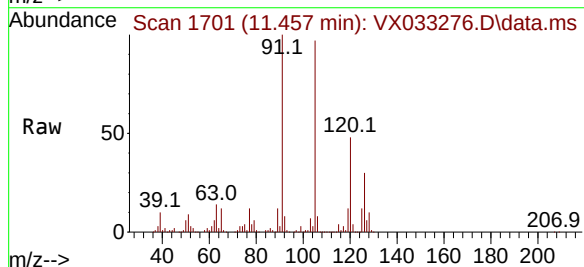
Manual Integrations  
APPROVED

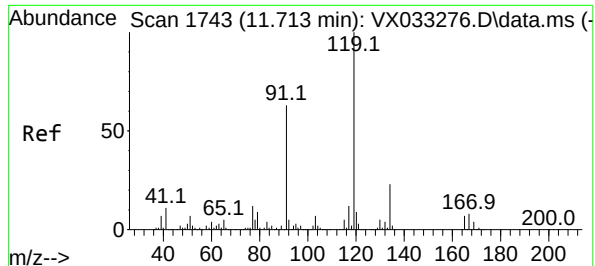
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#82  
4-Chlorotoluene  
Concen: 48.008 ug/l  
RT: 11.457 min Scan# 1701  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

Tgt Ion: 91 Resp: 321742  
Ion Ratio Lower Upper  
91 100  
126 30.6 14.8 44.4





#83

tert-Butylbenzene

Concen: 49.789 ug/l

RT: 11.713 min Scan# 1743

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion:119 Resp: 342890

Ion Ratio Lower Upper

119 100

91 56.7 29.4 88.2

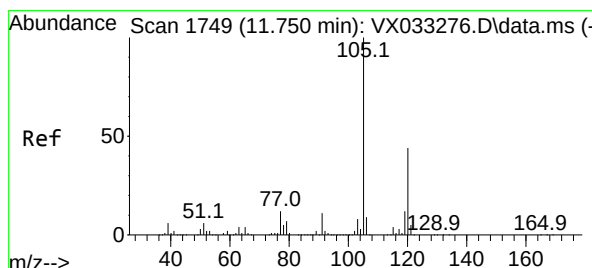
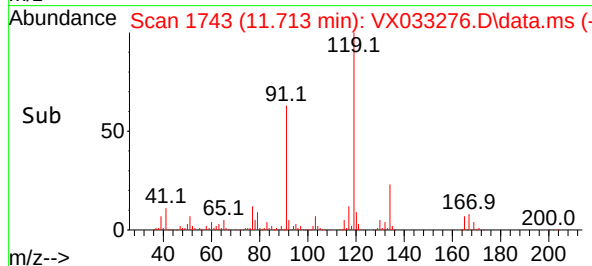
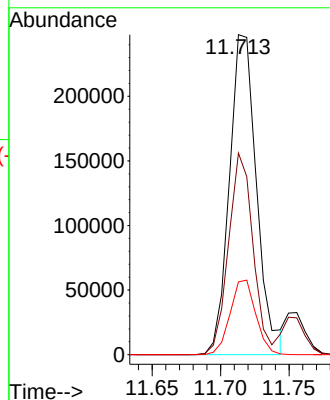
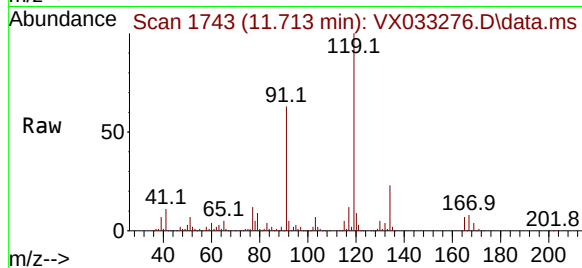
134 22.0 11.0 33.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#84

1,2,4-Trimethylbenzene

Concen: 49.302 ug/l

RT: 11.750 min Scan# 1749

Delta R.T. -0.000 min

Lab File: VX033276.D

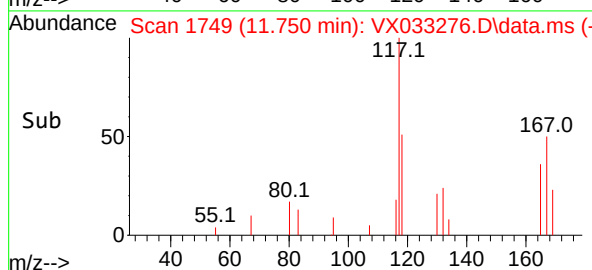
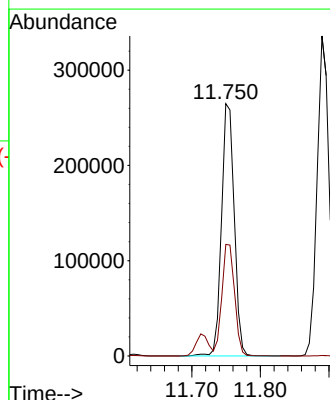
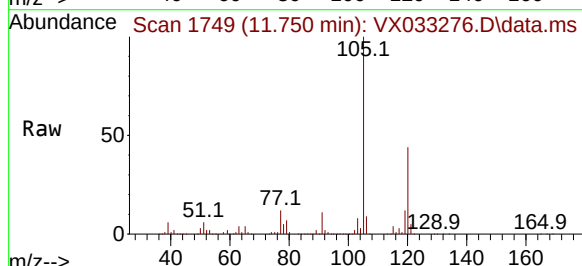
Acq: 07 Dec 2022 10:55

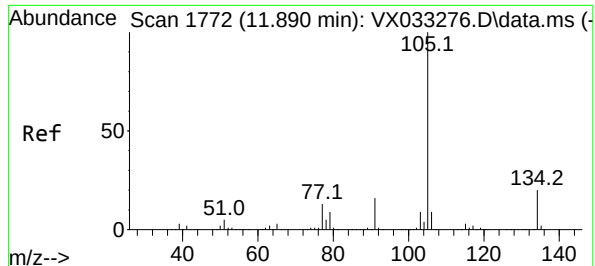
Tgt Ion:105 Resp: 340117

Ion Ratio Lower Upper

105 100

120 44.0 21.9 65.5





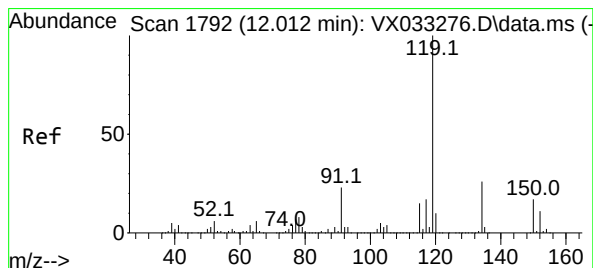
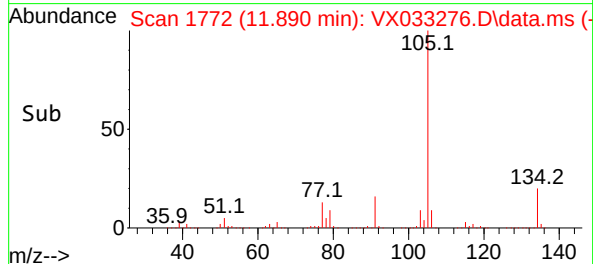
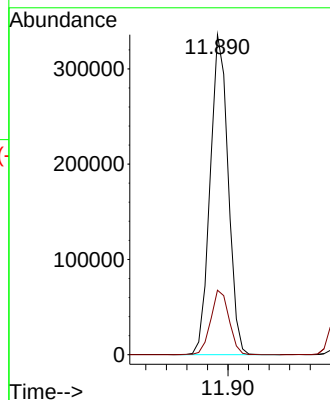
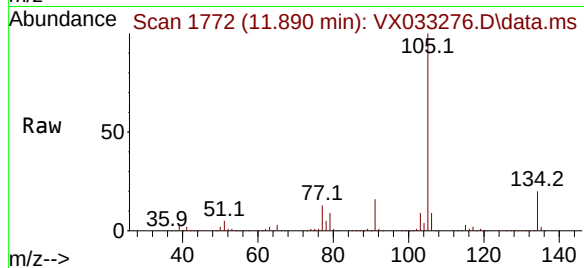
#85  
 sec-Butylbenzene  
 Concen: 49.452 ug/l  
 RT: 11.890 min Scan# 1772  
 Delta R.T. -0.000 min  
 Lab File: VX033276.D  
 Acq: 07 Dec 2022 10:55

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDICCC050

Tgt Ion:105 Resp: 40744  
 Ion Ratio Lower Upper  
 105 100  
 134 20.5 9.9 29.7

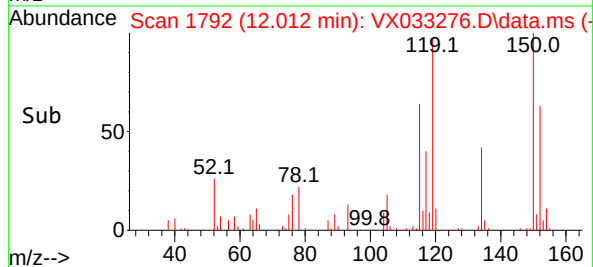
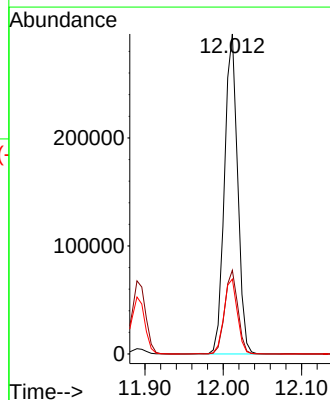
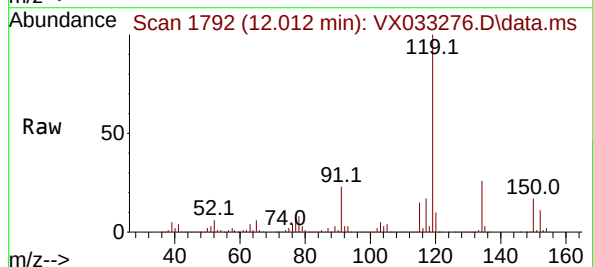
Manual Integrations  
 APPROVED

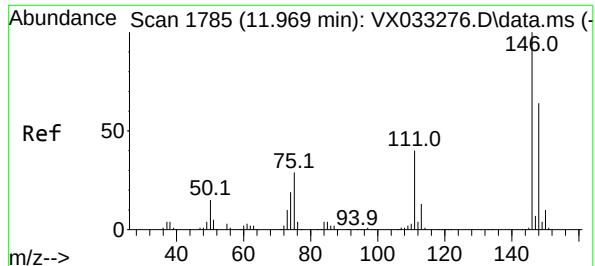
Reviewed By :John Carlone 12/08/2022  
 Supervised By :Mahesh Dadoda 12/08/2022



#86  
 p-Isopropyltoluene  
 Concen: 49.719 ug/l  
 RT: 12.012 min Scan# 1792  
 Delta R.T. -0.000 min  
 Lab File: VX033276.D  
 Acq: 07 Dec 2022 10:55

Tgt Ion:119 Resp: 347069  
 Ion Ratio Lower Upper  
 119 100  
 134 26.0 12.9 38.7  
 91 23.8 12.5 37.5





#87

1,3-Dichlorobenzene

Concen: 48.618 ug/l

RT: 11.969 min Scan# 1785

Delta R.T. 0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion:146 Resp: 184702

Ion Ratio Lower Upper

146 100

111 40.6 20.6 61.8

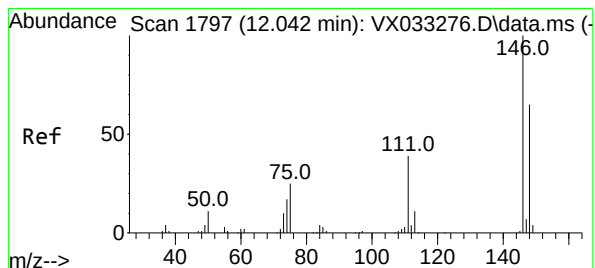
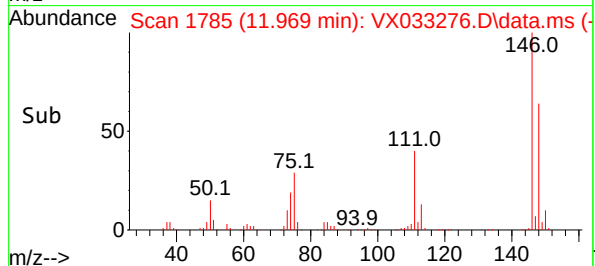
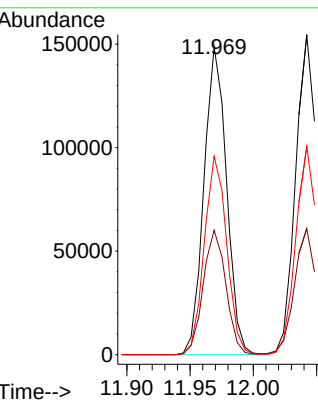
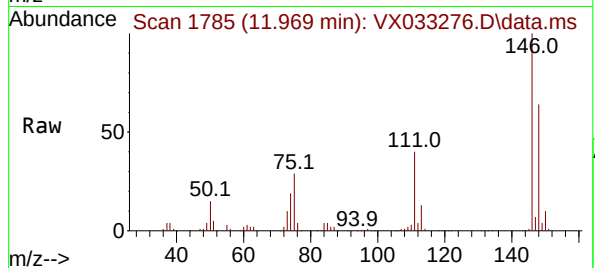
148 63.9 31.7 95.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#88

1,4-Dichlorobenzene

Concen: 47.208 ug/l

RT: 12.042 min Scan# 1797

Delta R.T. 0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

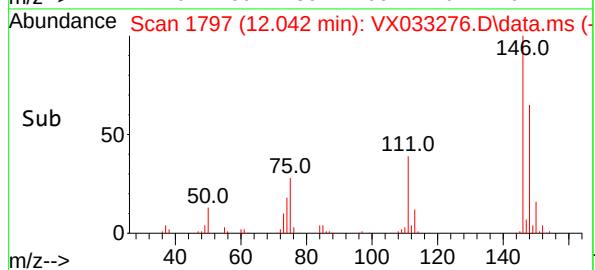
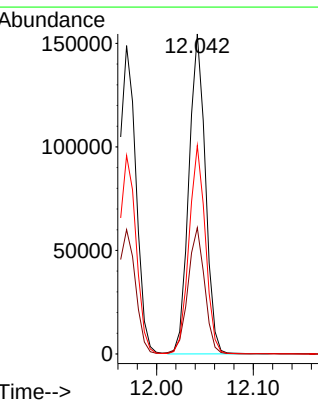
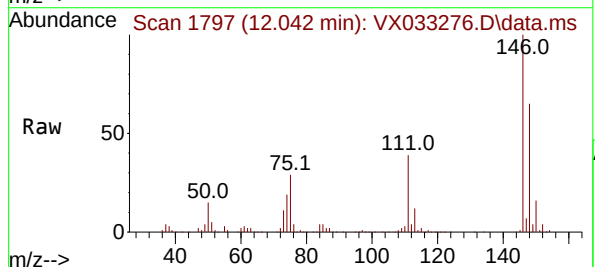
Tgt Ion:146 Resp: 183674

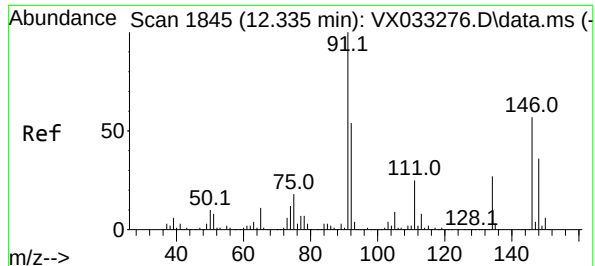
Ion Ratio Lower Upper

146 100

111 39.8 20.5 61.6

148 64.7 32.2 96.6





#89

n-Butylbenzene

Concen: 48.064 ug/l

RT: 12.335 min Scan# 1845

Delta R.T. -0.000 min

Lab File: VX033276.D

Acq: 07 Dec 2022 10:55

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICCC050

Tgt Ion: 91 Resp: 28904

Ion Ratio Lower Upper

91 100

92 53.0 26.2 78.6

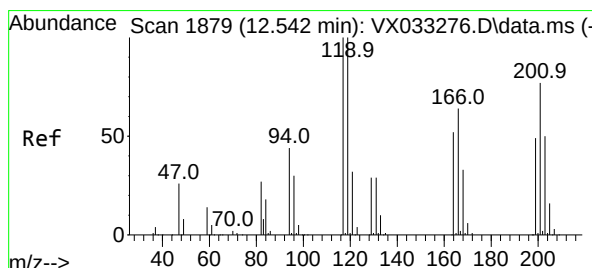
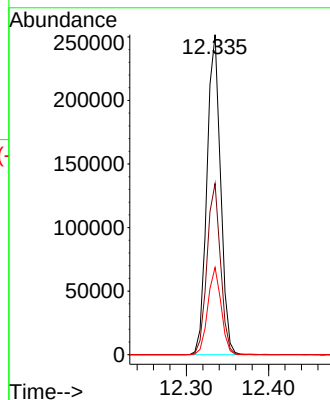
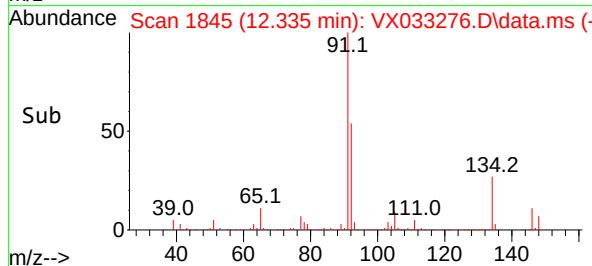
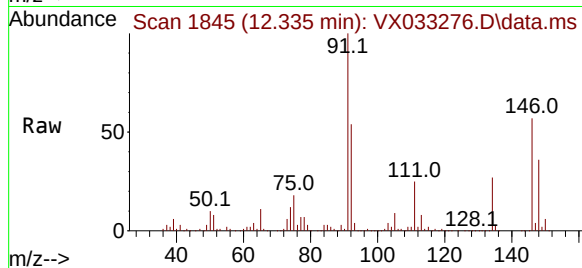
134 26.7 12.9 38.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#90

Hexachloroethane

Concen: 50.845 ug/l

RT: 12.542 min Scan# 1879

Delta R.T. 0.000 min

Lab File: VX033276.D

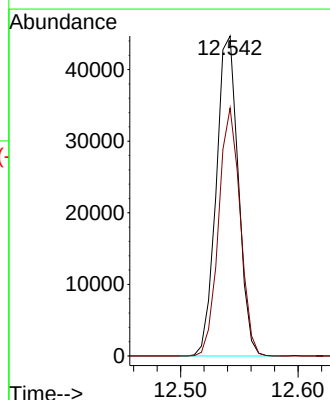
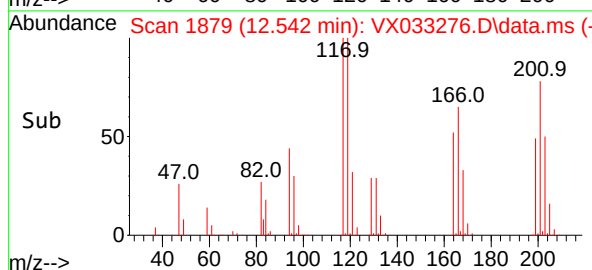
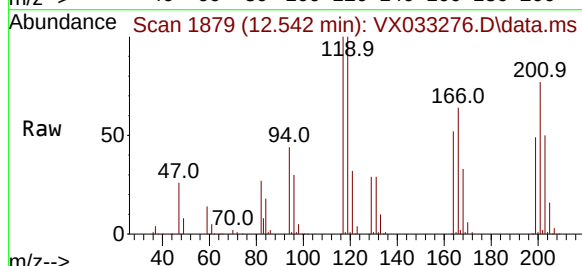
Acq: 07 Dec 2022 10:55

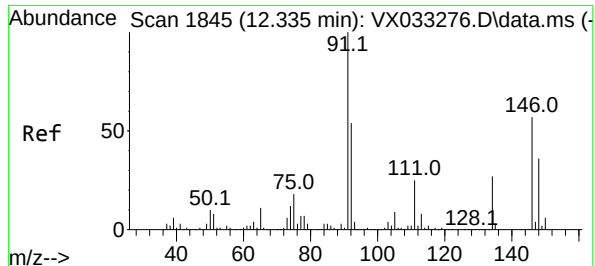
Tgt Ion:117 Resp: 58312

Ion Ratio Lower Upper

117 100

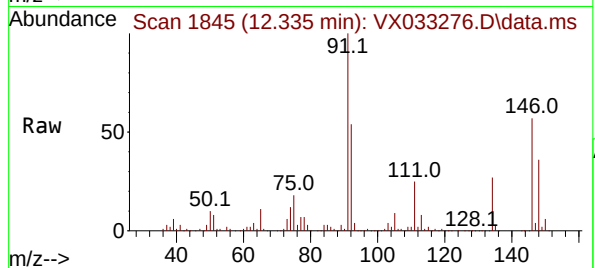
201 75.7 37.6 112.9





#91  
1,2-Dichlorobenzene  
Concen: 48.675 ug/l  
RT: 12.335 min Scan# 1845  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

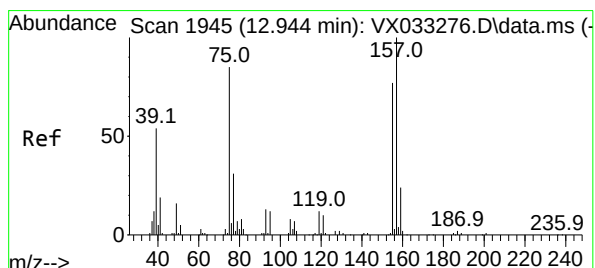
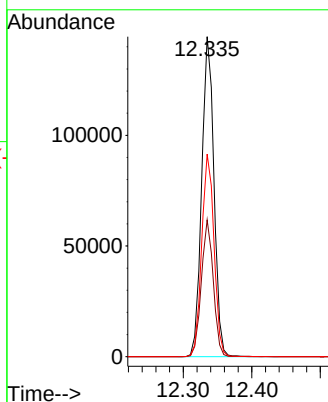
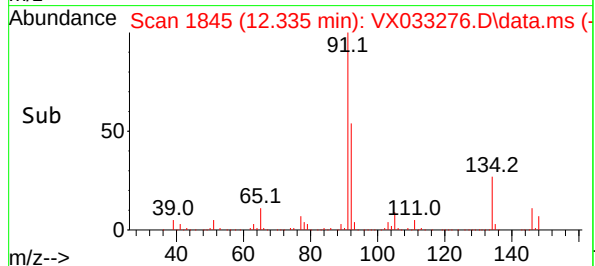
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050



Tgt Ion:146 Resp: 17988  
Ion Ratio Lower Upper  
146 100  
111 41.7 21.5 64.5  
148 63.8 32.0 96.2

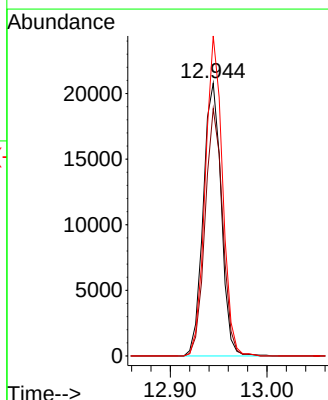
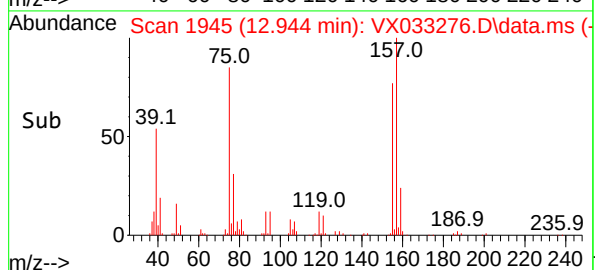
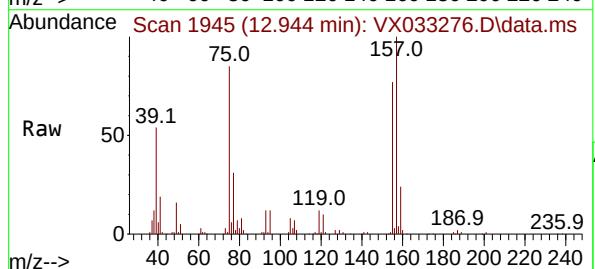
Manual Integrations  
APPROVED

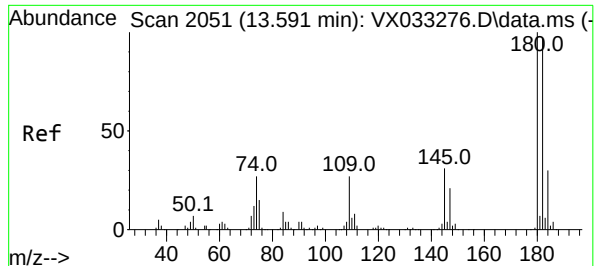
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#92  
1,2-Dibromo-3-Chloropropane  
Concen: 54.222 ug/l  
RT: 12.944 min Scan# 1945  
Delta R.T. -0.001 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

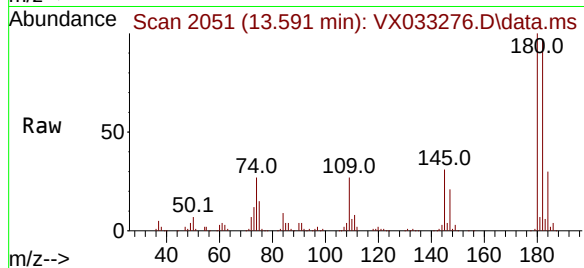
Tgt Ion: 75 Resp: 26891  
Ion Ratio Lower Upper  
75 100  
155 88.6 41.6 124.8  
157 112.8 54.1 162.4





#93  
1,2,4-Trichlorobenzene  
Concen: 48.454 ug/l  
RT: 13.591 min Scan# 2051  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

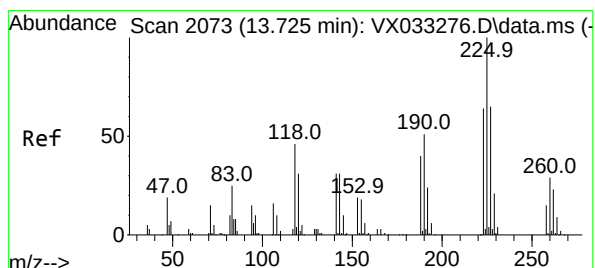
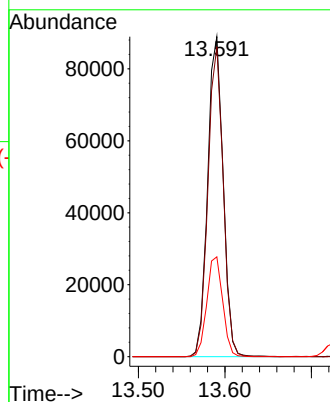
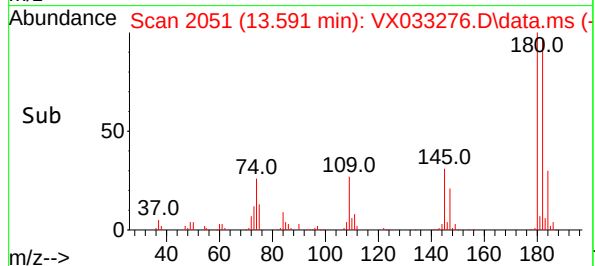
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050



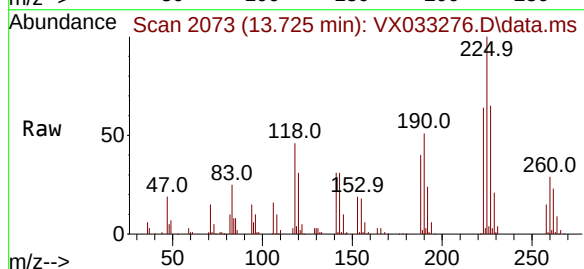
Tgt Ion:180 Resp: 11038  
Ion Ratio Lower Upper  
180 100  
182 95.6 48.4 145.0  
145 32.0 16.2 48.5

Manual Integrations  
APPROVED

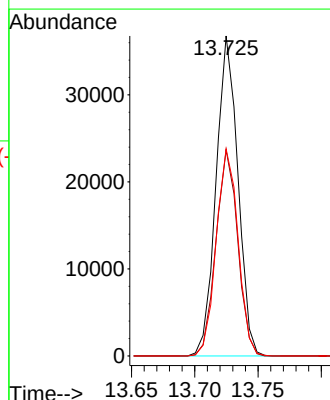
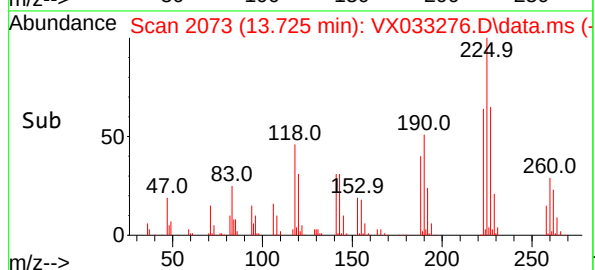
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

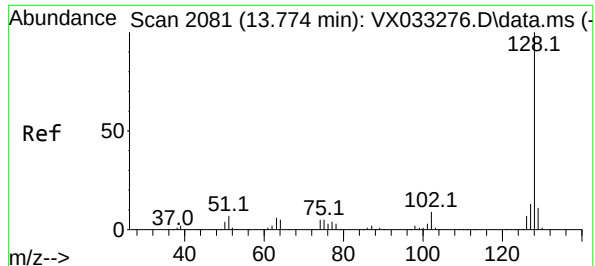


#94  
Hexachlorobutadiene  
Concen: 43.785 ug/l  
RT: 13.725 min Scan# 2073  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55



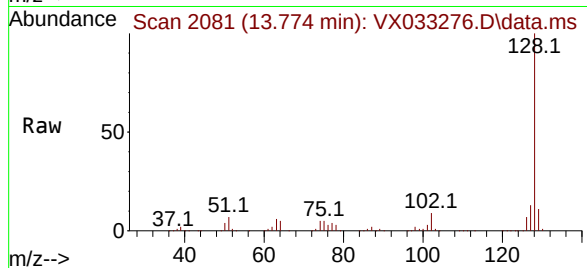
Tgt Ion:225 Resp: 44005  
Ion Ratio Lower Upper  
225 100  
223 64.1 31.9 95.9  
227 64.7 31.9 95.5





#95  
Naphthalene  
Concen: 51.866 ug/l  
RT: 13.774 min Scan# 2081  
Delta R.T. -0.006 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55

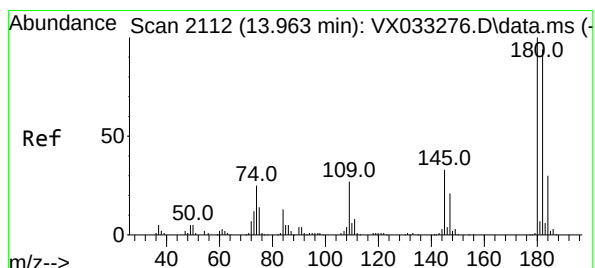
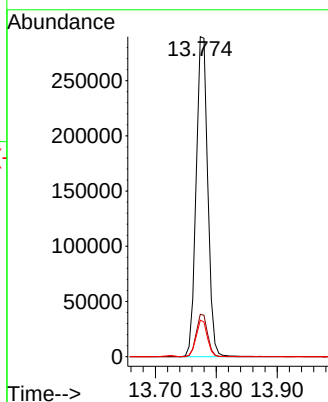
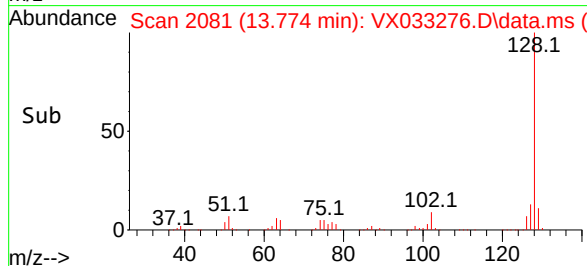
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICCC050



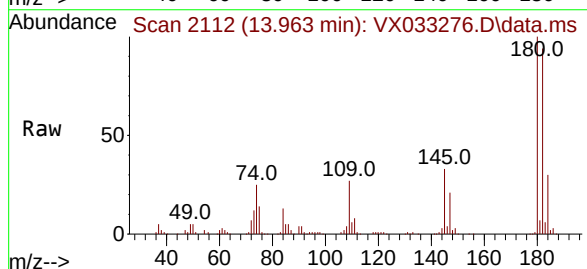
Tgt Ion:128 Resp: 38223  
Ion Ratio Lower Upper  
128 100  
127 13.0 10.2 15.4  
129 11.1 8.9 13.3

Manual Integrations  
APPROVED

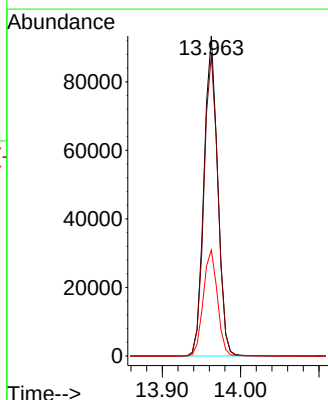
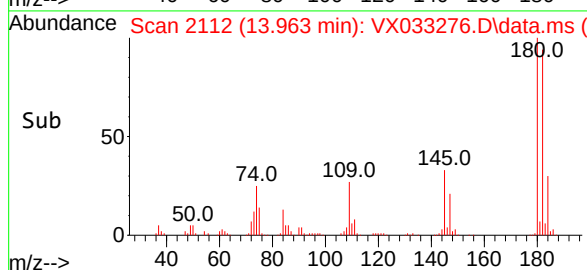
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#96  
1,2,3-Trichlorobenzene  
Concen: 49.483 ug/l  
RT: 13.963 min Scan# 2112  
Delta R.T. -0.000 min  
Lab File: VX033276.D  
Acq: 07 Dec 2022 10:55



Tgt Ion:180 Resp: 113042  
Ion Ratio Lower Upper  
180 100  
182 96.1 47.5 142.6  
145 33.9 16.9 50.6





Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033277.D  
 Acq On : 07 Dec 2022 11:18  
 Operator : JC/MD  
 Sample : VSTDICC100  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDICC100

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/08/2022  
 Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:46:33 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 09:47:15 2022  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response             | Conc    | Units  | Dev(Min) |
|------------------------------|----------------|------|----------------------|---------|--------|----------|
| -----                        |                |      |                      |         |        |          |
| Internal Standards           |                |      |                      |         |        |          |
| 1) Pentafluorobenzene        | 5.556          | 168  | 165055               | 50.000  | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 6.763          | 114  | 255123               | 50.000  | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 10.055         | 117  | 234757               | 50.000  | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 12.024         | 152  | 114385               | 50.000  | ug/l   | 0.00     |
|                              |                |      |                      |         |        |          |
| System Monitoring Compounds  |                |      |                      |         |        |          |
| 33) 1,2-Dichloroethane-d4    | 5.958          | 65   | 92117                | 51.808  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 78 - 117 |      | Recovery = 103.620%  |         |        |          |
| 35) Dibromofluoromethane     | 5.391          | 113  | 106926               | 74.342  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = 148.680%# |         |        |          |
| 50) Toluene-d8               | 8.653          | 98   | 231771               | 49.636  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 92 - 112 |      | Recovery = 99.280%   |         |        |          |
| 62) 4-Bromofluorobenzene     | 11.079         | 95   | 181855               | 96.253  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 83 - 123 |      | Recovery = 192.500%# |         |        |          |
|                              |                |      |                      |         |        |          |
| Target Compounds             |                |      |                      |         | Qvalue |          |
| 2) Dichlorodifluoromethane   | 1.166          | 85   | 113964               | 90.376  | ug/l   | 96       |
| 3) Chloromethane             | 1.294          | 50   | 120662               | 88.636  | ug/l   | 97       |
| 4) Vinyl Chloride            | 1.374          | 62   | 141536               | 93.376  | ug/l   | 99       |
| 5) Bromomethane              | 1.618          | 94   | 103035               | 91.668  | ug/l   | 97       |
| 6) Chloroethane              | 1.691          | 64   | 98459                | 79.790  | ug/l   | 98       |
| 7) Trichlorofluoromethane    | 1.886          | 101  | 260418               | 88.522  | ug/l   | 99       |
| 8) Diethyl Ether             | 2.136          | 74   | 91426                | 98.713  | ug/l   | 97       |
| 9) 1,1,2-Trichlorotrifluo... | 2.331          | 101  | 147980               | 95.703  | ug/l   | 99       |
| 10) Methyl Iodide            | 2.453          | 142  | 168388               | 95.129  | ug/l   | 98       |
| 11) Tert butyl alcohol       | 3.081          | 59   | 153047m              | 600.649 | ug/l   |          |
| 12) 1,1-Dichloroethene       | 2.319          | 96   | 144956               | 100.637 | ug/l   | 98       |
| 13) Acrolein                 | 2.239          | 56   | 168892               | 577.055 | ug/l   | 100      |
| 14) Allyl chloride           | 2.666          | 41   | 231599               | 99.594  | ug/l   | 95       |
| 15) Acrylonitrile            | 3.069          | 53   | 384195               | 533.084 | ug/l   | 98       |
| 16) Acetone                  | 2.392          | 43   | 332080               | 442.372 | ug/l   | 98       |
| 17) Carbon Disulfide         | 2.514          | 76   | 371702               | 93.405  | ug/l   | 100      |
| 18) Methyl Acetate           | 2.709          | 43   | 217517               | 104.676 | ug/l   | 97       |
| 19) Methyl tert-butyl Ether  | 3.117          | 73   | 504714               | 101.037 | ug/l   | 100      |
| 20) Methylene Chloride       | 2.788          | 84   | 157499               | 87.090  | ug/l   | 92       |
| 21) trans-1,2-Dichloroethene | 3.093          | 96   | 160881               | 97.643  | ug/l   | 99       |
| 22) Diisopropyl ether        | 3.764          | 45   | 494701               | 97.699  | ug/l   | 98       |
| 23) Vinyl Acetate            | 3.721          | 43   | 1966313              | 496.095 | ug/l   | 98       |
| 24) 1,1-Dichloroethane       | 3.611          | 63   | 281027               | 96.987  | ug/l   | 100      |
| 25) 2-Butanone               | 4.568          | 43   | 529242               | 511.283 | ug/l   | 100      |
| 26) 2,2-Dichloropropane      | 4.477          | 77   | 220013               | 94.433  | ug/l   | 98       |
| 27) cis-1,2-Dichloroethene   | 4.489          | 96   | 190459               | 101.740 | ug/l   | 97       |
| 28) Bromochloromethane       | 4.897          | 49   | 114001               | 89.540  | ug/l   | 95       |
| 29) Tetrahydrofuran          | 5.013          | 42   | 350450               | 533.548 | ug/l   | 97       |
| 30) Chloroform               | 5.093          | 83   | 317680               | 97.890  | ug/l   | 99       |
| 31) Cyclohexane              | 5.477          | 56   | 251166               | 96.437  | ug/l   | 94       |
| 32) 1,1,1-Trichloroethane    | 5.385          | 97   | 286297               | 98.509  | ug/l   | 98       |
| 36) 1,1-Dichloropropene      | 5.696          | 75   | 229465               | 99.777  | ug/l   | 100      |
| 37) Ethyl Acetate            | 4.715          | 43   | 213345               | 106.332 | ug/l   | 100      |
| 38) Carbon Tetrachloride     | 5.678          | 117  | 255340               | 100.085 | ug/l   | 96       |
| 39) Methylcyclohexane        | 7.385          | 83   | 269308               | 102.633 | ug/l   | 98       |
| 40) Benzene                  | 6.037          | 78   | 653275               | 101.314 | ug/l   | 100      |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033277.D  
 Acq On : 07 Dec 2022 11:18  
 Operator : JC/MD  
 Sample : VSTDICC100  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDICC100

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/08/2022  
 Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:46:33 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 09:47:15 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| 41) Methacrylonitrile         | 4.922  | 41   | 118380   | 104.856  | ug/l   | 96       |
| 42) 1,2-Dichloroethane        | 6.086  | 62   | 249168   | 95.974   | ug/l   | 98       |
| 43) Isopropyl Acetate         | 6.342  | 43   | 349609   | 105.360  | ug/l   | 97       |
| 44) Trichloroethene           | 7.129  | 130  | 184157   | 101.780  | ug/l   | 99       |
| 45) 1,2-Dichloropropane       | 7.434  | 63   | 165570   | 103.903  | ug/l   | 99       |
| 46) Dibromomethane            | 7.580  | 93   | 124128   | 99.831   | ug/l   | 98       |
| 47) Bromodichloromethane      | 7.824  | 83   | 250677   | 104.337  | ug/l   | 100      |
| 48) Methyl methacrylate       | 7.696  | 41   | 178559   | 104.542  | ug/l   | 93       |
| 49) 1,4-Dioxane               | 7.708  | 88   | 81715    | 2599.008 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone      | 8.574  | 43   | 1063088  | 519.198  | ug/l   | 96       |
| 52) Toluene                   | 8.720  | 92   | 431003   | 101.600  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 8.982  | 75   | 261464   | 110.875  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene   | 8.366  | 75   | 280027   | 108.114  | ug/l   | 90       |
| 55) 1,1,2-Trichloroethane     | 9.153  | 97   | 178523   | 103.364  | ug/l   | 98       |
| 56) Ethyl methacrylate        | 9.116  | 69   | 264710   | 111.239  | ug/l # | 91       |
| 57) 1,3-Dichloropropane       | 9.311  | 76   | 285374   | 102.351  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether | 8.244  | 63   | 601216   | 532.046  | ug/l   | 98       |
| 59) 2-Hexanone                | 9.433  | 43   | 776936   | 513.655  | ug/l   | 94       |
| 60) Dibromochloromethane      | 9.525  | 129  | 203673   | 109.532  | ug/l   | 100      |
| 61) 1,2-Dibromoethane         | 9.610  | 107  | 192450   | 105.569  | ug/l   | 99       |
| 64) Tetrachloroethene         | 9.275  | 164  | 155777   | 93.745   | ug/l   | 96       |
| 65) Chlorobenzene             | 10.079 | 112  | 466180   | 99.602   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane | 10.165 | 131  | 179053   | 104.407  | ug/l   | 100      |
| 67) Ethyl Benzene             | 10.195 | 91   | 832367   | 100.255  | ug/l   | 99       |
| 68) m/p-Xylenes               | 10.305 | 106  | 656555   | 201.944  | ug/l   | 97       |
| 69) o-Xylene                  | 10.640 | 106  | 318285   | 101.180  | ug/l   | 97       |
| 70) Styrene                   | 10.659 | 104  | 537696   | 104.480  | ug/l   | 98       |
| 71) Bromoform                 | 10.799 | 173  | 147977   | 112.541  | ug/l # | 99       |
| 73) Isopropylbenzene          | 10.963 | 105  | 842073   | 103.020  | ug/l   | 99       |
| 74) N-amyl acetate            | 10.842 | 43   | 293580   | 105.583  | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 253116   | 102.600  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 11.238 | 75   | 227655m  | 105.091  | ug/l   |          |
| 77) Bromobenzene              | 11.201 | 156  | 206162   | 102.556  | ug/l   | 98       |
| 78) n-propylbenzene           | 11.305 | 91   | 957635   | 102.470  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 11.366 | 91   | 562746   | 99.144   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 707491   | 103.034  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75   | 78356    | 117.572  | ug/l   | 91       |
| 82) 4-Chlorotoluene           | 11.457 | 91   | 662404   | 99.587   | ug/l   | 99       |
| 83) tert-Butylbenzene         | 11.713 | 119  | 704229   | 103.031  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene    | 11.750 | 105  | 694969   | 101.503  | ug/l   | 98       |
| 85) sec-Butylbenzene          | 11.890 | 105  | 841254   | 102.877  | ug/l   | 99       |
| 86) p-Isopropyltoluene        | 12.012 | 119  | 721390   | 104.124  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 11.969 | 146  | 382452   | 101.433  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 12.043 | 146  | 377754   | 97.826   | ug/l   | 99       |
| 89) n-Butylbenzene            | 12.335 | 91   | 616947   | 103.367  | ug/l   | 98       |
| 90) Hexachloroethane          | 12.542 | 117  | 123879   | 108.833  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene       | 12.335 | 146  | 368843   | 100.562  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75   | 56957    | 115.714  | ug/l   | 93       |
| 93) 1,2,4-Trichlorobenzene    | 13.591 | 180  | 241047   | 106.614  | ug/l   | 98       |
| 94) Hexachlorobutadiene       | 13.725 | 225  | 94278    | 94.517   | ug/l   | 99       |
| 95) Naphthalene               | 13.774 | 128  | 806793   | 110.304  | ug/l   | 100      |
| 96) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 239154   | 105.480  | ug/l   | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033277.D  
Acq On : 07 Dec 2022 11:18  
Operator : JC/MD  
Sample : VSTDICC100  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100

Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:46:33 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 09:47:15 2022  
Response via : Initial Calibration

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

-----

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

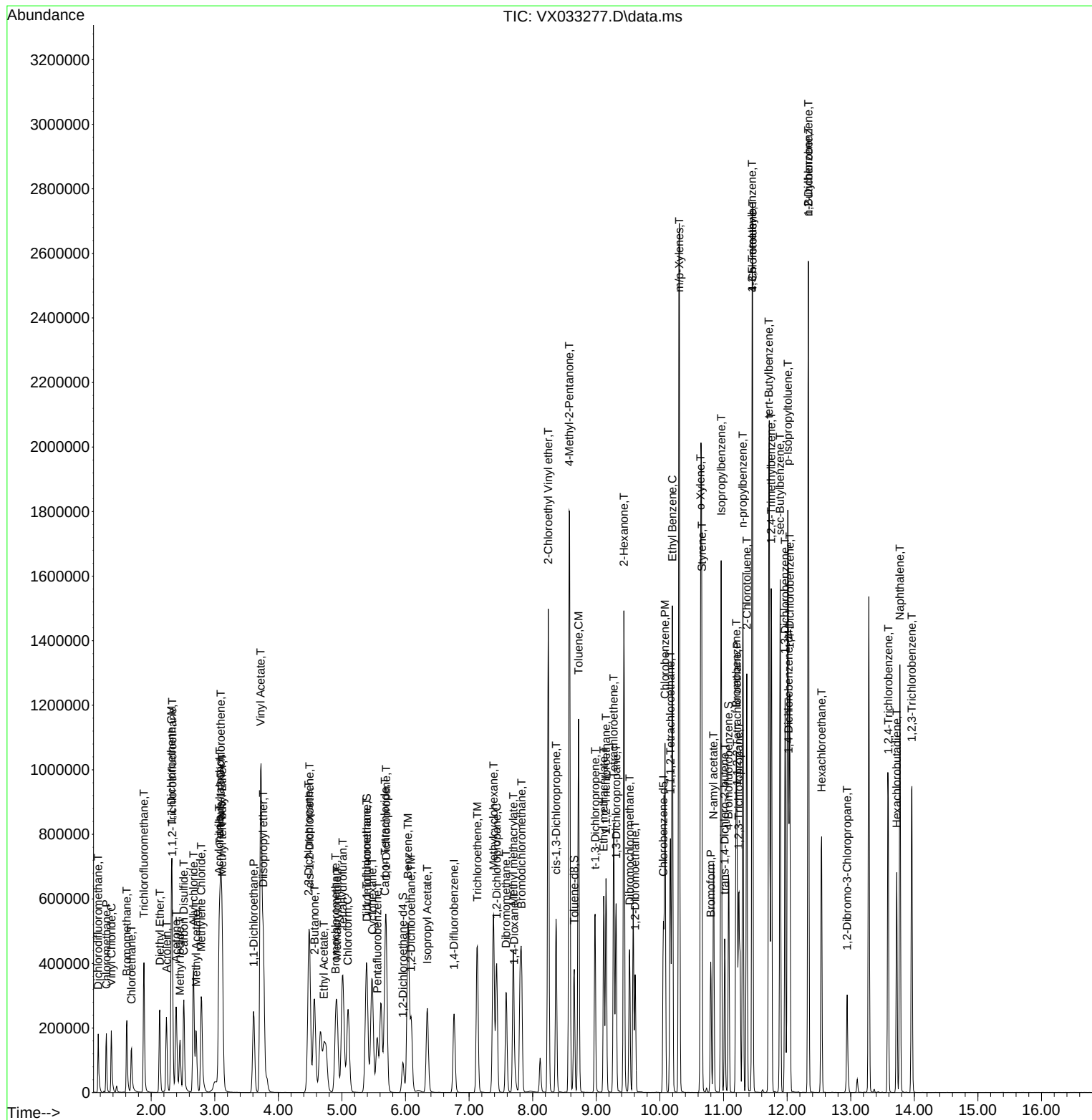
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033277.D  
Acq On : 07 Dec 2022 11:18  
Operator : JC/MD  
Sample : VSTDICC100  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 6 Sample Multiplier: 1

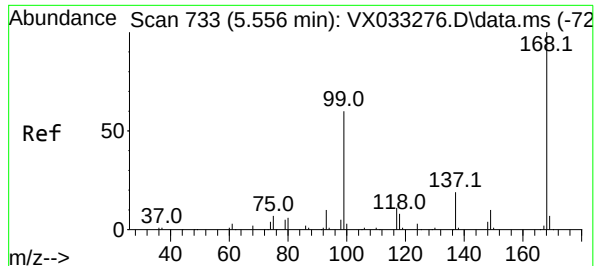
**Instrument :**  
MSVOA\_X  
**ClientSampleId :**  
VSTDICC100

## Manual Integrations APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

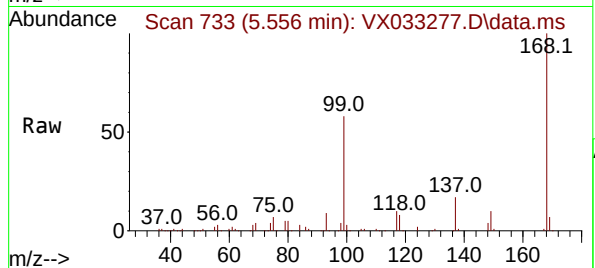
Quant Time: Dec 07 11:46:33 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 09:47:15 2022  
Response via : Initial Calibration





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.556 min Scan# 71  
Delta R.T. -0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

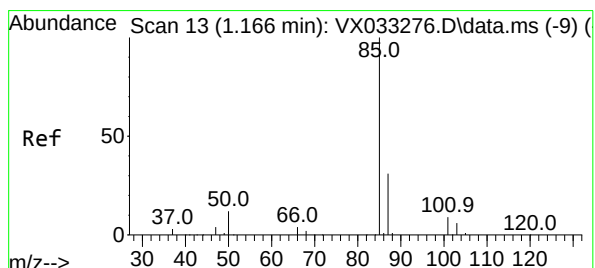
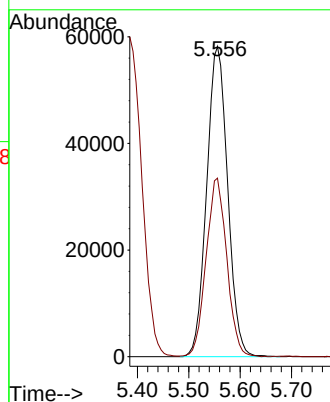
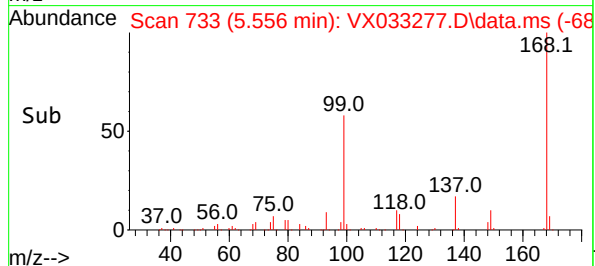
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100



Tgt Ion:168 Resp: 16505  
Ion Ratio Lower Upper  
168 100  
99 57.4 46.1 69.1

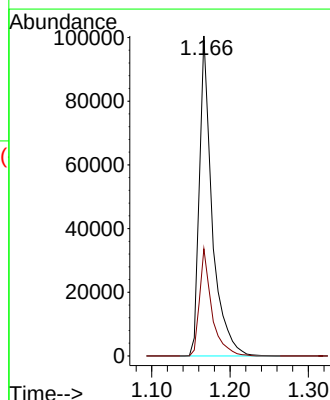
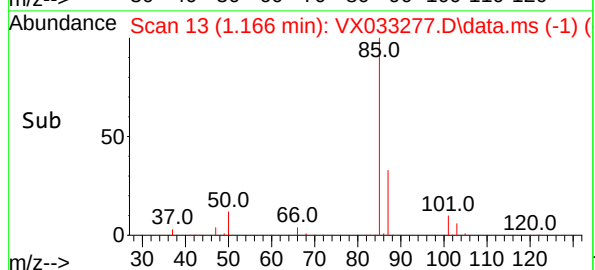
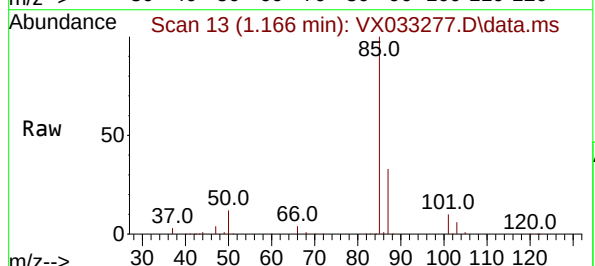
Manual Integrations  
APPROVED

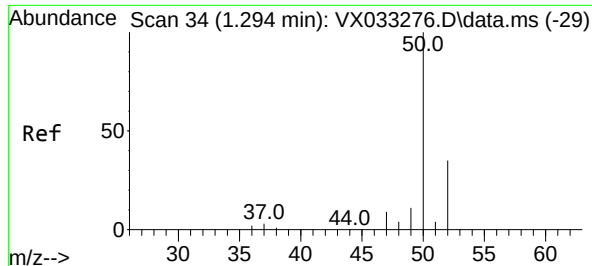
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#2  
Dichlorodifluoromethane  
Concen: 90.376 ug/l  
RT: 1.166 min Scan# 13  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Tgt Ion: 85 Resp: 113964  
Ion Ratio Lower Upper  
85 100  
87 33.5 15.6 46.7





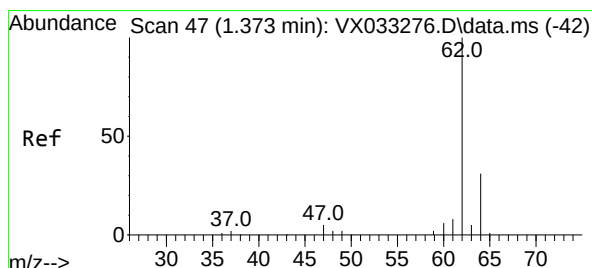
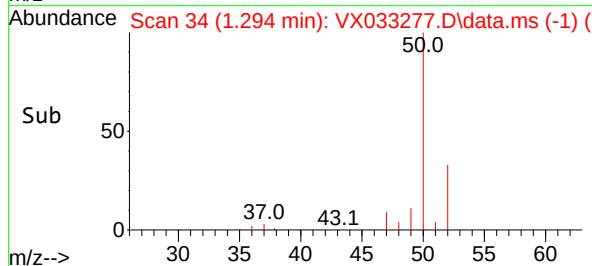
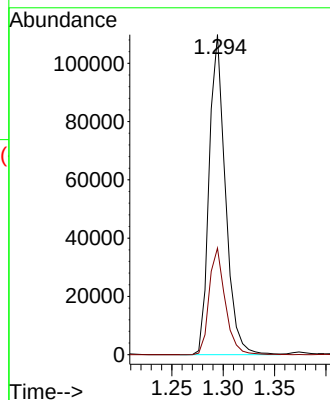
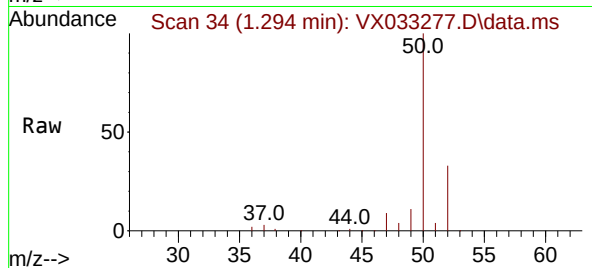
#3  
Chloromethane  
Concen: 88.636 ug/l  
RT: 1.294 min Scan# 34  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100

Tgt Ion: 50 Resp: 120662  
Ion Ratio Lower Upper  
50 100  
52 33.3 25.4 38.2

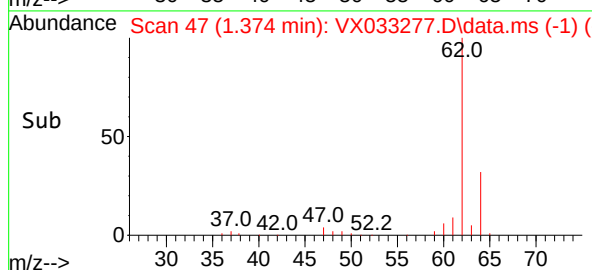
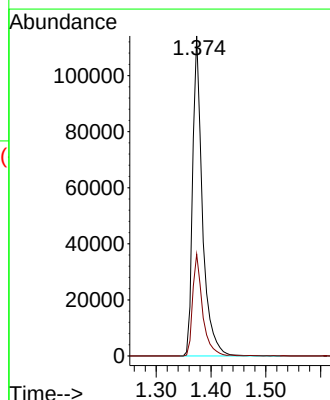
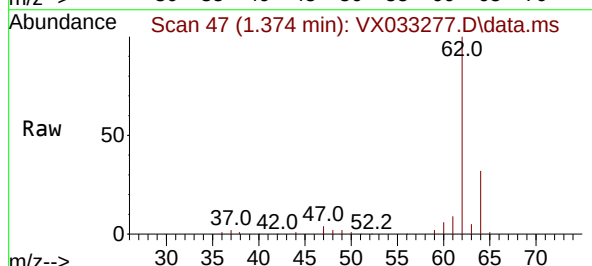
Manual Integrations  
APPROVED

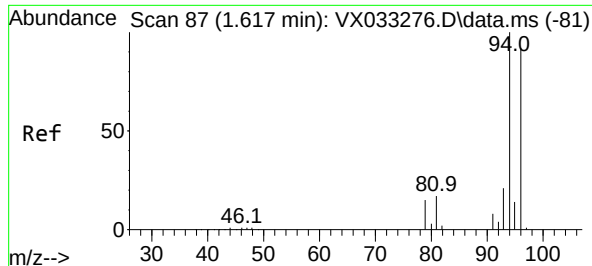
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#4  
Vinyl Chloride  
Concen: 93.376 ug/l  
RT: 1.374 min Scan# 47  
Delta R.T. -0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

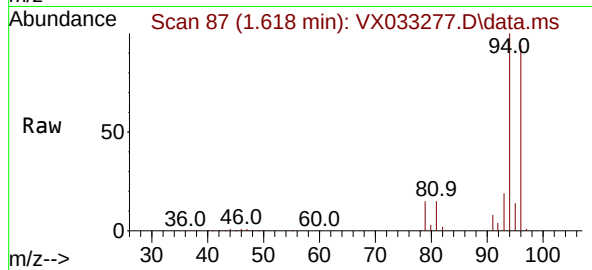
Tgt Ion: 62 Resp: 141536  
Ion Ratio Lower Upper  
62 100  
64 31.8 25.8 38.6





#5  
Bromomethane  
Concen: 91.668 ug/l  
RT: 1.618 min Scan# 81  
Delta R.T. 0.013 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

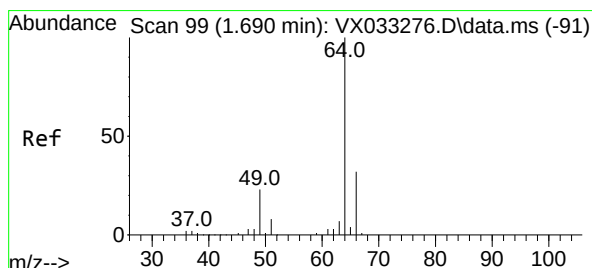
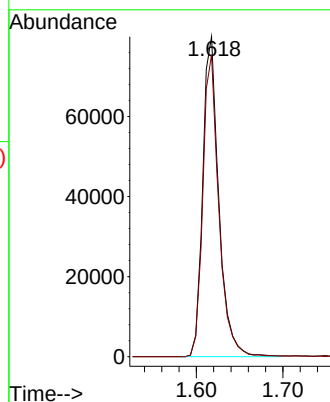
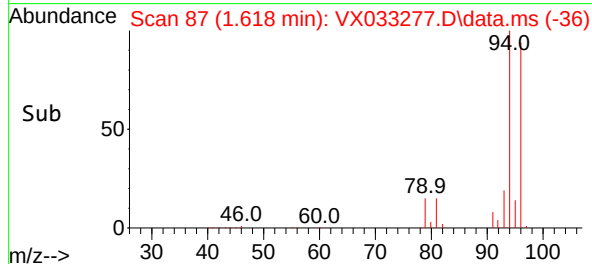
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100



Tgt Ion: 94 Resp: 103035  
Ion Ratio Lower Upper  
94 100  
96 94.4 77.6 116.4

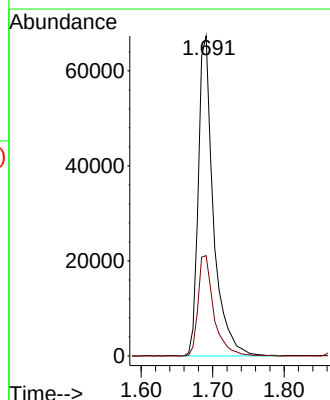
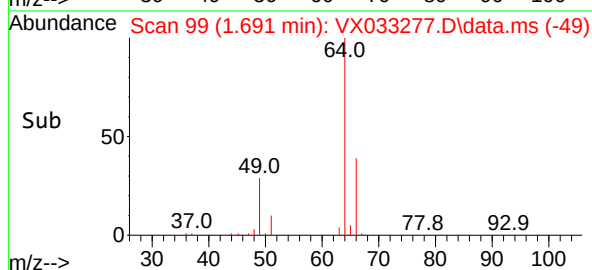
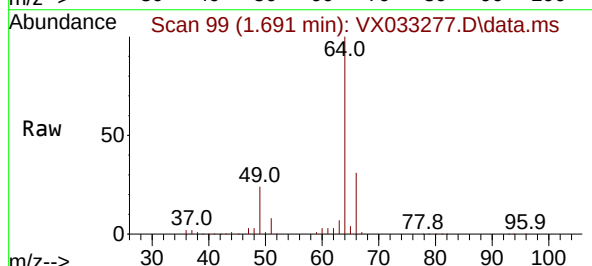
Manual Integrations  
APPROVED

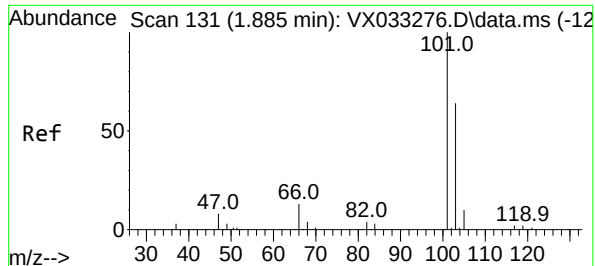
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#6  
Chloroethane  
Concen: 79.790 ug/l  
RT: 1.691 min Scan# 99  
Delta R.T. 0.006 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

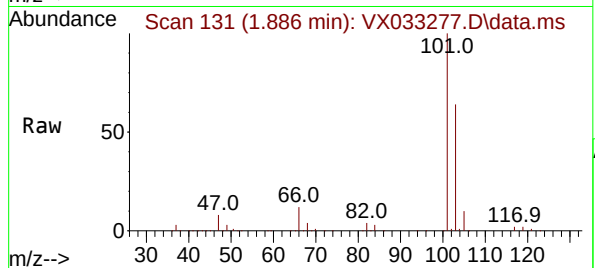
Tgt Ion: 64 Resp: 98459  
Ion Ratio Lower Upper  
64 100  
66 31.3 26.0 39.0





#7  
Trichlorofluoromethane  
Concen: 88.522 ug/l  
RT: 1.886 min Scan# 131  
Delta R.T. -0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

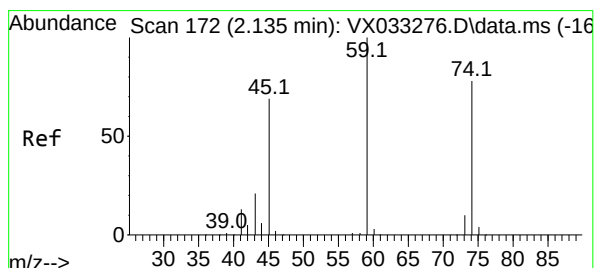
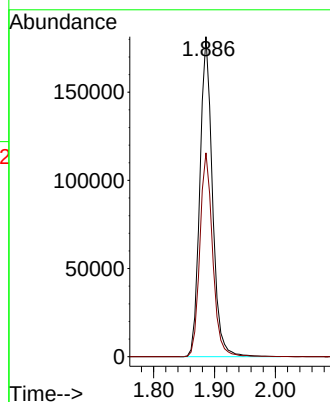
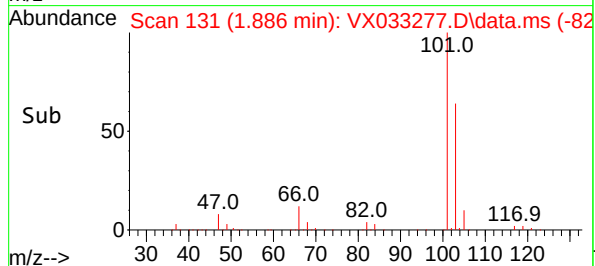
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100



Tgt Ion:101 Resp: 260418  
Ion Ratio Lower Upper  
101 100  
103 63.7 51.4 77.2

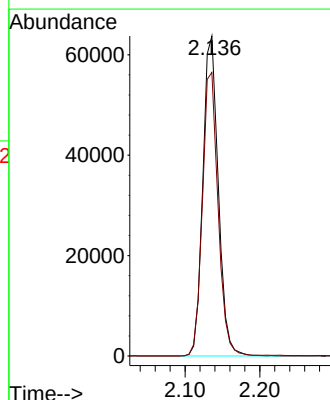
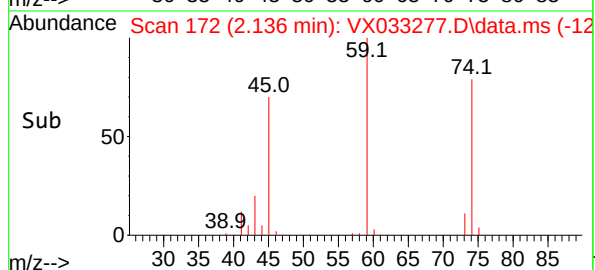
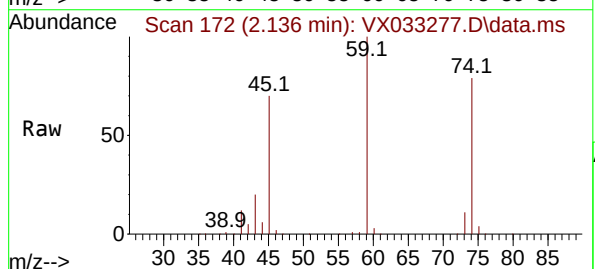
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

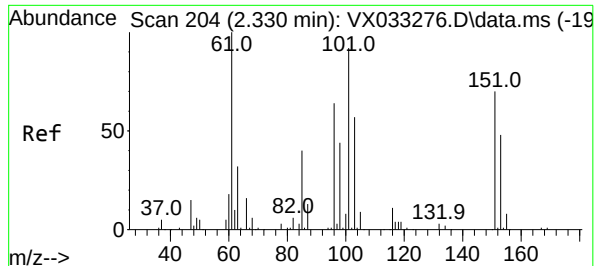


#8  
Diethyl Ether  
Concen: 98.713 ug/l  
RT: 2.136 min Scan# 172  
Delta R.T. 0.006 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Tgt Ion: 74 Resp: 91426  
Ion Ratio Lower Upper  
74 100  
45 90.4 46.6 139.7







#9

1,1,2-Trichlorotrifluoroethane

Concen: 95.703 ug/l

RT: 2.331 min Scan# 204

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion:101 Resp: 147980

Ion Ratio Lower Upper

101 100

85 45.4 37.0 55.4

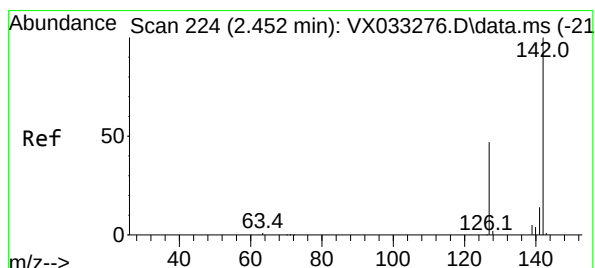
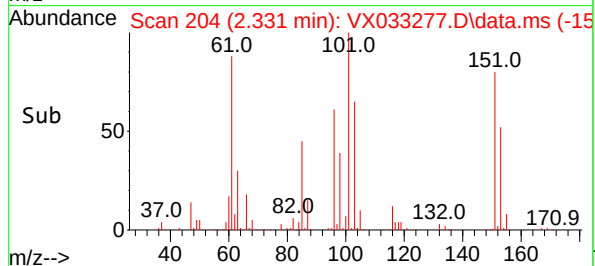
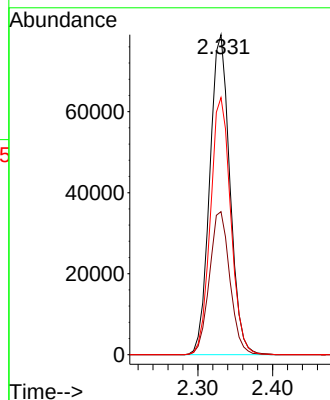
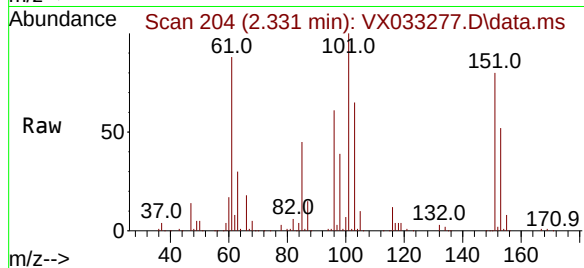
151 80.9 64.4 96.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#10

Methyl Iodide

Concen: 95.129 ug/l

RT: 2.453 min Scan# 224

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

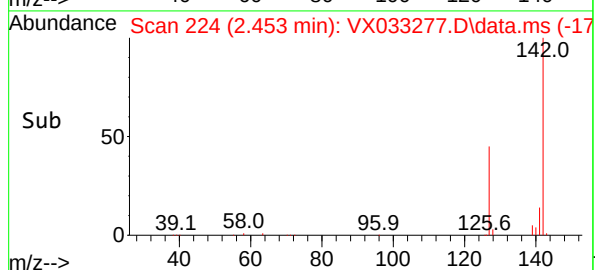
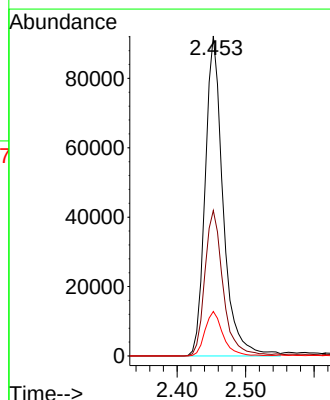
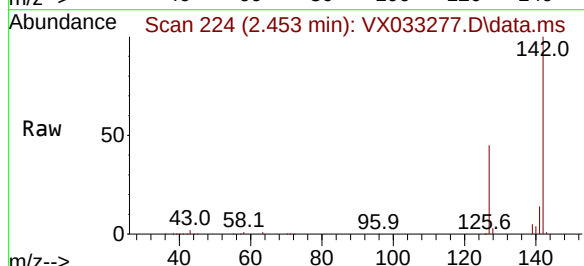
Tgt Ion:142 Resp: 168388

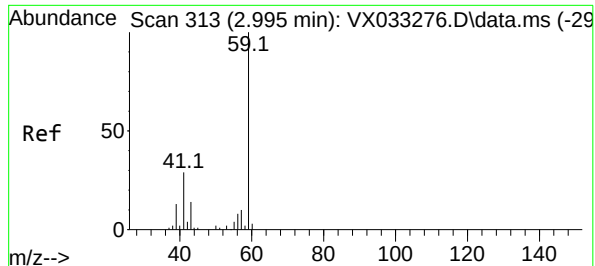
Ion Ratio Lower Upper

142 100

127 46.2 38.6 57.8

141 14.1 11.4 17.2





#11

Tert butyl alcohol

Concen: 600.649 ug/l m

RT: 3.081 min Scan# 31

Delta R.T. 0.116 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 59 Resp: 15304

Ion Ratio Lower Upper

59 100

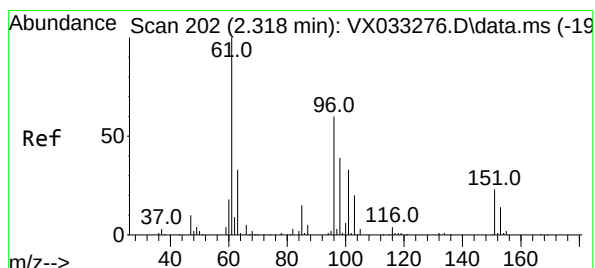
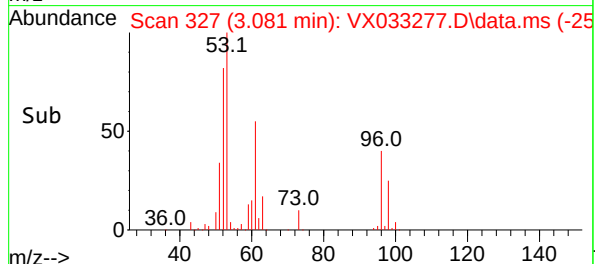
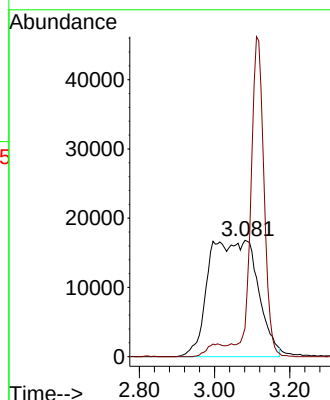
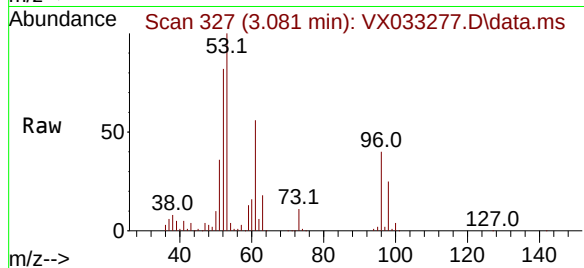
57 3.8 8.2 12.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#12

1,1-Dichloroethene

Concen: 100.637 ug/l

RT: 2.319 min Scan# 202

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

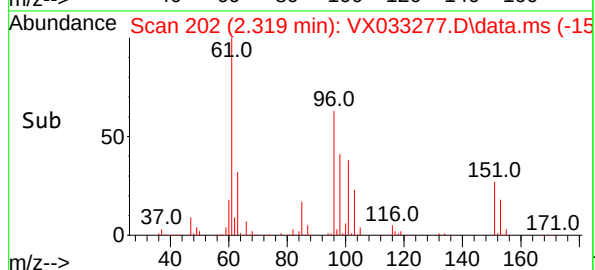
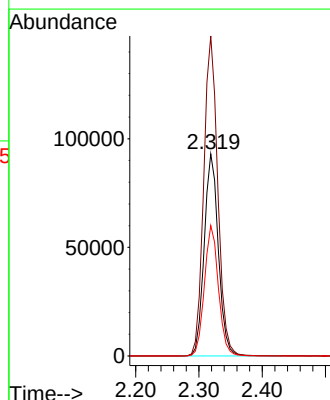
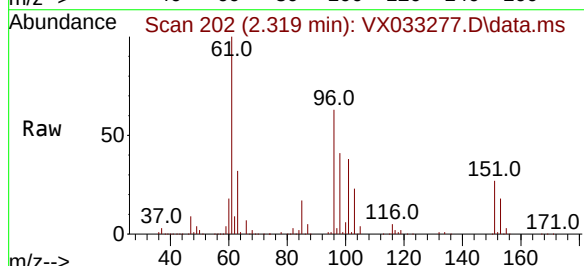
Tgt Ion: 96 Resp: 144956

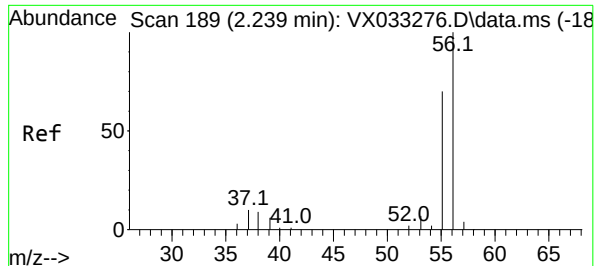
Ion Ratio Lower Upper

96 100

61 158.4 125.1 187.7

98 64.5 50.6 76.0





#13

Acrolein

Concen: 577.055 ug/l

RT: 2.239 min Scan# 189

Delta R.T. 0.006 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion: 56 Resp: 168892

Ion Ratio Lower Upper

56 100

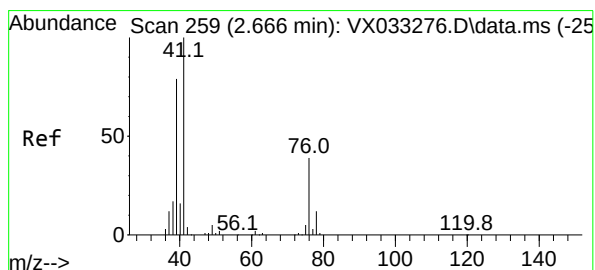
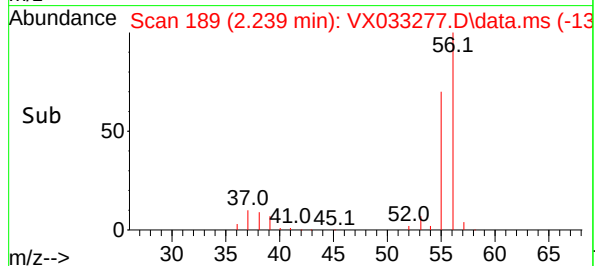
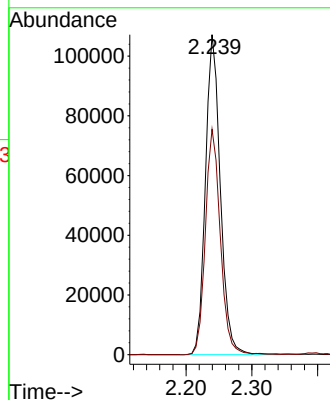
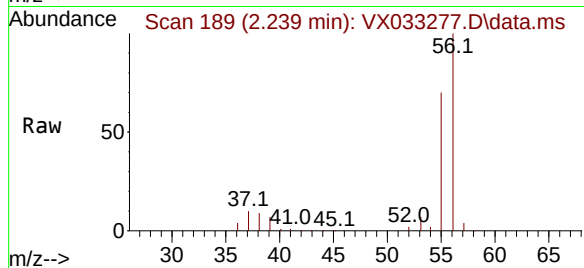
55 70.8 56.9 85.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#14

Allyl chloride

Concen: 99.594 ug/l

RT: 2.666 min Scan# 259

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

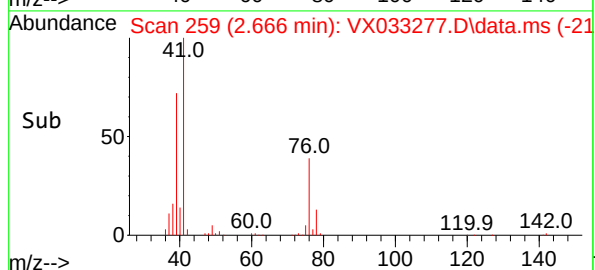
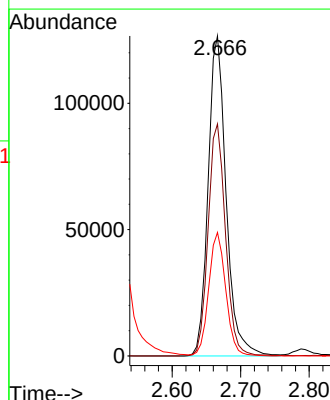
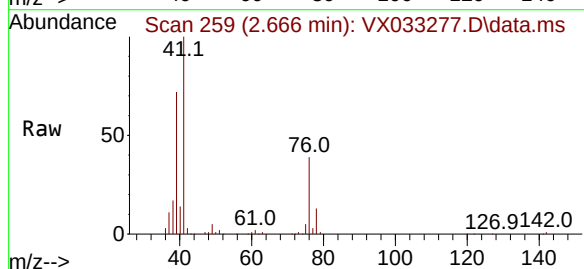
Tgt Ion: 41 Resp: 231599

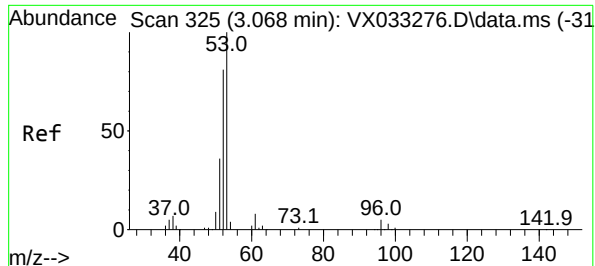
Ion Ratio Lower Upper

41 100

39 70.0 61.4 92.2

76 36.5 29.2 43.8





#15

Acrylonitrile

Concen: 533.084 ug/l

RT: 3.069 min Scan# 31

Delta R.T. 0.007 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

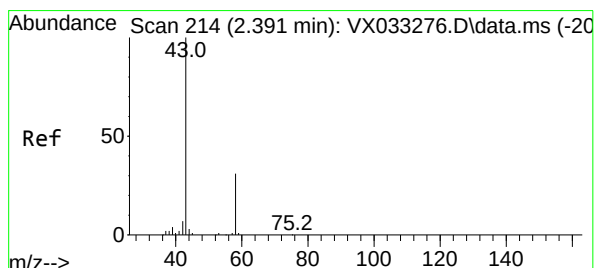
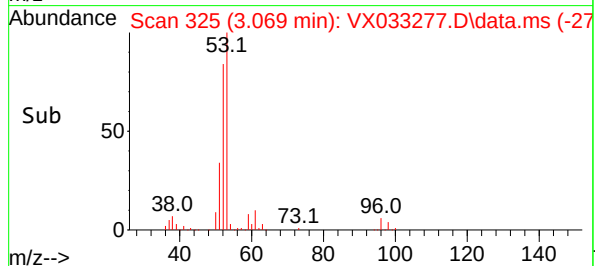
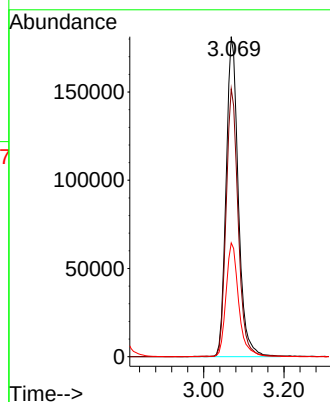
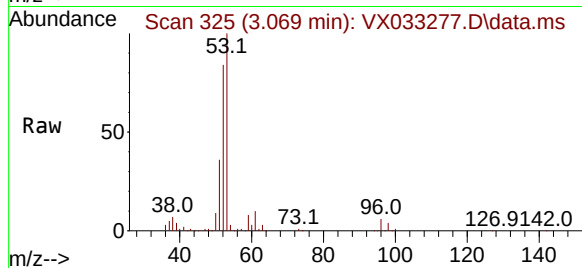
VSTDICC100

|             |                 |
|-------------|-----------------|
| Tgt Ion: 53 | Resp: 38419     |
| Ion Ratio   | Lower Upper     |
| 53          | 100             |
| 52          | 82.5 67.4 101.0 |
| 51          | 36.9 30.3 45.5  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#16

Acetone

Concen: 442.372 ug/l

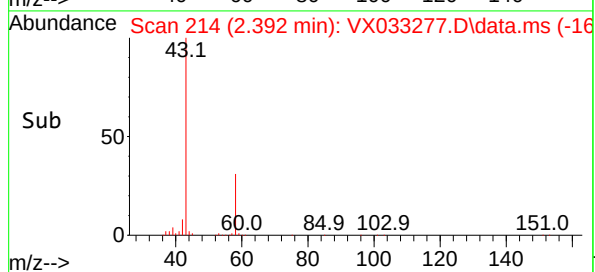
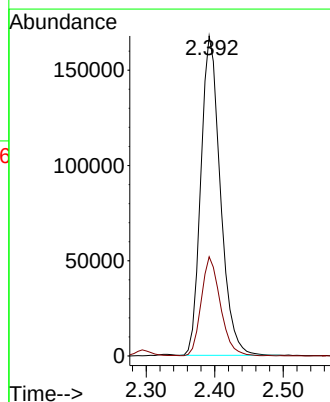
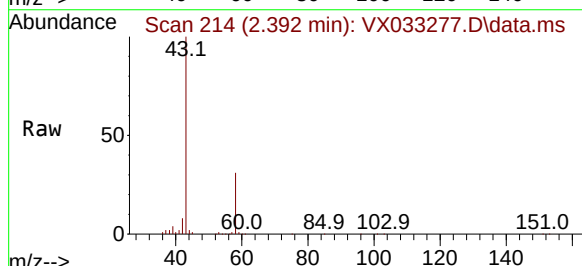
RT: 2.392 min Scan# 214

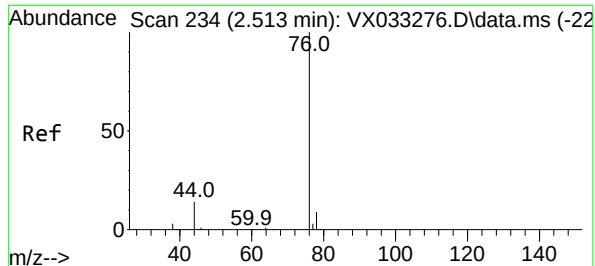
Delta R.T. 0.012 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

|             |                |
|-------------|----------------|
| Tgt Ion: 43 | Resp: 332080   |
| Ion Ratio   | Lower Upper    |
| 43          | 100            |
| 58          | 31.0 23.8 35.8 |





#17

Carbon Disulfide

Concen: 93.405 ug/l

RT: 2.514 min Scan# 21

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 76 Resp: 371702

Ion Ratio Lower Upper

76 100

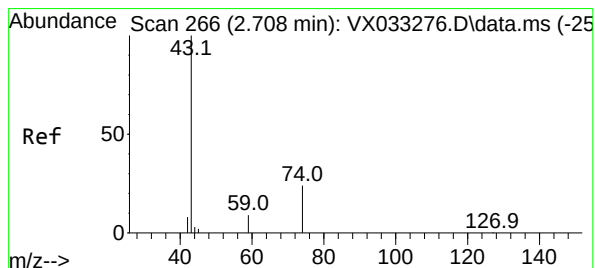
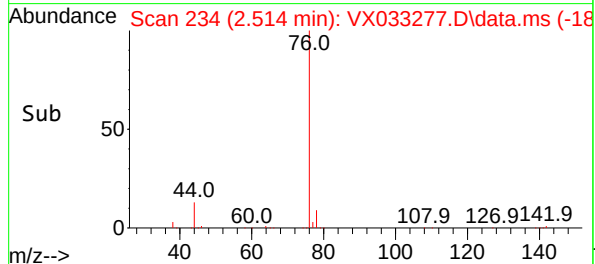
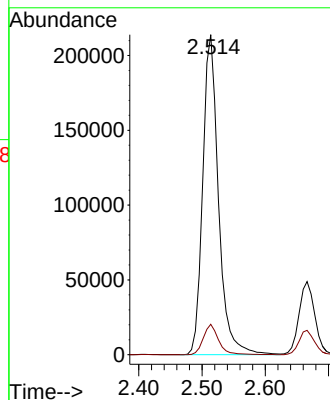
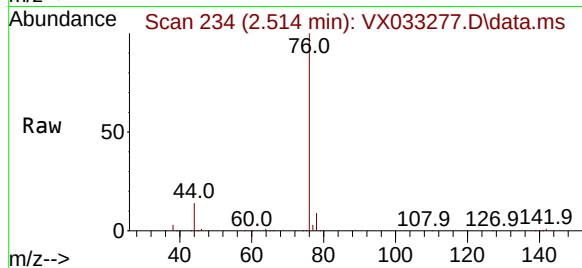
78 9.5 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#18

Methyl Acetate

Concen: 104.676 ug/l

RT: 2.709 min Scan# 266

Delta R.T. 0.006 min

Lab File: VX033277.D

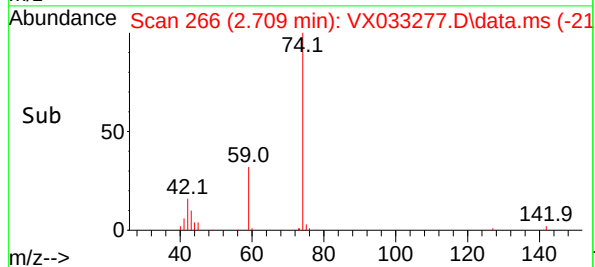
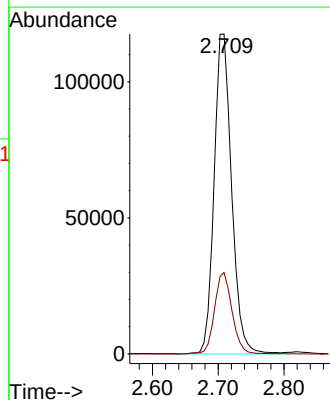
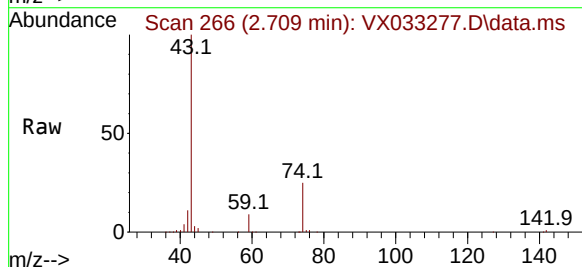
Acq: 07 Dec 2022 11:18

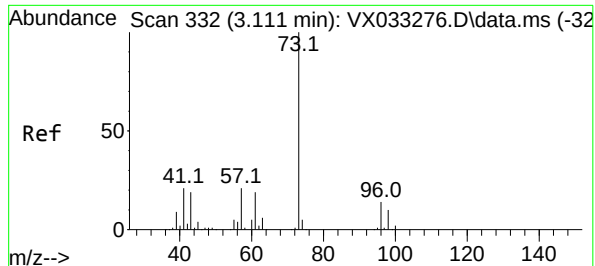
Tgt Ion: 43 Resp: 217517

Ion Ratio Lower Upper

43 100

74 25.6 19.4 29.0





#19

Methyl tert-butyl Ether

Concen: 101.037 ug/l

RT: 3.117 min Scan# 31

Delta R.T. 0.006 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion: 73 Resp: 504714

Ion Ratio Lower Upper

73 100

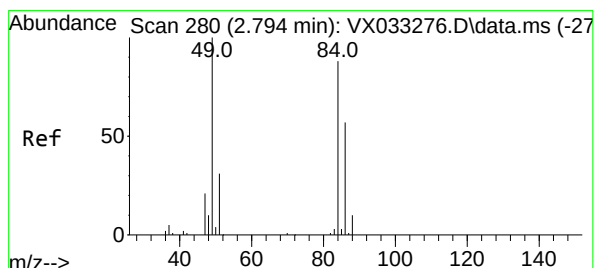
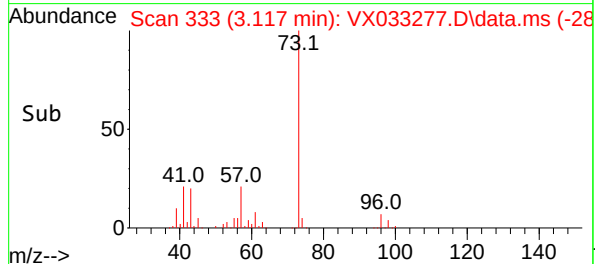
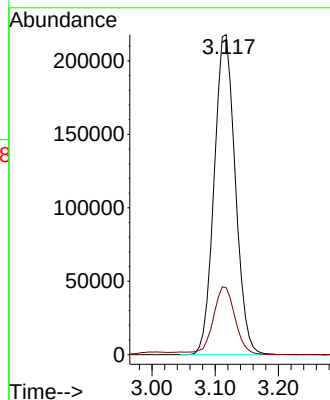
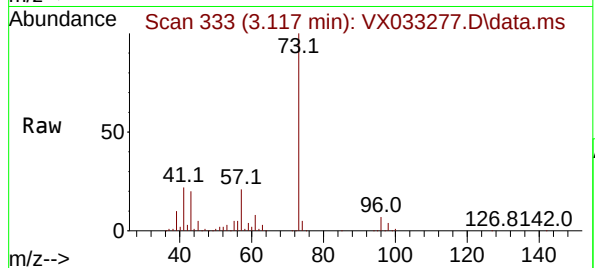
57 20.9 16.6 25.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#20

Methylene Chloride

Concen: 87.090 ug/l

RT: 2.788 min Scan# 279

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Tgt Ion: 84 Resp: 157499

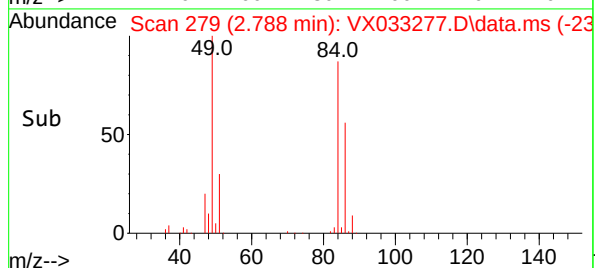
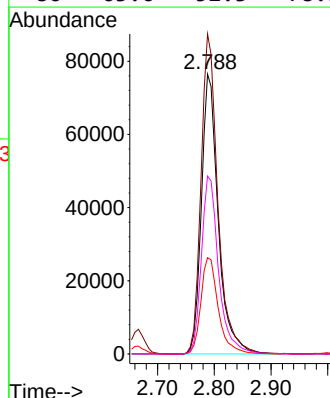
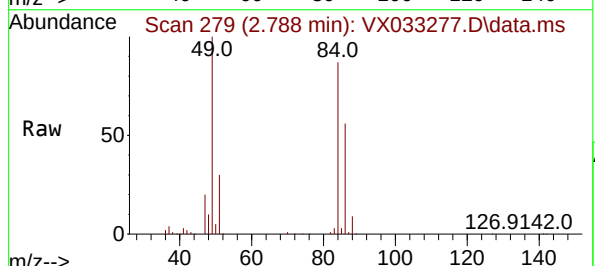
Ion Ratio Lower Upper

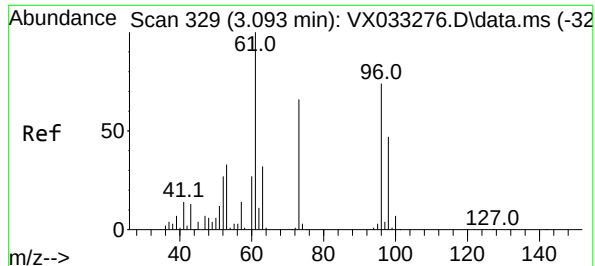
84 100

49 114.4 101.0 151.6

51 34.4 31.1 46.7

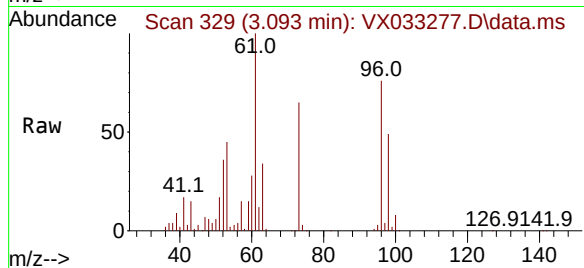
86 63.6 52.3 78.5





#21  
trans-1,2-Dichloroethene  
Concen: 97.643 ug/l  
RT: 3.093 min Scan# 31  
Delta R.T. -0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

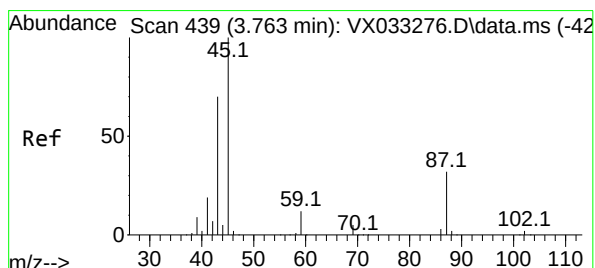
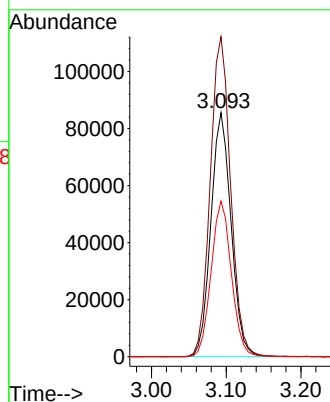
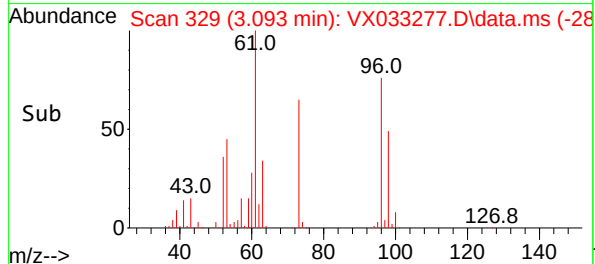
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100



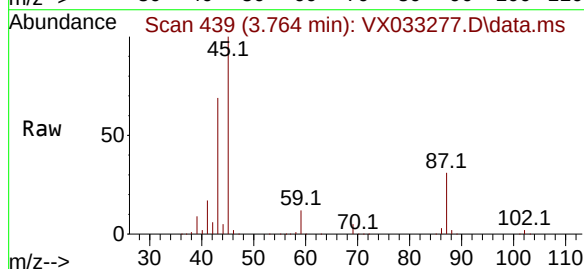
Tgt Ion: 96 Resp: 16088  
Ion Ratio Lower Upper  
96 100  
61 131.1 106.6 160.0  
98 63.7 51.0 76.6

Manual Integrations  
APPROVED

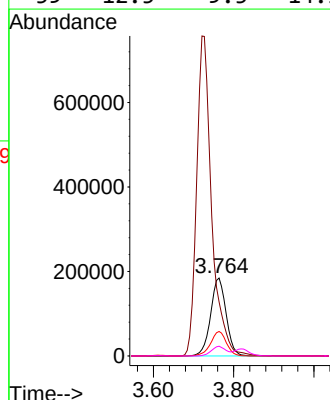
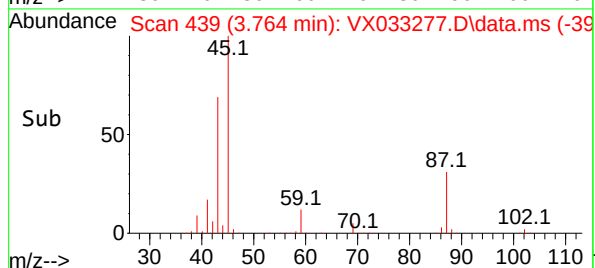
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

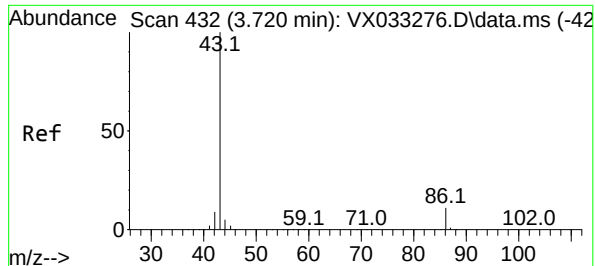


#22  
Diisopropyl ether  
Concen: 97.699 ug/l  
RT: 3.764 min Scan# 439  
Delta R.T. 0.001 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18



Tgt Ion: 45 Resp: 494701  
Ion Ratio Lower Upper  
45 100  
43 69.3 56.4 84.6  
87 31.5 24.4 36.6  
59 12.5 9.5 14.3





#23

Vinyl Acetate

Concen: 496.095 ug/l

RT: 3.721 min Scan# 41

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 43 Resp: 196631

Ion Ratio Lower Upper

43 100

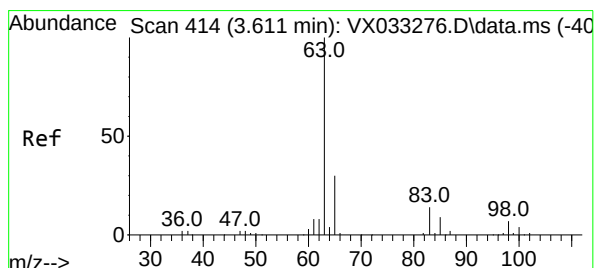
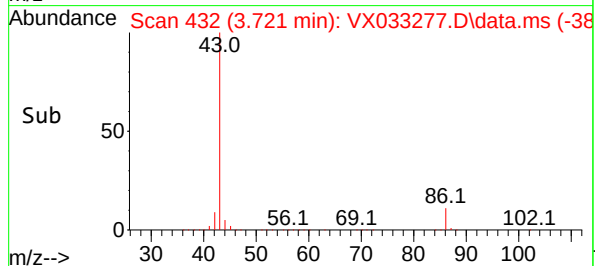
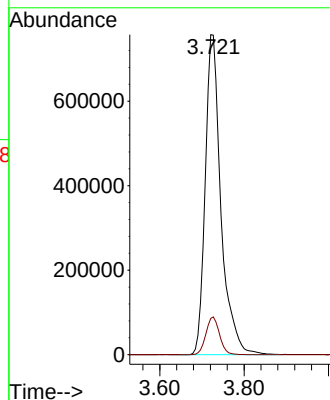
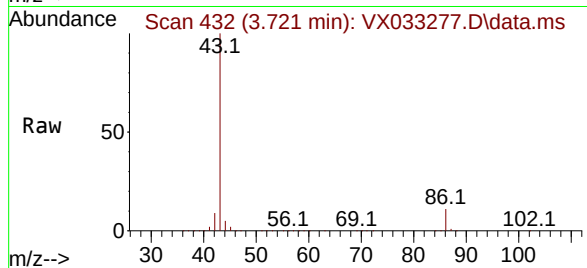
86 11.4 8.6 12.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#24

1,1-Dichloroethane

Concen: 96.987 ug/l

RT: 3.611 min Scan# 414

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

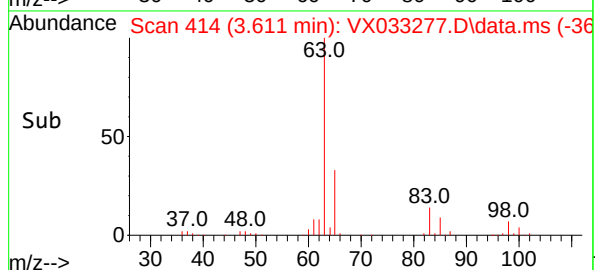
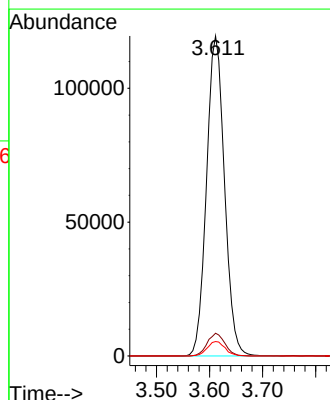
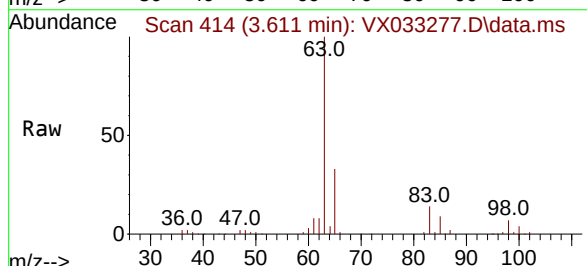
Tgt Ion: 63 Resp: 281027

Ion Ratio Lower Upper

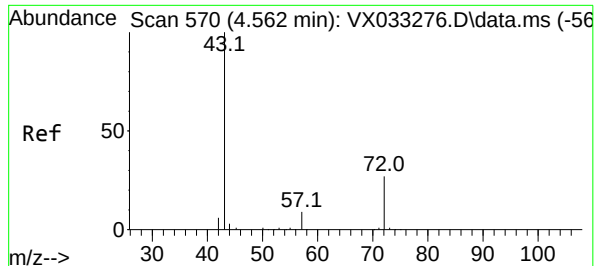
63 100

98 7.1 3.5 10.4

100 4.5 2.3 6.8







#25

2-Butanone

Concen: 511.283 ug/l

RT: 4.568 min Scan# 51

Delta R.T. 0.012 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 43 Resp: 52924

Ion Ratio Lower Upper

43 100

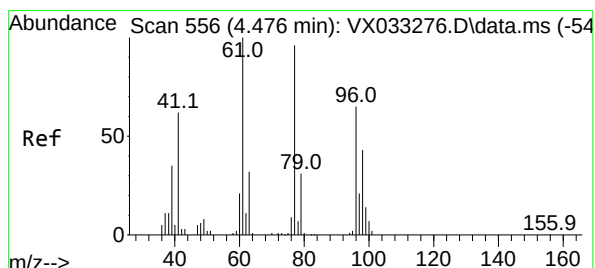
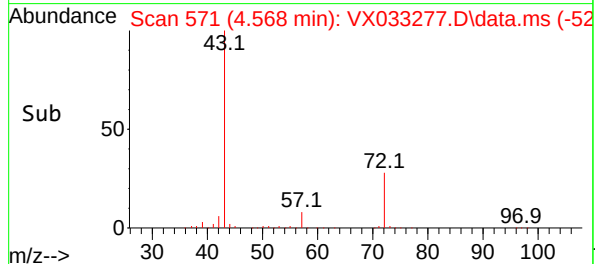
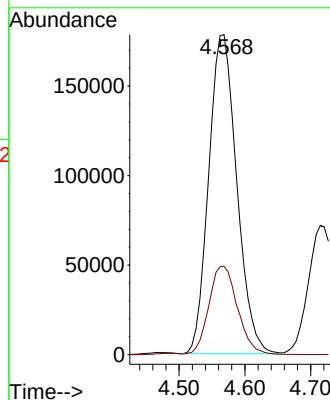
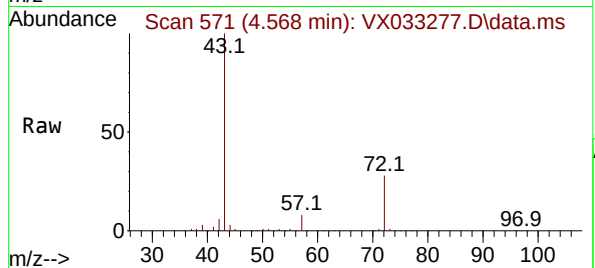
72 27.5 22.2 33.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#26

2,2-Dichloropropane

Concen: 94.433 ug/l

RT: 4.477 min Scan# 556

Delta R.T. -0.000 min

Lab File: VX033277.D

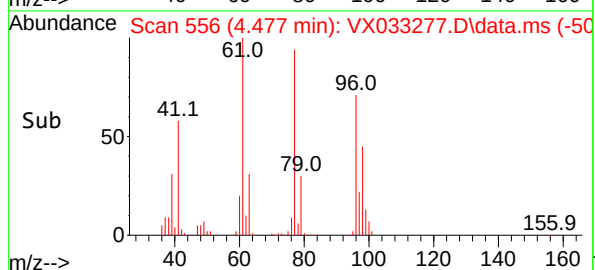
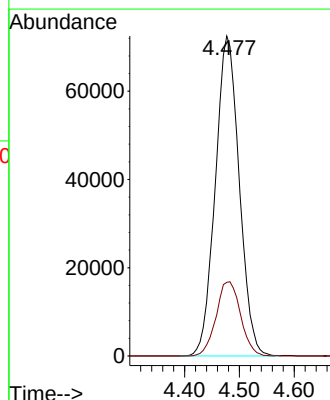
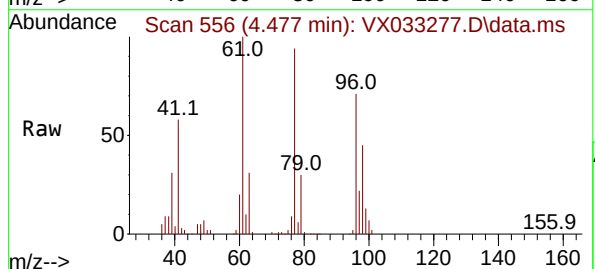
Acq: 07 Dec 2022 11:18

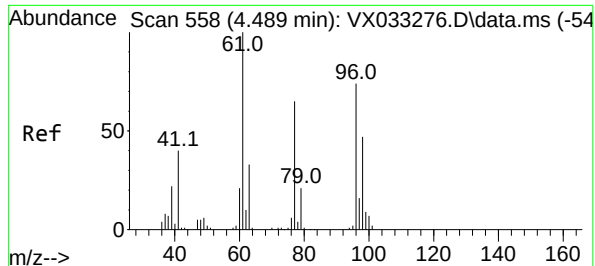
Tgt Ion: 77 Resp: 220013

Ion Ratio Lower Upper

77 100

97 23.7 11.4 34.1





#27

cis-1,2-Dichloroethene

Concen: 101.740 ug/l

RT: 4.489 min Scan# 51

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 96 Resp: 190459

Ion Ratio Lower Upper

96 100

61 137.6 0.0 286.0

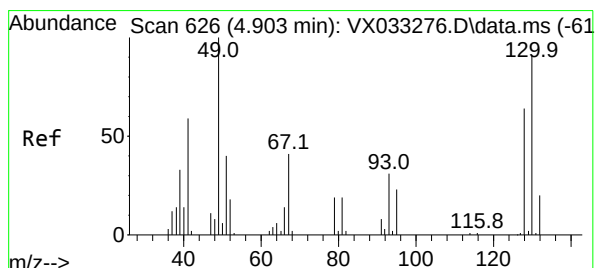
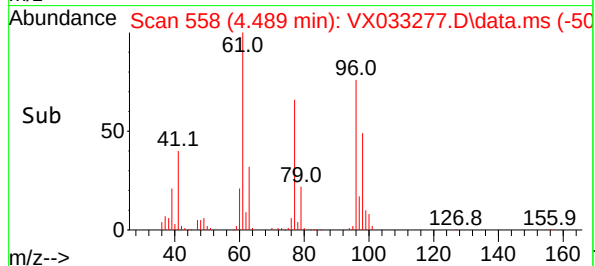
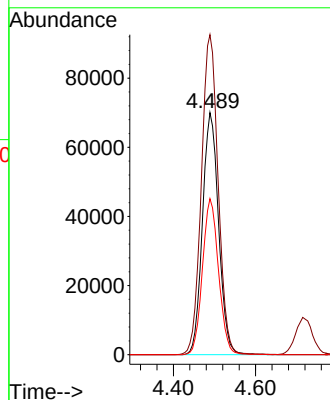
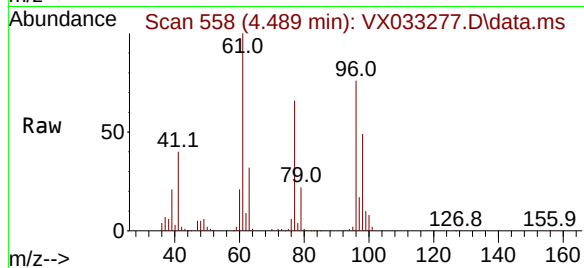
98 64.3 0.0 129.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#28

Bromochloromethane

Concen: 89.540 ug/l

RT: 4.897 min Scan# 625

Delta R.T. -0.007 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

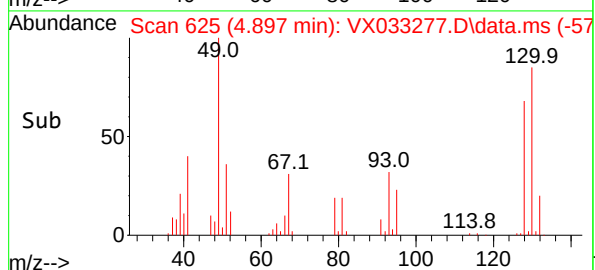
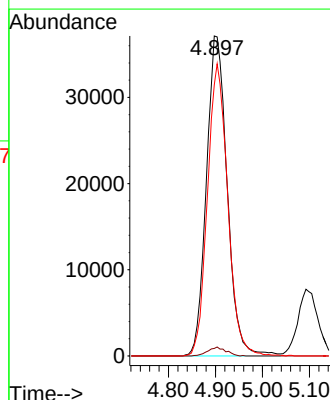
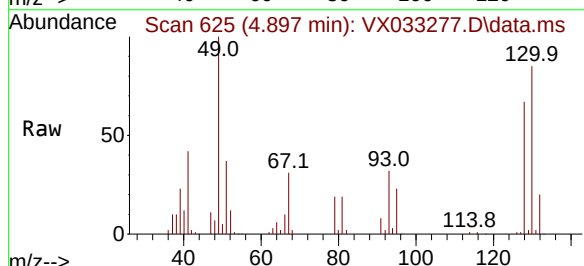
Tgt Ion: 49 Resp: 114001

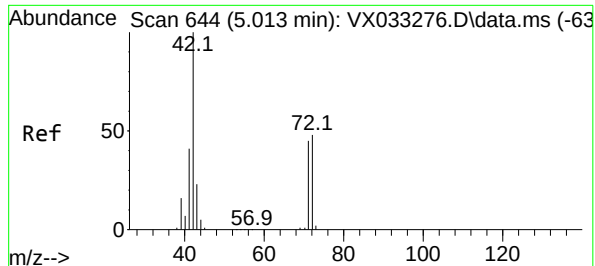
Ion Ratio Lower Upper

49 100

129 2.4 0.0 3.8

130 89.1 67.5 101.3





#29

Tetrahydrofuran

Concen: 533.548 ug/l

RT: 5.013 min Scan# 644

Delta R.T. 0.012 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 42 Resp: 350450

Ion Ratio Lower Upper

42 100

72 49.1 37.6 56.4

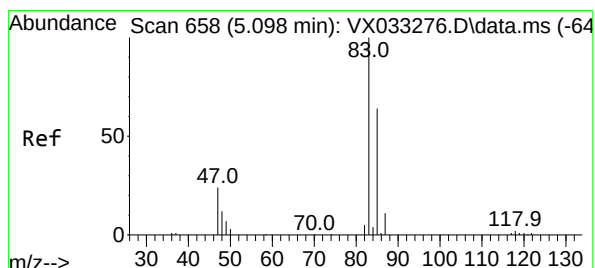
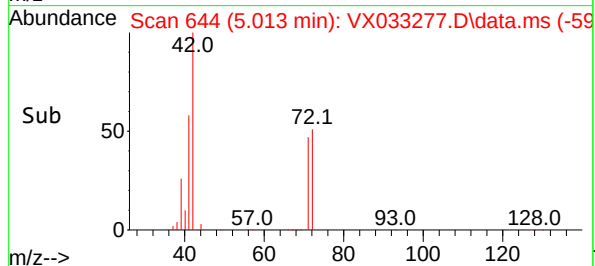
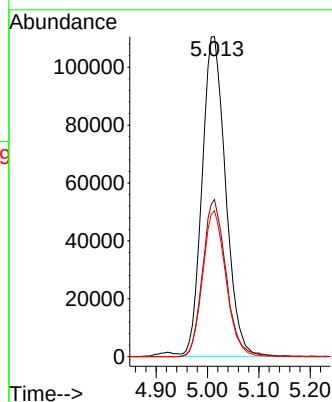
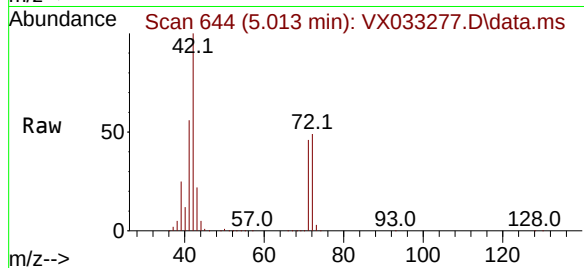
71 45.3 34.7 52.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#30

Chloroform

Concen: 97.890 ug/l

RT: 5.093 min Scan# 657

Delta R.T. -0.006 min

Lab File: VX033277.D

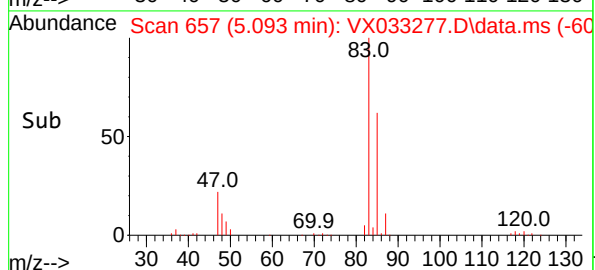
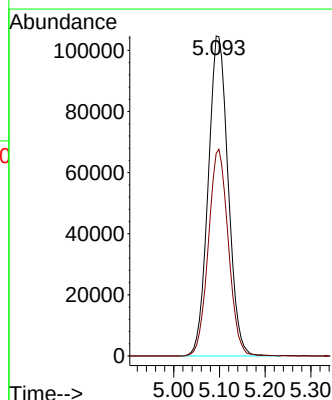
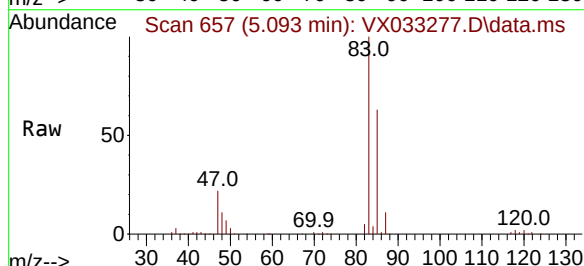
Acq: 07 Dec 2022 11:18

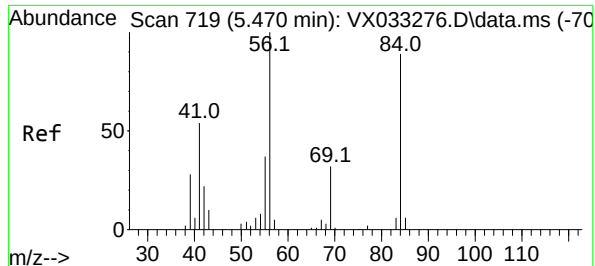
Tgt Ion: 83 Resp: 317680

Ion Ratio Lower Upper

83 100

85 63.4 51.1 76.7





#31

Cyclohexane

Concen: 96.437 ug/l

RT: 5.477 min Scan# 719

Delta R.T. 0.007 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion: 56 Resp: 25116

Ion Ratio Lower Upper

56 100

69 32.4 24.1 36.1

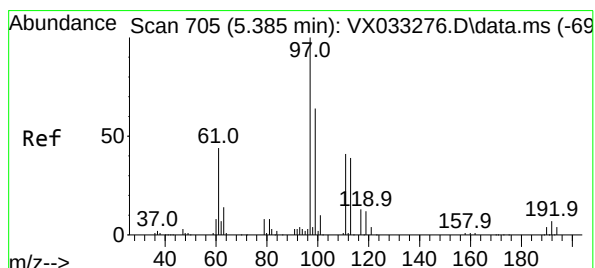
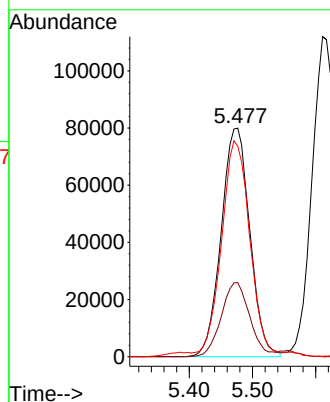
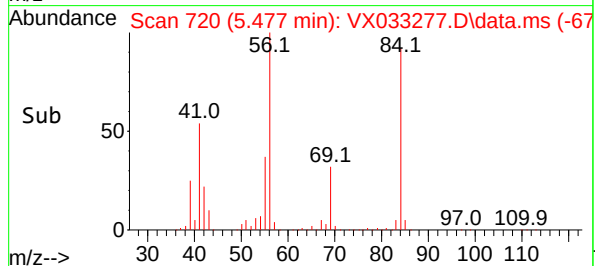
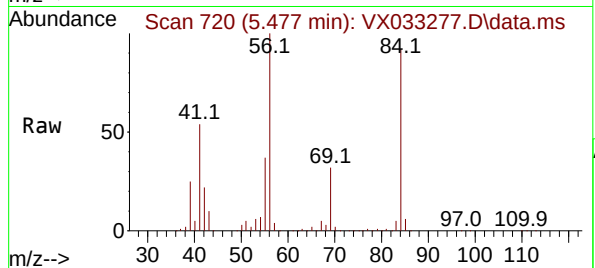
84 90.2 66.9 100.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#32

1,1,1-Trichloroethane

Concen: 98.509 ug/l

RT: 5.385 min Scan# 705

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

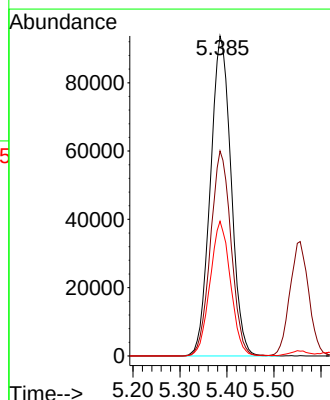
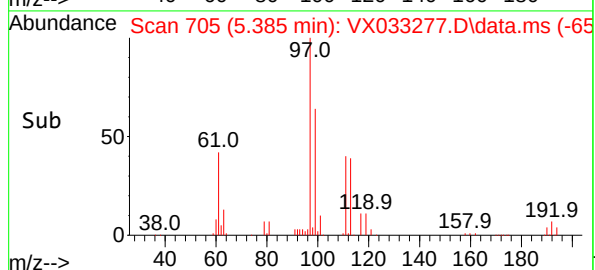
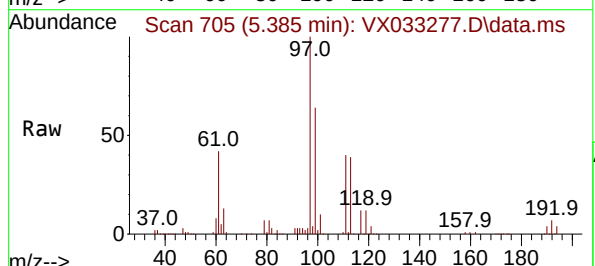
Tgt Ion: 97 Resp: 286297

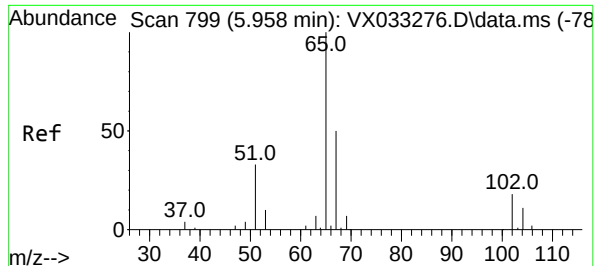
Ion Ratio Lower Upper

97 100

99 63.9 51.4 77.0

61 41.7 35.2 52.8





#33

1,2-Dichloroethane-d4

Concen: 51.808 ug/l

RT: 5.958 min Scan# 799

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion: 65 Resp: 9211

Ion Ratio Lower Upper

65 100

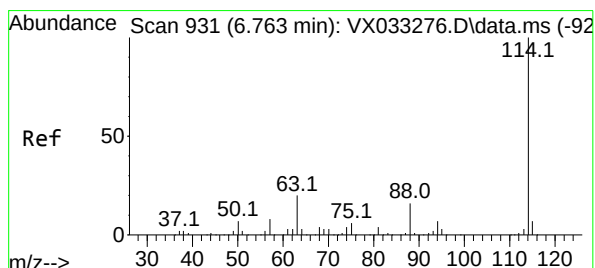
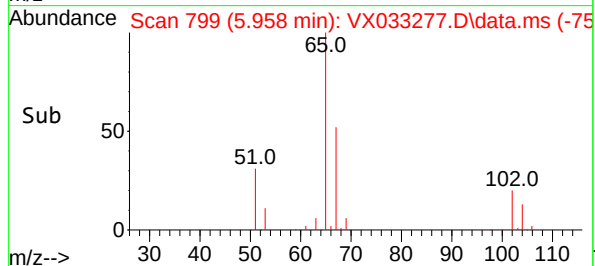
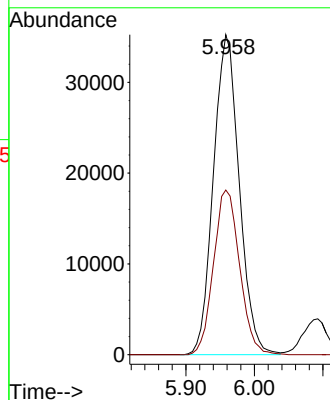
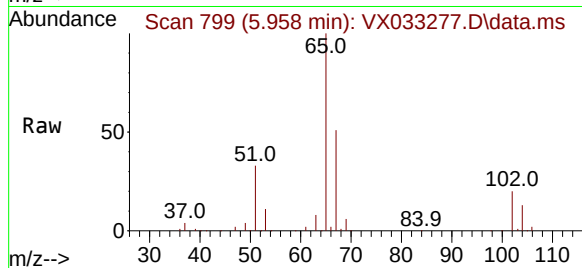
67 52.0 0.0 101.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.763 min Scan# 931

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

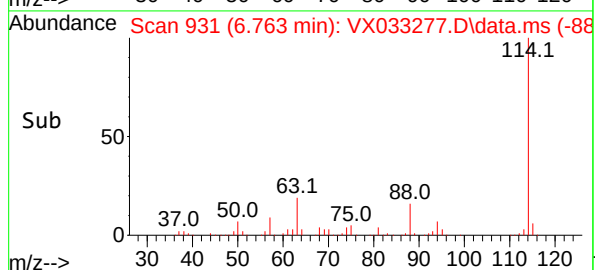
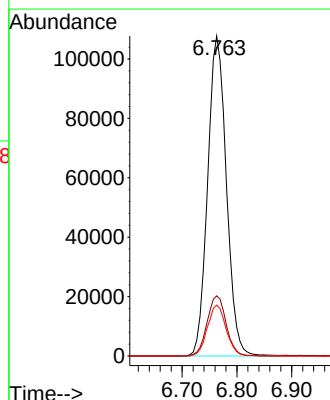
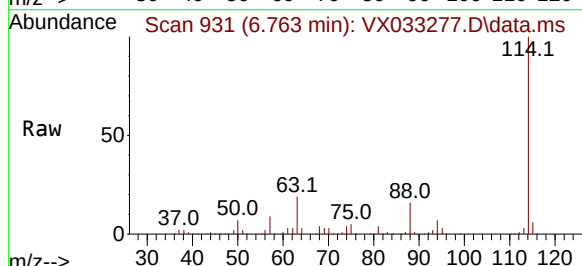
Tgt Ion:114 Resp: 255123

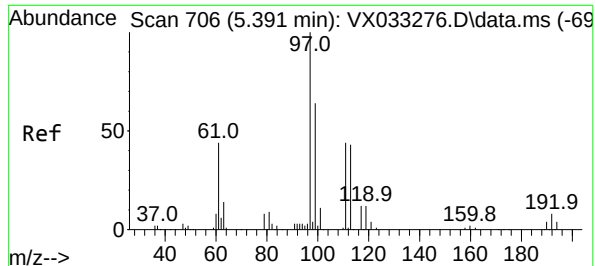
Ion Ratio Lower Upper

114 100

63 18.8 0.0 41.6

88 15.9 0.0 33.4





#35

Dibromofluoromethane

Concen: 74.342 ug/l

RT: 5.391 min Scan# 706

Delta R.T. 0.006 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion:113 Resp: 106920

Ion Ratio Lower Upper

113 100

111 103.1 82.4 123.6

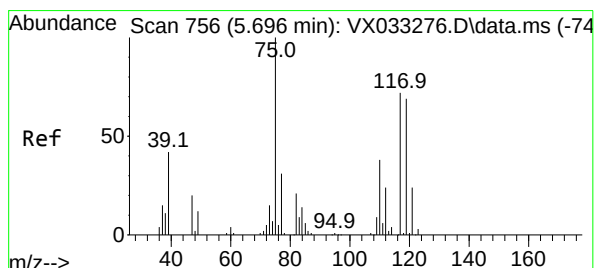
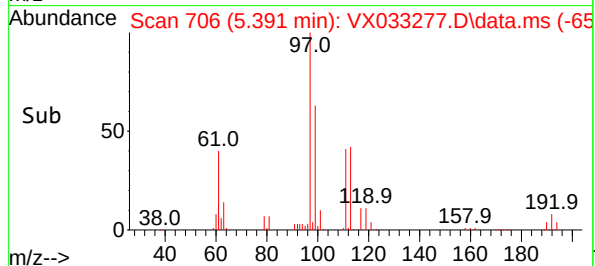
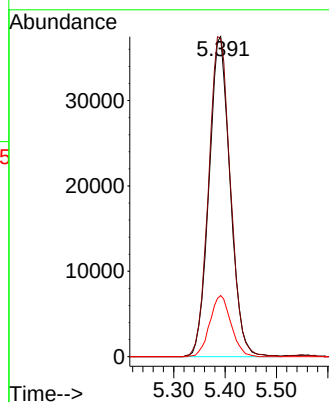
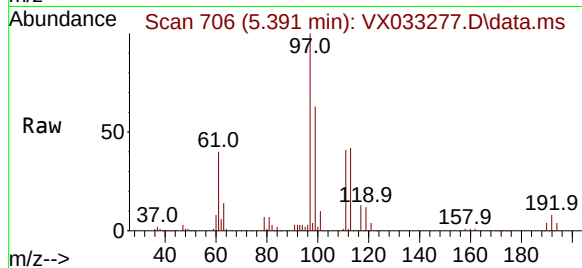
192 19.2 15.4 23.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#36

1,1-Dichloropropene

Concen: 99.777 ug/l

RT: 5.696 min Scan# 756

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

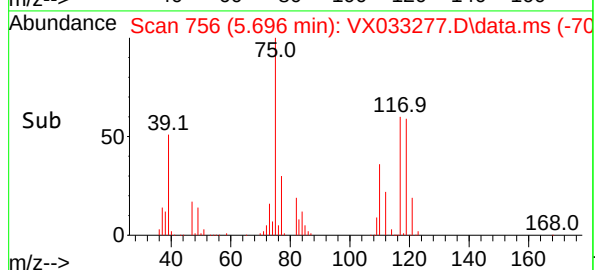
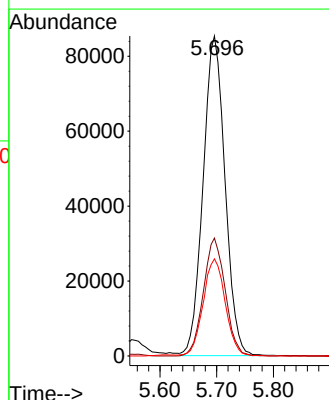
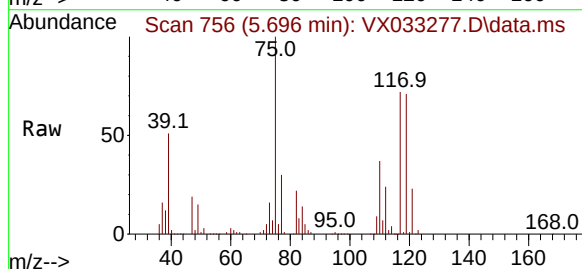
Tgt Ion: 75 Resp: 229465

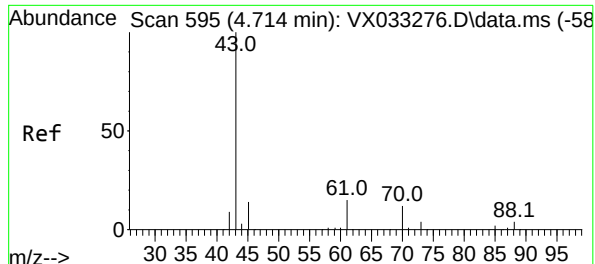
Ion Ratio Lower Upper

75 100

110 36.7 18.4 55.2

77 30.7 24.5 36.7





#37

Ethyl Acetate

Concen: 106.332 ug/l

RT: 4.715 min Scan# 595

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion: 43 Resp: 21334

Ion Ratio Lower Upper

43 100

61 14.6 11.5 17.3

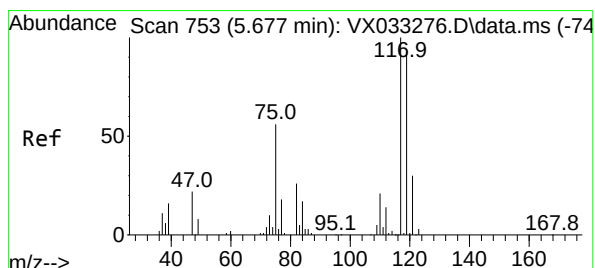
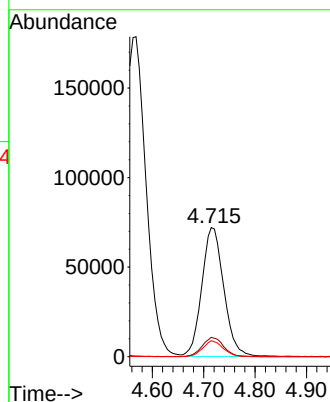
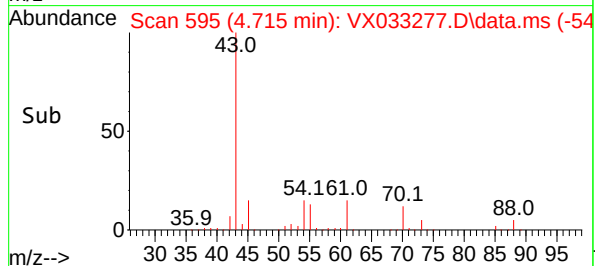
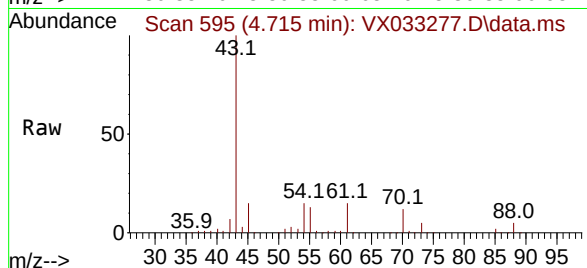
70 11.5 9.1 13.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#38

Carbon Tetrachloride

Concen: 100.085 ug/l

RT: 5.678 min Scan# 753

Delta R.T. -0.006 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

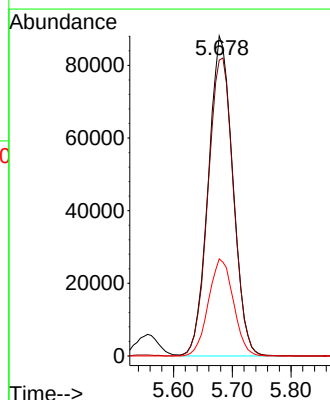
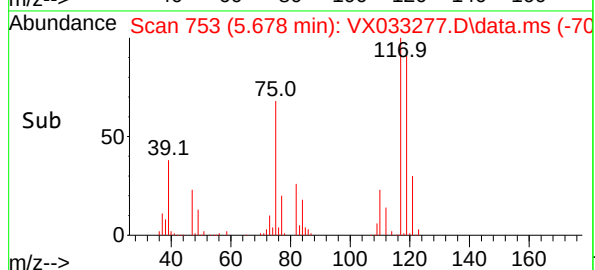
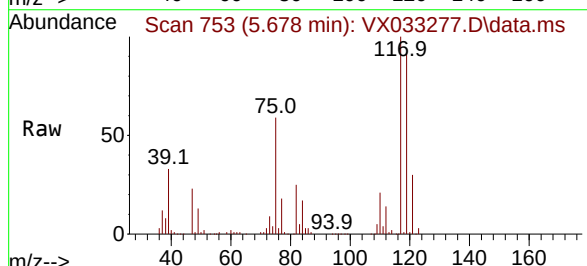
Tgt Ion:117 Resp: 255340

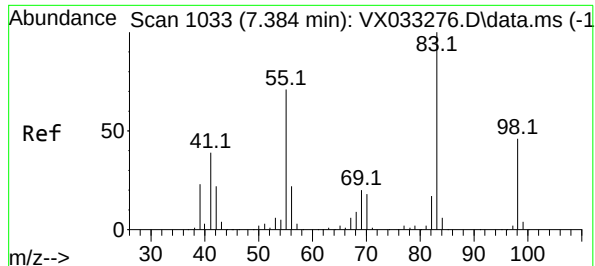
Ion Ratio Lower Upper

117 100

119 92.3 77.2 115.8

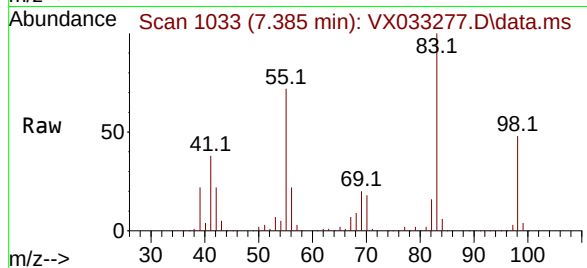
121 30.3 25.8 38.6





#39  
Methylcyclohexane  
Concen: 102.633 ug/l  
RT: 7.385 min Scan# 1033  
Delta R.T. -0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

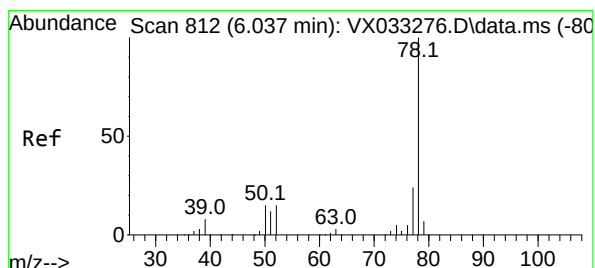
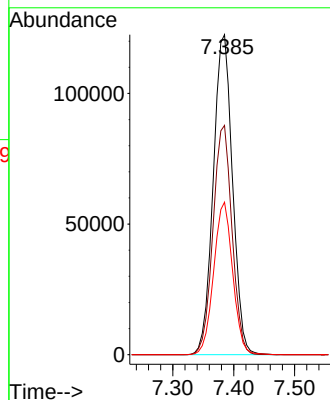
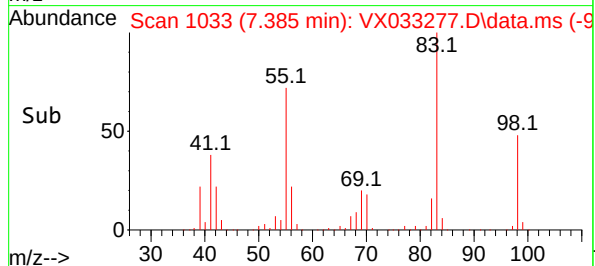
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100



Tgt Ion: 83 Resp: 269308  
Ion Ratio Lower Upper  
83 100  
55 71.7 58.4 87.6  
98 47.6 37.2 55.8

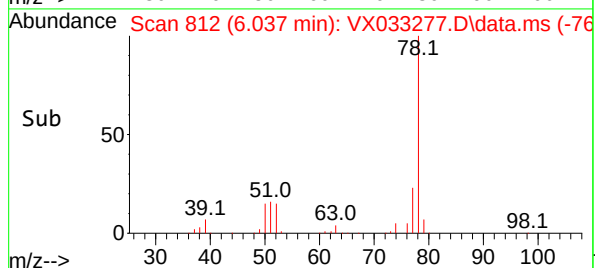
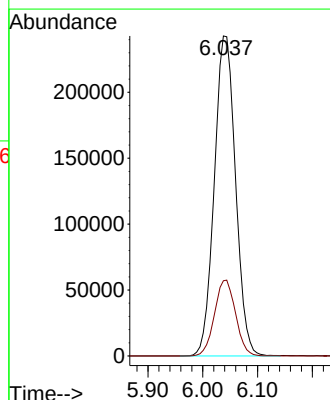
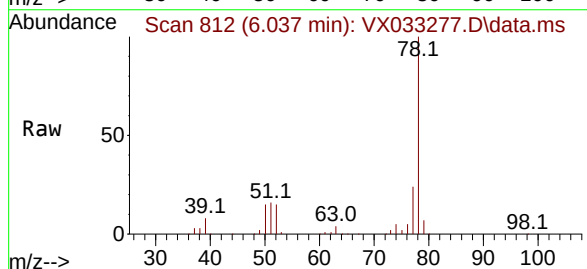
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

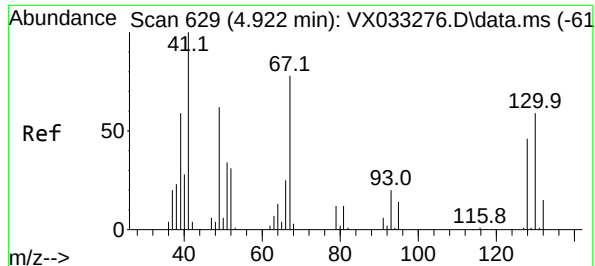


#40  
Benzene  
Concen: 101.314 ug/l  
RT: 6.037 min Scan# 812  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Tgt Ion: 78 Resp: 653275  
Ion Ratio Lower Upper  
78 100  
77 23.5 19.0 28.4

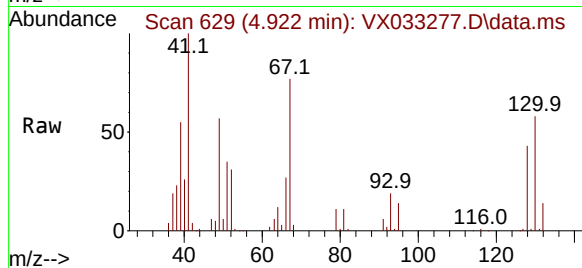






#41  
Methacrylonitrile  
Concen: 104.856 ug/l  
RT: 4.922 min Scan# 61  
Delta R.T. -0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

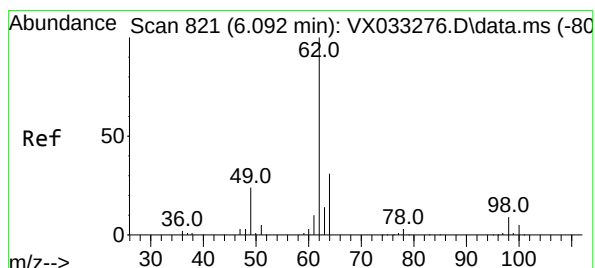
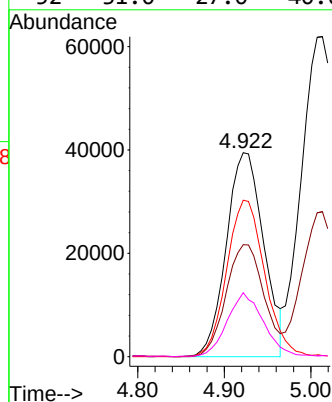
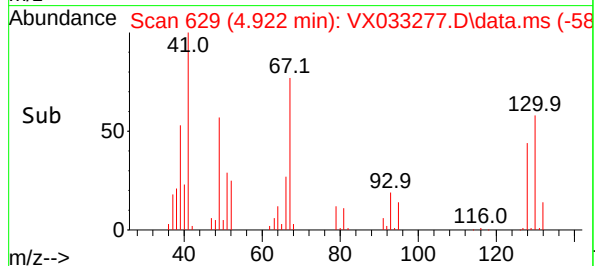
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100



Tgt Ion: 41 Resp: 118380  
Ion Ratio Lower Upper  
41 100  
39 55.4 47.5 71.3  
67 78.1 60.5 90.7  
52 31.0 27.0 40.6

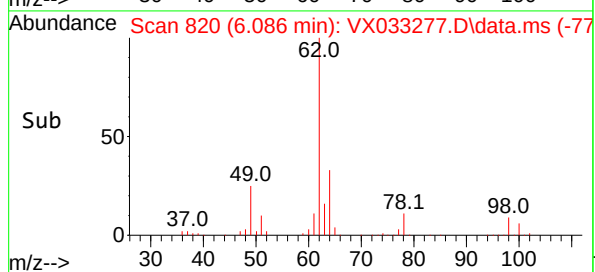
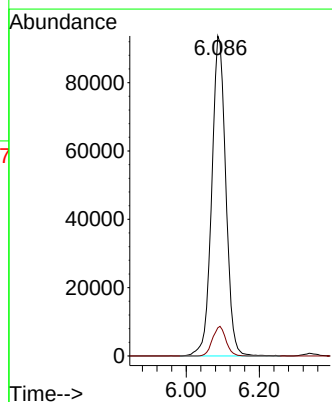
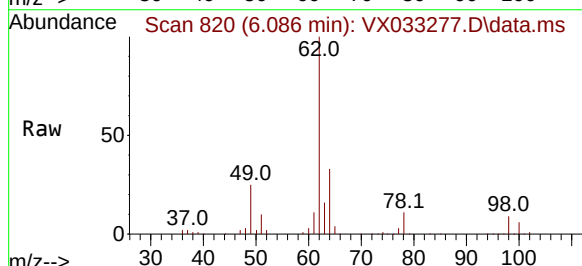
Manual Integrations  
APPROVED

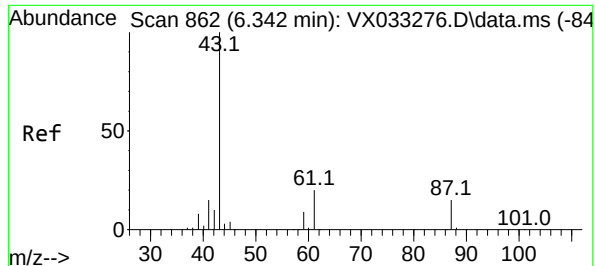
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#42  
1,2-Dichloroethane  
Concen: 95.974 ug/l  
RT: 6.086 min Scan# 820  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Tgt Ion: 62 Resp: 249168  
Ion Ratio Lower Upper  
62 100  
98 8.9 0.0 16.0





#43

Isopropyl Acetate

Concen: 105.360 ug/l

RT: 6.342 min Scan# 862

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion: 43 Resp: 349609

Ion Ratio Lower Upper

43 100

61 20.4 15.4 23.0

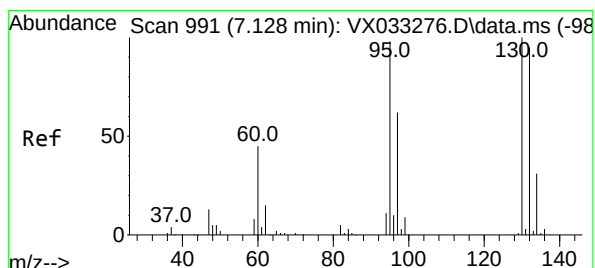
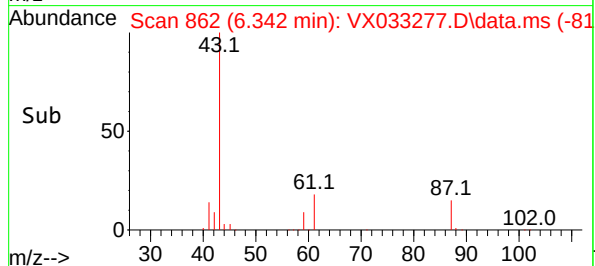
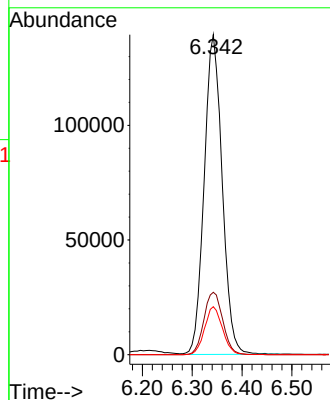
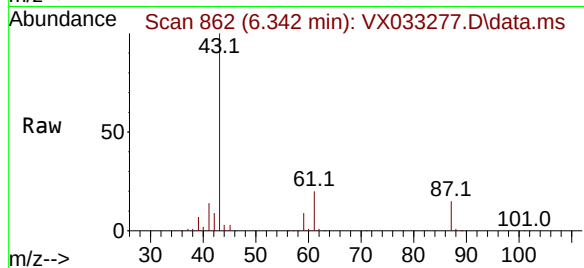
87 14.9 10.8 16.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#44

Trichloroethene

Concen: 101.780 ug/l

RT: 7.129 min Scan# 991

Delta R.T. -0.000 min

Lab File: VX033277.D

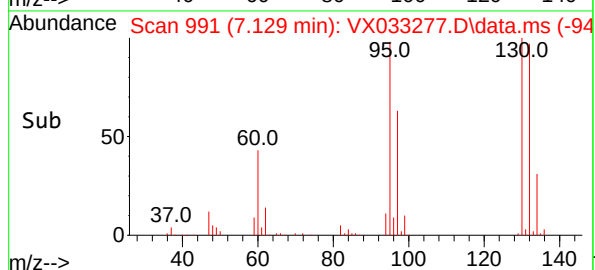
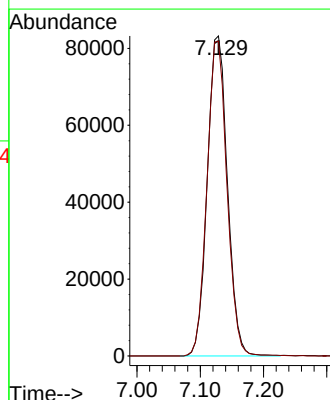
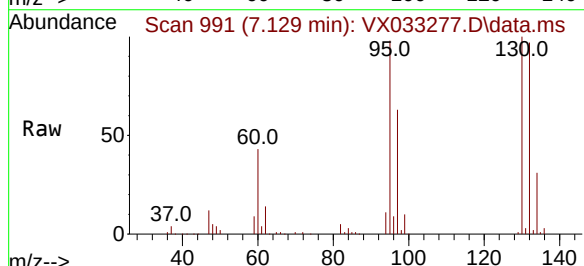
Acq: 07 Dec 2022 11:18

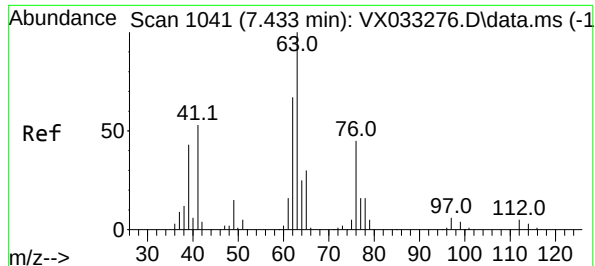
Tgt Ion:130 Resp: 184157

Ion Ratio Lower Upper

130 100

95 98.3 0.0 195.2





#45

1,2-Dichloropropane

Concen: 103.903 ug/l

RT: 7.434 min Scan# 1041

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion: 63 Resp: 165570

Ion Ratio Lower Upper

63 100

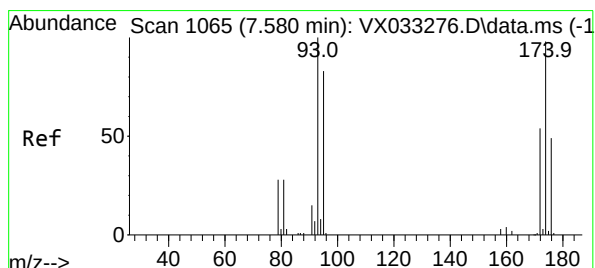
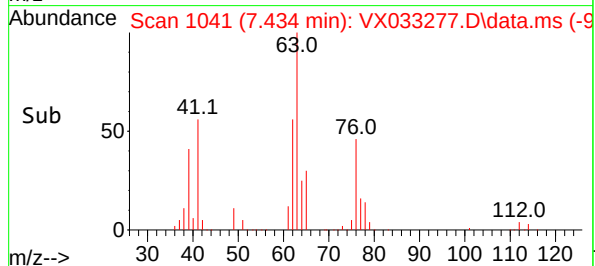
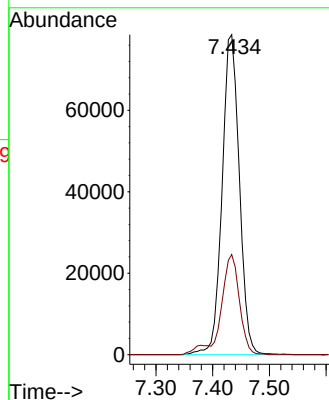
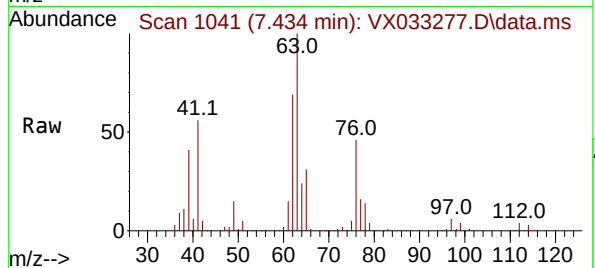
65 31.3 24.6 36.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#46

Dibromomethane

Concen: 99.831 ug/l

RT: 7.580 min Scan# 1065

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

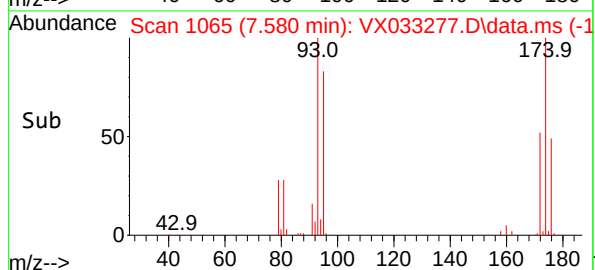
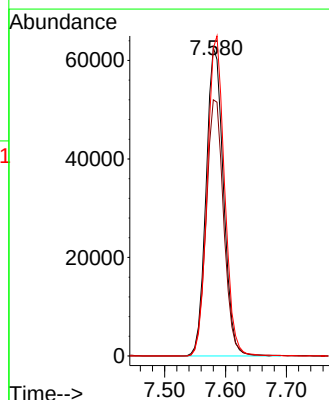
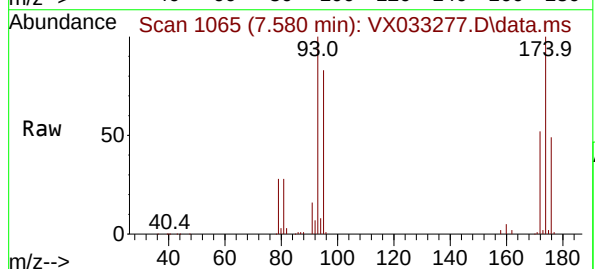
Tgt Ion: 93 Resp: 124128

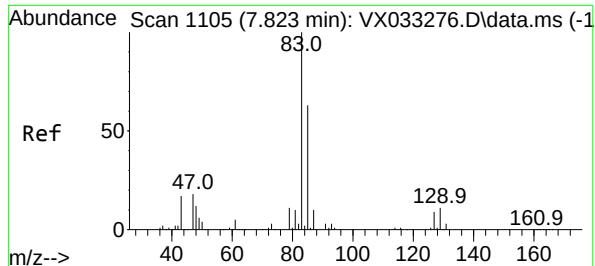
Ion Ratio Lower Upper

93 100

95 83.6 65.8 98.8

174 102.7 79.8 119.6





#47

Bromodichloromethane

Concen: 104.337 ug/l

RT: 7.824 min Scan# 1105

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

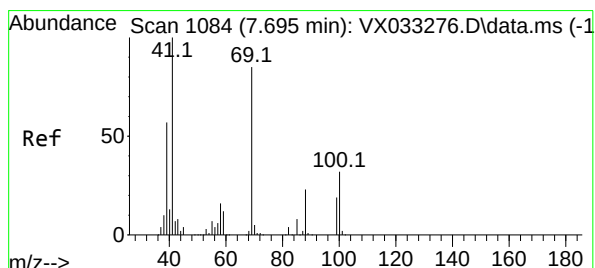
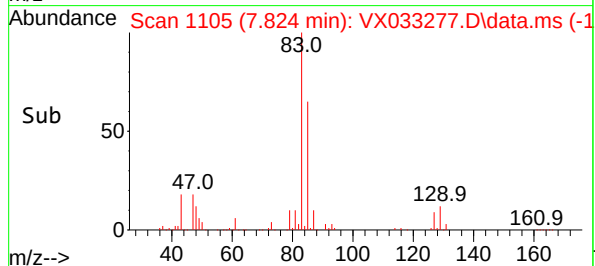
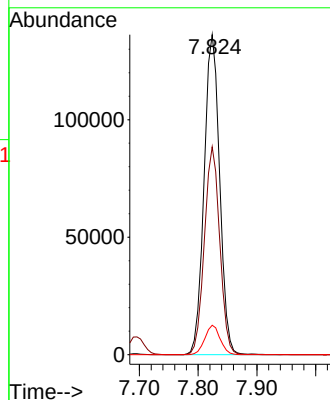
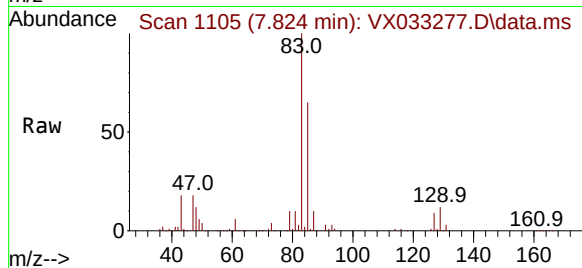
|             |             |
|-------------|-------------|
| Tgt Ion: 83 | Resp: 25067 |
| Ion Ratio   | Lower Upper |
| 83 100      |             |
| 85 64.9     | 52.2 78.4   |
| 127 9.2     | 7.4 11.2    |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#48

Methyl methacrylate

Concen: 104.542 ug/l

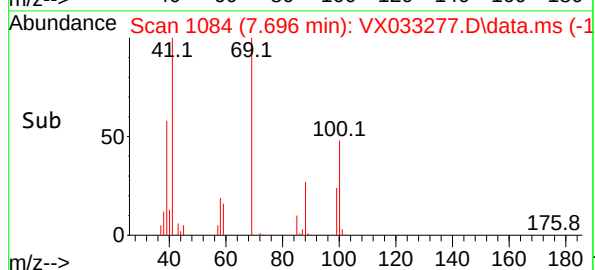
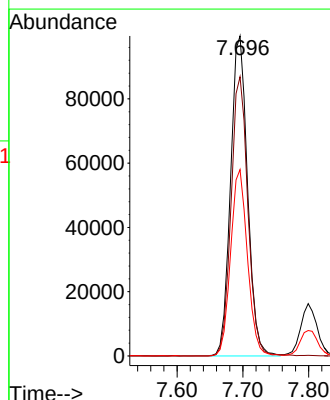
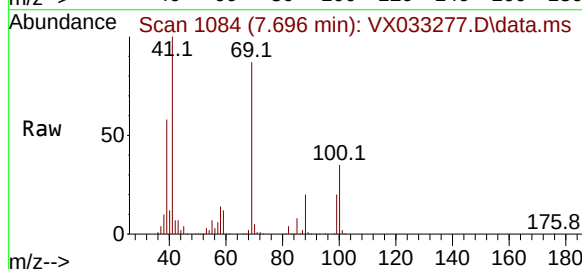
RT: 7.696 min Scan# 1084

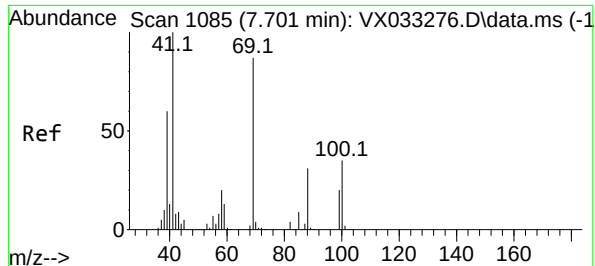
Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

|             |              |
|-------------|--------------|
| Tgt Ion: 41 | Resp: 178559 |
| Ion Ratio   | Lower Upper  |
| 41 100      |              |
| 69 86.8     | 65.1 97.7    |
| 39 57.9     | 51.9 77.9    |





#49

1,4-Dioxane

Concen: 2599.008 ug/l

RT: 7.708 min Scan# 1085

Delta R.T. 0.037 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 88 Resp: 8171

Ion Ratio Lower Upper

88 100

43 29.3 26.6 39.8

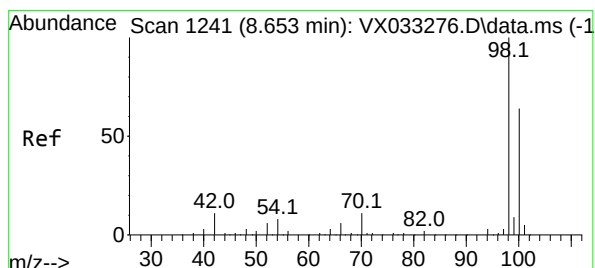
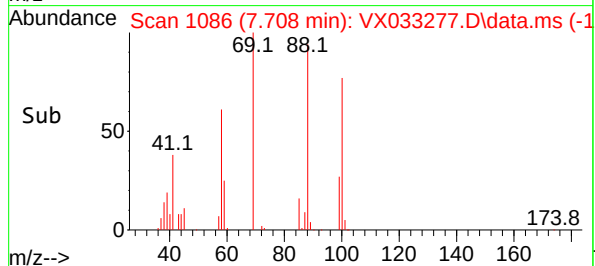
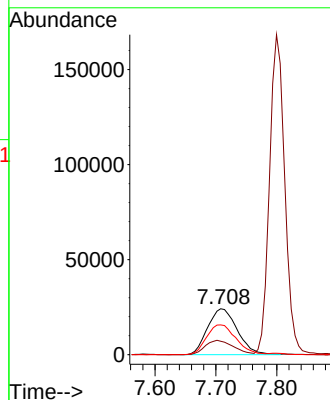
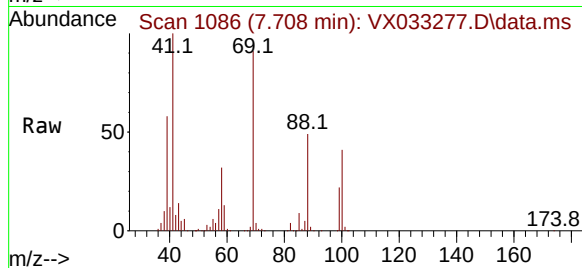
58 64.5 51.7 77.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#50

Toluene-d8

Concen: 49.636 ug/l

RT: 8.653 min Scan# 1241

Delta R.T. -0.000 min

Lab File: VX033277.D

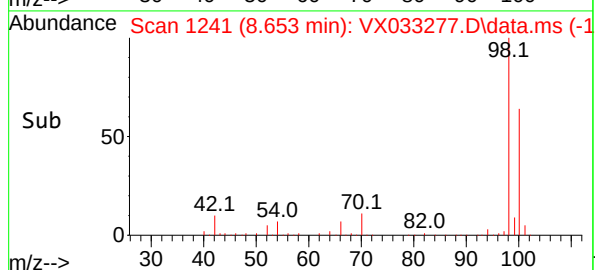
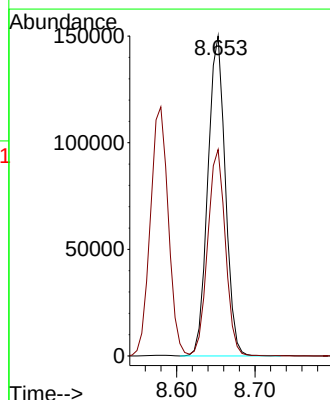
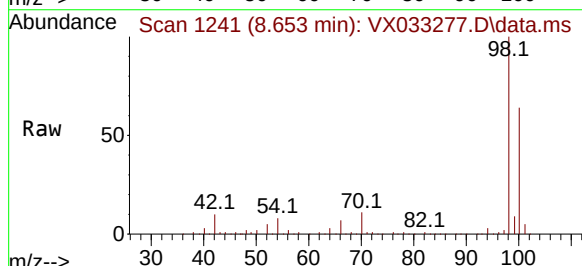
Acq: 07 Dec 2022 11:18

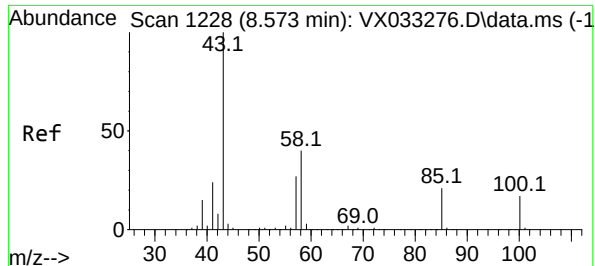
Tgt Ion: 98 Resp: 231771

Ion Ratio Lower Upper

98 100

100 65.1 50.9 76.3





#51

4-Methyl-2-Pentanone

Concen: 519.198 ug/l

RT: 8.574 min Scan# 1228

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 43 Resp: 106308

Ion Ratio Lower Upper

43 100

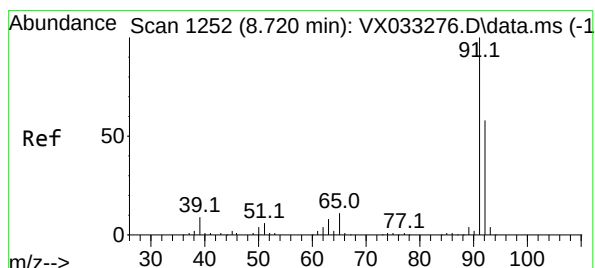
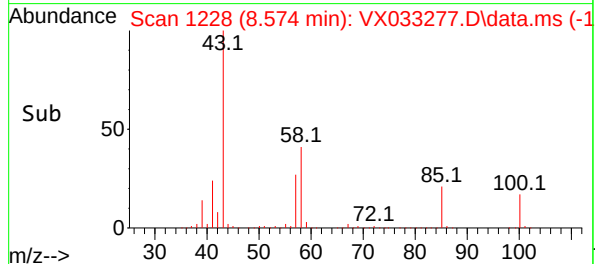
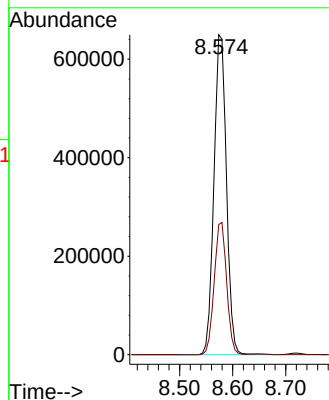
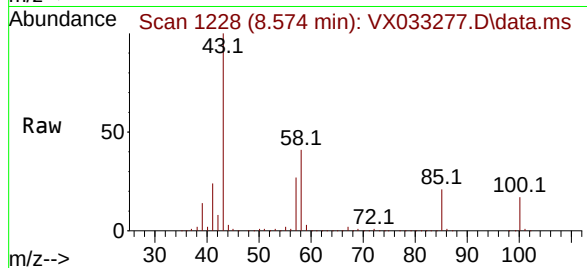
58 41.2 30.9 46.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#52

Toluene

Concen: 101.600 ug/l

RT: 8.720 min Scan# 1252

Delta R.T. -0.000 min

Lab File: VX033277.D

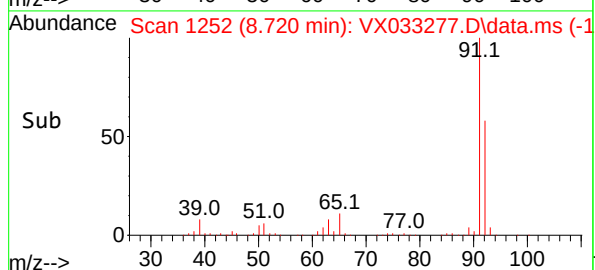
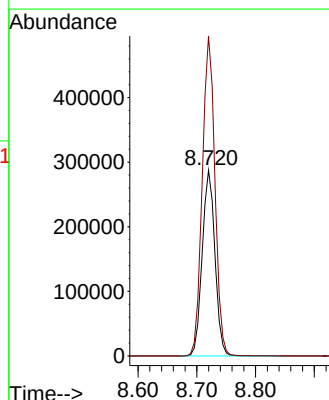
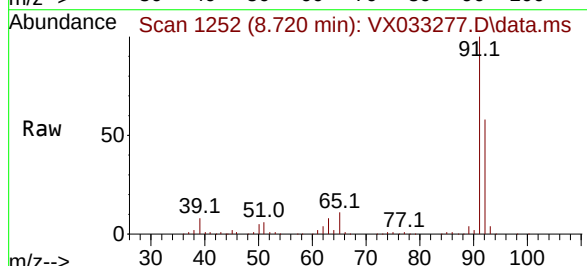
Acq: 07 Dec 2022 11:18

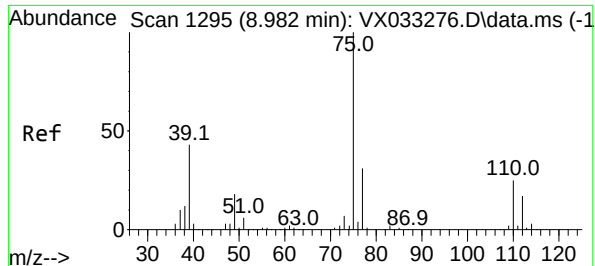
Tgt Ion: 92 Resp: 431003

Ion Ratio Lower Upper

92 100

91 171.9 138.3 207.5





#53

t-1,3-Dichloropropene

Concen: 110.875 ug/l

RT: 8.982 min Scan# 1194

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion: 75 Resp: 261464

Ion Ratio Lower Upper

75 100

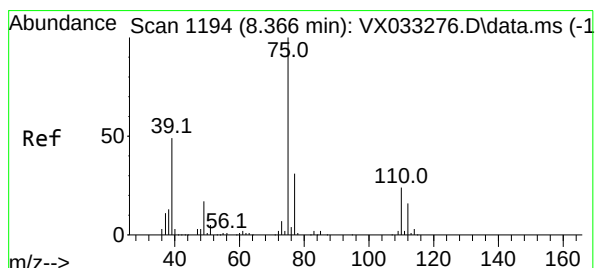
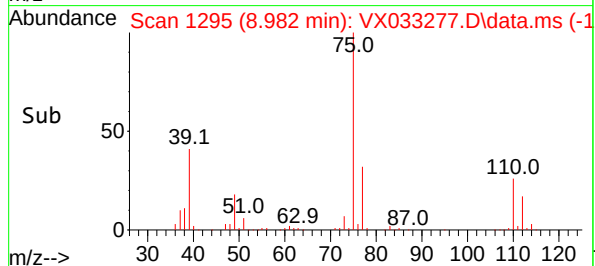
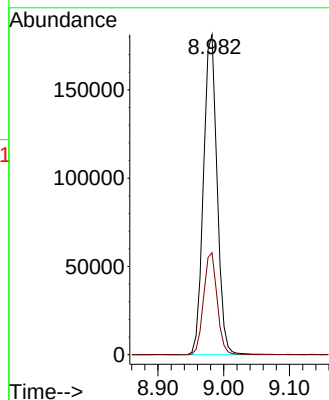
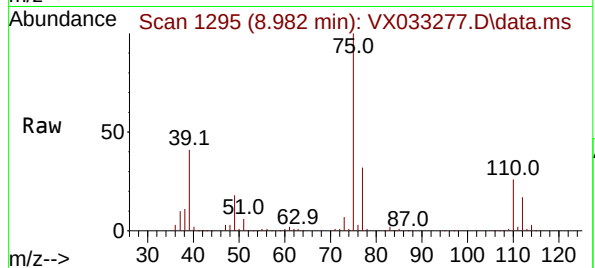
77 31.8 25.1 37.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#54

cis-1,3-Dichloropropene

Concen: 108.114 ug/l

RT: 8.366 min Scan# 1194

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

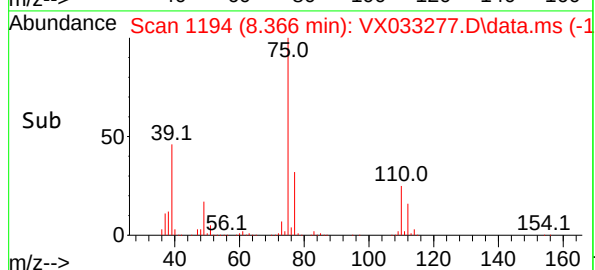
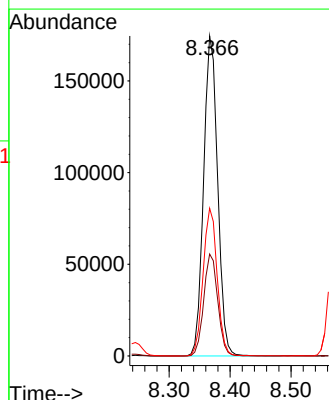
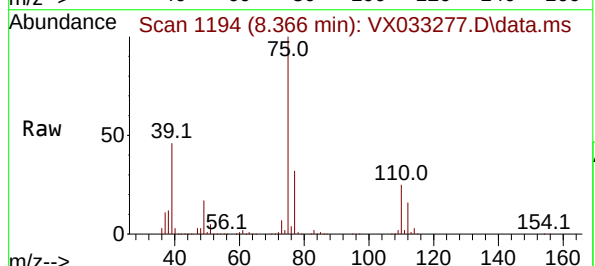
Tgt Ion: 75 Resp: 280027

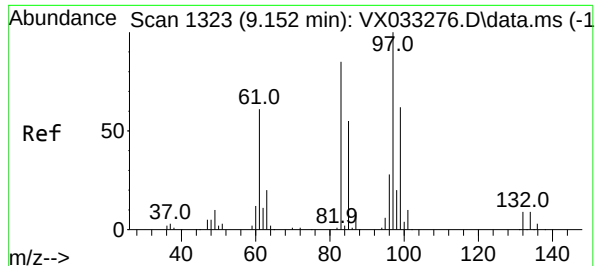
Ion Ratio Lower Upper

75 100

77 31.8 25.1 37.7

39 46.2 45.5 68.3





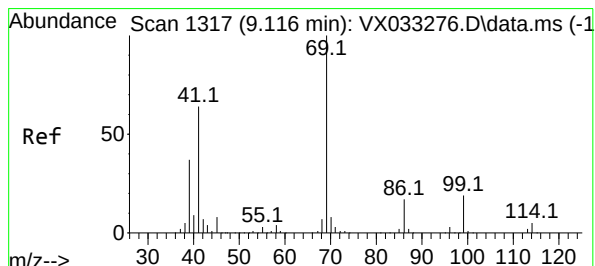
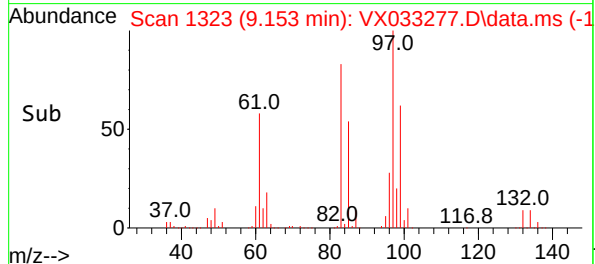
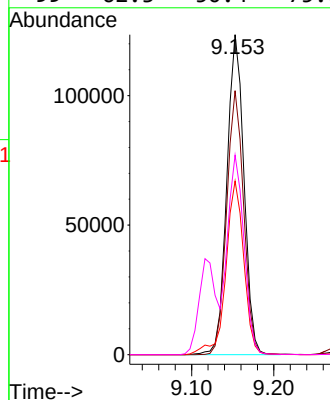
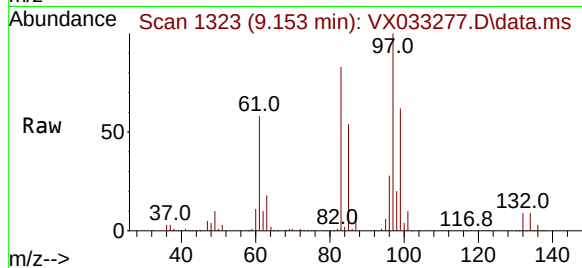
#55  
1,1,2-Trichloroethane  
Concen: 103.364 ug/l  
RT: 9.153 min Scan# 1323  
Delta R.T. -0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100

Tgt Ion: 97 Resp: 17852  
Ion Ratio Lower Upper  
97 100  
83 82.5 68.1 102.1  
85 54.3 43.3 64.9  
99 62.3 50.4 75.6

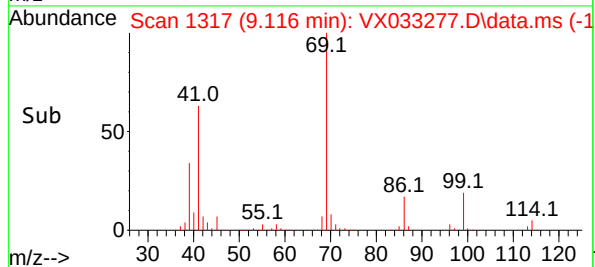
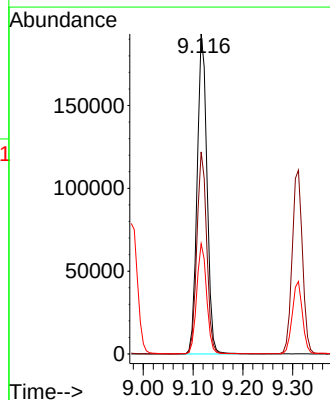
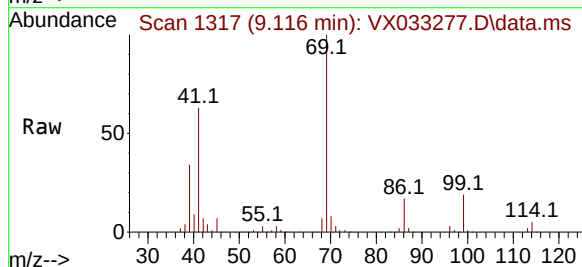
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

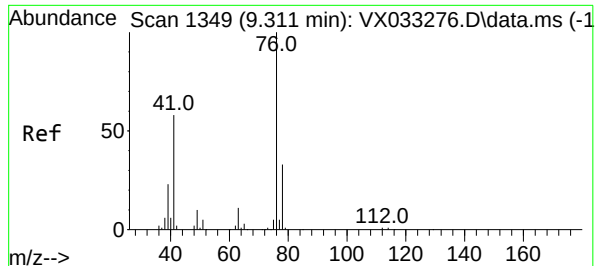


#56  
Ethyl methacrylate  
Concen: 111.239 ug/l  
RT: 9.116 min Scan# 1317  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Tgt Ion: 69 Resp: 264710  
Ion Ratio Lower Upper  
69 100  
41 63.3 54.3 81.5  
39 34.7 35.2 52.8







#57

1,3-Dichloropropane

Concen: 102.351 ug/l

RT: 9.311 min Scan# 11

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 76 Resp: 285374

Ion Ratio Lower Upper

76 100

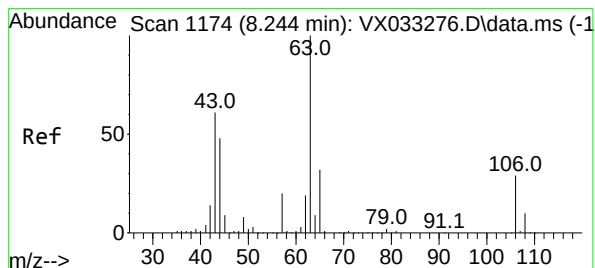
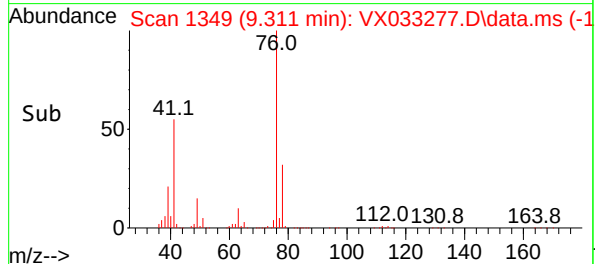
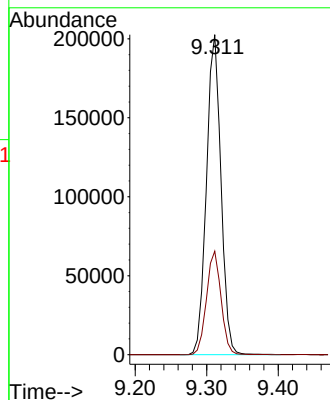
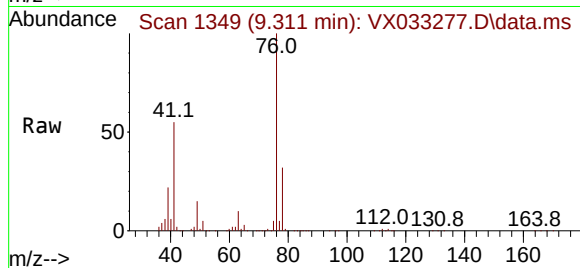
78 32.4 26.0 39.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#58

2-Chloroethyl Vinyl ether

Concen: 532.046 ug/l

RT: 8.244 min Scan# 1174

Delta R.T. 0.000 min

Lab File: VX033277.D

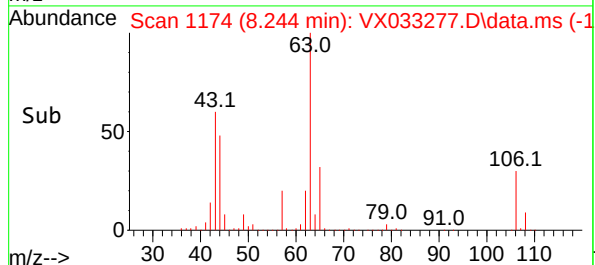
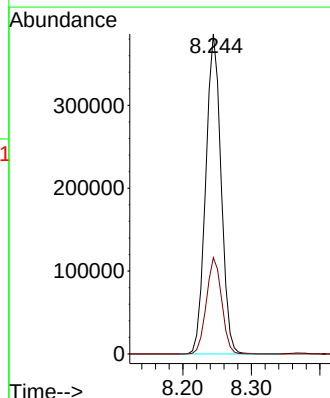
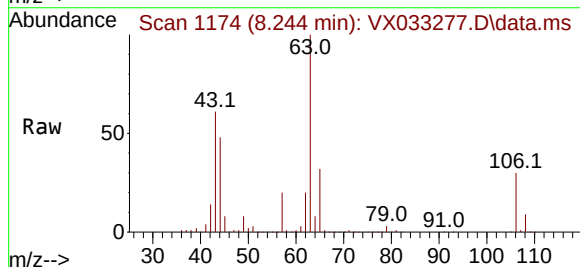
Acq: 07 Dec 2022 11:18

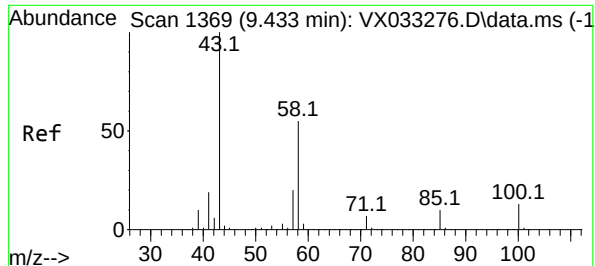
Tgt Ion: 63 Resp: 601216

Ion Ratio Lower Upper

63 100

106 30.0 23.3 34.9





#59

2-Hexanone

Concen: 513.655 ug/l

RT: 9.433 min Scan# 1369

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 43 Resp: 776930

Ion Ratio Lower Upper

43 100

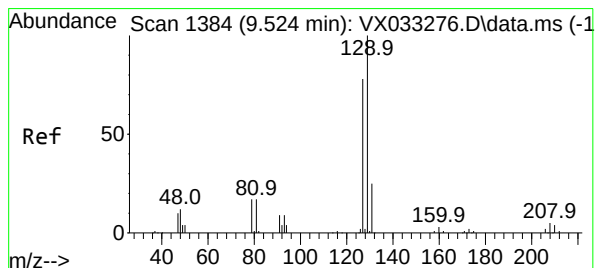
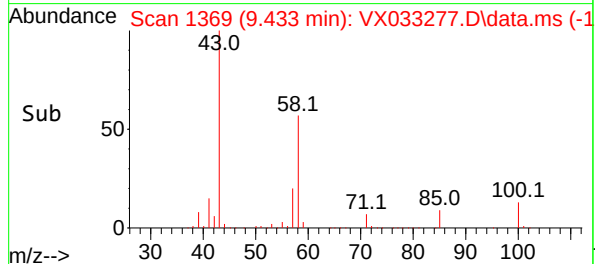
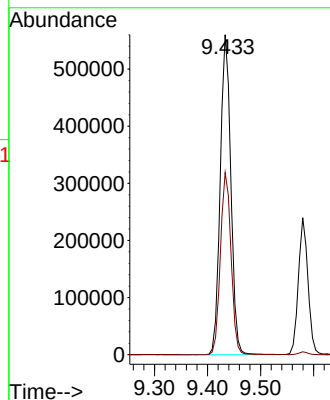
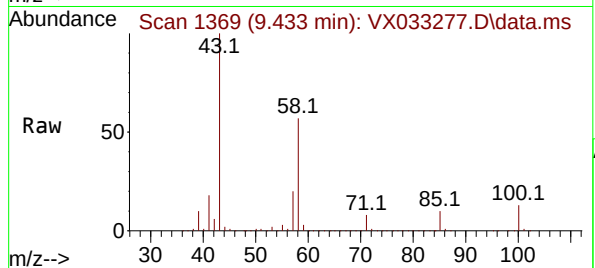
58 57.2 26.5 79.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#60

Dibromochloromethane

Concen: 109.532 ug/l

RT: 9.525 min Scan# 1384

Delta R.T. -0.000 min

Lab File: VX033277.D

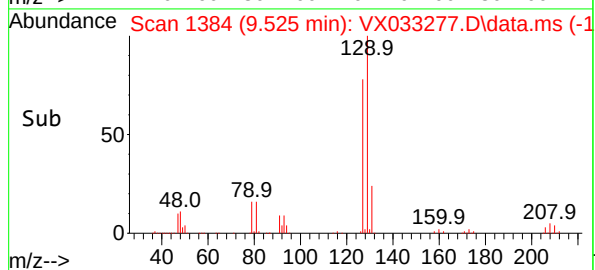
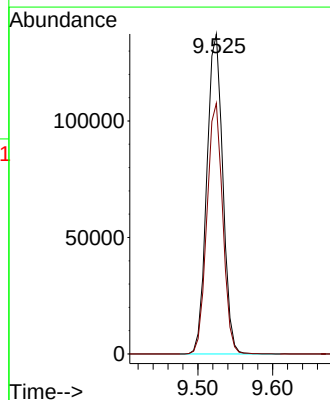
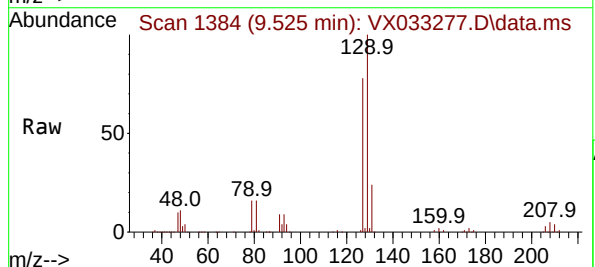
Acq: 07 Dec 2022 11:18

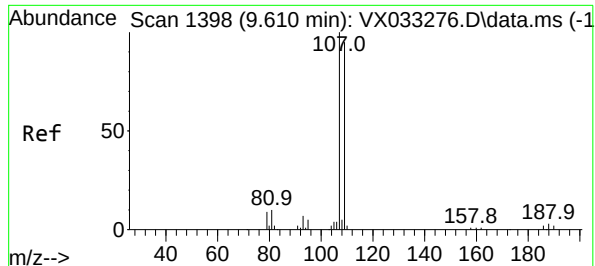
Tgt Ion:129 Resp: 203673

Ion Ratio Lower Upper

129 100

127 77.6 38.6 115.8





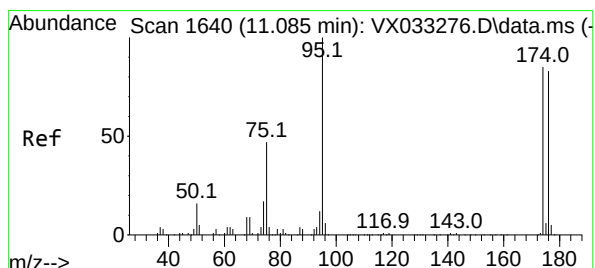
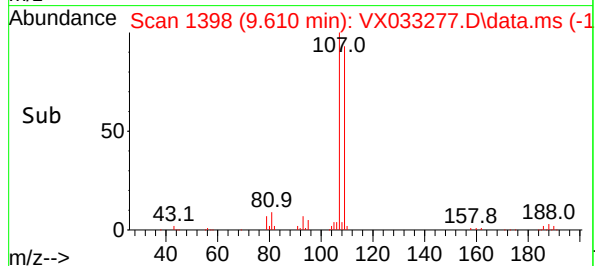
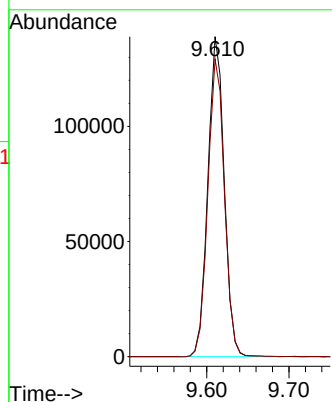
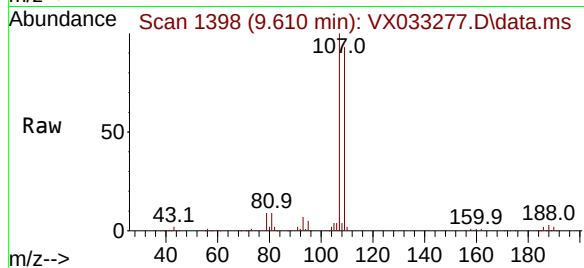
#61  
1,2-Dibromoethane  
Concen: 105.569 ug/l  
RT: 9.610 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100

Tgt Ion:107 Resp: 192450  
Ion Ratio Lower Upper  
107 100  
109 94.2 76.0 114.0

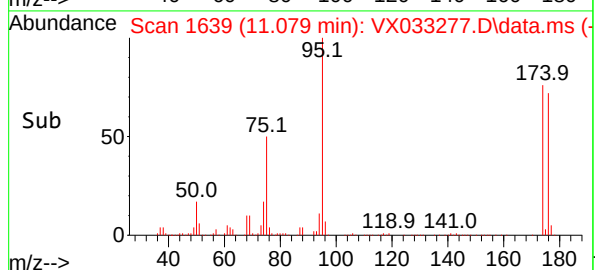
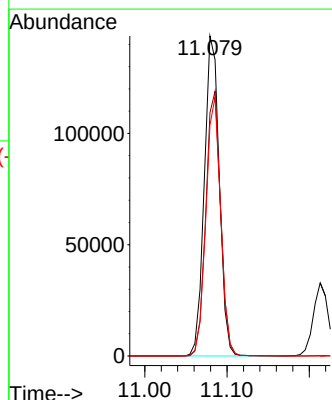
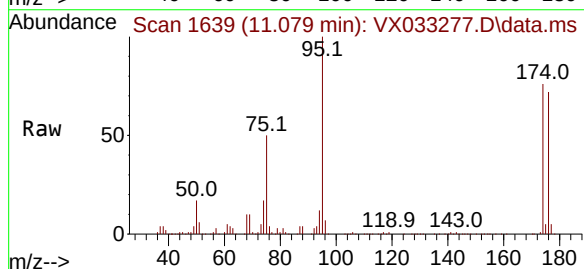
Manual Integrations  
APPROVED

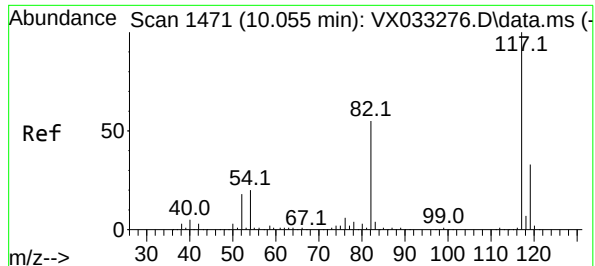
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#62  
4-Bromofluorobenzene  
Concen: 96.253 ug/l  
RT: 11.079 min Scan# 1639  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

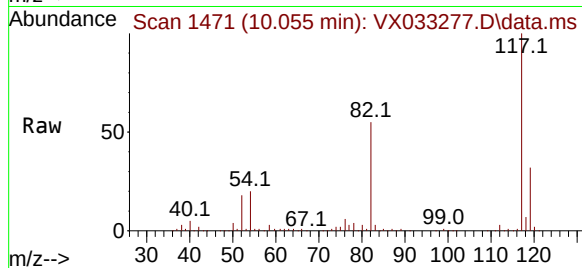
Tgt Ion: 95 Resp: 181855  
Ion Ratio Lower Upper  
95 100  
174 81.9 0.0 164.0  
176 79.6 0.0 154.4





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.055 min Scan# 1471  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

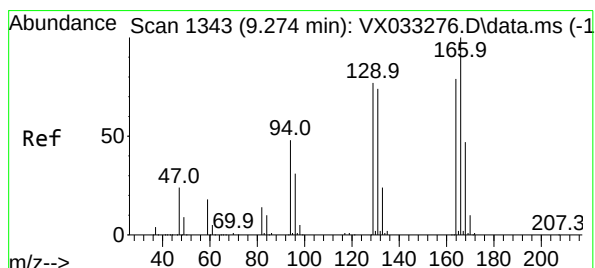
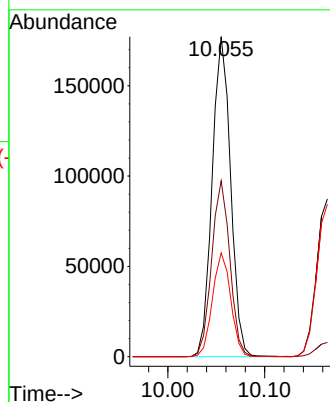
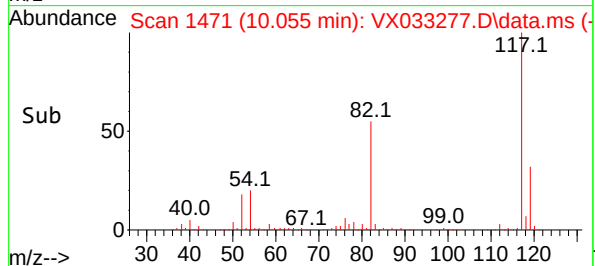
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC100



Tgt Ion:117 Resp: 23475  
Ion Ratio Lower Upper  
117 100  
82 54.9 44.3 66.5  
119 32.4 25.7 38.5

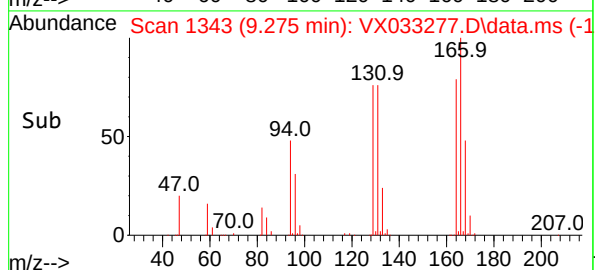
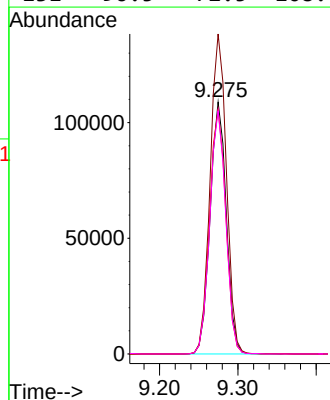
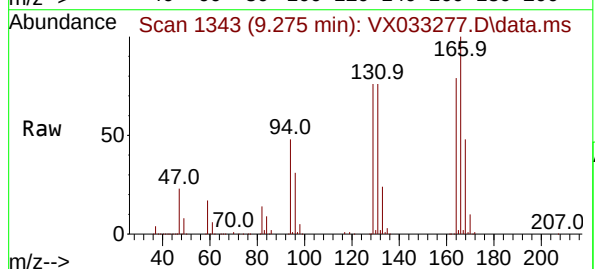
Manual Integrations  
APPROVED

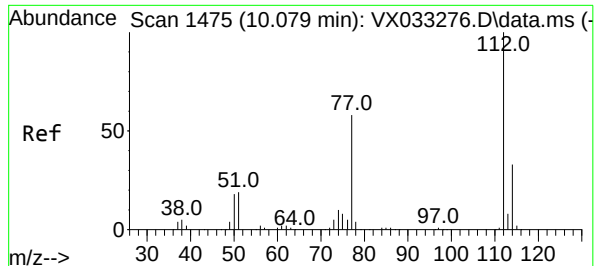
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#64  
Tetrachloroethene  
Concen: 93.745 ug/l  
RT: 9.275 min Scan# 1343  
Delta R.T. -0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Tgt Ion:164 Resp: 155777  
Ion Ratio Lower Upper  
164 100  
166 127.0 105.4 158.2  
129 97.1 78.2 117.2  
131 96.5 72.5 108.7





#65

Chlorobenzene

Concen: 99.602 ug/l

RT: 10.079 min Scan# 1475

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion:112 Resp: 466180

Ion Ratio Lower Upper

112 100

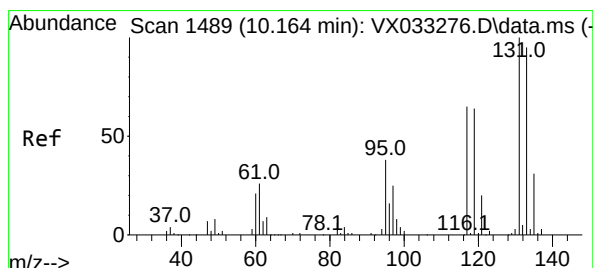
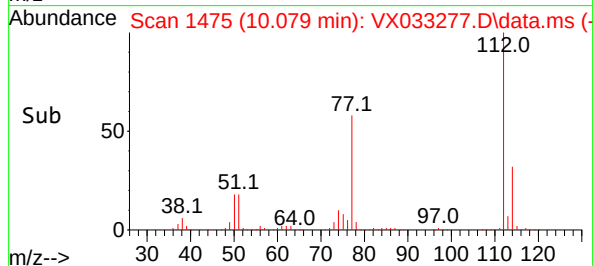
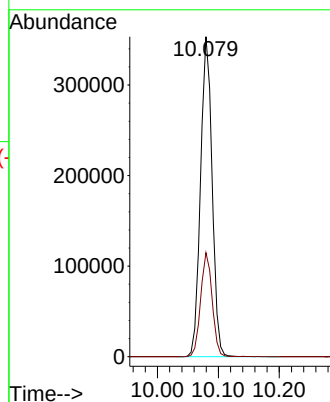
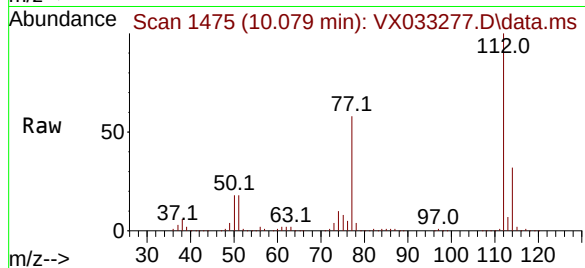
114 32.5 25.4 38.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#66

1,1,1,2-Tetrachloroethane

Concen: 104.407 ug/l

RT: 10.165 min Scan# 1489

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

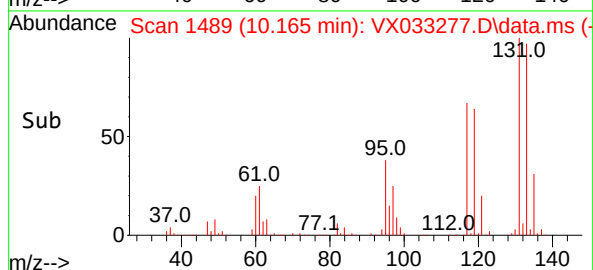
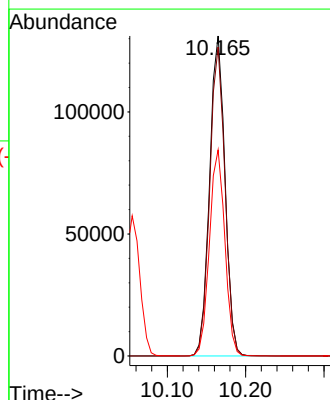
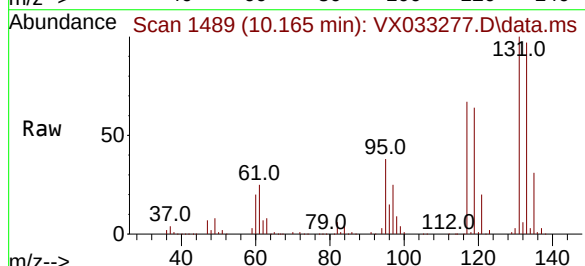
Tgt Ion:131 Resp: 179053

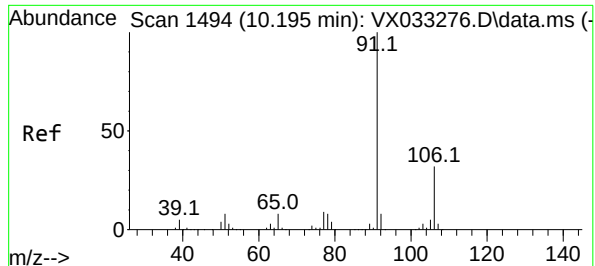
Ion Ratio Lower Upper

131 100

133 95.7 47.6 142.9

119 64.5 32.4 97.0





#67

Ethyl Benzene

Concen: 100.255 ug/l

RT: 10.195 min Scan# 1494

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 91 Resp: 83236

Ion Ratio Lower Upper

91 100

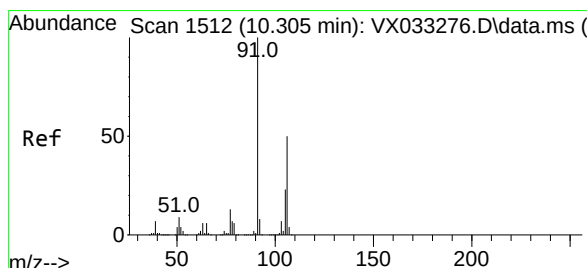
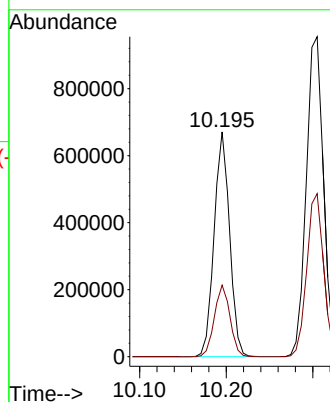
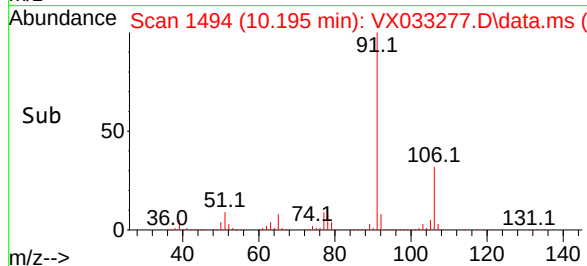
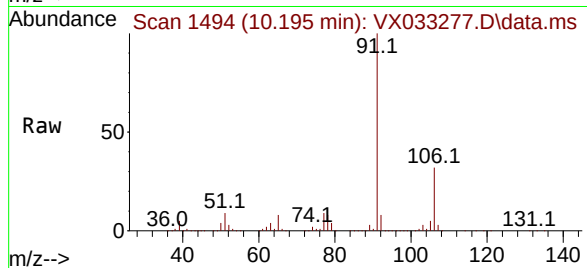
106 31.8 25.0 37.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#68

m/p-Xylenes

Concen: 201.944 ug/l

RT: 10.305 min Scan# 1512

Delta R.T. 0.000 min

Lab File: VX033277.D

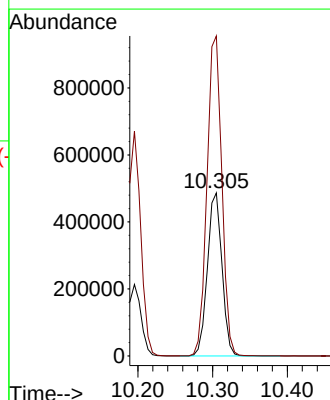
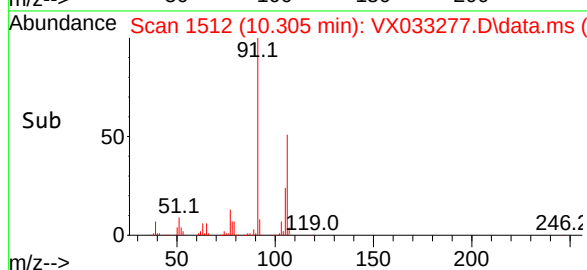
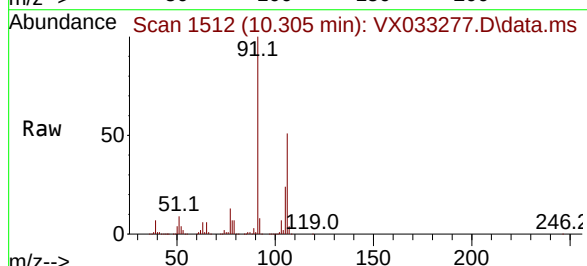
Acq: 07 Dec 2022 11:18

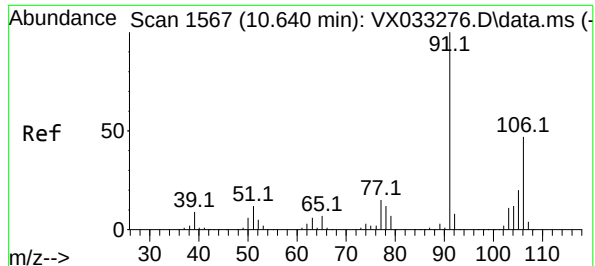
Tgt Ion:106 Resp: 656555

Ion Ratio Lower Upper

106 100

91 200.3 164.5 246.7





#69

o-Xylene

Concen: 101.180 ug/l

RT: 10.640 min Scan# 1567

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion:106 Resp: 31828

Ion Ratio Lower Upper

106 100

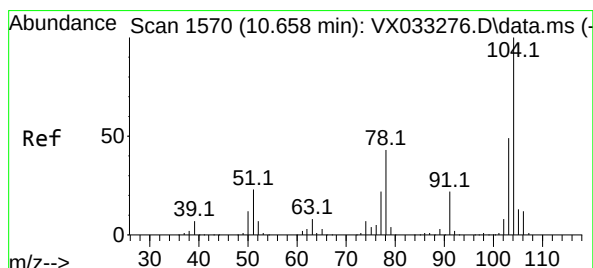
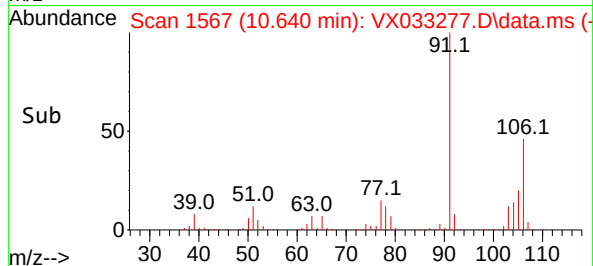
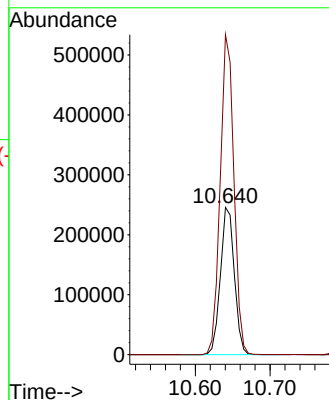
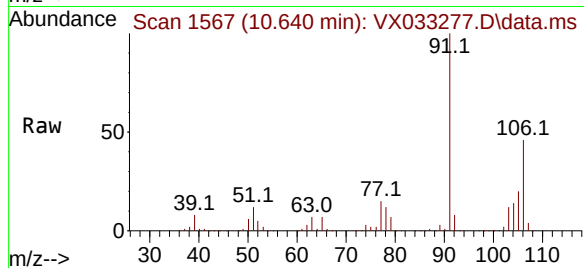
91 213.4 109.2 327.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#70

Styrene

Concen: 104.480 ug/l

RT: 10.659 min Scan# 1570

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

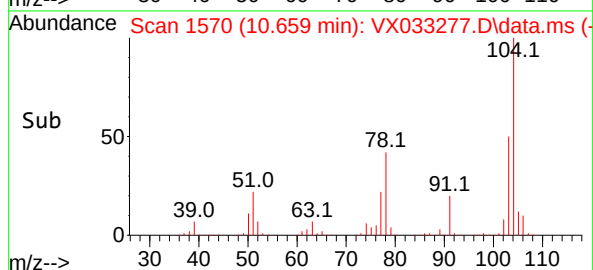
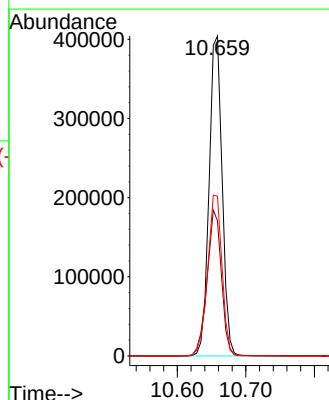
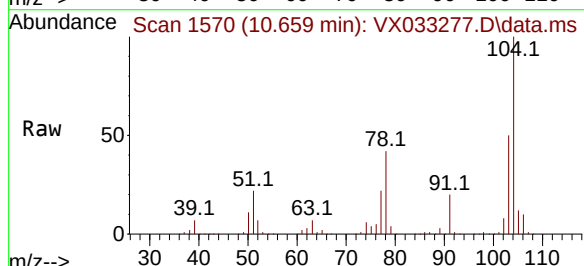
Tgt Ion:104 Resp: 537696

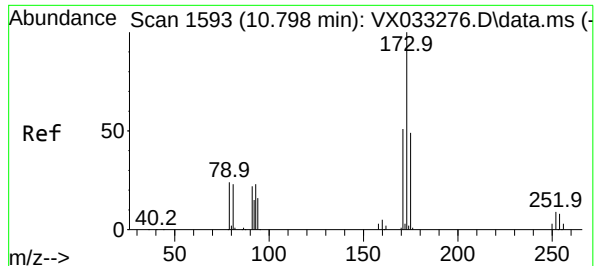
Ion Ratio Lower Upper

104 100

78 49.7 41.8 62.8

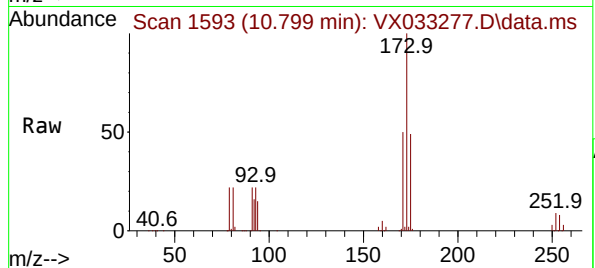
103 55.4 44.5 66.7





#71  
Bromoform  
Concen: 112.541 ug/l  
RT: 10.799 min Scan# 1593  
Delta R.T. -0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

