

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_V\DATA\VW091625\  
 Data File : VW039102.D  
 Acq On : 16 Sep 2025 13:28  
 Operator : SY/MD  
 Sample : Q3084-09  
 Misc : 25.0mL/MSVOA\_V/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :

Quant Time: Sep 17 02:22:55 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_V\Method\SFAMVTR091525WMA.M  
 Quant Title : TRACE VOA SFAM1.0  
 QLast Update : Wed Sep 17 02:19:46 2025  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 1) 1,4-Difluorobenzene     | 5.538  | 114  | 366992   | 5.000 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.776  | 117  | 379922   | 5.000 | ug/L  | 0.00     |
| 58) 1,4-Dichlorobenzene-d4 | 11.175 | 152  | 215846   | 5.000 | ug/L  | # 0.00   |

## System Monitoring Compounds

|                               |        |       |          |          |      |          |
|-------------------------------|--------|-------|----------|----------|------|----------|
| 4) Vinyl Chloride-d3          | 1.291  | 65    | 126146   | 4.358    | ug/L | 0.00     |
| Spiked Amount                 | 5.000  | Range | 40 - 130 | Recovery | =    | 87.200%  |
| 7) Chloroethane-d5            | 1.545  | 69    | 115240   | 4.594    | ug/L | 0.00     |
| Spiked Amount                 | 5.000  | Range | 65 - 130 | Recovery | =    | 91.800%  |
| 11) 1,1-Dichloroethene-d2     | 2.072  | 65    | 57242    | 4.151    | ug/L | 0.00     |
| Spiked Amount                 | 5.000  | Range | 60 - 125 | Recovery | =    | 83.000%  |
| 20) 2-Butanone-d5             | 3.789  | 46    | 247776   | 57.636   | ug/L | 0.00     |
| Spiked Amount                 | 50.000 | Range | 40 - 130 | Recovery | =    | 115.280% |
| 24) Chloroform-d              | 4.256  | 84    | 267753   | 4.763    | ug/L | 0.00     |
| Spiked Amount                 | 5.000  | Range | 70 - 125 | Recovery | =    | 95.200%  |
| 26) 1,2-Dichloroethane-d4     | 4.947  | 65    | 118996   | 5.027    | ug/L | 0.00     |
| Spiked Amount                 | 5.000  | Range | 70 - 130 | Recovery | =    | 100.600% |
| 32) Benzene-d6                | 4.963  | 84    | 487434   | 4.689    | ug/L | 0.00     |
| Spiked Amount                 | 5.000  | Range | 70 - 125 | Recovery | =    | 93.800%  |
| 36) 1,2-Dichloropropane-d6    | 5.989  | 67    | 153155   | 4.929    | ug/L | 0.00     |
| Spiked Amount                 | 5.000  | Range | 60 - 140 | Recovery | =    | 98.600%  |
| 41) Toluene-d8                | 7.239  | 98    | 362598   | 3.896    | ug/L | 0.00     |
| Spiked Amount                 | 5.000  | Range | 70 - 130 | Recovery | =    | 78.000%  |
| 43) trans-1,3-Dichloroprop... | 7.558  | 79    | 47512    | 4.180    | ug/L | 0.00     |
| Spiked Amount                 | 5.000  | Range | 55 - 130 | Recovery | =    | 83.600%  |
| 46) 2-Hexanone-d5             | 8.017  | 63    | 164161   | 44.615   | ug/L | 0.00     |
| Spiked Amount                 | 50.000 | Range | 45 - 130 | Recovery | =    | 89.220%  |
| 56) 1,1,2,2-Tetrachloroeth... | 10.143 | 84    | 112231   | 5.059    | ug/L | 0.00     |
| Spiked Amount                 | 5.000  | Range | 65 - 120 | Recovery | =    | 101.200% |
| 66) 1,2-Dichlorobenzene-d4    | 11.548 | 152   | 138810   | 3.995    | ug/L | 0.00     |
| Spiked Amount                 | 5.000  | Range | 80 - 120 | Recovery | =    | 80.000%  |