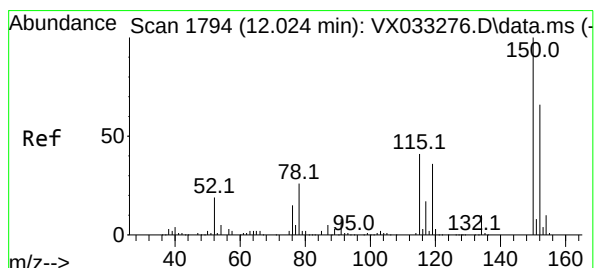
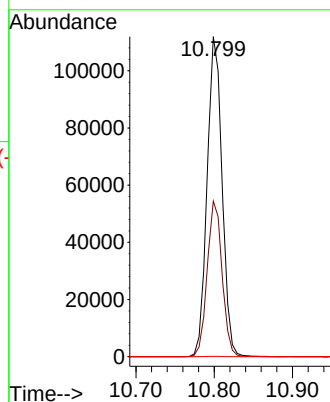
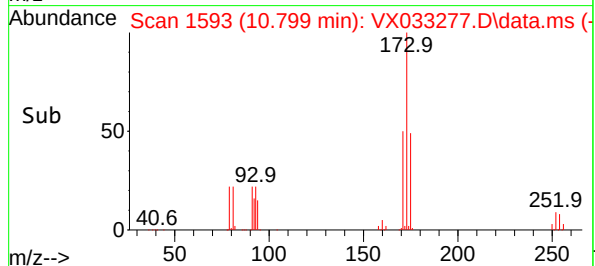
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100



Tgt Ion:173 Resp: 147977  
Ion Ratio Lower Upper  
173 100  
175 48.4 23.9 71.8  
254 0.1 0.0 0.0

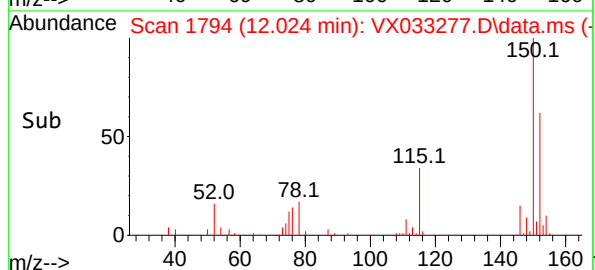
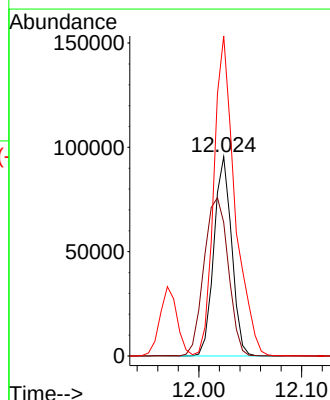
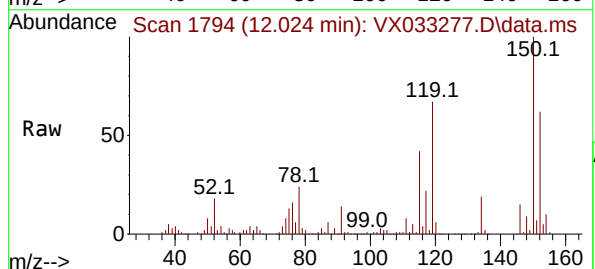
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

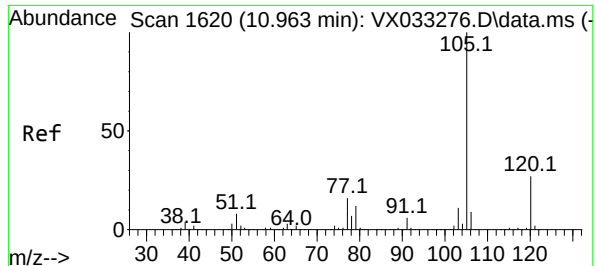


#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.024 min Scan# 1794  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Tgt Ion:152 Resp: 114385  
Ion Ratio Lower Upper  
152 100  
115 108.7 44.0 132.0  
150 191.0 0.0 351.8







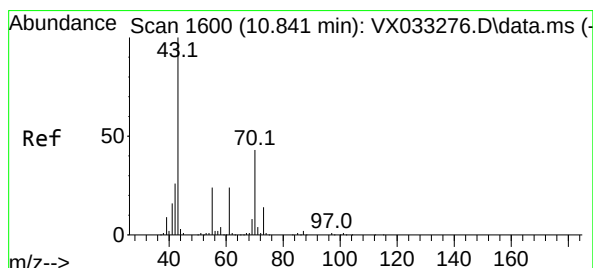
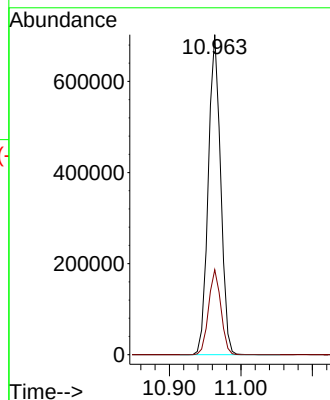
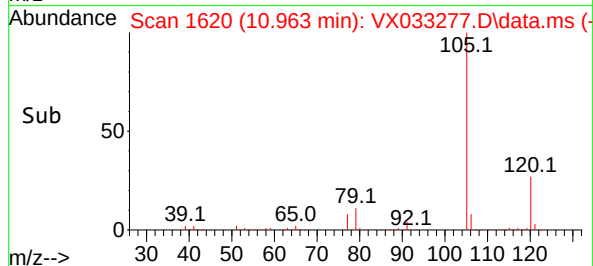
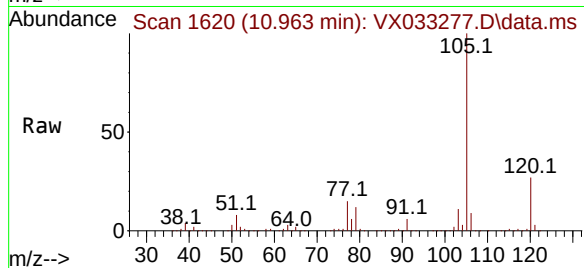
#73  
Isopropylbenzene  
Concen: 103.020 ug/l  
RT: 10.963 min Scan# 1620  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC100

Tgt Ion:105 Resp: 84207  
Ion Ratio Lower Upper  
105 100  
120 26.5 13.1 39.3

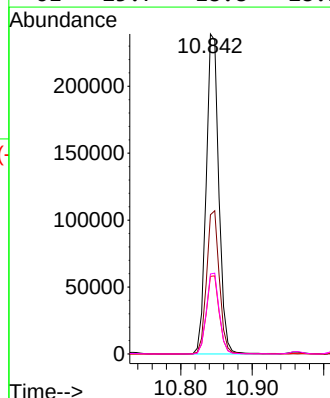
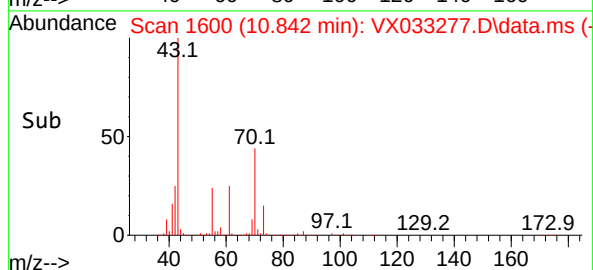
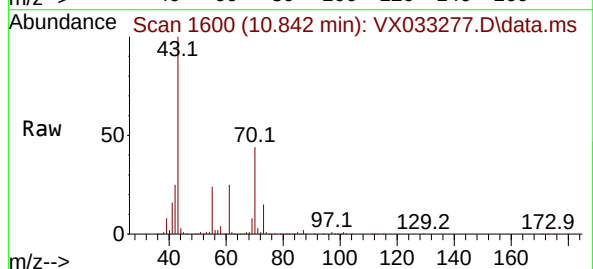
Manual Integrations  
APPROVED

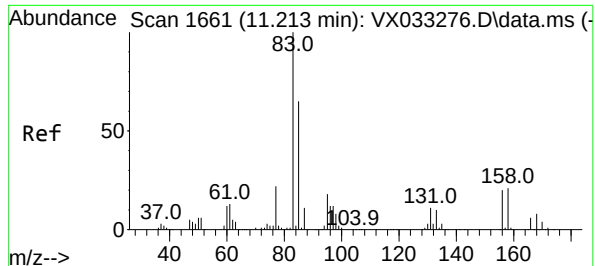
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#74  
N-ethyl acetate  
Concen: 105.583 ug/l  
RT: 10.842 min Scan# 1600  
Delta R.T. 0.001 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Tgt Ion: 43 Resp: 293580  
Ion Ratio Lower Upper  
43 100  
70 45.1 33.6 50.4  
55 25.0 19.4 29.2  
61 25.7 18.8 28.2





#75

1,1,2,2-Tetrachloroethane

Concen: 102.600 ug/l

RT: 11.213 min Scan# 1661

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion: 83 Resp: 253110

Ion Ratio Lower Upper

83 100

131 10.6 5.4 16.2

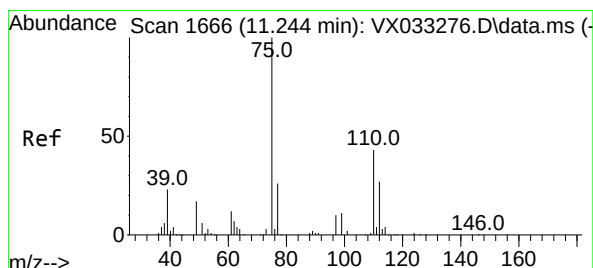
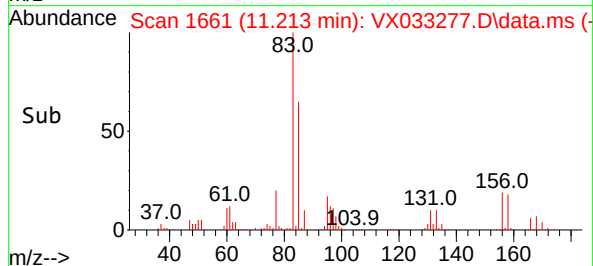
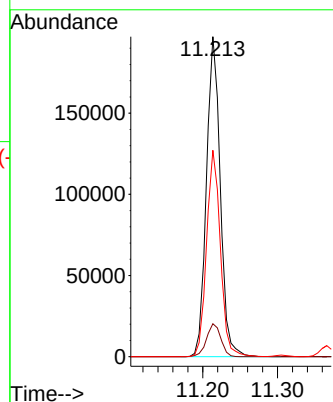
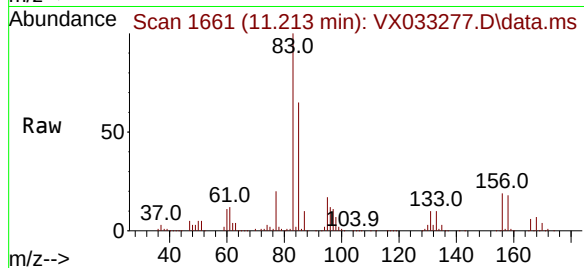
85 64.4 31.9 95.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#76

1,2,3-Trichloropropane

Concen: 105.091 ug/l m

RT: 11.238 min Scan# 1665

Delta R.T. -0.006 min

Lab File: VX033277.D

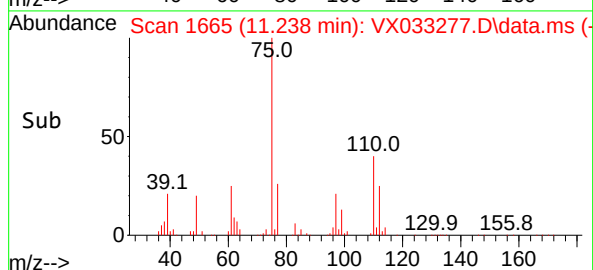
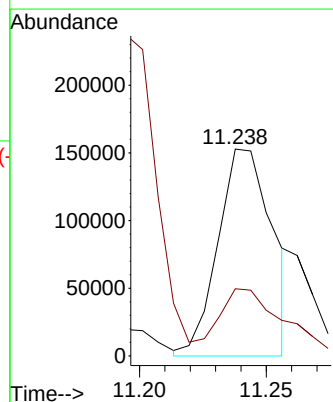
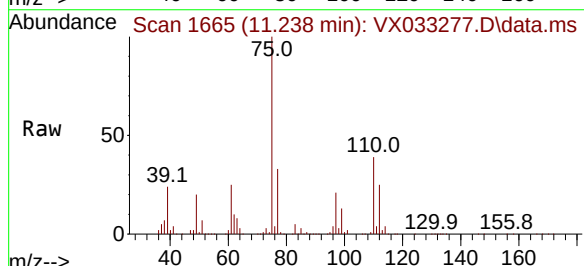
Acq: 07 Dec 2022 11:18

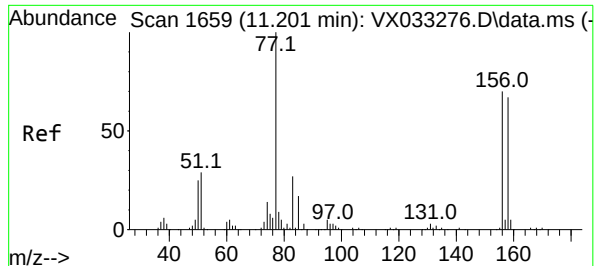
Tgt Ion: 75 Resp: 227655

Ion Ratio Lower Upper

75 100

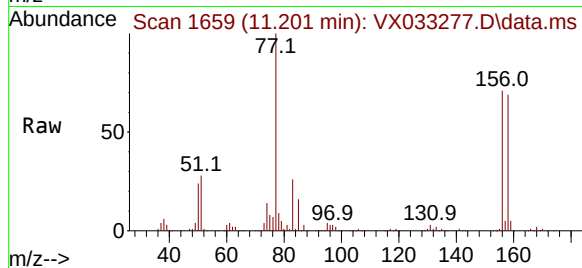
77 39.4 20.0 60.0





#77  
Bromobenzene  
Concen: 102.556 ug/l  
RT: 11.201 min Scan# 1659  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

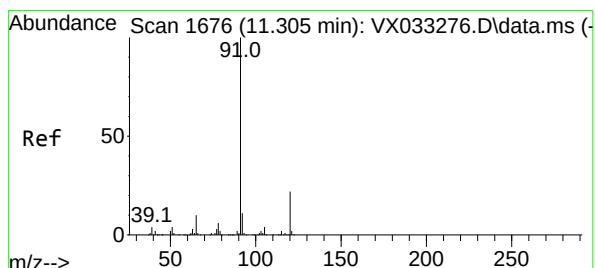
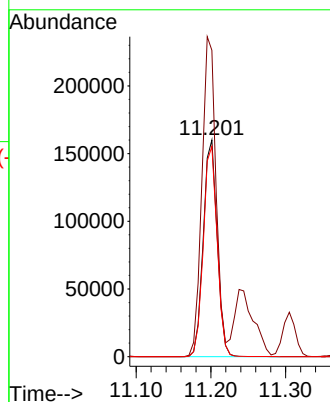
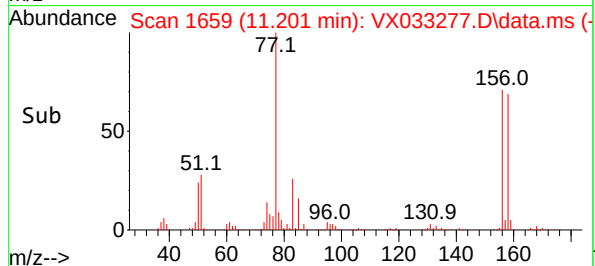
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100



Tgt Ion:156 Resp: 206162  
Ion Ratio Lower Upper  
156 100  
77 149.5 76.1 228.4  
158 96.8 48.8 146.3

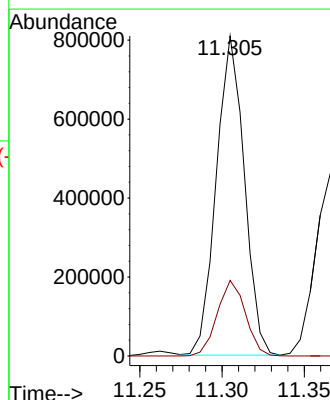
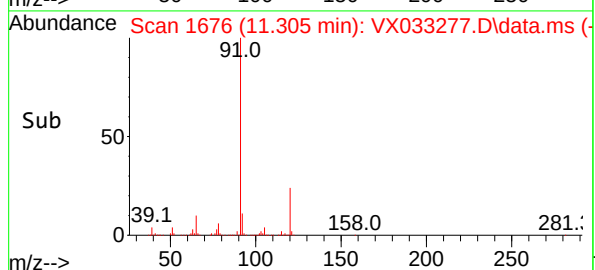
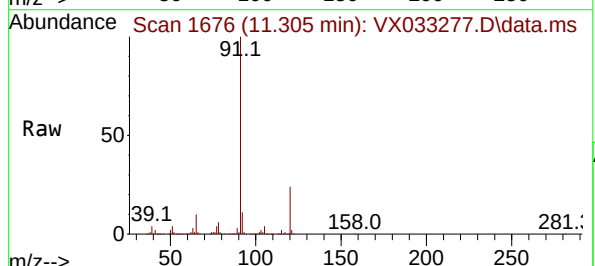
Manual Integrations  
APPROVED

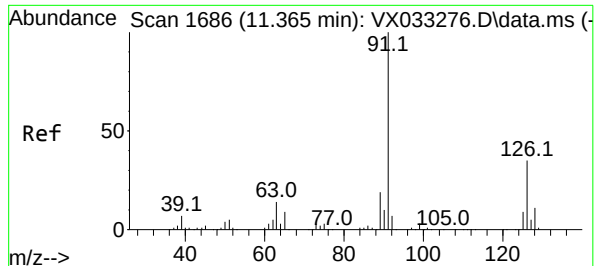
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#78  
n-propylbenzene  
Concen: 102.470 ug/l  
RT: 11.305 min Scan# 1676  
Delta R.T. -0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Tgt Ion: 91 Resp: 957635  
Ion Ratio Lower Upper  
91 100  
120 23.8 11.6 34.8





#79

2-Chlorotoluene

Concen: 99.144 ug/l

RT: 11.366 min Scan# 1

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 91 Resp: 562740

Ion Ratio Lower Upper

91 100

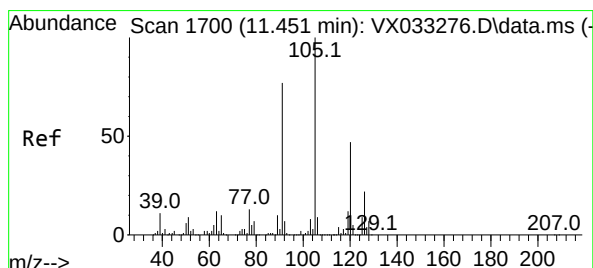
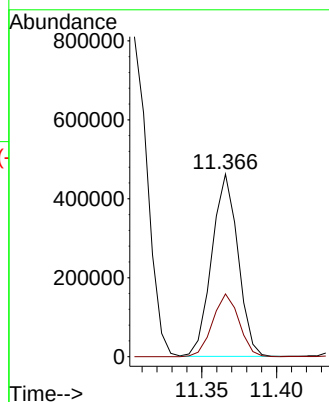
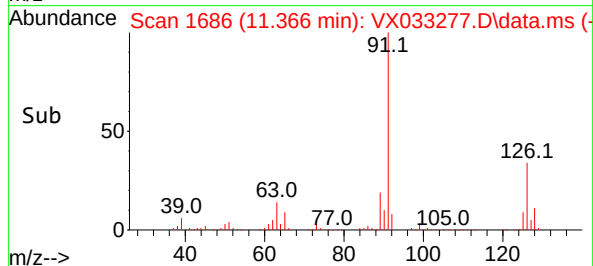
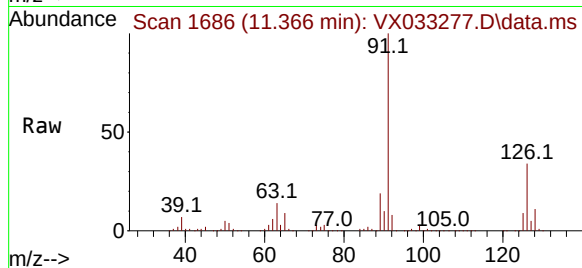
126 34.6 17.1 51.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#80

1,3,5-Trimethylbenzene

Concen: 103.034 ug/l

RT: 11.451 min Scan# 1700

Delta R.T. 0.000 min

Lab File: VX033277.D

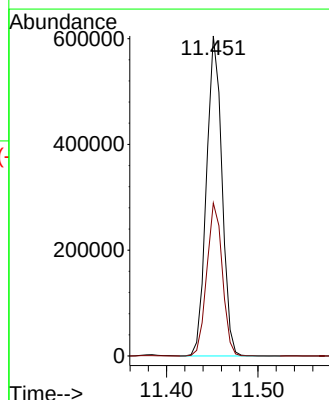
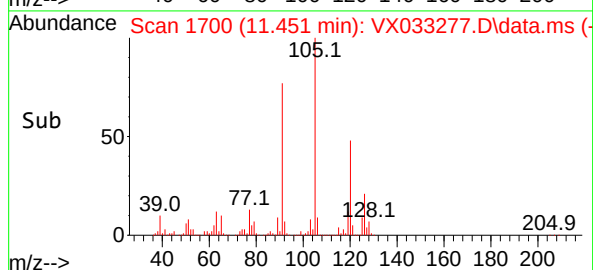
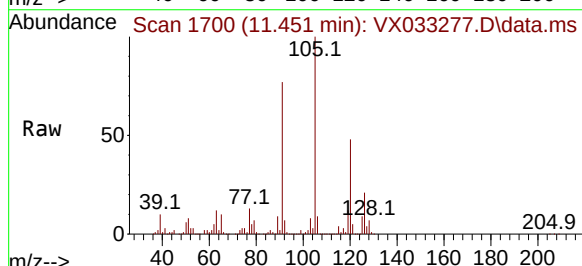
Acq: 07 Dec 2022 11:18

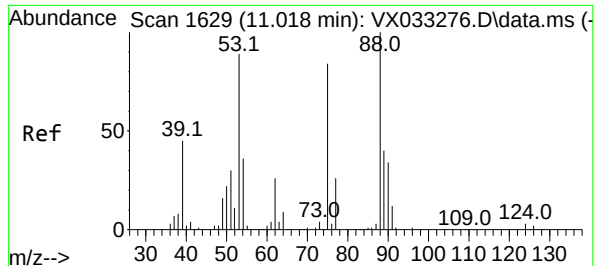
Tgt Ion:105 Resp: 707491

Ion Ratio Lower Upper

105 100

120 48.0 23.6 71.0





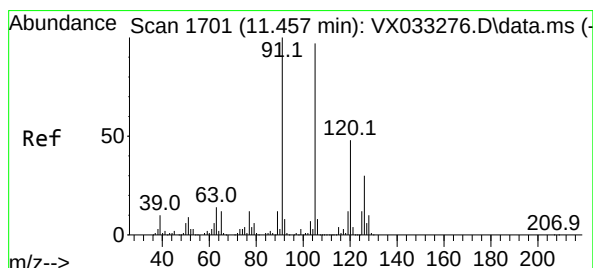
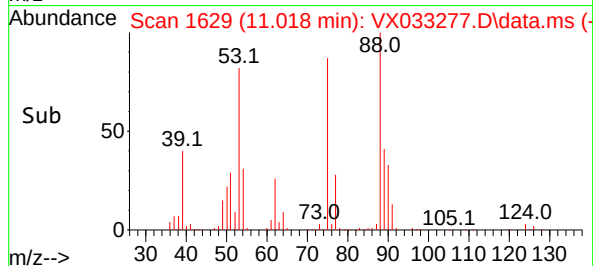
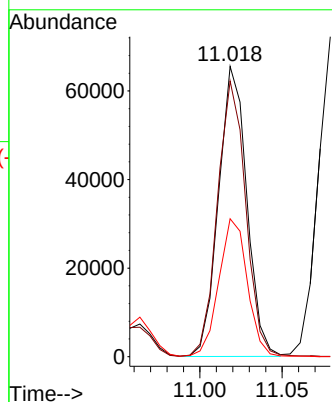
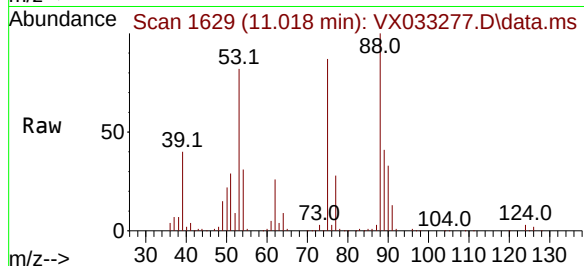
#81  
trans-1,4-Dichloro-2-butene  
Concen: 117.572 ug/l  
RT: 11.018 min Scan# 1629  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100

Tgt Ion: 75 Resp: 78350  
Ion Ratio Lower Upper  
75 100  
53 94.8 86.9 130.3  
89 48.0 38.3 57.5

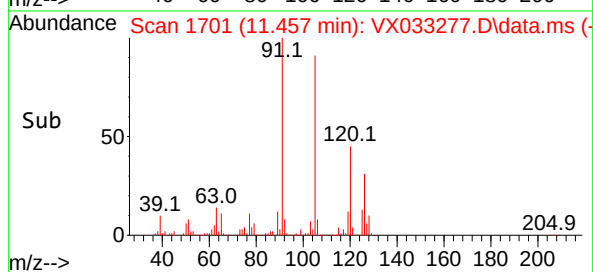
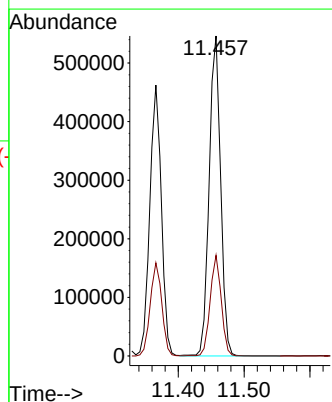
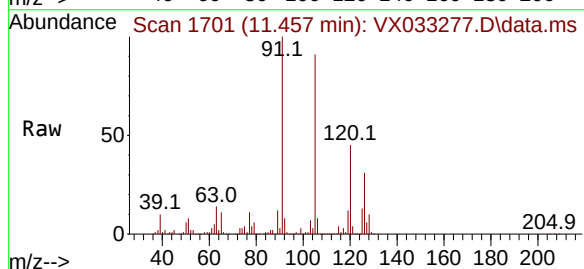
Manual Integrations  
APPROVED

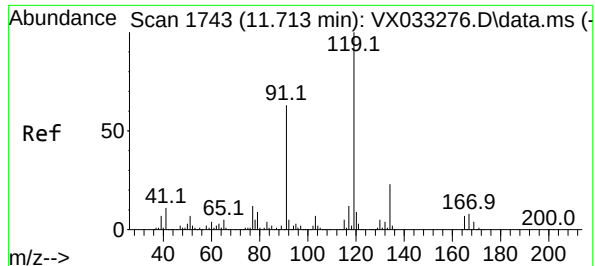
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#82  
4-Chlorotoluene  
Concen: 99.587 ug/l  
RT: 11.457 min Scan# 1701  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

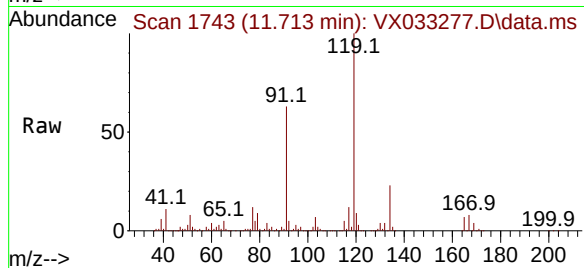
Tgt Ion: 91 Resp: 662404  
Ion Ratio Lower Upper  
91 100  
126 30.4 14.8 44.4





#83  
tert-Butylbenzene  
Concen: 103.031 ug/l  
RT: 11.713 min Scan# 1743  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

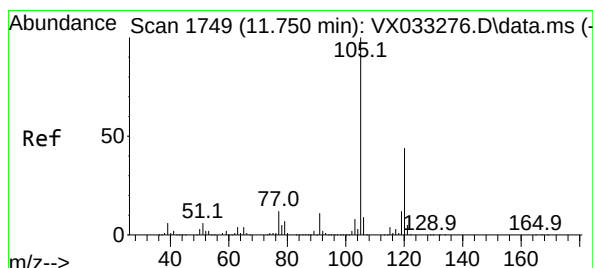
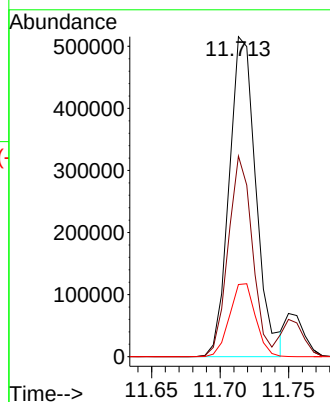
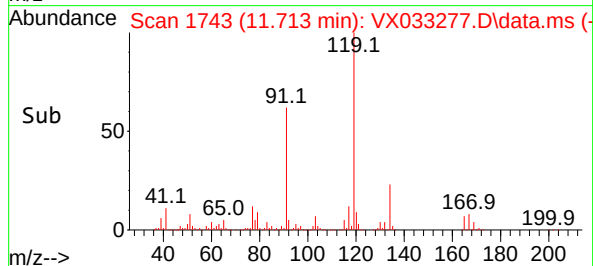
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100



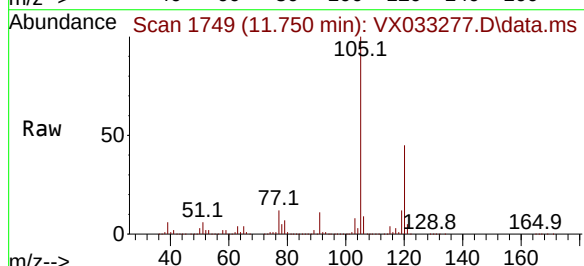
Tgt Ion:119 Resp: 704229  
Ion Ratio Lower Upper  
119 100  
91 56.6 29.4 88.2  
134 22.1 11.0 33.0

Manual Integrations  
APPROVED

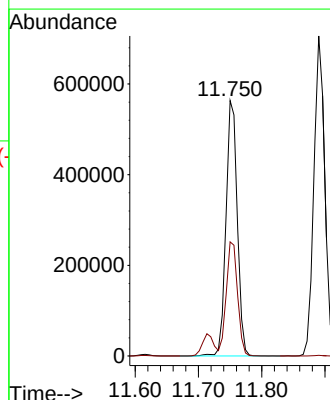
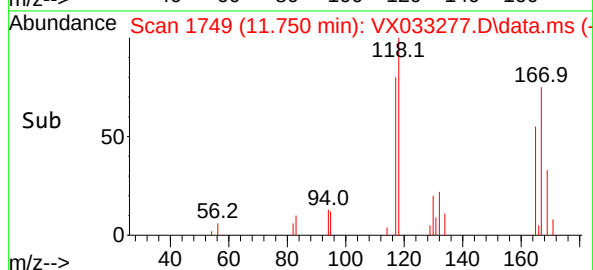
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

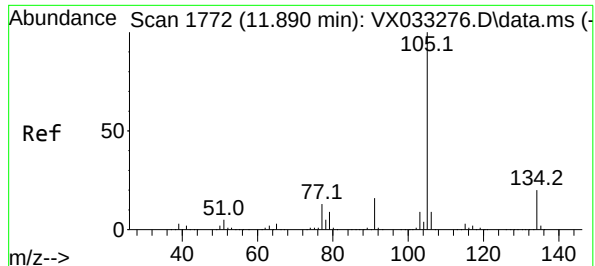


#84  
1,2,4-Trimethylbenzene  
Concen: 101.503 ug/l  
RT: 11.750 min Scan# 1749  
Delta R.T. -0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18



Tgt Ion:105 Resp: 694969  
Ion Ratio Lower Upper  
105 100  
120 44.7 21.9 65.5





#85

sec-Butylbenzene

Concen: 102.877 ug/l

RT: 11.890 min Scan# 1772

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion:105 Resp: 841254

Ion Ratio Lower Upper

105 100

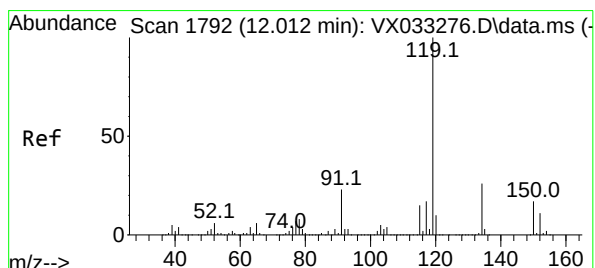
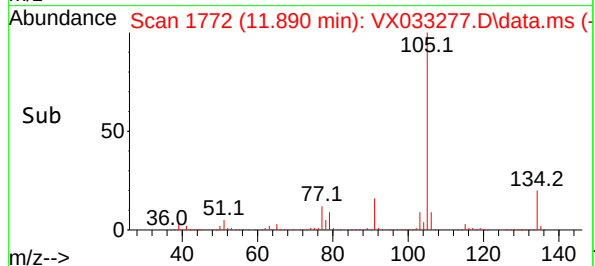
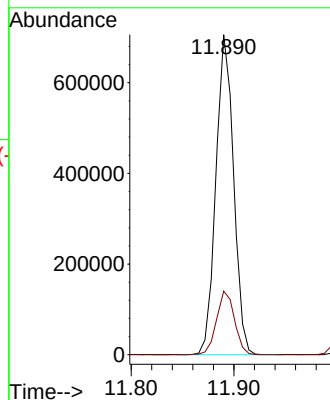
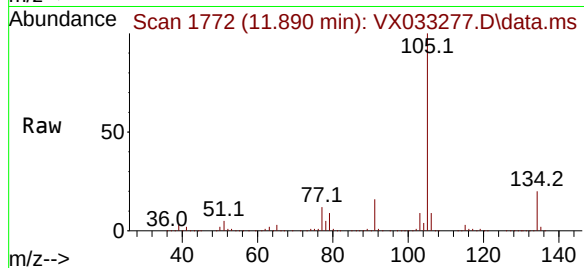
134 20.1 9.9 29.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#86

p-Isopropyltoluene

Concen: 104.124 ug/l

RT: 12.012 min Scan# 1792

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

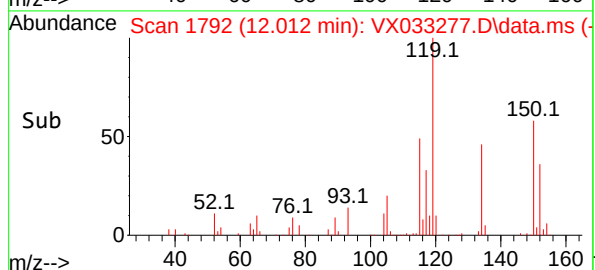
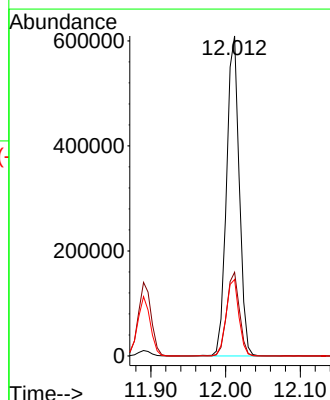
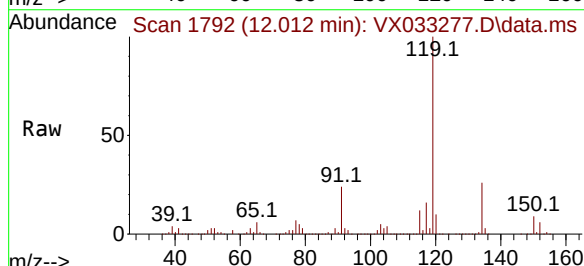
Tgt Ion:119 Resp: 721390

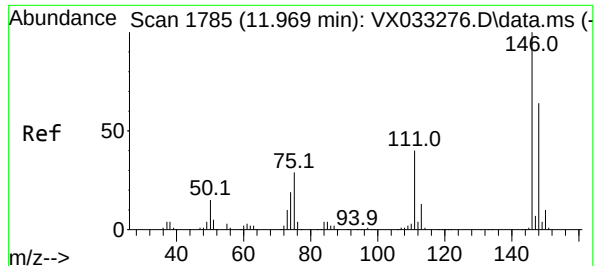
Ion Ratio Lower Upper

119 100

134 26.1 12.9 38.7

91 24.0 12.5 37.5





#87

1,3-Dichlorobenzene

Concen: 101.433 ug/l

RT: 11.969 min Scan# 1785

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion:146 Resp: 382452

Ion Ratio Lower Upper

146 100

111 40.0 20.6 61.8

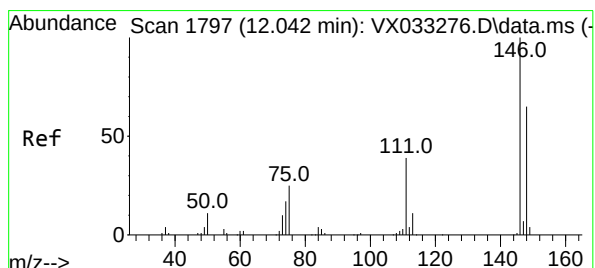
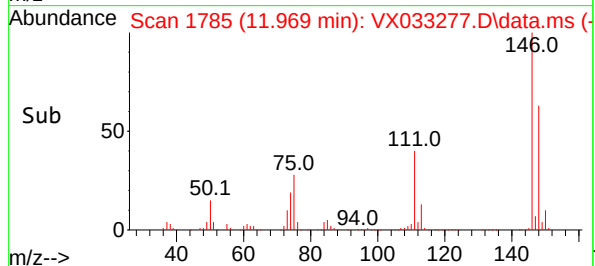
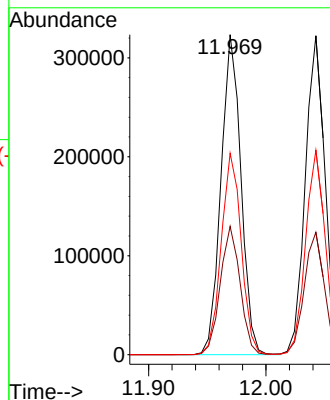
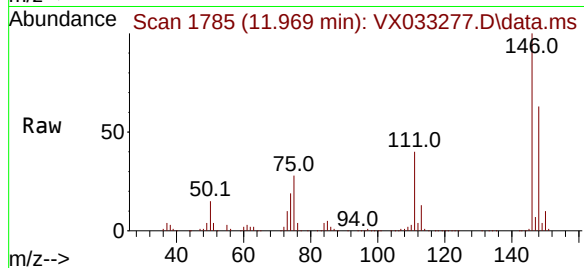
148 63.1 31.7 95.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#88

1,4-Dichlorobenzene

Concen: 97.826 ug/l

RT: 12.043 min Scan# 1797

Delta R.T. 0.001 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

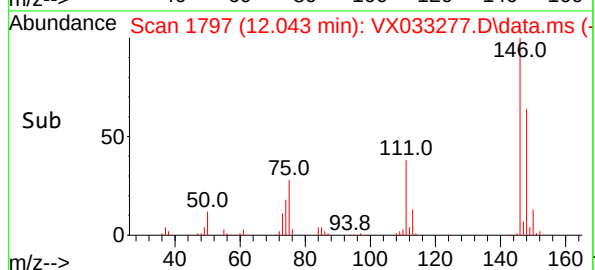
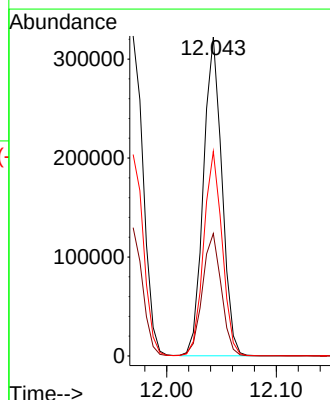
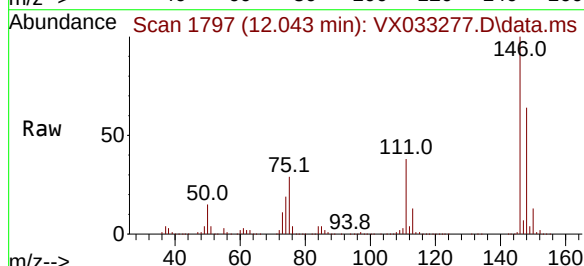
Tgt Ion:146 Resp: 377754

Ion Ratio Lower Upper

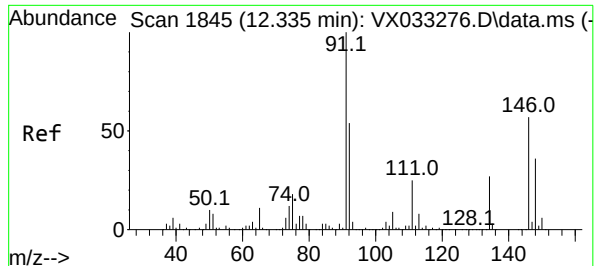
146 100

111 39.4 20.5 61.6

148 63.9 32.2 96.6







#89

n-Butylbenzene

Concen: 103.367 ug/l

RT: 12.335 min Scan# 1845

Delta R.T. 0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC100

Tgt Ion: 91 Resp: 61694

Ion Ratio Lower Upper

91 100

92 53.4 26.2 78.6

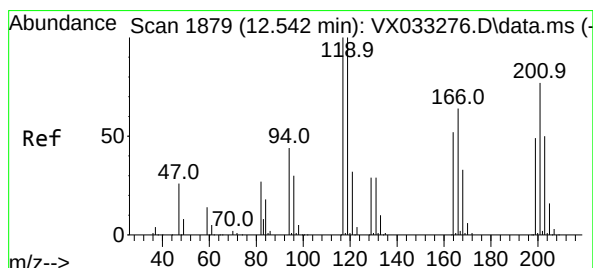
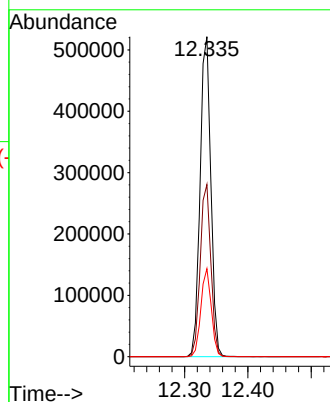
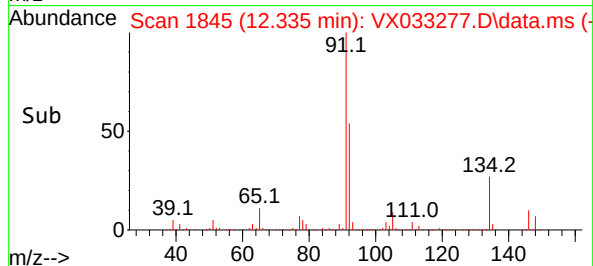
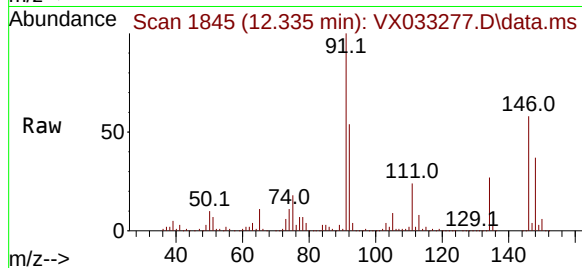
134 26.6 12.9 38.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#90

Hexachloroethane

Concen: 108.833 ug/l

RT: 12.542 min Scan# 1879

Delta R.T. 0.000 min

Lab File: VX033277.D

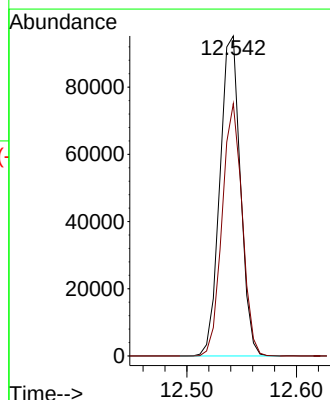
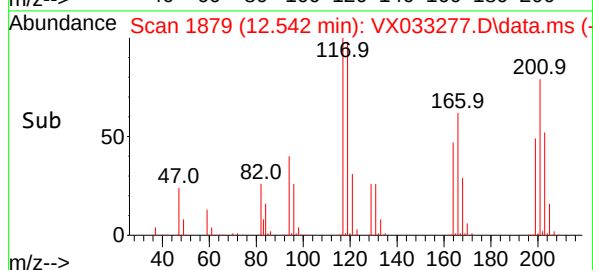
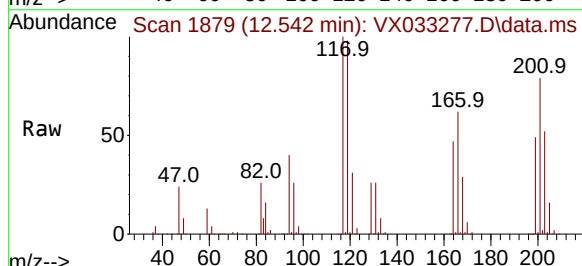
Acq: 07 Dec 2022 11:18

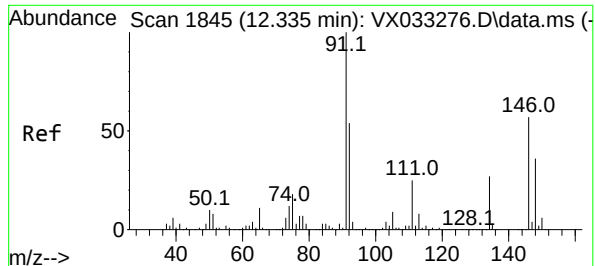
Tgt Ion:117 Resp: 123879

Ion Ratio Lower Upper

117 100

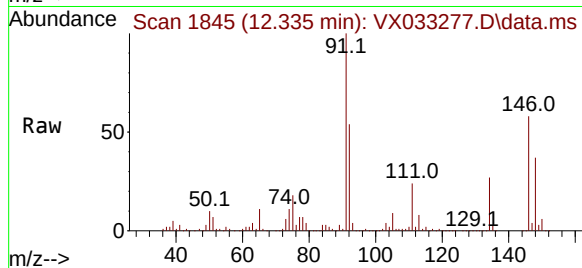
201 77.1 37.6 112.9





#91  
1,2-Dichlorobenzene  
Concen: 100.562 ug/l  
RT: 12.335 min Scan# 1845  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

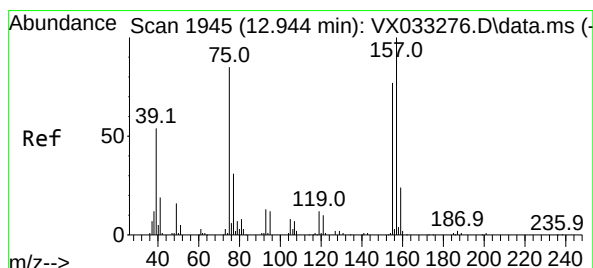
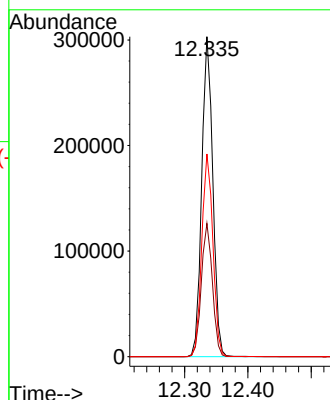
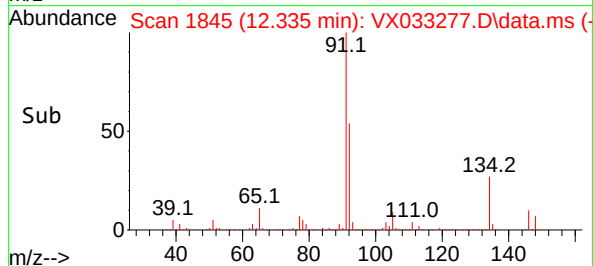
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100



Tgt Ion:146 Resp: 36884  
Ion Ratio Lower Upper  
146 100  
111 41.7 21.5 64.5  
148 63.8 32.0 96.2

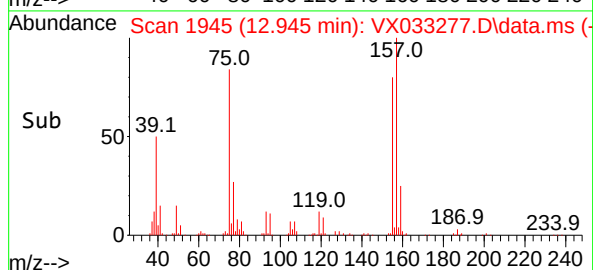
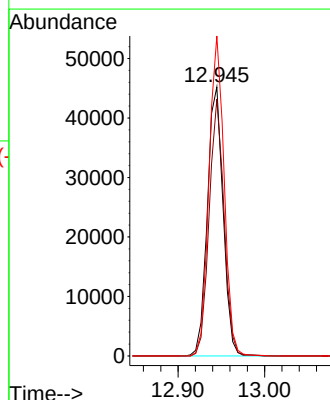
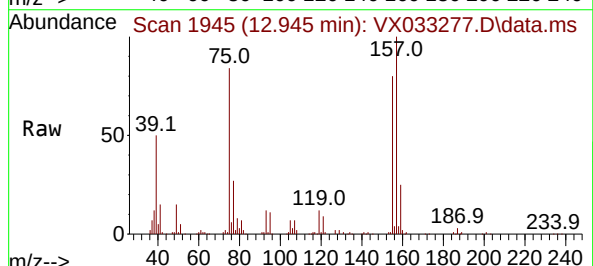
Manual Integrations  
APPROVED

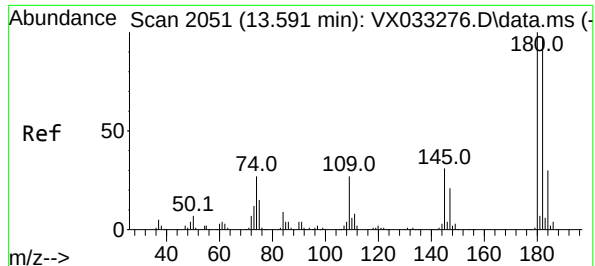
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#92  
1,2-Dibromo-3-Chloropropane  
Concen: 115.714 ug/l  
RT: 12.945 min Scan# 1945  
Delta R.T. -0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

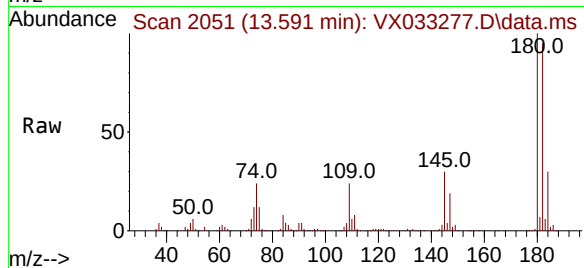
Tgt Ion: 75 Resp: 56957  
Ion Ratio Lower Upper  
75 100  
155 90.3 41.6 124.8  
157 114.6 54.1 162.4





#93  
1,2,4-Trichlorobenzene  
Concen: 106.614 ug/l  
RT: 13.591 min Scan# 2051  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18

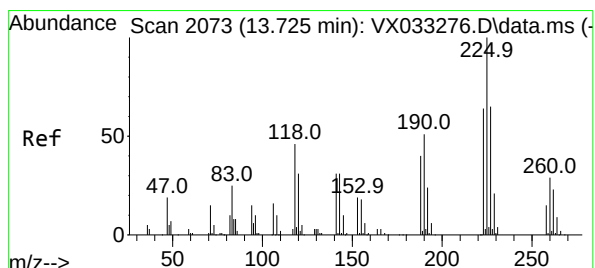
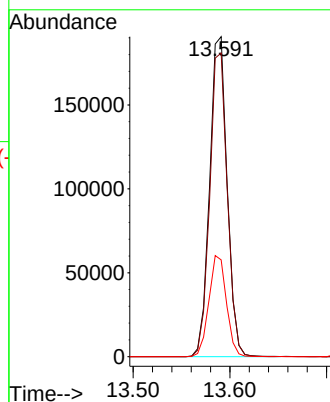
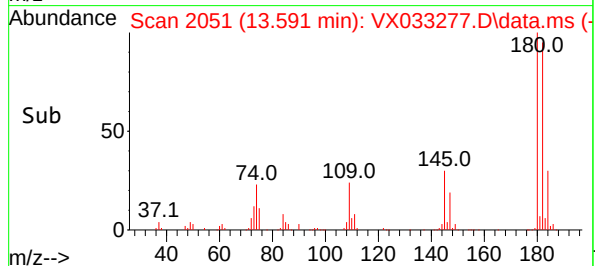
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC100



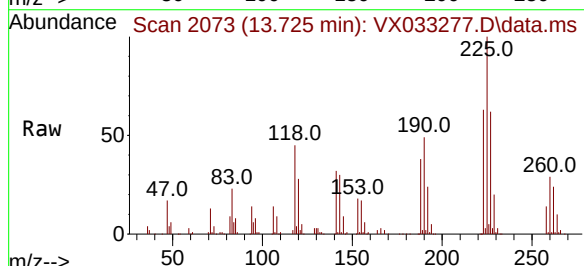
Tgt Ion:180 Resp: 24104  
Ion Ratio Lower Upper  
180 100  
182 95.0 48.4 145.0  
145 31.5 16.2 48.5

Manual Integrations  
APPROVED

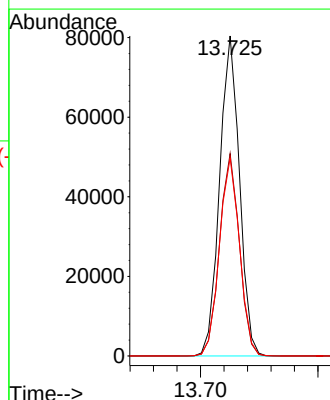
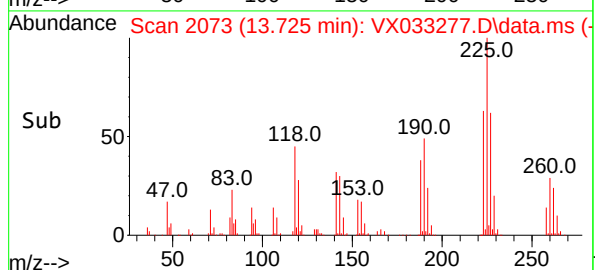
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

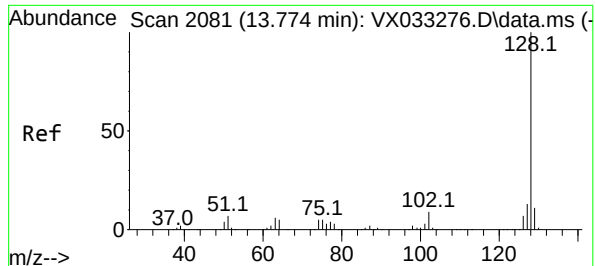


#94  
Hexachlorobutadiene  
Concen: 94.517 ug/l  
RT: 13.725 min Scan# 2073  
Delta R.T. 0.000 min  
Lab File: VX033277.D  
Acq: 07 Dec 2022 11:18



Tgt Ion:225 Resp: 94278  
Ion Ratio Lower Upper  
225 100  
223 63.3 31.9 95.9  
227 62.9 31.9 95.5





#95

Naphthalene

Concen: 110.304 ug/l

RT: 13.774 min Scan# 2081

Delta R.T. -0.006 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC100

Tgt Ion:128 Resp: 80679

Ion Ratio Lower Upper

128 100

127 12.9 10.2 15.4

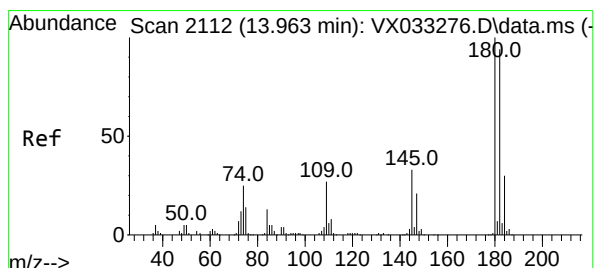
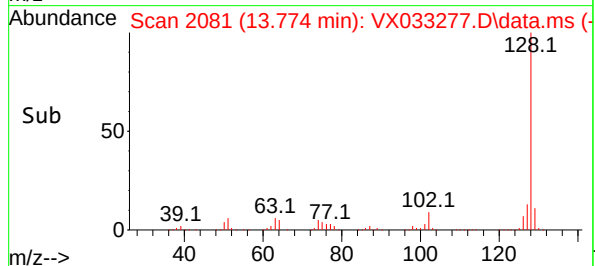
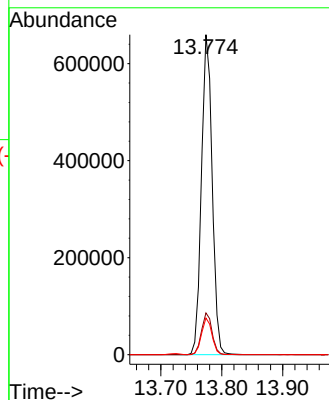
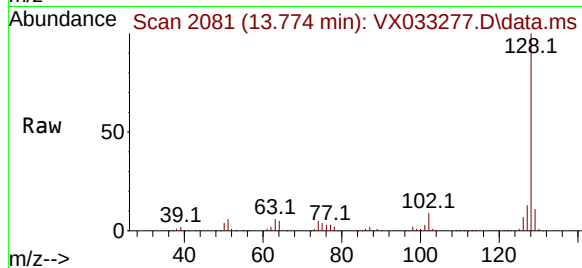
129 11.1 8.9 13.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#96

1,2,3-Trichlorobenzene

Concen: 105.480 ug/l

RT: 13.963 min Scan# 2112

Delta R.T. -0.000 min

Lab File: VX033277.D

Acq: 07 Dec 2022 11:18

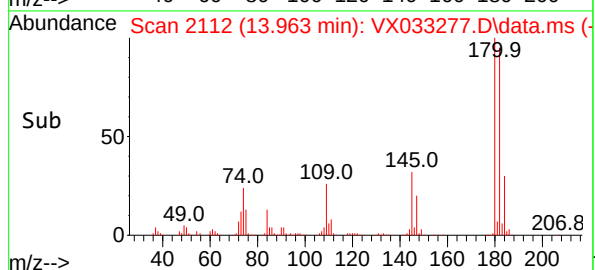
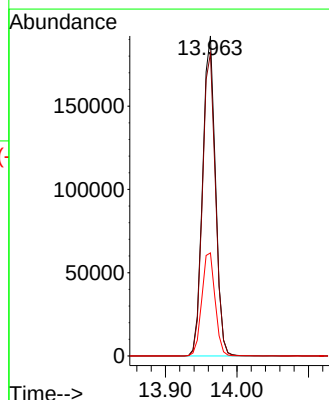
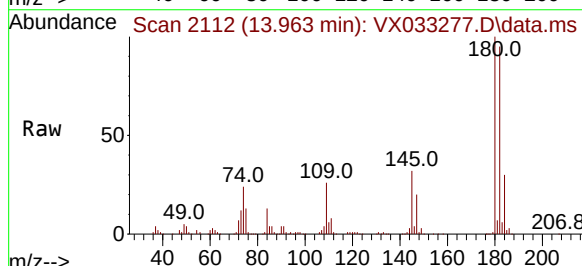
Tgt Ion:180 Resp: 239154

Ion Ratio Lower Upper

180 100

182 95.6 47.5 142.6

145 33.5 16.9 50.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033278.D  
 Acq On : 07 Dec 2022 11:42  
 Operator : JC/MD  
 Sample : VSTDICC150  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDICC150

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/08/2022  
 Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 12:10:16 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 09:47:15 2022  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response             | Conc     | Units | Dev(Min) |
|------------------------------|----------------|------|----------------------|----------|-------|----------|
| -----                        |                |      |                      |          |       |          |
| Internal Standards           |                |      |                      |          |       |          |
| 1) Pentafluorobenzene        | 5.556          | 168  | 128972               | 50.000   | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene      | 6.763          | 114  | 222944               | 50.000   | ug/l  | 0.00     |
| 63) Chlorobenzene-d5         | 10.055         | 117  | 208305               | 50.000   | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 12.024         | 152  | 99577                | 50.000   | ug/l  | 0.00     |
|                              |                |      |                      |          |       |          |
| System Monitoring Compounds  |                |      |                      |          |       |          |
| 33) 1,2-Dichloroethane-d4    | 5.958          | 65   | 129821               | 93.441   | ug/l  | 0.00     |
| Spiked Amount 50.000         | Range 78 - 117 |      | Recovery = 186.880%# |          |       |          |
| 35) Dibromofluoromethane     | 5.391          | 113  | 151294               | 120.373  | ug/l  | 0.00     |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = 240.740%# |          |       |          |
| 50) Toluene-d8               | 8.653          | 98   | 309454               | 75.838   | ug/l  | 0.00     |
| Spiked Amount 50.000         | Range 92 - 112 |      | Recovery = 151.680%# |          |       |          |
| 62) 4-Bromofluorobenzene     | 11.079         | 95   | 244909               | 148.337  | ug/l  | 0.00     |
| Spiked Amount 50.000         | Range 83 - 123 |      | Recovery = 296.680%# |          |       |          |
|                              |                |      |                      |          |       |          |
| Target Compounds             |                |      |                      |          |       | Qvalue   |
| 2) Dichlorodifluoromethane   | 1.166          | 85   | 122657               | 124.483  | ug/l  | 98       |
| 3) Chloromethane             | 1.294          | 50   | 157314               | 147.891  | ug/l  | 97       |
| 4) Vinyl Chloride            | 1.374          | 62   | 167807               | 141.681  | ug/l  | 98       |
| 5) Bromomethane              | 1.617          | 94   | 140122               | 159.542  | ug/l  | 96       |
| 6) Chloroethane              | 1.691          | 64   | 115495               | 119.781  | ug/l  | 100      |
| 7) Trichlorofluoromethane    | 1.886          | 101  | 283240               | 123.217  | ug/l  | 99       |
| 8) Diethyl Ether             | 2.136          | 74   | 133256               | 184.129  | ug/l  | 95       |
| 9) 1,1,2-Trichlorotrifluo... | 2.325          | 101  | 158793               | 131.427  | ug/l  | 98       |
| 10) Methyl Iodide            | 2.453          | 142  | 219915               | 158.998  | ug/l  | 97       |
| 11) Tert butyl alcohol       | 3.093          | 59   | 222821m              | 1119.143 | ug/l  |          |
| 12) 1,1-Dichloroethene       | 2.319          | 96   | 172262               | 153.054  | ug/l  | 99       |
| 13) Acrolein                 | 2.239          | 56   | 253022m              | 1106.369 | ug/l  |          |
| 14) Allyl chloride           | 2.666          | 41   | 303647               | 167.109  | ug/l  | 93       |
| 15) Acrylonitrile            | 3.068          | 53   | 557830               | 990.556  | ug/l  | 98       |
| 16) Acetone                  | 2.392          | 43   | 469301               | 800.072  | ug/l  | 98       |
| 17) Carbon Disulfide         | 2.514          | 76   | 444725               | 143.021  | ug/l  | 100      |
| 18) Methyl Acetate           | 2.709          | 43   | 318234               | 195.990  | ug/l  | 97       |
| 19) Methyl tert-butyl Ether  | 3.117          | 73   | 730692               | 187.198  | ug/l  | 99       |
| 20) Methylene Chloride       | 2.788          | 84   | 224037               | 158.542  | ug/l  | 91       |
| 21) trans-1,2-Dichloroethene | 3.093          | 96   | 205904               | 159.931  | ug/l  | 98       |
| 22) Diisopropyl ether        | 3.763          | 45   | 677264               | 171.174  | ug/l  | 99       |
| 23) Vinyl Acetate            | 3.727          | 43   | 2785251              | 899.311  | ug/l  | 96       |
| 24) 1,1-Dichloroethane       | 3.611          | 63   | 382012               | 168.724  | ug/l  | 99       |
| 25) 2-Butanone               | 4.568          | 43   | 743566               | 919.306  | ug/l  | 99       |
| 26) 2,2-Dichloropropane      | 4.477          | 77   | 275691               | 151.437  | ug/l  | 97       |
| 27) cis-1,2-Dichloroethene   | 4.489          | 96   | 258191               | 176.507  | ug/l  | 96       |
| 28) Bromochloromethane       | 4.903          | 49   | 158318               | 159.137  | ug/l  | 93       |
| 29) Tetrahydrofuran          | 5.013          | 42   | 490232               | 955.173  | ug/l  | 96       |
| 30) Chloroform               | 5.099          | 83   | 423786               | 167.120  | ug/l  | 98       |
| 31) Cyclohexane              | 5.477          | 56   | 261384               | 128.438  | ug/l  | 92       |
| 32) 1,1,1-Trichloroethane    | 5.385          | 97   | 346522               | 152.589  | ug/l  | 98       |
| 36) 1,1-Dichloropropene      | 5.696          | 75   | 267855               | 133.281  | ug/l  | 98       |
| 37) Ethyl Acetate            | 4.721          | 43   | 303375               | 173.027  | ug/l  | 99       |
| 38) Carbon Tetrachloride     | 5.678          | 117  | 297622               | 133.497  | ug/l  | 98       |
| 39) Methylcyclohexane        | 7.385          | 83   | 259458               | 113.151  | ug/l  | 98       |
| 40) Benzene                  | 6.037          | 78   | 859288               | 152.499  | ug/l  | 100      |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033278.D  
 Acq On : 07 Dec 2022 11:42  
 Operator : JC/MD  
 Sample : VSTDICC150  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDICC150

Manual Integrations  
 APPROVED

Reviewed By :John Carlone 12/08/2022  
 Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 12:10:16 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 09:47:15 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|----------|--------|----------|
| 41) Methacrylonitrile         | 4.928  | 41   | 168569   | 170.863  | ug/l   | 96       |
| 42) 1,2-Dichloroethane        | 6.086  | 62   | 345058   | 152.092  | ug/l   | 97       |
| 43) Isopropyl Acetate         | 6.342  | 43   | 507740   | 175.101  | ug/l   | 97       |
| 44) Trichloroethene           | 7.129  | 130  | 232626   | 147.125  | ug/l   | 99       |
| 45) 1,2-Dichloropropane       | 7.434  | 63   | 226079   | 162.353  | ug/l   | 100      |
| 46) Dibromomethane            | 7.580  | 93   | 177123   | 163.014  | ug/l   | 98       |
| 47) Bromodichloromethane      | 7.824  | 83   | 344310   | 163.993  | ug/l   | 98       |
| 48) Methyl methacrylate       | 7.696  | 41   | 252825   | 169.388  | ug/l   | 92       |
| 49) 1,4-Dioxane               | 7.720  | 88   | 115303   | 4196.625 | ug/l   | 96       |
| 51) 4-Methyl-2-Pentanone      | 8.580  | 43   | 1480794  | 827.584  | ug/l   | 95       |
| 52) Toluene                   | 8.720  | 92   | 554420   | 149.557  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene     | 8.976  | 75   | 371247   | 180.152  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene   | 8.366  | 75   | 392302   | 173.324  | ug/l   | 90       |
| 55) 1,1,2-Trichloroethane     | 9.153  | 97   | 246911   | 163.595  | ug/l   | 99       |
| 56) Ethyl methacrylate        | 9.116  | 69   | 372607   | 179.181  | ug/l # | 90       |
| 57) 1,3-Dichloropropane       | 9.311  | 76   | 398683   | 163.628  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether | 8.244  | 63   | 863389   | 874.338  | ug/l   | 98       |
| 59) 2-Hexanone                | 9.439  | 43   | 1087532  | 822.777  | ug/l   | 93       |
| 60) Dibromochloromethane      | 9.525  | 129  | 283948   | 174.743  | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 9.610  | 107  | 272145   | 170.833  | ug/l   | 99       |
| 64) Tetrachloroethene         | 9.275  | 164  | 184932   | 125.423  | ug/l   | 97       |
| 65) Chlorobenzene             | 10.079 | 112  | 615825   | 148.283  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane | 10.165 | 131  | 244812   | 160.880  | ug/l   | 99       |
| 67) Ethyl Benzene             | 10.195 | 91   | 1049730  | 142.491  | ug/l   | 99       |
| 68) m/p-Xylenes               | 10.305 | 106  | 824272   | 285.726  | ug/l   | 96       |
| 69) o-Xylene                  | 10.646 | 106  | 414501   | 148.498  | ug/l   | 96       |
| 70) Styrene                   | 10.659 | 104  | 710697   | 155.632  | ug/l   | 98       |
| 71) Bromoform                 | 10.799 | 173  | 208713   | 178.889  | ug/l # | 100      |
| 73) Isopropylbenzene          | 10.963 | 105  | 996208   | 140.002  | ug/l   | 99       |
| 74) N-amyl acetate            | 10.848 | 43   | 414776   | 171.353  | ug/l   | 95       |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 352906   | 164.323  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 11.244 | 75   | 309515m  | 164.127  | ug/l   |          |
| 77) Bromobenzene              | 11.201 | 156  | 272423   | 155.671  | ug/l   | 100      |
| 78) n-propylbenzene           | 11.305 | 91   | 1114633  | 137.006  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 11.366 | 91   | 703127   | 142.298  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 849987   | 142.194  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75   | 113174   | 195.069  | ug/l   | 90       |
| 82) 4-Chlorotoluene           | 11.457 | 91   | 831705   | 143.634  | ug/l   | 98       |
| 83) tert-Butylbenzene         | 11.719 | 119  | 827149   | 139.011  | ug/l   | 96       |
| 84) 1,2,4-Trimethylbenzene    | 11.756 | 105  | 854067   | 143.289  | ug/l   | 99       |
| 85) sec-Butylbenzene          | 11.890 | 105  | 905800   | 127.242  | ug/l   | 99       |
| 86) p-Isopropyltoluene        | 12.012 | 119  | 797245   | 132.185  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 11.969 | 146  | 485166   | 147.810  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 12.042 | 146  | 489915   | 145.739  | ug/l   | 99       |
| 89) n-Butylbenzene            | 12.335 | 91   | 657935   | 126.627  | ug/l   | 98       |
| 90) Hexachloroethane          | 12.542 | 117  | 143263   | 144.580  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene       | 12.335 | 146  | 484137   | 151.625  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75   | 82029    | 191.433  | ug/l   | 92       |
| 93) 1,2,4-Trichlorobenzene    | 13.591 | 180  | 298296   | 151.555  | ug/l   | 98       |
| 94) Hexachlorobutadiene       | 13.725 | 225  | 93761    | 107.977  | ug/l   | 99       |
| 95) Naphthalene               | 13.774 | 128  | 1100373  | 172.814  | ug/l   | 100      |
| 96) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 298441   | 151.203  | ug/l   | 100      |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033278.D  
Acq On : 07 Dec 2022 11:42  
Operator : JC/MD  
Sample : VSTDICC150  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC150

Manual Integrations  
APPROVED

Reviewed By : John Carlone 12/08/2022  
Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 12:10:16 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 09:47:15 2022  
Response via : Initial Calibration

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

-----

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

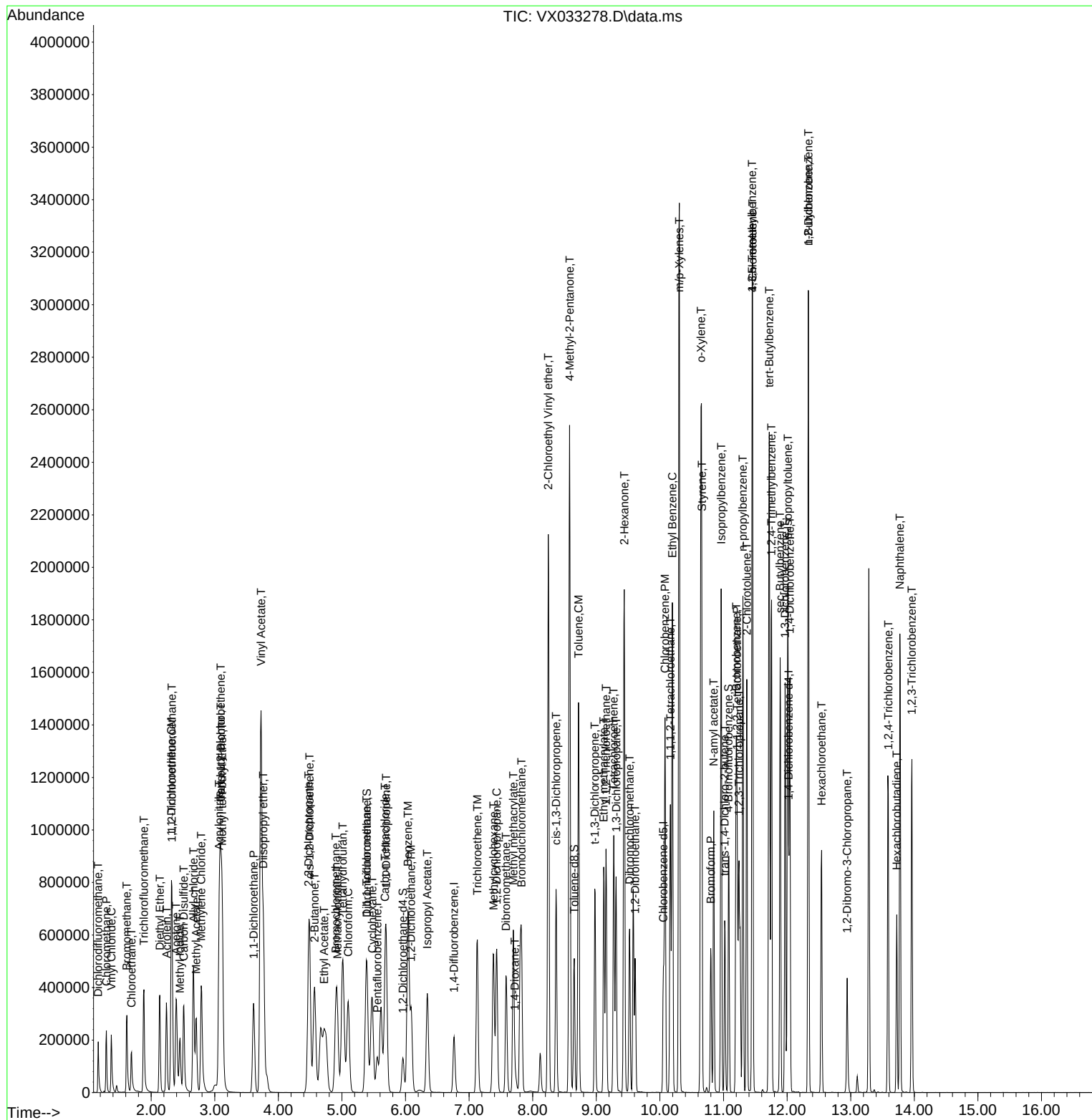
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033278.D  
Acq On : 07 Dec 2022 11:42  
Operator : JC/MD  
Sample : VSTDICC150  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 7 Sample Multiplier: 1

**Instrument :**  
MSVOA\_X  
**ClientSampleId :**  
VSTDICC150

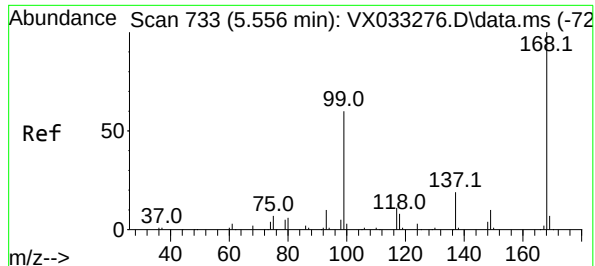
## Manual Integrations APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 12:10:16 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 09:47:15 2022  
Response via : Initial Calibration

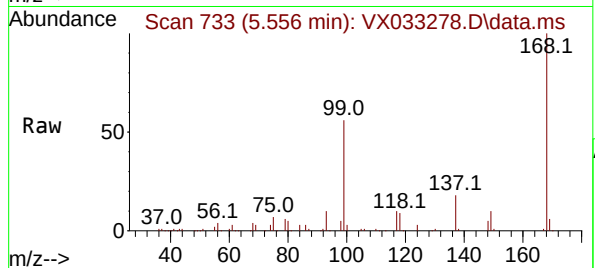






#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.556 min Scan# 733  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

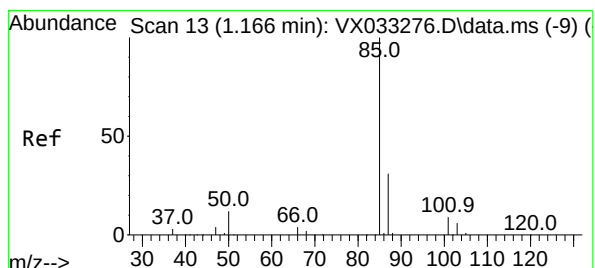
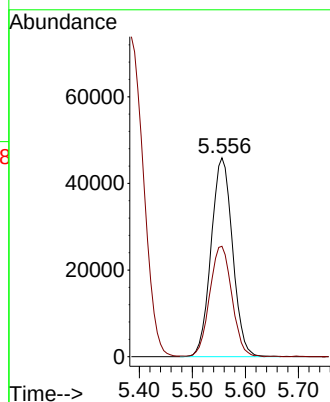
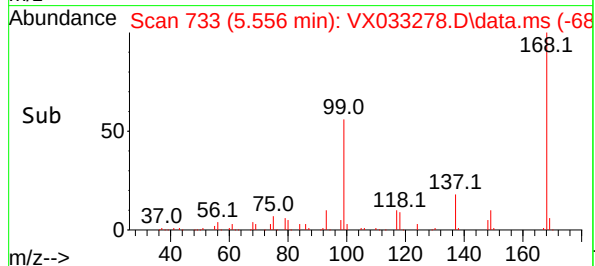
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC150



Tgt Ion:168 Resp: 128972  
Ion Ratio Lower Upper  
168 100  
99 55.4 46.1 69.1

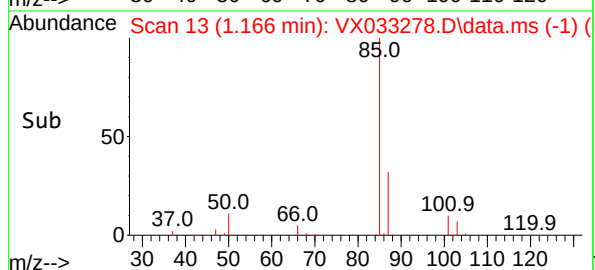
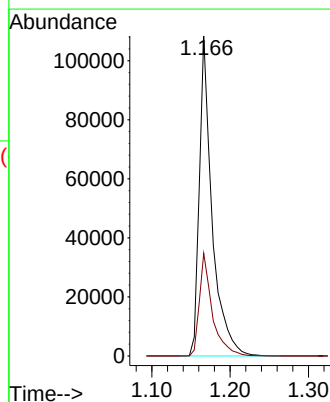
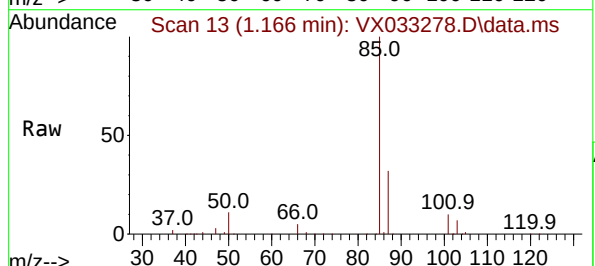
Manual Integrations  
APPROVED

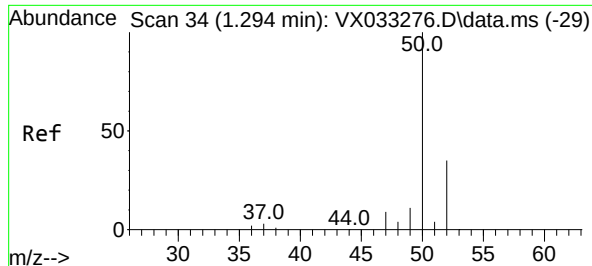
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#2  
Dichlorodifluoromethane  
Concen: 124.483 ug/l  
RT: 1.166 min Scan# 13  
Delta R.T. 0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Tgt Ion: 85 Resp: 122657  
Ion Ratio Lower Upper  
85 100  
87 32.1 15.6 46.7





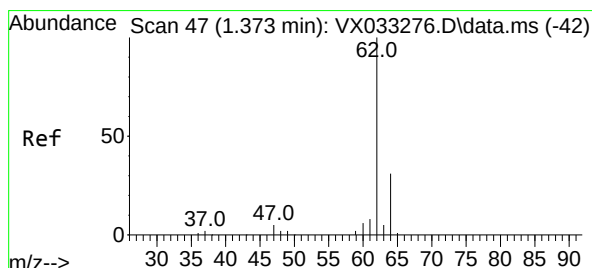
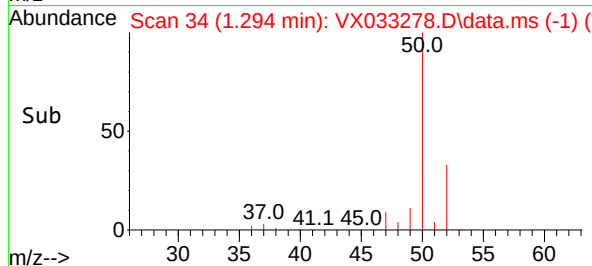
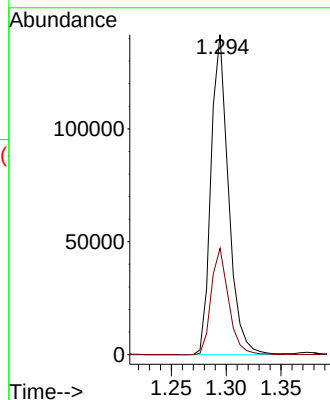
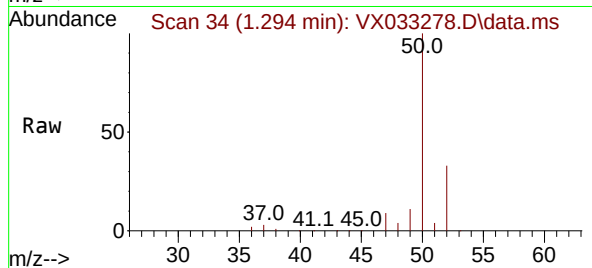
#3  
Chloromethane  
Concen: 147.891 ug/l  
RT: 1.294 min Scan# 34  
Delta R.T. 0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC150

Tgt Ion: 50 Resp: 157314  
Ion Ratio Lower Upper  
50 100  
52 33.2 25.4 38.2

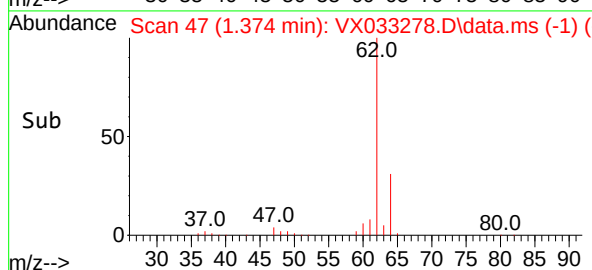
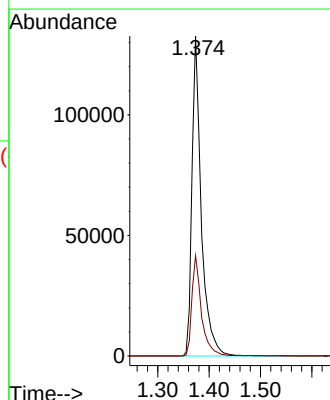
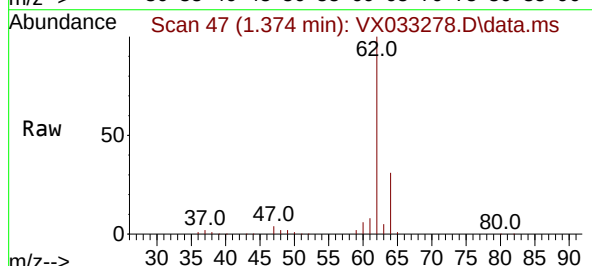
Manual Integrations  
APPROVED

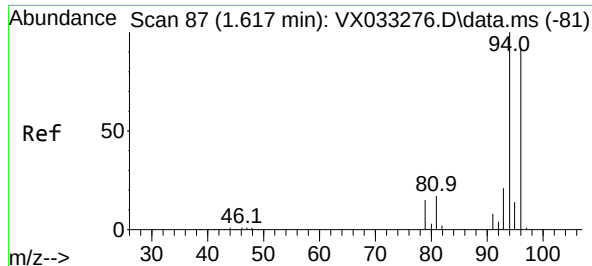
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#4  
Vinyl Chloride  
Concen: 141.681 ug/l  
RT: 1.374 min Scan# 47  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Tgt Ion: 62 Resp: 167807  
Ion Ratio Lower Upper  
62 100  
64 31.3 25.8 38.6





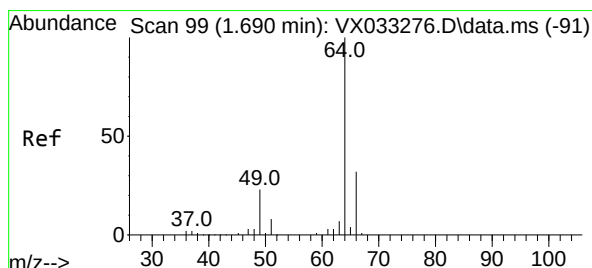
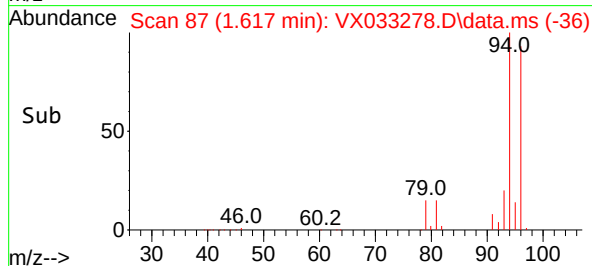
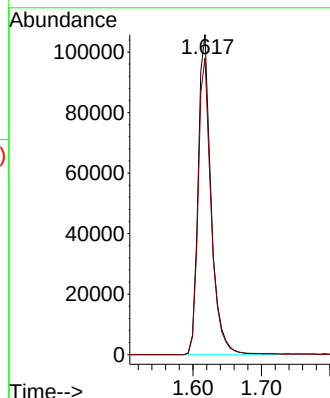
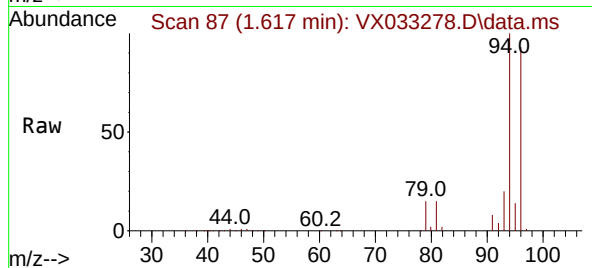
#5  
Bromomethane  
Concen: 159.542 ug/l  
RT: 1.617 min Scan# 81  
Delta R.T. 0.012 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC150

Tgt Ion: 94 Resp: 14012  
Ion Ratio Lower Upper  
94 100  
96 92.6 77.6 116.4

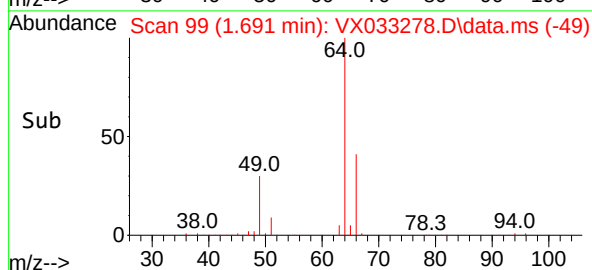
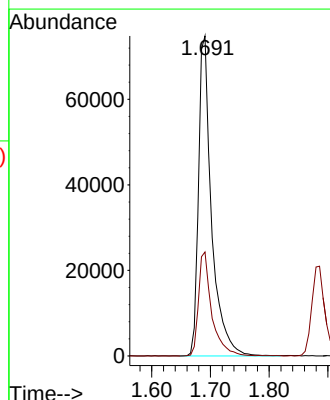
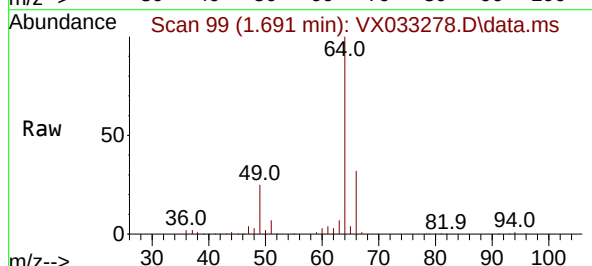
Manual Integrations  
APPROVED

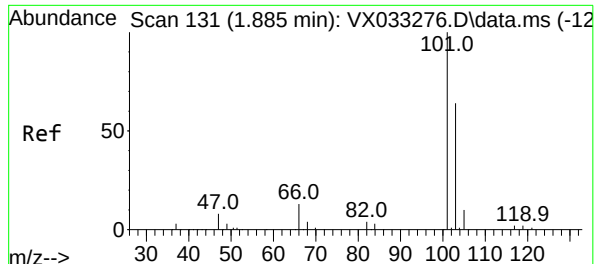
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#6  
Chloroethane  
Concen: 119.781 ug/l  
RT: 1.691 min Scan# 99  
Delta R.T. 0.006 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

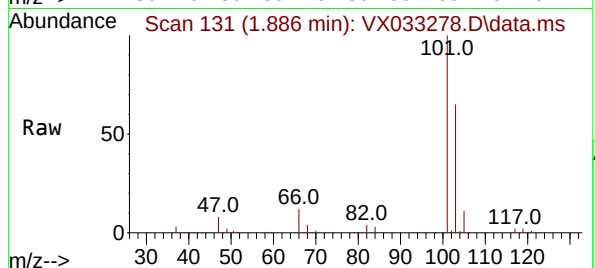
Tgt Ion: 64 Resp: 115495  
Ion Ratio Lower Upper  
64 100  
66 32.5 26.0 39.0





#7  
Trichlorofluoromethane  
Concen: 123.217 ug/l  
RT: 1.886 min Scan# 131  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

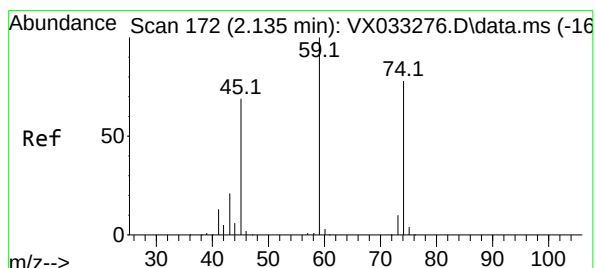
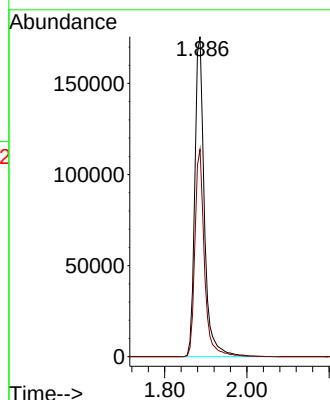
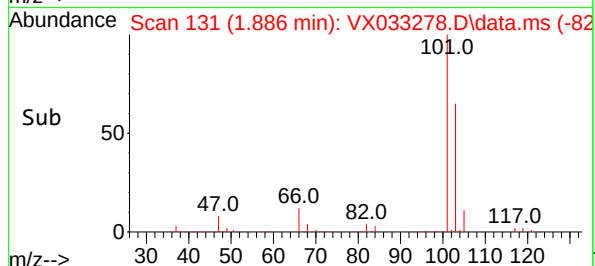
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC150



Tgt Ion:101 Resp: 283240  
Ion Ratio Lower Upper  
101 100  
103 64.8 51.4 77.2

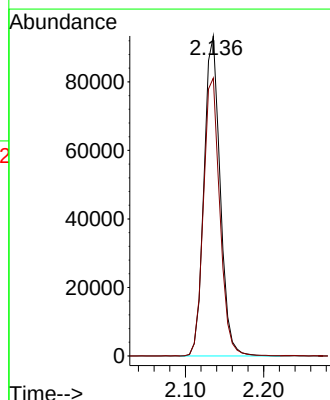
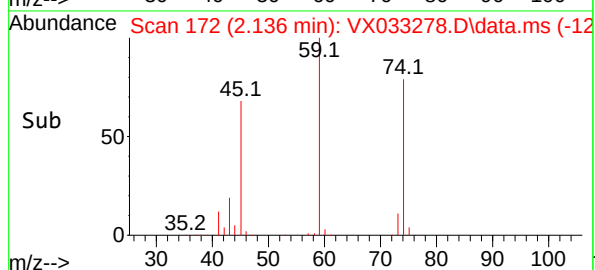
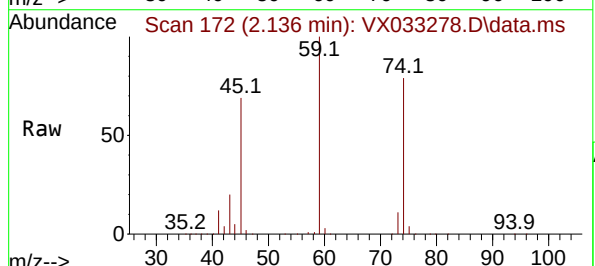
Manual Integrations  
APPROVED

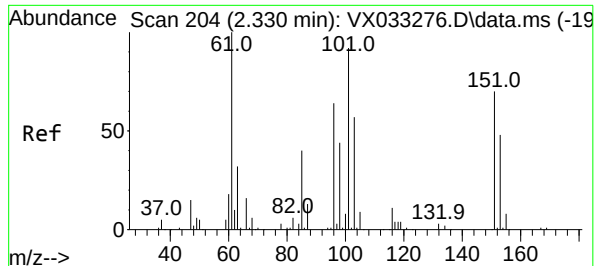
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#8  
Diethyl Ether  
Concen: 184.129 ug/l  
RT: 2.136 min Scan# 172  
Delta R.T. 0.006 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Tgt Ion: 74 Resp: 133256  
Ion Ratio Lower Upper  
74 100  
45 88.6 46.6 139.7





#9

1,1,2-Trichlorotrifluoroethane

Concen: 131.427 ug/l

RT: 2.325 min Scan# 204

Delta R.T. -0.006 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion:101 Resp: 15879

Ion Ratio Lower Upper

101 100

85 43.6 37.0 55.4

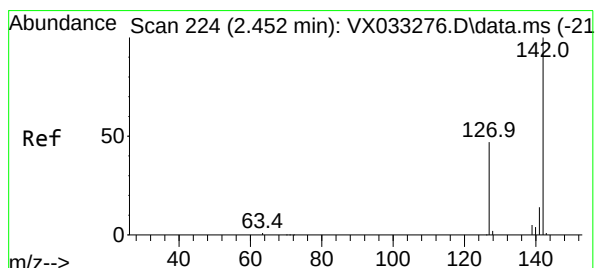
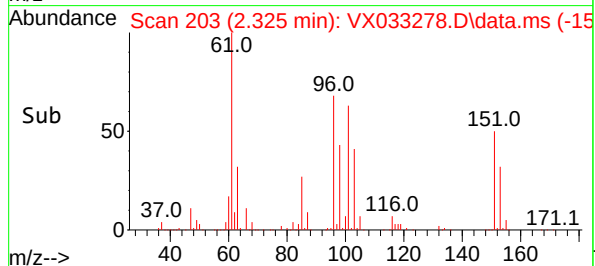
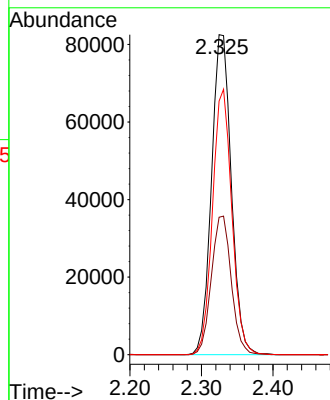
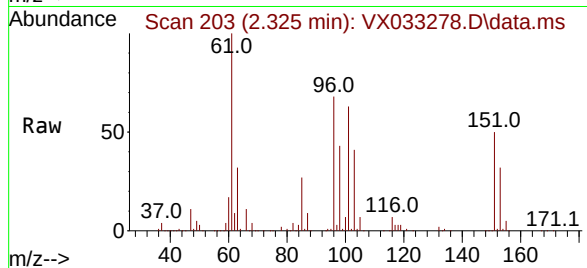
151 81.0 64.4 96.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#10

Methyl Iodide

Concen: 158.998 ug/l

RT: 2.453 min Scan# 224

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

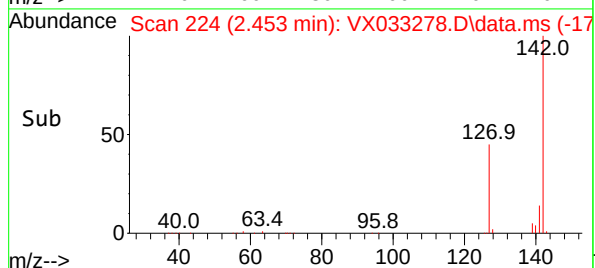
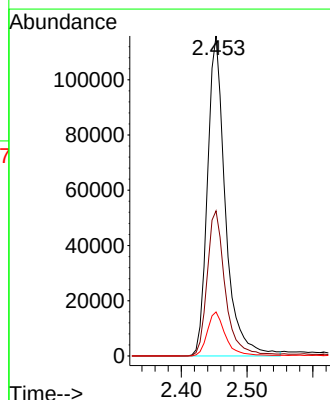
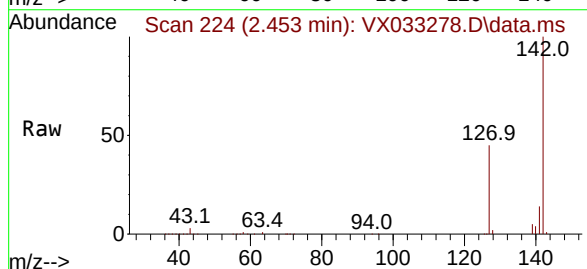
Tgt Ion:142 Resp: 219915

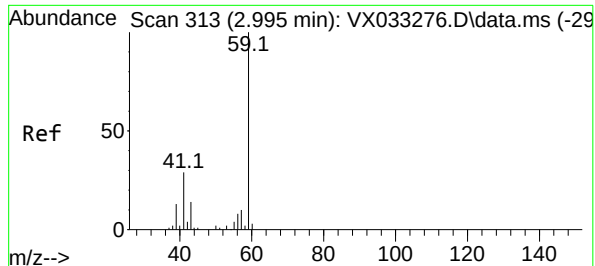
Ion Ratio Lower Upper

142 100

127 46.0 38.6 57.8

141 14.1 11.4 17.2





#11

Tert butyl alcohol

Concen: 1119.143 ug/l m

RT: 3.093 min Scan# 313

Delta R.T. 0.128 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 59 Resp: 22282

Ion Ratio Lower Upper

59 100

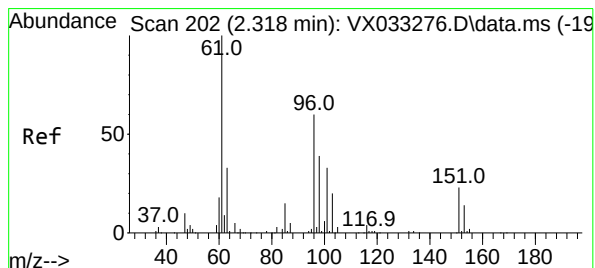
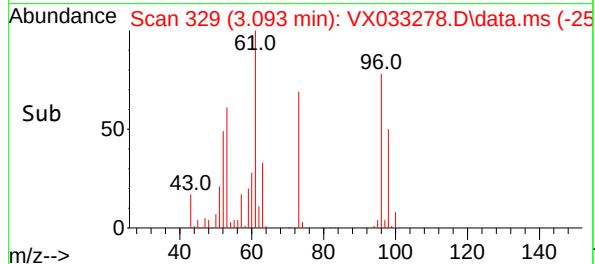
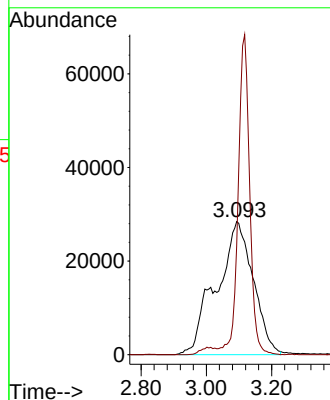
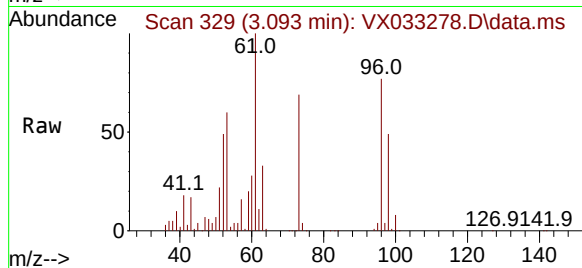
57 0.0 8.2 12.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#12

1,1-Dichloroethene

Concen: 153.054 ug/l

RT: 2.319 min Scan# 202

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

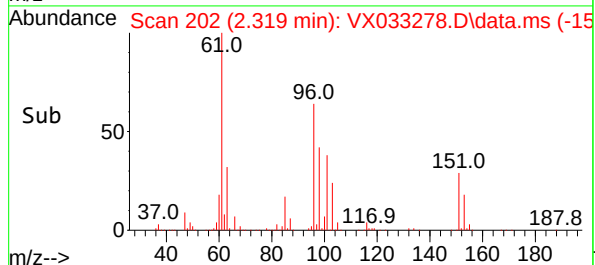
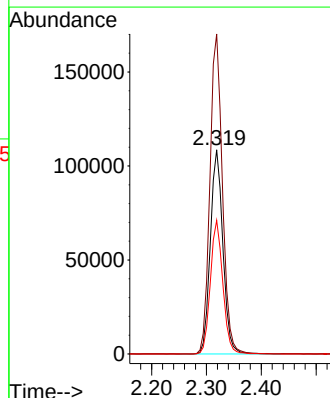
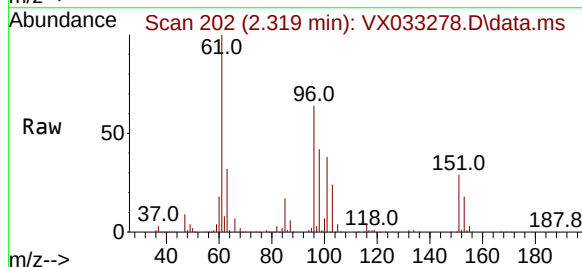
Tgt Ion: 96 Resp: 172262

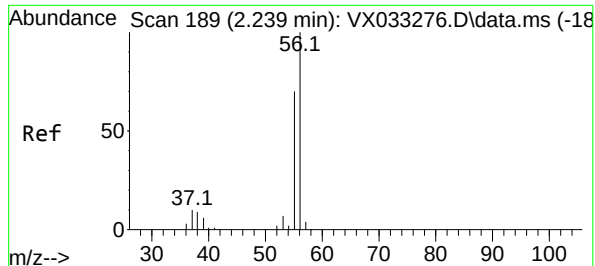
Ion Ratio Lower Upper

96 100

61 156.8 125.1 187.7

98 65.5 50.6 76.0





#13

Acrolein

Concen: 1106.369 ug/l m

RT: 2.239 min Scan# 189

Delta R.T. 0.006 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 56 Resp: 25302

Ion Ratio Lower Upper

56 100

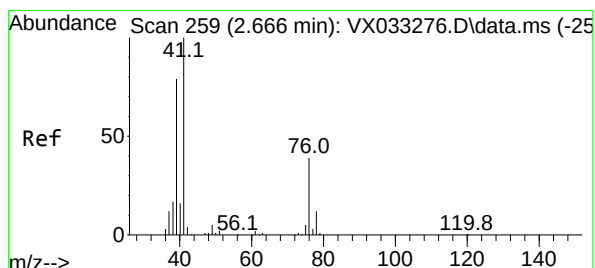
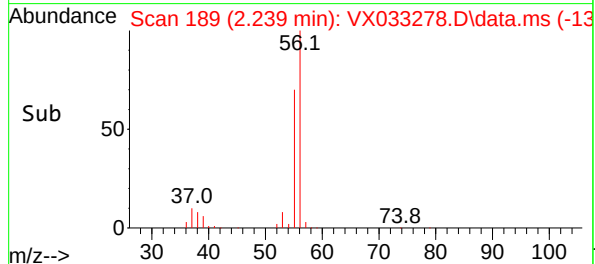
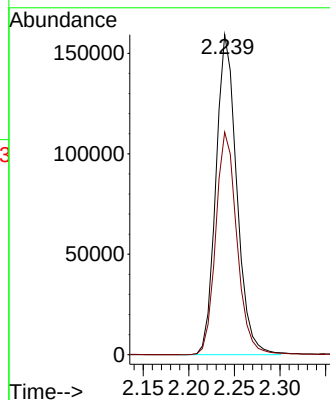
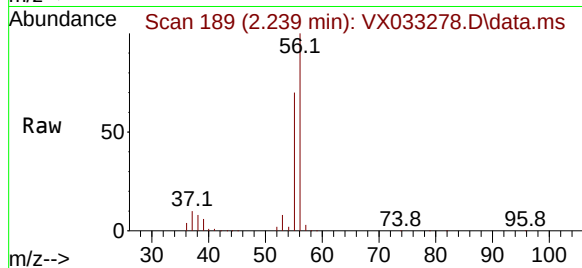
55 70.8 56.9 85.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#14

Allyl chloride

Concen: 167.109 ug/l

RT: 2.666 min Scan# 259

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

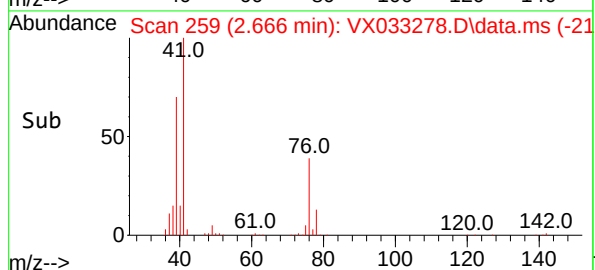
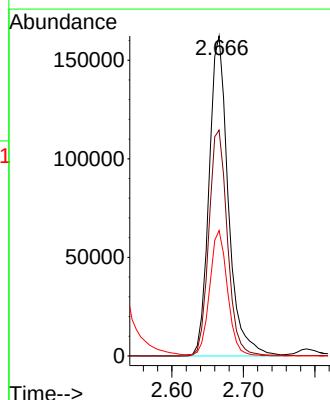
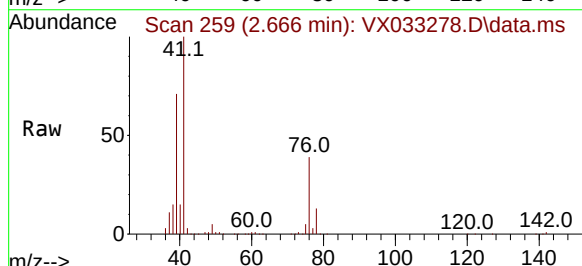
Tgt Ion: 41 Resp: 303647

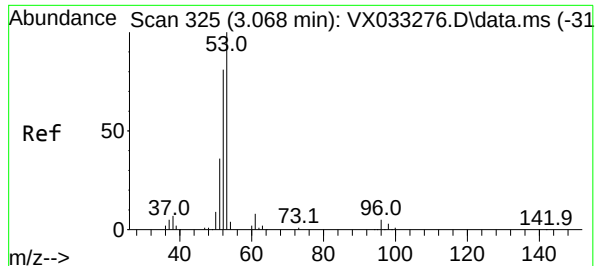
Ion Ratio Lower Upper

41 100

39 68.1 61.4 92.2

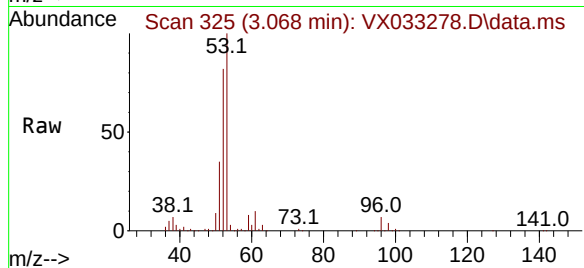
76 36.5 29.2 43.8





#15  
Acrylonitrile  
Concen: 990.556 ug/l  
RT: 3.068 min Scan# 31  
Delta R.T. 0.006 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

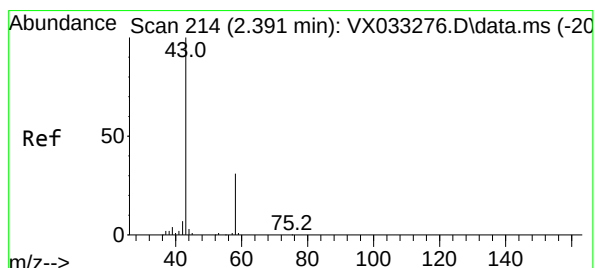
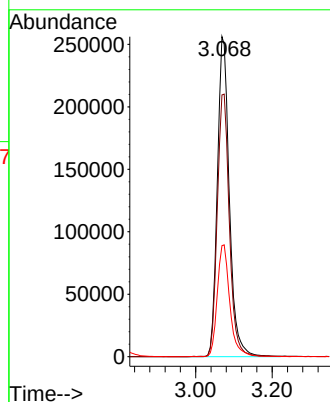
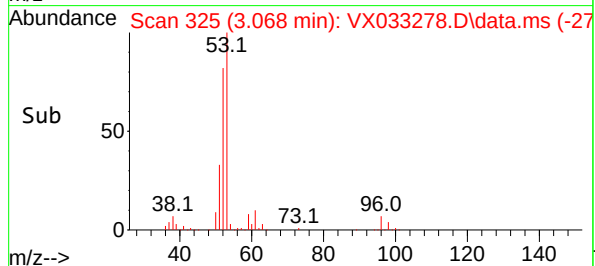
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC150



Tgt Ion: 53 Resp: 557830  
Ion Ratio Lower Upper  
53 100  
52 82.8 67.4 101.0  
51 36.6 30.3 45.5

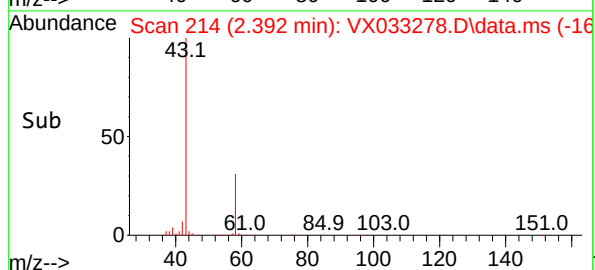
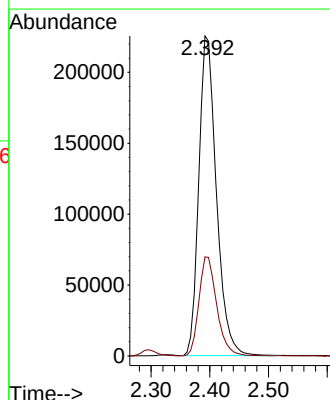
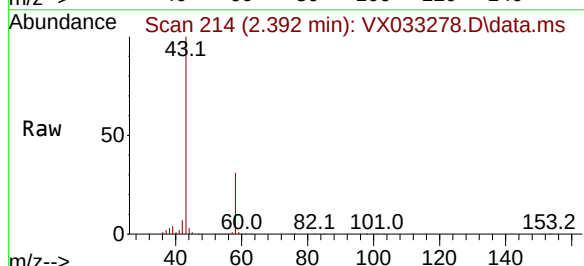
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

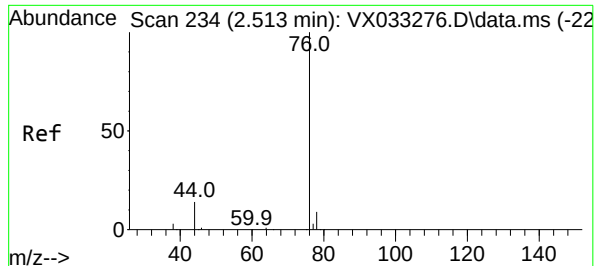


#16  
Acetone  
Concen: 800.072 ug/l  
RT: 2.392 min Scan# 214  
Delta R.T. 0.012 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Tgt Ion: 43 Resp: 469301  
Ion Ratio Lower Upper  
43 100  
58 30.9 23.8 35.8







#17

Carbon Disulfide

Concen: 143.021 ug/l

RT: 2.514 min Scan# 21

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 76 Resp: 444725

Ion Ratio Lower Upper

76 100

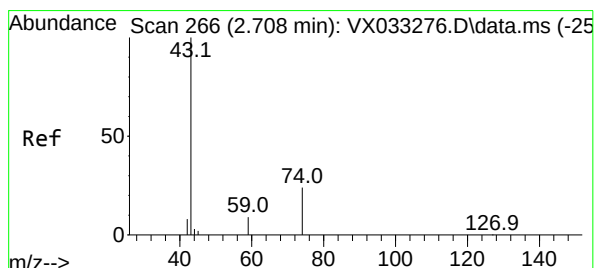
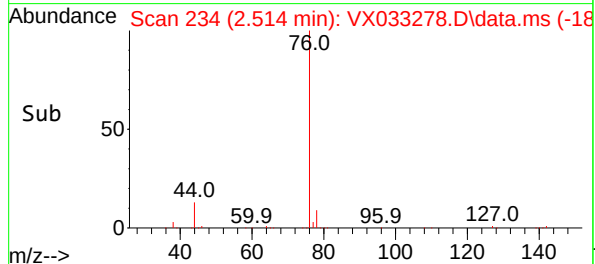
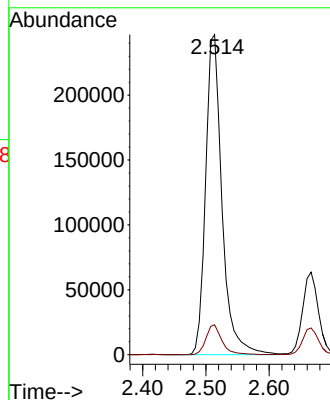
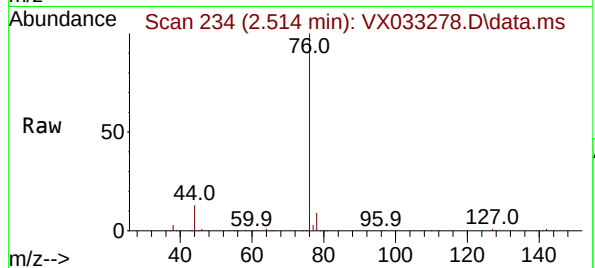
78 9.3 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#18

Methyl Acetate

Concen: 195.990 ug/l

RT: 2.709 min Scan# 266

Delta R.T. 0.006 min

Lab File: VX033278.D

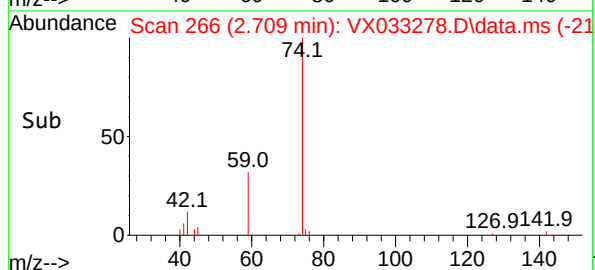
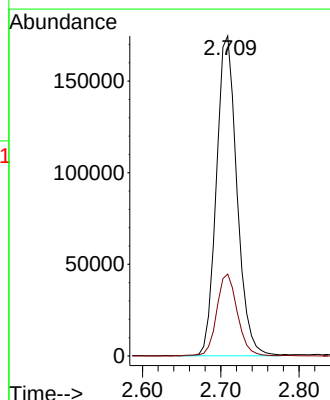
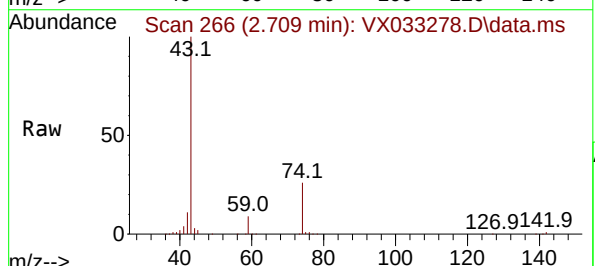
Acq: 07 Dec 2022 11:42

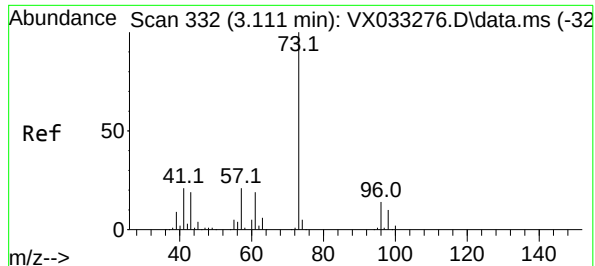
Tgt Ion: 43 Resp: 318234

Ion Ratio Lower Upper

43 100

74 25.8 19.4 29.0





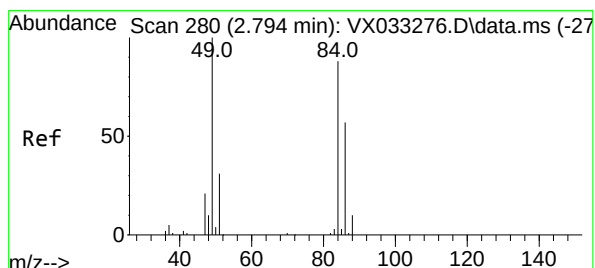
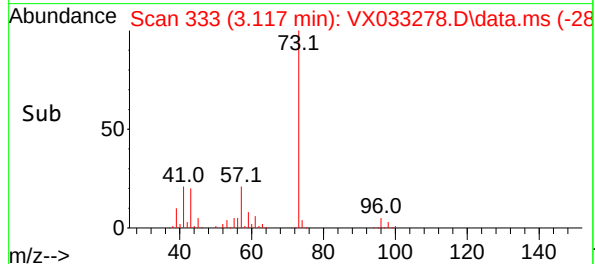
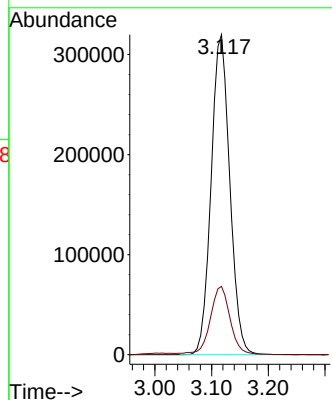
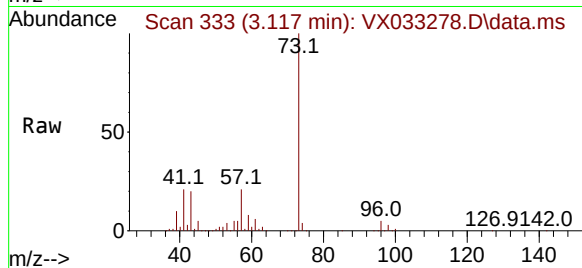
#19  
Methyl tert-butyl Ether  
Concen: 187.198 ug/l  
RT: 3.117 min Scan# 311  
Delta R.T. 0.006 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC150

Tgt Ion: 73 Resp: 730692  
Ion Ratio Lower Upper  
73 100  
57 21.3 16.6 25.0

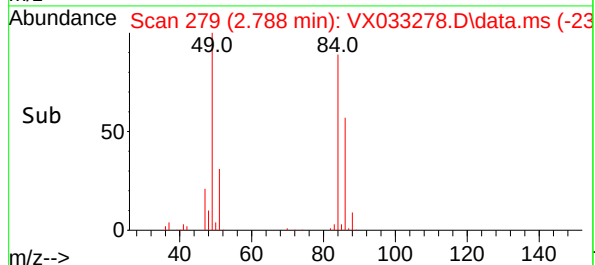
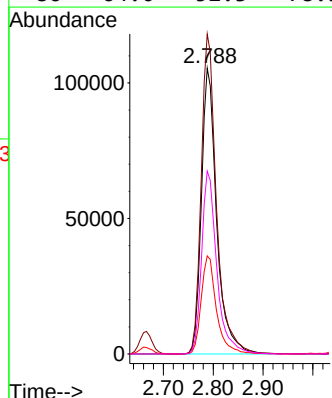
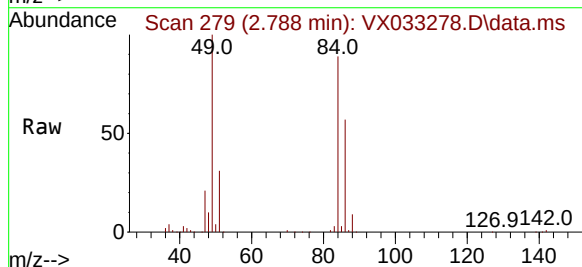
Manual Integrations  
APPROVED

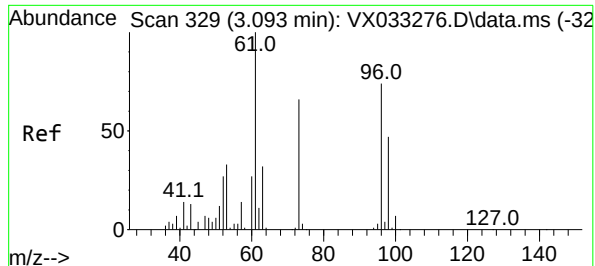
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#20  
Methylene Chloride  
Concen: 158.542 ug/l  
RT: 2.788 min Scan# 279  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

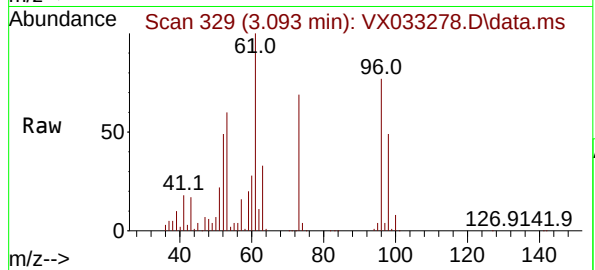
Tgt Ion: 84 Resp: 224037  
Ion Ratio Lower Upper  
84 100  
49 112.0 101.0 151.6  
51 34.3 31.1 46.7  
86 64.0 52.3 78.5





#21  
trans-1,2-Dichloroethene  
Concen: 159.931 ug/l  
RT: 3.093 min Scan# 31  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

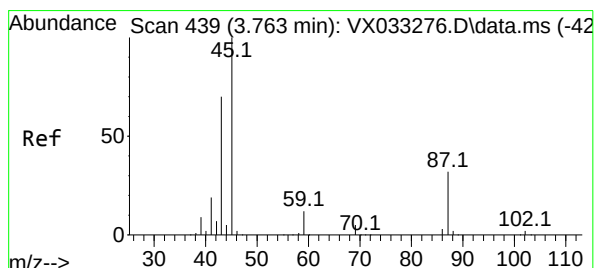
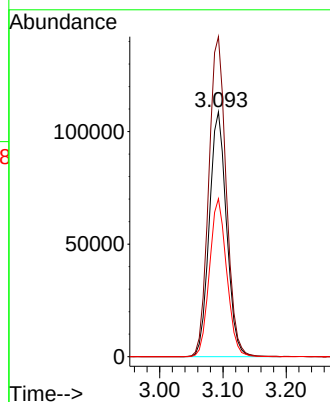
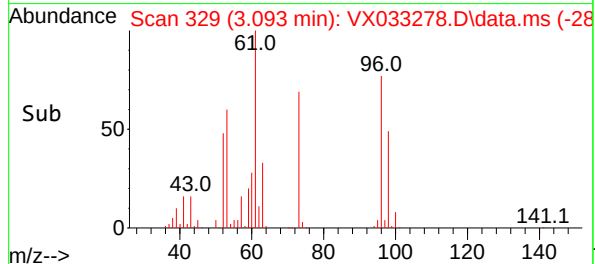
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC150



Tgt Ion: 96 Resp: 205904  
Ion Ratio Lower Upper  
96 100  
61 130.7 106.6 160.0  
98 64.5 51.0 76.6

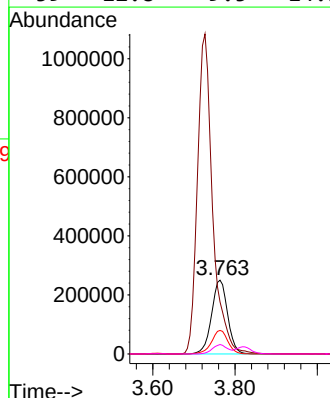
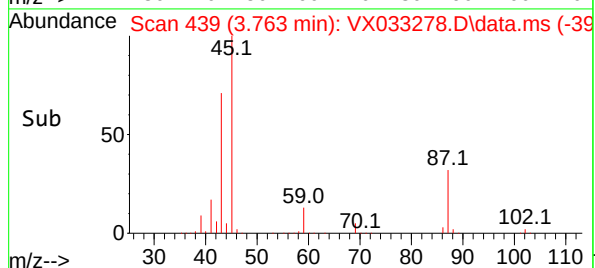
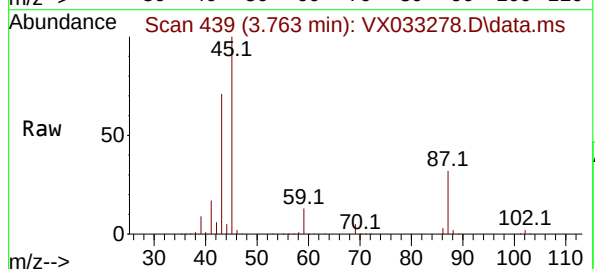
Manual Integrations  
APPROVED

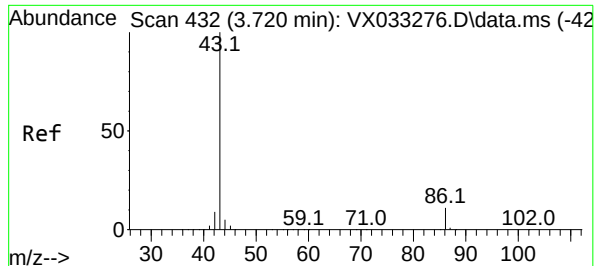
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#22  
Diisopropyl ether  
Concen: 171.174 ug/l  
RT: 3.763 min Scan# 439  
Delta R.T. 0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

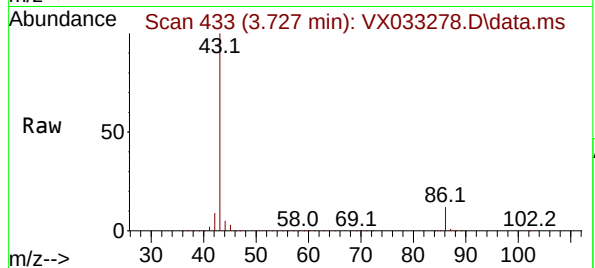
Tgt Ion: 45 Resp: 677264  
Ion Ratio Lower Upper  
45 100  
43 70.6 56.4 84.6  
87 31.9 24.4 36.6  
59 12.8 9.5 14.3





#23  
Vinyl Acetate  
Concen: 899.311 ug/l  
RT: 3.727 min Scan# 41  
Delta R.T. 0.006 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

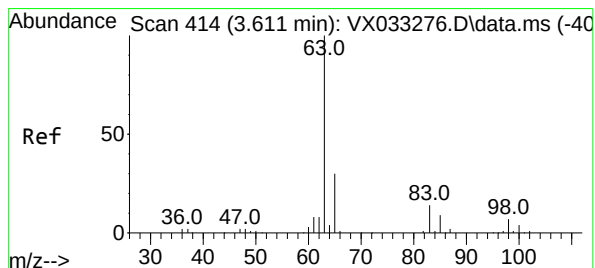
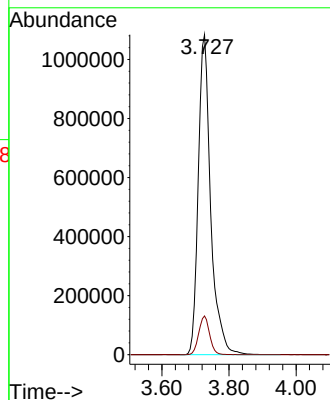
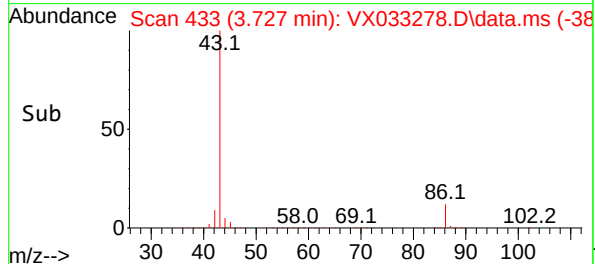
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC150



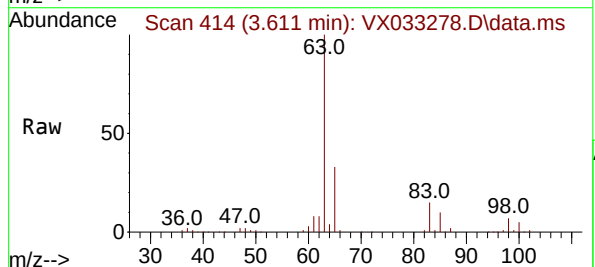
Tgt Ion: 43 Resp: 278525  
Ion Ratio Lower Upper  
43 100  
86 12.1 8.6 12.8

Manual Integrations  
APPROVED

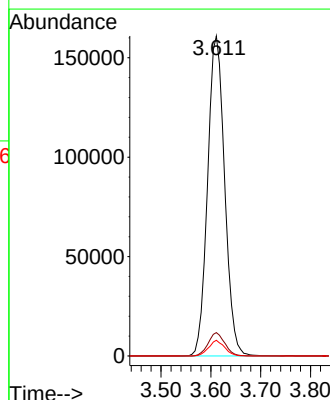
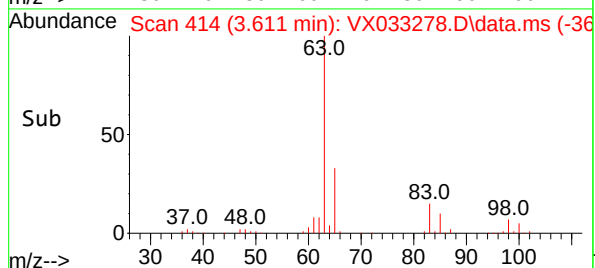
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

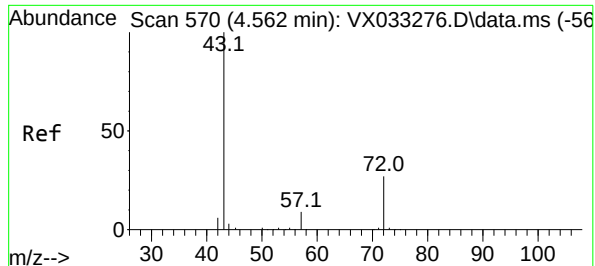


#24  
1,1-Dichloroethane  
Concen: 168.724 ug/l  
RT: 3.611 min Scan# 414  
Delta R.T. 0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42



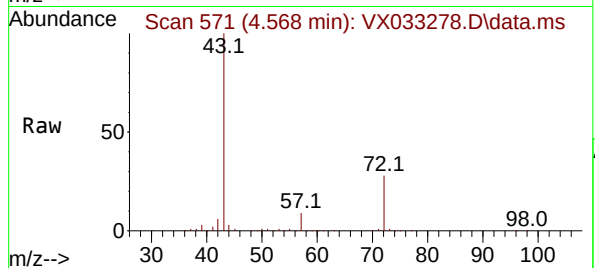
Tgt Ion: 63 Resp: 382012  
Ion Ratio Lower Upper  
63 100  
98 7.3 3.5 10.4  
100 4.9 2.3 6.8





#25  
2-Butanone  
Concen: 919.306 ug/l  
RT: 4.568 min Scan# 570  
Delta R.T. 0.012 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

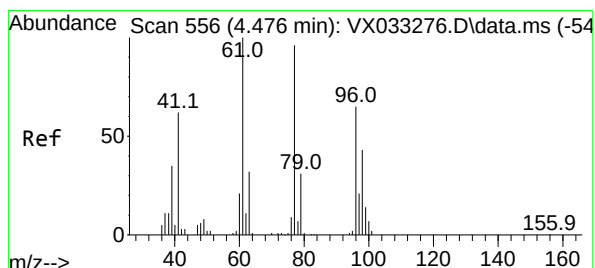
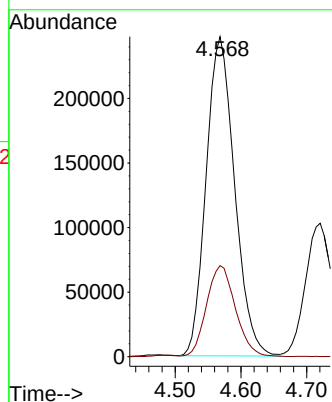
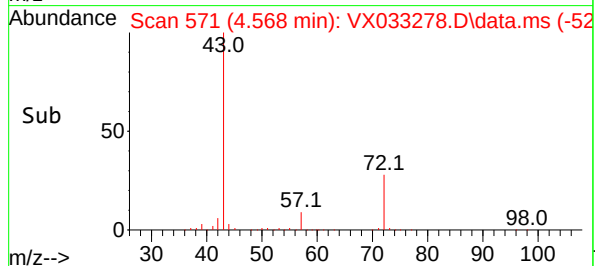
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC150



Tgt Ion: 43 Resp: 743560  
Ion Ratio Lower Upper  
43 100  
72 28.4 22.2 33.2

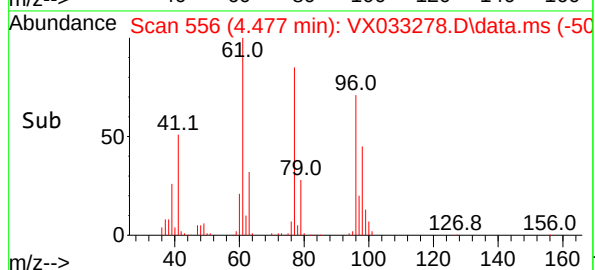
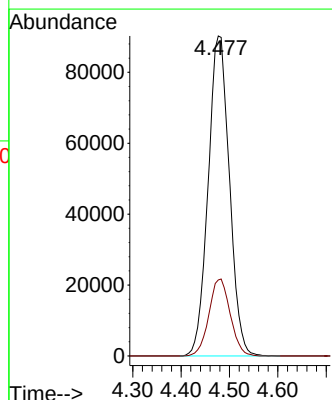
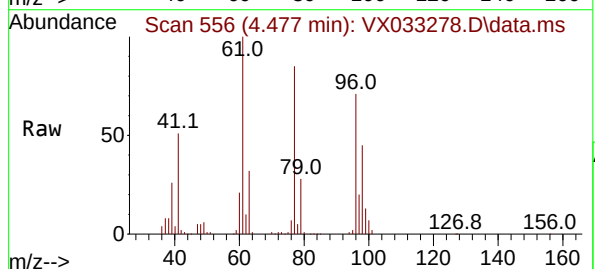
Manual Integrations  
APPROVED

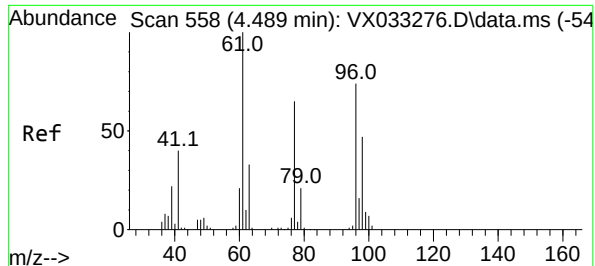
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#26  
2,2-Dichloropropane  
Concen: 151.437 ug/l  
RT: 4.477 min Scan# 556  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Tgt Ion: 77 Resp: 275691  
Ion Ratio Lower Upper  
77 100  
97 24.1 11.4 34.1





#27

cis-1,2-Dichloroethene

Concen: 176.507 ug/l

RT: 4.489 min Scan# 558

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 96 Resp: 25819

Ion Ratio Lower Upper

96 100

61 135.5 0.0 286.0

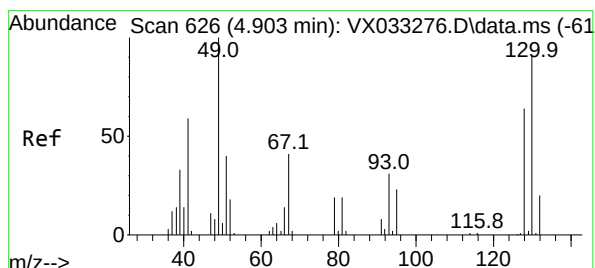
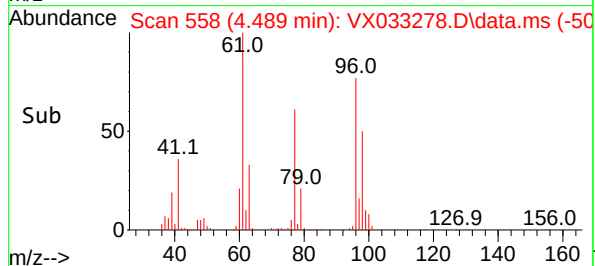
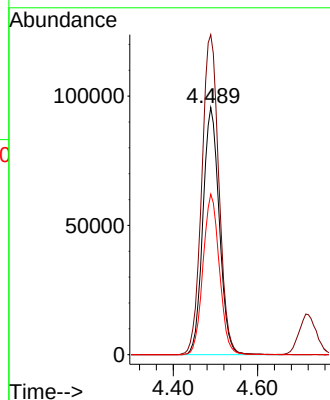
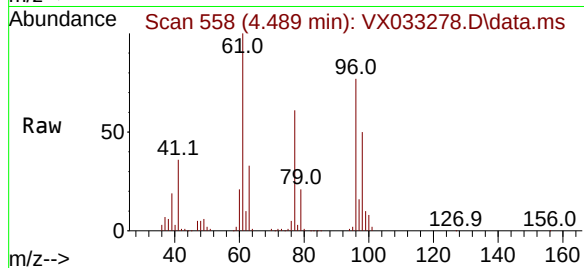
98 65.0 0.0 129.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#28

Bromochloromethane

Concen: 159.137 ug/l

RT: 4.903 min Scan# 626

Delta R.T. -0.001 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

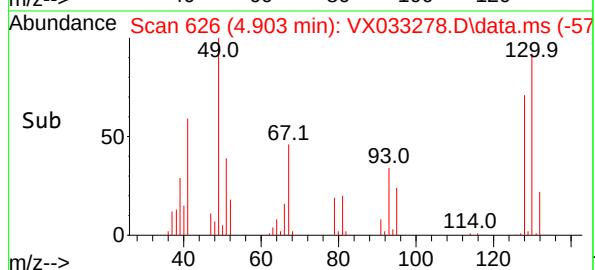
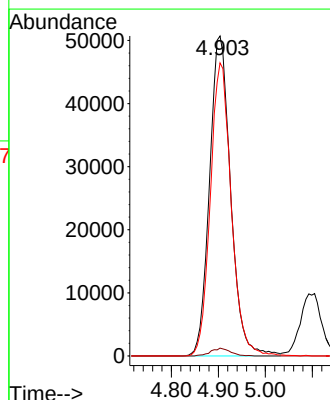
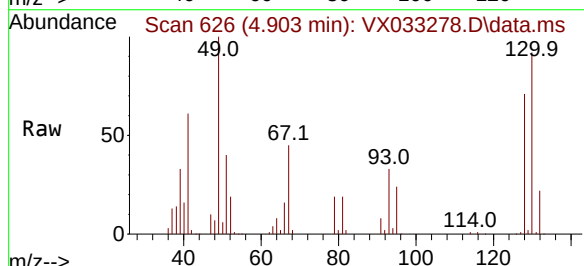
Tgt Ion: 49 Resp: 158318

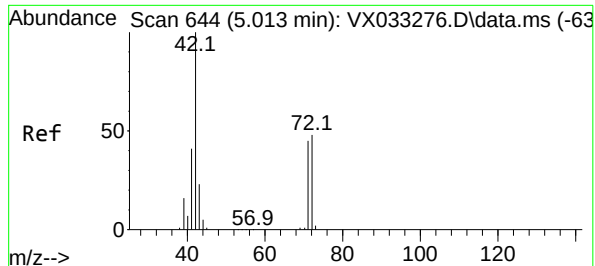
Ion Ratio Lower Upper

49 100

129 2.3 0.0 3.8

130 90.7 67.5 101.3





#29

Tetrahydrofuran

Concen: 955.173 ug/l

RT: 5.013 min Scan# 644

Delta R.T. 0.012 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 42 Resp: 49023

Ion Ratio Lower Upper

42 100

72 49.3 37.6 56.4

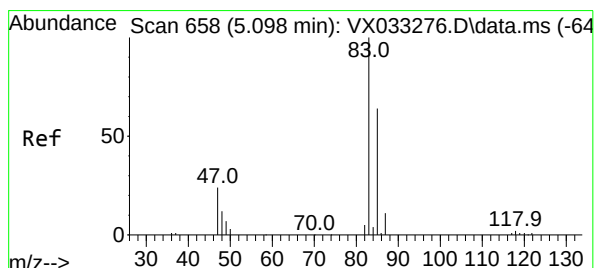
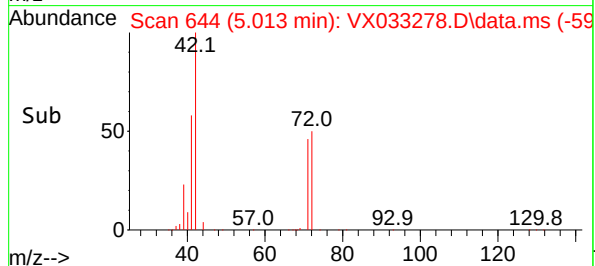
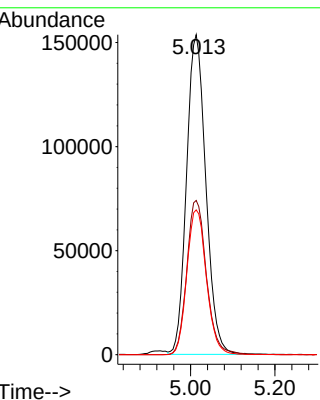
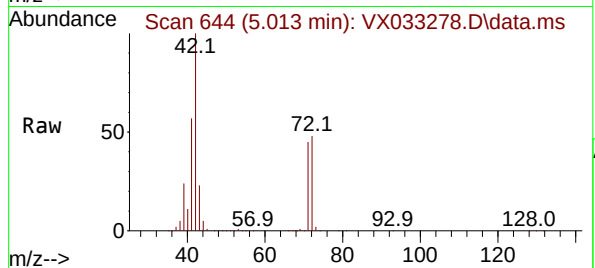
71 45.9 34.7 52.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#30

Chloroform

Concen: 167.120 ug/l

RT: 5.099 min Scan# 658

Delta R.T. -0.000 min

Lab File: VX033278.D

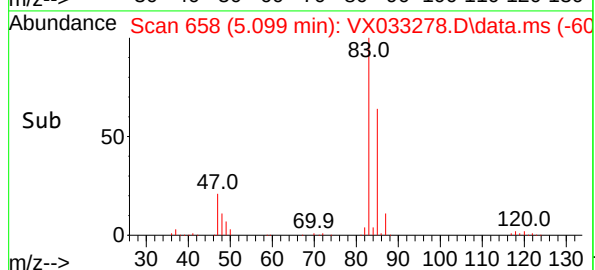
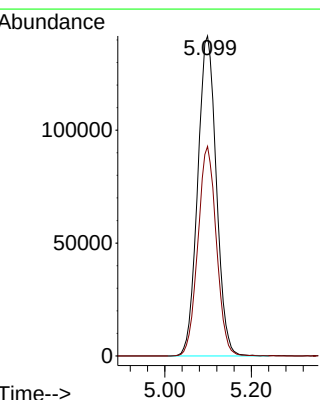
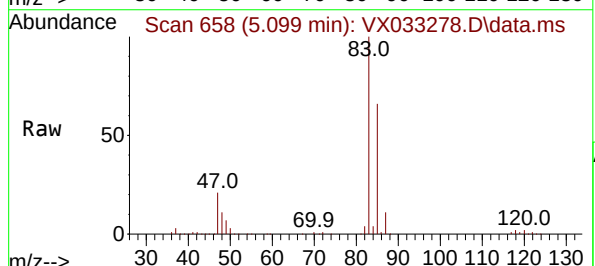
Acq: 07 Dec 2022 11:42

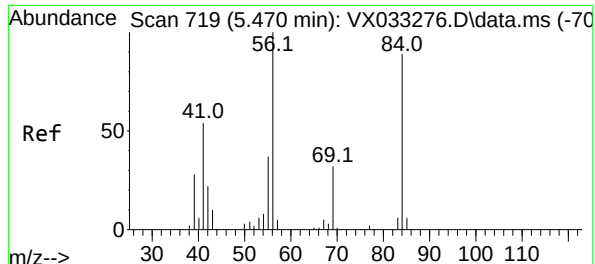
Tgt Ion: 83 Resp: 423786

Ion Ratio Lower Upper

83 100

85 65.5 51.1 76.7





#31

Cyclohexane

Concen: 128.438 ug/l

RT: 5.477 min Scan# 719

Delta R.T. 0.007 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 56 Resp: 261384

Ion Ratio Lower Upper

56 100

69 32.7 24.1 36.1

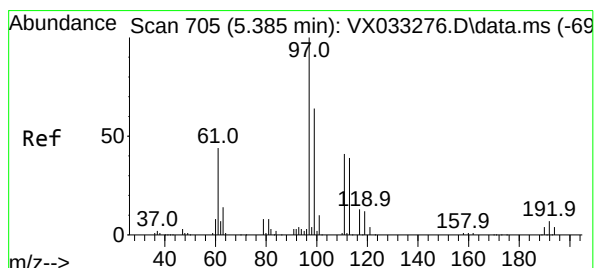
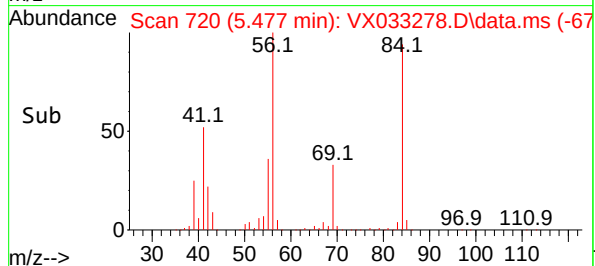
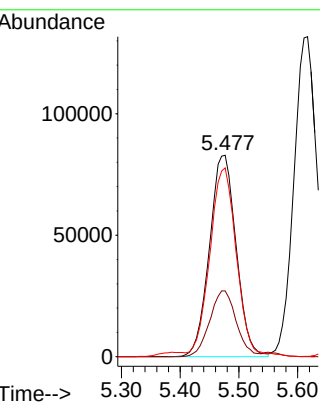
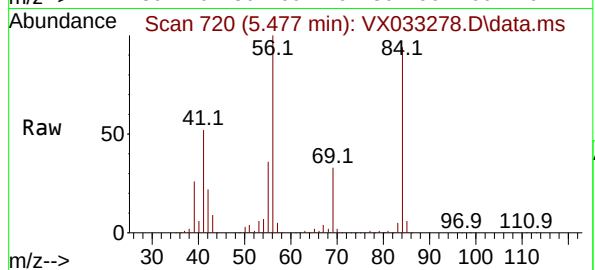
84 92.3 66.9 100.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#32

1,1,1-Trichloroethane

Concen: 152.589 ug/l

RT: 5.385 min Scan# 705

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

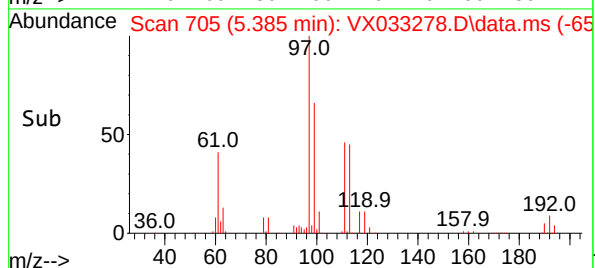
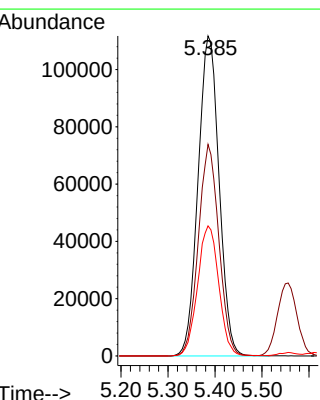
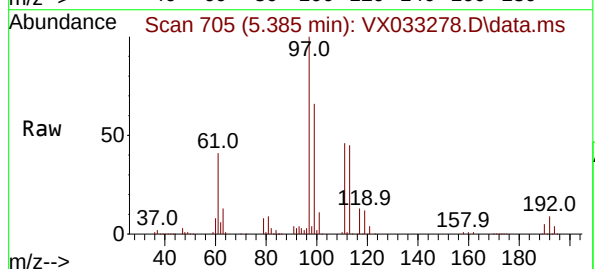
Tgt Ion: 97 Resp: 346522

Ion Ratio Lower Upper

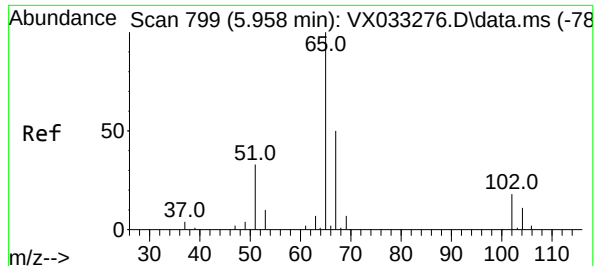
97 100

99 64.6 51.4 77.0

61 41.1 35.2 52.8







#33

1,2-Dichloroethane-d4

Concen: 93.441 ug/l

RT: 5.958 min Scan# 799

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 65 Resp: 12982

Ion Ratio Lower Upper

65 100

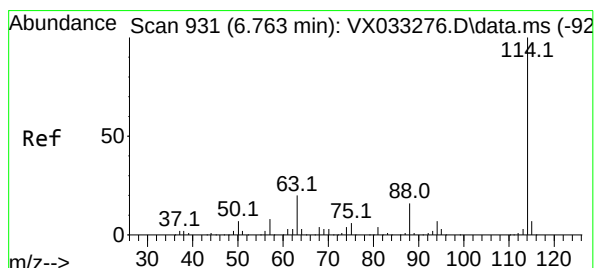
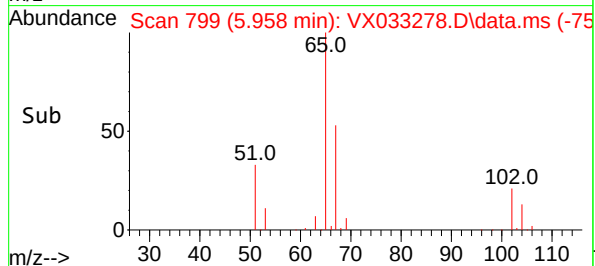
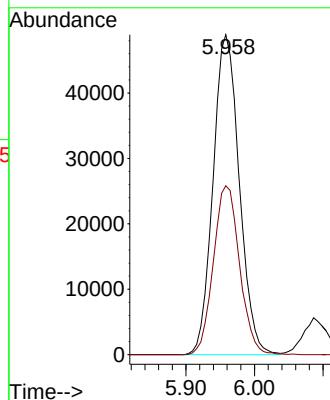
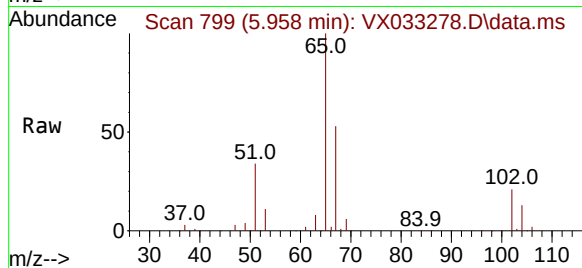
67 52.8 0.0 101.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.763 min Scan# 931

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

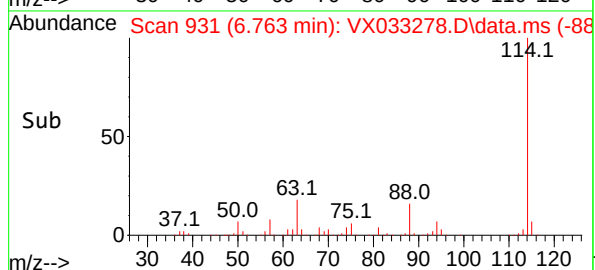
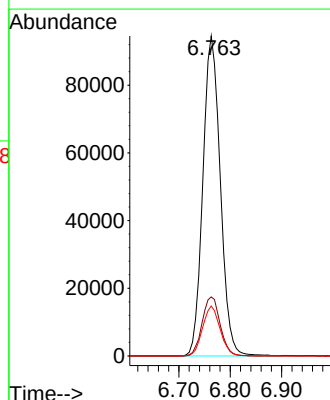
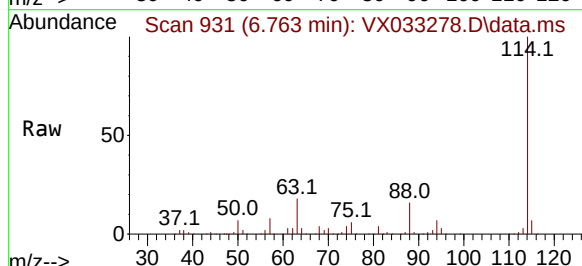
Tgt Ion:114 Resp: 222944

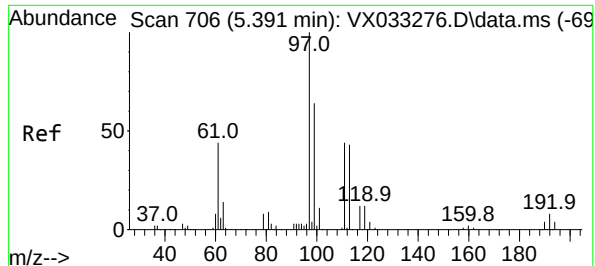
Ion Ratio Lower Upper

114 100

63 18.4 0.0 41.6

88 15.6 0.0 33.4





#35

Dibromofluoromethane

Concen: 120.373 ug/l

RT: 5.391 min Scan# 706

Delta R.T. 0.006 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion:113 Resp: 151294

Ion Ratio Lower Upper

113 100

111 102.3 82.4 123.6

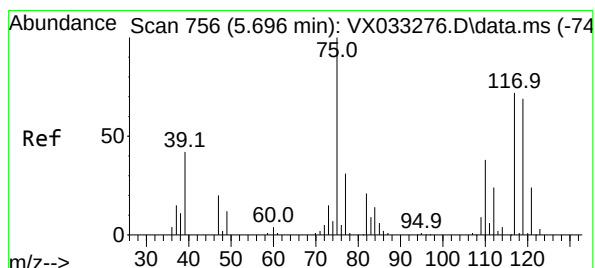
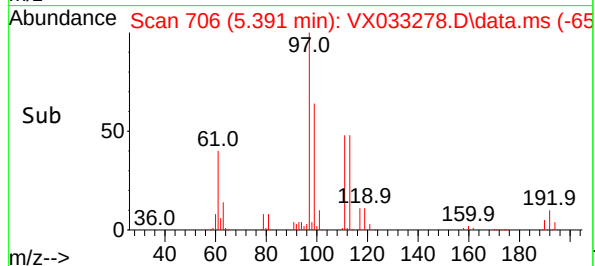
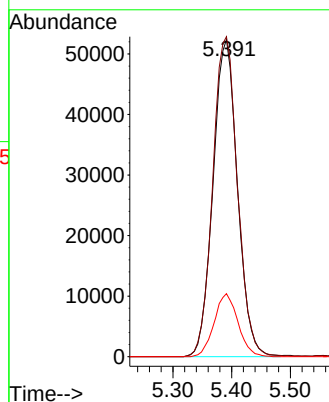
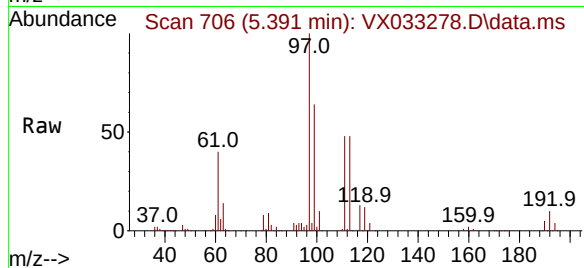
192 19.4 15.4 23.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#36

1,1-Dichloropropene

Concen: 133.281 ug/l

RT: 5.696 min Scan# 756

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

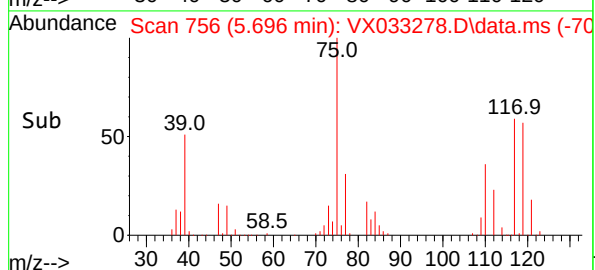
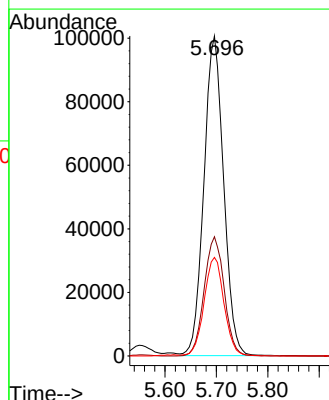
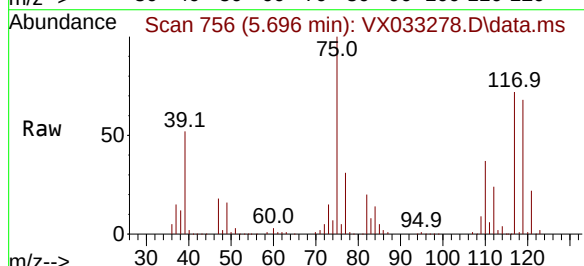
Tgt Ion: 75 Resp: 267855

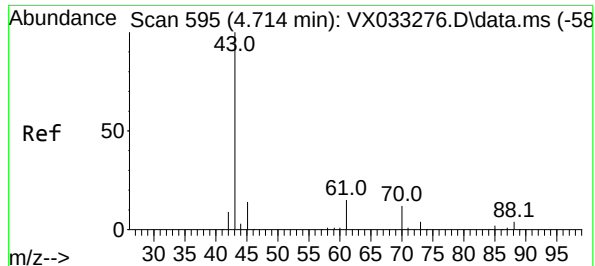
Ion Ratio Lower Upper

75 100

110 37.9 18.4 55.2

77 31.2 24.5 36.7





#37

Ethyl Acetate

Concen: 173.027 ug/l

RT: 4.721 min Scan# 595

Delta R.T. 0.006 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

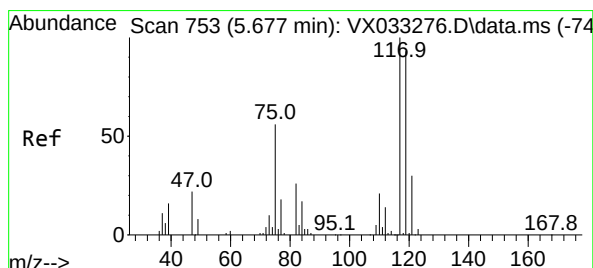
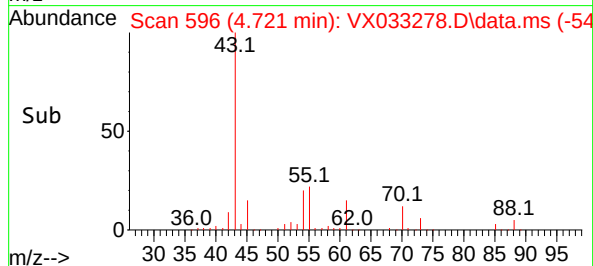
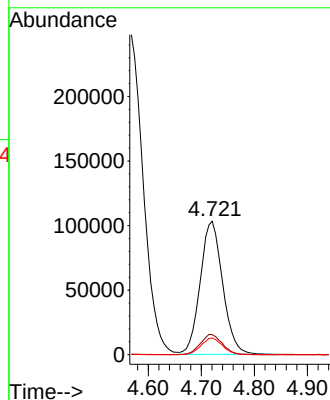
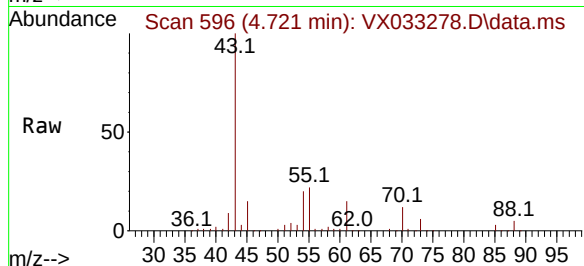
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 303379 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 61       | 14.9  | 11.5  | 17.3   |
| 70       | 12.0  | 9.1   | 13.7   |

## Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#38

Carbon Tetrachloride

Concen: 133.497 ug/l

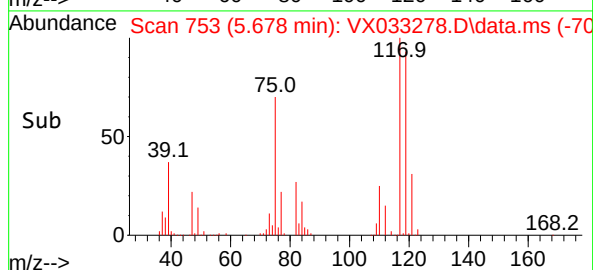
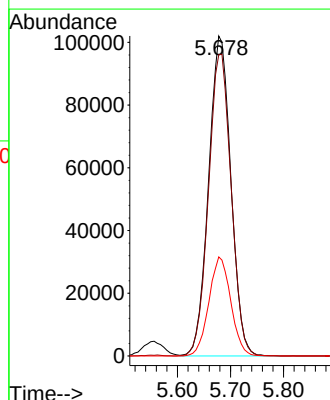
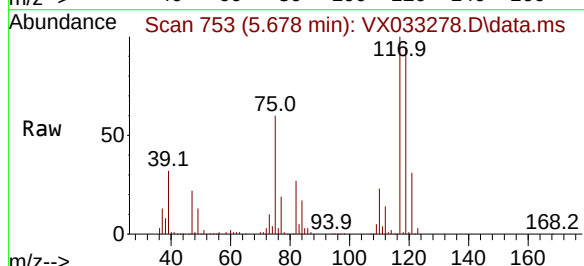
RT: 5.678 min Scan# 753

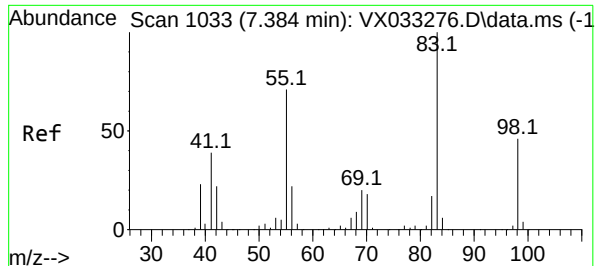
Delta R.T. -0.006 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 117   | Resp: | 297622 |
| Ion      | Ratio | Lower | Upper  |
| 117      | 100   |       |        |
| 119      | 94.1  | 77.2  | 115.8  |
| 121      | 31.0  | 25.8  | 38.6   |





#39

Methylcyclohexane

Concen: 113.151 ug/l

RT: 7.385 min Scan# 1033

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 83 Resp: 259458

Ion Ratio Lower Upper

83 100

55 70.6 58.4 87.6

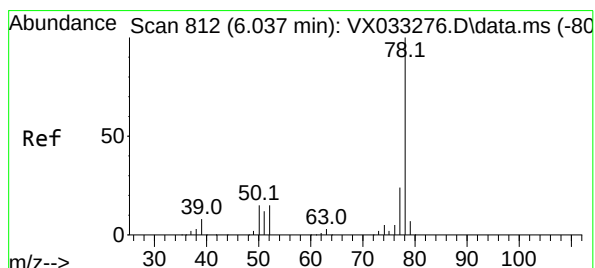
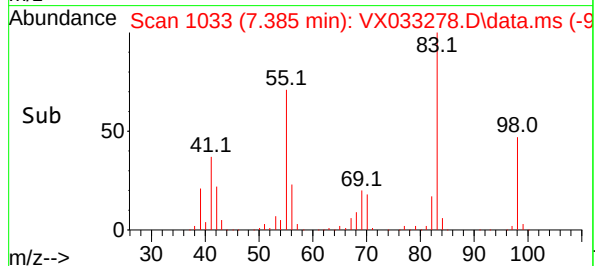
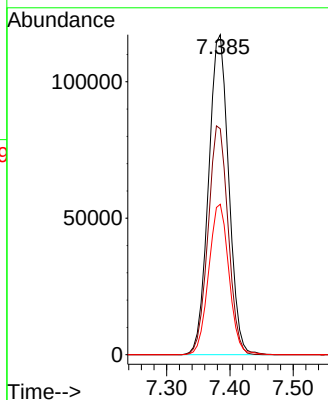
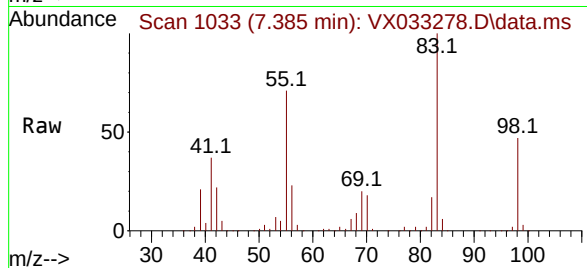
98 47.0 37.2 55.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#40

Benzene

Concen: 152.499 ug/l

RT: 6.037 min Scan# 812

Delta R.T. 0.000 min

Lab File: VX033278.D

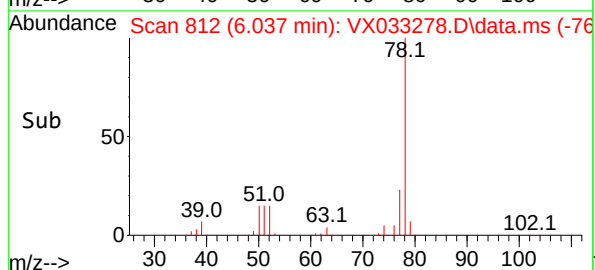
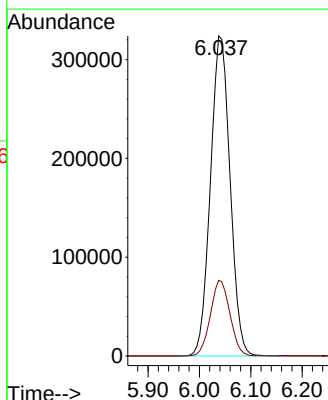
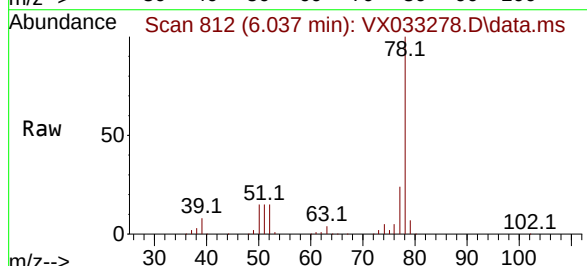
Acq: 07 Dec 2022 11:42

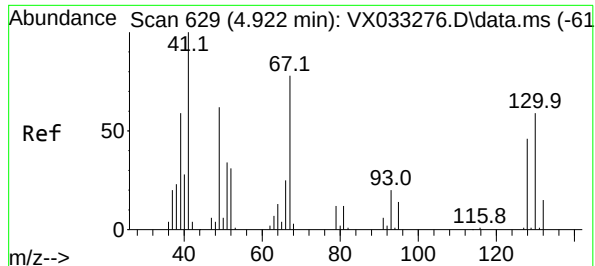
Tgt Ion: 78 Resp: 859288

Ion Ratio Lower Upper

78 100

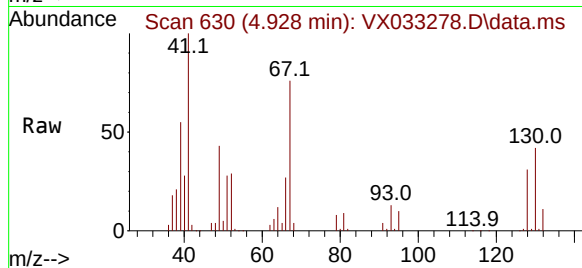
77 23.7 19.0 28.4





#41  
Methacrylonitrile  
Concen: 170.863 ug/l  
RT: 4.928 min Scan# 61  
Delta R.T. 0.006 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

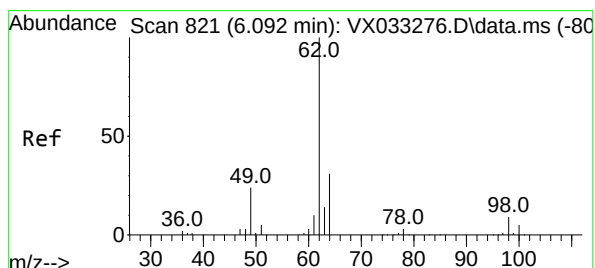
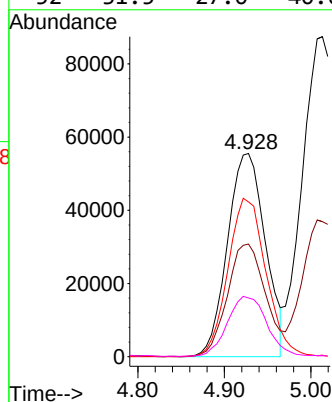
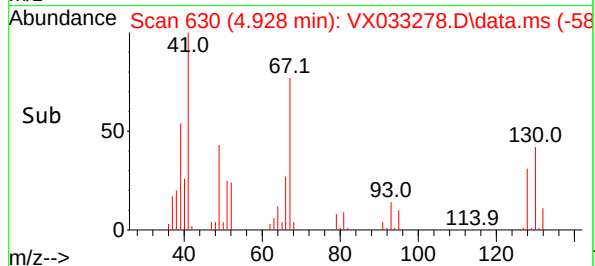
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC150



Tgt Ion: 41 Resp: 16856  
Ion Ratio Lower Upper  
41 100  
39 56.8 47.5 71.3  
67 78.6 60.5 90.7  
52 31.5 27.0 40.6

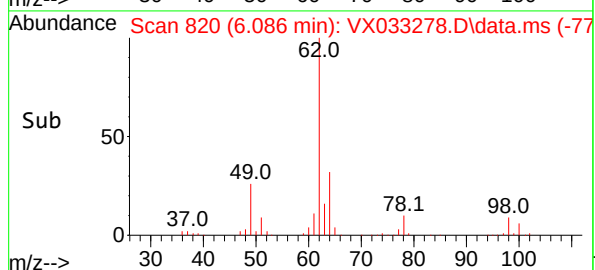
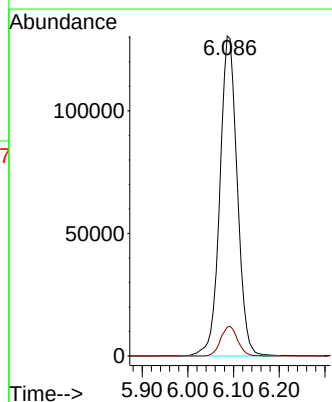
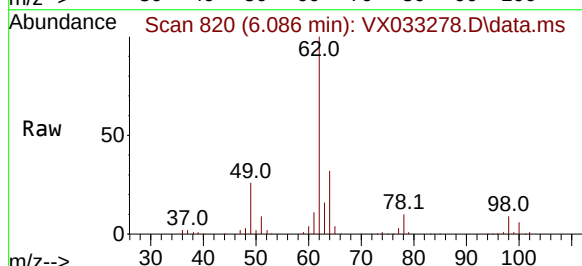
Manual Integrations  
APPROVED

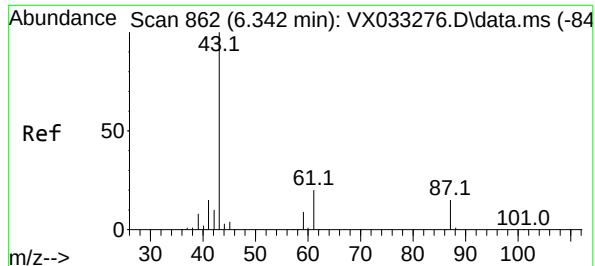
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#42  
1,2-Dichloroethane  
Concen: 152.092 ug/l  
RT: 6.086 min Scan# 820  
Delta R.T. 0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Tgt Ion: 62 Resp: 345058  
Ion Ratio Lower Upper  
62 100  
98 9.1 0.0 16.0





#43

Isopropyl Acetate

Concen: 175.101 ug/l

RT: 6.342 min Scan# 862

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC150

Tgt Ion: 43 Resp: 507740

Ion Ratio Lower Upper

43 100

61 20.6 15.4 23.0

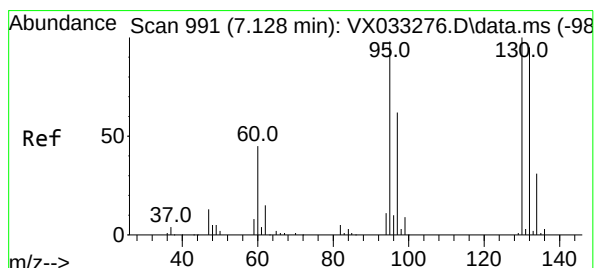
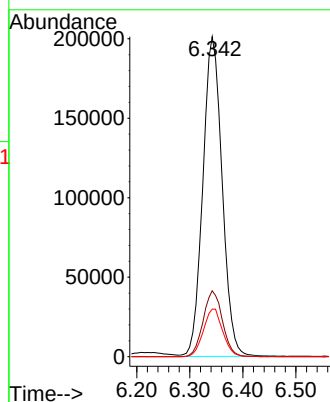
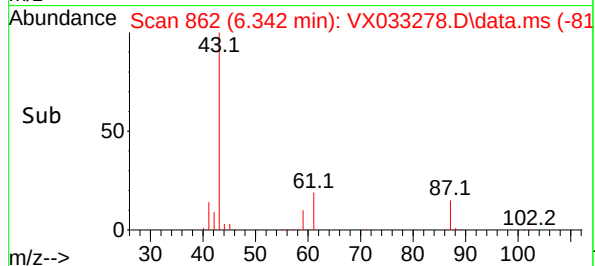
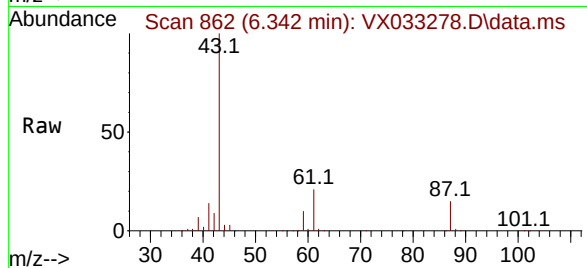
87 14.9 10.8 16.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#44

Trichloroethene

Concen: 147.125 ug/l

RT: 7.129 min Scan# 991

Delta R.T. -0.000 min

Lab File: VX033278.D

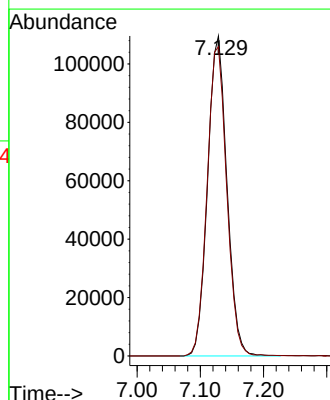
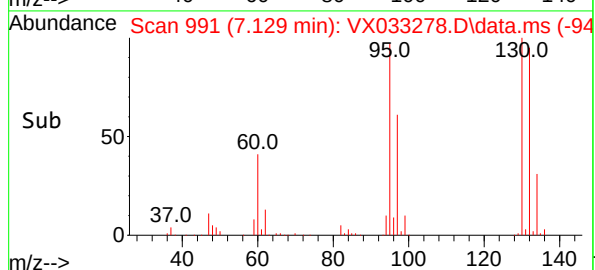
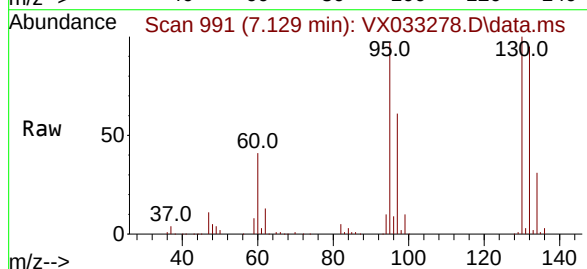
Acq: 07 Dec 2022 11:42

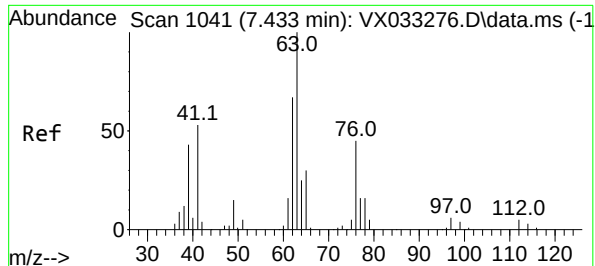
Tgt Ion:130 Resp: 232626

Ion Ratio Lower Upper

130 100

95 96.6 0.0 195.2





#45

1,2-Dichloropropane

Concen: 162.353 ug/l

RT: 7.434 min Scan# 1041

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 63 Resp: 226079

Ion Ratio Lower Upper

63 100

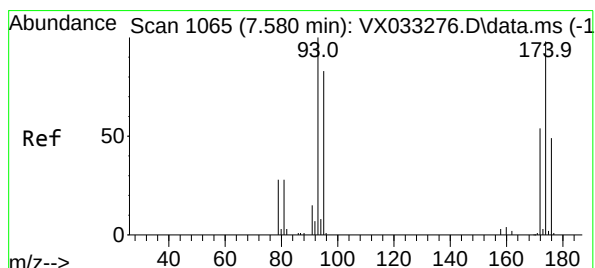
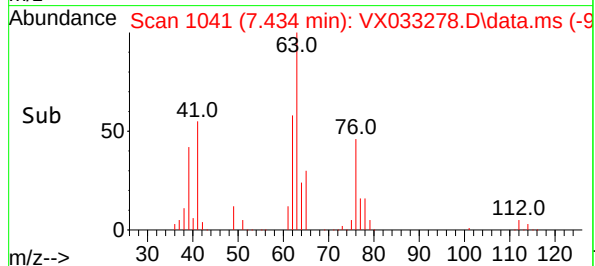
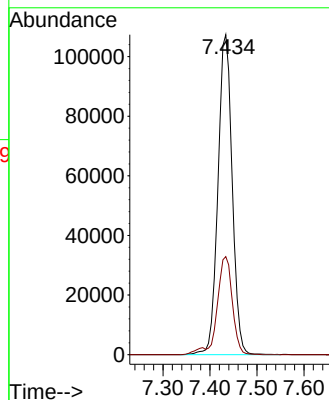
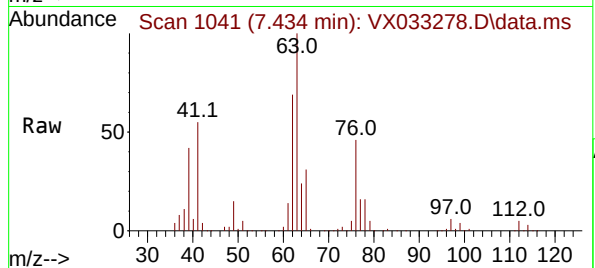
65 30.6 24.6 36.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#46

Dibromomethane

Concen: 163.014 ug/l

RT: 7.580 min Scan# 1065

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

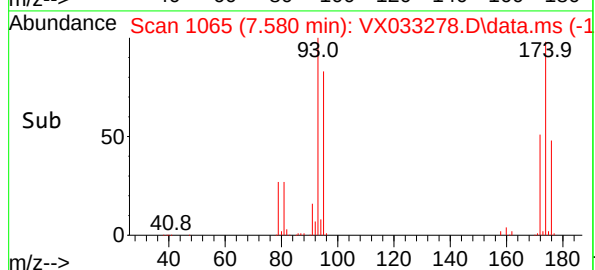
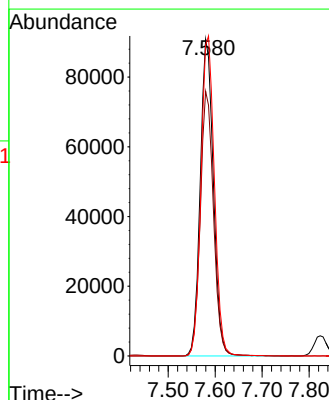
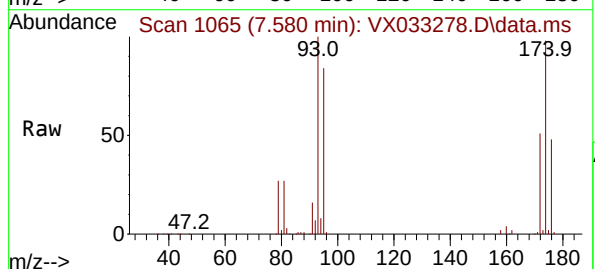
Tgt Ion: 93 Resp: 177123

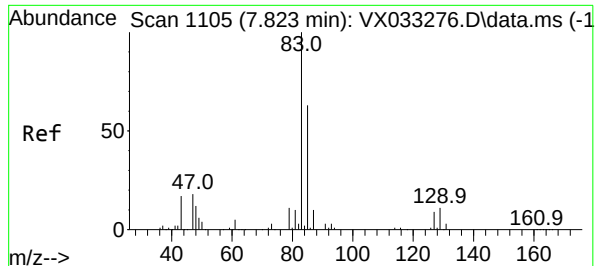
Ion Ratio Lower Upper

93 100

95 83.4 65.8 98.8

174 102.6 79.8 119.6





#47

Bromodichloromethane

Concen: 163.993 ug/l

RT: 7.824 min Scan# 1105

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 83 Resp: 344310

Ion Ratio Lower Upper

83 100

85 63.4 52.2 78.4

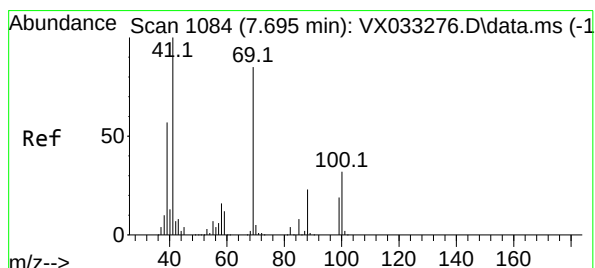
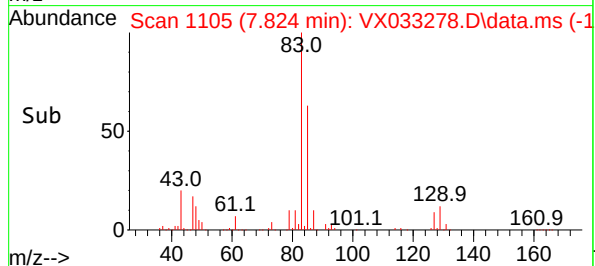
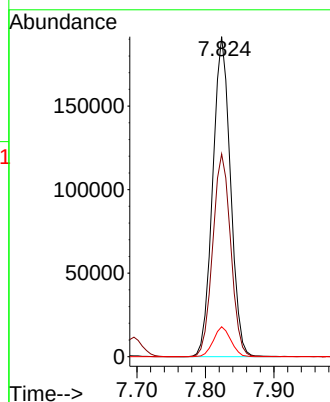
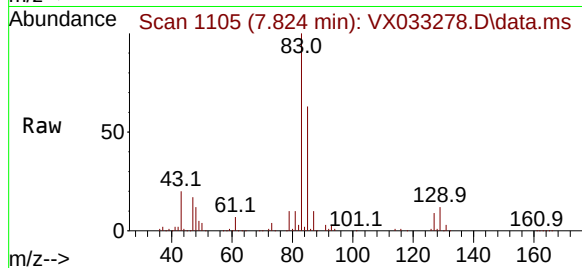
127 9.4 7.4 11.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#48

Methyl methacrylate

Concen: 169.388 ug/l

RT: 7.696 min Scan# 1084

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

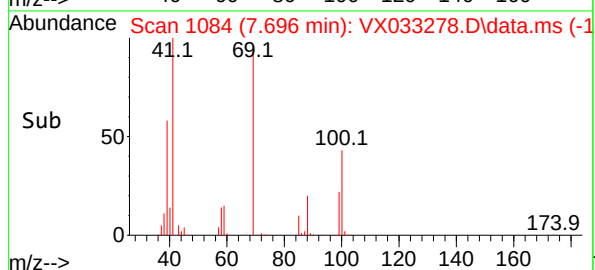
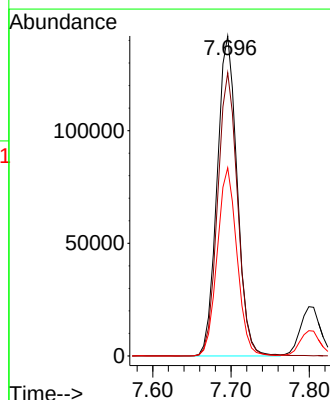
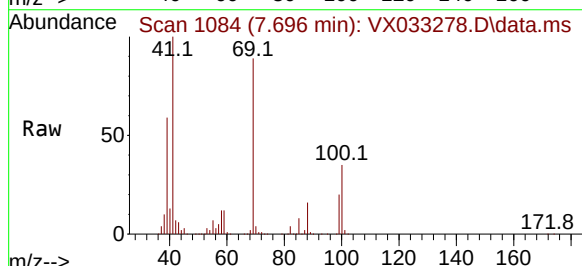
Tgt Ion: 41 Resp: 252825

Ion Ratio Lower Upper

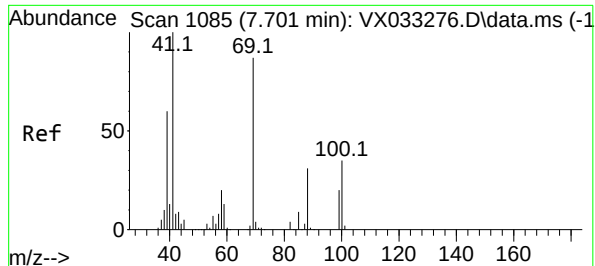
41 100

69 88.1 65.1 97.7

39 57.9 51.9 77.9







#49

1,4-Dioxane

Concen: 4196.625 ug/l

RT: 7.720 min Scan# 1085

Delta R.T. 0.049 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC150

Tgt Ion: 88 Resp: 11530

Ion Ratio Lower Upper

88 100

43 28.1 26.6 39.8

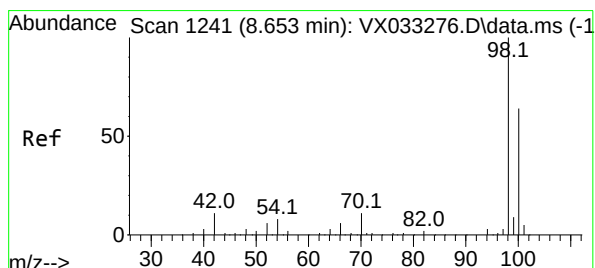
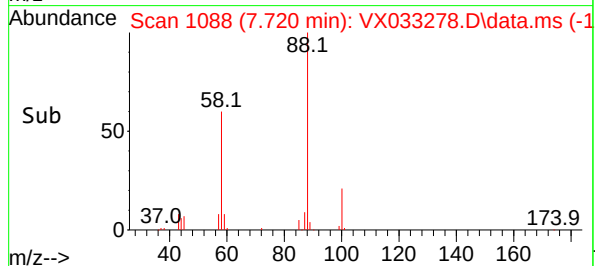
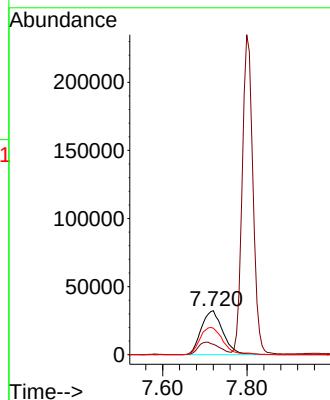
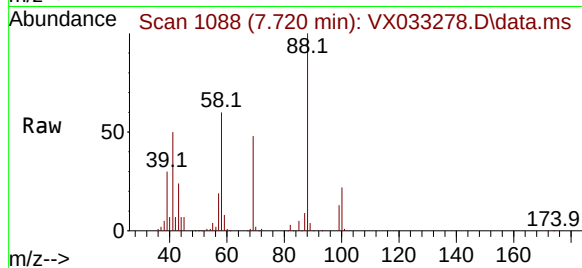
58 63.7 51.7 77.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#50

Toluene-d8

Concen: 75.838 ug/l

RT: 8.653 min Scan# 1241

Delta R.T. -0.000 min

Lab File: VX033278.D

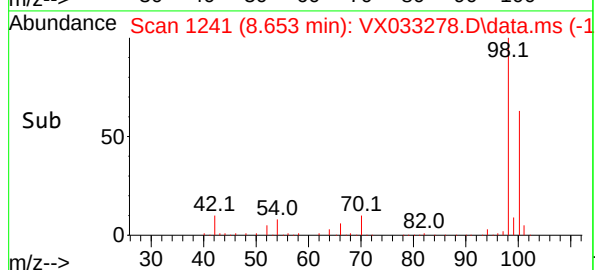
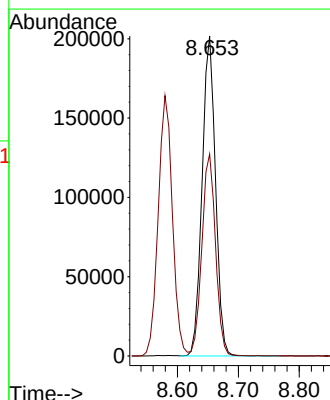
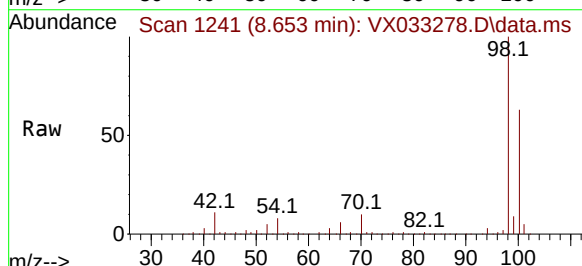
Acq: 07 Dec 2022 11:42

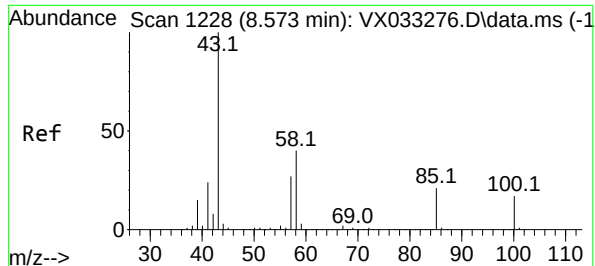
Tgt Ion: 98 Resp: 309454

Ion Ratio Lower Upper

98 100

100 64.1 50.9 76.3





#51

4-Methyl-2-Pentanone

Concen: 827.584 ug/l

RT: 8.580 min Scan# 1229

Delta R.T. 0.006 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 43 Resp: 1480794

Ion Ratio Lower Upper

43 100

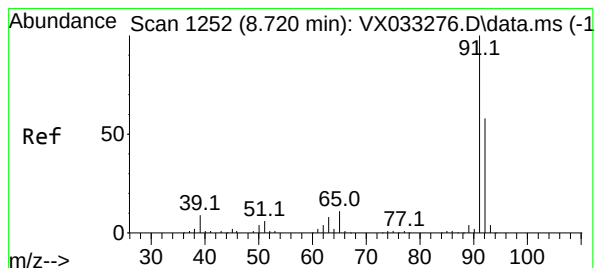
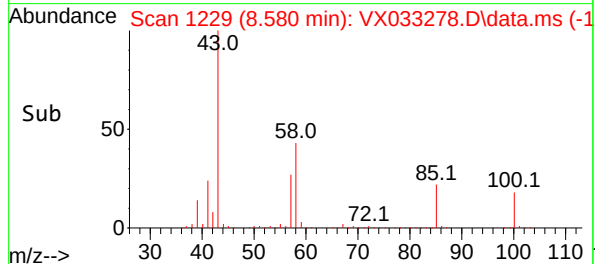
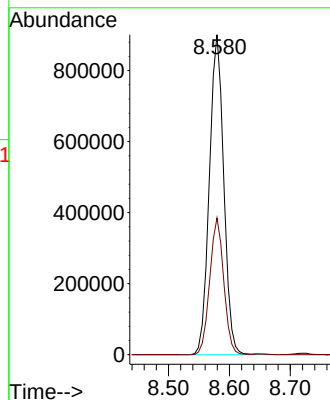
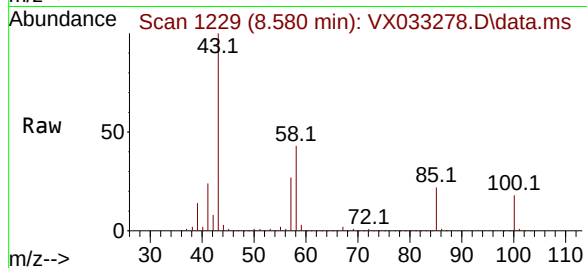
58 41.6 30.9 46.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#52

Toluene

Concen: 149.557 ug/l

RT: 8.720 min Scan# 1252

Delta R.T. -0.000 min

Lab File: VX033278.D

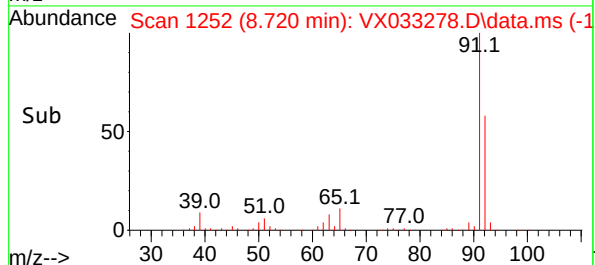
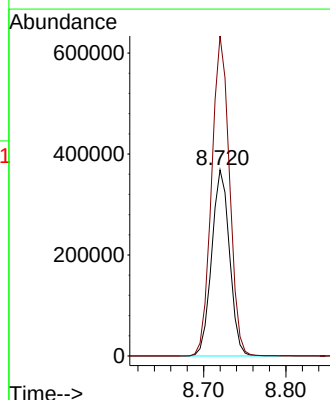
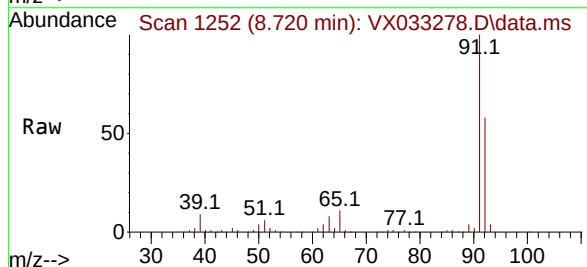
Acq: 07 Dec 2022 11:42

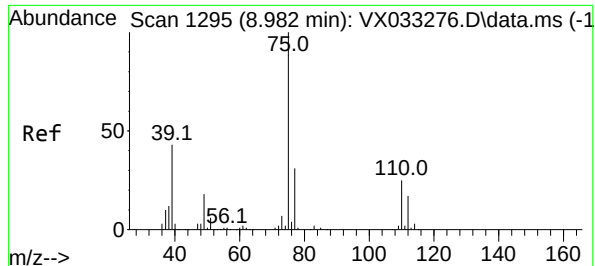
Tgt Ion: 92 Resp: 554420

Ion Ratio Lower Upper

92 100

91 172.7 138.3 207.5





#53

t-1,3-Dichloropropene

Concen: 180.152 ug/l

RT: 8.976 min Scan# 1124

Delta R.T. -0.006 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 75 Resp: 37124

Ion Ratio Lower Upper

75 100

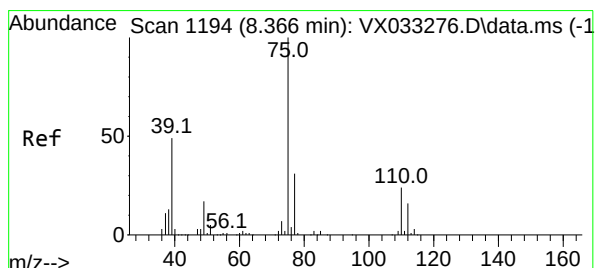
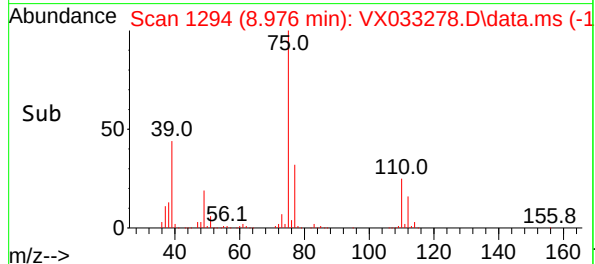
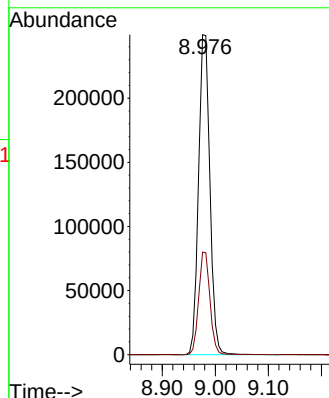
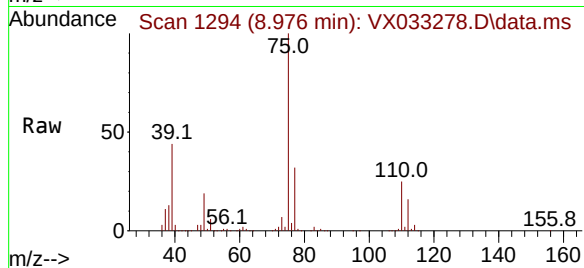
77 32.0 25.1 37.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#54

cis-1,3-Dichloropropene

Concen: 173.324 ug/l

RT: 8.366 min Scan# 1194

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

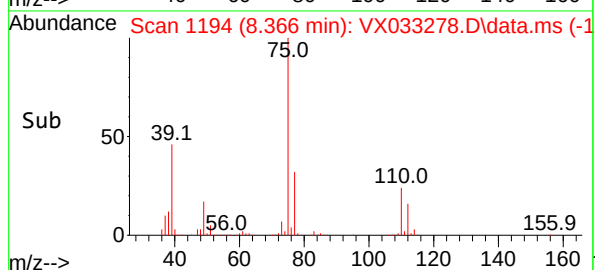
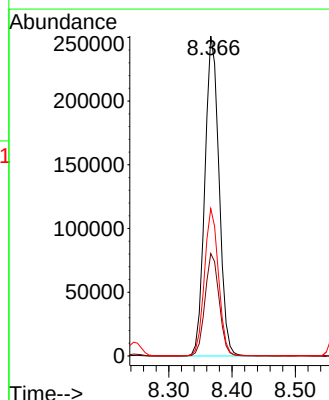
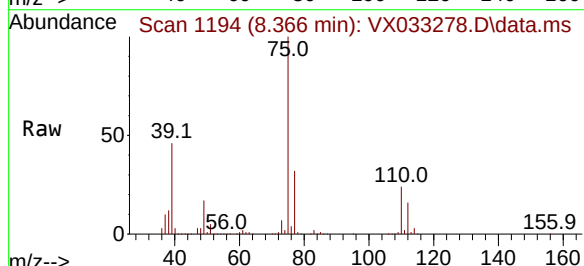
Tgt Ion: 75 Resp: 392302

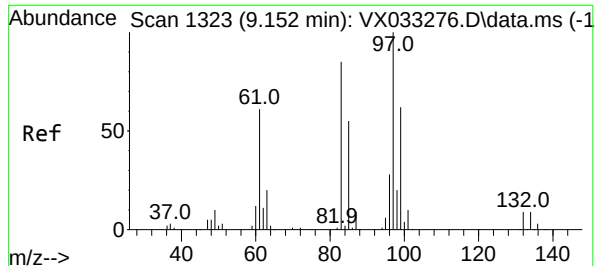
Ion Ratio Lower Upper

75 100

77 32.0 25.1 37.7

39 46.0 45.5 68.3





#55

1,1,2-Trichloroethane

Concen: 163.595 ug/l

RT: 9.153 min Scan# 1323

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 97 Resp: 24691

Ion Ratio Lower Upper

97 100

83 83.3 68.1 102.1

85 54.8 43.3 64.9

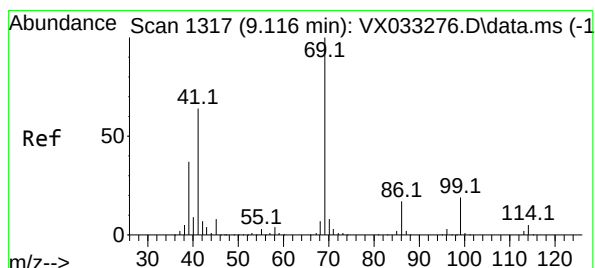
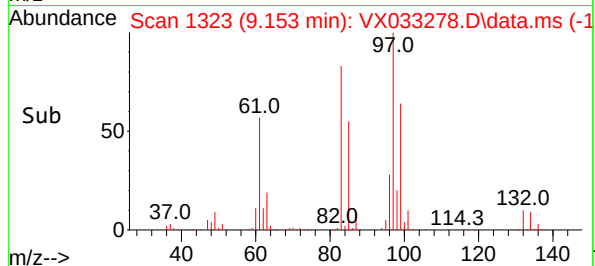
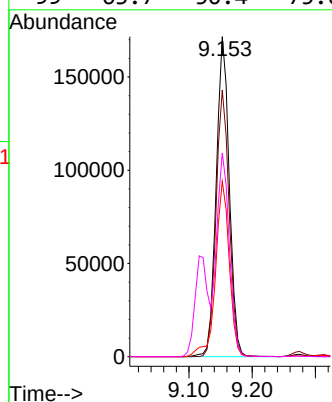
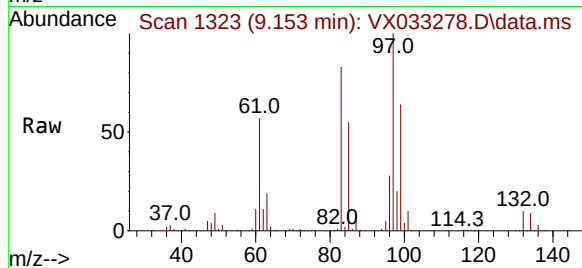
99 63.7 50.4 75.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#56

Ethyl methacrylate

Concen: 179.181 ug/l

RT: 9.116 min Scan# 1317

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

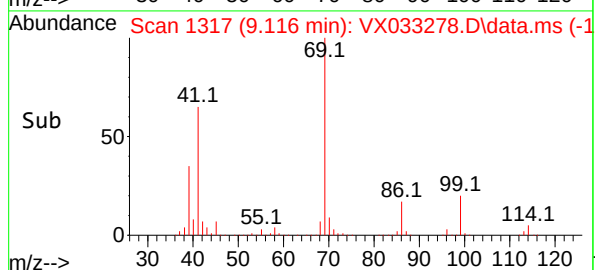
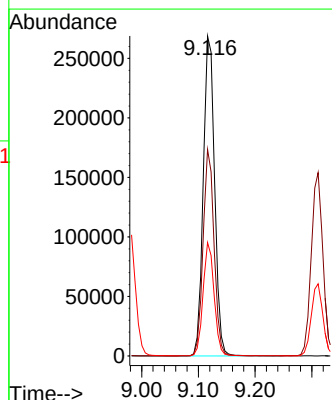
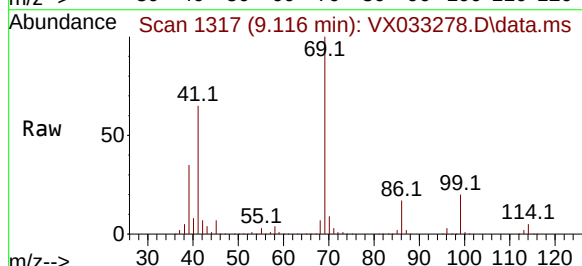
Tgt Ion: 69 Resp: 372607

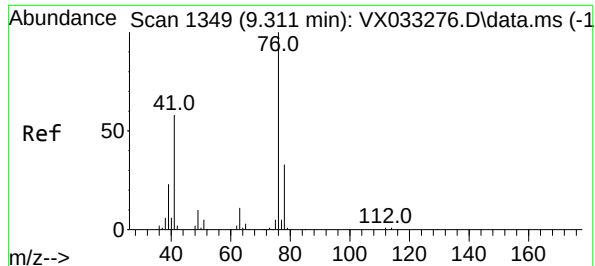
Ion Ratio Lower Upper

69 100

41 62.5 54.3 81.5

39 34.6 35.2 52.8#





#57

1,3-Dichloropropane

Concen: 163.628 ug/l

RT: 9.311 min Scan# 11

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 76 Resp: 39868

Ion Ratio Lower Upper

76 100

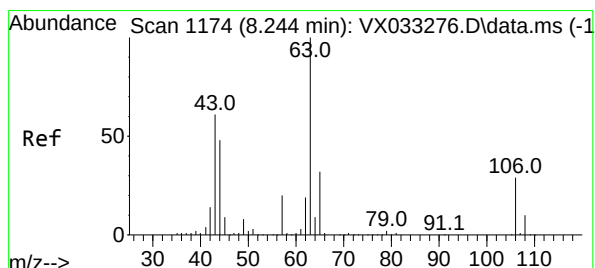
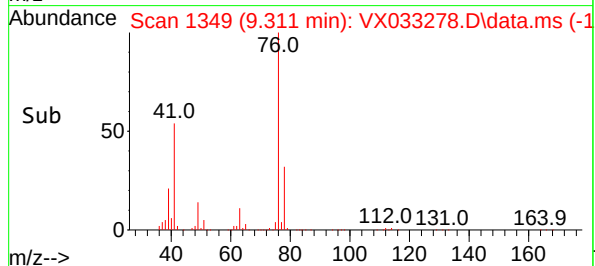
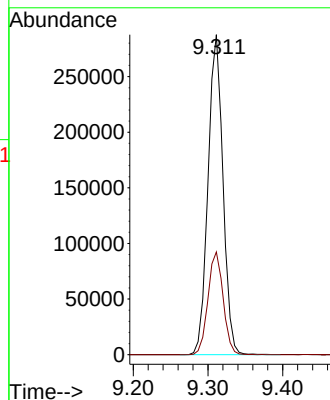
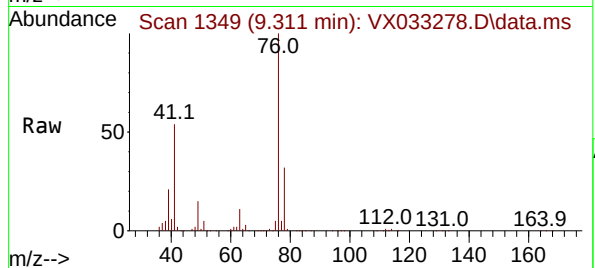
78 32.6 26.0 39.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#58

2-Chloroethyl Vinyl ether

Concen: 874.338 ug/l

RT: 8.244 min Scan# 1174

Delta R.T. 0.000 min

Lab File: VX033278.D

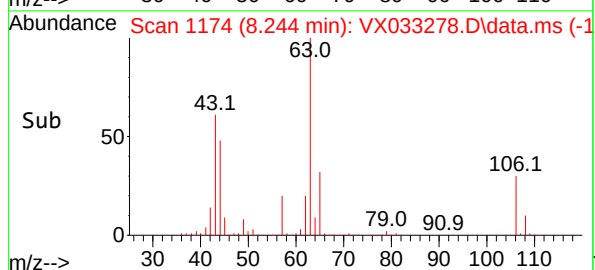
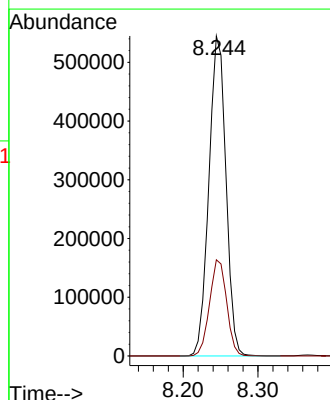
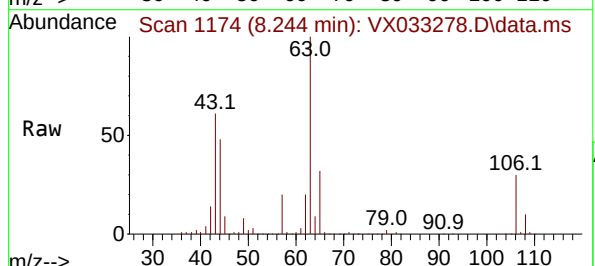
Acq: 07 Dec 2022 11:42

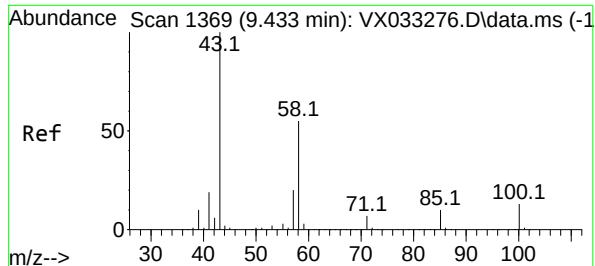
Tgt Ion: 63 Resp: 863389

Ion Ratio Lower Upper

63 100

106 30.1 23.3 34.9





#59

2-Hexanone

Concen: 822.777 ug/l

RT: 9.439 min Scan# 1370

Delta R.T. 0.006 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 43 Resp: 108753

Ion Ratio Lower Upper

43 100

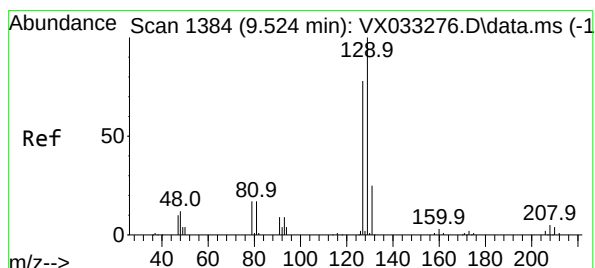
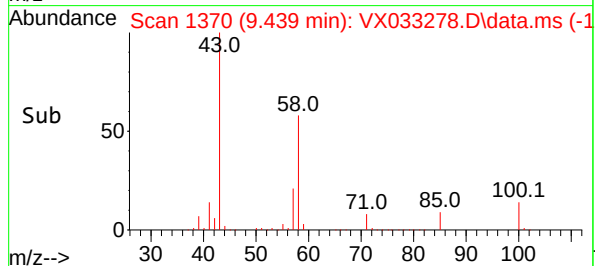
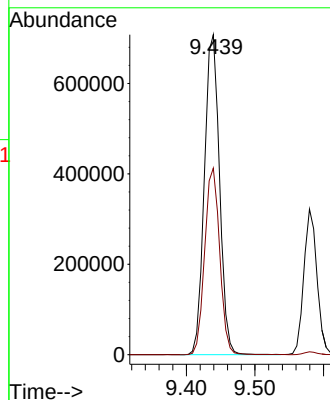
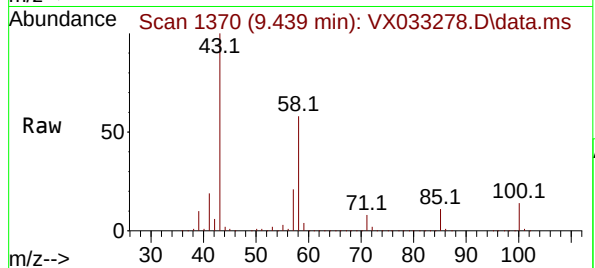
58 57.8 26.5 79.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#60