## Target Compounds

|                              |        |     |         |        | Qvalue     |
|------------------------------|--------|-----|---------|--------|------------|
| 5) Vinyl chloride            | 1.294  | 62  | 222408  | 5.534  | ug/L # 55  |
| 8) Chloroethane              | 1.670  | 64  | 2484    | 0.099  | ug/L # 63  |
| 12) 1,1-Dichloroethene       | 2.082  | 96  | 36962   | 1.227  | ug/L # 11  |
| 16) Methylene chloride       | 2.461  | 84  | 7449    | 0.220  | ug/L # 88  |
| 17) Methyl tert-butyl Ether  | 2.719  | 73  | 18406   | 0.355  | ug/L # 74  |
| 18) trans-1,2-Dichloroethene | 2.703  | 96  | 318170  | 10.373 | ug/L # 99  |
| 19) 1,1-Dichloroethane       | 3.121  | 63  | 858479  | 15.260 | ug/L # 99  |
| 22) cis-1,2-Dichloroethene   | 3.815  | 96  | 2706458 | 90.409 | ug/L # 98  |
| 27) 1,2-Dichloroethane       | 5.056  | 62  | 19504   | 0.652  | ug/L # 99  |
| 33) Benzene                  | 5.014  | 78  | 420192  | 3.514  | ug/L # 100 |
| 34) Trichloroethene          | 5.857  | 95  | 6046    | 0.188  | ug/L # 90  |
| 35) Methylcyclohexane        | 5.989  | 83  | 41580   | 0.824  | ug/L # 19  |
| 37) 1,2-Dichloropropane      | 5.989  | 63  | 16619   | 0.536  | ug/L # 88  |
| 42) Toluene                  | 7.329  | 91  | 31022   | 0.249  | ug/L # 98  |
| 51) Chlorobenzene            | 8.802  | 112 | 3289111 | 40.887 | ug/L # 98  |
| 52) Ethylbenzene             | 8.953  | 91  | 11229   | 0.087  | ug/L # 95  |
| 53) m,p-Xylene               | 9.095  | 106 | 2607    | 0.052  | ug/L # 95  |
| 61) 1,2,3-Trichloropropane   | 11.104 | 75  | 1320010 | 72.600 | ug/L # 49  |
| 64) 1,3-Dichlorobenzene      | 11.104 | 146 | 4192048 | 59.504 | ug/L # 97  |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_V\DATA\VV091625\  
Data File : VV039102.D  
Acq On : 16 Sep 2025 13:28  
Operator : SY/MD  
Sample : Q3084-09  
Misc : 25.0mL/MSVOA\_V/WATER  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :

Quant Time: Sep 17 02:22:55 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_V\Method\SFAMVTR091525WMA.M  
Quant Title : TRACE VOA SFAM1.0  
QLast Update : Wed Sep 17 02:19:46 2025  
Response via : Initial Calibration