Dibromochloromethane

Concen: 174.743 ug/l

RT: 9.525 min Scan# 1384

Delta R.T. -0.000 min

Lab File: VX033278.D

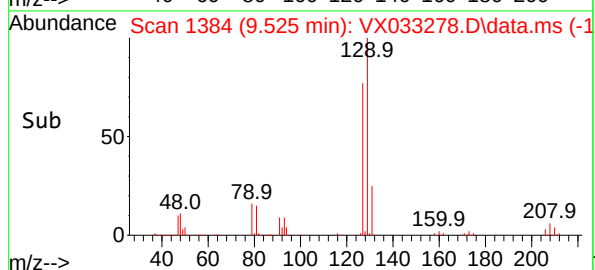
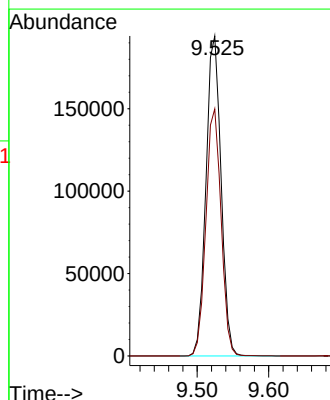
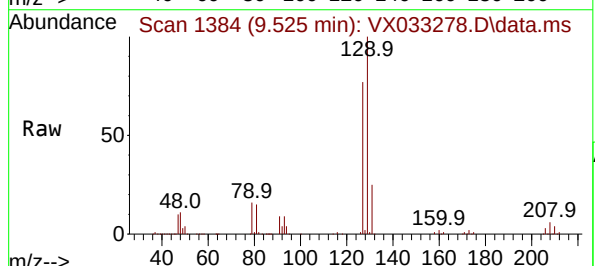
Acq: 07 Dec 2022 11:42

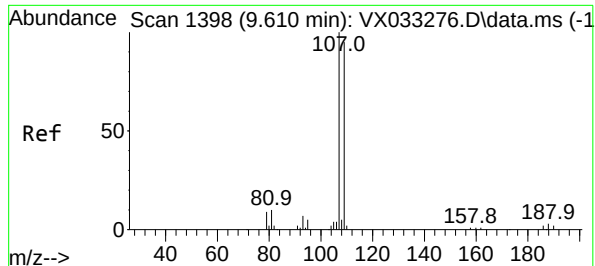
Tgt Ion:129 Resp: 283948

Ion Ratio Lower Upper

129 100

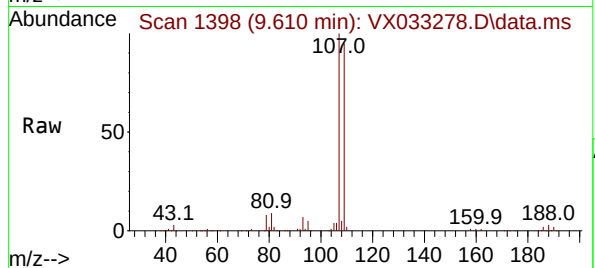
127 77.7 38.6 115.8





#61  
1,2-Dibromoethane  
Concen: 170.833 ug/l  
RT: 9.610 min Scan# 11  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

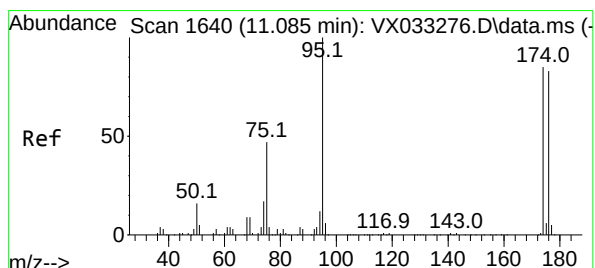
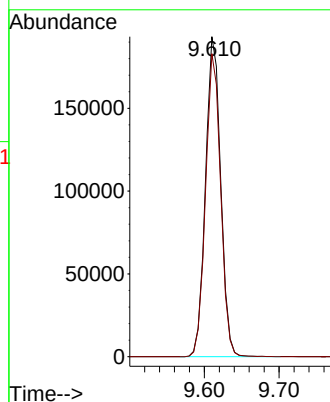
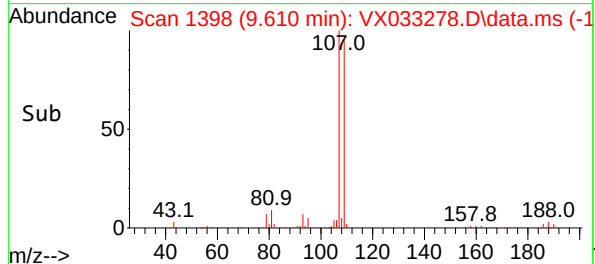
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC150



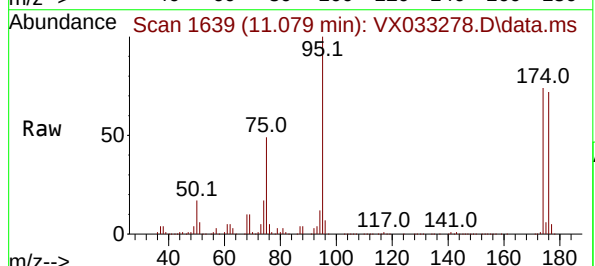
Tgt Ion:107 Resp: 27214  
Ion Ratio Lower Upper  
107 100  
109 94.2 76.0 114.0

Manual Integrations  
APPROVED

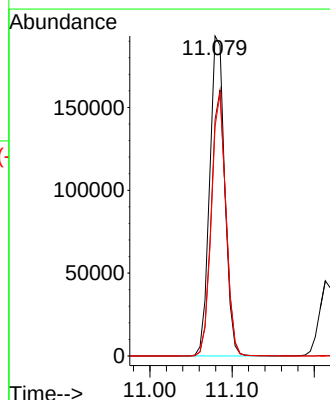
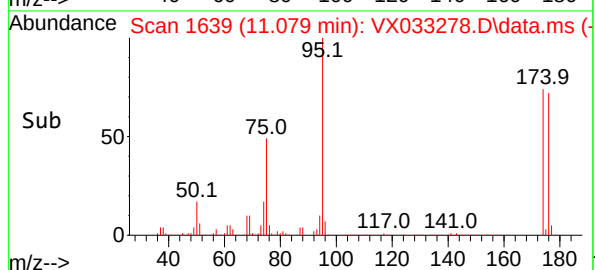
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

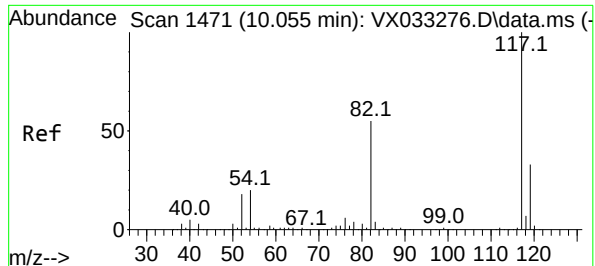


#62  
4-Bromofluorobenzene  
Concen: 148.337 ug/l  
RT: 11.079 min Scan# 1639  
Delta R.T. 0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42



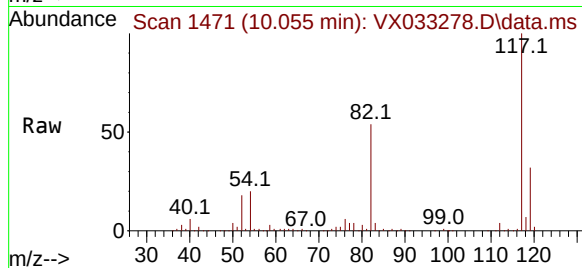
Tgt Ion: 95 Resp: 244909  
Ion Ratio Lower Upper  
95 100  
174 80.8 0.0 164.0  
176 79.3 0.0 154.4





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.055 min Scan# 1471  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

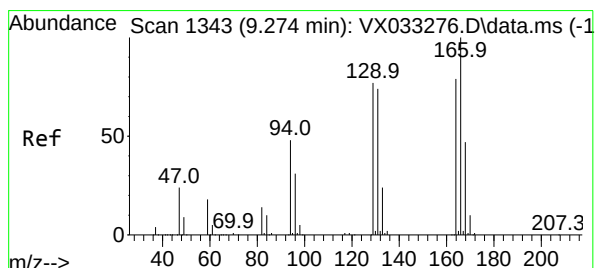
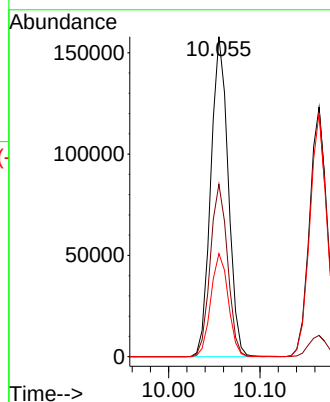
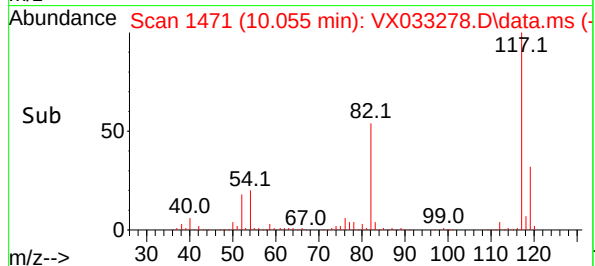
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC150



Tgt Ion:117 Resp: 208309  
Ion Ratio Lower Upper  
117 100  
82 53.9 44.3 66.5  
119 32.2 25.7 38.5

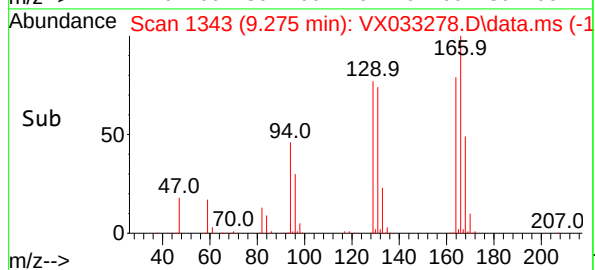
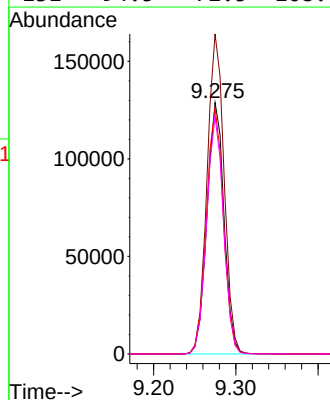
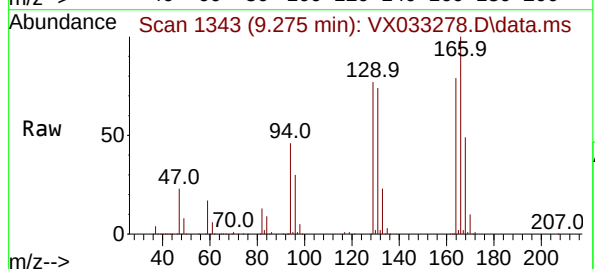
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

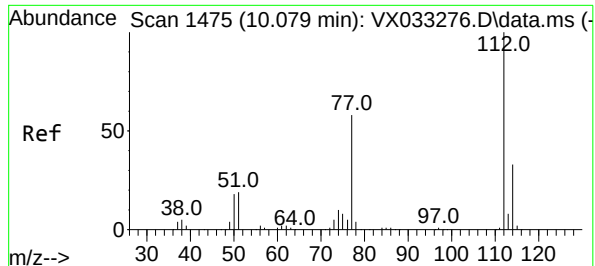


#64  
Tetrachloroethene  
Concen: 125.423 ug/l  
RT: 9.275 min Scan# 1343  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Tgt Ion:164 Resp: 184932  
Ion Ratio Lower Upper  
164 100  
166 127.3 105.4 158.2  
129 97.7 78.2 117.2  
131 94.5 72.5 108.7







#65

Chlorobenzene

Concen: 148.283 ug/l

RT: 10.079 min Scan# 1475

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion:112 Resp: 61582

Ion Ratio Lower Upper

112 100

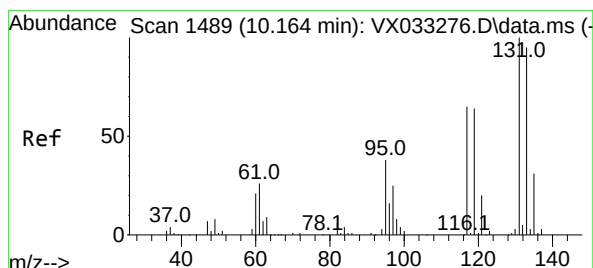
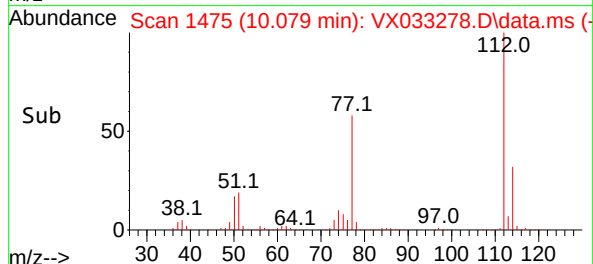
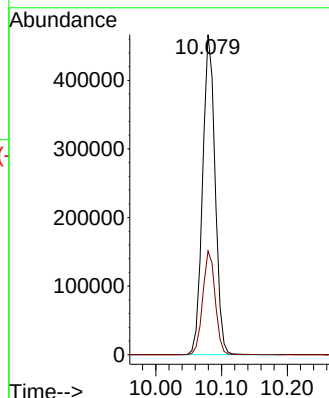
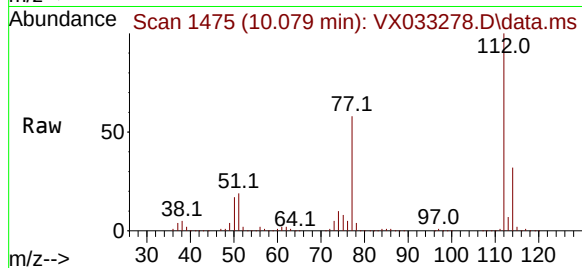
114 32.4 25.4 38.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#66

1,1,1,2-Tetrachloroethane

Concen: 160.880 ug/l

RT: 10.165 min Scan# 1489

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

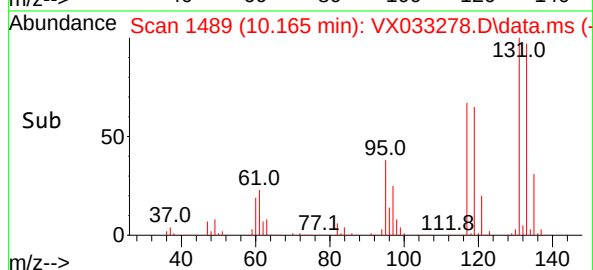
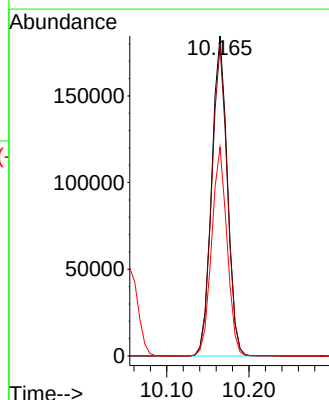
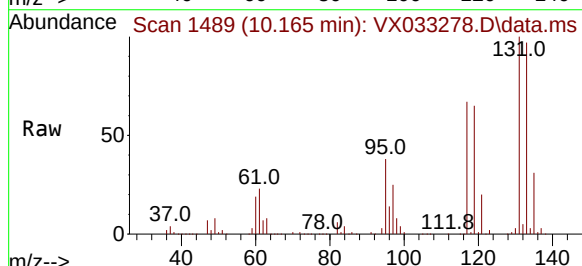
Tgt Ion:131 Resp: 244812

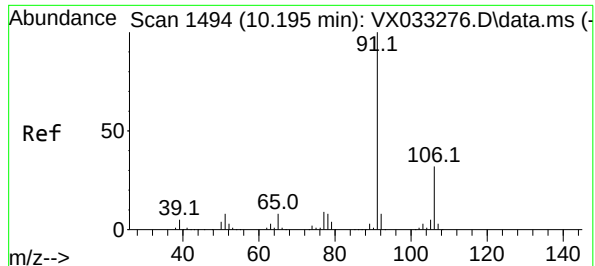
Ion Ratio Lower Upper

131 100

133 95.9 47.6 142.9

119 64.0 32.4 97.0





#67

Ethyl Benzene

Concen: 142.491 ug/l

RT: 10.195 min Scan# 1494

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 91 Resp: 1049730

Ion Ratio Lower Upper

91 100

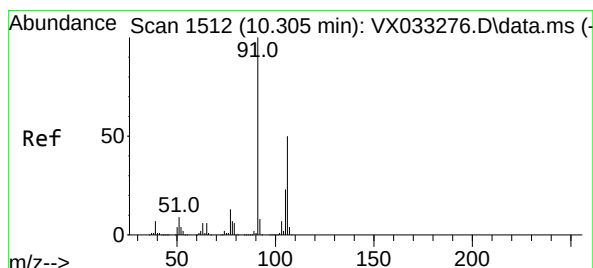
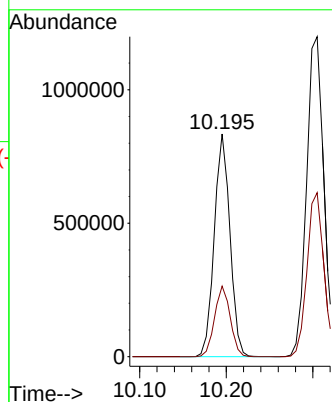
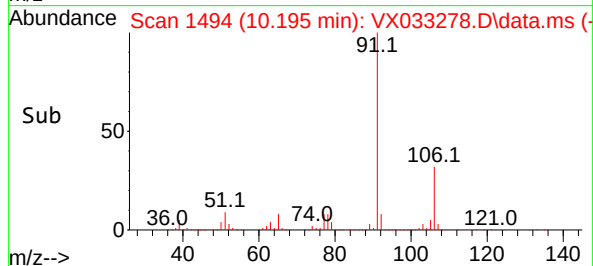
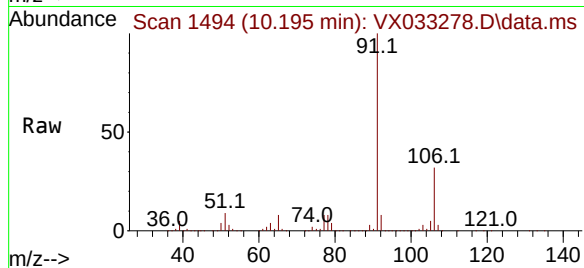
106 31.7 25.0 37.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#68

m/p-Xylenes

Concen: 285.726 ug/l

RT: 10.305 min Scan# 1512

Delta R.T. -0.000 min

Lab File: VX033278.D

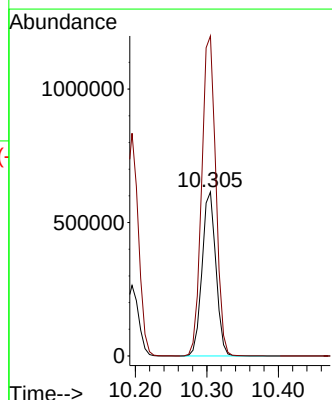
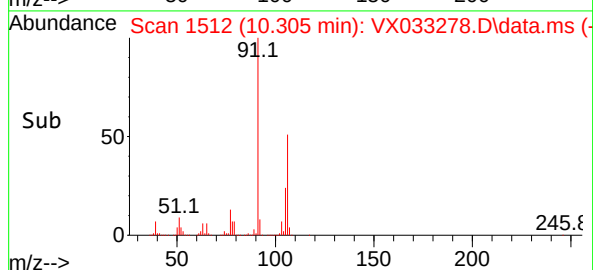
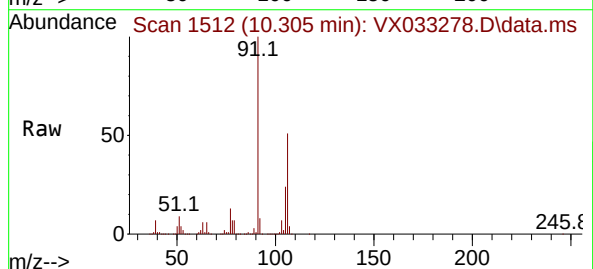
Acq: 07 Dec 2022 11:42

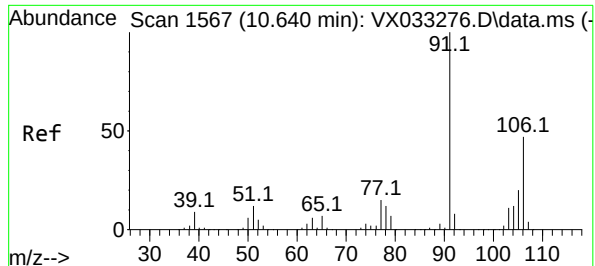
Tgt Ion:106 Resp: 824272

Ion Ratio Lower Upper

106 100

91 199.5 164.5 246.7





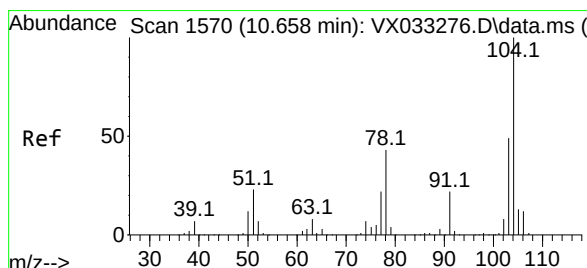
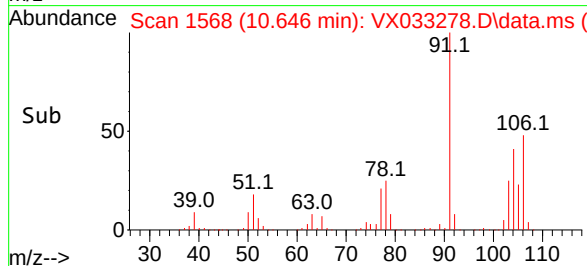
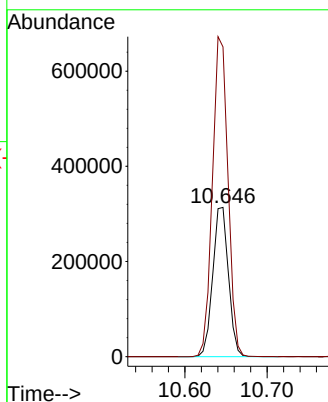
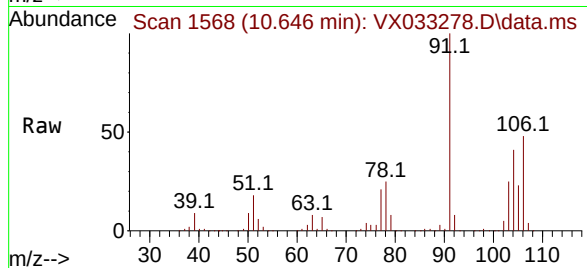
#69  
o-Xylene  
Concen: 148.498 ug/l  
RT: 10.646 min Scan# 1567  
Delta R.T. 0.006 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC150

Tgt Ion:106 Resp: 41450  
Ion Ratio Lower Upper  
106 100  
91 212.6 109.2 327.6

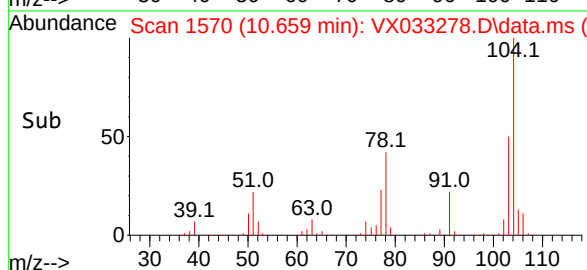
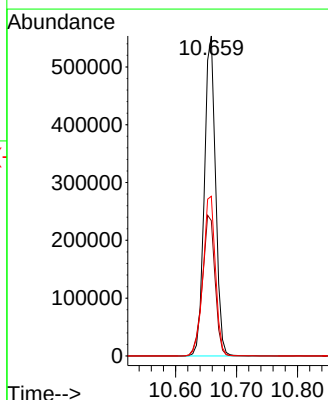
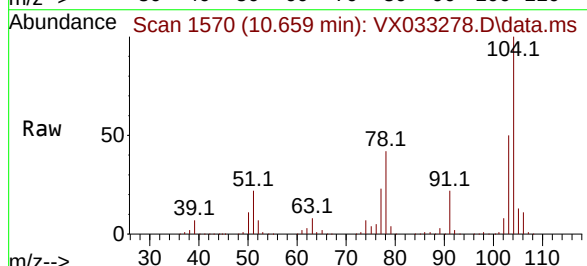
Manual Integrations  
APPROVED

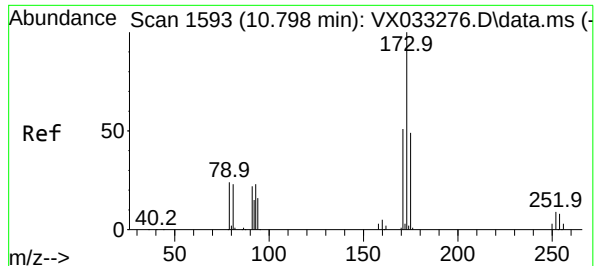
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#70  
Styrene  
Concen: 155.632 ug/l  
RT: 10.659 min Scan# 1570  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

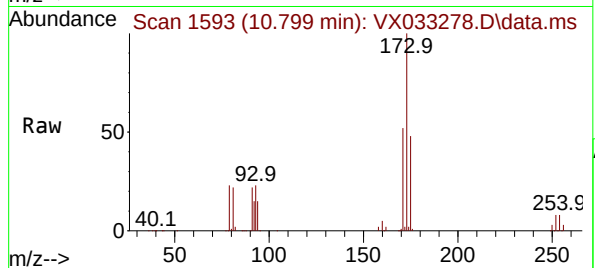
Tgt Ion:104 Resp: 710697  
Ion Ratio Lower Upper  
104 100  
78 49.4 41.8 62.8  
103 55.2 44.5 66.7





#71  
Bromoform  
Concen: 178.889 ug/l  
RT: 10.799 min Scan# 1593  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

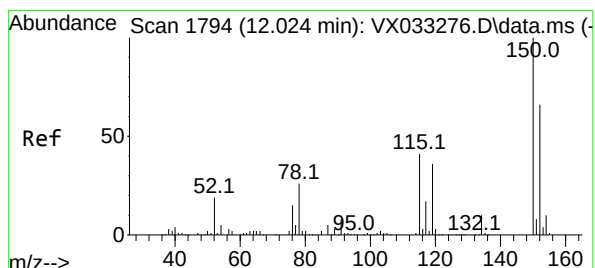
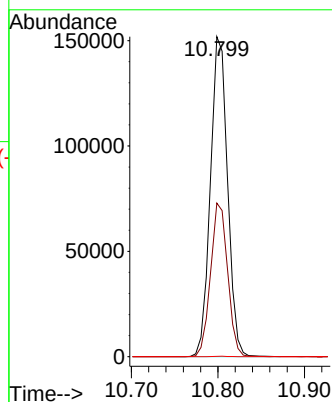
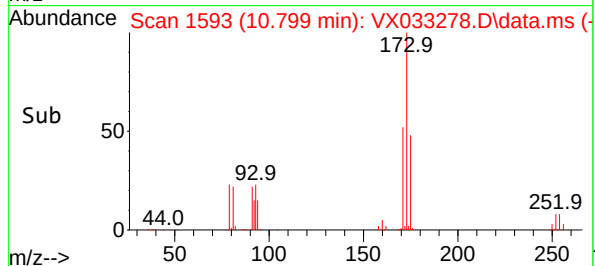
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC150



Tgt Ion:173 Resp: 20871  
Ion Ratio Lower Upper  
173 100  
175 47.8 23.9 71.8  
254 0.1 0.0 0.0

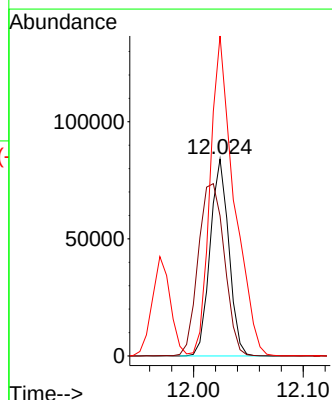
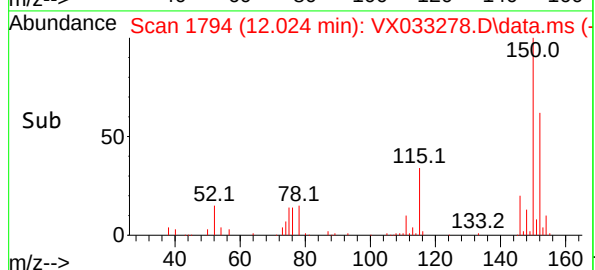
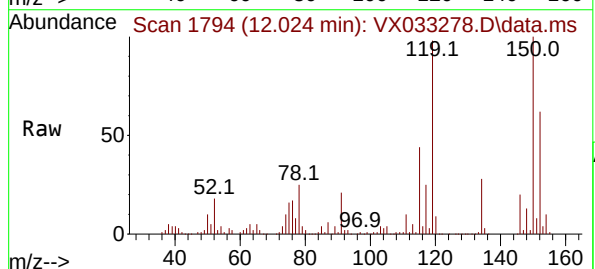
Manual Integrations  
APPROVED

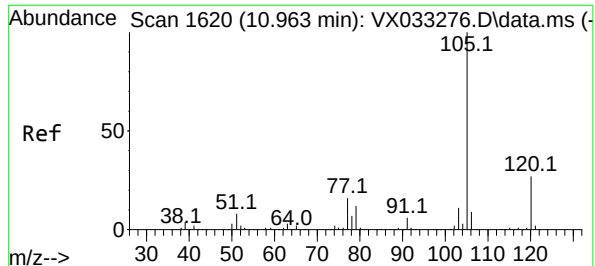
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.024 min Scan# 1794  
Delta R.T. 0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Tgt Ion:152 Resp: 99577  
Ion Ratio Lower Upper  
152 100  
115 122.6 44.0 132.0  
150 208.4 0.0 351.8





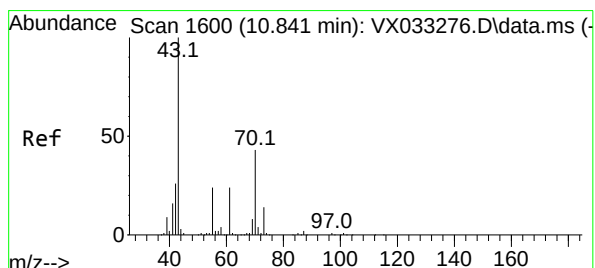
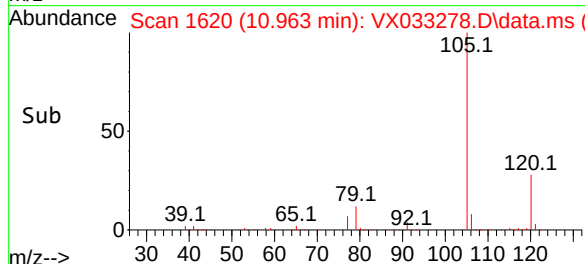
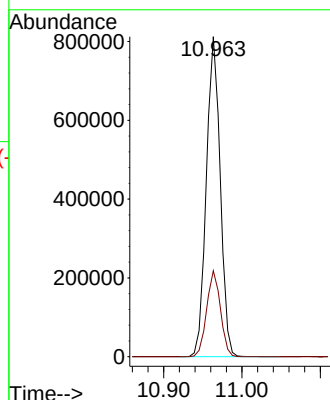
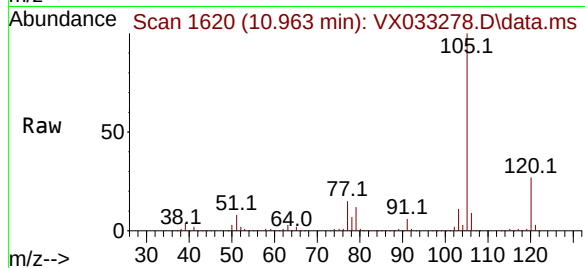
#73  
Isopropylbenzene  
Concen: 140.002 ug/l  
RT: 10.963 min Scan# 1601  
Delta R.T. 0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC150

Tgt Ion:105 Resp: 996208  
Ion Ratio Lower Upper  
105 100  
120 26.6 13.1 39.3

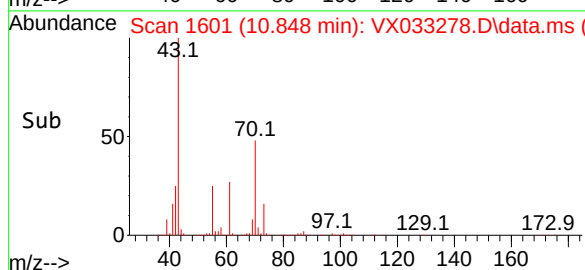
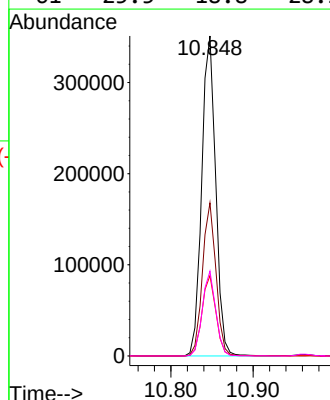
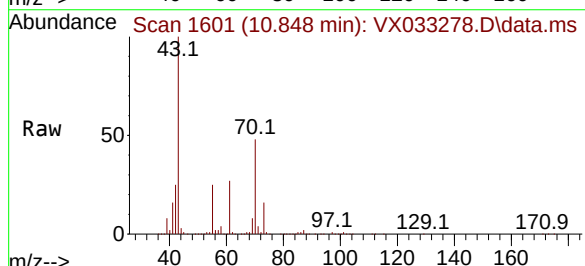
Manual Integrations  
APPROVED

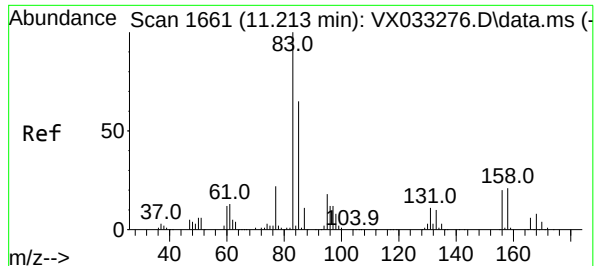
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#74  
N-ethyl acetate  
Concen: 171.353 ug/l  
RT: 10.848 min Scan# 1601  
Delta R.T. 0.007 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Tgt Ion: 43 Resp: 414776  
Ion Ratio Lower Upper  
43 100  
70 46.2 33.6 50.4  
55 24.9 19.4 29.2  
61 25.5 18.8 28.2





#75

1,1,2,2-Tetrachloroethane

Concen: 164.323 ug/l

RT: 11.213 min Scan# 1661

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 83 Resp: 352900

Ion Ratio Lower Upper

83 100

131 10.6 5.4 16.2

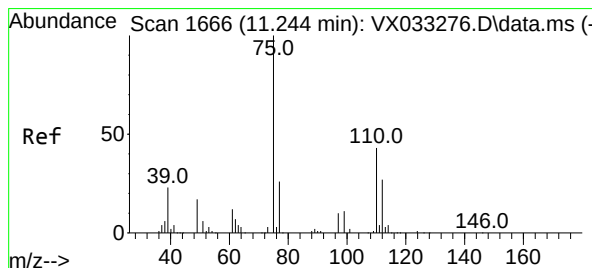
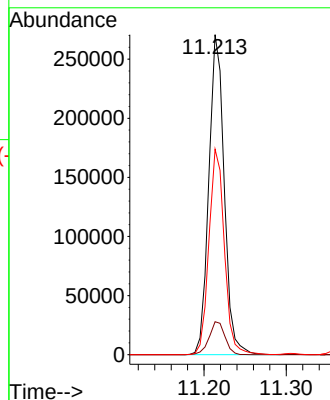
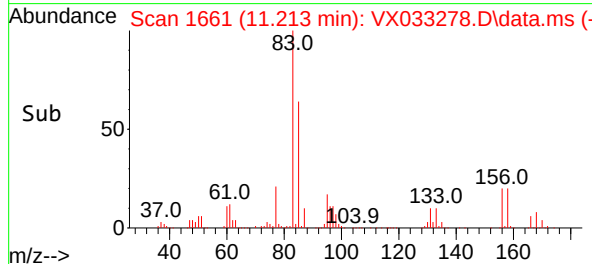
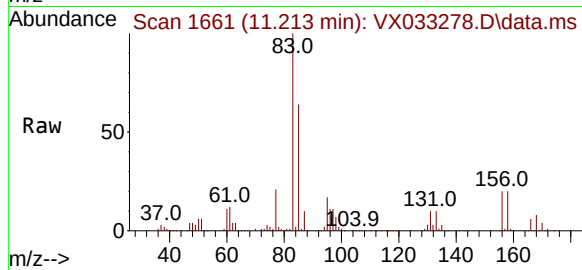
85 64.3 31.9 95.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#76

1,2,3-Trichloropropane

Concen: 164.127 ug/l m

RT: 11.244 min Scan# 1666

Delta R.T. -0.000 min

Lab File: VX033278.D

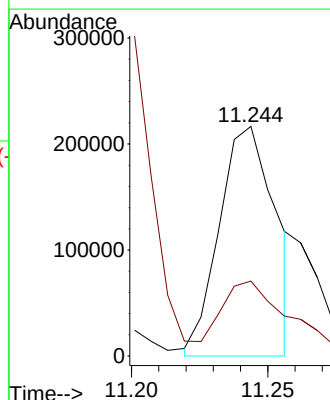
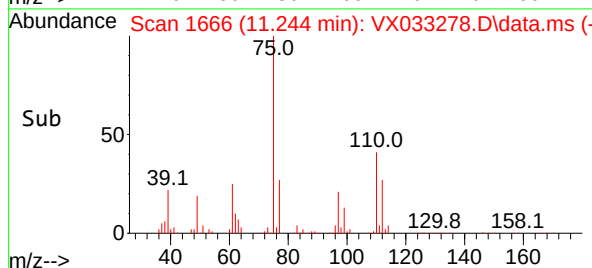
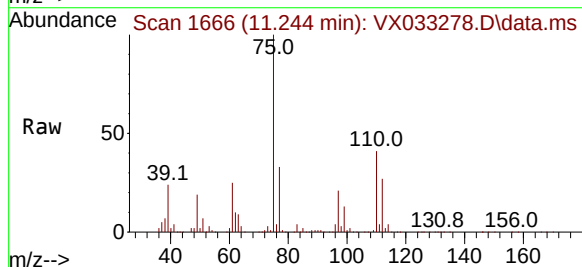
Acq: 07 Dec 2022 11:42

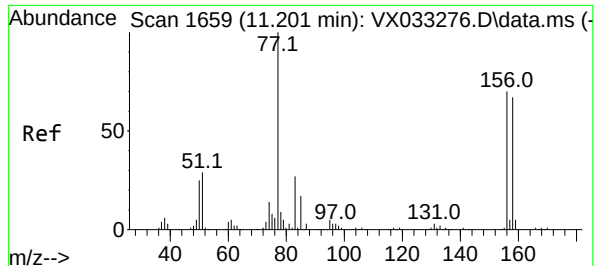
Tgt Ion: 75 Resp: 309515

Ion Ratio Lower Upper

75 100

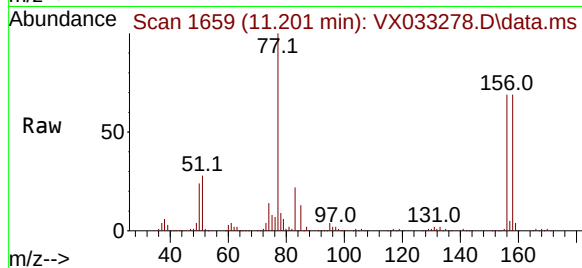
77 39.6 20.0 60.0





#77  
Bromobenzene  
Concen: 155.671 ug/l  
RT: 11.201 min Scan# 1659  
Delta R.T. 0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

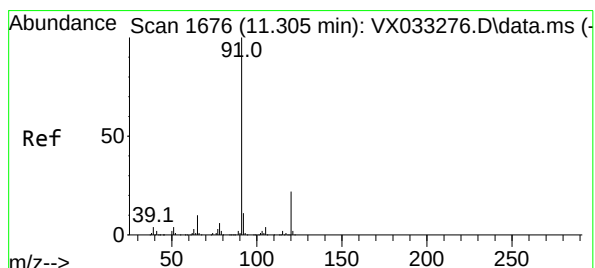
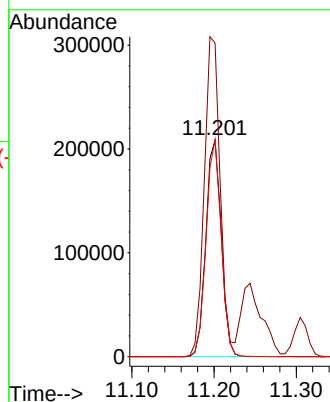
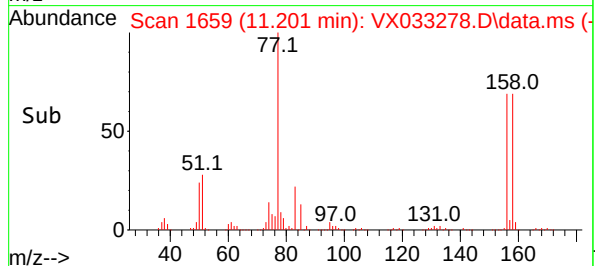
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC150



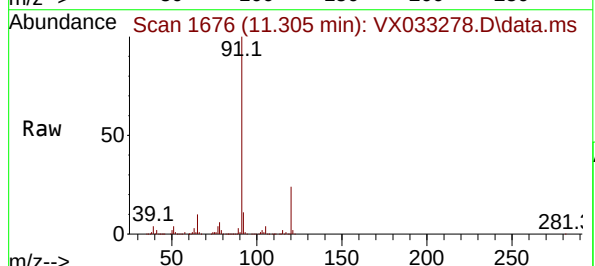
Tgt Ion:156 Resp: 272423  
Ion Ratio Lower Upper  
156 100  
77 152.0 76.1 228.4  
158 97.5 48.8 146.3

Manual Integrations  
APPROVED

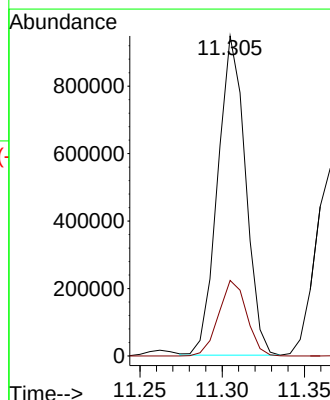
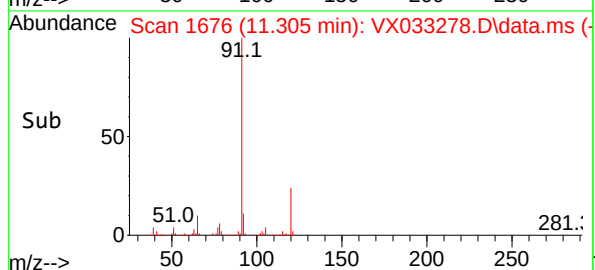
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

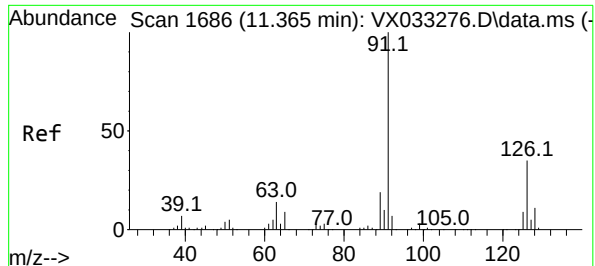


#78  
n-propylbenzene  
Concen: 137.006 ug/l  
RT: 11.305 min Scan# 1676  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42



Tgt Ion: 91 Resp: 1114633  
Ion Ratio Lower Upper  
91 100  
120 23.8 11.6 34.8





#79

2-Chlorotoluene

Concen: 142.298 ug/l

RT: 11.366 min Scan# 1

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion: 91 Resp: 70312

Ion Ratio Lower Upper

91 100

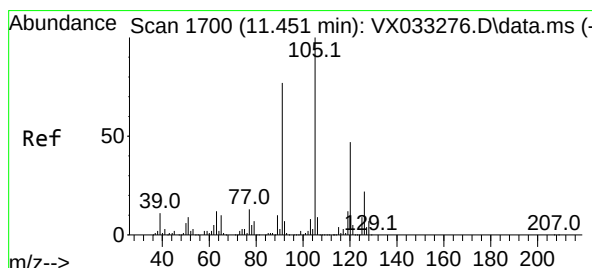
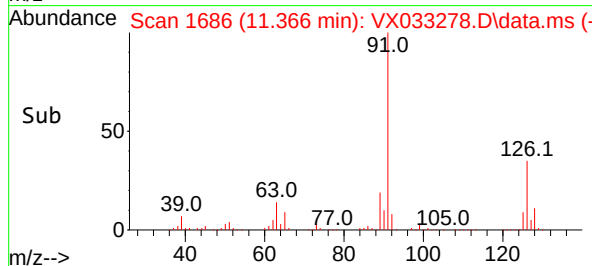
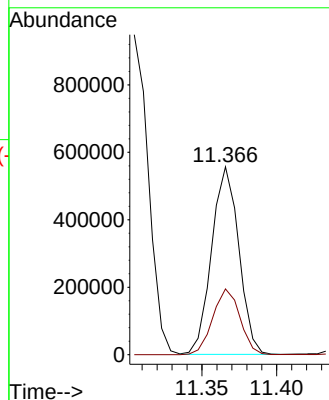
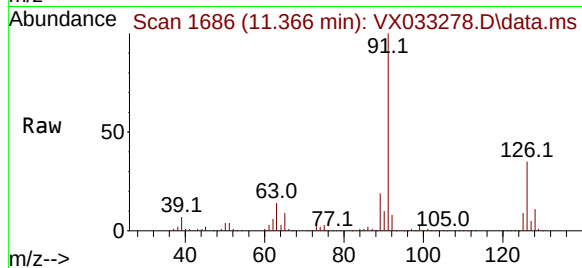
126 35.1 17.1 51.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#80

1,3,5-Trimethylbenzene

Concen: 142.194 ug/l

RT: 11.451 min Scan# 1700

Delta R.T. 0.000 min

Lab File: VX033278.D

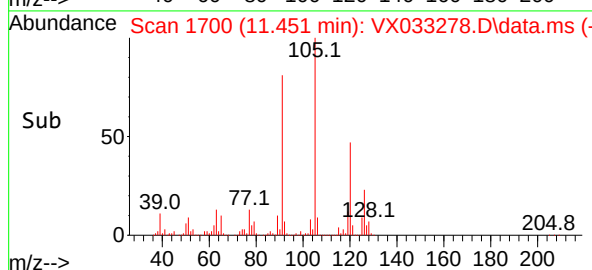
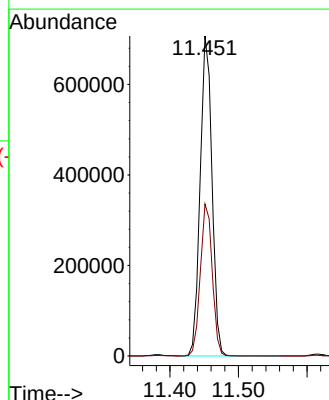
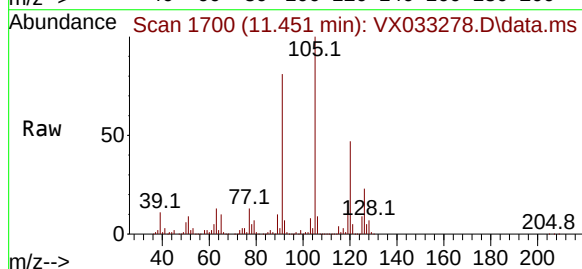
Acq: 07 Dec 2022 11:42

Tgt Ion:105 Resp: 849987

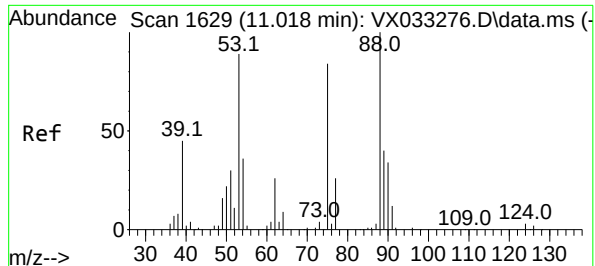
Ion Ratio Lower Upper

105 100

120 48.0 23.6 71.0







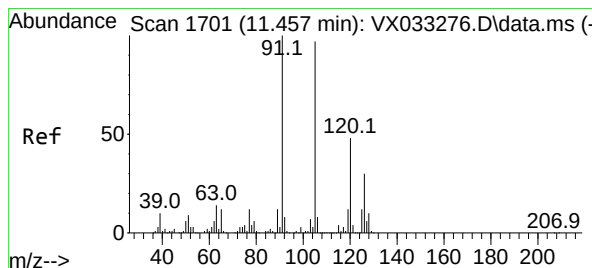
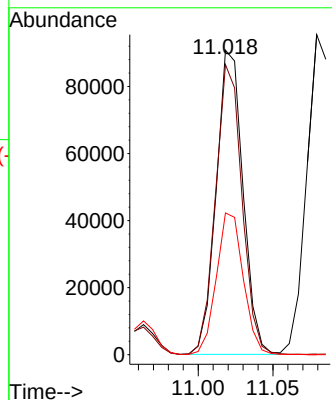
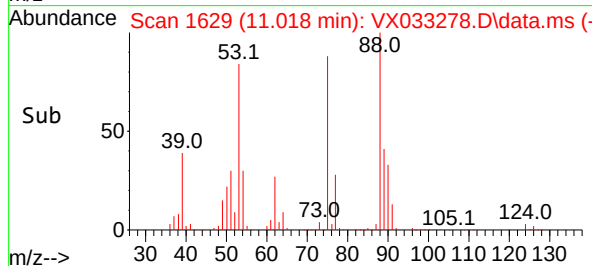
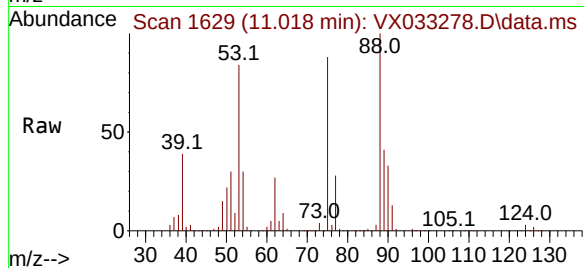
#81  
trans-1,4-Dichloro-2-butene  
Concen: 195.069 ug/l  
RT: 11.018 min Scan# 1629  
Delta R.T. 0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC150

Tgt Ion: 75 Resp: 113174  
Ion Ratio Lower Upper  
75 100  
53 94.1 86.9 130.3  
89 46.9 38.3 57.5

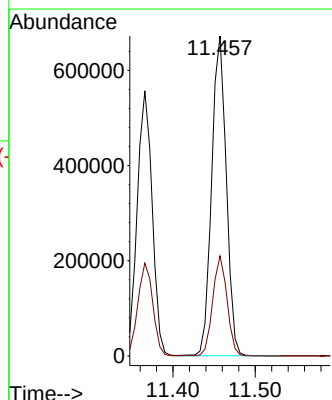
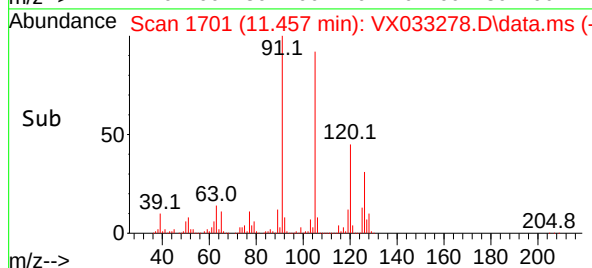
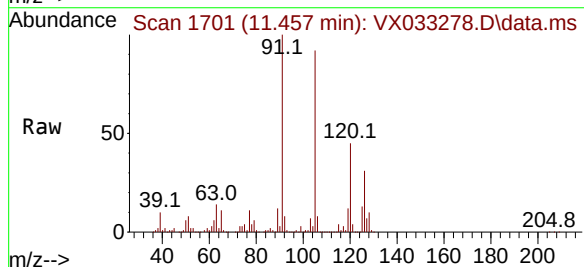
Manual Integrations  
APPROVED

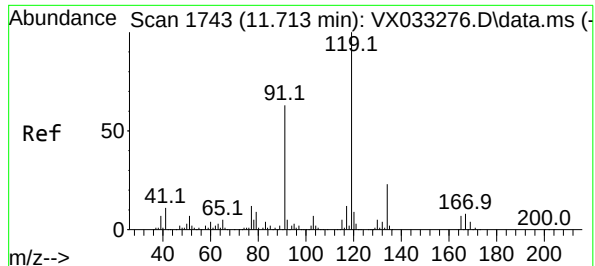
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#82  
4-Chlorotoluene  
Concen: 143.634 ug/l  
RT: 11.457 min Scan# 1701  
Delta R.T. 0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Tgt Ion: 91 Resp: 831705  
Ion Ratio Lower Upper  
91 100  
126 30.6 14.8 44.4





#83

tert-Butylbenzene

Concen: 139.011 ug/l

RT: 11.719 min Scan# 11

Delta R.T. 0.006 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion:119 Resp: 827149

Ion Ratio Lower Upper

119 100

91 54.8 29.4 88.2

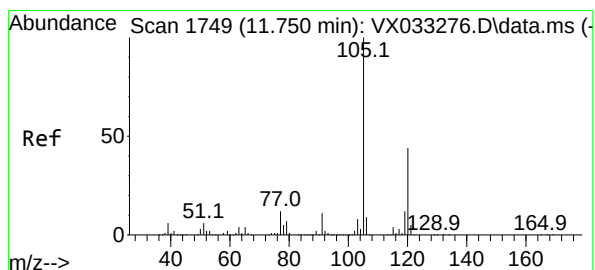
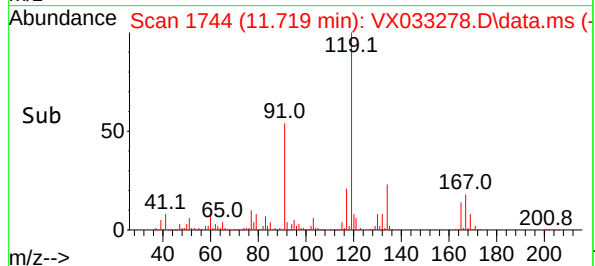
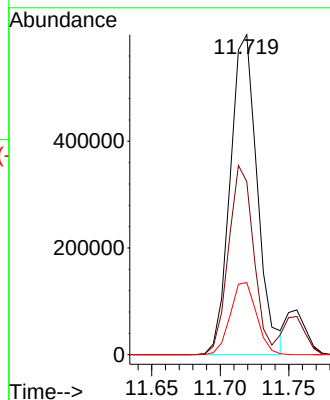
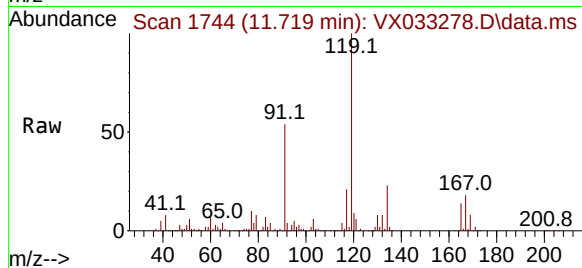
134 21.9 11.0 33.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#84

1,2,4-Trimethylbenzene

Concen: 143.289 ug/l

RT: 11.756 min Scan# 1750

Delta R.T. 0.006 min

Lab File: VX033278.D

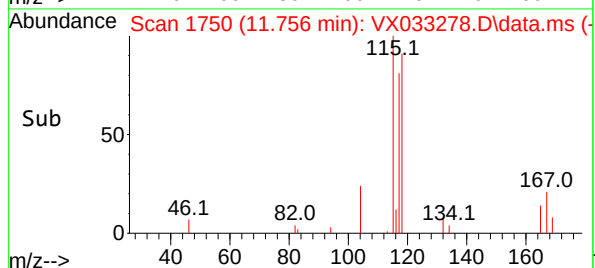
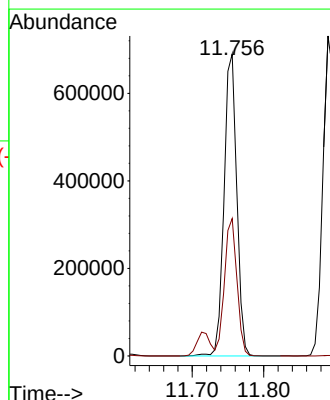
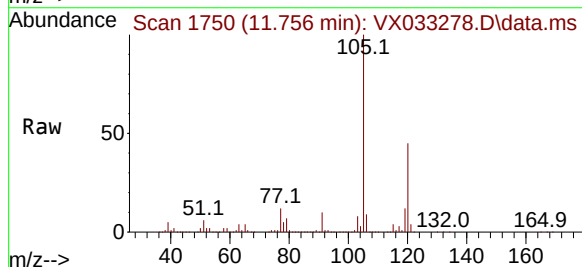
Acq: 07 Dec 2022 11:42

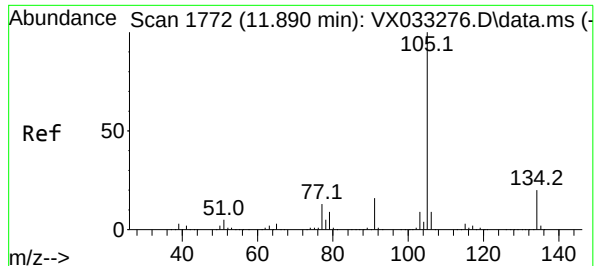
Tgt Ion:105 Resp: 854067

Ion Ratio Lower Upper

105 100

120 44.6 21.9 65.5





#85

sec-Butylbenzene

Concen: 127.242 ug/l

RT: 11.890 min Scan# 1772

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion:105 Resp: 905800

Ion Ratio Lower Upper

105 100

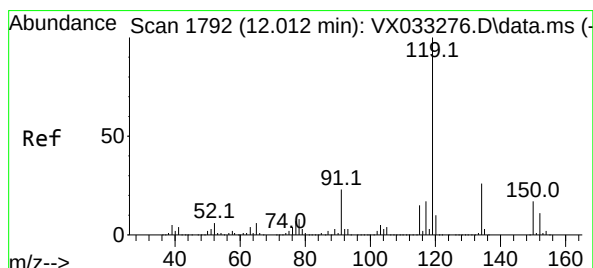
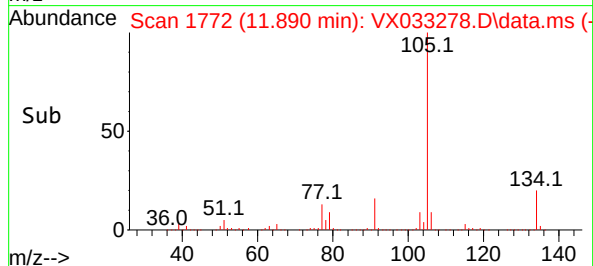
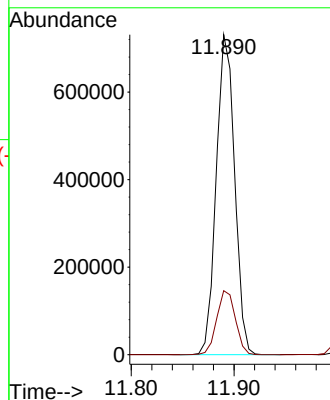
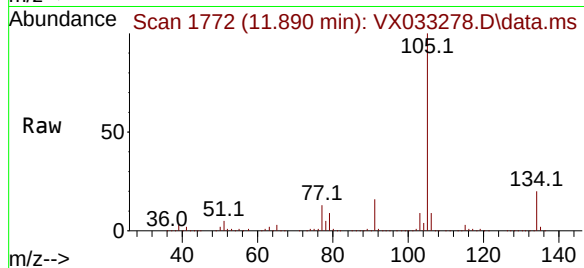
134 20.3 9.9 29.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#86

p-Isopropyltoluene

Concen: 132.185 ug/l

RT: 12.012 min Scan# 1792

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

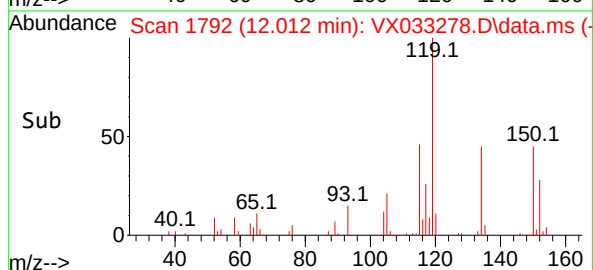
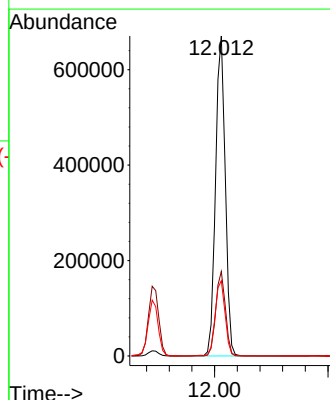
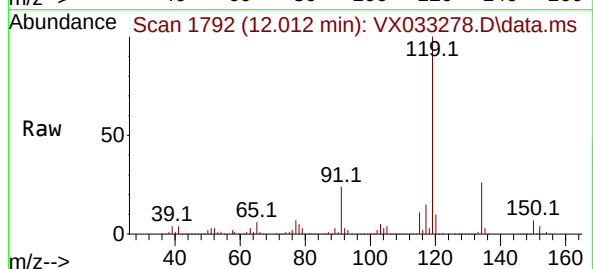
Tgt Ion:119 Resp: 797245

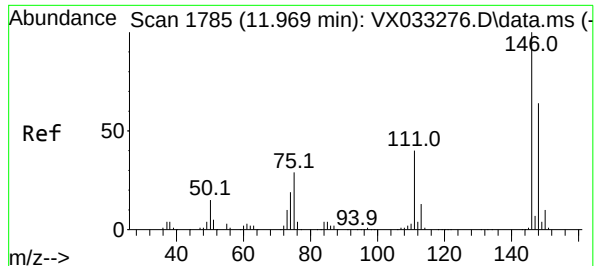
Ion Ratio Lower Upper

119 100

134 26.3 12.9 38.7

91 24.0 12.5 37.5





#87

1,3-Dichlorobenzene

Concen: 147.810 ug/l

RT: 11.969 min Scan# 1785

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDIC150

Tgt Ion:146 Resp: 485160

Ion Ratio Lower Upper

146 100

111 40.3 20.6 61.8

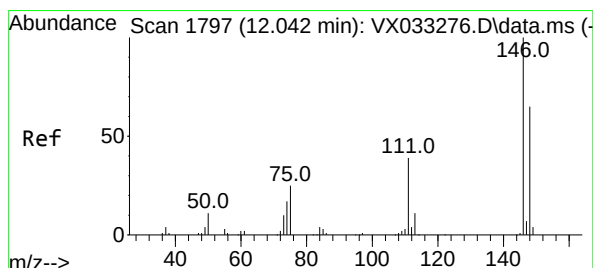
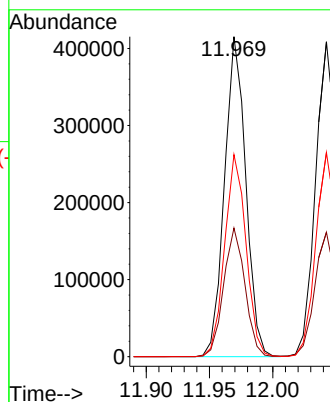
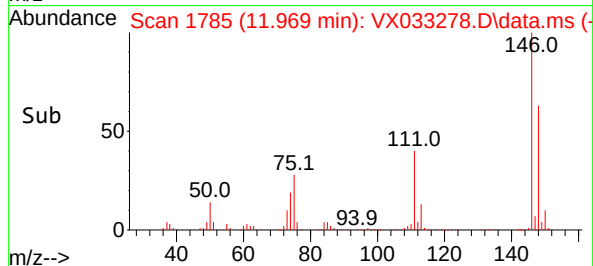
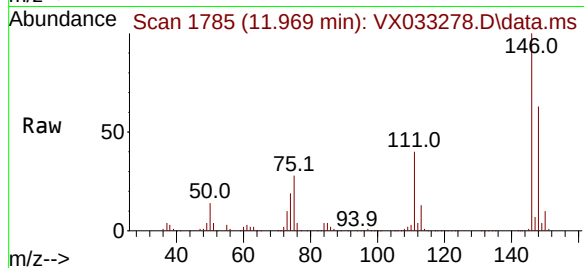
148 63.5 31.7 95.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#88

1,4-Dichlorobenzene

Concen: 145.739 ug/l

RT: 12.042 min Scan# 1797

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

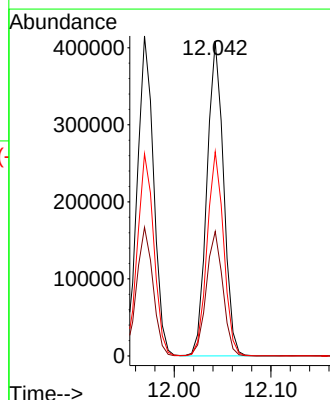
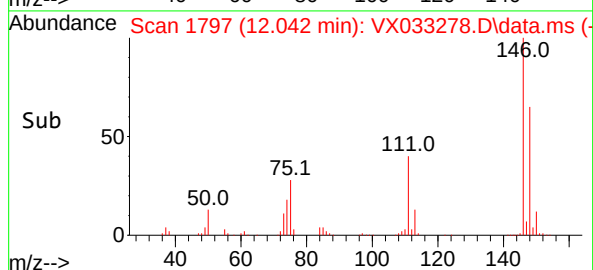
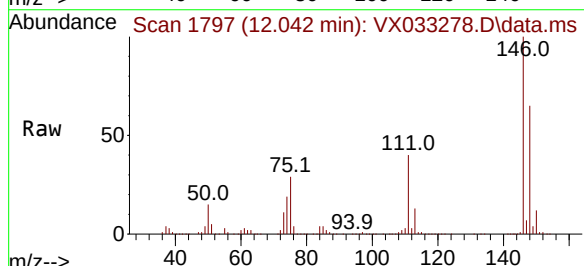
Tgt Ion:146 Resp: 489915

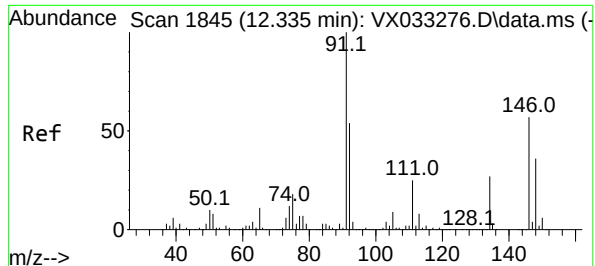
Ion Ratio Lower Upper

146 100

111 39.3 20.5 61.6

148 64.2 32.2 96.6





#89

n-Butylbenzene

Concen: 126.627 ug/l

RT: 12.335 min Scan# 1845

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC150

Tgt Ion: 91 Resp: 65793

Ion Ratio Lower Upper

91 100

92 53.2 26.2 78.6

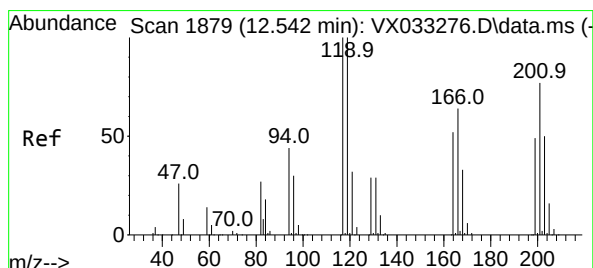
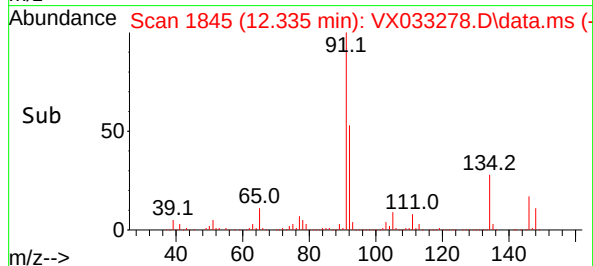
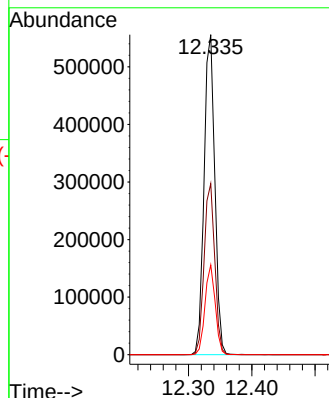
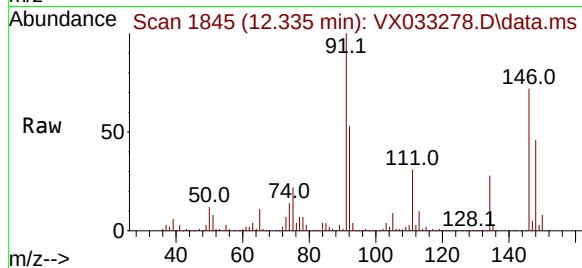
134 26.9 12.9 38.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#90

Hexachloroethane

Concen: 144.580 ug/l

RT: 12.542 min Scan# 1879

Delta R.T. 0.000 min

Lab File: VX033278.D

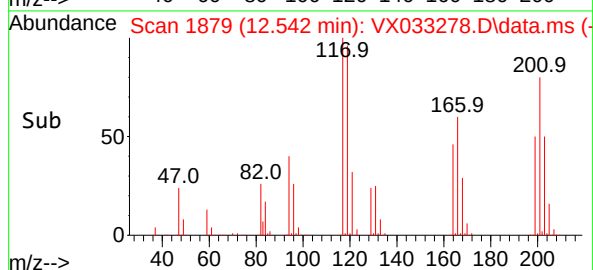
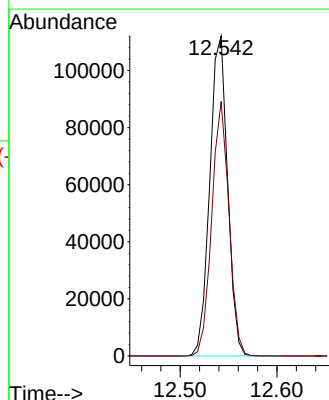
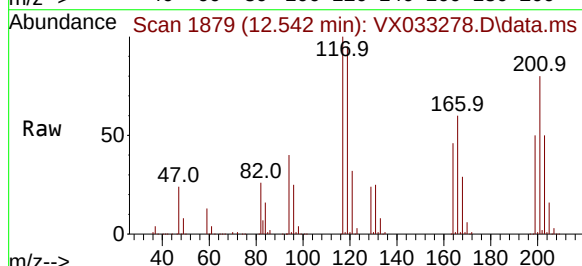
Acq: 07 Dec 2022 11:42

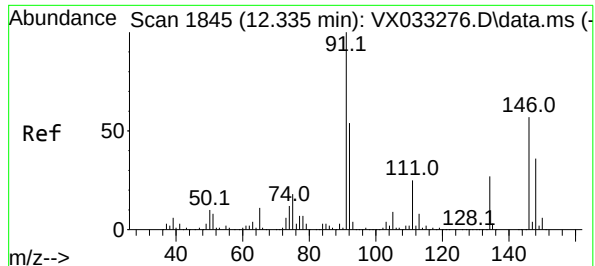
Tgt Ion:117 Resp: 143263

Ion Ratio Lower Upper

117 100

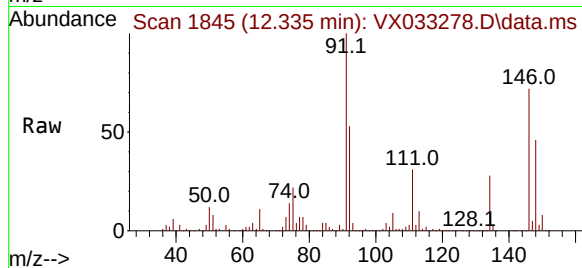
201 76.9 37.6 112.9





#91  
1,2-Dichlorobenzene  
Concen: 151.625 ug/l  
RT: 12.335 min Scan# 1845  
Delta R.T. 0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

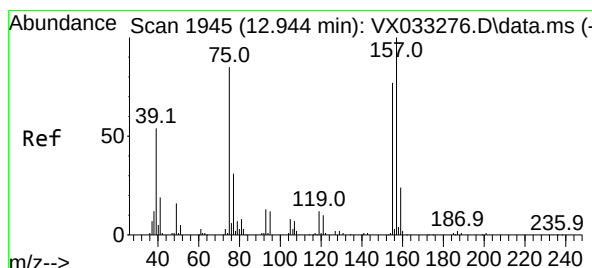
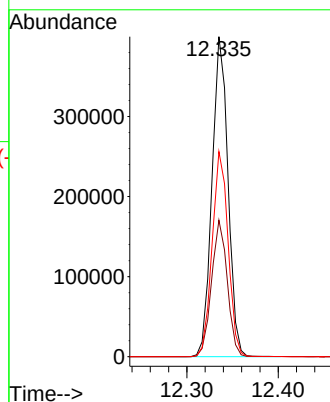
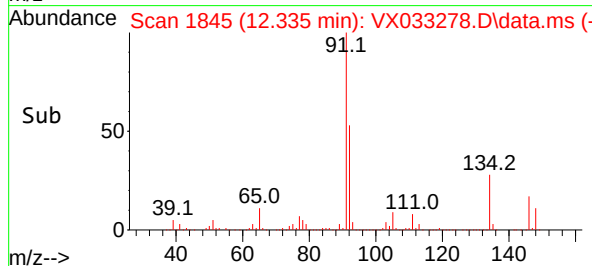
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDIC150



Tgt Ion:146 Resp: 48413  
Ion Ratio Lower Upper  
146 100  
111 42.0 21.5 64.5  
148 64.0 32.0 96.2

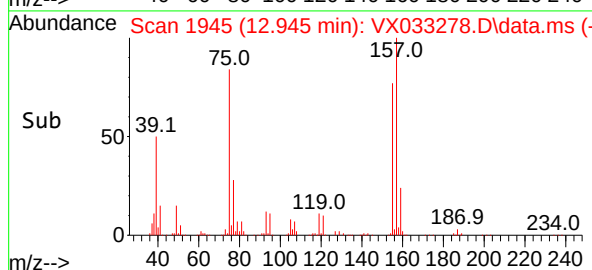
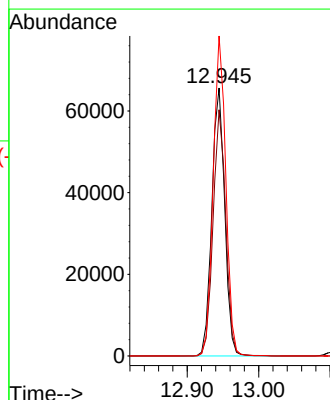
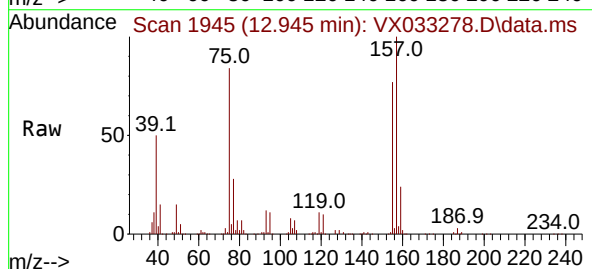
Manual Integrations  
APPROVED

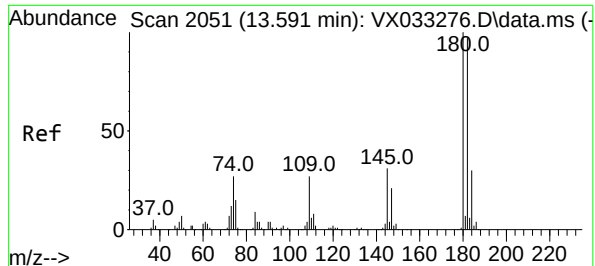
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#92  
1,2-Dibromo-3-Chloropropane  
Concen: 191.433 ug/l  
RT: 12.945 min Scan# 1945  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Tgt Ion: 75 Resp: 82029  
Ion Ratio Lower Upper  
75 100  
155 90.2 41.6 124.8  
157 116.8 54.1 162.4





#93

1,2,4-Trichlorobenzene

Concen: 151.555 ug/l

RT: 13.591 min Scan# 2051

Delta R.T. -0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

Instrument :

MSVOA\_X

ClientSampleId :

VSTDICC150

Tgt Ion:180 Resp: 298290

Ion Ratio Lower Upper

180 100

182 94.9 48.4 145.0

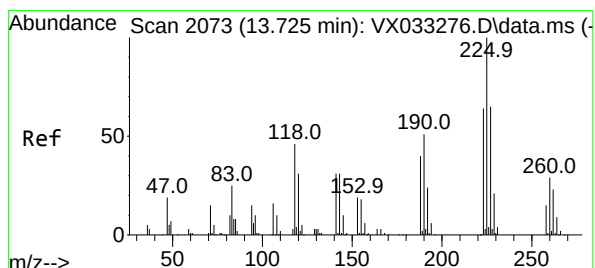
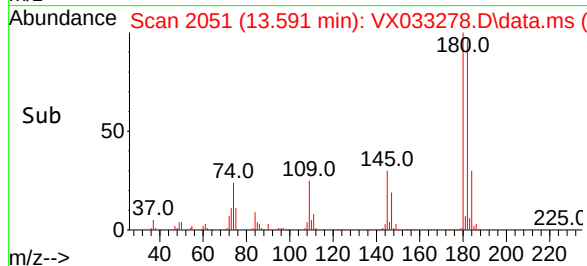
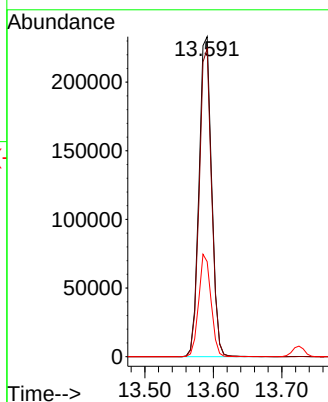
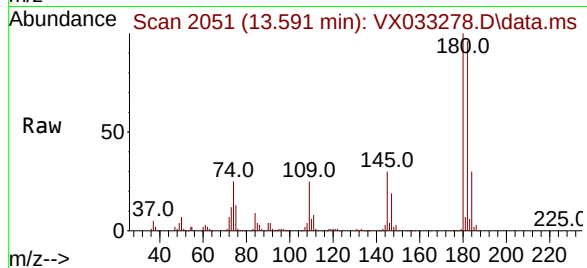
145 31.3 16.2 48.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#94

Hexachlorobutadiene

Concen: 107.977 ug/l

RT: 13.725 min Scan# 2073

Delta R.T. 0.000 min

Lab File: VX033278.D

Acq: 07 Dec 2022 11:42

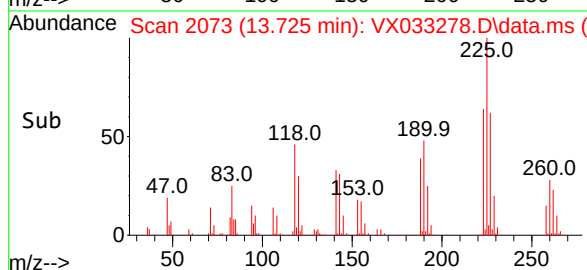
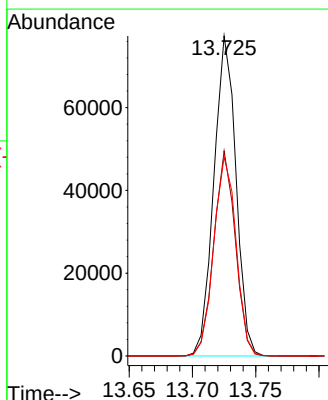
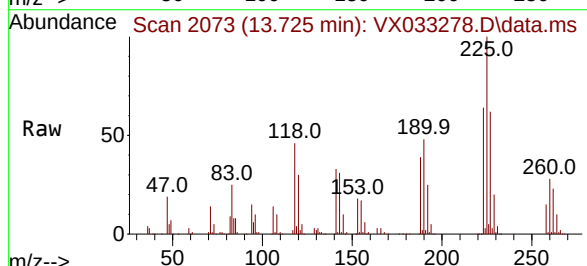
Tgt Ion:225 Resp: 93761

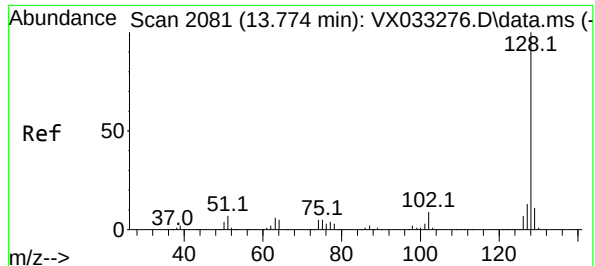
Ion Ratio Lower Upper

225 100

223 62.4 31.9 95.9

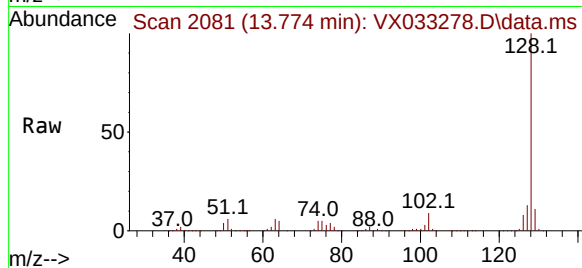
227 63.0 31.9 95.5





#95  
Naphthalene  
Concen: 172.814 ug/l  
RT: 13.774 min Scan# 2081  
Delta R.T. -0.006 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

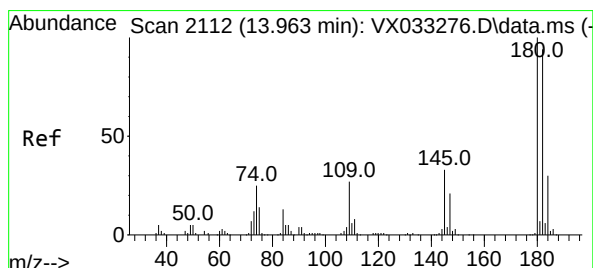
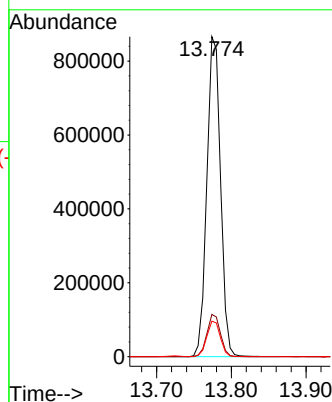
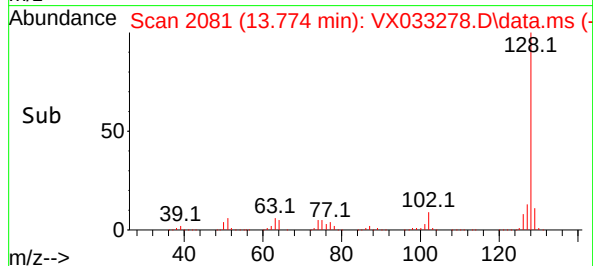
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDICC150



Tgt Ion:128 Resp: 110037  
Ion Ratio Lower Upper  
128 100  
127 13.0 10.2 15.4  
129 11.0 8.9 13.3

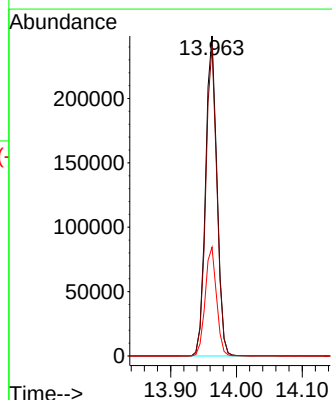
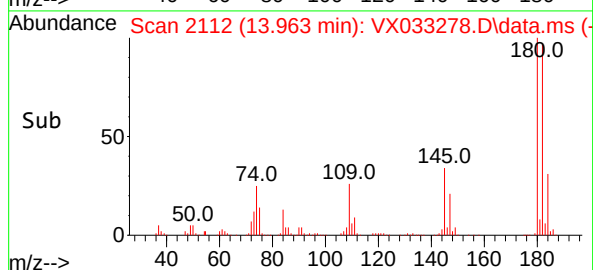
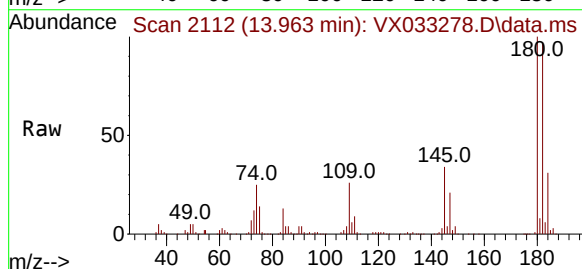
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#96  
1,2,3-Trichlorobenzene  
Concen: 151.203 ug/l  
RT: 13.963 min Scan# 2112  
Delta R.T. -0.000 min  
Lab File: VX033278.D  
Acq: 07 Dec 2022 11:42

Tgt Ion:180 Resp: 298441  
Ion Ratio Lower Upper  
180 100  
182 95.2 47.5 142.6  
145 33.9 16.9 50.6





Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033280.D  
 Acq On : 07 Dec 2022 12:51  
 Operator : JC/MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 ICVVX120722

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/08/2022  
 Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 08 01:41:57 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response   | Conc     | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|----------|--------|----------|
| -----                        |                |      |            |          |        |          |
| Internal Standards           |                |      |            |          |        |          |
| 1) Pentafluorobenzene        | 5.550          | 168  | 162415     | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 6.757          | 114  | 257660     | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 10.055         | 117  | 237524     | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 12.024         | 152  | 120258     | 50.000   | ug/l   | 0.00     |
|                              |                |      |            |          |        |          |
| System Monitoring Compounds  |                |      |            |          |        |          |
| 33) 1,2-Dichloroethane-d4    | 5.952          | 65   | 48832      | 46.866   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 78 - 117 |      | Recovery = | 93.740%  |        |          |
| 35) Dibromofluoromethane     | 5.385          | 113  | 55536      | 47.921   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = | 95.840%  |        |          |
| 50) Toluene-d8               | 8.647          | 98   | 121350     | 50.054   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 92 - 112 |      | Recovery = | 100.100% |        |          |
| 62) 4-Bromofluorobenzene     | 11.079         | 95   | 97770      | 52.743   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 83 - 123 |      | Recovery = | 105.480% |        |          |
|                              |                |      |            |          |        |          |
| Target Compounds             |                |      |            |          | Qvalue |          |
| 2) Dichlorodifluoromethane   | 1.166          | 85   | 56389      | 49.702   | ug/l   | 96       |
| 3) Chloromethane             | 1.295          | 50   | 59512      | 45.367   | ug/l   | 96       |
| 4) Vinyl Chloride            | 1.374          | 62   | 69954      | 46.704   | ug/l   | 99       |
| 5) Bromomethane              | 1.618          | 94   | 52357      | 47.632   | ug/l   | 98       |
| 6) Chloroethane              | 1.691          | 64   | 53665      | 47.236   | ug/l   | 96       |
| 7) Trichlorofluoromethane    | 1.886          | 101  | 136355     | 48.490   | ug/l   | 99       |
| 8) Diethyl Ether             | 2.130          | 74   | 46097      | 45.386   | ug/l   | 99       |
| 9) 1,1,2-Trichlorotrifluo... | 2.331          | 101  | 74711      | 50.085   | ug/l   | 99       |
| 10) Methyl Iodide            | 2.453          | 142  | 71219      | 43.593   | ug/l   | 99       |
| 11) Tert butyl alcohol       | 3.002          | 59   | 67251      | 211.111  | ug/l   | 100      |
| 12) 1,1-Dichloroethene       | 2.319          | 96   | 70587      | 47.939   | ug/l   | 99       |
| 13) Acrolein                 | 2.239          | 56   | 78806      | 228.098  | ug/l   | 100      |
| 14) Allyl chloride           | 2.666          | 41   | 112896     | 48.012   | ug/l   | 95       |
| 15) Acrylonitrile            | 3.062          | 53   | 179556     | 227.543  | ug/l   | 100      |
| 16) Acetone                  | 2.392          | 43   | 166939     | 216.519  | ug/l   | 99       |
| 17) Carbon Disulfide         | 2.514          | 76   | 180946     | 47.881   | ug/l   | 99       |
| 18) Methyl Acetate           | 2.703          | 43   | 102476     | 45.913   | ug/l   | 97       |
| 19) Methyl tert-butyl Ether  | 3.111          | 73   | 245794     | 48.192   | ug/l   | 100      |
| 20) Methylene Chloride       | 2.788          | 84   | 78430      | 45.612   | ug/l   | 93       |
| 21) trans-1,2-Dichloroethene | 3.093          | 96   | 78497      | 48.735   | ug/l   | 98       |
| 22) Diisopropyl ether        | 3.757          | 45   | 244025     | 48.438   | ug/l   | 97       |
| 23) Vinyl Acetate            | 3.721          | 43   | 958390     | 245.096  | ug/l   | 98       |
| 24) 1,1-Dichloroethane       | 3.605          | 63   | 139554     | 47.145   | ug/l   | 99       |
| 25) 2-Butanone               | 4.556          | 43   | 257566     | 232.728  | ug/l   | 99       |
| 26) 2,2-Dichloropropane      | 4.471          | 77   | 108371     | 49.784   | ug/l   | 99       |
| 27) cis-1,2-Dichloroethene   | 4.483          | 96   | 93344      | 48.492   | ug/l   | 97       |
| 28) Bromochloromethane       | 4.898          | 49   | 59423      | 47.956   | ug/l   | 93       |
| 29) Tetrahydrofuran          | 5.001          | 42   | 167379     | 233.427  | ug/l   | 98       |
| 30) Chloroform               | 5.093          | 83   | 156035     | 47.482   | ug/l   | 98       |
| 31) Cyclohexane              | 5.471          | 56   | 125301     | 50.601   | ug/l   | 91       |
| 32) 1,1,1-Trichloroethane    | 5.379          | 97   | 140838     | 49.812   | ug/l   | 99       |
| 36) 1,1-Dichloropropene      | 5.690          | 75   | 112707     | 49.882   | ug/l   | 100      |
| 37) Ethyl Acetate            | 4.709          | 43   | 101939     | 47.728   | ug/l   | 100      |
| 38) Carbon Tetrachloride     | 5.678          | 117  | 125509     | 49.578   | ug/l   | 97       |
| 39) Methylcyclohexane        | 7.379          | 83   | 134321     | 53.112   | ug/l   | 99       |
| 40) Benzene                  | 6.038          | 78   | 322242     | 48.914   | ug/l   | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033280.D  
 Acq On : 07 Dec 2022 12:51  
 Operator : JC/MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 ICVVX120722

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/08/2022  
 Supervised By : Mahesh Dadoda 12/08/2022

Quant Time: Dec 08 01:41:57 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 4.916  | 41   | 57501    | 48.856  | ug/l   | 97       |
| 42) 1,2-Dichloroethane        | 6.086  | 62   | 124620   | 47.637  | ug/l   | 98       |
| 43) Isopropyl Acetate         | 6.336  | 43   | 167268   | 48.673  | ug/l   | 97       |
| 44) Trichloroethene           | 7.123  | 130  | 90972    | 50.085  | ug/l   | 99       |
| 45) 1,2-Dichloropropane       | 7.428  | 63   | 82041    | 48.695  | ug/l   | 99       |
| 46) Dibromomethane            | 7.580  | 93   | 61420    | 47.855  | ug/l   | 97       |
| 47) Bromodichloromethane      | 7.818  | 83   | 122743   | 49.061  | ug/l   | 98       |
| 48) Methyl methacrylate       | 7.690  | 41   | 86058    | 48.521  | ug/l   | 94       |
| 49) 1,4-Dioxane               | 7.696  | 88   | 39410    | 974.422 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone      | 8.574  | 43   | 533877   | 245.658 | ug/l   | 97       |
| 52) Toluene                   | 8.720  | 92   | 214134   | 50.273  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 8.976  | 75   | 126110   | 47.076  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene   | 8.366  | 75   | 136491   | 51.268  | ug/l   | 90       |
| 55) 1,1,2-Trichloroethane     | 9.153  | 97   | 87728    | 48.997  | ug/l   | 99       |
| 56) Ethyl methacrylate        | 9.116  | 69   | 129329   | 51.302  | ug/l   | 92       |
| 57) 1,3-Dichloropropane       | 9.305  | 76   | 142492   | 49.540  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether | 8.238  | 63   | 291627   | 252.823 | ug/l   | 99       |
| 59) 2-Hexanone                | 9.427  | 43   | 399172   | 249.243 | ug/l   | 96       |
| 60) Dibromochloromethane      | 9.519  | 129  | 101310   | 51.356  | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 9.610  | 107  | 96259    | 50.543  | ug/l   | 99       |
| 64) Tetrachloroethene         | 9.275  | 164  | 80126    | 49.334  | ug/l   | 98       |
| 65) Chlorobenzene             | 10.080 | 112  | 237720   | 49.423  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane | 10.165 | 131  | 89447    | 49.209  | ug/l   | 100      |
| 67) Ethyl Benzene             | 10.195 | 91   | 425565   | 50.786  | ug/l   | 99       |
| 68) m/p-Xylenes               | 10.299 | 106  | 335122   | 102.791 | ug/l   | 98       |
| 69) o-Xylene                  | 10.640 | 106  | 163154   | 50.629  | ug/l   | 97       |
| 70) Styrene                   | 10.653 | 104  | 274901   | 52.086  | ug/l   | 98       |
| 71) Bromoform                 | 10.799 | 173  | 73003    | 50.740  | ug/l # | 100      |
| 73) Isopropylbenzene          | 10.964 | 105  | 431345   | 49.486  | ug/l   | 99       |
| 74) N-amyl acetate            | 10.842 | 43   | 150450   | 50.590  | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 130259   | 47.106  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 11.238 | 75   | 118011m  | 48.233  | ug/l   |          |
| 77) Bromobenzene              | 11.201 | 156  | 106101   | 48.205  | ug/l   | 98       |
| 78) n-propylbenzene           | 11.305 | 91   | 494916   | 50.851  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 11.366 | 91   | 292372   | 48.608  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 364334   | 50.214  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75   | 37394    | 47.543  | ug/l   | 97       |
| 82) 4-Chlorotoluene           | 11.457 | 91   | 339915   | 48.600  | ug/l   | 98       |
| 83) tert-Butylbenzene         | 11.713 | 119  | 363888   | 50.294  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene    | 11.750 | 105  | 360637   | 49.794  | ug/l   | 99       |
| 85) sec-Butylbenzene          | 11.890 | 105  | 435925   | 51.640  | ug/l   | 100      |
| 86) p-Isopropyltoluene        | 12.012 | 119  | 370603   | 50.922  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 11.969 | 146  | 197172   | 49.452  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 12.043 | 146  | 197406   | 48.472  | ug/l   | 99       |
| 89) n-Butylbenzene            | 12.335 | 91   | 318727   | 53.470  | ug/l   | 99       |
| 90) Hexachloroethane          | 12.536 | 117  | 61643    | 49.829  | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene       | 12.335 | 146  | 190001   | 47.664  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75   | 28225    | 47.255  | ug/l   | 96       |
| 93) 1,2,4-Trichlorobenzene    | 13.591 | 180  | 122405   | 50.844  | ug/l   | 99       |
| 94) Hexachlorobutadiene       | 13.725 | 225  | 49918    | 51.780  | ug/l   | 99       |
| 95) Naphthalene               | 13.774 | 128  | 406692   | 50.644  | ug/l   | 100      |
| 96) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 122061   | 50.061  | ug/l   | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033280.D  
Acq On : 07 Dec 2022 12:51  
Operator : JC/MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722

Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 08 01:41:57 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration

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

-----

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

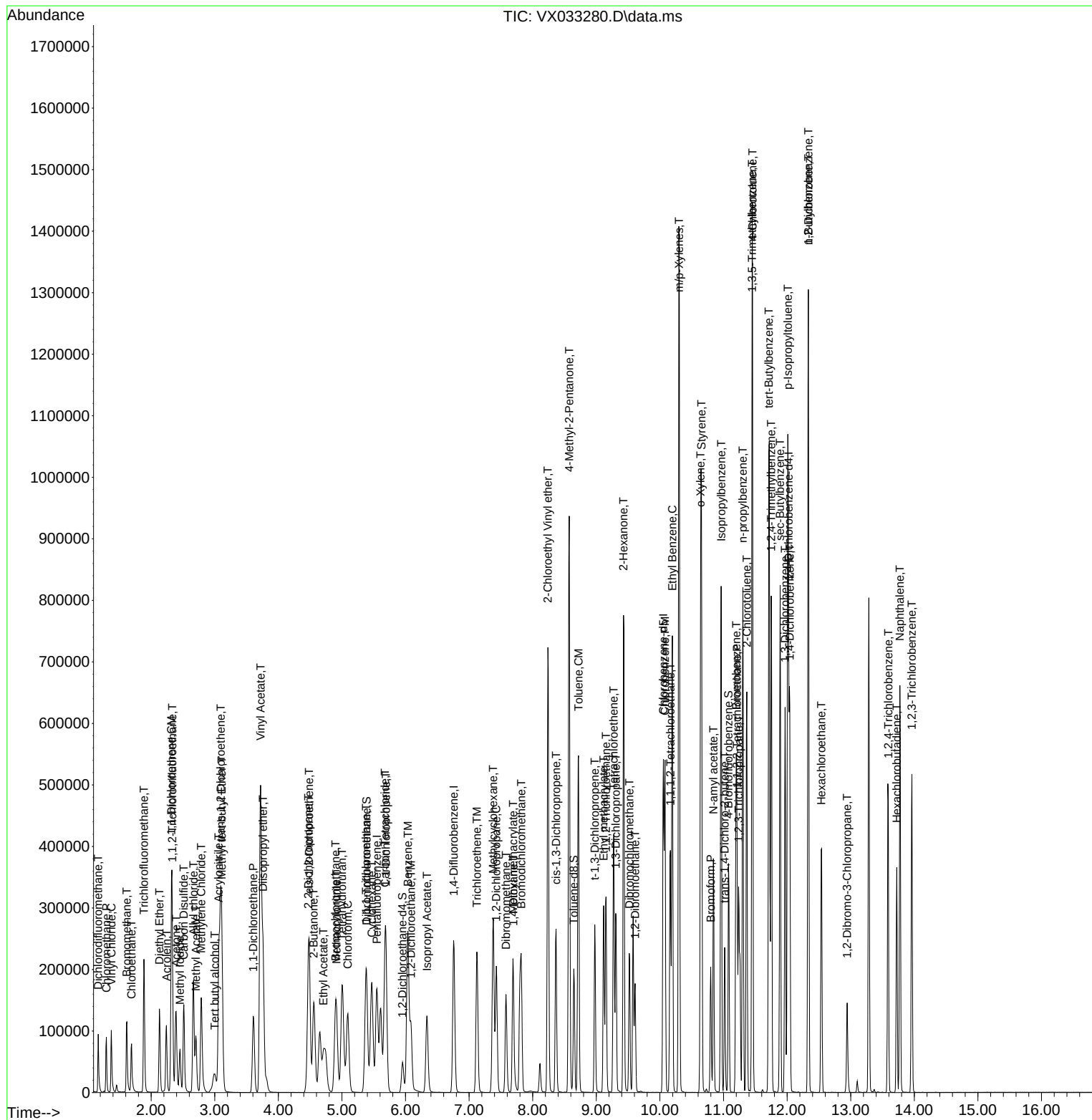
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033280.D  
 Acq On : 07 Dec 2022 12:51  
 Operator : JC/MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 9 Sample Multiplier: 1

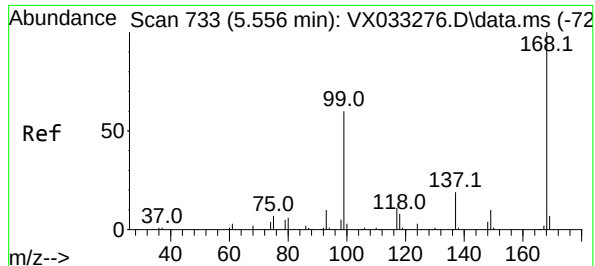
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 ICSVX120722

### Manual Integrations APPROVED

Reviewed By :John Carlone 12/08/2022  
 Supervised By :Mahesh Dadoda 12/08/2022

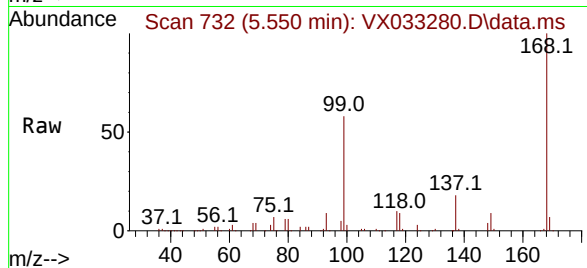
Quant Time: Dec 08 01:41:57 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.550 min Scan# 71  
Delta R.T. -0.006 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

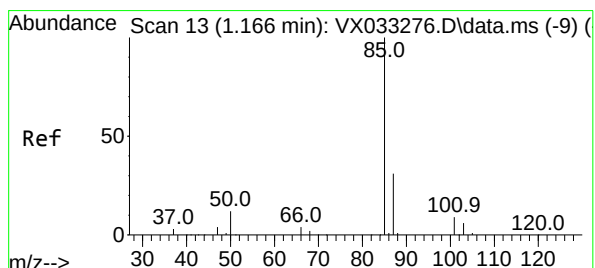
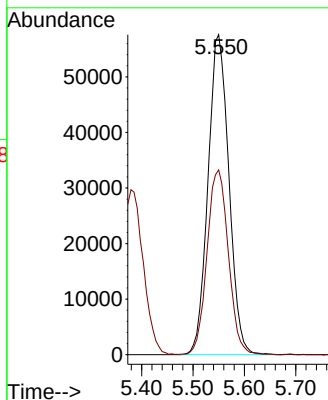
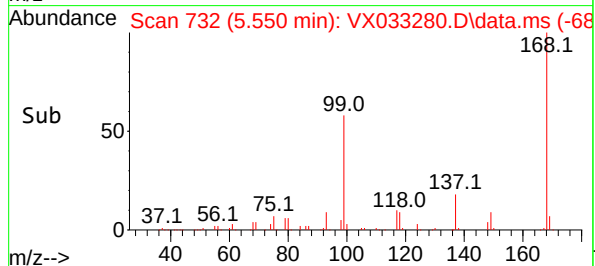
Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVX120722



Tgt Ion:168 Resp: 162415  
Ion Ratio Lower Upper  
168 100  
99 57.8 46.1 69.1

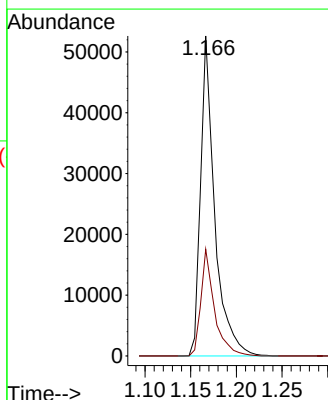
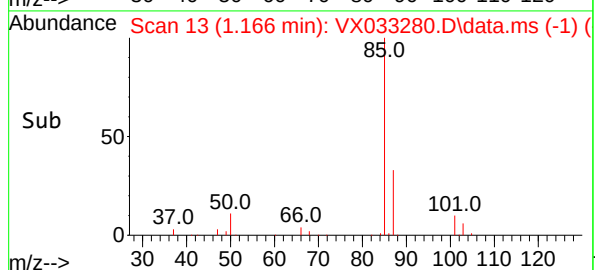
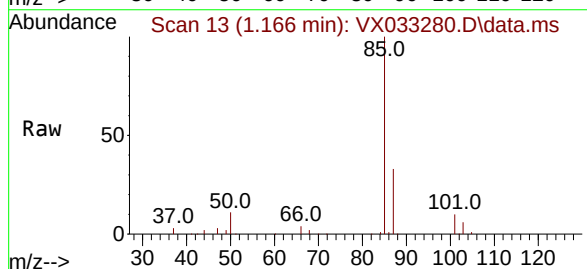
Manual Integrations  
APPROVED

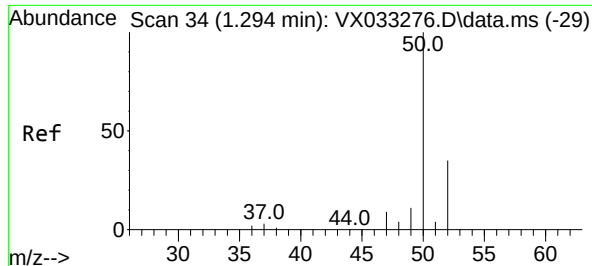
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#2  
Dichlorodifluoromethane  
Concen: 49.702 ug/l  
RT: 1.166 min Scan# 13  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Tgt Ion: 85 Resp: 56389  
Ion Ratio Lower Upper  
85 100  
87 33.4 15.6 46.7





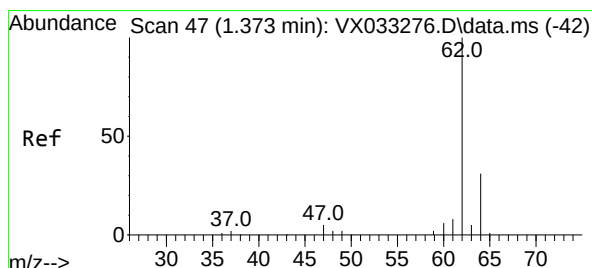
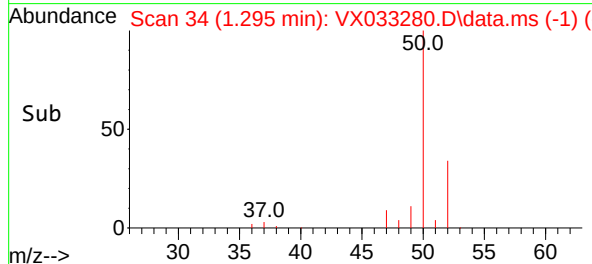
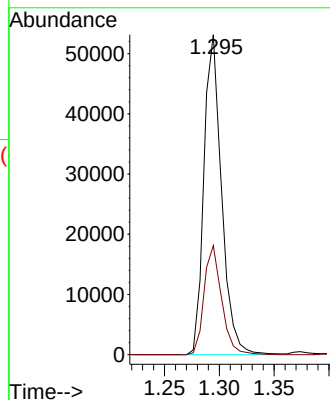
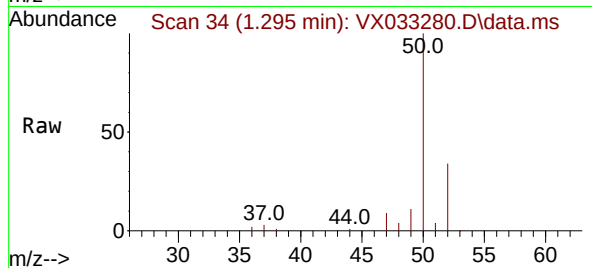
#3  
Chloromethane  
Concen: 45.367 ug/l  
RT: 1.295 min Scan# 34  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722

Tgt Ion: 50 Resp: 59512  
Ion Ratio Lower Upper  
50 100  
52 34.1 25.4 38.2

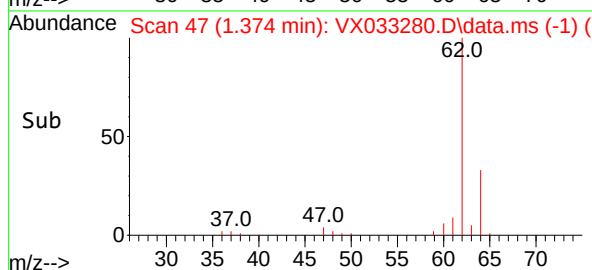
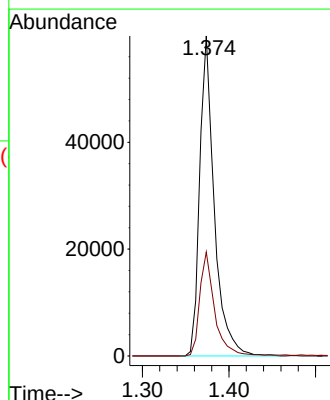
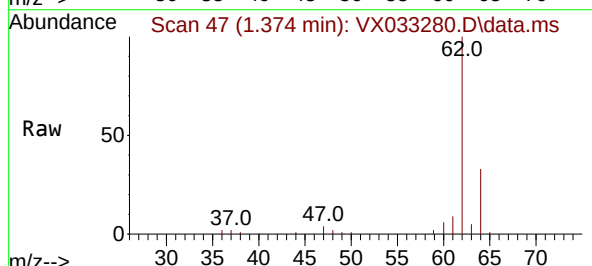
Manual Integrations  
APPROVED

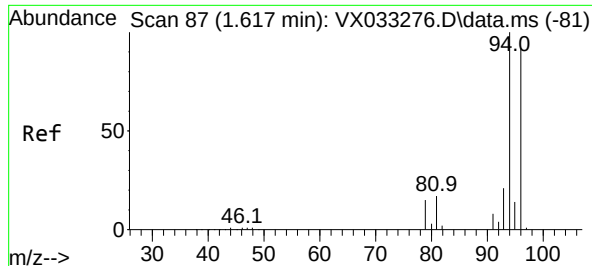
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#4  
Vinyl Chloride  
Concen: 46.704 ug/l  
RT: 1.374 min Scan# 47  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

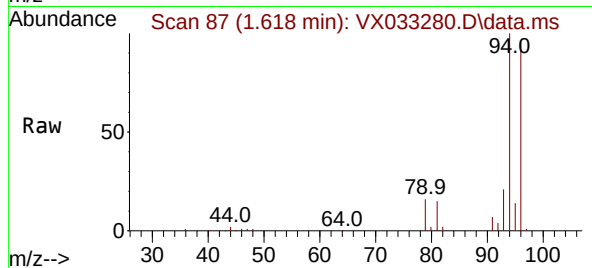
Tgt Ion: 62 Resp: 69954  
Ion Ratio Lower Upper  
62 100  
64 32.5 25.8 38.6





#5  
Bromomethane  
Concen: 47.632 ug/l  
RT: 1.618 min Scan# 81  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

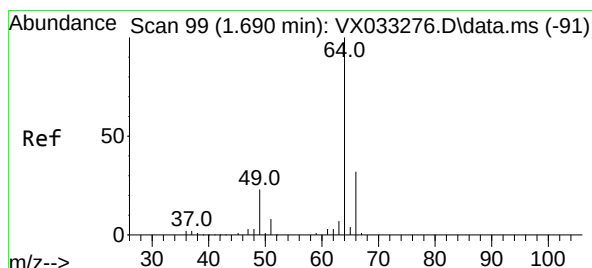
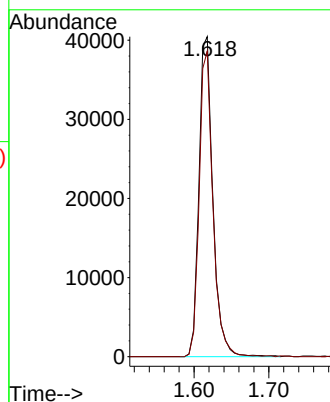
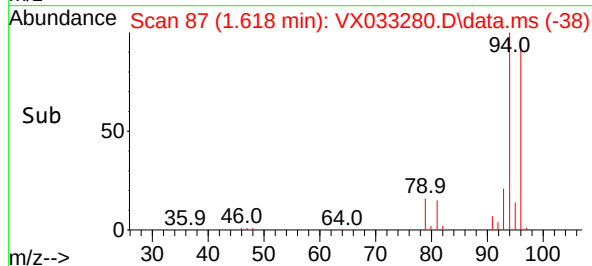
Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722



Tgt Ion: 94 Resp: 5235  
Ion Ratio Lower Upper  
94 100  
96 95.5 77.6 116.4

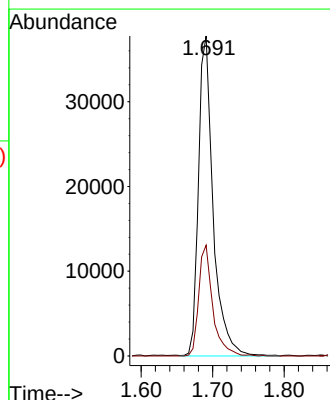
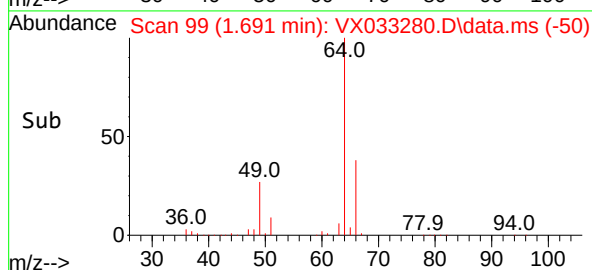
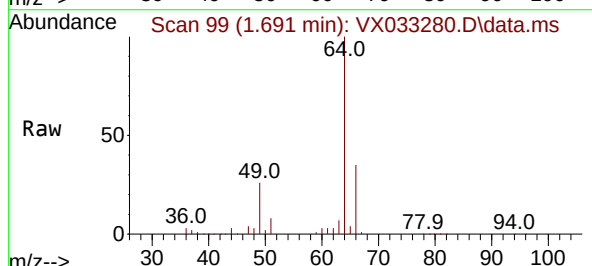
Manual Integrations  
APPROVED

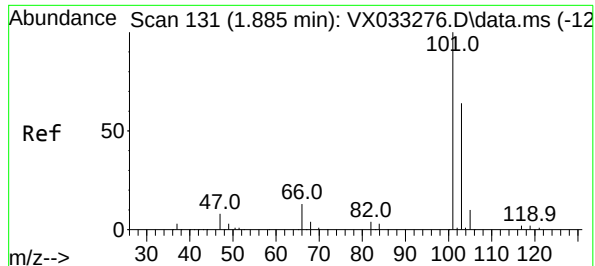
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#6  
Chloroethane  
Concen: 47.236 ug/l  
RT: 1.691 min Scan# 99  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

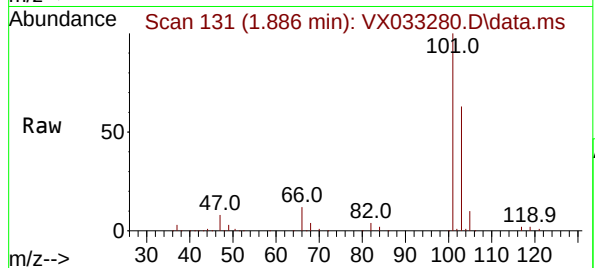
Tgt Ion: 64 Resp: 53665  
Ion Ratio Lower Upper  
64 100  
66 34.6 26.0 39.0





#7  
Trichlorofluoromethane  
Concen: 48.490 ug/l  
RT: 1.886 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

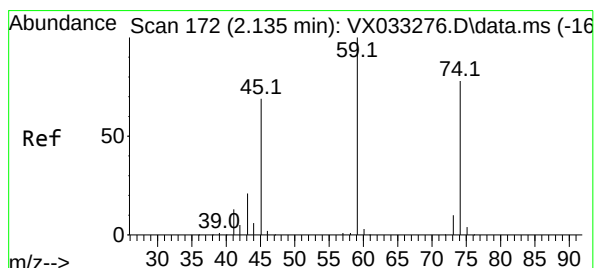
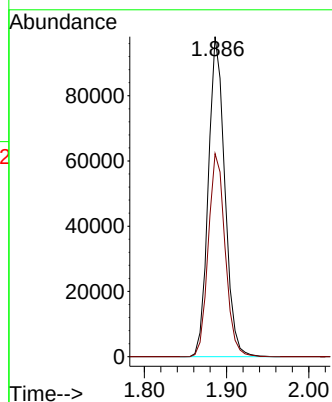
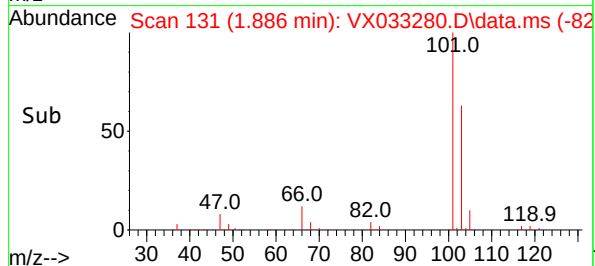
Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVX120722



Tgt Ion:101 Resp: 13635  
Ion Ratio Lower Upper  
101 100  
103 63.5 51.4 77.2

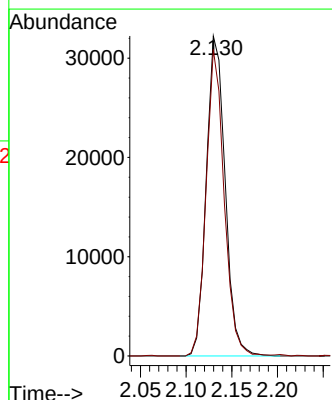
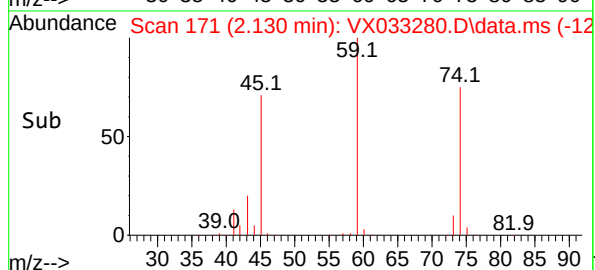
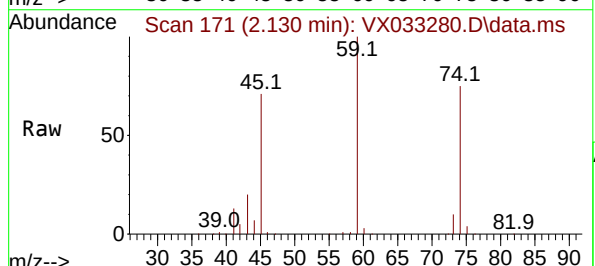
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

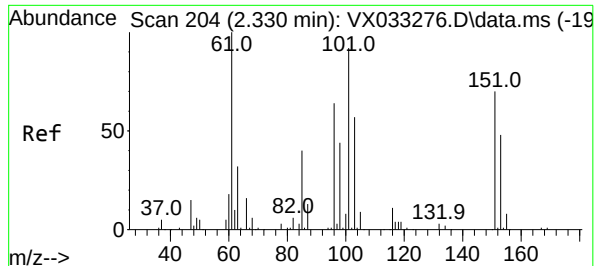


#8  
Diethyl Ether  
Concen: 45.386 ug/l  
RT: 2.130 min Scan# 171  
Delta R.T. -0.006 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Tgt Ion: 74 Resp: 46097  
Ion Ratio Lower Upper  
74 100  
45 92.0 46.6 139.7







#9

1,1,2-Trichlorotrifluoroethane

Concen: 50.085 ug/l

RT: 2.331 min Scan# 204

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion:101 Resp: 7471

Ion Ratio Lower Upper

101 100

85 45.2 37.0 55.4

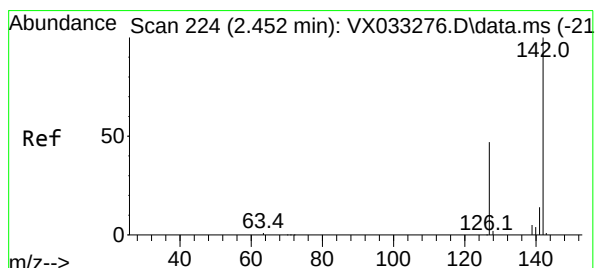
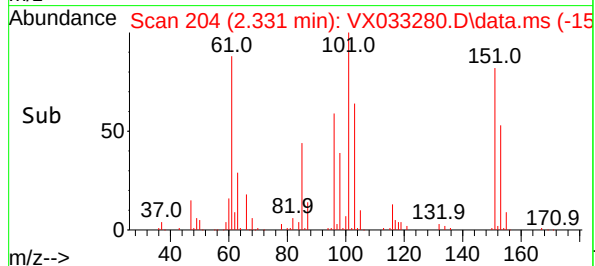
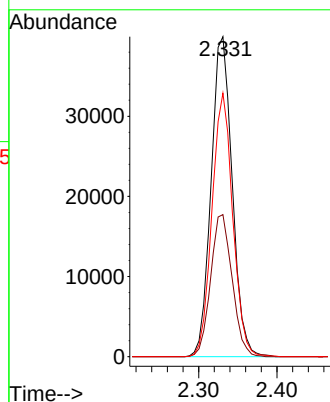
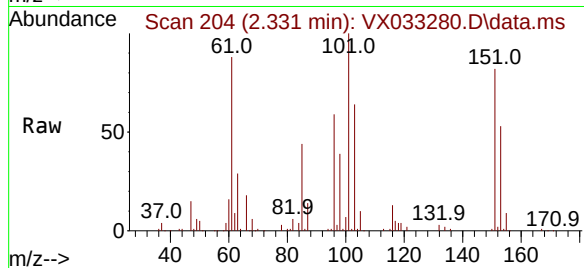
151 81.2 64.4 96.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#10

Methyl Iodide

Concen: 43.593 ug/l

RT: 2.453 min Scan# 224

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

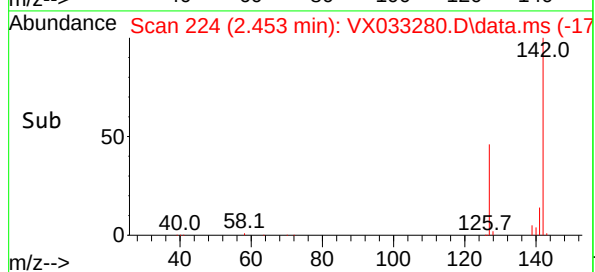
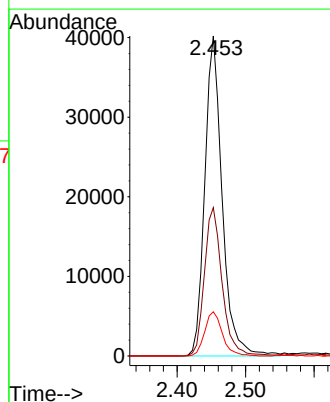
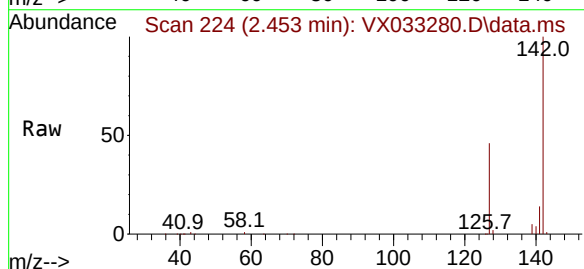
Tgt Ion:142 Resp: 71219

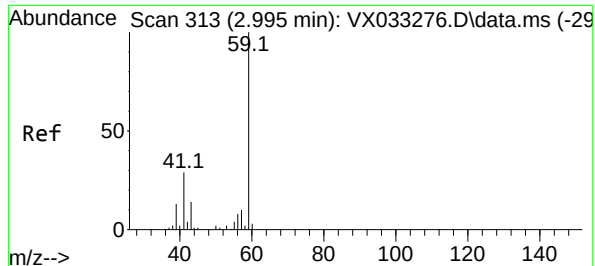
Ion Ratio Lower Upper

142 100

127 47.3 38.6 57.8

141 14.0 11.4 17.2





#11

Tert butyl alcohol

Concen: 211.111 ug/l

RT: 3.002 min Scan# 313

Delta R.T. 0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 59 Resp: 6725

Ion Ratio Lower Upper

59 100

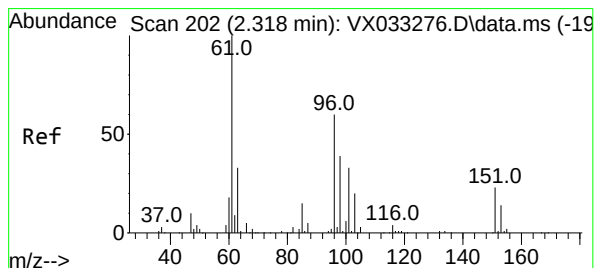
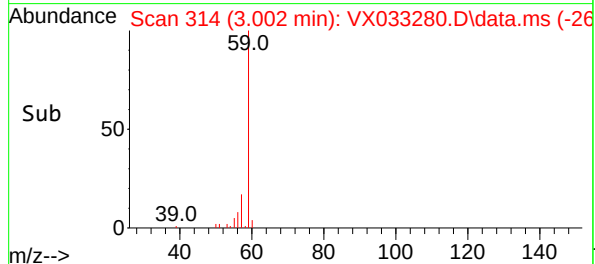
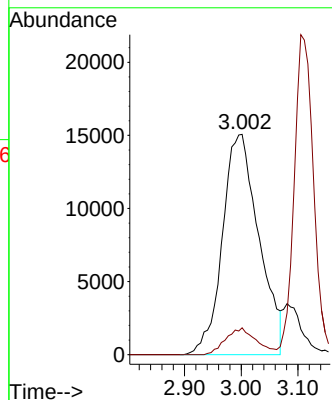
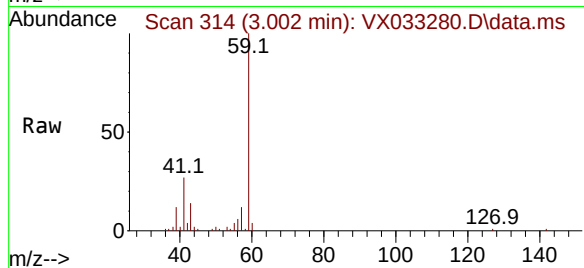
57 10.3 8.2 12.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#12

1,1-Dichloroethene

Concen: 47.939 ug/l

RT: 2.319 min Scan# 202

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

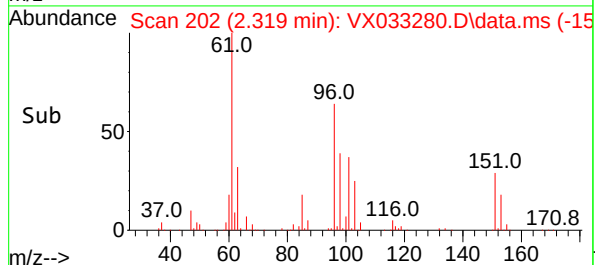
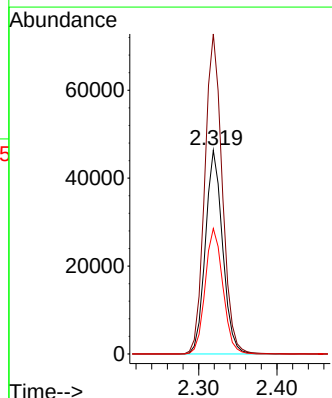
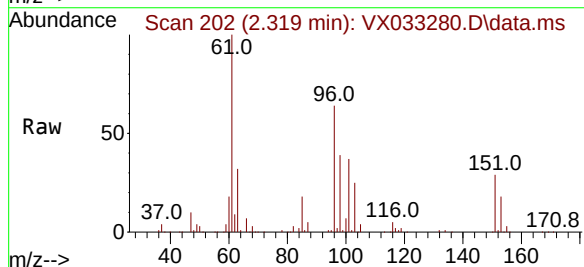
Tgt Ion: 96 Resp: 70587

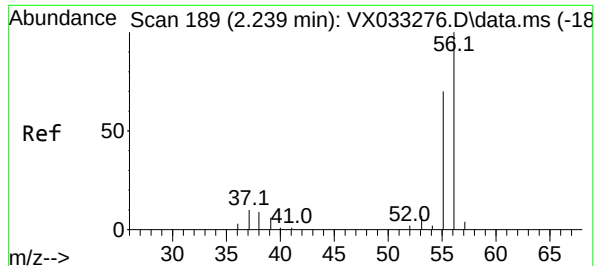
Ion Ratio Lower Upper

96 100

61 157.1 125.1 187.7

98 61.6 50.6 76.0





#13

Acrolein

Concen: 228.098 ug/l

RT: 2.239 min Scan# 189

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 56 Resp: 78800

Ion Ratio Lower Upper

56 100

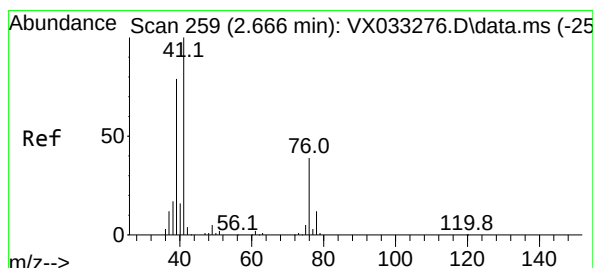
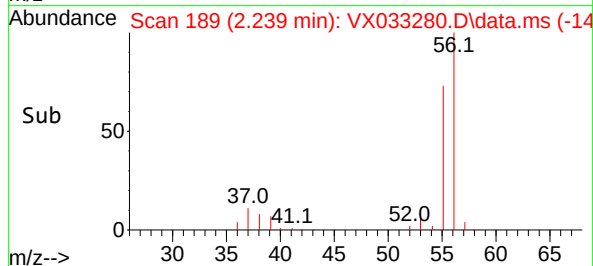
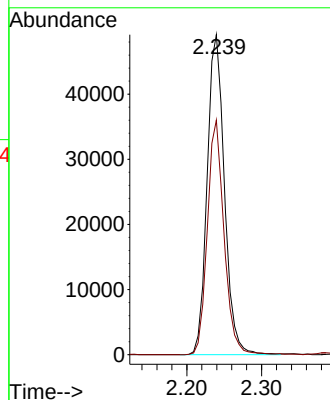
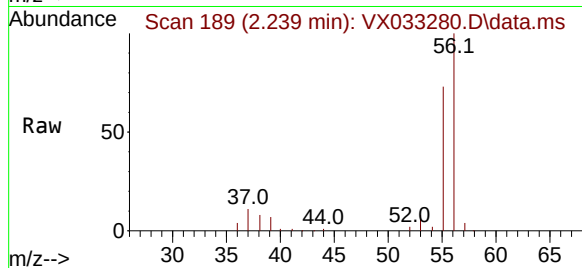
55 70.7 56.9 85.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#14

Allyl chloride

Concen: 48.012 ug/l

RT: 2.666 min Scan# 259

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

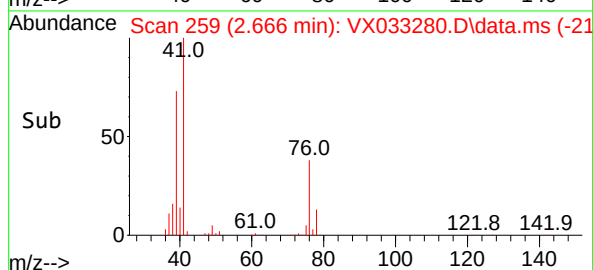
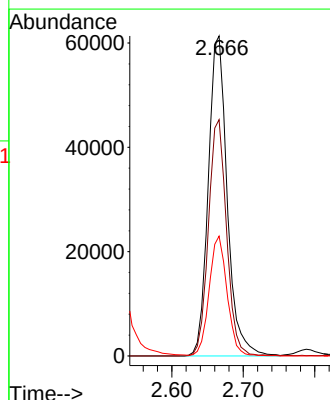
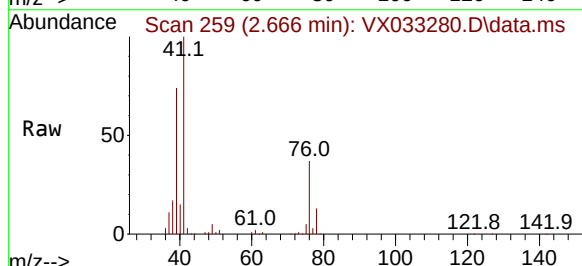
Tgt Ion: 41 Resp: 112896

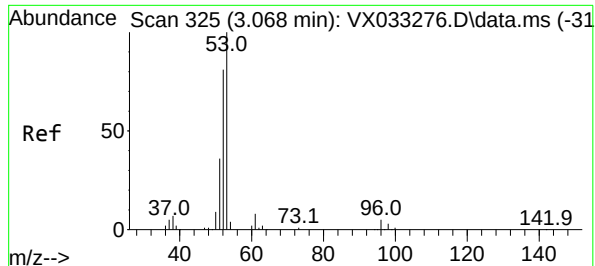
Ion Ratio Lower Upper

41 100

39 70.8 61.4 92.2

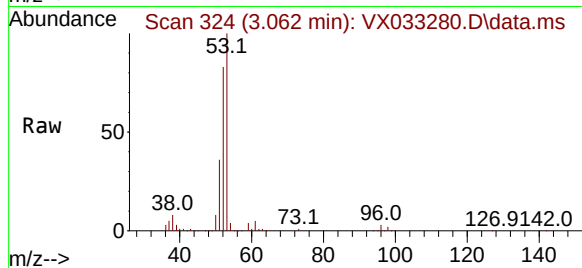
76 35.6 29.2 43.8





#15  
Acrylonitrile  
Concen: 227.543 ug/l  
RT: 3.062 min Scan# 31  
Delta R.T. -0.006 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

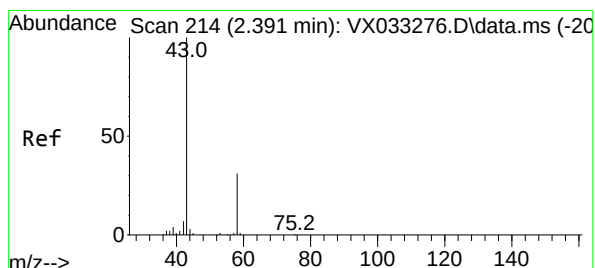
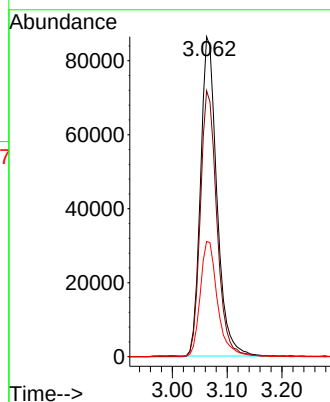
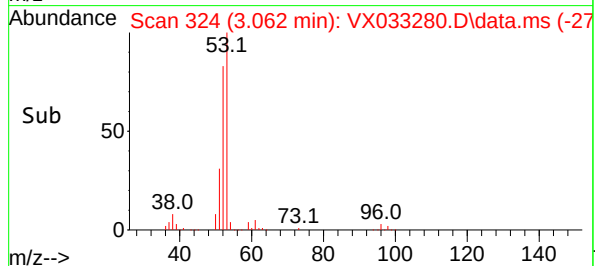
Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722



Tgt Ion: 53 Resp: 179550  
Ion Ratio Lower Upper  
53 100  
52 84.1 67.4 101.0  
51 37.9 30.3 45.5

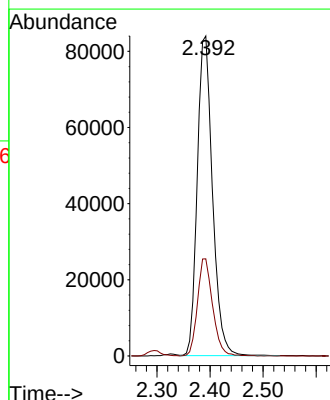
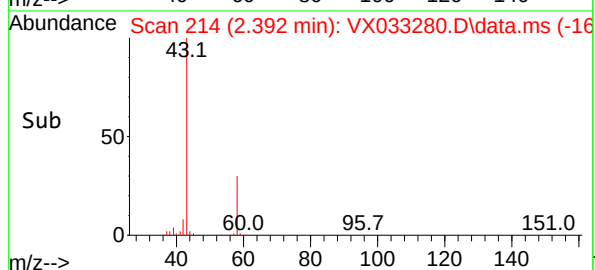
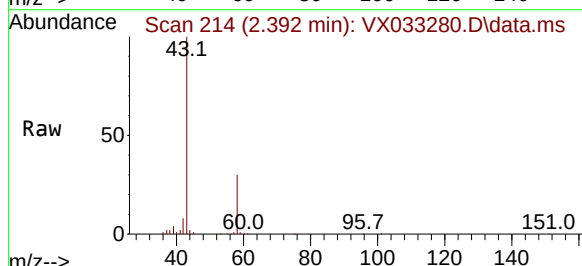
Manual Integrations  
APPROVED

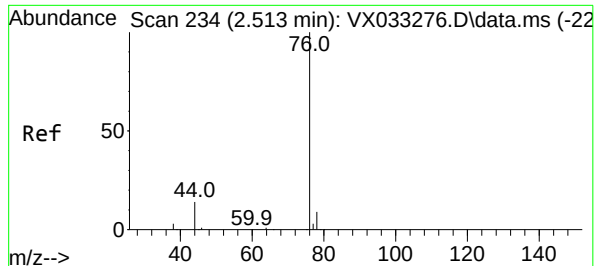
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#16  
Acetone  
Concen: 216.519 ug/l  
RT: 2.392 min Scan# 214  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Tgt Ion: 43 Resp: 166939  
Ion Ratio Lower Upper  
43 100  
58 30.4 23.8 35.8





#17

Carbon Disulfide

Concen: 47.881 ug/l

RT: 2.514 min Scan# 21

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVVX120722

Tgt Ion: 76 Resp: 180940

Ion Ratio Lower Upper

76 100

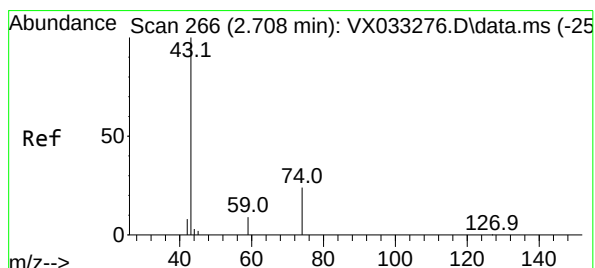
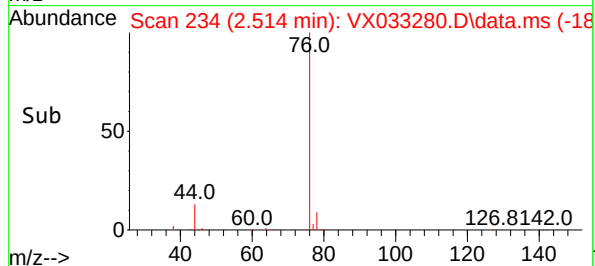
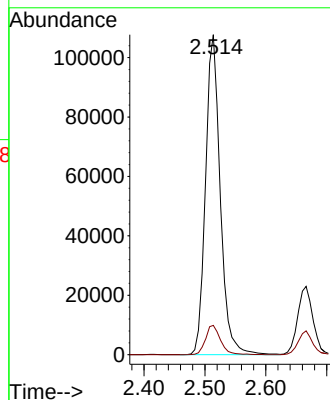
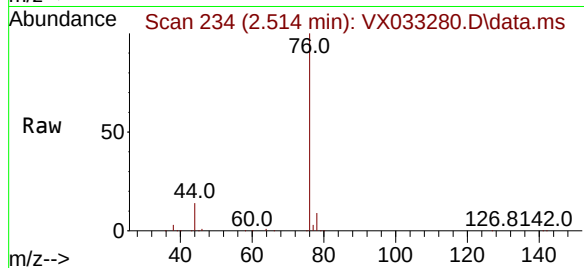
78 9.2 7.5 11.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#18

Methyl Acetate

Concen: 45.913 ug/l

RT: 2.703 min Scan# 265

Delta R.T. -0.006 min

Lab File: VX033280.D

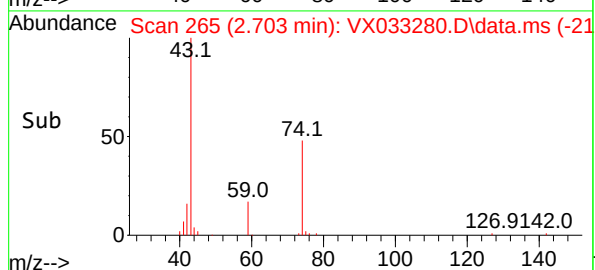
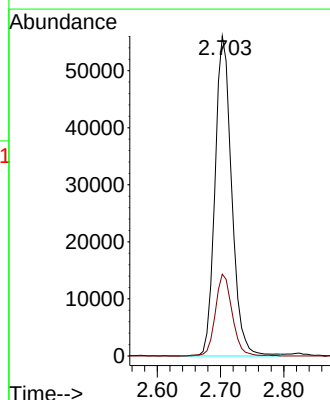
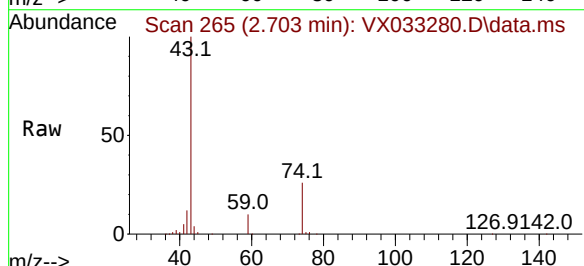
Acq: 07 Dec 2022 12:51

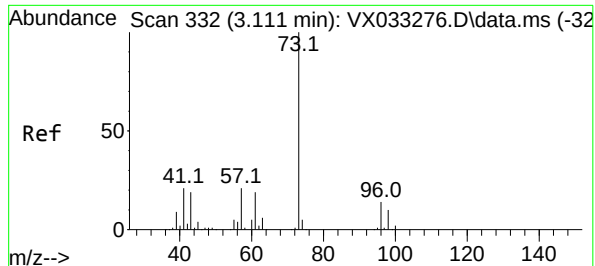
Tgt Ion: 43 Resp: 102476

Ion Ratio Lower Upper

43 100

74 25.9 19.4 29.0





#19

Methyl tert-butyl Ether

Concen: 48.192 ug/l

RT: 3.111 min Scan# 31

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 73 Resp: 245794

Ion Ratio Lower Upper

73 100

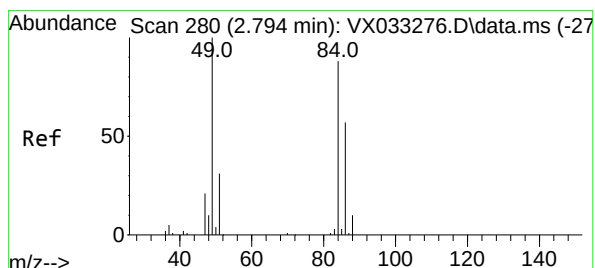
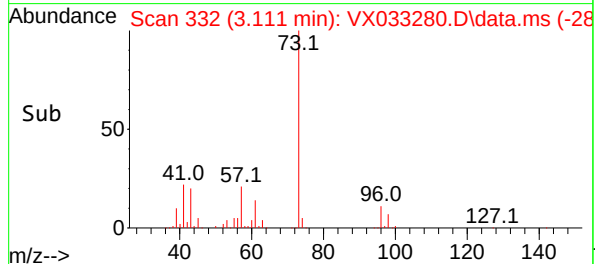
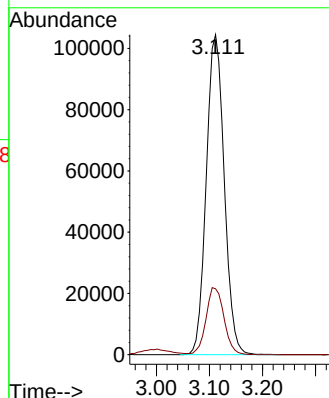
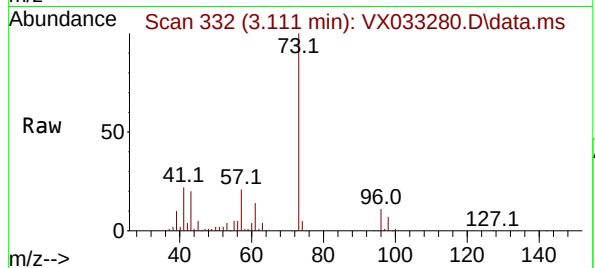
57 20.6 16.6 25.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#20

Methylene Chloride

Concen: 45.612 ug/l

RT: 2.788 min Scan# 279

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Tgt Ion: 84 Resp: 78430

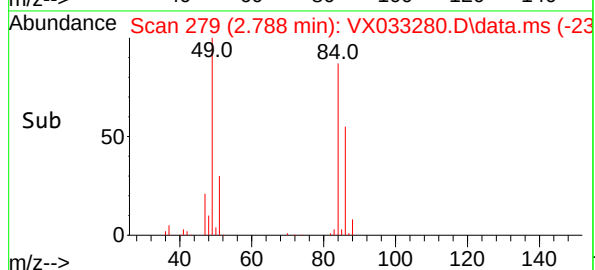
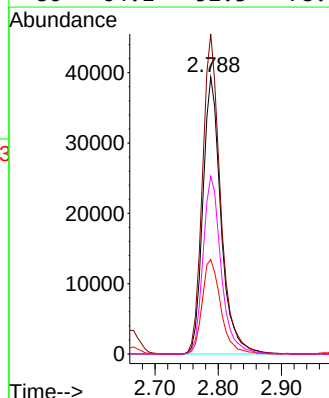
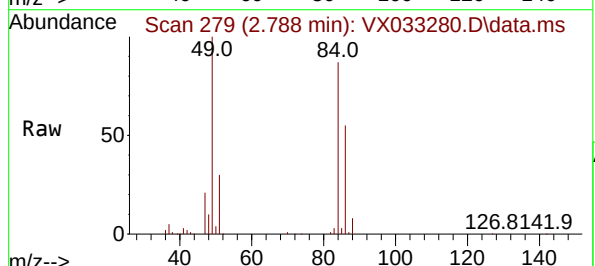
Ion Ratio Lower Upper

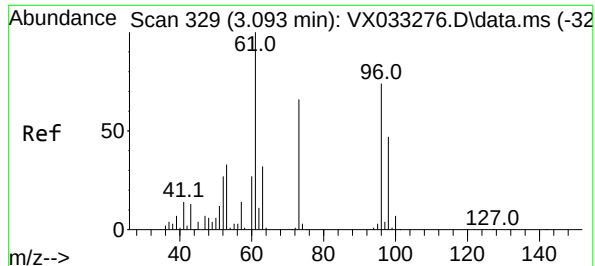
84 100

49 115.6 101.0 151.6

51 34.1 31.1 46.7

86 64.1 52.3 78.5





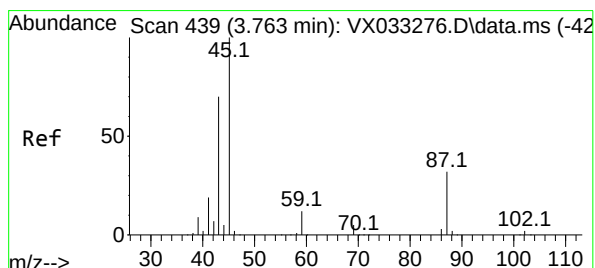
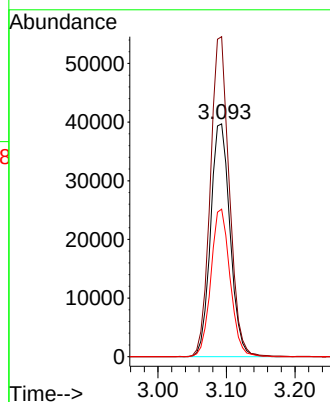
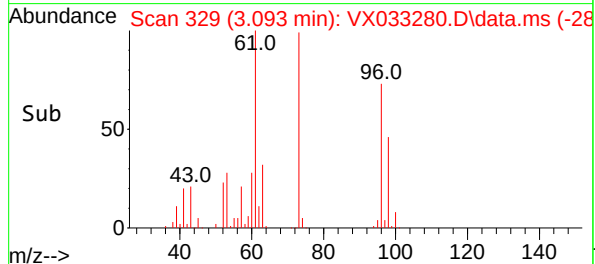
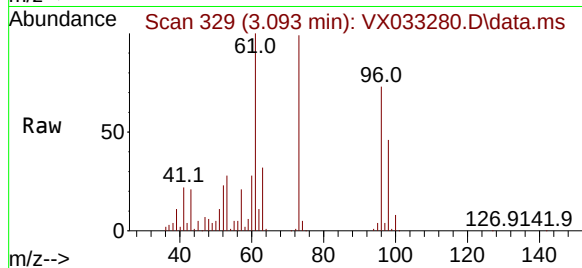
#21  
trans-1,2-Dichloroethene  
Concen: 48.735 ug/l  
RT: 3.093 min Scan# 31  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVX120722

Tgt Ion: 96 Resp: 7849  
Ion Ratio Lower Upper  
96 100  
61 137.3 106.6 160.0  
98 63.4 51.0 76.6

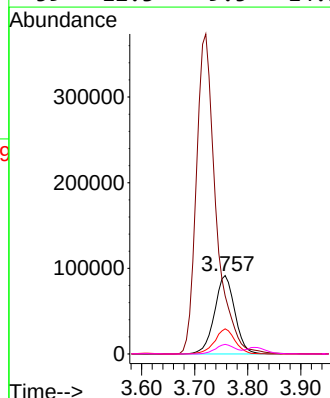
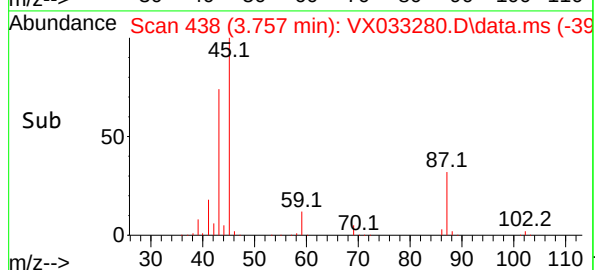
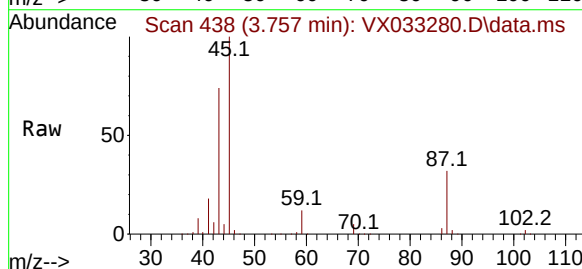
Manual Integrations  
APPROVED

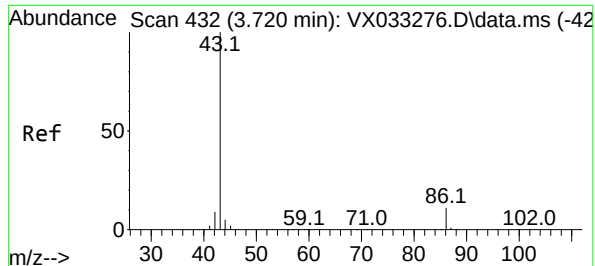
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#22  
Diisopropyl ether  
Concen: 48.438 ug/l  
RT: 3.757 min Scan# 438  
Delta R.T. -0.006 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Tgt Ion: 45 Resp: 244025  
Ion Ratio Lower Upper  
45 100  
43 73.2 56.4 84.6  
87 32.1 24.4 36.6  
59 12.3 9.5 14.3





#23

Vinyl Acetate

Concen: 245.096 ug/l

RT: 3.721 min Scan# 41

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 43 Resp: 958390

Ion Ratio Lower Upper

43 100

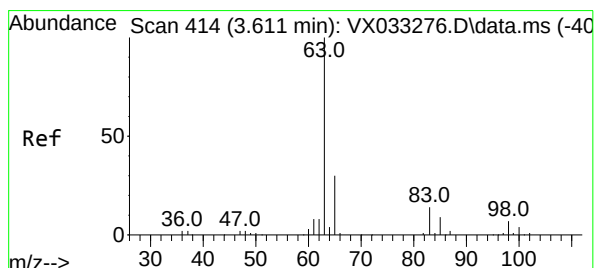
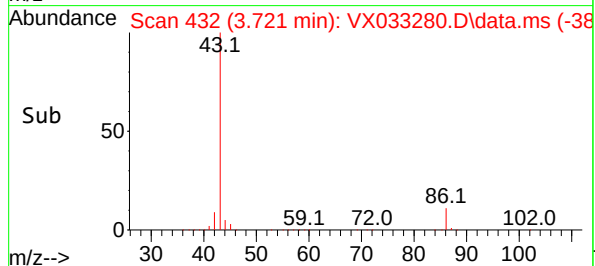
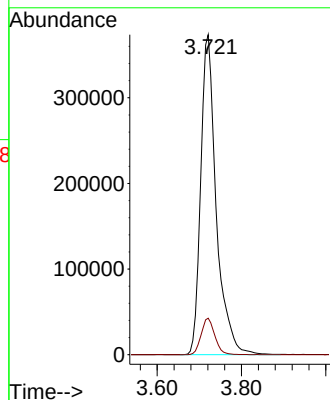
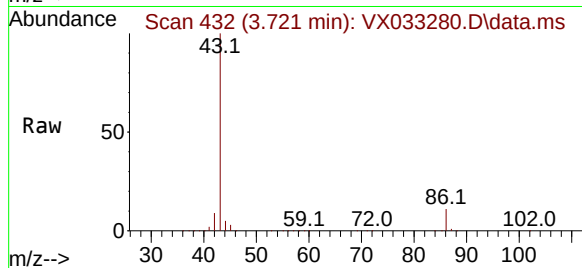
86 11.4 8.6 12.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#24

1,1-Dichloroethane

Concen: 47.145 ug/l

RT: 3.605 min Scan# 413

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

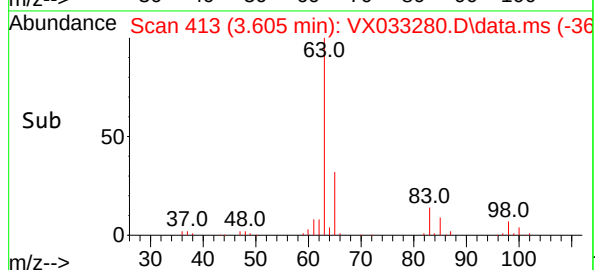
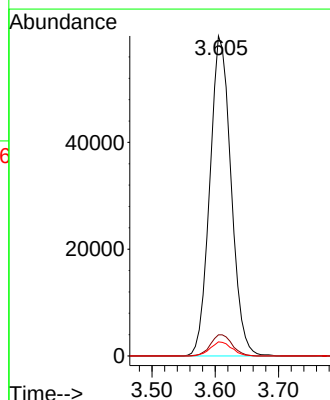
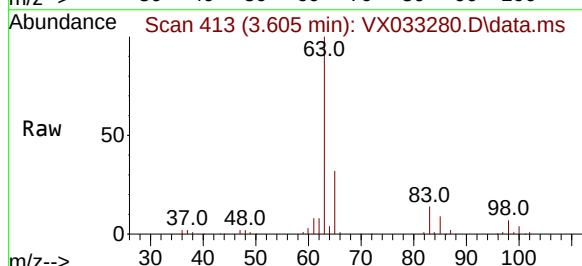
Tgt Ion: 63 Resp: 139554

Ion Ratio Lower Upper

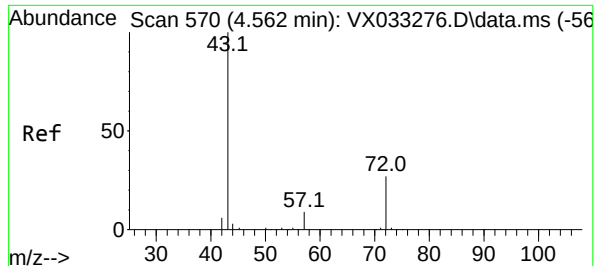
63 100

98 6.6 3.5 10.4

100 4.4 2.3 6.8







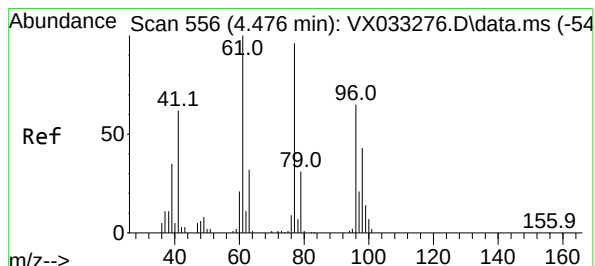
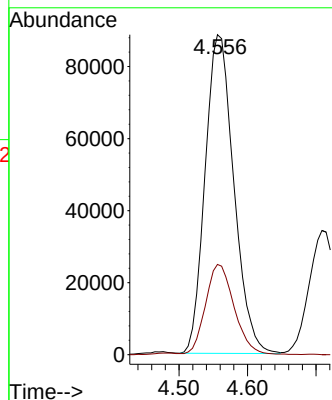
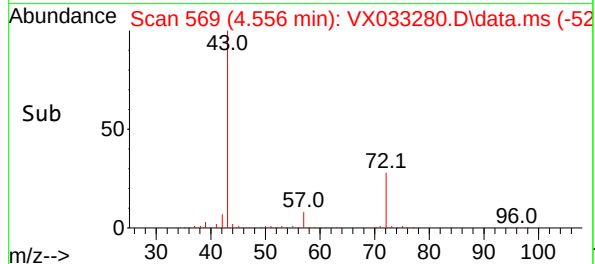
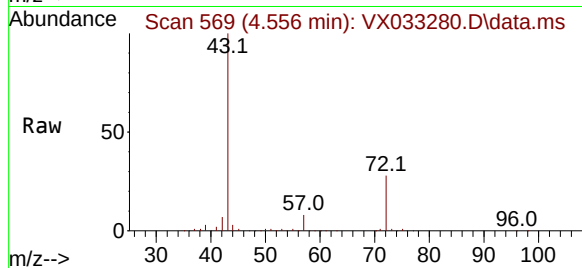
#25  
2-Butanone  
Concen: 232.728 ug/l  
RT: 4.556 min Scan# 556  
Delta R.T. -0.006 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722

Tgt Ion: 43 Resp: 257560  
Ion Ratio Lower Upper  
43 100  
72 28.1 22.2 33.2

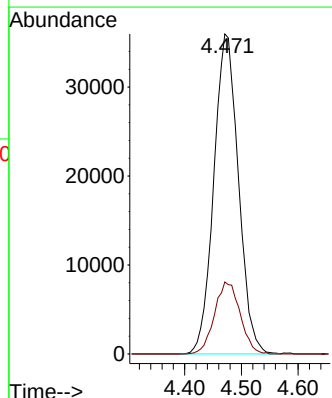
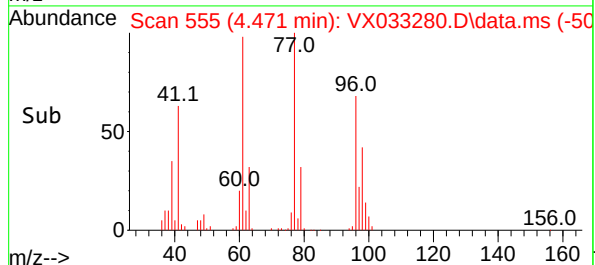
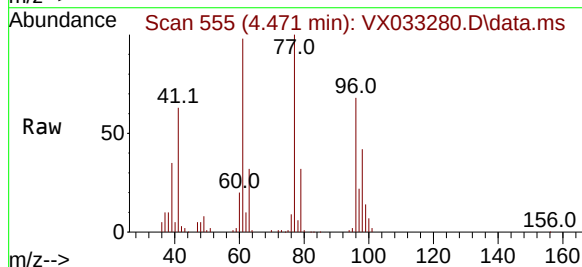
Manual Integrations  
APPROVED

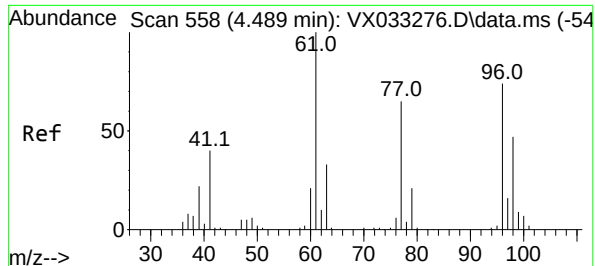
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#26  
2,2-Dichloropropane  
Concen: 49.784 ug/l  
RT: 4.471 min Scan# 555  
Delta R.T. -0.006 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Tgt Ion: 77 Resp: 108371  
Ion Ratio Lower Upper  
77 100  
97 23.3 11.4 34.1





#27

cis-1,2-Dichloroethene

Concen: 48.492 ug/l

RT: 4.483 min Scan# 51

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 96 Resp: 9334

Ion Ratio Lower Upper

96 100

61 138.1 0.0 286.0

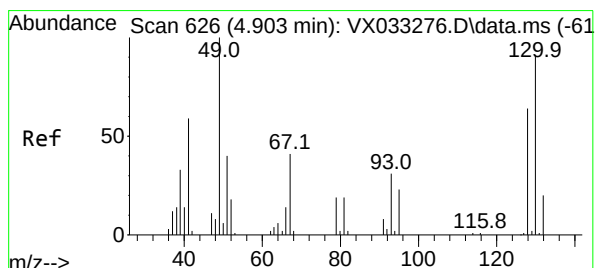
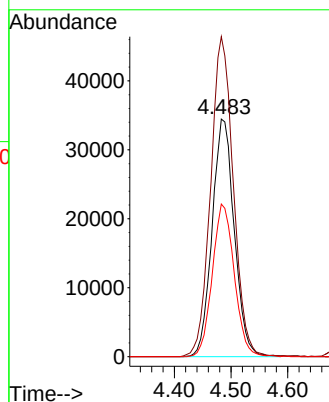
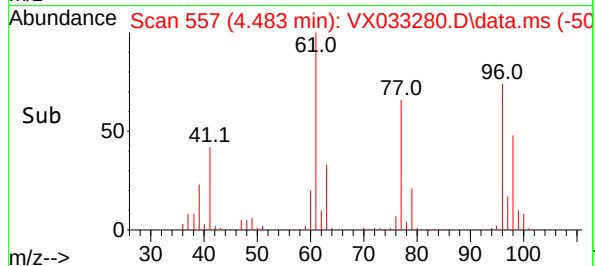
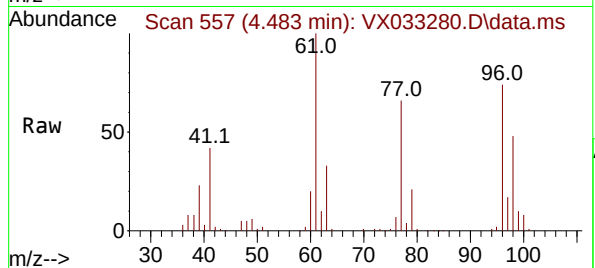
98 63.8 0.0 129.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#28

Bromochloromethane

Concen: 47.956 ug/l

RT: 4.898 min Scan# 625

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

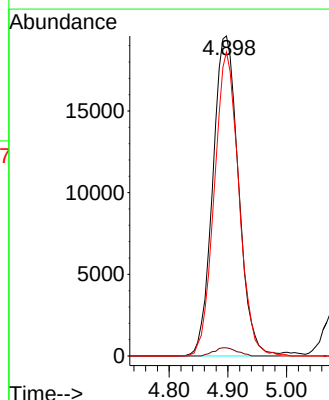
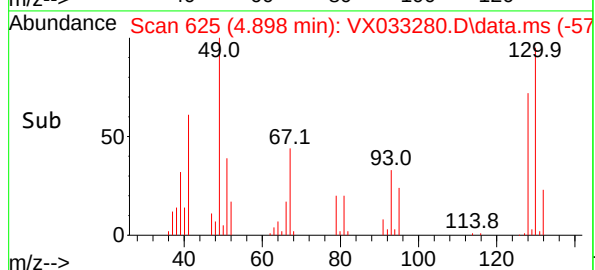
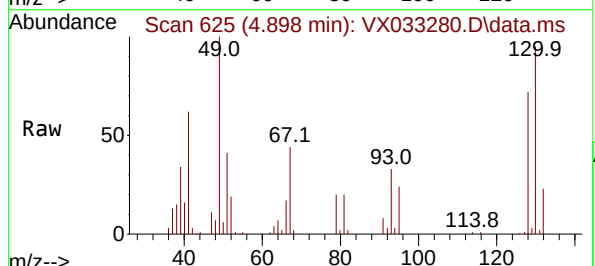
Tgt Ion: 49 Resp: 59423

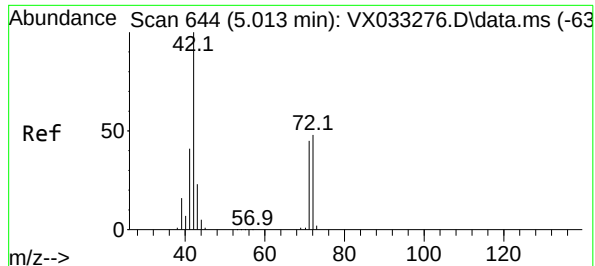
Ion Ratio Lower Upper

49 100

129 2.3 0.0 3.8

130 90.8 67.5 101.3





#29

Tetrahydrofuran

Concen: 233.427 ug/l

RT: 5.001 min Scan# 64

Delta R.T. -0.012 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 42 Resp: 167379

Ion Ratio Lower Upper

42 100

72 48.8 37.6 56.4

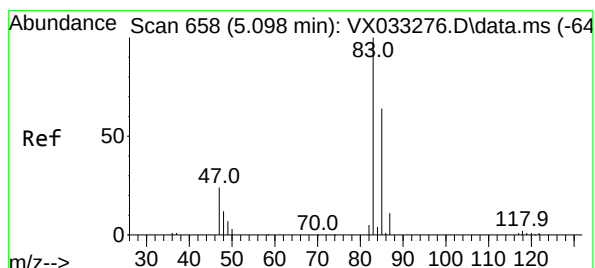
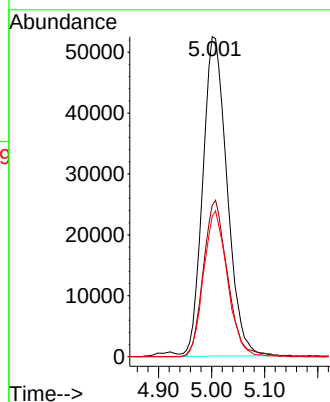
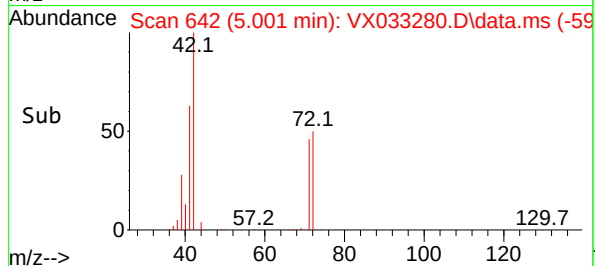
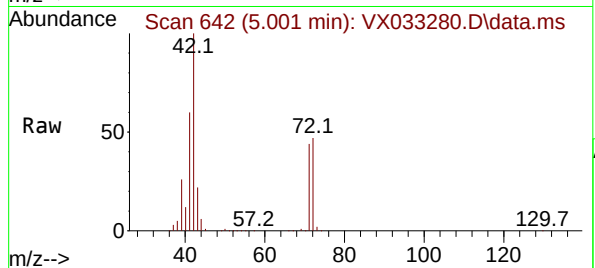
71 44.8 34.7 52.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#30

Chloroform

Concen: 47.482 ug/l

RT: 5.093 min Scan# 657

Delta R.T. -0.006 min

Lab File: VX033280.D

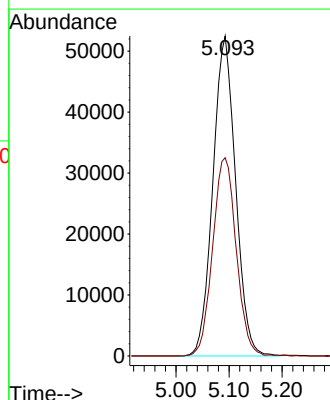
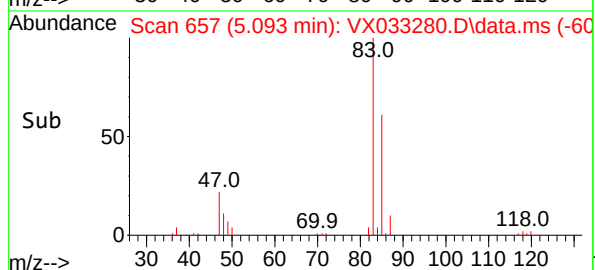
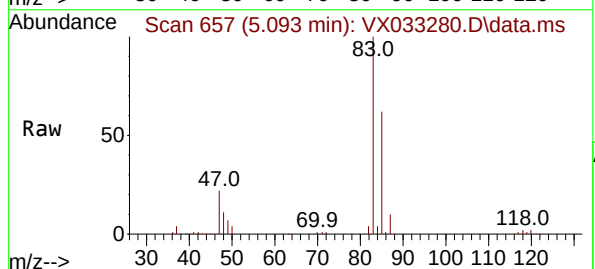
Acq: 07 Dec 2022 12:51

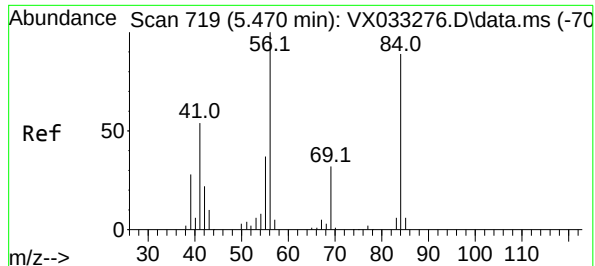
Tgt Ion: 83 Resp: 156035

Ion Ratio Lower Upper

83 100

85 62.0 51.1 76.7





#31

Cyclohexane

Concen: 50.601 ug/l

RT: 5.471 min Scan# 719

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 56 Resp: 12530

Ion Ratio Lower Upper

56 100

69 32.9 24.1 36.1

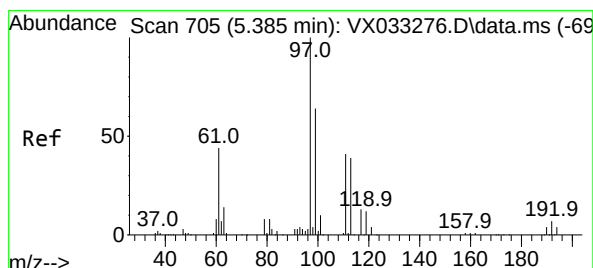
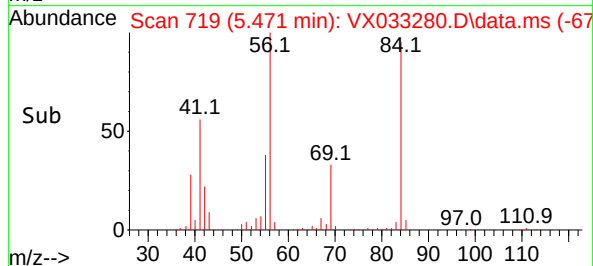
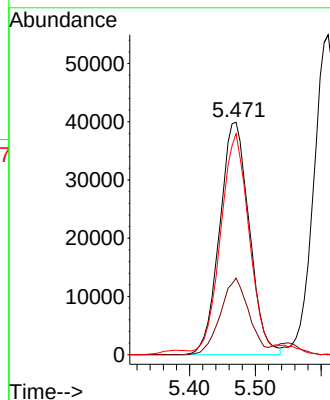
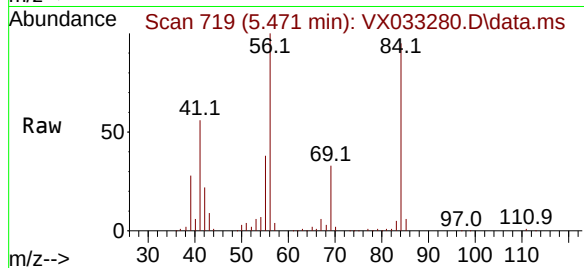
84 93.2 66.9 100.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#32

1,1,1-Trichloroethane

Concen: 49.812 ug/l

RT: 5.379 min Scan# 704

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

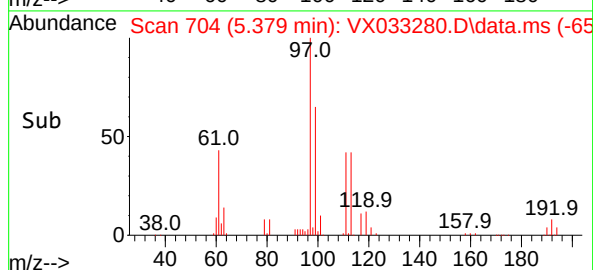
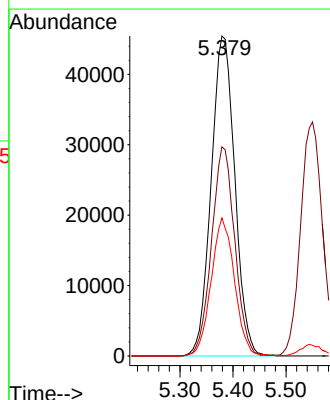
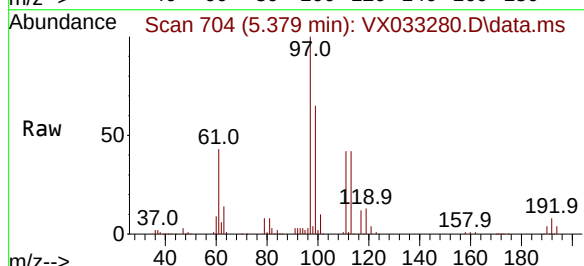
Tgt Ion: 97 Resp: 140838

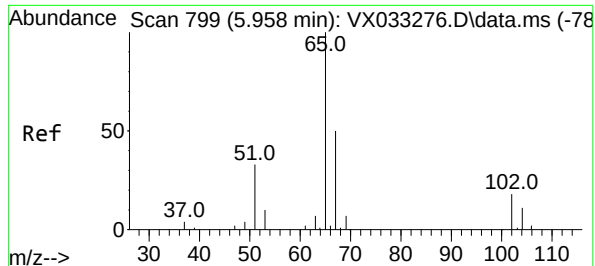
Ion Ratio Lower Upper

97 100

99 64.1 51.4 77.0

61 42.4 35.2 52.8





#33

1,2-Dichloroethane-d4

Concen: 46.866 ug/l

RT: 5.952 min Scan# 79

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 65 Resp: 4883

Ion Ratio Lower Upper

65 100

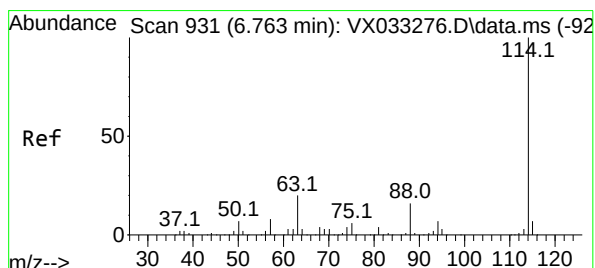
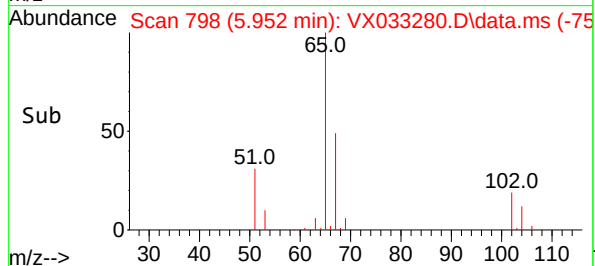
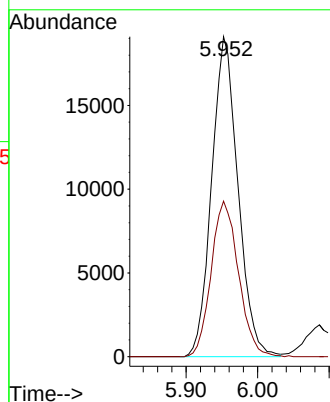
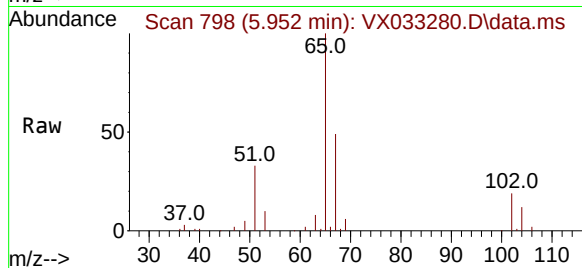
67 50.5 0.0 101.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.757 min Scan# 930

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

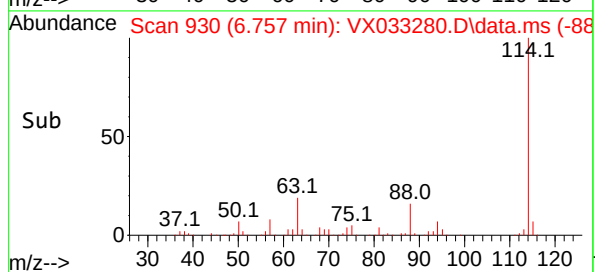
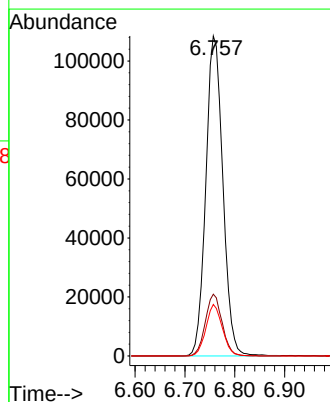
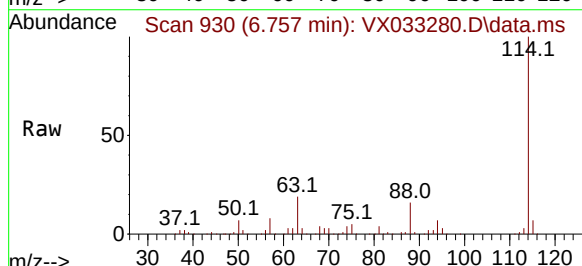
Tgt Ion:114 Resp: 257660

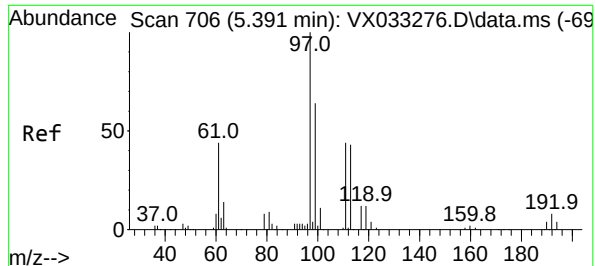
Ion Ratio Lower Upper

114 100

63 19.3 0.0 41.6

88 16.1 0.0 33.4





#35

Dibromofluoromethane

Concen: 47.921 ug/l

RT: 5.385 min Scan# 706

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion:113 Resp: 5553

Ion Ratio Lower Upper

113 100

111 101.6 82.4 123.6

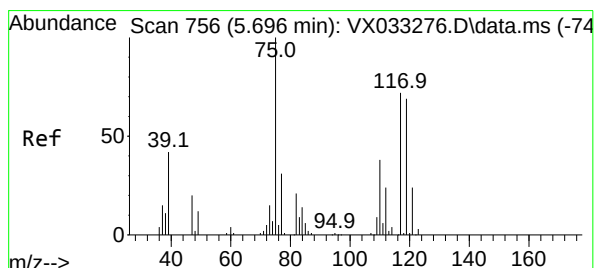
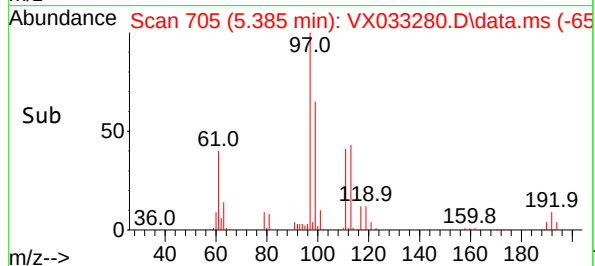
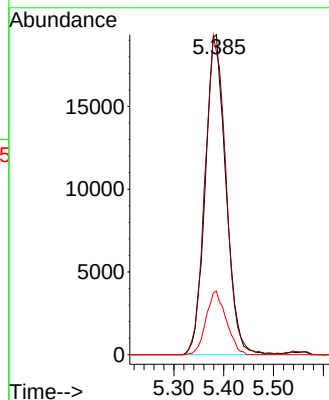
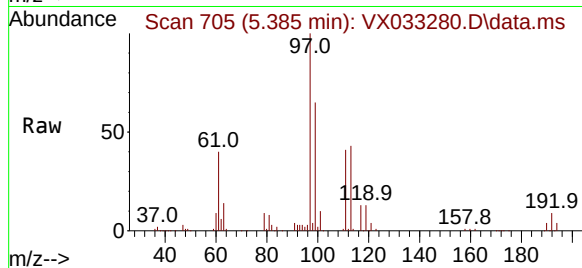
192 19.4 15.4 23.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#36

1,1-Dichloropropene

Concen: 49.882 ug/l

RT: 5.690 min Scan# 755

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

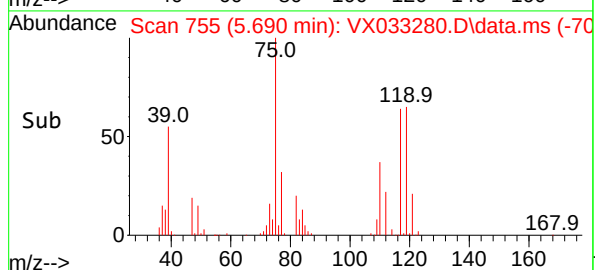
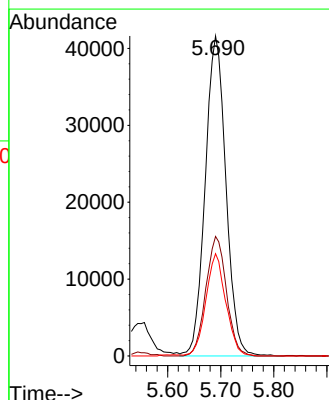
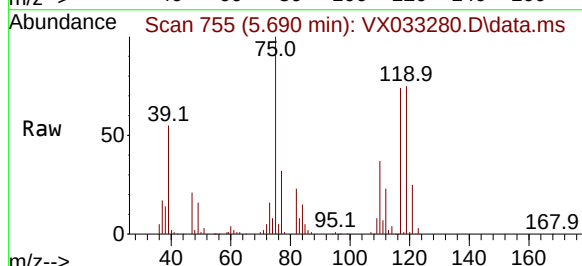
Tgt Ion: 75 Resp: 112707

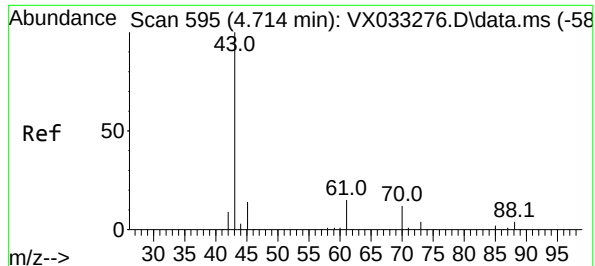
Ion Ratio Lower Upper

75 100

110 37.1 18.4 55.2

77 30.8 24.5 36.7





#37

Ethyl Acetate

Concen: 47.728 ug/l

RT: 4.709 min Scan# 594

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 43 Resp: 101939

Ion Ratio Lower Upper

43 100

61 14.7 11.5 17.3

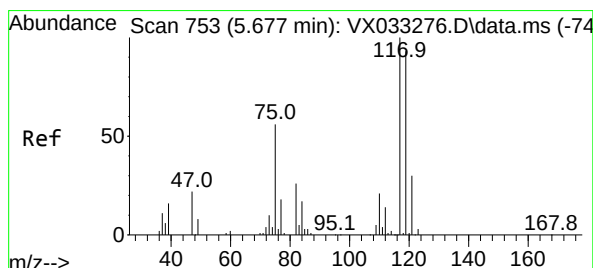
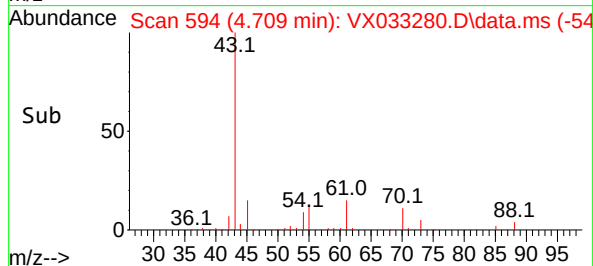
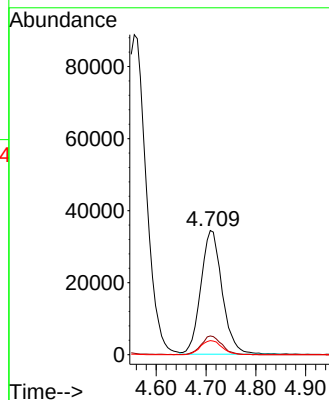
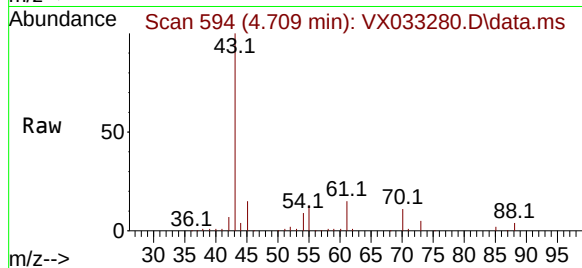
70 11.4 9.1 13.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#38

Carbon Tetrachloride

Concen: 49.578 ug/l

RT: 5.678 min Scan# 753

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

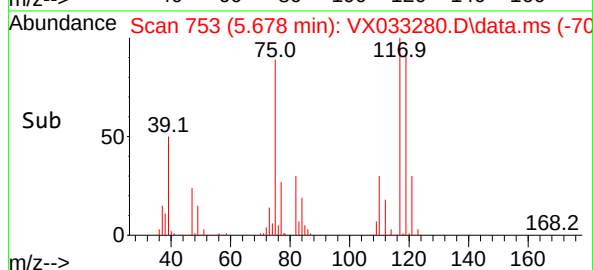
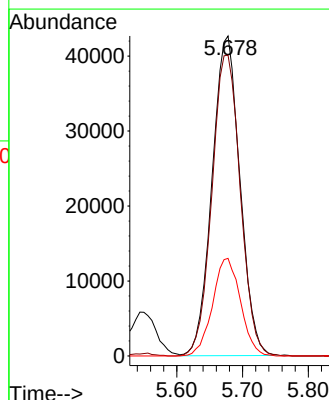
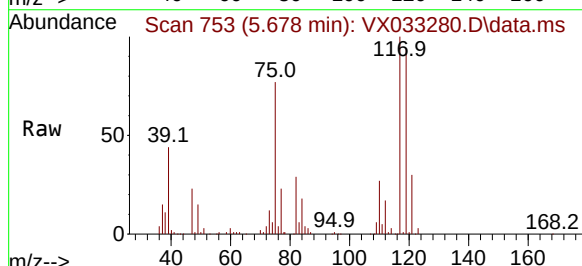
Tgt Ion:117 Resp: 125509

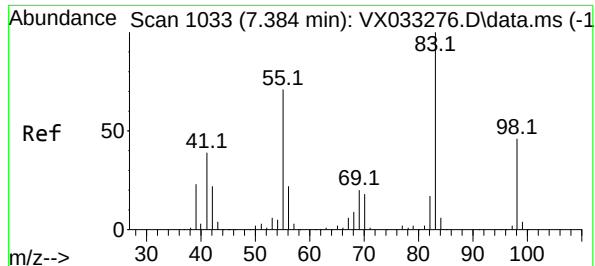
Ion Ratio Lower Upper

117 100

119 94.0 77.2 115.8

121 30.5 25.8 38.6





#39

Methylcyclohexane

Concen: 53.112 ug/l

RT: 7.379 min Scan# 1033

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 83 Resp: 13432

Ion Ratio Lower Upper

83 100

55 72.2 58.4 87.6

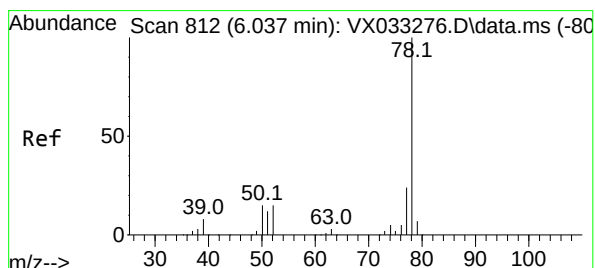
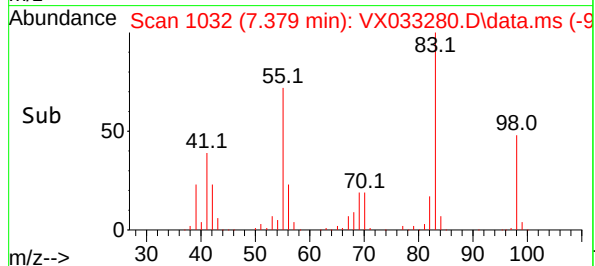
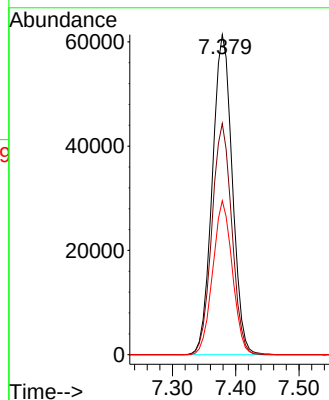
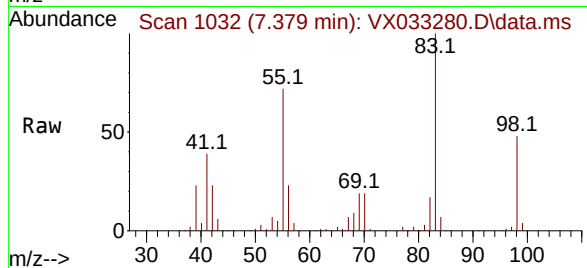
98 48.1 37.2 55.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#40

Benzene

Concen: 48.914 ug/l

RT: 6.038 min Scan# 812

Delta R.T. 0.000 min

Lab File: VX033280.D

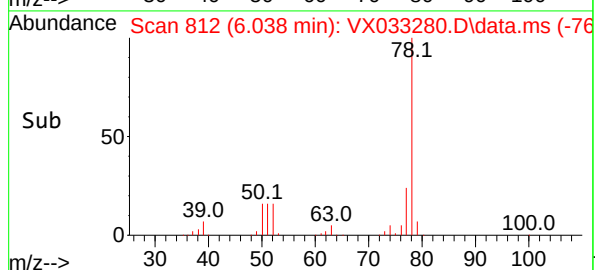
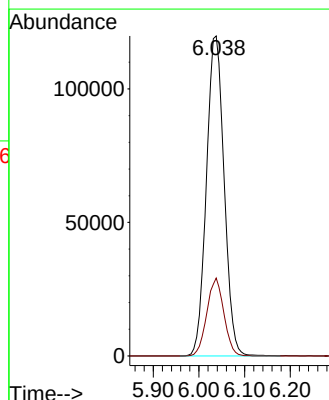
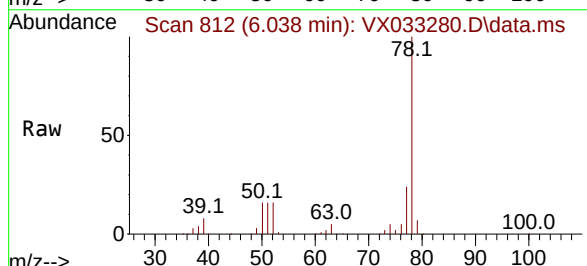
Acq: 07 Dec 2022 12:51

Tgt Ion: 78 Resp: 322242

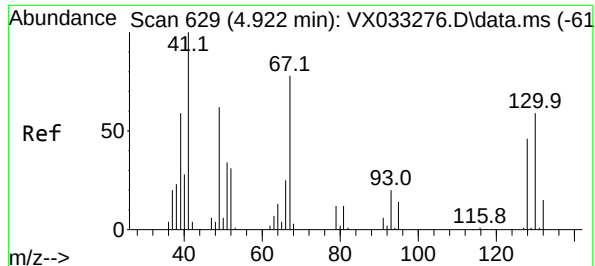
Ion Ratio Lower Upper

78 100

77 24.4 19.0 28.4







#41

Methacrylonitrile

Concen: 48.856 ug/l

RT: 4.916 min Scan# 61

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 41 Resp: 5750

Ion Ratio Lower Upper

41 100

39 56.2 47.5 71.3

67 76.9 60.5 90.7

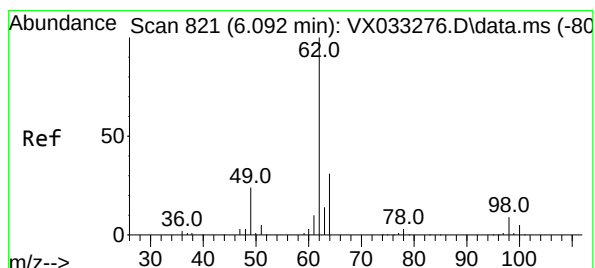
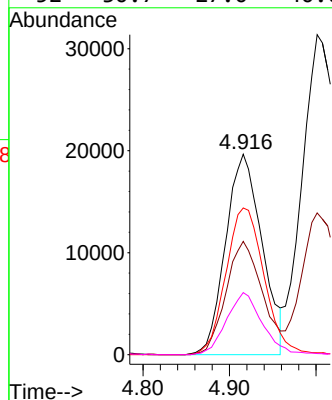
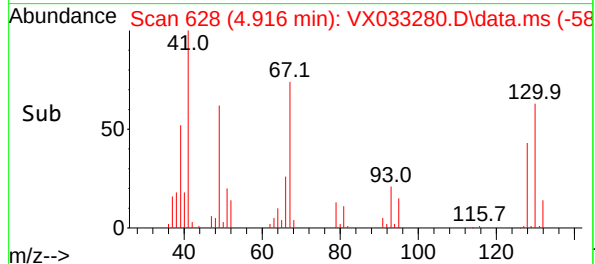
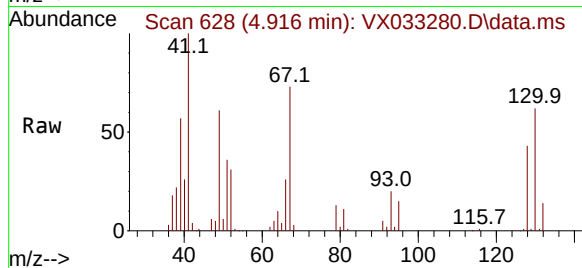
52 30.7 27.0 40.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#42

1,2-Dichloroethane

Concen: 47.637 ug/l

RT: 6.086 min Scan# 820

Delta R.T. -0.006 min

Lab File: VX033280.D

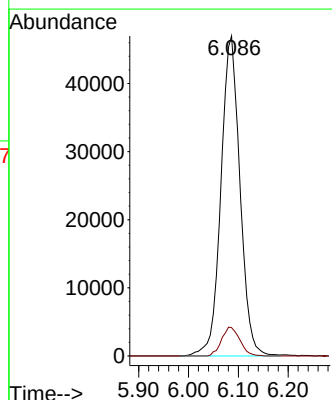
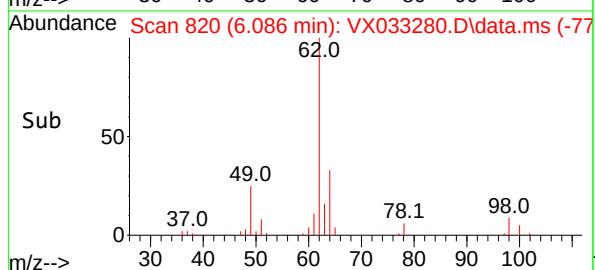
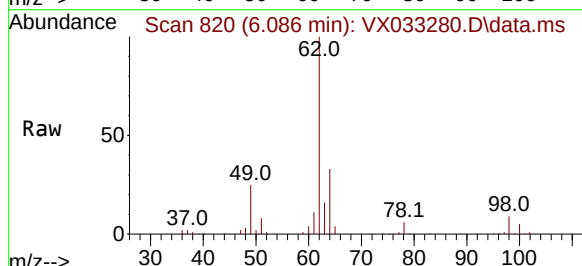
Acq: 07 Dec 2022 12:51

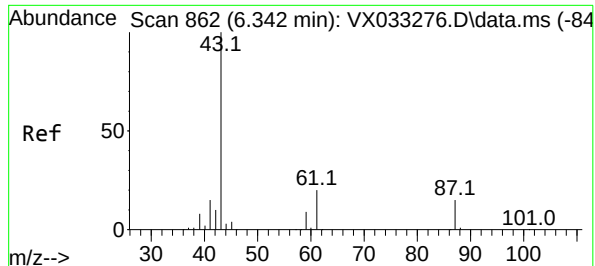
Tgt Ion: 62 Resp: 124620

Ion Ratio Lower Upper

62 100

98 8.6 0.0 16.0





#43

Isopropyl Acetate

Concen: 48.673 ug/l

RT: 6.336 min Scan# 80

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 43 Resp: 16726

Ion Ratio Lower Upper

43 100

61 20.2 15.4 23.0

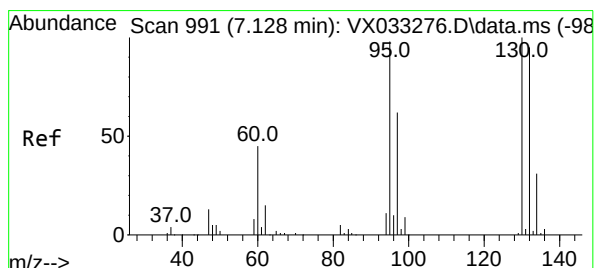
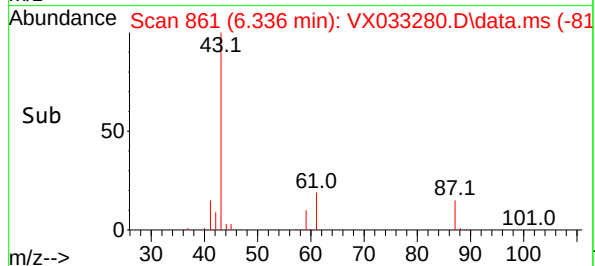
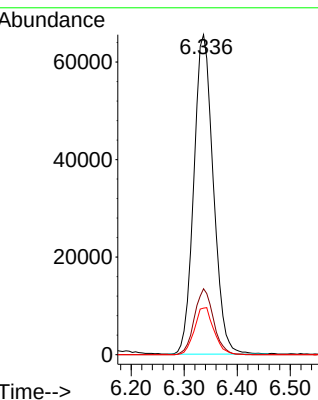
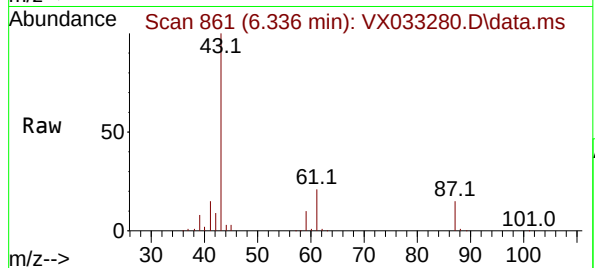
87 14.8 10.8 16.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#44

Trichloroethene

Concen: 50.085 ug/l

RT: 7.123 min Scan# 990

Delta R.T. -0.006 min

Lab File: VX033280.D

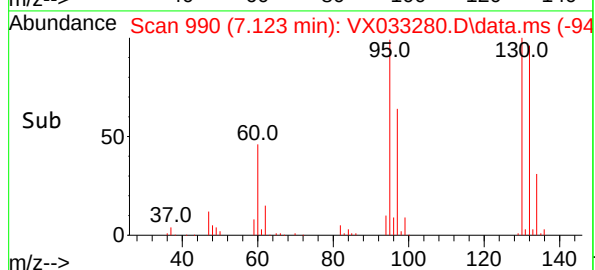
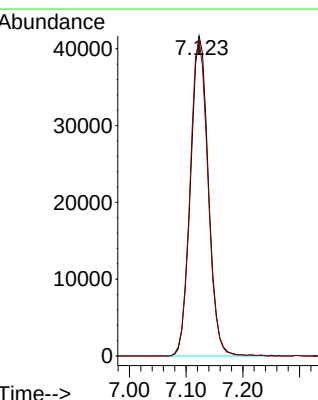
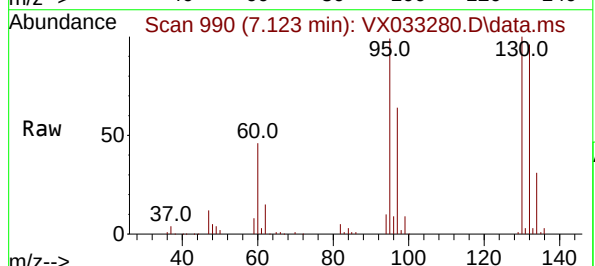
Acq: 07 Dec 2022 12:51

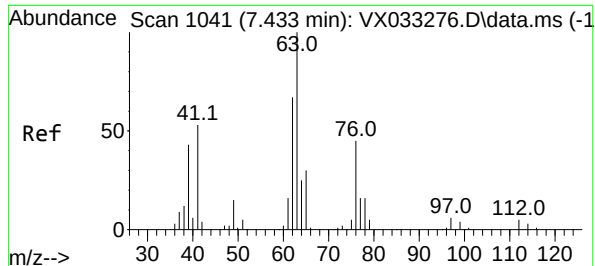
Tgt Ion:130 Resp: 90972

Ion Ratio Lower Upper

130 100

95 98.8 0.0 195.2





#45

1,2-Dichloropropane

Concen: 48.695 ug/l

RT: 7.428 min Scan# 1040

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 63 Resp: 8204

Ion Ratio Lower Upper

63 100

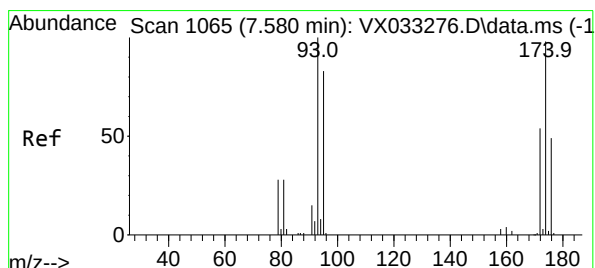
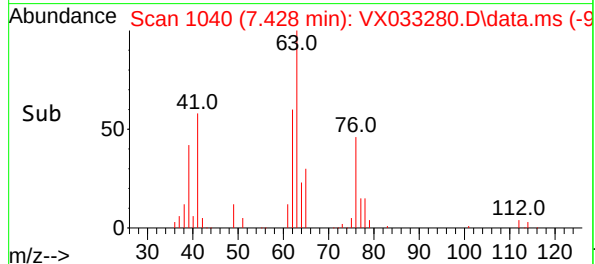
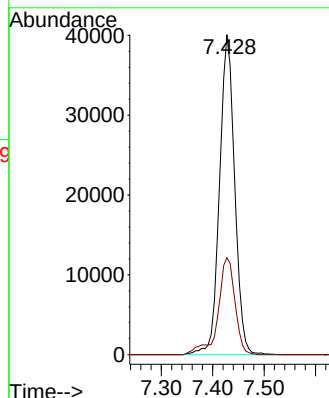
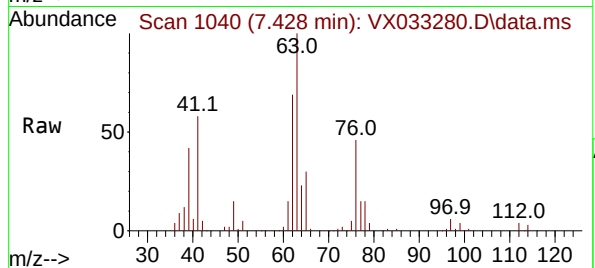
65 30.3 24.6 36.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#46

Dibromomethane

Concen: 47.855 ug/l

RT: 7.580 min Scan# 1065

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

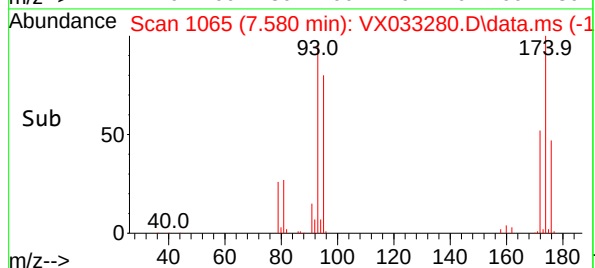
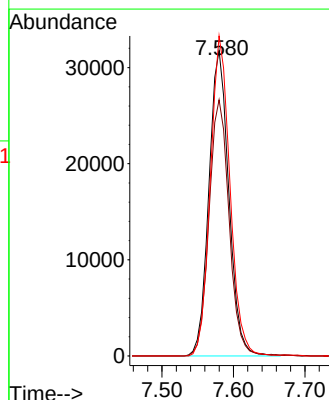
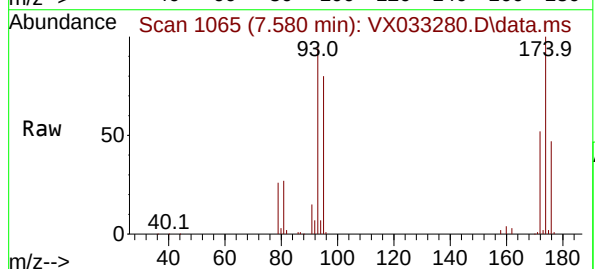
Tgt Ion: 93 Resp: 61420

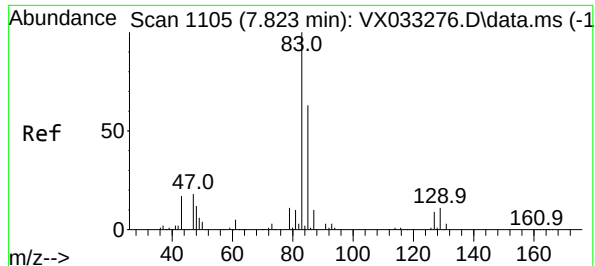
Ion Ratio Lower Upper

93 100

95 84.5 65.8 98.8

174 103.4 79.8 119.6





#47

Bromodichloromethane

Concen: 49.061 ug/l

RT: 7.818 min Scan# 1104

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 83 Resp: 12274

Ion Ratio Lower Upper

83 100

85 63.8 52.2 78.4

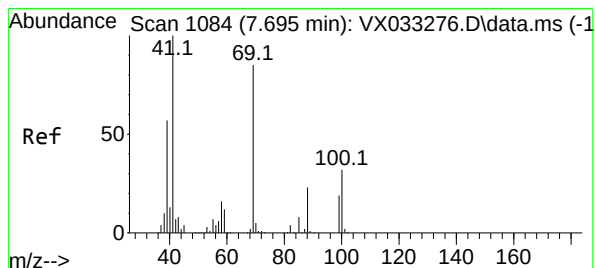
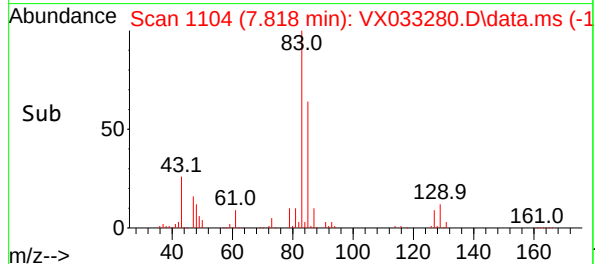
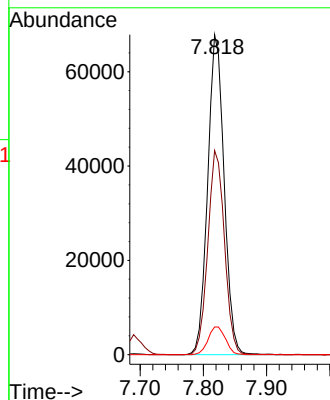
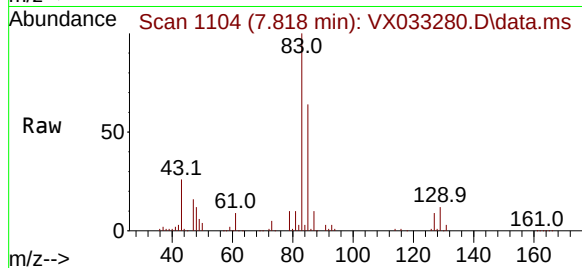
127 8.7 7.4 11.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#48

Methyl methacrylate

Concen: 48.521 ug/l

RT: 7.690 min Scan# 1083

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

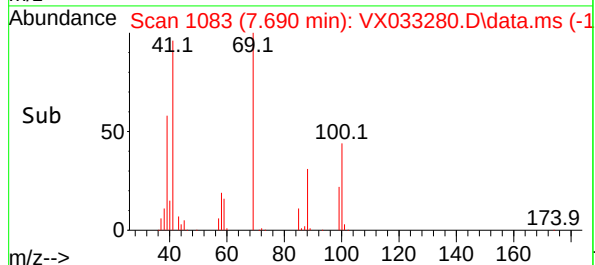
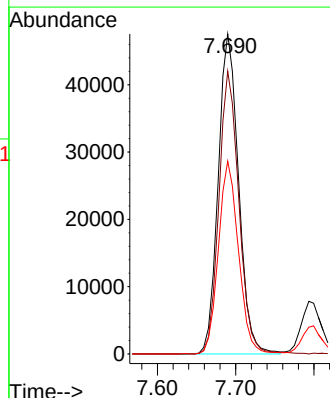
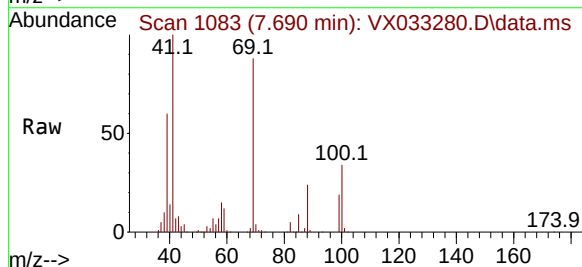
Tgt Ion: 41 Resp: 86058

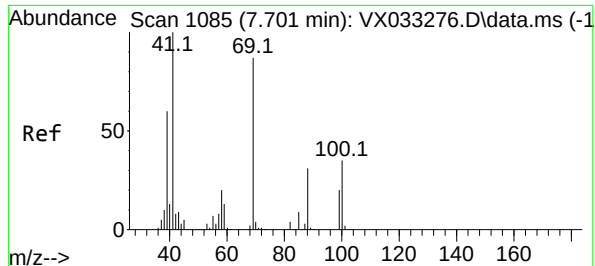
Ion Ratio Lower Upper

41 100

69 86.8 65.1 97.7

39 59.4 51.9 77.9





#49

1,4-Dioxane

Concen: 974.422 ug/l

RT: 7.696 min Scan# 1084

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 88 Resp: 39410

Ion Ratio Lower Upper

88 100

43 29.4 26.6 39.8

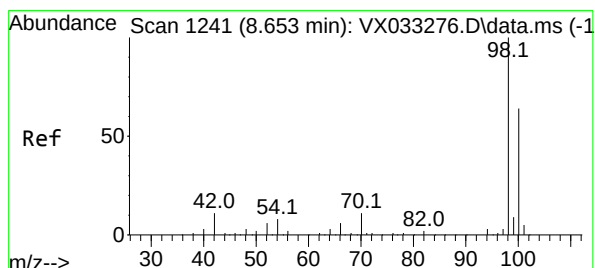
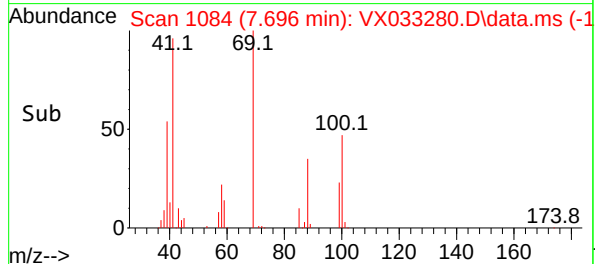
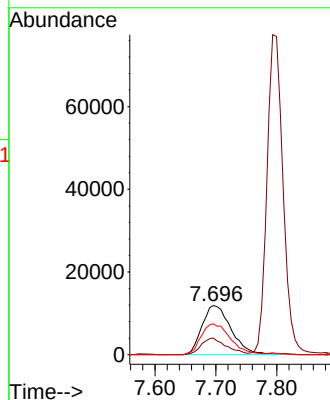
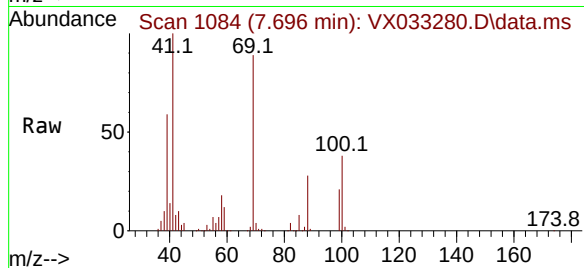
58 63.2 51.7 77.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#50