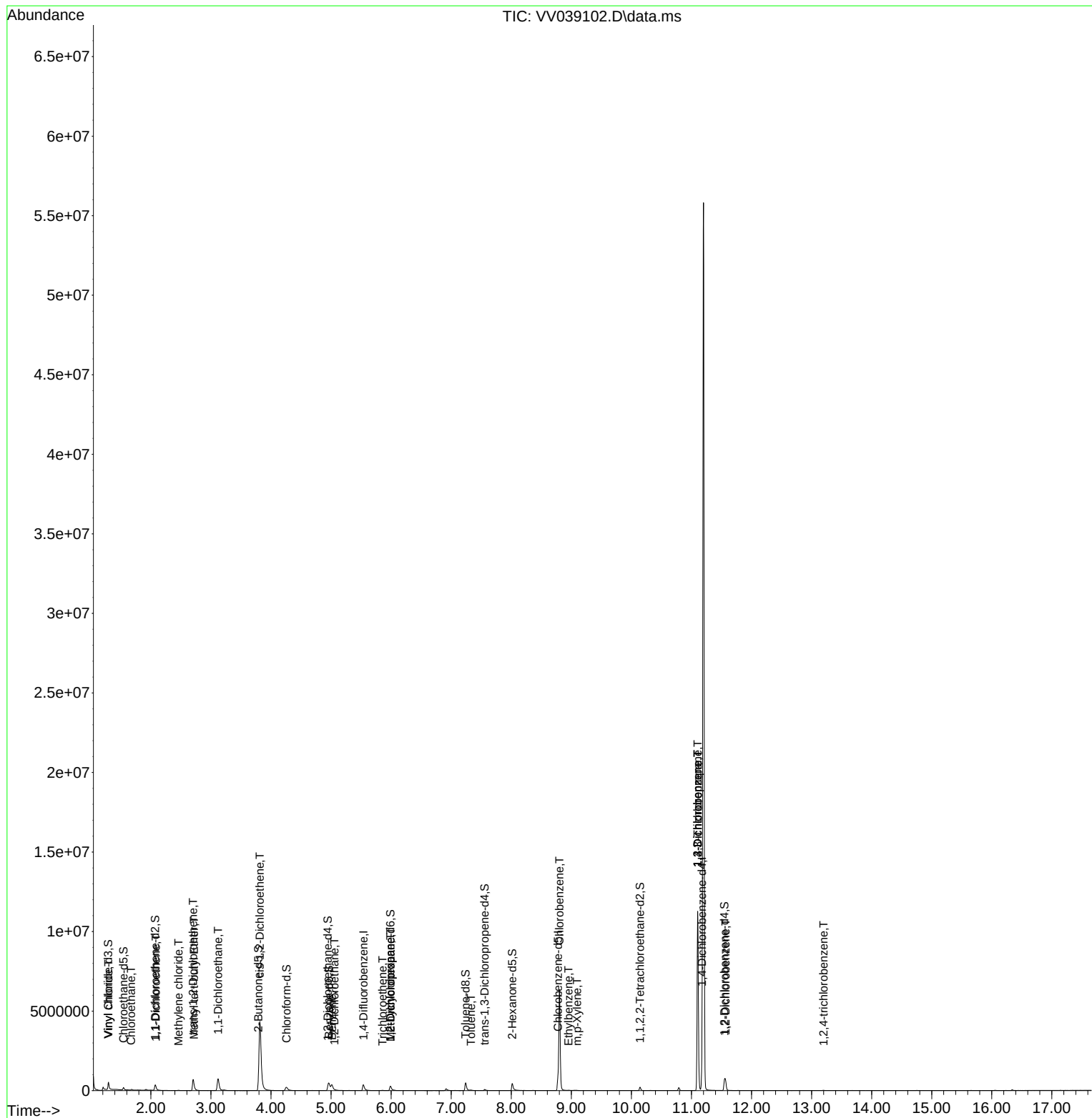
| Compound                   | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|--------|------|----------|--------|-------|----------|
| 65) 1,4-Dichlorobenzene    | 11.104 | 146  | 4192048  | 57.520 | ug/L  | 97       |
| 67) 1,2-Dichlorobenzene    | 11.567 | 146  | 234359   | 3.754  | ug/L  | 99       |
| 70) 1,2,4-trichlorobenzene | 13.197 | 180  | 6922     | 0.199  | ug/L  | 96       |