Toluene-d8

Concen: 50.054 ug/l

RT: 8.647 min Scan# 1240

Delta R.T. -0.006 min

Lab File: VX033280.D

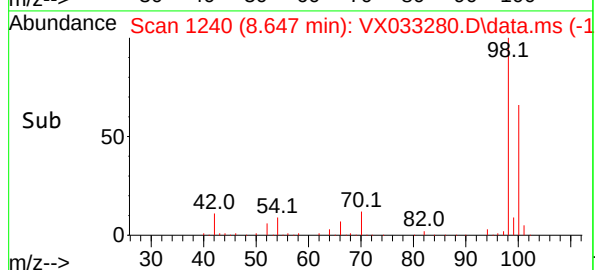
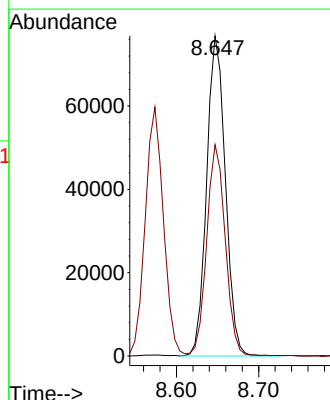
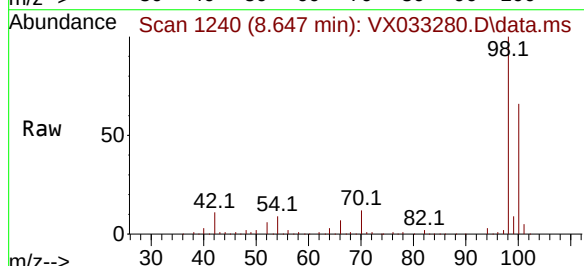
Acq: 07 Dec 2022 12:51

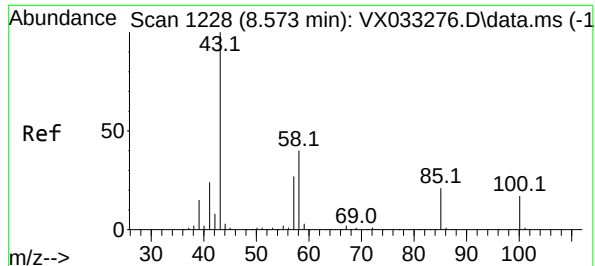
Tgt Ion: 98 Resp: 121350

Ion Ratio Lower Upper

98 100

100 65.8 50.9 76.3





#51

4-Methyl-2-Pentanone

Concen: 245.658 ug/l

RT: 8.574 min Scan# 1228

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 43 Resp: 53387

Ion Ratio Lower Upper

43 100

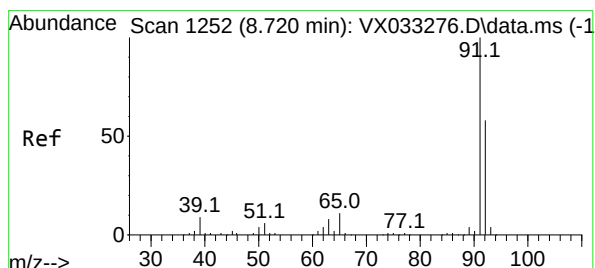
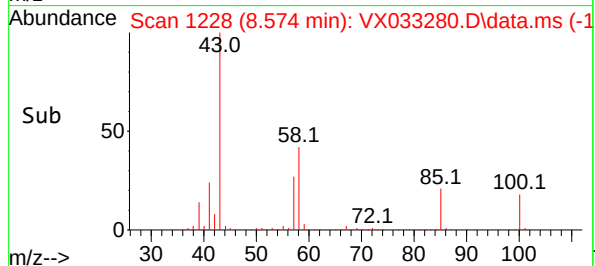
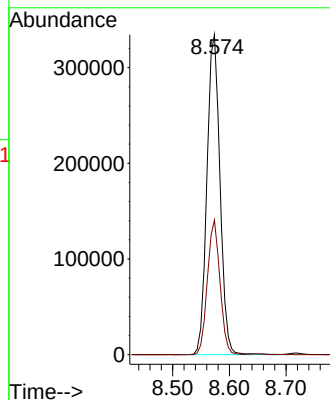
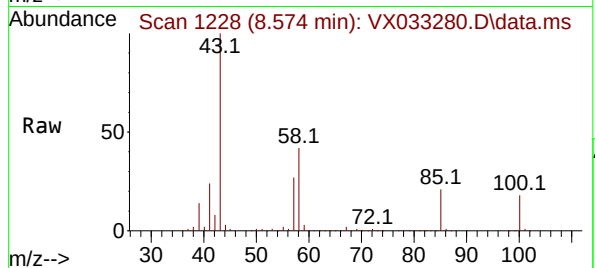
58 40.5 30.9 46.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#52

Toluene

Concen: 50.273 ug/l

RT: 8.720 min Scan# 1252

Delta R.T. 0.000 min

Lab File: VX033280.D

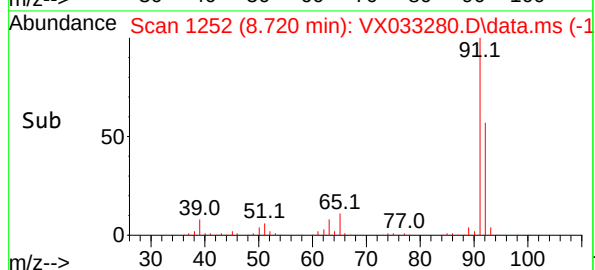
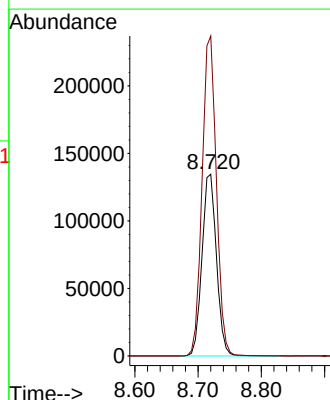
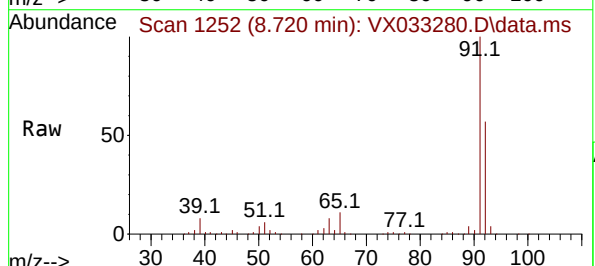
Acq: 07 Dec 2022 12:51

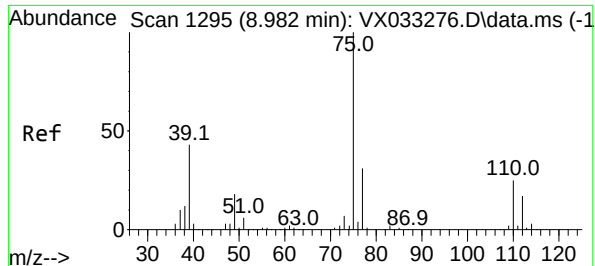
Tgt Ion: 92 Resp: 214134

Ion Ratio Lower Upper

92 100

91 174.2 138.3 207.5





#53

t-1,3-Dichloropropene

Concen: 47.076 ug/l

RT: 8.976 min Scan# 1129

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVVX120722

Tgt Ion: 75 Resp: 126110

Ion Ratio Lower Upper

75 100

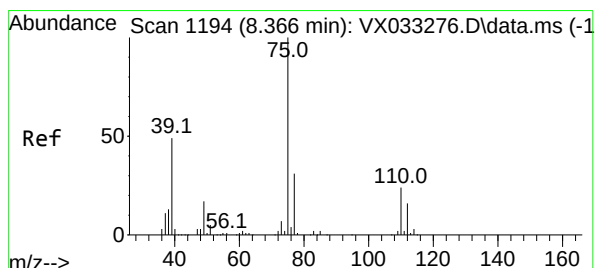
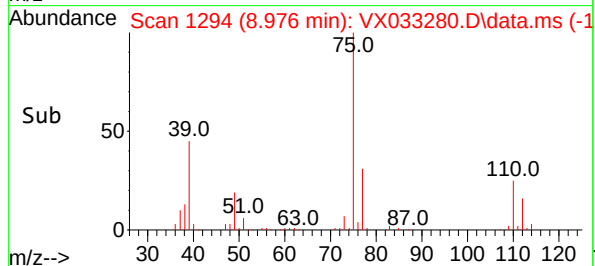
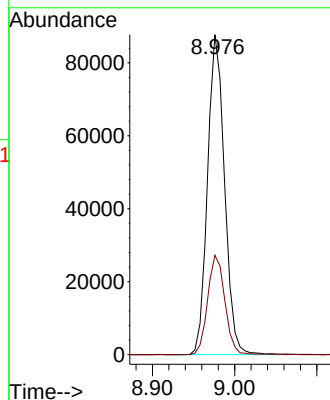
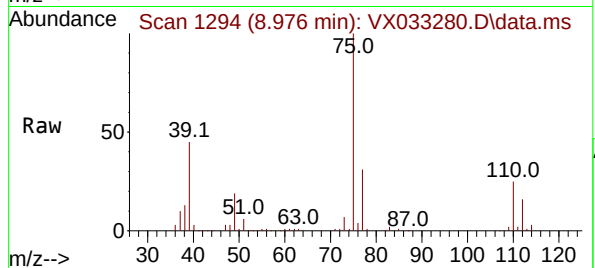
77 31.0 25.1 37.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#54

cis-1,3-Dichloropropene

Concen: 51.268 ug/l

RT: 8.366 min Scan# 1194

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

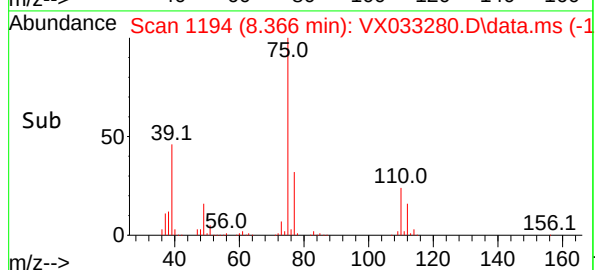
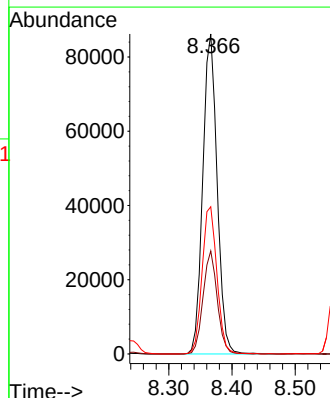
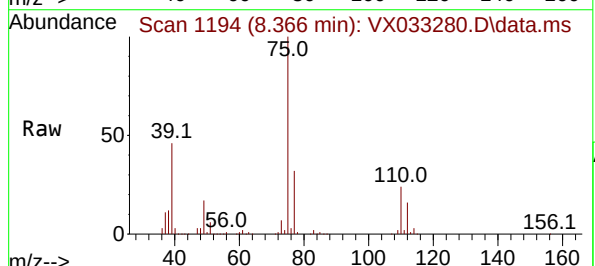
Tgt Ion: 75 Resp: 136491

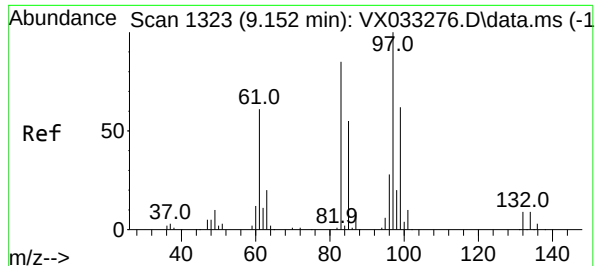
Ion Ratio Lower Upper

75 100

77 32.2 25.1 37.7

39 46.0 45.5 68.3





#55

1,1,2-Trichloroethane

Concen: 48.997 ug/l

RT: 9.153 min Scan# 1323

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 97 Resp: 87728

Ion Ratio Lower Upper

97 100

83 84.6 68.1 102.1

85 54.0 43.3 64.9

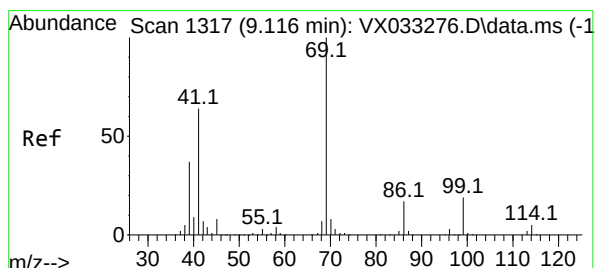
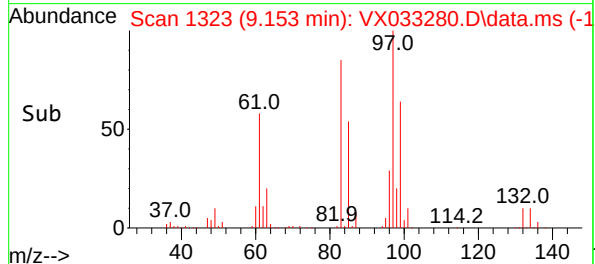
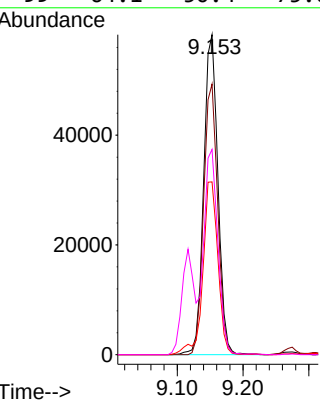
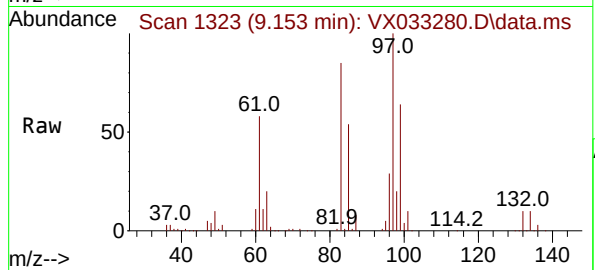
99 64.1 50.4 75.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#56

Ethyl methacrylate

Concen: 51.302 ug/l

RT: 9.116 min Scan# 1317

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

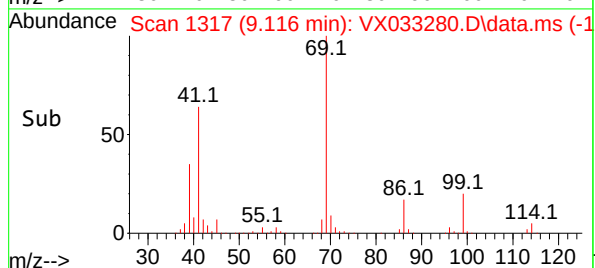
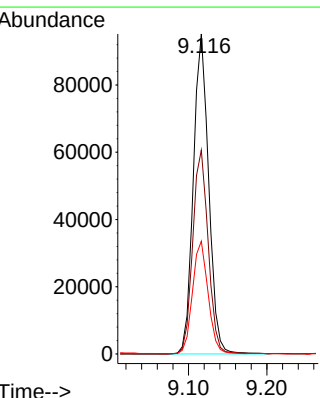
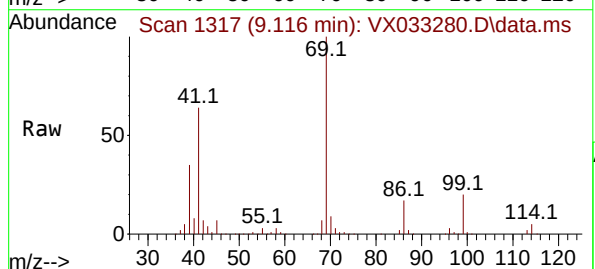
Tgt Ion: 69 Resp: 129329

Ion Ratio Lower Upper

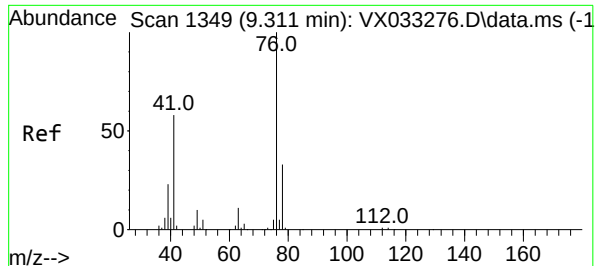
69 100

41 64.5 54.3 81.5

39 35.7 35.2 52.8







#57

1,3-Dichloropropane

Concen: 49.540 ug/l

RT: 9.305 min Scan# 11

Delta R.T. -0.006 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 76 Resp: 14249

Ion Ratio Lower Upper

76 100

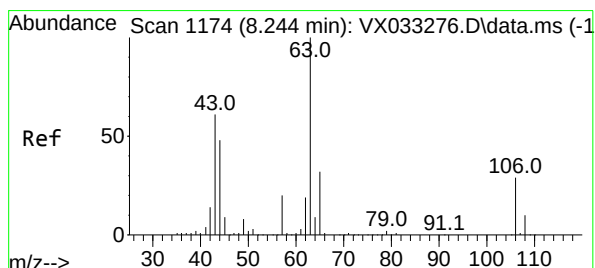
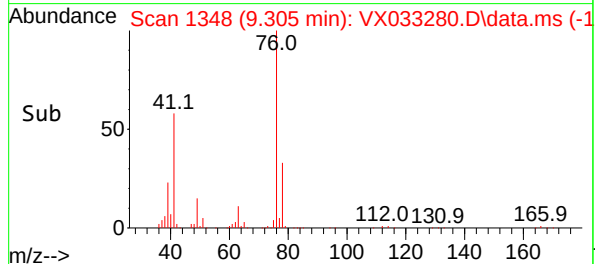
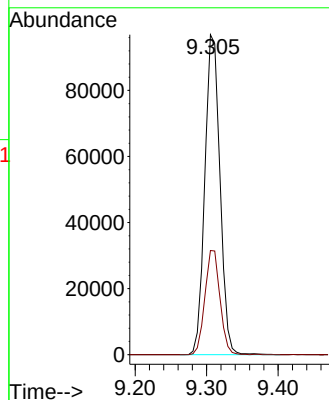
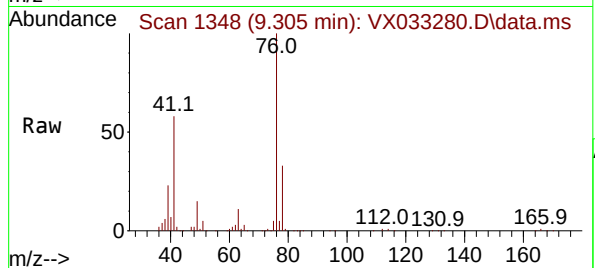
78 32.5 26.0 39.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#58

2-Chloroethyl Vinyl ether

Concen: 252.823 ug/l

RT: 8.238 min Scan# 1173

Delta R.T. -0.006 min

Lab File: VX033280.D

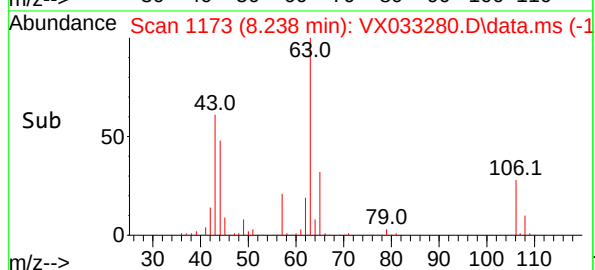
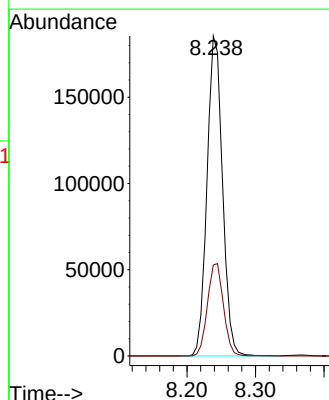
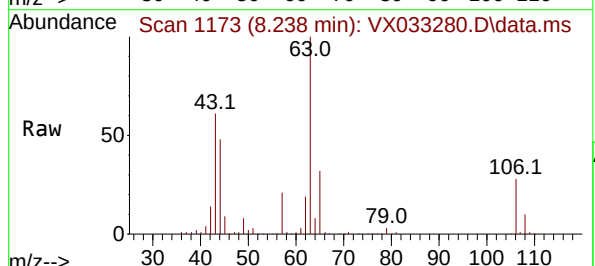
Acq: 07 Dec 2022 12:51

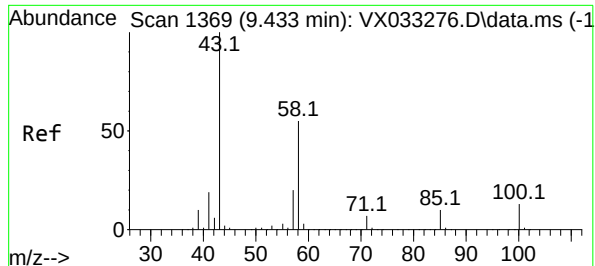
Tgt Ion: 63 Resp: 291627

Ion Ratio Lower Upper

63 100

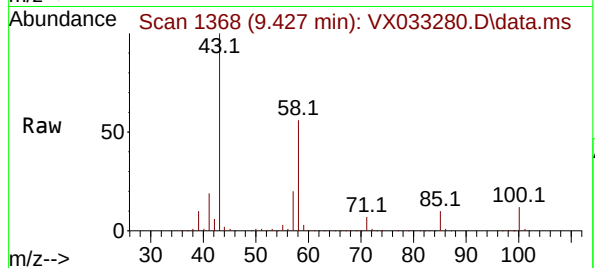
106 29.8 23.3 34.9





#59  
2-Hexanone  
Concen: 249.243 ug/l  
RT: 9.427 min Scan# 1368  
Delta R.T. -0.006 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

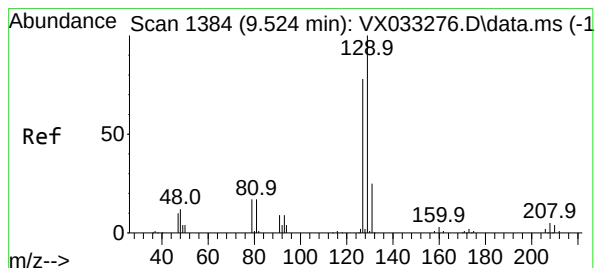
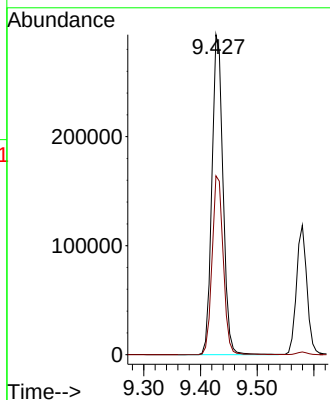
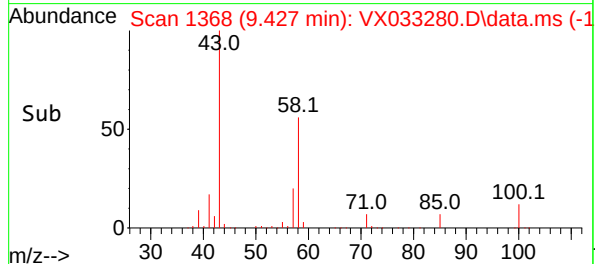
Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVX120722



Tgt Ion: 43 Resp: 399172  
Ion Ratio Lower Upper  
43 100  
58 56.1 26.5 79.5

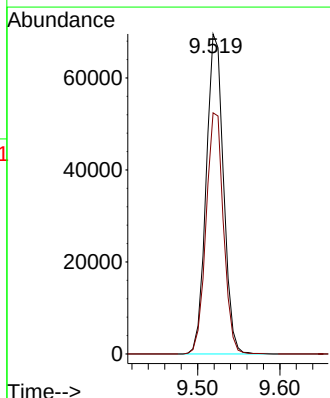
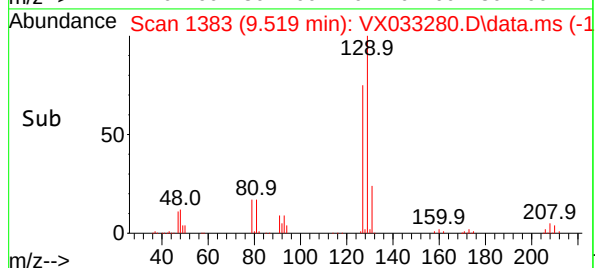
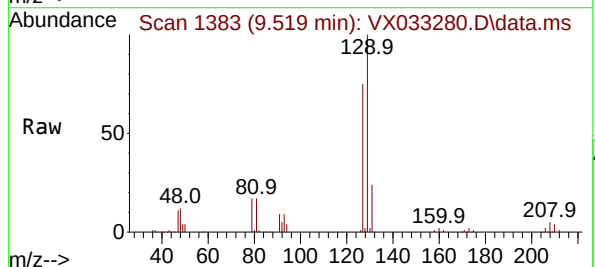
Manual Integrations  
APPROVED

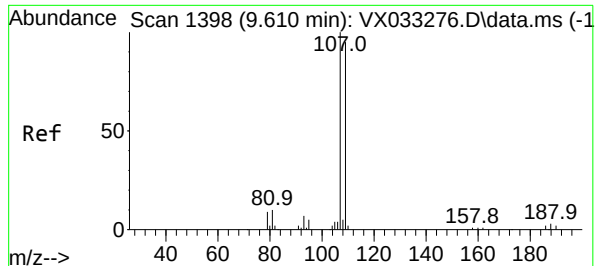
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#60  
Dibromochloromethane  
Concen: 51.356 ug/l  
RT: 9.519 min Scan# 1383  
Delta R.T. -0.006 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Tgt Ion:129 Resp: 101310  
Ion Ratio Lower Upper  
129 100  
127 76.1 38.6 115.8





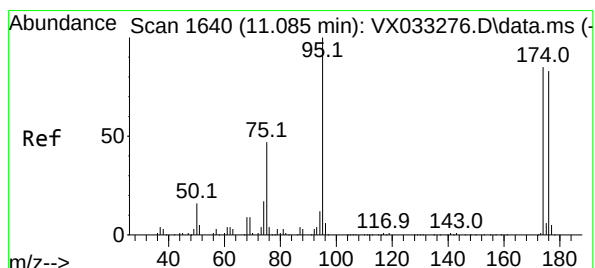
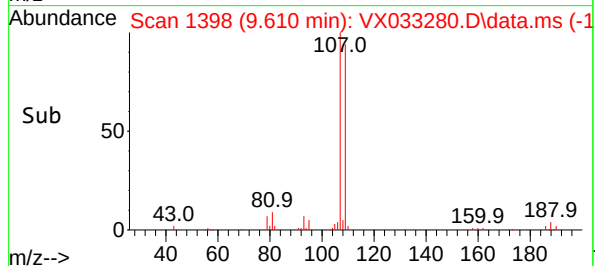
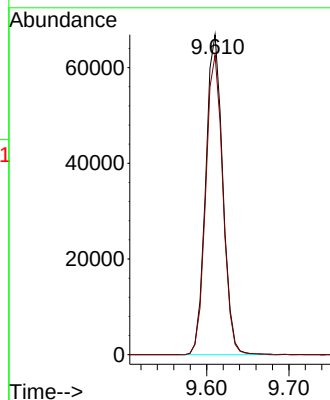
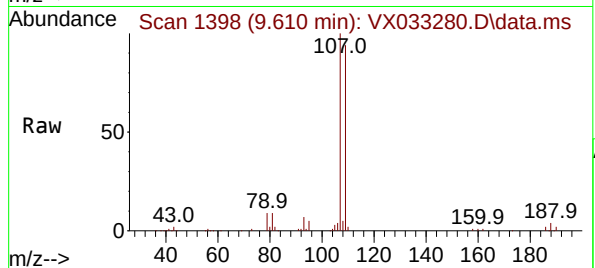
#61  
1,2-Dibromoethane  
Concen: 50.543 ug/l  
RT: 9.610 min Scan# 1398  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722

Tgt Ion:107 Resp: 96259  
Ion Ratio Lower Upper  
107 100  
109 94.0 76.0 114.0

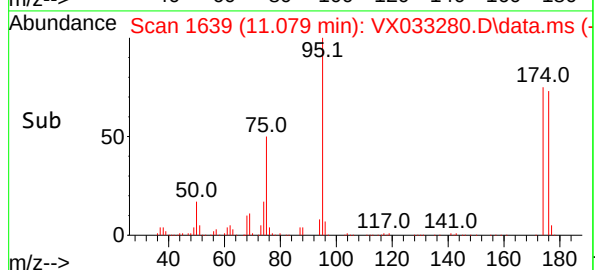
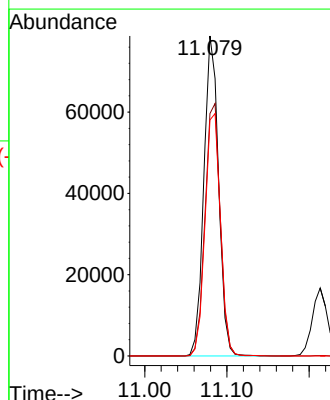
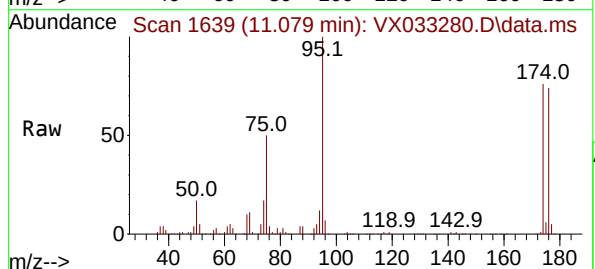
Manual Integrations  
APPROVED

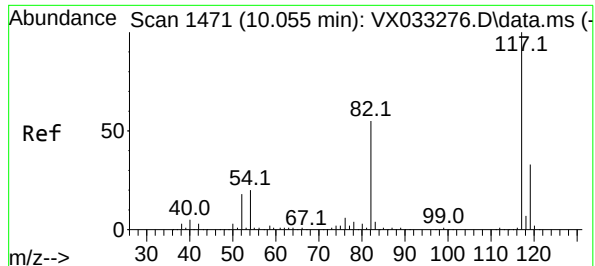
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#62  
4-Bromofluorobenzene  
Concen: 52.743 ug/l  
RT: 11.079 min Scan# 1639  
Delta R.T. -0.006 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

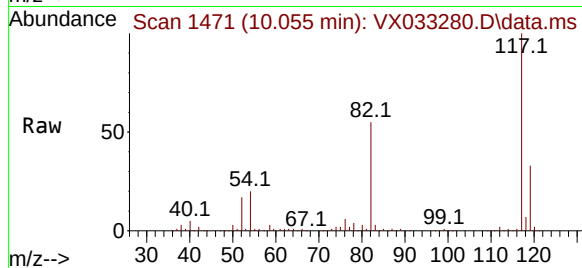
Tgt Ion: 95 Resp: 97770  
Ion Ratio Lower Upper  
95 100  
174 82.1 0.0 164.0  
176 79.5 0.0 154.4





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.055 min Scan# 1471  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

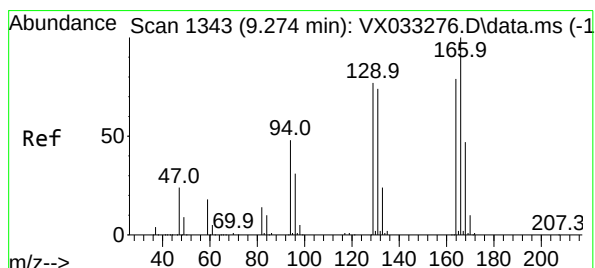
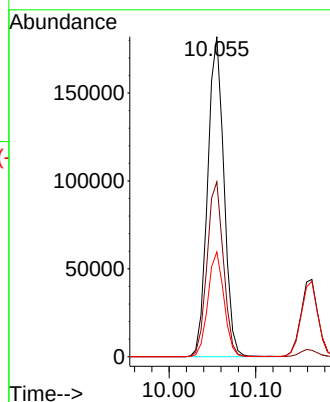
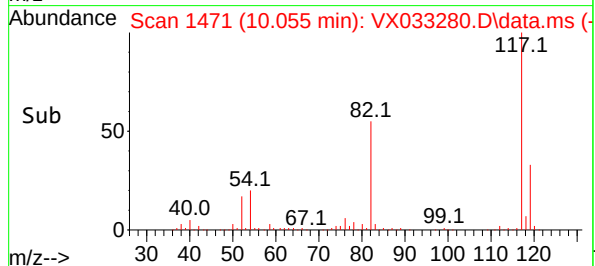
Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722



Tgt Ion:117 Resp: 237524  
Ion Ratio Lower Upper  
117 100  
82 54.7 44.3 66.5  
119 32.7 25.7 38.5

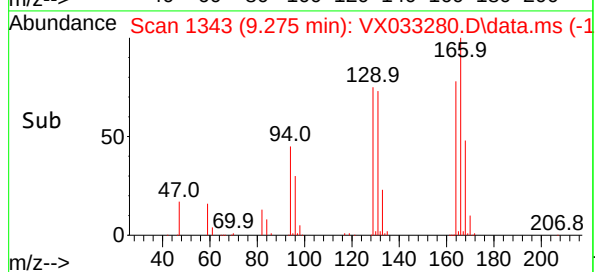
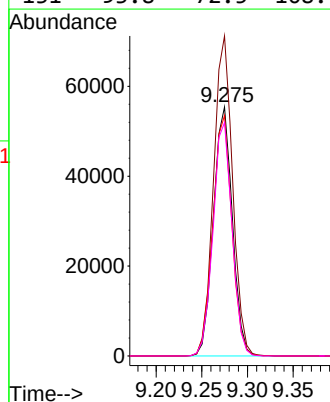
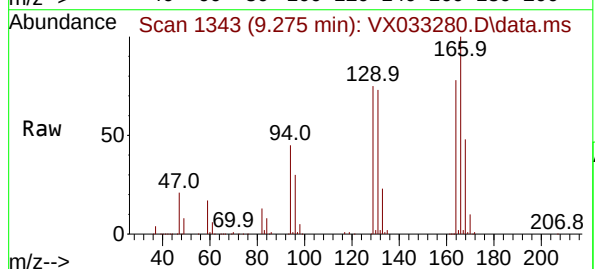
Manual Integrations  
APPROVED

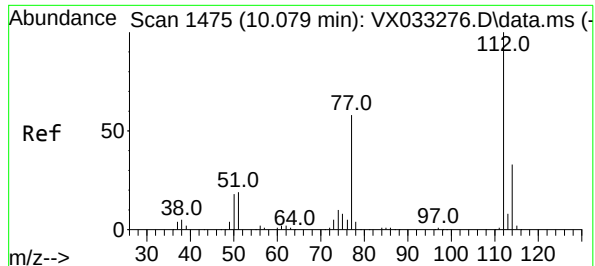
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#64  
Tetrachloroethene  
Concen: 49.334 ug/l  
RT: 9.275 min Scan# 1343  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Tgt Ion:164 Resp: 80126  
Ion Ratio Lower Upper  
164 100  
166 128.6 105.4 158.2  
129 96.6 78.2 117.2  
131 93.8 72.5 108.7





#65

Chlorobenzene

Concen: 49.423 ug/l

RT: 10.080 min Scan# 1475

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion:112 Resp: 237720

Ion Ratio Lower Upper

112 100

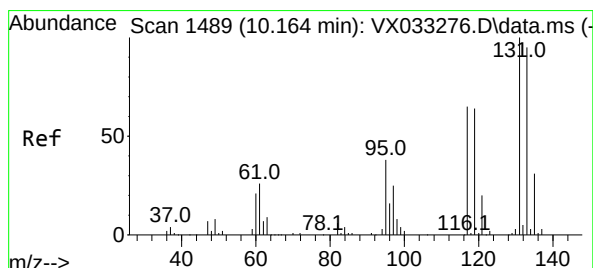
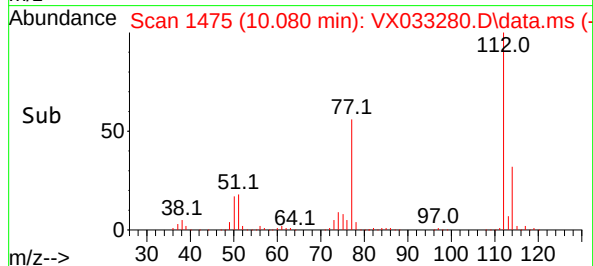
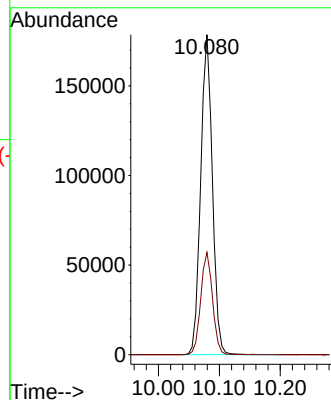
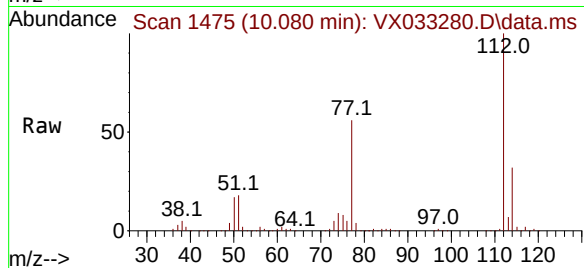
114 31.9 25.4 38.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#66

1,1,1,2-Tetrachloroethane

Concen: 49.209 ug/l

RT: 10.165 min Scan# 1489

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

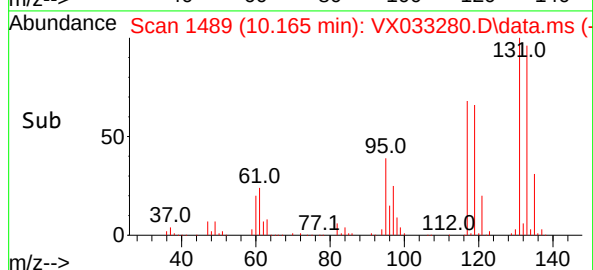
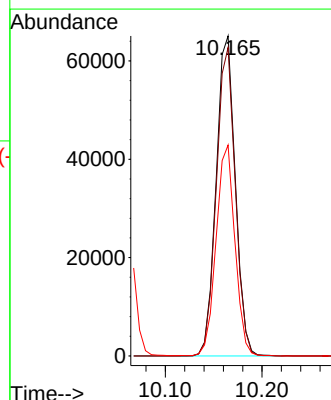
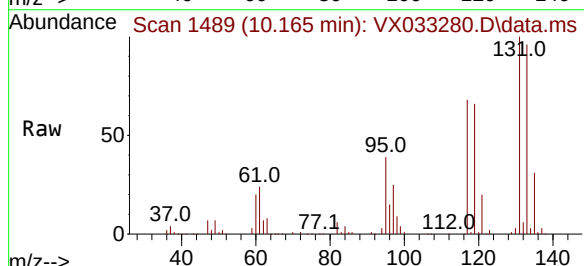
Tgt Ion:131 Resp: 89447

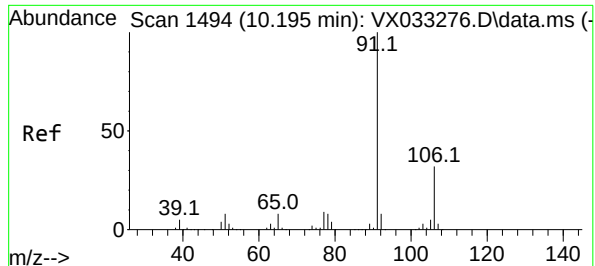
Ion Ratio Lower Upper

131 100

133 95.3 47.6 142.9

119 64.8 32.4 97.0





#67

Ethyl Benzene

Concen: 50.786 ug/l

RT: 10.195 min Scan# 1494

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 91 Resp: 42556

Ion Ratio Lower Upper

91 100

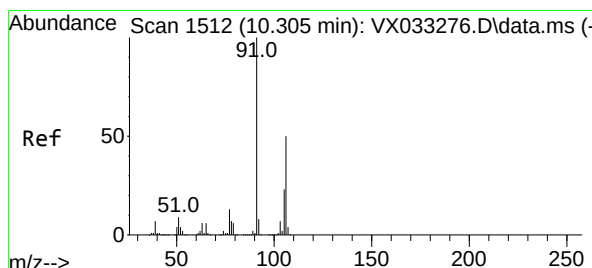
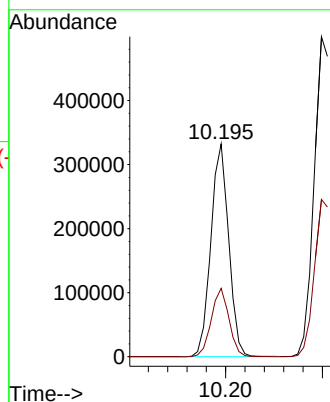
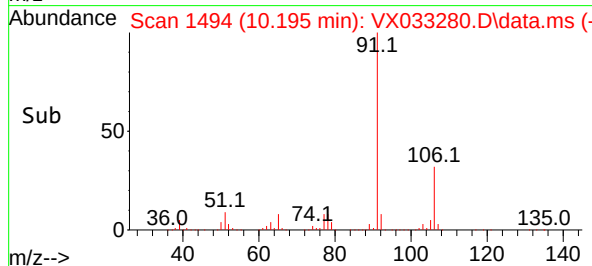
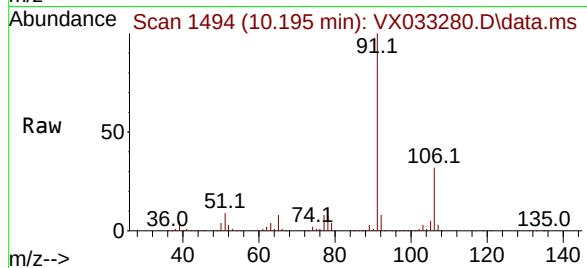
106 32.1 25.0 37.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#68

m/p-Xylenes

Concen: 102.791 ug/l

RT: 10.299 min Scan# 1511

Delta R.T. -0.006 min

Lab File: VX033280.D

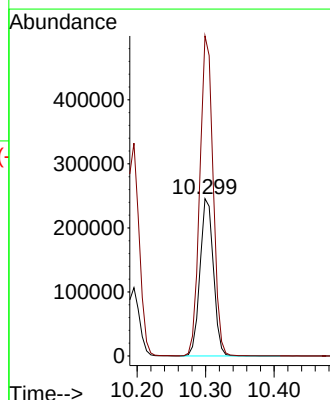
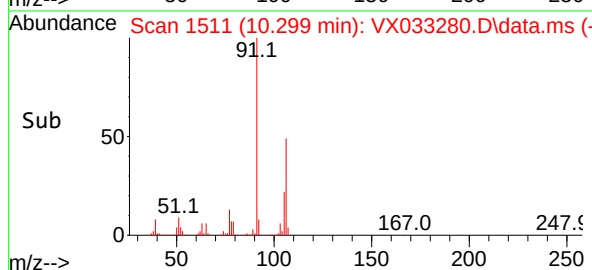
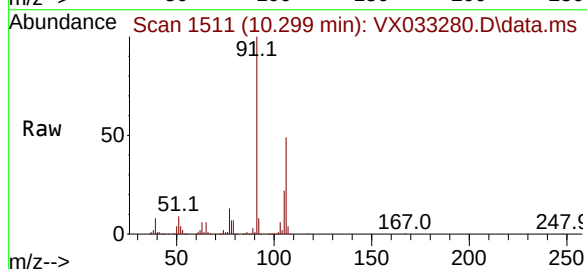
Acq: 07 Dec 2022 12:51

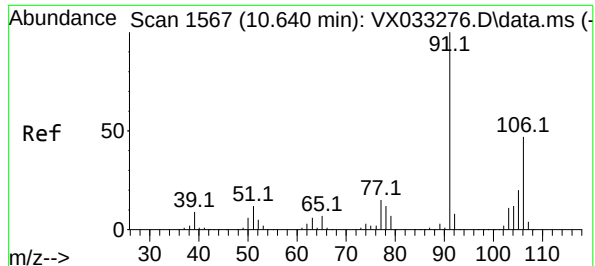
Tgt Ion:106 Resp: 335122

Ion Ratio Lower Upper

106 100

91 202.2 164.5 246.7





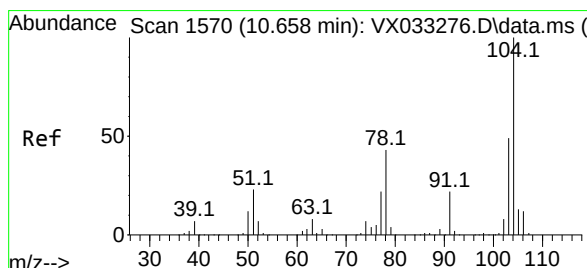
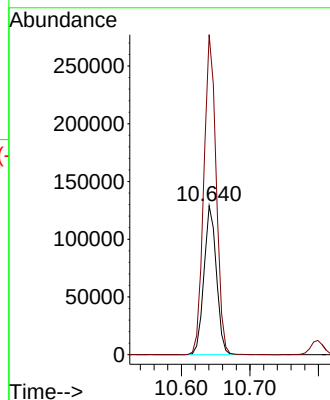
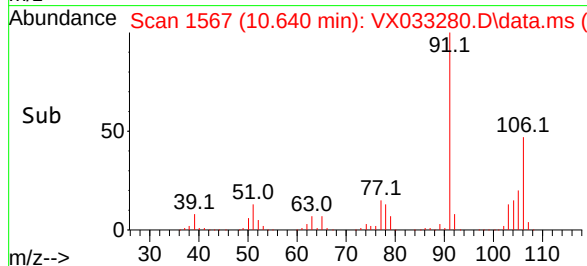
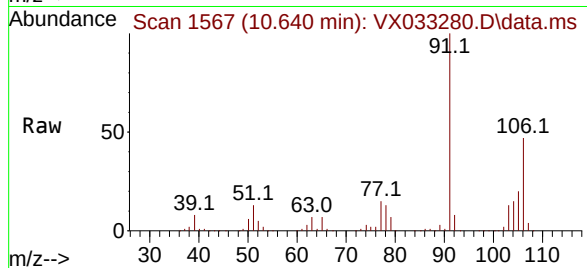
#69  
o-Xylene  
Concen: 50.629 ug/l  
RT: 10.640 min Scan# 1567  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVX120722

Tgt Ion:106 Resp: 163154  
Ion Ratio Lower Upper  
106 100  
91 214.0 109.2 327.6

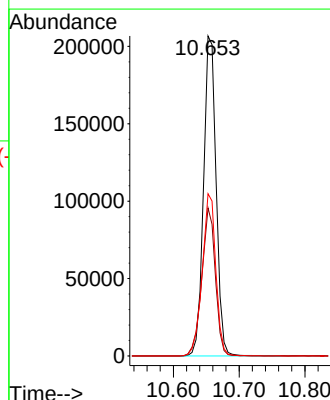
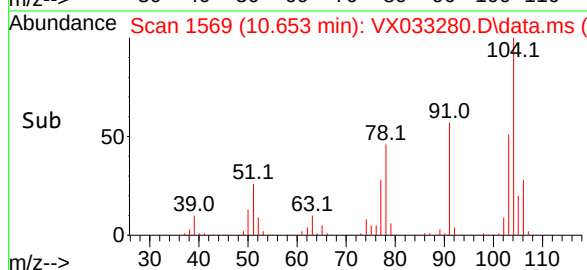
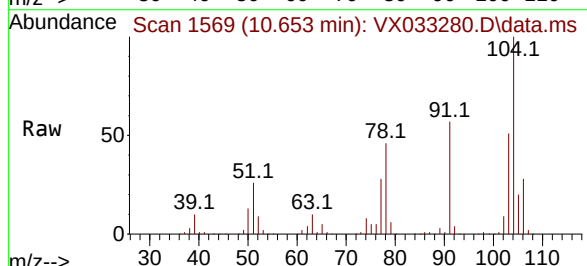
Manual Integrations  
APPROVED

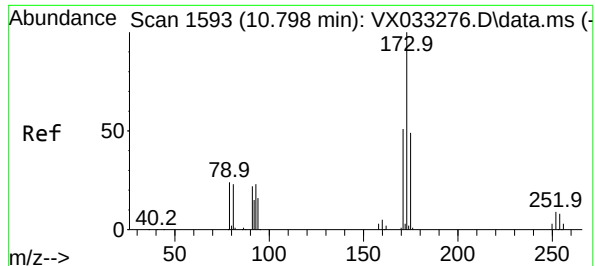
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#70  
Styrene  
Concen: 52.086 ug/l  
RT: 10.653 min Scan# 1569  
Delta R.T. -0.006 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

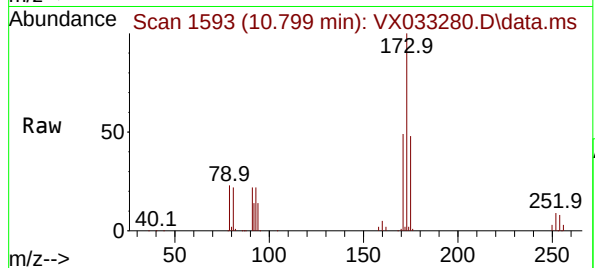
Tgt Ion:104 Resp: 274901  
Ion Ratio Lower Upper  
104 100  
78 49.8 41.8 62.8  
103 54.8 44.5 66.7





#71  
Bromoform  
Concen: 50.740 ug/l  
RT: 10.799 min Scan# 1593  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

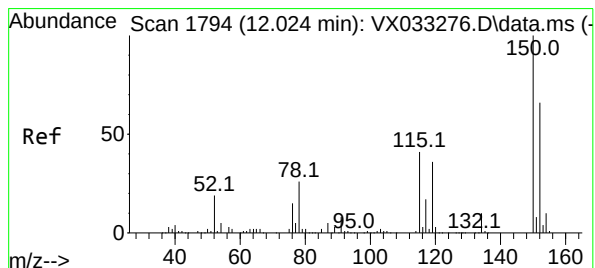
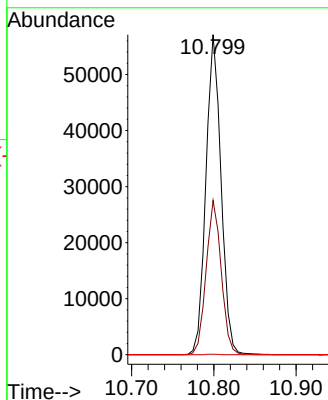
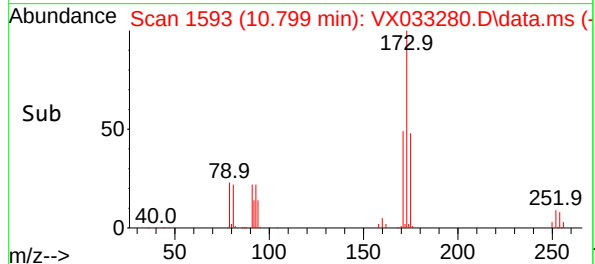
Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722



Tgt Ion:173 Resp: 73000  
Ion Ratio Lower Upper  
173 100  
175 48.1 23.9 71.8  
254 0.1 0.0 0.0

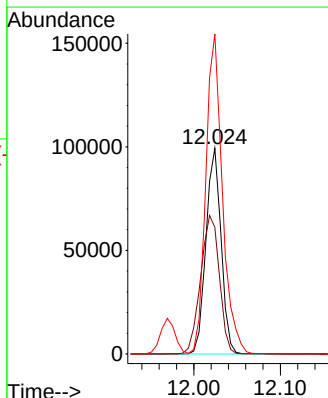
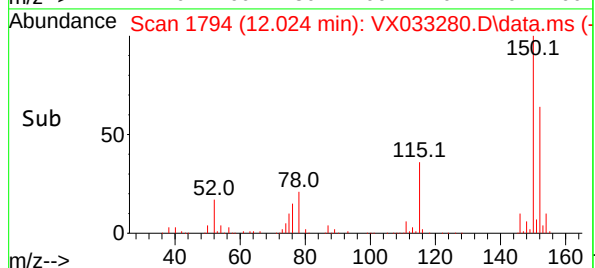
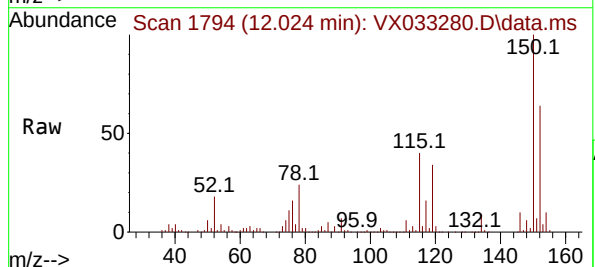
Manual Integrations  
APPROVED

Reviewed By :John Carbone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

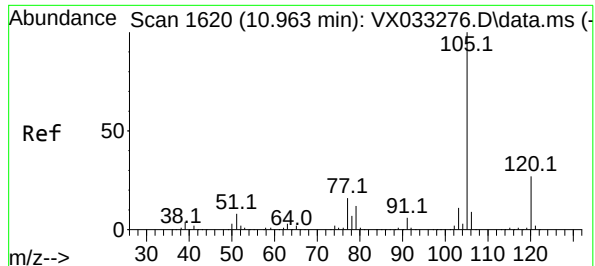


#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.024 min Scan# 1794  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Tgt Ion:152 Resp: 120258  
Ion Ratio Lower Upper  
152 100  
115 83.5 44.0 132.0  
150 170.9 0.0 351.8







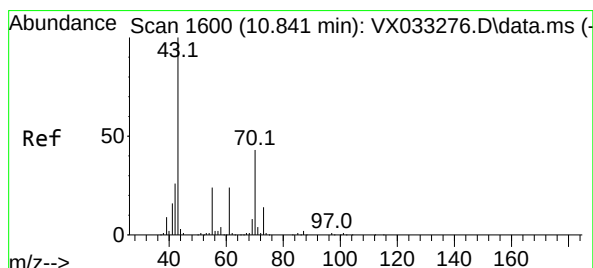
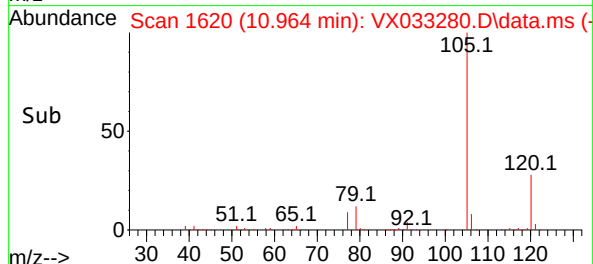
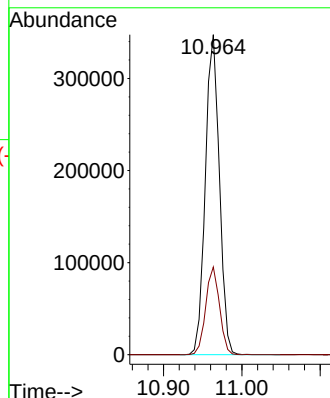
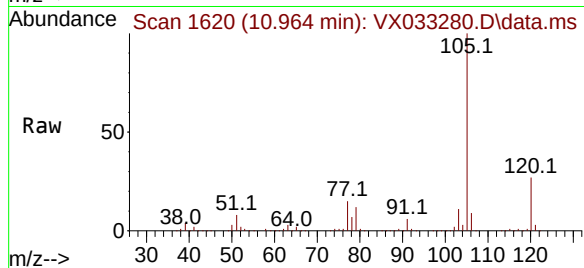
#73  
Isopropylbenzene  
Concen: 49.486 ug/l  
RT: 10.964 min Scan# 1620  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVX120722

Tgt Ion:105 Resp: 431345  
Ion Ratio Lower Upper  
105 100  
120 26.9 13.1 39.3

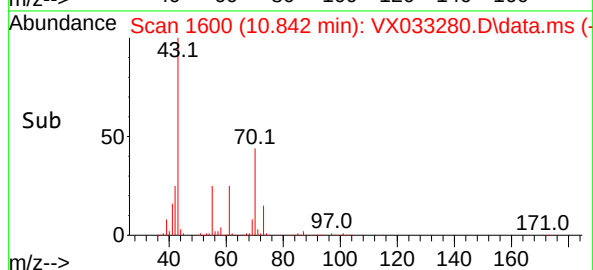
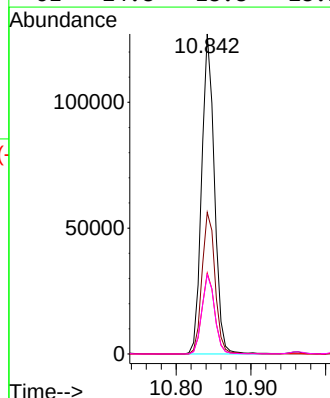
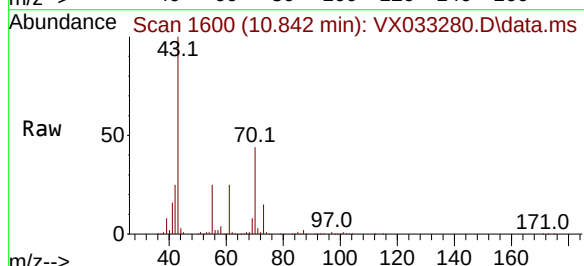
Manual Integrations  
APPROVED

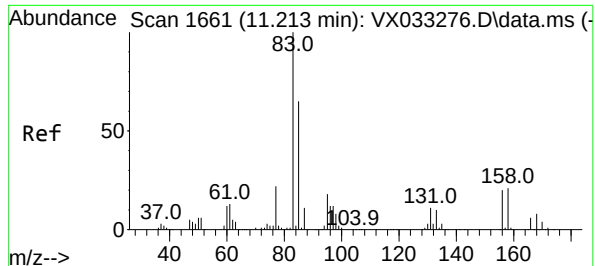
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#74  
N-ethyl acetate  
Concen: 50.590 ug/l  
RT: 10.842 min Scan# 1600  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Tgt Ion: 43 Resp: 150450  
Ion Ratio Lower Upper  
43 100  
70 45.5 33.6 50.4  
55 25.3 19.4 29.2  
61 24.8 18.8 28.2





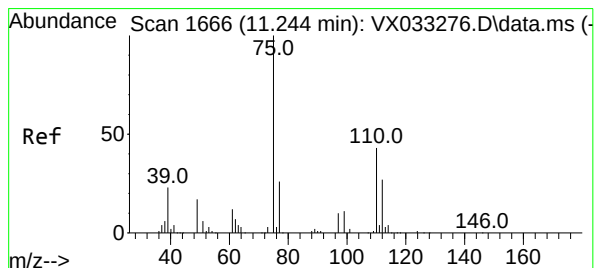
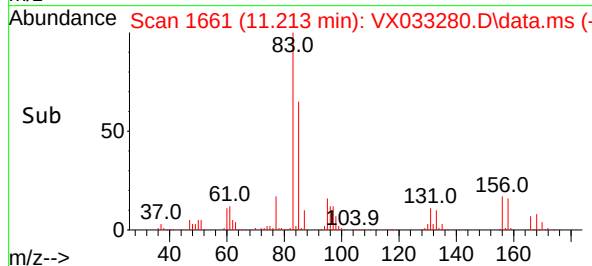
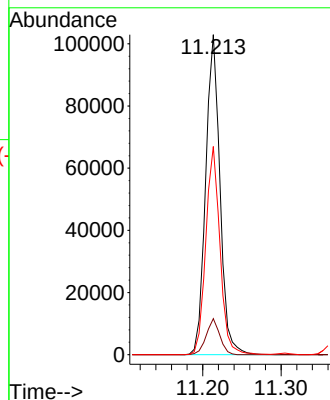
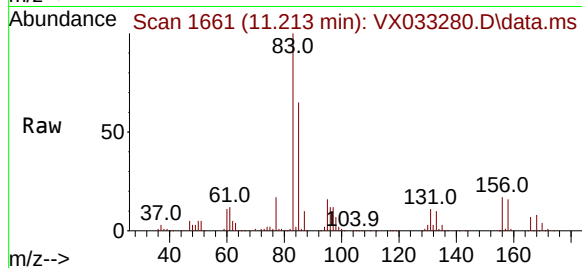
#75  
1,1,2,2-Tetrachloroethane  
Concen: 47.106 ug/l  
RT: 11.213 min Scan# 1661  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722

Tgt Ion: 83 Resp: 130259  
Ion Ratio Lower Upper  
83 100  
131 10.6 5.4 16.2  
85 64.6 31.9 95.9

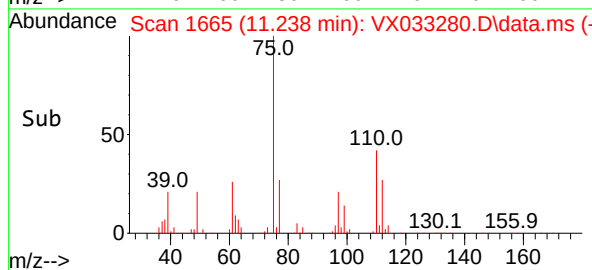
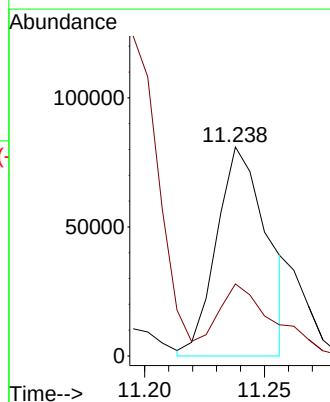
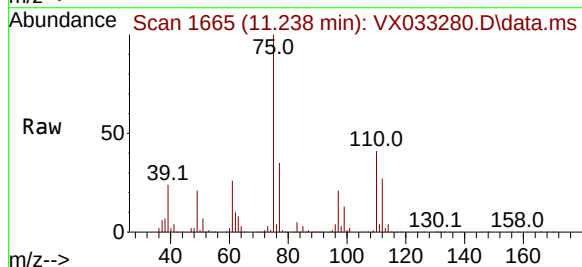
Manual Integrations  
APPROVED

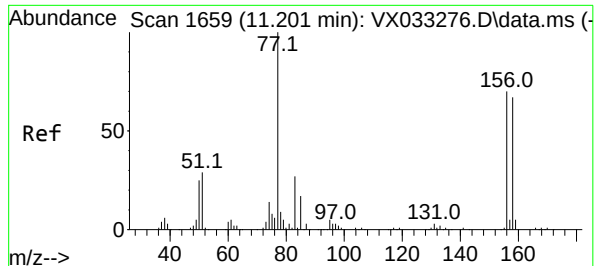
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#76  
1,2,3-Trichloropropane  
Concen: 48.233 ug/l m  
RT: 11.238 min Scan# 1665  
Delta R.T. -0.006 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

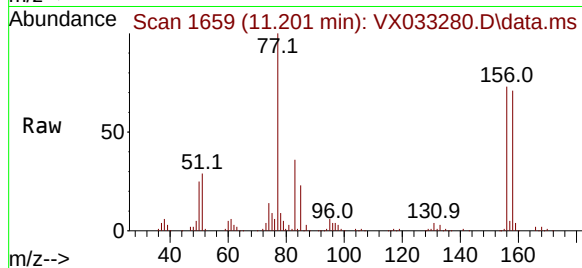
Tgt Ion: 75 Resp: 118011  
Ion Ratio Lower Upper  
75 100  
77 39.3 20.0 60.0





#77  
Bromobenzene  
Concen: 48.205 ug/l  
RT: 11.201 min Scan# 1659  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

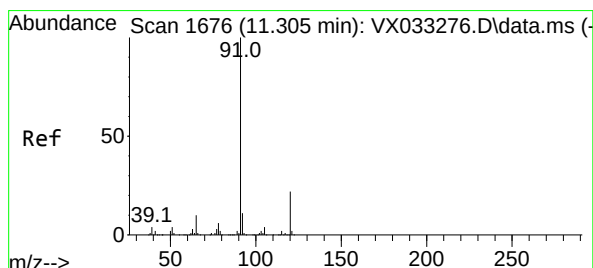
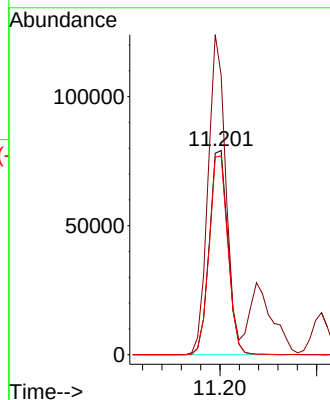
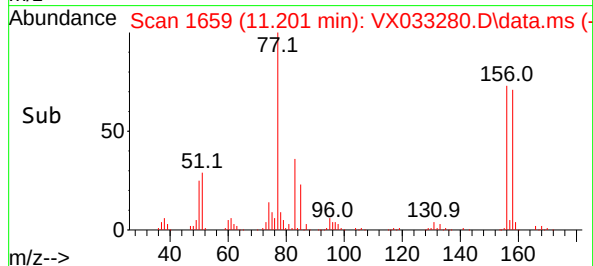
Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVX120722



Tgt Ion:156 Resp: 10610  
Ion Ratio Lower Upper  
156 100  
77 148.6 76.1 228.4  
158 97.4 48.8 146.3

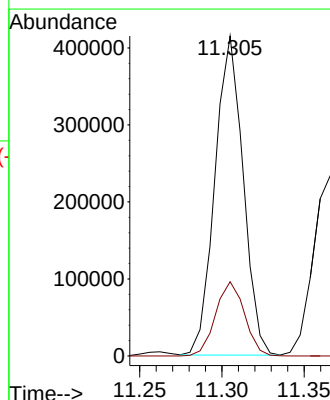
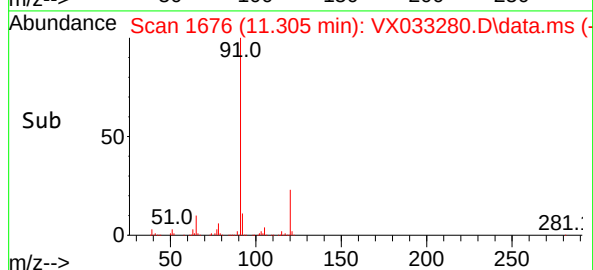
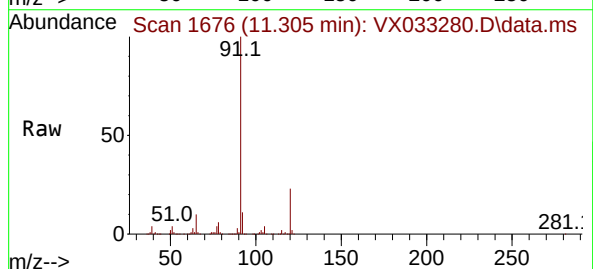
Manual Integrations  
APPROVED

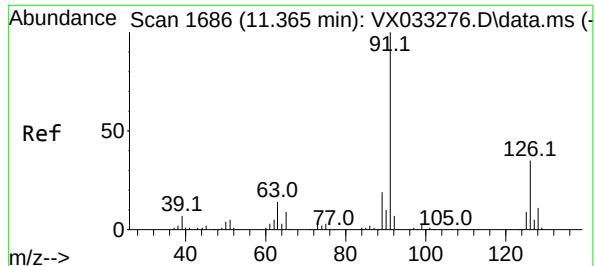
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#78  
n-propylbenzene  
Concen: 50.851 ug/l  
RT: 11.305 min Scan# 1676  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Tgt Ion: 91 Resp: 494916  
Ion Ratio Lower Upper  
91 100  
120 23.8 11.6 34.8





#79

2-Chlorotoluene

Concen: 48.608 ug/l

RT: 11.366 min Scan# 1

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion: 91 Resp: 292372

Ion Ratio Lower Upper

91 100

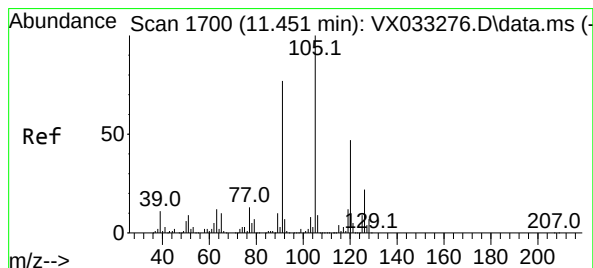
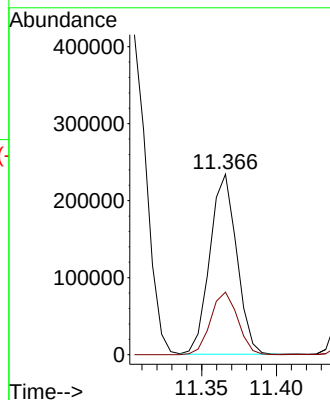
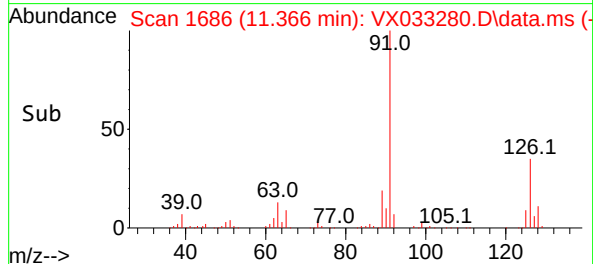
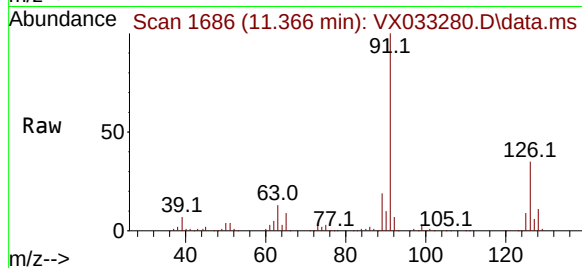
126 35.0 17.1 51.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#80

1,3,5-Trimethylbenzene

Concen: 50.214 ug/l

RT: 11.451 min Scan# 1700

Delta R.T. 0.000 min

Lab File: VX033280.D

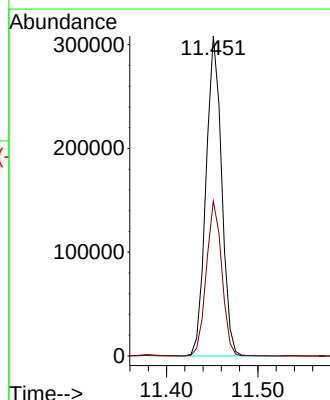
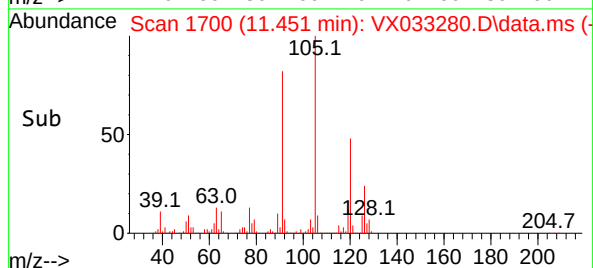
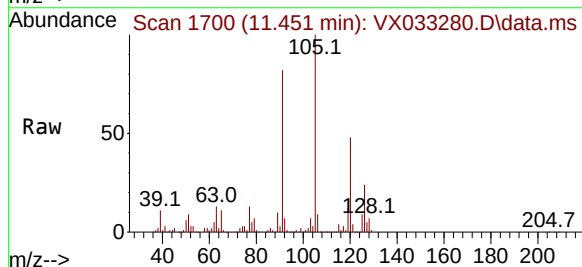
Acq: 07 Dec 2022 12:51

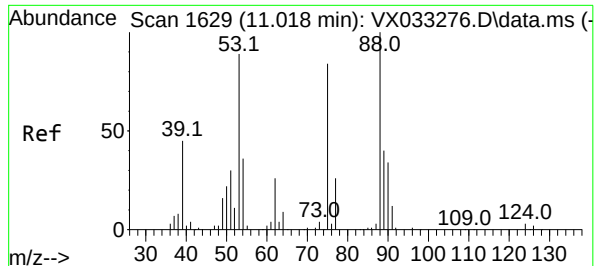
Tgt Ion:105 Resp: 364334

Ion Ratio Lower Upper

105 100

120 48.0 23.6 71.0





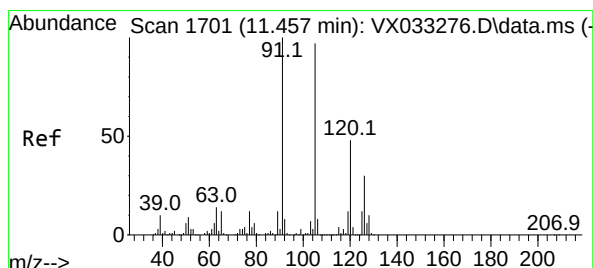
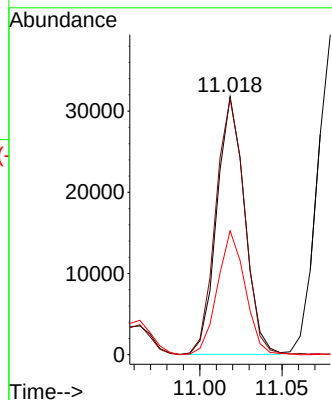
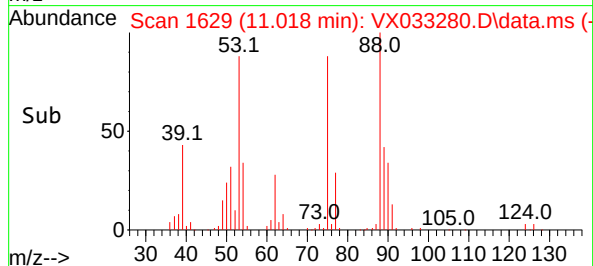
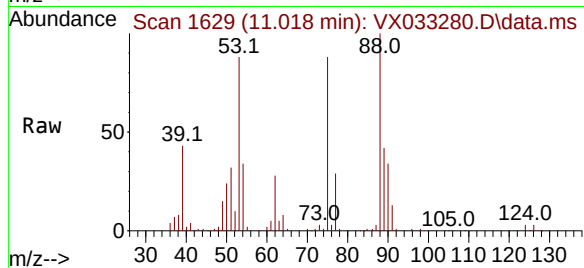
#81  
trans-1,4-Dichloro-2-butene  
Concen: 47.543 ug/l  
RT: 11.018 min Scan# 1629  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722

Tgt Ion: 75 Resp: 37394  
Ion Ratio Lower Upper  
75 100  
53 103.5 86.9 130.3  
89 47.7 38.3 57.5

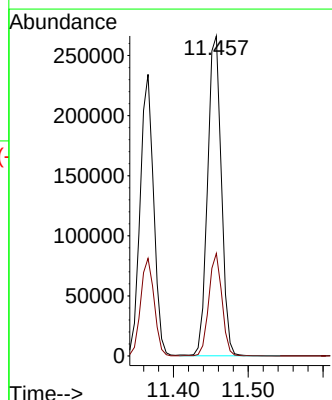
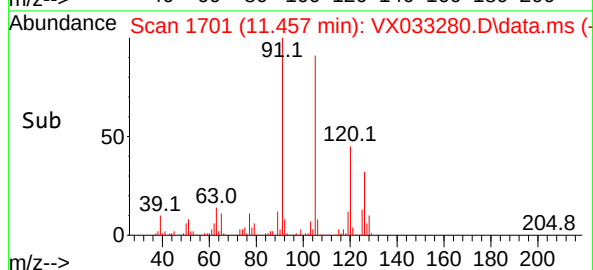
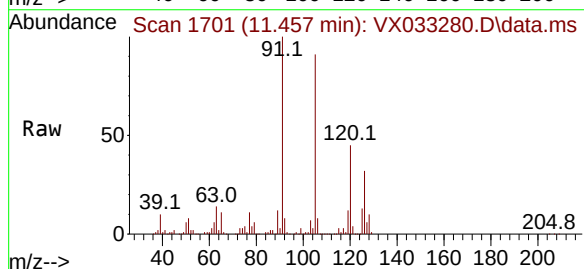
Manual Integrations  
APPROVED

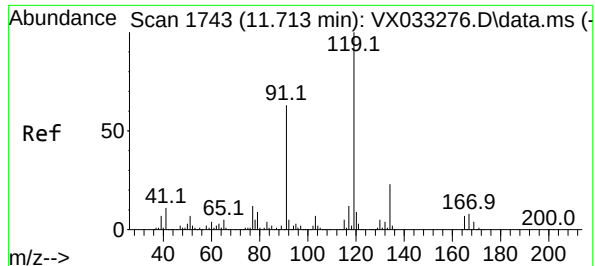
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022



#82  
4-Chlorotoluene  
Concen: 48.600 ug/l  
RT: 11.457 min Scan# 1701  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

Tgt Ion: 91 Resp: 339915  
Ion Ratio Lower Upper  
91 100  
126 30.7 14.8 44.4





#83

tert-Butylbenzene

Concen: 50.294 ug/l

RT: 11.713 min Scan# 1743

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion:119 Resp: 36388

Ion Ratio Lower Upper

119 100

91 56.4 29.4 88.2

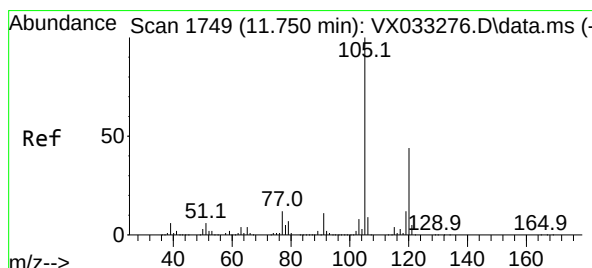
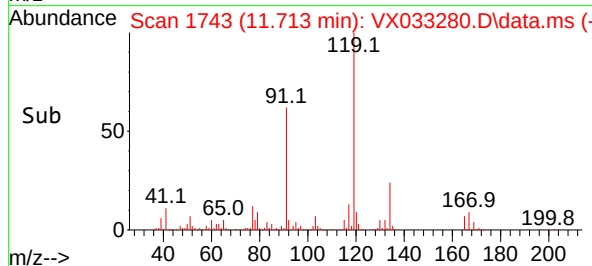
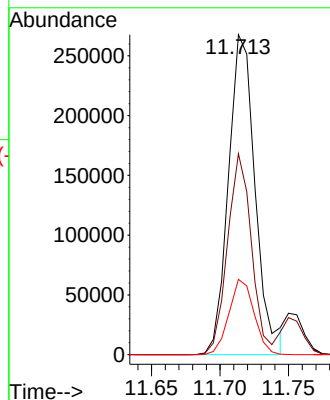
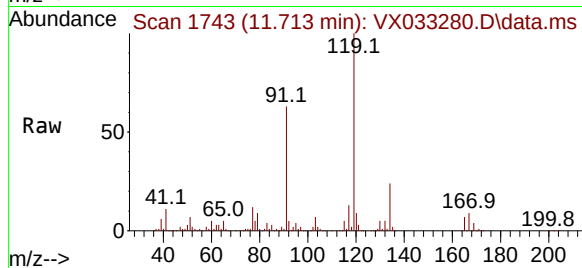
134 22.2 11.0 33.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#84

1,2,4-Trimethylbenzene

Concen: 49.794 ug/l

RT: 11.750 min Scan# 1749

Delta R.T. 0.000 min

Lab File: VX033280.D

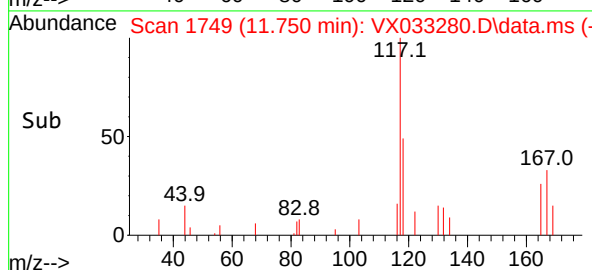
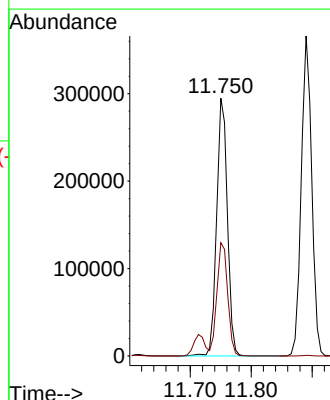
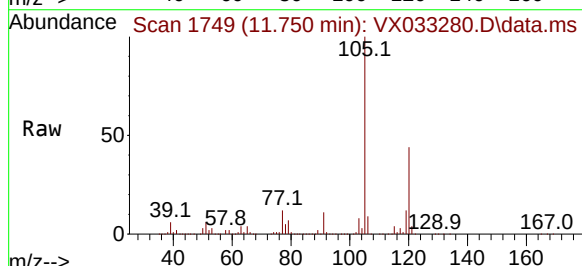
Acq: 07 Dec 2022 12:51

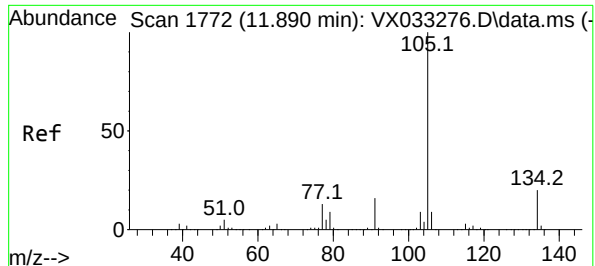
Tgt Ion:105 Resp: 360637

Ion Ratio Lower Upper

105 100

120 44.0 21.9 65.5





#85

sec-Butylbenzene

Concen: 51.640 ug/l

RT: 11.890 min Scan# 1772

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion:105 Resp: 43592

Ion Ratio Lower Upper

105 100

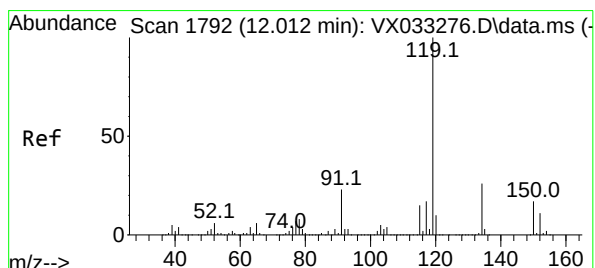
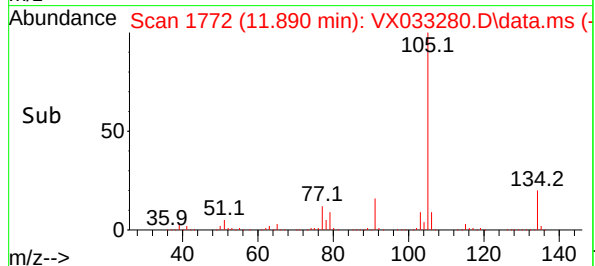
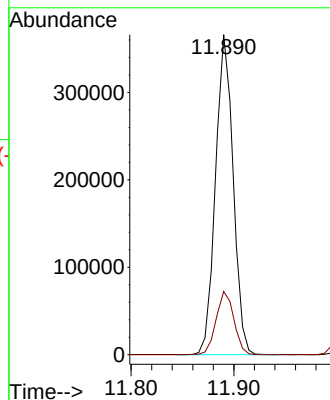
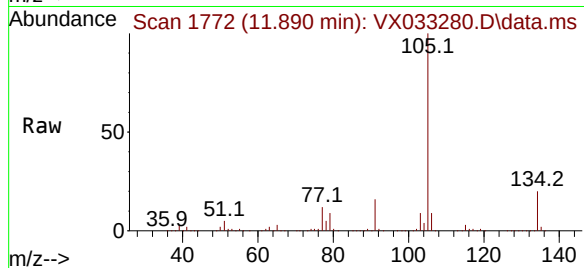
134 20.0 9.9 29.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#86

p-Isopropyltoluene

Concen: 50.922 ug/l

RT: 12.012 min Scan# 1792

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

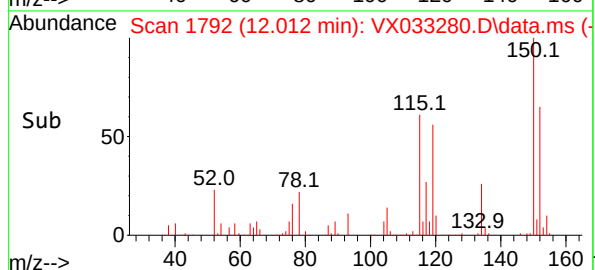
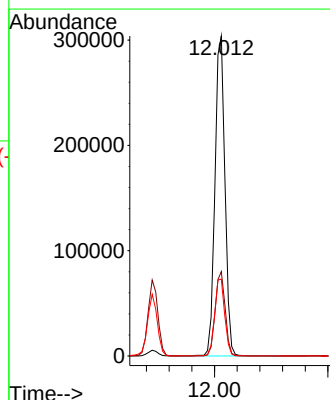
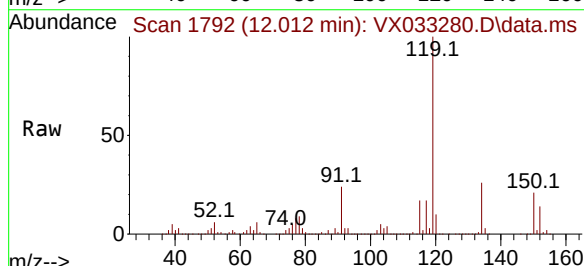
Tgt Ion:119 Resp: 370603

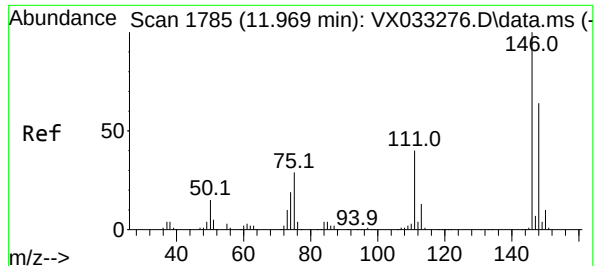
Ion Ratio Lower Upper

119 100

134 26.2 12.9 38.7

91 24.3 12.5 37.5





#87

1,3-Dichlorobenzene

Concen: 49.452 ug/l

RT: 11.969 min Scan# 1785

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion:146 Resp: 197172

Ion Ratio Lower Upper

146 100

111 40.3 20.6 61.8

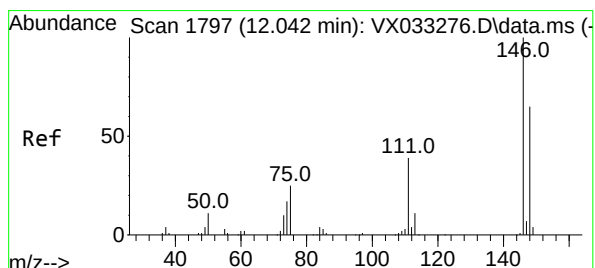
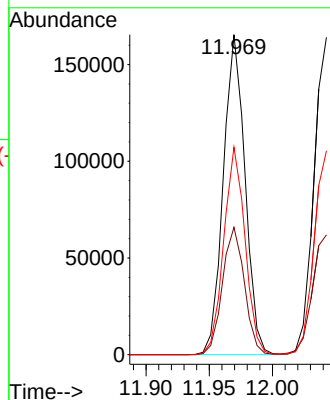
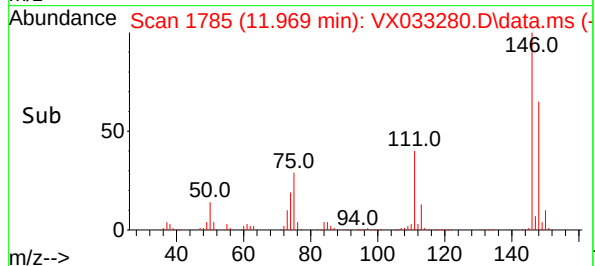
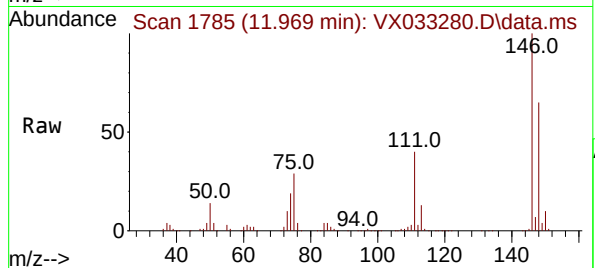
148 63.8 31.7 95.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#88

1,4-Dichlorobenzene

Concen: 48.472 ug/l

RT: 12.043 min Scan# 1797

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

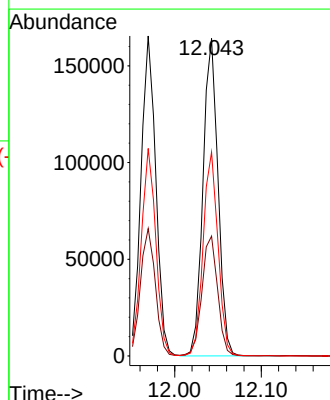
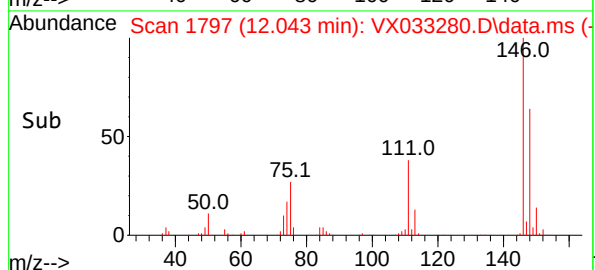
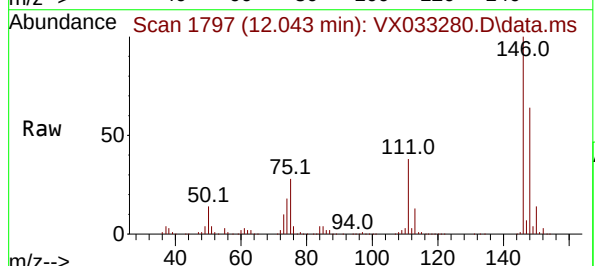
Tgt Ion:146 Resp: 197406

Ion Ratio Lower Upper

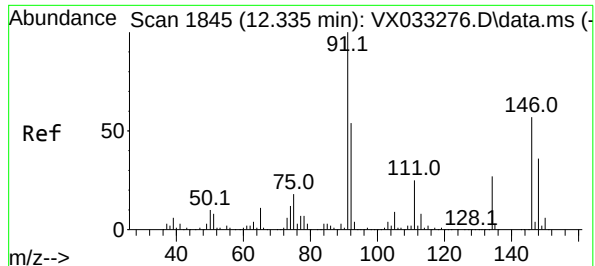
146 100

111 39.5 20.5 61.6

148 64.0 32.2 96.6







#89

n-Butylbenzene

Concen: 53.470 ug/l

RT: 12.335 min Scan# 1845

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVVX120722

Tgt Ion: 91 Resp: 31872

Ion Ratio Lower Upper

91 100

92 52.8 26.2 78.6

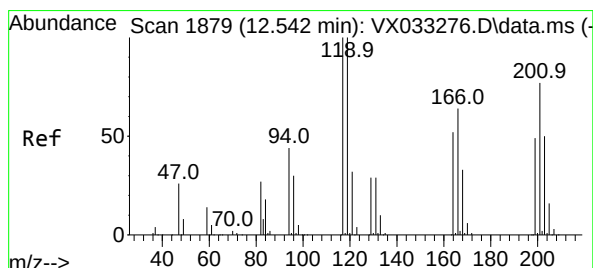
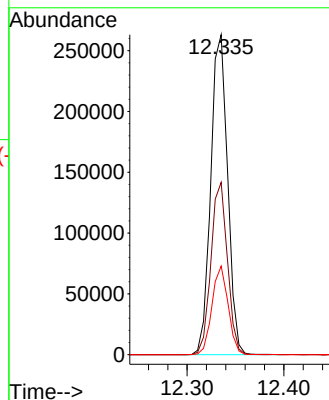
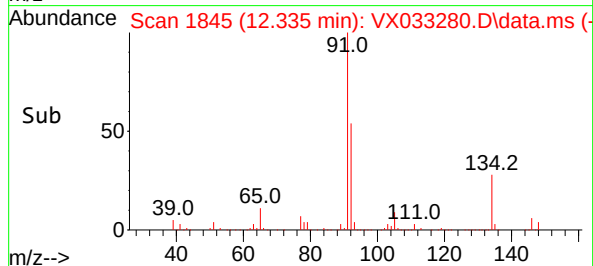
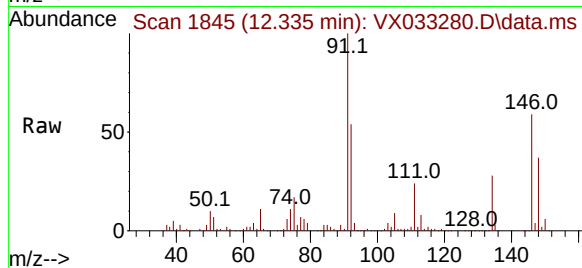
134 26.6 12.9 38.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#90

Hexachloroethane

Concen: 49.829 ug/l

RT: 12.536 min Scan# 1878

Delta R.T. -0.006 min

Lab File: VX033280.D

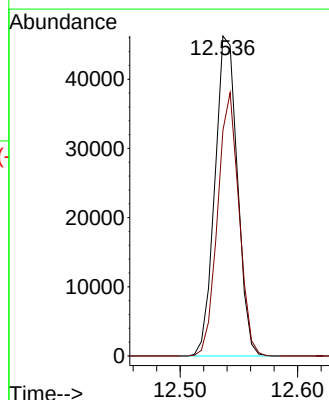
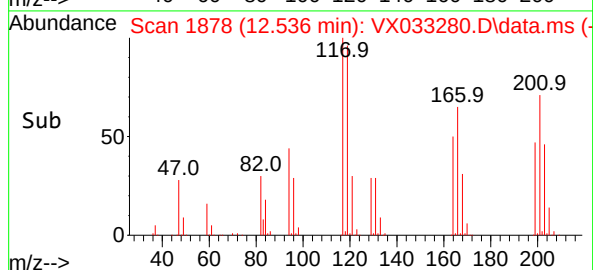
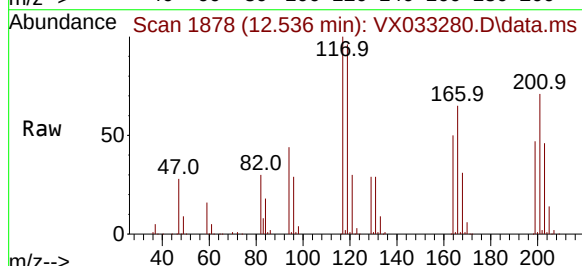
Acq: 07 Dec 2022 12:51

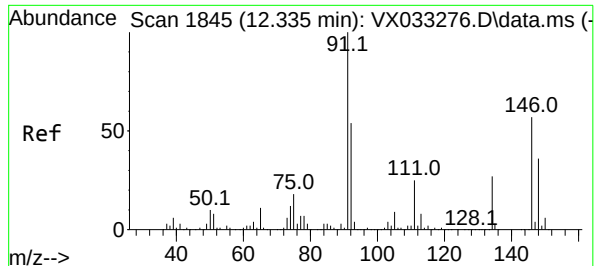
Tgt Ion:117 Resp: 61643

Ion Ratio Lower Upper

117 100

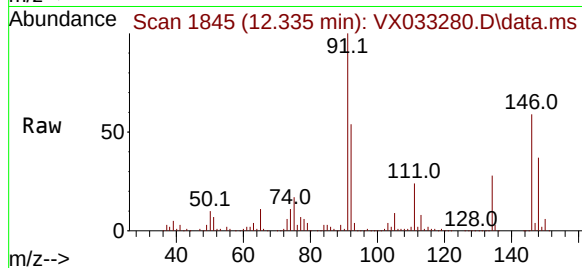
201 78.0 37.6 112.9





#91  
1,2-Dichlorobenzene  
Concen: 47.664 ug/l  
RT: 12.335 min Scan# 1845  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51

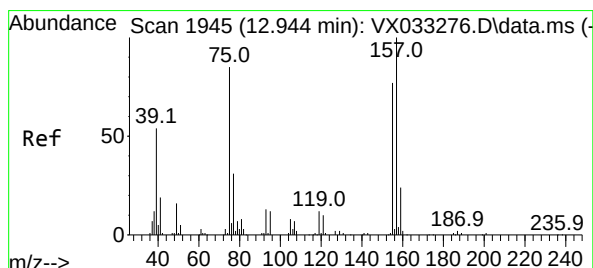
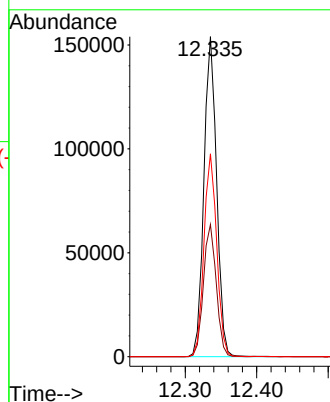
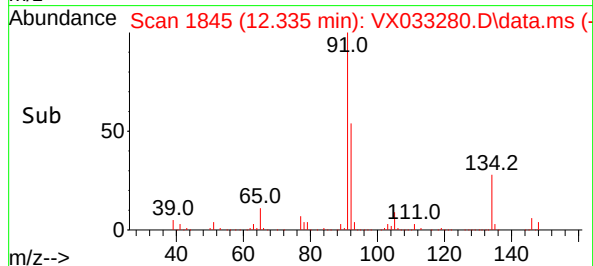
Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722



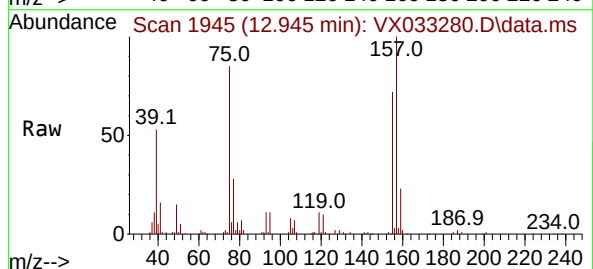
Tgt Ion:146 Resp: 19000  
Ion Ratio Lower Upper  
146 100  
111 41.6 21.5 64.5  
148 63.8 32.0 96.2

Manual Integrations  
APPROVED

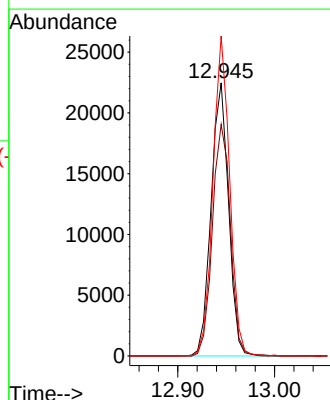
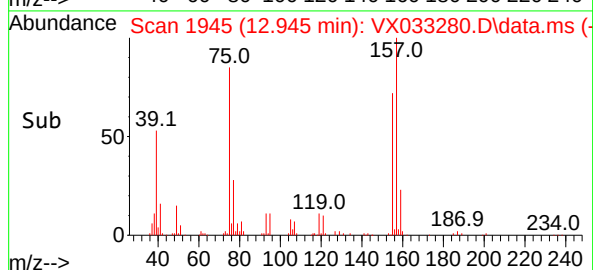
Reviewed By :John Carlone 12/08/2022  
Supervised By :Mahesh Dadoda 12/08/2022

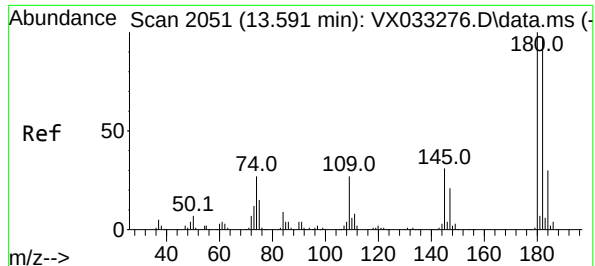


#92  
1,2-Dibromo-3-Chloropropane  
Concen: 47.255 ug/l  
RT: 12.945 min Scan# 1945  
Delta R.T. 0.000 min  
Lab File: VX033280.D  
Acq: 07 Dec 2022 12:51



Tgt Ion: 75 Resp: 28225  
Ion Ratio Lower Upper  
75 100  
155 87.1 41.6 124.8  
157 112.1 54.1 162.4





#93

1,2,4-Trichlorobenzene

Concen: 50.844 ug/l

RT: 13.591 min Scan# 2051

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVVX120722

Tgt Ion:180 Resp: 12240

Ion Ratio Lower Upper

180 100

182 95.2 48.4 145.0

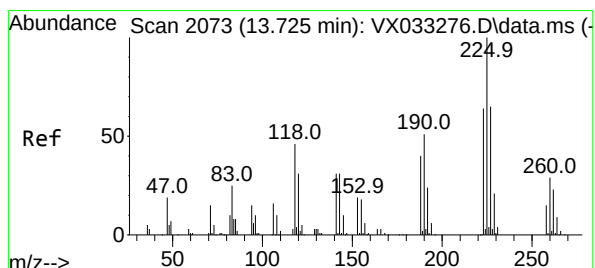
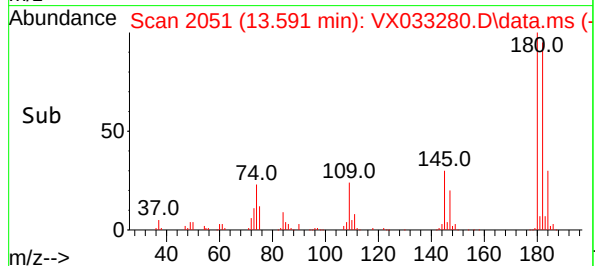
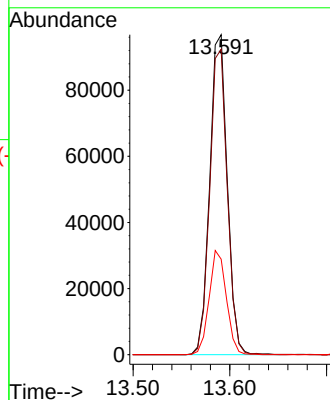
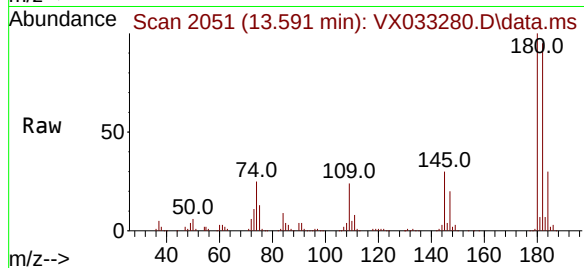
145 31.9 16.2 48.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#94

Hexachlorobutadiene

Concen: 51.780 ug/l

RT: 13.725 min Scan# 2073

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

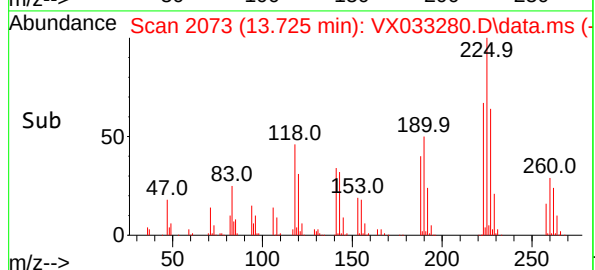
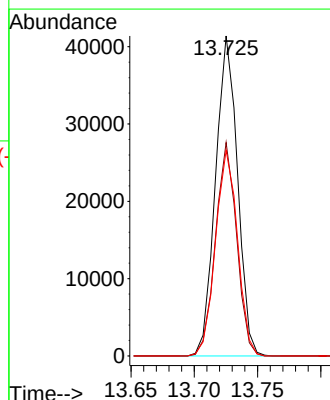
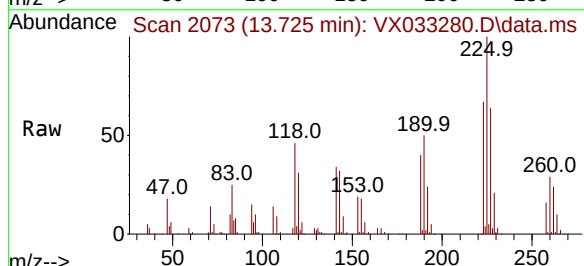
Tgt Ion:225 Resp: 49918

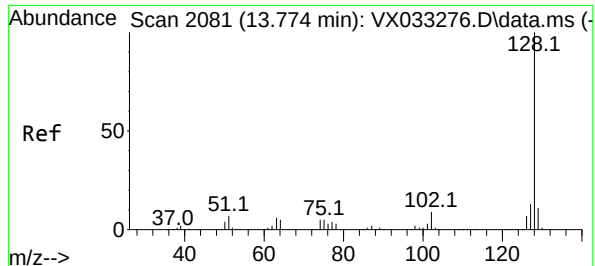
Ion Ratio Lower Upper

225 100

223 64.1 31.9 95.9

227 64.4 31.9 95.5





#95

Naphthalene

Concen: 50.644 ug/l

RT: 13.774 min Scan# 2081

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

Instrument :

MSVOA\_X

ClientSampleId :

ICVX120722

Tgt Ion:128 Resp: 406692

Ion Ratio Lower Upper

128 100

127 12.9 10.2 15.4

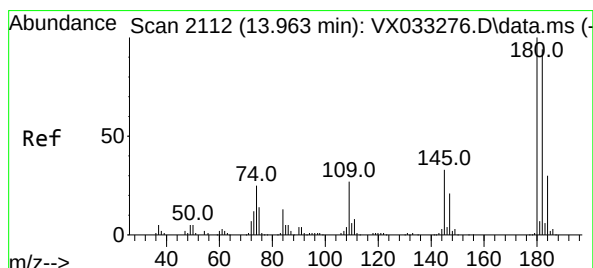
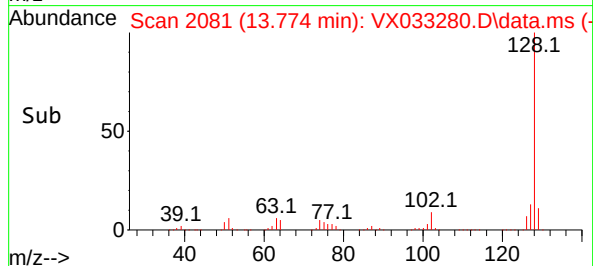
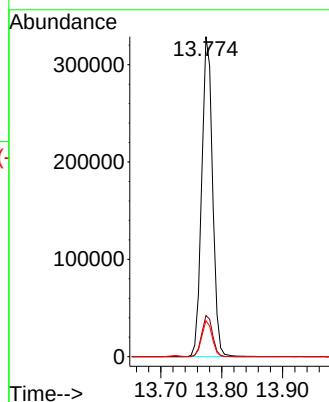
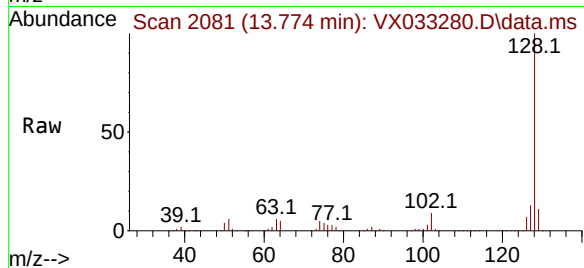
129 10.8 8.9 13.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/08/2022

Supervised By :Mahesh Dadoda 12/08/2022



#96

1,2,3-Trichlorobenzene

Concen: 50.061 ug/l

RT: 13.963 min Scan# 2112

Delta R.T. 0.000 min

Lab File: VX033280.D

Acq: 07 Dec 2022 12:51

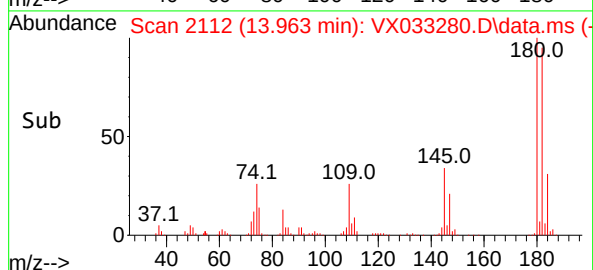
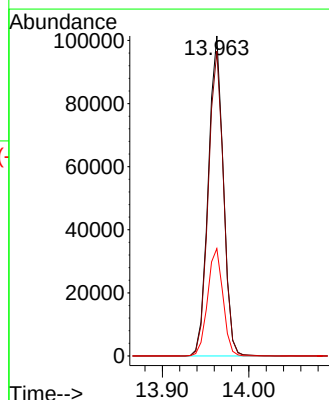
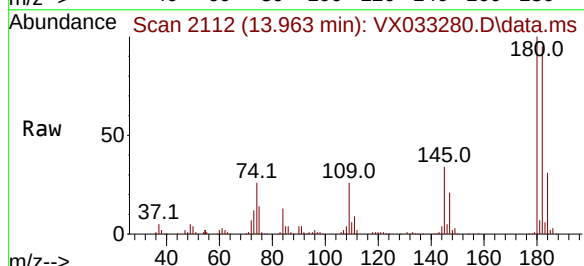
Tgt Ion:180 Resp: 122061

Ion Ratio Lower Upper

180 100

182 96.2 47.5 142.6

145 34.2 16.9 50.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033280.D  
 Acq On : 07 Dec 2022 12:51  
 Operator : JC/MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 ICVVX120722

Quant Time: Dec 08 01:41:57 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 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  | 102   | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 0.349 | 0.347 | 0.6  | 108   | 0.00     |
| 3 P   | Chloromethane               | 0.404 | 0.366 | 9.4  | 103   | 0.00     |
| 4 C   | Vinyl Chloride              | 0.461 | 0.431 | 6.5# | 103   | 0.00     |
| 5 T   | Bromomethane                | 0.338 | 0.322 | 4.7  | 110   | 0.00     |
| 6 T   | Chloroethane                | 0.350 | 0.330 | 5.7  | 100   | 0.00     |
| 7 T   | Trichlorofluoromethane      | 0.866 | 0.840 | 3.0  | 105   | 0.00     |
| 8 T   | Diethyl Ether               | 0.313 | 0.284 | 9.3  | 106   | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 0.459 | 0.460 | -0.2 | 106   | 0.00     |
| 10 T  | Methyl Iodide               | 0.503 | 0.439 | 12.7 | 91    | 0.00     |
| 11 T  | Tert butyl alcohol          | 0.098 | 0.083 | 15.3 | 106   | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 0.453 | 0.435 | 4.0# | 105   | 0.00     |
| 13 T  | Acrolein                    | 0.106 | 0.097 | 8.5  | 98    | 0.00     |
| 14 T  | Allyl chloride              | 0.724 | 0.695 | 4.0  | 104   | 0.00     |
| 15 T  | Acrylonitrile               | 0.243 | 0.221 | 9.1  | 100   | 0.00     |
| 16 T  | Acetone                     | 0.237 | 0.206 | 13.1 | 102   | 0.00     |
| 17 T  | Carbon Disulfide            | 1.163 | 1.114 | 4.2  | 104   | 0.00     |
| 18 T  | Methyl Acetate              | 0.687 | 0.631 | 8.2  | 100   | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 1.570 | 1.513 | 3.6  | 105   | 0.00     |
| 20 T  | Methylene Chloride          | 0.529 | 0.483 | 8.7  | 105   | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 0.496 | 0.483 | 2.6  | 105   | 0.00     |
| 22 T  | Diisopropyl ether           | 1.551 | 1.502 | 3.2  | 102   | 0.00     |
| 23 T  | Vinyl Acetate               | 1.204 | 1.180 | 2.0  | 103   | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 0.911 | 0.859 | 5.7  | 104   | 0.00     |
| 25 T  | 2-Butanone                  | 0.341 | 0.317 | 7.0  | 100   | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 0.670 | 0.667 | 0.4  | 105   | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 0.593 | 0.575 | 3.0  | 105   | 0.00     |
| 28 T  | Bromochloromethane          | 0.381 | 0.366 | 3.9  | 100   | 0.00     |
| 29 T  | Tetrahydrofuran             | 0.221 | 0.206 | 6.8  | 100   | -0.01    |
| 30 C  | Chloroform                  | 1.012 | 0.961 | 5.0# | 103   | 0.00     |
| 31 T  | Cyclohexane                 | 0.762 | 0.771 | -1.2 | 106   | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 0.870 | 0.867 | 0.3  | 104   | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 0.321 | 0.301 | 6.2  | 107   | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 1.000 | 1.000 | 0.0  | 101   | 0.00     |
| 35 S  | Dibromofluoromethane        | 0.225 | 0.216 | 4.0  | 107   | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 0.438 | 0.437 | 0.2  | 105   | 0.00     |
| 37 T  | Ethyl Acetate               | 0.414 | 0.396 | 4.3  | 101   | 0.00     |
| 38 T  | Carbon Tetrachloride        | 0.491 | 0.487 | 0.8  | 103   | 0.00     |
| 39 T  | Methylcyclohexane           | 0.491 | 0.521 | -6.1 | 107   | 0.00     |
| 40 TM | Benzene                     | 1.278 | 1.251 | 2.1  | 104   | 0.00     |
| 41 T  | Methacrylonitrile           | 0.228 | 0.223 | 2.2  | 100   | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 0.508 | 0.484 | 4.7  | 102   | 0.00     |
| 43 T  | Isopropyl Acetate           | 0.667 | 0.649 | 2.7  | 102   | 0.00     |
| 44 TM | Trichloroethene             | 0.352 | 0.353 | -0.3 | 105   | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 0.327 | 0.318 | 2.8# | 104   | 0.00     |
| 46 T  | Dibromomethane              | 0.249 | 0.238 | 4.4  | 103   | 0.00     |
| 47 T  | Bromodichloromethane        | 0.485 | 0.476 | 1.9  | 103   | 0.00     |
| 48 T  | Methyl methacrylate         | 0.344 | 0.334 | 2.9  | 102   | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033280.D  
 Acq On : 07 Dec 2022 12:51  
 Operator : JC/MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 ICSVVX120722

Quant Time: Dec 08 01:41:57 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 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   | 103   | 0.00     |
| 50 S  | Toluene-d8                  | 0.470 | 0.471 | -0.2  | 107   | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 0.422 | 0.414 | 1.9   | 101   | 0.00     |
| 52 CM | Toluene                     | 0.827 | 0.831 | -0.5# | 103   | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 0.473 | 0.489 | -3.4  | 106   | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 0.517 | 0.530 | -2.5  | 105   | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 0.347 | 0.340 | 2.0   | 103   | 0.00     |
| 56 T  | Ethyl methacrylate          | 0.489 | 0.502 | -2.7  | 104   | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 0.558 | 0.553 | 0.9   | 104   | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 0.224 | 0.226 | -0.9  | 102   | 0.00     |
| 59 T  | 2-Hexanone                  | 0.311 | 0.310 | 0.3   | 102   | 0.00     |
| 60 T  | Dibromochloromethane        | 0.383 | 0.393 | -2.6  | 105   | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 0.370 | 0.374 | -1.1  | 105   | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 0.360 | 0.379 | -5.3  | 108   | 0.00     |
| 63 I  | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0   | 102   | 0.00     |
| 64 T  | Tetrachloroethene           | 0.342 | 0.337 | 1.5   | 106   | 0.00     |
| 65 PM | Chlorobenzene               | 1.013 | 1.001 | 1.2   | 105   | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 0.383 | 0.377 | 1.6   | 103   | 0.00     |
| 67 C  | Ethyl Benzene               | 1.764 | 1.792 | -1.6# | 105   | 0.00     |
| 68 T  | m/p-Xylenes                 | 0.686 | 0.705 | -2.8  | 106   | 0.00     |
| 69 T  | o-Xylene                    | 0.678 | 0.687 | -1.3  | 104   | 0.00     |
| 70 T  | Styrene                     | 1.111 | 1.157 | -4.1  | 105   | 0.00     |
| 71 P  | Bromoform                   | 0.303 | 0.307 | -1.3  | 103   | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0   | 104   | 0.00     |
| 73 T  | Isopropylbenzene            | 3.624 | 3.587 | 1.0   | 105   | 0.00     |
| 74 T  | N-amyl acetate              | 1.236 | 1.251 | -1.2  | 105   | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 1.150 | 1.083 | 5.8   | 104   | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 1.017 | 0.981 | 3.5   | 106   | 0.00     |
| 77 T  | Bromobenzene                | 0.915 | 0.882 | 3.6   | 106   | 0.00     |
| 78 T  | n-propylbenzene             | 4.047 | 4.115 | -1.7  | 106   | 0.00     |
| 79 T  | 2-Chlorotoluene             | 2.501 | 2.431 | 2.8   | 105   | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 3.017 | 3.030 | -0.4  | 106   | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 0.327 | 0.311 | 4.9   | 104   | 0.00     |
| 82 T  | 4-Chlorotoluene             | 2.908 | 2.827 | 2.8   | 106   | 0.00     |
| 83 T  | tert-Butylbenzene           | 3.008 | 3.026 | -0.6  | 106   | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 3.011 | 2.999 | 0.4   | 106   | 0.00     |
| 85 T  | sec-Butylbenzene            | 3.510 | 3.625 | -3.3  | 107   | 0.00     |
| 86 T  | p-Isopropyltoluene          | 3.026 | 3.082 | -1.9  | 107   | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 1.658 | 1.640 | 1.1   | 107   | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 1.693 | 1.642 | 3.0   | 107   | 0.00     |
| 89 T  | n-Butylbenzene              | 2.478 | 2.650 | -6.9  | 110   | 0.00     |
| 90 T  | Hexachloroethane            | 0.514 | 0.513 | 0.2   | 106   | 0.00     |
| 91 T  | 1,2-Dichlorobenzene         | 1.657 | 1.580 | 4.6   | 106   | 0.00     |
| 92 T  | 1,2-Dibromo-3-Chloropropane | 0.248 | 0.235 | 5.2   | 105   | 0.00     |
| 93 T  | 1,2,4-Trichlorobenzene      | 1.001 | 1.018 | -1.7  | 111   | 0.00     |
| 94 T  | Hexachlorobutadiene         | 0.401 | 0.415 | -3.5  | 113   | 0.00     |
| 95 T  | Naphthalene                 | 3.339 | 3.382 | -1.3  | 106   | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033280.D  
Acq On : 07 Dec 2022 12:51  
Operator : JC/MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722

Quant Time: Dec 08 01:41:57 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
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 | 1.014 | 1.015 | -0.1 | 108   | 0.00     |

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033280.D  
 Acq On : 07 Dec 2022 12:51  
 Operator : JC/MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 ICVVX120722

Quant Time: Dec 08 01:41:57 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 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  | 102   | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 50.000  | 49.702  | 0.6  | 108   | 0.00     |
| 3 P   | Chloromethane               | 50.000  | 45.367  | 9.3  | 103   | 0.00     |
| 4 C   | Vinyl Chloride              | 50.000  | 46.704  | 6.6# | 103   | 0.00     |
| 5 T   | Bromomethane                | 50.000  | 47.632  | 4.7  | 110   | 0.00     |
| 6 T   | Chloroethane                | 50.000  | 47.236  | 5.5  | 100   | 0.00     |
| 7 T   | Trichlorofluoromethane      | 50.000  | 48.490  | 3.0  | 105   | 0.00     |
| 8 T   | Diethyl Ether               | 50.000  | 45.386  | 9.2  | 106   | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 50.000  | 50.085  | -0.2 | 106   | 0.00     |
| 10 T  | Methyl Iodide               | 50.000  | 43.593  | 12.8 | 91    | 0.00     |
| 11 T  | Tert butyl alcohol          | 250.000 | 211.111 | 15.6 | 106   | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 50.000  | 47.939  | 4.1# | 105   | 0.00     |
| 13 T  | Acrolein                    | 250.000 | 228.098 | 8.8  | 98    | 0.00     |
| 14 T  | Allyl chloride              | 50.000  | 48.012  | 4.0  | 104   | 0.00     |
| 15 T  | Acrylonitrile               | 250.000 | 227.543 | 9.0  | 100   | 0.00     |
| 16 T  | Acetone                     | 250.000 | 216.519 | 13.4 | 102   | 0.00     |
| 17 T  | Carbon Disulfide            | 50.000  | 47.881  | 4.2  | 104   | 0.00     |
| 18 T  | Methyl Acetate              | 50.000  | 45.913  | 8.2  | 100   | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 50.000  | 48.192  | 3.6  | 105   | 0.00     |
| 20 T  | Methylene Chloride          | 50.000  | 45.612  | 8.8  | 105   | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 50.000  | 48.735  | 2.5  | 105   | 0.00     |
| 22 T  | Diisopropyl ether           | 50.000  | 48.438  | 3.1  | 102   | 0.00     |
| 23 T  | Vinyl Acetate               | 250.000 | 245.096 | 2.0  | 103   | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 50.000  | 47.145  | 5.7  | 104   | 0.00     |
| 25 T  | 2-Butanone                  | 250.000 | 232.728 | 6.9  | 100   | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 50.000  | 49.784  | 0.4  | 105   | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 50.000  | 48.492  | 3.0  | 105   | 0.00     |
| 28 T  | Bromochloromethane          | 50.000  | 47.956  | 4.1  | 100   | 0.00     |
| 29 T  | Tetrahydrofuran             | 250.000 | 233.427 | 6.6  | 100   | -0.01    |
| 30 C  | Chloroform                  | 50.000  | 47.482  | 5.0# | 103   | 0.00     |
| 31 T  | Cyclohexane                 | 50.000  | 50.601  | -1.2 | 106   | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 50.000  | 49.812  | 0.4  | 104   | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 50.000  | 46.866  | 6.3  | 107   | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 50.000  | 50.000  | 0.0  | 101   | 0.00     |
| 35 S  | Dibromofluoromethane        | 50.000  | 47.921  | 4.2  | 107   | 0.00     |
| 36 T  | 1,1-Dichloropropene         | 50.000  | 49.882  | 0.2  | 105   | 0.00     |
| 37 T  | Ethyl Acetate               | 50.000  | 47.728  | 4.5  | 101   | 0.00     |
| 38 T  | Carbon Tetrachloride        | 50.000  | 49.578  | 0.8  | 103   | 0.00     |
| 39 T  | Methylcyclohexane           | 50.000  | 53.112  | -6.2 | 107   | 0.00     |
| 40 TM | Benzene                     | 50.000  | 48.914  | 2.2  | 104   | 0.00     |
| 41 T  | Methacrylonitrile           | 50.000  | 48.856  | 2.3  | 100   | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 50.000  | 47.637  | 4.7  | 102   | 0.00     |
| 43 T  | Isopropyl Acetate           | 50.000  | 48.673  | 2.7  | 102   | 0.00     |
| 44 TM | Trichloroethene             | 50.000  | 50.085  | -0.2 | 105   | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 50.000  | 48.695  | 2.6# | 104   | 0.00     |
| 46 T  | Dibromomethane              | 50.000  | 47.855  | 4.3  | 103   | 0.00     |
| 47 T  | Bromodichloromethane        | 50.000  | 49.061  | 1.9  | 103   | 0.00     |
| 48 T  | Methyl methacrylate         | 50.000  | 48.521  | 3.0  | 102   | 0.00     |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
 Data File : VX033280.D  
 Acq On : 07 Dec 2022 12:51  
 Operator : JC/MD  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 ICVVX120722

Quant Time: Dec 08 01:41:57 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 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 | 974.422 | 2.6   | 103   | 0.00     |
| 50 S  | Toluene-d8                  | 50.000   | 50.054  | -0.1  | 107   | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 250.000  | 245.658 | 1.7   | 101   | 0.00     |
| 52 CM | Toluene                     | 50.000   | 50.273  | -0.5# | 103   | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 50.000   | 47.076  | 5.8   | 106   | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 50.000   | 51.268  | -2.5  | 105   | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 50.000   | 48.997  | 2.0   | 103   | 0.00     |
| 56 T  | Ethyl methacrylate          | 50.000   | 51.302  | -2.6  | 104   | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 50.000   | 49.540  | 0.9   | 104   | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 250.000  | 252.823 | -1.1  | 102   | 0.00     |
| 59 T  | 2-Hexanone                  | 250.000  | 249.243 | 0.3   | 102   | 0.00     |
| 60 T  | Dibromochloromethane        | 50.000   | 51.356  | -2.7  | 105   | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 50.000   | 50.543  | -1.1  | 105   | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 50.000   | 52.743  | -5.5  | 108   | 0.00     |
| 63 I  | Chlorobenzene-d5            | 50.000   | 50.000  | 0.0   | 102   | 0.00     |
| 64 T  | Tetrachloroethene           | 50.000   | 49.334  | 1.3   | 106   | 0.00     |
| 65 PM | Chlorobenzene               | 50.000   | 49.423  | 1.2   | 105   | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 50.000   | 49.209  | 1.6   | 103   | 0.00     |
| 67 C  | Ethyl Benzene               | 50.000   | 50.786  | -1.6# | 105   | 0.00     |
| 68 T  | m/p-Xylenes                 | 100.000  | 102.791 | -2.8  | 106   | 0.00     |
| 69 T  | o-Xylene                    | 50.000   | 50.629  | -1.3  | 104   | 0.00     |
| 70 T  | Styrene                     | 50.000   | 52.086  | -4.2  | 105   | 0.00     |
| 71 P  | Bromoform                   | 50.000   | 50.740  | -1.5  | 103   | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 50.000   | 50.000  | 0.0   | 104   | 0.00     |
| 73 T  | Isopropylbenzene            | 50.000   | 49.486  | 1.0   | 105   | 0.00     |
| 74 T  | N-ethyl acetate             | 50.000   | 50.590  | -1.2  | 105   | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 50.000   | 47.106  | 5.8   | 104   | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 50.000   | 48.233  | 3.5   | 106   | 0.00     |
| 77 T  | Bromobenzene                | 50.000   | 48.205  | 3.6   | 106   | 0.00     |
| 78 T  | n-propylbenzene             | 50.000   | 50.851  | -1.7  | 106   | 0.00     |
| 79 T  | 2-Chlorotoluene             | 50.000   | 48.608  | 2.8   | 105   | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 50.000   | 50.214  | -0.4  | 106   | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 50.000   | 47.543  | 4.9   | 104   | 0.00     |
| 82 T  | 4-Chlorotoluene             | 50.000   | 48.600  | 2.8   | 106   | 0.00     |
| 83 T  | tert-Butylbenzene           | 50.000   | 50.294  | -0.6  | 106   | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 50.000   | 49.794  | 0.4   | 106   | 0.00     |
| 85 T  | sec-Butylbenzene            | 50.000   | 51.640  | -3.3  | 107   | 0.00     |
| 86 T  | p-Isopropyltoluene          | 50.000   | 50.922  | -1.8  | 107   | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 50.000   | 49.452  | 1.1   | 107   | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 50.000   | 48.472  | 3.1   | 107   | 0.00     |
| 89 T  | n-Butylbenzene              | 50.000   | 53.470  | -6.9  | 110   | 0.00     |
| 90 T  | Hexachloroethane            | 50.000   | 49.829  | 0.3   | 106   | 0.00     |
| 91 T  | 1,2-Dichlorobenzene         | 50.000   | 47.664  | 4.7   | 106   | 0.00     |
| 92 T  | 1,2-Dibromo-3-Chloropropane | 50.000   | 47.255  | 5.5   | 105   | 0.00     |
| 93 T  | 1,2,4-Trichlorobenzene      | 50.000   | 50.844  | -1.7  | 111   | 0.00     |
| 94 T  | Hexachlorobutadiene         | 50.000   | 51.780  | -3.6  | 113   | 0.00     |
| 95 T  | Naphthalene                 | 50.000   | 50.644  | -1.3  | 106   | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033280.D  
Acq On : 07 Dec 2022 12:51  
Operator : JC/MD  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
ICVVX120722

Quant Time: Dec 08 01:41:57 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
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 | 50.061 | -0.1 | 108   | 0.00     |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 6



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

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: JAC005  
 Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG No.: N6070  
 Instrument ID: MSVOA\_X Calibration Date/Time: 12/15/2022 10:10  
 Lab File ID: VX033430.D Init. Calib. Date(s): 12/07/2022 12/07/2022  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 09:46 11:42  
 GC Column: DB-624UI ID: 0.18 (mm)

| COMPOUND               | RRF   | RRF050 | MIN<br>RRF | %D     | MAX%D |
|------------------------|-------|--------|------------|--------|-------|
| Vinyl Chloride         | 0.461 | 0.393  |            | -14.75 | 20    |
| 1,1-Dichloroethene     | 0.453 | 0.431  |            | -4.86  | 20    |
| 1,1-Dichloroethane     | 0.911 | 0.850  | 0.1        | -6.7   | 20    |
| cis-1,2-Dichloroethene | 0.593 | 0.583  |            | -1.69  | 20    |
| 1,1,1-Trichloroethane  | 0.870 | 0.894  |            | 2.76   | 20    |
| Benzene                | 1.278 | 1.292  |            | 1.1    | 20    |
| 1,2-Dichloroethane     | 0.508 | 0.505  |            | -0.59  | 20    |
| Trichloroethene        | 0.352 | 0.369  |            | 4.83   | 20    |
| 1,1,2-Trichloroethane  | 0.347 | 0.365  |            | 5.19   | 20    |
| Tetrachloroethene      | 0.342 | 0.348  |            | 1.75   | 20    |
| 1,2-Dichloroethane-d4  | 0.321 | 0.273  |            | -14.95 | 20    |
| Dibromofluoromethane   | 0.225 | 0.208  |            | -7.56  | 20    |
| Toluene-d8             | 0.470 | 0.455  |            | -3.19  | 20    |
| 4-Bromofluorobenzene   | 0.360 | 0.370  |            | 2.78   | 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\_X\Data\VX121522\  
 Data File : VX033430.D  
 Acq On : 15 Dec 2022 10:10  
 Operator : JC/MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/16/2022  
 Supervised By : Mahesh Dadoda 12/16/2022

Quant Time: Dec 16 00:54:39 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response   | Conc     | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|----------|--------|----------|
| -----                        |                |      |            |          |        |          |
| Internal Standards           |                |      |            |          |        |          |
| 1) Pentafluorobenzene        | 5.550          | 168  | 139266     | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 6.757          | 114  | 214327     | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 10.055         | 117  | 205390     | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 12.024         | 152  | 103647     | 50.000   | ug/l   | 0.00     |
|                              |                |      |            |          |        |          |
| System Monitoring Compounds  |                |      |            |          |        |          |
| 33) 1,2-Dichloroethane-d4    | 5.958          | 65   | 38081      | 42.623   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 78 - 117 |      | Recovery = | 85.240%  |        |          |
| 35) Dibromofluoromethane     | 5.379          | 113  | 44592      | 46.257   | ug/l   | -0.01    |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = | 92.520%  |        |          |
| 50) Toluene-d8               | 8.647          | 98   | 97560      | 48.378   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 92 - 112 |      | Recovery = | 96.760%  |        |          |
| 62) 4-Bromofluorobenzene     | 11.079         | 95   | 79249      | 51.395   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 83 - 123 |      | Recovery = | 102.800% |        |          |
|                              |                |      |            |          |        |          |
| Target Compounds             |                |      |            |          | Qvalue |          |
| 2) Dichlorodifluoromethane   | 1.166          | 85   | 47530      | 48.857   | ug/l   | 95       |
| 3) Chloromethane             | 1.294          | 50   | 47138      | 41.907   | ug/l   | 100      |
| 4) Vinyl Chloride            | 1.374          | 62   | 54704      | 42.593   | ug/l   | 99       |
| 5) Bromomethane              | 1.618          | 94   | 35871      | 38.059   | ug/l   | 97       |
| 6) Chloroethane              | 1.691          | 64   | 44508      | 45.688   | ug/l   | 99       |
| 7) Trichlorofluoromethane    | 1.892          | 101  | 84304      | 34.963   | ug/l   | 99       |
| 8) Diethyl Ether             | 2.130          | 74   | 29931      | 34.367   | ug/l   | 93       |
| 9) 1,1,2-Trichlorotrifluo... | 2.331          | 101  | 66428      | 51.935   | ug/l   | 99       |
| 10) Methyl Iodide            | 2.453          | 142  | 67859      | 48.441   | ug/l   | 100      |
| 11) Tert butyl alcohol       | 2.995          | 59   | 54282m     | 198.723  | ug/l   |          |
| 12) 1,1-Dichloroethene       | 2.325          | 96   | 59977      | 47.504   | ug/l   | 94       |
| 13) Acrolein                 | 2.239          | 56   | 44660      | 150.751  | ug/l   | 99       |
| 14) Allyl chloride           | 2.666          | 41   | 92103      | 45.680   | ug/l   | 97       |
| 15) Acrylonitrile            | 3.062          | 53   | 147306     | 217.703  | ug/l   | 99       |
| 16) Acetone                  | 2.386          | 43   | 174360     | 263.734  | ug/l   | 99       |
| 17) Carbon Disulfide         | 2.514          | 76   | 141648     | 43.713   | ug/l   | 99       |
| 18) Methyl Acetate           | 2.703          | 43   | 86757      | 45.331   | ug/l   | 97       |
| 19) Methyl tert-butyl Ether  | 3.111          | 73   | 210433     | 48.117   | ug/l   | 99       |
| 20) Methylene Chloride       | 2.788          | 84   | 65148      | 44.186   | ug/l   | 92       |
| 21) trans-1,2-Dichloroethene | 3.093          | 96   | 66164      | 47.906   | ug/l   | 99       |
| 22) Diisopropyl ether        | 3.751          | 45   | 211702     | 49.007   | ug/l # | 81       |
| 23) Vinyl Acetate            | 3.721          | 43   | 796105     | 237.436  | ug/l   | 97       |
| 24) 1,1-Dichloroethane       | 3.605          | 63   | 118365     | 46.634   | ug/l   | 99       |
| 25) 2-Butanone               | 4.556          | 43   | 223330     | 235.335  | ug/l   | 97       |
| 26) 2,2-Dichloropropane      | 4.477          | 77   | 97132      | 52.038   | ug/l   | 99       |
| 27) cis-1,2-Dichloroethene   | 4.483          | 96   | 81133      | 49.154   | ug/l   | 96       |
| 28) Bromochloromethane       | 4.891          | 49   | 51029      | 48.028   | ug/l   | 93       |
| 29) Tetrahydrofuran          | 5.001          | 42   | 132245     | 215.085  | ug/l   | 96       |
| 30) Chloroform               | 5.086          | 83   | 138266     | 49.069   | ug/l   | 100      |
| 31) Cyclohexane              | 5.471          | 56   | 104151     | 49.051   | ug/l   | 92       |
| 32) 1,1,1-Trichloroethane    | 5.385          | 97   | 124544     | 51.371   | ug/l   | 98       |
| 36) 1,1-Dichloropropene      | 5.690          | 75   | 96432      | 51.308   | ug/l   | 98       |
| 37) Ethyl Acetate            | 4.708          | 43   | 81185      | 45.696   | ug/l   | 99       |
| 38) Carbon Tetrachloride     | 5.678          | 117  | 109727     | 52.107   | ug/l   | 99       |
| 39) Methylcyclohexane        | 7.379          | 83   | 115689     | 54.993   | ug/l   | 97       |
| 40) Benzene                  | 6.037          | 78   | 276871     | 50.524   | ug/l   | 100      |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
 Data File : VX033430.D  
 Acq On : 15 Dec 2022 10:10  
 Operator : JC/MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/16/2022  
 Supervised By : Mahesh Dadoda 12/16/2022

Quant Time: Dec 16 00:54:39 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 4.916  | 41   | 46339    | 47.333  | ug/l   | 98       |
| 42) 1,2-Dichloroethane        | 6.080  | 62   | 108334   | 49.784  | ug/l   | 98       |
| 43) Isopropyl Acetate         | 6.336  | 43   | 136769   | 47.844  | ug/l   | 97       |
| 44) Trichloroethene           | 7.123  | 130  | 79155    | 52.390  | ug/l   | 96       |
| 45) 1,2-Dichloropropane       | 7.427  | 63   | 70651    | 50.412  | ug/l   | 99       |
| 46) Dibromomethane            | 7.580  | 93   | 53766    | 50.361  | ug/l   | 99       |
| 47) Bromodichloromethane      | 7.818  | 83   | 108950   | 52.352  | ug/l   | 100      |
| 48) Methyl methacrylate       | 7.690  | 41   | 70703    | 47.923  | ug/l   | 93       |
| 49) 1,4-Dioxane               | 7.696  | 88   | 29747    | 884.207 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone      | 8.568  | 43   | 445493   | 246.435 | ug/l   | 96       |
| 52) Toluene                   | 8.720  | 92   | 194022   | 54.761  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 8.976  | 75   | 109761   | 49.141  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene   | 8.366  | 75   | 117676   | 53.138  | ug/l   | 90       |
| 55) 1,1,2-Trichloroethane     | 9.153  | 97   | 78302    | 52.574  | ug/l   | 98       |
| 56) Ethyl methacrylate        | 9.116  | 69   | 112579   | 53.687  | ug/l # | 90       |
| 57) 1,3-Dichloropropane       | 9.305  | 76   | 126034   | 52.677  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether | 8.238  | 63   | 229186   | 238.862 | ug/l   | 98       |
| 59) 2-Hexanone                | 9.427  | 43   | 340694   | 255.739 | ug/l   | 95       |
| 60) Dibromochloromethane      | 9.519  | 129  | 90138    | 54.930  | ug/l   | 100      |
| 61) 1,2-Dibromoethane         | 9.610  | 107  | 84315    | 53.222  | ug/l   | 100      |
| 64) Tetrachloroethene         | 9.275  | 164  | 71561    | 50.953  | ug/l   | 98       |
| 65) Chlorobenzene             | 10.079 | 112  | 214048   | 51.464  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane | 10.159 | 131  | 80870    | 51.451  | ug/l   | 99       |
| 67) Ethyl Benzene             | 10.195 | 91   | 381798   | 52.692  | ug/l   | 97       |
| 68) m/p-Xylenes               | 10.299 | 106  | 304061   | 107.856 | ug/l   | 97       |
| 69) o-Xylene                  | 10.640 | 106  | 146323   | 52.510  | ug/l   | 97       |
| 70) Styrene                   | 10.652 | 104  | 244830   | 53.646  | ug/l   | 98       |
| 71) Bromoform                 | 10.799 | 173  | 63916    | 51.374  | ug/l # | 99       |
| 73) Isopropylbenzene          | 10.963 | 105  | 390064   | 51.922  | ug/l   | 99       |
| 74) N-amyl acetate            | 10.841 | 43   | 125085   | 48.802  | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 113177   | 47.488  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 11.238 | 75   | 102065m  | 48.402  | ug/l   |          |
| 77) Bromobenzene              | 11.195 | 156  | 96292    | 50.759  | ug/l   | 97       |
| 78) n-propylbenzene           | 11.305 | 91   | 447548   | 53.354  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 11.366 | 91   | 265311   | 51.178  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 328826   | 52.584  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75   | 32326    | 47.686  | ug/l   | 94       |
| 82) 4-Chlorotoluene           | 11.451 | 91   | 307861   | 51.072  | ug/l   | 98       |
| 83) tert-Butylbenzene         | 11.713 | 119  | 325763   | 52.240  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene    | 11.750 | 105  | 326303   | 52.274  | ug/l   | 100      |
| 85) sec-Butylbenzene          | 11.890 | 105  | 400794   | 55.088  | ug/l   | 99       |
| 86) p-Isopropyltoluene        | 12.006 | 119  | 340165   | 54.230  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene       | 11.969 | 146  | 177873   | 51.761  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 12.042 | 146  | 178208   | 50.770  | ug/l   | 99       |
| 89) n-Butylbenzene            | 12.329 | 91   | 287863   | 56.031  | ug/l   | 99       |
| 90) Hexachloroethane          | 12.536 | 117  | 54653    | 51.259  | ug/l   | 96       |
| 91) 1,2-Dichlorobenzene       | 12.335 | 146  | 170984   | 49.768  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75   | 22473    | 43.655  | ug/l   | 91       |
| 93) 1,2,4-Trichlorobenzene    | 13.585 | 180  | 109066   | 52.564  | ug/l   | 99       |
| 94) Hexachlorobutadiene       | 13.725 | 225  | 46128    | 55.517  | ug/l   | 99       |
| 95) Naphthalene               | 13.774 | 128  | 347251   | 50.172  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 106772   | 50.808  | ug/l   | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033430.D  
Acq On : 15 Dec 2022 10:10  
Operator : JC/MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050

Manual Integrations  
**APPROVED**

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

Quant Time: Dec 16 00:54:39 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration

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

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

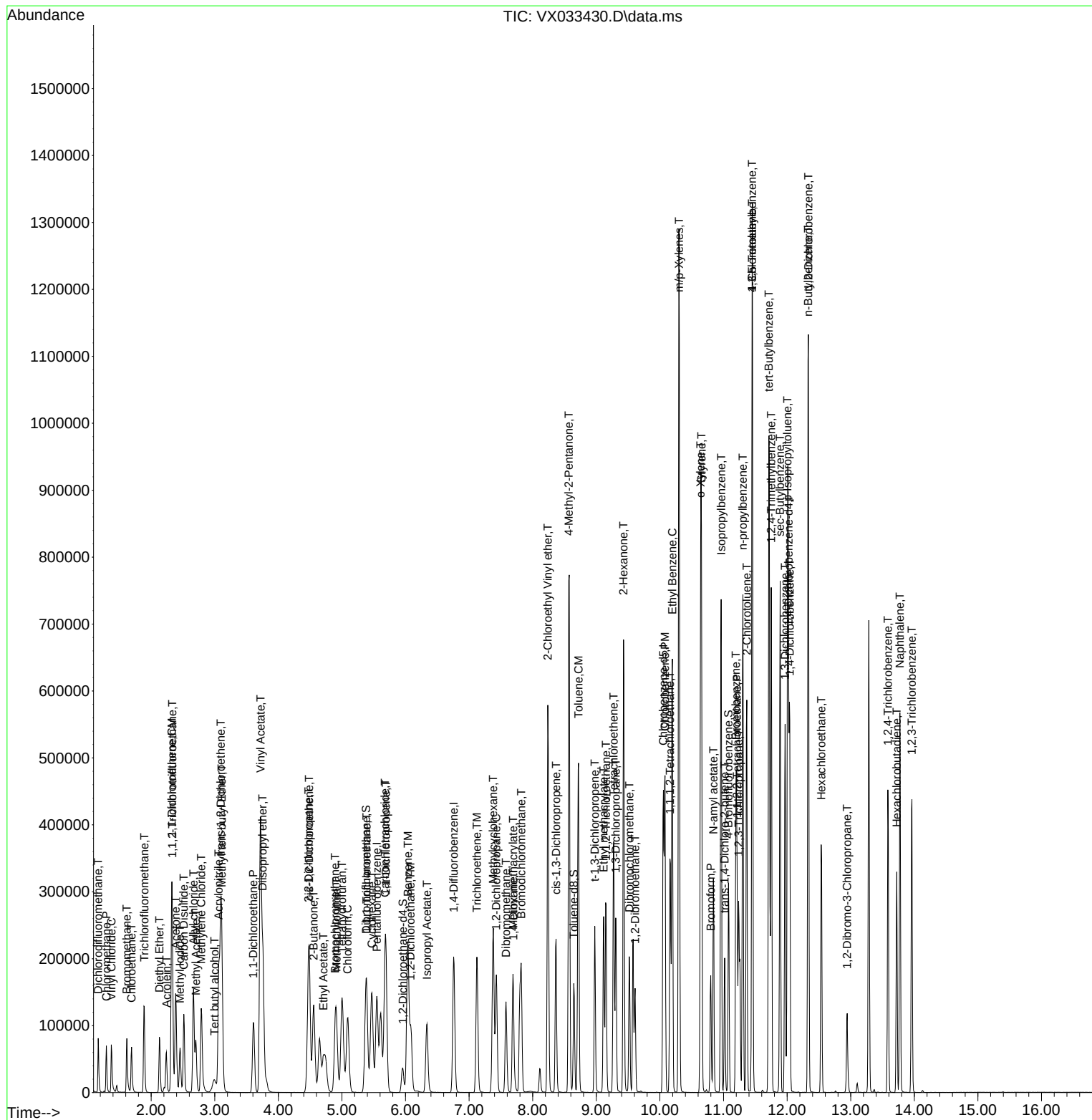
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033430.D  
Acq On : 15 Dec 2022 10:10  
Operator : JC/MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 2 Sample Multiplier: 1

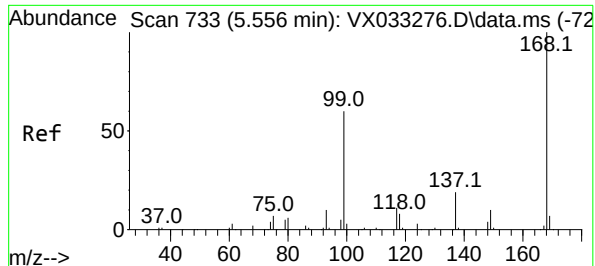
**Instrument :**  
MSVOA\_X  
**ClientSampleId :**  
VSTDCCC050

## Manual Integrations APPROVED

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

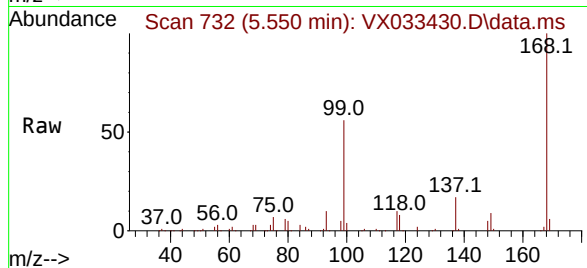
Quant Time: Dec 16 00:54:39 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.550 min Scan# 71  
Delta R.T. -0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

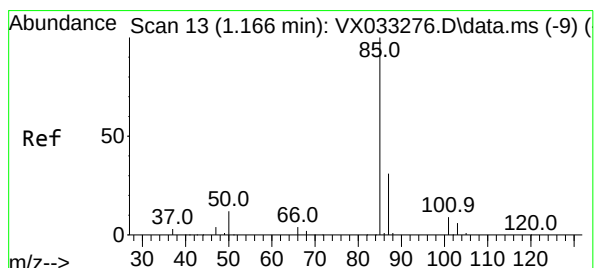
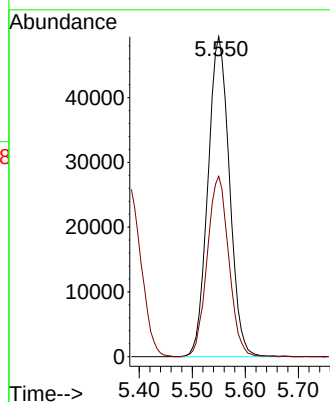
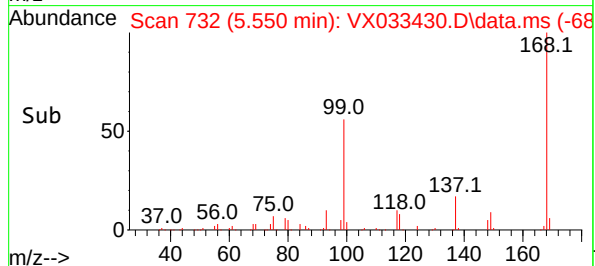
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050



Tgt Ion:168 Resp: 139260  
Ion Ratio Lower Upper  
168 100  
99 56.4 46.1 69.1

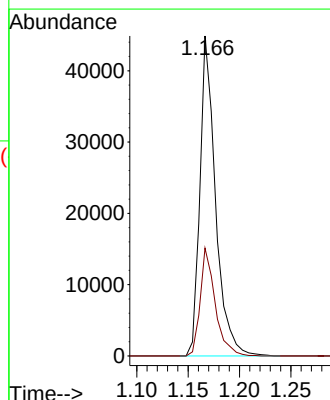
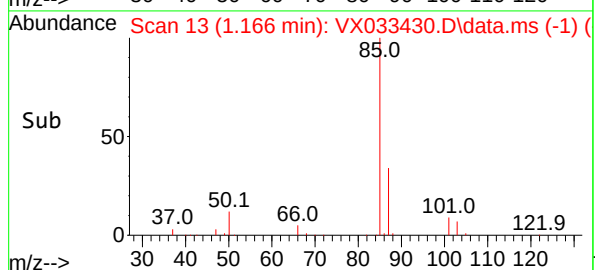
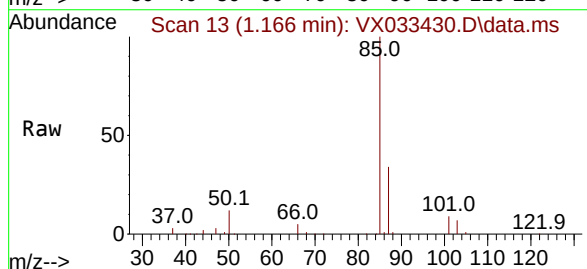
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

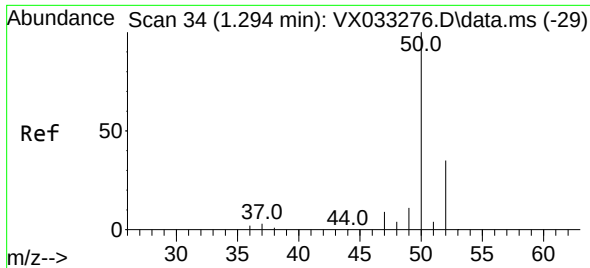


#2  
Dichlorodifluoromethane  
Concen: 48.857 ug/l  
RT: 1.166 min Scan# 13  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Tgt Ion: 85 Resp: 47530  
Ion Ratio Lower Upper  
85 100  
87 33.7 15.6 46.7







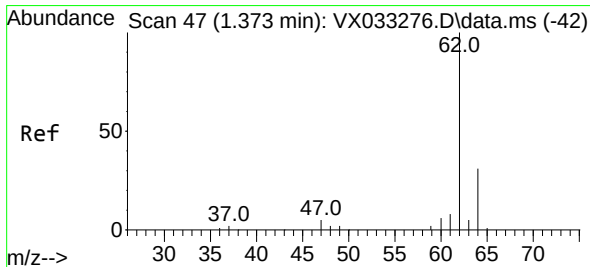
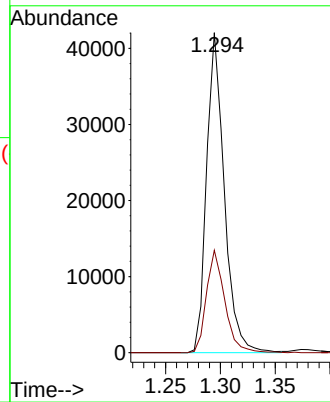
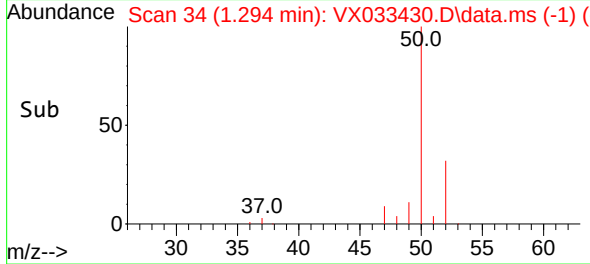
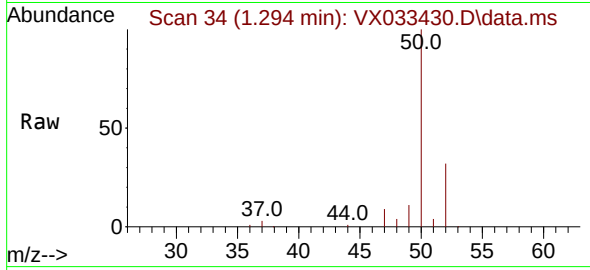
#3  
Chloromethane  
Concen: 41.907 ug/l  
RT: 1.294 min Scan# 34  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050

Tgt Ion: 50 Resp: 47138  
Ion Ratio Lower Upper  
50 100  
52 32.0 25.4 38.2

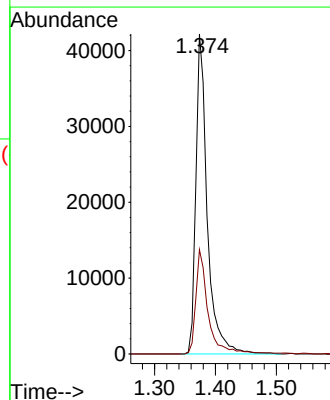
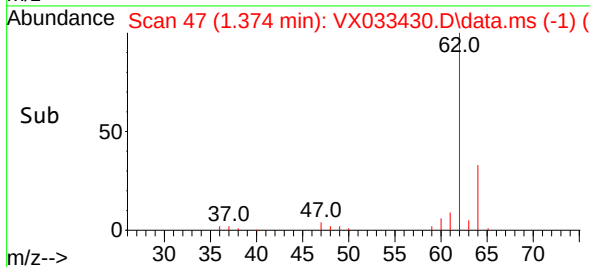
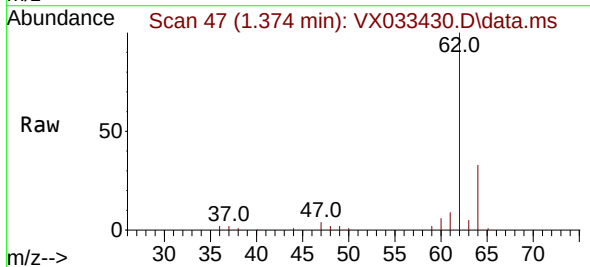
Manual Integrations  
APPROVED

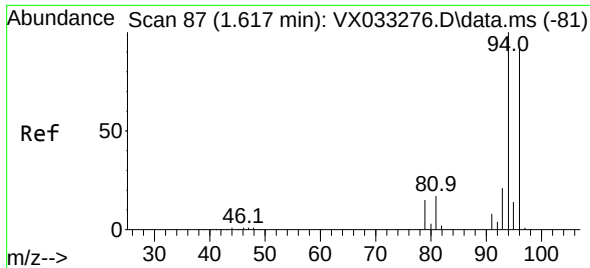
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#4  
Vinyl Chloride  
Concen: 42.593 ug/l  
RT: 1.374 min Scan# 47  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Tgt Ion: 62 Resp: 54704  
Ion Ratio Lower Upper  
62 100  
64 32.6 25.8 38.6





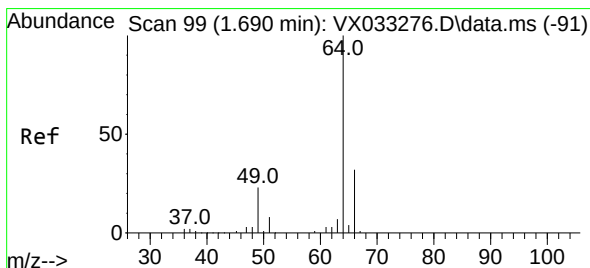
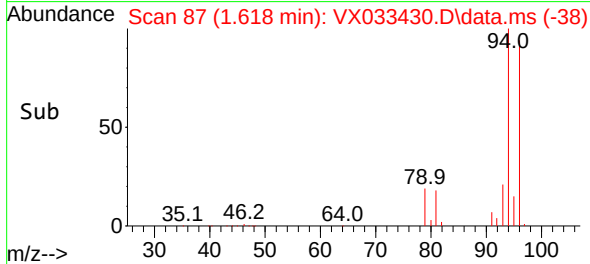
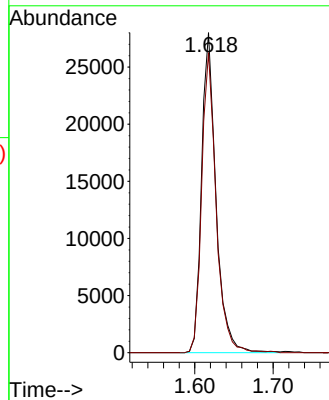
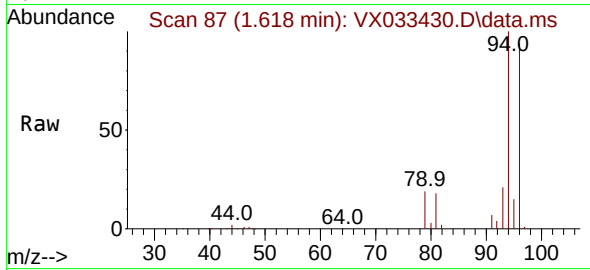
#5  
Bromomethane  
Concen: 38.059 ug/l  
RT: 1.618 min Scan# 81  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050

Tgt Ion: 94 Resp: 3587  
Ion Ratio Lower Upper  
94 100  
96 93.8 77.6 116.4

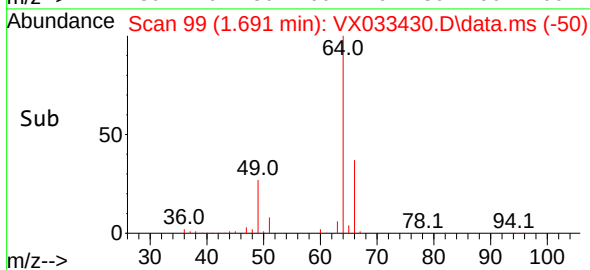
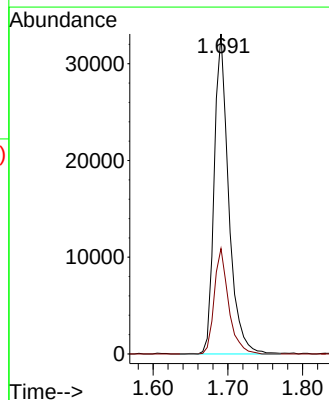
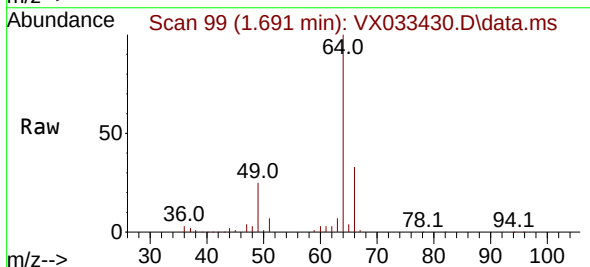
Manual Integrations  
APPROVED

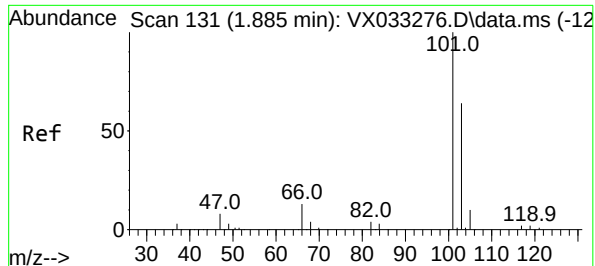
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#6  
Chloroethane  
Concen: 45.688 ug/l  
RT: 1.691 min Scan# 99  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Tgt Ion: 64 Resp: 44508  
Ion Ratio Lower Upper  
64 100  
66 33.0 26.0 39.0





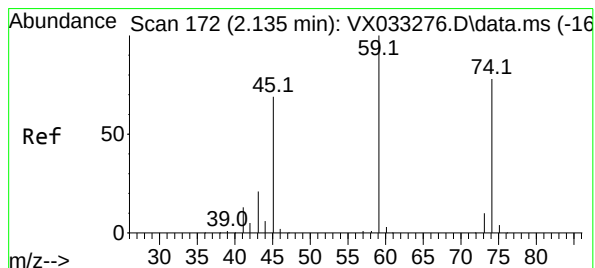
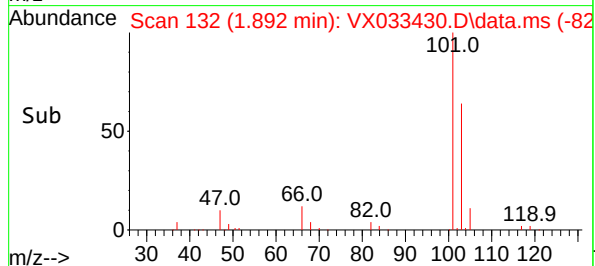
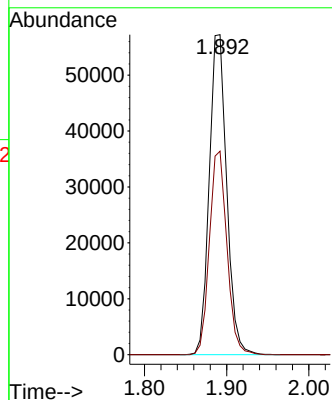
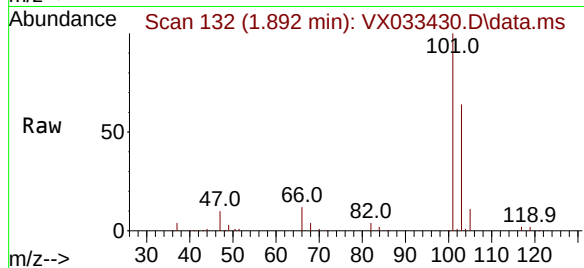
#7  
Trichlorofluoromethane  
Concen: 34.963 ug/l  
RT: 1.892 min Scan# 11  
Delta R.T. 0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050

Tgt Ion:101 Resp: 84304  
Ion Ratio Lower Upper  
101 100  
103 63.6 51.4 77.2

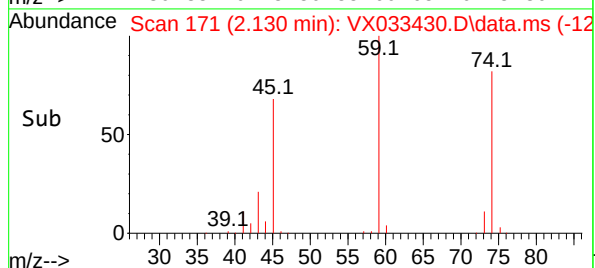
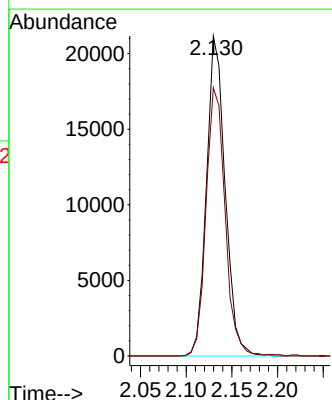
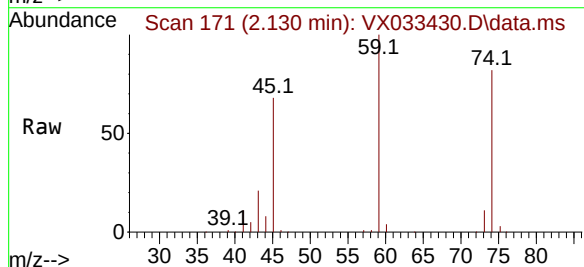
Manual Integrations  
APPROVED

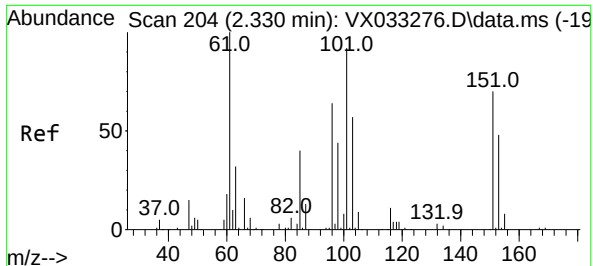
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#8  
Diethyl Ether  
Concen: 34.367 ug/l  
RT: 2.130 min Scan# 171  
Delta R.T. -0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Tgt Ion: 74 Resp: 29931  
Ion Ratio Lower Upper  
74 100  
45 86.0 46.6 139.7





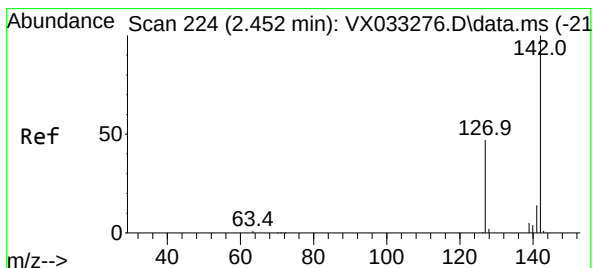
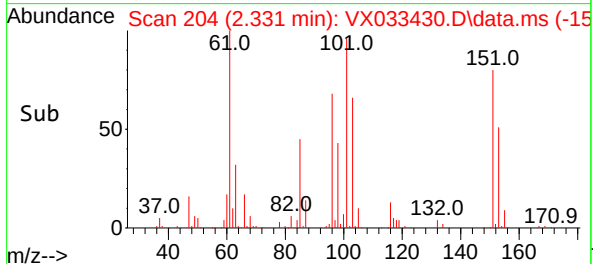
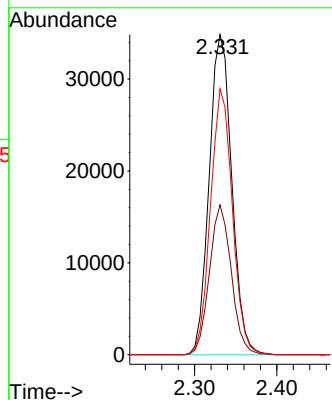
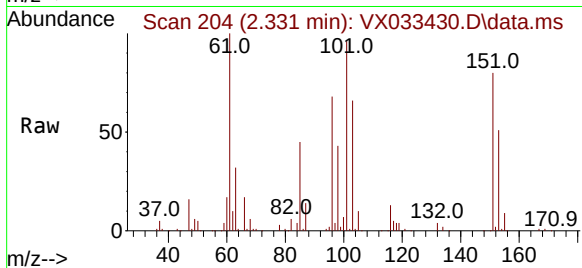
#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 51.935 ug/l  
RT: 2.331 min Scan# 204  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050

Tgt Ion:101 Resp: 66428  
Ion Ratio Lower Upper  
101 100  
85 45.3 37.0 55.4  
151 80.5 64.4 96.6

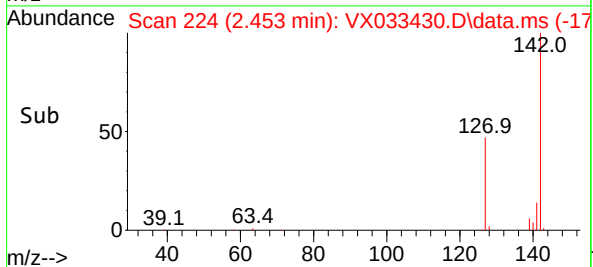
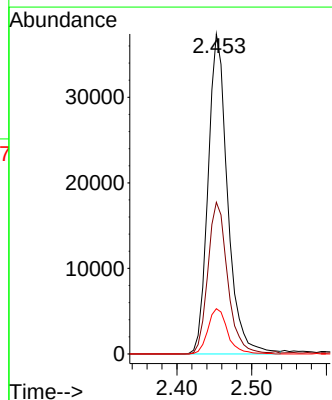
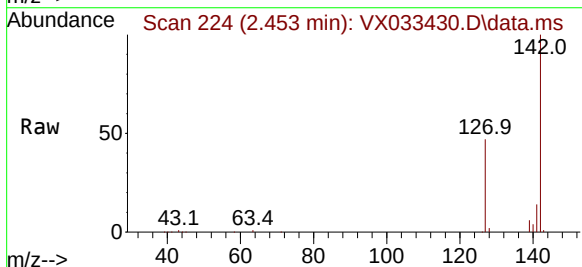
Manual Integrations  
**APPROVED**

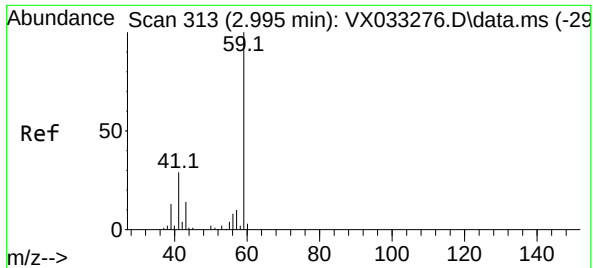
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#10  
Methyl Iodide  
Concen: 48.441 ug/l  
RT: 2.453 min Scan# 224  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Tgt Ion:142 Resp: 67859  
Ion Ratio Lower Upper  
142 100  
127 47.8 38.6 57.8  
141 14.3 11.4 17.2





#11

Tert butyl alcohol

Concen: 198.723 ug/l m

RT: 2.995 min Scan# 313

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 59 Resp: 5428

Ion Ratio Lower Upper

59 100

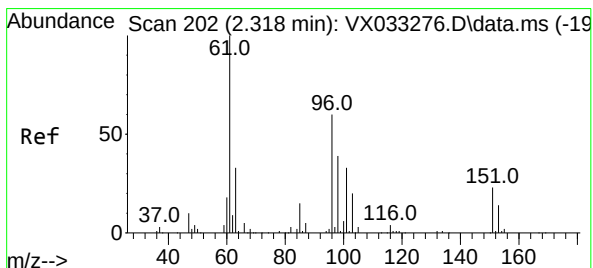
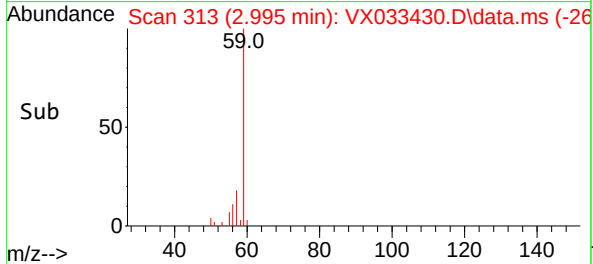
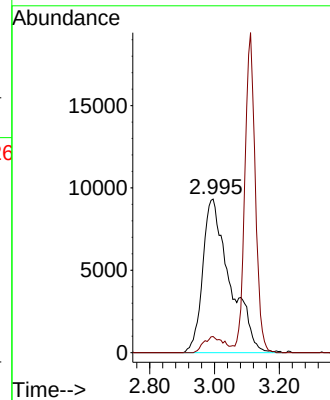
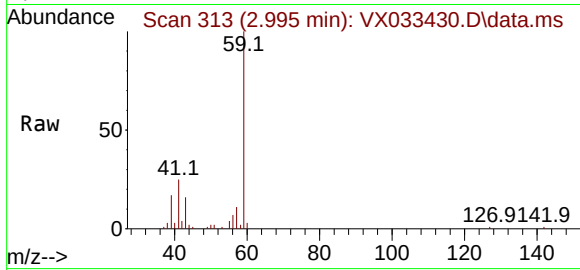
57 7.8 8.2 12.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#12

1,1-Dichloroethene

Concen: 47.504 ug/l

RT: 2.325 min Scan# 203

Delta R.T. 0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

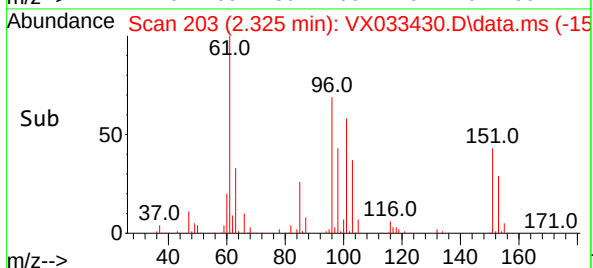
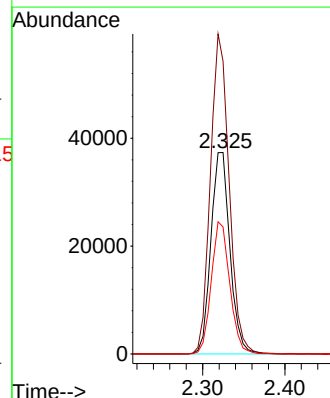
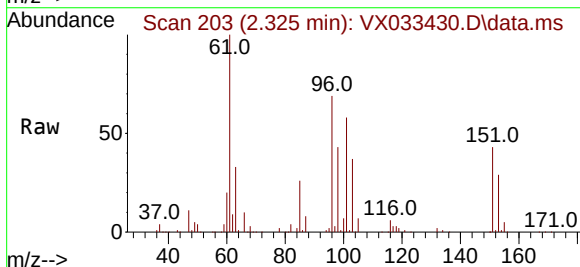
Tgt Ion: 96 Resp: 59977

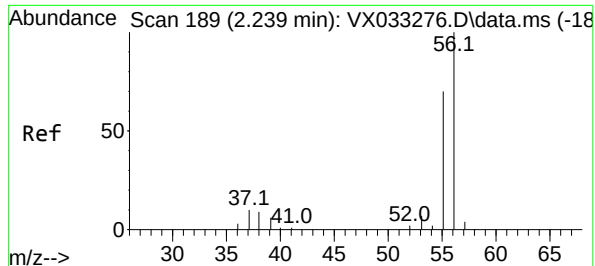
Ion Ratio Lower Upper

96 100

61 145.4 125.1 187.7

98 63.0 50.6 76.0





#13

Acrolein

Concen: 150.751 ug/l

RT: 2.239 min Scan# 189

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 56 Resp: 44660

Ion Ratio Lower Upper

56 100

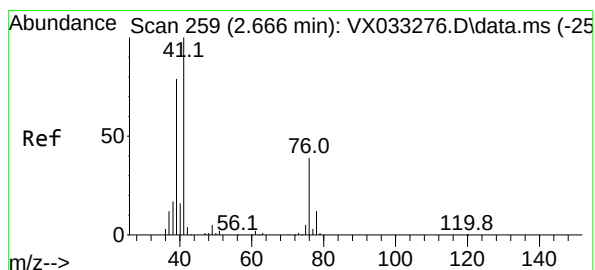
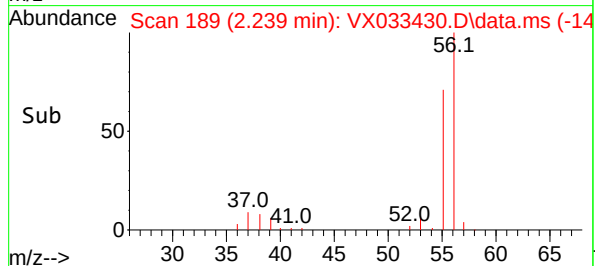
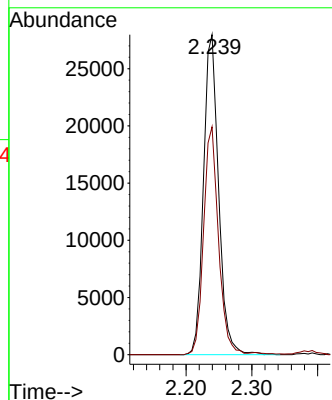
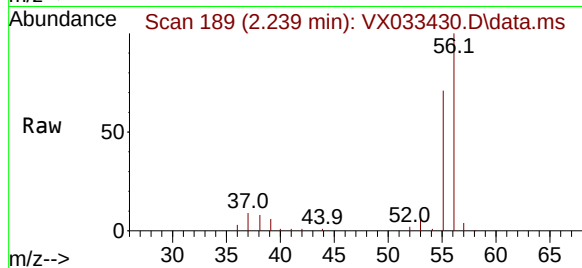
55 70.1 56.9 85.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#14

Allyl chloride

Concen: 45.680 ug/l

RT: 2.666 min Scan# 259

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

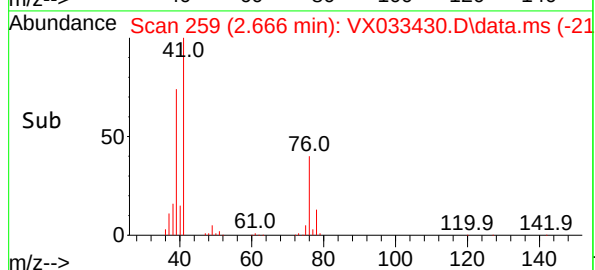
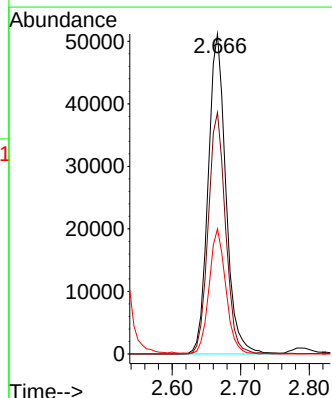
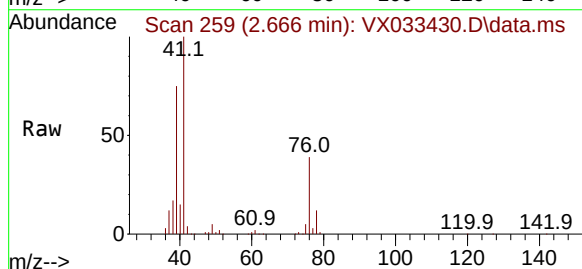
Tgt Ion: 41 Resp: 92103

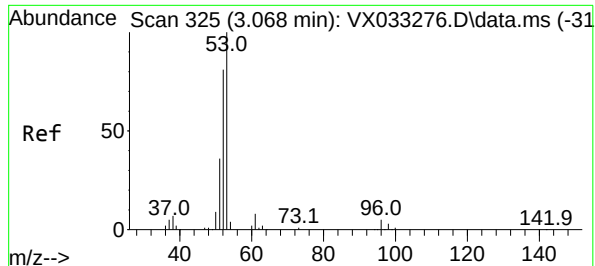
Ion Ratio Lower Upper

41 100

39 73.4 61.4 92.2

76 36.9 29.2 43.8





#15

Acrylonitrile

Concen: 217.703 ug/l

RT: 3.062 min Scan# 31

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 53 Resp: 147300

Ion Ratio Lower Upper

53 100

52 83.3 67.4 101.0

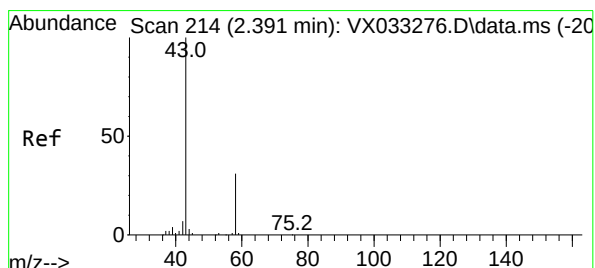
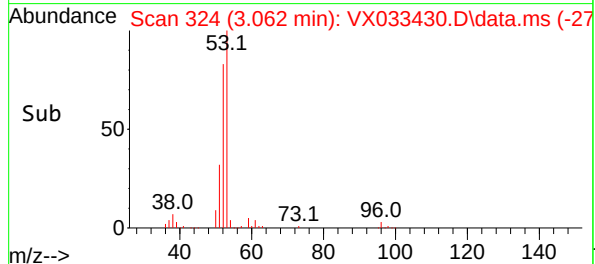
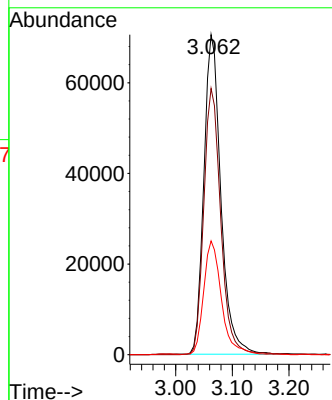
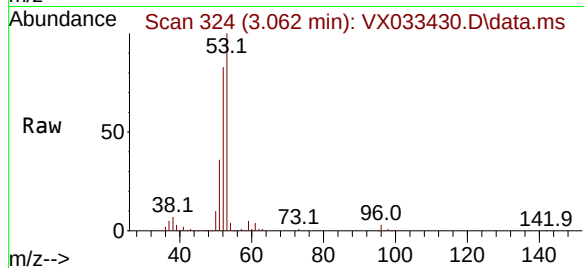
51 37.4 30.3 45.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#16

Acetone

Concen: 263.734 ug/l

RT: 2.386 min Scan# 213

Delta R.T. -0.006 min

Lab File: VX033430.D

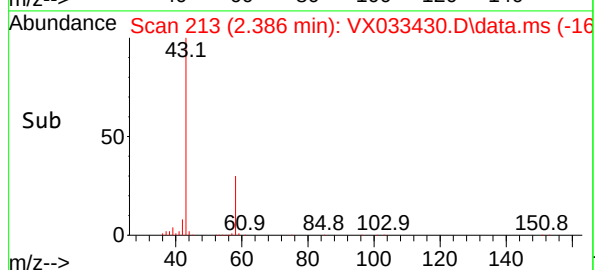
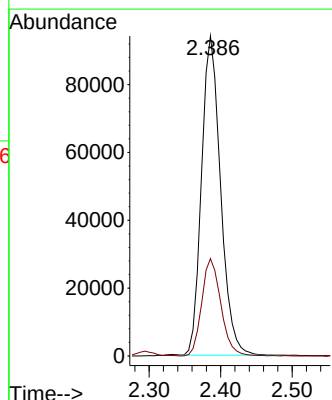
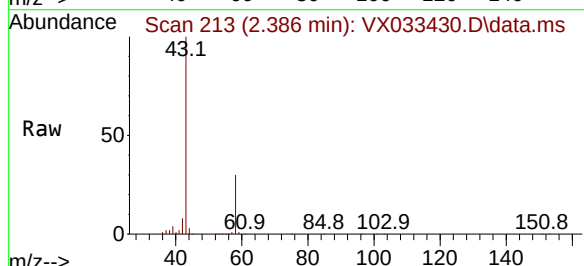
Acq: 15 Dec 2022 10:10

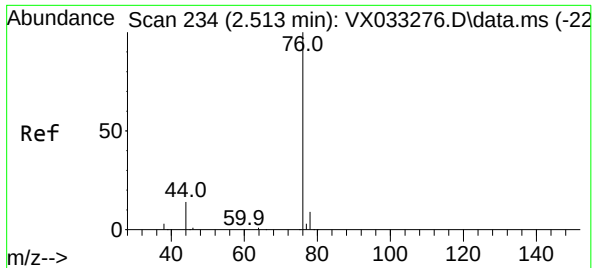
Tgt Ion: 43 Resp: 174360

Ion Ratio Lower Upper

43 100

58 30.5 23.8 35.8





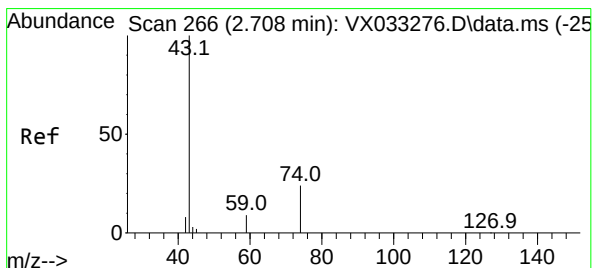
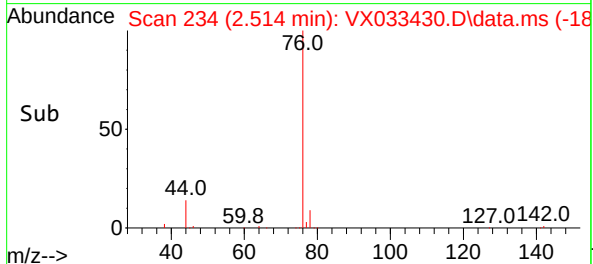
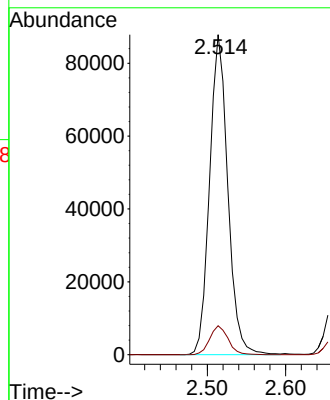
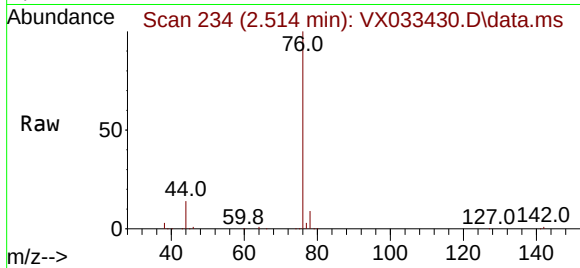
#17  
Carbon Disulfide  
Concen: 43.713 ug/l  
RT: 2.514 min Scan# 21  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050

Tgt Ion: 76 Resp: 141648  
Ion Ratio Lower Upper  
76 100  
78 9.1 7.5 11.3

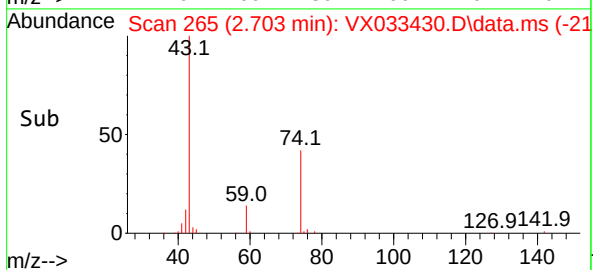
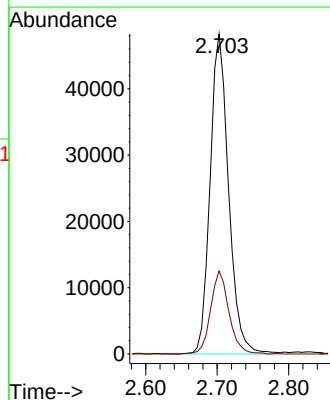
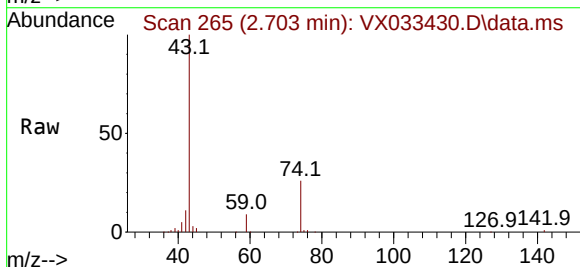
Manual Integrations  
**APPROVED**

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

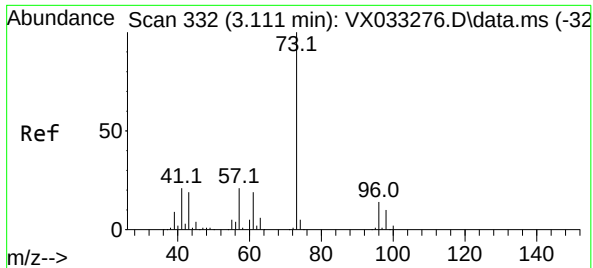


#18  
Methyl Acetate  
Concen: 45.331 ug/l  
RT: 2.703 min Scan# 265  
Delta R.T. -0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Tgt Ion: 43 Resp: 86757  
Ion Ratio Lower Upper  
43 100  
74 25.6 19.4 29.0







#19

Methyl tert-butyl Ether

Concen: 48.117 ug/l

RT: 3.111 min Scan# 31

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 73 Resp: 21043

Ion Ratio Lower Upper

73 100

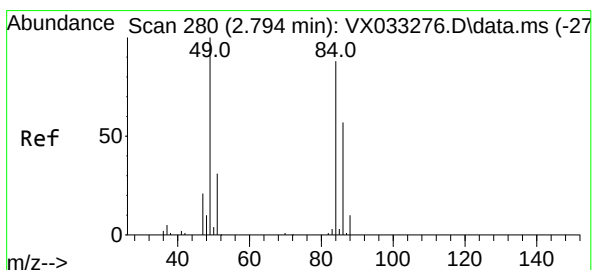
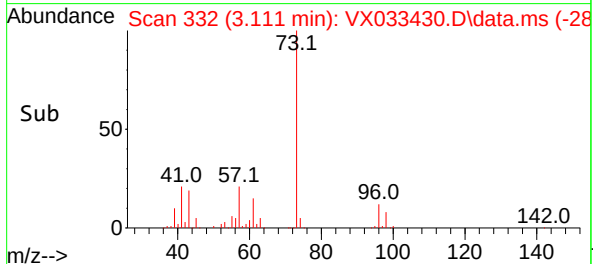
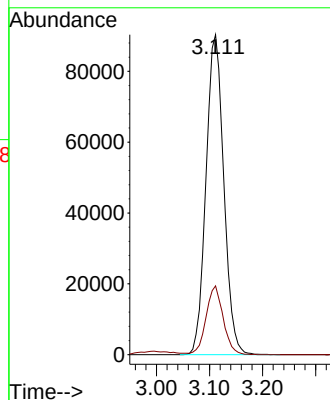
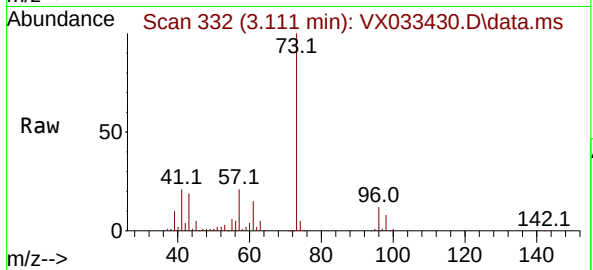
57 21.5 16.6 25.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#20

Methylene Chloride

Concen: 44.186 ug/l

RT: 2.788 min Scan# 279

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Tgt Ion: 84 Resp: 65148

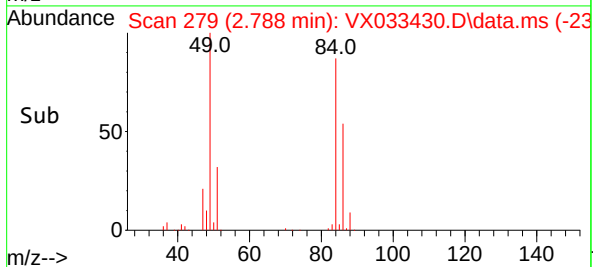
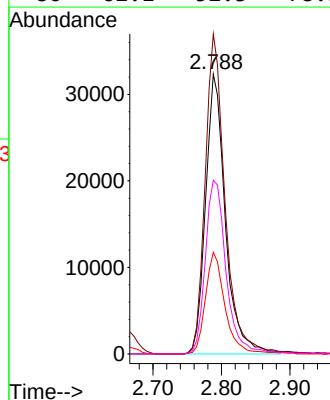
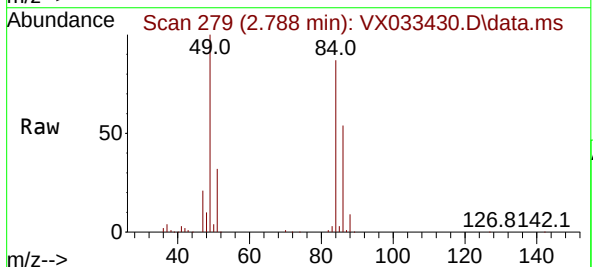
Ion Ratio Lower Upper

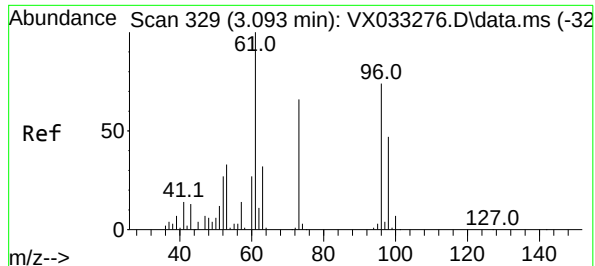
84 100

49 114.4 101.0 151.6

51 36.3 31.1 46.7

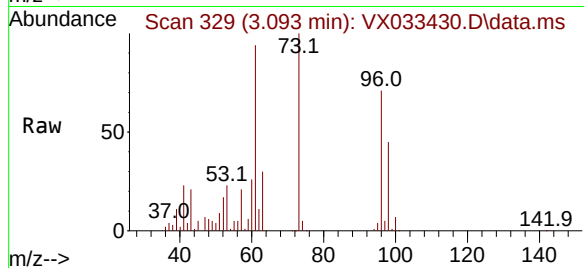
86 62.1 52.3 78.5





#21  
trans-1,2-Dichloroethene  
Concen: 47.906 ug/l  
RT: 3.093 min Scan# 31  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

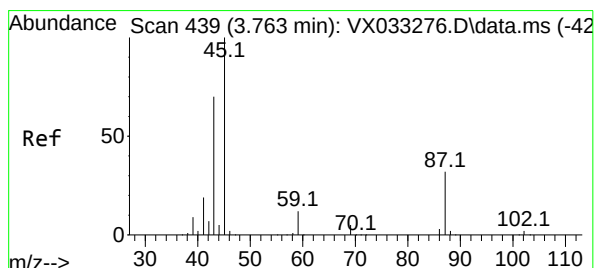
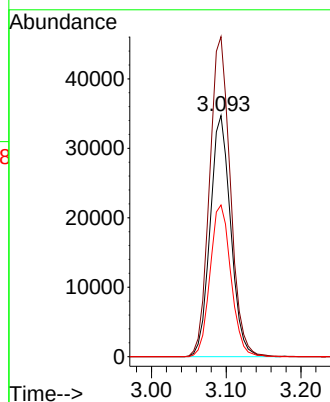
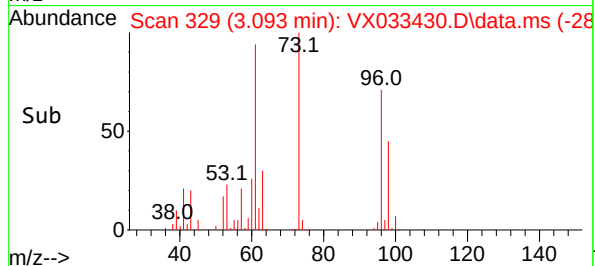
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 96 Resp: 66164  
Ion Ratio Lower Upper  
96 100  
61 132.7 106.6 160.0  
98 62.9 51.0 76.6

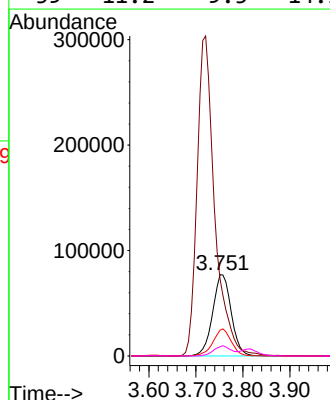
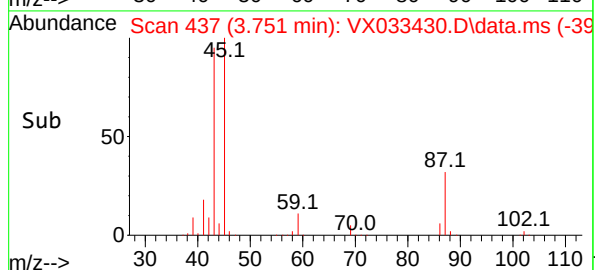
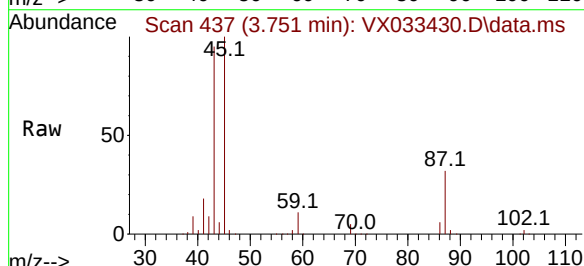
Manual Integrations  
APPROVED

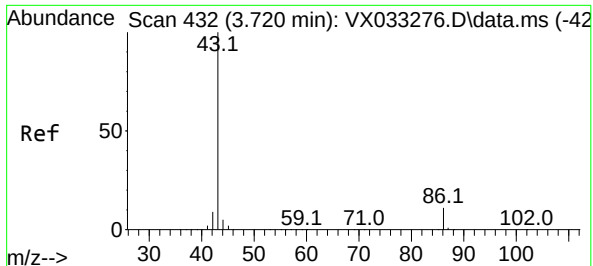
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#22  
Diisopropyl ether  
Concen: 49.007 ug/l  
RT: 3.751 min Scan# 437  
Delta R.T. -0.012 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Tgt Ion: 45 Resp: 211702  
Ion Ratio Lower Upper  
45 100  
43 94.6 56.4 84.6#  
87 31.8 24.4 36.6  
59 11.2 9.5 14.3





#23

Vinyl Acetate

Concen: 237.436 ug/l

RT: 3.721 min Scan# 41

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 43 Resp: 79610

Ion Ratio Lower Upper

43 100

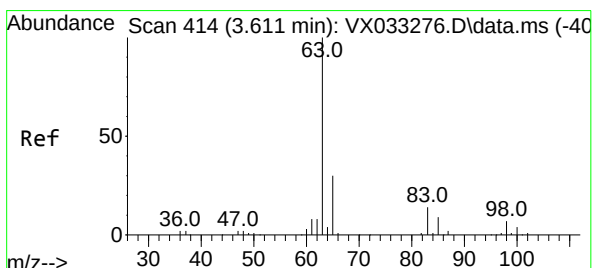
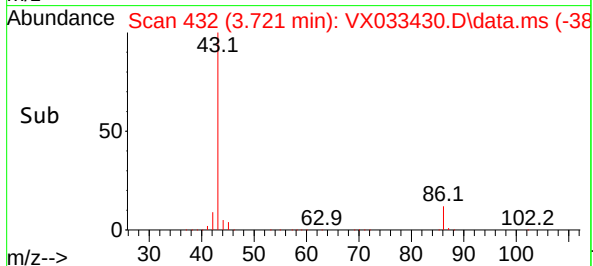
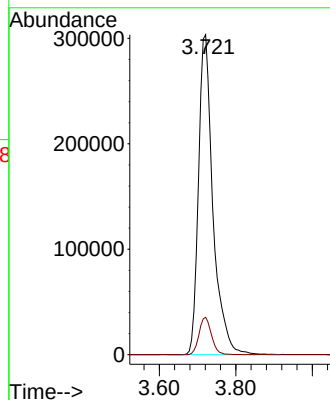
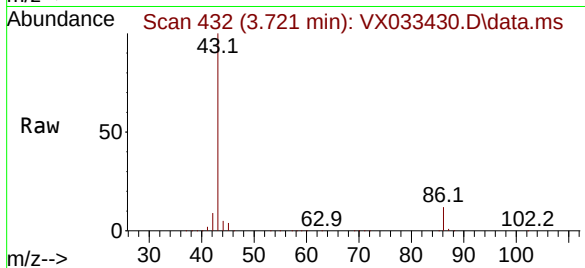
86 11.7 8.6 12.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#24

1,1-Dichloroethane

Concen: 46.634 ug/l

RT: 3.605 min Scan# 413

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

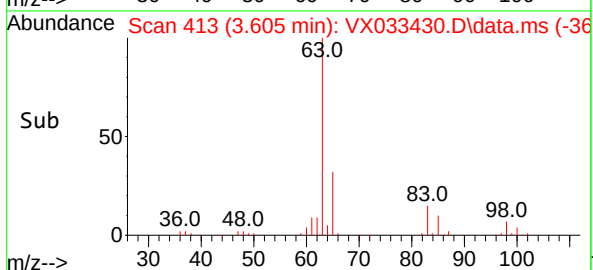
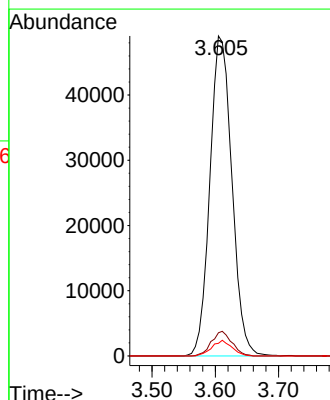
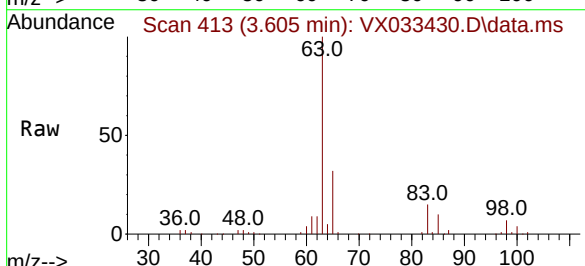
Tgt Ion: 63 Resp: 118365

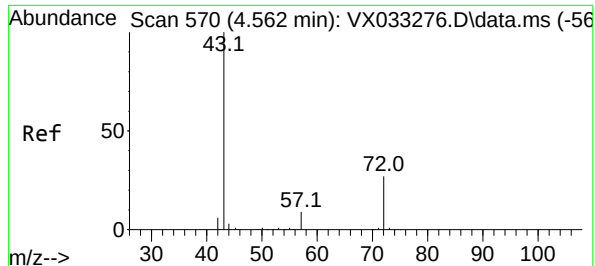
Ion Ratio Lower Upper

63 100

98 7.3 3.5 10.4

100 4.0 2.3 6.8





#25

2-Butanone

Concen: 235.335 ug/l

RT: 4.556 min Scan# 50

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 43 Resp: 223330

Ion Ratio Lower Upper

43 100

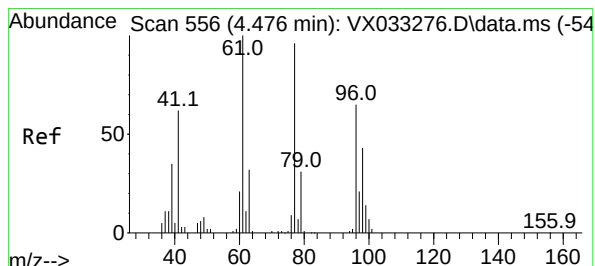
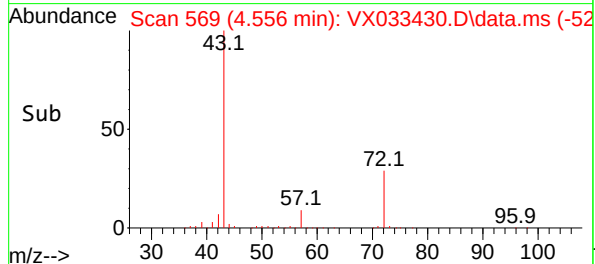
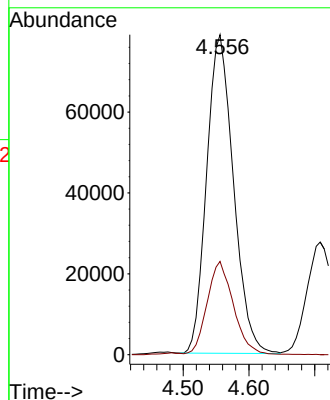
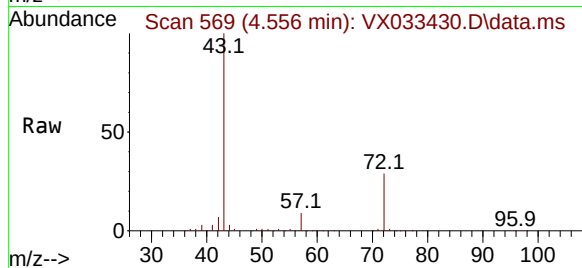
72 29.2 22.2 33.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#26

2,2-Dichloropropane

Concen: 52.038 ug/l

RT: 4.477 min Scan# 556

Delta R.T. 0.000 min

Lab File: VX033430.D

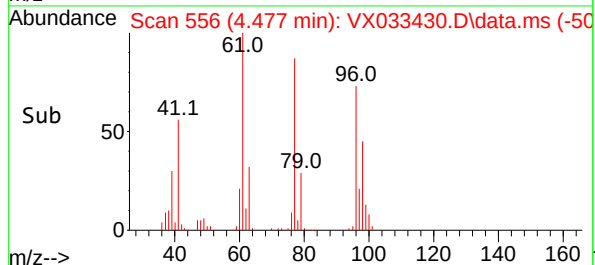
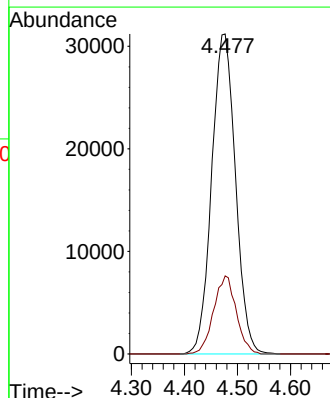
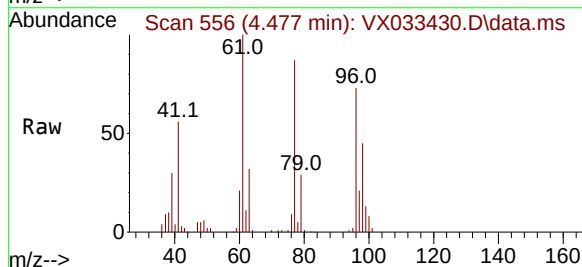
Acq: 15 Dec 2022 10:10

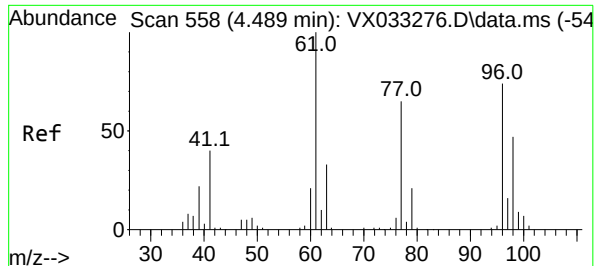
Tgt Ion: 77 Resp: 97132

Ion Ratio Lower Upper

77 100

97 23.2 11.4 34.1





#27

cis-1,2-Dichloroethene

Concen: 49.154 ug/l

RT: 4.483 min Scan# 511

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 96 Resp: 8113

Ion Ratio Lower Upper

96 100

61 136.4 0.0 286.0

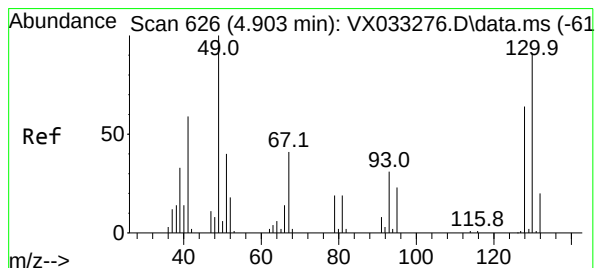
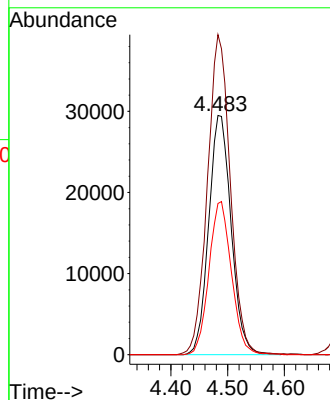
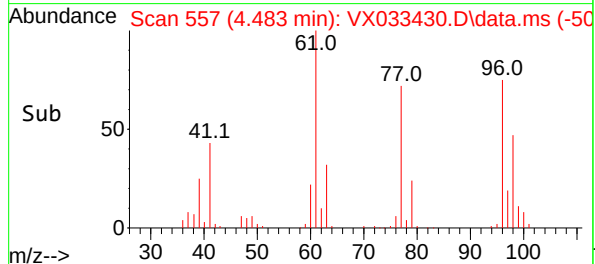
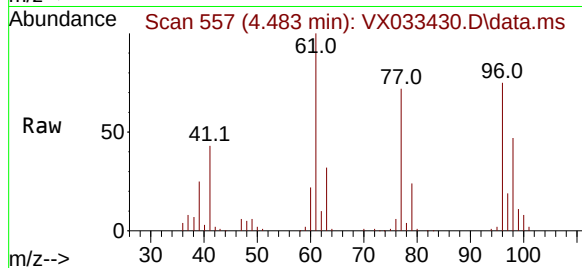
98 64.1 0.0 129.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#28

Bromochloromethane

Concen: 48.028 ug/l

RT: 4.891 min Scan# 624

Delta R.T. -0.012 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

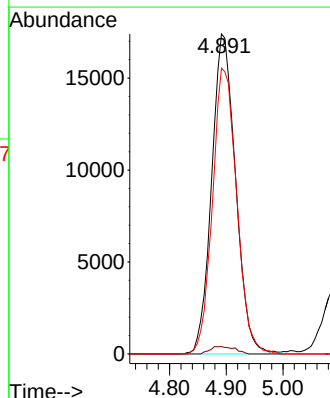
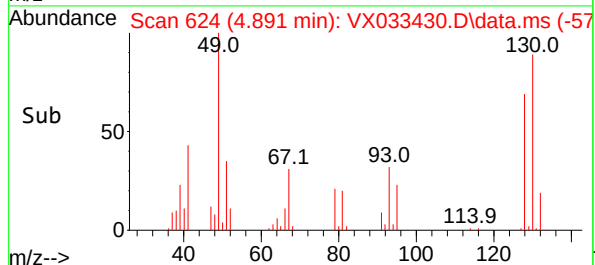
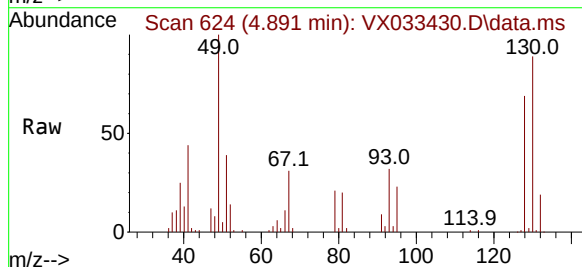
Tgt Ion: 49 Resp: 51029

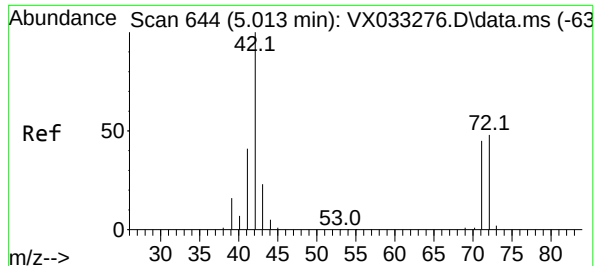
Ion Ratio Lower Upper

49 100

129 2.4 0.0 3.8

130 90.5 67.5 101.3





#29

Tetrahydrofuran

Concen: 215.085 ug/l

RT: 5.001 min Scan# 644

Delta R.T. -0.012 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 42 Resp: 132249

Ion Ratio Lower Upper

42 100

72 49.2 37.6 56.4

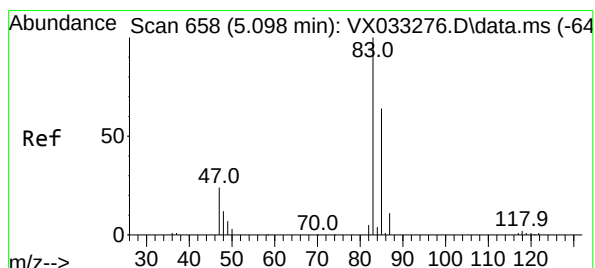
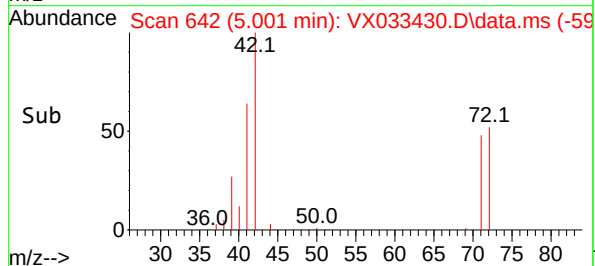
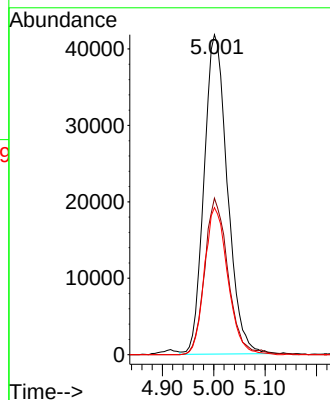
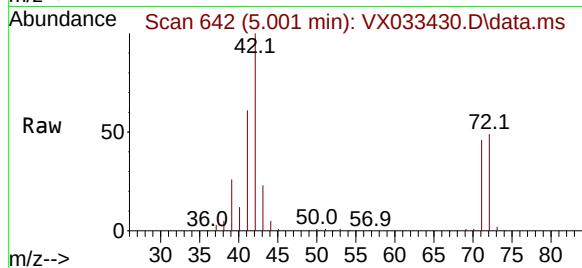
71 46.0 34.7 52.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#30