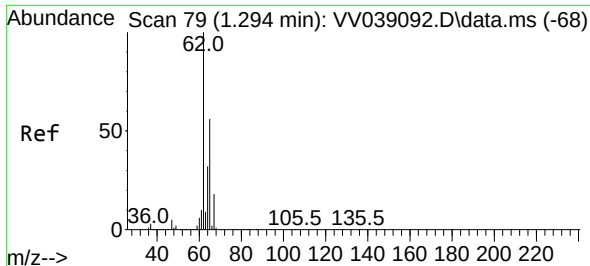
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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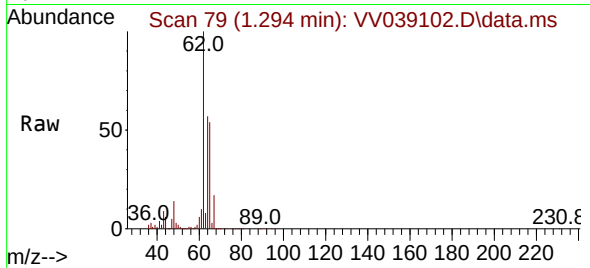


#5  
 Vinyl chloride  
 Concen: 5.534 ug/L  
 RT: 1.294 min Scan# 79  
 Delta R.T. -0.000 min  
 Lab File: VV039102.D  
 Acq: 16 Sep 2025 13:28

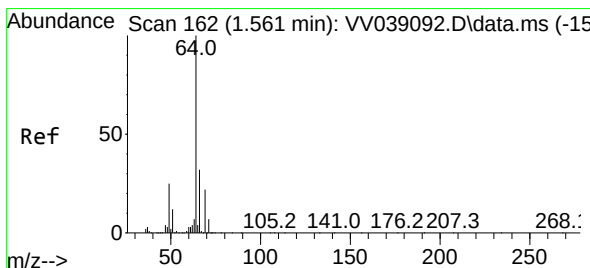
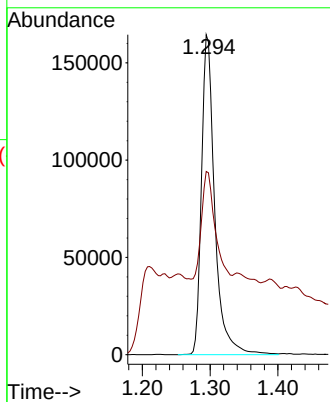
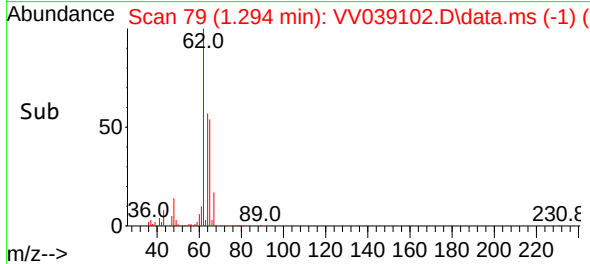
Instrument :

MSVOA\_V

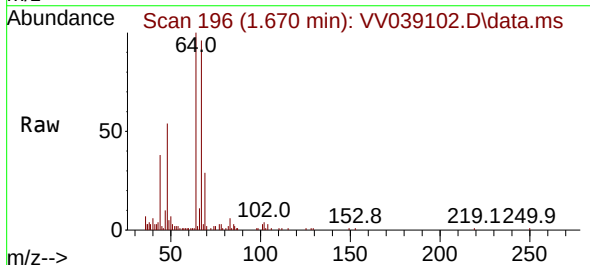
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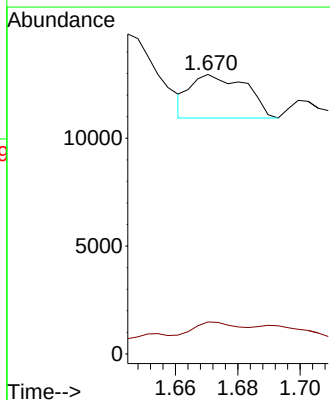
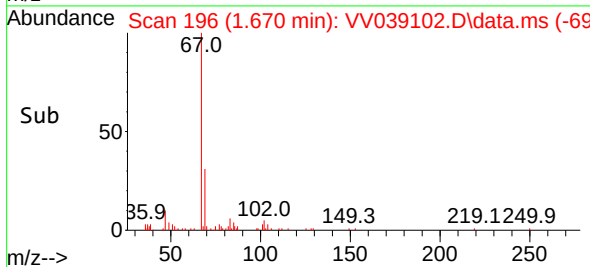
Tgt Ion: 62 Resp: 222408  
 Ion Ratio Lower Upper  
 62 100  
 64 57.3 22.4 41.6#