Chloroform

Concen: 49.069 ug/l

RT: 5.086 min Scan# 656

Delta R.T. -0.012 min

Lab File: VX033430.D

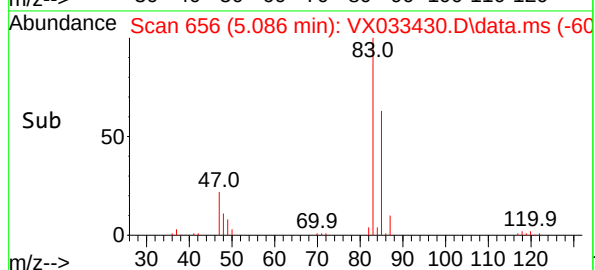
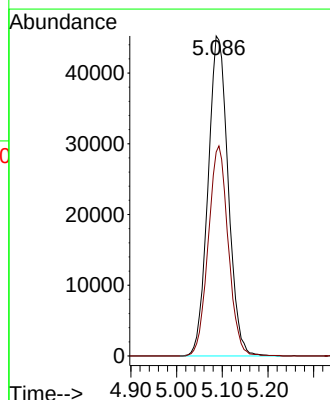
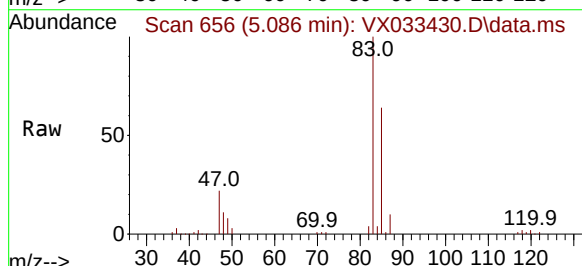
Acq: 15 Dec 2022 10:10

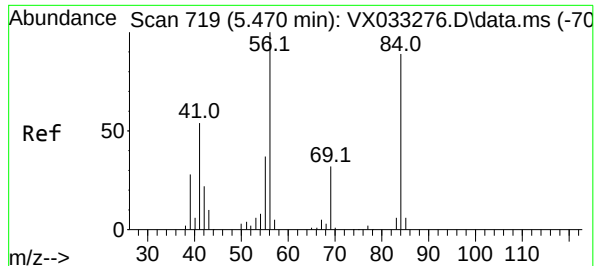
Tgt Ion: 83 Resp: 138266

Ion Ratio Lower Upper

83 100

85 63.7 51.1 76.7





#31

Cyclohexane

Concen: 49.051 ug/l

RT: 5.471 min Scan# 719

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 56 Resp: 10415

Ion Ratio Lower Upper

56 100

69 32.8 24.1 36.1

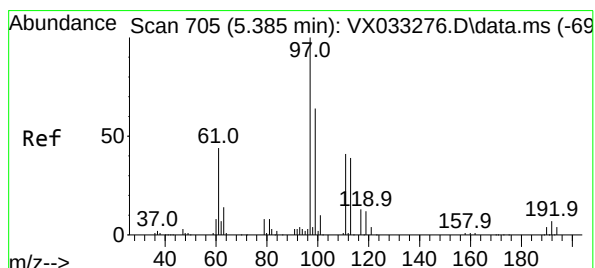
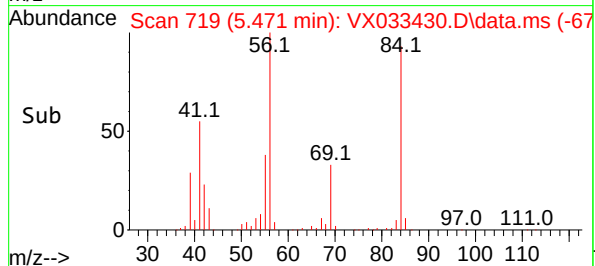
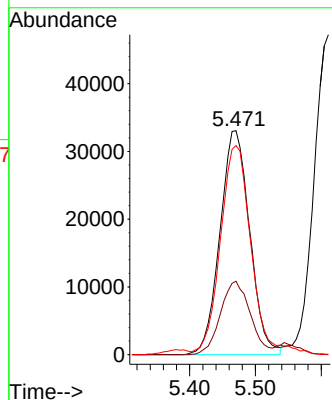
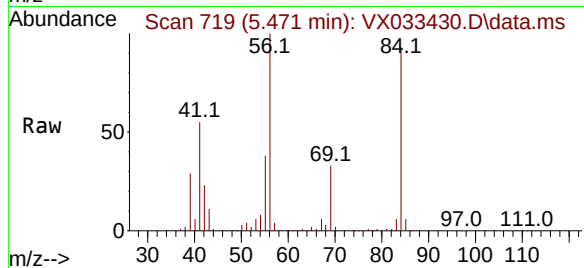
84 91.3 66.9 100.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#32

1,1,1-Trichloroethane

Concen: 51.371 ug/l

RT: 5.385 min Scan# 705

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

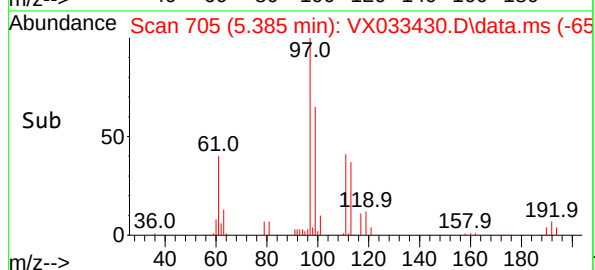
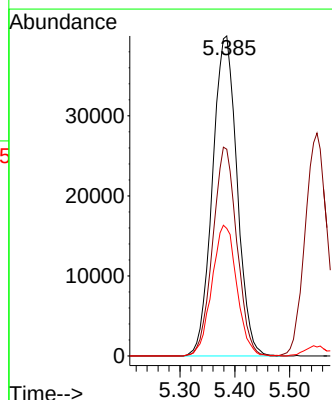
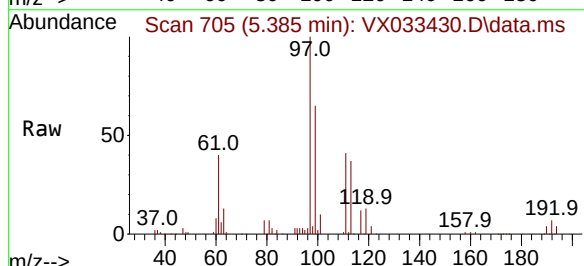
Tgt Ion: 97 Resp: 124544

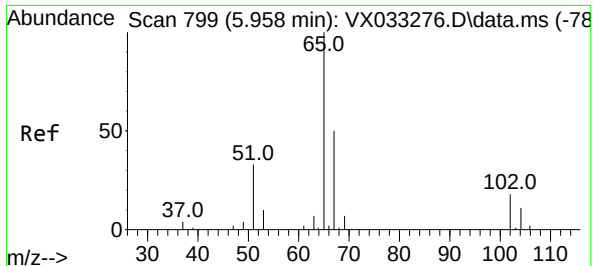
Ion Ratio Lower Upper

97 100

99 64.0 51.4 77.0

61 41.4 35.2 52.8





#33

1,2-Dichloroethane-d4

Concen: 42.623 ug/l

RT: 5.958 min Scan# 799

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 65 Resp: 3808

Ion Ratio Lower Upper

65 100

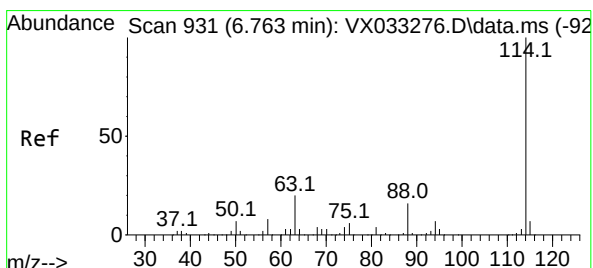
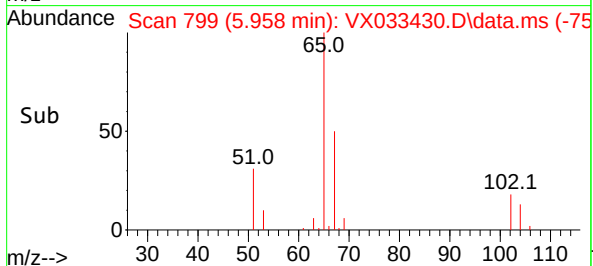
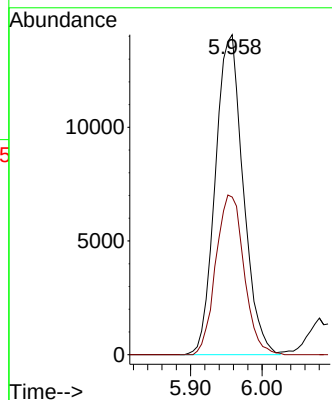
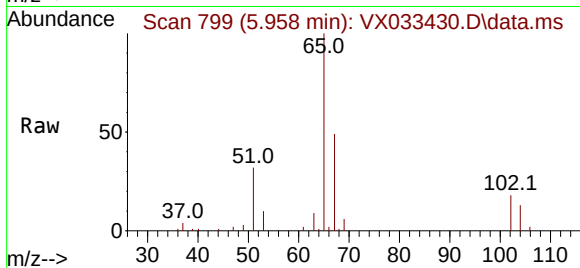
67 50.5 0.0 101.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.757 min Scan# 930

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

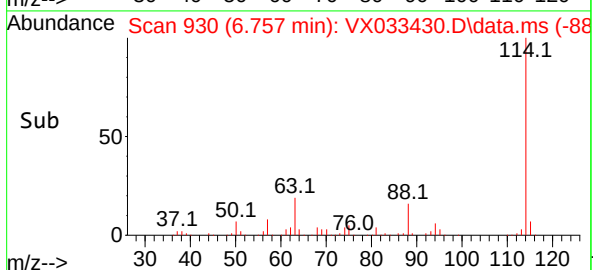
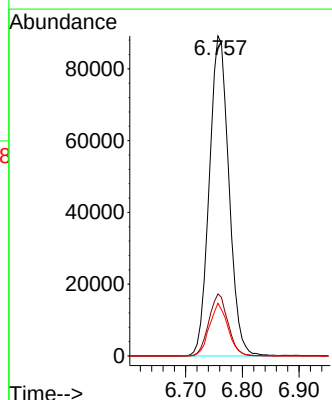
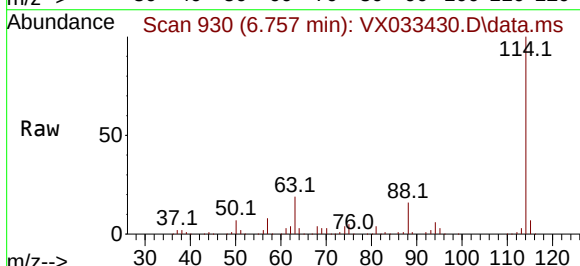
Tgt Ion:114 Resp: 214327

Ion Ratio Lower Upper

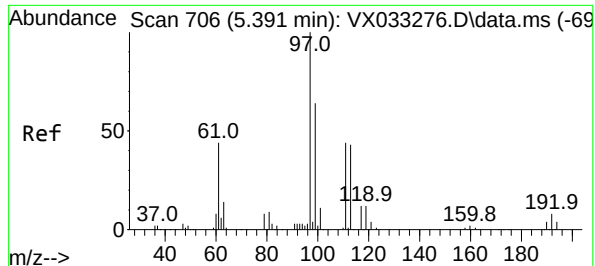
114 100

63 19.4 0.0 41.6

88 16.5 0.0 33.4







#35

Dibromofluoromethane

Concen: 46.257 ug/l

RT: 5.379 min Scan# 704

Delta R.T. -0.012 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion:113 Resp: 44592

Ion Ratio Lower Upper

113 100

111 102.1 82.4 123.6

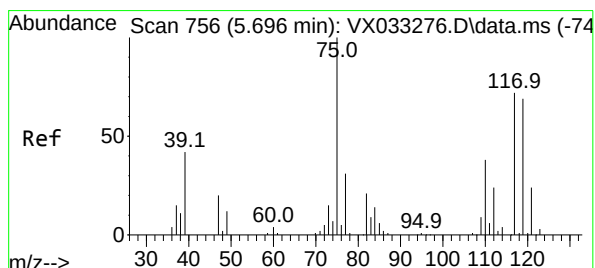
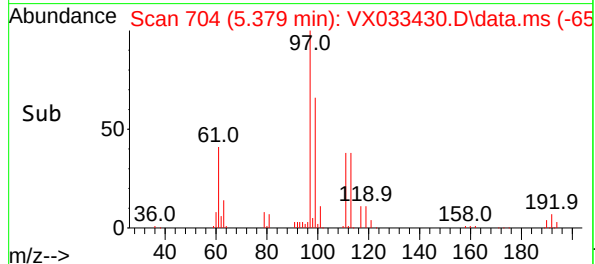
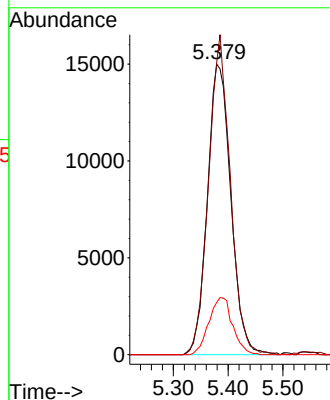
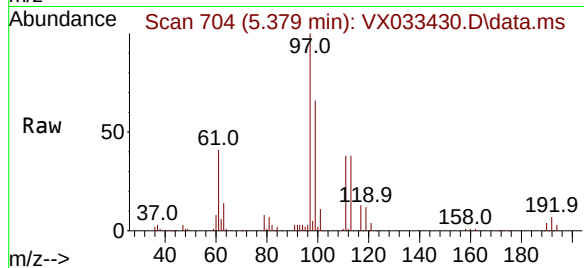
192 19.8 15.4 23.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#36

1,1-Dichloropropene

Concen: 51.308 ug/l

RT: 5.690 min Scan# 755

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

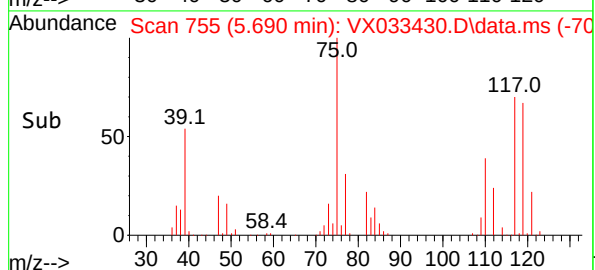
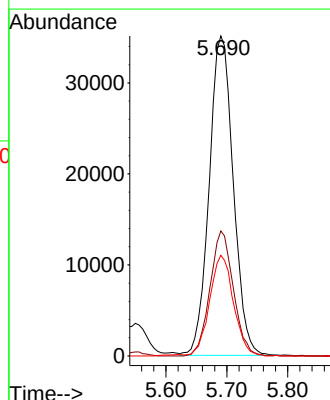
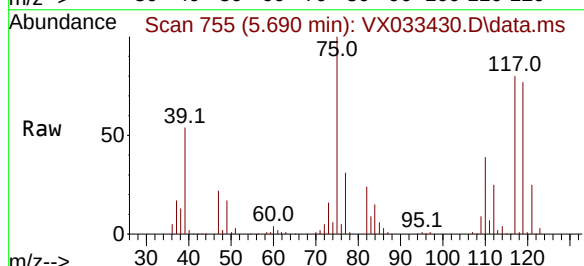
Tgt Ion: 75 Resp: 96432

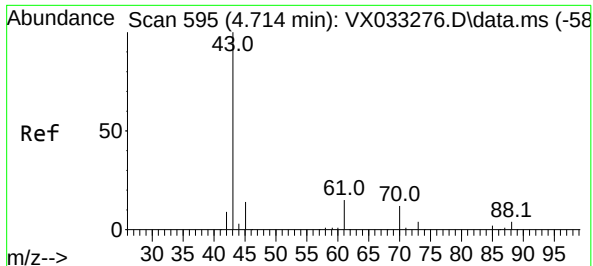
Ion Ratio Lower Upper

75 100

110 38.0 18.4 55.2

77 31.2 24.5 36.7





#37

Ethyl Acetate

Concen: 45.696 ug/l

RT: 4.708 min Scan# 594

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

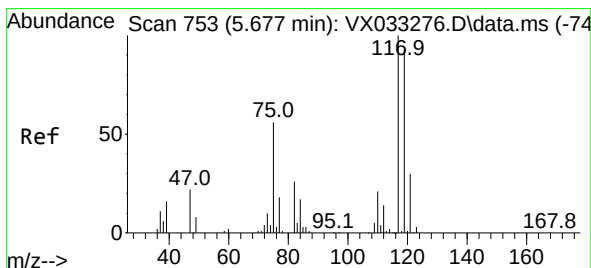
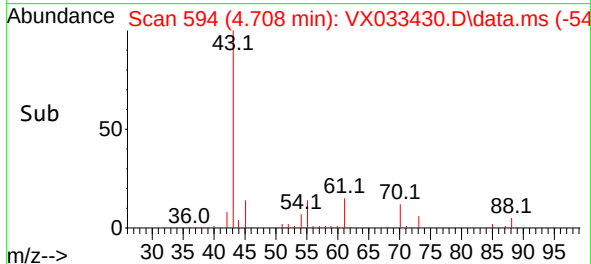
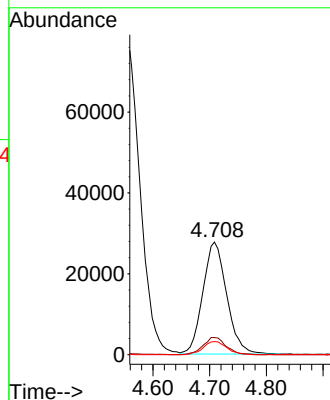
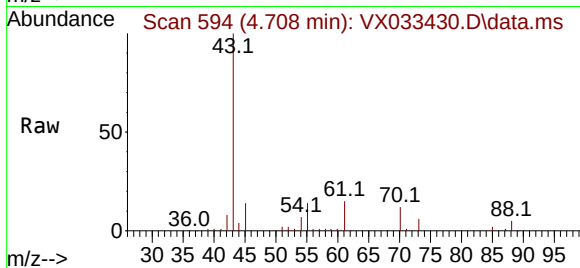
VSTDCCC050

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 43    | Resp: | 8118 |
| Ion Ratio | Lower | Upper |      |
| 43        | 100   |       |      |
| 61        | 14.8  | 11.5  | 17.3 |
| 70        | 11.5  | 9.1   | 13.7 |

## Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#38

Carbon Tetrachloride

Concen: 52.107 ug/l

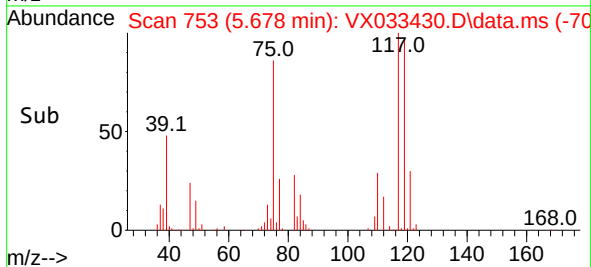
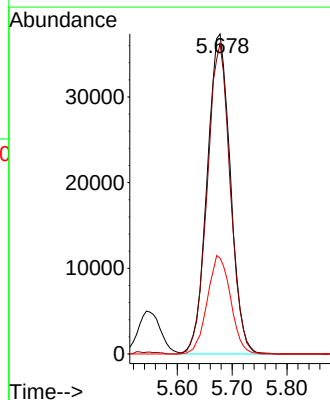
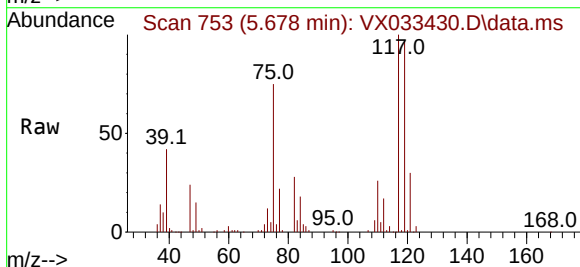
RT: 5.678 min Scan# 753

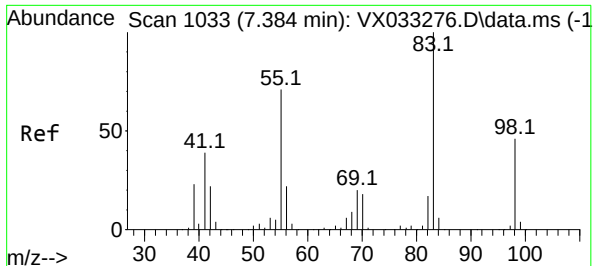
Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 117   | Resp: | 109727 |
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 119       | 97.0  | 77.2  | 115.8  |
| 121       | 30.0  | 25.8  | 38.6   |





#39

Methylcyclohexane

Concen: 54.993 ug/l

RT: 7.379 min Scan# 1032

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 83 Resp: 115689

Ion Ratio Lower Upper

83 100

55 69.5 58.4 87.6

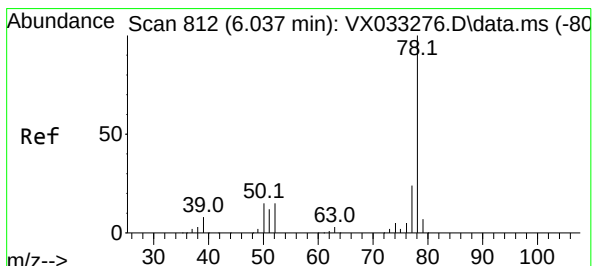
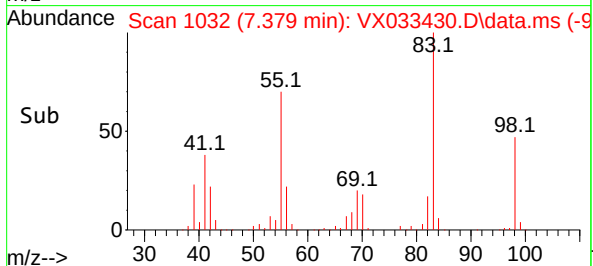
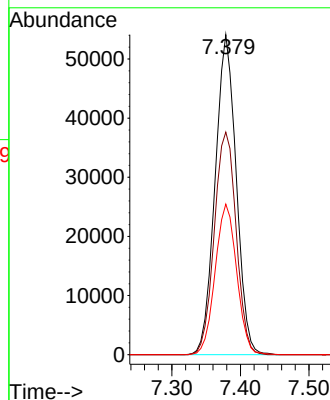
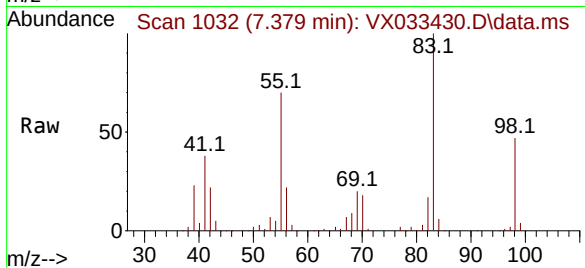
98 47.0 37.2 55.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#40

Benzene

Concen: 50.524 ug/l

RT: 6.037 min Scan# 812

Delta R.T. 0.000 min

Lab File: VX033430.D

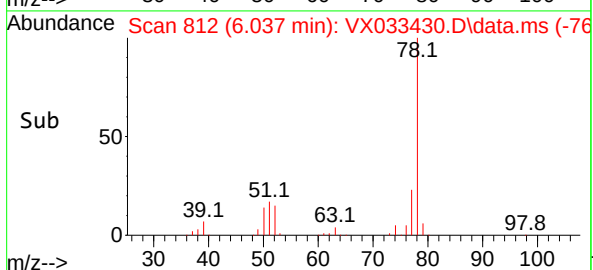
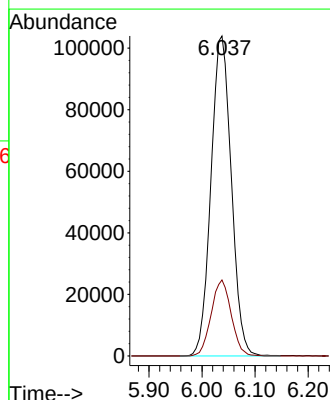
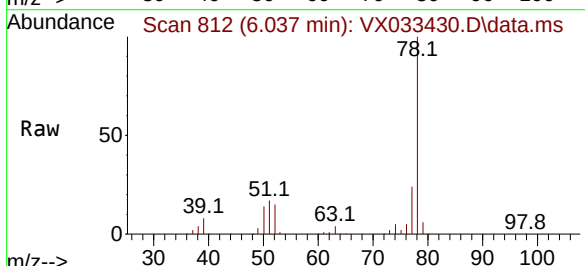
Acq: 15 Dec 2022 10:10

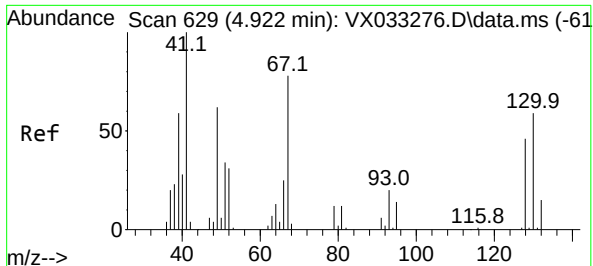
Tgt Ion: 78 Resp: 276871

Ion Ratio Lower Upper

78 100

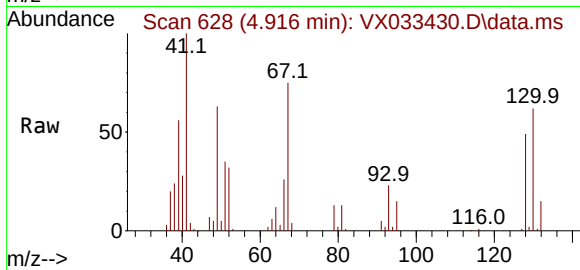
77 23.7 19.0 28.4





#41  
Methacrylonitrile  
Concen: 47.333 ug/l  
RT: 4.916 min Scan# 61  
Delta R.T. -0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

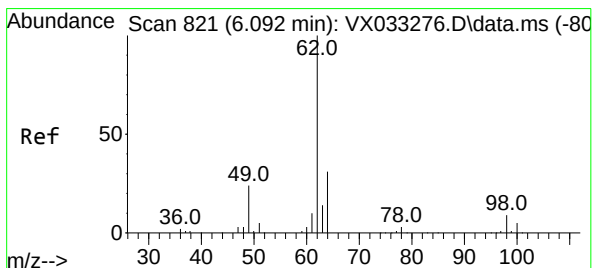
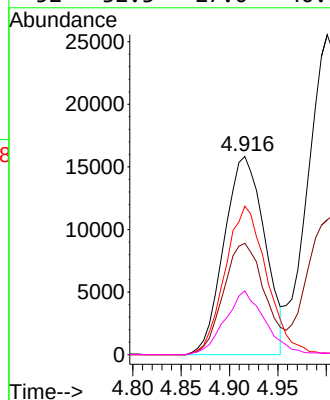
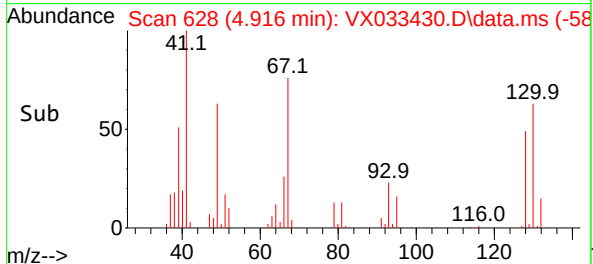
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 41 Resp: 46339  
Ion Ratio Lower Upper  
41 100  
39 57.9 47.5 71.3  
67 77.1 60.5 90.7  
52 32.3 27.0 40.6

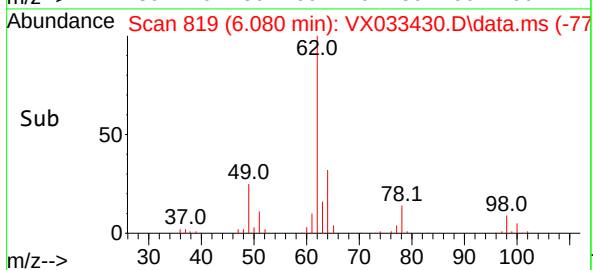
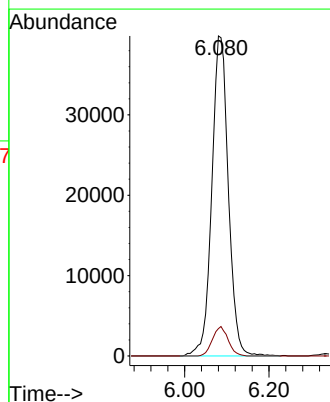
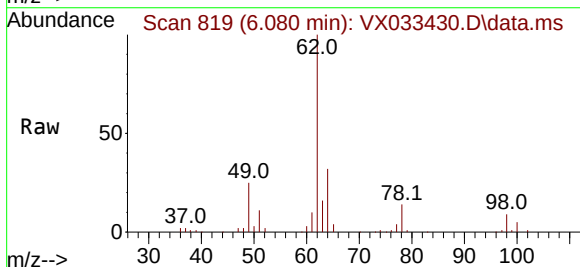
Manual Integrations  
APPROVED

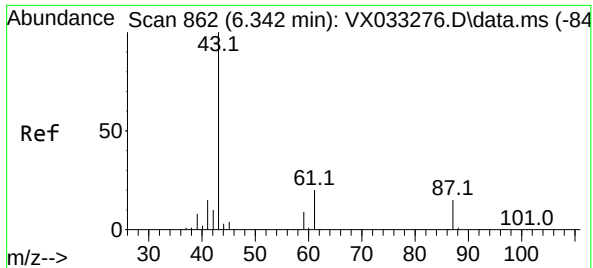
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#42  
1,2-Dichloroethane  
Concen: 49.784 ug/l  
RT: 6.080 min Scan# 819  
Delta R.T. -0.012 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

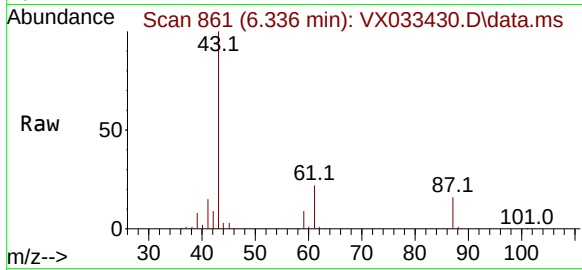
Tgt Ion: 62 Resp: 108334  
Ion Ratio Lower Upper  
62 100  
98 8.7 0.0 16.0





#43  
Isopropyl Acetate  
Concen: 47.844 ug/l  
RT: 6.336 min Scan# 80  
Delta R.T. -0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

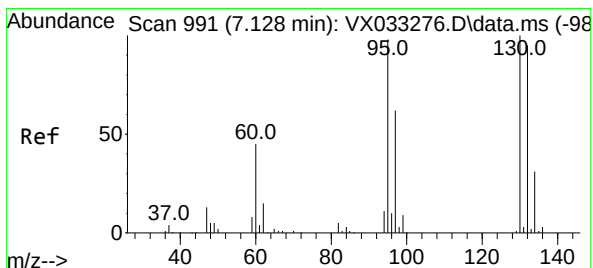
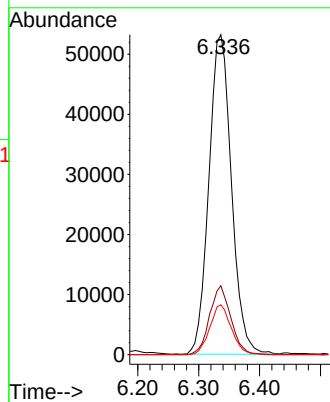
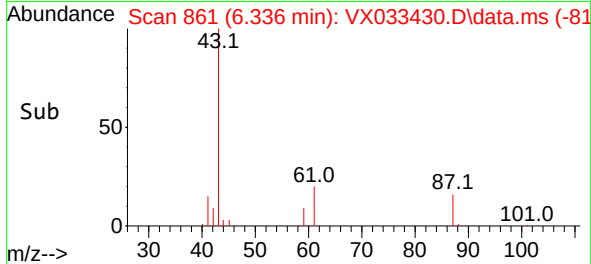
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 43 Resp: 136769  
Ion Ratio Lower Upper  
43 100  
61 20.3 15.4 23.0  
87 14.9 10.8 16.2

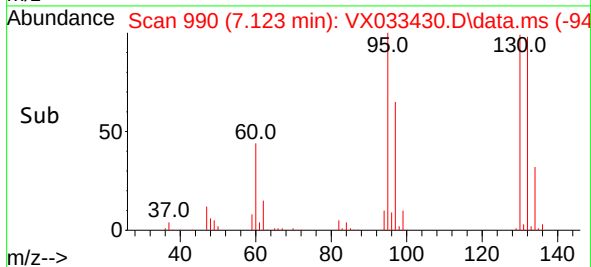
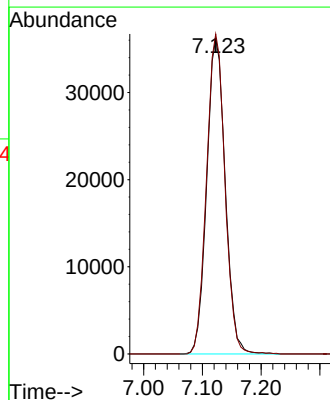
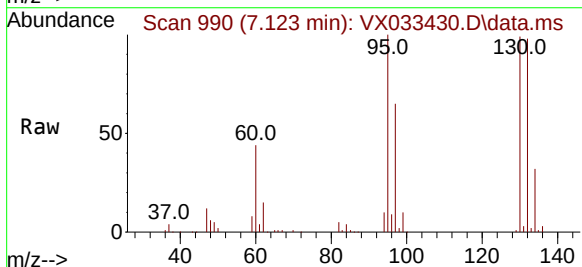
Manual Integrations  
APPROVED

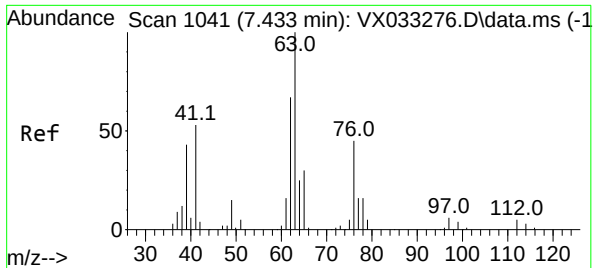
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#44  
Trichloroethene  
Concen: 52.390 ug/l  
RT: 7.123 min Scan# 990  
Delta R.T. -0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Tgt Ion:130 Resp: 79155  
Ion Ratio Lower Upper  
130 100  
95 101.4 0.0 195.2





#45

1,2-Dichloropropane

Concen: 50.412 ug/l

RT: 7.427 min Scan# 1040

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 63 Resp: 7065

Ion Ratio Lower Upper

63 100

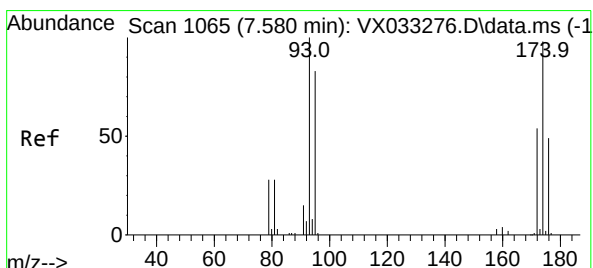
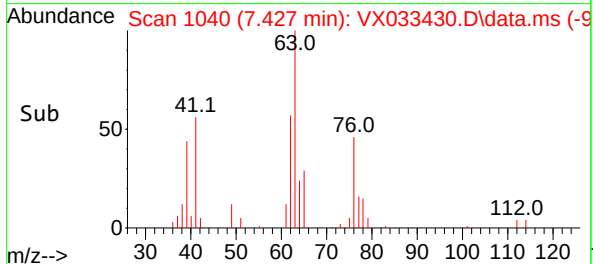
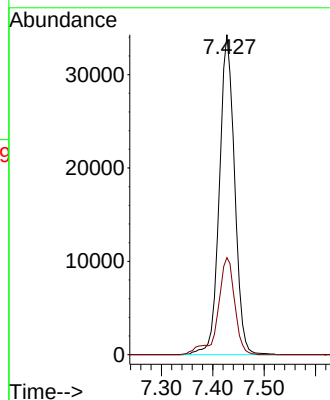
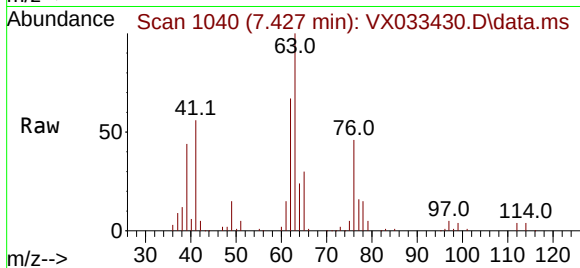
65 30.3 24.6 36.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#46

Dibromomethane

Concen: 50.361 ug/l

RT: 7.580 min Scan# 1065

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

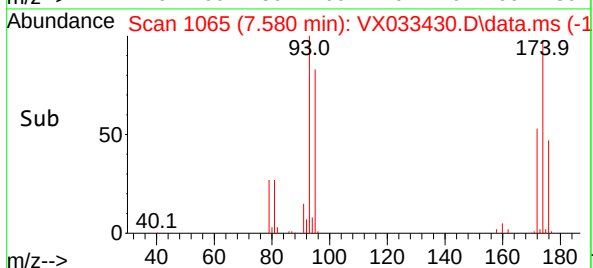
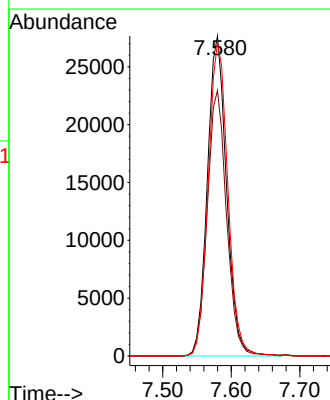
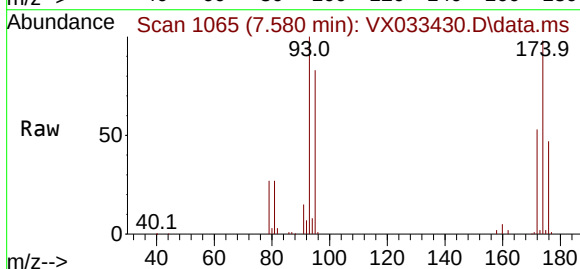
Tgt Ion: 93 Resp: 53766

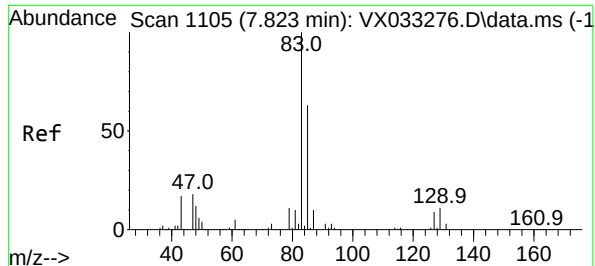
Ion Ratio Lower Upper

93 100

95 84.0 65.8 98.8

174 100.3 79.8 119.6





#47

Bromodichloromethane

Concen: 52.352 ug/l

RT: 7.818 min Scan# 1105

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 83 Resp: 108950

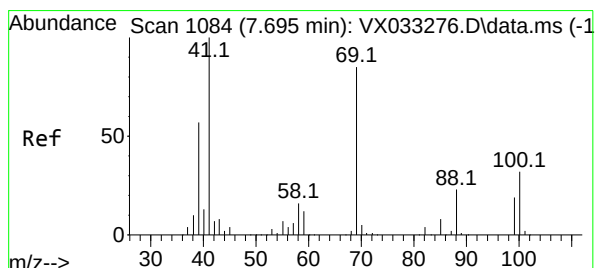
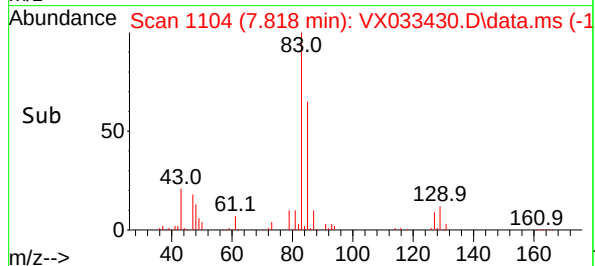
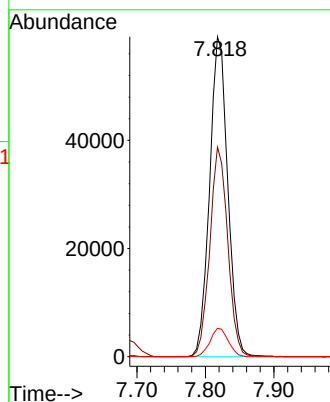
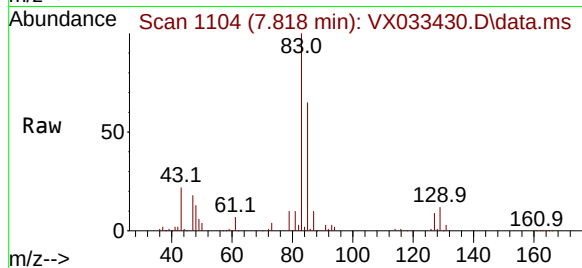
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 83  | 100   |       |       |
| 85  | 65.5  | 52.2  | 78.4  |
| 127 | 8.9   | 7.4   | 11.2  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#48

Methyl methacrylate

Concen: 47.923 ug/l

RT: 7.690 min Scan# 1083

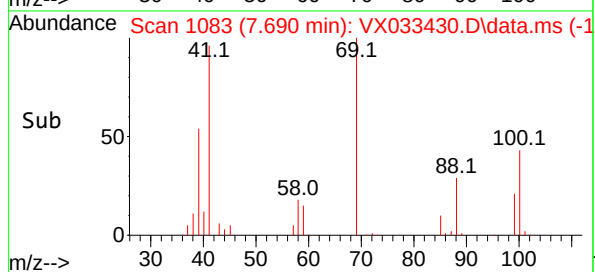
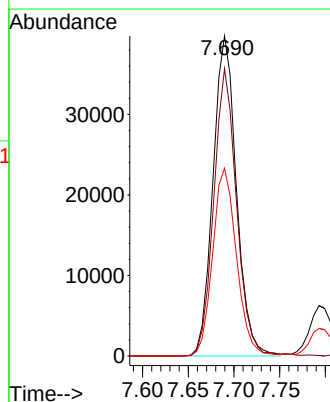
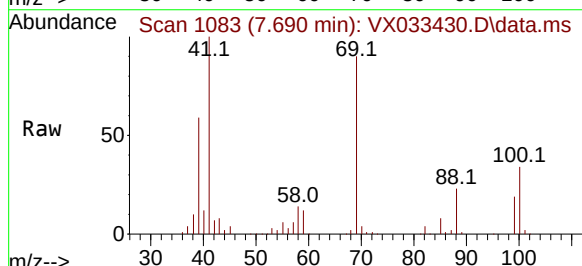
Delta R.T. -0.006 min

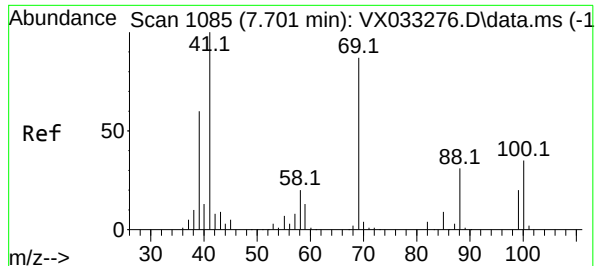
Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Tgt Ion: 41 Resp: 70703

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 41  | 100   |       |       |
| 69  | 87.8  | 65.1  | 97.7  |
| 39  | 59.8  | 51.9  | 77.9  |





#49

1,4-Dioxane

Concen: 884.207 ug/l

RT: 7.696 min Scan# 1084

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 88 Resp: 2974

Ion Ratio Lower Upper

88 100

43 30.2 26.6 39.8

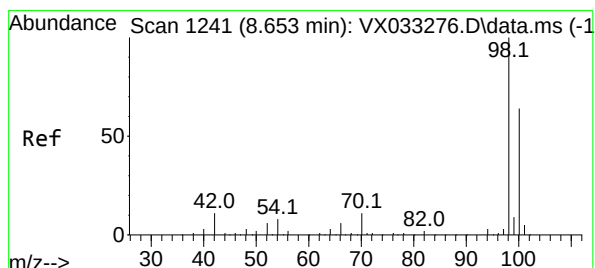
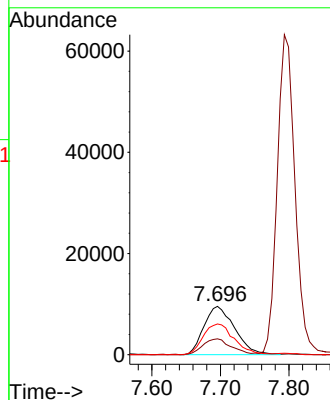
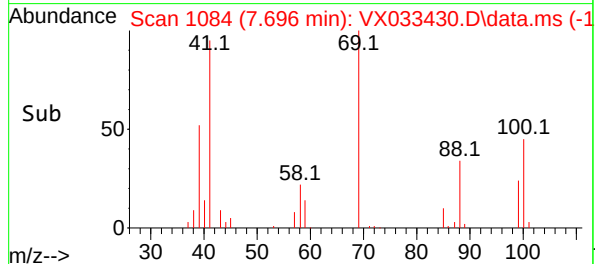
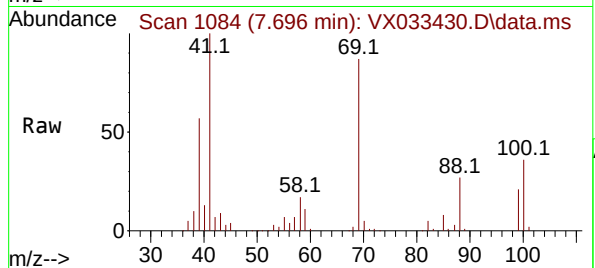
58 63.8 51.7 77.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#50

Toluene-d8

Concen: 48.378 ug/l

RT: 8.647 min Scan# 1240

Delta R.T. -0.006 min

Lab File: VX033430.D

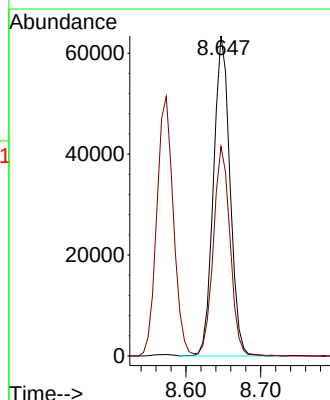
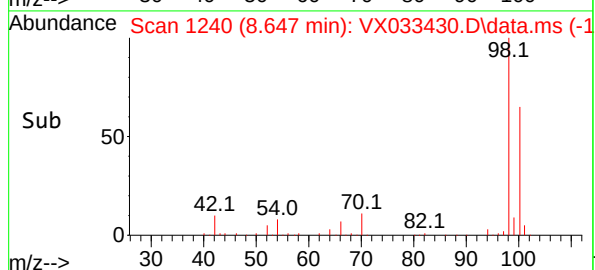
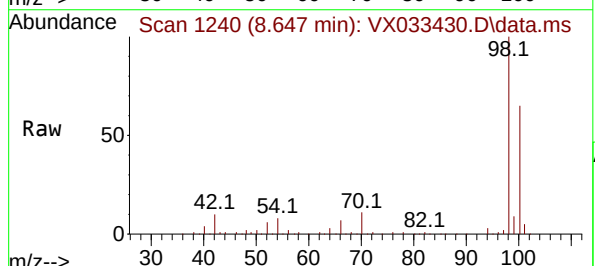
Acq: 15 Dec 2022 10:10

Tgt Ion: 98 Resp: 97560

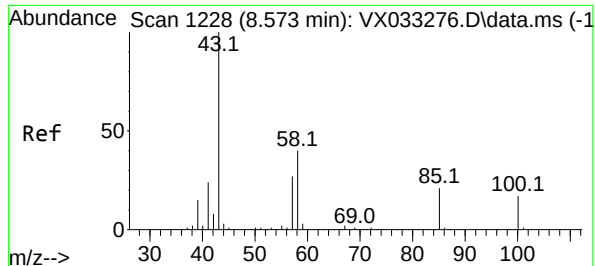
Ion Ratio Lower Upper

98 100

100 65.9 50.9 76.3







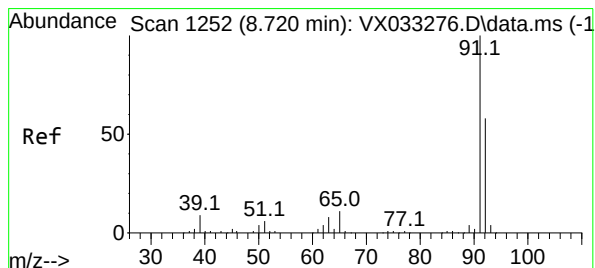
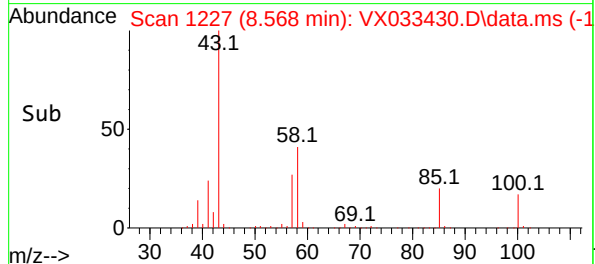
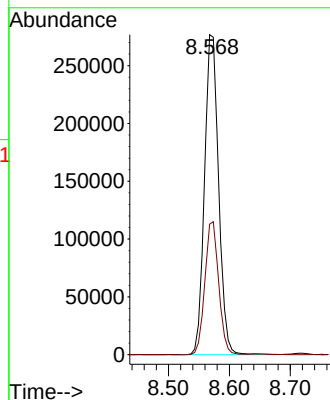
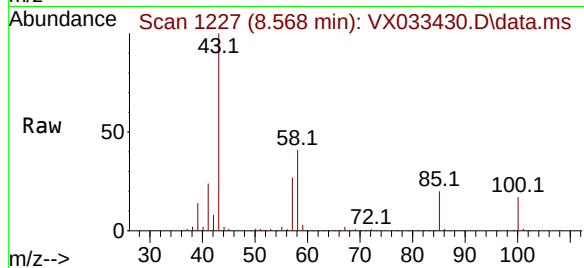
#51  
4-Methyl-2-Pentanone  
Concen: 246.435 ug/l  
RT: 8.568 min Scan# 1227  
Delta R.T. -0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050

Tgt Ion: 43 Resp: 44549  
Ion Ratio Lower Upper  
43 100  
58 40.8 30.9 46.3

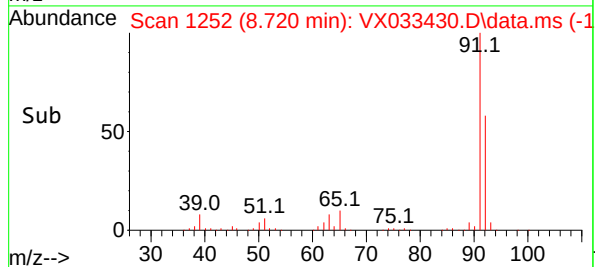
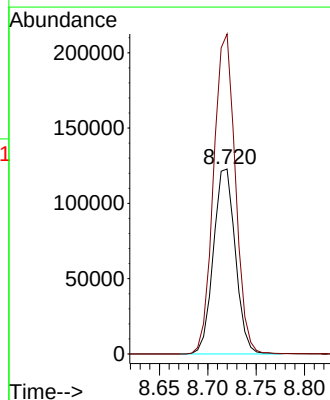
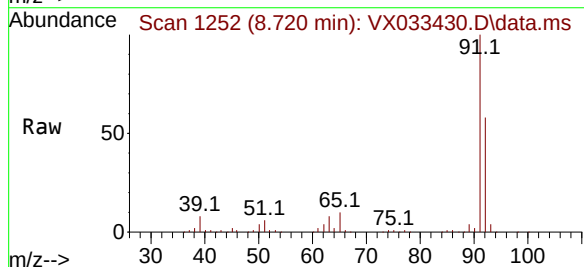
Manual Integrations  
**APPROVED**

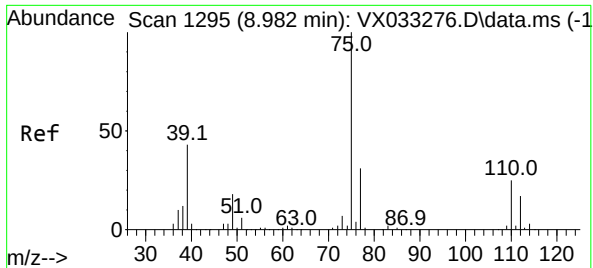
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#52  
Toluene  
Concen: 54.761 ug/l  
RT: 8.720 min Scan# 1252  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Tgt Ion: 92 Resp: 194022  
Ion Ratio Lower Upper  
92 100  
91 171.7 138.3 207.5





#53

t-1,3-Dichloropropene

Concen: 49.141 ug/l

RT: 8.976 min Scan# 1194

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 75 Resp: 10976

Ion Ratio Lower Upper

75 100

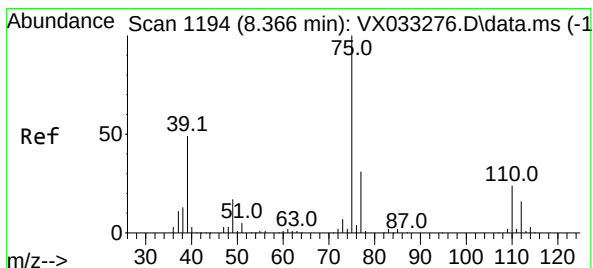
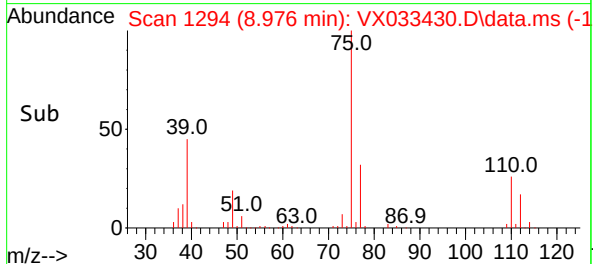
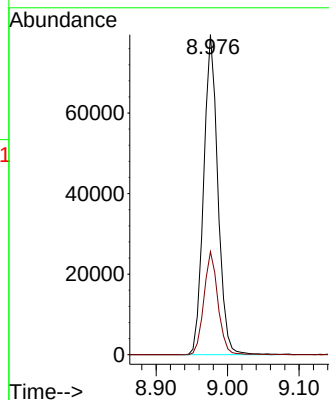
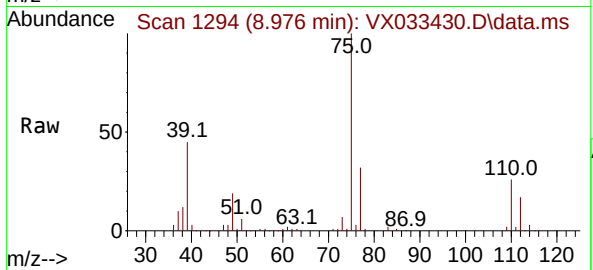
77 32.2 25.1 37.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#54

cis-1,3-Dichloropropene

Concen: 53.138 ug/l

RT: 8.366 min Scan# 1194

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

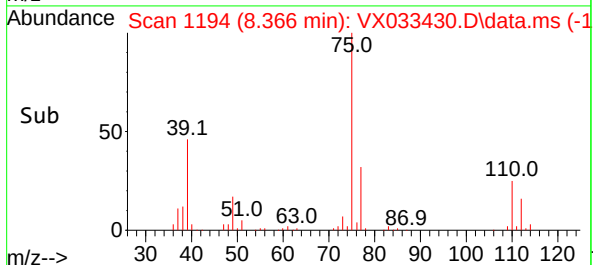
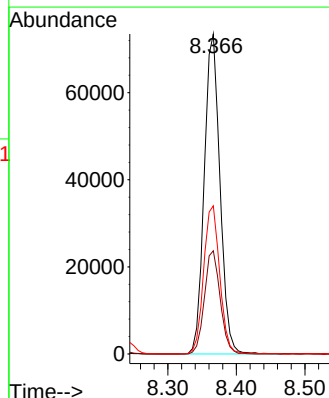
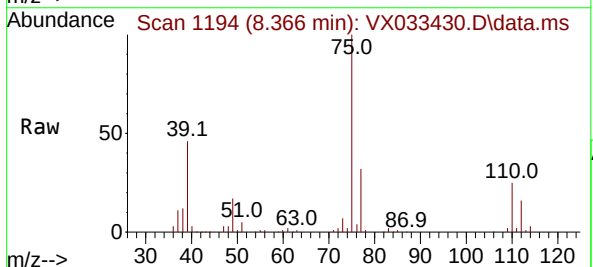
Tgt Ion: 75 Resp: 117676

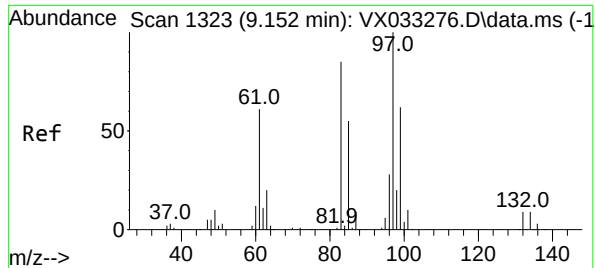
Ion Ratio Lower Upper

75 100

77 32.2 25.1 37.7

39 46.3 45.5 68.3





#55

1,1,2-Trichloroethane

Concen: 52.574 ug/l

RT: 9.153 min Scan# 1323

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 97 Resp: 78302

Ion Ratio Lower Upper

97 100

83 82.1 68.1 102.1

85 54.8 43.3 64.9

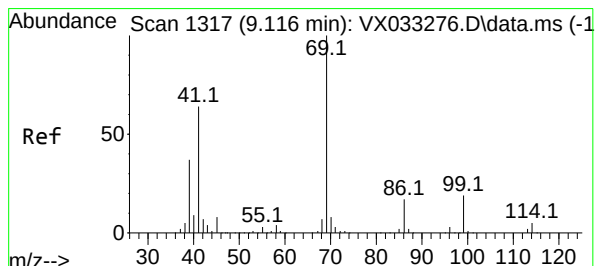
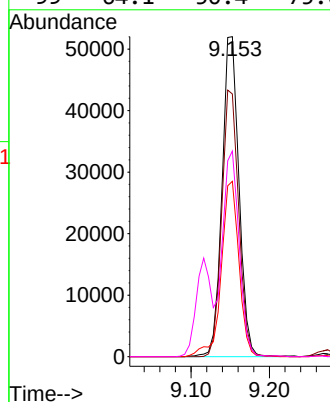
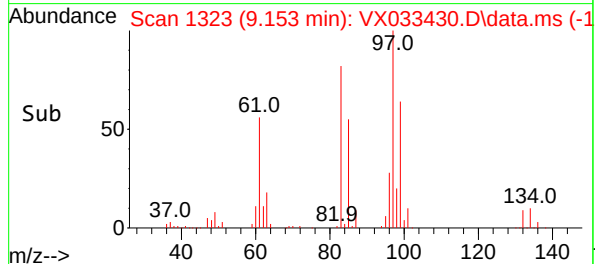
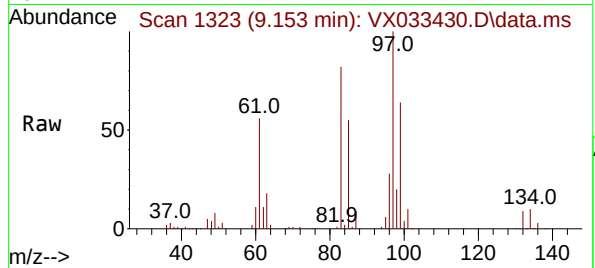
99 64.1 50.4 75.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#56

Ethyl methacrylate

Concen: 53.687 ug/l

RT: 9.116 min Scan# 1317

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

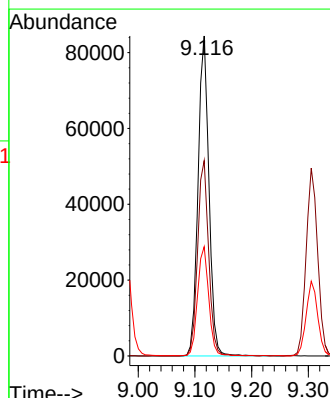
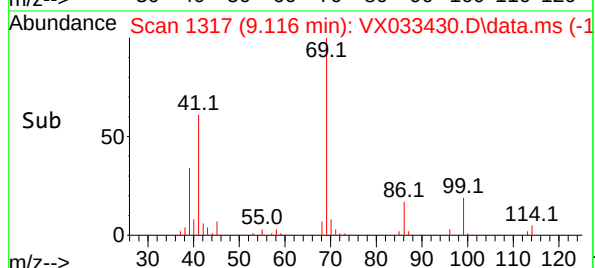
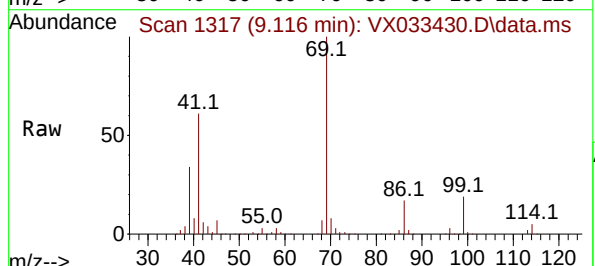
Tgt Ion: 69 Resp: 112579

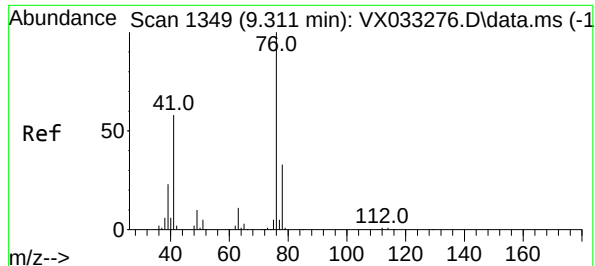
Ion Ratio Lower Upper

69 100

41 62.0 54.3 81.5

39 34.9 35.2 52.8#





#57

1,3-Dichloropropane

Concen: 52.677 ug/l

RT: 9.305 min Scan# 11

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 76 Resp: 126034

Ion Ratio Lower Upper

76 100

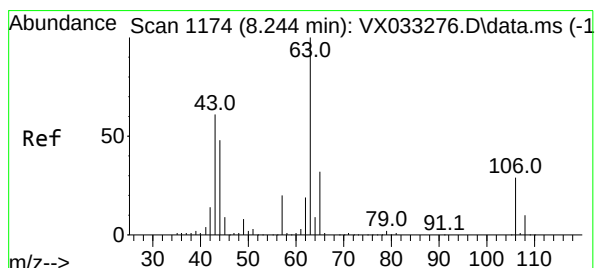
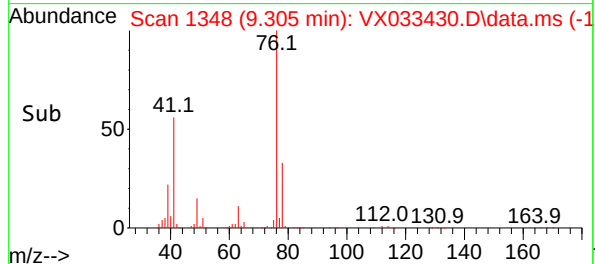
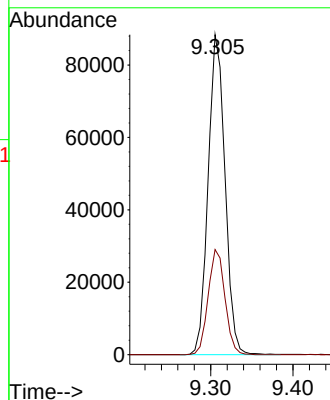
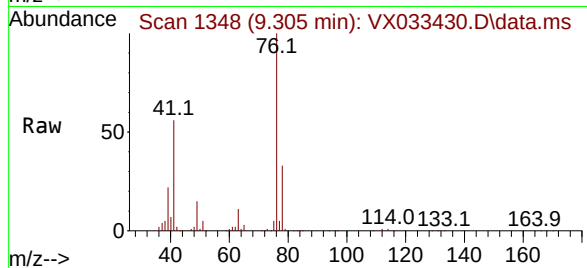
78 32.7 26.0 39.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#58

2-Chloroethyl Vinyl ether

Concen: 238.862 ug/l

RT: 8.238 min Scan# 1173

Delta R.T. -0.006 min

Lab File: VX033430.D

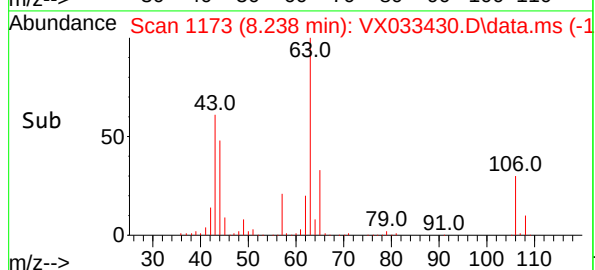
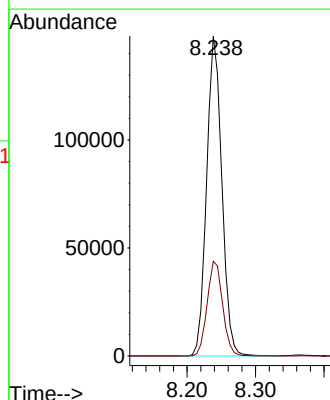
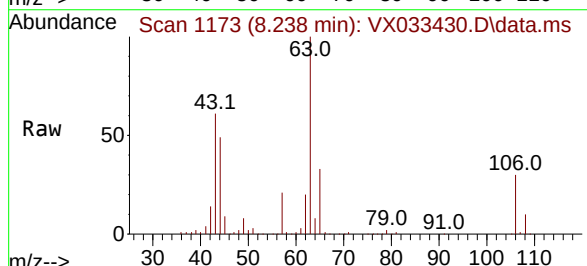
Acq: 15 Dec 2022 10:10

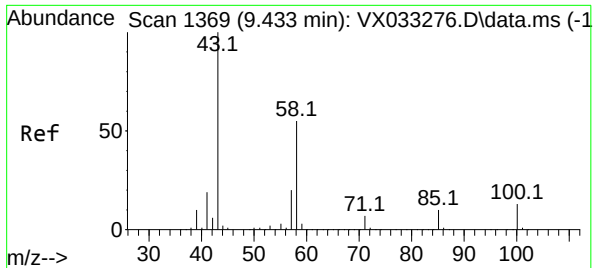
Tgt Ion: 63 Resp: 229186

Ion Ratio Lower Upper

63 100

106 30.1 23.3 34.9





#59

2-Hexanone

Concen: 255.739 ug/l

RT: 9.427 min Scan# 11

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 43 Resp: 340694

Ion Ratio Lower Upper

43 100

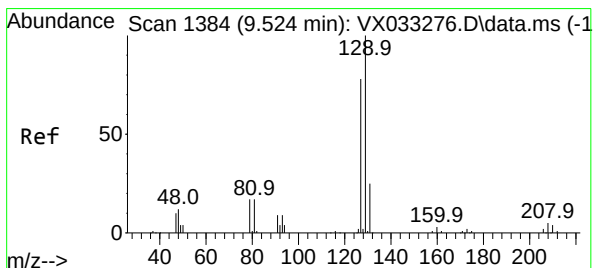
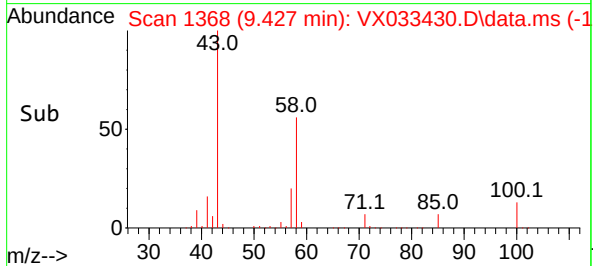
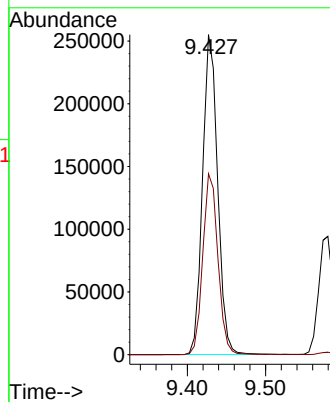
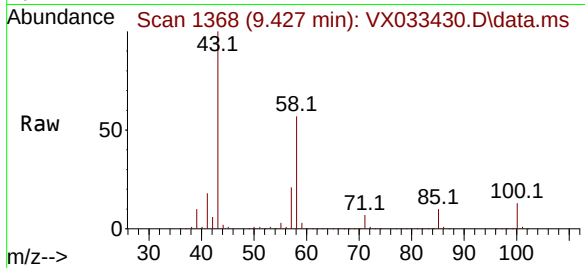
58 56.8 26.5 79.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#60

Dibromochloromethane

Concen: 54.930 ug/l

RT: 9.519 min Scan# 1383

Delta R.T. -0.006 min

Lab File: VX033430.D

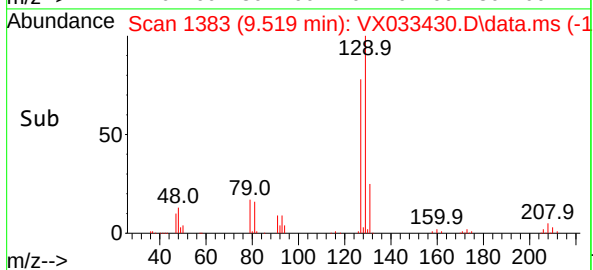
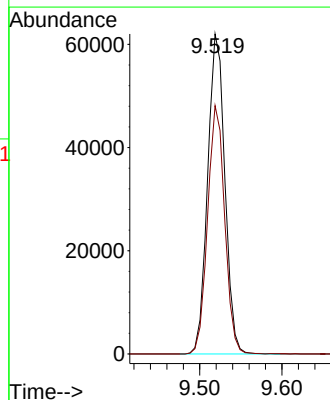
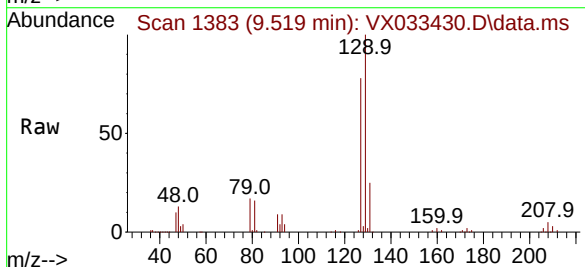
Acq: 15 Dec 2022 10:10

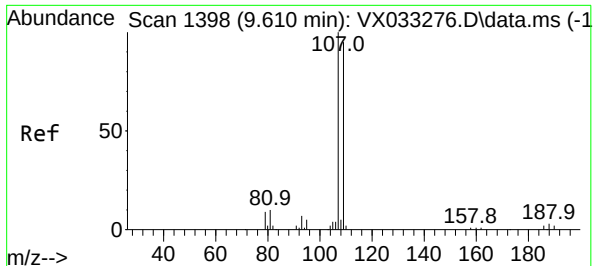
Tgt Ion:129 Resp: 90138

Ion Ratio Lower Upper

129 100

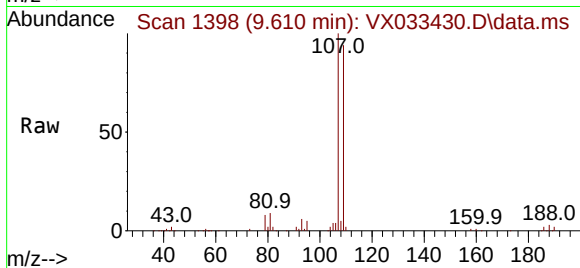
127 77.1 38.6 115.8





#61  
1,2-Dibromoethane  
Concen: 53.222 ug/l  
RT: 9.610 min Scan# 1398  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

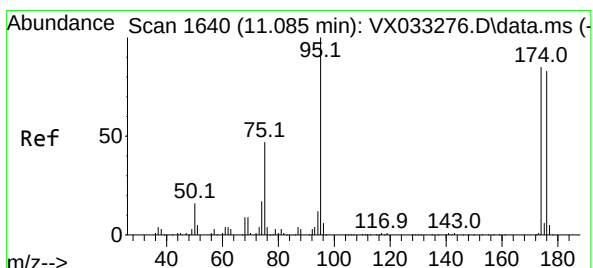
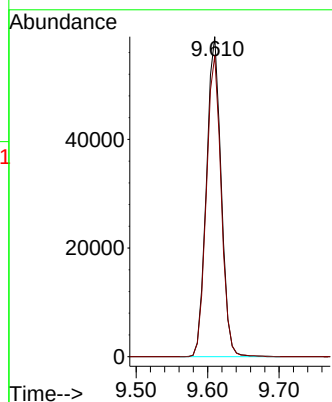
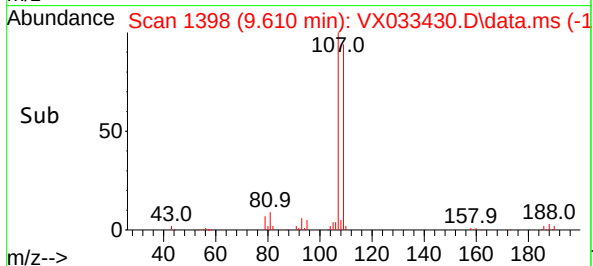
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 107 Resp: 8431  
Ion Ratio Lower Upper  
107 100  
109 94.7 76.0 114.0

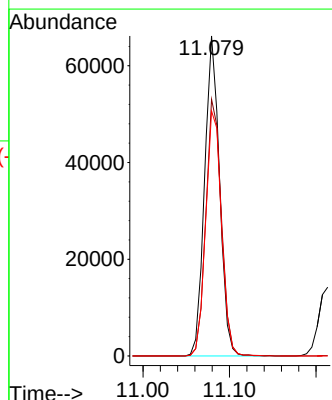
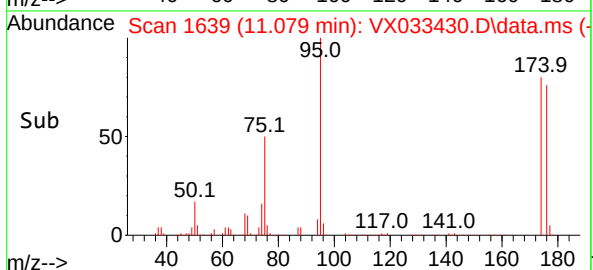
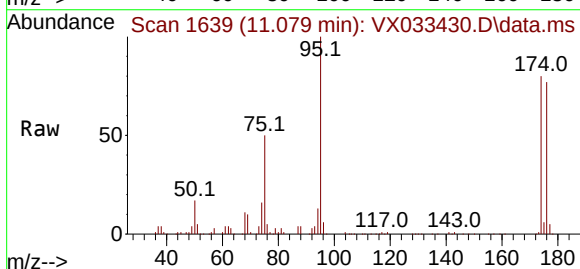
Manual Integrations  
APPROVED

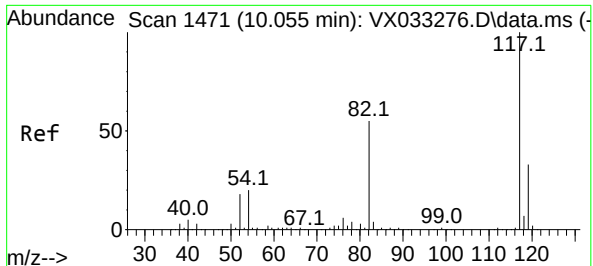
Reviewed By : John Carlone 12/16/2022  
Supervised By : Mahesh Dadoda 12/16/2022



#62  
4-Bromofluorobenzene  
Concen: 51.395 ug/l  
RT: 11.079 min Scan# 1639  
Delta R.T. -0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

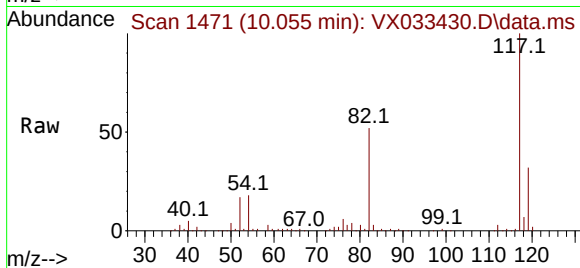
Tgt Ion: 95 Resp: 79249  
Ion Ratio Lower Upper  
95 100  
174 83.4 0.0 164.0  
176 81.0 0.0 154.4





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.055 min Scan# 1471  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

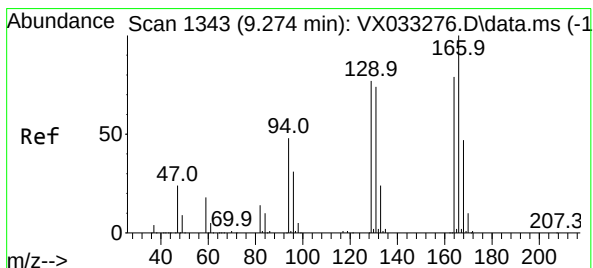
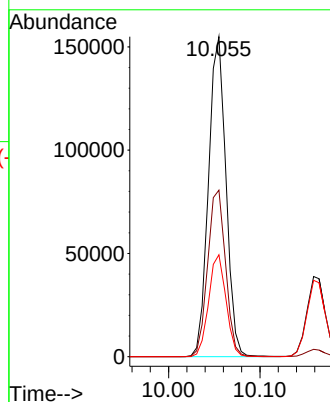
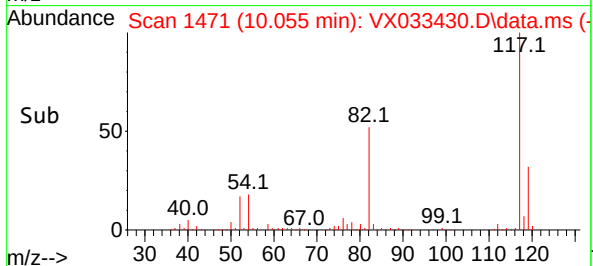
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050



Tgt Ion:117 Resp: 205390  
Ion Ratio Lower Upper  
117 100  
82 52.1 44.3 66.5  
119 31.9 25.7 38.5

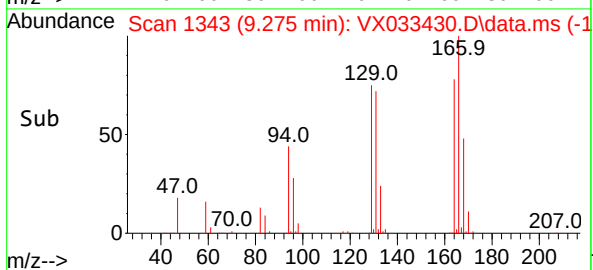
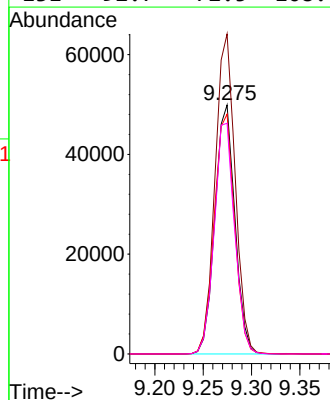
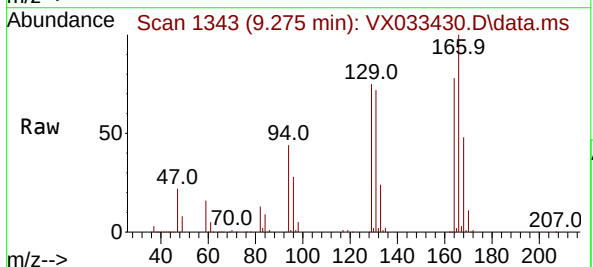
Manual Integrations  
APPROVED

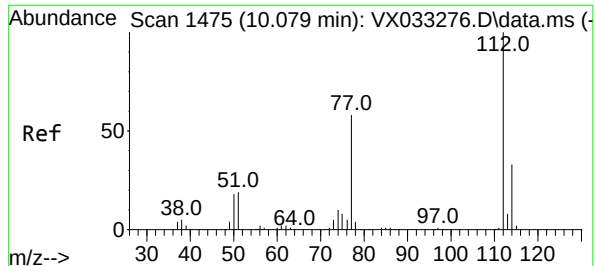
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#64  
Tetrachloroethene  
Concen: 50.953 ug/l  
RT: 9.275 min Scan# 1343  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

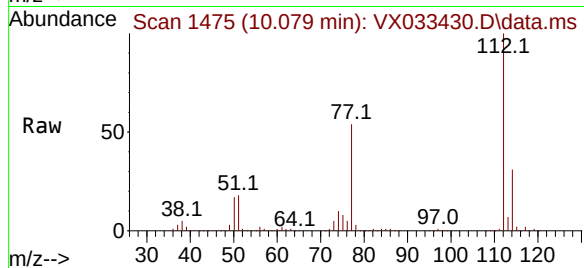
Tgt Ion:164 Resp: 71561  
Ion Ratio Lower Upper  
164 100  
166 128.5 105.4 158.2  
129 96.3 78.2 117.2  
131 92.7 72.5 108.7





#65  
Chlorobenzene  
Concen: 51.464 ug/l  
RT: 10.079 min Scan# 1475  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

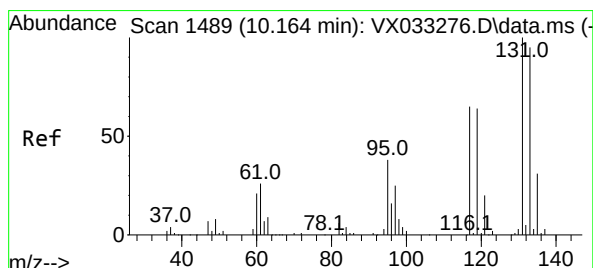
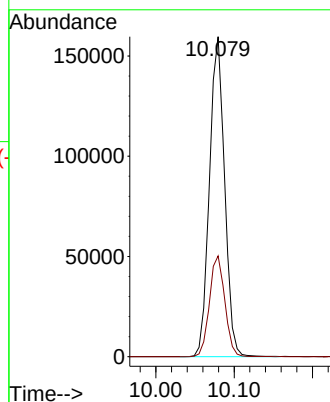
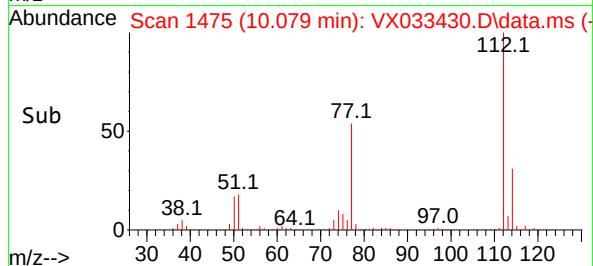
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050



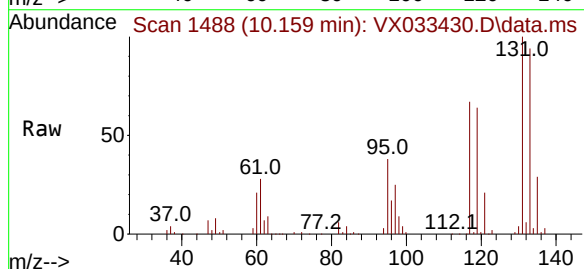
Tgt Ion:112 Resp: 214048  
Ion Ratio Lower Upper  
112 100  
114 31.5 25.4 38.2

Manual Integrations  
APPROVED

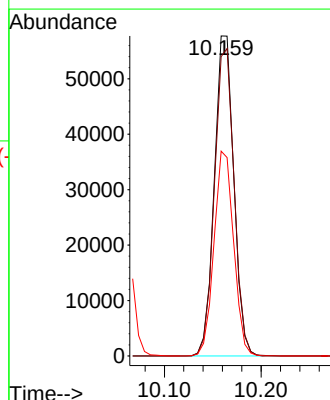
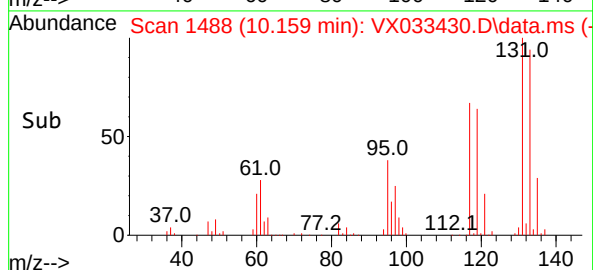
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



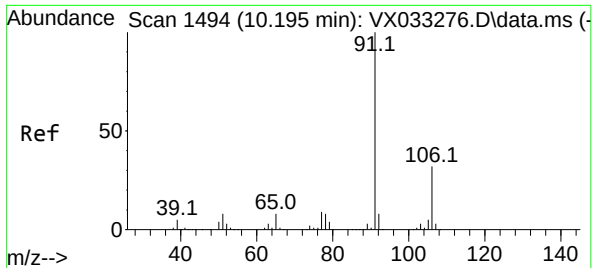
#66  
1,1,1,2-Tetrachloroethane  
Concen: 51.451 ug/l  
RT: 10.159 min Scan# 1488  
Delta R.T. -0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10



Tgt Ion:131 Resp: 80870  
Ion Ratio Lower Upper  
131 100  
133 96.7 47.6 142.9  
119 64.3 32.4 97.0

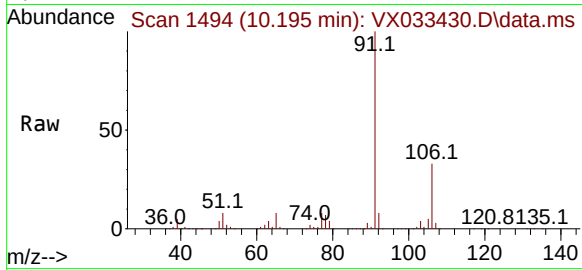






#67  
Ethyl Benzene  
Concen: 52.692 ug/l  
RT: 10.195 min Scan# 1494  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

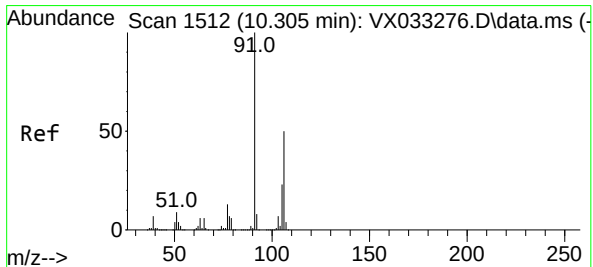
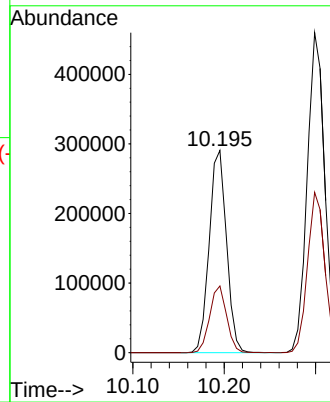
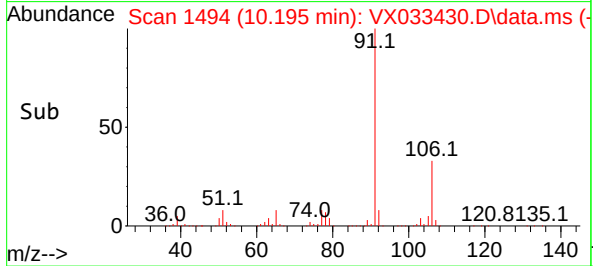
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 91 Resp: 381798  
Ion Ratio Lower Upper  
91 100  
106 33.0 25.0 37.6

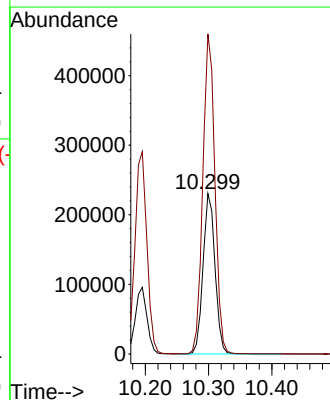
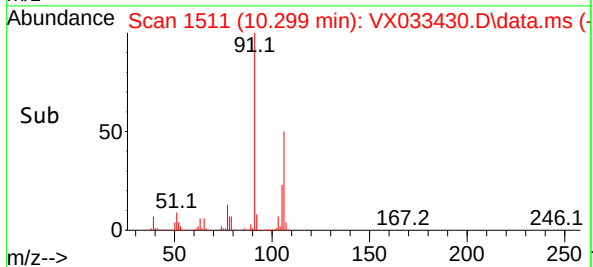
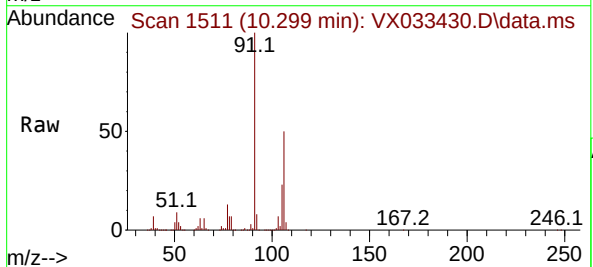
Manual Integrations  
**APPROVED**

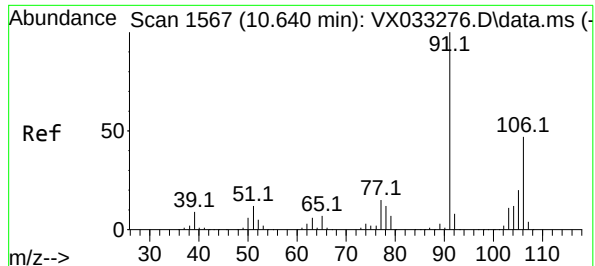
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#68  
m/p-Xylenes  
Concen: 107.856 ug/l  
RT: 10.299 min Scan# 1511  
Delta R.T. -0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Tgt Ion:106 Resp: 304061  
Ion Ratio Lower Upper  
106 100  
91 201.4 164.5 246.7





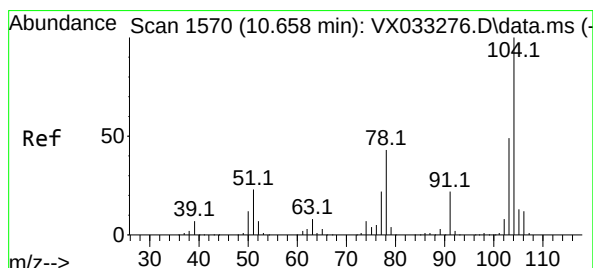
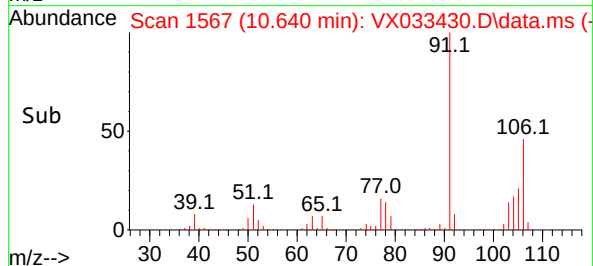
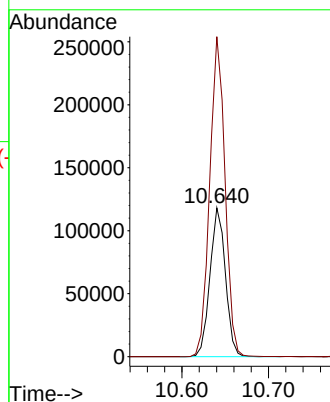
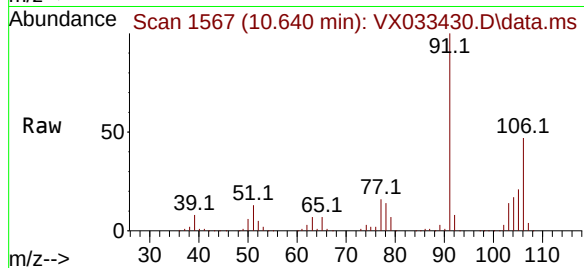
#69  
o-Xylene  
Concen: 52.510 ug/l  
RT: 10.640 min Scan# 1567  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050

Tgt Ion:106 Resp: 14632  
Ion Ratio Lower Upper  
106 100  
91 213.3 109.2 327.6

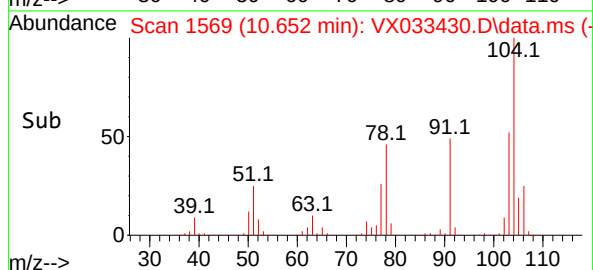
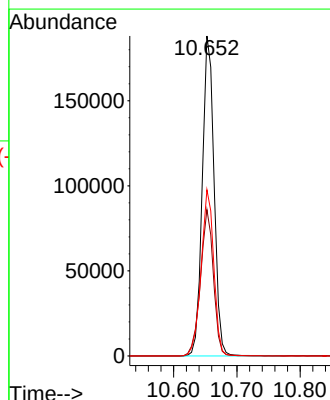
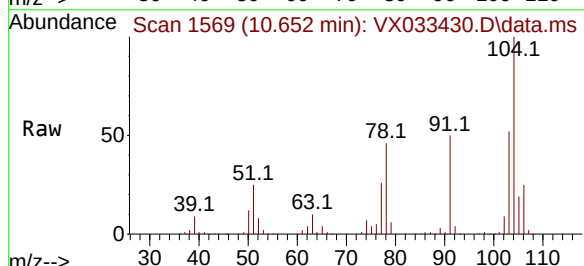
Manual Integrations  
APPROVED

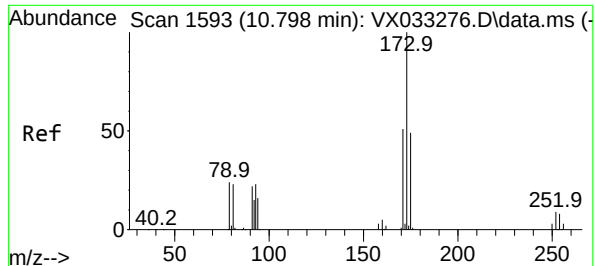
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#70  
Styrene  
Concen: 53.646 ug/l  
RT: 10.652 min Scan# 1569  
Delta R.T. -0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

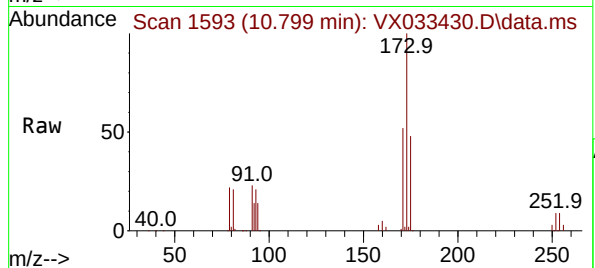
Tgt Ion:104 Resp: 244830  
Ion Ratio Lower Upper  
104 100  
78 50.0 41.8 62.8  
103 55.8 44.5 66.7





#71  
Bromoform  
Concen: 51.374 ug/l  
RT: 10.799 min Scan# 1593  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

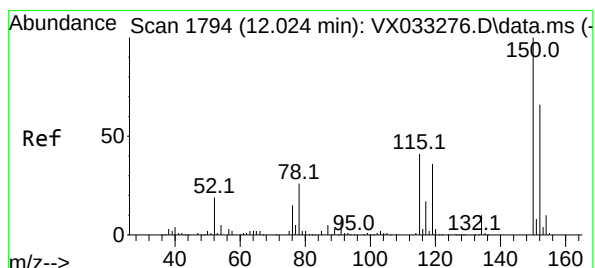
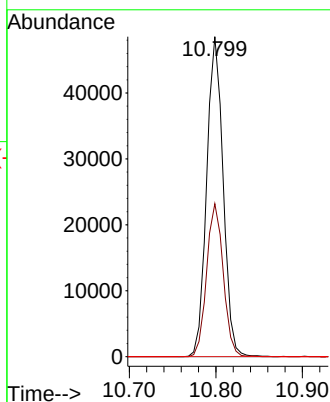
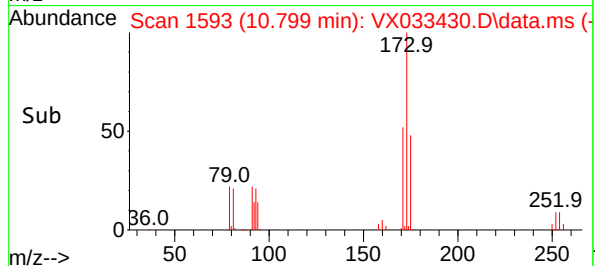
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050



Tgt Ion:173 Resp: 63910  
Ion Ratio Lower Upper  
173 100  
175 48.4 23.9 71.8  
254 0.0 0.0 0.0

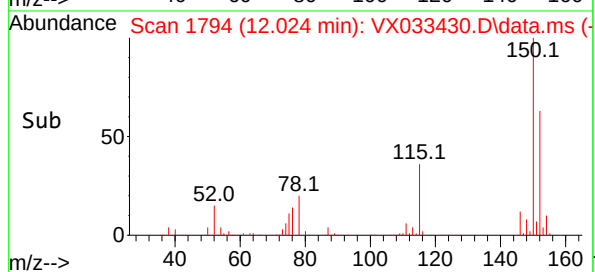
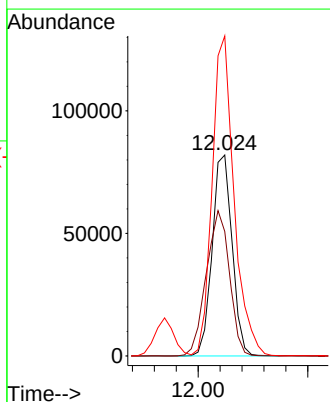
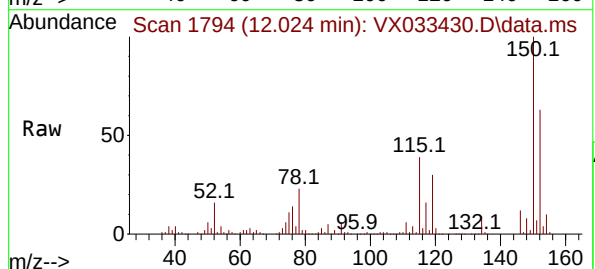
Manual Integrations  
APPROVED

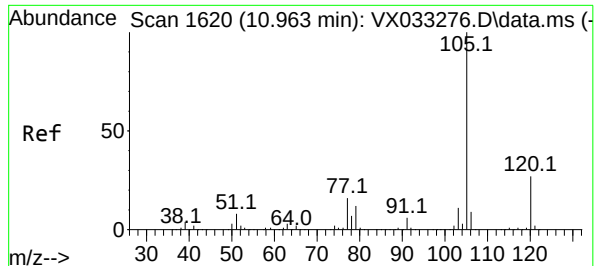
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.024 min Scan# 1794  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

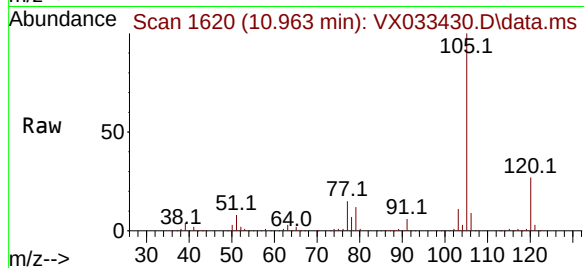
Tgt Ion:152 Resp: 103647  
Ion Ratio Lower Upper  
152 100  
115 84.3 44.0 132.0  
150 174.5 0.0 351.8





#73  
Isopropylbenzene  
Concen: 51.922 ug/l  
RT: 10.963 min Scan# 1620  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

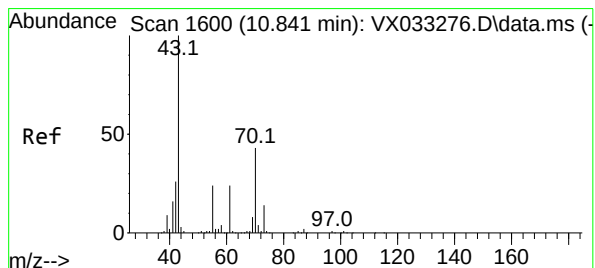
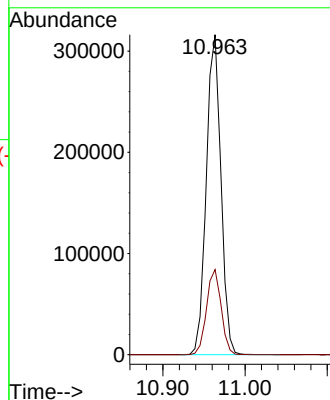
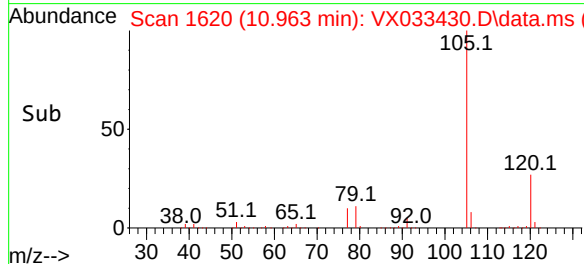
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050



Tgt Ion:105 Resp: 390064  
Ion Ratio Lower Upper  
105 100  
120 26.6 13.1 39.3

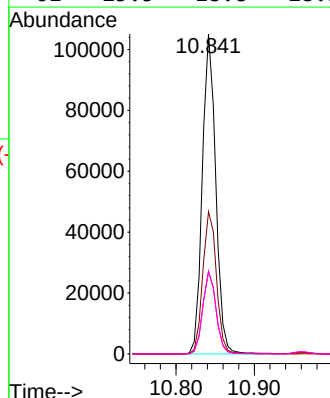
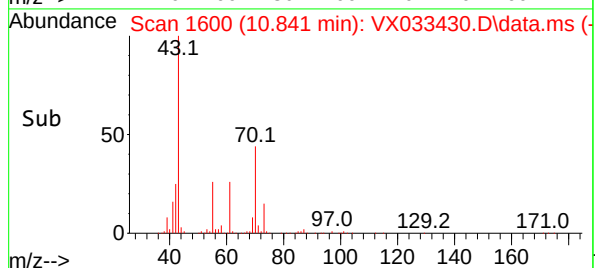
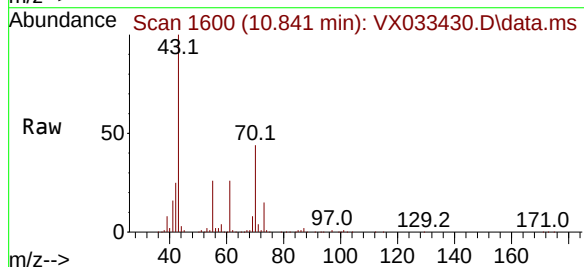
Manual Integrations  
APPROVED

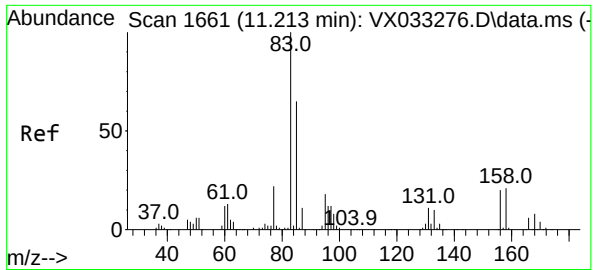
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#74  
N-ethyl acetate  
Concen: 48.802 ug/l  
RT: 10.841 min Scan# 1600  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Tgt Ion: 43 Resp: 125085  
Ion Ratio Lower Upper  
43 100  
70 45.3 33.6 50.4  
55 25.7 19.4 29.2  
61 25.5 18.8 28.2





#75

1,1,2,2-Tetrachloroethane

Concen: 47.488 ug/l

RT: 11.213 min Scan# 1661

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 83 Resp: 11317

Ion Ratio Lower Upper

83 100

131 10.8 5.4 16.2

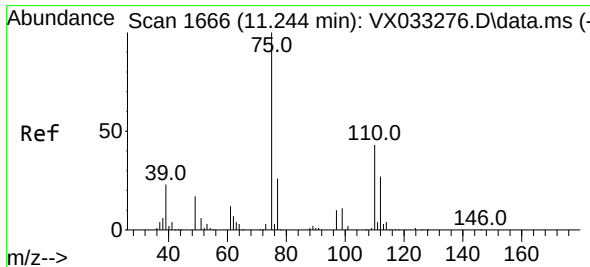
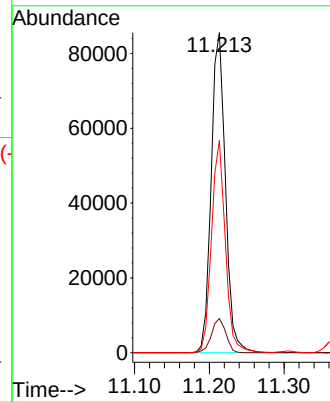
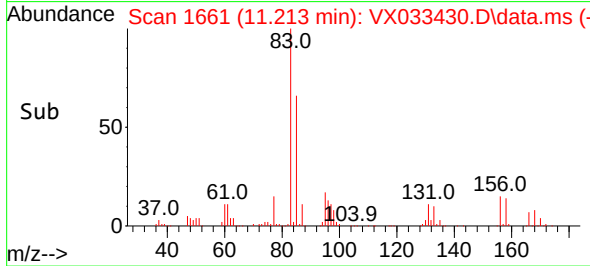
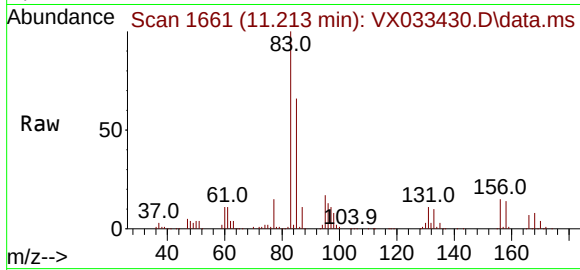
85 64.5 31.9 95.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#76

1,2,3-Trichloropropane

Concen: 48.402 ug/l m

RT: 11.238 min Scan# 1665

Delta R.T. -0.006 min

Lab File: VX033430.D

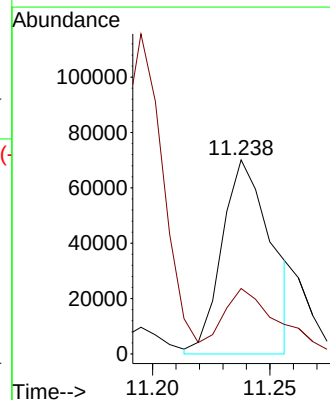
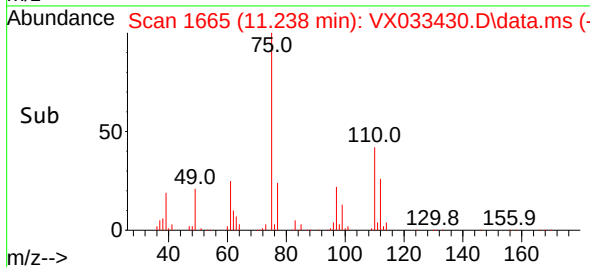
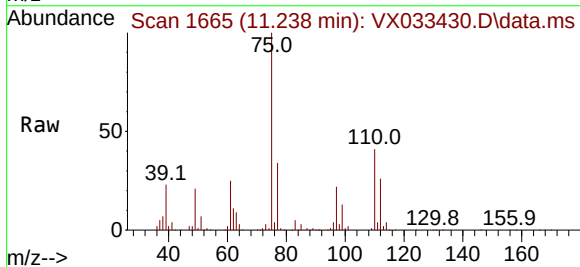
Acq: 15 Dec 2022 10:10

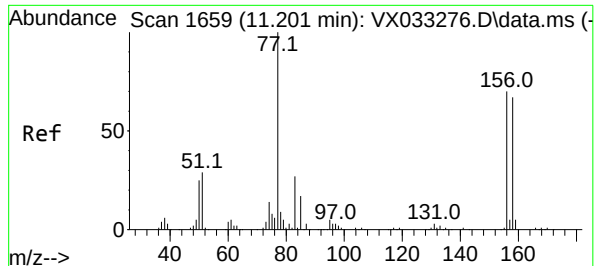
Tgt Ion: 75 Resp: 102065

Ion Ratio Lower Upper

75 100

77 38.4 20.0 60.0





#77

Bromobenzene

Concen: 50.759 ug/l

RT: 11.195 min Scan# 1658

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

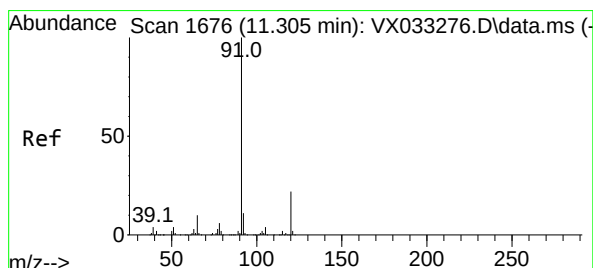
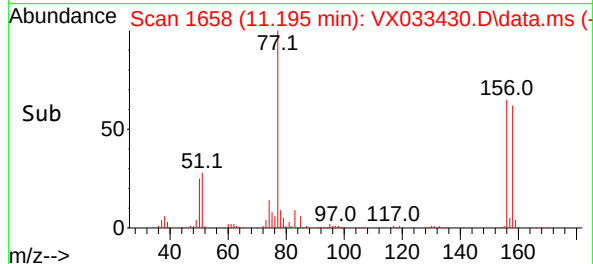
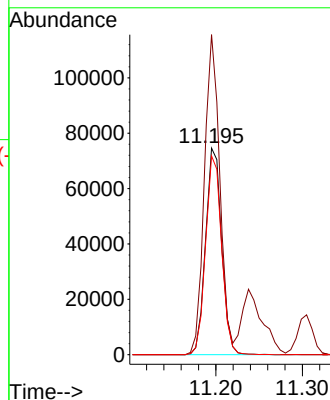
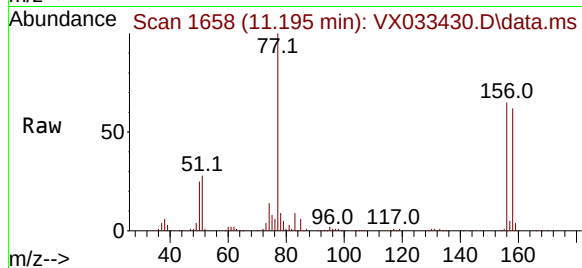
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 156   | Resp: | 9629  |
| Ion Ratio | Lower | Upper |       |
| 156       | 100   |       |       |
| 77        | 148.0 | 76.1  | 228.4 |
| 158       | 95.8  | 48.8  | 146.3 |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#78

n-propylbenzene

Concen: 53.354 ug/l

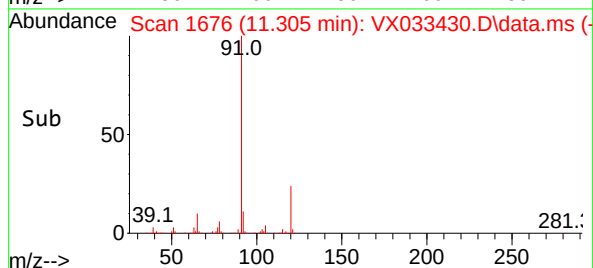
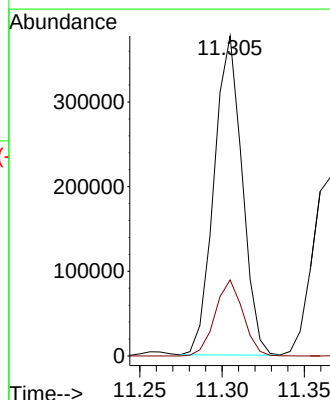
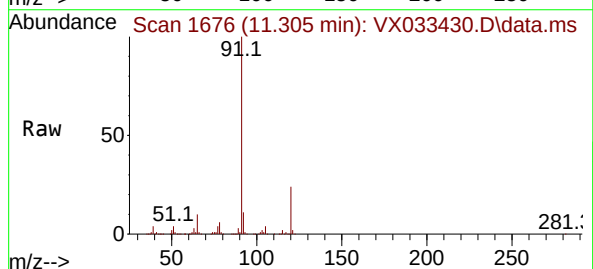
RT: 11.305 min Scan# 1676

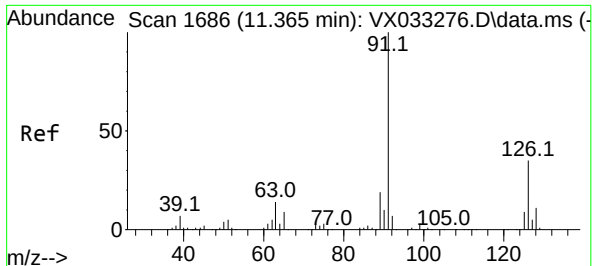
Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 91    | Resp: | 447548 |
| Ion Ratio | Lower | Upper |        |
| 91        | 100   |       |        |
| 120       | 23.7  | 11.6  | 34.8   |





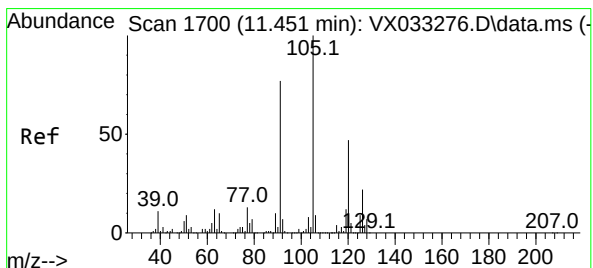
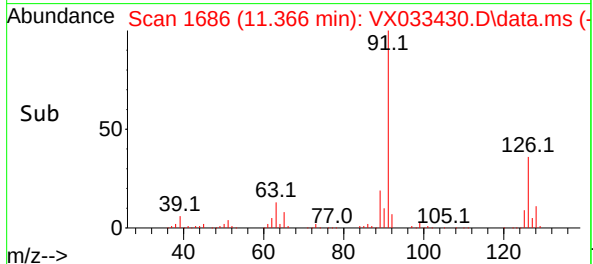
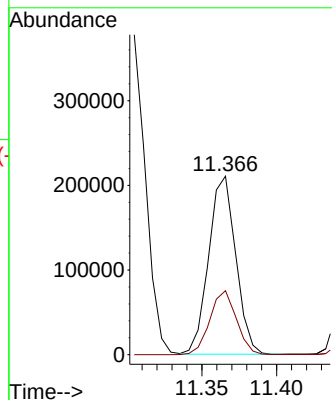
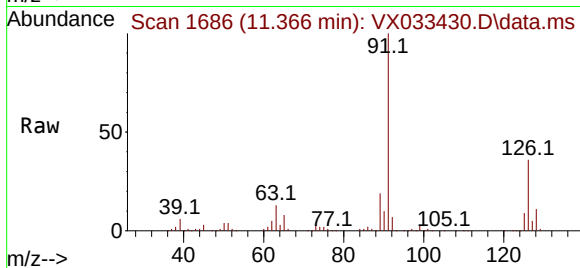
#79  
2-Chlorotoluene  
Concen: 51.178 ug/l  
RT: 11.366 min Scan# 1686  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050

Tgt Ion: 91 Resp: 26531  
Ion Ratio Lower Upper  
91 100  
126 35.3 17.1 51.2

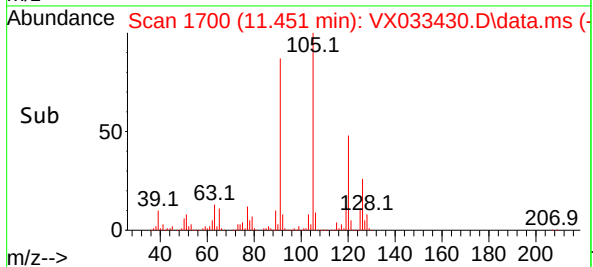
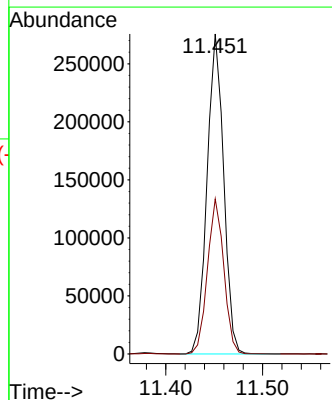
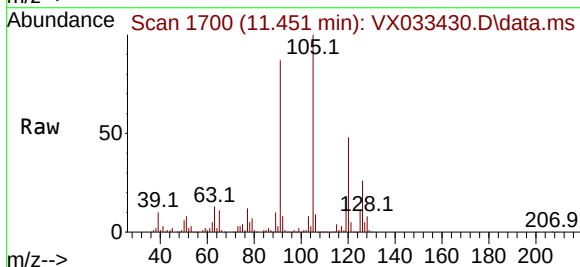
Manual Integrations  
**APPROVED**

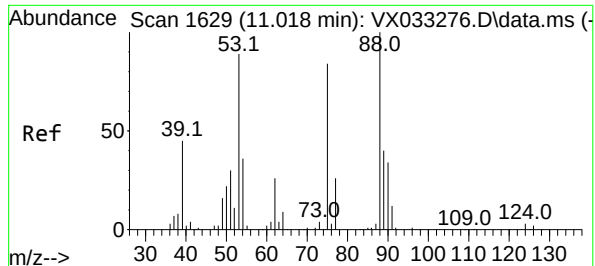
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#80  
1,3,5-Trimethylbenzene  
Concen: 52.584 ug/l  
RT: 11.451 min Scan# 1700  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

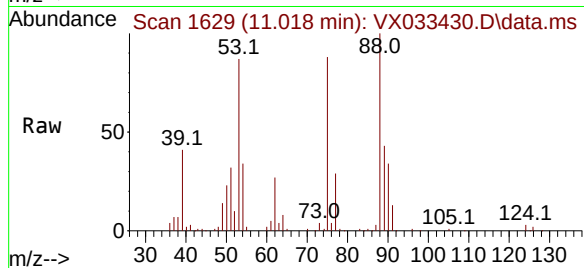
Tgt Ion:105 Resp: 328826  
Ion Ratio Lower Upper  
105 100  
120 47.9 23.6 71.0





#81  
trans-1,4-Dichloro-2-butene  
Concen: 47.686 ug/l  
RT: 11.018 min Scan# 1629  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

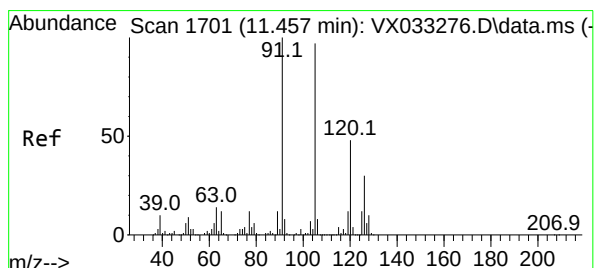
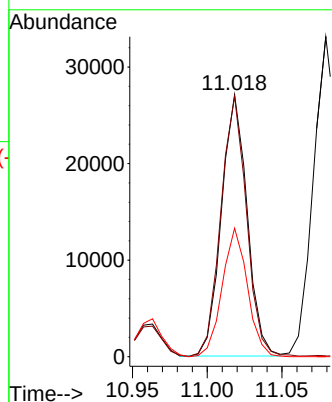
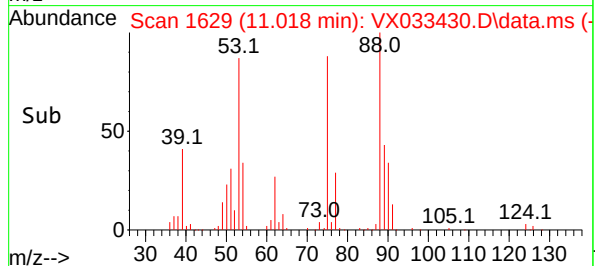
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050



Tgt Ion: 75 Resp: 32320  
Ion Ratio Lower Upper  
75 100  
53 100.0 86.9 130.3  
89 48.3 38.3 57.5

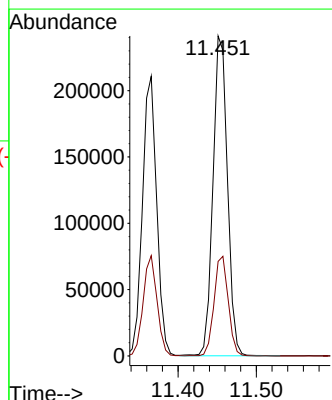
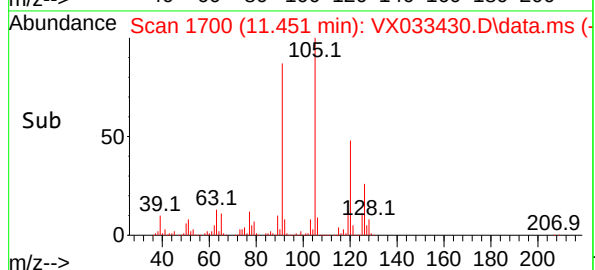
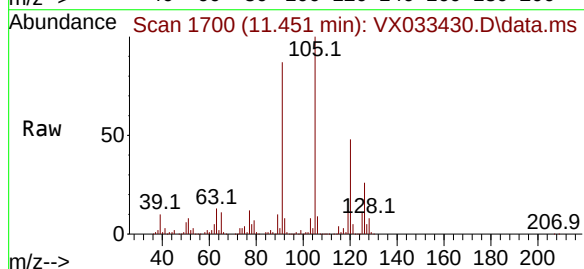
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

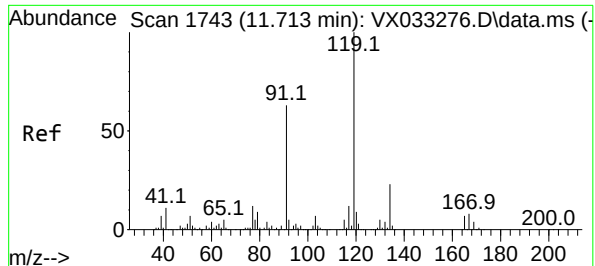


#82  
4-Chlorotoluene  
Concen: 51.072 ug/l  
RT: 11.451 min Scan# 1700  
Delta R.T. -0.006 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

Tgt Ion: 91 Resp: 307861  
Ion Ratio Lower Upper  
91 100  
126 30.8 14.8 44.4







#83

tert-Butylbenzene

Concen: 52.240 ug/l

RT: 11.713 min Scan# 1743

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion:119 Resp: 32576

Ion Ratio Lower Upper

119 100

91 58.2 29.4 88.2

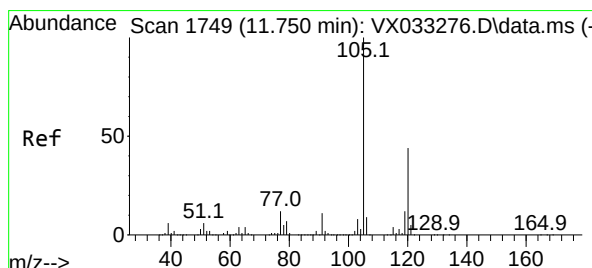
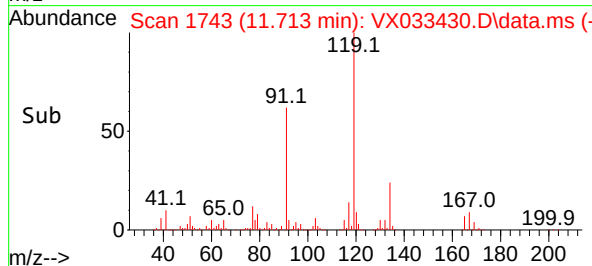
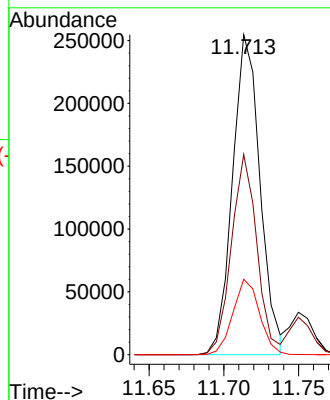
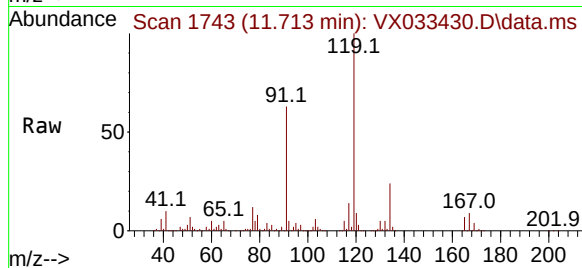
134 22.9 11.0 33.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#84

1,2,4-Trimethylbenzene

Concen: 52.274 ug/l

RT: 11.750 min Scan# 1749

Delta R.T. 0.000 min

Lab File: VX033430.D

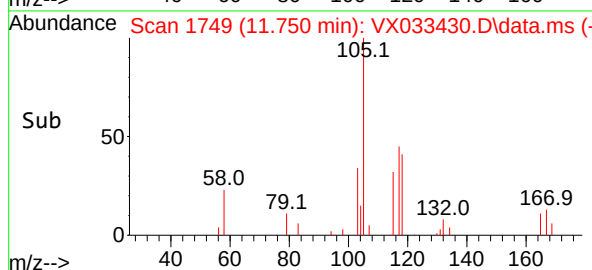
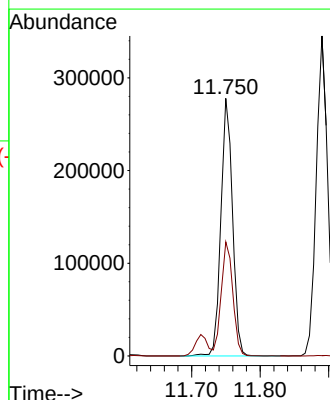
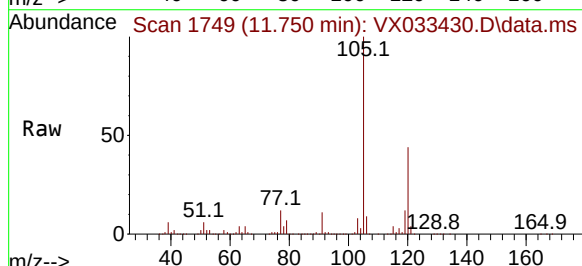
Acq: 15 Dec 2022 10:10

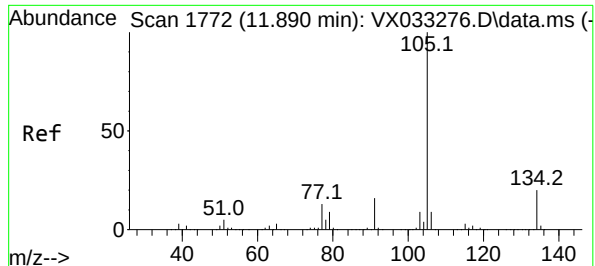
Tgt Ion:105 Resp: 326303

Ion Ratio Lower Upper

105 100

120 43.9 21.9 65.5





#85

sec-Butylbenzene

Concen: 55.088 ug/l

RT: 11.890 min Scan# 1772

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion:105 Resp: 400794

Ion Ratio Lower Upper

105 100

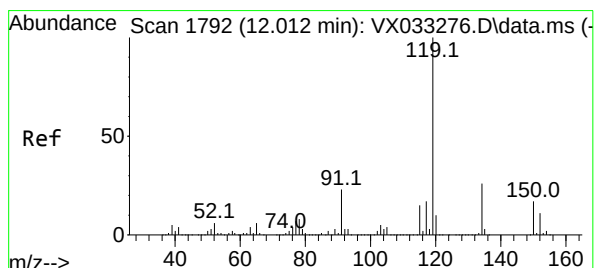
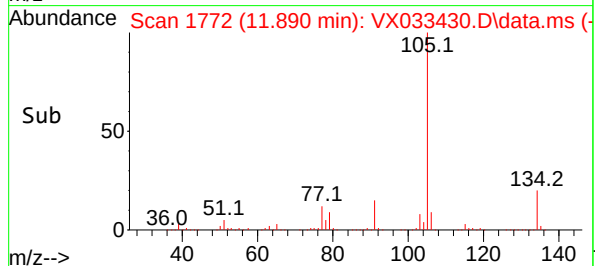
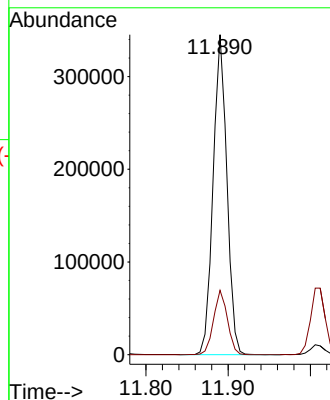
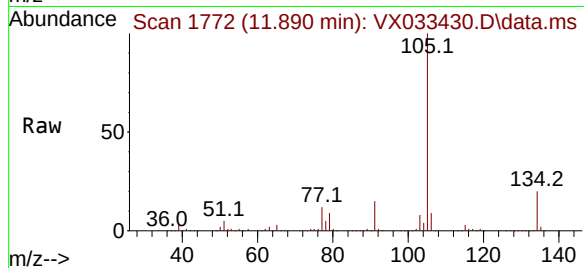
134 20.2 9.9 29.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#86

p-Isopropyltoluene

Concen: 54.230 ug/l

RT: 12.006 min Scan# 1791

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

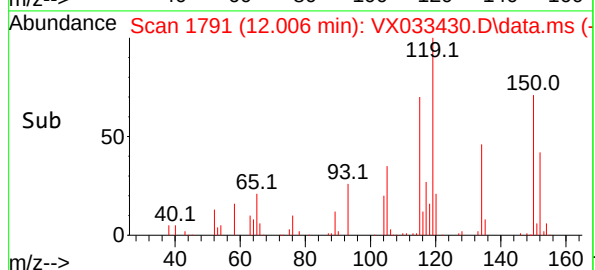
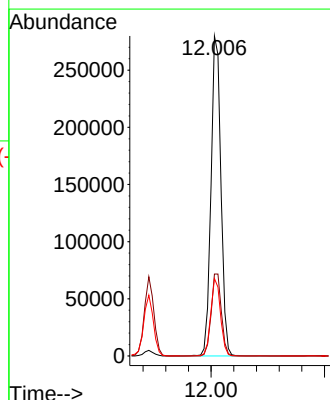
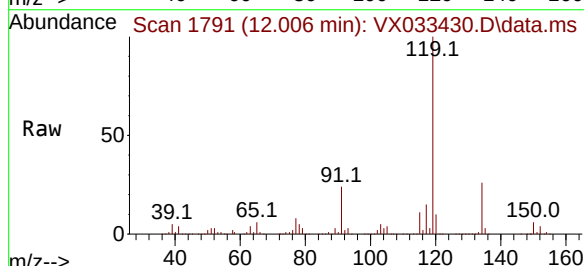
Tgt Ion:119 Resp: 340165

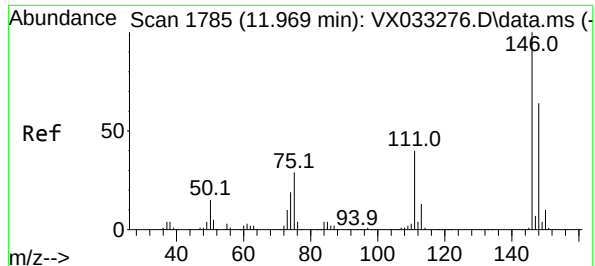
Ion Ratio Lower Upper

119 100

134 26.3 12.9 38.7

91 23.8 12.5 37.5





#87

1,3-Dichlorobenzene

Concen: 51.761 ug/l

RT: 11.969 min Scan# 1785

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion:146 Resp: 17787

Ion Ratio Lower Upper

146 100

111 40.4 20.6 61.8

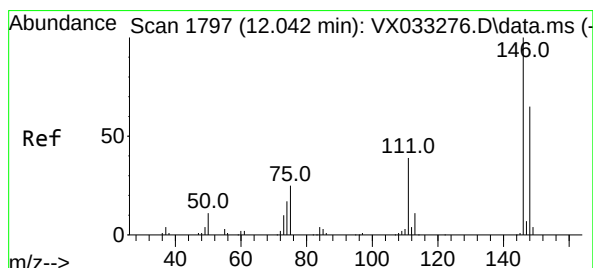
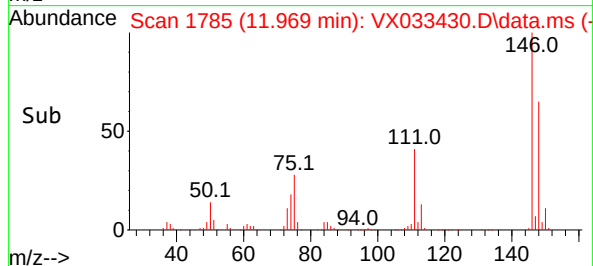
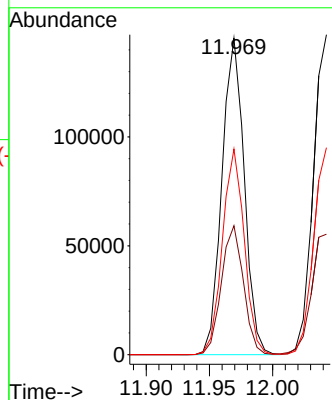
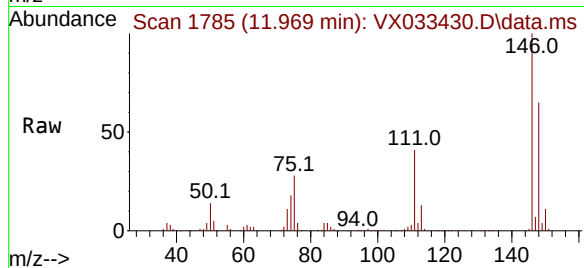
148 63.7 31.7 95.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#88

1,4-Dichlorobenzene

Concen: 50.770 ug/l

RT: 12.042 min Scan# 1797

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

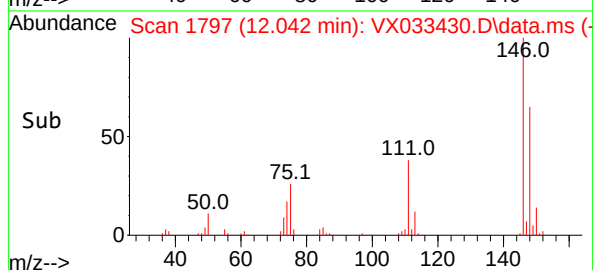
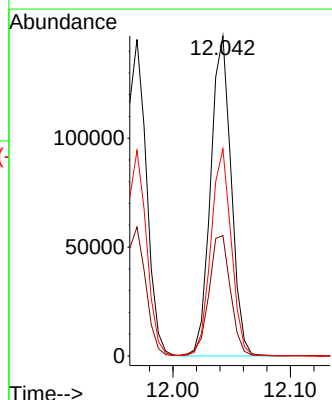
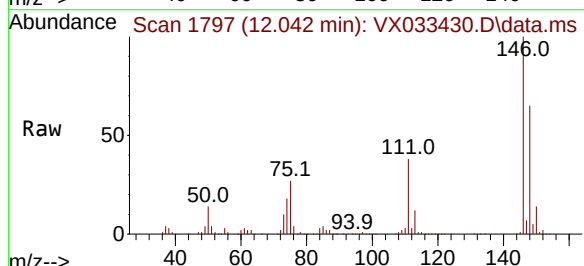
Tgt Ion:146 Resp: 178208

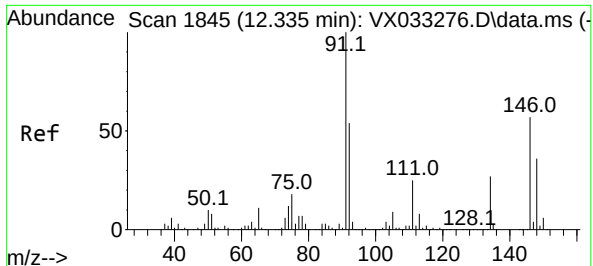
Ion Ratio Lower Upper

146 100

111 39.5 20.5 61.6

148 64.3 32.2 96.6





#89

n-Butylbenzene

Concen: 56.031 ug/l

RT: 12.329 min Scan# 1844

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion: 91 Resp: 28786

Ion Ratio Lower Upper

91 100

92 52.7 26.2 78.6

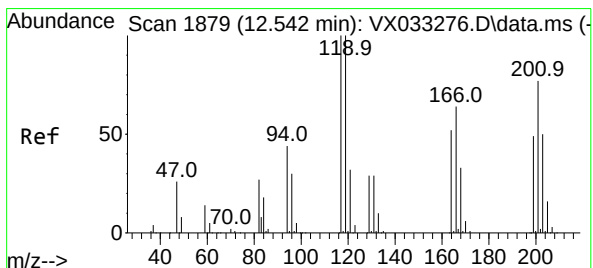
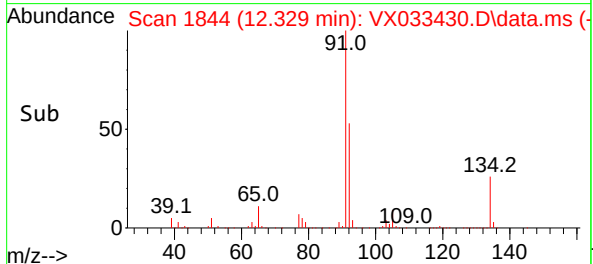
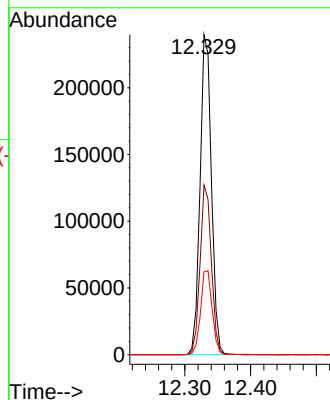
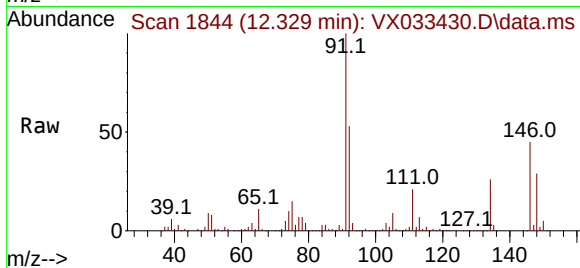
134 26.7 12.9 38.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#90

Hexachloroethane

Concen: 51.259 ug/l

RT: 12.536 min Scan# 1878

Delta R.T. -0.006 min

Lab File: VX033430.D

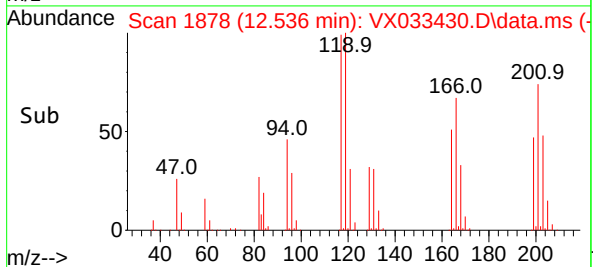
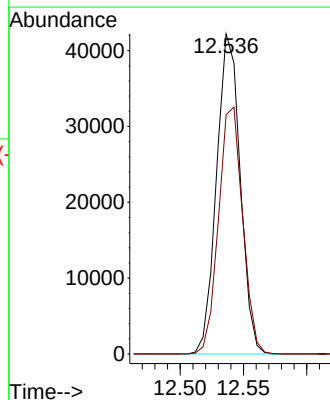
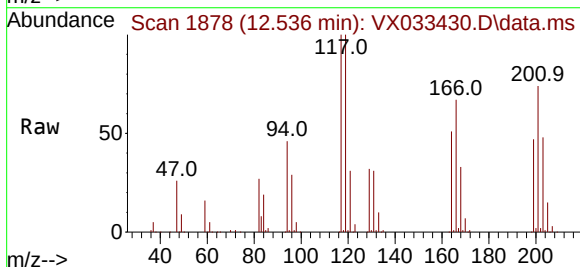
Acq: 15 Dec 2022 10:10

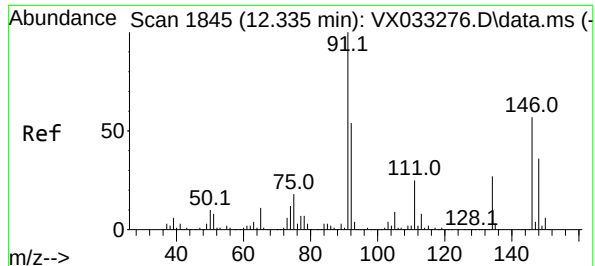
Tgt Ion:117 Resp: 54653

Ion Ratio Lower Upper

117 100

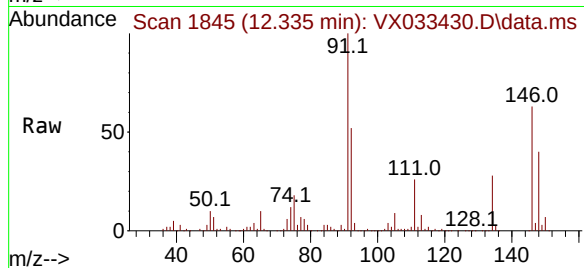
201 78.8 37.6 112.9





#91  
1,2-Dichlorobenzene  
Concen: 49.768 ug/l  
RT: 12.335 min Scan# 1845  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10

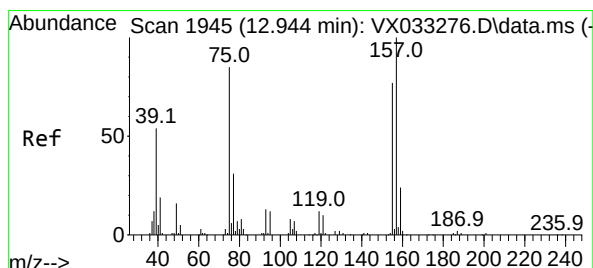
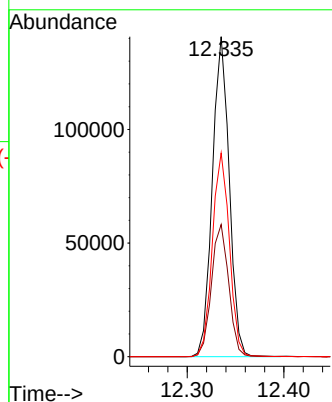
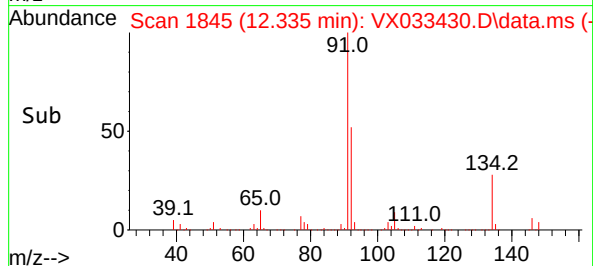
Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050



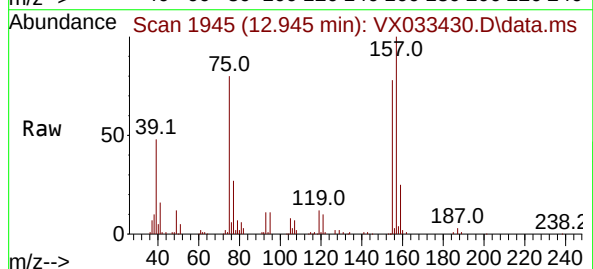
Tgt Ion:146 Resp: 170984  
Ion Ratio Lower Upper  
146 100  
111 42.2 21.5 64.5  
148 64.2 32.0 96.2

Manual Integrations  
APPROVED

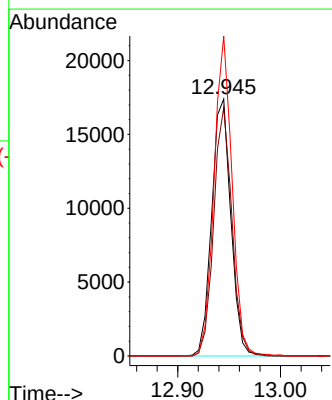
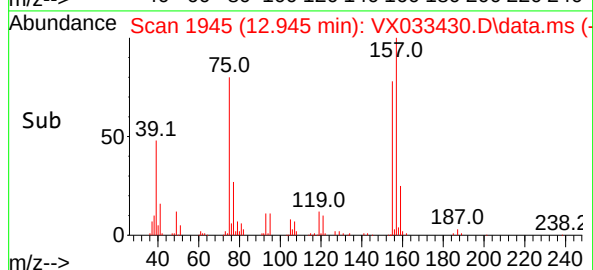
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

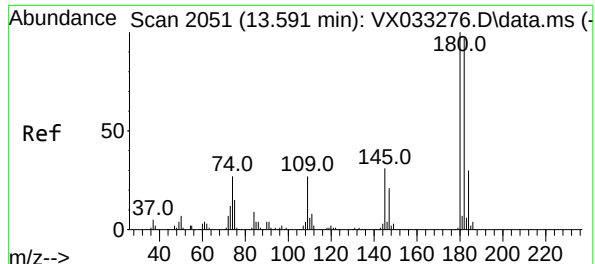


#92  
1,2-Dibromo-3-Chloropropane  
Concen: 43.655 ug/l  
RT: 12.945 min Scan# 1945  
Delta R.T. 0.000 min  
Lab File: VX033430.D  
Acq: 15 Dec 2022 10:10



Tgt Ion: 75 Resp: 22473  
Ion Ratio Lower Upper  
75 100  
155 91.9 41.6 124.8  
157 117.0 54.1 162.4





#93

1,2,4-Trichlorobenzene

Concen: 52.564 ug/l

RT: 13.585 min Scan# 2051

Delta R.T. -0.006 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion:180 Resp: 10906

Ion Ratio Lower Upper

180 100

182 95.7 48.4 145.0

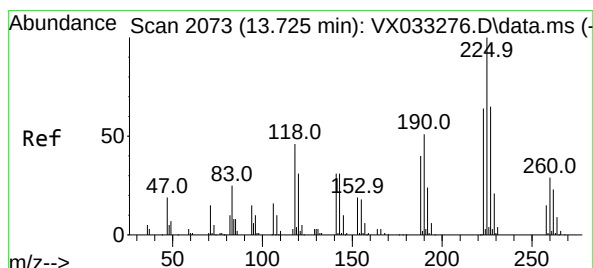
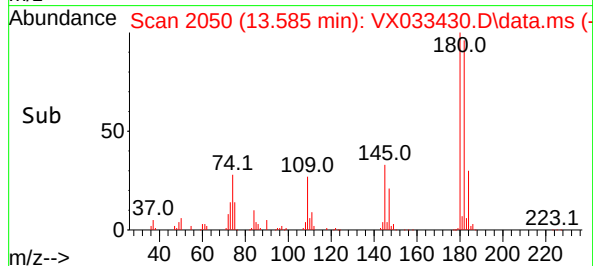
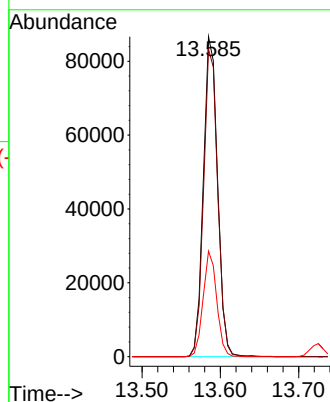
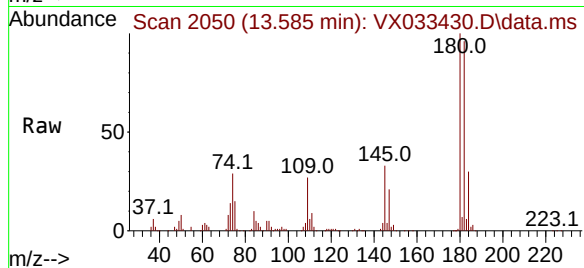
145 31.6 16.2 48.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#94

Hexachlorobutadiene

Concen: 55.517 ug/l

RT: 13.725 min Scan# 2073

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

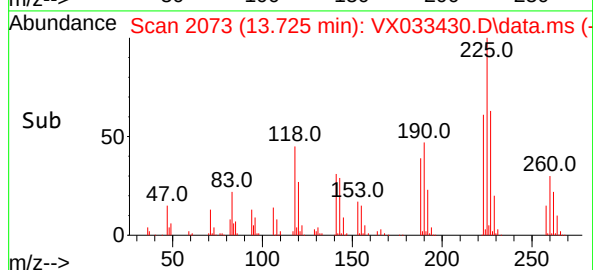
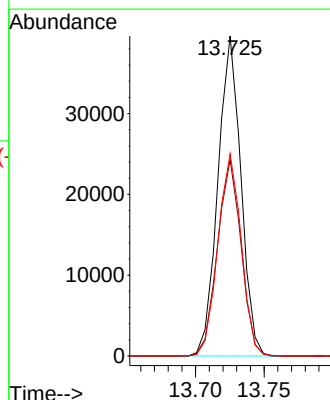
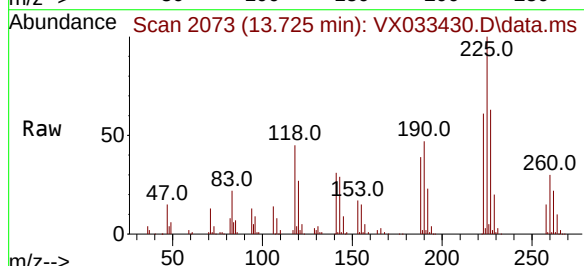
Tgt Ion:225 Resp: 46128

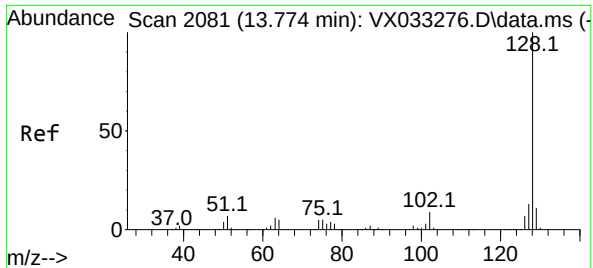
Ion Ratio Lower Upper

225 100

223 62.9 31.9 95.9

227 64.1 31.9 95.5





#95

Naphthalene

Concen: 50.172 ug/l

RT: 13.774 min Scan# 2081

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

Instrument :

MSVOA\_X

ClientSampleId :

VSTDCCC050

Tgt Ion:128 Resp: 34725

Ion Ratio Lower Upper

128 100

127 12.5 10.2 15.4

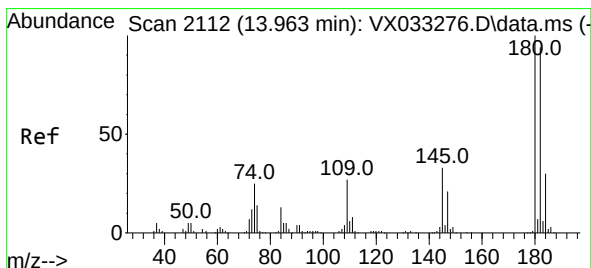
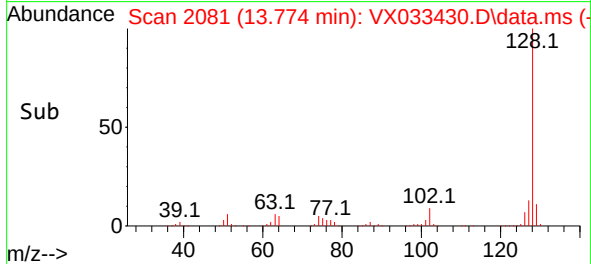
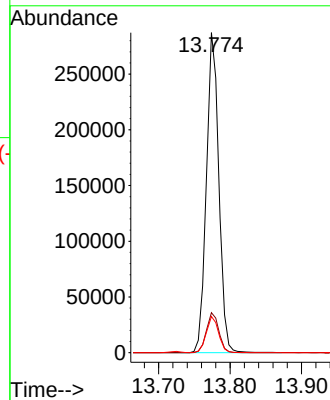
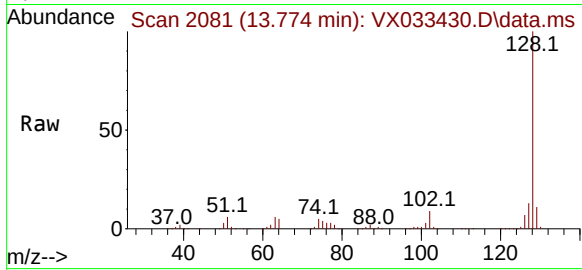
129 11.2 8.9 13.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#96

1,2,3-Trichlorobenzene

Concen: 50.808 ug/l

RT: 13.963 min Scan# 2112

Delta R.T. 0.000 min

Lab File: VX033430.D

Acq: 15 Dec 2022 10:10

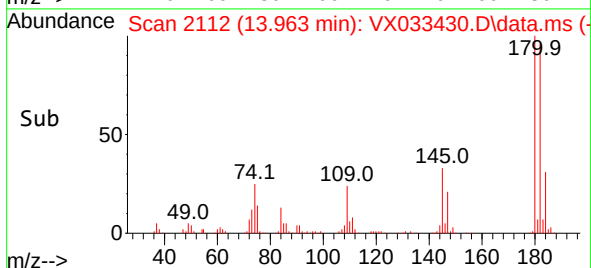
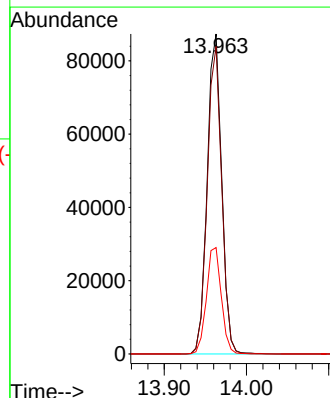
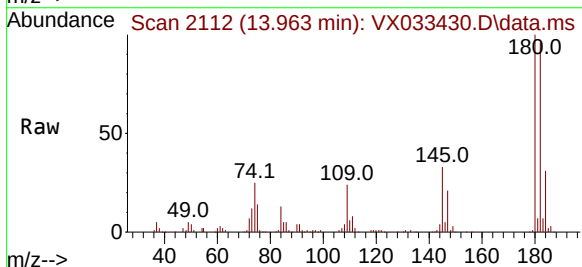
Tgt Ion:180 Resp: 106772

Ion Ratio Lower Upper

180 100

182 95.9 47.5 142.6

145 34.3 16.9 50.6



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
 Data File : VX033430.D  
 Acq On : 15 Dec 2022 10:10  
 Operator : JC/MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 LabSampleId :  
 VSTDCCC050

Quant Time: Dec 16 00:54:39 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 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   | 88    | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 0.349 | 0.341 | 2.3   | 91    | 0.00     |
| 3 P   | Chloromethane               | 0.404 | 0.338 | 16.3  | 82    | 0.00     |
| 4 C   | Vinyl Chloride              | 0.461 | 0.393 | 14.8# | 81    | 0.00     |
| 5 T   | Bromomethane                | 0.338 | 0.258 | 23.7  | 75    | 0.00     |
| 6 T   | Chloroethane                | 0.350 | 0.320 | 8.6   | 83    | 0.00     |
| 7 T   | Trichlorofluoromethane      | 0.866 | 0.605 | 30.1# | 65    | 0.00     |
| 8 T   | Diethyl Ether               | 0.313 | 0.215 | 31.3# | 69    | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 0.459 | 0.477 | -3.9  | 94    | 0.00     |
| 10 T  | Methyl Iodide               | 0.503 | 0.487 | 3.2   | 87    | 0.00     |
| 11 T  | Tert butyl alcohol          | 0.098 | 0.078 | 20.4  | 85    | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 0.453 | 0.431 | 4.9#  | 89    | 0.00     |
| 13 T  | Acrolein                    | 0.106 | 0.064 | 39.6# | 56    | 0.00     |
| 14 T  | Allyl chloride              | 0.724 | 0.661 | 8.7   | 85    | 0.00     |
| 15 T  | Acrylonitrile               | 0.243 | 0.212 | 12.8  | 82    | 0.00     |
| 16 T  | Acetone                     | 0.237 | 0.250 | -5.5  | 107   | 0.00     |
| 17 T  | Carbon Disulfide            | 1.163 | 1.017 | 12.6  | 81    | 0.00     |
| 18 T  | Methyl Acetate              | 0.687 | 0.623 | 9.3   | 85    | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 1.570 | 1.511 | 3.8   | 90    | 0.00     |
| 20 T  | Methylene Chloride          | 0.529 | 0.468 | 11.5  | 87    | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 0.496 | 0.475 | 4.2   | 89    | 0.00     |
| 22 T  | Diisopropyl ether           | 1.551 | 1.520 | 2.0   | 88    | -0.01    |
| 23 T  | Vinyl Acetate               | 1.204 | 1.143 | 5.1   | 85    | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 0.911 | 0.850 | 6.7   | 88    | 0.00     |
| 25 T  | 2-Butanone                  | 0.341 | 0.321 | 5.9   | 87    | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 0.670 | 0.697 | -4.0  | 94    | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 0.593 | 0.583 | 1.7   | 91    | 0.00     |
| 28 T  | Bromochloromethane          | 0.381 | 0.366 | 3.9   | 86    | -0.01    |
| 29 T  | Tetrahydrofuran             | 0.221 | 0.190 | 14.0  | 79    | -0.01    |
| 30 C  | Chloroform                  | 1.012 | 0.993 | 1.9#  | 91    | -0.01    |
| 31 T  | Cyclohexane                 | 0.762 | 0.748 | 1.8   | 88    | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 0.870 | 0.894 | -2.8  | 92    | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 0.321 | 0.273 | 15.0  | 83    | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 1.000 | 1.000 | 0.0   | 84    | 0.00     |
| 35 S  | Dibromofluoromethane        | 0.225 | 0.208 | 7.6   | 86    | -0.01    |
| 36 T  | 1,1-Dichloropropene         | 0.438 | 0.450 | -2.7  | 90    | 0.00     |
| 37 T  | Ethyl Acetate               | 0.414 | 0.379 | 8.5   | 80    | 0.00     |
| 38 T  | Carbon Tetrachloride        | 0.491 | 0.512 | -4.3  | 90    | 0.00     |
| 39 T  | Methylcyclohexane           | 0.491 | 0.540 | -10.0 | 92    | 0.00     |
| 40 TM | Benzene                     | 1.278 | 1.292 | -1.1  | 89    | 0.00     |
| 41 T  | Methacrylonitrile           | 0.228 | 0.216 | 5.3   | 81    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 0.508 | 0.505 | 0.6   | 89    | -0.01    |
| 43 T  | Isopropyl Acetate           | 0.667 | 0.638 | 4.3   | 84    | 0.00     |
| 44 TM | Trichloroethene             | 0.352 | 0.369 | -4.8  | 92    | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 0.327 | 0.330 | -0.9# | 90    | 0.00     |
| 46 T  | Dibromomethane              | 0.249 | 0.251 | -0.8  | 90    | 0.00     |
| 47 T  | Bromodichloromethane        | 0.485 | 0.508 | -4.7  | 91    | 0.00     |
| 48 T  | Methyl methacrylate         | 0.344 | 0.330 | 4.1   | 84    | 0.00     |



Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
 Data File : VX033430.D  
 Acq On : 15 Dec 2022 10:10  
 Operator : JC/MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 LabSampleId :  
 VSTDCCC050

Quant Time: Dec 16 00:54:39 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 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  | 78    | 0.00     |
| 50 S  | Toluene-d8                  | 0.470 | 0.455 | 3.2   | 86    | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 0.422 | 0.416 | 1.4   | 85    | 0.00     |
| 52 CM | Toluene                     | 0.827 | 0.905 | -9.4# | 93    | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 0.473 | 0.512 | -8.2  | 92    | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 0.517 | 0.549 | -6.2  | 90    | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 0.347 | 0.365 | -5.2  | 92    | 0.00     |
| 56 T  | Ethyl methacrylate          | 0.489 | 0.525 | -7.4  | 90    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 0.558 | 0.588 | -5.4  | 92    | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 0.224 | 0.214 | 4.5   | 80    | 0.00     |
| 59 T  | 2-Hexanone                  | 0.311 | 0.318 | -2.3  | 87    | 0.00     |
| 60 T  | Dibromochloromethane        | 0.383 | 0.421 | -9.9  | 94    | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 0.370 | 0.393 | -6.2  | 92    | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 0.360 | 0.370 | -2.8  | 88    | 0.00     |
| 63 I  | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0   | 88    | 0.00     |
| 64 T  | Tetrachloroethene           | 0.342 | 0.348 | -1.8  | 95    | 0.00     |
| 65 PM | Chlorobenzene               | 1.013 | 1.042 | -2.9  | 95    | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 0.383 | 0.394 | -2.9  | 93    | 0.00     |
| 67 C  | Ethyl Benzene               | 1.764 | 1.859 | -5.4# | 94    | 0.00     |
| 68 T  | m/p-Xylenes                 | 0.686 | 0.740 | -7.9  | 96    | 0.00     |
| 69 T  | o-Xylene                    | 0.678 | 0.712 | -5.0  | 93    | 0.00     |
| 70 T  | Styrene                     | 1.111 | 1.192 | -7.3  | 94    | 0.00     |
| 71 P  | Bromoform                   | 0.303 | 0.311 | -2.6  | 90    | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0   | 90    | 0.00     |
| 73 T  | Isopropylbenzene            | 3.624 | 3.763 | -3.8  | 95    | 0.00     |
| 74 T  | N-amyl acetate              | 1.236 | 1.207 | 2.3   | 88    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 1.150 | 1.092 | 5.0   | 90    | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 1.017 | 0.985 | 3.1   | 92    | 0.00     |
| 77 T  | Bromobenzene                | 0.915 | 0.929 | -1.5  | 97    | 0.00     |
| 78 T  | n-propylbenzene             | 4.047 | 4.318 | -6.7  | 96    | 0.00     |
| 79 T  | 2-Chlorotoluene             | 2.501 | 2.560 | -2.4  | 95    | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 3.017 | 3.173 | -5.2  | 96    | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 0.327 | 0.312 | 4.6   | 90    | 0.00     |
| 82 T  | 4-Chlorotoluene             | 2.908 | 2.970 | -2.1  | 96    | 0.00     |
| 83 T  | tert-Butylbenzene           | 3.008 | 3.143 | -4.5  | 95    | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 3.011 | 3.148 | -4.5  | 96    | 0.00     |
| 85 T  | sec-Butylbenzene            | 3.510 | 3.867 | -10.2 | 98    | 0.00     |
| 86 T  | p-Isopropyltoluene          | 3.026 | 3.282 | -8.5  | 98    | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 1.658 | 1.716 | -3.5  | 96    | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 1.693 | 1.719 | -1.5  | 97    | 0.00     |
| 89 T  | n-Butylbenzene              | 2.478 | 2.777 | -12.1 | 100   | 0.00     |
| 90 T  | Hexachloroethane            | 0.514 | 0.527 | -2.5  | 94    | 0.00     |
| 91 T  | 1,2-Dichlorobenzene         | 1.657 | 1.650 | 0.4   | 95    | 0.00     |
| 92 T  | 1,2-Dibromo-3-Chloropropane | 0.248 | 0.217 | 12.5  | 84    | 0.00     |
| 93 T  | 1,2,4-Trichlorobenzene      | 1.001 | 1.052 | -5.1  | 99    | 0.00     |
| 94 T  | Hexachlorobutadiene         | 0.401 | 0.445 | -11.0 | 105   | 0.00     |
| 95 T  | Naphthalene                 | 3.339 | 3.350 | -0.3  | 91    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033430.D  
Acq On : 15 Dec 2022 10:10  
Operator : JC/MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
LabSampleId :  
VSTDCCC050

Quant Time: Dec 16 00:54:39 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
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 | 1.014 | 1.030 | -1.6 | 94    | 0.00     |

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
 Data File : VX033430.D  
 Acq On : 15 Dec 2022 10:10  
 Operator : JC/MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 LabSampleId :  
 VSTDCCC050

Quant Time: Dec 16 00:54:39 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 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   | 88    | 0.00     |
| 2 T   | Dichlorodifluoromethane     | 50.000  | 48.857  | 2.3   | 91    | 0.00     |
| 3 P   | Chloromethane               | 50.000  | 41.907  | 16.2  | 82    | 0.00     |
| 4 C   | Vinyl Chloride              | 50.000  | 42.593  | 14.8# | 81    | 0.00     |
| 5 T   | Bromomethane                | 50.000  | 38.059  | 23.9  | 75    | 0.00     |
| 6 T   | Chloroethane                | 50.000  | 45.688  | 8.6   | 83    | 0.00     |
| 7 T   | Trichlorofluoromethane      | 50.000  | 34.963  | 30.1# | 65    | 0.00     |
| 8 T   | Diethyl Ether               | 50.000  | 34.367  | 31.3# | 69    | 0.00     |
| 9 T   | 1,1,2-Trichlorotrifluoroeth | 50.000  | 51.935  | -3.9  | 94    | 0.00     |
| 10 T  | Methyl Iodide               | 50.000  | 48.441  | 3.1   | 87    | 0.00     |
| 11 T  | Tert butyl alcohol          | 250.000 | 198.723 | 20.5  | 85    | 0.00     |
| 12 CM | 1,1-Dichloroethene          | 50.000  | 47.504  | 5.0#  | 89    | 0.00     |
| 13 T  | Acrolein                    | 250.000 | 150.751 | 39.7# | 56    | 0.00     |
| 14 T  | Allyl chloride              | 50.000  | 45.680  | 8.6   | 85    | 0.00     |
| 15 T  | Acrylonitrile               | 250.000 | 217.703 | 12.9  | 82    | 0.00     |
| 16 T  | Acetone                     | 250.000 | 263.734 | -5.5  | 107   | 0.00     |
| 17 T  | Carbon Disulfide            | 50.000  | 43.713  | 12.6  | 81    | 0.00     |
| 18 T  | Methyl Acetate              | 50.000  | 45.331  | 9.3   | 85    | 0.00     |
| 19 T  | Methyl tert-butyl Ether     | 50.000  | 48.117  | 3.8   | 90    | 0.00     |
| 20 T  | Methylene Chloride          | 50.000  | 44.186  | 11.6  | 87    | 0.00     |
| 21 T  | trans-1,2-Dichloroethene    | 50.000  | 47.906  | 4.2   | 89    | 0.00     |
| 22 T  | Diisopropyl ether           | 50.000  | 49.007  | 2.0   | 88    | -0.01    |
| 23 T  | Vinyl Acetate               | 250.000 | 237.436 | 5.0   | 85    | 0.00     |
| 24 P  | 1,1-Dichloroethane          | 50.000  | 46.634  | 6.7   | 88    | 0.00     |
| 25 T  | 2-Butanone                  | 250.000 | 235.335 | 5.9   | 87    | 0.00     |
| 26 T  | 2,2-Dichloropropane         | 50.000  | 52.038  | -4.1  | 94    | 0.00     |
| 27 T  | cis-1,2-Dichloroethene      | 50.000  | 49.154  | 1.7   | 91    | 0.00     |
| 28 T  | Bromochloromethane          | 50.000  | 48.028  | 3.9   | 86    | -0.01    |
| 29 T  | Tetrahydrofuran             | 250.000 | 215.085 | 14.0  | 79    | -0.01    |
| 30 C  | Chloroform                  | 50.000  | 49.069  | 1.9#  | 91    | -0.01    |
| 31 T  | Cyclohexane                 | 50.000  | 49.051  | 1.9   | 88    | 0.00     |
| 32 T  | 1,1,1-Trichloroethane       | 50.000  | 51.371  | -2.7  | 92    | 0.00     |
| 33 S  | 1,2-Dichloroethane-d4       | 50.000  | 42.623  | 14.8  | 83    | 0.00     |
| 34 I  | 1,4-Difluorobenzene         | 50.000  | 50.000  | 0.0   | 84    | 0.00     |
| 35 S  | Dibromofluoromethane        | 50.000  | 46.257  | 7.5   | 86    | -0.01    |
| 36 T  | 1,1-Dichloropropene         | 50.000  | 51.308  | -2.6  | 90    | 0.00     |
| 37 T  | Ethyl Acetate               | 50.000  | 45.696  | 8.6   | 80    | 0.00     |
| 38 T  | Carbon Tetrachloride        | 50.000  | 52.107  | -4.2  | 90    | 0.00     |
| 39 T  | Methylcyclohexane           | 50.000  | 54.993  | -10.0 | 92    | 0.00     |
| 40 TM | Benzene                     | 50.000  | 50.524  | -1.0  | 89    | 0.00     |
| 41 T  | Methacrylonitrile           | 50.000  | 47.333  | 5.3   | 81    | 0.00     |
| 42 TM | 1,2-Dichloroethane          | 50.000  | 49.784  | 0.4   | 89    | -0.01    |
| 43 T  | Isopropyl Acetate           | 50.000  | 47.844  | 4.3   | 84    | 0.00     |
| 44 TM | Trichloroethene             | 50.000  | 52.390  | -4.8  | 92    | 0.00     |
| 45 C  | 1,2-Dichloropropane         | 50.000  | 50.412  | -0.8# | 90    | 0.00     |
| 46 T  | Dibromomethane              | 50.000  | 50.361  | -0.7  | 90    | 0.00     |
| 47 T  | Bromodichloromethane        | 50.000  | 52.352  | -4.7  | 91    | 0.00     |
| 48 T  | Methyl methacrylate         | 50.000  | 47.923  | 4.2   | 84    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
 Data File : VX033430.D  
 Acq On : 15 Dec 2022 10:10  
 Operator : JC/MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 LabSampleId :  
 VSTDCCC050

Quant Time: Dec 16 00:54:39 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 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 | 884.207 | 11.6  | 78    | 0.00     |
| 50 S  | Toluene-d8                  | 50.000   | 48.378  | 3.2   | 86    | 0.00     |
| 51 T  | 4-Methyl-2-Pentanone        | 250.000  | 246.435 | 1.4   | 85    | 0.00     |
| 52 CM | Toluene                     | 50.000   | 54.761  | -9.5# | 93    | 0.00     |
| 53 T  | t-1,3-Dichloropropene       | 50.000   | 49.141  | 1.7   | 92    | 0.00     |
| 54 T  | cis-1,3-Dichloropropene     | 50.000   | 53.138  | -6.3  | 90    | 0.00     |
| 55 T  | 1,1,2-Trichloroethane       | 50.000   | 52.574  | -5.1  | 92    | 0.00     |
| 56 T  | Ethyl methacrylate          | 50.000   | 53.687  | -7.4  | 90    | 0.00     |
| 57 T  | 1,3-Dichloropropane         | 50.000   | 52.677  | -5.4  | 92    | 0.00     |
| 58 T  | 2-Chloroethyl Vinyl ether   | 250.000  | 238.862 | 4.5   | 80    | 0.00     |
| 59 T  | 2-Hexanone                  | 250.000  | 255.739 | -2.3  | 87    | 0.00     |
| 60 T  | Dibromochloromethane        | 50.000   | 54.930  | -9.9  | 94    | 0.00     |
| 61 T  | 1,2-Dibromoethane           | 50.000   | 53.222  | -6.4  | 92    | 0.00     |
| 62 S  | 4-Bromofluorobenzene        | 50.000   | 51.395  | -2.8  | 88    | 0.00     |
| 63 I  | Chlorobenzene-d5            | 50.000   | 50.000  | 0.0   | 88    | 0.00     |
| 64 T  | Tetrachloroethene           | 50.000   | 50.953  | -1.9  | 95    | 0.00     |
| 65 PM | Chlorobenzene               | 50.000   | 51.464  | -2.9  | 95    | 0.00     |
| 66 T  | 1,1,1,2-Tetrachloroethane   | 50.000   | 51.451  | -2.9  | 93    | 0.00     |
| 67 C  | Ethyl Benzene               | 50.000   | 52.692  | -5.4# | 94    | 0.00     |
| 68 T  | m/p-Xylenes                 | 100.000  | 107.856 | -7.9  | 96    | 0.00     |
| 69 T  | o-Xylene                    | 50.000   | 52.510  | -5.0  | 93    | 0.00     |
| 70 T  | Styrene                     | 50.000   | 53.646  | -7.3  | 94    | 0.00     |
| 71 P  | Bromoform                   | 50.000   | 51.374  | -2.7  | 90    | 0.00     |
| 72 I  | 1,4-Dichlorobenzene-d4      | 50.000   | 50.000  | 0.0   | 90    | 0.00     |
| 73 T  | Isopropylbenzene            | 50.000   | 51.922  | -3.8  | 95    | 0.00     |
| 74 T  | N-ethyl acetate             | 50.000   | 48.802  | 2.4   | 88    | 0.00     |
| 75 P  | 1,1,2,2-Tetrachloroethane   | 50.000   | 47.488  | 5.0   | 90    | 0.00     |
| 76 T  | 1,2,3-Trichloropropane      | 50.000   | 48.402  | 3.2   | 92    | 0.00     |
| 77 T  | Bromobenzene                | 50.000   | 50.759  | -1.5  | 97    | 0.00     |
| 78 T  | n-propylbenzene             | 50.000   | 53.354  | -6.7  | 96    | 0.00     |
| 79 T  | 2-Chlorotoluene             | 50.000   | 51.178  | -2.4  | 95    | 0.00     |
| 80 T  | 1,3,5-Trimethylbenzene      | 50.000   | 52.584  | -5.2  | 96    | 0.00     |
| 81 T  | trans-1,4-Dichloro-2-butene | 50.000   | 47.686  | 4.6   | 90    | 0.00     |
| 82 T  | 4-Chlorotoluene             | 50.000   | 51.072  | -2.1  | 96    | 0.00     |
| 83 T  | tert-Butylbenzene           | 50.000   | 52.240  | -4.5  | 95    | 0.00     |
| 84 T  | 1,2,4-Trimethylbenzene      | 50.000   | 52.274  | -4.5  | 96    | 0.00     |
| 85 T  | sec-Butylbenzene            | 50.000   | 55.088  | -10.2 | 98    | 0.00     |
| 86 T  | p-Isopropyltoluene          | 50.000   | 54.230  | -8.5  | 98    | 0.00     |
| 87 T  | 1,3-Dichlorobenzene         | 50.000   | 51.761  | -3.5  | 96    | 0.00     |
| 88 T  | 1,4-Dichlorobenzene         | 50.000   | 50.770  | -1.5  | 97    | 0.00     |
| 89 T  | n-Butylbenzene              | 50.000   | 56.031  | -12.1 | 100   | 0.00     |
| 90 T  | Hexachloroethane            | 50.000   | 51.259  | -2.5  | 94    | 0.00     |
| 91 T  | 1,2-Dichlorobenzene         | 50.000   | 49.768  | 0.5   | 95    | 0.00     |
| 92 T  | 1,2-Dibromo-3-Chloropropane | 50.000   | 43.655  | 12.7  | 84    | 0.00     |
| 93 T  | 1,2,4-Trichlorobenzene      | 50.000   | 52.564  | -5.1  | 99    | 0.00     |
| 94 T  | Hexachlorobutadiene         | 50.000   | 55.517  | -11.0 | 105   | 0.00     |
| 95 T  | Naphthalene                 | 50.000   | 50.172  | -0.3  | 91    | 0.00     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033430.D  
Acq On : 15 Dec 2022 10:10  
Operator : JC/MD  
Sample : VSTDCCC050  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
LabSampleId :  
VSTDCCC050

Quant Time: Dec 16 00:54:39 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
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 | 50.808 | -1.6 | 94    | 0.00     |

(#) = Out of Range                      SPCC's out = 0    CCC's out = 6

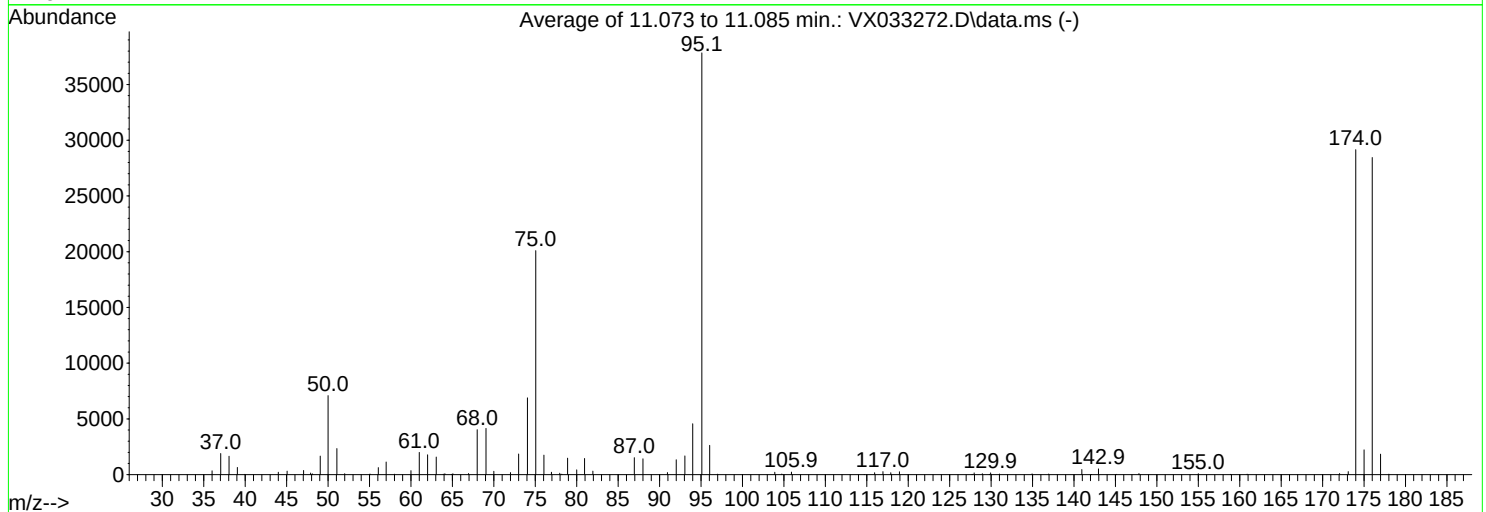
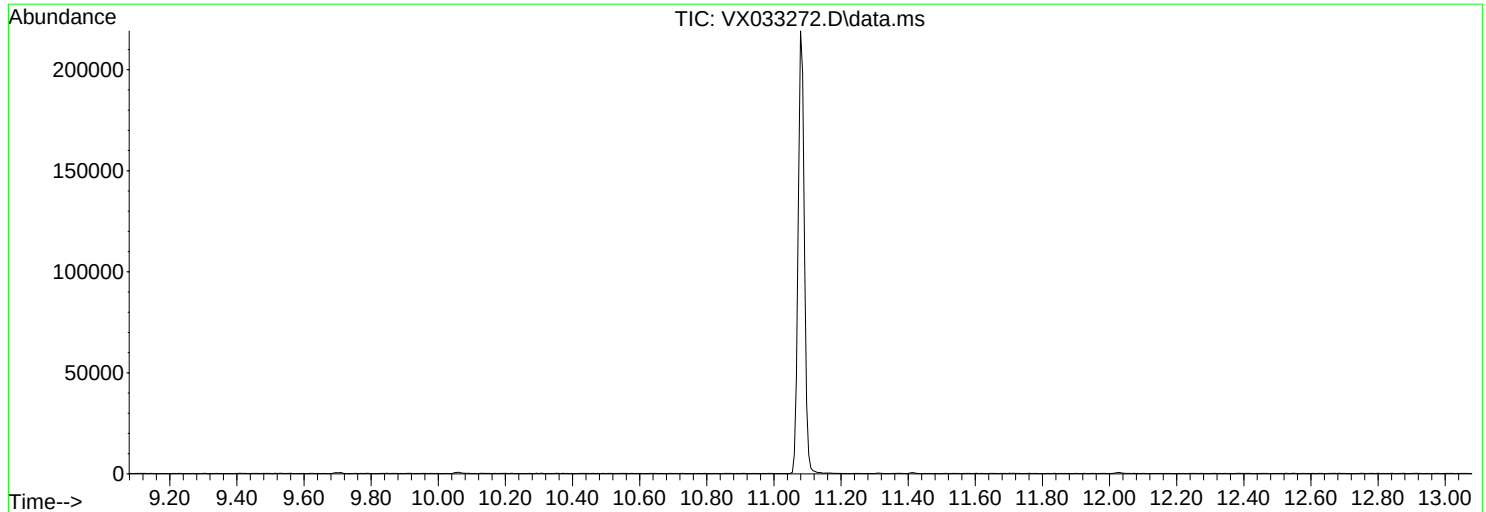
# QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX120722\  
Data File : VX033272.D  
Acq On : 07 Dec 2022 09:17  
Operator : JC/MD  
Sample : BFB  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Title : SW846 8260  
Last Update : Wed Dec 07 12:43:54 2022



AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1632

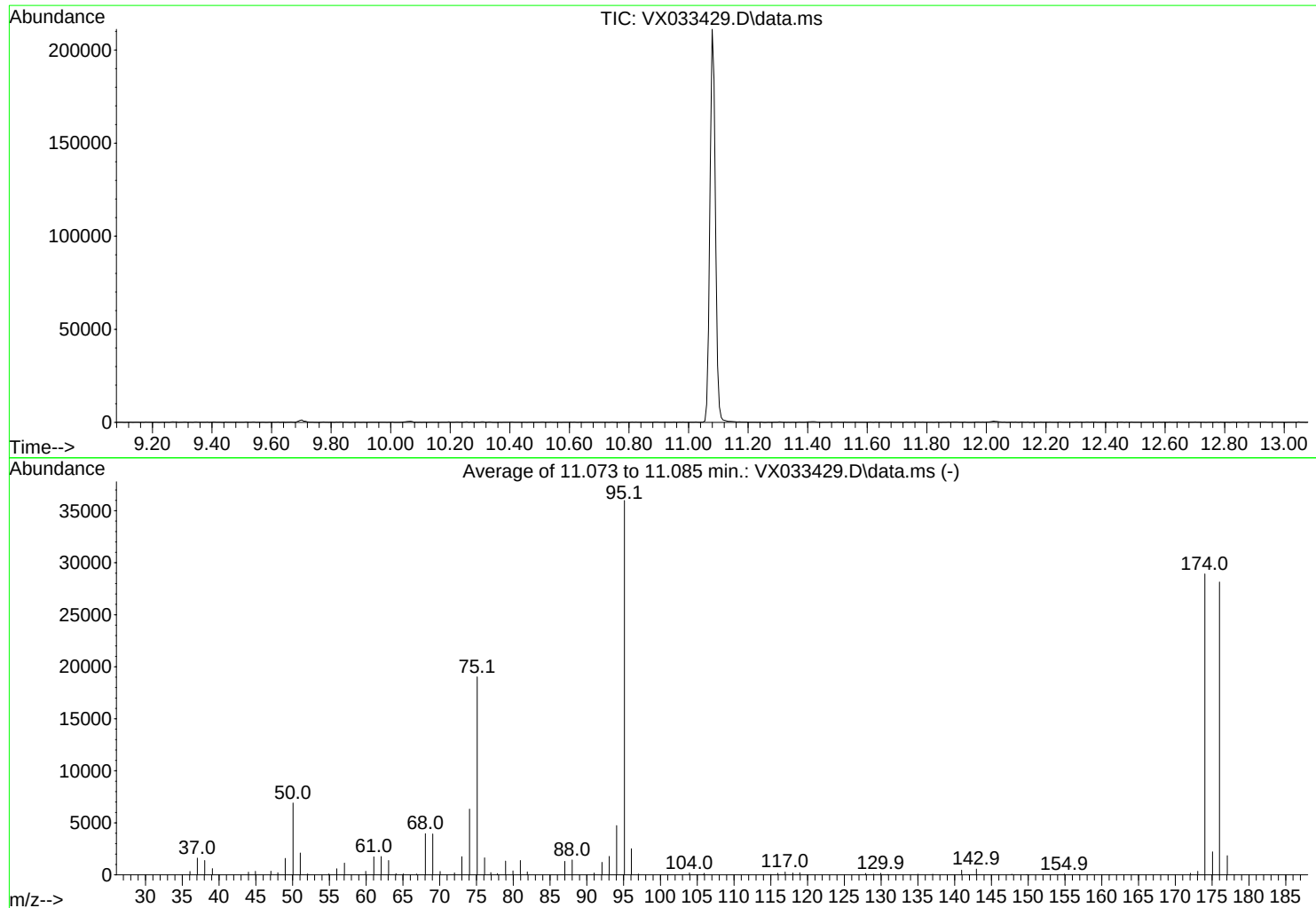
| Target<br>Mass | Rel. to<br>Mass | Lower<br>Limit% | Upper<br>Limit% | Rel.<br>Abn% | Raw<br>Abn | Result<br>Pass/Fail |
|----------------|-----------------|-----------------|-----------------|--------------|------------|---------------------|
| 50             | 95              | 15              | 40              | 18.7         | 7090       | PASS                |
| 75             | 95              | 30              | 60              | 53.1         | 20095      | PASS                |
| 95             | 95              | 100             | 100             | 100.0        | 37840      | PASS                |
| 96             | 95              | 5               | 9               | 6.9          | 2623       | PASS                |
| 173            | 174             | 0.00            | 2               | 0.9          | 270        | PASS                |
| 174            | 95              | 50              | 100             | 77.0         | 29149      | PASS                |
| 175            | 174             | 5               | 9               | 7.6          | 2227       | PASS                |
| 176            | 174             | 95              | 101             | 97.6         | 28448      | PASS                |
| 177            | 176             | 5               | 9               | 6.5          | 1841       | PASS                |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033429.D  
Acq On : 15 Dec 2022 09:39  
Operator : JC/MD  
Sample : BFB  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Title : SW846 8260  
Last Update : Wed Dec 07 12:43:54 2022



AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1632

| 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              | 19.2         | 6908       | PASS                |
| 75             | 95              | 30              | 60              | 52.9         | 19031      | PASS                |
| 95             | 95              | 100             | 100             | 100.0        | 35987      | PASS                |
| 96             | 95              | 5               | 9               | 7.0          | 2518       | PASS                |
| 173            | 174             | 0.00            | 2               | 1.2          | 336        | PASS                |
| 174            | 95              | 50              | 100             | 80.4         | 28931      | PASS                |
| 175            | 174             | 5               | 9               | 7.6          | 2209       | PASS                |
| 176            | 174             | 95              | 101             | 97.3         | 28149      | PASS                |
| 177            | 176             | 5               | 9               | 6.6          | 1847       | PASS                |





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

## Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: |              |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  |              |
| Client Sample ID:  | VX1215WBL01                           | SDG No.:        | N6070        |
| Lab Sample ID:     | VX1215WBL01                           | Matrix:         | Water        |
| Analytical Method: | SW8260                                | % Moisture:     | 100          |
| Sample Wt/Vol:     | 5 Units: mL                           | Final Vol:      | 5000 uL      |
| Soil Aliquot Vol:  | uL                                    | Test:           | VOCMS Group3 |
| GC Column:         | DB-624UI ID : 0.18                    | Level :         | LOW          |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VX033431.D        | 1         |           | 12/15/22 10:39 | VX121522      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |                     |            |         |
| 75-01-4                   | Vinyl Chloride         | 0.22   | U         | 0.22                | 1.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 0.23   | U         | 0.23                | 1.00       | ug/L    |
| 75-34-3                   | 1,1-Dichloroethane     | 0.20   | U         | 0.20                | 1.00       | ug/L    |
| 156-59-2                  | cis-1,2-Dichloroethene | 0.17   | U         | 0.17                | 1.00       | ug/L    |
| 71-55-6                   | 1,1,1-Trichloroethane  | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| 71-43-2                   | Benzene                | 0.16   | U         | 0.16                | 1.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 0.27   | U         | 0.27                | 1.00       | ug/L    |
| 79-00-5                   | 1,1,2-Trichloroethane  | 0.19   | U         | 0.19                | 1.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 0.18   | U         | 0.18                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 43.0   |           | 70 (74) - 130 (125) | 86%        | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 43.9   |           | 70 (75) - 130 (124) | 88%        | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 42.9   |           | 70 (86) - 130 (113) | 86%        | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 43.5   |           | 70 (64) - 130 (133) | 87%        | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 143000 | 5.55      |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 224000 | 6.757     |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 198000 | 10.055    |                     |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 92100  | 12.024    |                     |            |         |

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\_X\Data\VX121522\  
 Data File : VX033431.D  
 Acq On : 15 Dec 2022 10:39  
 Operator : JC/MD  
 Sample : VX1215WBL01  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX1215WBL01

Quant Time: Dec 16 00:59:15 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

| Compound                    | R.T.   | QIon  | Response | Conc     | Units | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|-------|----------|
| -----                       |        |       |          |          |       |          |
| Internal Standards          |        |       |          |          |       |          |
| 1) Pentafluorobenzene       | 5.550  | 168   | 143365   | 50.000   | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene     | 6.757  | 114   | 223781   | 50.000   | ug/l  | 0.00     |
| 63) Chlorobenzene-d5        | 10.055 | 117   | 198464   | 50.000   | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4  | 12.024 | 152   | 92099    | 50.000   | ug/l  | 0.00     |
| System Monitoring Compounds |        |       |          |          |       |          |
| 33) 1,2-Dichloroethane-d4   | 5.952  | 65    | 39540    | 42.991   | ug/l  | 0.00     |
| Spiked Amount               | 50.000 | Range | 78 - 117 | Recovery | =     | 85.980%  |
| 35) Dibromofluoromethane    | 5.385  | 113   | 44225    | 43.938   | ug/l  | 0.00     |
| Spiked Amount               | 50.000 | Range | 75 - 124 | Recovery | =     | 87.880%  |
| 50) Toluene-d8              | 8.647  | 98    | 90233    | 42.854   | ug/l  | 0.00     |
| Spiked Amount               | 50.000 | Range | 92 - 112 | Recovery | =     | 85.700%# |
| 62) 4-Bromofluorobenzene    | 11.079 | 95    | 70078    | 43.528   | ug/l  | 0.00     |
| Spiked Amount               | 50.000 | Range | 83 - 123 | Recovery | =     | 87.060%  |

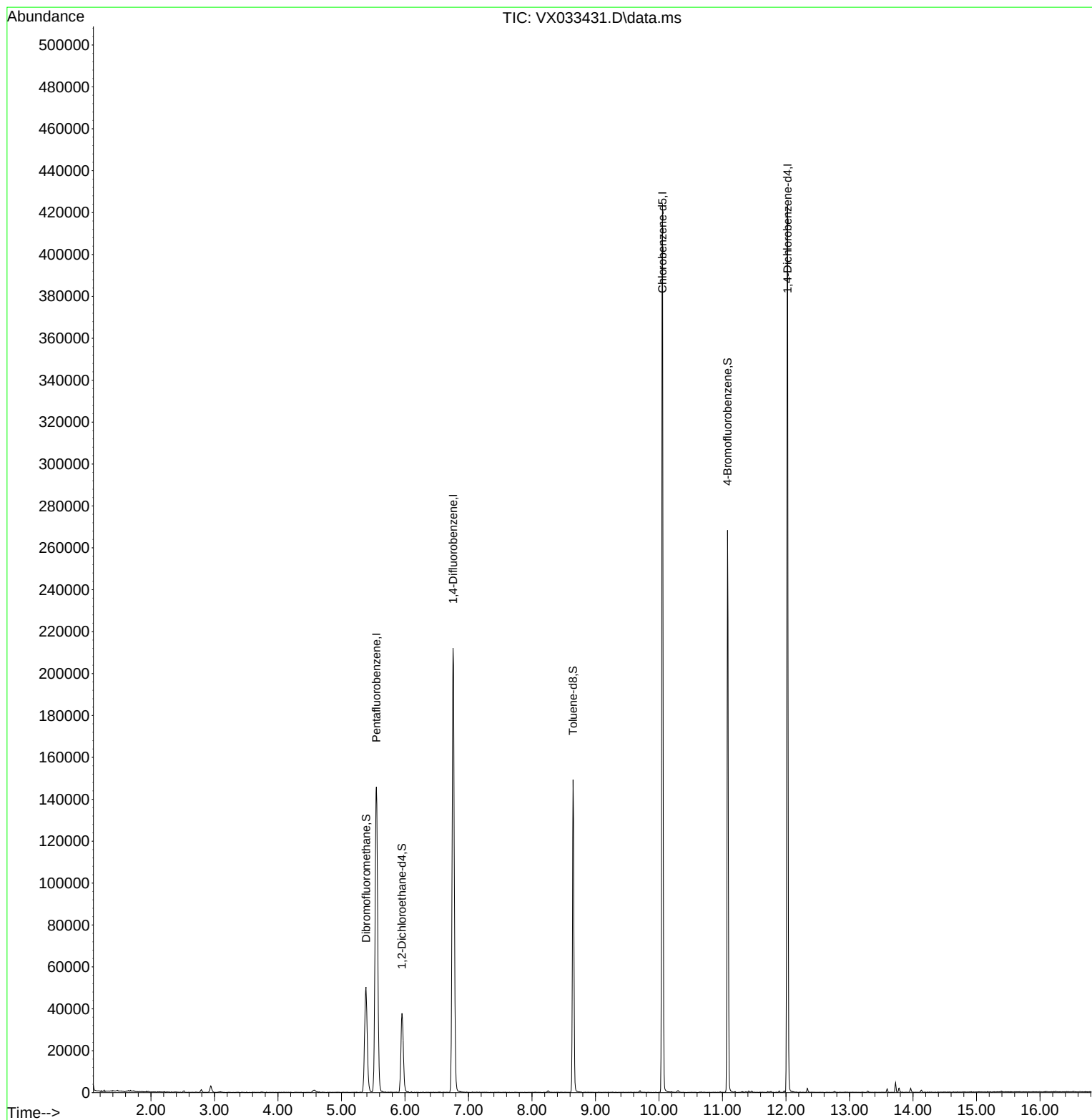
|                  |        |
|------------------|--------|
| Target Compounds | Qvalue |
| -----            |        |

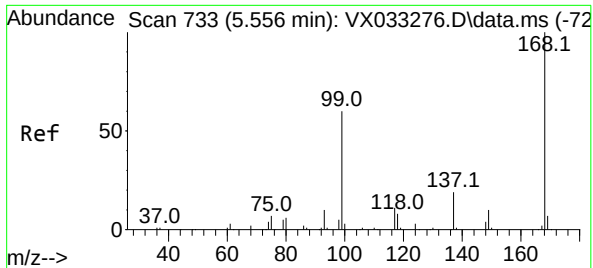
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033431.D  
Acq On : 15 Dec 2022 10:39  
Operator : JC/MD  
Sample : VX1215WBL01  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBL01

Quant Time: Dec 16 00:59:15 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration

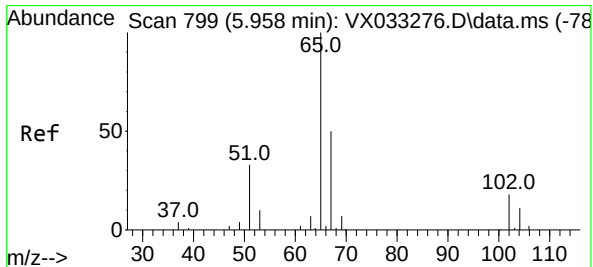
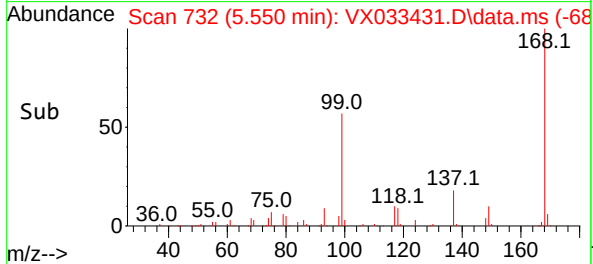
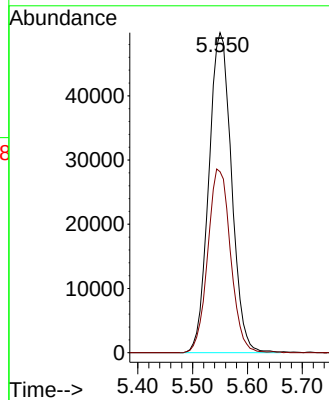
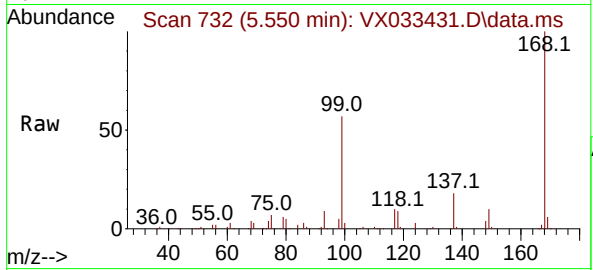




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.550 min Scan# 712  
Delta R.T. -0.006 min  
Lab File: VX033431.D  
Acq: 15 Dec 2022 10:39

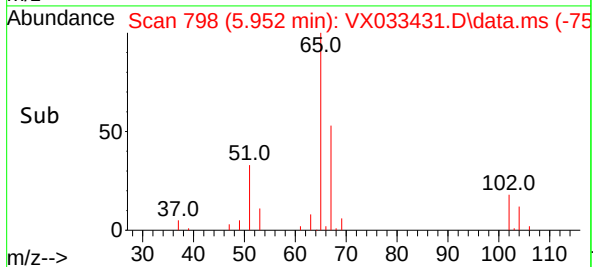
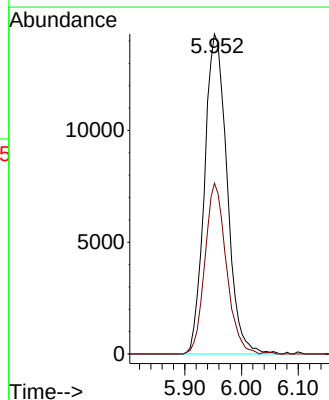
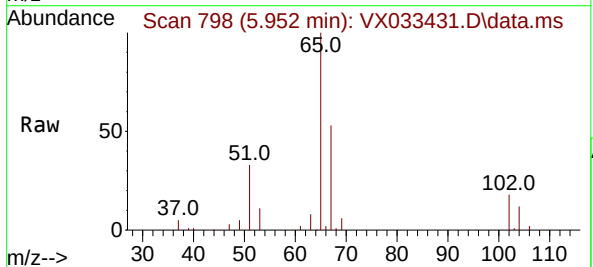
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBL01

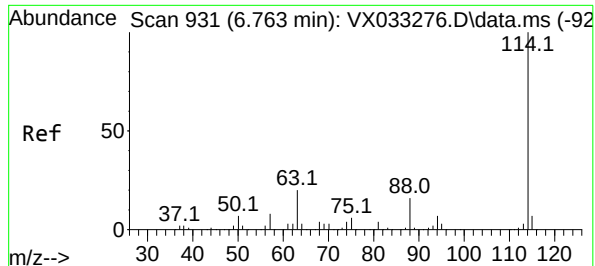
Tgt Ion:168 Resp: 143365  
Ion Ratio Lower Upper  
168 100  
99 56.5 46.1 69.1



#33  
1,2-Dichloroethane-d4  
Concen: 42.991 ug/l  
RT: 5.952 min Scan# 798  
Delta R.T. -0.006 min  
Lab File: VX033431.D  
Acq: 15 Dec 2022 10:39

Tgt Ion: 65 Resp: 39540  
Ion Ratio Lower Upper  
65 100  
67 50.6 0.0 101.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.757 min Scan# 91

Delta R.T. -0.006 min

Lab File: VX033431.D

Acq: 15 Dec 2022 10:39

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBL01

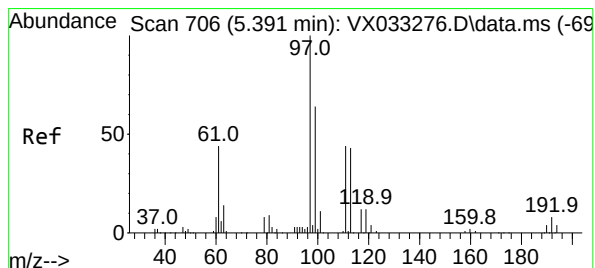
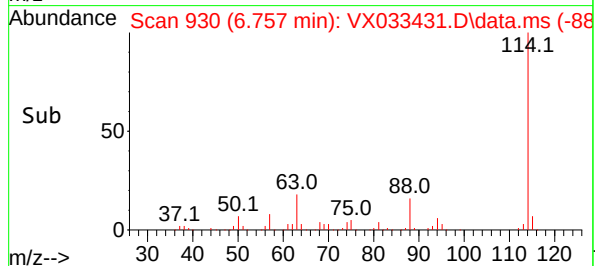
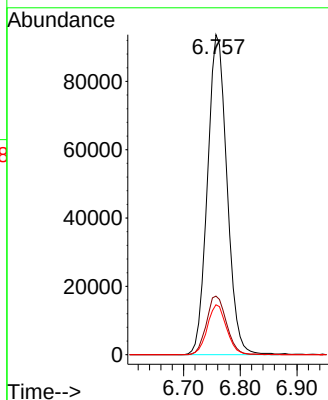
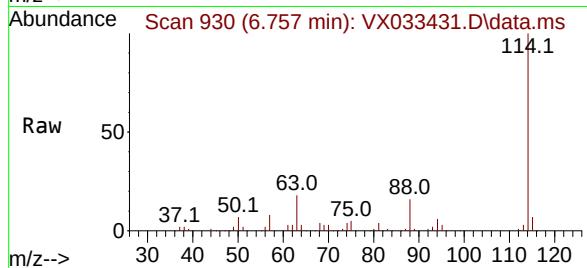
Tgt Ion:114 Resp: 223781

Ion Ratio Lower Upper

114 100

63 18.3 0.0 41.6

88 15.6 0.0 33.4



#35

Dibromofluoromethane

Concen: 43.938 ug/l

RT: 5.385 min Scan# 705

Delta R.T. -0.006 min

Lab File: VX033431.D

Acq: 15 Dec 2022 10:39

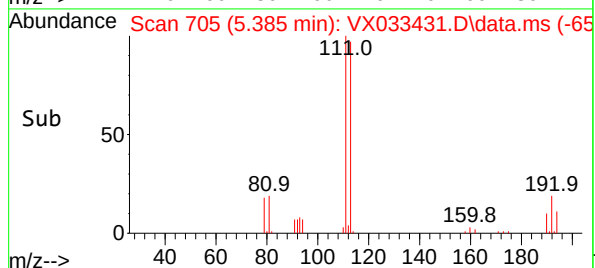
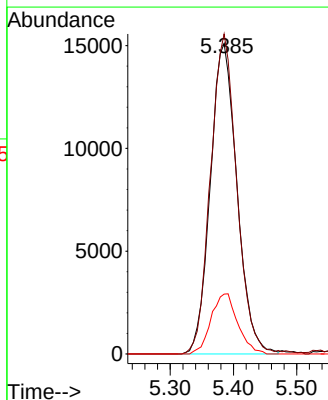
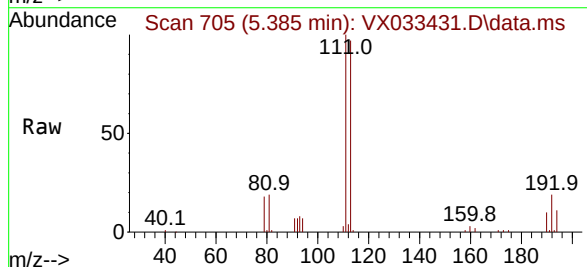
Tgt Ion:113 Resp: 44225

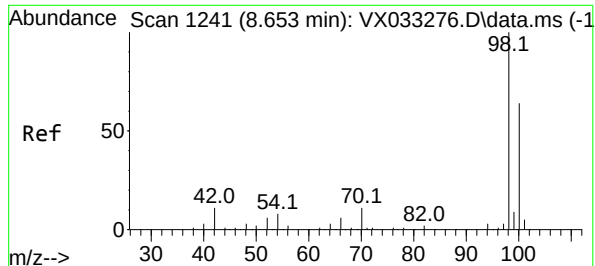
Ion Ratio Lower Upper

113 100

111 101.9 82.4 123.6

192 19.3 15.4 23.2





#50

Toluene-d8

Concen: 42.854 ug/l

RT: 8.647 min Scan# 11

Delta R.T. -0.006 min

Lab File: VX033431.D

Acq: 15 Dec 2022 10:39

Instrument :

MSVOA\_X

ClientSampleId :

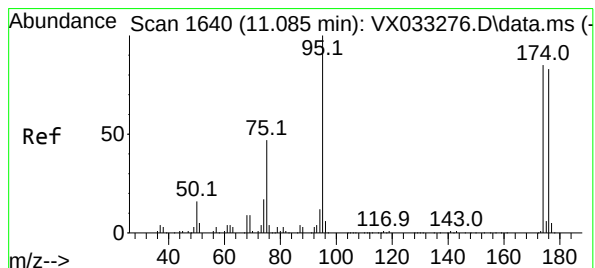
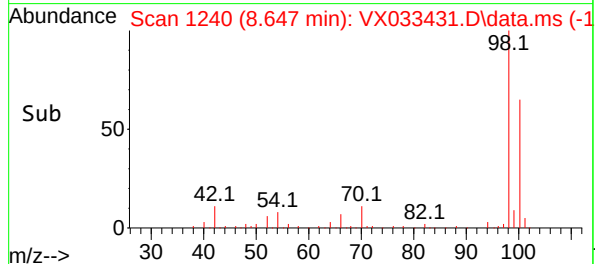
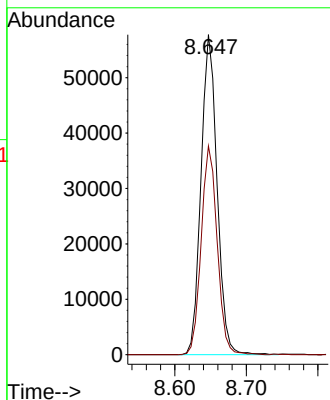
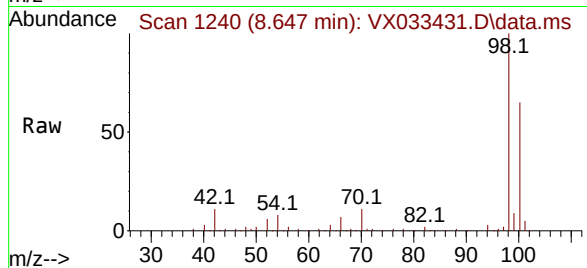
VX1215WBL01

Tgt Ion: 98 Resp: 90233

Ion Ratio Lower Upper

98 100

100 64.9 50.9 76.3



#62

4-Bromofluorobenzene

Concen: 43.528 ug/l

RT: 11.079 min Scan# 1639

Delta R.T. -0.006 min

Lab File: VX033431.D

Acq: 15 Dec 2022 10:39

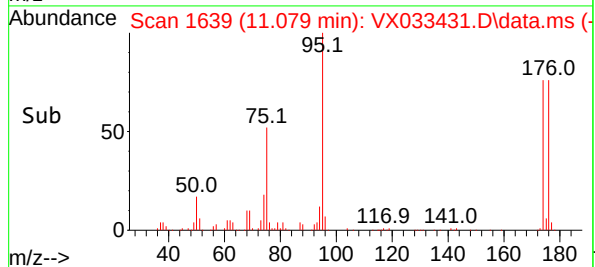
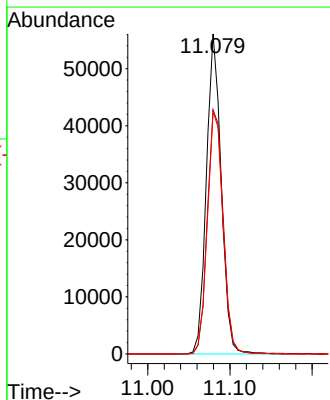
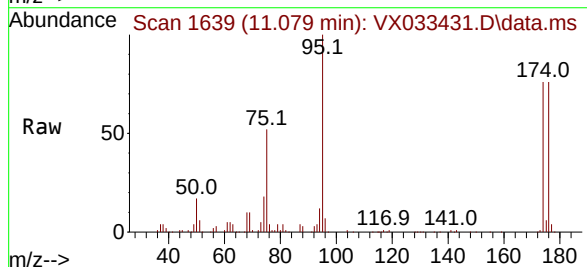
Tgt Ion: 95 Resp: 70078

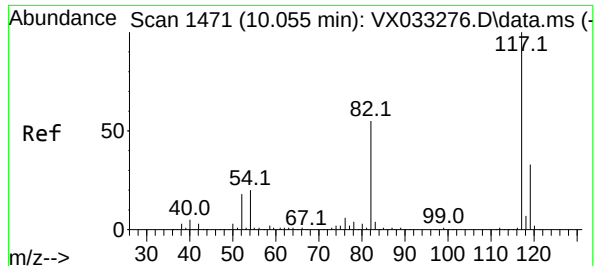
Ion Ratio Lower Upper

95 100

174 81.8 0.0 164.0

176 80.1 0.0 154.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.055 min Scan# 1471

Delta R.T. 0.000 min

Lab File: VX033431.D

Acq: 15 Dec 2022 10:39

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBL01

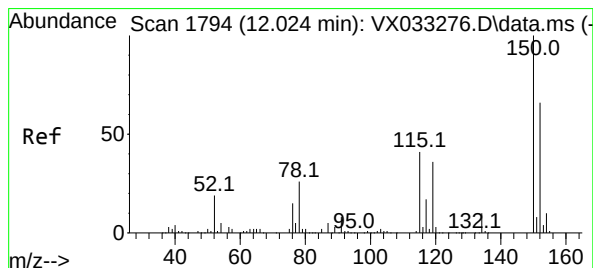
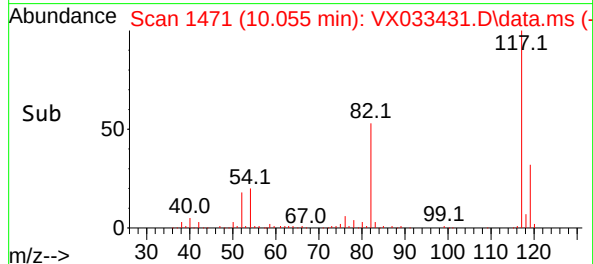
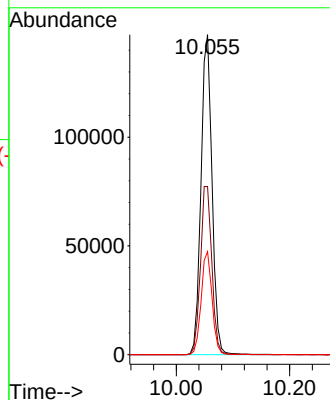
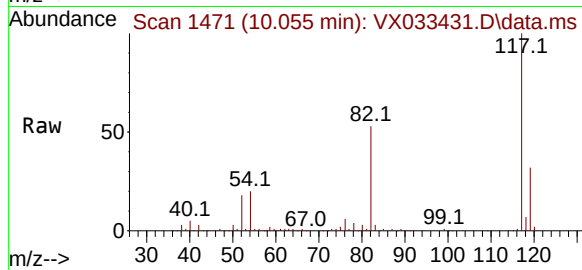
Tgt Ion:117 Resp: 198464