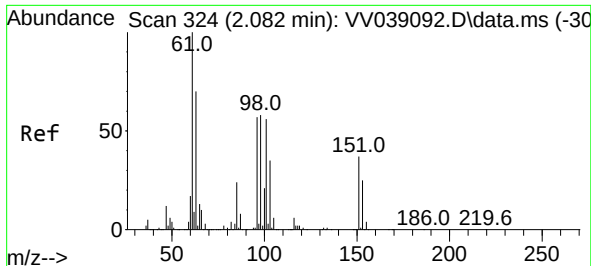


#8  
 Chloroethane  
 Concen: 0.099 ug/L  
 RT: 1.670 min Scan# 196  
 Delta R.T. 0.109 min  
 Lab File: VV039102.D  
 Acq: 16 Sep 2025 13:28



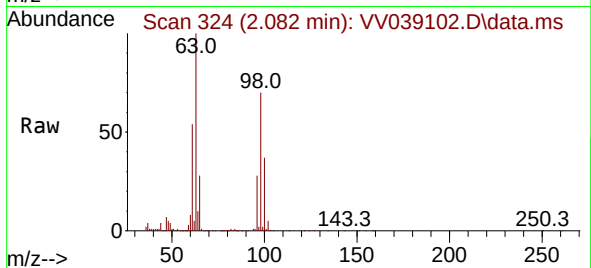
Tgt Ion: 64 Resp: 2484  
 Ion Ratio Lower Upper  
 64 100  
 66 11.5 22.3 41.5#



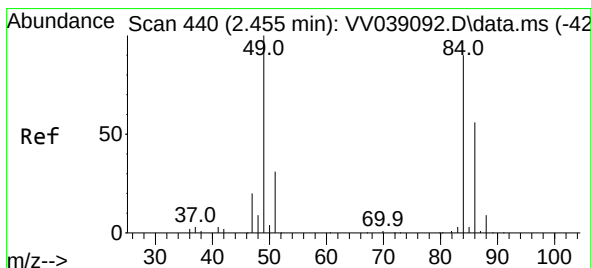
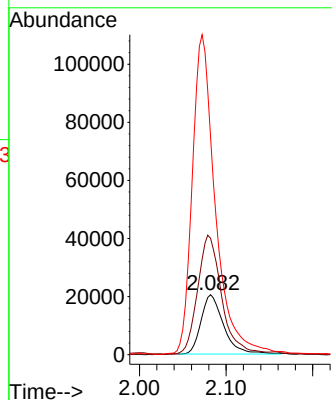
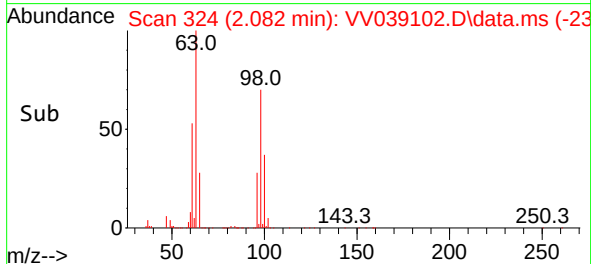


#12  
1,1-Dichloroethene  
Concen: 1.227 ug/L  
RT: 2.082 min Scan# 31  
Delta R.T. -0.000 min  
Lab File: VV039102.D  
Acq: 16 Sep 2025 13:28

Instrument :  
MSVOA\_V  
ClientSampleId :

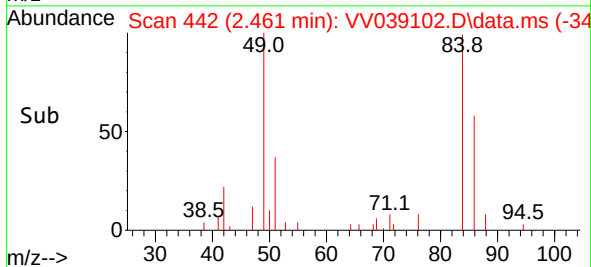
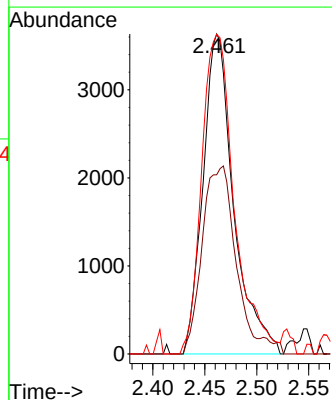
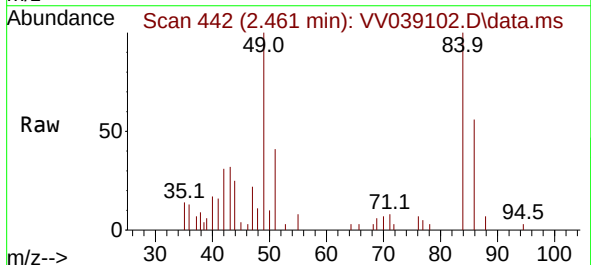


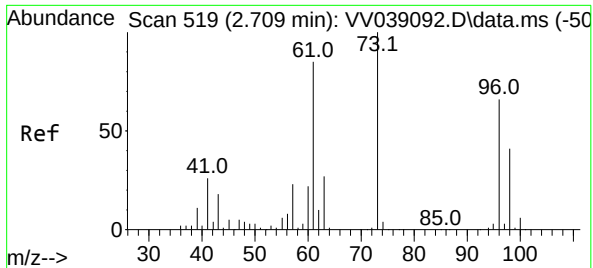
Tgt Ion: 96 Resp: 36962  
Ion Ratio Lower Upper  
96 100  
61 193.8 124.7 231.7  
63 362.2 93.5 173.7#



#16  
Methylene chloride  
Concen: 0.220 ug/L  
RT: 2.461 min Scan# 442  
Delta R.T. 0.006 min  
Lab File: VV039102.D  
Acq: 16 Sep 2025 13:28

Tgt Ion: 84 Resp: 7449  
Ion Ratio Lower Upper  
84 100  
86 56.0 44.2 82.2  
49 99.8 80.6 149.6





#17

Methyl tert-butyl Ether

Concen: 0.355 ug/L

RT: 2.719 min Scan# 519

Delta R.T. 0.010 min

Lab File: VV039102.D

Acq: 16 Sep 2025 13:28

Instrument :

MSVOA\_V

ClientSampleId :