Ion Ratio Lower Upper

117 100

82 52.6 44.3 66.5

119 32.2 25.7 38.5



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.024 min Scan# 1794

Delta R.T. 0.000 min

Lab File: VX033431.D

Acq: 15 Dec 2022 10:39

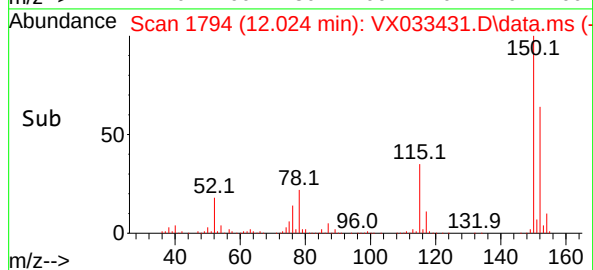
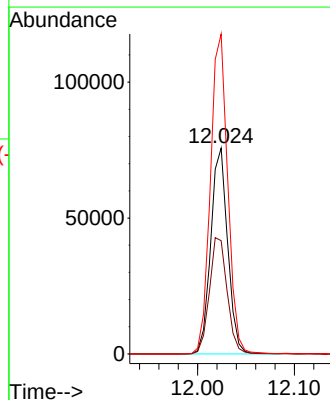
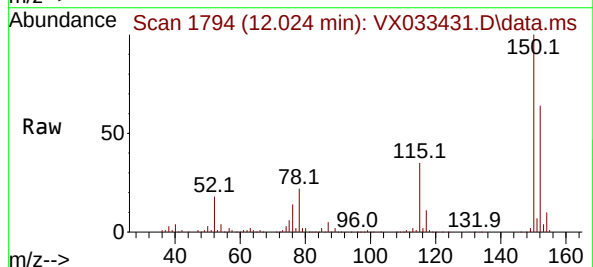
Tgt Ion:152 Resp: 92099

Ion Ratio Lower Upper

152 100

115 59.3 44.0 132.0

150 158.8 0.0 351.8





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

## Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: |              |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  |              |
| Client Sample ID:  | VX1215WBS01                           | SDG No.:        | N6070        |
| Lab Sample ID:     | VX1215WBS01                           | Matrix:         | Water        |
| Analytical Method: | SW8260                                | % Moisture:     | 100          |
| Sample Wt/Vol:     | 5 Units: mL                           | Final Vol:      | 5000 uL      |
| Soil Aliquot Vol:  | uL                                    | Test:           | VOCMS Group3 |
| GC Column:         | DB-624UI ID : 0.18                    | Level :         | LOW          |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VX033432.D        | 1         |           | 12/15/22 11:07 | VX121522      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |                     |            |         |
| 75-01-4                   | Vinyl Chloride         | 19.0   |           | 0.22                | 1.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 14.9   |           | 0.23                | 1.00       | ug/L    |
| 75-34-3                   | 1,1-Dichloroethane     | 19.9   |           | 0.20                | 1.00       | ug/L    |
| 156-59-2                  | cis-1,2-Dichloroethene | 20.6   |           | 0.17                | 1.00       | ug/L    |
| 71-55-6                   | 1,1,1-Trichloroethane  | 21.7   |           | 0.18                | 1.00       | ug/L    |
| 71-43-2                   | Benzene                | 21.3   |           | 0.16                | 1.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 21.1   |           | 0.18                | 1.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 22.2   |           | 0.27                | 1.00       | ug/L    |
| 79-00-5                   | 1,1,2-Trichloroethane  | 22.0   |           | 0.19                | 1.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 22.0   |           | 0.18                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 48.2   |           | 70 (74) - 130 (125) | 96%        | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 51.4   |           | 70 (75) - 130 (124) | 103%       | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 54.1   |           | 70 (86) - 130 (113) | 108%       | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 58.7   |           | 70 (64) - 130 (133) | 117%       | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 144000 | 5.55      |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 223000 | 6.757     |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 208000 | 10.055    |                     |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 106000 | 12.024    |                     |            |         |

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\_X\Data\VX121522\  
 Data File : VX033432.D  
 Acq On : 15 Dec 2022 11:07  
 Operator : JC/MD  
 Sample : VX1215WBS01  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX1215WBS01

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/16/2022  
 Supervised By : Mahesh Dadoda 12/16/2022

Quant Time: Dec 16 00:59:33 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response            | Conc    | Units  | Dev(Min) |
|------------------------------|----------------|------|---------------------|---------|--------|----------|
| -----                        |                |      |                     |         |        |          |
| Internal Standards           |                |      |                     |         |        |          |
| 1) Pentafluorobenzene        | 5.550          | 168  | 144488              | 50.000  | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 6.757          | 114  | 222709              | 50.000  | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 10.055         | 117  | 207849              | 50.000  | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 12.024         | 152  | 106397              | 50.000  | ug/l   | 0.00     |
|                              |                |      |                     |         |        |          |
| System Monitoring Compounds  |                |      |                     |         |        |          |
| 33) 1,2-Dichloroethane-d4    | 5.952          | 65   | 44717               | 48.241  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 78 - 117 |      | Recovery = 96.480%  |         |        |          |
| 35) Dibromofluoromethane     | 5.379          | 113  | 51490               | 51.403  | ug/l   | -0.01    |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = 102.800% |         |        |          |
| 50) Toluene-d8               | 8.647          | 98   | 113403              | 54.117  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 92 - 112 |      | Recovery = 108.240% |         |        |          |
| 62) 4-Bromofluorobenzene     | 11.079         | 95   | 93976               | 58.652  | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 83 - 123 |      | Recovery = 117.300% |         |        |          |
|                              |                |      |                     |         |        |          |
| Target Compounds             |                |      |                     |         | Qvalue |          |
| 2) Dichlorodifluoromethane   | 1.166          | 85   | 21017               | 20.823  | ug/l   | 97       |
| 3) Chloromethane             | 1.294          | 50   | 21492               | 18.417  | ug/l   | 100      |
| 4) Vinyl Chloride            | 1.374          | 62   | 25327               | 19.007  | ug/l   | 99       |
| 5) Bromomethane              | 1.618          | 94   | 18247               | 18.660  | ug/l   | 96       |
| 6) Chloroethane              | 1.691          | 64   | 17972               | 17.782  | ug/l   | 98       |
| 7) Trichlorofluoromethane    | 1.892          | 101  | 36958               | 14.774  | ug/l   | 99       |
| 8) Diethyl Ether             | 2.136          | 74   | 12542               | 13.881  | ug/l   | 97       |
| 9) 1,1,2-Trichlorotrifluo... | 2.331          | 101  | 21618               | 16.291  | ug/l   | 98       |
| 10) Methyl Iodide            | 2.453          | 142  | 24387               | 16.779  | ug/l   | 99       |
| 11) Tert butyl alcohol       | 2.989          | 59   | 26481m              | 93.442  | ug/l   |          |
| 12) 1,1-Dichloroethene       | 2.319          | 96   | 19552               | 14.926  | ug/l   | 95       |
| 13) Acrolein                 | 2.239          | 56   | 17586               | 57.217  | ug/l   | 99       |
| 14) Allyl chloride           | 2.666          | 41   | 40775               | 19.492  | ug/l   | 96       |
| 15) Acrylonitrile            | 3.062          | 53   | 66087               | 94.140  | ug/l   | 100      |
| 16) Acetone                  | 2.386          | 43   | 55929               | 81.540  | ug/l   | 94       |
| 17) Carbon Disulfide         | 2.514          | 76   | 62011               | 18.445  | ug/l   | 99       |
| 18) Methyl Acetate           | 2.703          | 43   | 39105               | 19.694  | ug/l   | 98       |
| 19) Methyl tert-butyl Ether  | 3.111          | 73   | 91597               | 20.187  | ug/l   | 98       |
| 20) Methylene Chloride       | 2.788          | 84   | 29965               | 19.589  | ug/l   | 91       |
| 21) trans-1,2-Dichloroethene | 3.093          | 96   | 29486               | 20.578  | ug/l   | 96       |
| 22) Diisopropyl ether        | 3.757          | 45   | 90796               | 20.259  | ug/l   | 95       |
| 23) Vinyl Acetate            | 3.721          | 43   | 344260              | 98.964  | ug/l   | 98       |
| 24) 1,1-Dichloroethane       | 3.611          | 63   | 52421               | 19.907  | ug/l   | 99       |
| 25) 2-Butanone               | 4.556          | 43   | 101104              | 102.689 | ug/l   | 99       |
| 26) 2,2-Dichloropropane      | 4.471          | 77   | 41358               | 21.357  | ug/l   | 99       |
| 27) cis-1,2-Dichloroethene   | 4.483          | 96   | 35301               | 20.614  | ug/l   | 95       |
| 28) Bromochloromethane       | 4.897          | 49   | 21526               | 19.528  | ug/l   | 94       |
| 29) Tetrahydrofuran          | 5.007          | 42   | 57659               | 90.388  | ug/l   | 94       |
| 30) Chloroform               | 5.093          | 83   | 60255               | 20.611  | ug/l   | 99       |
| 31) Cyclohexane              | 5.470          | 56   | 45256               | 20.544  | ug/l   | 89       |
| 32) 1,1,1-Trichloroethane    | 5.385          | 97   | 54583               | 21.700  | ug/l   | 98       |
| 36) 1,1-Dichloropropene      | 5.696          | 75   | 42941               | 21.987  | ug/l   | 99       |
| 37) Ethyl Acetate            | 4.708          | 43   | 35965               | 19.481  | ug/l   | 99       |
| 38) Carbon Tetrachloride     | 5.678          | 117  | 47373               | 21.650  | ug/l   | 99       |
| 39) Methylcyclohexane        | 7.379          | 83   | 50139               | 22.937  | ug/l   | 98       |
| 40) Benzene                  | 6.037          | 78   | 121206              | 21.286  | ug/l   | 97       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
 Data File : VX033432.D  
 Acq On : 15 Dec 2022 11:07  
 Operator : JC/MD  
 Sample : VX1215WBS01  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX1215WBS01

Manual Integrations  
 APPROVED

Reviewed By :John Carlone 12/16/2022  
 Supervised By :Mahesh Dadoda 12/16/2022

Quant Time: Dec 16 00:59:33 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 4.922  | 41   | 20700    | 20.348  | ug/l   | 96       |
| 42) 1,2-Dichloroethane        | 6.086  | 62   | 47676    | 21.085  | ug/l   | 98       |
| 43) Isopropyl Acetate         | 6.336  | 43   | 59262    | 19.951  | ug/l   | 98       |
| 44) Trichloroethene           | 7.123  | 130  | 34900    | 22.230  | ug/l   | 98       |
| 45) 1,2-Dichloropropane       | 7.427  | 63   | 30977    | 21.271  | ug/l   | 100      |
| 46) Dibromomethane            | 7.580  | 93   | 23654    | 21.322  | ug/l   | 98       |
| 47) Bromodichloromethane      | 7.818  | 83   | 46317    | 21.418  | ug/l   | 98       |
| 48) Methyl methacrylate       | 7.690  | 41   | 31051    | 20.255  | ug/l   | 95       |
| 49) 1,4-Dioxane               | 7.696  | 88   | 13852    | 396.244 | ug/l   | 99       |
| 51) 4-Methyl-2-Pentanone      | 8.574  | 43   | 196268   | 104.484 | ug/l   | 97       |
| 52) Toluene                   | 8.720  | 92   | 82715    | 22.467  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 8.976  | 75   | 45497    | 21.109  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene   | 8.366  | 75   | 49946    | 21.705  | ug/l   | 91       |
| 55) 1,1,2-Trichloroethane     | 9.153  | 97   | 34122    | 22.048  | ug/l   | 96       |
| 56) Ethyl methacrylate        | 9.116  | 69   | 46679    | 21.423  | ug/l   | 92       |
| 57) 1,3-Dichloropropane       | 9.311  | 76   | 53545    | 21.537  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether | 8.238  | 63   | 96663    | 96.952  | ug/l   | 97       |
| 59) 2-Hexanone                | 9.427  | 43   | 151387   | 109.361 | ug/l   | 95       |
| 60) Dibromochloromethane      | 9.519  | 129  | 37523    | 22.006  | ug/l   | 99       |
| 61) 1,2-Dibromoethane         | 9.610  | 107  | 36225    | 22.006  | ug/l   | 99       |
| 64) Tetrachloroethene         | 9.275  | 164  | 31276    | 22.006  | ug/l   | 96       |
| 65) Chlorobenzene             | 10.079 | 112  | 93552    | 22.227  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane | 10.165 | 131  | 34924    | 21.957  | ug/l   | 99       |
| 67) Ethyl Benzene             | 10.195 | 91   | 166887   | 22.759  | ug/l   | 99       |
| 68) m/p-Xylenes               | 10.299 | 106  | 130453   | 45.726  | ug/l   | 98       |
| 69) o-Xylene                  | 10.640 | 106  | 63279    | 22.440  | ug/l   | 98       |
| 70) Styrene                   | 10.659 | 104  | 107707   | 23.321  | ug/l   | 97       |
| 71) Bromoform                 | 10.799 | 173  | 26524    | 21.067  | ug/l # | 98       |
| 73) Isopropylbenzene          | 10.963 | 105  | 169527   | 21.983  | ug/l   | 100      |
| 74) N-amyl acetate            | 10.841 | 43   | 52796    | 20.066  | ug/l   | 95       |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 50578    | 20.673  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane    | 11.238 | 75   | 45106m   | 20.837  | ug/l   |          |
| 77) Bromobenzene              | 11.195 | 156  | 41846    | 21.489  | ug/l   | 98       |
| 78) n-propylbenzene           | 11.305 | 91   | 193432   | 22.464  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 11.366 | 91   | 116212   | 21.838  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 142080   | 22.133  | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75   | 12707    | 18.260  | ug/l   | 97       |
| 82) 4-Chlorotoluene           | 11.451 | 91   | 133528   | 21.579  | ug/l   | 97       |
| 83) tert-Butylbenzene         | 11.713 | 119  | 143579   | 22.430  | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene    | 11.750 | 105  | 143303   | 22.364  | ug/l   | 99       |
| 85) sec-Butylbenzene          | 11.890 | 105  | 173016   | 23.166  | ug/l   | 99       |
| 86) p-Isopropyltoluene        | 12.012 | 119  | 146815   | 22.801  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 11.969 | 146  | 79123    | 22.430  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene       | 12.042 | 146  | 79025    | 21.932  | ug/l   | 100      |
| 89) n-Butylbenzene            | 12.335 | 91   | 122594   | 23.246  | ug/l   | 100      |
| 90) Hexachloroethane          | 12.536 | 117  | 22881    | 20.905  | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene       | 12.335 | 146  | 75848    | 21.506  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75   | 9642     | 18.246  | ug/l   | 90       |
| 93) 1,2,4-Trichlorobenzene    | 13.591 | 180  | 46565    | 21.862  | ug/l   | 99       |
| 94) Hexachlorobutadiene       | 13.725 | 225  | 21139    | 24.784  | ug/l   | 98       |
| 95) Naphthalene               | 13.774 | 128  | 151271   | 21.291  | ug/l   | 100      |
| 96) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 46145    | 21.391  | ug/l   | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033432.D  
Acq On : 15 Dec 2022 11:07  
Operator : JC/MD  
Sample : VX1215WBS01  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01

Manual Integrations  
**APPROVED**

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

Quant Time: Dec 16 00:59:33 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration

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

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

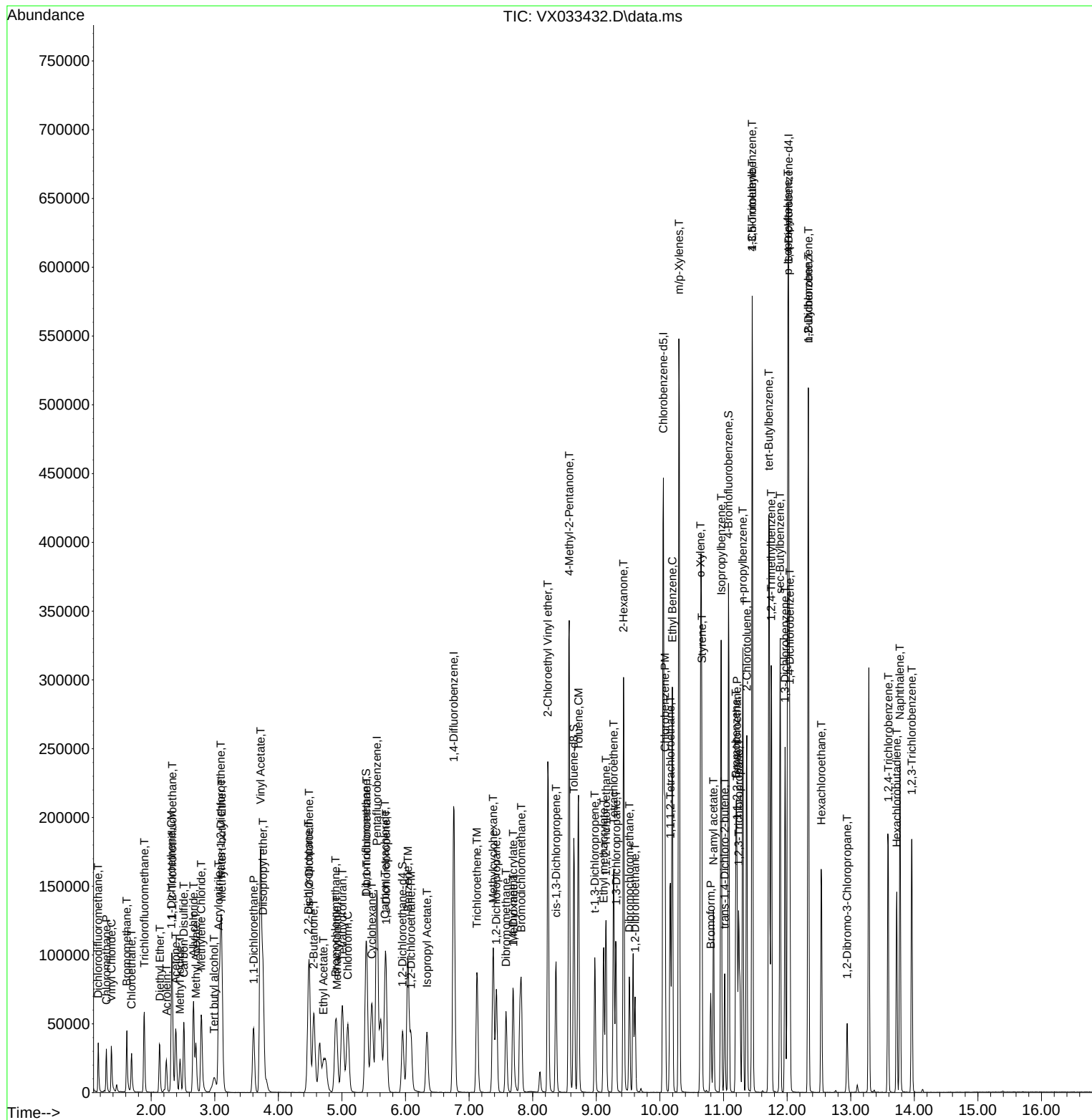
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033432.D  
Acq On : 15 Dec 2022 11:07  
Operator : JC/MD  
Sample : VX1215WBS01  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 4 Sample Multiplier: 1

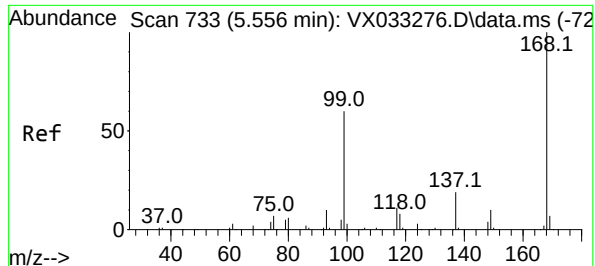
**Instrument :**  
MSVOA\_X  
**ClientSampleId :**  
VX1215WBS01

## Manual Integrations APPROVED

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

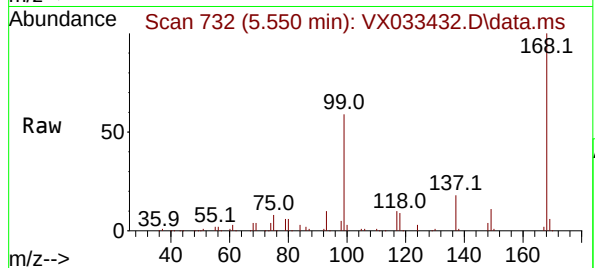
Quant Time: Dec 16 00:59:33 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.550 min Scan# 71  
Delta R.T. -0.006 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

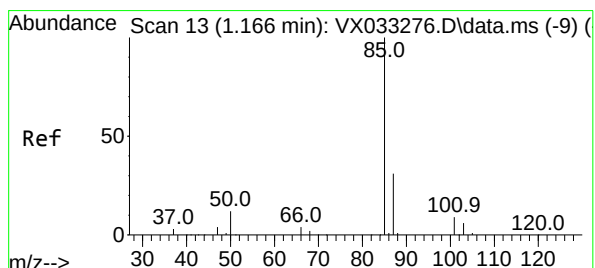
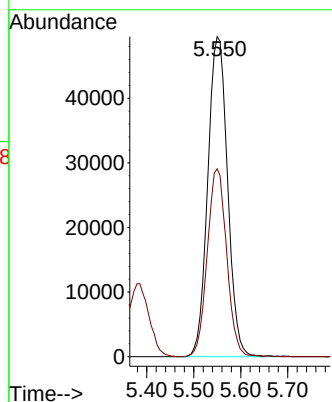
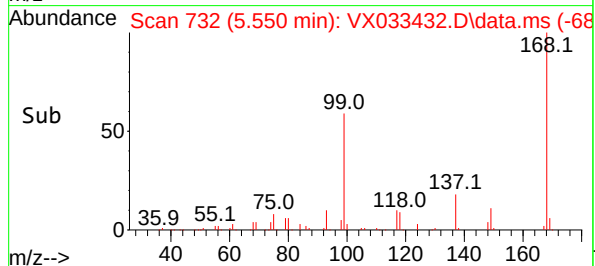
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01



Tgt Ion:168 Resp: 14448  
Ion Ratio Lower Upper  
168 100  
99 58.7 46.1 69.1

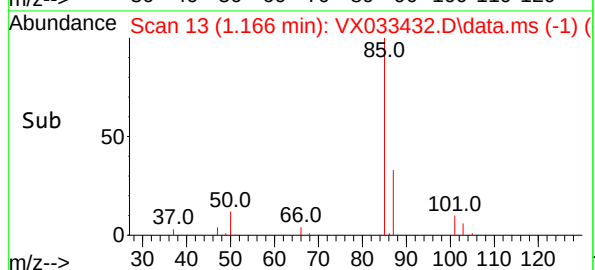
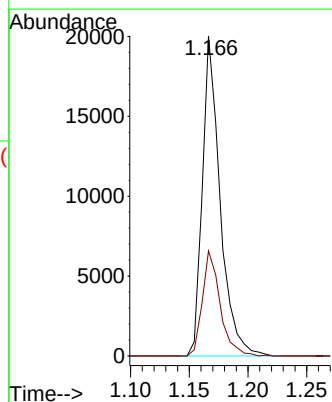
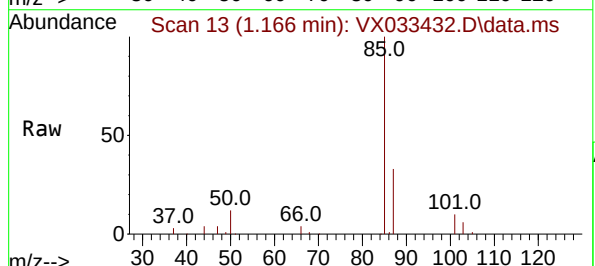
Manual Integrations  
APPROVED

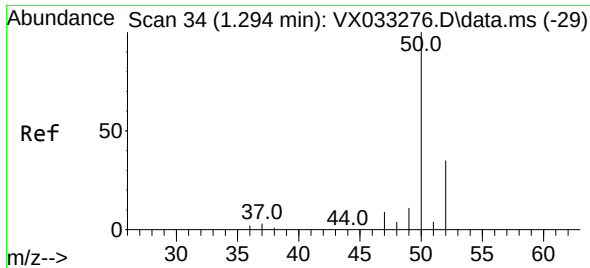
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#2  
Dichlorodifluoromethane  
Concen: 20.823 ug/l  
RT: 1.166 min Scan# 13  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Tgt Ion: 85 Resp: 21017  
Ion Ratio Lower Upper  
85 100  
87 32.8 15.6 46.7





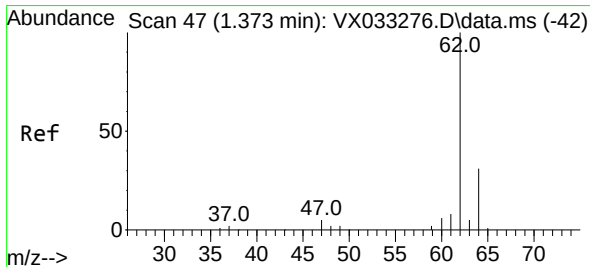
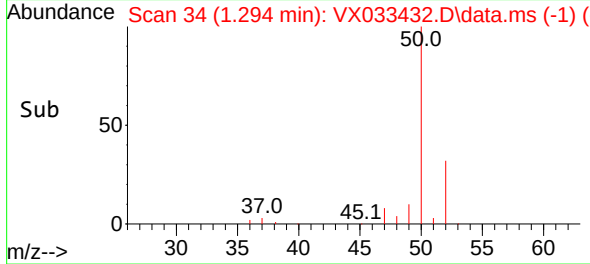
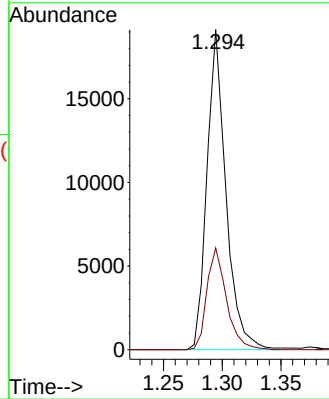
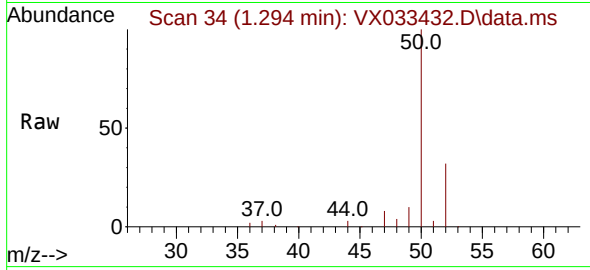
#3  
Chloromethane  
Concen: 18.417 ug/l  
RT: 1.294 min Scan# 34  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01

Tgt Ion: 50 Resp: 21492  
Ion Ratio Lower Upper  
50 100  
52 31.8 25.4 38.2

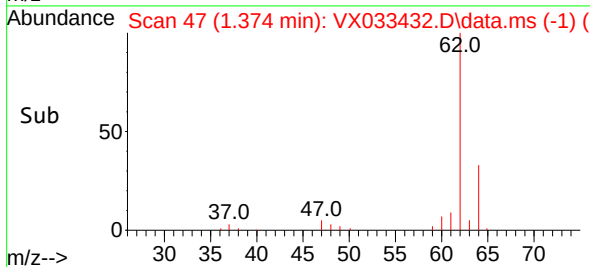
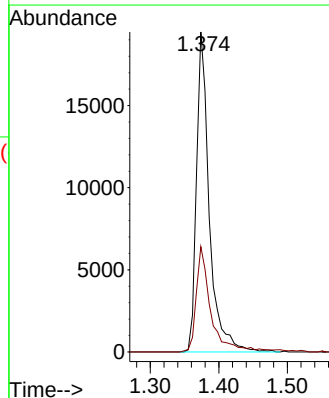
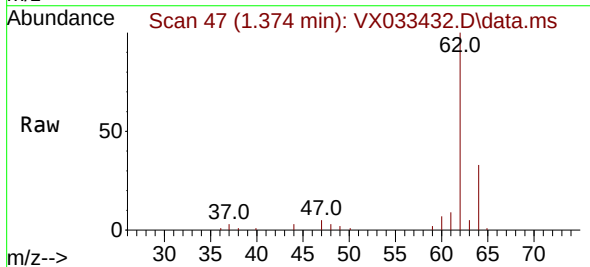
Manual Integrations  
APPROVED

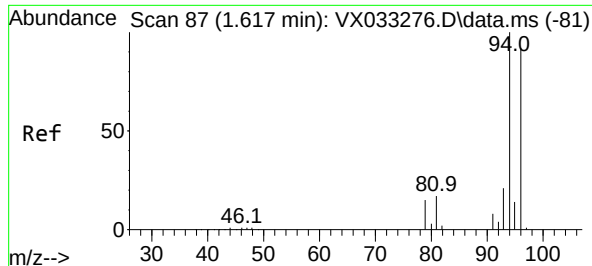
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#4  
Vinyl Chloride  
Concen: 19.007 ug/l  
RT: 1.374 min Scan# 47  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Tgt Ion: 62 Resp: 25327  
Ion Ratio Lower Upper  
62 100  
64 32.9 25.8 38.6





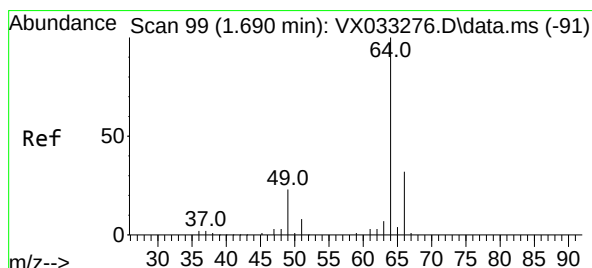
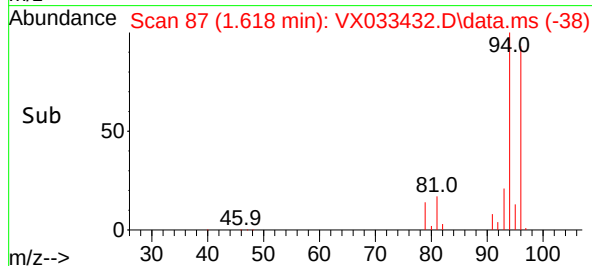
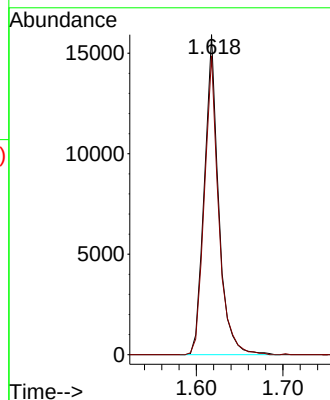
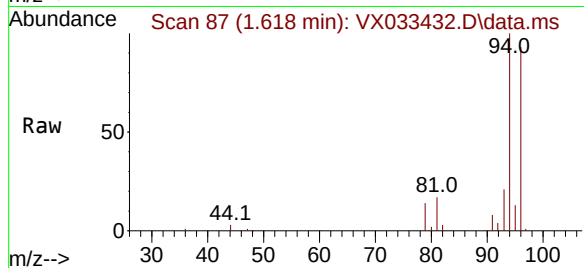
#5  
Bromomethane  
Concen: 18.660 ug/l  
RT: 1.618 min Scan# 81  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01

Tgt Ion: 94 Resp: 1824  
Ion Ratio Lower Upper  
94 100  
96 93.4 77.6 116.4

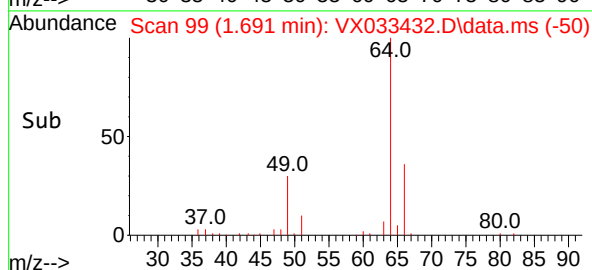
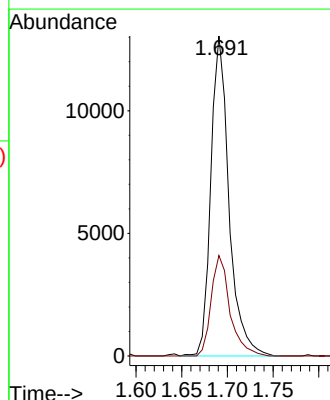
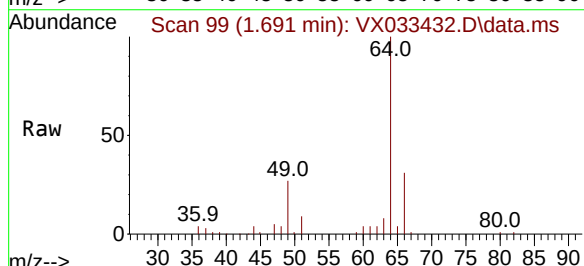
Manual Integrations  
APPROVED

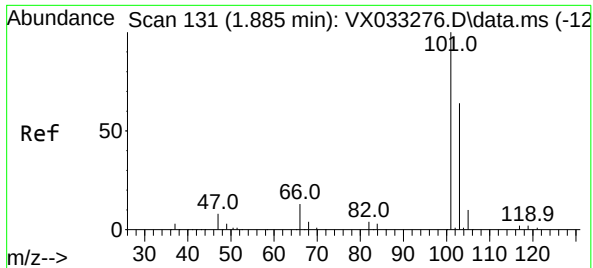
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#6  
Chloroethane  
Concen: 17.782 ug/l  
RT: 1.691 min Scan# 99  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

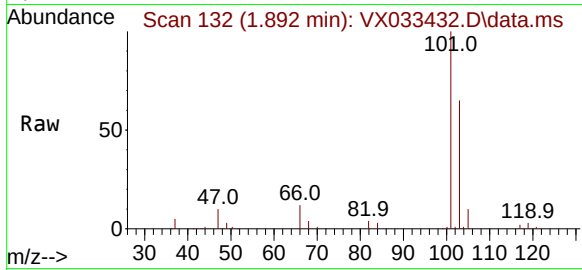
Tgt Ion: 64 Resp: 17972  
Ion Ratio Lower Upper  
64 100  
66 31.4 26.0 39.0





#7  
Trichlorofluoromethane  
Concen: 14.774 ug/l  
RT: 1.892 min Scan# 11  
Delta R.T. 0.006 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

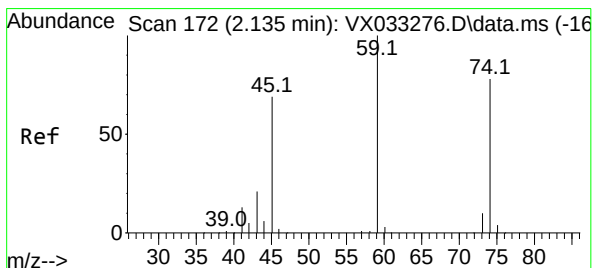
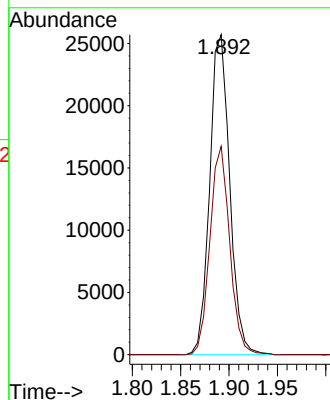
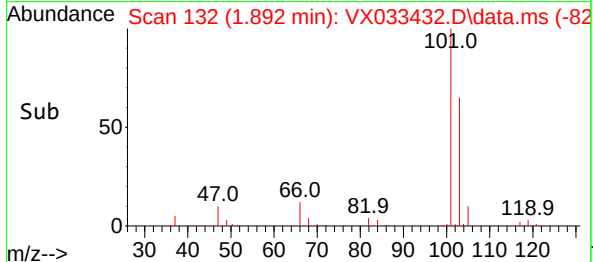
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01



Tgt Ion: 101 Resp: 36958  
Ion Ratio Lower Upper  
101 100  
103 65.1 51.4 77.2

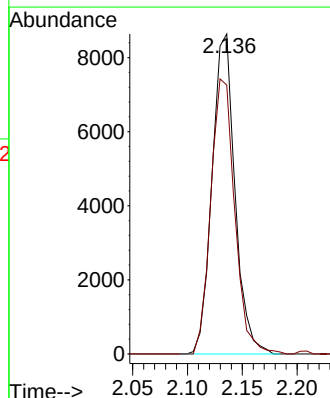
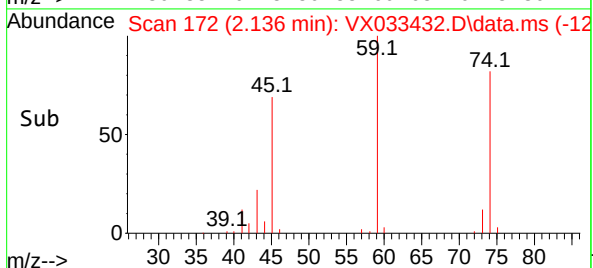
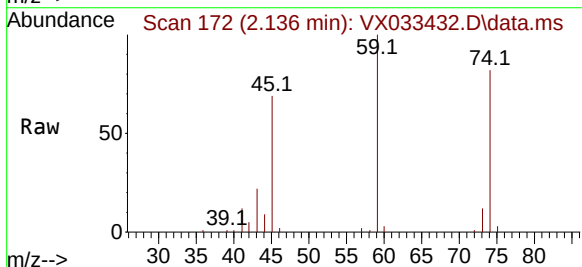
Manual Integrations  
APPROVED

Reviewed By : John Carlone 12/16/2022  
Supervised By : Mahesh Dadoda 12/16/2022

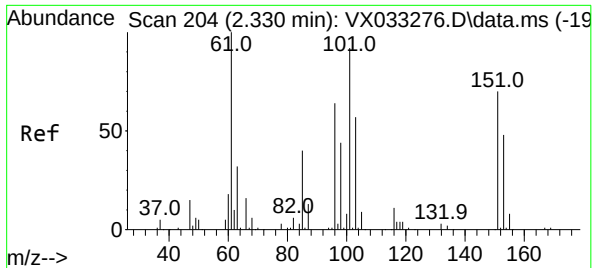


#8  
Diethyl Ether  
Concen: 13.881 ug/l  
RT: 2.136 min Scan# 172  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Tgt Ion: 74 Resp: 12542  
Ion Ratio Lower Upper  
74 100  
45 90.0 46.6 139.7







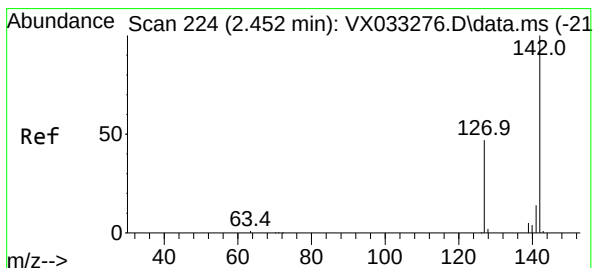
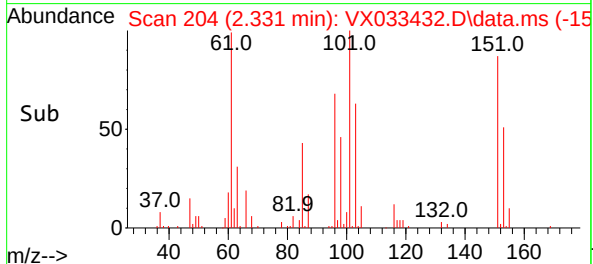
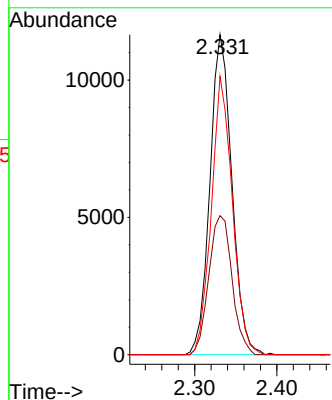
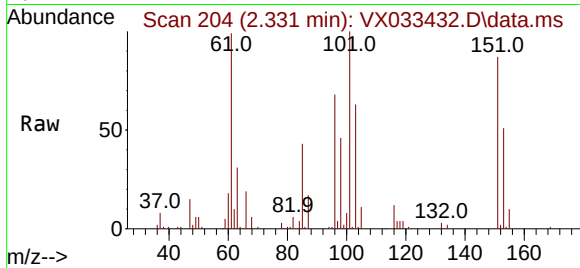
#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 16.291 ug/l  
RT: 2.331 min Scan# 204  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01

Tgt Ion:101 Resp: 21618  
Ion Ratio Lower Upper  
101 100  
85 45.9 37.0 55.4  
151 83.4 64.4 96.6

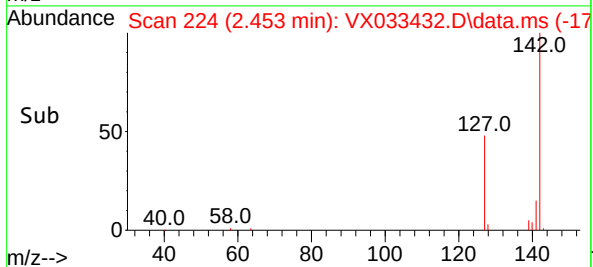
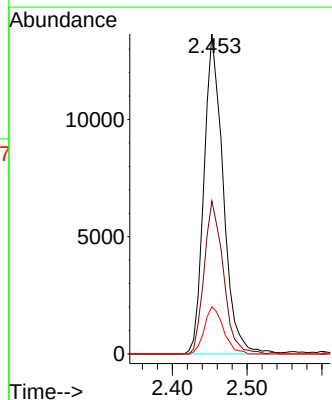
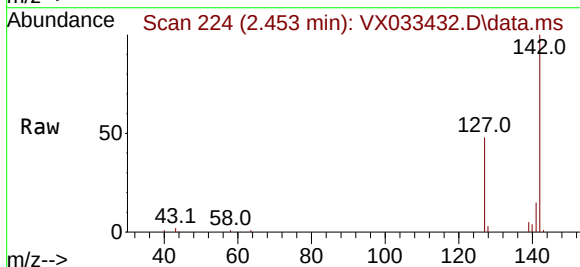
Manual Integrations  
APPROVED

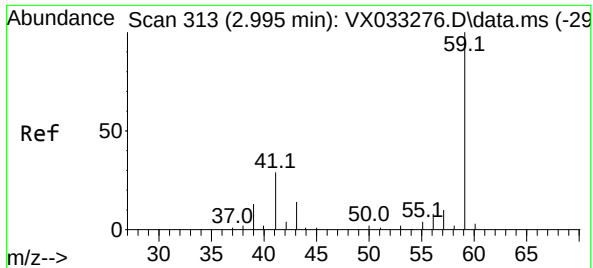
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#10  
Methyl Iodide  
Concen: 16.779 ug/l  
RT: 2.453 min Scan# 224  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Tgt Ion:142 Resp: 24387  
Ion Ratio Lower Upper  
142 100  
127 47.7 38.6 57.8  
141 14.6 11.4 17.2





#11

Tert butyl alcohol

Concen: 93.442 ug/l m

RT: 2.989 min Scan# 31

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 59 Resp: 2648

Ion Ratio Lower Upper

59 100

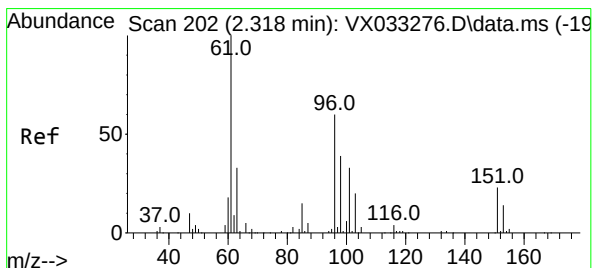
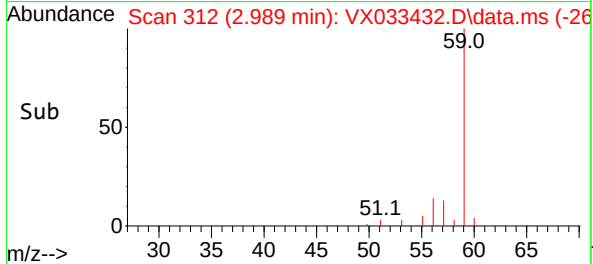
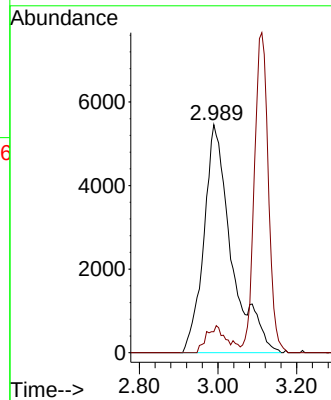
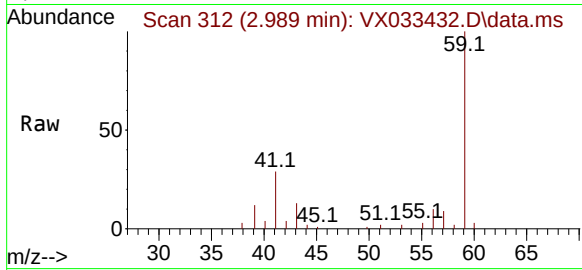
57 7.5 8.2 12.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#12

1,1-Dichloroethene

Concen: 14.926 ug/l

RT: 2.319 min Scan# 202

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

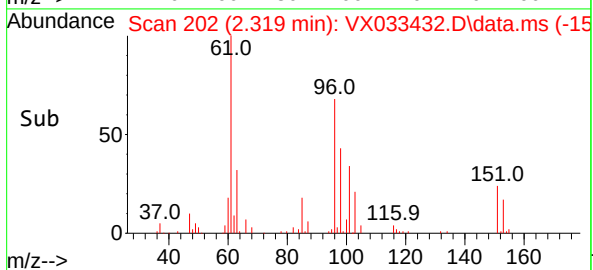
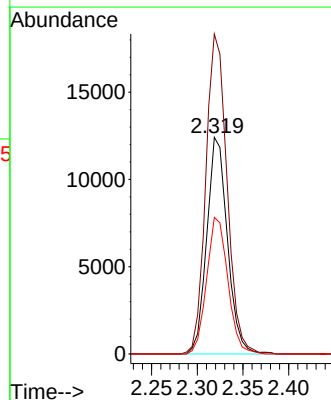
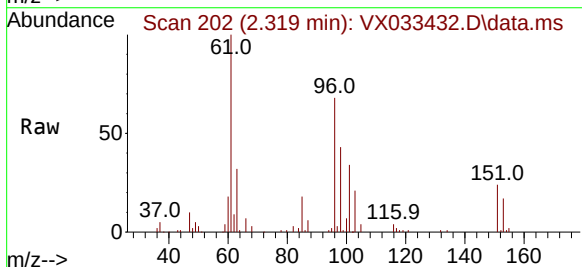
Tgt Ion: 96 Resp: 19552

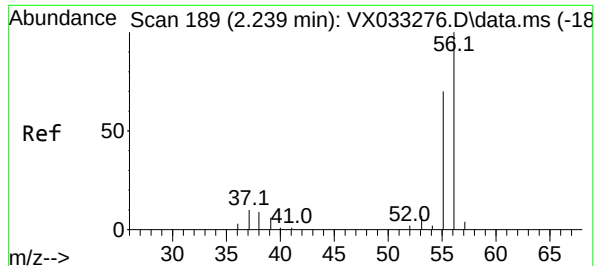
Ion Ratio Lower Upper

96 100

61 147.7 125.1 187.7

98 63.1 50.6 76.0





#13

Acrolein

Concen: 57.217 ug/l

RT: 2.239 min Scan# 189

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 56 Resp: 17586

Ion Ratio Lower Upper

56 100

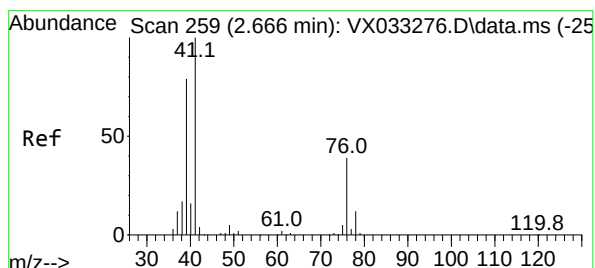
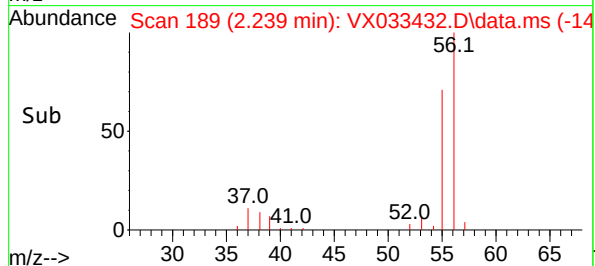
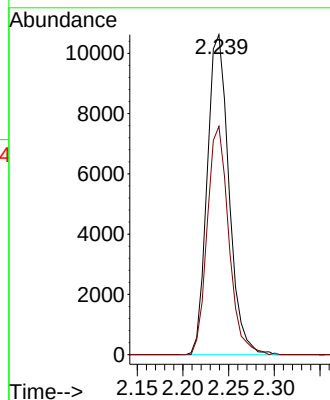
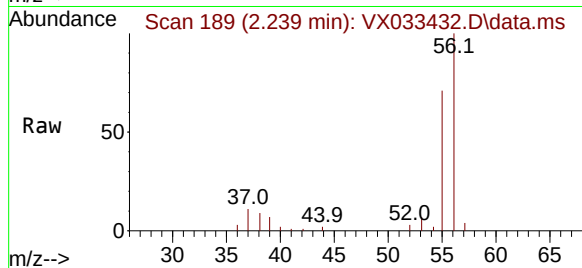
55 70.5 56.9 85.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#14

Allyl chloride

Concen: 19.492 ug/l

RT: 2.666 min Scan# 259

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

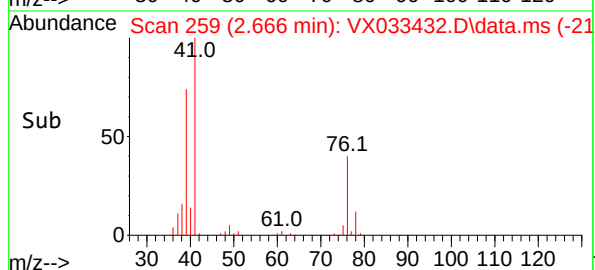
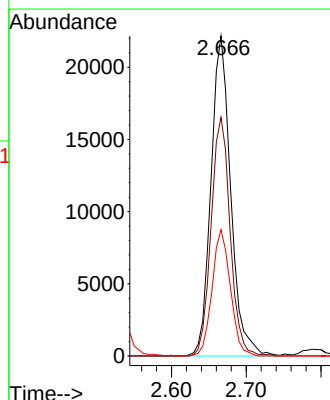
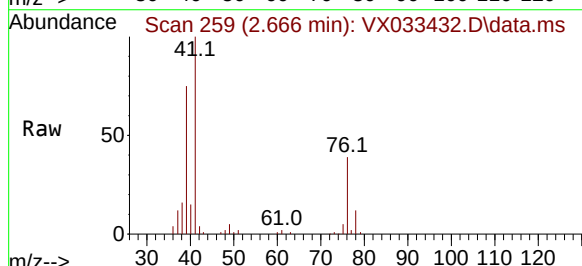
Tgt Ion: 41 Resp: 40775

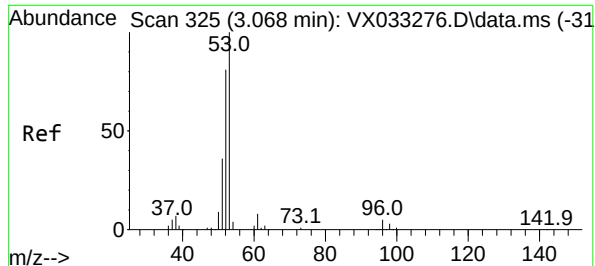
Ion Ratio Lower Upper

41 100

39 71.6 61.4 92.2

76 36.4 29.2 43.8





#15

Acrylonitrile

Concen: 94.140 ug/l

RT: 3.062 min Scan# 31

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 53 Resp: 6608

Ion Ratio Lower Upper

53 100

52 84.5 67.4 101.0

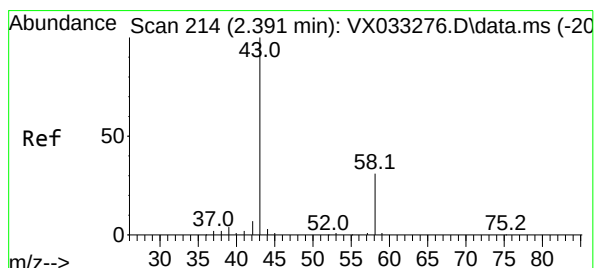
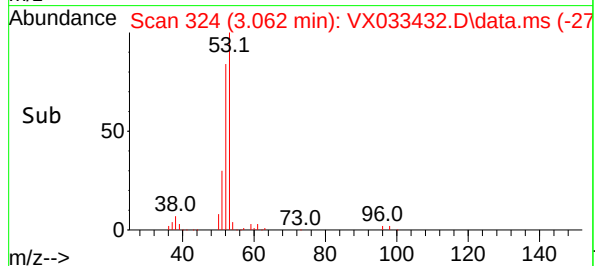
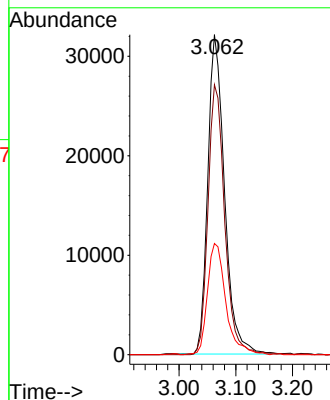
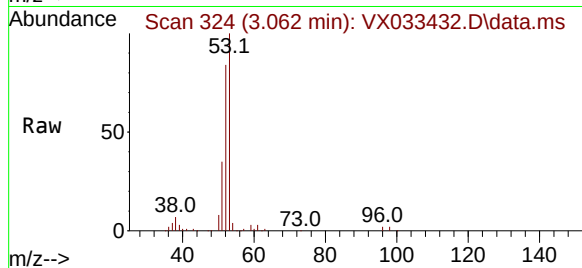
51 38.2 30.3 45.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#16

Acetone

Concen: 81.540 ug/l

RT: 2.386 min Scan# 213

Delta R.T. -0.006 min

Lab File: VX033432.D

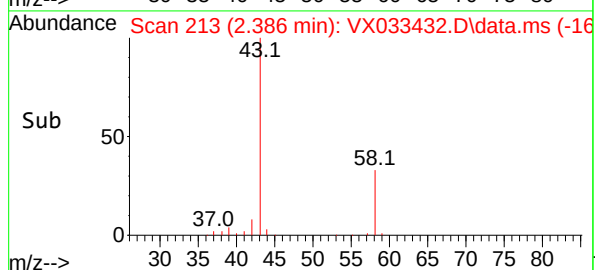
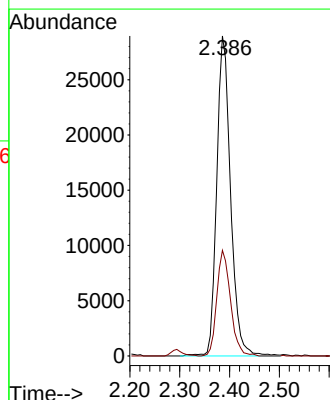
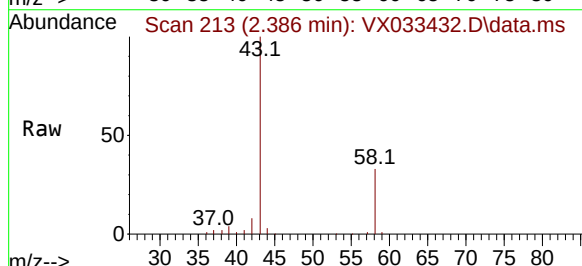
Acq: 15 Dec 2022 11:07

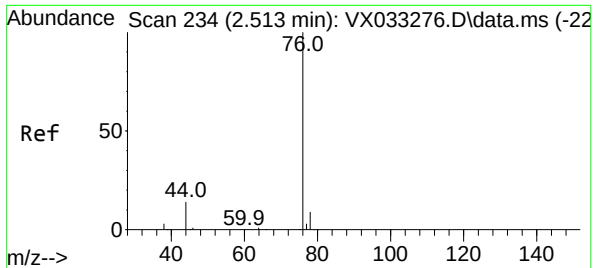
Tgt Ion: 43 Resp: 55929

Ion Ratio Lower Upper

43 100

58 33.0 23.8 35.8





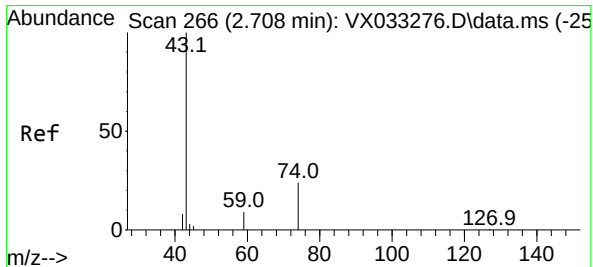
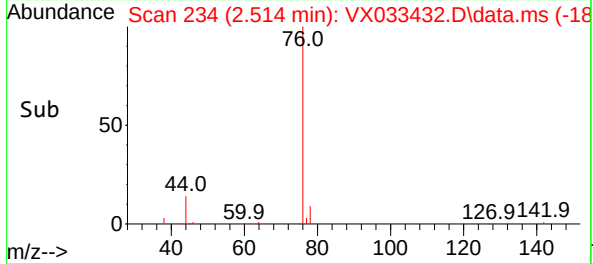
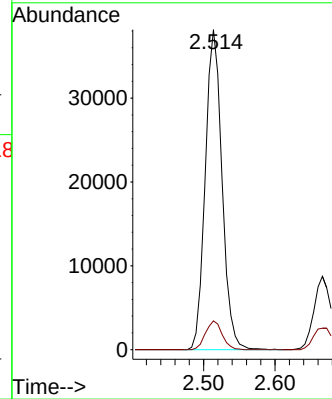
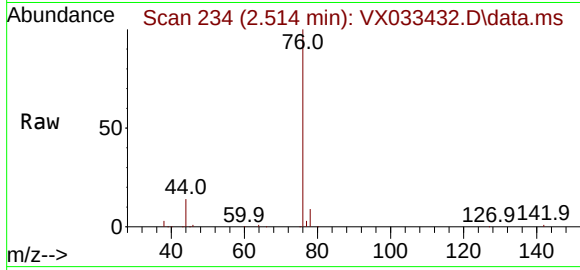
#17  
Carbon Disulfide  
Concen: 18.445 ug/l  
RT: 2.514 min Scan# 21  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01

Tgt Ion: 76 Resp: 6201  
Ion Ratio Lower Upper  
76 100  
78 9.0 7.5 11.3

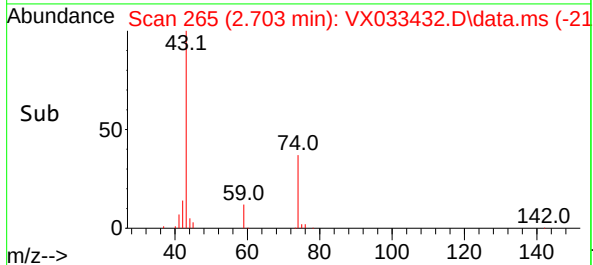
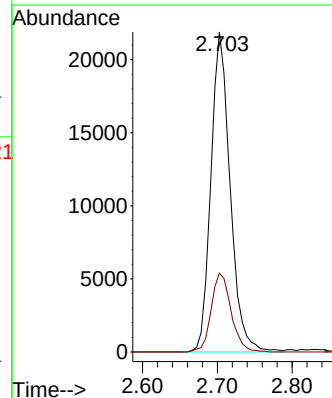
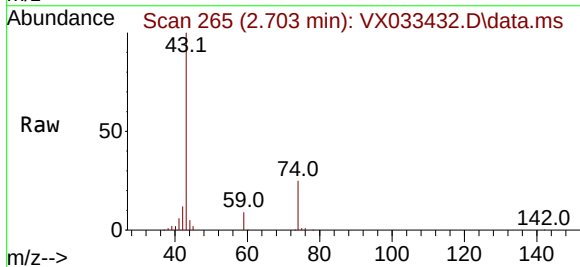
Manual Integrations  
**APPROVED**

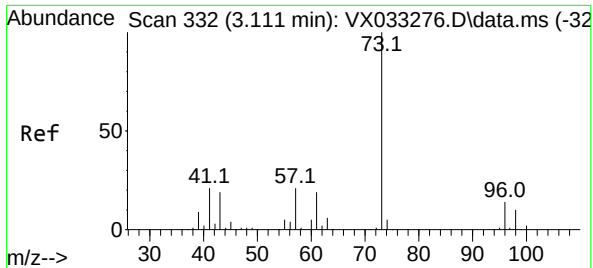
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#18  
Methyl Acetate  
Concen: 19.694 ug/l  
RT: 2.703 min Scan# 265  
Delta R.T. -0.006 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Tgt Ion: 43 Resp: 39105  
Ion Ratio Lower Upper  
43 100  
74 25.4 19.4 29.0





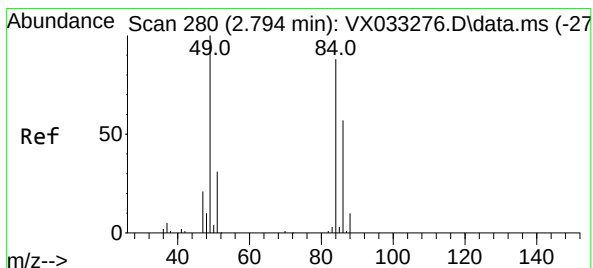
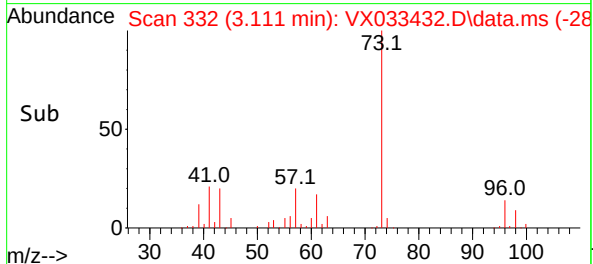
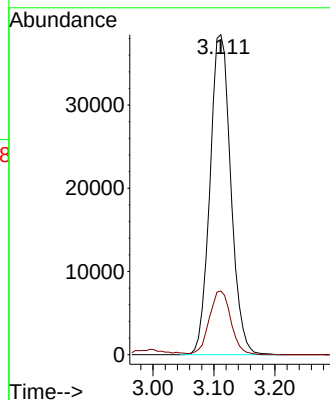
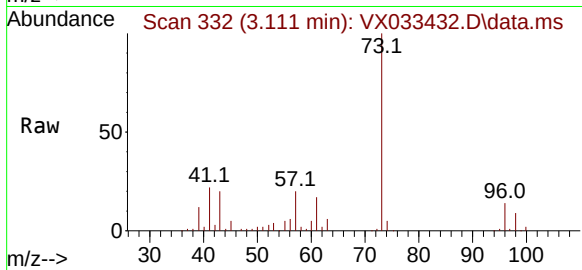
#19  
Methyl tert-butyl Ether  
Concen: 20.187 ug/l  
RT: 3.111 min Scan# 311  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01

Tgt Ion: 73 Resp: 9159  
Ion Ratio Lower Upper  
73 100  
57 19.9 16.6 25.0

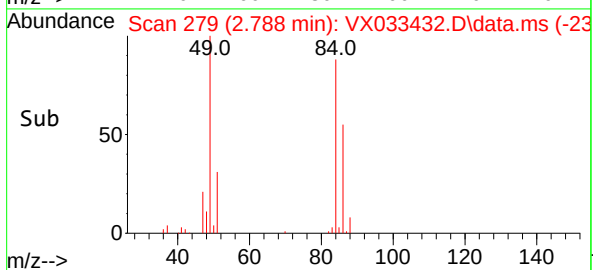
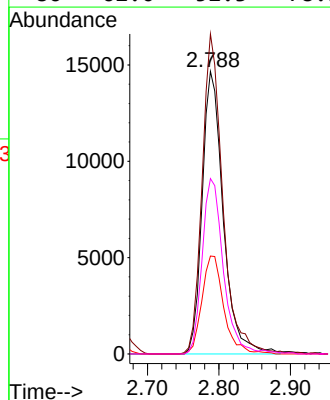
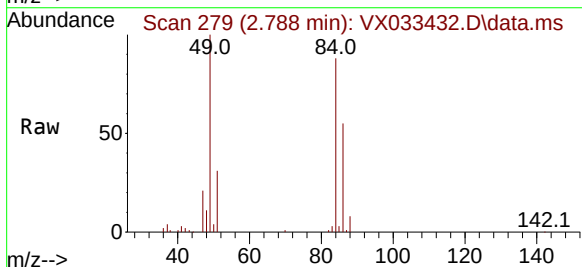
Manual Integrations  
APPROVED

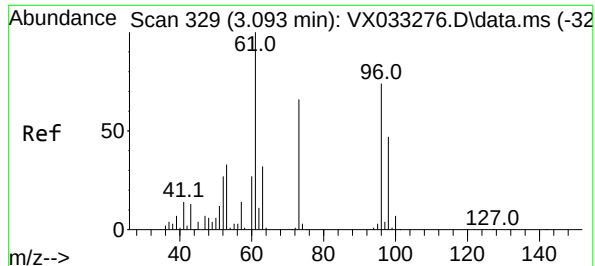
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#20  
Methylene Chloride  
Concen: 19.589 ug/l  
RT: 2.788 min Scan# 279  
Delta R.T. -0.006 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Tgt Ion: 84 Resp: 29965  
Ion Ratio Lower Upper  
84 100  
49 113.3 101.0 151.6  
51 34.6 31.1 46.7  
86 62.0 52.3 78.5





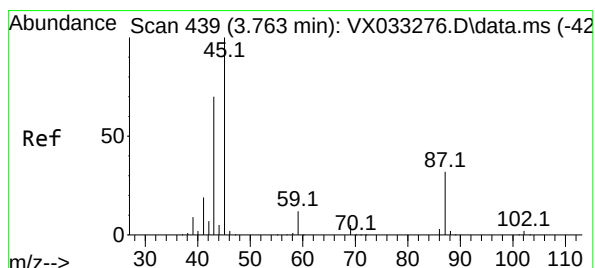
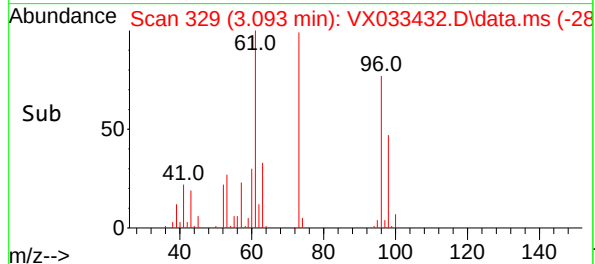
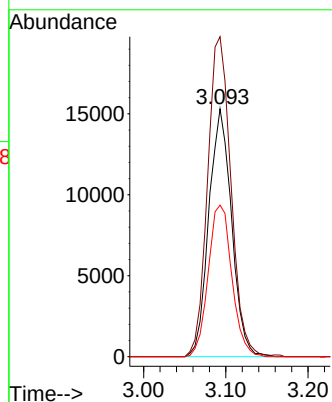
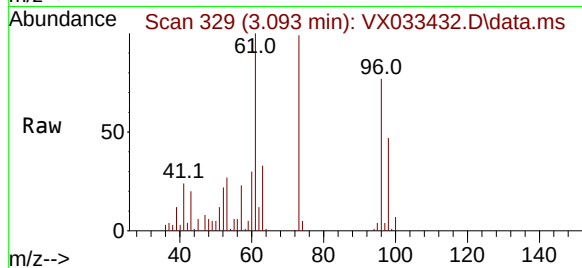
#21  
trans-1,2-Dichloroethene  
Concen: 20.578 ug/l  
RT: 3.093 min Scan# 31  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01

Tgt Ion: 96 Resp: 2948  
Ion Ratio Lower Upper  
96 100  
61 129.1 106.6 160.0  
98 61.1 51.0 76.6

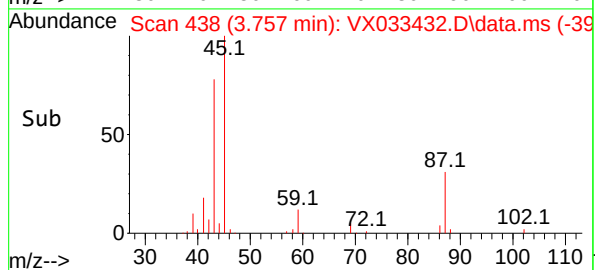
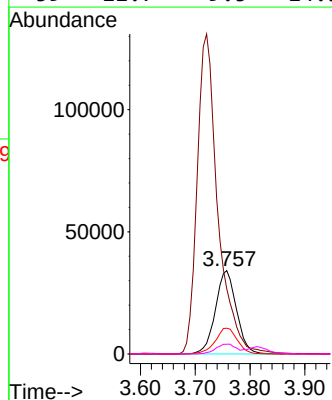
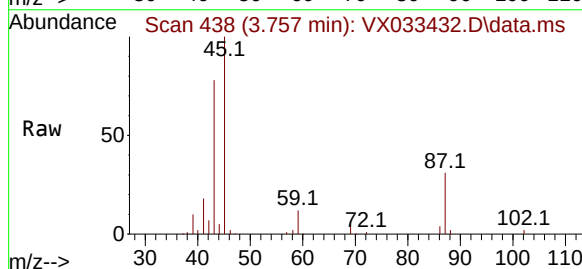
Manual Integrations  
APPROVED

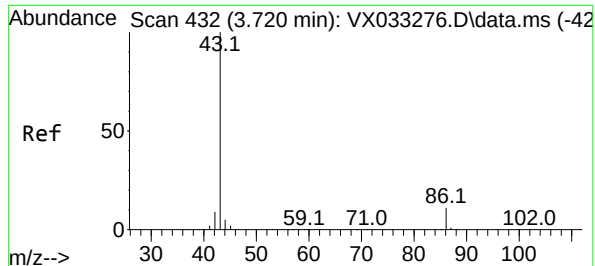
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#22  
Diisopropyl ether  
Concen: 20.259 ug/l  
RT: 3.757 min Scan# 438  
Delta R.T. -0.006 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Tgt Ion: 45 Resp: 90796  
Ion Ratio Lower Upper  
45 100  
43 77.4 56.4 84.6  
87 31.0 24.4 36.6  
59 11.7 9.5 14.3





#23

Vinyl Acetate

Concen: 98.964 ug/l

RT: 3.721 min Scan# 41

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 43 Resp: 344260

Ion Ratio Lower Upper

43 100

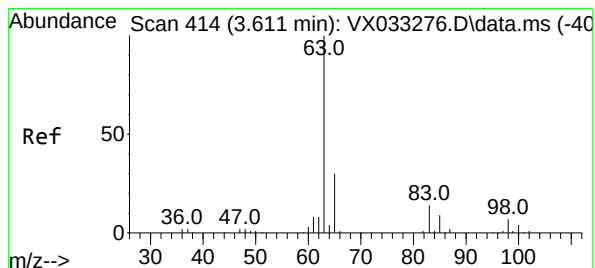
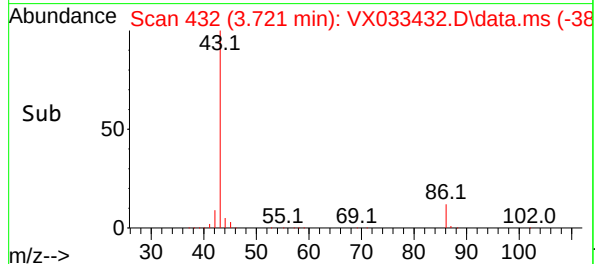
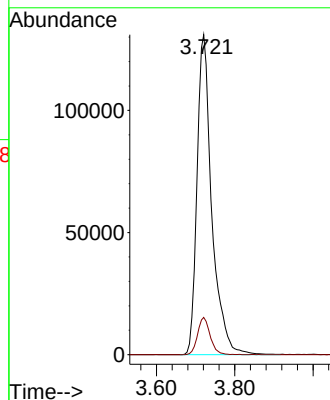
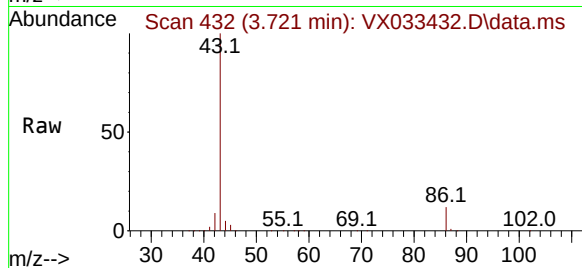
86 11.6 8.6 12.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#24

1,1-Dichloroethane

Concen: 19.907 ug/l

RT: 3.611 min Scan# 414

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

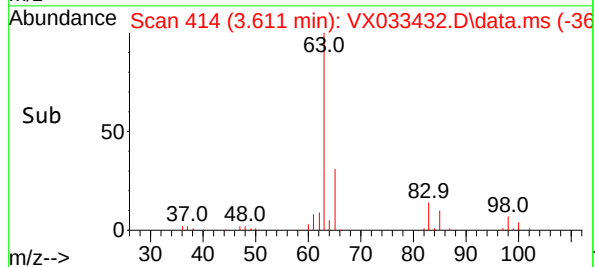
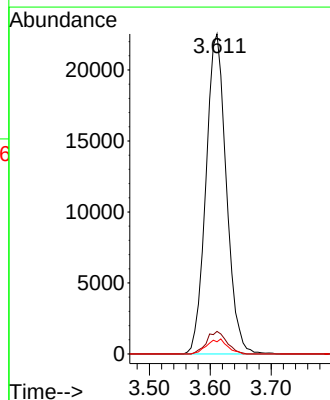
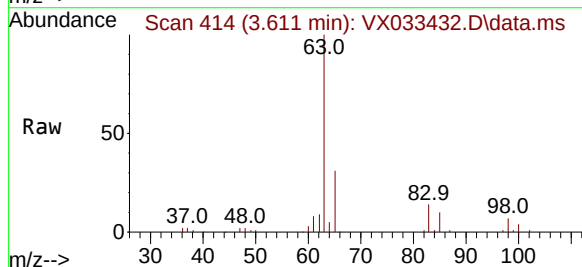
Tgt Ion: 63 Resp: 52421

Ion Ratio Lower Upper

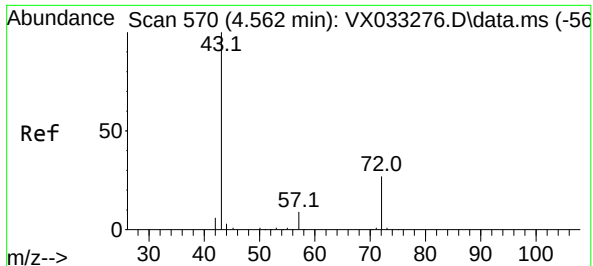
63 100

98 7.1 3.5 10.4

100 3.8 2.3 6.8







#25

2-Butanone

Concen: 102.689 ug/l

RT: 4.556 min Scan# 5

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 43 Resp: 101104

Ion Ratio Lower Upper

43

100

72

27.1

22.2

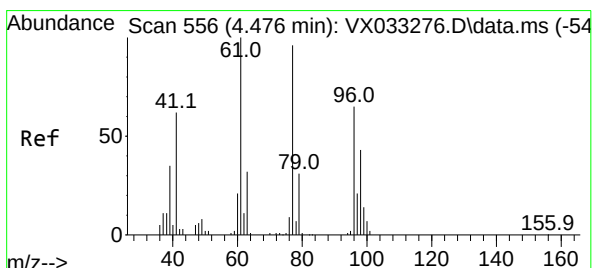
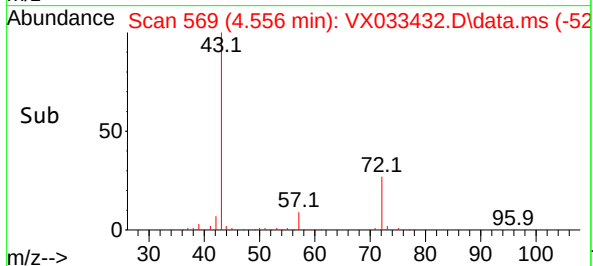
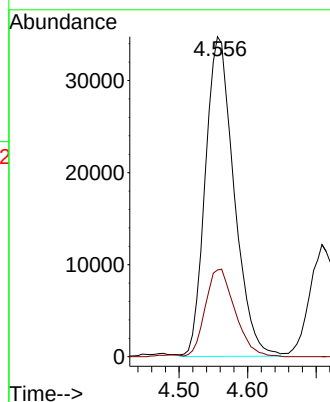
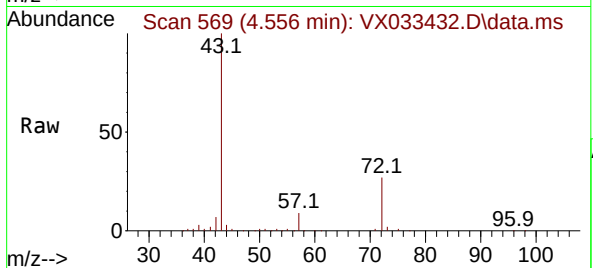
33.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#26

2,2-Dichloropropane

Concen: 21.357 ug/l

RT: 4.471 min Scan# 555

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Tgt Ion: 77 Resp: 41358

Ion Ratio Lower Upper

77

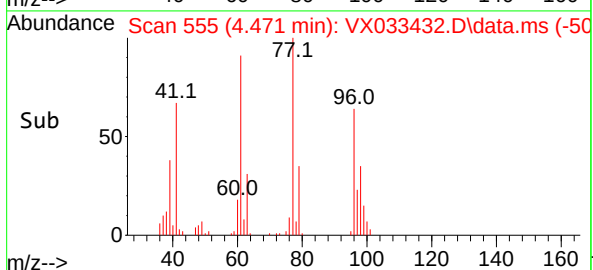
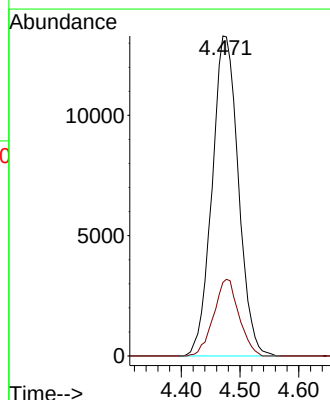
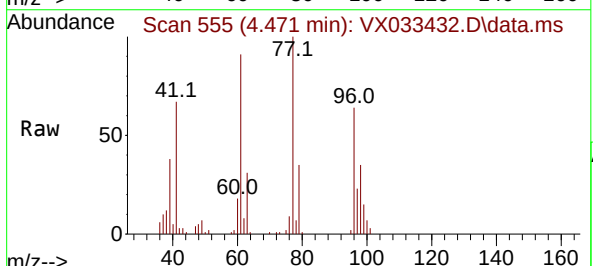
100

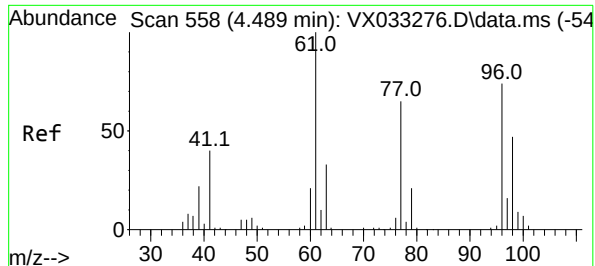
97

23.0

11.4

34.1





#27

cis-1,2-Dichloroethene

Concen: 20.614 ug/l

RT: 4.483 min Scan# 51

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 96 Resp: 3530

Ion Ratio Lower Upper

96 100

61 135.7 0.0 286.0

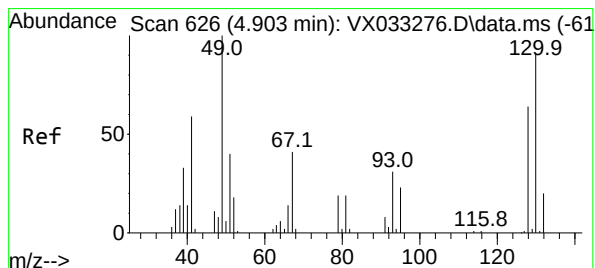
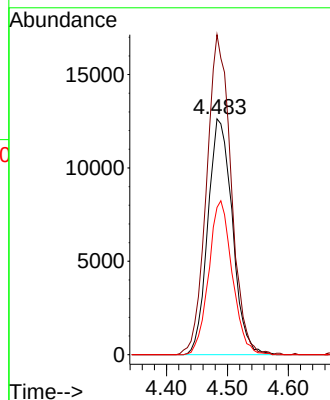
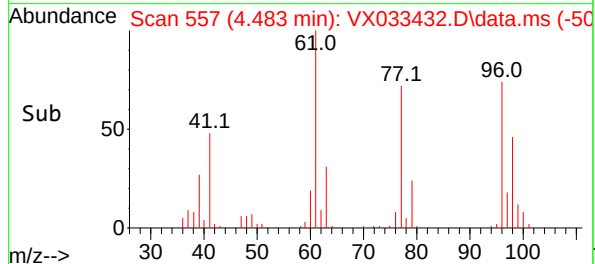
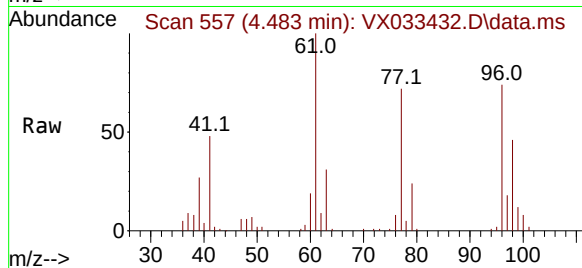
98 62.6 0.0 129.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#28

Bromochloromethane

Concen: 19.528 ug/l

RT: 4.897 min Scan# 625

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

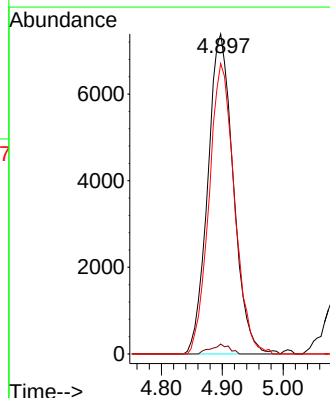
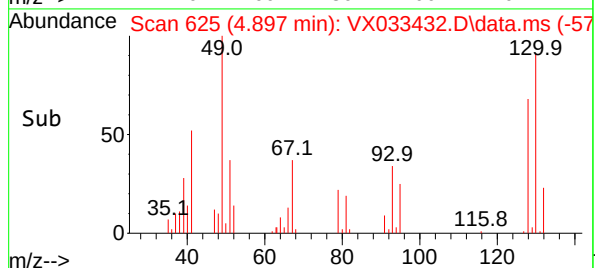
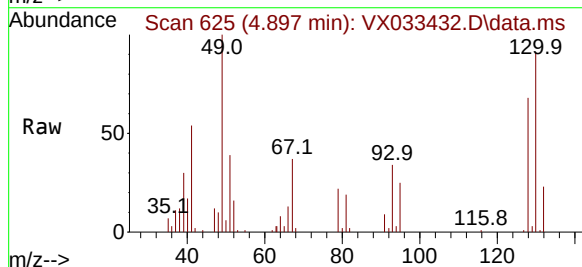
Tgt Ion: 49 Resp: 21526

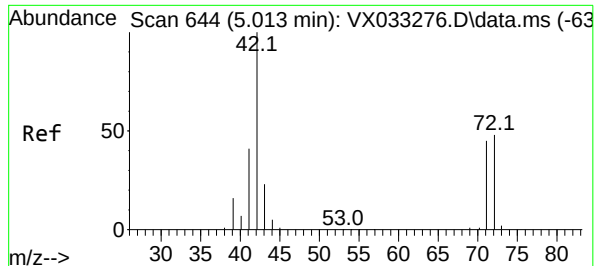
Ion Ratio Lower Upper

49 100

129 2.2 0.0 3.8

130 90.0 67.5 101.3





#29

Tetrahydrofuran

Concen: 90.388 ug/l

RT: 5.007 min Scan# 644

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 42 Resp: 57659

Ion Ratio Lower Upper

42 100

72 51.1 37.6 56.4

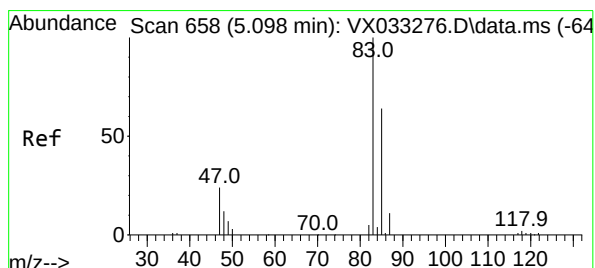
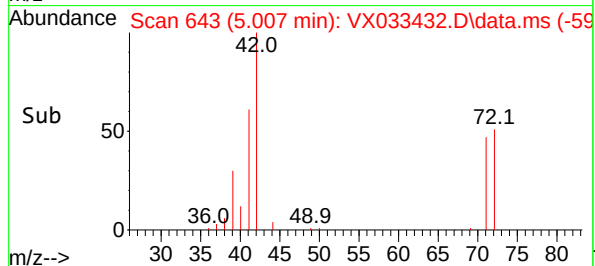
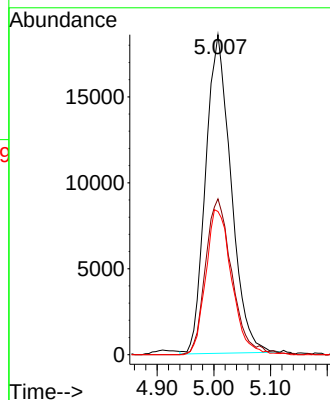
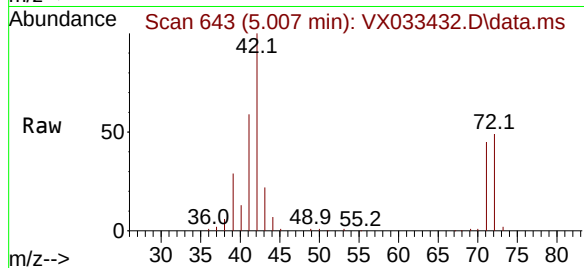
71 46.6 34.7 52.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#30

Chloroform

Concen: 20.611 ug/l

RT: 5.093 min Scan# 657

Delta R.T. -0.006 min

Lab File: VX033432.D

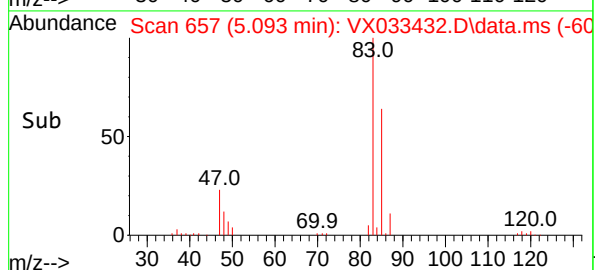
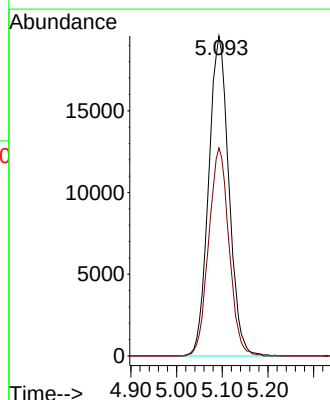
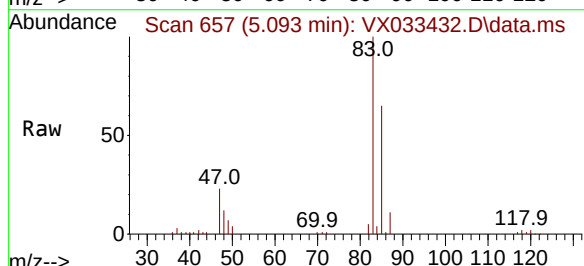
Acq: 15 Dec 2022 11:07

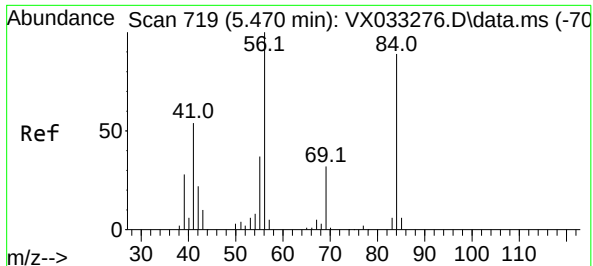
Tgt Ion: 83 Resp: 60255

Ion Ratio Lower Upper

83 100

85 65.0 51.1 76.7





#31

Cyclohexane

Concen: 20.544 ug/l

RT: 5.470 min Scan# 719

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 56 Resp: 45250

Ion Ratio Lower Upper

56 100

69 33.5 24.1 36.1

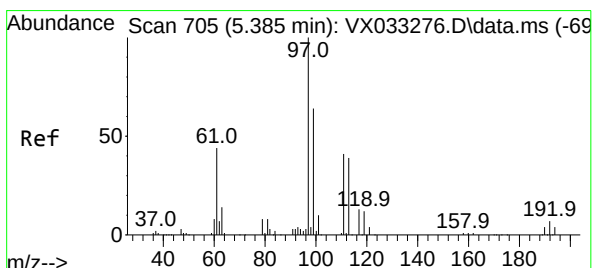
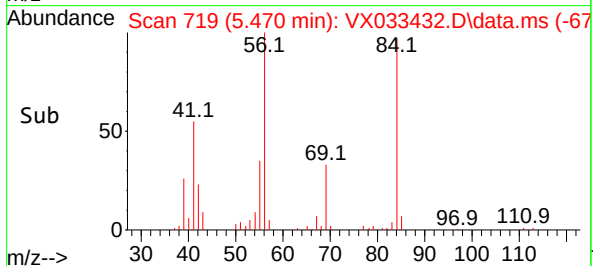
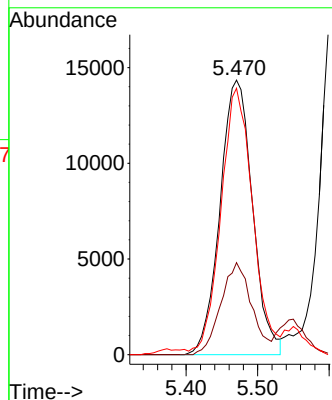
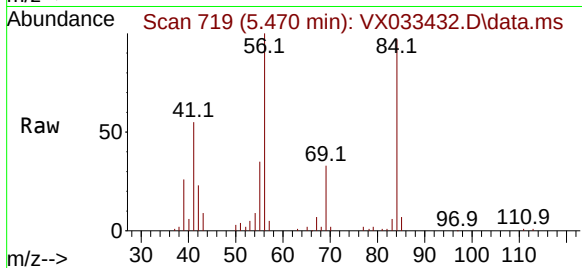
84 95.3 66.9 100.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#32

1,1,1-Trichloroethane

Concen: 21.700 ug/l

RT: 5.385 min Scan# 705

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

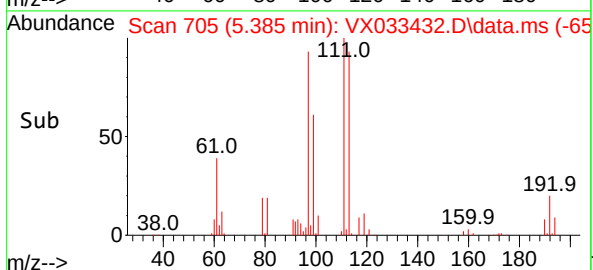
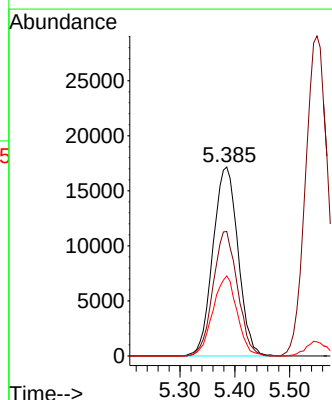
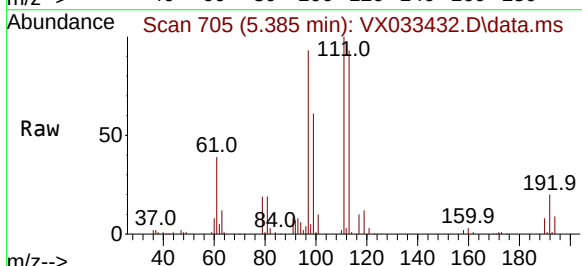
Tgt Ion: 97 Resp: 54583

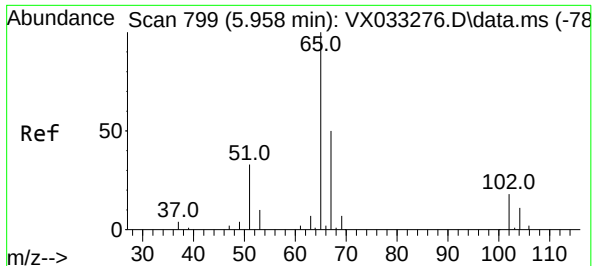
Ion Ratio Lower Upper

97 100

99 64.2 51.4 77.0

61 40.9 35.2 52.8





#33

1,2-Dichloroethane-d4

Concen: 48.241 ug/l

RT: 5.952 min Scan# 799

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 65 Resp: 4471

Ion Ratio Lower Upper

65 100

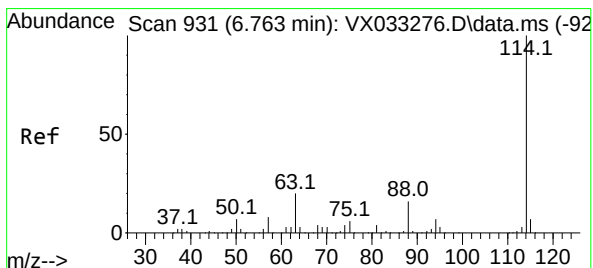
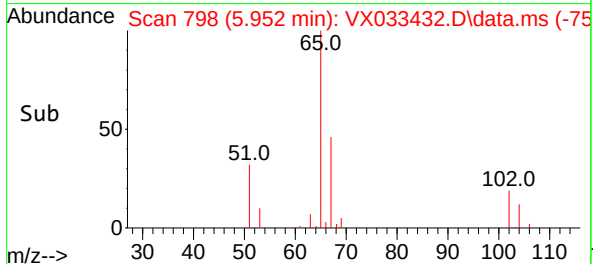
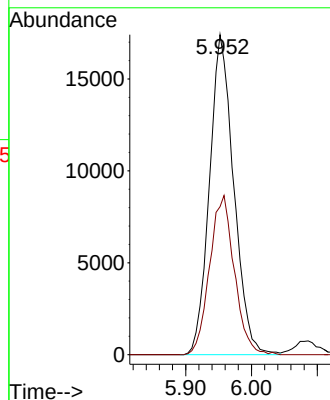
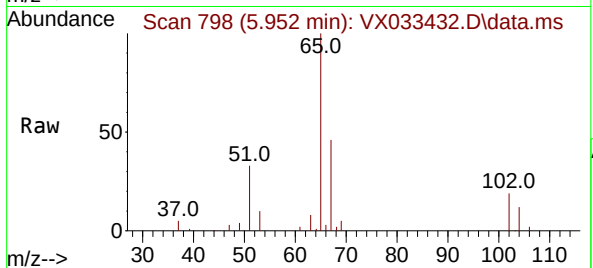
67 50.7 0.0 101.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.757 min Scan# 930

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

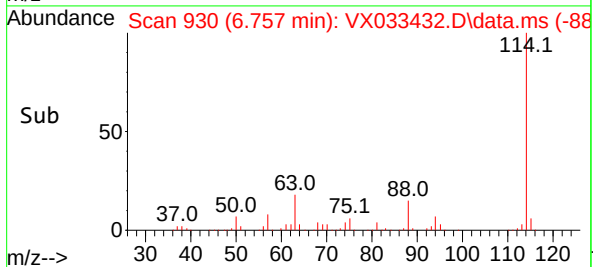
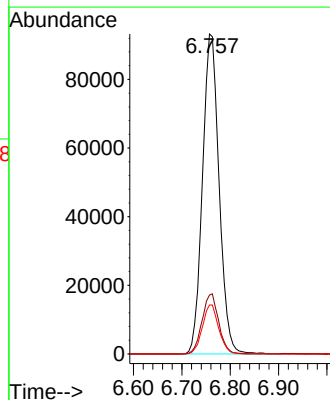
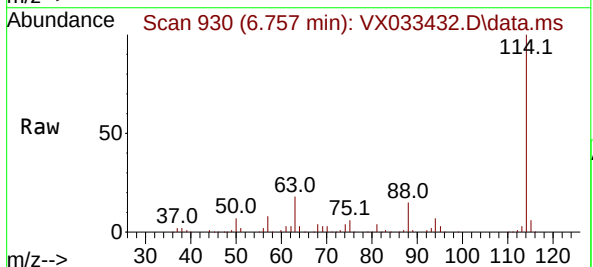
Tgt Ion:114 Resp: 222709

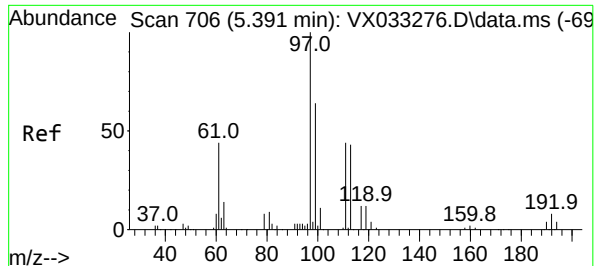
Ion Ratio Lower Upper

114 100

63 18.4 0.0 41.6

88 15.3 0.0 33.4





#35

Dibromofluoromethane

Concen: 51.403 ug/l

RT: 5.379 min Scan# 704

Delta R.T. -0.012 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion:113 Resp: 51490

Ion Ratio Lower Upper

113 100

111 104.4 82.4 123.6

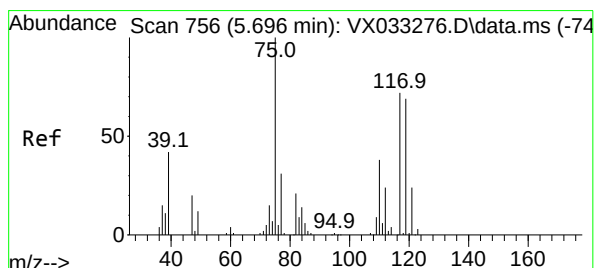
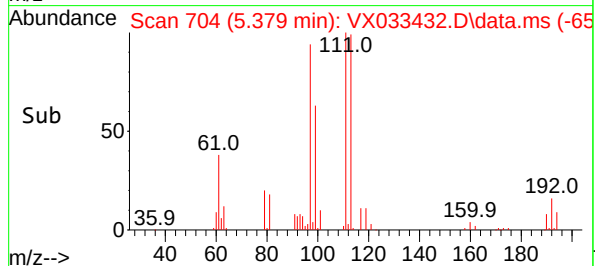
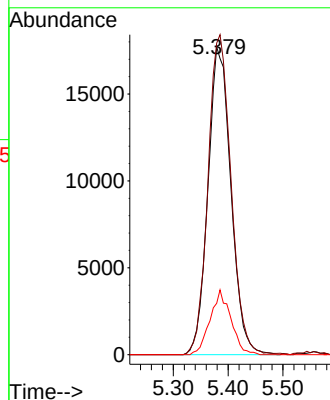
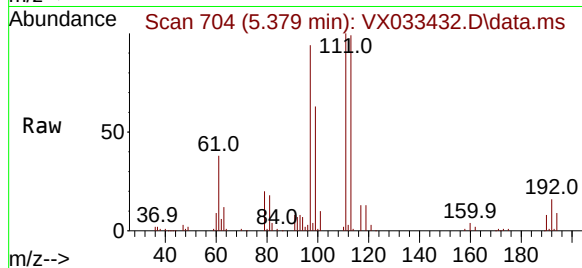
192 19.1 15.4 23.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#36

1,1-Dichloropropene

Concen: 21.987 ug/l

RT: 5.696 min Scan# 756

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

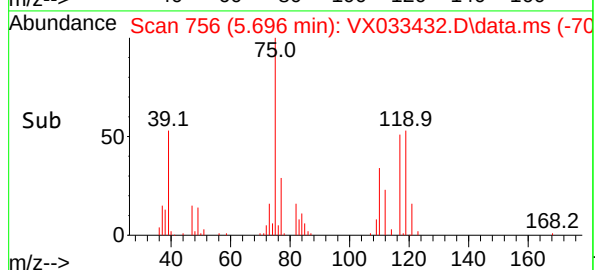
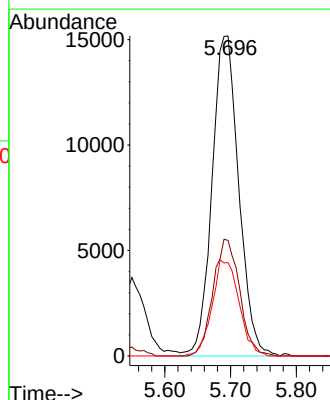
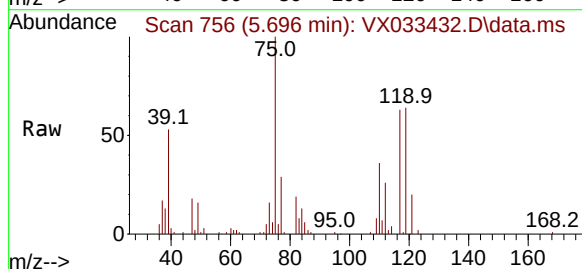
Tgt Ion: 75 Resp: 42941

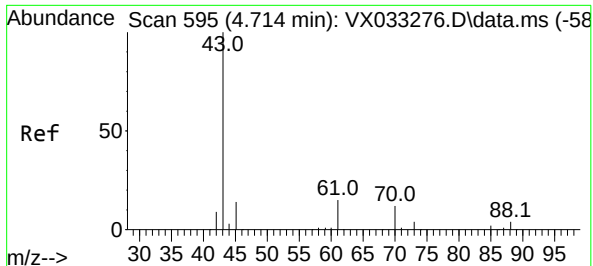
Ion Ratio Lower Upper

75 100

110 36.2 18.4 55.2

77 30.2 24.5 36.7





#37

Ethyl Acetate

Concen: 19.481 ug/l

RT: 4.708 min Scan# 594

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

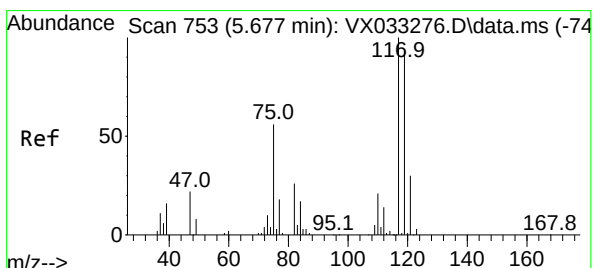
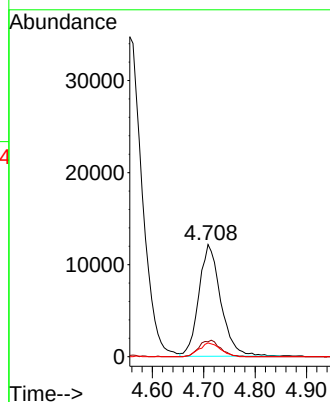
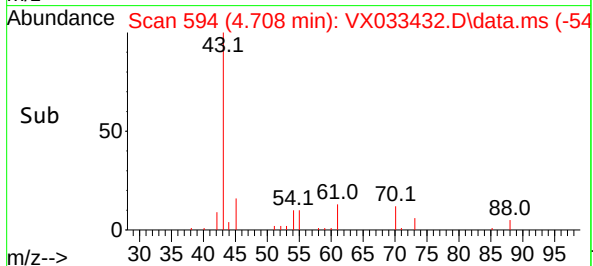
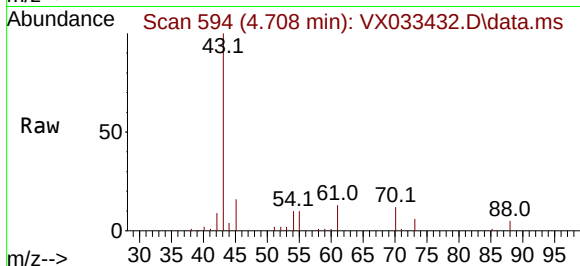
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 43    | Resp: | 3596 |
| Ion Ratio | Lower | Upper |      |
| 43        | 100   |       |      |
| 61        | 14.4  | 11.5  | 17.3 |
| 70        | 11.8  | 9.1   | 13.7 |

## Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#38

Carbon Tetrachloride

Concen: 21.650 ug/l

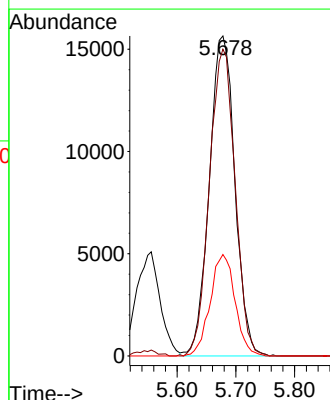
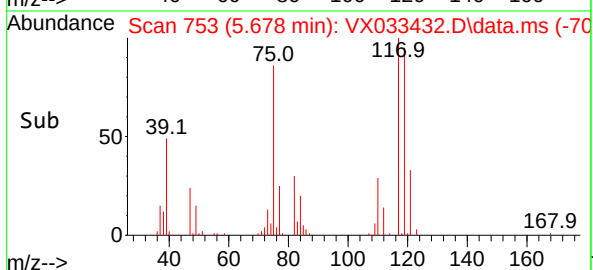
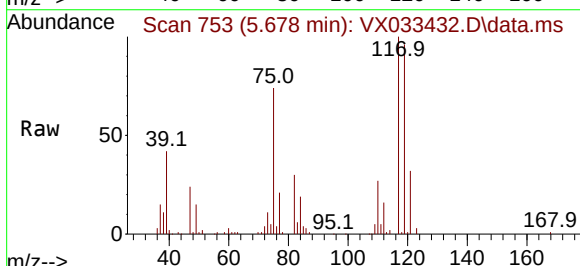
RT: 5.678 min Scan# 753

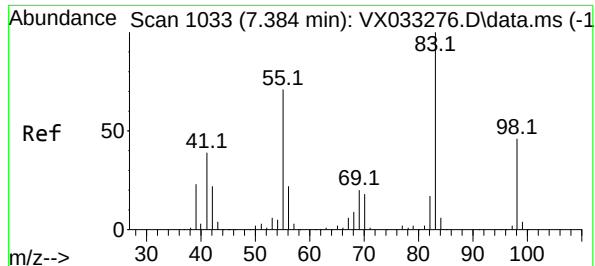
Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 117   | Resp: | 47373 |
| Ion Ratio | Lower | Upper |       |
| 117       | 100   |       |       |
| 119       | 95.9  | 77.2  | 115.8 |
| 121       | 31.7  | 25.8  | 38.6  |





#39

Methylcyclohexane

Concen: 22.937 ug/l

RT: 7.379 min Scan# 1033

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 83 Resp: 50139

Ion Ratio Lower Upper

83 100

55 70.0 58.4 87.6

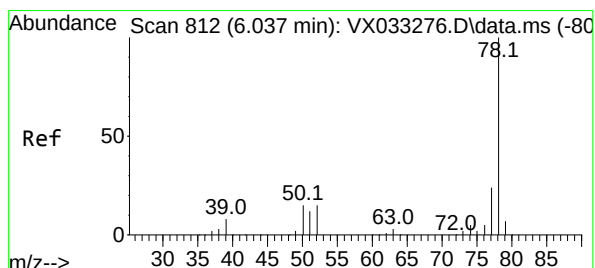
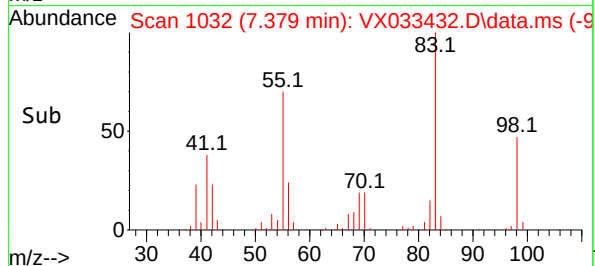
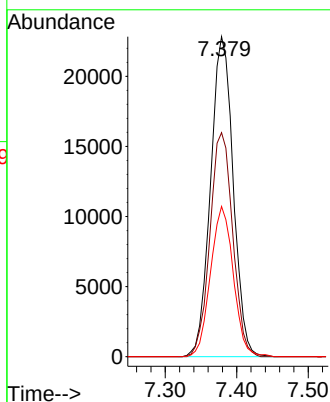
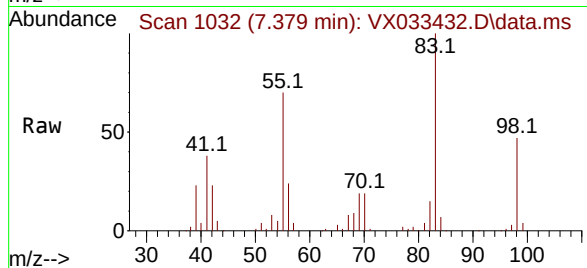
98 46.9 37.2 55.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#40

Benzene

Concen: 21.286 ug/l

RT: 6.037 min Scan# 812

Delta R.T. 0.000 min

Lab File: VX033432.D

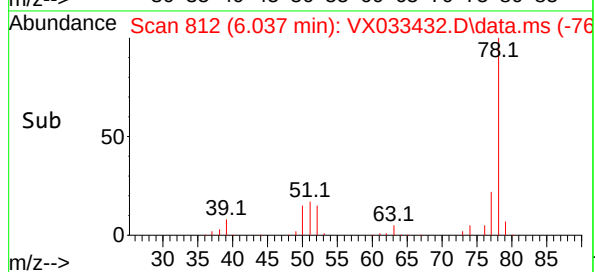
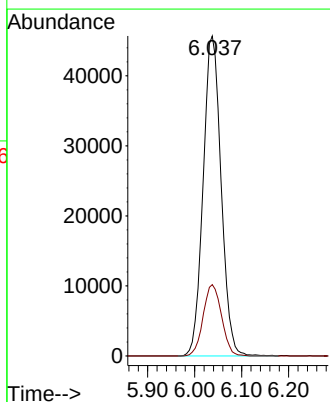
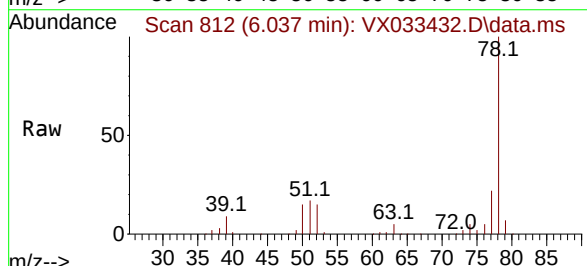
Acq: 15 Dec 2022 11:07

Tgt Ion: 78 Resp: 121206

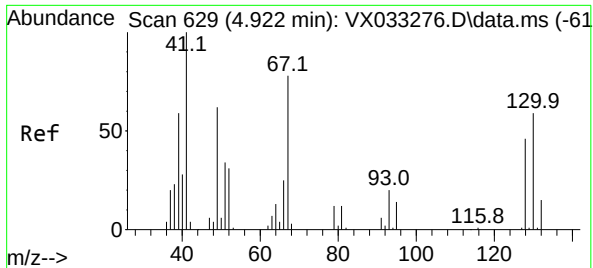
Ion Ratio Lower Upper

78 100

77 22.3 19.0 28.4

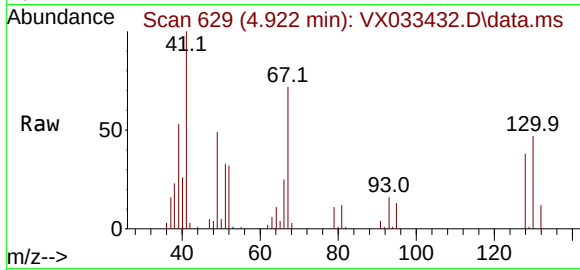






#41  
Methacrylonitrile  
Concen: 20.348 ug/l  
RT: 4.922 min Scan# 61  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

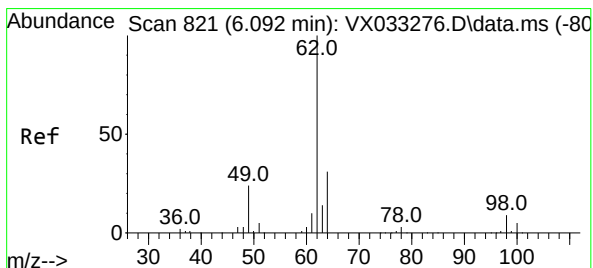
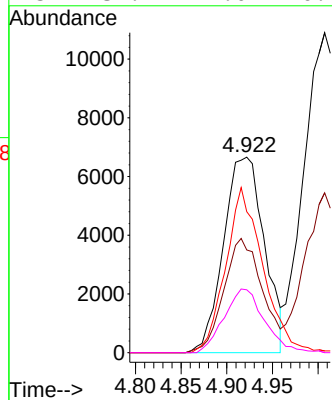
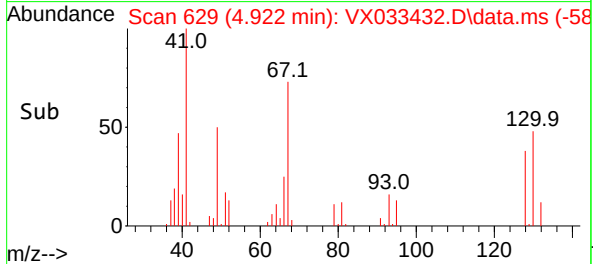
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01



Tgt Ion: 41 Resp: 20700  
Ion Ratio Lower Upper  
41 100  
39 54.8 47.5 71.3  
67 77.1 60.5 90.7  
52 32.2 27.0 40.6

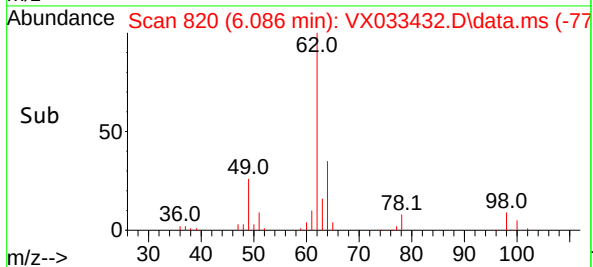
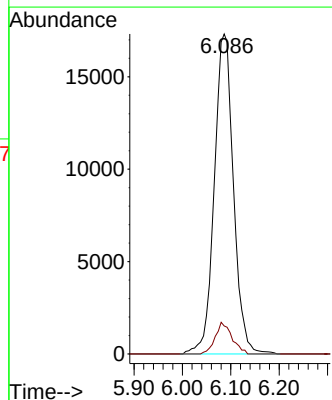
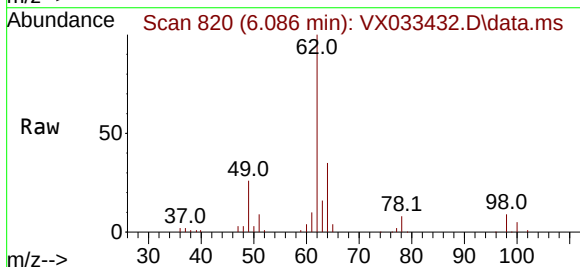
Manual Integrations  
APPROVED

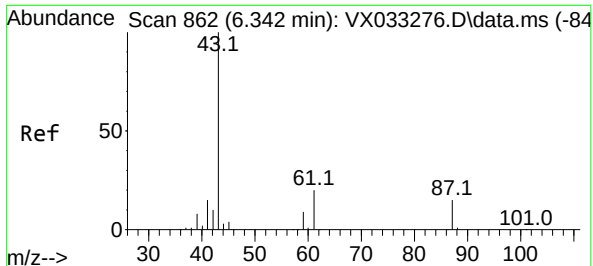
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#42  
1,2-Dichloroethane  
Concen: 21.085 ug/l  
RT: 6.086 min Scan# 820  
Delta R.T. -0.006 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Tgt Ion: 62 Resp: 47676  
Ion Ratio Lower Upper  
62 100  
98 8.6 0.0 16.0





#43

Isopropyl Acetate

Concen: 19.951 ug/l

RT: 6.336 min Scan# 80

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 43 Resp: 5926

Ion Ratio Lower Upper

43

100

61

87

19.7 15.4 23.0

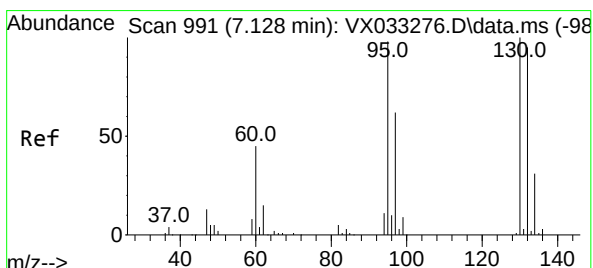
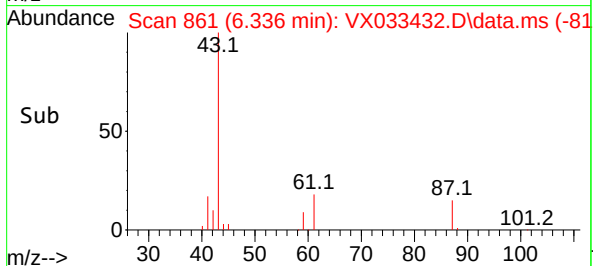
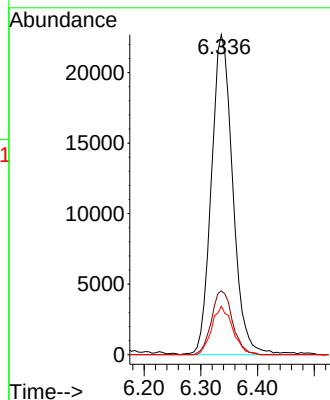
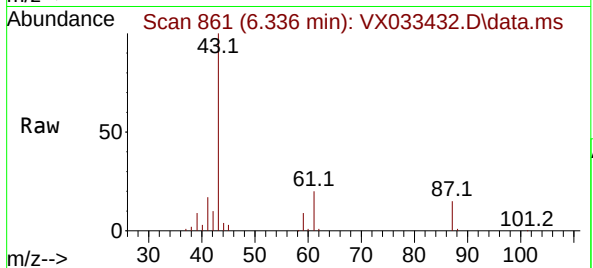
14.7 10.8 16.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#44

Trichloroethene

Concen: 22.230 ug/l

RT: 7.123 min Scan# 990

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Tgt Ion:130 Resp: 34900

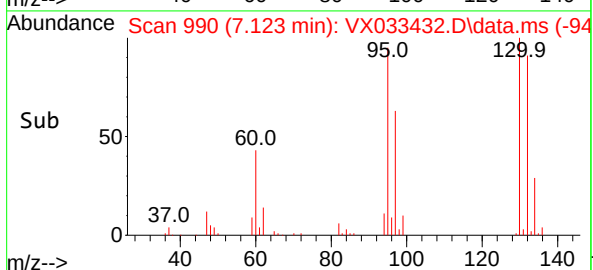
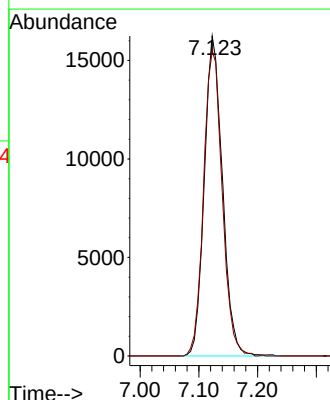
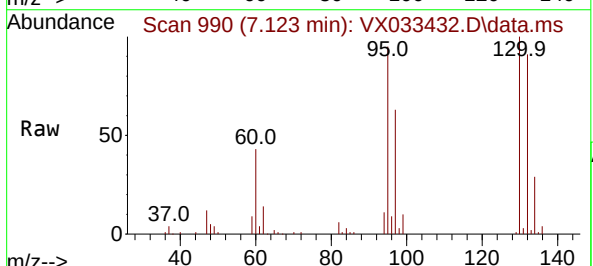
Ion Ratio Lower Upper

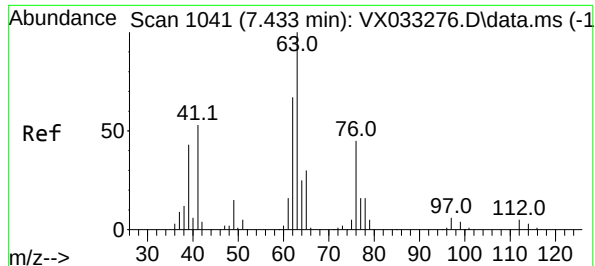
130

100

95

95.3 0.0 195.2





#45

1,2-Dichloropropane

Concen: 21.271 ug/l

RT: 7.427 min Scan# 1040

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 63 Resp: 3097

Ion Ratio Lower Upper

63 100

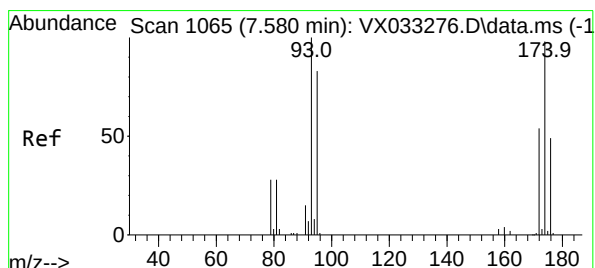
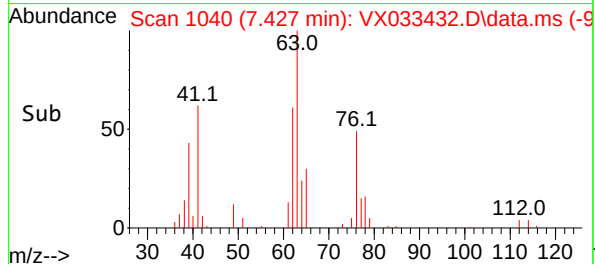
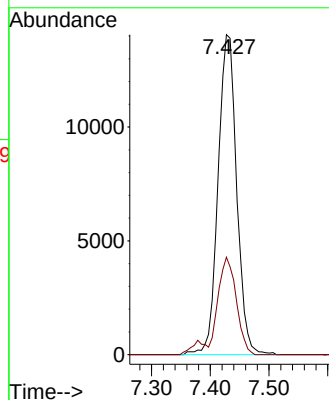
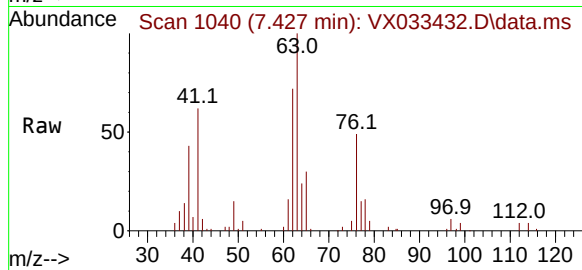
65 30.4 24.6 36.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#46

Dibromomethane

Concen: 21.322 ug/l

RT: 7.580 min Scan# 1065

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

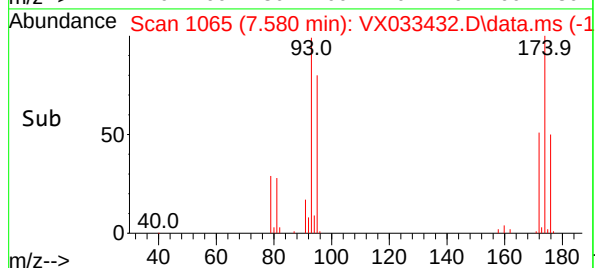
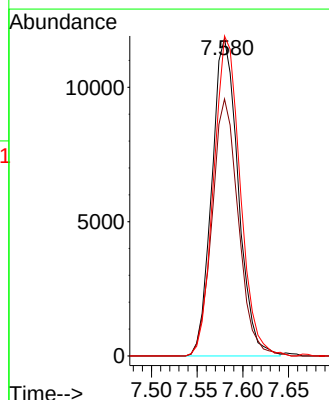
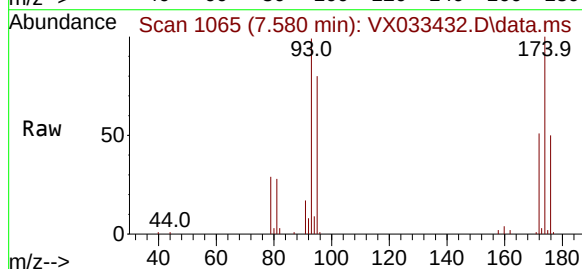
Tgt Ion: 93 Resp: 23654

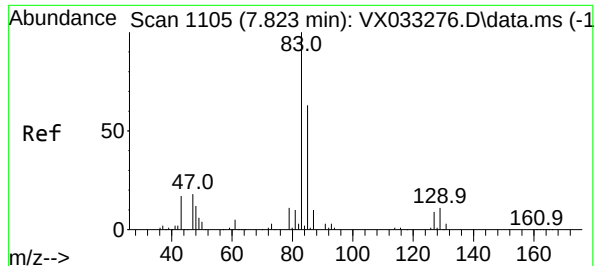
Ion Ratio Lower Upper

93 100

95 80.7 65.8 98.8

174 101.7 79.8 119.6





#47

Bromodichloromethane

Concen: 21.418 ug/l

RT: 7.818 min Scan# 1104

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

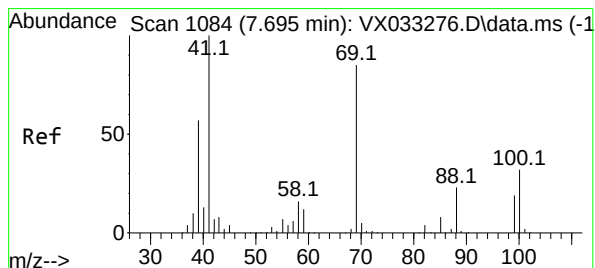
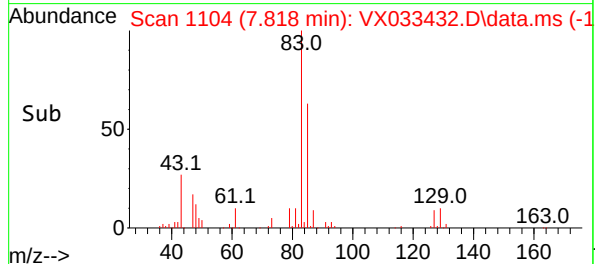
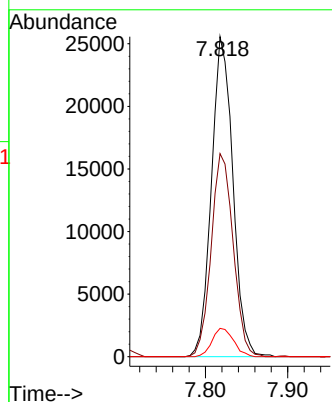
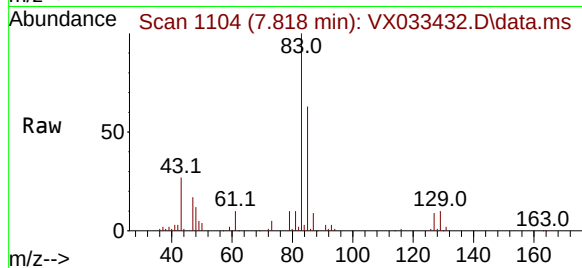
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 4631  |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 63.4  | 52.2  | 78.4  |
| 127      | 8.9   | 7.4   | 11.2  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#48

Methyl methacrylate

Concen: 20.255 ug/l

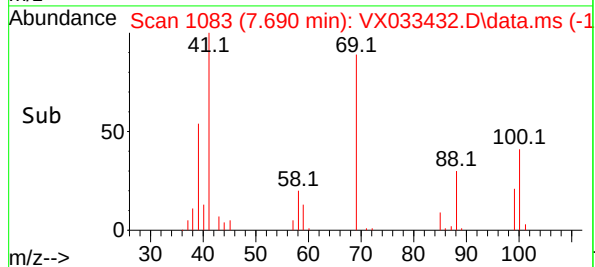
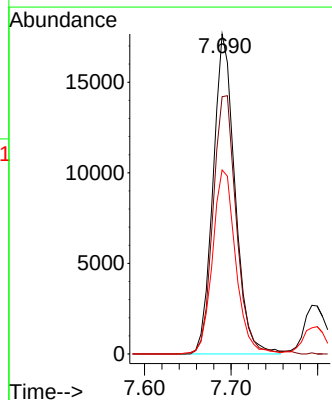
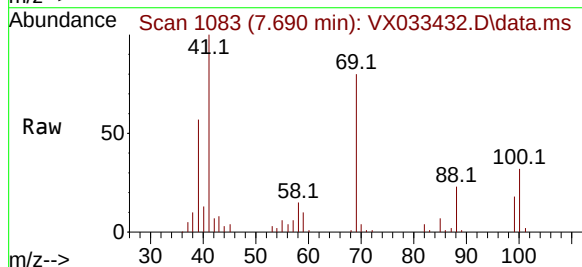
RT: 7.690 min Scan# 1083

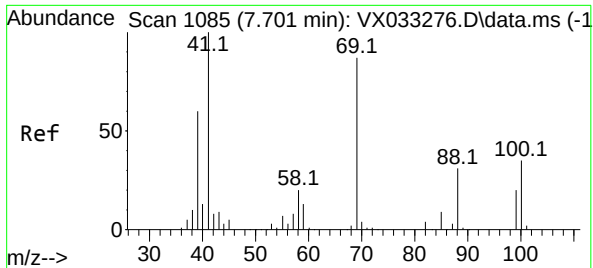
Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 31051 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 69       | 86.0  | 65.1  | 97.7  |
| 39       | 60.8  | 51.9  | 77.9  |





#49

1,4-Dioxane

Concen: 396.244 ug/l

RT: 7.696 min Scan# 1085

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

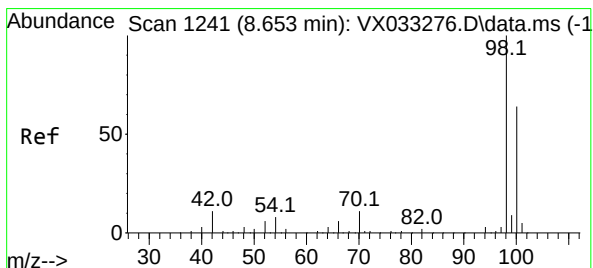
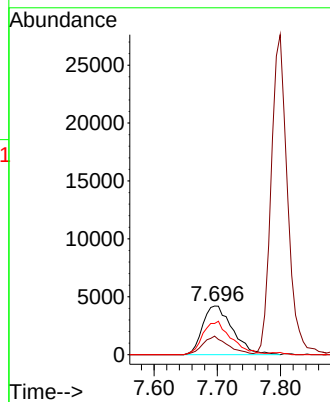
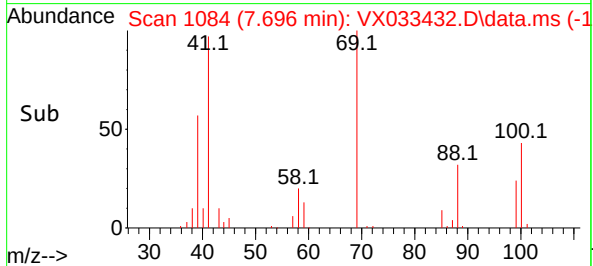
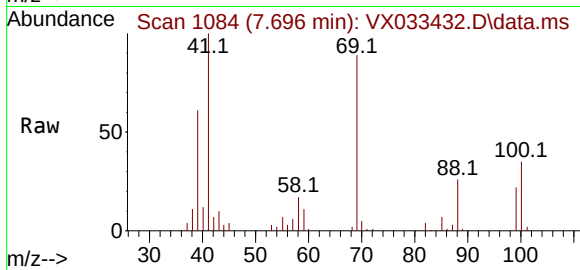
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 88    | Resp: | 1385  |
| Ion      | Ratio | Lower | Upper |
| 88       | 100   |       |       |
| 43       | 32.0  | 26.6  | 39.8  |
| 58       | 64.5  | 51.7  | 77.5  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#50

Toluene-d8

Concen: 54.117 ug/l

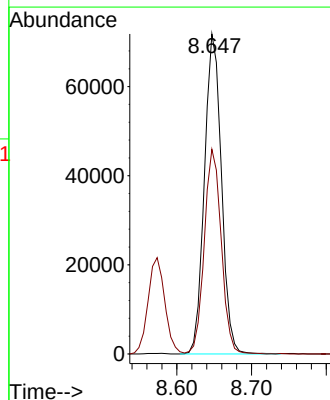
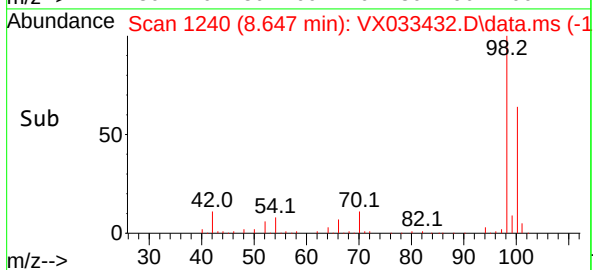
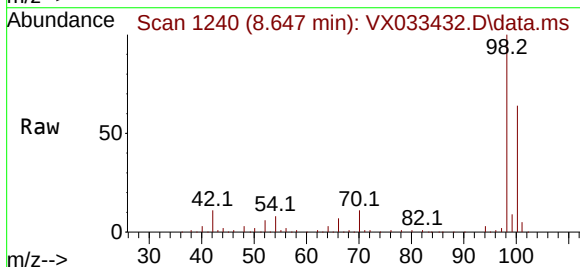
RT: 8.647 min Scan# 1240

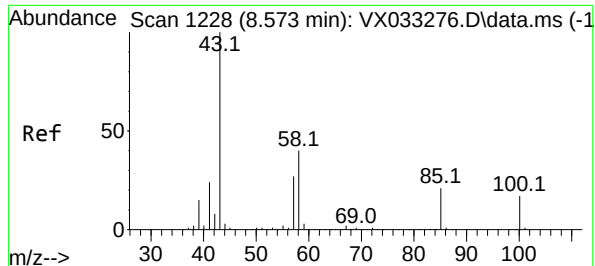
Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 98    | Resp: | 113403 |
| Ion      | Ratio | Lower | Upper  |
| 98       | 100   |       |        |
| 100      | 63.8  | 50.9  | 76.3   |





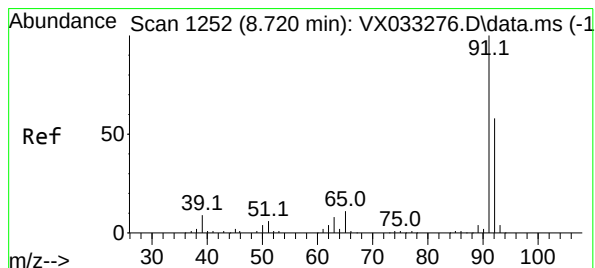
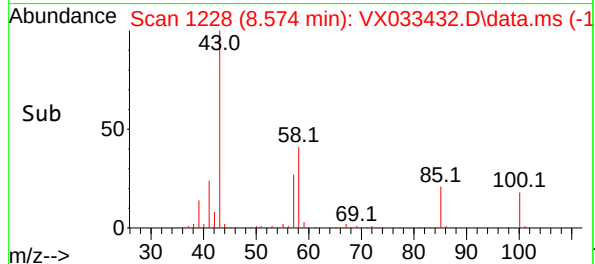
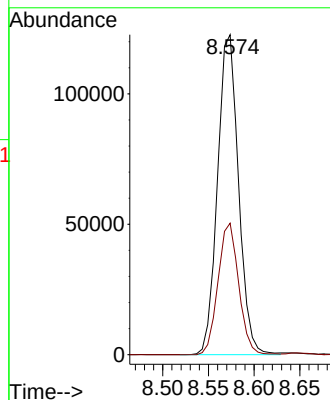
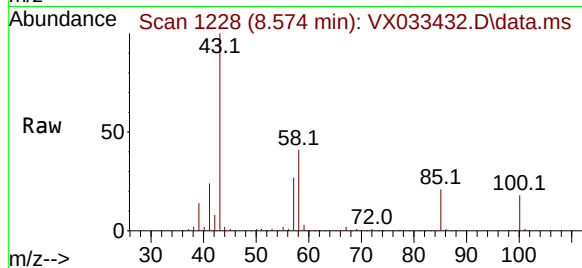
#51  
4-Methyl-2-Pentanone  
Concen: 104.484 ug/l  
RT: 8.574 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01

Tgt Ion: 43 Resp: 196268  
Ion Ratio Lower Upper  
43 100  
58 40.5 30.9 46.3

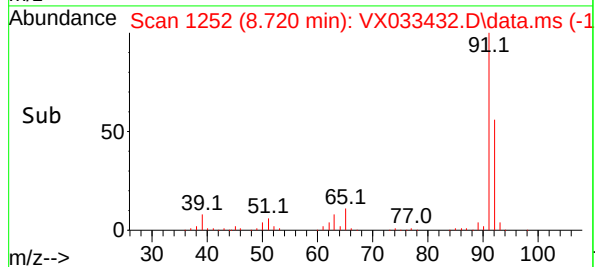
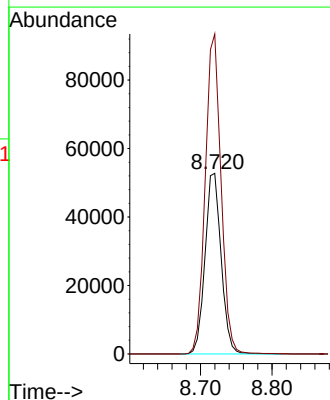
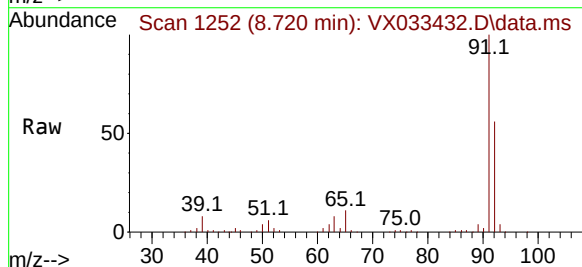
Manual Integrations  
APPROVED

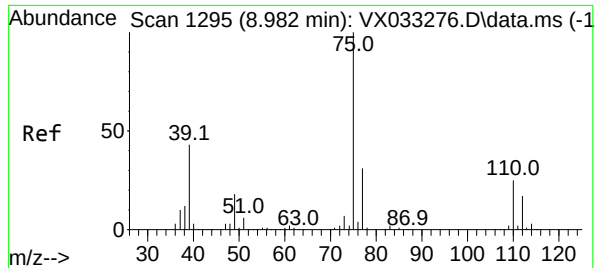
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#52  
Toluene  
Concen: 22.467 ug/l  
RT: 8.720 min Scan# 1252  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Tgt Ion: 92 Resp: 82715  
Ion Ratio Lower Upper  
92 100  
91 173.9 138.3 207.5





#53

t-1,3-Dichloropropene

Concen: 21.109 ug/l

RT: 8.976 min Scan# 1129

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 75 Resp: 4549

Ion Ratio Lower Upper

75 100

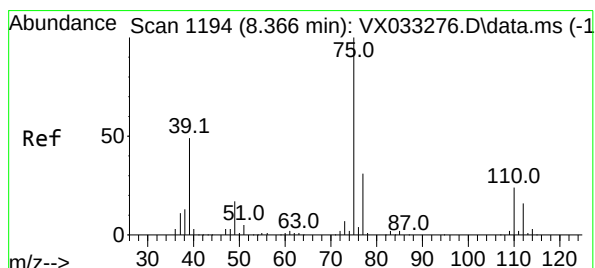
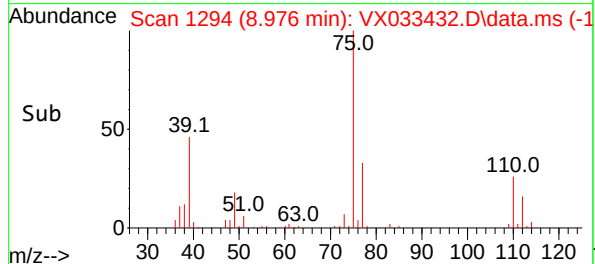
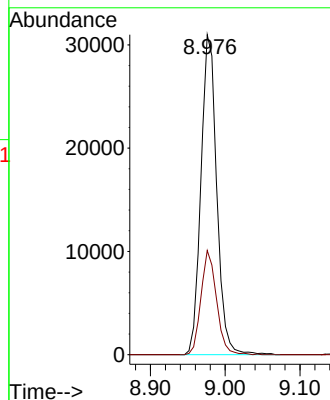
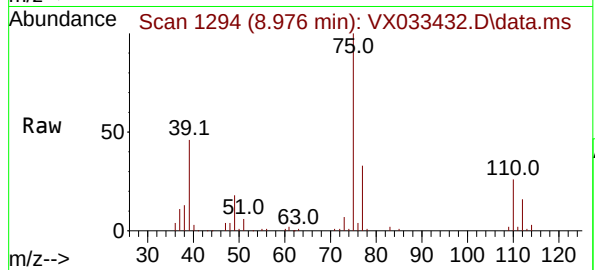
77 32.6 25.1 37.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#54

cis-1,3-Dichloropropene

Concen: 21.705 ug/l

RT: 8.366 min Scan# 1194

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

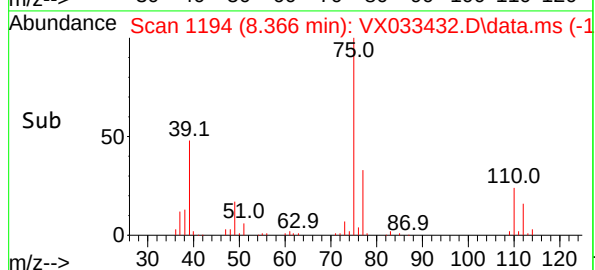
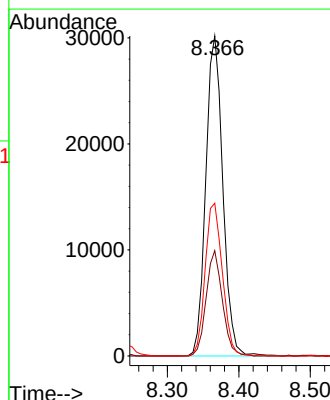
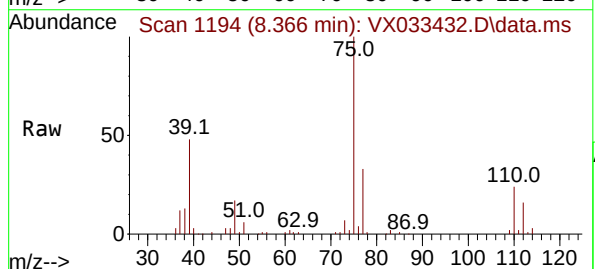
Tgt Ion: 75 Resp: 49946

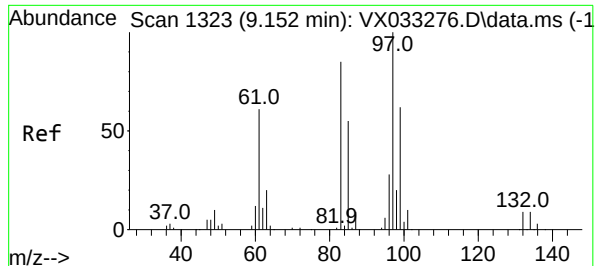
Ion Ratio Lower Upper

75 100

77 32.9 25.1 37.7

39 47.7 45.5 68.3





#55

1,1,2-Trichloroethane

Concen: 22.048 ug/l

RT: 9.153 min Scan# 1323

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 97 Resp: 3412

Ion Ratio Lower Upper

97 100

83 81.8 68.1 102.1

85 51.4 43.3 64.9

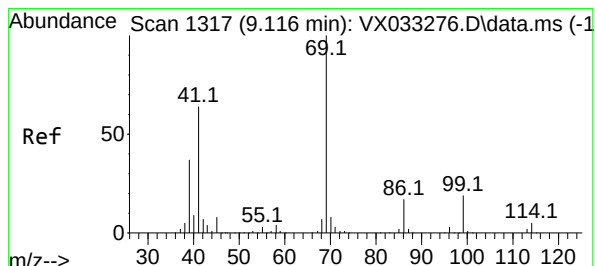
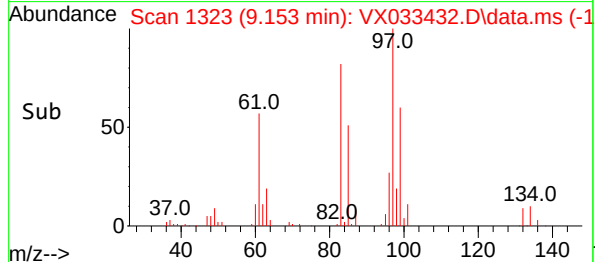
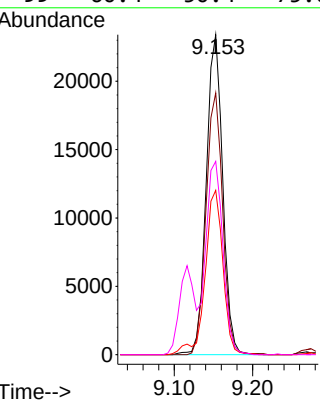
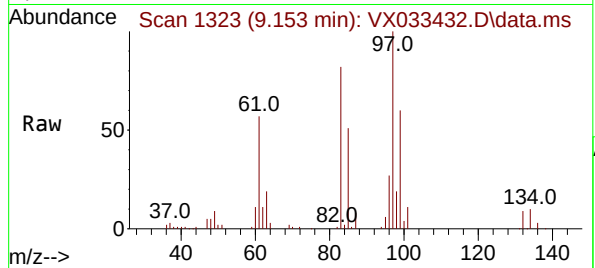
99 60.4 50.4 75.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#56

Ethyl methacrylate

Concen: 21.423 ug/l

RT: 9.116 min Scan# 1317

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

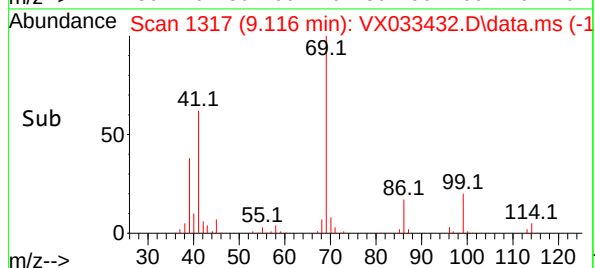
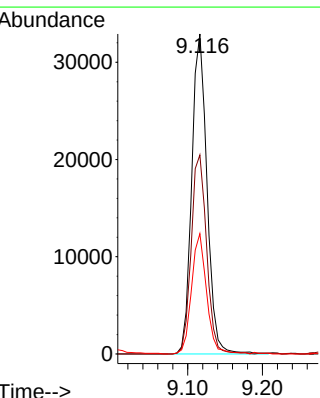
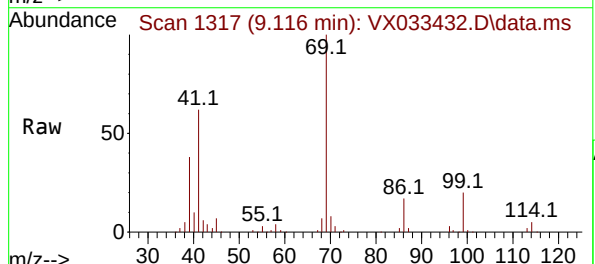
Tgt Ion: 69 Resp: 46679

Ion Ratio Lower Upper

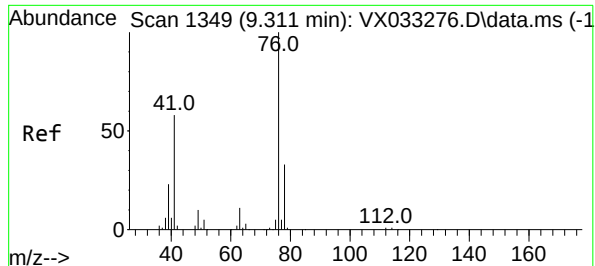
69 100

41 63.0 54.3 81.5

39 37.1 35.2 52.8







#57

1,3-Dichloropropane

Concen: 21.537 ug/l

RT: 9.311 min Scan# 11

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 76 Resp: 5354

Ion Ratio Lower Upper

76 100

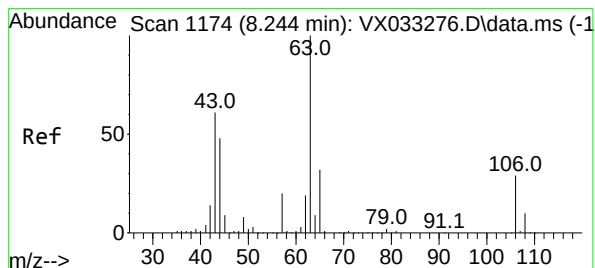
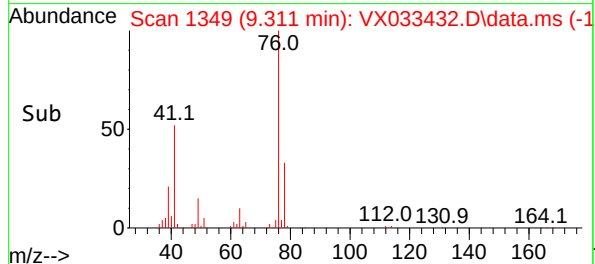
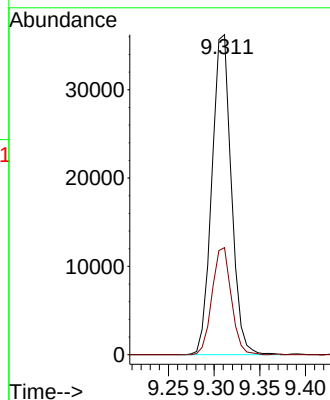
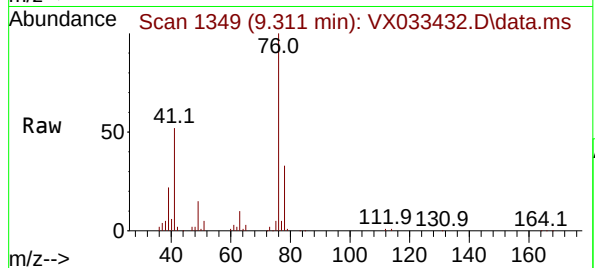
78 33.1 26.0 39.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#58

2-Chloroethyl Vinyl ether

Concen: 96.952 ug/l

RT: 8.238 min Scan# 1173

Delta R.T. -0.006 min

Lab File: VX033432.D

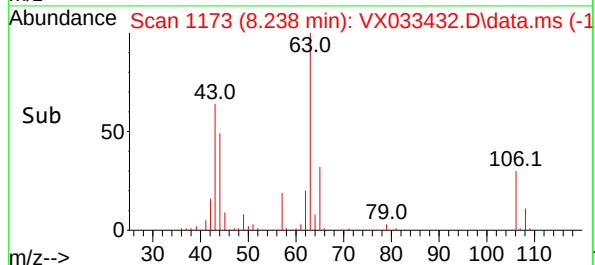
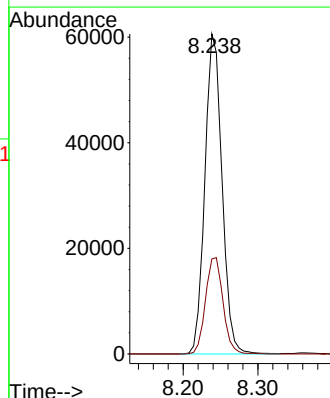
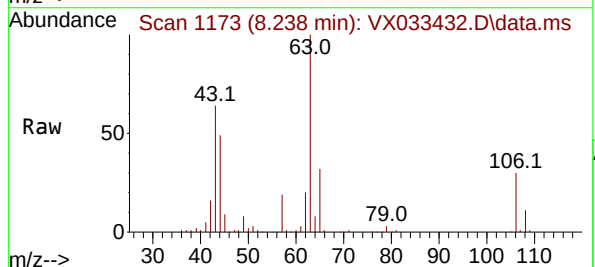
Acq: 15 Dec 2022 11:07

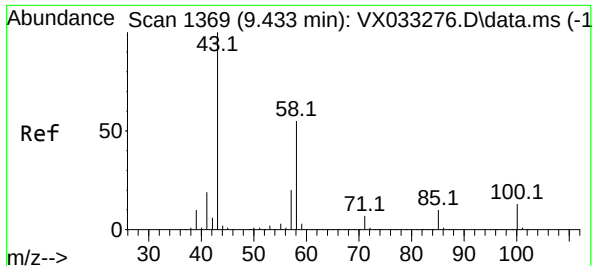
Tgt Ion: 63 Resp: 96663

Ion Ratio Lower Upper

63 100

106 30.7 23.3 34.9





#59

2-Hexanone

Concen: 109.361 ug/l

RT: 9.427 min Scan# 1368

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 43 Resp: 15138

Ion Ratio Lower Upper

43 100

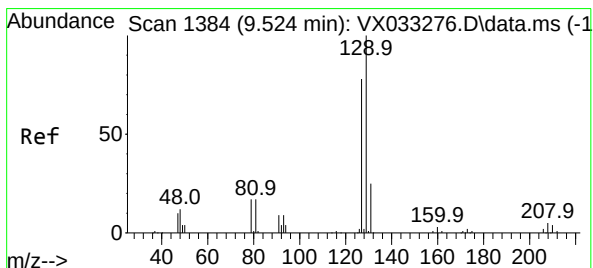
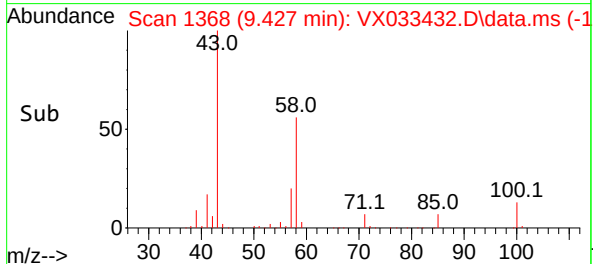
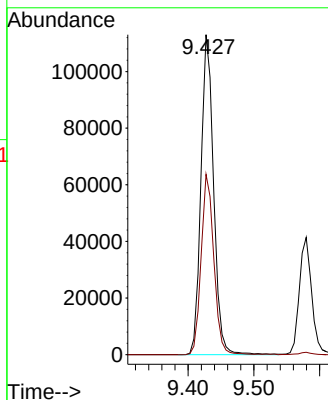
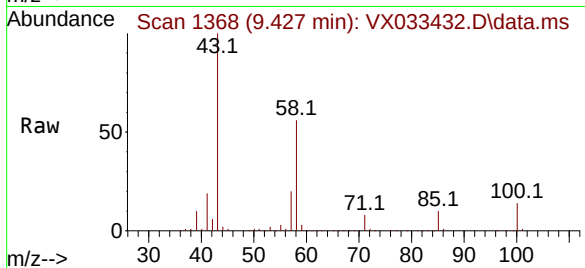
58 56.4 26.5 79.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#60

Dibromochloromethane

Concen: 22.006 ug/l

RT: 9.519 min Scan# 1383

Delta R.T. -0.006 min

Lab File: VX033432.D

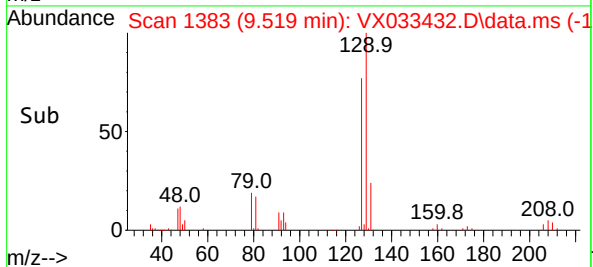
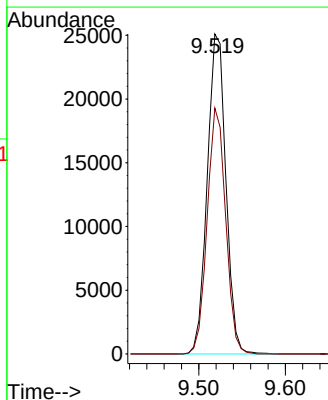
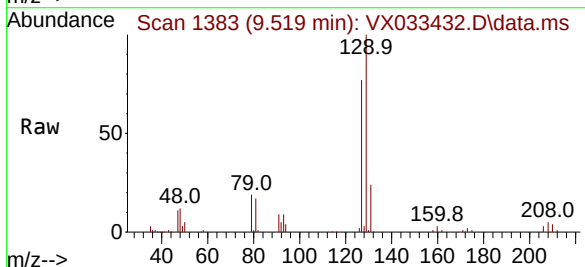
Acq: 15 Dec 2022 11:07

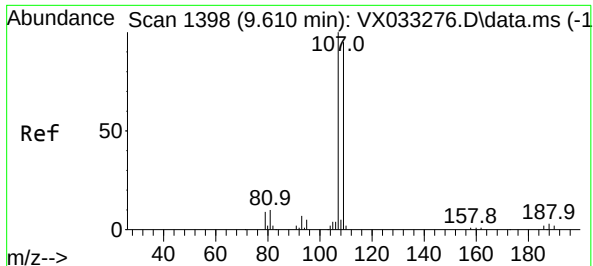
Tgt Ion:129 Resp: 37523

Ion Ratio Lower Upper

129 100

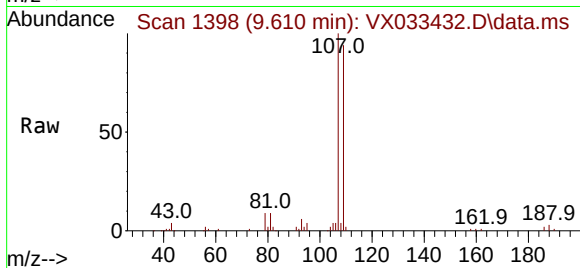
127 76.1 38.6 115.8





#61  
1,2-Dibromoethane  
Concen: 22.006 ug/l  
RT: 9.610 min Scan# 1398  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

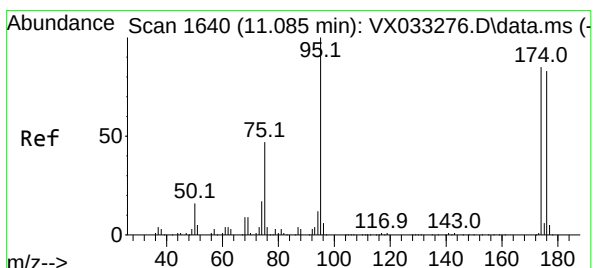
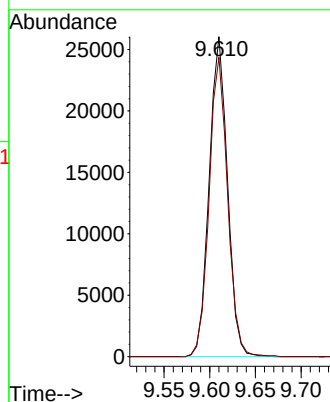
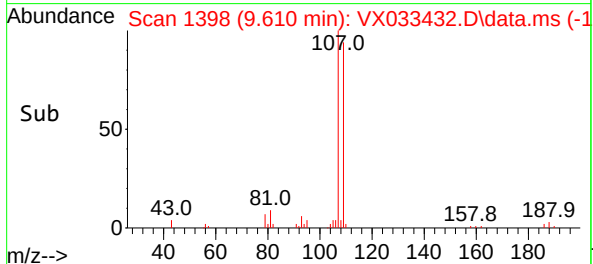
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01



Tgt Ion:107 Resp: 36225  
Ion Ratio Lower Upper  
107 100  
109 94.4 76.0 114.0

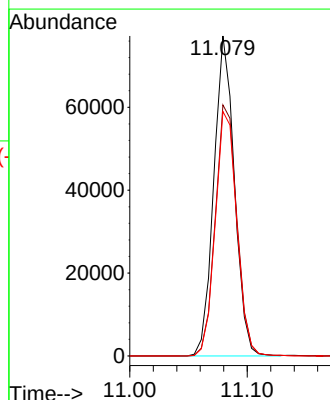
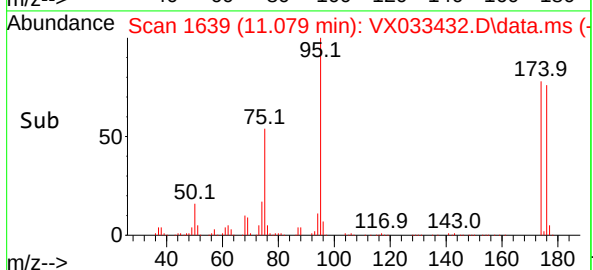
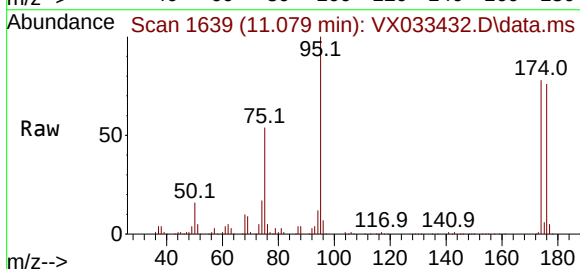
Manual Integrations  
APPROVED

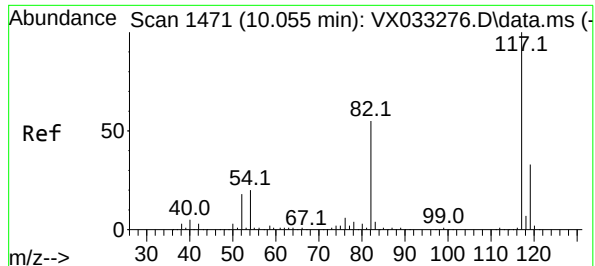
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#62  
4-Bromofluorobenzene  
Concen: 58.652 ug/l  
RT: 11.079 min Scan# 1639  
Delta R.T. -0.006 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

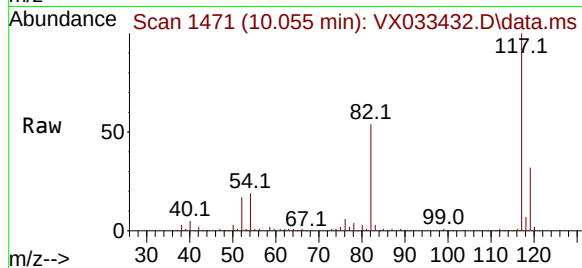
Tgt Ion: 95 Resp: 93976  
Ion Ratio Lower Upper  
95 100  
174 82.6 0.0 164.0  
176 80.1 0.0 154.4





#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.055 min Scan# 1471  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

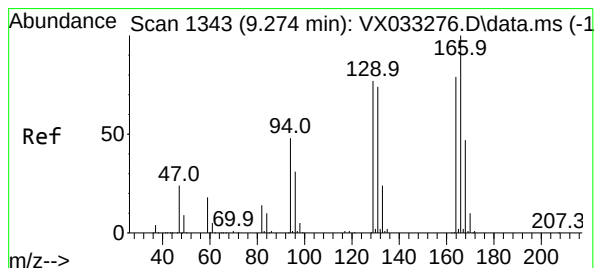
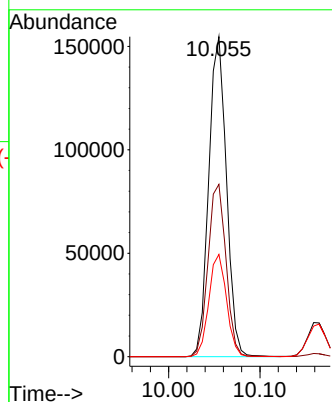
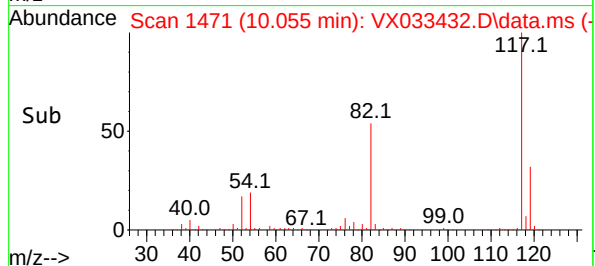
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01



Tgt Ion:117 Resp: 207849  
Ion Ratio Lower Upper  
117 100  
82 53.8 44.3 66.5  
119 32.0 25.7 38.5

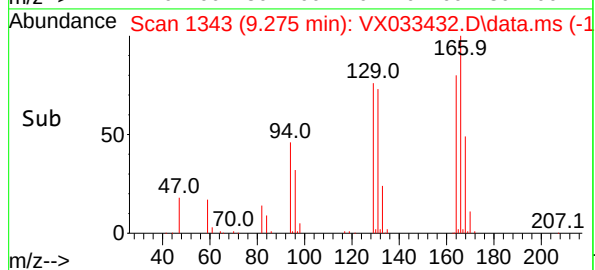
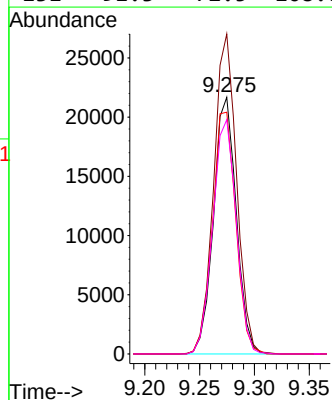
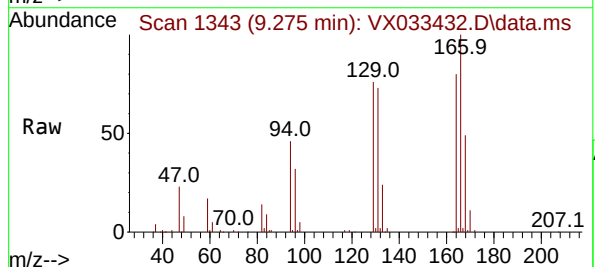
Manual Integrations  
APPROVED

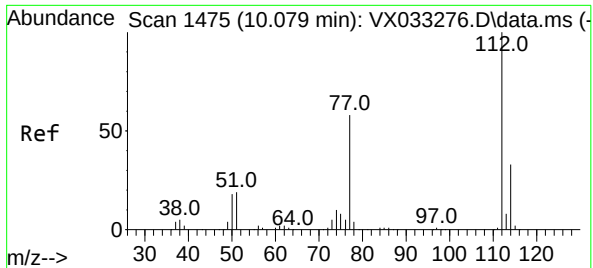
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#64  
Tetrachloroethene  
Concen: 22.006 ug/l  
RT: 9.275 min Scan# 1343  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Tgt Ion:164 Resp: 31276  
Ion Ratio Lower Upper  
164 100  
166 124.6 105.4 158.2  
129 94.2 78.2 117.2  
131 91.3 72.5 108.7





#65

Chlorobenzene

Concen: 22.227 ug/l

RT: 10.079 min Scan# 1475

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion:112 Resp: 93552

Ion Ratio Lower Upper

112 100

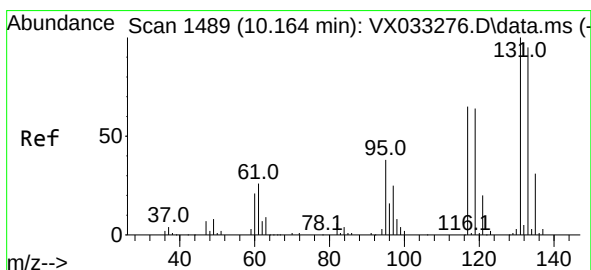
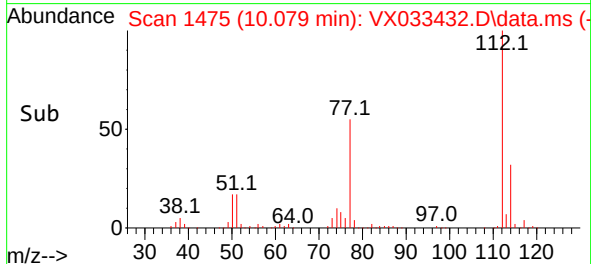
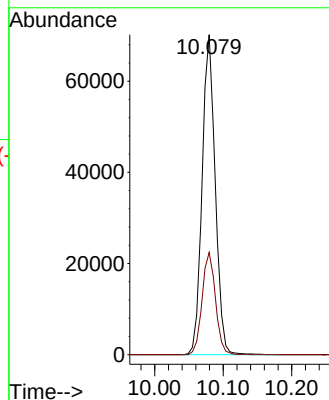
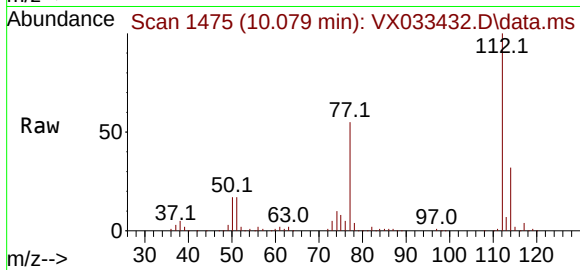
114 31.9 25.4 38.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#66

1,1,1,2-Tetrachloroethane

Concen: 21.957 ug/l

RT: 10.165 min Scan# 1489

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

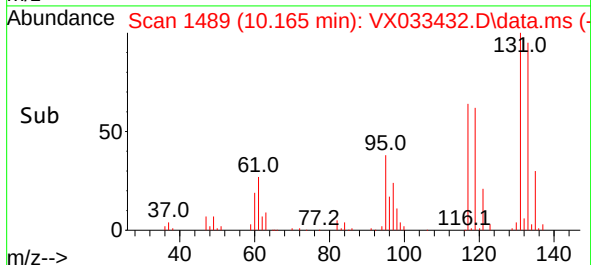
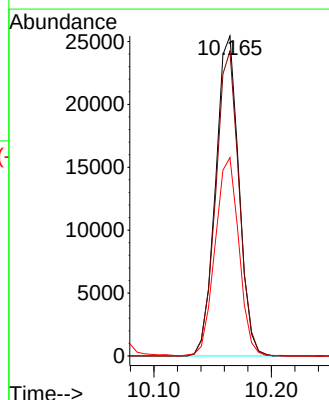
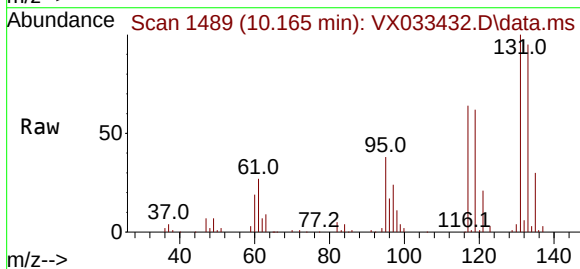
Tgt Ion:131 Resp: 34924

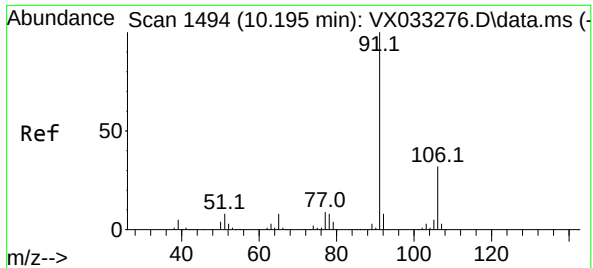
Ion Ratio Lower Upper

131 100

133 95.6 47.6 142.9

119 63.6 32.4 97.0





#67

Ethyl Benzene

Concen: 22.759 ug/l

RT: 10.195 min Scan# 1494

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 91 Resp: 16688

Ion Ratio Lower Upper

91 100

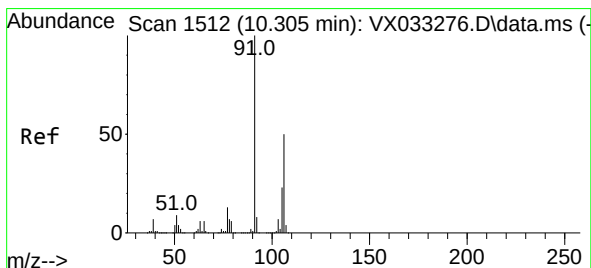
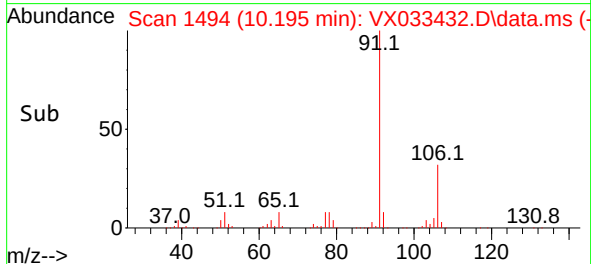
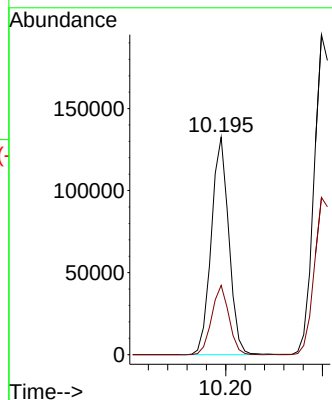
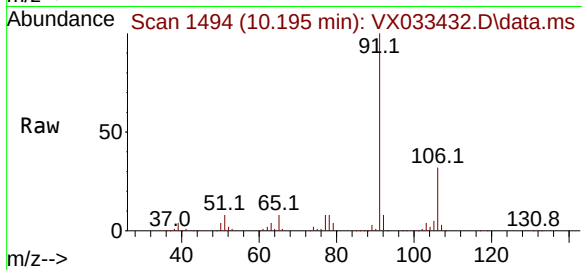
106 31.9 25.0 37.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#68

m/p-Xylenes

Concen: 45.726 ug/l

RT: 10.299 min Scan# 1511

Delta R.T. -0.006 min

Lab File: VX033432.D

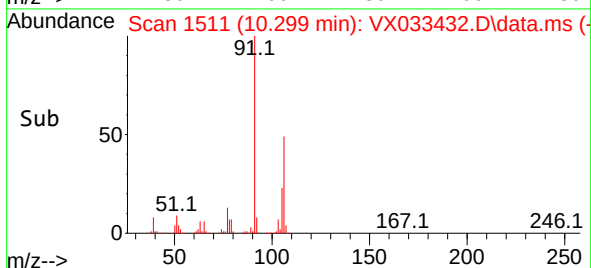
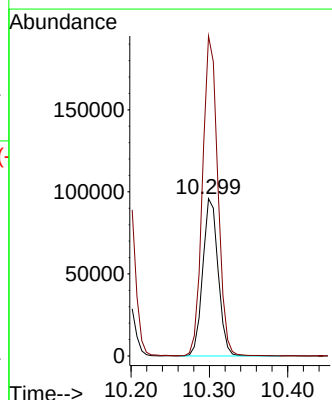
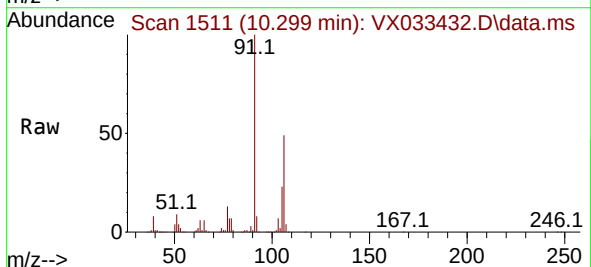
Acq: 15 Dec 2022 11:07

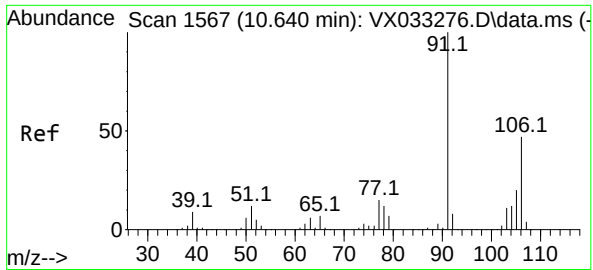
Tgt Ion:106 Resp: 130453

Ion Ratio Lower Upper

106 100

91 202.3 164.5 246.7





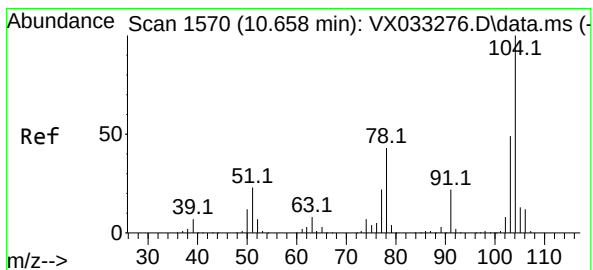
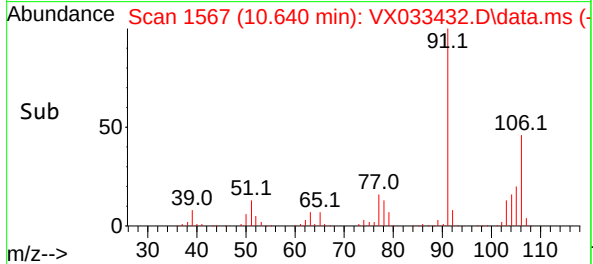
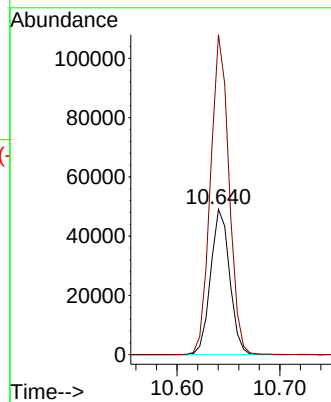
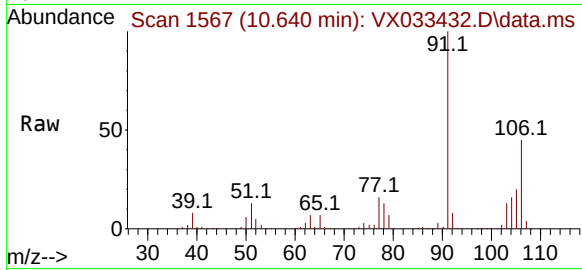
#69  
o-Xylene  
Concen: 22.440 ug/l  
RT: 10.640 min Scan# 1567  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01

Tgt Ion:106 Resp: 63279  
Ion Ratio Lower Upper  
106 100  
91 214.5 109.2 327.6

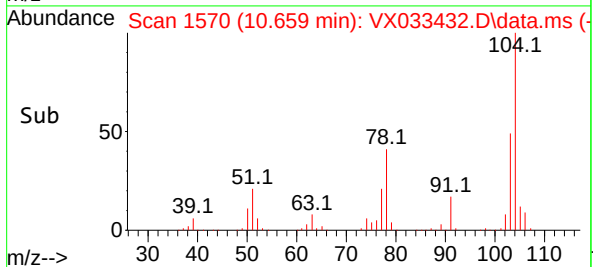
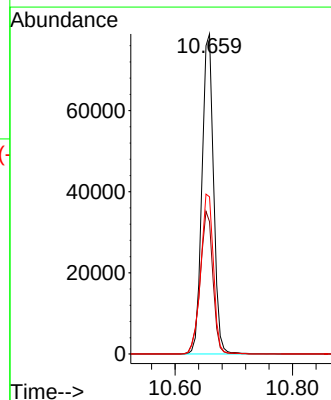
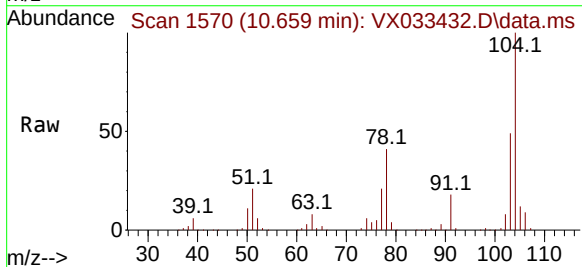
Manual Integrations  
APPROVED

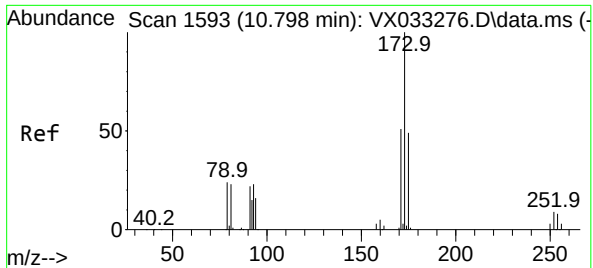
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#70  
Styrene  
Concen: 23.321 ug/l  
RT: 10.659 min Scan# 1570  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

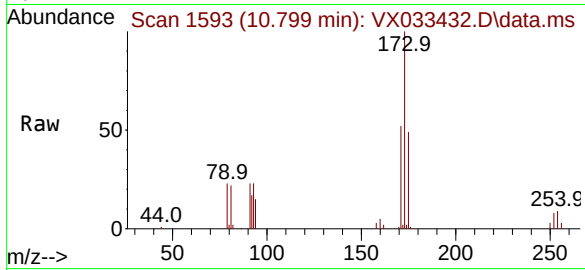
Tgt Ion:104 Resp: 107707  
Ion Ratio Lower Upper  
104 100  
78 48.8 41.8 62.8  
103 55.0 44.5 66.7





#71  
Bromoform  
Concen: 21.067 ug/l  
RT: 10.799 min Scan# 1593  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

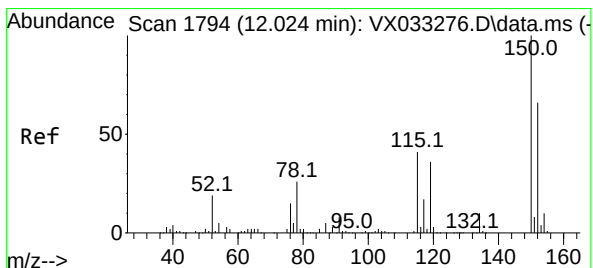
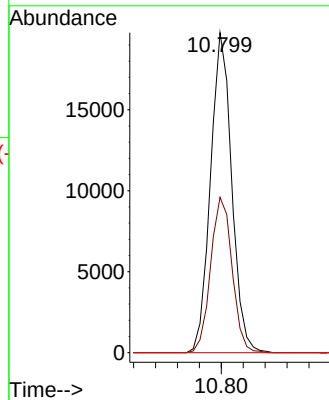
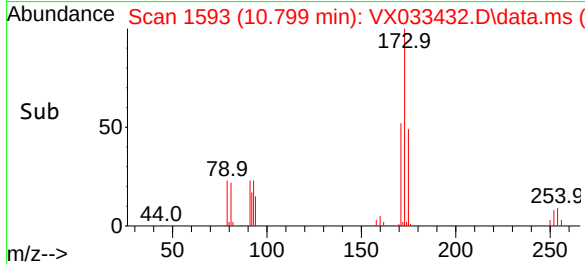
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01



Tgt Ion:173 Resp: 26524  
Ion Ratio Lower Upper  
173 100  
175 49.1 23.9 71.8  
254 0.0 0.0 0.0

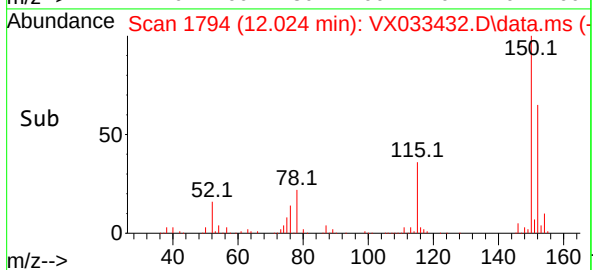
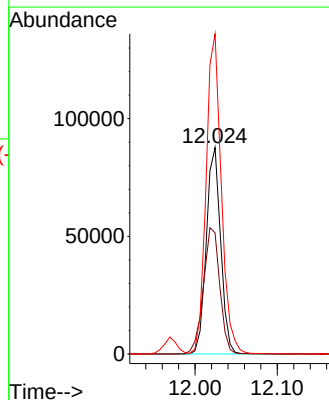
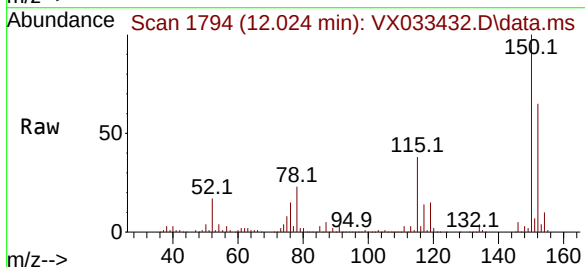
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

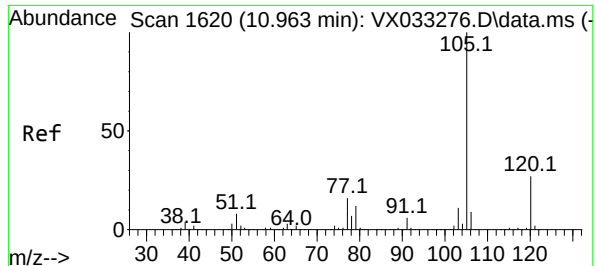


#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.024 min Scan# 1794  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Tgt Ion:152 Resp: 106397  
Ion Ratio Lower Upper  
152 100  
115 69.7 44.0 132.0  
150 164.0 0.0 351.8







#73

Isopropylbenzene

Concen: 21.983 ug/l

RT: 10.963 min Scan# 1

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion:105 Resp: 16952

Ion Ratio Lower Upper

105 100

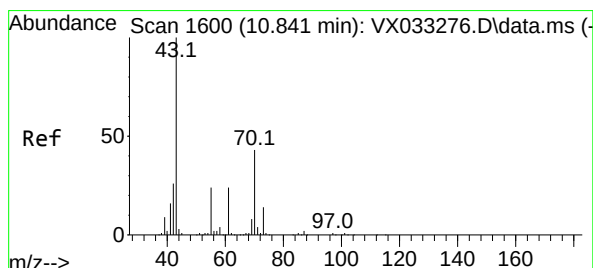
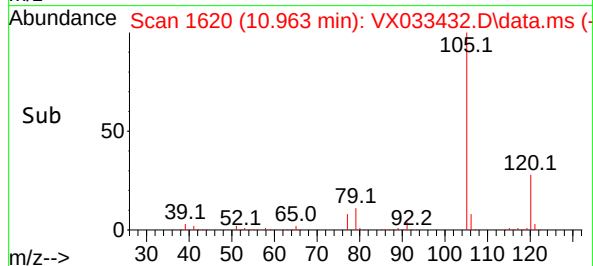
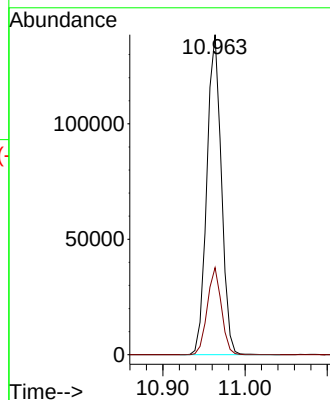
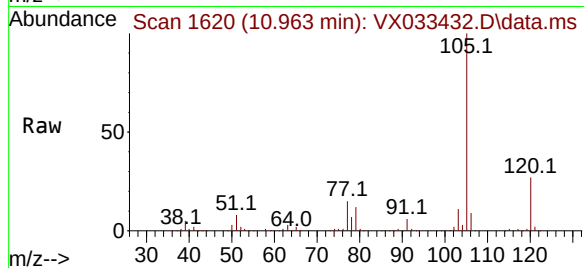
120 26.4 13.1 39.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#74

N-ethyl acetate

Concen: 20.066 ug/l

RT: 10.841 min Scan# 1600

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Tgt Ion: 43 Resp: 52796

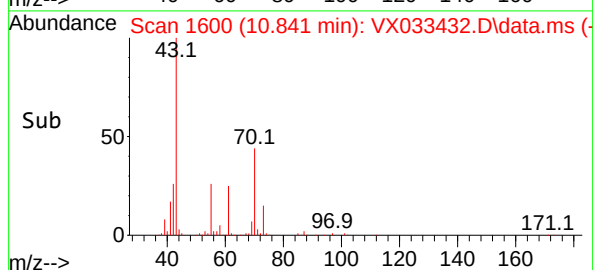
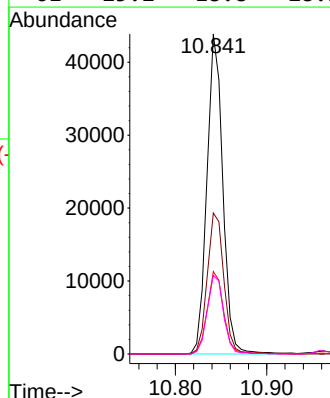
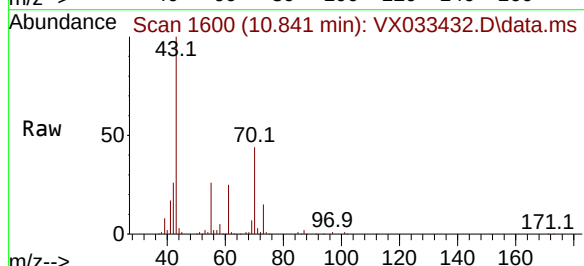
Ion Ratio Lower Upper

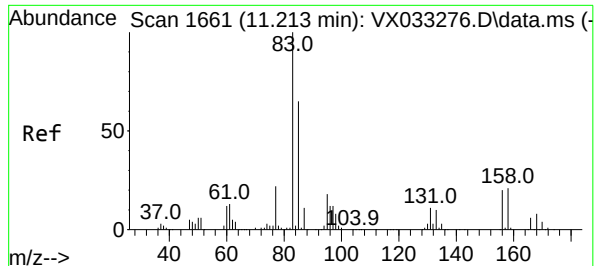
43 100

70 46.1 33.6 50.4

55 26.7 19.4 29.2

61 25.2 18.8 28.2





#75

1,1,2,2-Tetrachloroethane

Concen: 20.673 ug/l

RT: 11.213 min Scan# 1661

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 83 Resp: 50578

Ion Ratio Lower Upper

83 100

131 11.2 5.4 16.2

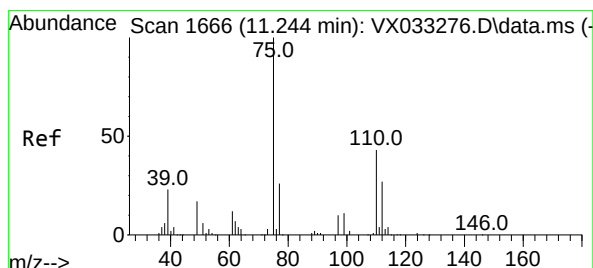
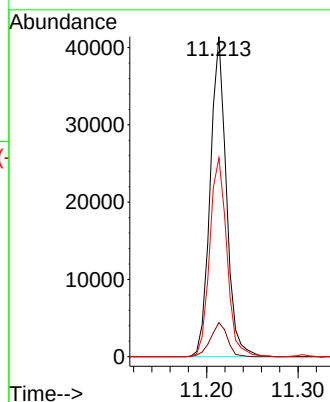
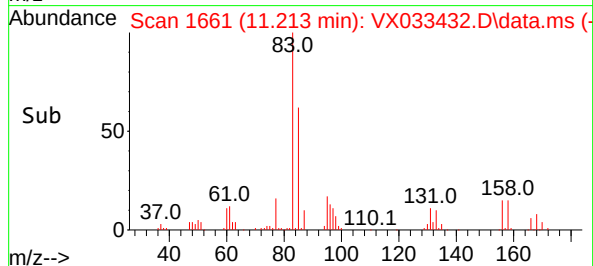
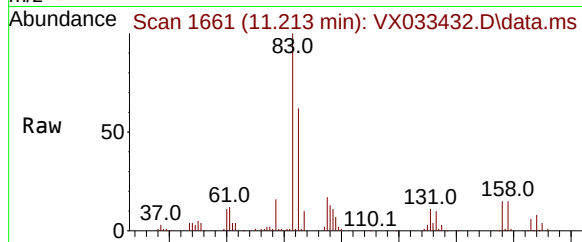
85 66.0 31.9 95.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#76

1,2,3-Trichloropropane

Concen: 20.837 ug/l m

RT: 11.238 min Scan# 1665

Delta R.T. -0.006 min

Lab File: VX033432.D

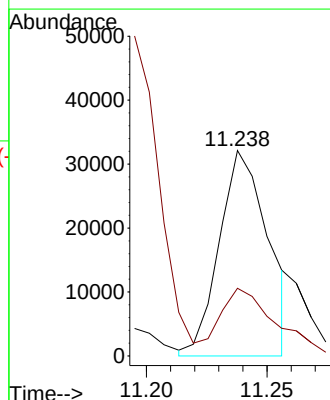
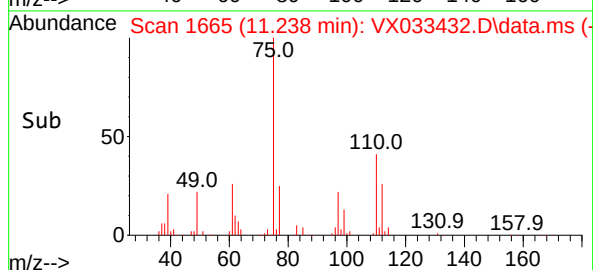
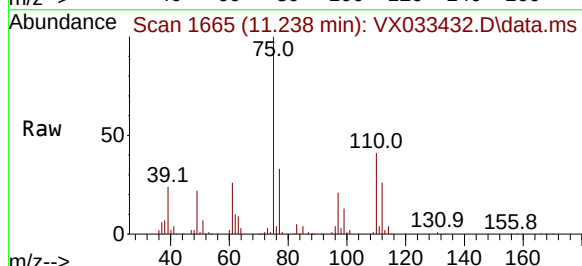
Acq: 15 Dec 2022 11:07

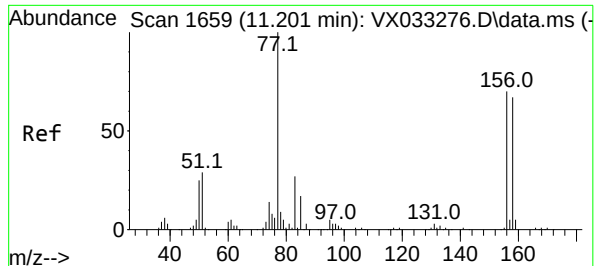
Tgt Ion: 75 Resp: 45106

Ion Ratio Lower Upper

75 100

77 38.1 20.0 60.0





#77

Bromobenzene

Concen: 21.489 ug/l

RT: 11.195 min Scan# 1658

Delta R.T. -0.006 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion:156 Resp: 41840

Ion Ratio Lower Upper

156 100

77 149.6 76.1 228.4

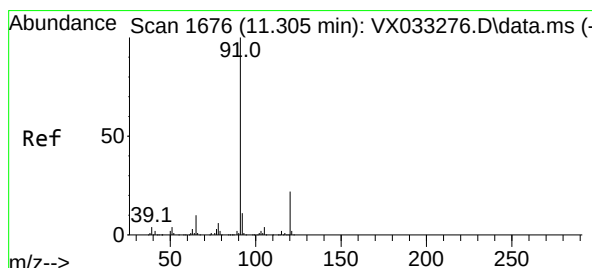
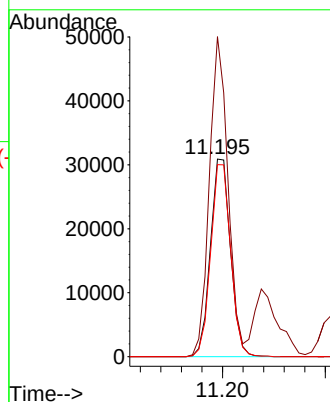
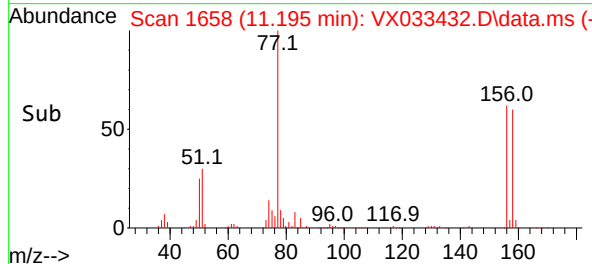
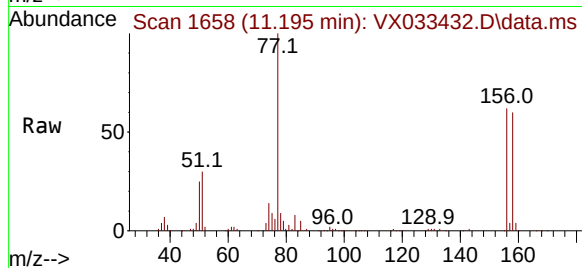
158 96.6 48.8 146.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#78

n-propylbenzene

Concen: 22.464 ug/l

RT: 11.305 min Scan# 1676

Delta R.T. 0.000 min

Lab File: VX033432.D

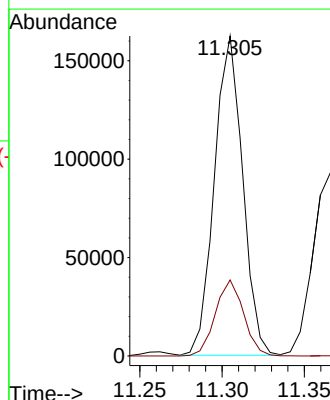
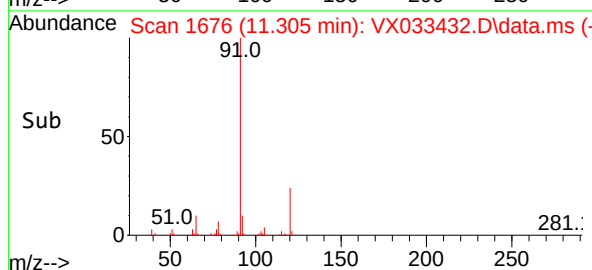
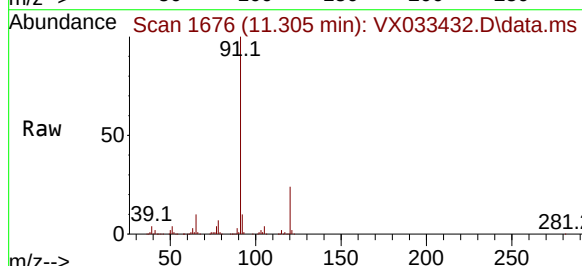
Acq: 15 Dec 2022 11:07

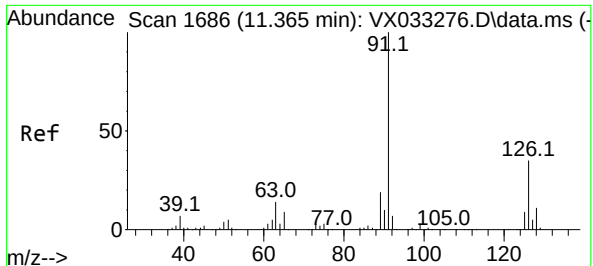
Tgt Ion: 91 Resp: 193432

Ion Ratio Lower Upper

91 100

120 23.8 11.6 34.8





#79

2-Chlorotoluene

Concen: 21.838 ug/l

RT: 11.366 min Scan# 1

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 91 Resp: 11621

Ion Ratio Lower Upper

91 100

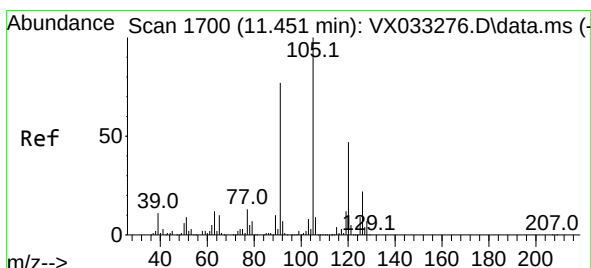
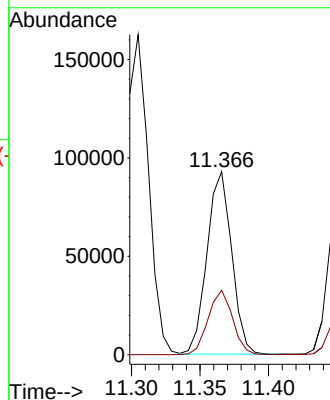
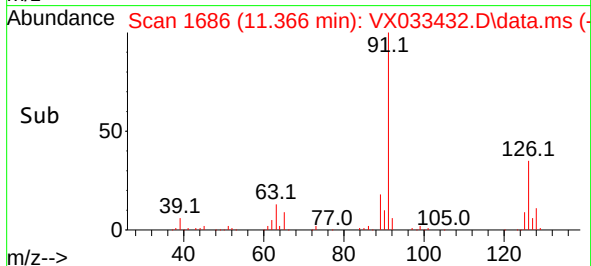
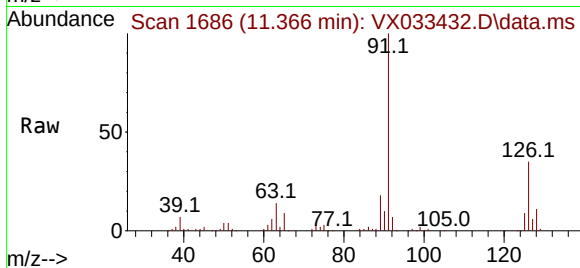
126 35.0 17.1 51.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#80

1,3,5-Trimethylbenzene

Concen: 22.133 ug/l

RT: 11.451 min Scan# 1700

Delta R.T. 0.000 min

Lab File: VX033432.D

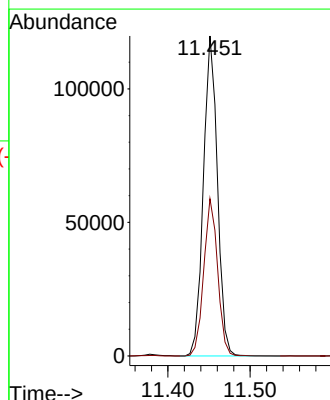
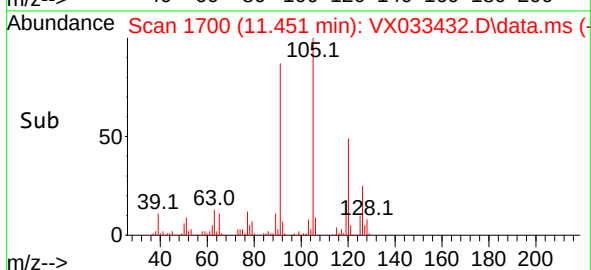
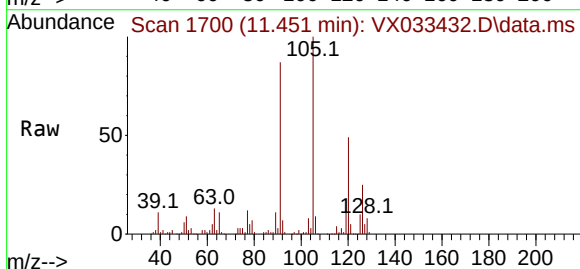
Acq: 15 Dec 2022 11:07

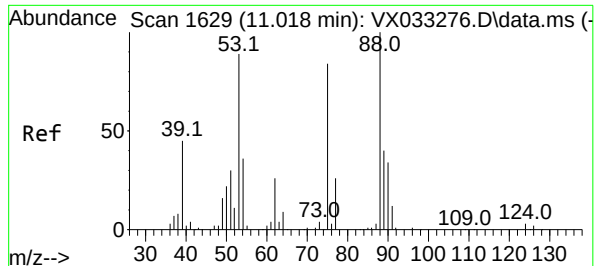
Tgt Ion:105 Resp: 142080

Ion Ratio Lower Upper

105 100

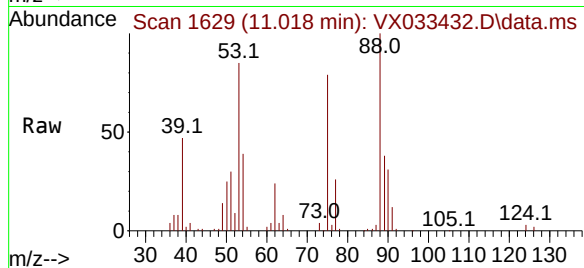
120 48.7 23.6 71.0





#81  
trans-1,4-Dichloro-2-butene  
Concen: 18.260 ug/l  
RT: 11.018 min Scan# 1629  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

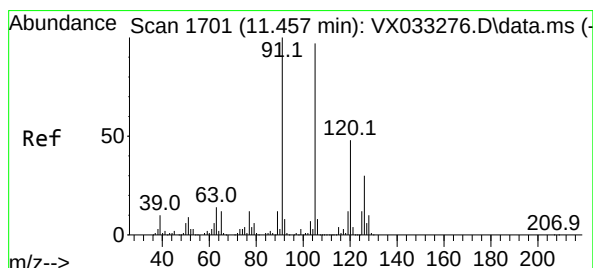
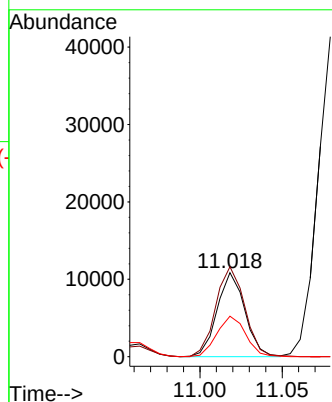
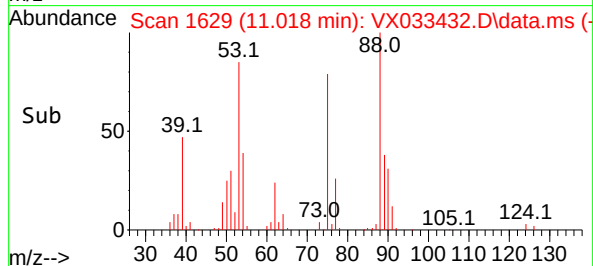
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01



Tgt Ion: 75 Resp: 1270  
Ion Ratio Lower Upper  
75 100  
53 111.9 86.9 130.3  
89 50.2 38.3 57.5

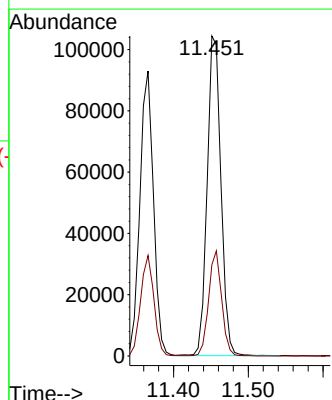
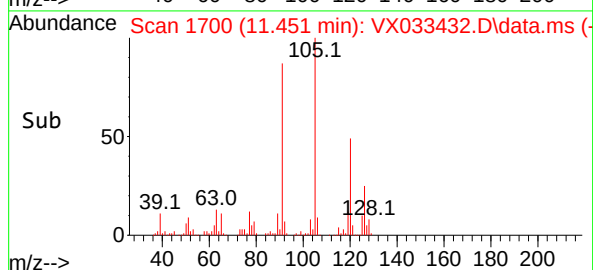
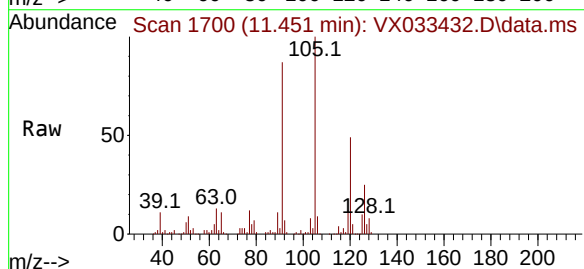
Manual Integrations  
APPROVED

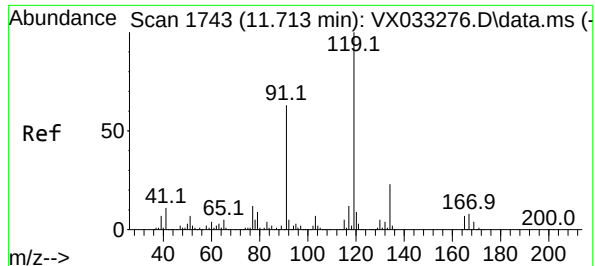
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#82  
4-Chlorotoluene  
Concen: 21.579 ug/l  
RT: 11.451 min Scan# 1700  
Delta R.T. -0.006 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

Tgt Ion: 91 Resp: 133528  
Ion Ratio Lower Upper  
91 100  
126 31.1 14.8 44.4





#83

tert-Butylbenzene

Concen: 22.430 ug/l

RT: 11.713 min Scan# 1743

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion:119 Resp: 143579

Ion Ratio Lower Upper

119 100

91 56.5 29.4 88.2

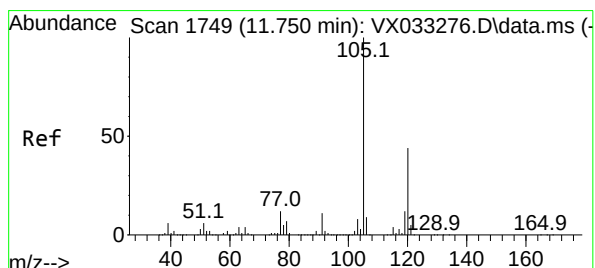
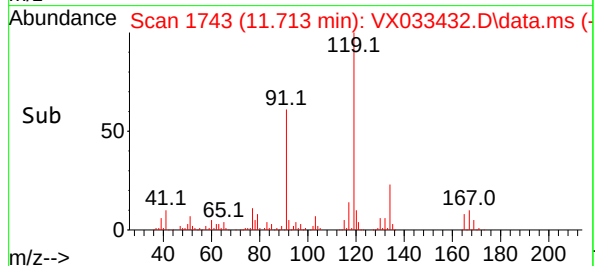
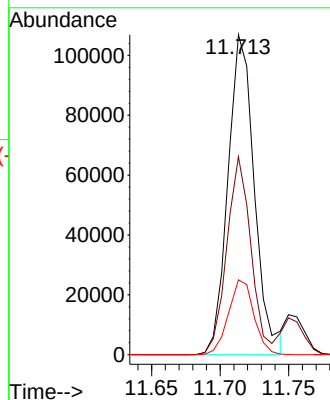
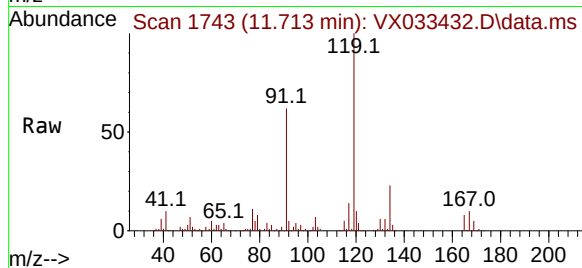
134 22.6 11.0 33.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#84

1,2,4-Trimethylbenzene

Concen: 22.364 ug/l

RT: 11.750 min Scan# 1749

Delta R.T. 0.000 min

Lab File: VX033432.D

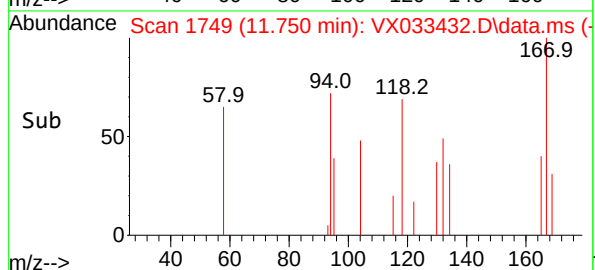
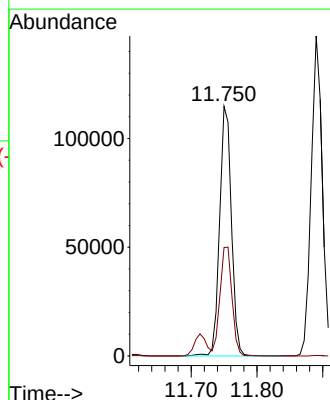
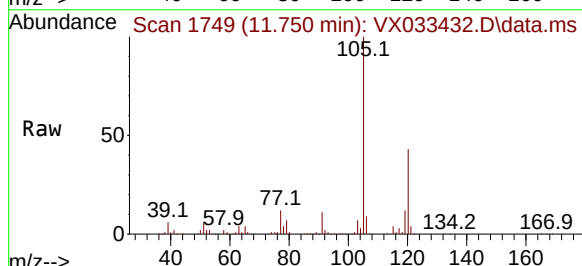
Acq: 15 Dec 2022 11:07

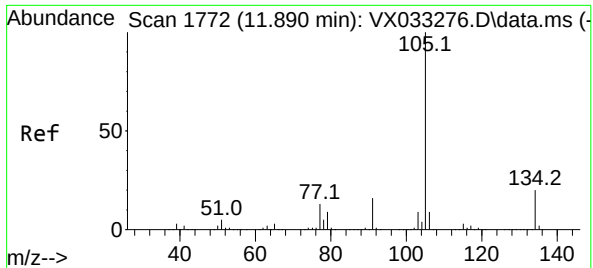
Tgt Ion:105 Resp: 143303

Ion Ratio Lower Upper

105 100

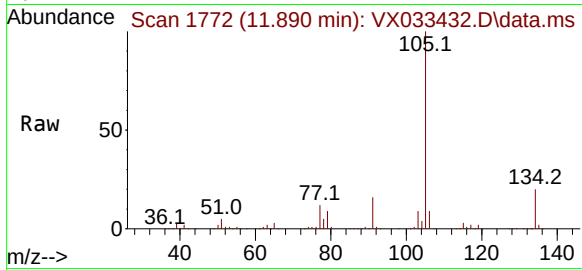
120 44.3 21.9 65.5





#85  
 sec-Butylbenzene  
 Concen: 23.166 ug/l  
 RT: 11.890 min Scan# 1772  
 Delta R.T. 0.000 min  
 Lab File: VX033432.D  
 Acq: 15 Dec 2022 11:07

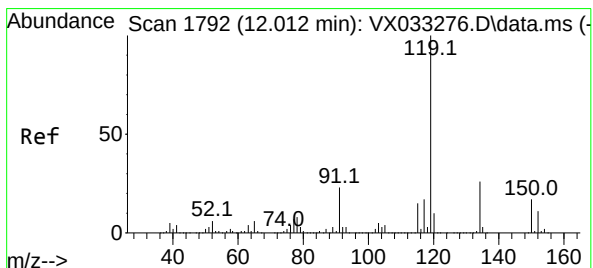
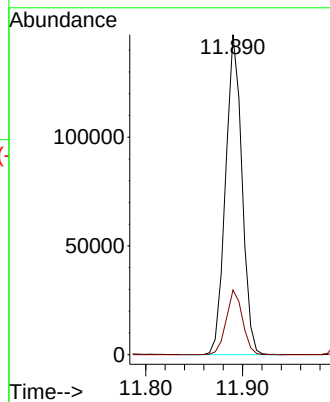
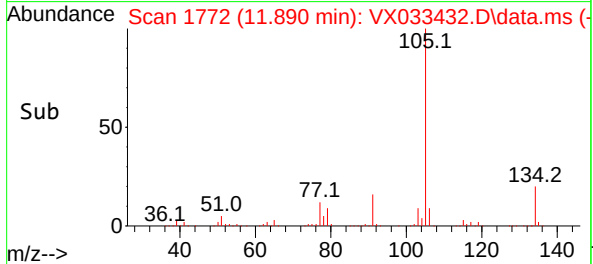
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX1215WBS01



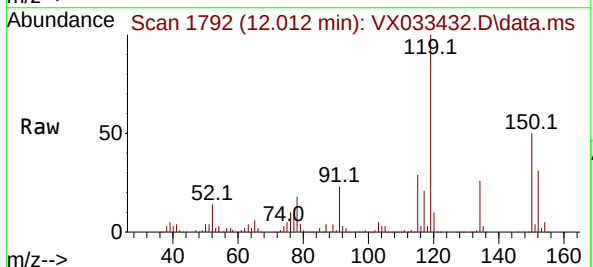
Tgt Ion:105 Resp: 173010  
 Ion Ratio Lower Upper  
 105 100  
 134 20.1 9.9 29.7

Manual Integrations  
 APPROVED

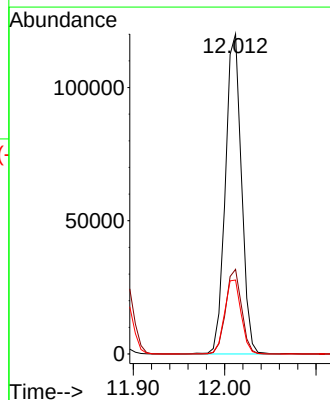
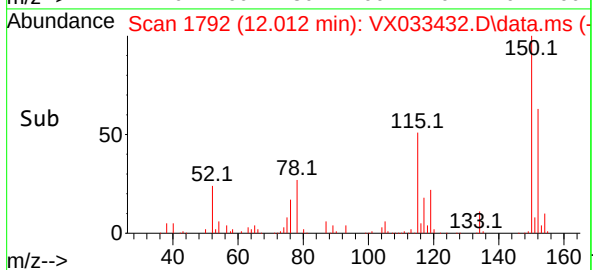
Reviewed By :John Carlone 12/16/2022  
 Supervised By :Mahesh Dadoda 12/16/2022

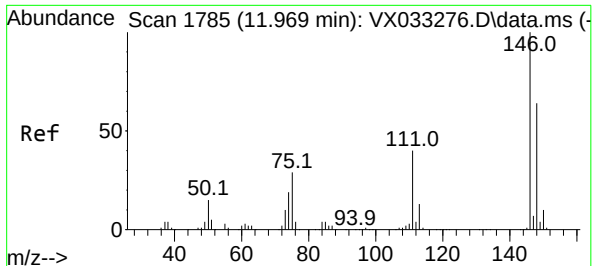


#86  
 p-Isopropyltoluene  
 Concen: 22.801 ug/l  
 RT: 12.012 min Scan# 1792  
 Delta R.T. 0.000 min  
 Lab File: VX033432.D  
 Acq: 15 Dec 2022 11:07



Tgt Ion:119 Resp: 146815  
 Ion Ratio Lower Upper  
 119 100  
 134 26.2 12.9 38.7  
 91 24.0 12.5 37.5





#87

1,3-Dichlorobenzene

Concen: 22.430 ug/l

RT: 11.969 min Scan# 1785

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion:146 Resp: 7912

Ion Ratio Lower Upper

146 100

111 39.6 20.6 61.8

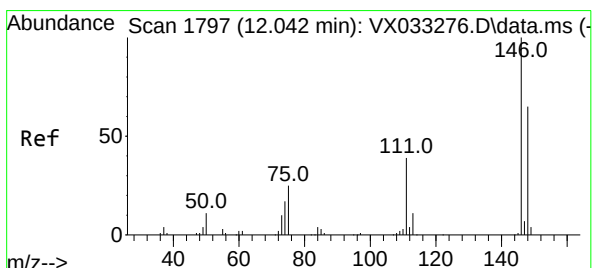
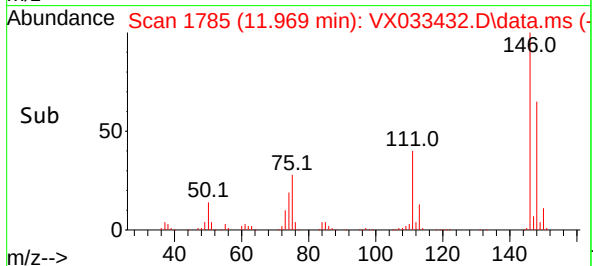
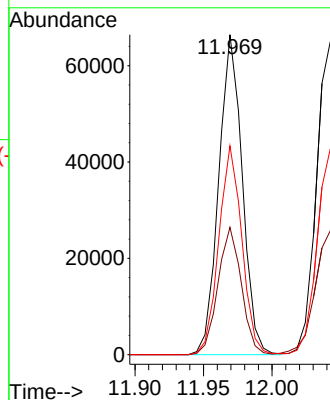
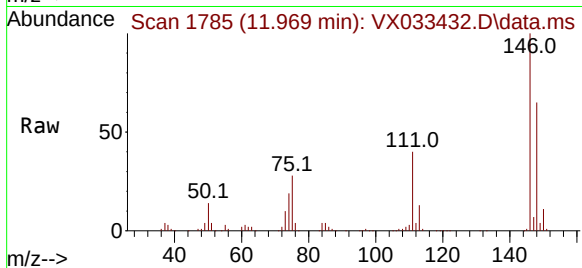
148 64.1 31.7 95.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#88

1,4-Dichlorobenzene

Concen: 21.932 ug/l

RT: 12.042 min Scan# 1797

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

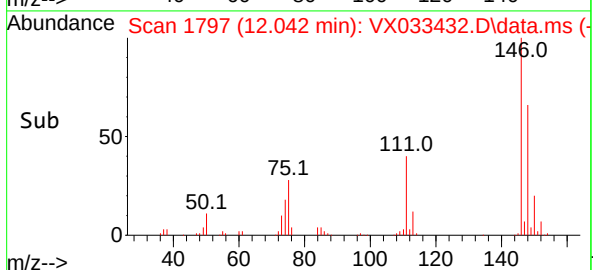
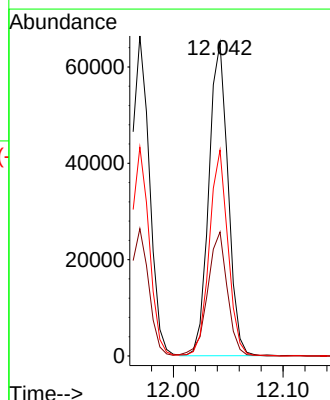
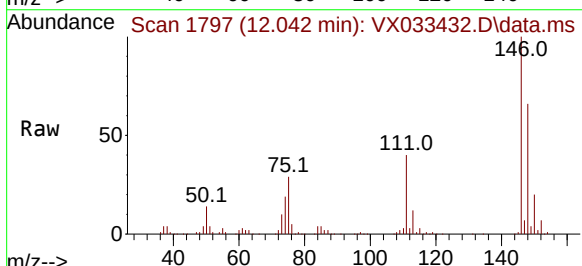
Tgt Ion:146 Resp: 79025

Ion Ratio Lower Upper

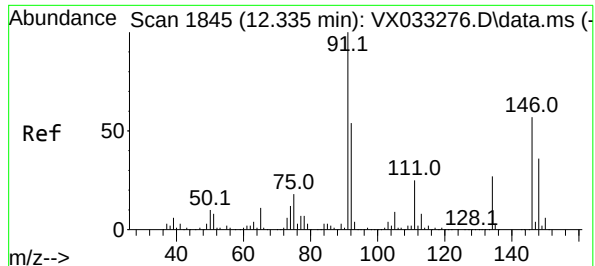
146 100

111 40.8 20.5 61.6

148 64.1 32.2 96.6







#89

n-Butylbenzene

Concen: 23.246 ug/l

RT: 12.335 min Scan# 1845

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion: 91 Resp: 122594

Ion Ratio Lower Upper

91 100

92 52.5 26.2 78.6

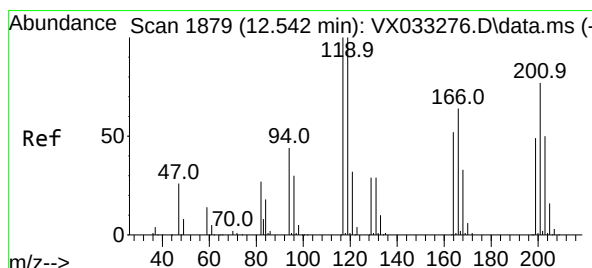
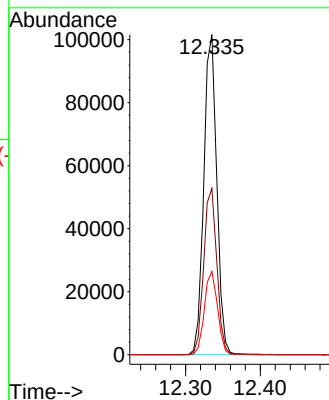
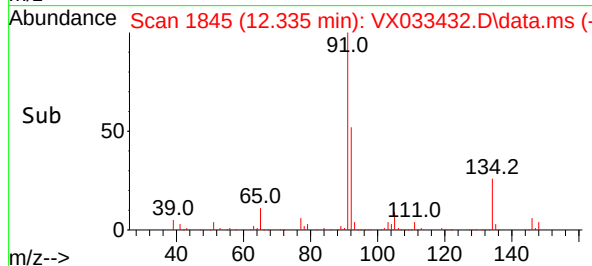
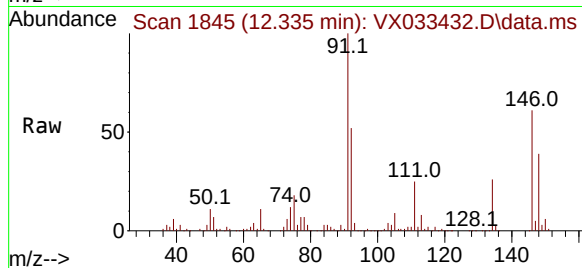
134 26.3 12.9 38.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#90

Hexachloroethane

Concen: 20.905 ug/l

RT: 12.536 min Scan# 1878

Delta R.T. -0.006 min

Lab File: VX033432.D

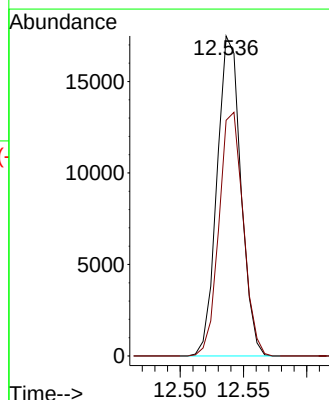
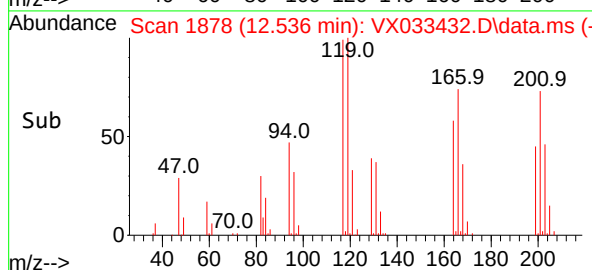
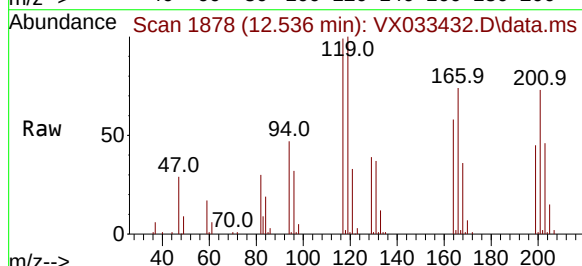
Acq: 15 Dec 2022 11:07

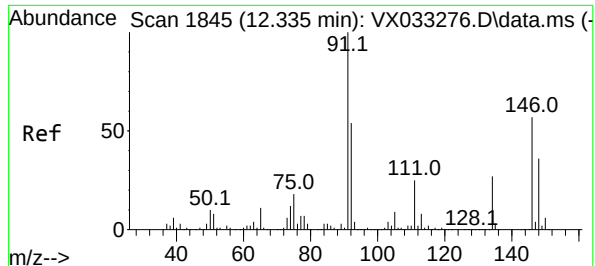
Tgt Ion:117 Resp: 22881

Ion Ratio Lower Upper

117 100

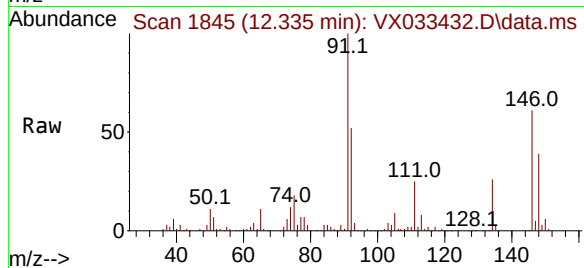
201 77.6 37.6 112.9





#91  
1,2-Dichlorobenzene  
Concen: 21.506 ug/l  
RT: 12.335 min Scan# 1845  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

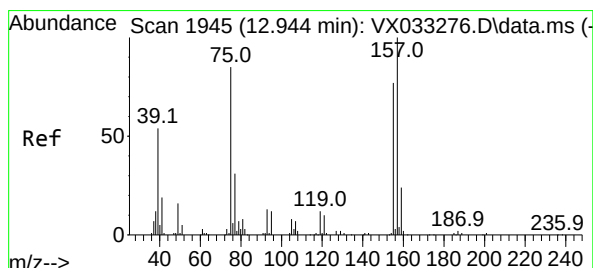
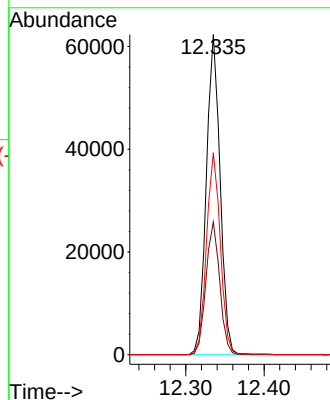
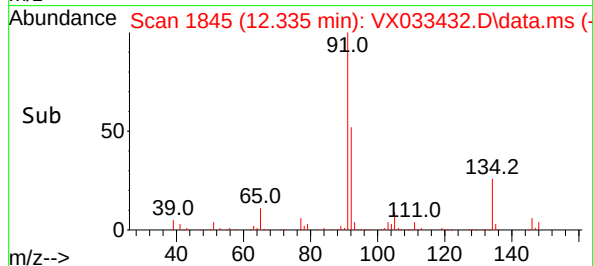
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01



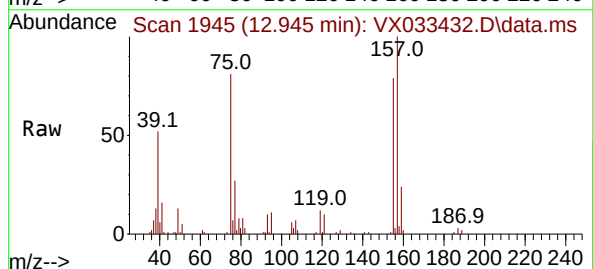
Tgt Ion:146 Resp: 7584  
Ion Ratio Lower Upper  
146 100  
111 41.5 21.5 64.5  
148 63.3 32.0 96.2

Manual Integrations  
APPROVED

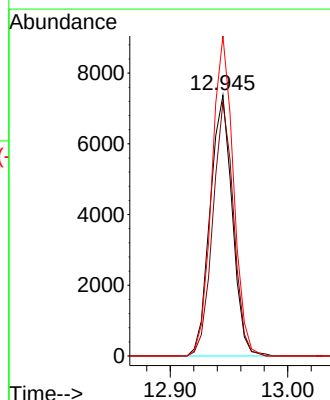
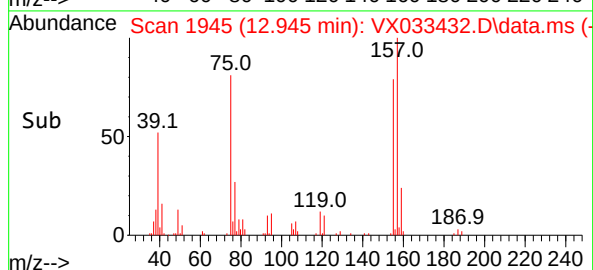
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

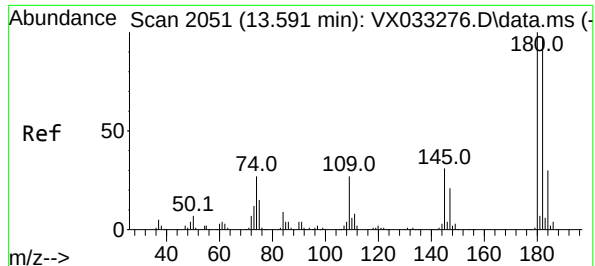


#92  
1,2-Dibromo-3-Chloropropane  
Concen: 18.246 ug/l  
RT: 12.945 min Scan# 1945  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07



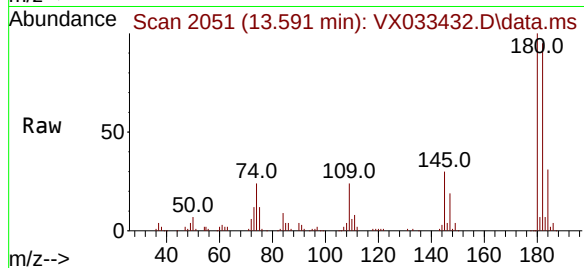
Tgt Ion: 75 Resp: 9642  
Ion Ratio Lower Upper  
75 100  
155 91.2 41.6 124.8  
157 119.7 54.1 162.4





#93  
1,2,4-Trichlorobenzene  
Concen: 21.862 ug/l  
RT: 13.591 min Scan# 2051  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07

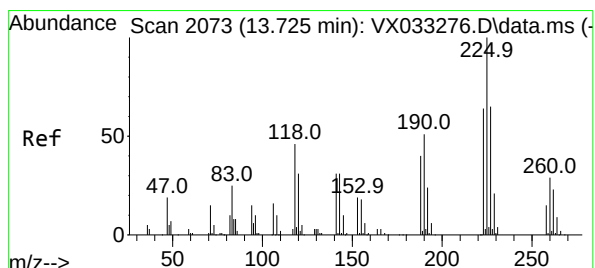
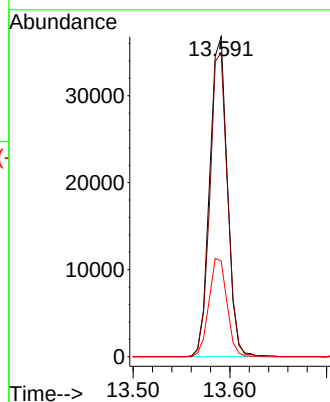
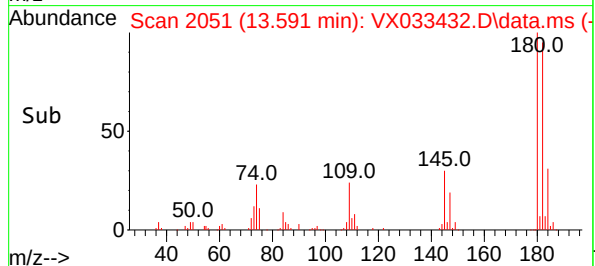
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBS01



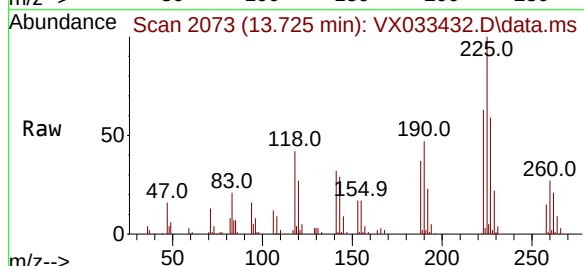
Tgt Ion:180 Resp: 4656  
Ion Ratio Lower Upper  
180 100  
182 95.7 48.4 145.0  
145 31.4 16.2 48.5

Manual Integrations  
APPROVED

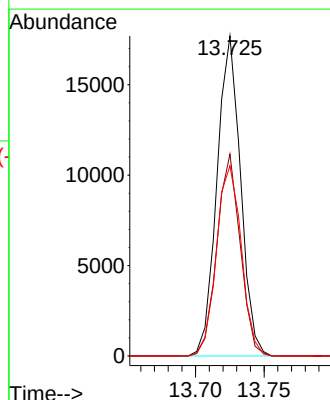
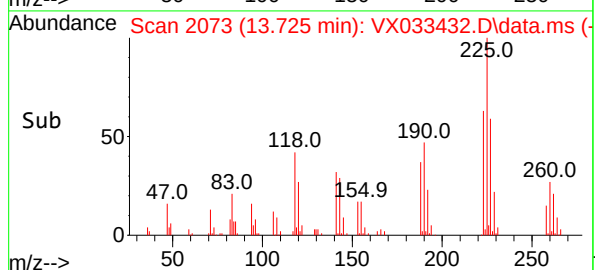
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

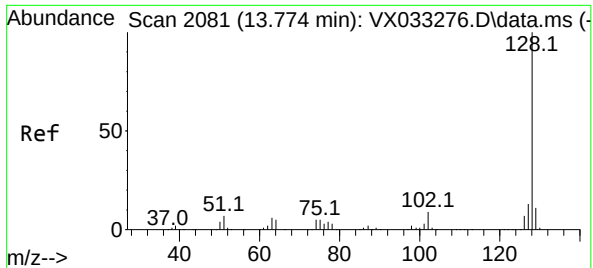


#94  
Hexachlorobutadiene  
Concen: 24.784 ug/l  
RT: 13.725 min Scan# 2073  
Delta R.T. 0.000 min  
Lab File: VX033432.D  
Acq: 15 Dec 2022 11:07



Tgt Ion:225 Resp: 21139  
Ion Ratio Lower Upper  
225 100  
223 62.3 31.9 95.9  
227 62.6 31.9 95.5





#95

Naphthalene

Concen: 21.291 ug/l

RT: 13.774 min Scan# 2081

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBS01

Tgt Ion:128 Resp: 15127

Ion Ratio Lower Upper

128 100

127 12.8 10.2 15.4

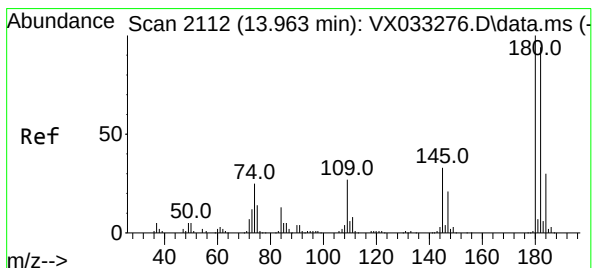
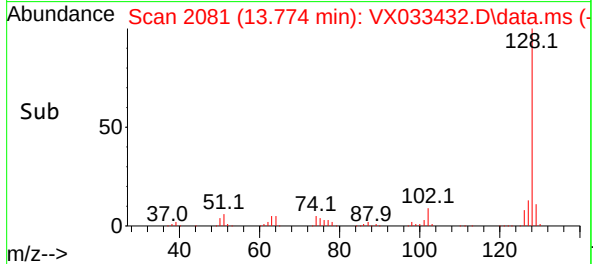
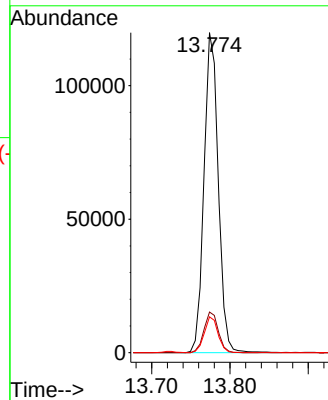
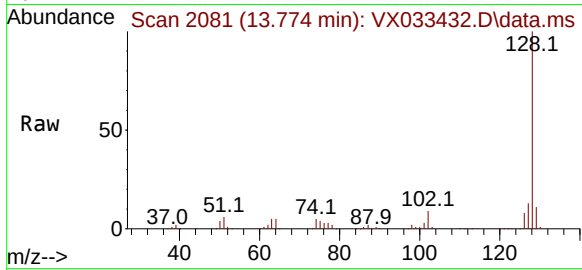
129 10.8 8.9 13.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#96

1,2,3-Trichlorobenzene

Concen: 21.391 ug/l

RT: 13.963 min Scan# 2112

Delta R.T. 0.000 min

Lab File: VX033432.D

Acq: 15 Dec 2022 11:07

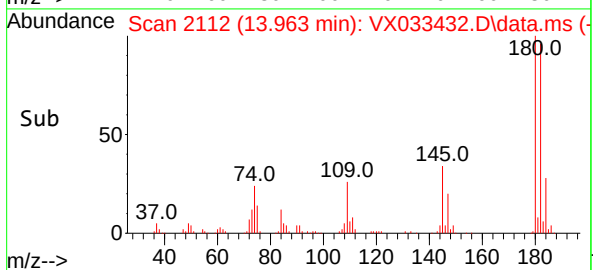
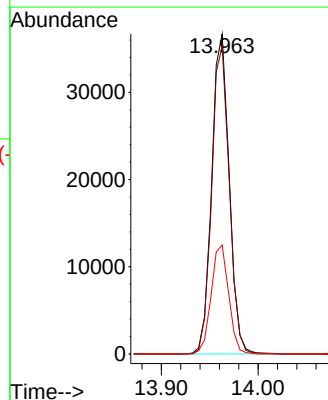
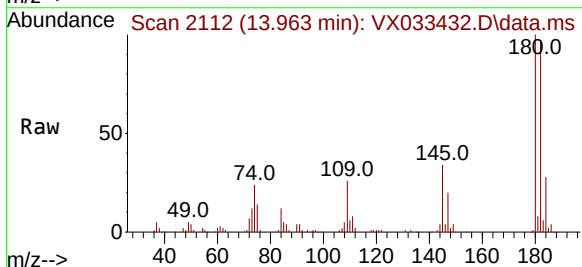
Tgt Ion:180 Resp: 46145

Ion Ratio Lower Upper

180 100

182 96.6 47.5 142.6

145 34.1 16.9 50.6





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

## Report of Analysis

|                    |                                       |                 |              |
|--------------------|---------------------------------------|-----------------|--------------|
| Client:            | JACOBS Engineering Group, Inc.        | Date Collected: |              |
| Project:           | Former Schlumberger Site Princeton NJ | Date Received:  |              |
| Client Sample ID:  | VX1215WBSD01                          | SDG No.:        | N6070        |
| Lab Sample ID:     | VX1215WBSD01                          | Matrix:         | Water        |
| Analytical Method: | SW8260                                | % Moisture:     | 100          |
| Sample Wt/Vol:     | 5 Units: mL                           | Final Vol:      | 5000 uL      |
| Soil Aliquot Vol:  | uL                                    | Test:           | VOCMS Group3 |
| GC Column:         | DB-624UI ID : 0.18                    | Level :         | LOW          |

|                   |           |           |                |               |
|-------------------|-----------|-----------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed  | Prep Batch ID |
| VX033433.D        | 1         |           | 12/15/22 11:46 | VX121522      |

| CAS Number                | Parameter              | Conc.  | Qualifier | MDL                 | LOQ / CRQL | Units   |
|---------------------------|------------------------|--------|-----------|---------------------|------------|---------|
| <b>TARGETS</b>            |                        |        |           |                     |            |         |
| 75-01-4                   | Vinyl Chloride         | 17.6   |           | 0.22                | 1.00       | ug/L    |
| 75-35-4                   | 1,1-Dichloroethene     | 16.8   |           | 0.23                | 1.00       | ug/L    |
| 75-34-3                   | 1,1-Dichloroethane     | 18.5   |           | 0.20                | 1.00       | ug/L    |
| 156-59-2                  | cis-1,2-Dichloroethene | 18.7   |           | 0.17                | 1.00       | ug/L    |
| 71-55-6                   | 1,1,1-Trichloroethane  | 19.8   |           | 0.18                | 1.00       | ug/L    |
| 71-43-2                   | Benzene                | 19.7   |           | 0.16                | 1.00       | ug/L    |
| 107-06-2                  | 1,2-Dichloroethane     | 19.8   |           | 0.18                | 1.00       | ug/L    |
| 79-01-6                   | Trichloroethene        | 21.0   |           | 0.27                | 1.00       | ug/L    |
| 79-00-5                   | 1,1,2-Trichloroethane  | 20.5   |           | 0.19                | 1.00       | ug/L    |
| 127-18-4                  | Tetrachloroethene      | 19.9   |           | 0.18                | 1.00       | ug/L    |
| <b>SURROGATES</b>         |                        |        |           |                     |            |         |
| 17060-07-0                | 1,2-Dichloroethane-d4  | 43.0   |           | 70 (74) - 130 (125) | 86%        | SPK: 50 |
| 1868-53-7                 | Dibromofluoromethane   | 46.0   |           | 70 (75) - 130 (124) | 92%        | SPK: 50 |
| 2037-26-5                 | Toluene-d8             | 47.4   |           | 70 (86) - 130 (113) | 95%        | SPK: 50 |
| 460-00-4                  | 4-Bromofluorobenzene   | 51.1   |           | 70 (64) - 130 (133) | 102%       | SPK: 50 |
| <b>INTERNAL STANDARDS</b> |                        |        |           |                     |            |         |
| 363-72-4                  | Pentafluorobenzene     | 137000 | 5.55      |                     |            |         |
| 540-36-3                  | 1,4-Difluorobenzene    | 211000 | 6.757     |                     |            |         |
| 3114-55-4                 | Chlorobenzene-d5       | 199000 | 10.055    |                     |            |         |
| 3855-82-1                 | 1,4-Dichlorobenzene-d4 | 102000 | 12.024    |                     |            |         |

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\_X\Data\VX121522\  
 Data File : VX033433.D  
 Acq On : 15 Dec 2022 11:46  
 Operator : JC/MD  
 Sample : VX1215WBSD01  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX1215WBSD01

Manual Integrations  
 APPROVED

Reviewed By : John Carlone 12/16/2022  
 Supervised By : Mahesh Dadoda 12/16/2022

Quant Time: Dec 16 01:00:12 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response   | Conc     | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|----------|--------|----------|
| -----                        |                |      |            |          |        |          |
| Internal Standards           |                |      |            |          |        |          |
| 1) Pentafluorobenzene        | 5.550          | 168  | 137295     | 50.000   | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene      | 6.757          | 114  | 210886     | 50.000   | ug/l   | 0.00     |
| 63) Chlorobenzene-d5         | 10.055         | 117  | 199474     | 50.000   | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4   | 12.024         | 152  | 101751     | 50.000   | ug/l   | 0.00     |
|                              |                |      |            |          |        |          |
| System Monitoring Compounds  |                |      |            |          |        |          |
| 33) 1,2-Dichloroethane-d4    | 5.952          | 65   | 37856      | 42.979   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 78 - 117 |      | Recovery = | 85.960%  |        |          |
| 35) Dibromofluoromethane     | 5.379          | 113  | 43658      | 46.027   | ug/l   | -0.01    |
| Spiked Amount 50.000         | Range 75 - 124 |      | Recovery = | 92.060%  |        |          |
| 50) Toluene-d8               | 8.647          | 98   | 93958      | 47.352   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 92 - 112 |      | Recovery = | 94.700%  |        |          |
| 62) 4-Bromofluorobenzene     | 11.079         | 95   | 77494      | 51.077   | ug/l   | 0.00     |
| Spiked Amount 50.000         | Range 83 - 123 |      | Recovery = | 102.160% |        |          |
|                              |                |      |            |          |        |          |
| Target Compounds             |                |      |            |          | Qvalue |          |
| 2) Dichlorodifluoromethane   | 1.167          | 85   | 18601      | 19.395   | ug/l   | 95       |
| 3) Chloromethane             | 1.295          | 50   | 18825      | 16.976   | ug/l   | 91       |
| 4) Vinyl Chloride            | 1.374          | 62   | 22224      | 17.552   | ug/l   | 98       |
| 5) Bromomethane              | 1.618          | 94   | 13351      | 14.369   | ug/l   | 97       |
| 6) Chloroethane              | 1.691          | 64   | 15485      | 16.124   | ug/l   | 98       |
| 7) Trichlorofluoromethane    | 1.886          | 101  | 34159      | 14.370   | ug/l   | 95       |
| 8) Diethyl Ether             | 2.130          | 74   | 11537      | 13.437   | ug/l   | 93       |
| 9) 1,1,2-Trichlorotrifluo... | 2.331          | 101  | 25075      | 19.886   | ug/l   | 99       |
| 10) Methyl Iodide            | 2.453          | 142  | 25025      | 18.120   | ug/l   | 99       |
| 11) Tert butyl alcohol       | 2.995          | 59   | 23307m     | 86.551   | ug/l   |          |
| 12) 1,1-Dichloroethene       | 2.325          | 96   | 20970      | 16.848   | ug/l   | 94       |
| 13) Acrolein                 | 2.239          | 56   | 16133      | 55.239   | ug/l   | 98       |
| 14) Allyl chloride           | 2.666          | 41   | 35709      | 17.965   | ug/l   | 98       |
| 15) Acrylonitrile            | 3.063          | 53   | 59810      | 89.662   | ug/l   | 98       |
| 16) Acetone                  | 2.386          | 43   | 68941      | 105.776  | ug/l   | 96       |
| 17) Carbon Disulfide         | 2.514          | 76   | 54276      | 16.990   | ug/l   | 98       |
| 18) Methyl Acetate           | 2.703          | 43   | 34358      | 18.210   | ug/l   | 98       |
| 19) Methyl tert-butyl Ether  | 3.111          | 73   | 80781      | 18.736   | ug/l   | 98       |
| 20) Methylene Chloride       | 2.788          | 84   | 26733      | 18.392   | ug/l   | 92       |
| 21) trans-1,2-Dichloroethene | 3.093          | 96   | 25379      | 18.640   | ug/l   | 97       |
| 22) Diisopropyl ether        | 3.757          | 45   | 79815      | 18.742   | ug/l   | 94       |
| 23) Vinyl Acetate            | 3.721          | 43   | 302179     | 91.418   | ug/l   | 98       |
| 24) 1,1-Dichloroethane       | 3.605          | 63   | 46243      | 18.481   | ug/l   | 98       |
| 25) 2-Butanone               | 4.556          | 43   | 88026      | 94.090   | ug/l   | 99       |
| 26) 2,2-Dichloropropane      | 4.471          | 77   | 36972      | 20.092   | ug/l   | 99       |
| 27) cis-1,2-Dichloroethene   | 4.483          | 96   | 30395      | 18.679   | ug/l   | 99       |
| 28) Bromochloromethane       | 4.891          | 49   | 20374      | 19.451   | ug/l   | 93       |
| 29) Tetrahydrofuran          | 5.007          | 42   | 50878      | 83.937   | ug/l   | 96       |
| 30) Chloroform               | 5.087          | 83   | 53573      | 19.285   | ug/l   | 98       |
| 31) Cyclohexane              | 5.471          | 56   | 39412      | 18.828   | ug/l   | 90       |
| 32) 1,1,1-Trichloroethane    | 5.373          | 97   | 47380      | 19.823   | ug/l   | 98       |
| 36) 1,1-Dichloropropene      | 5.690          | 75   | 36878      | 19.942   | ug/l   | 99       |
| 37) Ethyl Acetate            | 4.709          | 43   | 32990      | 18.872   | ug/l   | 99       |
| 38) Carbon Tetrachloride     | 5.672          | 117  | 41422      | 19.992   | ug/l   | 99       |
| 39) Methylcyclohexane        | 7.379          | 83   | 43709      | 21.116   | ug/l   | 98       |
| 40) Benzene                  | 6.031          | 78   | 106012     | 19.661   | ug/l   | 99       |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
 Data File : VX033433.D  
 Acq On : 15 Dec 2022 11:46  
 Operator : JC/MD  
 Sample : VX1215WBSD01  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX1215WBSD01

Manual Integrations  
 APPROVED

Reviewed By :John Carlone 12/16/2022  
 Supervised By :Mahesh Dadoda 12/16/2022

Quant Time: Dec 16 01:00:12 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 07 12:43:54 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|---------|--------|----------|
| 41) Methacrylonitrile         | 4.916  | 41   | 18338    | 19.037  | ug/l   | 95       |
| 42) 1,2-Dichloroethane        | 6.086  | 62   | 42486    | 19.843  | ug/l   | 99       |
| 43) Isopropyl Acetate         | 6.336  | 43   | 51963    | 18.474  | ug/l   | 97       |
| 44) Trichloroethene           | 7.123  | 130  | 31162    | 20.962  | ug/l   | 93       |
| 45) 1,2-Dichloropropane       | 7.428  | 63   | 27163    | 19.698  | ug/l   | 98       |
| 46) Dibromomethane            | 7.580  | 93   | 20832    | 19.831  | ug/l   | 99       |
| 47) Bromodichloromethane      | 7.818  | 83   | 40366    | 19.713  | ug/l   | 99       |
| 48) Methyl methacrylate       | 7.690  | 41   | 26656    | 18.363  | ug/l   | 93       |
| 49) 1,4-Dioxane               | 7.702  | 88   | 11968    | 361.544 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone      | 8.568  | 43   | 169612   | 95.356  | ug/l   | 97       |
| 52) Toluene                   | 8.714  | 92   | 72263    | 20.728  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene     | 8.976  | 75   | 39858    | 19.717  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene   | 8.366  | 75   | 43520    | 19.973  | ug/l # | 87       |
| 55) 1,1,2-Trichloroethane     | 9.153  | 97   | 30012    | 20.480  | ug/l   | 99       |
| 56) Ethyl methacrylate        | 9.116  | 69   | 40393    | 19.577  | ug/l   | 92       |
| 57) 1,3-Dichloropropane       | 9.305  | 76   | 46997    | 19.963  | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether | 8.238  | 63   | 67813    | 71.829  | ug/l   | 97       |
| 59) 2-Hexanone                | 9.427  | 43   | 132391   | 101.000 | ug/l   | 96       |
| 60) Dibromochloromethane      | 9.519  | 129  | 32360    | 20.042  | ug/l   | 100      |
| 61) 1,2-Dibromoethane         | 9.610  | 107  | 31071    | 19.933  | ug/l   | 100      |
| 64) Tetrachloroethene         | 9.275  | 164  | 27206    | 19.946  | ug/l   | 97       |
| 65) Chlorobenzene             | 10.080 | 112  | 81948    | 20.287  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane | 10.159 | 131  | 30166    | 19.762  | ug/l   | 99       |
| 67) Ethyl Benzene             | 10.195 | 91   | 145637   | 20.695  | ug/l   | 99       |
| 68) m/p-Xylenes               | 10.299 | 106  | 112373   | 41.043  | ug/l   | 98       |
| 69) o-Xylene                  | 10.640 | 106  | 54826    | 20.259  | ug/l   | 98       |
| 70) Styrene                   | 10.653 | 104  | 92716    | 20.918  | ug/l   | 97       |
| 71) Bromoform                 | 10.799 | 173  | 22783    | 18.856  | ug/l # | 99       |
| 73) Isopropylbenzene          | 10.964 | 105  | 145978   | 19.794  | ug/l   | 99       |
| 74) N-amyl acetate            | 10.842 | 43   | 46798    | 18.599  | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83   | 43351    | 18.529  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane    | 11.238 | 75   | 39670m   | 19.163  | ug/l   |          |
| 77) Bromobenzene              | 11.195 | 156  | 36437    | 19.565  | ug/l   | 98       |
| 78) n-propylbenzene           | 11.305 | 91   | 166094   | 20.170  | ug/l   | 99       |
| 79) 2-Chlorotoluene           | 11.366 | 91   | 100805   | 19.808  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 124051   | 20.207  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75   | 10907    | 16.389  | ug/l   | 98       |
| 82) 4-Chlorotoluene           | 11.451 | 91   | 116180   | 19.633  | ug/l   | 99       |
| 83) tert-Butylbenzene         | 11.713 | 119  | 125736   | 20.539  | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene    | 11.750 | 105  | 123934   | 20.224  | ug/l   | 99       |
| 85) sec-Butylbenzene          | 11.890 | 105  | 148096   | 20.734  | ug/l   | 99       |
| 86) p-Isopropyltoluene        | 12.006 | 119  | 127436   | 20.695  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene       | 11.969 | 146  | 67747    | 20.082  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene       | 12.043 | 146  | 67854    | 19.691  | ug/l   | 99       |
| 89) n-Butylbenzene            | 12.335 | 91   | 106000   | 21.017  | ug/l   | 100      |
| 90) Hexachloroethane          | 12.536 | 117  | 19769    | 18.887  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene       | 12.335 | 146  | 65946    | 19.552  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75   | 8253     | 16.330  | ug/l   | 93       |
| 93) 1,2,4-Trichlorobenzene    | 13.591 | 180  | 40491    | 19.878  | ug/l   | 98       |
| 94) Hexachlorobutadiene       | 13.725 | 225  | 18460    | 22.631  | ug/l   | 99       |
| 95) Naphthalene               | 13.774 | 128  | 127000   | 18.691  | ug/l   | 99       |
| 96) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 39730    | 19.258  | ug/l   | 100      |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033433.D  
Acq On : 15 Dec 2022 11:46  
Operator : JC/MD  
Sample : VX1215WBSD01  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01

Manual Integrations  
**APPROVED**

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

Quant Time: Dec 16 01:00:12 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration

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

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



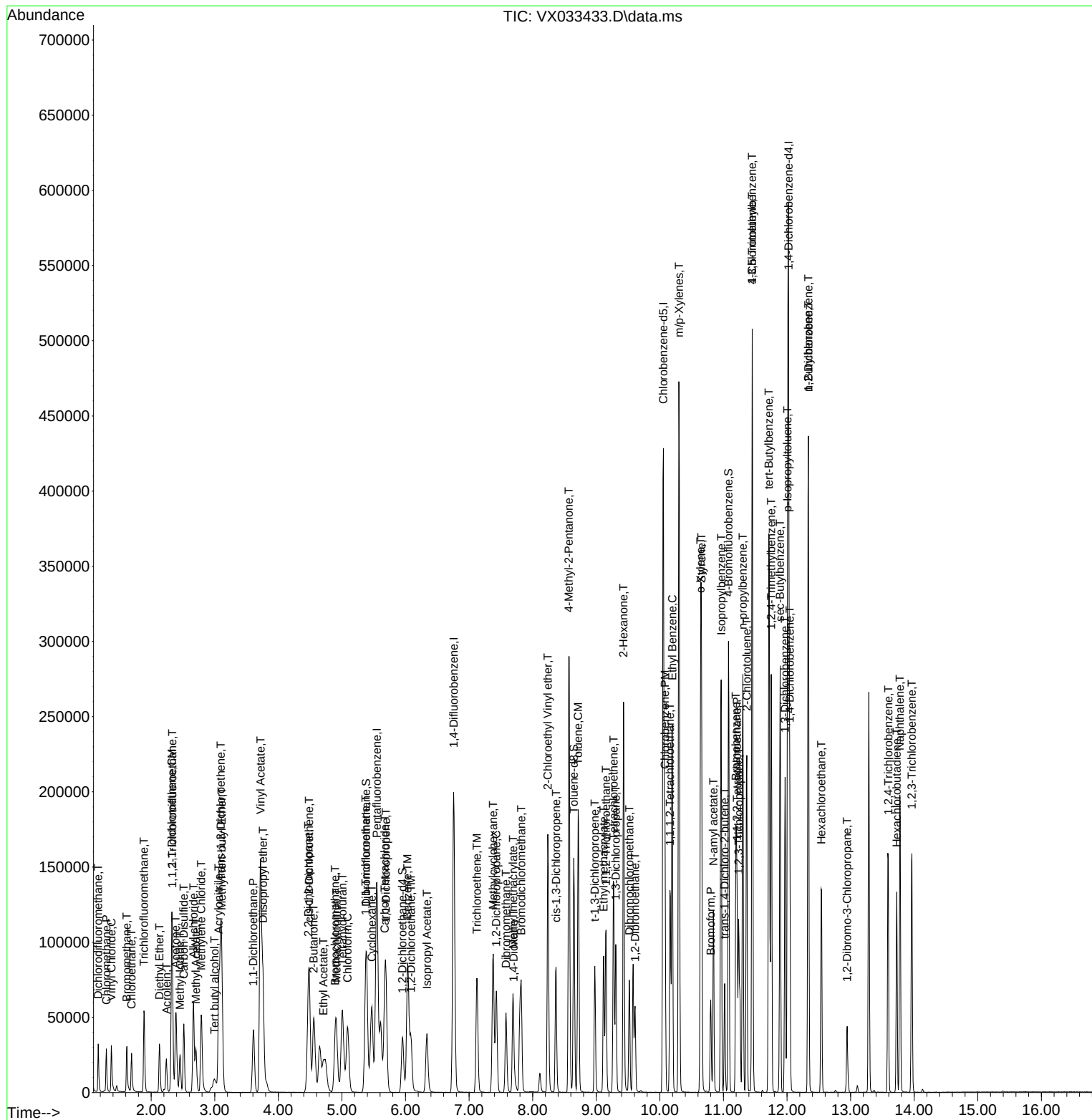
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX121522\  
Data File : VX033433.D  
Acq On : 15 Dec 2022 11:46  
Operator : JC/MD  
Sample : VX1215WBSD01  
Misc : 5.0mL/MSVOA\_X/WATER  
ALS Vial : 5 Sample Multiplier: 1

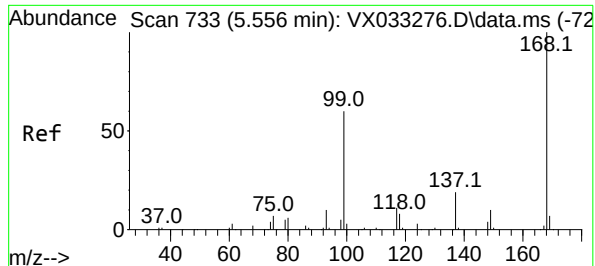
**Instrument :**  
MSVOA\_X  
**ClientSampleId :**  
VX1215WBSD01

## Manual Integrations APPROVED

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

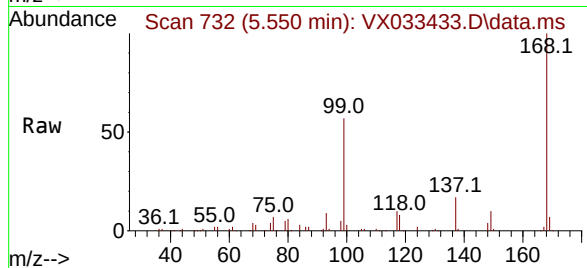
Quant Time: Dec 16 01:00:12 2022  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\82X120722W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 07 12:43:54 2022  
Response via : Initial Calibration





#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.550 min Scan# 71  
Delta R.T. -0.006 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

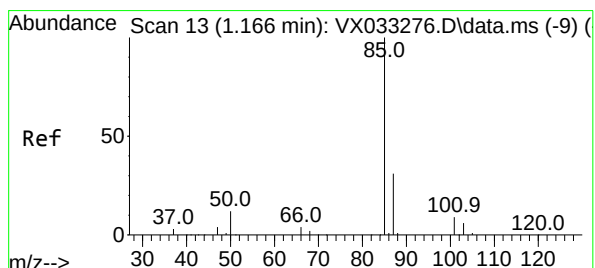
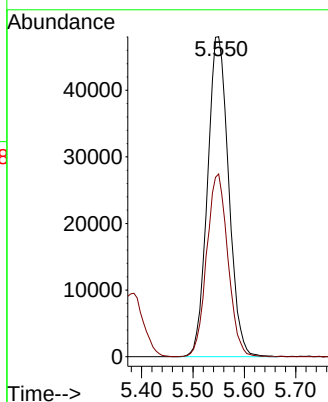
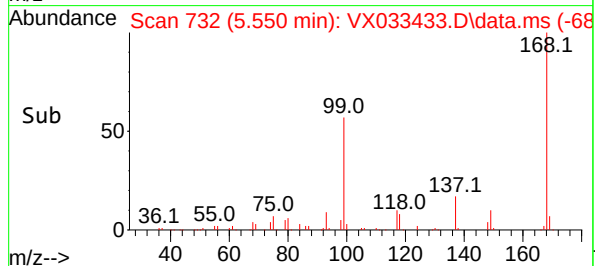
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01



Tgt Ion:168 Resp: 13729  
Ion Ratio Lower Upper  
168 100  
99 57.1 46.1 69.1

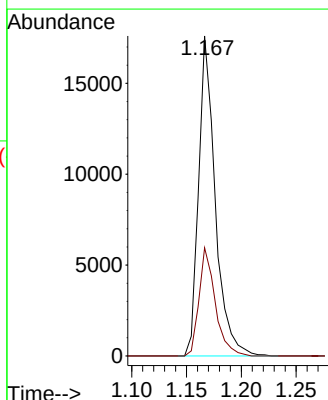
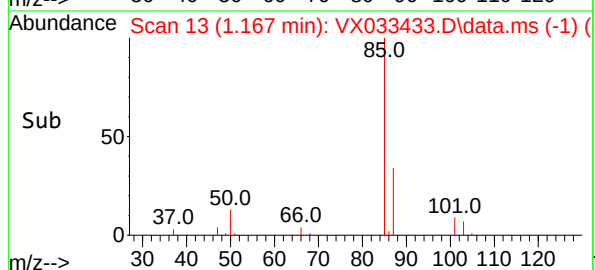
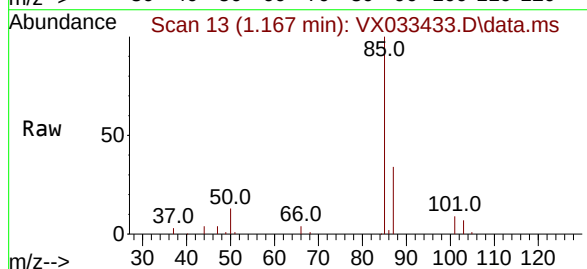
Manual Integrations  
APPROVED

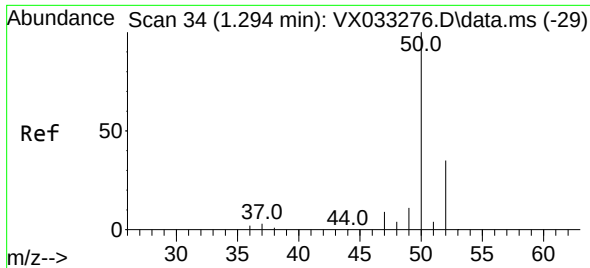
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#2  
Dichlorodifluoromethane  
Concen: 19.395 ug/l  
RT: 1.167 min Scan# 13  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Tgt Ion: 85 Resp: 18601  
Ion Ratio Lower Upper  
85 100  
87 33.8 15.6 46.7





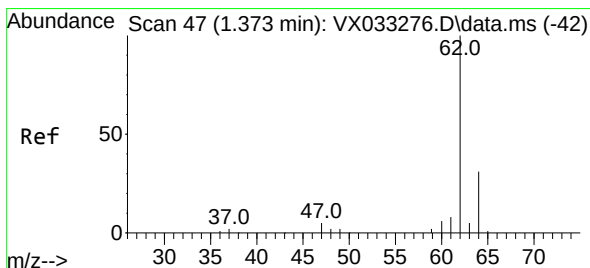
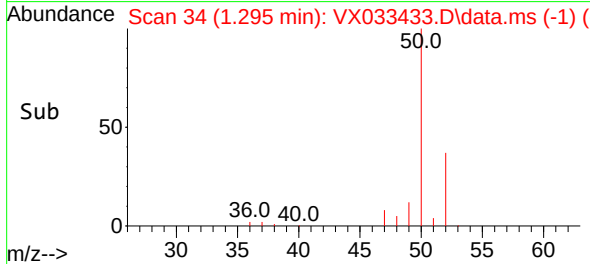
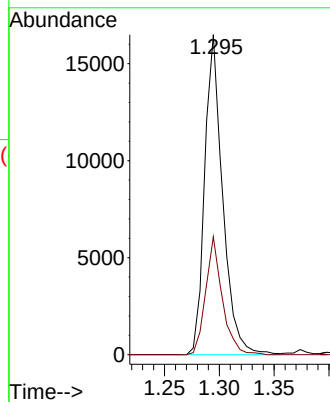
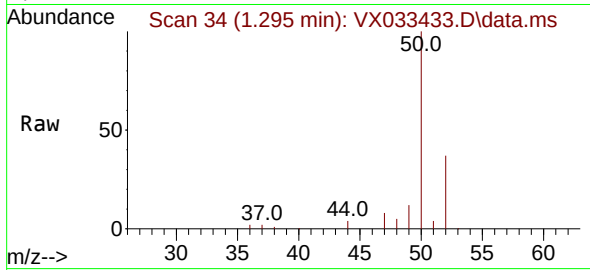
#3  
Chloromethane  
Concen: 16.976 ug/l  
RT: 1.295 min Scan# 34  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01

Tgt Ion: 50 Resp: 1882  
Ion Ratio Lower Upper  
50 100  
52 36.9 25.4 38.2

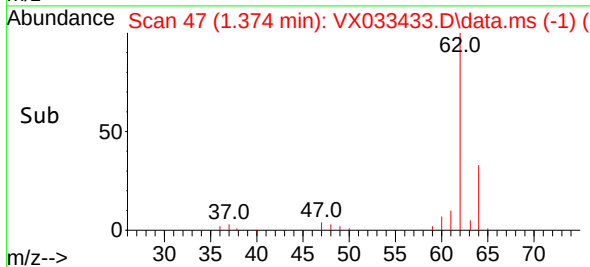
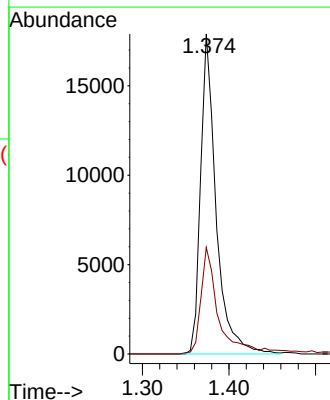
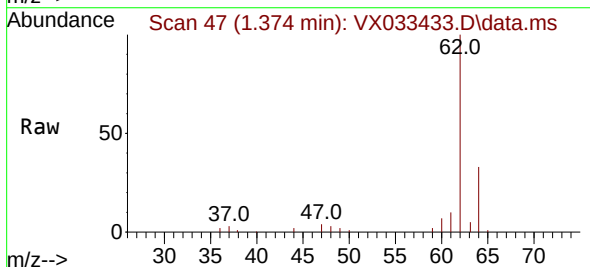
Manual Integrations  
APPROVED

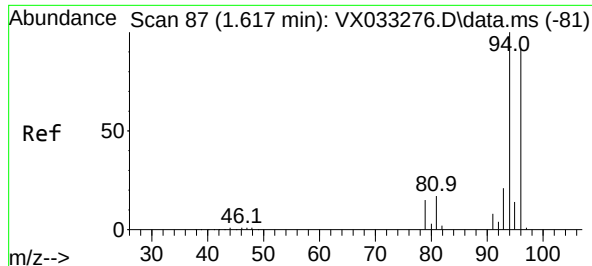
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#4  
Vinyl Chloride  
Concen: 17.552 ug/l  
RT: 1.374 min Scan# 47  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Tgt Ion: 62 Resp: 22224  
Ion Ratio Lower Upper  
62 100  
64 33.3 25.8 38.6





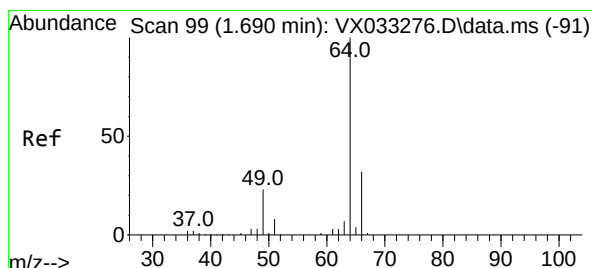
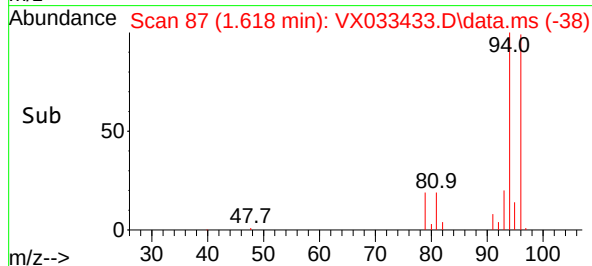
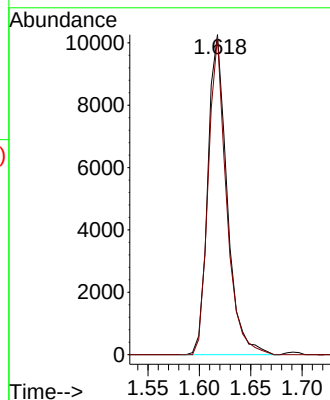
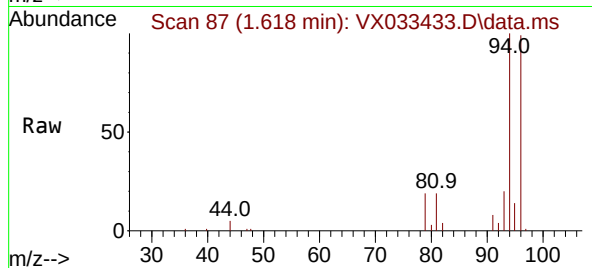
#5  
Bromomethane  
Concen: 14.369 ug/l  
RT: 1.618 min Scan# 81  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01

Tgt Ion: 94 Resp: 1335  
Ion Ratio Lower Upper  
94 100  
96 99.5 77.6 116.4

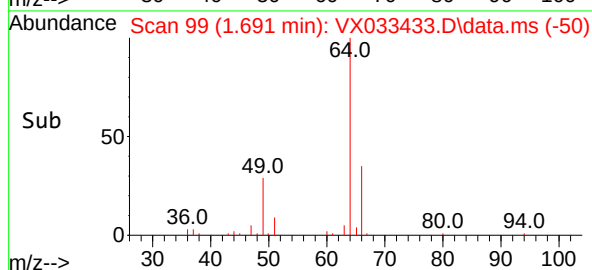
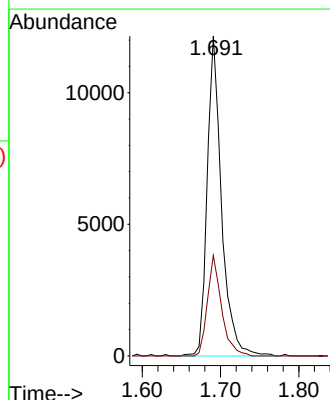
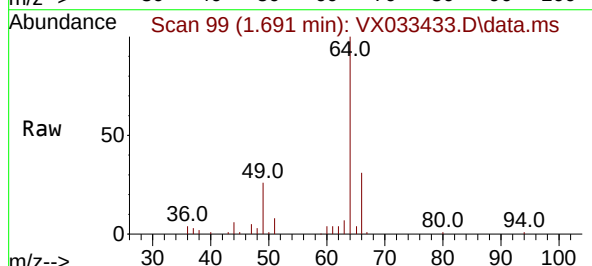
Manual Integrations  
APPROVED

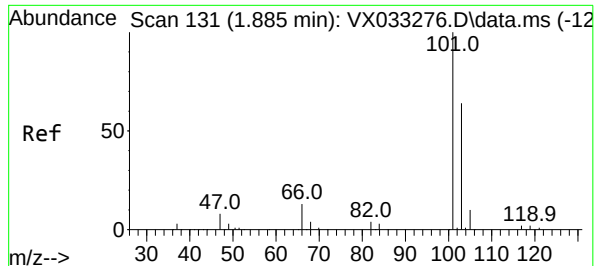
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#6  
Chloroethane  
Concen: 16.124 ug/l  
RT: 1.691 min Scan# 99  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

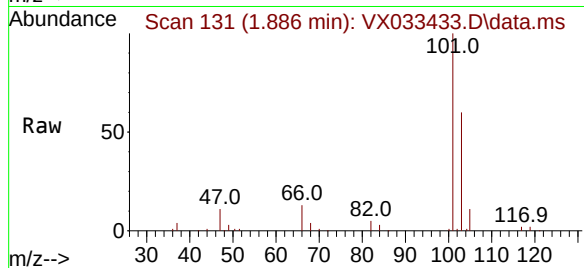
Tgt Ion: 64 Resp: 15485  
Ion Ratio Lower Upper  
64 100  
66 31.4 26.0 39.0





#7  
 Trichlorofluoromethane  
 Concen: 14.370 ug/l  
 RT: 1.886 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: VX033433.D  
 Acq: 15 Dec 2022 11:46

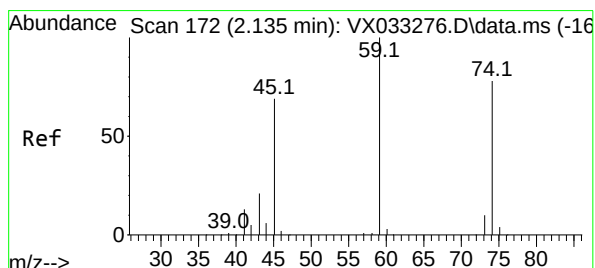
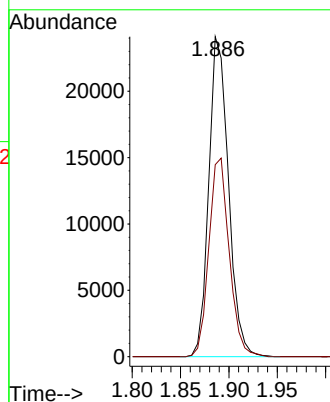
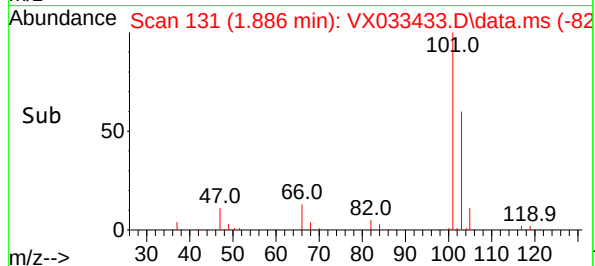
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VX1215WBSD01



Tgt Ion:101 Resp: 3415  
 Ion Ratio Lower Upper  
 101 100  
 103 60.0 51.4 77.2

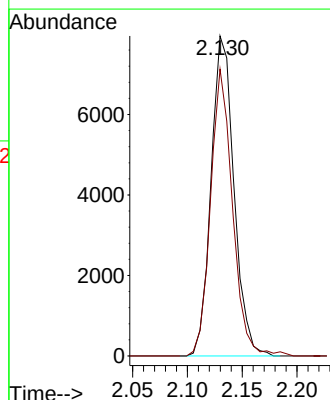
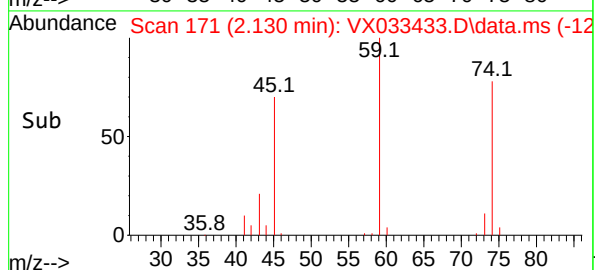
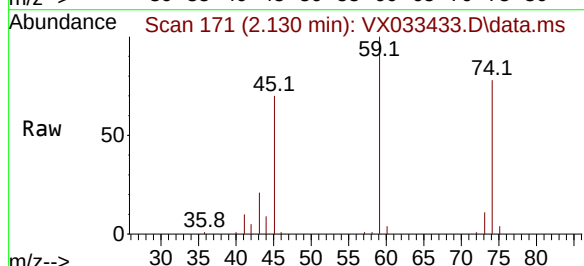
Manual Integrations  
 APPROVED

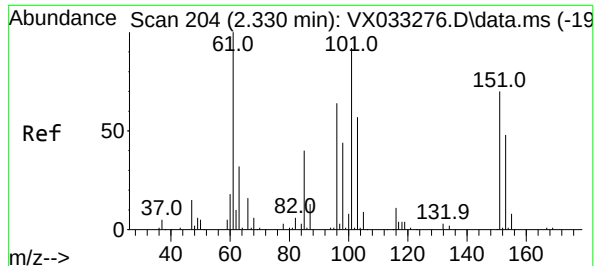
Reviewed By :John Carlone 12/16/2022  
 Supervised By :Mahesh Dadoda 12/16/2022



#8  
 Diethyl Ether  
 Concen: 13.437 ug/l  
 RT: 2.130 min Scan# 171  
 Delta R.T. -0.006 min  
 Lab File: VX033433.D  
 Acq: 15 Dec 2022 11:46

Tgt Ion: 74 Resp: 11537  
 Ion Ratio Lower Upper  
 74 100  
 45 86.2 46.6 139.7





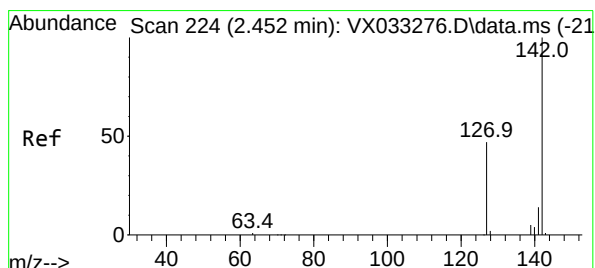
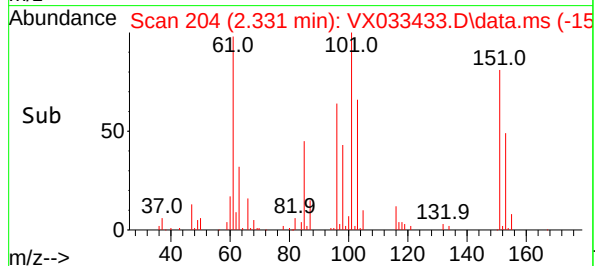
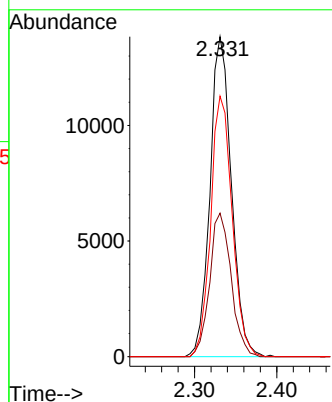
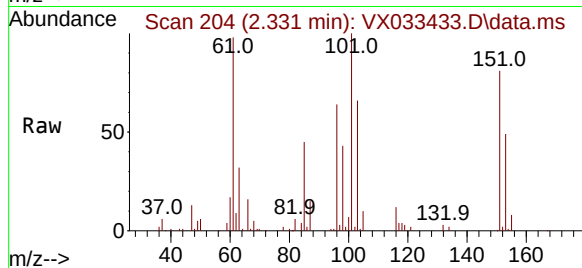
#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 19.886 ug/l  
RT: 2.331 min Scan# 204  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01

Tgt Ion:101 Resp: 25075  
Ion Ratio Lower Upper  
101 100  
85 45.0 37.0 55.4  
151 81.6 64.4 96.6

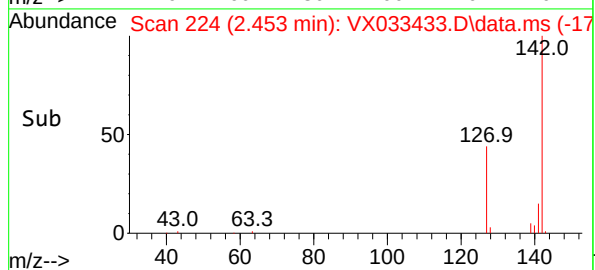
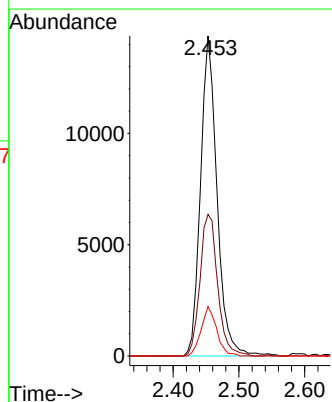
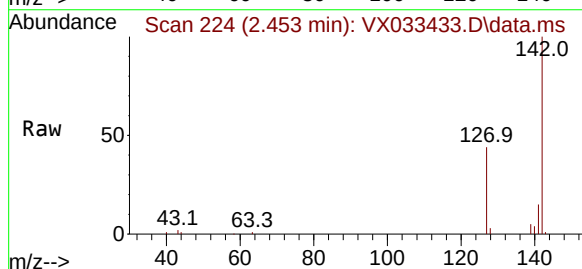
Manual Integrations  
APPROVED

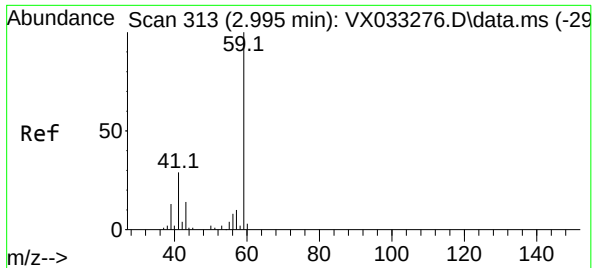
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#10  
Methyl Iodide  
Concen: 18.120 ug/l  
RT: 2.453 min Scan# 224  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Tgt Ion:142 Resp: 25025  
Ion Ratio Lower Upper  
142 100  
127 47.3 38.6 57.8  
141 14.5 11.4 17.2





#11

Tert butyl alcohol

Concen: 86.551 ug/l m

RT: 2.995 min Scan# 31

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 59 Resp: 2330

Ion Ratio Lower Upper

59 100

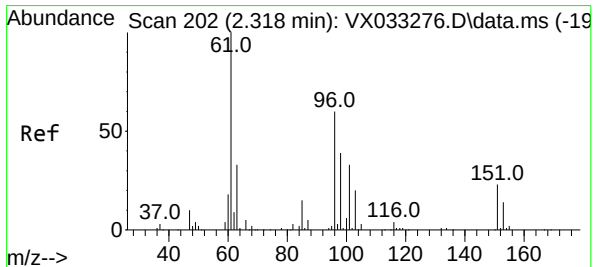
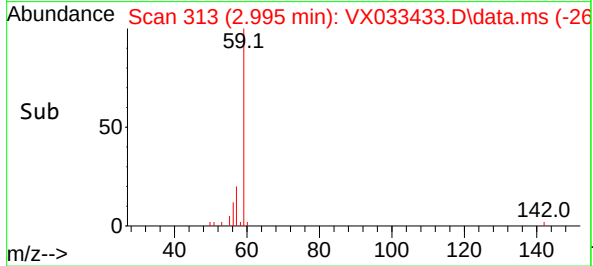
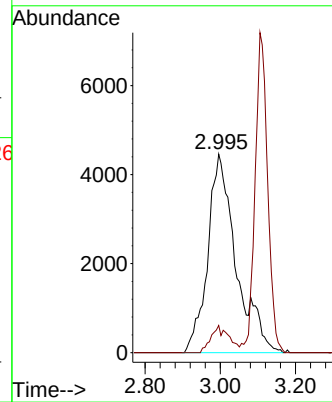
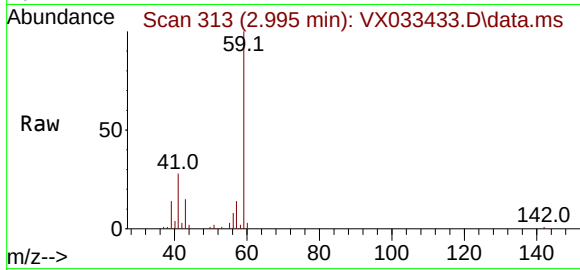
57 8.7 8.2 12.4

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#12

1,1-Dichloroethene

Concen: 16.848 ug/l

RT: 2.325 min Scan# 203

Delta R.T. 0.007 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

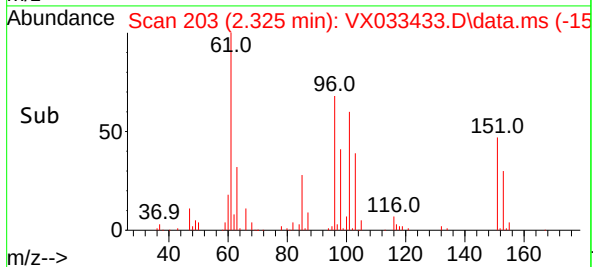
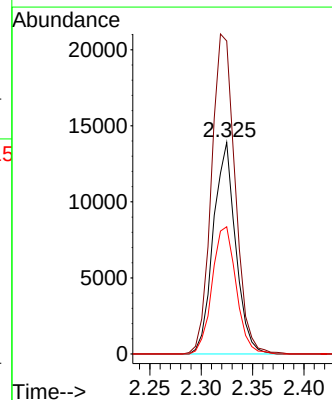
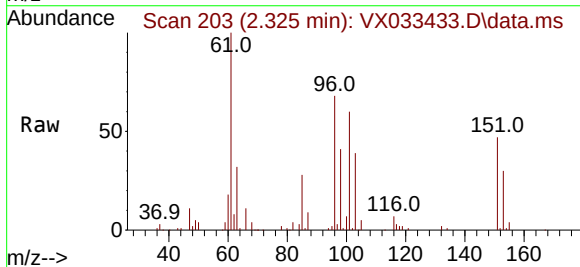
Tgt Ion: 96 Resp: 20970

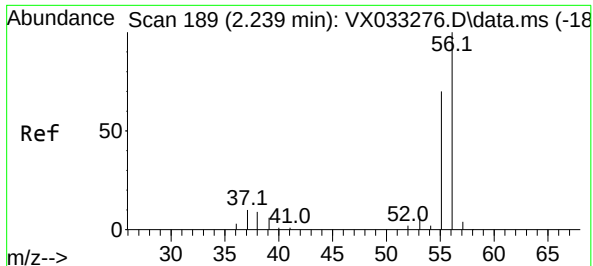
Ion Ratio Lower Upper

96 100

61 147.9 125.1 187.7

98 60.1 50.6 76.0





#13

Acrolein

Concen: 55.239 ug/l

RT: 2.239 min Scan# 189

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 56 Resp: 1613

Ion Ratio Lower Upper

56 100

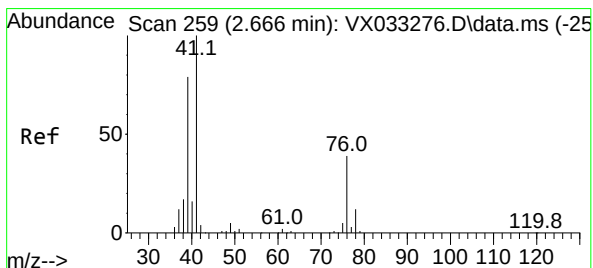
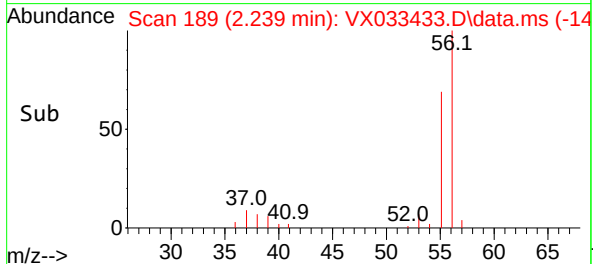
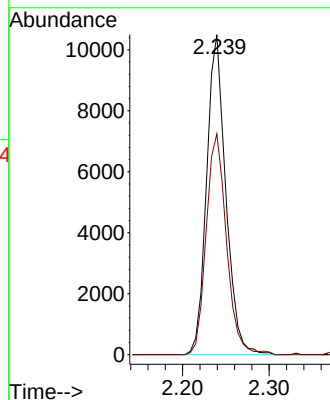
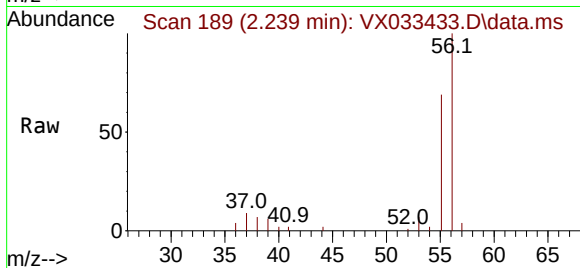
55 73.0 56.9 85.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#14

Allyl chloride

Concen: 17.965 ug/l

RT: 2.666 min Scan# 259

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

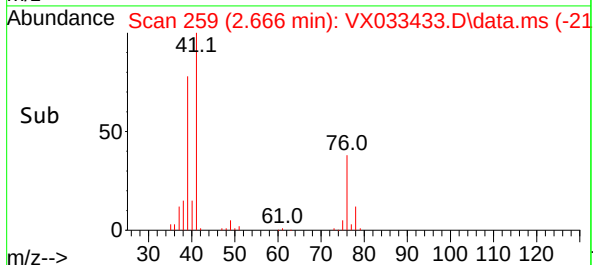
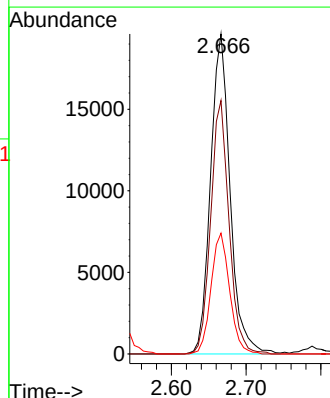
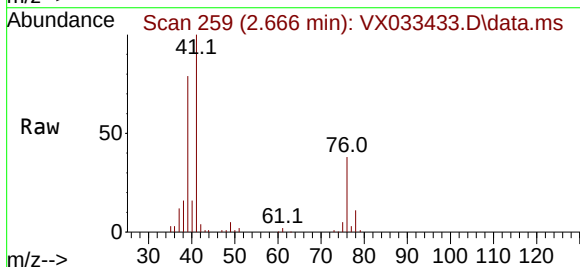
Tgt Ion: 41 Resp: 35709

Ion Ratio Lower Upper

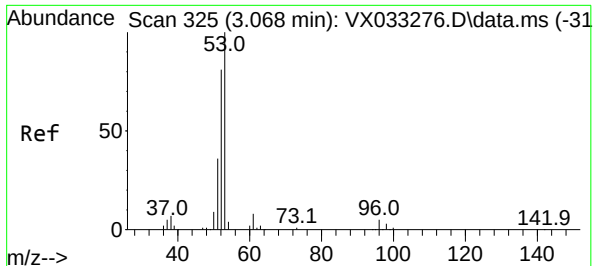
41 100

39 74.2 61.4 92.2

76 35.9 29.2 43.8







#15

Acrylonitrile

Concen: 89.662 ug/l

RT: 3.063 min Scan# 31

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 53 Resp: 59810

Ion Ratio Lower Upper

53 100

52 81.6 67.4 101.0

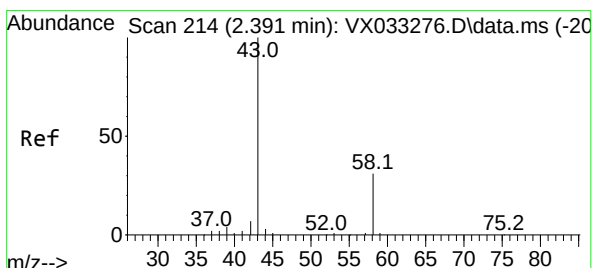
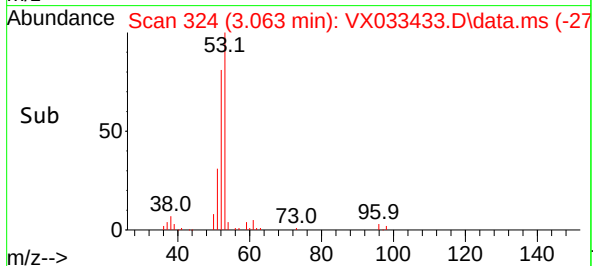
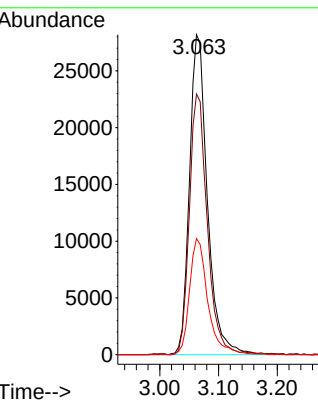
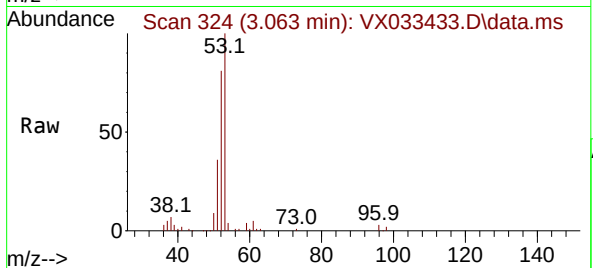
51 37.0 30.3 45.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#16

Acetone

Concen: 105.776 ug/l

RT: 2.386 min Scan# 213

Delta R.T. -0.006 min

Lab File: VX033433.D

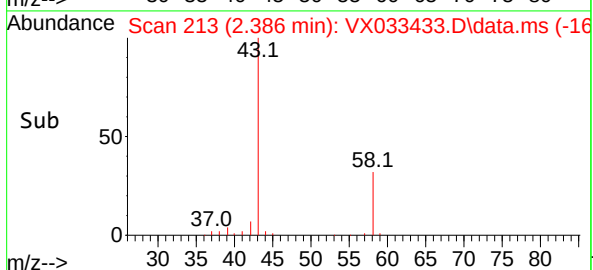
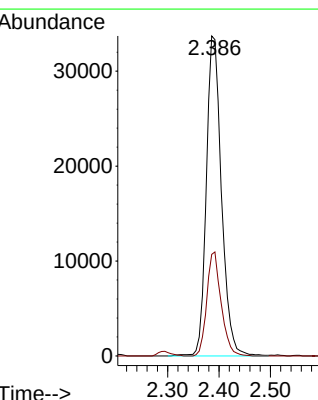
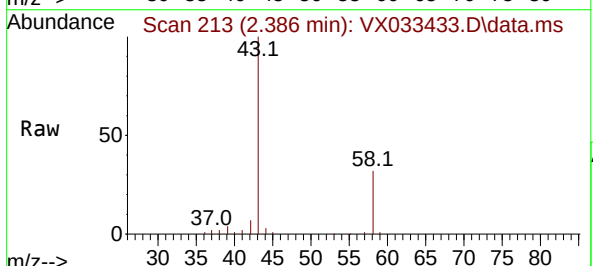
Acq: 15 Dec 2022 11:46

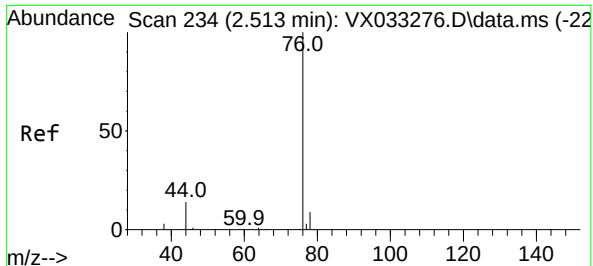
Tgt Ion: 43 Resp: 68941

Ion Ratio Lower Upper

43 100

58 31.7 23.8 35.8





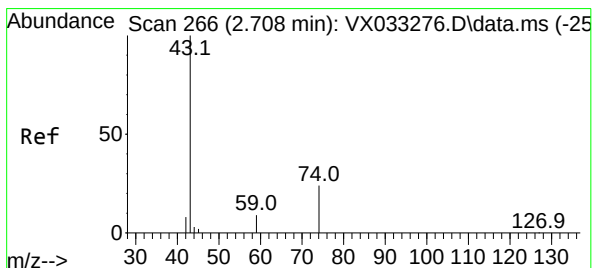
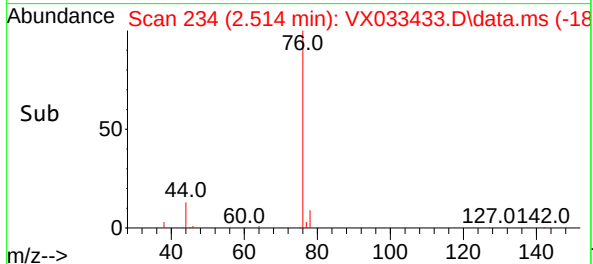
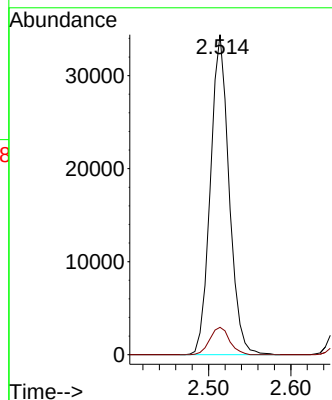
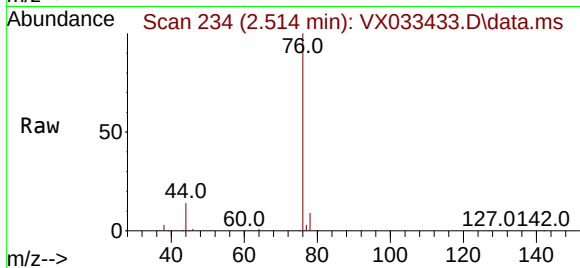
#17  
Carbon Disulfide  
Concen: 16.990 ug/l  
RT: 2.514 min Scan# 21  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01

Tgt Ion: 76 Resp: 54270  
Ion Ratio Lower Upper  
76 100  
78 8.5 7.5 11.3

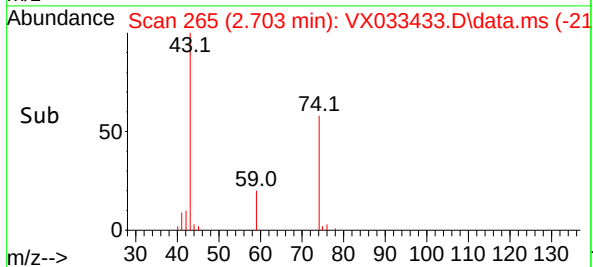
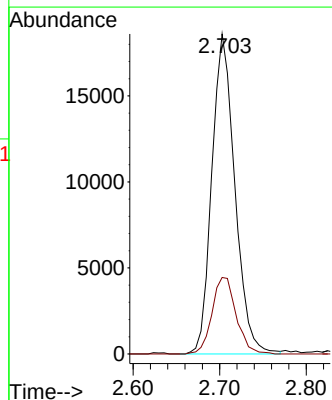
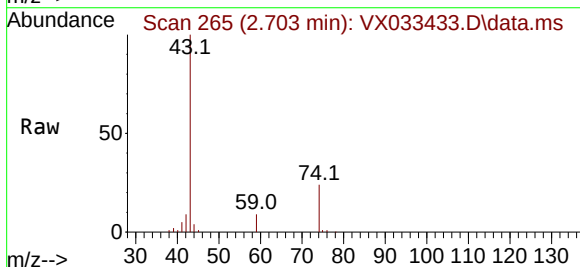
Manual Integrations  
APPROVED

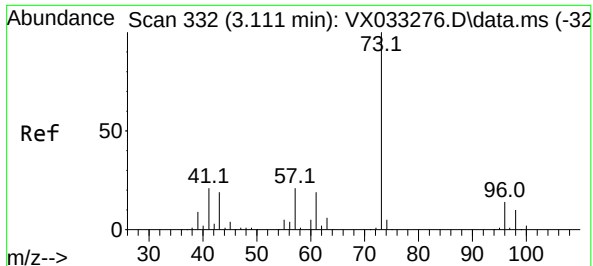
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#18  
Methyl Acetate  
Concen: 18.210 ug/l  
RT: 2.703 min Scan# 265  
Delta R.T. -0.006 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Tgt Ion: 43 Resp: 34358  
Ion Ratio Lower Upper  
43 100  
74 25.0 19.4 29.0





#19

Methyl tert-butyl Ether

Concen: 18.736 ug/l

RT: 3.111 min Scan# 31

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 73 Resp: 8078

Ion Ratio Lower Upper

73 100

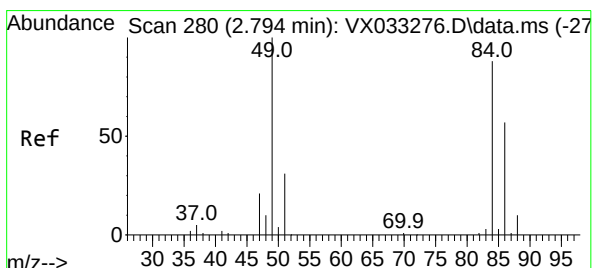
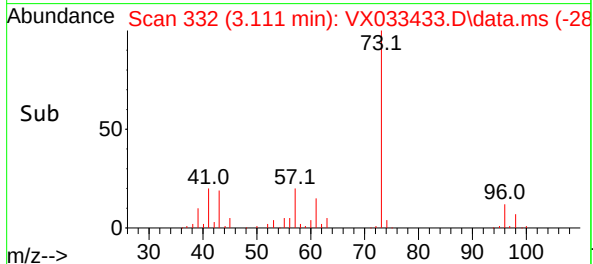
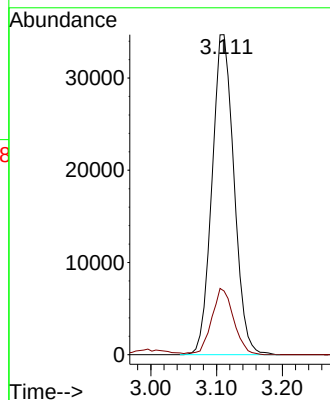
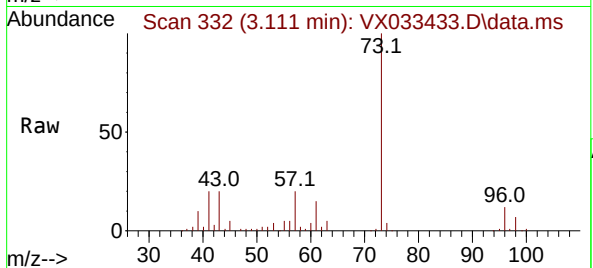
57 19.9 16.6 25.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#20

Methylene Chloride

Concen: 18.392 ug/l

RT: 2.788 min Scan# 279

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Tgt Ion: 84 Resp: 26733

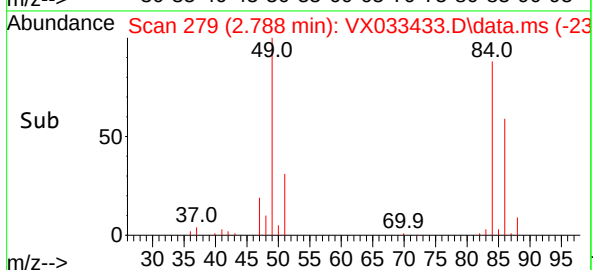
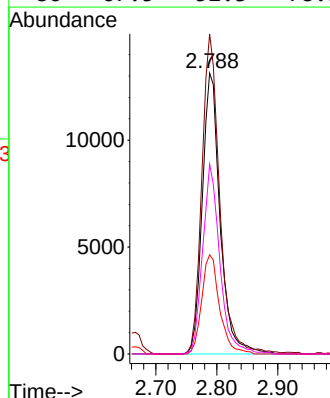
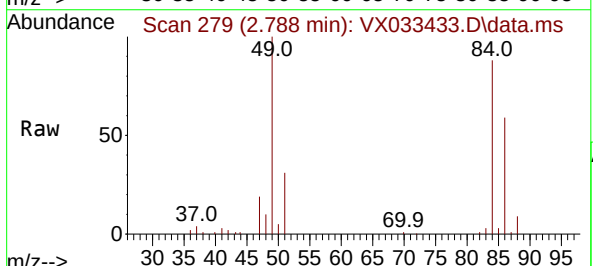
Ion Ratio Lower Upper

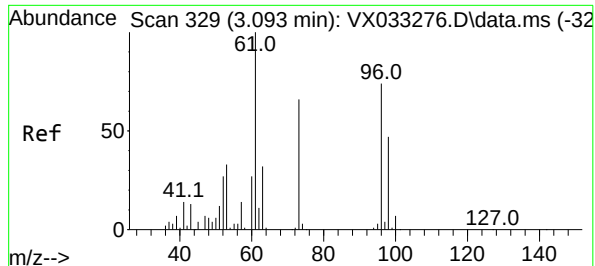
84 100

49 113.9 101.0 151.6

51 35.3 31.1 46.7

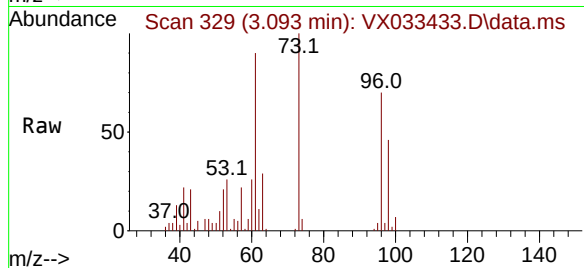
86 67.5 52.3 78.5





#21  
trans-1,2-Dichloroethene  
Concen: 18.640 ug/l  
RT: 3.093 min Scan# 31  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

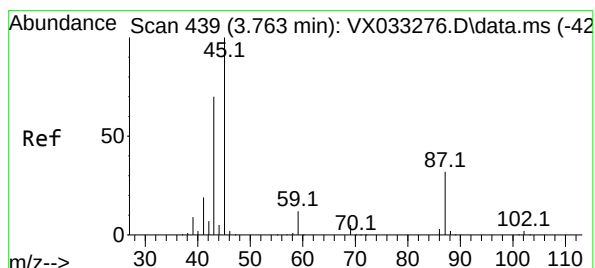
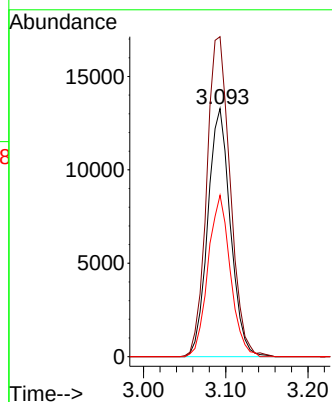
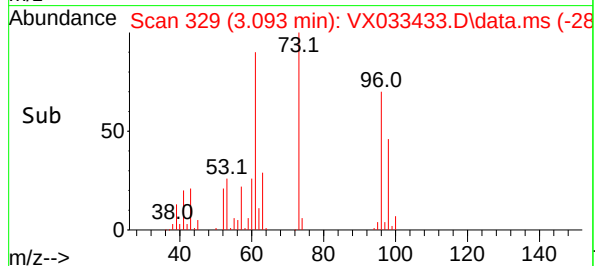
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01



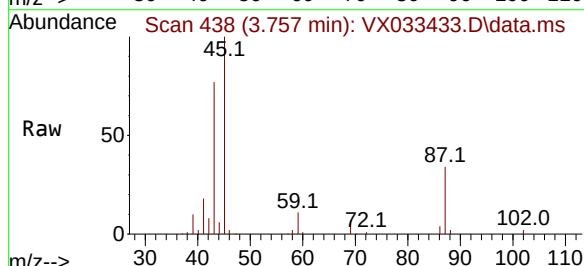
Tgt Ion: 96 Resp: 25379  
Ion Ratio Lower Upper  
96 100  
61 129.0 106.6 160.0  
98 65.0 51.0 76.6

Manual Integrations  
APPROVED

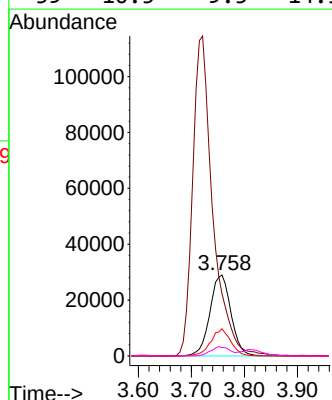
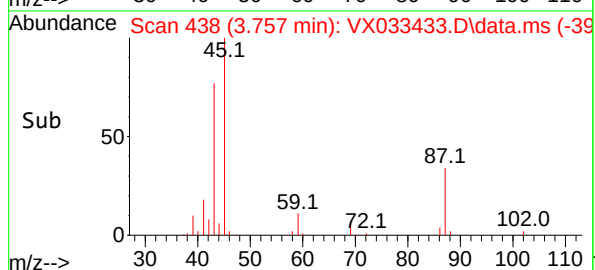
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

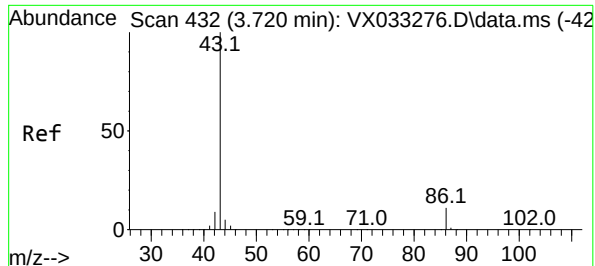


#22  
Diisopropyl ether  
Concen: 18.742 ug/l  
RT: 3.757 min Scan# 438  
Delta R.T. -0.006 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46



Tgt Ion: 45 Resp: 79815  
Ion Ratio Lower Upper  
45 100  
43 76.3 56.4 84.6  
87 33.6 24.4 36.6  
59 10.5 9.5 14.3





#23

Vinyl Acetate

Concen: 91.418 ug/l

RT: 3.721 min Scan# 411

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 43 Resp: 302179

Ion Ratio Lower Upper

43 100

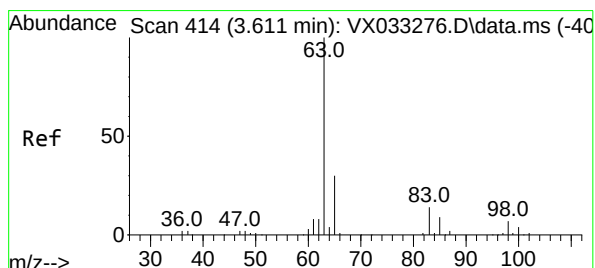
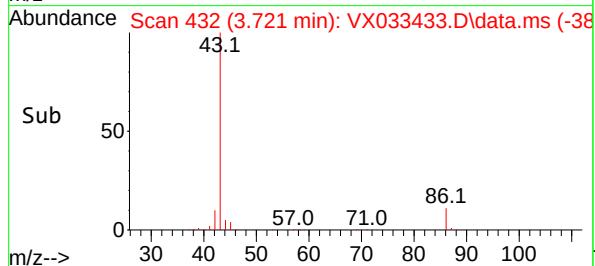
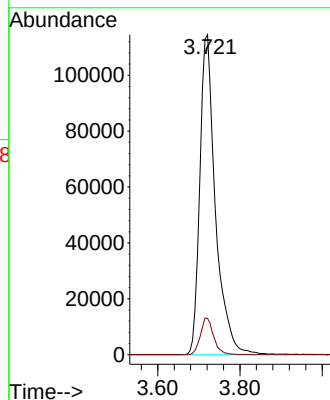
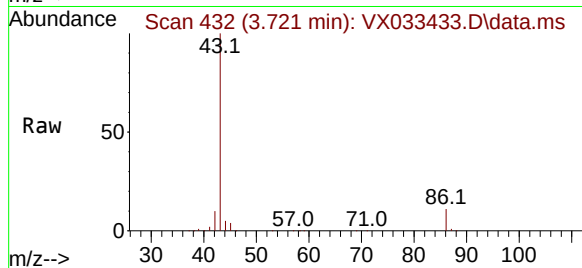
86 11.3 8.6 12.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#24

1,1-Dichloroethane

Concen: 18.481 ug/l

RT: 3.605 min Scan# 413

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

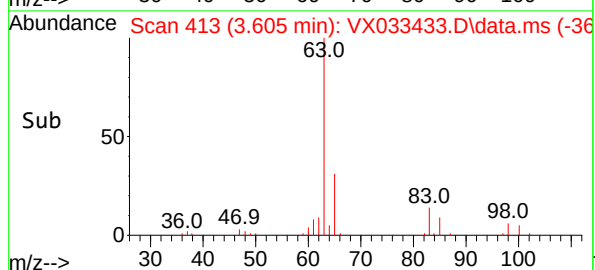
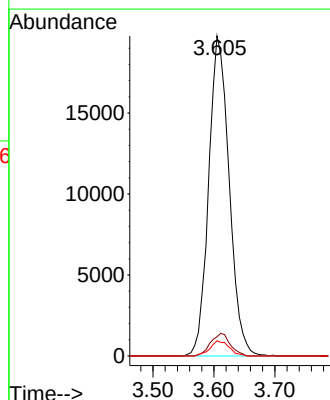
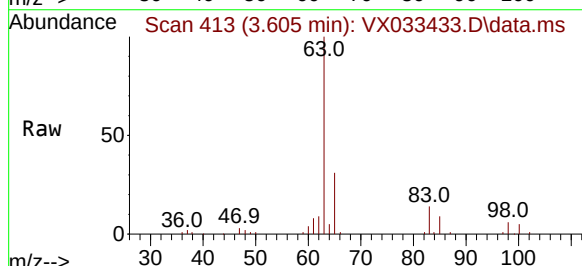
Tgt Ion: 63 Resp: 46243

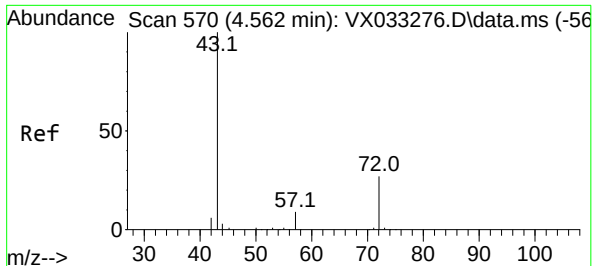
Ion Ratio Lower Upper

63 100

98 6.0 3.5 10.4

100 4.8 2.3 6.8





#25

2-Butanone

Concen: 94.090 ug/l

RT: 4.556 min Scan# 50

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 43 Resp: 88020

Ion Ratio Lower Upper

43 100

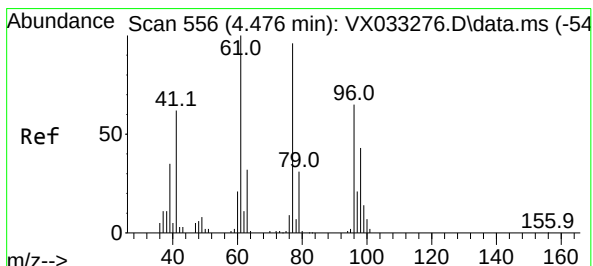
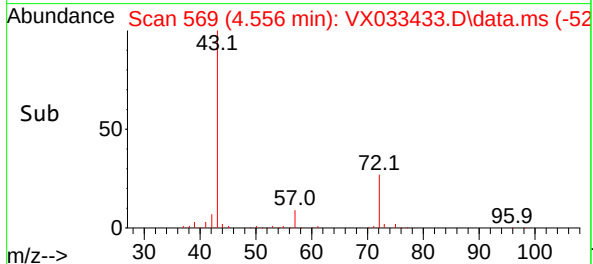
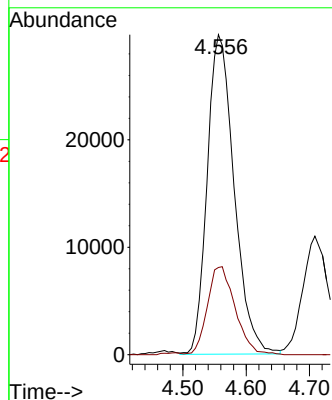
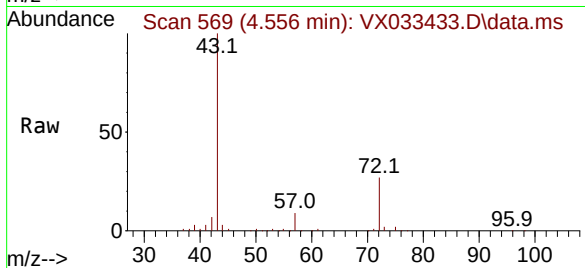
72 27.2 22.2 33.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#26

2,2-Dichloropropane

Concen: 20.092 ug/l

RT: 4.471 min Scan# 555

Delta R.T. -0.006 min

Lab File: VX033433.D

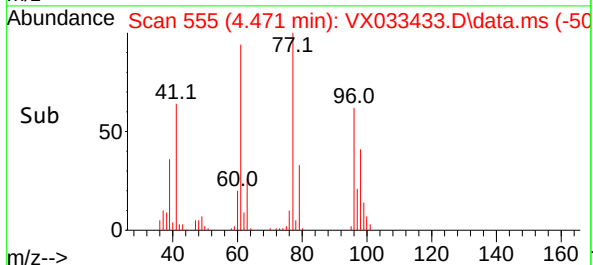
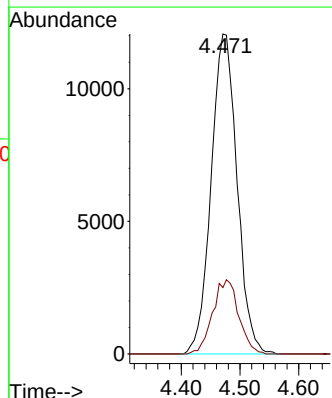
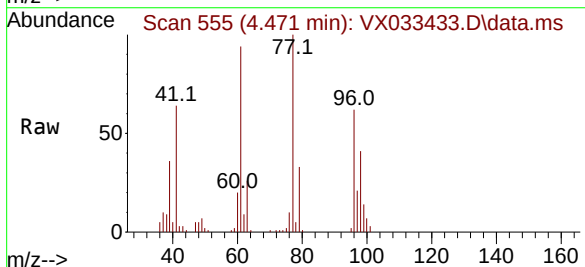
Acq: 15 Dec 2022 11:46

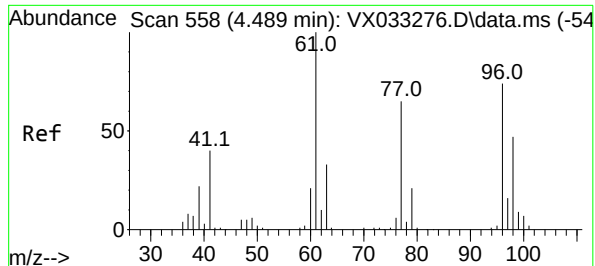
Tgt Ion: 77 Resp: 36972

Ion Ratio Lower Upper

77 100

97 23.2 11.4 34.1





#27

cis-1,2-Dichloroethene

Concen: 18.679 ug/l

RT: 4.483 min Scan# 51

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 96 Resp: 3039

Ion Ratio Lower Upper

96 100

61 141.1 0.0 286.0

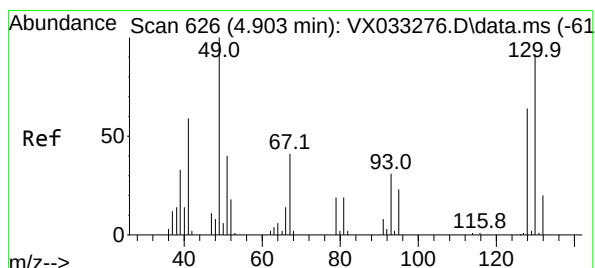
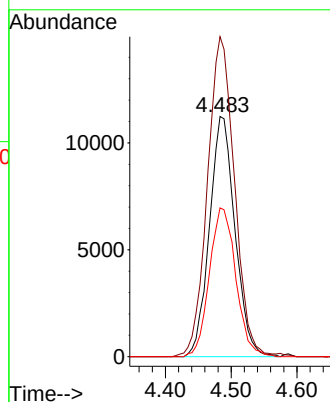
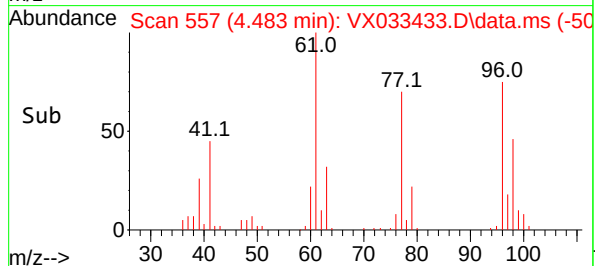
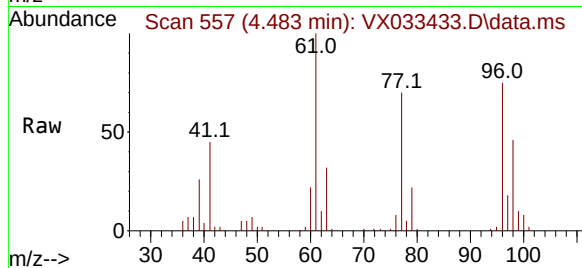
98 64.0 0.0 129.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#28

Bromochloromethane

Concen: 19.451 ug/l

RT: 4.891 min Scan# 624

Delta R.T. -0.012 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

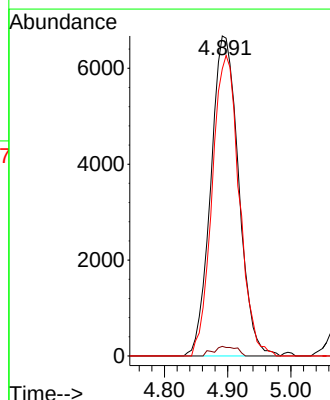
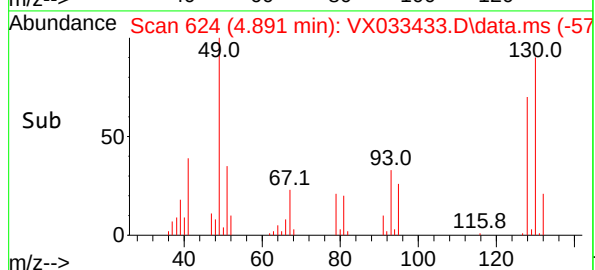
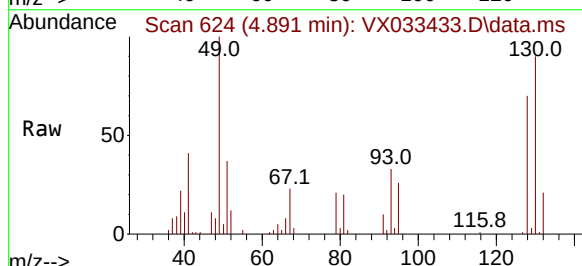
Tgt Ion: 49 Resp: 20374

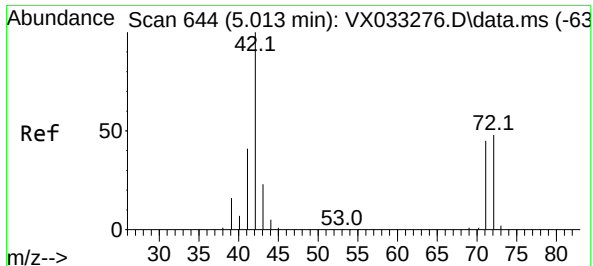
Ion Ratio Lower Upper

49 100

129 2.5 0.0 3.8

130 91.2 67.5 101.3





#29

Tetrahydrofuran

Concen: 83.937 ug/l

RT: 5.007 min Scan# 644

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 42 Resp: 50878

Ion Ratio Lower Upper

42 100

72 49.6 37.6 56.4

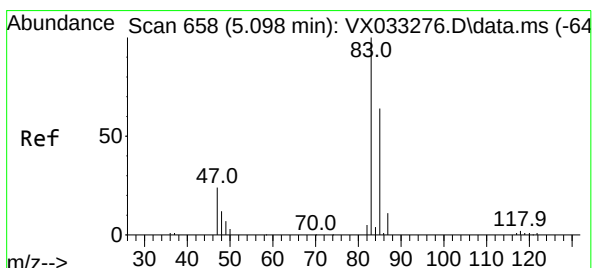
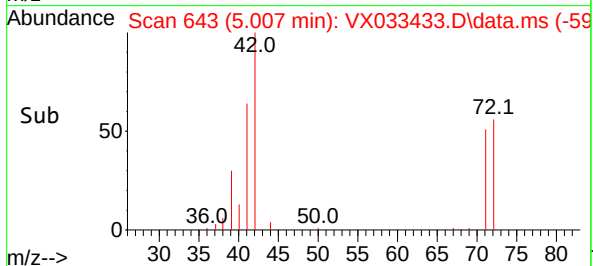
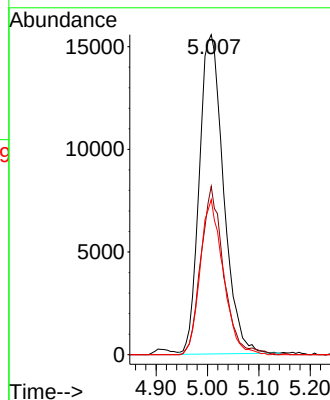
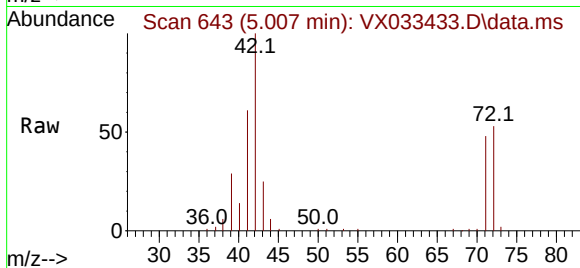
71 46.4 34.7 52.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#30

Chloroform

Concen: 19.285 ug/l

RT: 5.087 min Scan# 656

Delta R.T. -0.012 min

Lab File: VX033433.D

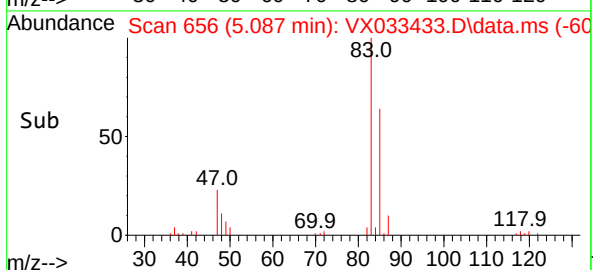
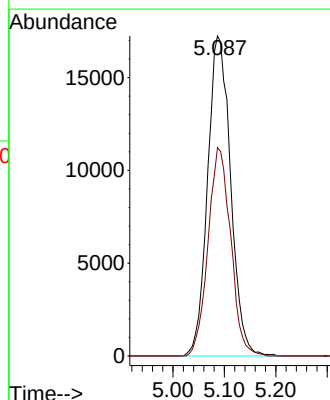
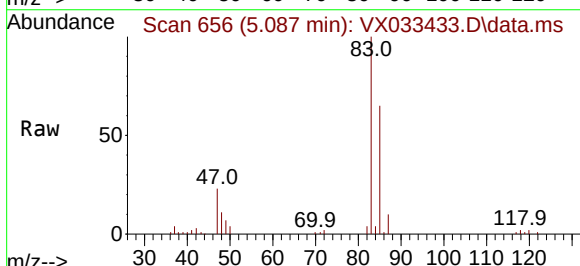
Acq: 15 Dec 2022 11:46

Tgt Ion: 83 Resp: 53573

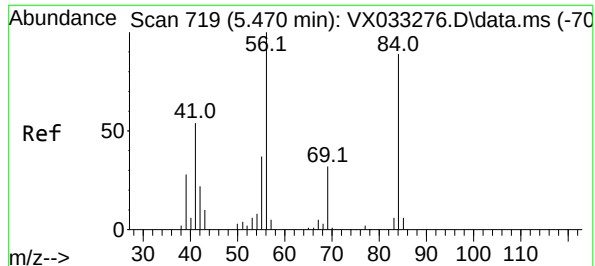
Ion Ratio Lower Upper

83 100

85 65.1 51.1 76.7







#31

Cyclohexane

Concen: 18.828 ug/l

RT: 5.471 min Scan# 719

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 56 Resp: 3941

Ion Ratio Lower Upper

56 100

69 32.0 24.1 36.1

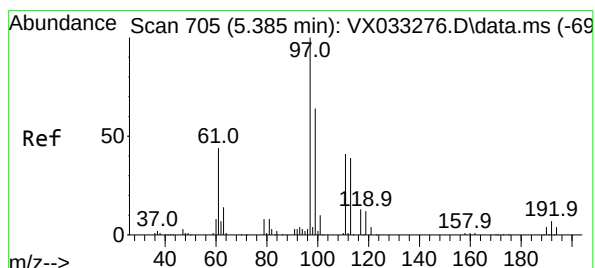
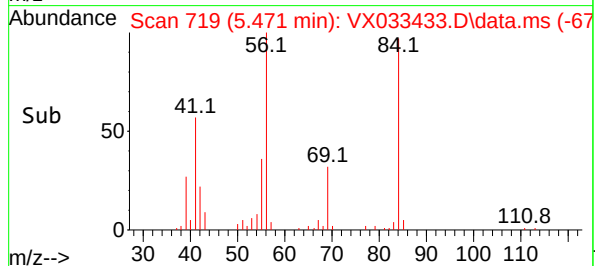
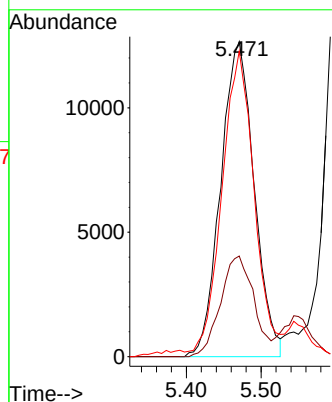
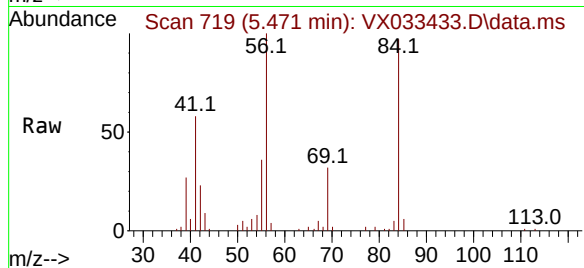
84 95.0 66.9 100.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#32

1,1,1-Trichloroethane

Concen: 19.823 ug/l

RT: 5.373 min Scan# 703

Delta R.T. -0.012 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

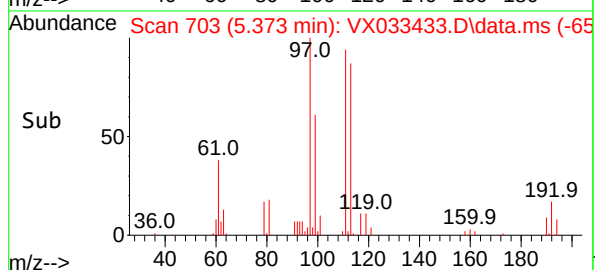
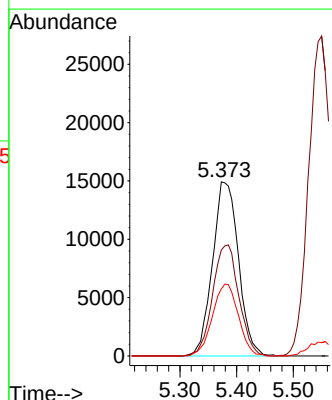
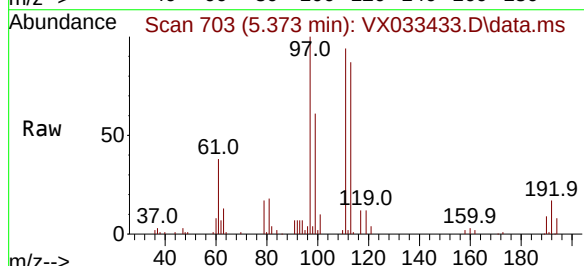
Tgt Ion: 97 Resp: 47380

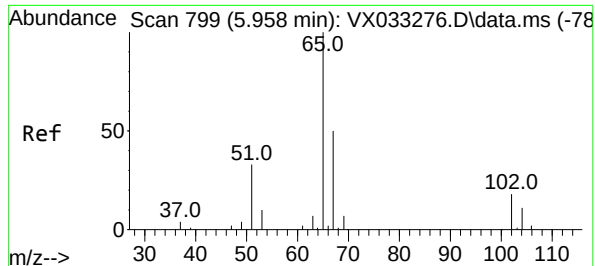
Ion Ratio Lower Upper

97 100

99 64.3 51.4 77.0

61 41.2 35.2 52.8





#33

1,2-Dichloroethane-d4

Concen: 42.979 ug/l

RT: 5.952 min Scan# 799

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 65 Resp: 37850

Ion Ratio Lower Upper

65 100

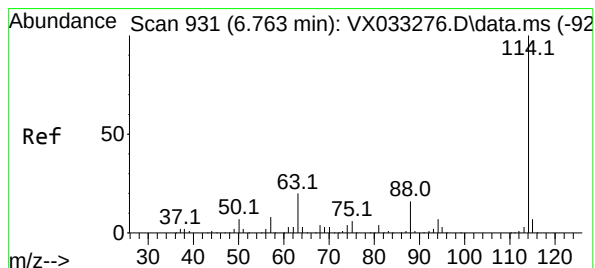
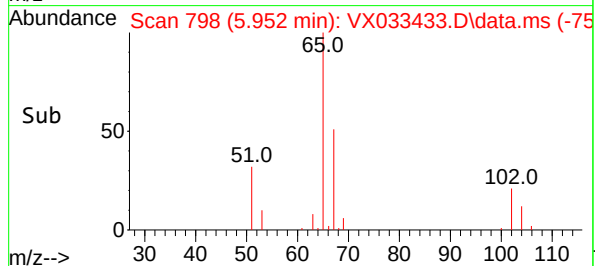
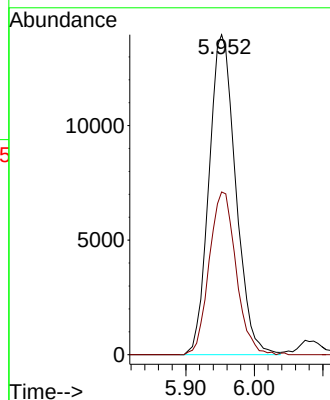
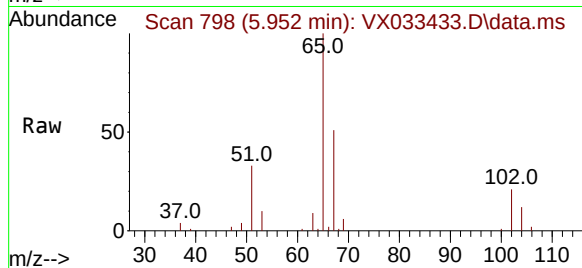
67 50.9 0.0 101.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.757 min Scan# 930

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

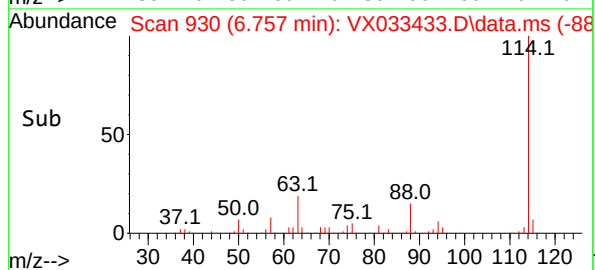
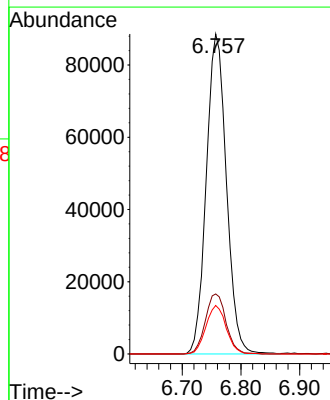
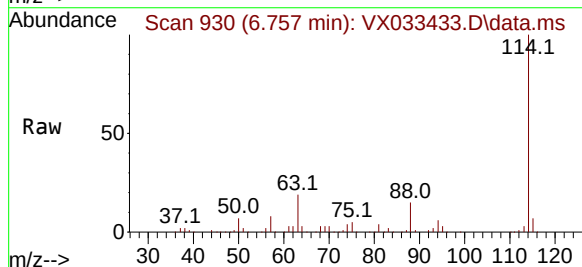
Tgt Ion:114 Resp: 210886

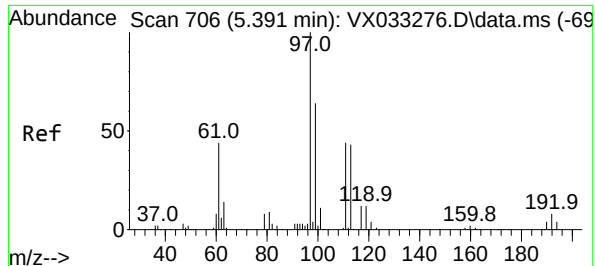
Ion Ratio Lower Upper

114 100

63 18.8 0.0 41.6

88 15.2 0.0 33.4





#35

Dibromofluoromethane

Concen: 46.027 ug/l

RT: 5.379 min Scan# 706

Delta R.T. -0.012 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion:113 Resp: 43658

Ion Ratio Lower Upper

113 100

111 102.8 82.4 123.6

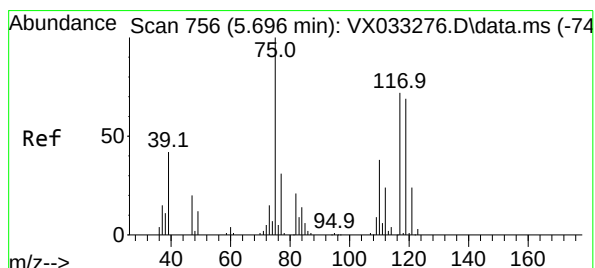
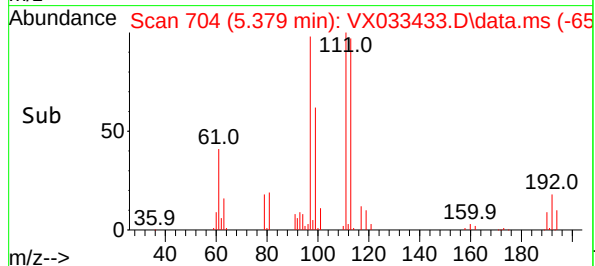
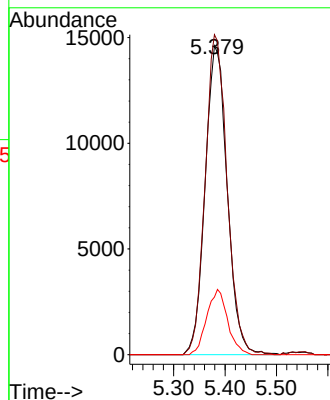
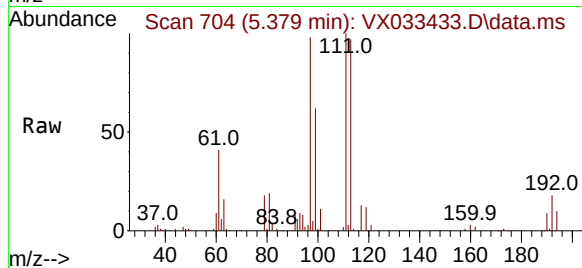
192 19.9 15.4 23.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#36

1,1-Dichloropropene

Concen: 19.942 ug/l

RT: 5.690 min Scan# 755

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

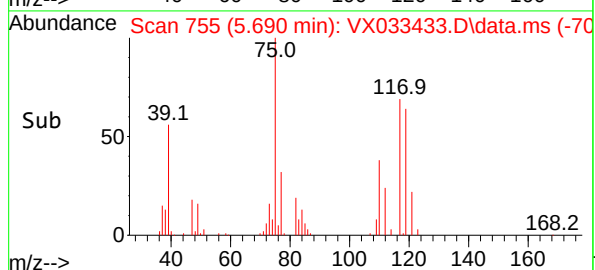
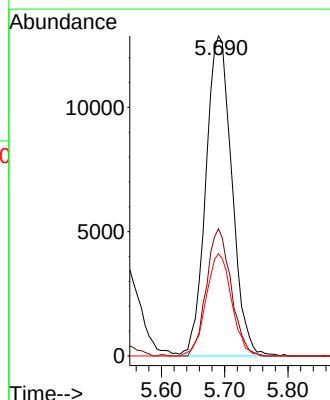
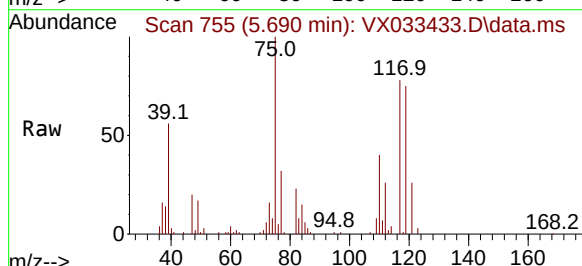
Tgt Ion: 75 Resp: 36878

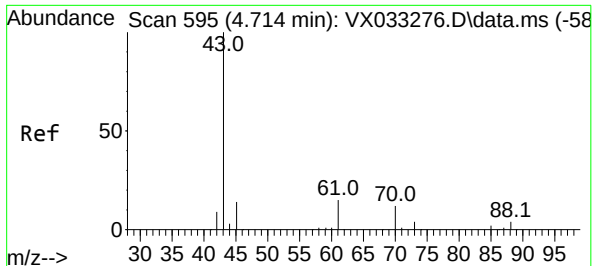
Ion Ratio Lower Upper

75 100

110 37.6 18.4 55.2

77 31.4 24.5 36.7





#37

Ethyl Acetate

Concen: 18.872 ug/l

RT: 4.709 min Scan# 594

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

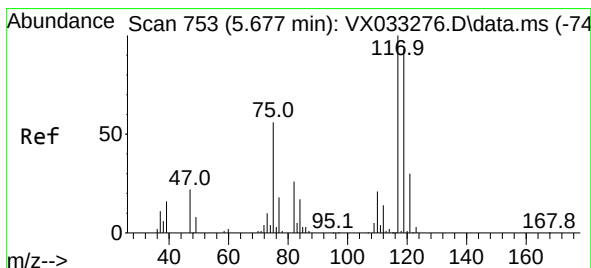
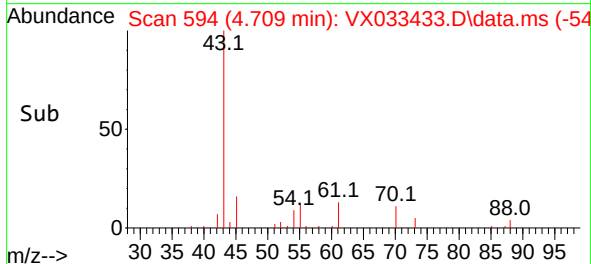
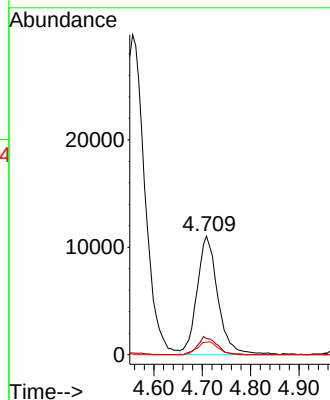
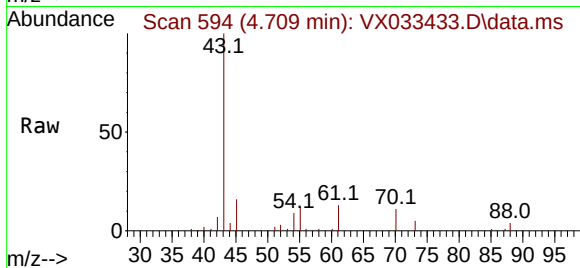
|             |             |
|-------------|-------------|
| Tgt Ion: 43 | Resp: 32990 |
| Ion Ratio   | Lower Upper |
| 43 100      |             |
| 61 14.0     | 11.5 17.3   |
| 70 10.7     | 9.1 13.7    |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#38

Carbon Tetrachloride

Concen: 19.992 ug/l

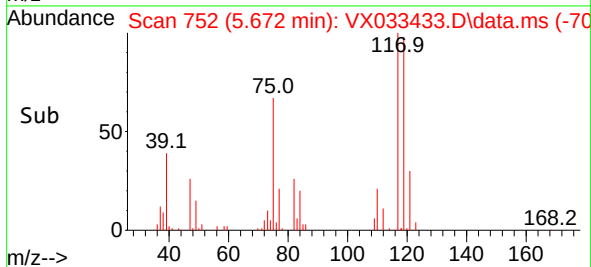
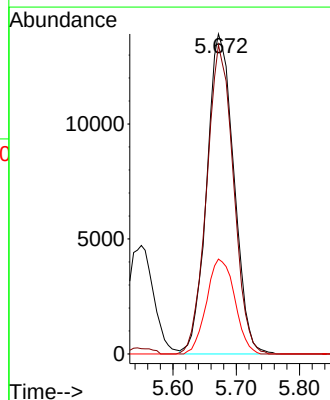
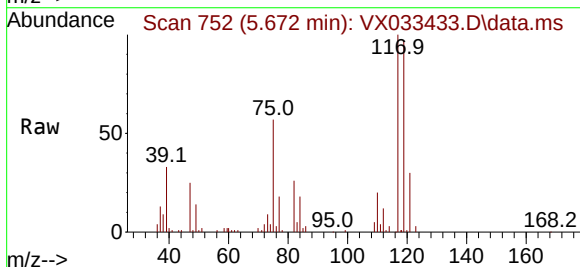
RT: 5.672 min Scan# 752

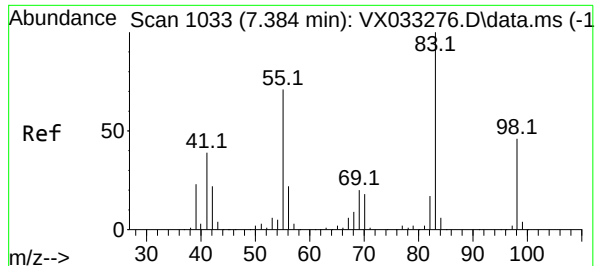
Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

|              |             |
|--------------|-------------|
| Tgt Ion: 117 | Resp: 41422 |
| Ion Ratio    | Lower Upper |
| 117 100      |             |
| 119 96.6     | 77.2 115.8  |
| 121 29.7     | 25.8 38.6   |





#39

Methylcyclohexane

Concen: 21.116 ug/l

RT: 7.379 min Scan# 1032

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 83 Resp: 43709

Ion Ratio Lower Upper

83 100

55 71.4 58.4 87.6

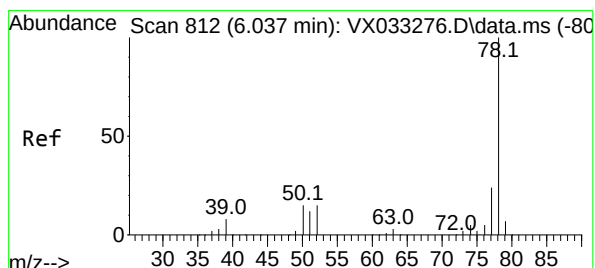
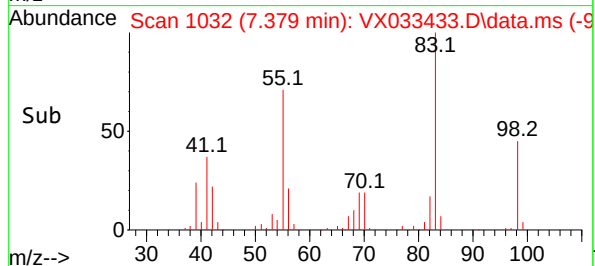
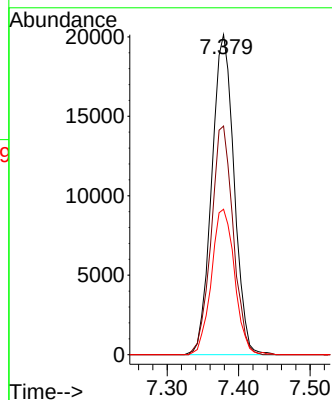
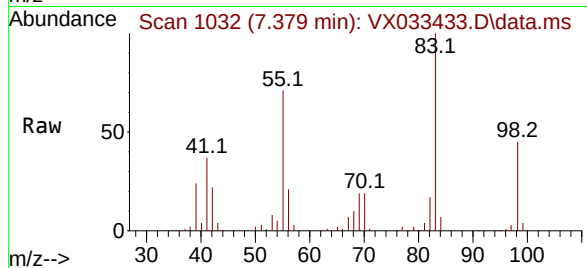
98 45.5 37.2 55.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#40

Benzene

Concen: 19.661 ug/l

RT: 6.031 min Scan# 811

Delta R.T. -0.006 min

Lab File: VX033433.D

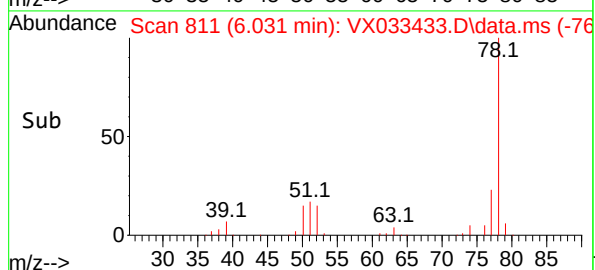
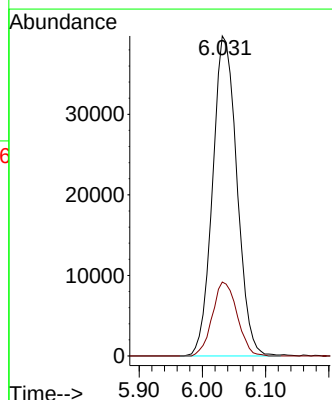
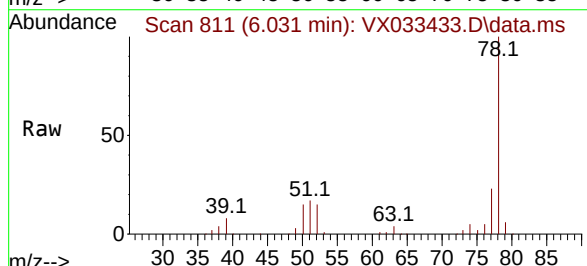
Acq: 15 Dec 2022 11:46

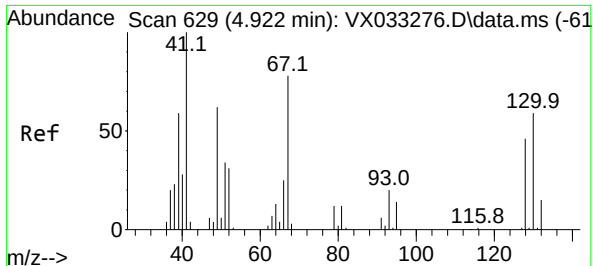
Tgt Ion: 78 Resp: 106012

Ion Ratio Lower Upper

78 100

77 23.1 19.0 28.4





#41

Methacrylonitrile

Concen: 19.037 ug/l

RT: 4.916 min Scan# 61

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 41 Resp: 1833

Ion Ratio Lower Upper

41 100

39 54.4 47.5 71.3

67 77.3 60.5 90.7

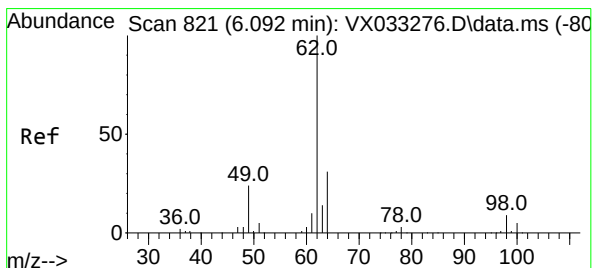
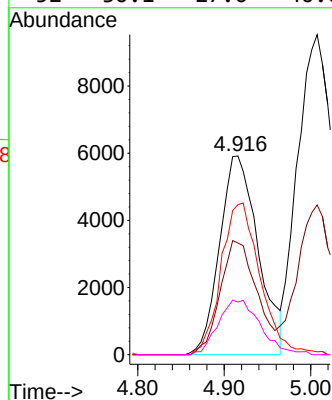
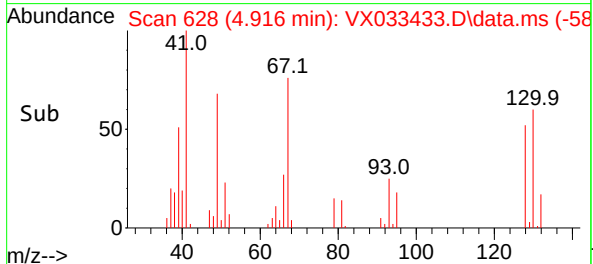
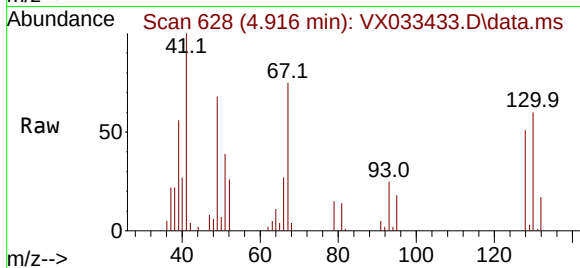
52 30.1 27.0 40.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#42

1,2-Dichloroethane

Concen: 19.843 ug/l

RT: 6.086 min Scan# 820

Delta R.T. -0.006 min

Lab File: VX033433.D

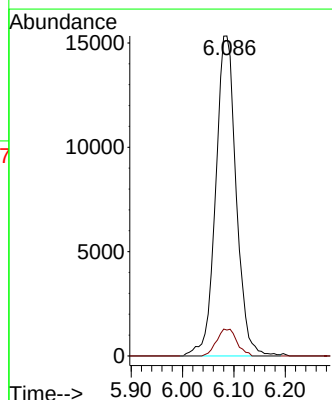
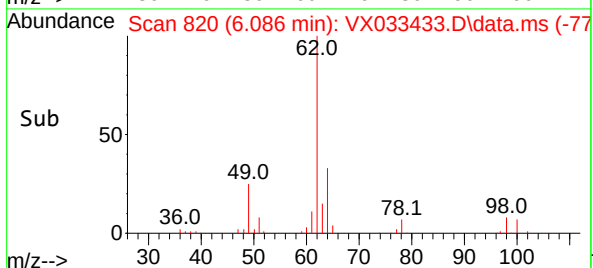
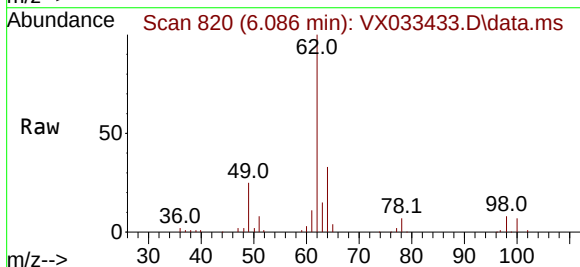
Acq: 15 Dec 2022 11:46

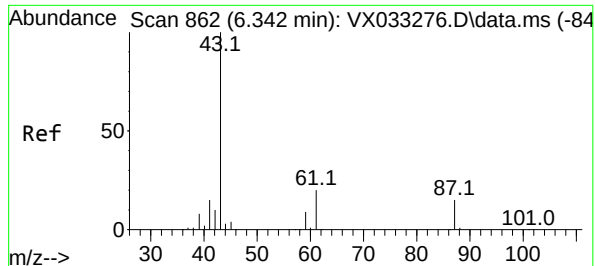
Tgt Ion: 62 Resp: 42486

Ion Ratio Lower Upper

62 100

98 8.3 0.0 16.0





#43

Isopropyl Acetate

Concen: 18.474 ug/l

RT: 6.336 min Scan# 80

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 43 Resp: 5196

Ion Ratio Lower Upper

43 100

61 20.1 15.4 23.0

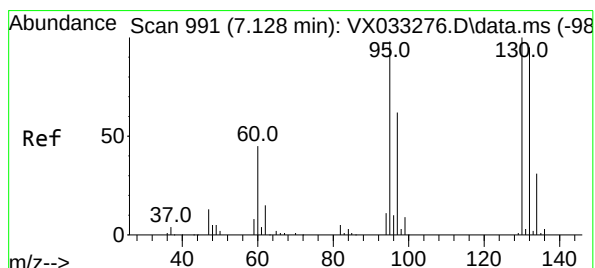
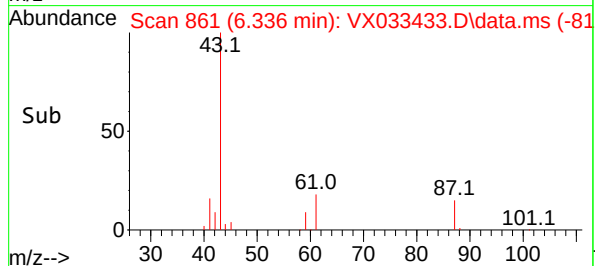
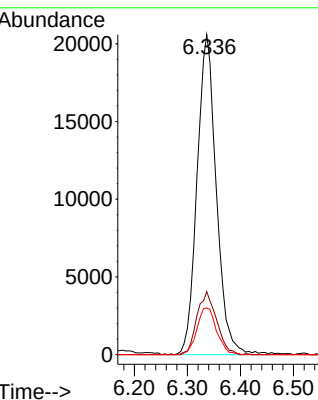
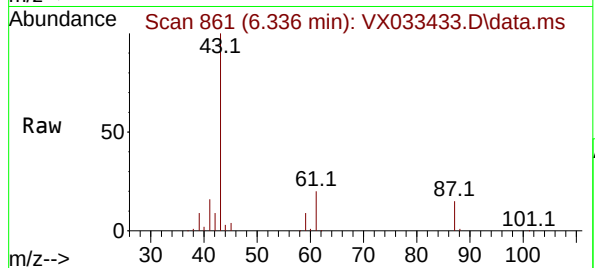
87 14.9 10.8 16.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#44

Trichloroethene

Concen: 20.962 ug/l

RT: 7.123 min Scan# 990

Delta R.T. -0.006 min

Lab File: VX033433.D

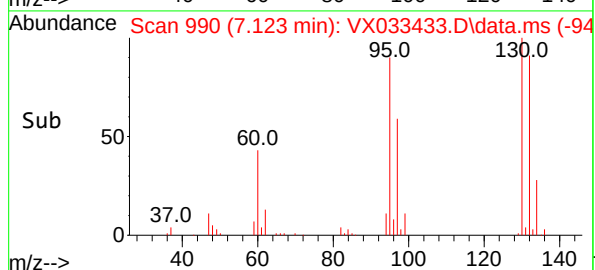
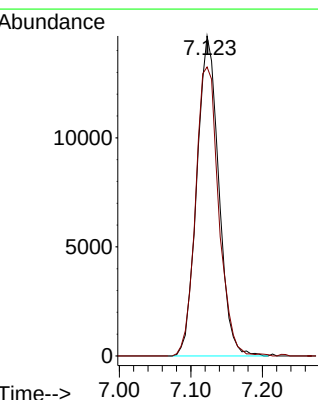
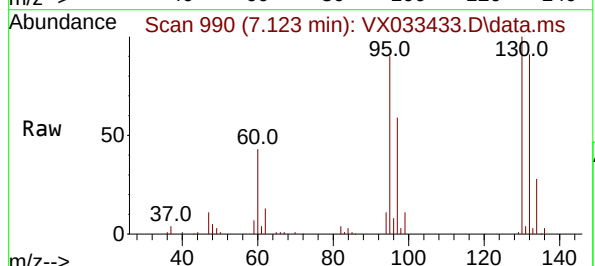
Acq: 15 Dec 2022 11:46

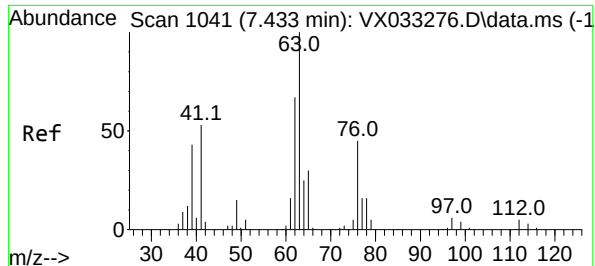
Tgt Ion:130 Resp: 31162

Ion Ratio Lower Upper

130 100

95 90.3 0.0 195.2





#45

1,2-Dichloropropane

Concen: 19.698 ug/l

RT: 7.428 min Scan# 1040

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 63 Resp: 2716

Ion Ratio Lower Upper

63 100

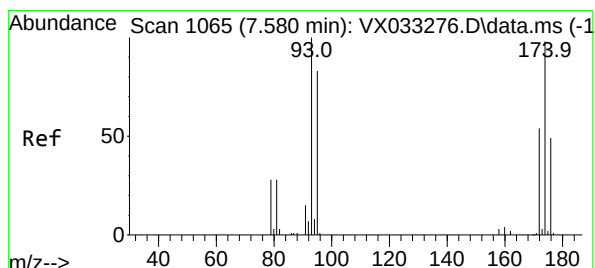
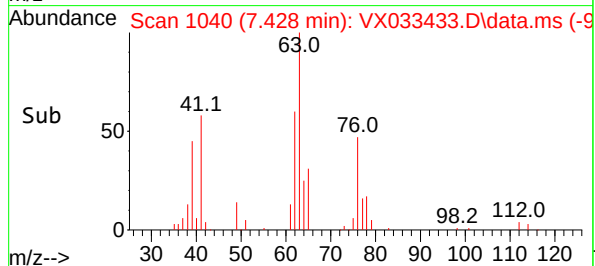
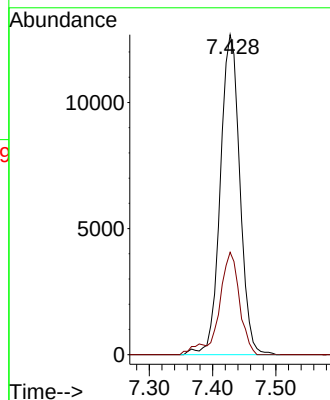
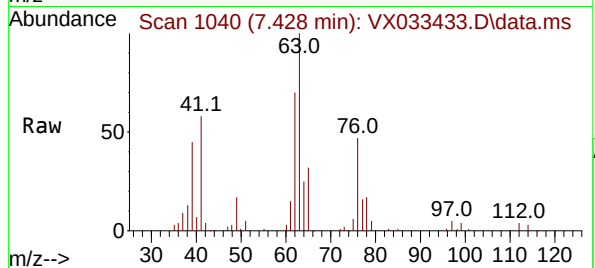
65 32.0 24.6 36.8

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#46

Dibromomethane

Concen: 19.831 ug/l

RT: 7.580 min Scan# 1065

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

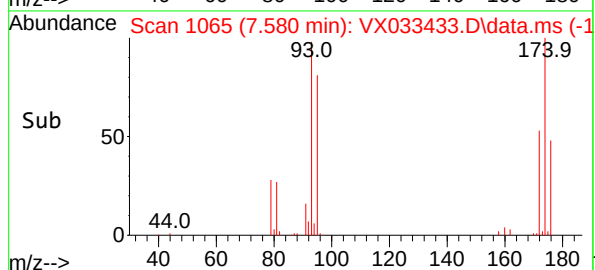
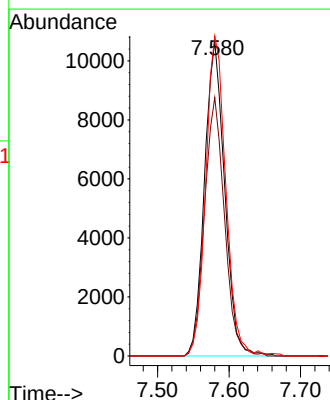
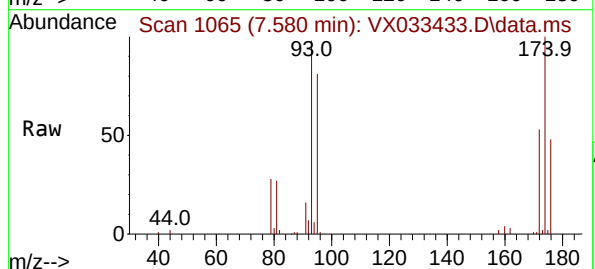
Tgt Ion: 93 Resp: 20832

Ion Ratio Lower Upper

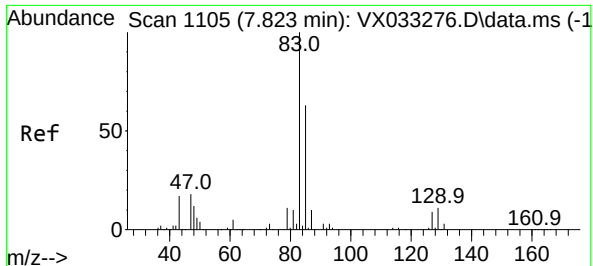
93 100

95 82.0 65.8 98.8

174 101.4 79.8 119.6







#47

Bromodichloromethane

Concen: 19.713 ug/l

RT: 7.818 min Scan# 1104

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

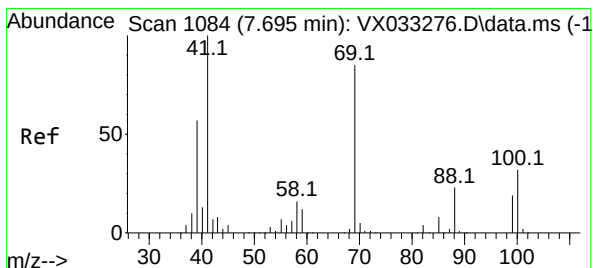
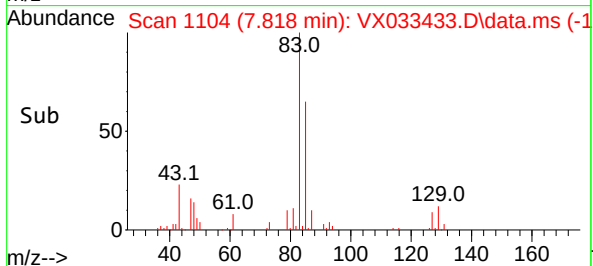
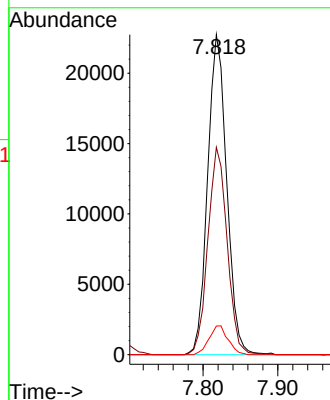
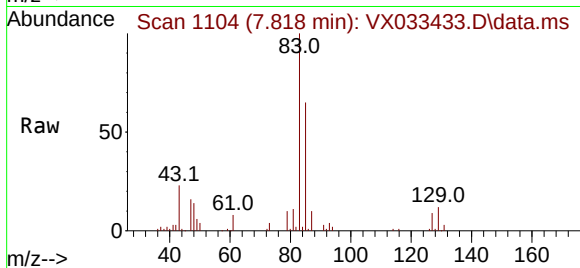
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 83    | Resp: | 40360 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 64.8  | 52.2  | 78.4  |
| 127      | 8.9   | 7.4   | 11.2  |

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#48

Methyl methacrylate

Concen: 18.363 ug/l

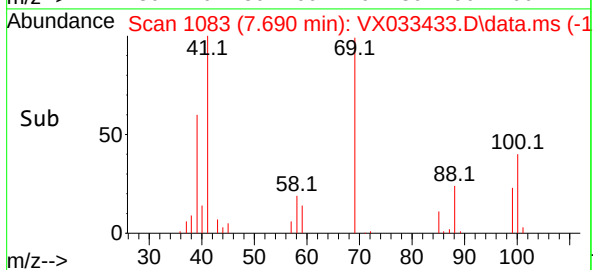
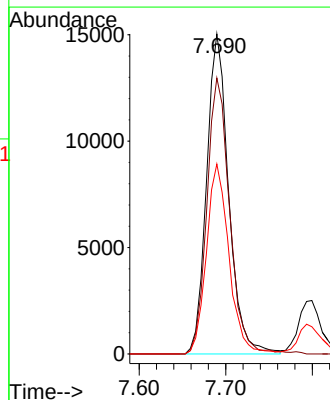
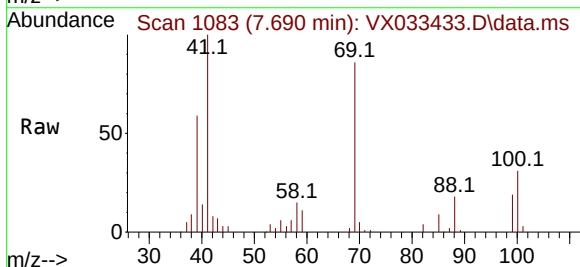
RT: 7.690 min Scan# 1083

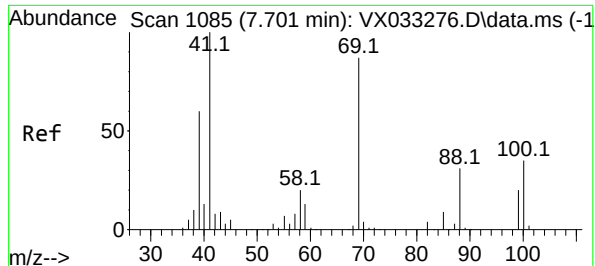
Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 26656 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 69       | 88.9  | 65.1  | 97.7  |
| 39       | 60.8  | 51.9  | 77.9  |





#49

1,4-Dioxane

Concen: 361.544 ug/l

RT: 7.702 min Scan# 1085

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 88 Resp: 11968

Ion Ratio Lower Upper

88 100

43 29.7 26.6 39.8

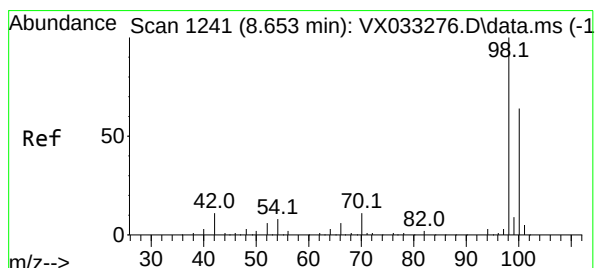
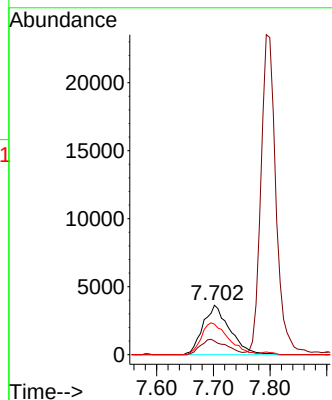
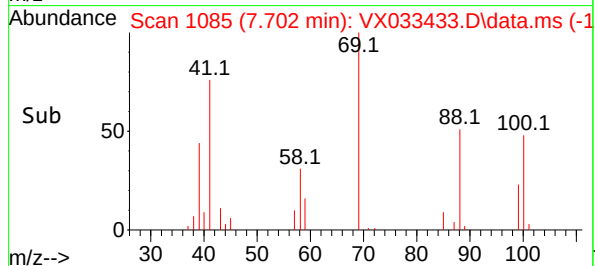
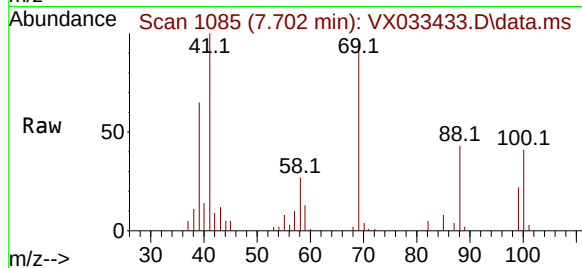
58 64.0 51.7 77.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#50

Toluene-d8

Concen: 47.352 ug/l

RT: 8.647 min Scan# 1240

Delta R.T. -0.006 min

Lab File: VX033433.D

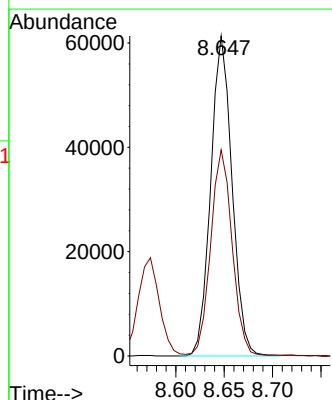
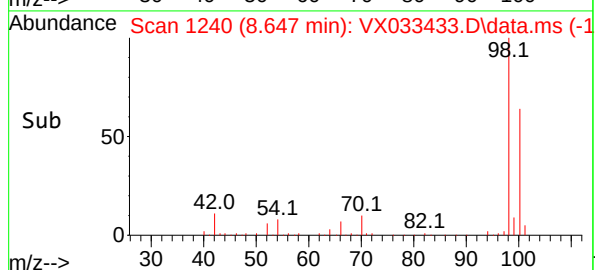
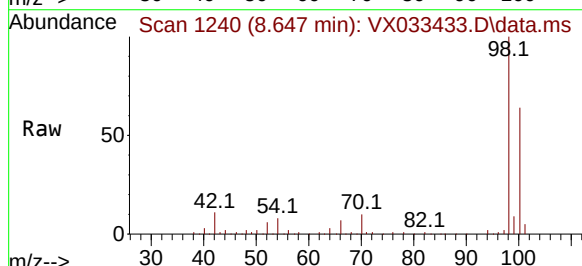
Acq: 15 Dec 2022 11:46

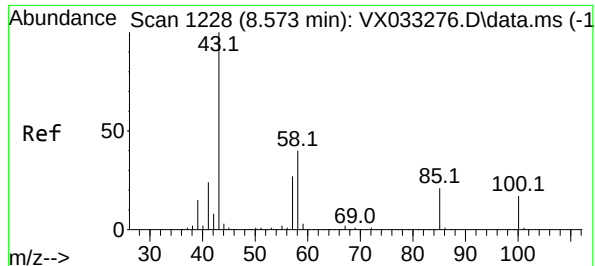
Tgt Ion: 98 Resp: 93958

Ion Ratio Lower Upper

98 100

100 65.1 50.9 76.3





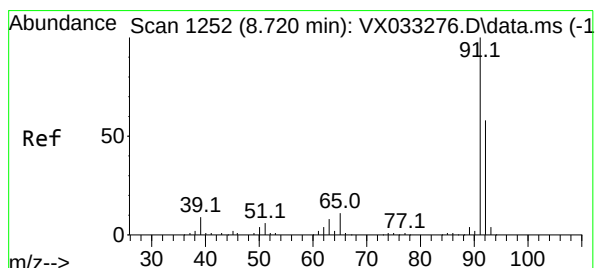
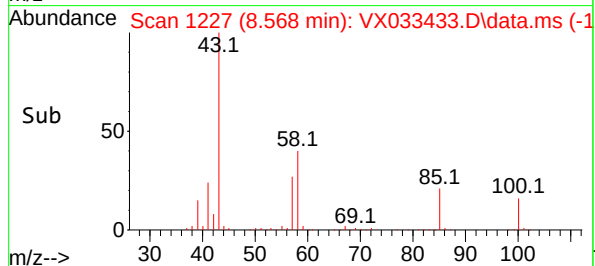
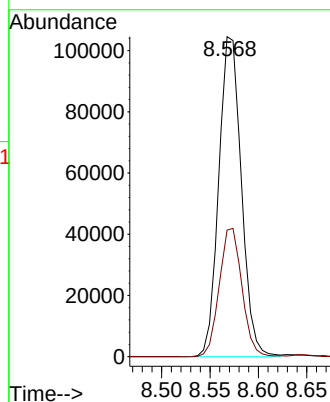
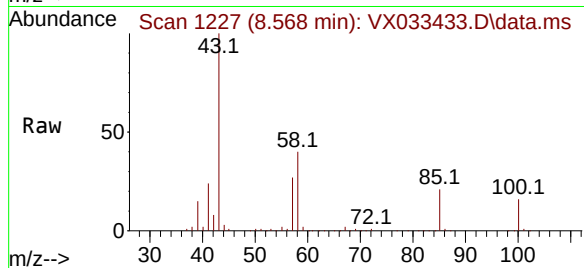
#51  
4-Methyl-2-Pentanone  
Concen: 95.356 ug/l  
RT: 8.568 min Scan# 1227  
Delta R.T. -0.006 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01

Tgt Ion: 43 Resp: 169612  
Ion Ratio Lower Upper  
43 100  
58 40.4 30.9 46.3

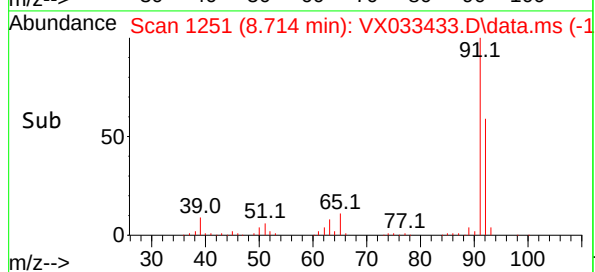
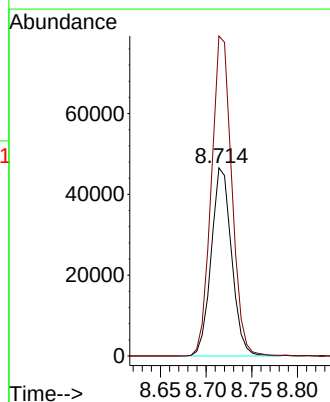
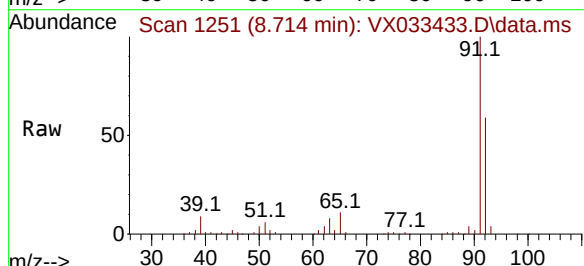
Manual Integrations  
APPROVED

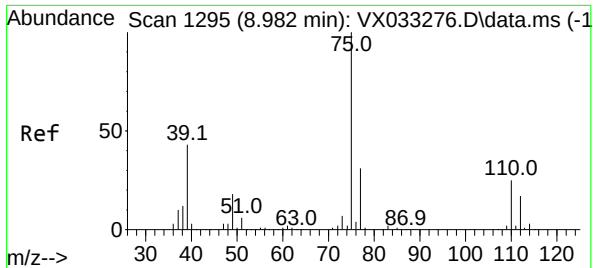
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#52  
Toluene  
Concen: 20.728 ug/l  
RT: 8.714 min Scan# 1251  
Delta R.T. -0.006 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Tgt Ion: 92 Resp: 72263  
Ion Ratio Lower Upper  
92 100  
91 171.0 138.3 207.5





#53

t-1,3-Dichloropropene

Concen: 19.717 ug/l

RT: 8.976 min Scan# 1129

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 75 Resp: 3985

Ion Ratio Lower Upper

75 100

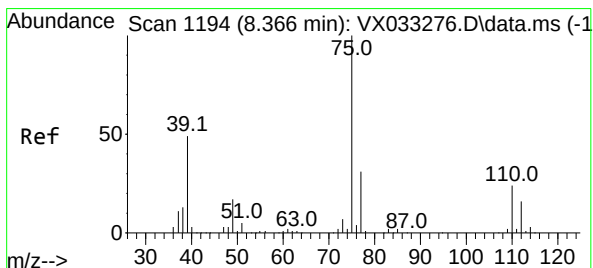
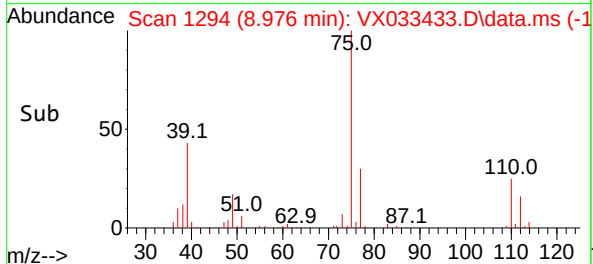
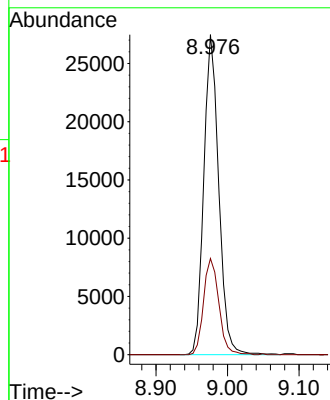
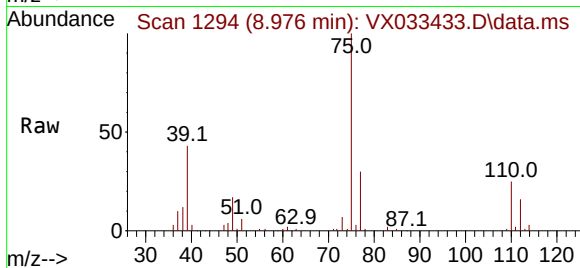
77 30.1 25.1 37.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#54

cis-1,3-Dichloropropene

Concen: 19.973 ug/l

RT: 8.366 min Scan# 1194

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

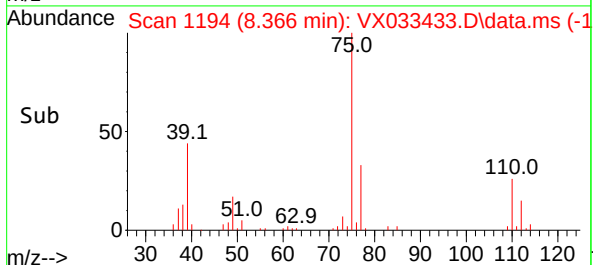
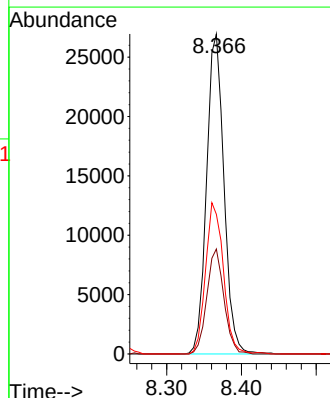
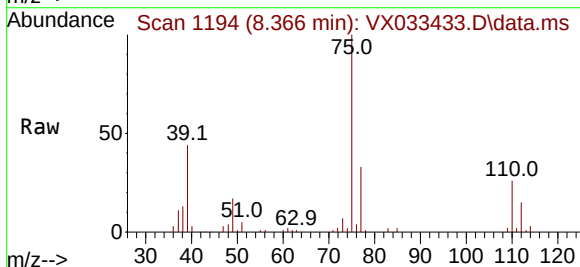
Tgt Ion: 75 Resp: 43520

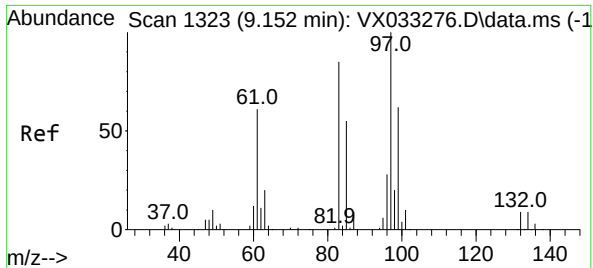
Ion Ratio Lower Upper

75 100

77 32.8 25.1 37.7

39 43.6 45.5 68.3#





#55

1,1,2-Trichloroethane

Concen: 20.480 ug/l

RT: 9.153 min Scan# 1323

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 97 Resp: 3001

Ion Ratio Lower Upper

97 100

83 84.9 68.1 102.1

85 54.5 43.3 64.9

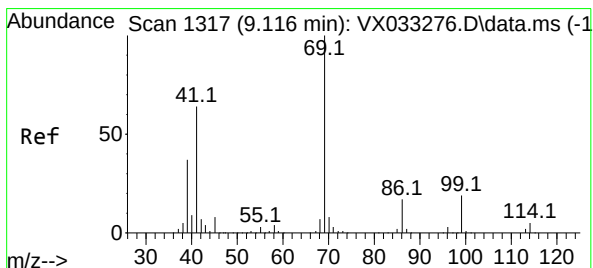
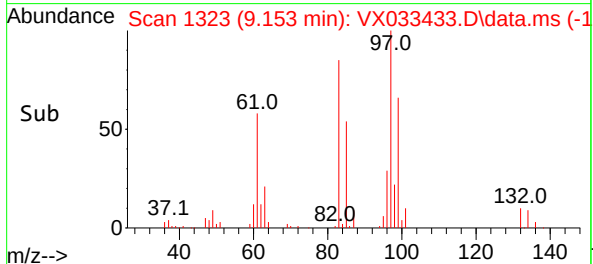
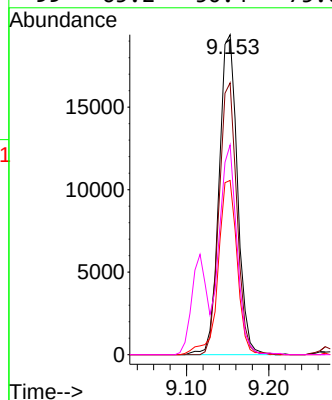
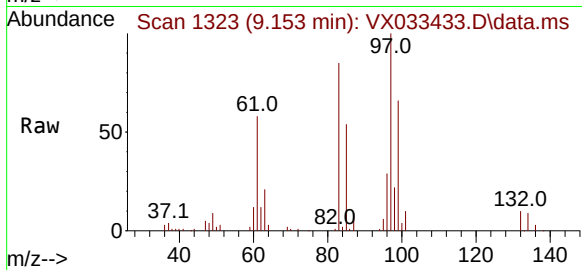
99 65.2 50.4 75.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#56

Ethyl methacrylate

Concen: 19.577 ug/l

RT: 9.116 min Scan# 1317

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

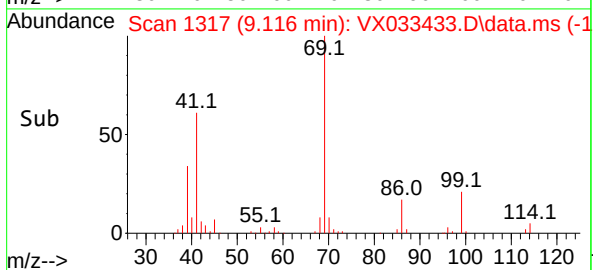
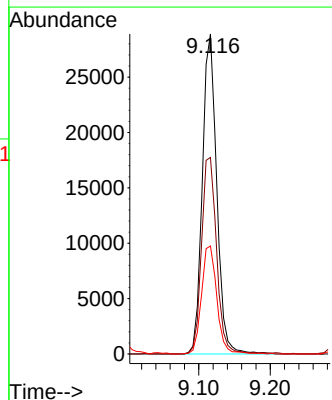
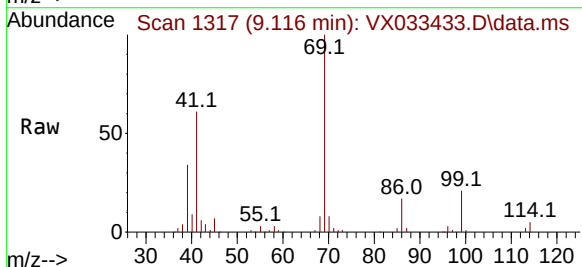
Tgt Ion: 69 Resp: 40393

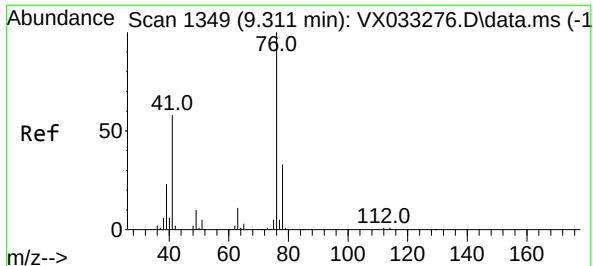
Ion Ratio Lower Upper

69 100

41 64.3 54.3 81.5

39 36.0 35.2 52.8





#57

1,3-Dichloropropane

Concen: 19.963 ug/l

RT: 9.305 min Scan# 11

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 76 Resp: 4699

Ion Ratio Lower Upper

76 100

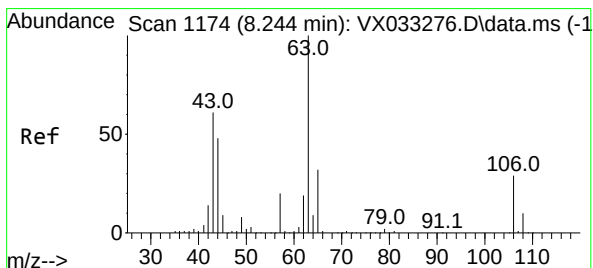
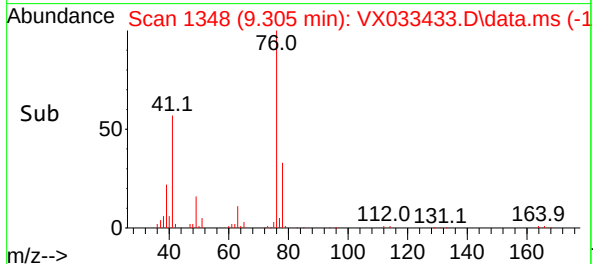
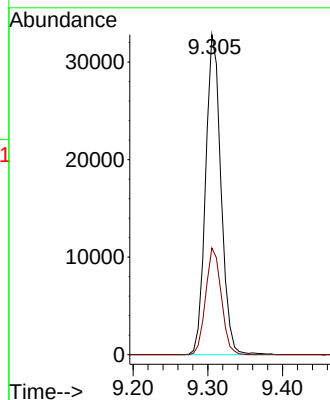
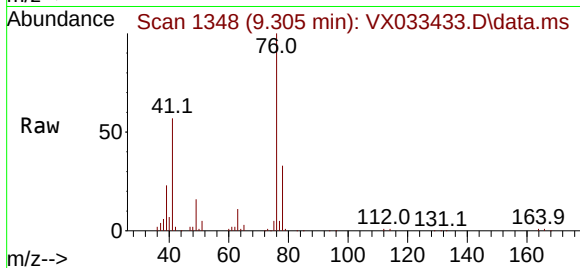
78 33.8 26.0 39.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#58

2-Chloroethyl Vinyl ether

Concen: 71.829 ug/l

RT: 8.238 min Scan# 1173

Delta R.T. -0.006 min

Lab File: VX033433.D

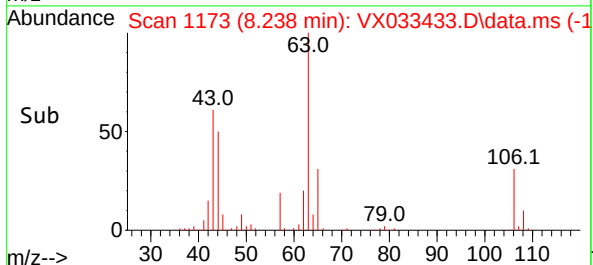
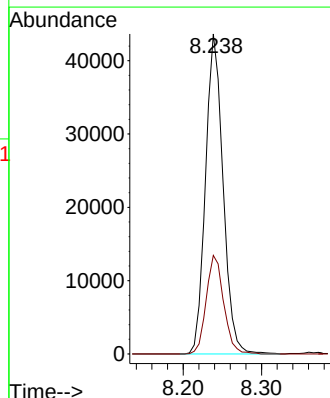
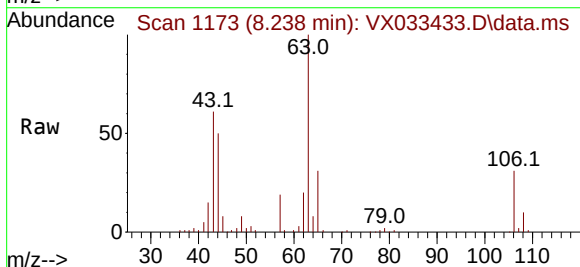
Acq: 15 Dec 2022 11:46

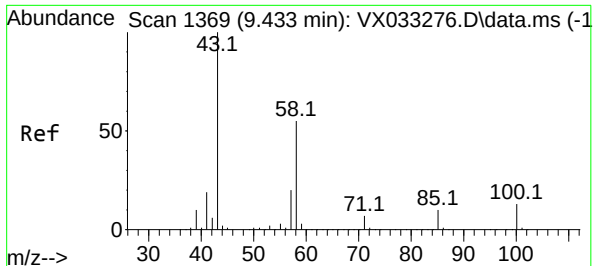
Tgt Ion: 63 Resp: 67813

Ion Ratio Lower Upper

63 100

106 30.6 23.3 34.9





#59

2-Hexanone

Concen: 101.000 ug/l

RT: 9.427 min Scan# 1369

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 43 Resp: 13239

Ion Ratio Lower Upper

43 100

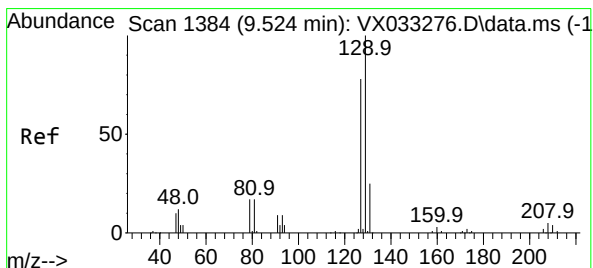
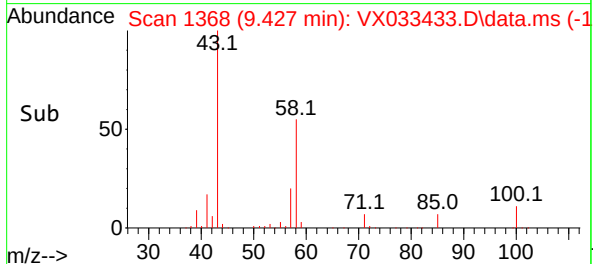
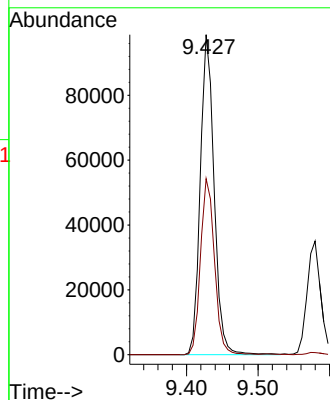
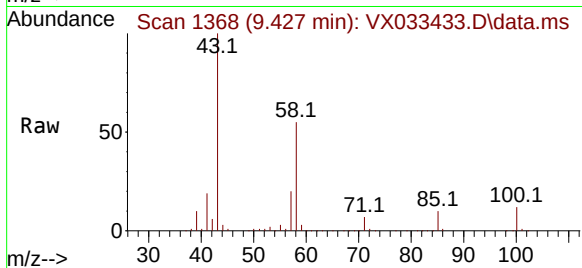
58 55.6 26.5 79.5

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#60

Dibromochloromethane

Concen: 20.042 ug/l

RT: 9.519 min Scan# 1383

Delta R.T. -0.006 min

Lab File: VX033433.D

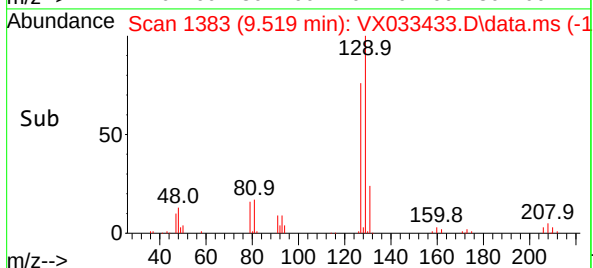
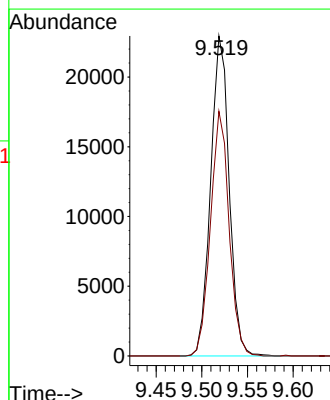
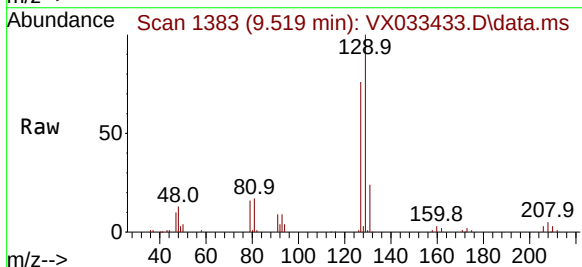
Acq: 15 Dec 2022 11:46

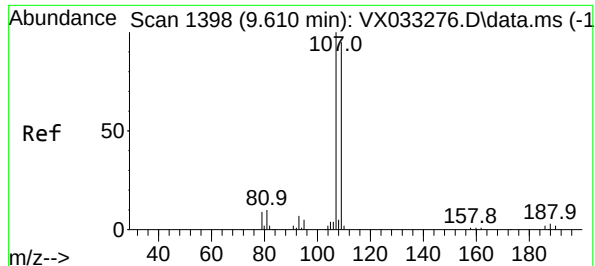
Tgt Ion:129 Resp: 32360

Ion Ratio Lower Upper

129 100

127 76.9 38.6 115.8





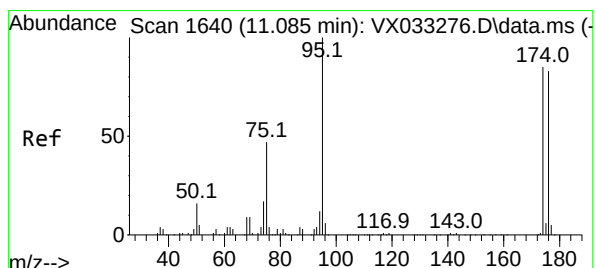
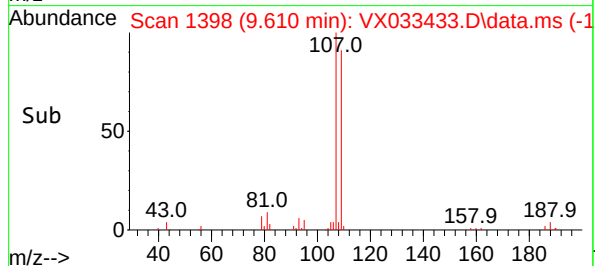
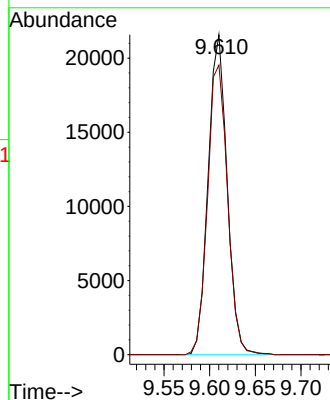
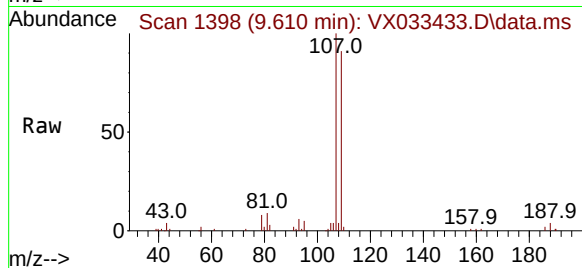
#61  
1,2-Dibromoethane  
Concen: 19.933 ug/l  
RT: 9.610 min Scan# 1398  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01

Tgt Ion:107 Resp: 3107  
Ion Ratio Lower Upper  
107 100  
109 95.4 76.0 114.0

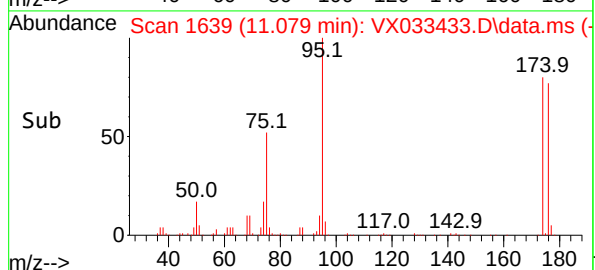
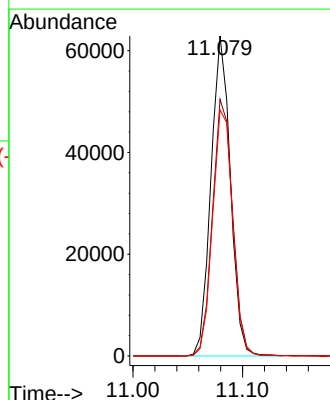
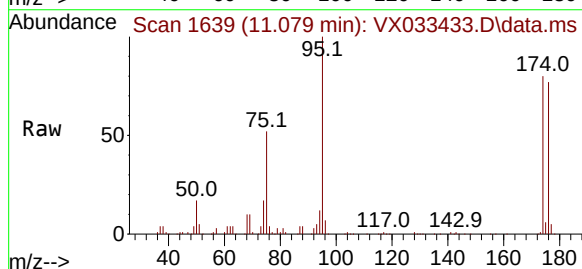
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

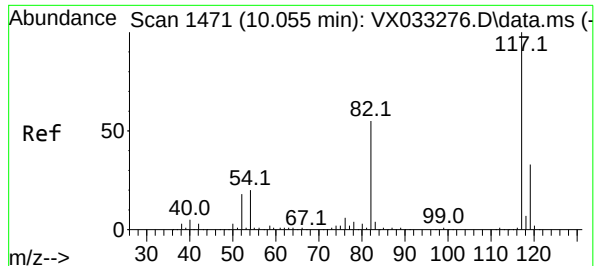


#62  
4-Bromofluorobenzene  
Concen: 51.077 ug/l  
RT: 11.079 min Scan# 1639  
Delta R.T. -0.006 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Tgt Ion: 95 Resp: 77494  
Ion Ratio Lower Upper  
95 100  
174 83.1 0.0 164.0  
176 80.0 0.0 154.4

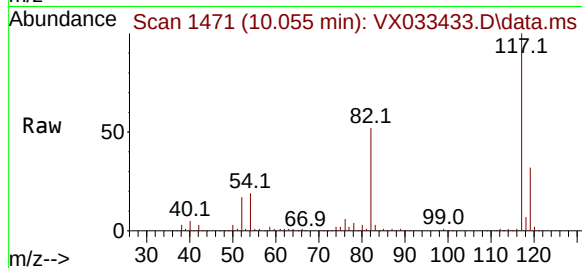






#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.055 min Scan# 1471  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

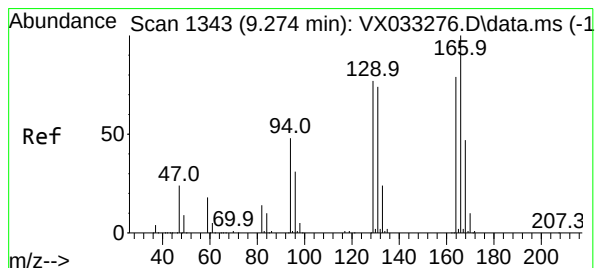
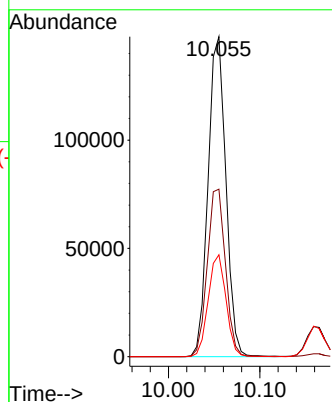
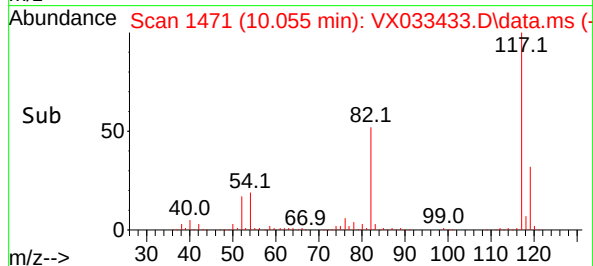
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01



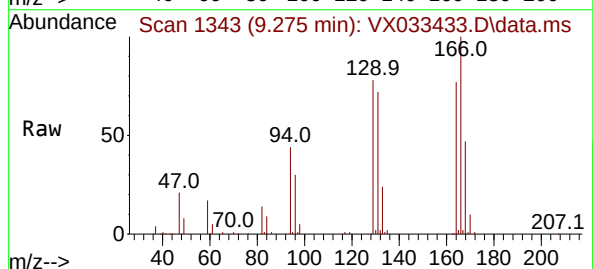
Tgt Ion:117 Resp: 199474  
Ion Ratio Lower Upper  
117 100  
82 52.4 44.3 66.5  
119 31.9 25.7 38.5

Manual Integrations  
APPROVED

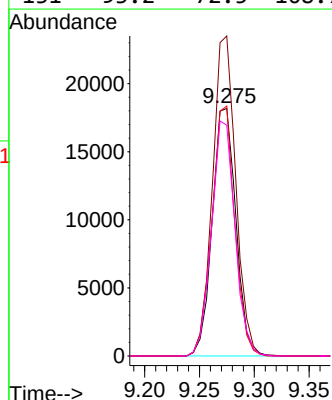
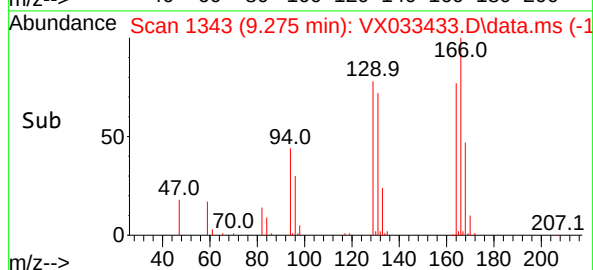
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

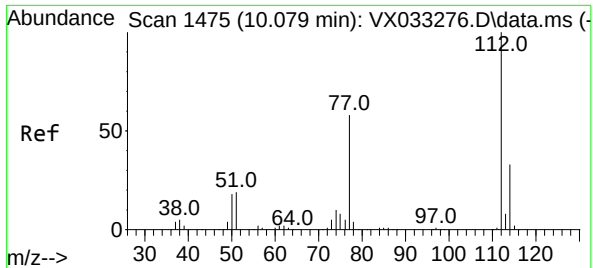


#64  
Tetrachloroethene  
Concen: 19.946 ug/l  
RT: 9.275 min Scan# 1343  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46



Tgt Ion:164 Resp: 27206  
Ion Ratio Lower Upper  
164 100  
166 129.3 105.4 158.2  
129 100.9 78.2 117.2  
131 93.2 72.5 108.7





#65

Chlorobenzene

Concen: 20.287 ug/l

RT: 10.080 min Scan# 1475

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion:112 Resp: 8194

Ion Ratio Lower Upper

112 100

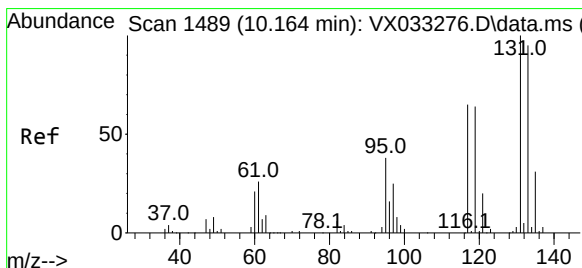
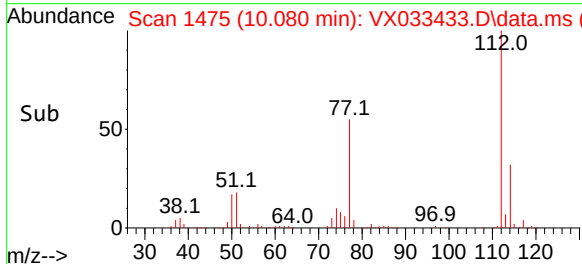
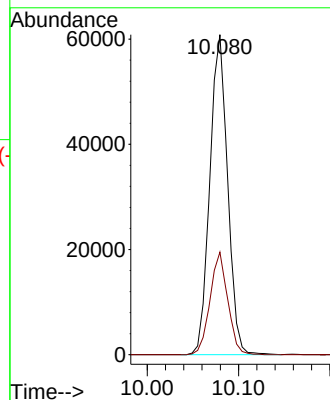
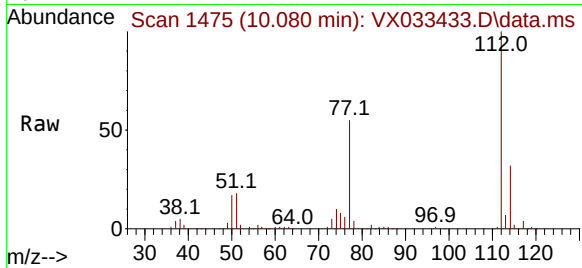
114 32.1 25.4 38.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#66

1,1,1,2-Tetrachloroethane

Concen: 19.762 ug/l

RT: 10.159 min Scan# 1488

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

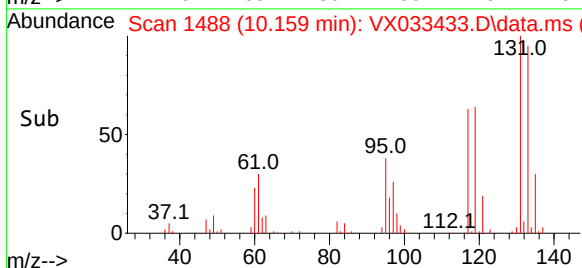
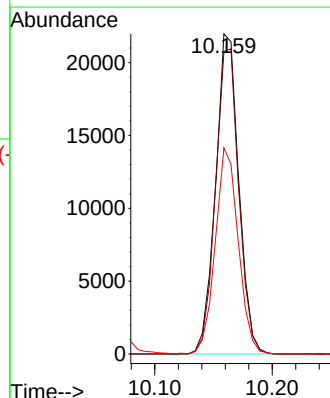
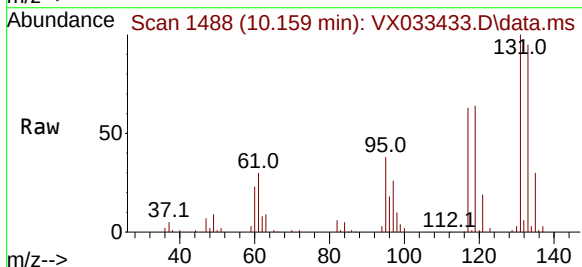
Tgt Ion:131 Resp: 30166

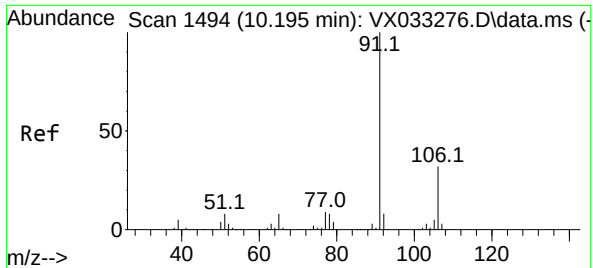
Ion Ratio Lower Upper

131 100

133 95.8 47.6 142.9

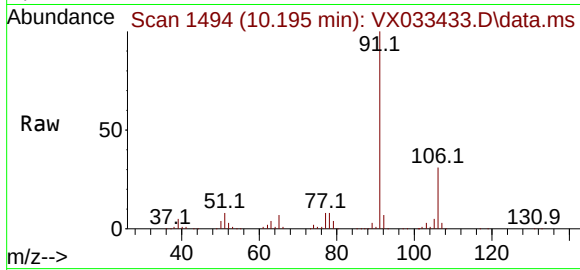
119 63.9 32.4 97.0





#67  
Ethyl Benzene  
Concen: 20.695 ug/l  
RT: 10.195 min Scan# 1494  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

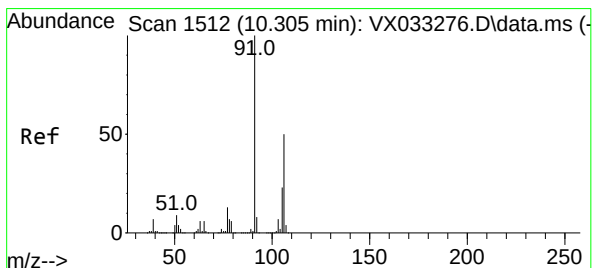
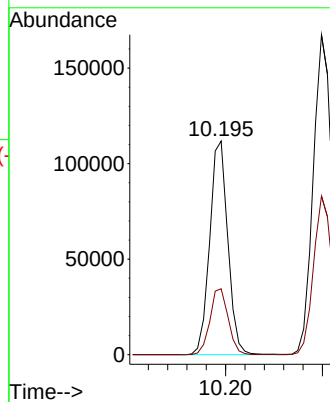
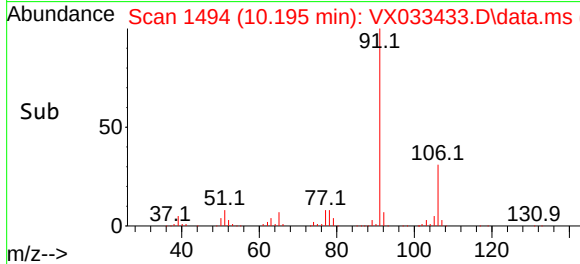
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01



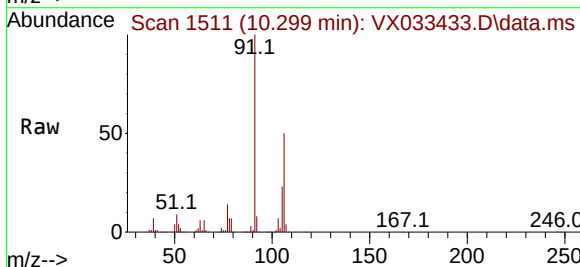
Tgt Ion: 91 Resp: 145637  
Ion Ratio Lower Upper  
91 100  
106 30.9 25.0 37.6

Manual Integrations  
APPROVED

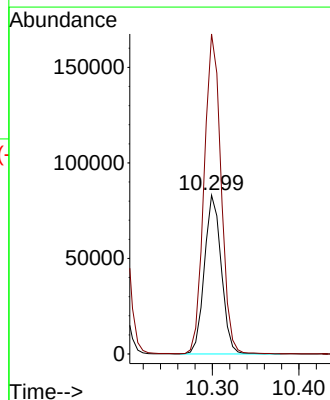
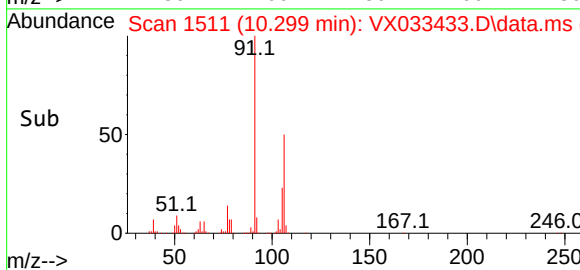
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

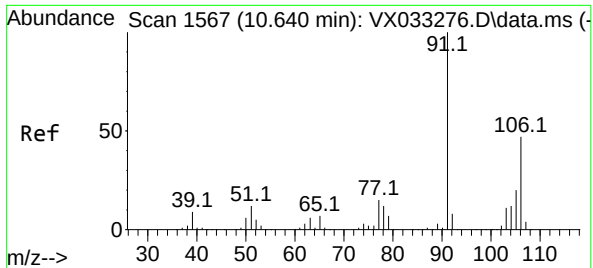


#68  
m/p-Xylenes  
Concen: 41.043 ug/l  
RT: 10.299 min Scan# 1511  
Delta R.T. -0.006 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46



Tgt Ion:106 Resp: 112373  
Ion Ratio Lower Upper  
106 100  
91 203.0 164.5 246.7





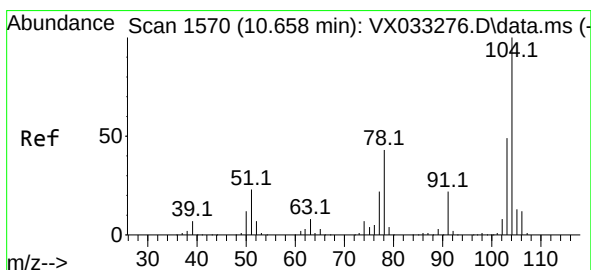
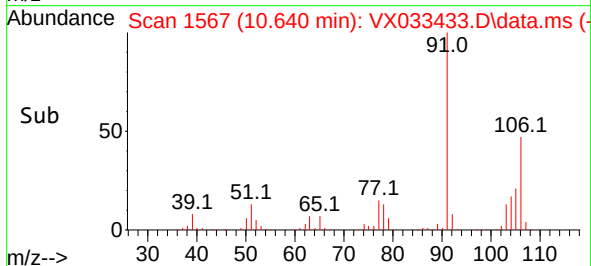
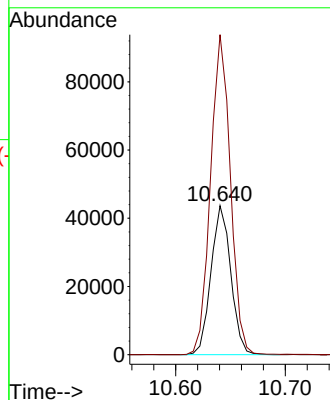
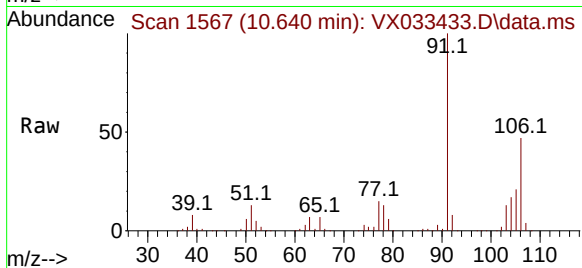
#69  
o-Xylene  
Concen: 20.259 ug/l  
RT: 10.640 min Scan# 1567  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01

Tgt Ion:106 Resp: 54820  
Ion Ratio Lower Upper  
106 100  
91 215.4 109.2 327.6

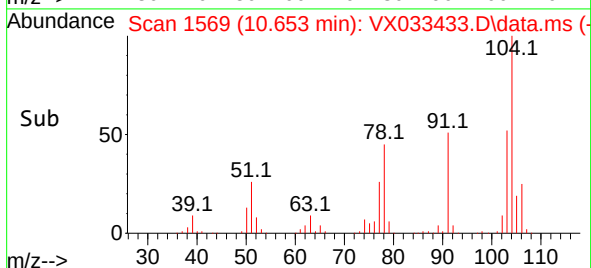
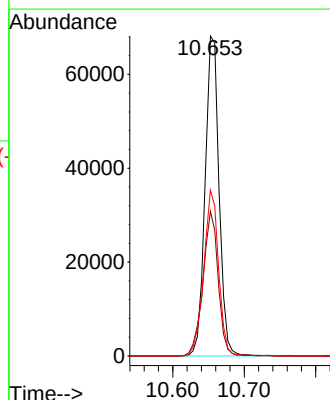
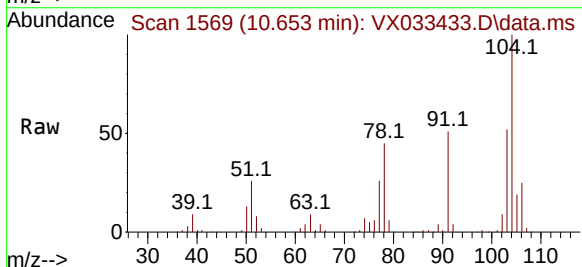
Manual Integrations  
APPROVED

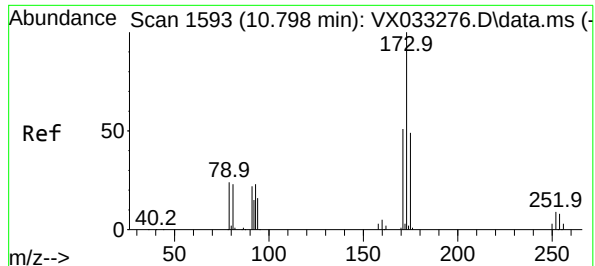
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#70  
Styrene  
Concen: 20.918 ug/l  
RT: 10.653 min Scan# 1569  
Delta R.T. -0.006 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

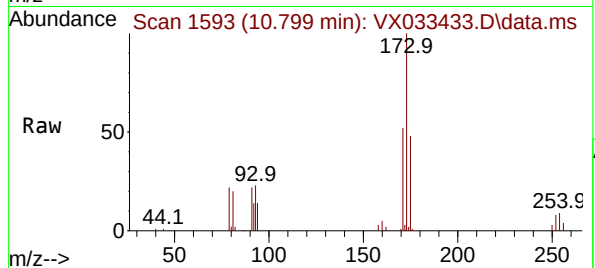
Tgt Ion:104 Resp: 92716  
Ion Ratio Lower Upper  
104 100  
78 49.1 41.8 62.8  
103 55.1 44.5 66.7





#71  
Bromoform  
Concen: 18.856 ug/l  
RT: 10.799 min Scan# 1593  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

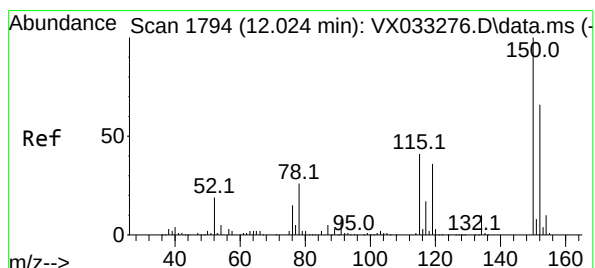
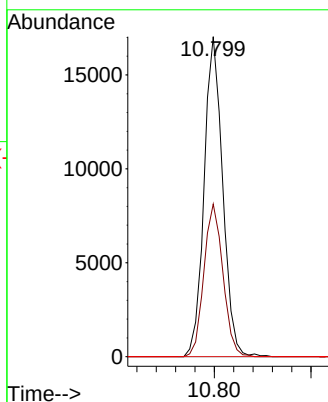
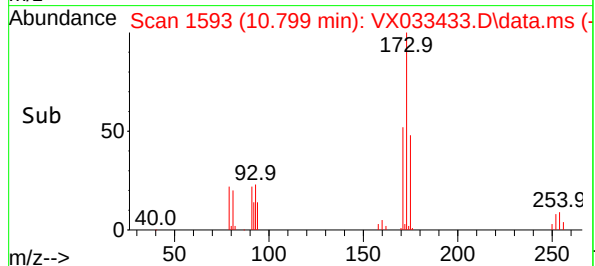
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01



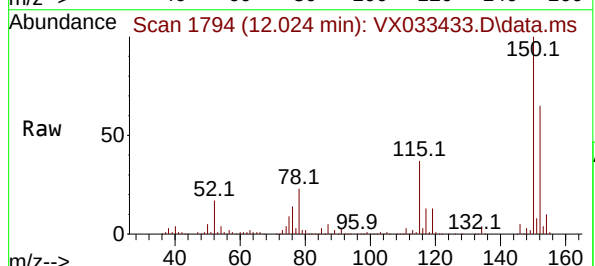
Tgt Ion:173 Resp: 2278  
Ion Ratio Lower Upper  
173 100  
175 48.8 23.9 71.8  
254 0.0 0.0 0.0