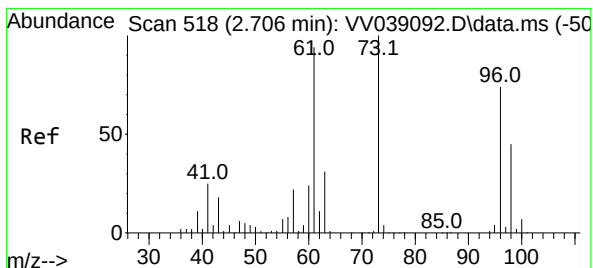
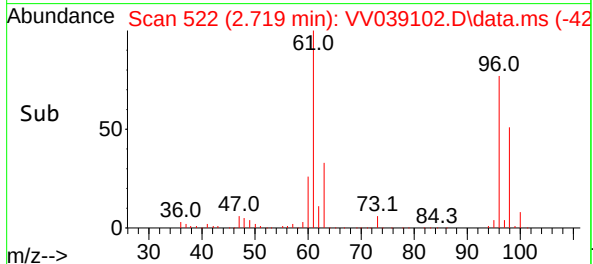
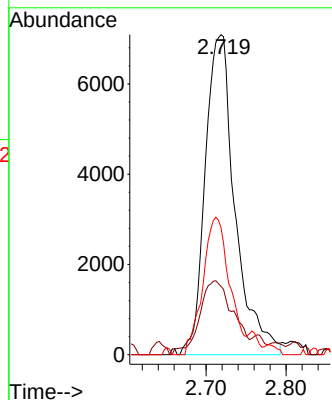
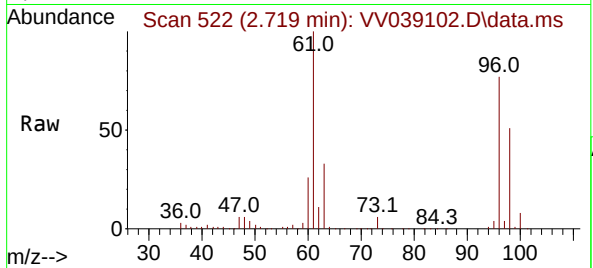
Tgt Ion: 73 Resp: 18406

Ion Ratio Lower Upper

73 100

43 26.0 14.7 22.1#

57 38.4 18.0 27.0#



#18

trans-1,2-Dichloroethene

Concen: 10.373 ug/L

RT: 2.703 min Scan# 517

Delta R.T. -0.003 min

Lab File: VV039102.D

Acq: 16 Sep 2025 13:28

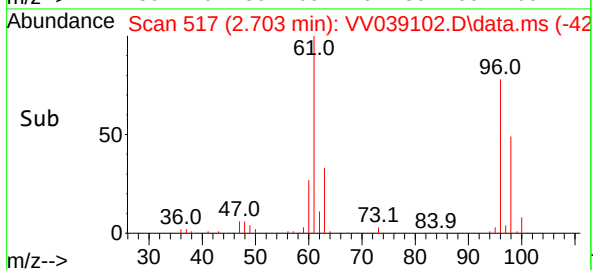
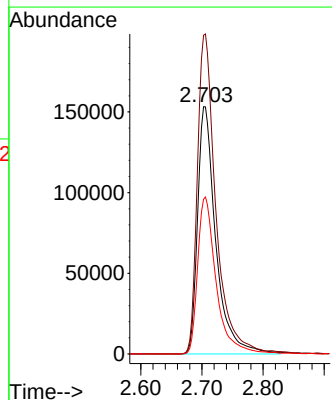
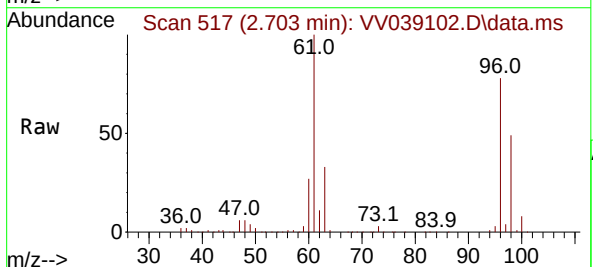
Tgt Ion: 96 Resp: 318170