Manual Integrations  
APPROVED

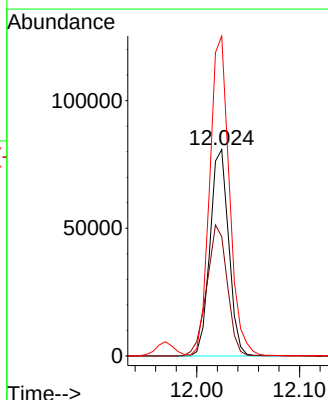
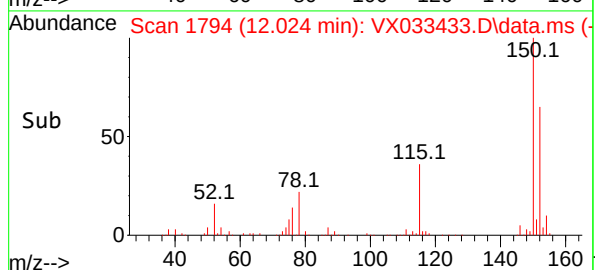
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

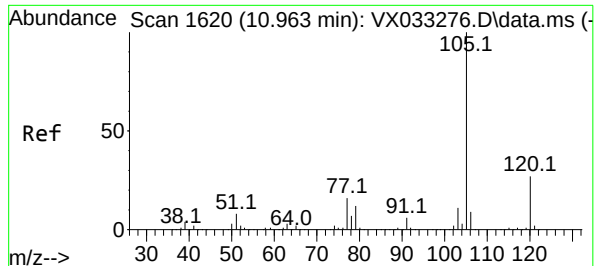


#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.024 min Scan# 1794  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46



Tgt Ion:152 Resp: 101751  
Ion Ratio Lower Upper  
152 100  
115 69.6 44.0 132.0  
150 162.8 0.0 351.8





#73

Isopropylbenzene

Concen: 19.794 ug/l

RT: 10.964 min Scan# 1

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion:105 Resp: 145978

Ion Ratio Lower Upper

105 100

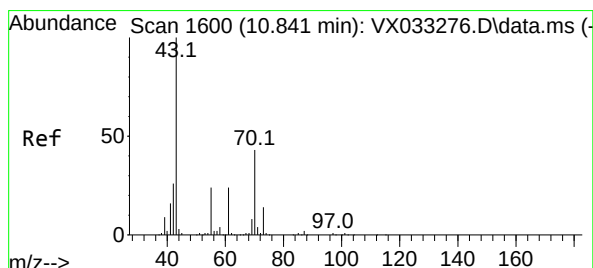
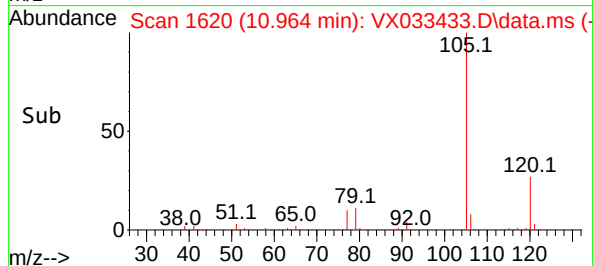
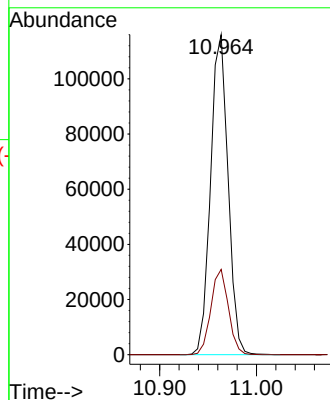
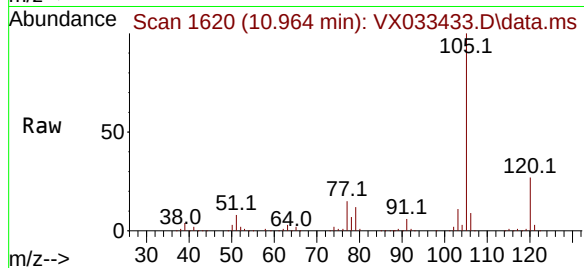
120 26.6 13.1 39.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#74

N-ethyl acetate

Concen: 18.599 ug/l

RT: 10.842 min Scan# 1600

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Tgt Ion: 43 Resp: 46798

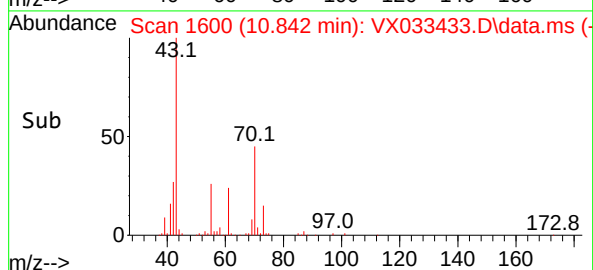
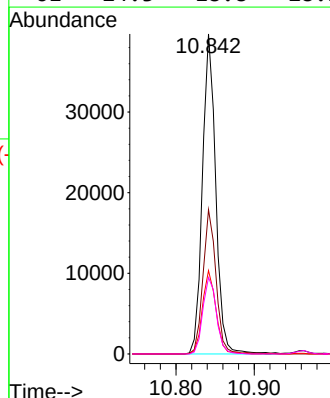
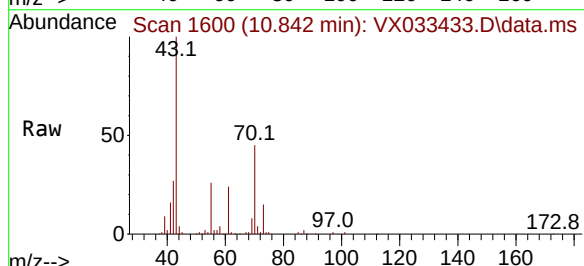
Ion Ratio Lower Upper

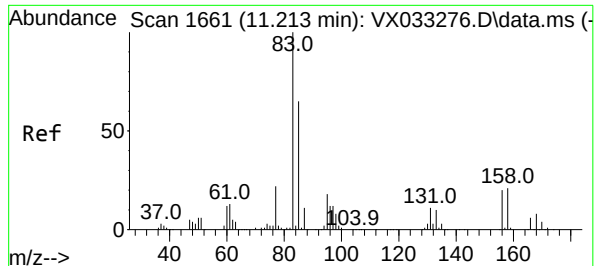
43 100

70 44.4 33.6 50.4

55 26.5 19.4 29.2

61 24.3 18.8 28.2





#75

1,1,2,2-Tetrachloroethane

Concen: 18.529 ug/l

RT: 11.213 min Scan# 1661

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 83 Resp: 4335

Ion Ratio Lower Upper

83 100

131 10.6 5.4 16.2

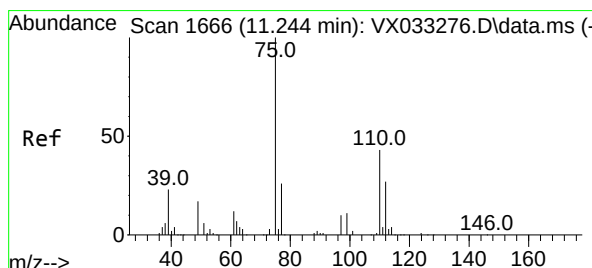
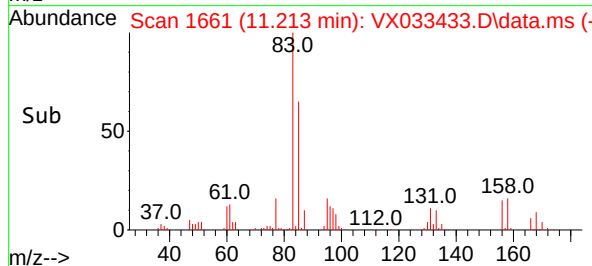
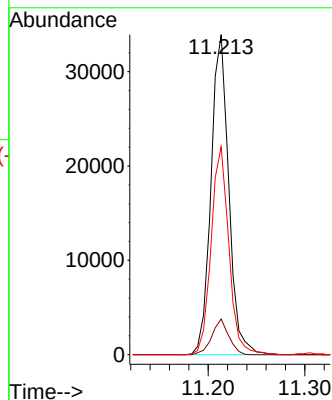
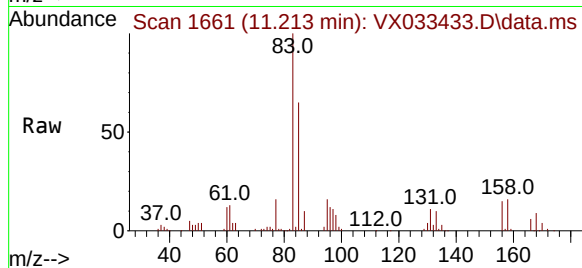
85 64.8 31.9 95.9

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#76

1,2,3-Trichloropropane

Concen: 19.163 ug/l m

RT: 11.238 min Scan# 1665

Delta R.T. -0.006 min

Lab File: VX033433.D

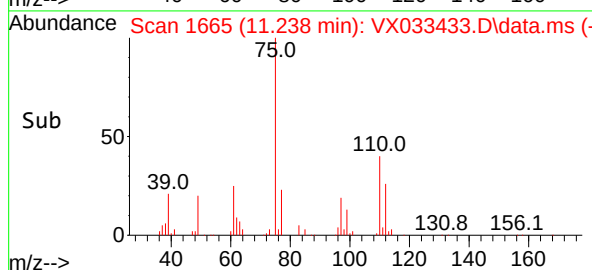
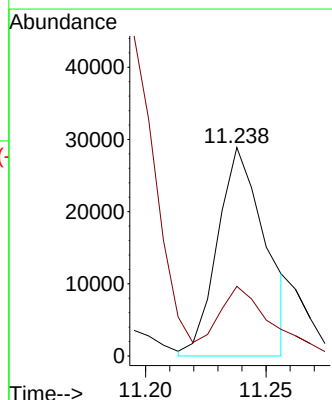
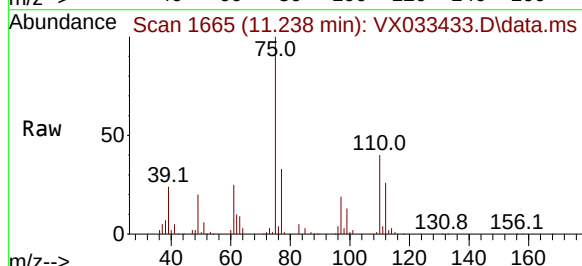
Acq: 15 Dec 2022 11:46

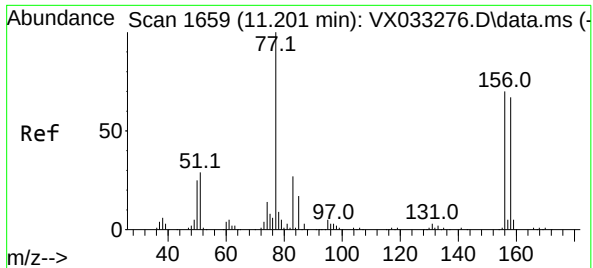
Tgt Ion: 75 Resp: 39670

Ion Ratio Lower Upper

75 100

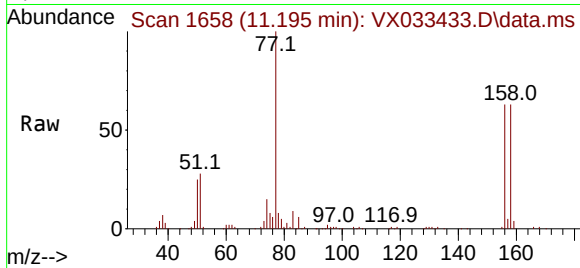
77 37.6 20.0 60.0





#77  
Bromobenzene  
Concen: 19.565 ug/l  
RT: 11.195 min Scan# 1658  
Delta R.T. -0.006 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

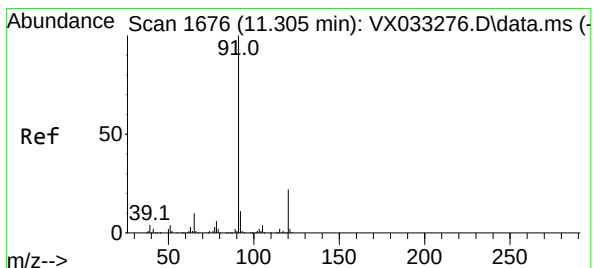
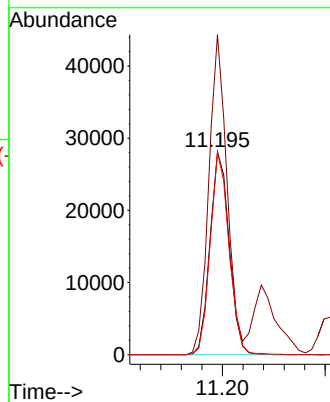
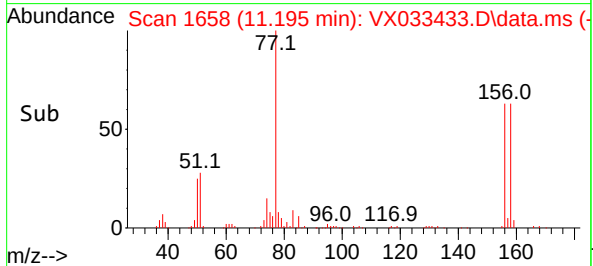
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01



Tgt Ion:156 Resp: 3643  
Ion Ratio Lower Upper  
156 100  
77 149.1 76.1 228.4  
158 97.5 48.8 146.3

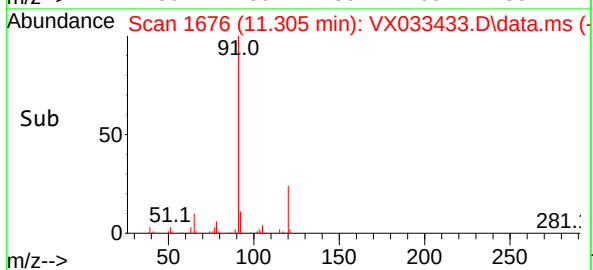
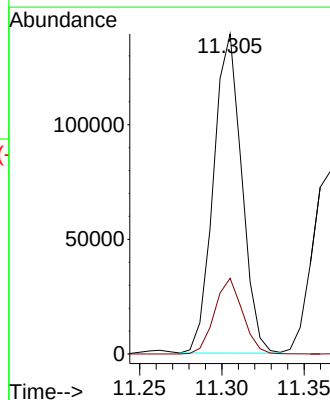
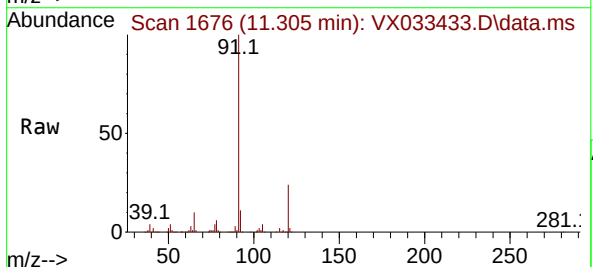
Manual Integrations  
APPROVED

Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

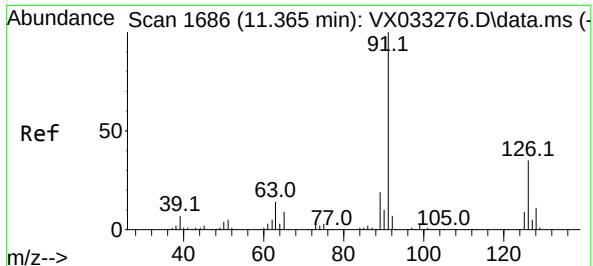


#78  
n-propylbenzene  
Concen: 20.170 ug/l  
RT: 11.305 min Scan# 1676  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

Tgt Ion: 91 Resp: 166094  
Ion Ratio Lower Upper  
91 100  
120 23.6 11.6 34.8







#79

2-Chlorotoluene

Concen: 19.808 ug/l

RT: 11.366 min Scan# 1

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 91 Resp: 100809

Ion Ratio Lower Upper

91 100

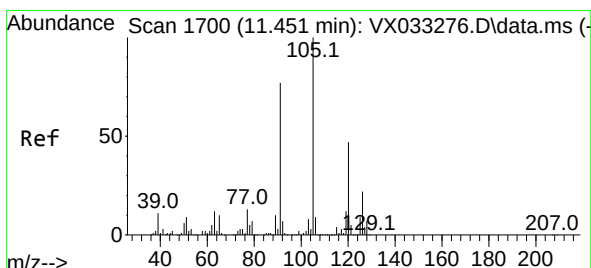
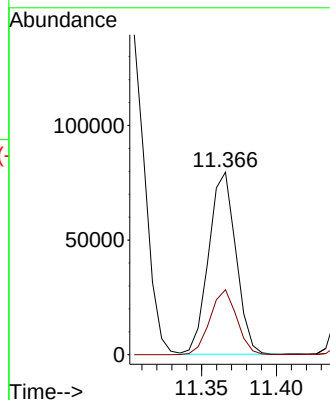
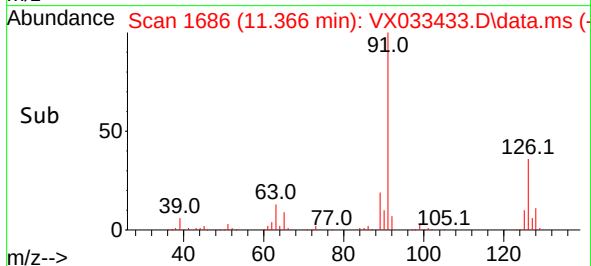
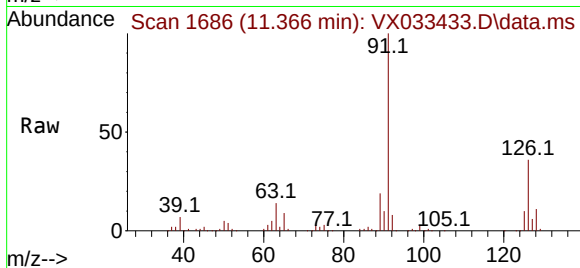
126 35.0 17.1 51.2

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#80

1,3,5-Trimethylbenzene

Concen: 20.207 ug/l

RT: 11.451 min Scan# 1700

Delta R.T. 0.000 min

Lab File: VX033433.D

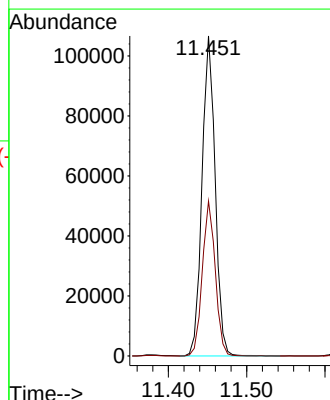
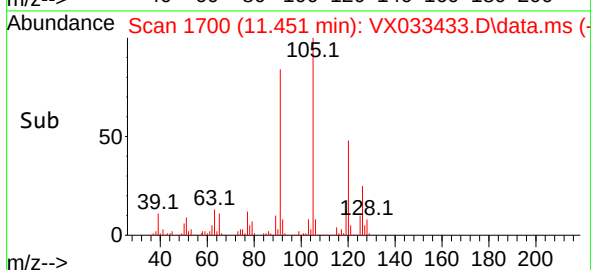
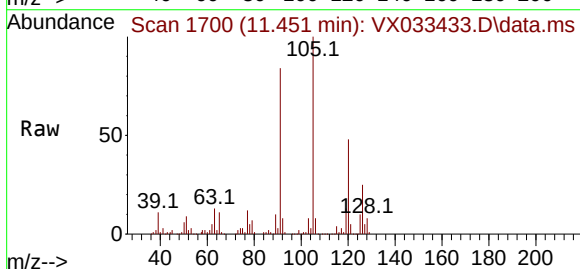
Acq: 15 Dec 2022 11:46

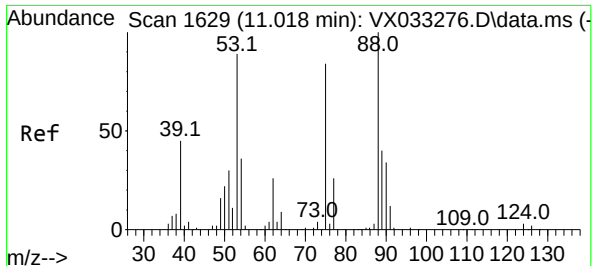
Tgt Ion:105 Resp: 124051

Ion Ratio Lower Upper

105 100

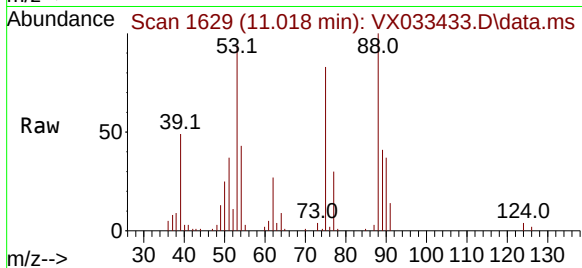
120 47.7 23.6 71.0





#81  
trans-1,4-Dichloro-2-butene  
Concen: 16.389 ug/l  
RT: 11.018 min Scan# 11090  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

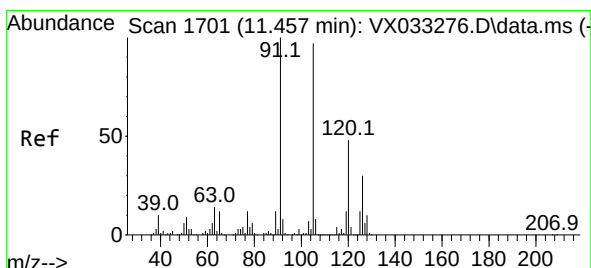
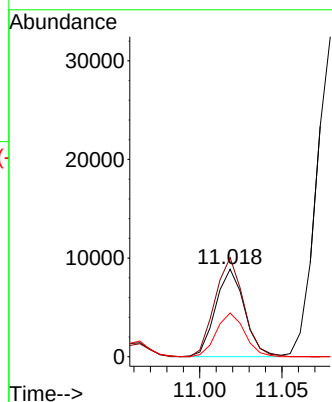
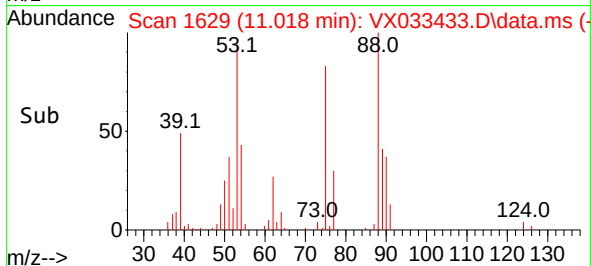
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01



| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 53      | 111.6 | 86.9  | 130.3 |
| 89      | 48.5  | 38.3  | 57.5  |

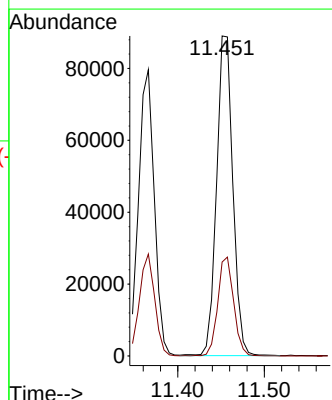
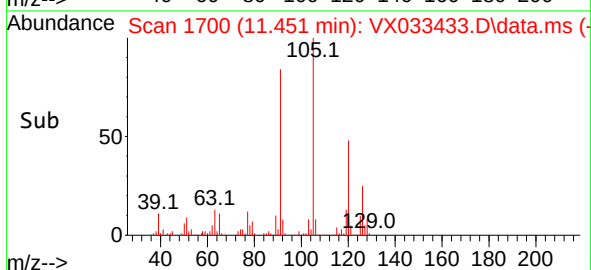
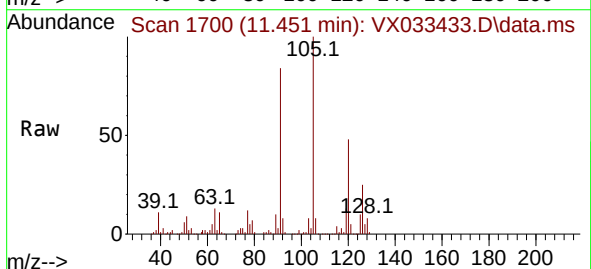
Manual Integrations  
APPROVED

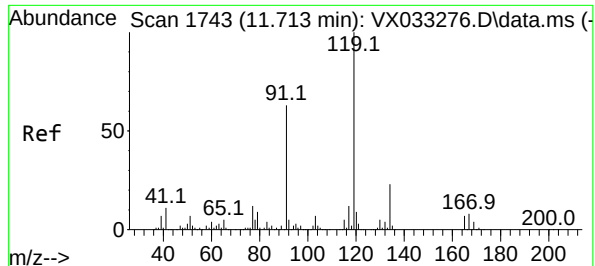
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



#82  
4-Chlorotoluene  
Concen: 19.633 ug/l  
RT: 11.451 min Scan# 1700  
Delta R.T. -0.006 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 126     | 30.3  | 14.8  | 44.4  |





#83

tert-Butylbenzene

Concen: 20.539 ug/l

RT: 11.713 min Scan# 1743

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion:119 Resp: 125730

Ion Ratio Lower Upper

119 100

91 56.1 29.4 88.2

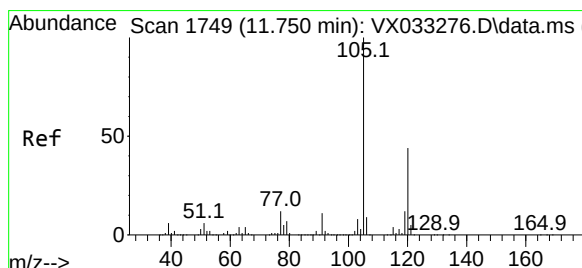
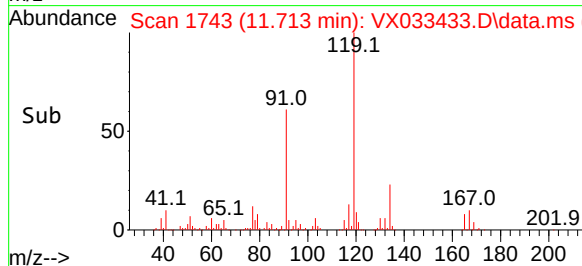
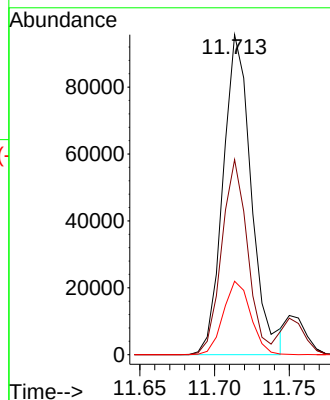
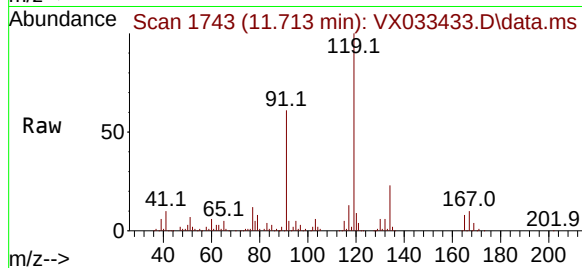
134 22.3 11.0 33.0

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#84

1,2,4-Trimethylbenzene

Concen: 20.224 ug/l

RT: 11.750 min Scan# 1749

Delta R.T. 0.000 min

Lab File: VX033433.D

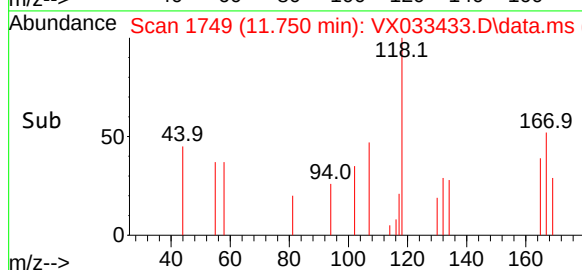
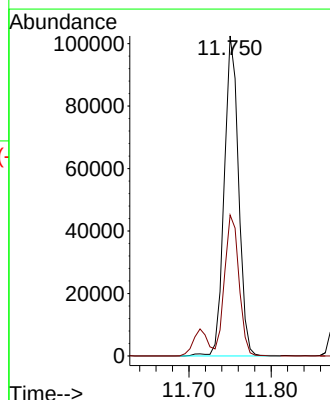
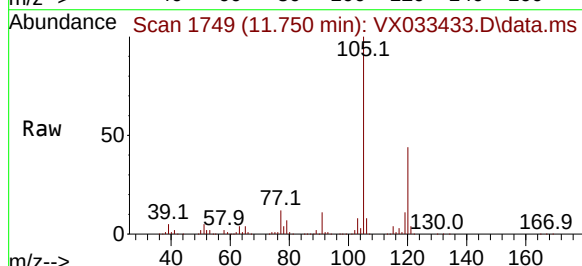
Acq: 15 Dec 2022 11:46

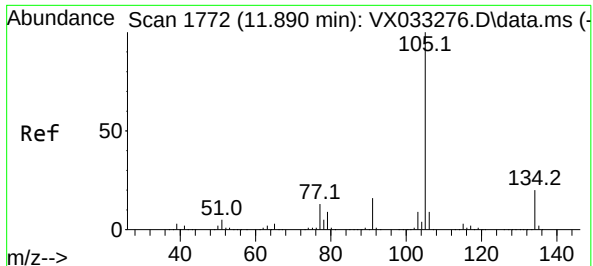
Tgt Ion:105 Resp: 123934

Ion Ratio Lower Upper

105 100

120 44.2 21.9 65.5





#85

sec-Butylbenzene

Concen: 20.734 ug/l

RT: 11.890 min Scan# 1772

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion:105 Resp: 148090

Ion Ratio Lower Upper

105 100

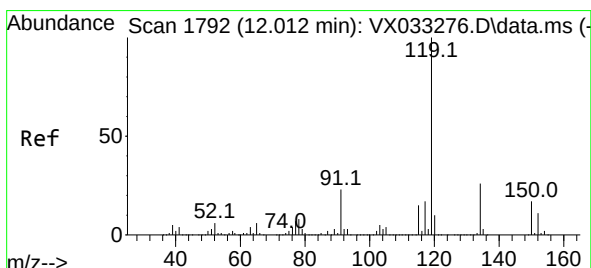
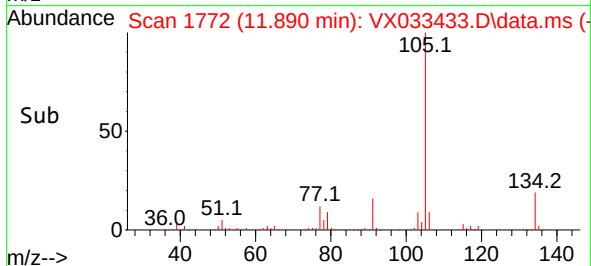
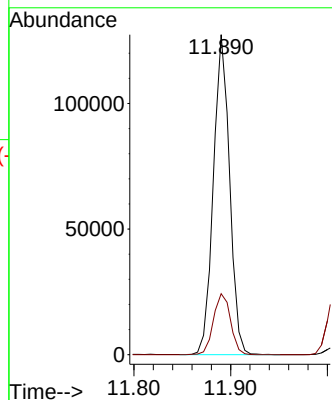
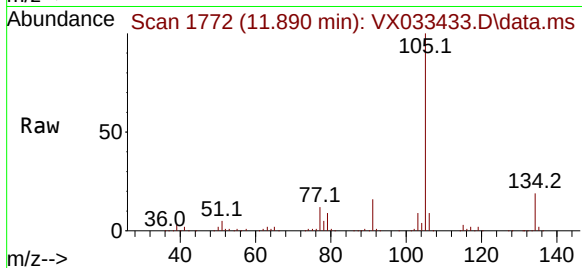
134 20.2 9.9 29.7

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#86

p-Isopropyltoluene

Concen: 20.695 ug/l

RT: 12.006 min Scan# 1791

Delta R.T. -0.006 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

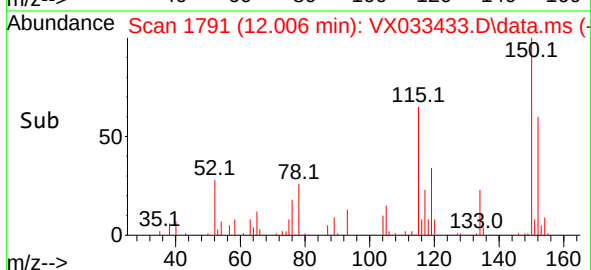
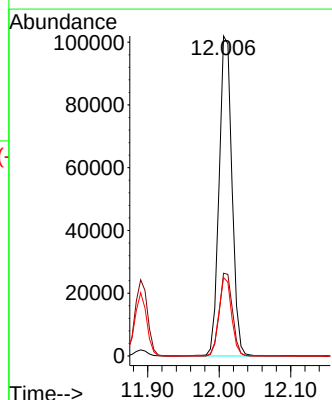
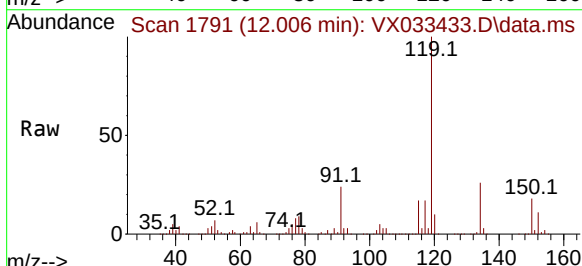
Tgt Ion:119 Resp: 127436

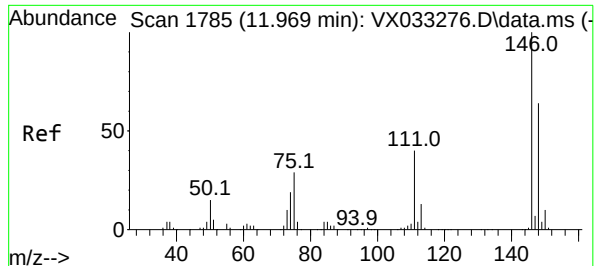
Ion Ratio Lower Upper

119 100

134 26.2 12.9 38.7

91 24.1 12.5 37.5





#87

1,3-Dichlorobenzene

Concen: 20.082 ug/l

RT: 11.969 min Scan# 1785

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion:146 Resp: 6774

Ion Ratio Lower Upper

146 100

111 39.9 20.6 61.8

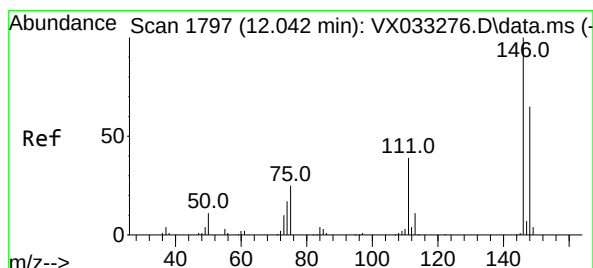
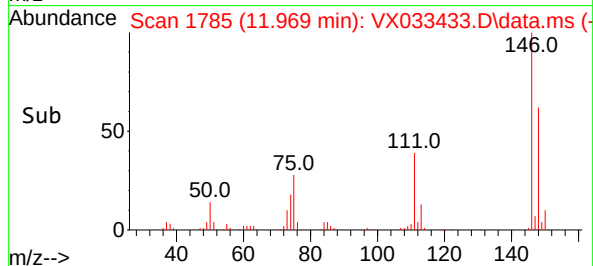
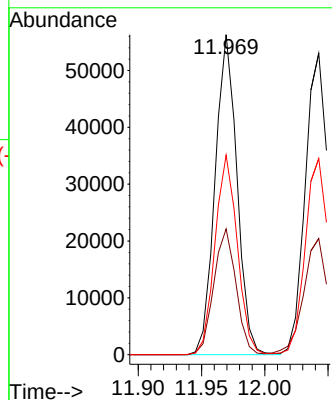
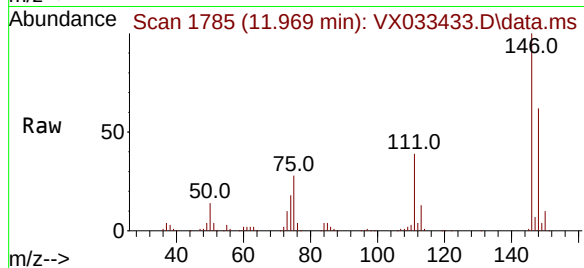
148 63.5 31.7 95.1

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#88

1,4-Dichlorobenzene

Concen: 19.691 ug/l

RT: 12.043 min Scan# 1797

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

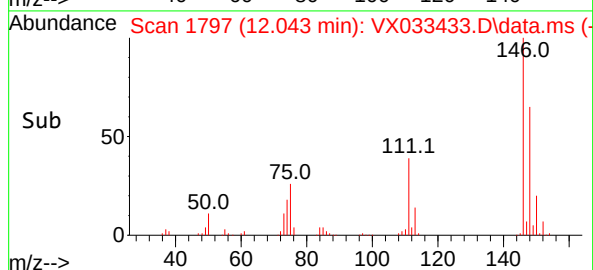
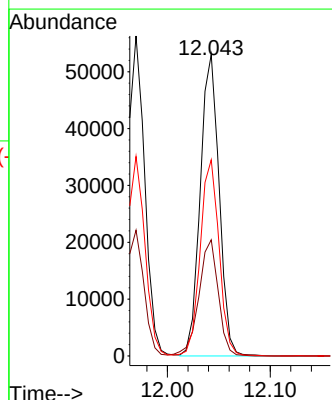
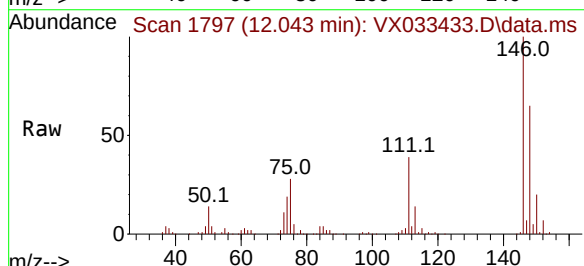
Tgt Ion:146 Resp: 67854

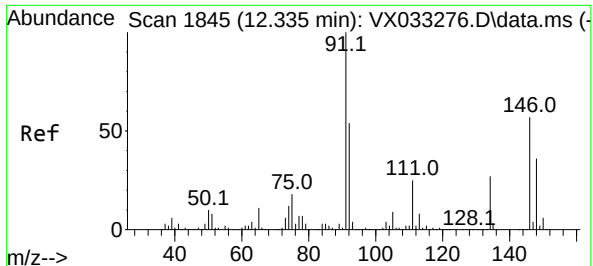
Ion Ratio Lower Upper

146 100

111 39.8 20.5 61.6

148 65.2 32.2 96.6





#89

n-Butylbenzene

Concen: 21.017 ug/l

RT: 12.335 min Scan# 1845

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion: 91 Resp: 106000

Ion Ratio Lower Upper

91 100

92 52.4 26.2 78.6

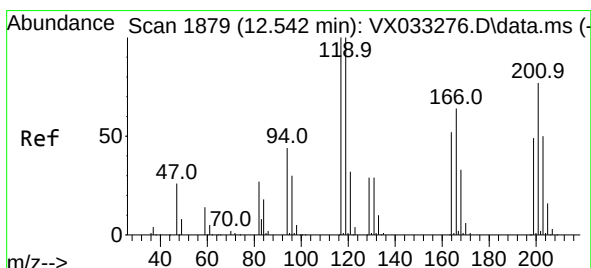
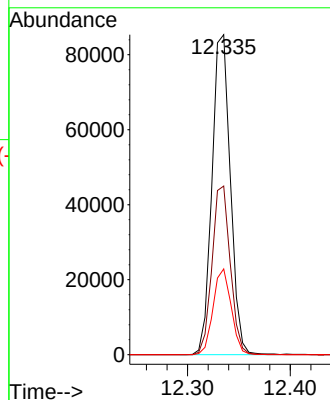
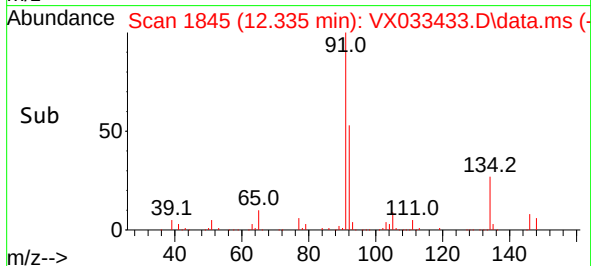
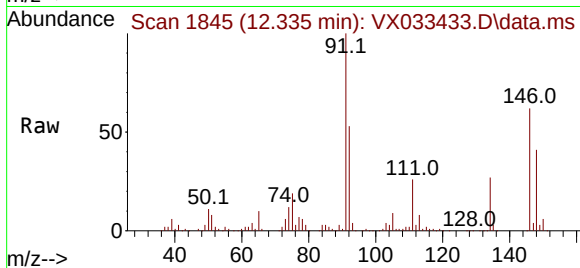
134 26.3 12.9 38.6

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#90

Hexachloroethane

Concen: 18.887 ug/l

RT: 12.536 min Scan# 1878

Delta R.T. -0.006 min

Lab File: VX033433.D

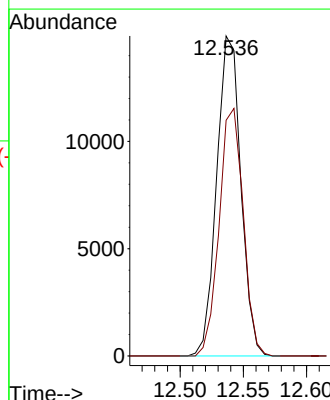
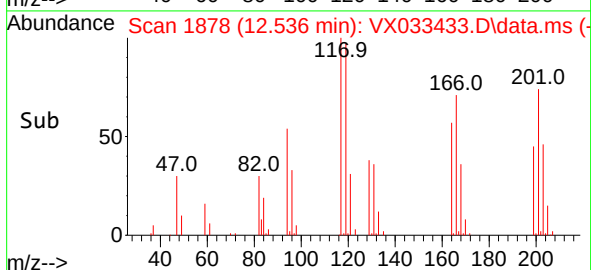
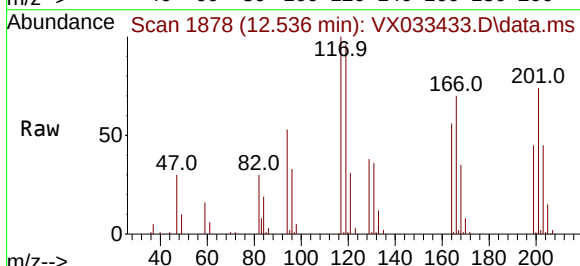
Acq: 15 Dec 2022 11:46

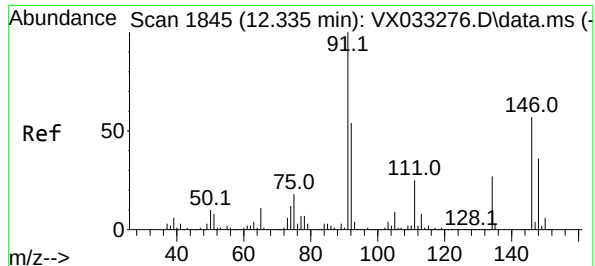
Tgt Ion:117 Resp: 19769

Ion Ratio Lower Upper

117 100

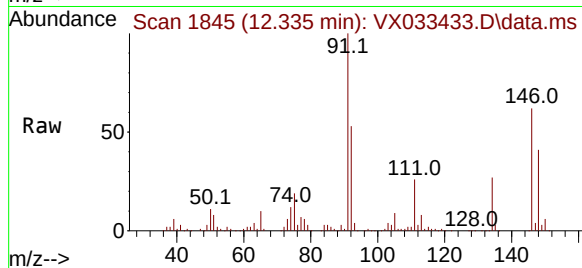
201 77.2 37.6 112.9





#91  
1,2-Dichlorobenzene  
Concen: 19.552 ug/l  
RT: 12.335 min Scan# 1845  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

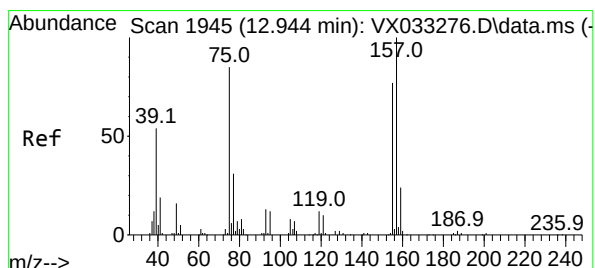
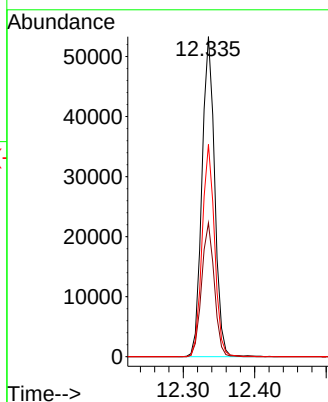
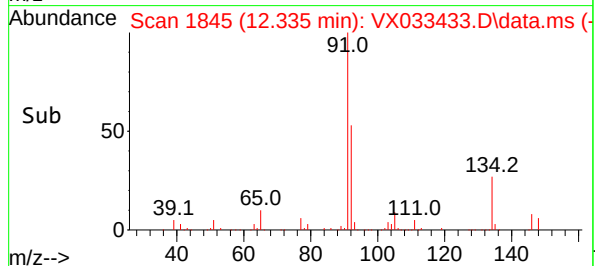
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01



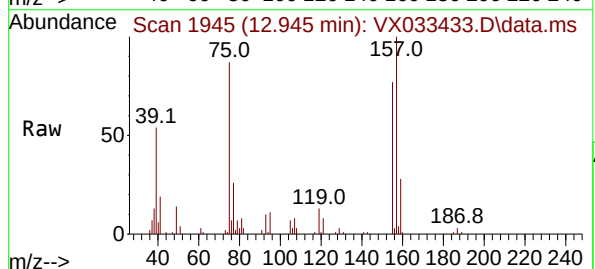
Tgt Ion:146 Resp: 65940  
Ion Ratio Lower Upper  
146 100  
111 41.6 21.5 64.5  
148 64.8 32.0 96.2

Manual Integrations  
APPROVED

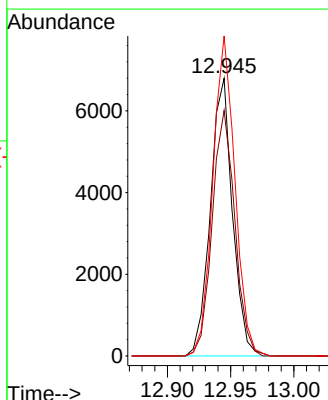
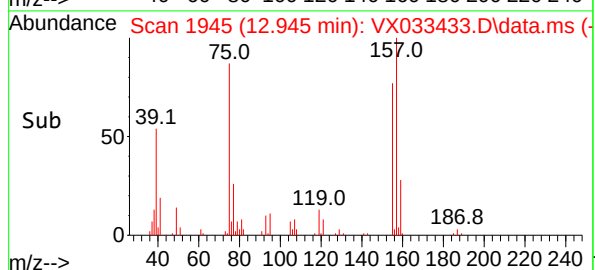
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022

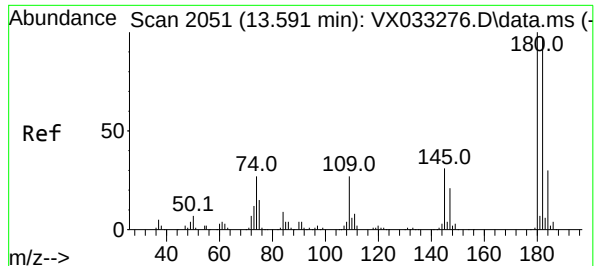


#92  
1,2-Dibromo-3-Chloropropane  
Concen: 16.330 ug/l  
RT: 12.945 min Scan# 1945  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46



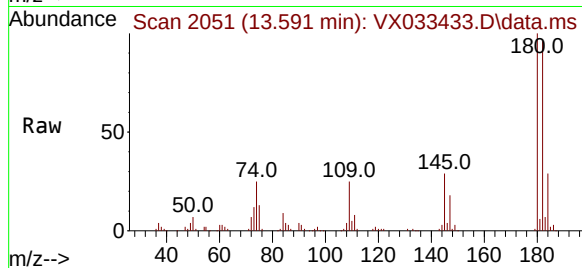
Tgt Ion: 75 Resp: 8253  
Ion Ratio Lower Upper  
75 100  
155 90.1 41.6 124.8  
157 115.1 54.1 162.4





#93  
1,2,4-Trichlorobenzene  
Concen: 19.878 ug/l  
RT: 13.591 min Scan# 2051  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46

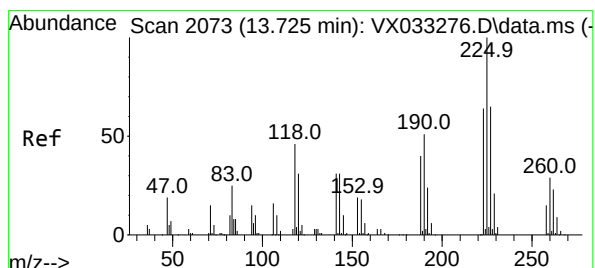
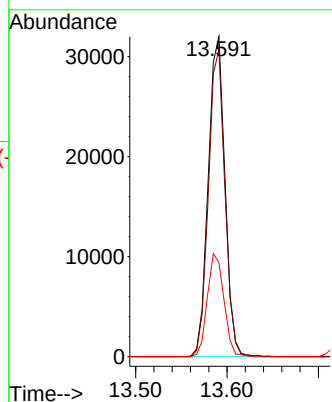
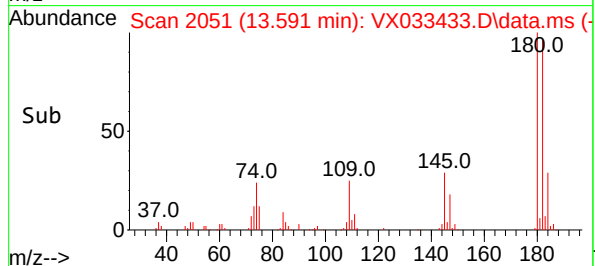
Instrument :  
MSVOA\_X  
ClientSampleId :  
VX1215WBSD01



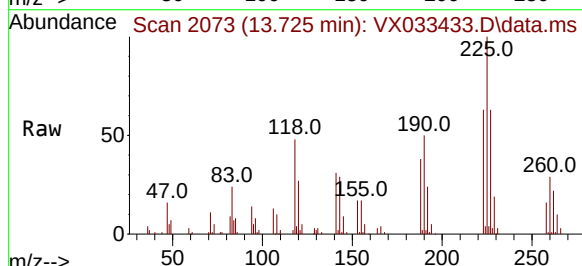
Tgt Ion:180 Resp: 4049  
Ion Ratio Lower Upper  
180 100  
182 94.7 48.4 145.0  
145 31.8 16.2 48.5

Manual Integrations  
APPROVED

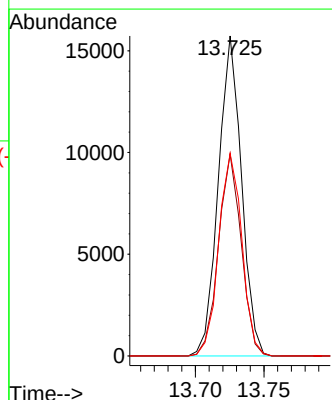
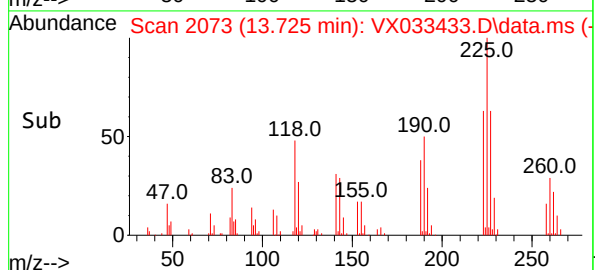
Reviewed By :John Carlone 12/16/2022  
Supervised By :Mahesh Dadoda 12/16/2022



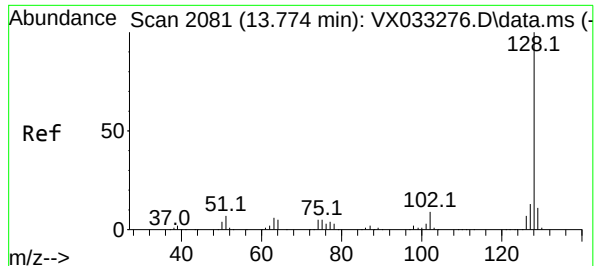
#94  
Hexachlorobutadiene  
Concen: 22.631 ug/l  
RT: 13.725 min Scan# 2073  
Delta R.T. 0.000 min  
Lab File: VX033433.D  
Acq: 15 Dec 2022 11:46



Tgt Ion:225 Resp: 18460  
Ion Ratio Lower Upper  
225 100  
223 62.0 31.9 95.9  
227 63.5 31.9 95.5







#95

Naphthalene

Concen: 18.691 ug/l

RT: 13.774 min Scan# 2081

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

Instrument :

MSVOA\_X

ClientSampleId :

VX1215WBSD01

Tgt Ion:128 Resp: 127000

Ion Ratio Lower Upper

128 100

127 12.5 10.2 15.4

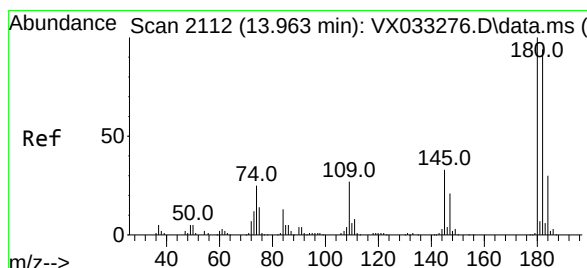
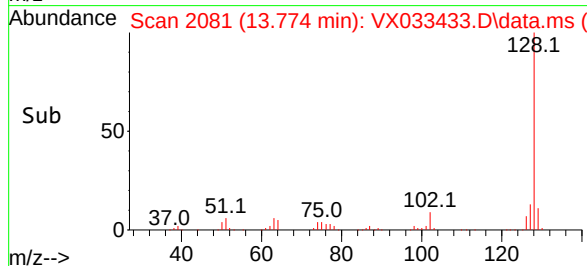
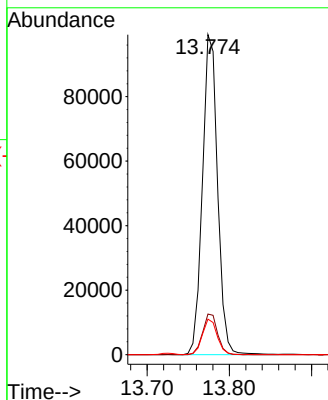
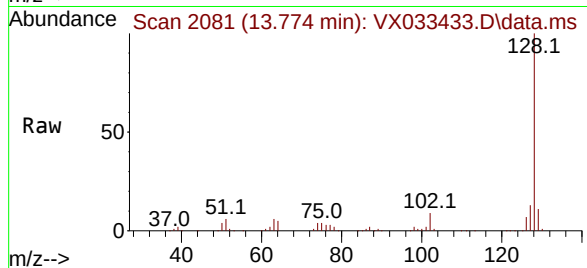
129 10.9 8.9 13.3

Manual Integrations

APPROVED

Reviewed By :John Carlone 12/16/2022

Supervised By :Mahesh Dadoda 12/16/2022



#96

1,2,3-Trichlorobenzene

Concen: 19.258 ug/l

RT: 13.963 min Scan# 2112

Delta R.T. 0.000 min

Lab File: VX033433.D

Acq: 15 Dec 2022 11:46

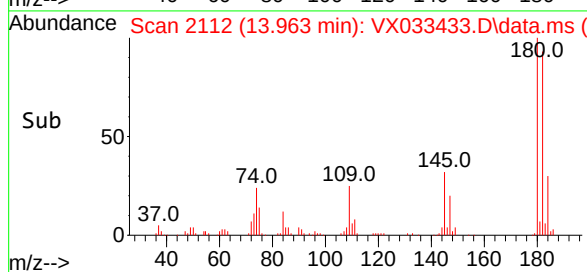
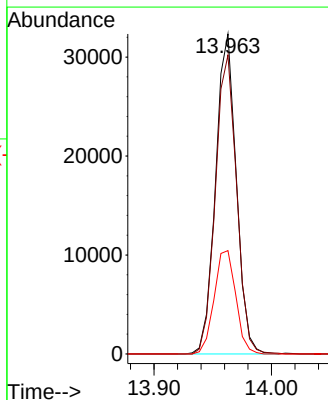
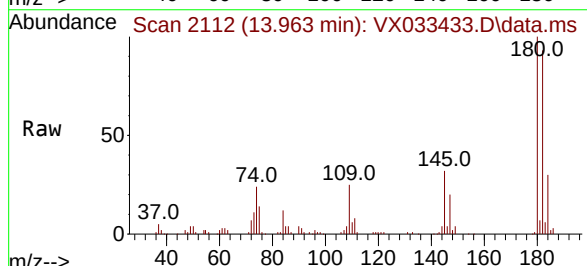
Tgt Ion:180 Resp: 39730

Ion Ratio Lower Upper

180 100

182 95.4 47.5 142.6

145 33.6 16.9 50.6





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

## Manual Integration Report

|           |          |            |         |
|-----------|----------|------------|---------|
| Sequence: | VX120722 | Instrument | MSVOA_x |
|-----------|----------|------------|---------|

| Sample ID   | File ID    | Parameter              | Review By | Review On                | Supervised By | Supervised On            | Reason                      |
|-------------|------------|------------------------|-----------|--------------------------|---------------|--------------------------|-----------------------------|
| VSTDICC001  | VX033273.D | 1,2,3-Trichloropropane | JOHN      | 12/8/2022<br>10:12:54 AM | MMDadoda      | 12/8/2022<br>10:30:52 AM | Peak Integrated by Software |
| VSTDICC001  | VX033273.D | 1,4-Dichlorobenzene    | JOHN      | 12/8/2022<br>10:12:54 AM | MMDadoda      | 12/8/2022<br>10:30:52 AM | Peak Integrated by Software |
| VSTDICC001  | VX033273.D | 1,4-Dioxane            | JOHN      | 12/8/2022<br>10:12:54 AM | MMDadoda      | 12/8/2022<br>10:30:52 AM | Peak Integrated by Software |
| VSTDICC005  | VX033274.D | 1,2,3-Trichloropropane | JOHN      | 12/8/2022<br>10:13:00 AM | MMDadoda      | 12/8/2022<br>10:30:54 AM | Peak Integrated by Software |
| VSTDICC005  | VX033274.D | Acrolein               | JOHN      | 12/8/2022<br>10:13:00 AM | MMDadoda      | 12/8/2022<br>10:30:54 AM | Peak Integrated by Software |
| VSTDICC005  | VX033274.D | t-1,3-Dichloropropene  | JOHN      | 12/8/2022<br>10:13:00 AM | MMDadoda      | 12/8/2022<br>10:30:54 AM | Peak Integrated by Software |
| VSTDICC005  | VX033274.D | Tert butyl alcohol     | JOHN      | 12/8/2022<br>10:13:00 AM | MMDadoda      | 12/8/2022<br>10:30:54 AM | Peak Integrated by Software |
| VSTDICC020  | VX033275.D | 1,2,3-Trichloropropane | JOHN      | 12/8/2022<br>10:13:06 AM | MMDadoda      | 12/8/2022<br>10:30:56 AM | Peak Integrated by Software |
| VSTDICCC050 | VX033276.D | 1,2,3-Trichloropropane | JOHN      | 12/8/2022<br>10:13:12 AM | MMDadoda      | 12/8/2022<br>10:30:58 AM | Peak Integrated by Software |
| VSTDICC100  | VX033277.D | 1,2,3-Trichloropropane | JOHN      | 12/8/2022<br>10:13:19 AM | MMDadoda      | 12/8/2022<br>10:31:00 AM | Peak Integrated by Software |
| VSTDICC100  | VX033277.D | Tert butyl alcohol     | JOHN      | 12/8/2022<br>10:13:19 AM | MMDadoda      | 12/8/2022<br>10:31:00 AM | Peak Integrated by Software |
| VSTDICC150  | VX033278.D | 1,2,3-Trichloropropane | JOHN      | 12/8/2022<br>10:13:24 AM | MMDadoda      | 12/8/2022<br>10:31:02 AM | Peak Integrated by Software |
| VSTDICC150  | VX033278.D | Acrolein               | JOHN      | 12/8/2022<br>10:13:24 AM | MMDadoda      | 12/8/2022<br>10:31:02 AM | Peak Integrated by Software |



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

## Manual Integration Report

Sequence:

VX120722

Instrument

MSVOA\_x

| Sample ID  | File ID    | Parameter              | Review By | Review On                | Supervised By | Supervised On            | Reason                      |
|------------|------------|------------------------|-----------|--------------------------|---------------|--------------------------|-----------------------------|
| VSTDICC150 | VX033278.D | Tert butyl alcohol     | JOHN      | 12/8/2022<br>10:13:24 AM | MMDadoda      | 12/8/2022<br>10:31:02 AM | Peak Integrated by Software |
| VSTDICV050 | VX033280.D | 1,2,3-Trichloropropane | JOHN      | 12/8/2022<br>10:13:30 AM | MMDadoda      | 12/8/2022<br>10:31:05 AM | Peak Integrated by Software |
| VSTDCCC050 | VX033282.D | 1,2,3-Trichloropropane | JOHN      | 12/8/2022<br>10:13:36 AM | MMDadoda      | 12/8/2022<br>10:31:08 AM | Peak Integrated by Software |
| VSTDCCC050 | VX033307.D | 1,2,3-Trichloropropane | JOHN      | 12/8/2022<br>10:14:25 AM | MMDadoda      | 12/8/2022<br>10:31:17 AM | Peak Integrated by Software |



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

## Manual Integration Report

Sequence:

vx121522

Instrument

MSVOA\_x

| Sample ID        | File ID    | Parameter              | Review By | Review On                | Supervised By | Supervised On             | Reason                      |
|------------------|------------|------------------------|-----------|--------------------------|---------------|---------------------------|-----------------------------|
| VSTDCCC050       | VX033430.D | 1,2,3-Trichloropropane | JOHN      | 12/16/2022<br>9:42:26 AM | MMDadoda      | 12/16/2022<br>12:26:26 PM | Peak Integrated by Software |
| VSTDCCC050       | VX033430.D | Tert butyl alcohol     | JOHN      | 12/16/2022<br>9:42:26 AM | MMDadoda      | 12/16/2022<br>12:26:26 PM | Peak Integrated by Software |
| VX1215WBS01      | VX033432.D | 1,2,3-Trichloropropane | JOHN      | 12/16/2022<br>9:42:32 AM | MMDadoda      | 12/16/2022<br>12:26:27 PM | Peak Integrated by Software |
| VX1215WBS01      | VX033432.D | Tert butyl alcohol     | JOHN      | 12/16/2022<br>9:42:32 AM | MMDadoda      | 12/16/2022<br>12:26:27 PM | Peak Integrated by Software |
| VX1215WBSD0<br>1 | VX033433.D | 1,2,3-Trichloropropane | JOHN      | 12/16/2022<br>9:42:38 AM | MMDadoda      | 12/16/2022<br>12:26:28 PM | Peak Integrated by Software |
| VX1215WBSD0<br>1 | VX033433.D | Tert butyl alcohol     | JOHN      | 12/16/2022<br>9:42:38 AM | MMDadoda      | 12/16/2022<br>12:26:28 PM | Peak Integrated by Software |
| VSTDCCC050       | VX033448.D | 1,2,3-Trichloropropane | JOHN      | 12/16/2022<br>9:42:44 AM | MMDadoda      | 12/16/2022<br>12:26:30 PM | Peak Integrated by Software |
| VSTDCCC050       | VX033448.D | Tert butyl alcohol     | JOHN      | 12/16/2022<br>9:42:44 AM | MMDadoda      | 12/16/2022<br>12:26:30 PM | Peak Integrated by Software |



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

Instrument ID: MSVOA\_X

## Daily Analysis Runlog For Sequence/QC Batch ID # VX120722

|                          |               |                                                      |                       |                      |              |
|--------------------------|---------------|------------------------------------------------------|-----------------------|----------------------|--------------|
| Review By                | John Carlone  | Review On                                            | 12/8/2022 10:16:51 AM |                      |              |
| Supervise By             | Maresh Dadoda | Supervise On                                         | 12/8/2022 10:31:45 AM |                      |              |
| SubDirectory             | VX120722      | HP Acquire Method                                    | MSVOA_X               | HP Processing Method | 82X120722W.M |
| STD. NAME                |               | STD REF.#                                            |                       |                      |              |
| Tune/Reschk              |               | VP117343,VP117344                                    |                       |                      |              |
| Initial Calibration Stds |               | VP117345,VP117376,VP117347,VP117348,VP117349VP117350 |                       |                      |              |
| CCC                      |               | VP117352,VP117353                                    |                       |                      |              |
| Internal Standard/PEM    |               |                                                      |                       |                      |              |
| ICV/I.BLK                |               | VP117351                                             |                       |                      |              |
| Surrogate Standard       |               |                                                      |                       |                      |              |
| MS/MSD Standard          |               |                                                      |                       |                      |              |
| LCS Standard             |               |                                                      |                       |                      |              |

| Sr# | SampleID     | Data File Name | Date-Time         | Operator | Status |
|-----|--------------|----------------|-------------------|----------|--------|
| 1   | BFB          | VX033272.D     | 07 Dec 2022 09:17 | JC/MD    | Ok     |
| 2   | VSTDICC001   | VX033273.D     | 07 Dec 2022 09:46 | JC/MD    | Ok,M   |
| 3   | VSTDICC005   | VX033274.D     | 07 Dec 2022 10:09 | JC/MD    | Ok,M   |
| 4   | VSTDICC020   | VX033275.D     | 07 Dec 2022 10:32 | JC/MD    | Ok,M   |
| 5   | VSTDICCC050  | VX033276.D     | 07 Dec 2022 10:55 | JC/MD    | Ok,M   |
| 6   | VSTDICC100   | VX033277.D     | 07 Dec 2022 11:18 | JC/MD    | Ok,M   |
| 7   | VSTDICC150   | VX033278.D     | 07 Dec 2022 11:42 | JC/MD    | Ok,M   |
| 8   | VIBLK        | VX033279.D     | 07 Dec 2022 12:05 | JC/MD    | Ok     |
| 9   | VSTDICV050   | VX033280.D     | 07 Dec 2022 12:51 | JC/MD    | Ok,M   |
| 10  | BFB          | VX033281.D     | 07 Dec 2022 14:57 | JC/MD    | Ok     |
| 11  | VSTDCCC050   | VX033282.D     | 07 Dec 2022 15:25 | JC/MD    | Ok,M   |
| 12  | VX1207MBL01  | VX033283.D     | 07 Dec 2022 15:53 | JC/MD    | Not Ok |
| 13  | VX1207WBL01  | VX033284.D     | 07 Dec 2022 16:17 | JC/MD    | Ok     |
| 14  | VX1207WBL02  | VX033285.D     | 07 Dec 2022 16:45 | JC/MD    | Ok     |
| 15  | VX1207WBS01  | VX033286.D     | 07 Dec 2022 17:13 | JC/MD    | Ok,M   |
| 16  | VX1207WBSD01 | VX033287.D     | 07 Dec 2022 17:36 | JC/MD    | Ok,M   |
| 17  | N5865-05     | VX033288.D     | 07 Dec 2022 17:59 | JC/MD    | Ok     |
| 18  | N5865-07     | VX033289.D     | 07 Dec 2022 18:22 | JC/MD    | Ok     |
| 19  | N5875-03     | VX033290.D     | 07 Dec 2022 18:46 | JC/MD    | Ok     |
| 20  | N5875-06     | VX033291.D     | 07 Dec 2022 19:09 | JC/MD    | Ok     |
| 21  | N5865-09DL   | VX033292.D     | 07 Dec 2022 19:32 | JC/MD    | Ok     |
| 22  | N5865-11DL   | VX033293.D     | 07 Dec 2022 19:55 | JC/MD    | Not Ok |
| 23  | N5865-01DL   | VX033294.D     | 07 Dec 2022 20:18 | JC/MD    | Not Ok |



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

Instrument ID: MSVOA\_X

## Daily Analysis Runlog For Sequence/QC Batch ID # VX120722

|              |               |                   |                       |                      |              |
|--------------|---------------|-------------------|-----------------------|----------------------|--------------|
| Review By    | John Carlone  | Review On         | 12/8/2022 10:16:51 AM |                      |              |
| Supervise By | Mahesh Dadoda | Supervise On      | 12/8/2022 10:31:45 AM |                      |              |
| SubDirectory | VX120722      | HP Acquire Method | MSVOA_X               | HP Processing Method | 82X120722W.M |

| STD. NAME                | STD REF.#                                            |
|--------------------------|------------------------------------------------------|
| Tune/Reschk              | VP117343,VP117344                                    |
| Initial Calibration Stds | VP117345,VP117376,VP117347,VP117348,VP117349VP117350 |
| CCC                      | VP117352,VP117353                                    |
| Internal Standard/PEM    |                                                      |
| ICV/I.BLK                | VP117351                                             |
| Surrogate Standard       |                                                      |
| MS/MSD Standard          |                                                      |
| LCS Standard             |                                                      |

|    |            |            |                   |       |          |
|----|------------|------------|-------------------|-------|----------|
| 24 | VIBLK      | VX033295.D | 07 Dec 2022 20:41 | JC/MD | Ok       |
| 25 | N5912-01   | VX033296.D | 07 Dec 2022 21:05 | JC/MD | Dilution |
| 26 | N5911-01   | VX033297.D | 07 Dec 2022 21:28 | JC/MD | ReRun    |
| 27 | N5906-01   | VX033298.D | 07 Dec 2022 21:51 | JC/MD | Ok       |
| 28 | N5906-02   | VX033299.D | 07 Dec 2022 22:14 | JC/MD | Ok       |
| 29 | N5906-03   | VX033300.D | 07 Dec 2022 22:37 | JC/MD | Ok       |
| 30 | N5906-04   | VX033301.D | 07 Dec 2022 23:00 | JC/MD | Ok       |
| 31 | N5906-05   | VX033302.D | 07 Dec 2022 23:24 | JC/MD | Ok       |
| 32 | N5906-06   | VX033303.D | 07 Dec 2022 23:47 | JC/MD | Dilution |
| 33 | N5906-07   | VX033304.D | 08 Dec 2022 00:10 | JC/MD | Dilution |
| 34 | N5906-08   | VX033305.D | 08 Dec 2022 00:33 | JC/MD | Ok       |
| 35 | N5906-09   | VX033306.D | 08 Dec 2022 00:56 | JC/MD | Dilution |
| 36 | VSTDCCC050 | VX033307.D | 08 Dec 2022 01:19 | JC/MD | Ok,M     |

M : Manual Integration



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

Instrument ID: MSVOA\_X

## Daily Analysis Runlog For Sequence/QC Batch ID # VX121522

|                                                                                                    |                   |                   |                                   |
|----------------------------------------------------------------------------------------------------|-------------------|-------------------|-----------------------------------|
| Review By                                                                                          | John Carlone      | Review On         | 12/16/2022 9:45:30 AM             |
| Supervise By                                                                                       | Maresh Dadoda     | Supervise On      | 12/16/2022 12:26:32 PM            |
| SubDirectory                                                                                       | VX121522          | HP Acquire Method | HP Processing Method 82X120722W.M |
| <b>STD. NAME</b>                                                                                   | <b>STD REF.#</b>  |                   |                                   |
| Tune/Reschk<br>Initial Calibration Stds                                                            | VP117542          |                   |                                   |
| CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | VP117544,VP117545 |                   |                                   |

| Sr# | SampleId     | Data File Name | Date-Time         | Operator | Status |
|-----|--------------|----------------|-------------------|----------|--------|
| 1   | BFB          | VX033429.D     | 15 Dec 2022 09:39 | JC/MD    | Ok     |
| 2   | VSTDCCC050   | VX033430.D     | 15 Dec 2022 10:10 | JC/MD    | Ok,M   |
| 3   | VX1215WBL01  | VX033431.D     | 15 Dec 2022 10:39 | JC/MD    | Ok     |
| 4   | VX1215WBS01  | VX033432.D     | 15 Dec 2022 11:07 | JC/MD    | Ok,M   |
| 5   | VX1215WBSD01 | VX033433.D     | 15 Dec 2022 11:46 | JC/MD    | Ok,M   |
| 6   | N6070-02     | VX033434.D     | 15 Dec 2022 12:09 | JC/MD    | Ok     |
| 7   | N6070-01     | VX033435.D     | 15 Dec 2022 12:32 | JC/MD    | ReRun  |
| 8   | N6070-03     | VX033436.D     | 15 Dec 2022 12:55 | JC/MD    | Ok     |
| 9   | N6070-04     | VX033437.D     | 15 Dec 2022 13:18 | JC/MD    | Ok     |
| 10  | N6070-05     | VX033438.D     | 15 Dec 2022 13:41 | JC/MD    | Ok     |
| 11  | PB149669TB   | VX033439.D     | 15 Dec 2022 14:04 | JC/MD    | Ok     |
| 12  | N6051-02     | VX033440.D     | 15 Dec 2022 14:27 | JC/MD    | Ok     |
| 13  | N6070-01     | VX033441.D     | 15 Dec 2022 14:50 | JC/MD    | Ok     |
| 14  | PB149652TB   | VX033442.D     | 15 Dec 2022 15:13 | JC/MD    | Ok     |
| 15  | PB149654TB   | VX033443.D     | 15 Dec 2022 15:36 | JC/MD    | Ok     |
| 16  | N6065-02     | VX033444.D     | 15 Dec 2022 15:59 | JC/MD    | Ok     |
| 17  | N6065-05     | VX033445.D     | 15 Dec 2022 16:22 | JC/MD    | Ok     |
| 18  | N6067-02     | VX033446.D     | 15 Dec 2022 16:45 | JC/MD    | Ok     |
| 19  | N6067-04     | VX033447.D     | 15 Dec 2022 17:08 | JC/MD    | Ok     |
| 20  | VSTDCCC050   | VX033448.D     | 15 Dec 2022 17:31 | JC/MD    | Ok,M   |

M : Manual Integration



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

Instrument ID: MSVOA\_X

## Daily Analysis Runlog For Sequence/QC Batch ID # VX120722

|                                                                                                    |               |                                                                           |                       |                      |              |  |  |
|----------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------|-----------------------|----------------------|--------------|--|--|
| Review By                                                                                          | John Carlone  | Review On                                                                 | 12/8/2022 10:16:51 AM |                      |              |  |  |
| Supervise By                                                                                       | Mahesh Dadoda | Supervise On                                                              | 12/8/2022 10:31:45 AM |                      |              |  |  |
| SubDirectory                                                                                       | VX120722      | HP Acquire Method                                                         | MSVOA_X               | HP Processing Method | 82X120722W.M |  |  |
| STD. NAME                                                                                          |               | STD REF.#                                                                 |                       |                      |              |  |  |
| Tune/Reschk<br>Initial Calibration Stds                                                            |               | VP117343,VP117344<br>VP117345,VP117376,VP117347,VP117348,VP117349VP117350 |                       |                      |              |  |  |
| CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard |               | VP117352,VP117353<br><br>VP117351                                         |                       |                      |              |  |  |

| Sr# | SampleId     | ClientID     | Data File Name | Date-Time         | Comment        | Operator | Status |
|-----|--------------|--------------|----------------|-------------------|----------------|----------|--------|
| 1   | BFB          | BFB          | VX033272.D     | 07 Dec 2022 09:17 |                | JC/MD    | Ok     |
| 2   | VSTDICC001   | VSTDICC001   | VX033273.D     | 07 Dec 2022 09:46 |                | JC/MD    | Ok,M   |
| 3   | VSTDICC005   | VSTDICC005   | VX033274.D     | 07 Dec 2022 10:09 |                | JC/MD    | Ok,M   |
| 4   | VSTDICC020   | VSTDICC020   | VX033275.D     | 07 Dec 2022 10:32 | com#13 fail    | JC/MD    | Ok,M   |
| 5   | VSTDICCC050  | VSTDICCC050  | VX033276.D     | 07 Dec 2022 10:55 |                | JC/MD    | Ok,M   |
| 6   | VSTDICC100   | VSTDICC100   | VX033277.D     | 07 Dec 2022 11:18 |                | JC/MD    | Ok,M   |
| 7   | VSTDICC150   | VSTDICC150   | VX033278.D     | 07 Dec 2022 11:42 |                | JC/MD    | Ok,M   |
| 8   | VIBLK        | VIBLK        | VX033279.D     | 07 Dec 2022 12:05 |                | JC/MD    | Ok     |
| 9   | VSTDICV050   | ICVVX120722  | VX033280.D     | 07 Dec 2022 12:51 | pH#Lot#V12668  | JC/MD    | Ok,M   |
| 10  | BFB          | BFB          | VX033281.D     | 07 Dec 2022 14:57 |                | JC/MD    | Ok     |
| 11  | VSTDCCC050   | VSTDCCC050   | VX033282.D     | 07 Dec 2022 15:25 |                | JC/MD    | Ok,M   |
| 12  | VX1207MBL01  | VX1207MBL01  | VX033283.D     | 07 Dec 2022 15:53 | Surrogate Fail | JC/MD    | Not Ok |
| 13  | VX1207WBL01  | VX1207WBL01  | VX033284.D     | 07 Dec 2022 16:17 |                | JC/MD    | Ok     |
| 14  | VX1207WBL02  | VX1207WBL02  | VX033285.D     | 07 Dec 2022 16:45 |                | JC/MD    | Ok     |
| 15  | VX1207WBS01  | VX1207WBS01  | VX033286.D     | 07 Dec 2022 17:13 |                | JC/MD    | Ok,M   |
| 16  | VX1207WBSD01 | VX1207WBSD01 | VX033287.D     | 07 Dec 2022 17:36 |                | JC/MD    | Ok,M   |
| 17  | N5865-05     | LEA-5SR      | VX033288.D     | 07 Dec 2022 17:59 | vial B pH<2    | JC/MD    | Ok     |
| 18  | N5865-07     | LEA-5D       | VX033289.D     | 07 Dec 2022 18:22 | vial B pH<2    | JC/MD    | Ok     |
| 19  | N5875-03     | MW-38        | VX033290.D     | 07 Dec 2022 18:46 | vial B pH<2    | JC/MD    | Ok     |



Instrument ID: MSVOA\_X

### Daily Analysis Runlog For Sequence/QC Batch ID # VX120722

|                          |               |                                                      |                       |                      |              |  |  |  |
|--------------------------|---------------|------------------------------------------------------|-----------------------|----------------------|--------------|--|--|--|
| Review By                | John Carlone  | Review On                                            | 12/8/2022 10:16:51 AM |                      |              |  |  |  |
| Supervise By             | Mahesh Dadoda | Supervise On                                         | 12/8/2022 10:31:45 AM |                      |              |  |  |  |
| SubDirectory             | VX120722      | HP Acquire Method                                    | MSVOA_X               | HP Processing Method | 82X120722W.M |  |  |  |
| STD. NAME                |               | STD REF.#                                            |                       |                      |              |  |  |  |
| Tune/Reschk              |               | VP117343,VP117344                                    |                       |                      |              |  |  |  |
| Initial Calibration Stds |               | VP117345,VP117376,VP117347,VP117348,VP117349VP117350 |                       |                      |              |  |  |  |
| CCC                      |               | VP117352,VP117353                                    |                       |                      |              |  |  |  |
| Internal Standard/PEM    |               |                                                      |                       |                      |              |  |  |  |
| ICV/I.BLK                |               | VP117351                                             |                       |                      |              |  |  |  |
| Surrogate Standard       |               |                                                      |                       |                      |              |  |  |  |
| MS/MSD Standard          |               |                                                      |                       |                      |              |  |  |  |
| LCS Standard             |               |                                                      |                       |                      |              |  |  |  |

|    |            |               |            |                   |                                                               |       |          |
|----|------------|---------------|------------|-------------------|---------------------------------------------------------------|-------|----------|
| 20 | N5875-06   | MW-40         | VX033291.D | 07 Dec 2022 19:09 | vial B pH<2                                                   | JC/MD | Ok       |
| 21 | N5865-09DL | LEA-5IDL      | VX033292.D | 07 Dec 2022 19:32 | vial B pH<2                                                   | JC/MD | Ok       |
| 22 | N5865-11DL | DUP-01DL      | VX033293.D | 07 Dec 2022 19:55 | vial B pH<2                                                   | JC/MD | Not Ok   |
| 23 | N5865-01DL | LEA-7IDL      | VX033294.D | 07 Dec 2022 20:18 | Confirm concentration for cis-1,2-Dichloroethene, not matched | JC/MD | Not Ok   |
| 24 | VIBLK      | VIBLK         | VX033295.D | 07 Dec 2022 20:41 |                                                               | JC/MD | Ok       |
| 25 | N5912-01   | FMC-TOTE-1207 | VX033296.D | 07 Dec 2022 21:05 | vial A pH<2 Need 10x                                          | JC/MD | Dilution |
| 26 | N5911-01   | A3594TOG      | VX033297.D | 07 Dec 2022 21:28 | vial A pH<2 E flag in previous sample                         | JC/MD | ReRun    |
| 27 | N5906-01   | MW-8          | VX033298.D | 07 Dec 2022 21:51 | vial A pH<2                                                   | JC/MD | Ok       |
| 28 | N5906-02   | MW-12         | VX033299.D | 07 Dec 2022 22:14 | vial A pH<2                                                   | JC/MD | Ok       |
| 29 | N5906-03   | MW-16         | VX033300.D | 07 Dec 2022 22:37 | vial A pH<2                                                   | JC/MD | Ok       |
| 30 | N5906-04   | MW-20         | VX033301.D | 07 Dec 2022 23:00 | vial A pH<2                                                   | JC/MD | Ok       |
| 31 | N5906-05   | H-3R          | VX033302.D | 07 Dec 2022 23:24 | vial A pH<2                                                   | JC/MD | Ok       |
| 32 | N5906-06   | MW-3RR        | VX033303.D | 07 Dec 2022 23:47 | vial A pH<2 Need 5X                                           | JC/MD | Dilution |
| 33 | N5906-07   | MW-13R        | VX033304.D | 08 Dec 2022 00:10 | vial A pH<2 Need 10x                                          | JC/MD | Dilution |
| 34 | N5906-08   | MW-24         | VX033305.D | 08 Dec 2022 00:33 | vial A pH<2                                                   | JC/MD | Ok       |
| 35 | N5906-09   | MW-28         | VX033306.D | 08 Dec 2022 00:56 | vial A pH<2 Need 5X                                           | JC/MD | Dilution |
| 36 | VSTDCCC050 | VSTDCCC050EC  | VX033307.D | 08 Dec 2022 01:19 |                                                               | JC/MD | Ok,M     |

M : Manual Integration



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

Instrument ID: MSVOA\_X

## Daily Analysis Runlog For Sequence/QC Batch ID # VX121522

| Review By                                                                                          | John Carlone  | Review On           | 12/16/2022 9:45:30 AM  |                   |                            |          |        |
|----------------------------------------------------------------------------------------------------|---------------|---------------------|------------------------|-------------------|----------------------------|----------|--------|
| Supervise By                                                                                       | Mahesh Dadoda | Supervise On        | 12/16/2022 12:26:32 PM |                   |                            |          |        |
| SubDirectory                                                                                       | VX121522      | HP Acquire Method   | HP Processing Method   |                   | 82X120722W.M               |          |        |
| STD. NAME                                                                                          |               | STD REF.#           |                        |                   |                            |          |        |
| Tune/Reschk<br>Initial Calibration Stds                                                            |               | VP117542            |                        |                   |                            |          |        |
| CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard |               | VP117544,VP117545   |                        |                   |                            |          |        |
| Sr#                                                                                                | SampleId      | ClientID            | Data File Name         | Date-Time         | Comment                    | Operator | Status |
| 1                                                                                                  | BFB           | BFB                 | VX033429.D             | 15 Dec 2022 09:39 |                            | JC/MD    | Ok     |
| 2                                                                                                  | VSTDCCC050    | VSTDCCC050          | VX033430.D             | 15 Dec 2022 10:10 | pH#Lot#V12668              | JC/MD    | Ok,M   |
| 3                                                                                                  | VX1215WBL01   | VX1215WBL01         | VX033431.D             | 15 Dec 2022 10:39 |                            | JC/MD    | Ok     |
| 4                                                                                                  | VX1215WBS01   | VX1215WBS01         | VX033432.D             | 15 Dec 2022 11:07 |                            | JC/MD    | Ok,M   |
| 5                                                                                                  | VX1215WBSD01  | VX1215WBSD01        | VX033433.D             | 15 Dec 2022 11:46 |                            | JC/MD    | Ok,M   |
| 6                                                                                                  | N6070-02      | TB-01-121422        | VX033434.D             | 15 Dec 2022 12:09 | vial A pH<2 TB             | JC/MD    | Ok     |
| 7                                                                                                  | N6070-01      | GW-BR-04-226-245-12 | VX033435.D             | 15 Dec 2022 12:32 | vial A pH<2 Surrogate Fail | JC/MD    | ReRun  |
| 8                                                                                                  | N6070-03      | GW-BR-01-160-180-12 | VX033436.D             | 15 Dec 2022 12:55 | vial A pH<2                | JC/MD    | Ok     |
| 9                                                                                                  | N6070-04      | GW-BR-02-160-180-12 | VX033437.D             | 15 Dec 2022 13:18 | vial A pH<2                | JC/MD    | Ok     |
| 10                                                                                                 | N6070-05      | GW-BR-03-128-148-12 | VX033438.D             | 15 Dec 2022 13:41 | vial A pH<2                | JC/MD    | Ok     |
| 11                                                                                                 | PB149669TB    | PB149669TB          | VX033439.D             | 15 Dec 2022 14:04 | vial A pH#6.0              | JC/MD    | Ok     |
| 12                                                                                                 | N6051-02      | SP-591              | VX033440.D             | 15 Dec 2022 14:27 | vial A pH#6.0              | JC/MD    | Ok     |
| 13                                                                                                 | N6070-01      | GW-BR-04-226-245-12 | VX033441.D             | 15 Dec 2022 14:50 | vial B pH<2                | JC/MD    | Ok     |
| 14                                                                                                 | PB149652TB    | PB149652TB          | VX033442.D             | 15 Dec 2022 15:13 | vial A pH#5.0              | JC/MD    | Ok     |
| 15                                                                                                 | PB149654TB    | PB149654TB          | VX033443.D             | 15 Dec 2022 15:36 | vial A pH#5.0              | JC/MD    | Ok     |
| 16                                                                                                 | N6065-02      | MH-23               | VX033444.D             | 15 Dec 2022 15:59 | vial A pH#5.0              | JC/MD    | Ok     |
| 17                                                                                                 | N6065-05      | TP-S                | VX033445.D             | 15 Dec 2022 16:22 | vial A pH#5.0              | JC/MD    | Ok     |
| 18                                                                                                 | N6067-02      | WC-SOIL-20221214    | VX033446.D             | 15 Dec 2022 16:45 | vial A pH#5.0              | JC/MD    | Ok     |
| 19                                                                                                 | N6067-04      | WC-LIQUID-20221214  | VX033447.D             | 15 Dec 2022 17:08 | vial A pH#5.0              | JC/MD    | Ok     |



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

Instrument ID: MSVOA\_X

**Daily Analysis Runlog For Sequence/QC Batch ID # VX121522**

|                                                                                                    |                   |                   |                        |                   |              |       |      |
|----------------------------------------------------------------------------------------------------|-------------------|-------------------|------------------------|-------------------|--------------|-------|------|
| Review By                                                                                          | John Carlone      | Review On         | 12/16/2022 9:45:30 AM  |                   |              |       |      |
| Supervise By                                                                                       | Maresh Dadoda     | Supervise On      | 12/16/2022 12:26:32 PM |                   |              |       |      |
| SubDirectory                                                                                       | VX121522          | HP Acquire Method | HP Processing Method   |                   | 82X120722W.M |       |      |
| <b>STD. NAME</b>                                                                                   | <b>STD REF.#</b>  |                   |                        |                   |              |       |      |
| Tune/Reschk<br>Initial Calibration Stds                                                            | VP117542          |                   |                        |                   |              |       |      |
| CCC<br>Internal Standard/PEM<br>ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | VP117544,VP117545 |                   |                        |                   |              |       |      |
| 20                                                                                                 | VSTDCCC050        | VSTDCCC050EC      | VX033448.D             | 15 Dec 2022 17:31 |              | JC/MD | Ok,M |

M : Manual Integration

**Prep Standard - Chemical Standard Summary****Order ID :** N6070**Test :** VOCMS Group3**Prepbatch ID :****Sequence ID/Qc Batch ID:** vx121522,**Standard ID :**

VP113990,VP115359,VP115432,VP115433,VP116911,VP117244,VP117471,VP117542,VP117544,VP117545,

**Chemical ID :**

V10601,V11274,V11275,V12010,V12080,V12224,V12411,V12412,V12684,V12685,V12757,V12766,V12779,V12780,V12865,V12866,V12867,V12886,V12889,V13016,V13049,V13051,V13052,V13077,V13078,V13187,V13189,V13213,V13214,V13224,V13363,V13371,V13372,V13373,V13374,W2606,

**284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900**

| <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="#">VP113990</a> | 07/28/2022       | 01/28/2023             | Semsettin Yesilyurt | None           | None             | Mahesh Dadoda<br>07/29/2022 |
| <b><u>FROM</u></b> | 1.00000ml of V12757 + 1.00000ml of V12766 + 1.00000ml of V12865 + 1.00000ml of V12866 + 1.00000ml of V12867 + 20.00000ml of V13016 = 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>        |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|-----------------------------|
| 1810               | 8260 Working Std(2-CVE)-800ppm                                                                                                              | <a href="#">VP115359</a> | 09/14/2022       | 03/14/2023             | Semsettin Yesilyurt | None           | None             | Mahesh Dadoda<br>09/14/2022 |
| <b><u>FROM</u></b> | 1.00000ml of V11274 + 1.00000ml of V11275 + 1.00000ml of V12779 + 1.00000ml of V12780 + 46.00000ml of V13224 = Final<br>Quantity: 50.000 ml |                          |                  |                        |                     |                |                  |                             |

# CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

## 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="#">VP115432</a> | 09/16/2022       | 01/15/2023             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 09/19/2022       |                                |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.25000ml of V12080 + 24.75000ml of V13224 = 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> |
|------------------|------------------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 617              | 8260 Surrogate, 400PPM | <a href="#">VP115433</a> | 09/16/2022       | 03/14/2023             | Semsettin Yesilyurt | None           | None             | Maresh Dadoda        |
| 09/19/2022       |                        |                          |                  |                        |                     |                |                  |                      |

**FROM** 0.40000ml of V12010 + 24.60000ml of V13224 = Final Quantity: 25.000 ml

**284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900**

| <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 Mix-First source, 160PPM | <a href="#">VP116911</a> | 11/15/2022       | 12/19/2022             | Semsettin Yesilyurt | None           | None             | Mahesh Dadoda<br>11/16/2022 |

**FROM**    0.40000ml of V12224 + 1.00000ml of V12411 + 1.00000ml of V12412 + 1.00000ml of V12684 + 1.00000ml of V12685 +  
 1.00000ml of V12886 + 1.00000ml of V12889 + 1.00000ml of V13077 + 1.00000ml of V13078 + 1.00000ml of V13187 +  
 1.00000ml of V13189 + 1.30000ml of V13051 + 1.30000ml of V13052 + 1.40000ml of V13049 + 10.60000ml of V13213 = Final  
 Quantity: 25.000 ml

| <u>Recipe ID</u>                                                                                                                                               | <u>NAME</u>                                          | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u>     | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------|------------------|------------------------|------------------------|----------------|------------------|---------------------------------|
| 51                                                                                                                                                             | 8260 Working STD (Acrolein)<br>-first source, 800PPM | <a href="#">VP117244</a> | 11/30/2022       | 12/28/2022             | Semsettin<br>Yesilyurt | None           | None             | Maresh Dadoda<br><br>12/02/2022 |
| <b><u>FROM</u></b> 0.40000ml of V13374 + 1.20000ml of V13371 + 1.20000ml of V13372 + 1.20000ml of V13373 + 21.00000ml of V13363 = Final<br>Quantity: 25.000 ml |                                                      |                          |                  |                        |                        |                |                  |                                 |

# CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

## VOC STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u> | <u>NO.</u>               | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u>  | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u> |
|------------------|-------------|--------------------------|------------------|------------------------|---------------------|----------------|------------------|----------------------|
| 218              | BFB, 25PPM  | <a href="#">VP117471</a> | 12/12/2022       | 06/12/2023             | Semsettin Yesilyurt | None           | None             | Krupa Patel          |
|                  |             |                          |                  |                        |                     |                |                  | 12/14/2022           |

**FROM** 0.25000ml of V10601 + 24.75000ml of V13214 = 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> |
|------------------|----------------|--------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 589              | BFB TUNE CHECK | <a href="#">VP117542</a> | 12/15/2022       | 12/16/2022             | John Carlone       | None           | None             | Mahesh Dadoda        |
|                  |                |                          |                  |                        |                    |                |                  | 12/15/2022           |

**FROM** 39.98400ml of W2606 + 0.01600ml of VP117471 = Final Quantity: 40.000 ml



**284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900**

## VOC STANDARD PREPARATION LOG

[illegible][illegible]

**CHEMICAL RECEIPT LOG BOOK**

| Supplier | ItemCode / ItemName          | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| Restek   | 30067 / BFB tuneing solution | A0147670 | 12/12/2023      | 12/12/2022 / SAM        | 01/09/2020 / sam            | V10601         |

| 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) | 082620 | 03/14/2023      | 09/14/2022 / SAM        | 09/18/2020 / sam            | V11274         |

| 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) | 082620 | 03/14/2023      | 09/14/2022 / SAM        | 09/18/2020 / sam            | V11275         |

| 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] | A0173020 | 03/16/2023      | 09/16/2022 / SAM        | 06/04/2021 / SAM            | V12010         |

| 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] | A0173600 | 01/15/2023      | 07/15/2022 / SAM        | 06/22/2021 / SAM            | V12080         |

| 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 | A0168291 | 01/25/2023      | 07/25/2022 / SAM        | 10/15/2021 / SAM            | V12224         |

**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) | 031921 | 04/14/2023      | 10/14/2022 / SAM        | 11/30/2021 / SAM            | V12411         |

| 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) | 031921 | 04/14/2023      | 10/14/2022 / SAM        | 11/30/2021 / SAM            | V12412         |

| 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 | A0177872 | 04/14/2023      | 10/14/2022 / SAM        | 03/07/2022 / SAM            | V12684         |

| 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 | A0177872 | 04/14/2023      | 10/14/2022 / SAM        | 03/07/2022 / SAM            | V12685         |

| 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 | A0176219 | 01/28/2023      | 07/28/2022 / SAM        | 03/25/2022 / SAM            | V12757         |

| 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 | A0176219 | 01/28/2023      | 07/28/2022 / SAM        | 03/25/2022 / SAM            | V12766         |

**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 | 03/14/2023      | 09/14/2022 / SAM        | 03/30/2022 / SAM            | V12779         |

| 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 | 03/14/2023      | 09/14/2022 / SAM        | 03/30/2022 / SAM            | V12780         |

| 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 | A0183824 | 01/28/2023      | 07/28/2022 / SAM        | 04/22/2022 / SAM            | V12865         |

| 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 | A0183824 | 01/28/2023      | 07/28/2022 / SAM        | 04/22/2022 / SAM            | V12866         |

| 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 | A0183824 | 01/28/2023      | 07/28/2022 / SAM        | 04/22/2022 / SAM            | V12867         |

| 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) | 042921 | 04/14/2023      | 10/14/2022 / SAM        | 04/26/2022 / SAM            | V12886         |

**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) | 042921 | 04/14/2023      | 10/14/2022 / SAM        | 04/26/2022 / SAM            | V12889         |

| 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) | 0000288323 | 01/28/2023      | 07/28/2022 / SAM        | 07/11/2022 / SAM            | V13016         |

| 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 | A0179406 | 04/14/2023      | 10/14/2022 / SAM        | 08/12/2022 / SAM            | V13049         |

| 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 | A0179406 | 04/14/2023      | 10/14/2022 / SAM        | 08/12/2022 / SAM            | V13051         |

| 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 | A0179406 | 04/14/2023      | 10/14/2022 / SAM        | 08/12/2022 / SAM            | V13052         |

| 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 | A0187424 | 04/14/2023      | 10/14/2022 / SAM        | 08/12/2022 / SAM            | V13077         |

LOTS

**CHEMICAL RECEIPT LOG BOOK**

| 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 | A0187424 | 04/14/2023      | 10/14/2022 / SAM        | 08/12/2022 / SAM            | V13078         |

LOTS

| 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 | A0186868 | 04/14/2023      | 10/14/2022 / SAM        | 09/01/2022 / SAM            | V13187         |

| 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 | A0186868 | 04/14/2023      | 10/14/2022 / SAM        | 09/01/2022 / SAM            | V13189         |

| 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) | 22C2362001 | 05/11/2023      | 11/11/2022 / pedro      | 09/13/2022 / SAM            | V13213         |

| 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) | 22C2362001 | 06/12/2023      | 12/12/2022 / SAM        | 09/13/2022 / SAM            | V13214         |

| 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) | 0000288323 | 03/14/2023      | 09/14/2022 / SAM        | 09/13/2022 / SAM            | V13224         |

**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) | 22C2862010 | 05/29/2023      | 11/29/2022 / SAM        | 11/28/2022 / SAM            | V13363         |

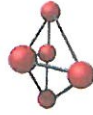
| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 112822 | 12/28/2022      | 11/29/2022 / SAM        | 11/29/2022 / SAM            | V13371         |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 112822 | 12/28/2022      | 11/29/2022 / SAM        | 11/29/2022 / SAM            | V13372         |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 112822 | 12/28/2022      | 11/29/2022 / SAM        | 11/29/2022 / SAM            | V13373         |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 112822 | 12/28/2022      | 11/29/2022 / SAM        | 11/29/2022 / SAM            | V13374         |

| Supplier         | ItemCode / ItemName | Lot #               | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|---------------------|---------------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | DIW / DI Water      | Daily Lab-Certified | 10/24/2024      | 10/24/2019 / apatel     | 10/24/2019 / apatel         | W2606          |



## Certified Reference Material CRM



## CERTIFIED WEIGHT REPORT

## Part Number:

95318

## Lot Number:

082620

## Description:

2-Chloroethyl vinyl ether

## Solvent(s):

Methanol

## Lot#

DX932-US

## Expiration Date:

082623

## Recommended Storage:

Refrigerate (4 °C)

## Nominal Concentration (µg/mL):

10000

## NIST Test ID#:

23060

Weight(s) shown below were combined and diluted to (mL):

30.0

5E-05 Balance Uncertainty

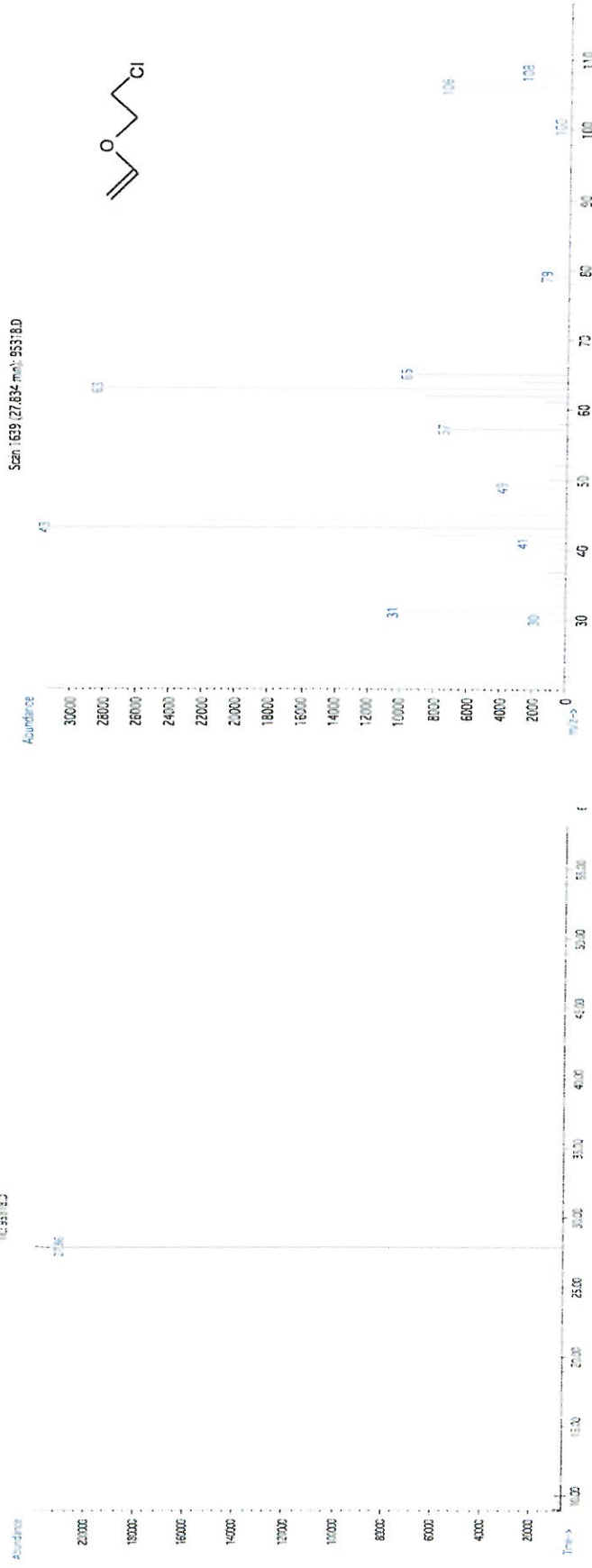
0.002 Flask Uncertainty

|                |                 |        |      |
|----------------|-----------------|--------|------|
| Formulated By: | Benson Chan     | 082620 | DATE |
| Reviewed By:   | Pedro L. Rentas | 082620 | DATE |

| Compound                     | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight (g) | Actual Weight (g) | Actual Conc(µg/mL) | Expanded Uncertainty (Solvent Safety Info. On Attached pg.) |          |                |
|------------------------------|-----|------------|----------------------|------------|--------------------|-------------------|-------------------|--------------------|-------------------------------------------------------------|----------|----------------|
|                              |     |            |                      |            |                    |                   |                   |                    | (+/-) (µg/mL)                                               | CAS#     | OSHA PEL (TWA) |
| 1. 2-Chloroethyl vinyl ether | 74  | MKCD0033   | 10000                | 99         | 0.2                | 0.30284           | 0.30289           | 10001.7            | 40.6                                                        | 110-75-8 | N/A            |

or-rat 250mg/kg

Method: GC6MSD-1.M. Detector: MSD. Column: (60m X 0.25mm X 1.5 µm). Oven Profile: Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp = 200°C, Detector B Temp. = 220°C. Analyst: Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).





Safety Data Sheet (SDS)  
GHS/OSHA Compliant

## Section I Product and Company Identification

| IDENTITY                                  |                                     |                                   |                |
|-------------------------------------------|-------------------------------------|-----------------------------------|----------------|
| ANALYTICAL STANDARD DISSOLVED IN METHANOL |                                     |                                   |                |
| Manufacturer's Name                       | ABSOLUTE STANDARDS INC              | Emergency Telephone USA & CANADA  | 1-800-535-5053 |
| Address                                   | 44 Rossetto Dr.<br>Hamden CT, 06514 | Emergency Telephone International | 1-352-323-3500 |
| Date Prepared/Revised                     |                                     | May 1, 2015                       |                |

## 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 | H351 | Suspected of causing cancer | P280 | Use gloves, eye protection/face shield | P305,351,338 | If in eyes, remove contacts, rinse with water |
| H370     | Cause damage to organs               |                |                                           |      |                             |      |                                        |              |                                               |
| P271     | Use in ventilated area               |                |                                           |      |                             |      |                                        |              |                                               |
| P302,332 | If on skin, wash with soap and 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          | 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                                                        |
| Potential for skin absorption, ingestion and inhalation.                                      | TWA 200 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           | 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<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.  
Heat, flames, sparks, extreme temperature and sunlight.  
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)  
UN number: 1230 Class: 3 Packing group: II  
Proper shipping name: Methanol  
IATA  
UN number: 1230 Class: 3 Packing group: II  
Proper shipping name: Methanol

#### Section XV. REGULATORY INFORMATION

OSHA Hazards  
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:** 95318  
**Lot Number:** 121321  
**Description:** 2-Chloroethyl vinyl ether

**Solvent(s):** Methanol  
**Lot#** EA899-US

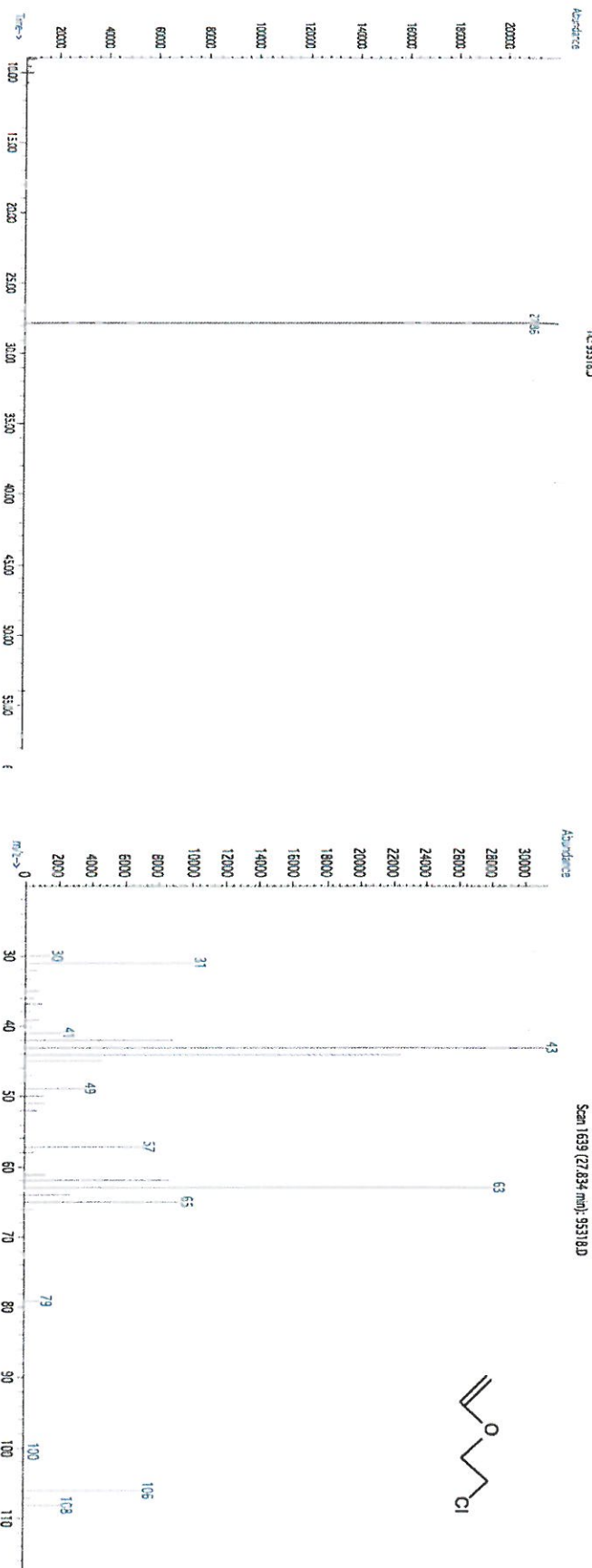
**Expiration Date:** 121324  
**Recommended Storage:** Refrigerate (4 °C)  
**Nominal Concentration (µg/mL):** 10000  
**NIST Test ID#:** 6UTB  
**Weight(s) shown below were combined and diluted to (mL):** 30.0  
**5E-05 Balance Uncertainty**  
**0.0003 Flask Uncertainty**

|                |                 |        |
|----------------|-----------------|--------|
| 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).







110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Gravimetric Certificate



### 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.: A0173020

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 : June 30, 2024 Storage: 10°C or colder

Ship: Ambient

### CERTIFIED VALUES

| Component # | Compound                                                                    | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) |            |       |             |
|-------------|-----------------------------------------------------------------------------|-----------------------------|--------------------------------------|------------|-------|-------------|
| 1           | 1,2-Dichloroethane-d4<br>CAS # 17060-07-0 (Lot PR-29377)<br>Purity 99%      | 25,060.0 µg/mL              | +/-                                  | 231.9100   | µg/mL | Gravimetric |
|             |                                                                             |                             | +/-                                  | 1,416.6261 | µg/mL | Unstressed  |
|             |                                                                             |                             | +/-                                  | 1,449.2417 | µg/mL | Stressed    |
|             |                                                                             |                             |                                      |            |       |             |
| 2           | 1-Bromo-4-fluorobenzene (BFB)<br>CAS # 460-00-4 (Lot 20401KO)<br>Purity 99% | 25,188.0 µg/mL              | +/-                                  | 233.0945   | µg/mL | Gravimetric |
|             |                                                                             |                             | +/-                                  | 1,423.8618 | µg/mL | Unstressed  |
|             |                                                                             |                             | +/-                                  | 1,456.6441 | µg/mL | Stressed    |
|             |                                                                             |                             |                                      |            |       |             |
| 3           | Dibromofluoromethane<br>CAS # 1868-53-7 (Lot 012021)<br>Purity 99%          | 25,212.0 µg/mL              | +/-                                  | 233.3166   | µg/mL | Gravimetric |
|             |                                                                             |                             | +/-                                  | 1,425.2185 | µg/mL | Unstressed  |
|             |                                                                             |                             | +/-                                  | 1,458.0320 | µg/mL | Stressed    |
|             |                                                                             |                             |                                      |            |       |             |
| 4           | Toluene-d8<br>CAS # 2037-26-5 (Lot PR-31750)<br>Purity 99%                  | 25,104.0 µg/mL              | +/-                                  | 232.3171   | µg/mL | Gravimetric |
|             |                                                                             |                             | +/-                                  | 1,419.1134 | µg/mL | Unstressed  |
|             |                                                                             |                             | +/-                                  | 1,451.7863 | µg/mL | Stressed    |
|             |                                                                             |                             |                                      |            |       |             |

Solvent: P&T Methanol  
CAS # 67-56-1  
Purity 99%

  
Lane Kibe - Mix Technician

Date Mixed: 03-Jun-2021

Balance: B251644995

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.







## Safety Data Sheet

Revision Date: 05/24/21

www.restek.com

2 Letter ISO country code/language code: US/EN

### 1. IDENTIFICATION

|                                |                                                          |
|--------------------------------|----------------------------------------------------------|
| Catalog Number / Product Name: | 555582 / Custom 8260A/B Surrogate Mix                    |
| Company:                       | Restek Corporation                                       |
| Address:                       | 110 Benner Circle<br>Bellefonte, Pa. 16823               |
| Phone#:                        | 814-353-1300                                             |
| Fax#:                          | 814-353-1309                                             |
| Emergency#:                    | 800-424-9300 (CHEMTREC)<br>703-527-3887 (Outside the US) |
| Email:                         | www.restek.com                                           |
| Revision Number:               | 7                                                        |
| Intended use:                  | For Laboratory use only                                  |

### 2. HAZARD(S) IDENTIFICATION

#### Emergency Overview:

GHS Hazard  
Symbols:



**GHS Classification:** Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1  
Flammable Liquid Category 2  
Acute Toxicity - Dermal Category 3  
Acute Toxicity - Oral Category 3

**GHS Signal Word:** Danger

**GHS Hazard:** Highly flammable liquid and vapour.  
Toxic if swallowed or in contact with skin.  
Causes damage to organs.

#### GHS Precautions:

**Safety Precautions:** Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilation and lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wash hands and skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/protective clothing/eye protection/face protection.

**First Aid Measures:** IF SWALLOWED: Immediately call a POISON CENTER/doctor/....  
IF ON SKIN: Wash with plenty of soap and water.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF exposed: Call a POISON CENTER or doctor/physician.  
Call a POISON CENTER or doctor/physician if you feel unwell.  
Specific treatment see section 4.  
Rinse mouth.  
Take off immediately all contaminated clothing and wash it before reuse.  
In case of fire: Use extinguishing media in section 5 for extinction.

**Storage:** Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.

**Disposal:** Dispose of contents/container according to section 13 of the SDS.

**Single Exposure Target Organs:** Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

**Repeated Exposure Target Organs:** No data available

### 3. COMPOSITION / INFORMATION ON INGREDIENT

| Chemical Name                 | CAS #      | EINEC #   | % Composition |
|-------------------------------|------------|-----------|---------------|
| P&T Methanol                  | 67-56-1    | 200-659-6 | 90            |
| 1-Bromo-4-fluorobenzene (BFB) | 460-00-4   | 207-300-2 | 2.5           |
| 1,2-dichloroethane-d4         | 17060-07-0 |           | 2.5           |
| dibromofluoromethane          | 1868-53-7  |           | 2.5           |
| toluene-d8                    | 2037-26-5  | 218-009-5 | 2.5           |

### 4. FIRST-AID MEASURES

**Inhalation:** Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

**Eyes:** Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

**Skin Contact:** Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

**Ingestion:** Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

### 5. FIRE- FIGHTING MEASURES

**Extinguishing Media:** Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used to extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

**Fire and/or Explosion Hazards:** Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

**Fire Fighting Methods and Protection:** Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions and Equipment:** Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

**Methods for Clean-up:** Prevent the spread of any spill to minimize harm to human health and the

environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

## 7. HANDLING AND STORAGE

|                                                     |                                                                                                                                                                                   |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling Technical Measures and Precautions:</b> | Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment |
| <b>Storage Technical Measures and Conditions:</b>   | Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition                         |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| United States:<br>Chemical Name | CAS No.    | IDLH            | ACGIH STEL   | ACGIH TLV-TWA   | OSHA Exposure Limit        |
|---------------------------------|------------|-----------------|--------------|-----------------|----------------------------|
| P&T Methanol                    | 67-56-1    | 6000 ppm IDLH   | 250 ppm STEL | 200 ppm TWA     | 200 ppm TWA; 260 mg/m3 TWA |
| 1-Bromo-4-fluorobenzene (BFB)   | 460-00-4   | Not established | None Known   | Not established | No data available          |
| 1,2-dichloroethane-d4           | 17060-07-0 | Not established | None Known   | Not established | No data available          |
| dibromofluoromethane            | 1868-53-7  | Not established | None Known   | Not established | No data available          |
| toluene-d8                      | 2037-26-5  | Not established | None Known   | Not established | No data available          |

### Personal Protection:

#### Engineering Measures:

Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

#### Respiratory Protection:

Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

#### Eye Protection:

Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

#### Skin Protection:

Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                                   |                                                                    |
|---------------------------------------------------|--------------------------------------------------------------------|
| <b>Appearance, color:</b>                         | No data available                                                  |
| <b>Odor:</b>                                      | Mild                                                               |
| <b>Physical State:</b>                            | No data available                                                  |
| <b>pH:</b>                                        | Not applicable                                                     |
| <b>Vapor Pressure:</b>                            | No data available                                                  |
| <b>Vapor Density:</b>                             | 1.1 (air = 1)                                                      |
| <b>Boiling Point (°C):</b>                        | 151.5 °C Boiling Point (at 1013.25 hPa) 64.7 °C at 760 mmHg (HSDB) |
| <b>Melting Point (°C):</b>                        | -98 °C                                                             |
| <b>Flash Point (°F):</b>                          | 50                                                                 |
| <b>Flammability:</b>                              | Highly Flammable                                                   |
| <b>Upper Flammable/Explosive Limit, % in air:</b> | 36                                                                 |
| <b>Lower Flammable/Explosive Limit, % in air:</b> | 6                                                                  |
| <b>Autoignition Temperature (°C):</b>             | 464 deg C                                                          |
| <b>Decomposition Temperature (°C):</b>            | No data available                                                  |
| <b>Specific Gravity:</b>                          | 0.791 - 0.792 g/cm3 at 20 °C                                       |
| <b>Evaporation Rate:</b>                          | No data available                                                  |
| <b>Odor Threshold:</b>                            | No data available                                                  |
| <b>Solubility:</b>                                | Moderate; 50-99%                                                   |

Partition Coefficient: n-octanol in water: No data available  
VOC % by weight: 90  
Molecular Weight: 32.04

## 10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.  
Conditions to Avoid: None known.  
Materials to Avoid / Chemical Incompatibility: Strong oxidizing agents  
Hazardous Decomposition Products: Carbon dioxide Carbon monoxide

## 11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation, Skin Contact, Eye Contact, Ingestion  
Target Organs Potentially Affected By Exposure: Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract  
Chemical Interactions That Change Toxicity: None Known

### Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation: Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.  
Inhalation Toxicity: Harmful! Can cause systemic damage (see "Target Organs")Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.  
Skin Contact: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.  
Eye Contact: Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.  
Ingestion Irritation: Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.  
Ingestion Toxicity: Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

### Long-Term (Chronic) Health Effects:

Carcinogenicity: No data.  
Reproductive and Developmental Toxicity: No data available to indicate product or any components present at greater than 0.1% may cause birth defects.  
Inhalation: Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs")  
Skin Contact: Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.  
Ingestion: Toxic if swallowed. May cause target organ failure and/or death.

### Component Toxicological Data:

#### NIOSH:

| Chemical Name              | CAS No.  | LD50/LC50                                                 |
|----------------------------|----------|-----------------------------------------------------------|
| Benzene, 1-bromo-4-fluoro- | 460-00-4 | Inhalation LC50 Rat 18 g/m3 4 h; Oral LD50 Rat 2700 mg/kg |
| Methanol                   | 67-56-1  | Inhalation LC50 Rat 22500 ppm 8 h                         |

### Component Carcinogenic Data:

#### OSHA:

| Chemical Name     | CAS No. |
|-------------------|---------|
| No data available |         |

#### ACGIH:

| Chemical Name     | CAS No. |
|-------------------|---------|
| No data available |         |

#### NIOSH:

| Chemical Name     | CAS No. |
|-------------------|---------|
| No data available |         |

**NTP:**

Chemical Name  
No data available

CAS No.

**IARC:**

Chemical Name

CAS No.

Group No.

**12. ECOLOGICAL INFORMATION****Overview:**

Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.

**Mobility:**

No data

**Persistence:**

No data

**Bioaccumulation:**

No data

**Degradability:**

Biodegrades slowly.

**Ecological Toxicity Data:**

No data available

**13. DISPOSAL CONSIDERATIONS****Waste Description of Spent Product:**

Spent or discarded material is a hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.

**Disposal Methods:**

Dispose of by incineration following Federal, State, Local, or Provincial regulations.

**Waste Disposal of Packaging:**

Comply with all Local, State, Federal, and Provincial Environmental Regulations.

**14. TRANSPORTATION INFORMATION****United States:****DOT Proper Shipping Name:**

Flammable liquids, n.o.s. (Methanol)

**UN Number:**

UN1993

**Hazard Class:**

3

**Packing Group:**

II

**International:****IATA Proper Shipping Name:**

Flammable liquids, n.o.s. (Methanol)

**UN Number:**

UN1993

**Hazard Class:**

3

**Packing Group:**

II

Marine Pollutant: No

| Chemical Name     | CAS# | Marine Pollutant | Severe Marine Pollutant |
|-------------------|------|------------------|-------------------------|
| No data available |      |                  |                         |

**15. REGULATORY INFORMATION****United States:**

| Chemical Name                 | CAS#       | CERCLA | SARA 313 | SARA EHS 313 | TSCA |
|-------------------------------|------------|--------|----------|--------------|------|
| P&T Methanol                  | 67-56-1    | X      | X        | -            | X    |
| 1-Bromo-4-fluorobenzene (BFB) | 460-00-4   | -      | -        | -            | X    |
| 1,2-dichloroethane-d4         | 17060-07-0 | -      | -        | -            | -    |
| dibromofluoromethane          | 1868-53-7  | -      | -        | -            | -    |
| toluene-d8                    | 2037-26-5  | -      | -        | -            | -    |

The following chemicals are listed on CA Prop 65:

| Chemical Name | CAS #   | Regulation          |
|---------------|---------|---------------------|
| Methanol      | 67-56-1 | Prop 65 Develop Tox |

**State Right To Know Listing:**

| Chemical Name | CAS# | New Jersey | Massachusetts | Pennsylvania | California |
|---------------|------|------------|---------------|--------------|------------|
|---------------|------|------------|---------------|--------------|------------|

|                               |            |   |   |   |   |
|-------------------------------|------------|---|---|---|---|
| P&T Methanol                  | 67-56-1    | X | X | X | X |
| 1-Bromo-4-fluorobenzene (BFB) | 460-00-4   | - | - | - | - |
| 1,2-dichloroethane-d4         | 17060-07-0 | - | - | - | - |
| dibromofluoromethane          | 1868-53-7  | - | - | - | - |
| toluene-d8                    | 2037-26-5  | - | - | - | - |

## 16. OTHER INFORMATION

**Prior Version Date:** 07/20/18

**Other Information:** Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

**References:** No data available

**Disclaimer:** Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Gravimetric Certificate



ISO 17034 Accredited  
Reference Material Producer  
Certificate #3222.01



ISO/IEC 17025 Accredited  
Testing Laboratory  
Certificate #3222.02

### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 555581 Lot No.: A0173600

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 : June 30, 2024 Storage: 10°C or colder

Ship: Ambient

### CERTIFIED VALUES

| Component # | Compound                                                                  | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) |            |       |             |
|-------------|---------------------------------------------------------------------------|-----------------------------|--------------------------------------|------------|-------|-------------|
| 1           | 1,4-Dichlorobenzene-d4<br>CAS # 3855-82-1<br>Purity 99%<br>(Lot PR-30447) | 25,040.0 µg/mL              | +/-                                  | 231.7249   | µg/mL | Gravimetric |
|             |                                                                           |                             | +/-                                  | 1,415.4955 | µg/mL | Unstressed  |
|             |                                                                           |                             | +/-                                  | 1,448.0851 | µg/mL | Stressed    |
|             |                                                                           |                             |                                      |            |       |             |
| 2           | 1,4-Difluorobenzene<br>CAS # 540-36-3<br>Purity 99%<br>(Lot MKBN8571 V)   | 25,216.0 µg/mL              | +/-                                  | 233.3536   | µg/mL | Gravimetric |
|             |                                                                           |                             | +/-                                  | 1,425.4447 | µg/mL | Unstressed  |
|             |                                                                           |                             | +/-                                  | 1,458.2633 | µg/mL | Stressed    |
|             |                                                                           |                             |                                      |            |       |             |
| 3           | Chlorobenzene-d5<br>CAS # 3114-55-4<br>Purity 99%<br>(Lot PR-29571)       | 25,120.0 µg/mL              | +/-                                  | 232.4652   | µg/mL | Gravimetric |
|             |                                                                           |                             | +/-                                  | 1,420.0178 | µg/mL | Unstressed  |
|             |                                                                           |                             | +/-                                  | 1,452.7116 | µg/mL | Stressed    |
|             |                                                                           |                             |                                      |            |       |             |
| 4           | Pentafluorobenzene<br>CAS # 363-72-4<br>Purity 99%<br>(Lot MKCK2250)      | 25,092.0 µg/mL              | +/-                                  | 232.2061   | µg/mL | Gravimetric |
|             |                                                                           |                             | +/-                                  | 1,418.4350 | µg/mL | Unstressed  |
|             |                                                                           |                             | +/-                                  | 1,451.0923 | µg/mL | Stressed    |
|             |                                                                           |                             |                                      |            |       |             |



Solvent: P&T Methanol  
CAS # 67-56-1  
Purity 99%

  
Walker Workman - Operations Technician I

Date Mixed: 18-Jun-2021      Balance: 1128360905

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

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified 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.





## Safety Data Sheet

Revision Date: 05/24/21

www.restek.com

2 Letter ISO country code/language code: US/EN

### 1. IDENTIFICATION

|                                |                                                          |
|--------------------------------|----------------------------------------------------------|
| Catalog Number / Product Name: | 555581 / Custom 8260 Internal Standard Mix               |
| Company:                       | Restek Corporation                                       |
| Address:                       | 110 Benner Circle<br>Bellefonte, Pa. 16823               |
| Phone#:                        | 814-353-1300                                             |
| Fax#:                          | 814-353-1309                                             |
| Emergency#:                    | 800-424-9300 (CHEMTREC)<br>703-527-3887 (Outside the US) |
| Email:                         | www.restek.com                                           |
| Revision Number:               | 8                                                        |
| Intended use:                  | For Laboratory use only                                  |

### 2. HAZARD(S) IDENTIFICATION

#### Emergency Overview:

GHS Hazard  
Symbols:



**GHS Classification:** Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1  
Flammable Liquid Category 2  
Acute Toxicity - Dermal Category 3  
Acute Toxicity - Oral Category 3

**GHS Signal Word:** Danger

**GHS Hazard:** Highly flammable liquid and vapour.  
Toxic if swallowed or in contact with skin.  
Causes damage to organs.

**GHS Precautions:**

**Safety Precautions:** Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilation and lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wash hands and skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/protective clothing/eye protection/face protection.

**First Aid Measures:** IF SWALLOWED: Immediately call a POISON CENTER/doctor/....  
IF ON SKIN: Wash with plenty of soap and water.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF exposed: Call a POISON CENTER or doctor/physician.  
Call a POISON CENTER or doctor/physician if you feel unwell.  
Specific treatment see section 4.  
Rinse mouth.  
Take off immediately all contaminated clothing and wash it before reuse.  
In case of fire: Use extinguishing media in section 5 for extinction.

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage:</b>                         | Keep container tightly closed.<br>Store in a well-ventilated place. Keep cool.<br>Store locked up.                                                                                                                                                                                                                                                                                                                                       |
| <b>Disposal:</b>                        | Dispose of contents/container according to section 13 of the SDS.                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Single Exposure Target Organs:</b>   | Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C $\geq$ 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % $\leq$ C < 10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given) |
| <b>Repeated Exposure Target Organs:</b> | No data available                                                                                                                                                                                                                                                                                                                                                                                                                        |

### 3. COMPOSITION / INFORMATION ON INGREDIENT

| Chemical Name          | CAS #     | EINEC #   | % Composition |
|------------------------|-----------|-----------|---------------|
| P&T Methanol           | 67-56-1   | 200-659-6 | 90            |
| 1,4-difluorobenzene    | 540-36-3  | 208-742-9 | 2.5           |
| pentafluorobenzene     | 363-72-4  | 206-658-7 | 2.5           |
| 1,4-dichlorobenzene-d4 | 3855-82-1 |           | 2.5           |
| chlorobenzene-d5       | 3114-55-4 | 221-482-0 | 2.5           |

### 4. FIRST-AID MEASURES

|                      |                                                                                                                                                                                                                               |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation:</b>   | Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately |
| <b>Eyes:</b>         | Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.                             |
| <b>Skin Contact:</b> | Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.                                                                                                 |
| <b>Ingestion:</b>    | Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.                                                                     |

### 5. FIRE- FIGHTING MEASURES

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Extinguishing Media:</b>                  | Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used to extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire. Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid. |
| <b>Fire and/or Explosion Hazards:</b>        | Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.                                                                                                                                                                                                                                                                                                                                                            |
| <b>Fire Fighting Methods and Protection:</b> | Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.                                                                                                                                                                                                                      |
| <b>Hazardous Combustion Products:</b>        | Carbon dioxide, Carbon monoxide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

### 6. ACCIDENTAL RELEASE MEASURES

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal Precautions and Equipment:</b> | Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Methods for Clean-up:**

area responding to the spill. Never exceed any occupational exposure limits.

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

**7. HANDLING AND STORAGE**

|                                                     |                                                                                                                                                                                   |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling Technical Measures and Precautions:</b> | Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment |
| <b>Storage Technical Measures and Conditions:</b>   | Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition                         |

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****United States:**

| Chemical Name          | CAS No.   | IDLH             | ACGIH STEL      | ACGIH TLV-TWA   | OSHA Exposure Limit                    |
|------------------------|-----------|------------------|-----------------|-----------------|----------------------------------------|
| P&T Methanol           | 67-56-1   | 6000 ppm<br>IDLH | 250 ppm<br>STEL | 200 ppm TWA     | 200 ppm TWA; 260 mg/m <sup>3</sup> TWA |
| 1,4-difluorobenzene    | 540-36-3  | Not established  | None Known      | Not established | No data available                      |
| pentafluorobenzene     | 363-72-4  | Not established  | None Known      | Not established | No data available                      |
| 1,4-dichlorobenzene-d4 | 3855-82-1 | Not established  | None Known      | Not established | No data available                      |
| chlorobenzene-d5       | 3114-55-4 | Not established  | None Known      | Not established | No data available                      |

**Personal Protection:****Engineering Measures:**

Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

**Respiratory Protection:**

Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

**Eye Protection:**

Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

**Skin Protection:**

Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

**9. PHYSICAL AND CHEMICAL PROPERTIES**

|                                                   |                                          |
|---------------------------------------------------|------------------------------------------|
| <b>Appearance, color:</b>                         | No data available                        |
| <b>Odor:</b>                                      | Mild                                     |
| <b>Physical State:</b>                            | No data available                        |
| <b>pH:</b>                                        | Not applicable                           |
| <b>Vapor Pressure:</b>                            | No data available                        |
| <b>Vapor Density:</b>                             | 1.1 (air = 1)                            |
| <b>Boiling Point (°C):</b>                        | 64.7 °C at 760 mmHg (HSDB)               |
| <b>Melting Point (°C):</b>                        | -98 °C                                   |
| <b>Flash Point (°F):</b>                          | 36                                       |
| <b>Flammability:</b>                              | Highly Flammable                         |
| <b>Upper Flammable/Explosive Limit, % in air:</b> | 36                                       |
| <b>Lower Flammable/Explosive Limit, % in air:</b> | 6                                        |
| <b>Autoignition Temperature (°C):</b>             | 464 deg C                                |
| <b>Decomposition Temperature (°C):</b>            | No data available                        |
| <b>Specific Gravity:</b>                          | 0.791 - 0.792 g/cm <sup>3</sup> at 20 °C |
| <b>Evaporation Rate:</b>                          | No data available                        |

|                                            |                   |
|--------------------------------------------|-------------------|
| Odor Threshold:                            | No data available |
| Solubility:                                | Moderate; 50-99%  |
| Partition Coefficient: n-octanol in water: | No data available |
| VOC % by weight:                           | 90                |
| Molecular Weight:                          | 32.04             |

## 10. STABILITY AND REACTIVITY

|                                                |                                 |
|------------------------------------------------|---------------------------------|
| Stability:                                     | Stable under normal conditions. |
| Conditions to Avoid:                           | None known.                     |
| Materials to Avoid / Chemical Incompatibility: | Strong oxidizing agents         |
| Hazardous Decomposition Products:              | Carbon dioxide Carbon monoxide  |

## 11. TOXICOLOGICAL INFORMATION

|                                                 |                                                                             |
|-------------------------------------------------|-----------------------------------------------------------------------------|
| Routes of Entry:                                | Inhalation, Skin Contact, Eye Contact, Ingestion                            |
| Target Organs Potentially Affected By Exposure: | Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract |
| Chemical Interactions That Change Toxicity:     | None Known                                                                  |

### Immediate (Acute) Health Effects by Route of Exposure:

|                        |                                                                                                                                                                                                                |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation Irritation: | Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.                                                                                                                  |
| Inhalation Toxicity:   | Harmful! Can cause systemic damage (see "Target Organs")Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness. |
| Skin Contact:          | Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.                                                                                                           |
| Eye Contact:           | Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.                                                                                                         |
| Ingestion Irritation:  | Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.                                                            |
| Ingestion Toxicity:    | Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.                                                                                                                     |

### Long-Term (Chronic) Health Effects:

|                                          |                                                                                                                                                                                                                                        |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carcinogenicity:                         | No data.                                                                                                                                                                                                                               |
| Reproductive and Developmental Toxicity: | No data available to indicate product or any components present at greater than 0.1% may cause birth defects.                                                                                                                          |
| Inhalation:                              | Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs") |
| Skin Contact:                            | Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.                                                                                               |
| Skin Absorption:                         | Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause severe irritation and systemic damage                                                                                                             |
| Ingestion:                               | Toxic if swallowed. May cause target organ failure and/or death.                                                                                                                                                                       |

### Component Toxicological Data:

#### NIOSH:

| Chemical Name                   | CAS No.  | LD50/LC50                         |
|---------------------------------|----------|-----------------------------------|
| Benzene, 1,2,3,4,5-pentafluoro- | 363-72-4 | Oral LD50 Rat 2 g/kg              |
| Methanol                        | 67-56-1  | Inhalation LC50 Rat 22500 ppm 8 h |

### Component Carcinogenic Data:

#### OSHA:

| Chemical Name     | CAS No. |
|-------------------|---------|
| No data available |         |

#### ACGIH:

| Chemical Name     | CAS No. |
|-------------------|---------|
| No data available |         |

**NIOSH:**

Chemical Name CAS No.  
No data available

**NTP:**

Chemical Name CAS No.  
No data available

**IARC:**

Chemical Name CAS No. Group No.

**12. ECOLOGICAL INFORMATION**

**Overview:** Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.  
**Mobility:** No data  
**Persistence:** No data  
**Bioaccumulation:** No data  
**Degradability:** Biodegrades slowly.  
**Ecological Toxicity Data:** No data available

**13. DISPOSAL CONSIDERATIONS**

**Waste Description of Spent Product:** Spent or discarded material is a hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.  
**Disposal Methods:** Dispose of by incineration following Federal, State, Local, or Provincial regulations.  
**Waste Disposal of Packaging:** Comply with all Local, State, Federal, and Provincial Environmental Regulations.

**14. TRANSPORTATION INFORMATION**

**United States:**  
**DOT Proper Shipping Name:** Flammable liquids, n.o.s. (Methanol, Pentafluorobenzene)  
**UN Number:** UN1993  
**Hazard Class:** 3  
**Packing Group:** II

**International:**  
**IATA Proper Shipping Name:** Flammable liquids, n.o.s. (Methanol, Pentafluorobenzene)  
**UN Number:** UN1993  
**Hazard Class:** 3  
**Packing Group:** II

Marine Pollutant: No

| Chemical Name     | CAS# | Marine Pollutant | Severe Marine Pollutant |
|-------------------|------|------------------|-------------------------|
| No data available |      |                  |                         |

**15. REGULATORY INFORMATION**

| United States:         |           |        |          |              |      |
|------------------------|-----------|--------|----------|--------------|------|
| Chemical Name          | CAS#      | CERCLA | SARA 313 | SARA EHS 313 | TSCA |
| P&T Methanol           | 67-56-1   | X      | X        | -            | X    |
| 1,4-difluorobenzene    | 540-36-3  | -      | -        | -            | -    |
| pentafluorobenzene     | 363-72-4  | -      | -        | -            | X    |
| 1,4-dichlorobenzene-d4 | 3855-82-1 | -      | -        | -            | -    |
| chlorobenzene-d5       | 3114-55-4 | -      | -        | -            | -    |

The following chemicals are listed on CA Prop 65:



| Chemical Name | CAS #   | Regulation          |
|---------------|---------|---------------------|
| Methanol      | 67-56-1 | Prop 65 Develop Tox |

**State Right To Know Listing:**

| Chemical Name          | CAS#      | New Jersey | Massachusetts | Pennsylvania | California |
|------------------------|-----------|------------|---------------|--------------|------------|
| P&T Methanol           | 67-56-1   | X          | X             | X            | X          |
| 1,4-difluorobenzene    | 540-36-3  | -          | -             | -            | -          |
| pentafluorobenzene     | 363-72-4  | -          | -             | -            | -          |
| 1,4-dichlorobenzene-d4 | 3855-82-1 | -          | -             | -            | -          |
| chlorobenzene-d5       | 3114-55-4 | -          | -             | -            | -          |

**16. OTHER INFORMATION**

**Prior Version Date:** 12/15/16

**Other Information:** Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

**References:** No data available

**Disclaimer:** Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 30225 Lot No.: A0176219  
Description : Bromochloromethane Standard  
Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : September 30, 2026 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             | Bromochloromethane<br>CAS # 74-97-5<br>Purity 99%<br>(Lot 00008541) | 2,016.0 µg/mL                  | +/- 11.9744 µg/mL Gravimetric<br>+/- 113.0617 µg/mL Unstressed<br>+/- 115.7059 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)

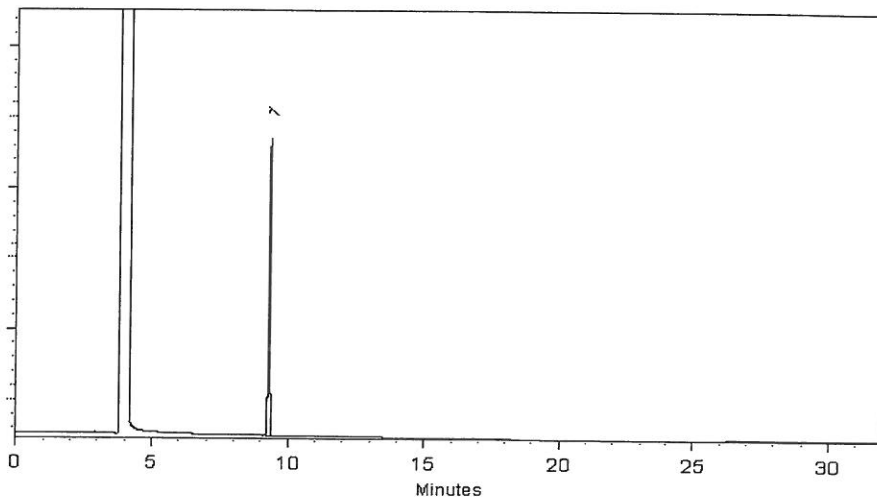
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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.

*Dalton Stover*  
Dalton Stover - Operations Technician I

Date Mixed: 08-Sep-2021

Balance: 1128353505

*Marlina Cowan*  
Marlina Cowan - Operations Tech I

Date Passed: 10-Sep-2021

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.



# 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.

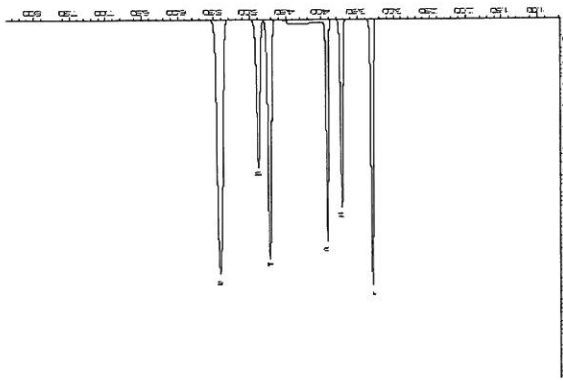
|                   |                                                              |          |               |
|-------------------|--------------------------------------------------------------|----------|---------------|
| Catalog No. :     | 30042                                                        | Lot No.: | A0177872      |
| 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 : | June 30, 2028                                                | Storage: | 0°C or colder |
|                   |                                                              | Ship:    | Ambient       |

## CERTIFIED VALUES

| Elution Order | Compound                         | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2)        |
|---------------|----------------------------------|-----------------------------|---------------------------------------------|
| 1             | Dichlorodifluoromethane (CFC-12) | 2,000.9 µg/mL               | +/- 13.9607<br>+/- 112.4514<br>+/- 115.0704 |
|               | CAS # 75-71-8                    |                             |                                             |
|               | Purity 99%                       |                             |                                             |
| 2             | Chloromethane (methyl chloride)  | 2,000.2 µg/mL               | +/- 13.2566<br>+/- 112.3274<br>+/- 114.9474 |
|               | CAS # 74-87-3                    |                             |                                             |
|               | Purity 99%                       |                             |                                             |
| 3             | Vinyl chloride                   | 2,001.1 µg/mL               | +/- 13.8225<br>+/- 112.4449<br>+/- 115.0645 |
|               | CAS # 75-01-4                    |                             |                                             |
|               | Purity 99%                       |                             |                                             |
| 4             | Bromomethane (methyl bromide)    | 2,000.2 µg/mL               | +/- 13.6930<br>+/- 112.3836<br>+/- 115.0025 |
|               | CAS # 74-83-9                    |                             |                                             |
|               | Purity 99%                       |                             |                                             |
| 5             | Chloroethane (ethyl chloride)    | 2,000.5 µg/mL               | +/- 15.6153<br>+/- 112.6506<br>+/- 115.2642 |
|               | CAS # 75-00-3                    |                             |                                             |
|               | Purity 99%                       |                             |                                             |
| 6             | Trichlorofluoromethane (CFC-11)  | 2,000.2 µg/mL               | +/- 15.8709<br>+/- 112.6692<br>+/- 115.2815 |
|               | CAS # 75-69-4                    |                             |                                             |
|               | Purity 99%                       |                             |                                             |

Solvent: R&T Methanol  
CAS # 67-56-1  
Purity 99%

Column: 60m x 0.25mm x 1.4µm  
Rx-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



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckal - Mix Technician  
*[Signature]*

Date Mixed: 27-Oct-2021  
Date Passed: 02-Nov-2021

Balance: B707717271

Marlina Cowan - Operations Tech I  
*[Signature]*

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

## 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)         | < 25°C              | ≥ 25°C up to 7 days     |
| -20°C or colder (Deep Freezer)  |                     |                         |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, 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 2 mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.







110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 30006 **Lot No.:** A0179406

**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 :** March 31, 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 SHBN3661)<br>Purity 99%                      | 5,037.5 µg/mL               | +/- 29.2885 µg/mL Gravimetric<br>+/- 303.9347 µg/mL Unstressed<br>+/- 304.6563 µg/mL Stressed |
| 2             | 2-Butanone (MEK)<br>CAS # 78-93-3 (Lot SHBL5543)<br>Purity 99%             | 5,034.3 µg/mL               | +/- 29.2700 µg/mL Gravimetric<br>+/- 303.7436 µg/mL Unstressed<br>+/- 304.4648 µg/mL Stressed |
| 3             | 4-Methyl-2-pentanone (MIBK)<br>CAS # 108-10-1 (Lot SHBM7956)<br>Purity 99% | 5,032.2 µg/mL               | +/- 29.2575 µg/mL Gravimetric<br>+/- 303.6129 µg/mL Unstressed<br>+/- 304.3337 µg/mL Stressed |
| 4             | 2-Hexanone<br>CAS # 591-78-6 (Lot MKCL1599)<br>Purity 99%                  | 5,033.7 µg/mL               | +/- 29.2662 µg/mL Gravimetric<br>+/- 303.7034 µg/mL Unstressed<br>+/- 304.4245 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:**

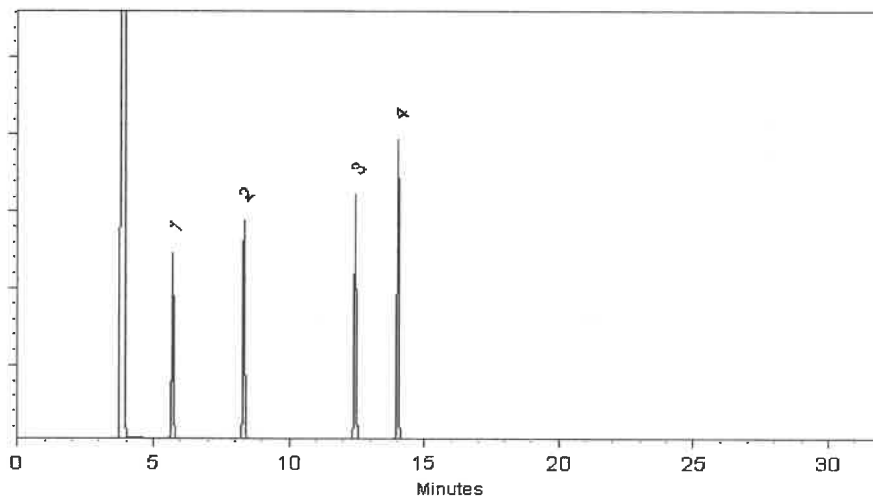
200°C

**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.

*Sam Moodler*

Sam Moodler - Operations Tech I

Date Mixed: 09-Dec-2021

Balance: B707717271

*Clara Windle*

Clara Windle - Operations Technician I

Date Passed: 13-Dec-2021

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

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

$k$  is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions                                          | Standard Conditions | Non-Standard Conditions |
|-----------------------------------------------------------|---------------------|-------------------------|
| 25°C Nominal (Room Temperature)                           | < 60°C              | ≥ 60°C up to 7 days     |
| 10°C or colder (Refrigerate)                              | < 40°C              | ≥ 40°C up to 7 days     |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C              | ≥ 25°C up to 7 days     |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.





110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 30225 Lot No.: A0183824  
Description : Bromochloromethane Standard  
Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul  
Container Size : 2 mL Pkg Amt: > 1 mL  
Expiration Date : April 30, 2027 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             | Bromochloromethane |         | 2,000.0    µg/mL               | +/-                                     | 11.8794  | µg/mL | Gravimetric |
|               | CAS #              | 74-97-5 |                                | +/-                                     | 112.1643 | µg/mL | Unstressed  |
|               | Purity             | 99%     |                                | +/-                                     | 114.7876 | µg/mL | Stressed    |
|               | (Lot 00008541)     |         |                                |                                         |          |       |             |

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:**

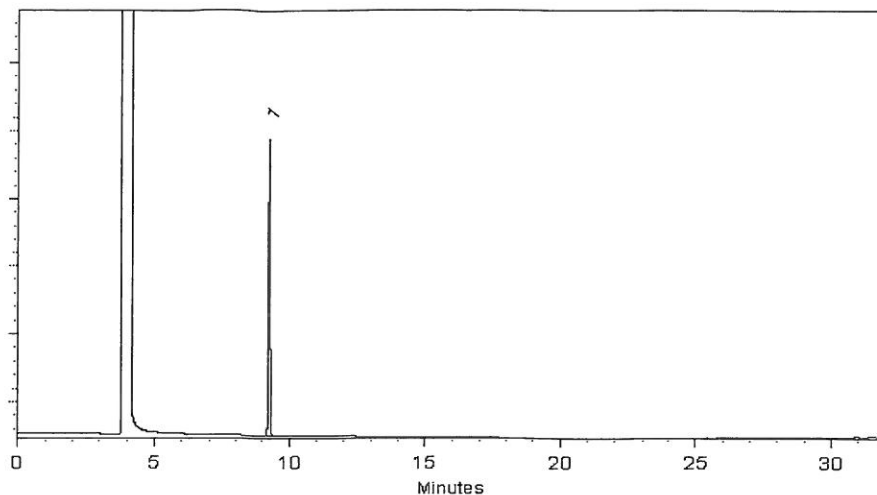
200°C

**Det. Temp:**

250°C

**Det. Type:**

FID

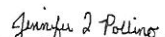


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Jess Hoy - Operations Tech I

Date Mixed: 07-Apr-2022

Balance: 1127510105

  
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 11-Apr-2022

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

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

$k$  is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions                                          | Standard Conditions | Non-Standard Conditions |
|-----------------------------------------------------------|---------------------|-------------------------|
| 25°C Nominal (Room Temperature)                           | < 60°C              | ≥ 60°C up to 7 days     |
| 10°C or colder (Refrigerate)                              | < 40°C              | ≥ 40°C up to 7 days     |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C              | ≥ 25°C up to 7 days     |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.







110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

# Certificate of Composition



### 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.:** A0187421  
**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 :** January 31, 2024 **Storage:** -20°C or colder  
**Handling:** This product is photosensitive. **Ship:** On Ice

### CERTIFIED VALUES

| Elution Order | Compound                                                        | Grav. Conc.<br>(weight/volume) | Expanded Uncertainty<br>(95% C.L.; K=2)                                                                                                                                                                                            |     |         |       |             |     |          |       |            |     |          |       |          |
|---------------|-----------------------------------------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------|-------|-------------|-----|----------|-------|------------|-----|----------|-------|----------|
| 1             | Vinyl acetate<br>CAS # 108-05-4<br>Purity 99%<br>(Lot RD220630) | 8,078.0 µg/mL                  | <table><tr><td>+/-</td><td>47.4062</td><td>µg/mL</td><td>Gravimetric</td></tr><tr><td>+/-</td><td>487.4241</td><td>µg/mL</td><td>Unstressed</td></tr><tr><td>+/-</td><td>488.5812</td><td>µg/mL</td><td>Stressed</td></tr></table> | +/- | 47.4062 | µg/mL | Gravimetric | +/- | 487.4241 | µg/mL | Unstressed | +/- | 488.5812 | µg/mL | Stressed |
| +/-           | 47.4062                                                         | µg/mL                          | Gravimetric                                                                                                                                                                                                                        |     |         |       |             |     |          |       |            |     |          |       |          |
| +/-           | 487.4241                                                        | µg/mL                          | Unstressed                                                                                                                                                                                                                         |     |         |       |             |     |          |       |            |     |          |       |          |
| +/-           | 488.5812                                                        | µg/mL                          | Stressed                                                                                                                                                                                                                           |     |         |       |             |     |          |       |            |     |          |       |          |

**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.

**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:**

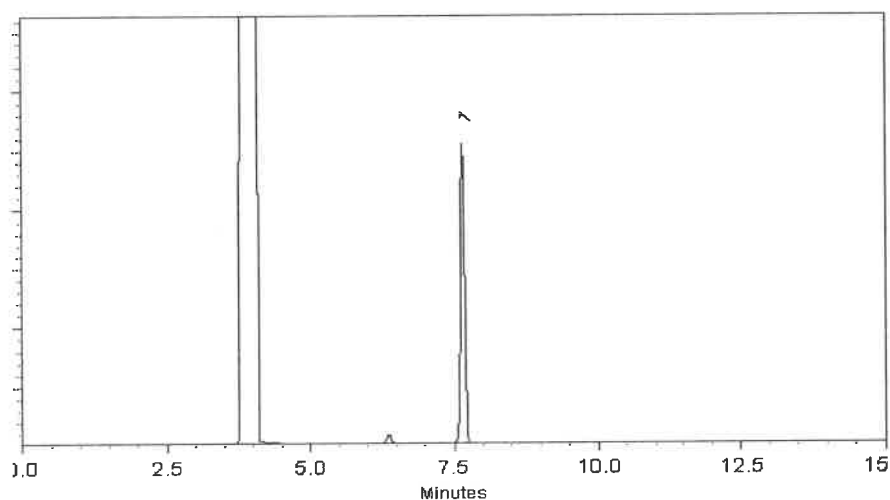
200°C

**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 - Operations Tech I

Date Mixed: 18-Jul-2022

Balance: B251644995

  
Fang-Yun Weaver - Operations Lead Tech - ARM QC

Date Passed: 26-Jul-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.



Methanol  
ULTRA RESI-ANALYZED  
For Purge and Trap Analysis



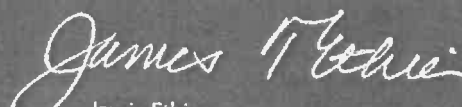
Material No.: 9077-02  
Batch No.: 22C2362001  
Manufactured Date: 2022-02-15  
Expiration Date: 2025-02-14  
Revision No.: 0

## 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     | < 0.1 ppm |
| Titration Acid (μeq/g)                                  | ≤ 0.3         | 0.3       |
| 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

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700  
Page 1 of 1

Methanol  
ULTRA RESI-ANALYZED  
For Purge and Trap Analysis



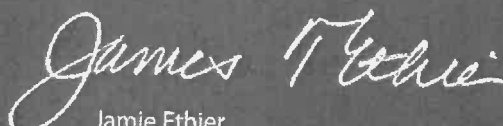
Material No.: 9077-02  
Batch No.: 22C2862010  
Manufactured Date: 2022-02-15  
Expiration Date: 2025-02-14  
Revision No.: 0

## 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         | 0.3      |
| Titration Base (μeq/g)                                  | ≤ 0.10        | < 0.02   |
| 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

 **avantor**<sup>TM</sup>



Material No.: 9077-02

Batch No.: 0000288323

Manufactured Date: 2021-06-11

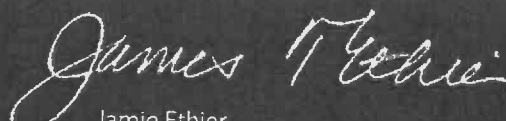
Expiration Date: 2024-06-10

Revision No.: 0

## Certificate of Analysis

| Test                                                    | Specification | Result    |
|---------------------------------------------------------|---------------|-----------|
| Assay (CH <sub>3</sub> OH) (by GC, corrected for water) | ≥ 99.9 %      | < 0.1 %   |
| Residue after Evaporation                               | ≤ 1.0 ppm     | < 0.1 ppm |
| Titration Acid (μeq/g)                                  | ≤ 0.3         | < 0.1     |
| Titration Base (μeq/g)                                  | ≤ 0.10        | < 0.01    |
| Water (by KF, coulometric)                              | ≤ 0.08 %      | < 0.01 %  |
| Volatile Organic Trace Analysis - Below EPA 8260B CRQL  | Conforms      | Falls     |

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

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700





## CERTIFIED WEIGHT REPORT

Part Number: **95317**  
 Lot Number: **042921**  
 Description: **Universal VOA Megamix**  
 69 components

Solvent(s): **Lot#**  
 Methanol **DY186-USQ8**

Expiration Date: **04/29/24**Recommended Storage: **Freezer (0 °C)**Nominal Concentration (µg/mL): **2000**NIST Test ID#: **6UTB**

5E-05 Balance Uncertainty

100.0 0.012 Flask Uncertainty

Weight(s) shown below were combined and diluted to (mL):

|                        |                 |        |
|------------------------|-----------------|--------|
| <i>Eli Aliaga</i>      |                 | 042921 |
| Formulated By:         | Eli Aliaga      | DATE   |
| <i>Pedro L. Rantas</i> |                 | 042921 |
| Reviewed By:           | Pedro L. Rantas | DATE   |

| Compound                            | RM#    | Lot       | Div. | Initial Factor | Initial Conc. (µg/mL) | Nominal Conc. (µg/mL) | Purity (%) | Purity Uncertainty | Uncertainty Pipette (mL) | Target Weight (g) | Actual Weight (g) | Actual Conc. (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information<br>(Solvent Safety Info. On Attached pg.) |                              |                    |
|-------------------------------------|--------|-----------|------|----------------|-----------------------|-----------------------|------------|--------------------|--------------------------|-------------------|-------------------|----------------------|------------------------------------|-----------------------------------------------------------|------------------------------|--------------------|
|                                     |        |           |      |                |                       |                       |            |                    |                          |                   |                   |                      |                                    | CAS#                                                      | OSHA PEL (TWA)               | LD50               |
| 1. Acetonitrile                     | (0324) | 060812    | NA   | NA             | NA                    | 2000                  | 99.9       | 0.2                | NA                       | 0.20021           | 0.20041           | 2002.0               | 8.1                                | 75-05-8                                                   | 40 ppm (70mg/m3/8H)          | ori-rat 2400mg/kg  |
| 2. Allyl chloride (3-Chloropropene) | (0325) | 102396    | NA   | NA             | NA                    | 2000                  | 99         | 0.2                | NA                       | 0.20203           | 0.20233           | 2003.0               | 8.2                                | 107-05-1                                                  | 1 ppm (3mg/m3/8H)            | ori-rat 700mg/kg   |
| 3. Carbon disulphide                | (0600) | MKCD9804  | NA   | NA             | NA                    | 2000                  | 100        | 0.2                | NA                       | 0.20001           | 0.20015           | 2001.4               | 8.1                                | 75-15-0                                                   | 4 ppm (12mg/m3) (skin)       | ori-rat 1200mg/kg  |
| 4. cis-1,4-Dichloro-2-butene        | (1196) | 14718EF   | NA   | NA             | NA                    | 2000                  | 95         | 0.2                | NA                       | 0.21054           | 0.21060           | 2000.6               | 8.5                                | 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                       | 0.20728           | 0.20751           | 2002.4               | 8.4                                | 110-57-6                                                  | N/A                          | N/A                |
| 6. Diethyl ether (Ethyl ether)      | (0153) | SHBK1918  | NA   | NA             | NA                    | 2000                  | 99.9       | 0.2                | NA                       | 0.20023           | 0.20048           | 2002.3               | 8.1                                | 60-29-7                                                   | 400ppm (1200mg/m3/8H)        | ori-rat 1215mg/kg  |
| 7. Ethyl methacrylate               | (0381) | 06126PX   | NA   | NA             | NA                    | 2000                  | 99         | 0.2                | NA                       | 0.20203           | 0.20230           | 2002.7               | 8.2                                | 97-63-2                                                   | N/A                          | ori-rat 14800mg/kg |
| 8. Iodomethane                      | (0489) | SHBF8718V | NA   | NA             | NA                    | 2000                  | 99.5       | 0.2                | NA                       | 0.20101           | 0.20130           | 2002.8               | 8.1                                | 74-88-4                                                   | 5 ppm (28mg/m3/8H) (skin)    | ori-rat 76mg/kg    |
| 9. 2-Methyl-1-propanol              | (0445) | 15241EB   | NA   | NA             | NA                    | 2000                  | 99.5       | 0.2                | NA                       | 0.20101           | 0.20123           | 2002.1               | 8.1                                | 78-83-1                                                   | 50 ppm (150mg/m3/8H)         | ori-rat 2480mg/kg  |
| 10. Methylacrylonitrile             | (0442) | 00427ET   | NA   | NA             | NA                    | 2000                  | 99         | 0.2                | NA                       | 0.20203           | 0.20220           | 2001.7               | 8.2                                | 128-98-7                                                  | 1 ppm (3mg/m3/8H) (skin)     | ori-rat 120mg/kg   |
| 11. Methyl acrylate                 | (1075) | SHBK0679  | NA   | NA             | NA                    | 2000                  | 99.9       | 0.2                | NA                       | 0.20021           | 0.20046           | 2002.5               | 8.1                                | 96-33-3                                                   | 10 ppm (35mg/m3/8H) (skin)   | ori-rat 277mg/kg   |
| 12. Methyl methacrylate             | (0404) | MKBW6137V | NA   | NA             | NA                    | 2000                  | 99.9       | 0.2                | NA                       | 0.20021           | 0.20048           | 2002.7               | 8.1                                | 80-62-6                                                   | 100 ppm (350mg/m3/8H) (skin) | ori-rat 7872mg/kg  |
| 13. Nitrobenzene                    | (0228) | 01213TV   | NA   | NA             | NA                    | 2000                  | 99         | 0.2                | NA                       | 0.20203           | 0.20218           | 2001.5               | 8.2                                | 98-95-3                                                   | 1 ppm (5mg/m3/8H) (skin)     | ori-rat 780mg/kg   |
| 14. 2-Nitropropane                  | (0461) | 14002JX   | NA   | NA             | NA                    | 2000                  | 97.3       | 0.2                | NA                       | 0.20556           | 0.20586           | 2001.0               | 8.3                                | 79-46-9                                                   | 10 ppm (35mg/m3/8H)          | ori-rat 1200mg/kg  |
| 15. Pentachloroethane               | (0450) | HGA01     | NA   | NA             | NA                    | 2000                  | 98         | 0.2                | NA                       | 0.20409           | 0.20418           | 2000.9               | 8.2                                | 76-01-7                                                   | N/A                          | N/A                |
| 16. 1,1,2-Trichlorotrifluoroethane  | (0474) | 18890     | NA   | NA             | NA                    | 2000                  | 99         | 0.2                | NA                       | 0.20203           | 0.20221           | 2001.8               | 8.2                                | 76-13-1                                                   | 1000 ppm (7600mg/m3/8H)      | ori-rat 43kg/kg    |
| 17. Bromodichloromethane            | 35171  | 100220    | 0.05 | 5.00           | 40018.8               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.8               | 18.4                               | 75-27-4                                                   | N/A                          | ori-rat 916mg/kg   |
| 18. Dibromochloromethane            | 35171  | 100220    | 0.05 | 5.00           | 40007.7               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.3               | 18.4                               | 124-48-1                                                  | N/A                          | ori-rat 848mg/kg   |
| 19. cis-1,2-Dichloroethane          | 35171  | 100220    | 0.05 | 5.00           | 40012.4               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.5               | 18.4                               | 156-59-2                                                  | N/A                          | N/A                |
| 20. trans-1,2-Dichloroethane        | 35171  | 100220    | 0.05 | 5.00           | 40005.6               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.2               | 18.4                               | 156-60-5                                                  | N/A                          | ori-rat 1235mg/kg  |
| 21. Methylene chloride              | 35171  | 100220    | 0.05 | 5.00           | 40013.9               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.6               | 18.4                               | 75-09-2                                                   | 500 ppm                      | ori-rat 820mg/kg   |
| 22. 1,1-Dichloroethane              | 32251  | 031821    | 0.10 | 10.00          | 20009.1               | 2000                  | NA         | NA                 | 0.042                    | NA                | NA                | 2000.8               | 19.3                               | 75-35-4                                                   | 1 ppm (4mg/m3/8H)            | ori-rat 200mg/kg   |
| 23. Bromoform                       | 95321  | 010419    | 0.10 | 10.00          | 20001.7               | 2000                  | NA         | NA                 | 0.042                    | NA                | NA                | 2000.1               | 19.3                               | 75-25-2                                                   | 0.5 ppm (5mg/m3) (skin)      | ori-rat 933mg/kg   |
| 24. Carbon tetrachloride            | 95321  | 010419    | 0.10 | 10.00          | 20001.3               | 2000                  | NA         | NA                 | 0.042                    | NA                | NA                | 2000.0               | 19.2                               | 56-23-5                                                   | 2 ppm (12.6mg/m3/8H)         | ori-rat 2350mg/kg  |
| 25. Chloroform                      | 95321  | 010419    | 0.10 | 10.00          | 20001.8               | 2000                  | NA         | NA                 | 0.042                    | NA                | NA                | 2000.1               | 19.2                               | 67-66-3                                                   | 50 ppm (240mg/m3) (CL)       | ori-rat 908mg/kg   |
| 26. Dibromomethane                  | 95321  | 010419    | 0.10 | 10.00          | 20001.7               | 2000                  | NA         | NA                 | 0.042                    | NA                | NA                | 2000.1               | 19.3                               | 74-95-3                                                   | N/A                          | ori-rat 108mg/kg   |
| 27. 1,1-Dichloroethane              | 95321  | 010419    | 0.10 | 10.00          | 20000.8               | 2000                  | NA         | NA                 | 0.042                    | NA                | NA                | 2000.0               | 19.3                               | 75-34-3                                                   | 100 ppm                      | ori-rat 725mg/kg   |
| 28. 2,2-Dichloropropane             | 95321  | 010419    | 0.10 | 10.00          | 20002.1               | 2000                  | NA         | NA                 | 0.042                    | NA                | NA                | 2000.1               | 19.3                               | 594-20-7                                                  | N/A                          | N/A                |
| 29. Tetrachloroethene               | 95321  | 010419    | 0.10 | 10.00          | 20002.2               | 2000                  | NA         | NA                 | 0.042                    | NA                | NA                | 2000.1               | 19.3                               | 127-18-4                                                  | 25 ppm (170mg/m3/8H) (final) | ori-rat 2629mg/kg  |
| 30. 1,1,1-Trichloroethane           | 95321  | 010419    | 0.10 | 10.00          | 20001.7               | 2000                  | NA         | NA                 | 0.042                    | NA                | NA                | 2000.1               | 19.3                               | 71-55-6                                                   | 350 ppm (1900mg/m3/8H)       | ori-rat 10300mg/kg |
| 31. 1,2-Dibromo-3-chloropropane     | 35161  | 011421    | 0.05 | 5.00           | 40001.2               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.0               | 18.4                               | 96-12-8                                                   | 0.001 ppm                    | ori-rat 170mg/kg   |
| 32. 1,2-Dibromoethane               | 35161  | 011421    | 0.05 | 5.00           | 40003.9               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.1               | 18.4                               | 106-93-4                                                  | 20 ppm (8H)                  | ori-rat 108mg/kg   |
| 33. 1,2-Dichloroethane              | 35161  | 011421    | 0.05 | 5.00           | 40004.9               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.1               | 18.4                               | 107-06-2                                                  | 50 ppm (8H)                  | ori-rat 670mg/kg   |
| 34. 1,2-Dichloropropane             | 35161  | 011421    | 0.05 | 5.00           | 40002.2               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.0               | 18.4                               | 78-87-5                                                   | 75 ppm (350mg/m3/8H)         | ori-rat 1947mg/kg  |
| 35. 1,3-Dichloropropane             | 35161  | 011421    | 0.05 | 5.00           | 40013.9               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.6               | 18.4                               | 142-28-9                                                  | N/A                          | uni-mus 3800mg/kg  |
| 36. 1,1-Dichloropropene             | 35161  | 011421    | 0.05 | 5.00           | 40015.0               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.7               | 26.1                               | 563-58-6                                                  | N/A                          | N/A                |
| 37. cis-1,3-Dichloropropene         | 35161  | 011421    | 0.05 | 5.00           | 40004.4               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.1               | 18.4                               | 10081-01-5                                                | N/A                          | N/A                |
| 38. trans-1,3-Dichloropropene       | 35161  | 011421    | 0.05 | 5.00           | 40009.1               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.4               | 18.5                               | 10061-02-6                                                | N/A                          | N/A                |
| 39. Hexachloro-1,3-butadiene        | 35161  | 011421    | 0.05 | 5.00           | 40003.5               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.1               | 26.4                               | 87-68-3                                                   | 0.02 ppm (0.24mg/m3/8H)      | ori-rat 82mg/kg    |
| 40. 1,1,1,2-Tetrachloroethane       | 35161  | 011421    | 0.05 | 5.00           | 40011.9               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.5               | 18.4                               | 830-20-6                                                  | N/A                          | ori-rat 670mg/kg   |
| 41. 1,1,2,2-Tetrachloroethane       | 35161  | 011421    | 0.05 | 5.00           | 40011.0               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.5               | 18.4                               | 79-34-5                                                   | 5 ppm (35mg/m3/8H) (skin)    | ori-rat 800mg/kg   |
| 42. 1,1,2-Trichloroethane           | 35161  | 011421    | 0.05 | 5.00           | 40000.8               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 1999.9               | 18.4                               | 79-00-5                                                   | 10 ppm (45mg/m3/8H) (skin)   | ori-rat 838mg/kg   |
| 43. Trichloroethene                 | 35161  | 011421    | 0.05 | 5.00           | 40003.2               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.1               | 18.4                               | 79-01-6                                                   | 50 ppm (270mg/m3/8H)         | ori-mus 2402mg/kg  |
| 44. 1,2,3-Trichloropropane          | 35161  | 011421    | 0.05 | 5.00           | 40015.2               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.7               | 18.4                               | 96-18-4                                                   | 10 ppm (60mg/m3/8H)          | ori-rat 149.6mg/kg |
| 45. Benzene                         | 35162  | 020821    | 0.05 | 5.00           | 40008.9               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.3               | 18.4                               | 71-43-2                                                   | 1 ppm                        | ori-rat 4894mg/kg  |
| 46. Bromobenzene                    | 35162  | 020821    | 0.05 | 5.00           | 40019.0               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.9               | 18.4                               | 108-86-1                                                  | N/A                          | ori-rat 2899mg/kg  |
| 47. n-Butyl benzene                 | 35162  | 020821    | 0.05 | 5.00           | 40019.8               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.9               | 18.4                               | 104-51-8                                                  | N/A                          | N/A                |
| 48. Ethyl benzene                   | 35162  | 020821    | 0.05 | 5.00           | 40009.9               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 1999.9               | 18.4                               | 100-41-4                                                  | 100 ppm (435mg/m3/8H)        | ori-rat >2000mg/kg |
| 49. p-Isopropyl toluene             | 35162  | 020821    | 0.05 | 5.00           | 40056.4               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2002.7               | 18.4                               | 99-87-6                                                   | N/A                          | ori-rat 4750mg/kg  |
| 50. Naphthalene                     | 35162  | 020821    | 0.05 | 5.00           | 40005.1               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.2               | 18.3                               | 91-20-3                                                   | 10 ppm (50mg/m3/8H)          | ori-rat 490mg/kg   |
| 51. Styrene                         | 35162  | 020821    | 0.05 | 5.00           | 40022.8               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2001.0               | 18.4                               | 100-42-5                                                  | 100 ppm                      | ori-rat 5000mg/kg  |
| 52. Toluene                         | 35162  | 020821    | 0.05 | 5.00           | 40008.9               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.3               | 18.4                               | 108-88-3                                                  | 200 ppm                      | ori-rat 5000mg/kg  |
| 53. 1,2,3-Trichlorobenzene          | 35162  | 020821    | 0.05 | 5.00           | 40002.0               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.0               | 18.4                               | 87-61-6                                                   | N/A                          | lpr-mus 1390mg/kg  |
| 54. 1,2,4-Trichlorobenzene          | 35162  | 020821    | 0.05 | 5.00           | 40027.4               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2001.3               | 18.4                               | 120-82-1                                                  | 5 ppm (CL) (40mg/m3)         | ori-rat 756mg/kg   |
| 55. 1,2,4-Trimethylbenzene          | 35162  | 020821    | 0.05 | 5.00           | 40012.4               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.5               | 18.4                               | 95-63-6                                                   | N/A                          | ori-rat 5g/kg      |
| 56. 1,3,5-Trimethylbenzene          | 35162  | 020821    | 0.05 | 5.00           | 40011.5               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.5               | 18.5                               | 108-67-8                                                  | N/A                          | ori-rat 5000mg/kg  |
| 57. m-Xylene                        | 35162  | 020821    | 0.05 | 5.00           | 40021.8               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2001.0               | 18.4                               | 108-38-3                                                  | 100 ppm (435mg/m3/8H)        | ori-rat 5g/kg      |
| 58. tert-Butyl benzene              | 35163  | 022521    | 0.05 | 5.00           | 40005.9               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.2               | 18.4                               | 88-06-6                                                   | N/A                          | N/A                |
| 59. sec-Butyl benzene               | 35163  | 022521    | 0.05 | 5.00           | 40011.7               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.5               | 18.4                               | 135-98-8                                                  | N/A                          | ori-rat 2240mg/kg  |
| 60. Chlorobenzene                   | 35163  | 022521    | 0.05 | 5.00           | 40009.0               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.4               | 18.4                               | 108-90-7                                                  | 75 ppm (350mg/m3/8H)         | ori-rat 2290mg/kg  |
| 61. 2-Chlorotoluene                 | 35163  | 022521    | 0.05 | 5.00           | 40002.0               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.0               | 18.4                               | 95-49-8                                                   | 50 ppm (250mg/m3/8H)         | ori-rat 3900mg/kg  |
| 62. 4-Chlorotoluene                 | 35163  | 022521    | 0.05 | 5.00           | 40000.4               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 1999.9               | 18.4                               | 106-43-4                                                  | N/A                          | ori-rat 2100mg/kg  |
| 63. 1,2-Dichlorobenzene             | 35163  | 022521    | 0.05 | 5.00           | 40004.0               | 2000                  | NA         | NA                 | 0.017                    | NA                | NA                | 2000.1               | 18.4                               | 95-50-1                                                   | 50 ppm (300mg/m3) (CL)       | ori-rat 800mg/kg   |



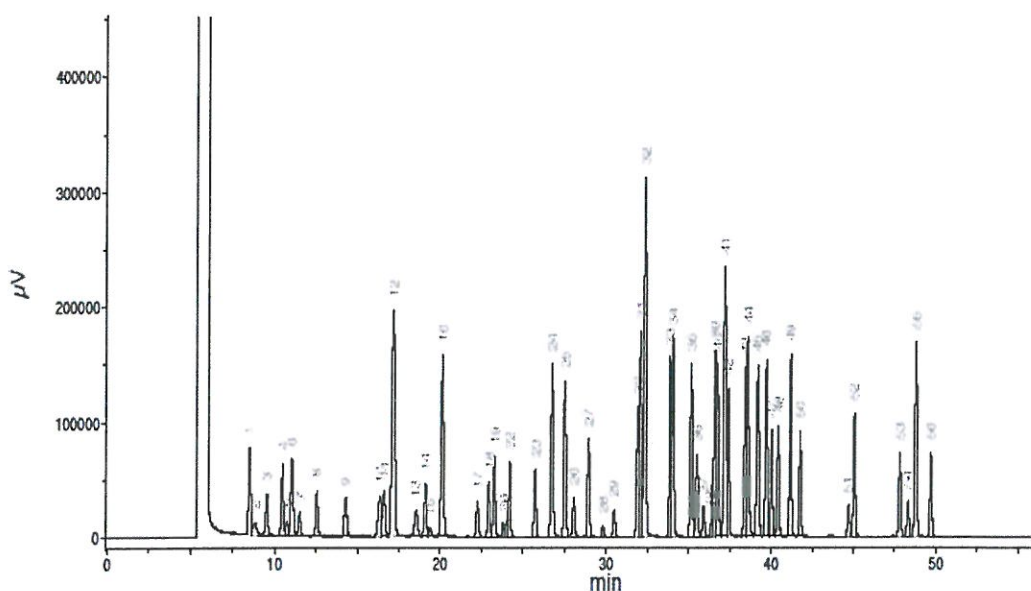


Run 22, "P95317 L042921 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35999 points at 10 points/second.  
Created: Thu, Apr 29, 2021 at 3:49:30 PM.  
Sampled: Sequence "042521-GC5M1", Method "GC5-M1".  
Analyzed using Method "GC5-M1".

Comments

GC5-M1 Analysis by Candice Warren  
Column ID SPB-Voccol 105 meter X 0.53mm X 3.0µm film thickness  
Flow rates: Total flow=290mL/min., Helium (carrier)=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=4



| Peak # | Analyte                                      | FID RT (min.) |
|--------|----------------------------------------------|---------------|
| 1      | Ether                                        | 8.48          |
| 2      | 1,1,2-Trichloro-1,2,2-trifluoroethane        | 8.80          |
| 3      | 1,1-Dichloroethane                           | 9.51          |
| 4      | Acetonitrile                                 | 10.44         |
| 5      | Iodomethane                                  | 10.71         |
| 6      | Aryl chloride                                | 11.02         |
| 7      | Carbon disulfide/Methylene chloride          | 11.51         |
| 8      | trans-1,2-Dichloroethane                     | 12.55         |
| 9      | 1,1-Dichloroethane                           | 14.28         |
| 10     | 2,2-Dichloropropane                          | 16.33         |
| 11     | cis-1,2-Dichloroethane                       | 16.59         |
| 12     | Methacrylonitrile/Methyl acrylate/Chloroform | 17.14         |
| 13     | Isobutanol/1,1,1-Trichloroethane             | 18.52         |
| 14     | 1,1-Dichloropropane                          | 19.08         |
| 15     | Carbon tetrachloride                         | 19.39         |
| 16     | Benzene/1,2-Dichloroethane                   | 20.10         |
| 17     | Trichloroethane                              | 22.23         |
| 18     | 1,2-Dichloropropane                          | 22.92         |
| 19     | Methyl methacrylate                          | 23.26         |
| 20     | Bromochloromethane                           | 23.79         |
| 21     | Dibromomethane                               | 23.96         |
| 22     | 2-Nitropropane                               | 24.18         |
| 23     | cis-1,3-Dichloropropene                      | 25.71         |
| 24     | Thiophene                                    | 26.71         |
| 25     | Ethyl methacrylate/trans-1,3-Dichloropropene | 27.50         |
| 26     | 1,1,2-Trichloroethane                        | 28.04         |
| 27     | Tetrachloroethane/1,2-Dichloropropane        | 28.92         |
| 28     | Dibromochloromethane                         | 29.79         |
| 29     | 1,2-Dibromomethane                           | 30.46         |
| 30     | Chlorobenzene                                | 31.89         |
| 31     | Ethylbenzene/1,1,1,2-Tetrachloroethane       | 32.07         |
| 32     | m-Xylene/p-Xylene                            | 32.33         |
| 33     | o-Xylene                                     | 33.87         |
| 34     | Styrene                                      | 34.04         |
| 35     | Isopropylbenzene/Bromofarm                   | 35.14         |
| 36     | cis-1,4-Dichloro-2-butene                    | 35.49         |
| 37     | 1,1,2,2-Tetrachloroethane                    | 35.90         |
| 38     | 1,2,3-Trichloropropane                       | 36.34         |
| 39     | n-Propylbenzene                              | 36.50         |
| 40     | trans-1,4-Dichloro-2-butene/Bromobenzene     | 36.73         |
| 41     | 1,2,5-Trimethylbenzene/2-Chlorotoluene       | 37.17         |
| 42     | 4-Chlorotoluene                              | 37.38         |
| 43     | tert-Butylbenzene                            | 38.41         |
| 44     | 1,2,4-Trimethylbenzene/Pentachloroethane     | 38.55         |
| 45     | sec-Butylbenzene                             | 39.16         |
| 46     | p-Isopropylbenzene                           | 39.68         |
| 47     | 1,3-Dichlorobenzene                          | 40.01         |
| 48     | 1,4-Dichlorobenzene                          | 40.42         |
| 49     | m-Butylbenzene                               | 41.15         |
| 50     | 1,2-Dichlorobenzene                          | 41.74         |
| 51     | 1,2-Dichloro-3-chloropropane                 | 42.66         |
| 52     | Nitrobenzene                                 | 43.04         |
| 53     | 1,2,4-Trichlorobenzene                       | 47.80         |
| 54     | Hexachlorocyclopentadiene                    | 48.29         |
| 55     | Asphaltene                                   | 48.76         |
| 56     | 1,2,3-Trichlorobenzene                       | 49.66         |

## 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             | May 1, 2019    |

## Section II - Hazards Identification

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

|          |                                      |                |                                               |
|----------|--------------------------------------|----------------|-----------------------------------------------|
| H225     | Highly Flammable Liquid and Vapor    | H301, 311, 331 | Toxic if swallowed, skin contact, inhaled     |
| H370     | Cause damage to organs               | H351           | Suspected of causing cancer                   |
| P271     | Use in ventilated area               | P280           | Use gloves, eye protection/face shield        |
| P302,332 | If on skin, wash with soap and water | P305,351,338   | If in eyes, remove contacts, rinse with water |



Signal Word: DANGER

## Section III - Composition

|                                                         |                |              |
|---------------------------------------------------------|----------------|--------------|
| Components (Specific Chemical Identity; Common Name(s)) |                | % (optional) |
| Methanol                                                | METHYL ALCOHOL | > 97         |

CAS#: 67-56-1

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

## Section IV. FIRST AID MEASURES

|                         |                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
| General advice          | Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.            |
| If inhaled              | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Wash with soap and water. Consult a physician.                                                              |
| In case of eye contact  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                      |
| If swallowed            | Do NOT induce vomiting. Rinse mouth with water. Consult a physician.                                        |

## Section V. FIREFIGHTING MEASURES

|                               |                                                                                                                                                                 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammability                  | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| Suitable extinguishing media  | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.                                                                                        |
| Protective equipment for fire | Wear self contained breathing apparatus for fire fighting if necessary.                                                                                         |

## Section VI. ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                                                              |
| Clean up                  | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).                                                             |

## Section VII. HANDLING AND STORAGE

|                               |                                                                                                                                                                                         |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.<br>Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions            | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.                           |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                                                                               |                                                                            |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Methanol                                                                                      | 67-56-1 TWA 200 ppm                                                        |
| Skin notation                                                                                 | TWA 200 ppm                                                                |
| Potential for skin absorption, ingestion and inhalation.                                      |                                                                            |
| 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           | 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<br>(Butyl Acetate = 1) | 4.6   |
| Solubility in Water     | COMPLETE                                                  |                                         |       |
| Appearance and Odor     | CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR. |                                         |       |

**Section X. STABILITY AND REACTIVITY**

|                                                                |                                                                                          |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Chemical stability                                             | Stable under recommended storage conditions.                                             |
| Possibility of hazardous reactions                             | Vapours may form explosive mixture with air.                                             |
| Conditions to avoid                                            | Heat, flames, sparks, extreme temperature and sunlight.                                  |
| Materials to avoid                                             | Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids |
| Hazardous decomposition products formed under fire conditions. | - Carbon oxides                                                                          |

**Section XI. TOXICOLOGICAL INFORMATION**

LD50 Oral - rat - 5,628 mg/kg  
LC50 Inhalation - rat - 4 h - 64000 ppm  
LD50 Dermal - rabbit - 15,800 mg/kg  
Toxic if absorbed through skin. Causes skin irritation.  
Eye damage/eye irritation  
Toxic if inhaled. Causes respiratory tract irritation.  
Toxic if swallowed.

**Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.**

LC50 15,400 mg/l - 96 h  
EC50 24,500.00 mg/l - 48 h  
EC100 10,000.00 mg/l - 24 h

**Section XIII. DISPOSAL CONSIDERATIONS**

Dispose with normal Laboratory Solvent Waste.

**Section XIV. TRANSPORT INFORMATION**

|                                            |                                            |
|--------------------------------------------|--------------------------------------------|
| DOT (US)                                   | IATA                                       |
| UN number: 1230 Class: 3 Packing group: II | UN number: 1230 Class: 3 Packing group: II |
| Proper shipping name: Methanol             | Proper shipping name: Methanol             |

**Section XV. REGULATORY INFORMATION**

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Section XVI. Misc. INFORMATION**

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC. DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.



110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 30067 Lot No.: A0147670  
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 : April 30, 2024 Storage: 0°C or colder

### CERTIFIED VALUES

| Elution Order | Compound                      | Grav. Conc.<br>(weight/volume) | Expanded Uncertainty<br>(95% C.L.; K=2) |          |       |             |
|---------------|-------------------------------|--------------------------------|-----------------------------------------|----------|-------|-------------|
| 1             | 1-Bromo-4-fluorobenzene (BFB) | 2,511.0 µg/mL                  | +/-                                     | 14.7360  | µg/mL | Gravimetric |
|               | CAS # 460-00-4 (Lot 20401KO)  |                                | +/-                                     | 140.8035 | µg/mL | Unstressed  |
|               | Purity 99%                    |                                | +/-                                     | 144.0975 | 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:**

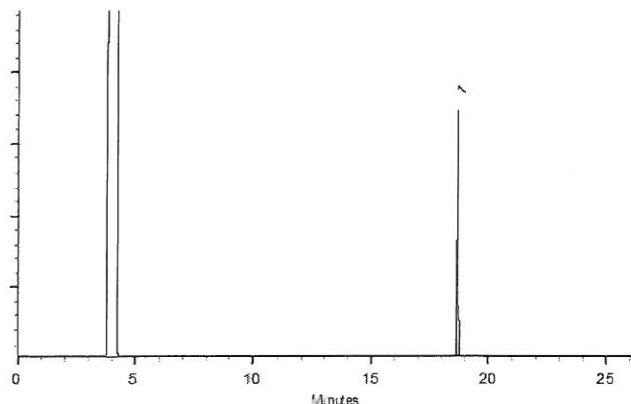
200°C

**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.

Dustin Lidgett - Mix Technician

Date Mixed: 01-Apr-2019

Balance: 1127510105

  
Justine Albertson - Operations Tech-ARM QC

Date Passed: 04-Apr-2019

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



## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

$k$  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)         | < 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.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.







Certified Reference Material CRM



ANAB ISO 17034 Accredited  
AR-1539 Certificate Number  
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: **91980**  
Lot Number: **112822**  
Description: **Acrolein**

Solvent(s):  
Water  
Lot#  
102422Q

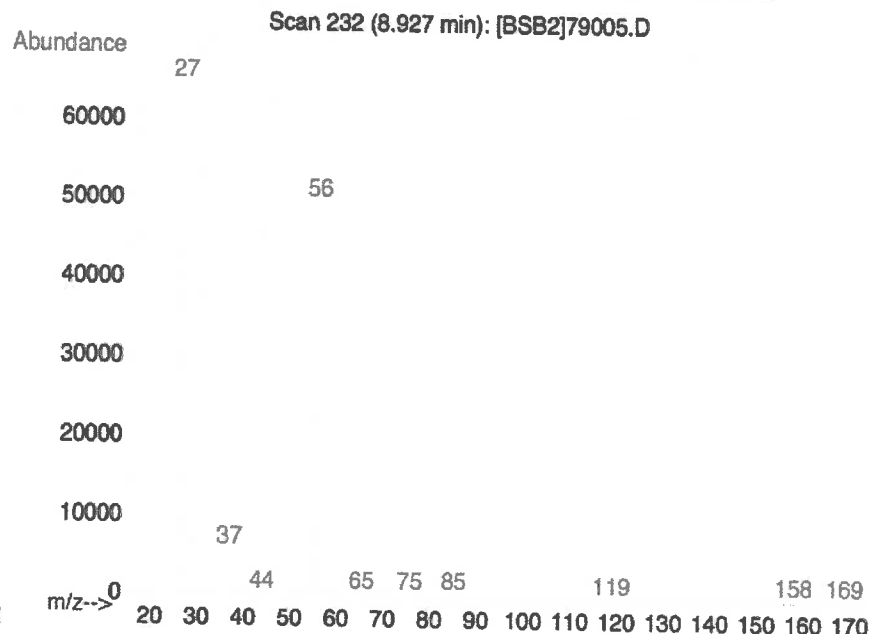
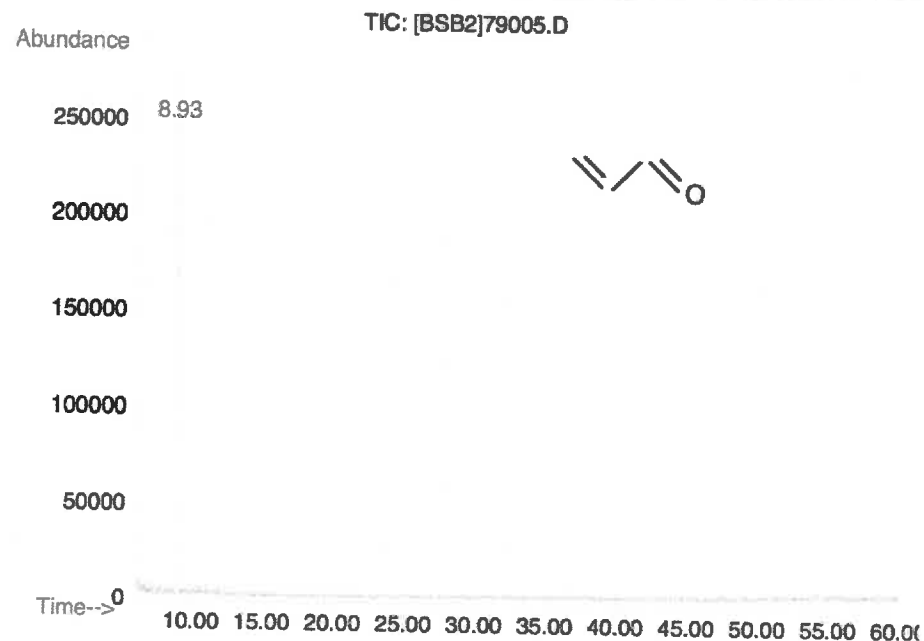
Expiration Date: **122822**  
Recommended Storage: **Refrigerate (4 °C)**  
Nominal Concentration (µg/mL): **5000**  
NIST Test ID#: **6UTB**

Weight(s) shown below were combined and diluted to (mL): **10.0**  
5E-05 Balance Uncertainty  
0.002 Flask Uncertainty

|                |                 |        |
|----------------|-----------------|--------|
|                |                 | 112822 |
| Formulated By: | Benson Chan     | DATE   |
|                |                 | 112822 |
| Reviewed By:   | Pedro L. Rentas | DATE   |

| Compound    | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) |                |                 |
|-------------|-----|------------|----------------------|------------|--------------------|------------------|------------------|---------------------|------------------------------------|--------------------------------------------------------|----------------|-----------------|
|             |     |            |                      |            |                    |                  |                  |                     |                                    | CAS#                                                   | OSHA PEL (TWA) | LD50            |
| 1. Acrolein | 5   | 103755R09M | 5000                 | 97.1       | 0.5                | 0.05180          | 0.05167          | 5008.3              | 52.5                               | 107-02-8                                               | 0.1 ppm        | ort-rat 46mg/kg |

Method: GC6MSD-1. Detector: Mass Selective Detector (Scan mode). Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Oven Profile: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Analyst: Pedro Rentas. NOTE: Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



## Safety Data Sheet (SDS) GHS/OSHA Compliant

## Section I Product and Company Identification

|                     |                                                                                                |
|---------------------|------------------------------------------------------------------------------------------------|
| <b>IDENTITY</b>     | <b>ANALYTICAL STANDARD DISSOLVED IN WATER</b>                                                  |
| Manufacturer's Name | ABSOLUTE STANDARDS INC                                                                         |
| Address             | 44 Rosotto Dr.<br>Hamden CT, 06514                                                             |
|                     | Emergency Telephone USA & CANADA<br>Emergency Telephone International<br>Date Prepared/Revised |
|                     | 1-800-535-5053<br>1-352-323-3500<br>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.  
P280 Use gloves, eye protection/face shield  
P305,351,338 If in eyes, remove contacts, rinse with water



Signal Word: DANGER

## Section III - Composition

Components (Specific Chemical Identity; Common Name(s))  
WaterCAS#: 7732-18-5  
% (optional)  
> 97

## See Certified Weight Report For Other Analytes Present At Trace Quantities.

## INTENDED USE: REFERENCE MATERIAL

## Section IV. FIRST AID MEASURES

|                         |                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
| General advice          | Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.            |
| If inhaled              | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Wash with soap and water. Consult a physician.                                                              |
| In case of eye contact  | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.                      |
| If swallowed            | Do NOT induce vomiting. Rinse mouth with water. Consult a physician.                                        |

## Section V. FIREFIGHTING MEASURES

|                                  |                                                                          |
|----------------------------------|--------------------------------------------------------------------------|
| Suitable extinguishing media     | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Protective equipment for fire    | Wear self contained breathing apparatus for fire fighting if necessary.  |
| Hazardous Decomposition products | Carbon oxides                                                            |

## Section VI. ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                                                              |
| Clean up                  | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).                                                             |

## Section VII. HANDLING AND STORAGE

|                               |                                                                                                                                                                                         |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.<br>Use ventilation. Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions            | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.                           |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                             |                                                   |                                                                            |
|---------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------|
| 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          |       | Specific Gravity (H <sub>2</sub> O = 1) |   |
| Vapor Pressure (mm Hg) | 100°C | Melting Point                           | 1 |

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) | 0°C |
| Solubility in Water     | NA |                                         | NA  |

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  
  
IATA  
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: 95319  
Lot Number: 031921  
Description: Revised Additions Mix  
11 components  
031924  
Expiration Date: Refrigerate (4 °C)  
Recommended Storage: Varied  
Nominal Concentration (µg/mL): 6UTB  
NIST Test ID#: 5E-05 Balance Uncertainty  
0.012 Flask Uncertainty

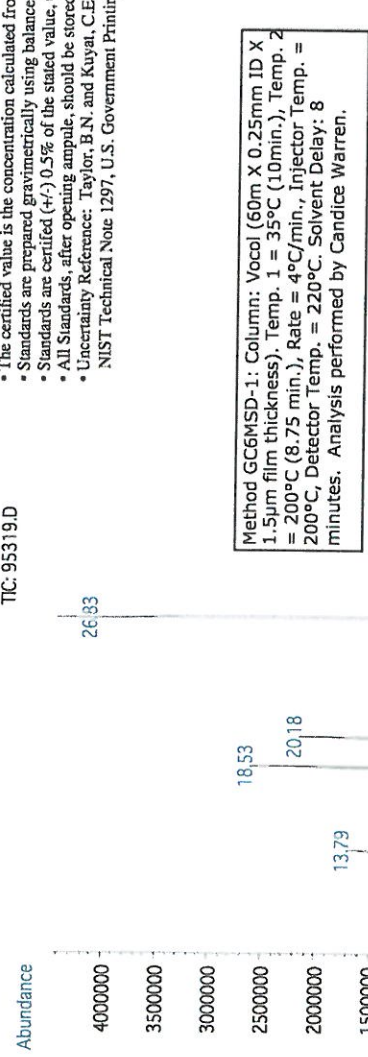
Solvent(s): Lot#  
Methanol DY186-US

|                                 |        |
|---------------------------------|--------|
| Formulated By: Prashant Chauhan | 031921 |
| Reviewed By: Pedro L. Rentas    | 031921 |

Weight(s) shown below were combined and diluted to (mL): 100.0

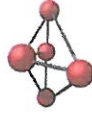
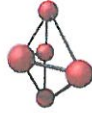
| Compound |                                | RM#  | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | (Solvent Safety Info. On Attached pg.) | OSHA PEL (TWA)                              | LD50              |
|----------|--------------------------------|------|------------|----------------------|------------|-------------|------------------|------------------|---------------------|------------------------------------|----------------------------------------|---------------------------------------------|-------------------|
| 1.       | Acrylonitrile                  | 7    | 4718CK     | 10000                | 99         | 0.2         | 1.01015          | 1.01040          | 10002.5             | 40.5                               | 107-13-1                               | N/A                                         | ori-rat 78 mg/kg  |
| 2.       | 1-Chlorobutane                 | 1072 | MKCM5711   | 2000                 | 99.99      | 0.2         | 0.20003          | 0.20033          | 2003.0              | 8.1                                | 109-69-3                               | N/A                                         | ori-rat 2670mg/kg |
| 3.       | Cyclohexane                    | 1023 | SHBD2795V  | 2000                 | 99.5       | 0.2         | 0.20101          | 0.20130          | 2002.8              | 8.1                                | 110-92-7                               | 300 ppm (1050mg/m3/8H) ori-rat 12705mg/kg   |                   |
| 4.       | Di-isopropyl ether (DIPE)      | 987  | 00412MX    | 2000                 | 99         | 0.2         | 0.20203          | 0.20220          | 2001.7              | 8.2                                | 108-20-3                               | 500 ppm (2100mg/m3/8H) ori-rat 8470mg/kg    |                   |
| 5.       | 1,4-Dioxane                    | 373  | 03853KE    | 40000                | 99         | 0.2         | 4.04060          | 4.04110          | 40005.0             | 161.9                              | 123-91-1                               | 25 ppm (90mg/m3/8H)(skin) ori-mus 5700mg/kg |                   |
| 6.       | Hexachloroethane               | 199  | 12604HBV   | 2000                 | 99         | 0.2         | 0.20203          | 0.20230          | 2002.7              | 8.2                                | 67-72-1                                | 1 ppm (10mg/m3/8H)(skin) ori-gpp 4870mg/kg  |                   |
| 7.       | Methylcyclohexane              | 1627 | 08046KN    | 2000                 | 99         | 0.2         | 0.20203          | 0.20235          | 2003.2              | 8.2                                | 108-87-2                               | N/A                                         | N/A               |
| 8.       | Methyl tert-butyl ether (MTBE) | 209  | 02197JJ    | 2000                 | 99.8       | 0.2         | 0.20041          | 0.20080          | 2003.9              | 8.1                                | 1634-04-4                              | N/A                                         | ori-rat 4g/kg     |
| 9.       | Propionitrile                  | 349  | 1395468    | 20000                | 99         | 0.2         | 2.02030          | 2.02080          | 20005.0             | 81.0                               | 107-12-0                               | N/A                                         | ori-rat 39mg/kg   |
| 10.      | Tetrahydrofuran                | 380  | 113886     | 10000                | 99.9       | 0.2         | 1.00105          | 1.00140          | 10003.5             | 40.1                               | 109-99-9                               | 20 ppm (590mg/m3/8H) ori-rat 2500mg/kg      |                   |
| 11.      | 1,2,3,4-Tetramethylbenzene     | 491  | AP01       | 2000                 | 93         | 0.2         | 0.21506          | 0.21536          | 2002.8              | 8.7                                | 488-23-3                               | N/A                                         | ori-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         |





## Run 44, "P95319 L031921 [Varied in MeOH]"

Run Length: 60.00 min, 36000 points at 10 points/second.

Created: Sun, Mar 28, 2021 at 4:18:23 PM.

Sampled: Sequence "032421-GC13M1", Method "GC13-M1".

Analyzed using Method "GC13-M1".

### Comments

GC13-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.,

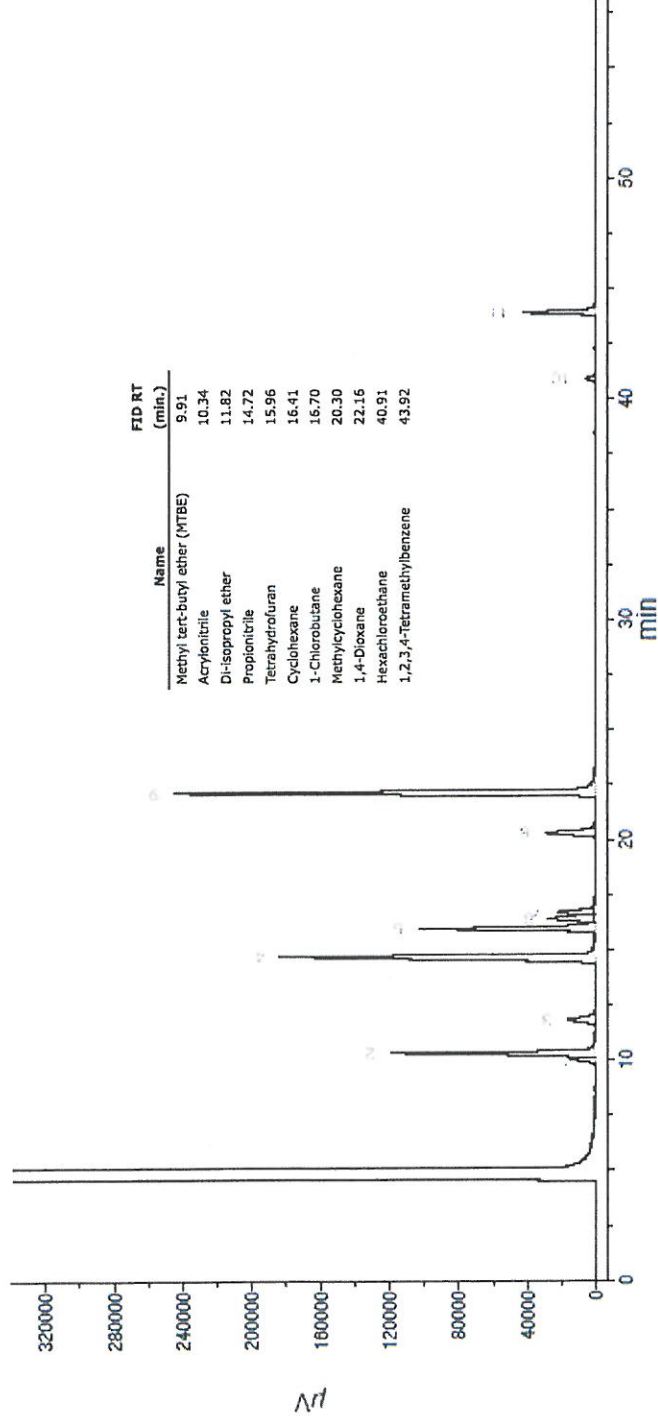
Helium(make-up)=10mL/min., Hydrogen(make-up)=40mL/min., Air(make-up)=230mL/min.

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=6



**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  
**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, 2019

**Section II - Hazards Identification**

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

**H225** Highly Flammable Liquid and Vapor  
**H370** Cause damage to organs  
**P271** Use in ventilated area  
**P302,332** If on skin, wash with soap and water  
**H301, 311, 331** Toxic if swallowed, skin contact, inhaled  
**H351** Suspected of causing cancer  
**P280** Use gloves, eye protection/face shield  
**P305,351,338** If in eyes, remove contacts, rinse with water

**Signal Word: DANGER**



**Section III - Composition**

**Components (Specific Chemical Identity; Common Name(s))** METHYL ALCOHOL  
**CAS#: 67-56-1**  
**% (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 Consult a physician. Show this safety data sheet to the doctor in attendance. Move to safe area.  
**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.  
**Protective extinguishing media** 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.**

**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** 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.  
**Use ventilation** Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.

**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**

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.

## 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)  
UN number: 1230 Class: 3 Packing group: II Methanol  
Proper shipping name:  
IATA  
UN number: 1230 Class: 3 Packing group: II Methanol  
Proper shipping name:

## 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 - 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 XI. TOXICOLOGICAL INFORMATION

Chemical stability  
Stable under recommended storage conditions.  
Possibility of hazardous reactions  
Vapours may form explosive mixture with air.  
Heat, flames, sparks, extreme temperature and sunlight.  
Conditions to avoid  
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 (H <sub>2</sub> O = 1) | 0.79  |



Methanol  
ULTRA RESI-ANALYZED  
For Purge and Trap Analysis

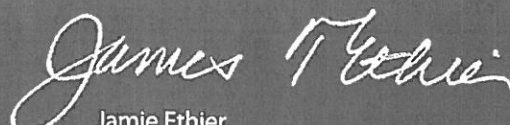


Material No.: 9077-02  
Batch No.: 0000288323  
Manufactured Date: 2021-06-11  
Expiration Date: 2024-06-10  
Revision No.: 1

## Certificate of Analysis

| Test                                                    | Specification | Result  |
|---------------------------------------------------------|---------------|---------|
| Assay (CH <sub>3</sub> OH) (by GC, corrected for water) | ≥ 99.9 %      | 100.0 % |
| Residue after Evaporation                               | ≤ 1.0 ppm     | 0.5 ppm |
| Titration Acid (μeq/g)                                  | ≤ 0.3         | 0.2     |
| Titration Base (μeq/g)                                  | ≤ 0.10        | 0.05    |
| Water (by KF, coulometric)                              | ≤ 0.08 %      | 0.01 %  |
| Volatile Organic Trace Analysis - Below EPA 8260B CRQL  | Conforms      | Fails   |

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

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700  
Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

# SHIPPING DOCUMENTS

# CHEMTECH

## CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092  
(908) 789-8900 • Fax (908) 789-8922  
www.chemtech.net

CHEMTECH PROJECT NO. 16070  
QUOTE NO. 16070  
COC Number 2035954

### CLIENT INFORMATION

REPORT TO BE SENT TO:  
COMPANY: Jacobs  
ADDRESS: 10 10th Street Suite 1400  
CITY: Atlanta STATE: GA ZIP: 30309  
ATTENTION: Melissa Warren  
PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

### CLIENT PROJECT INFORMATION

PROJECT NAME: Princeton Site  
PROJECT NO.: D3662225 LOCATION: Princeton Junction NJ  
PROJECT MANAGER: Chris English  
e-mail: Chris.English@Jacobs.com  
PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

### CLIENT BILLING INFORMATION

BILL TO: Chris English PO#: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
ATTENTION: \_\_\_\_\_ PHONE: \_\_\_\_\_

### ANALYSIS

### DATA TURNAROUND INFORMATION

FAX (RUSH) Rush! DAYS\*  
HARDCOPY (DATA PACKAGE): 24 Hr VOC DAYS\*  
EDD: 48 Hr 1.4 DDX DAYS\*  
\*TO BE APPROVED BY CHEMTECH  
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

### DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)  
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP  
☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B  
+ Raw Data ☐ Other \_\_\_\_\_  
☐ EDD FORMAT \_\_\_\_\_

Side Specific VOCs  
1.4 DDX

### PRESERVATIVES

### COMMENTS

| CHEMTECH<br>SAMPLE<br>ID | PROJECT<br>SAMPLE IDENTIFICATION | SAMPLE<br>MATRIX | SAMPLE<br>TYPE |      | SAMPLE<br>COLLECTION |      | # OF BOTTLES | PRESERVATIVES |   |  |  |  |  |  |  |  | COMMENTS |
|--------------------------|----------------------------------|------------------|----------------|------|----------------------|------|--------------|---------------|---|--|--|--|--|--|--|--|----------|
|                          |                                  |                  | COMP           | GRAB | DATE                 | TIME |              | A             | E |  |  |  |  |  |  |  |          |
| 1.                       | GW-BR-04-226-245-121422          | GW               |                | X    | 12-14-22             | 1030 | 3            | X             | X |  |  |  |  |  |  |  | Rush!    |
| 2.                       | TB-01-121422                     | DI               |                | X    | 12-14-22             | 1035 | 2            | X             |   |  |  |  |  |  |  |  |          |
| 3.                       | QWBR-01-160-180-121422           | GW               |                | X    | 12-14-22             | 800  | 3            | X             | X |  |  |  |  |  |  |  | Rush!    |
| 4.                       | OWBR-02-160-180-121422           | GW               |                | X    | 12-14-22             | 900  | 3            | X             | X |  |  |  |  |  |  |  | Rush!    |
| 5.                       | QWBR-03-128-148-121422           | GW               |                | X    | 12-14-22             | 1000 | 3            | X             | X |  |  |  |  |  |  |  | Rush!    |
| 6.                       |                                  |                  |                |      |                      |      |              |               |   |  |  |  |  |  |  |  |          |
| 7.                       |                                  |                  |                |      |                      |      |              |               |   |  |  |  |  |  |  |  |          |
| 8.                       |                                  |                  |                |      |                      |      |              |               |   |  |  |  |  |  |  |  |          |
| 9.                       |                                  |                  |                |      |                      |      |              |               |   |  |  |  |  |  |  |  |          |
| 10.                      |                                  |                  |                |      |                      |      |              |               |   |  |  |  |  |  |  |  |          |

### SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

|                                                   |                                    |                                                |                                                                                                                                                                                      |
|---------------------------------------------------|------------------------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RELINQUISHED BY SAMPLER:<br>1. <u>TS</u>          | DATE/TIME:<br><u>12-14-22/1600</u> | RECEIVED BY:<br><u>[Signature]</u> <u>1600</u> | Conditions of bottles or coolers at receipt: <input checked="" type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <input type="checkbox"/> COOLER TEMP <u>4.2</u> °C |
| RELINQUISHED BY SAMPLER:<br>2. <u>[Signature]</u> | DATE/TIME:                         | RECEIVED BY:                                   | Comments: <u>See work order for site specific voc list</u>                                                                                                                           |
| RELINQUISHED BY SAMPLER:<br>3. <u>[Signature]</u> | DATE/TIME: <u>12-14-22</u>         | RECEIVED BY: <u>SB</u>                         |                                                                                                                                                                                      |

Page 1 of 1

CLIENT: ☒ Hand Delivered ☐ Other \_\_\_\_\_  
CHEMTECH: ☒ Picked Up ☐ Field Sampling

Shipment Complete  
☒ YES ☐ NO

---

**From:** Ynfante, John <John.Ynfante@jacobs.com>  
**Sent:** Thursday, December 22, 2022 10:14 PM  
**To:** Jordan Hedvat; Samantha@chemtech.net  
**Cc:** CHEMTECH-Data@chemtech.net  
**Subject:** RE: [EXTERNAL] Summary Report Details For Project Former Schlumberger Site Princeton NJ-N6070.

Jordan and Samantha,

It was brought to my attention that this report N6070 has some incorrect sample IDs. The first sample GW-BR-04-226-245-121422 is correct, but the other 3 samples need to be corrected to match the chain as listed below:  
GW-BR-01-160-180-121422 should be "OWBR-01-160-180-121422"  
GW-BR-02-160-180-121422 should be "OWBR-02-160-180-121422"  
GW-BR-03-128-148-121422 should be "OWBR-03-128-148-121422"

Please revise and reissue the data. Thanks!

- John Y.

---

**From:** CHEMTECH-Data@chemtech.net <CHEMTECH-Data@chemtech.net>  
**Sent:** Monday, December 19, 2022 5:35 PM  
**To:** Murphy, Mary <Mary.Murphy@jacobs.com>; Warren, Melissa <Melissa.Warren@jacobs.com>; Scott, Doug <Doug.Scott@jacobs.com>; Bingeman, Ian <Ian.Bingeman@jacobs.com>; Jones, Philip <Philip.Jones1@jacobs.com>; Garvey, Bethany <Bethany.Garvey@jacobs.com>; khummmler@chemtech.net; Ynfante, John <John.Ynfante@jacobs.com>  
**Subject:** [EXTERNAL] Summary Report Details For Project Former Schlumberger Site Princeton NJ-N6070.



**To Doug Scott;**

**Please see the attached Summary Report for the following project, or download the file using your login credentials from the link below.**

**Order ID** : N6070  
**Project ID** : Former Schlumberger Site Princeton NJ  
**Download File** : <https://chemtech.net/secureLogin.aspx>  
**Order Date** : 12/14/2022 4:13:00 PM

**CHEMTECH's Project Manager** : Samantha Beazley , [Samantha@chemtech.net](mailto:Samantha@chemtech.net) , Ext :

**CHEMTECH's Sales Executive** : Kurt Hummler , [khummler@chemtech.net](mailto:khummler@chemtech.net) , 908-728-3143 Ext :3143

Thank you for the opportunity to provide you with our services. For any questions please feel free to contact your project manager.

Click Here for our short online customer Survey [//chemtech.net/ClientSurvey.aspx](http://chemtech.net/ClientSurvey.aspx).

**Thank you,**

**CHEMTECH**

Notice: The information transmitted in this e-mail message and in any attachments is intended Solely for the attention of the named addressee(s) and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is strictly prohibited and may be unlawful. If you have received this transmission in error, please notify us immediately by return e-mail, and permanently delete this transmission, including attachments if any, from any computer.

---

NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any viewing, copying or distribution of, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer.



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

### Laboratory Certification

| Certified By         | License No.      |
|----------------------|------------------|
|                      |                  |
| CAS EPA CLP Contract | 68HERH20D0011    |
|                      |                  |
| Connecticut          | PH-0649          |
|                      |                  |
| DOD ELAP (L-A-B)     | L2219            |
|                      |                  |
| Maine                | 2022022          |
|                      |                  |
| Maryland             | 296              |
|                      |                  |
| New Hampshire        | 255422           |
|                      |                  |
| New Jersey           | 20012            |
|                      |                  |
| New York             | 11376            |
|                      |                  |
| Pennsylvania         | 68-00548         |
|                      |                  |
| Soil Permit          | P330-21-00137    |
|                      |                  |
| Texas                | T104704488-22-15 |



## LOGIN REPORT/SAMPLE TRANSFER

Order ID : N6070 JACO05

Order Date : 12/14/2022 4:13:00 PM

Project Mgr :

Client Name : JACOBS Engineering Grou

Project Name : Former Schlumberger Site F

Report Type : Level 4

Client Contact : Doug Scott

Receive DateTime : 12/14/2022 12:00:00 AM

EDD Type : CH2MHILL

Invoice Name : JACOBS Engineering Grou

Purchase Order :

Hard Copy Date :

Invoice Contact : Doug Scott

Date Signoff :

| LAB ID   | CLIENT ID               | MATRIX | SAMPLE DATE | SAMPLE TIME | TEST         | TEST GROUP | METHOD   | FAX DATE | DUE DATES    |
|----------|-------------------------|--------|-------------|-------------|--------------|------------|----------|----------|--------------|
| N6070-01 | GW-BR-04-226-245-121422 | Water  | 12/14/2022  | 10:30       | VOCMS Group3 |            | 8260-Low |          | 1 Bus. Day   |
| N6070-02 | TB-01-121422            | Water  | 12/14/2022  | 10:35       | VOCMS Group3 |            | 8260-Low |          | 10 Bus. Days |
| N6070-03 | GW-BR-01-160-180-121422 | Water  | 12/14/2022  | 08:00       | VOCMS Group3 |            | 8260-Low |          | 1 Bus. Day   |
| N6070-04 | GW-BR-02-160-180-121422 | Water  | 12/14/2022  | 09:00       | VOCMS Group3 |            | 8260-Low |          | 1 Bus. Day   |
| N6070-05 | GW-BR-03-128-148-121422 | Water  | 12/14/2022  | 10:00       | VOCMS Group3 |            | 8260-Low |          | 1 Bus. Day   |

Relinquished By : 

Date / Time : 12-14-22 1740

Received By : 

Date / Time : 12/14/22 1740

Storage Area : VOA Refridgerator Room