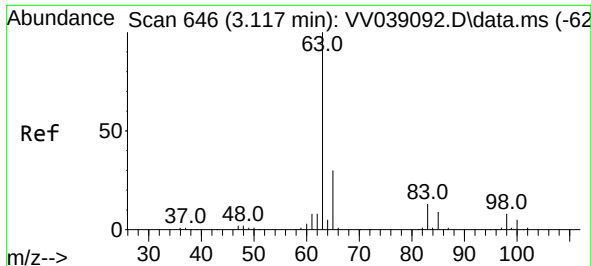
Ion Ratio Lower Upper

96 100

61 128.9 89.7 166.5

98 62.6 44.9 83.3

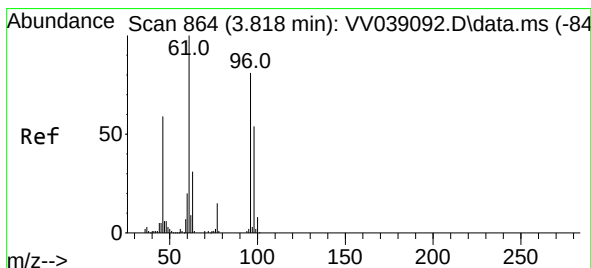
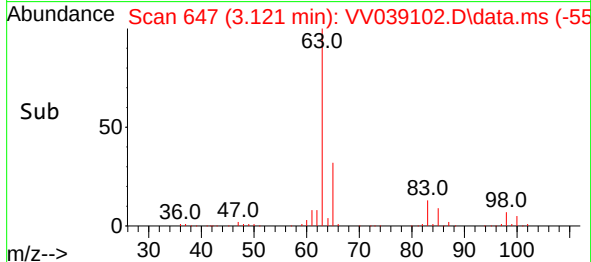
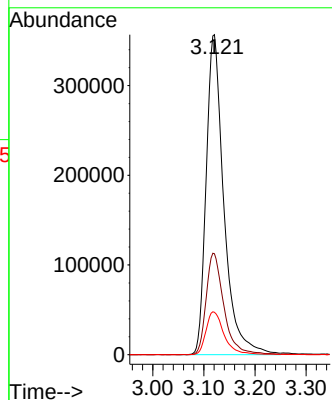
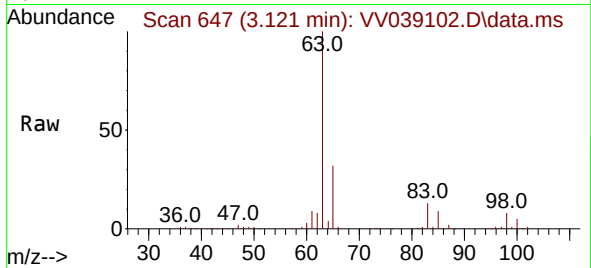




#19  
1,1-Dichloroethane  
Concen: 15.260 ug/L  
RT: 3.121 min Scan# 64  
Delta R.T. 0.003 min  
Lab File: VV039102.D  
Acq: 16 Sep 2025 13:28

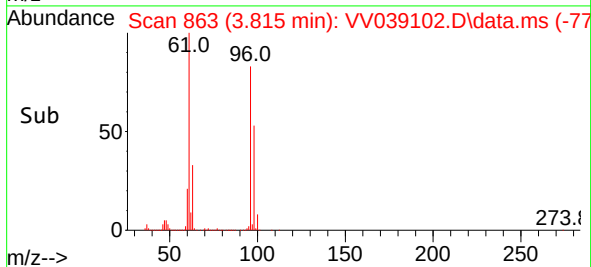
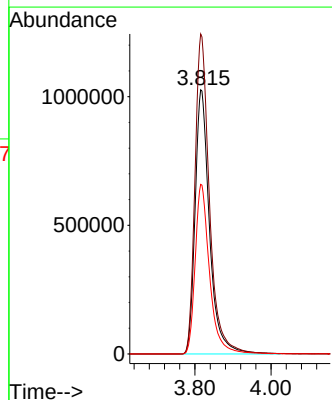
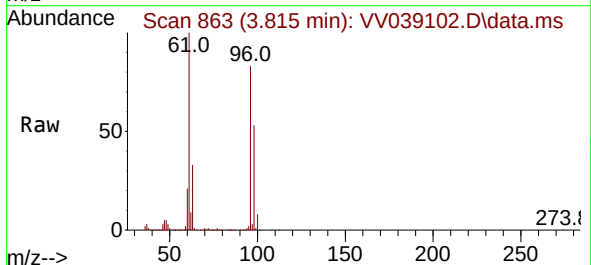
Instrument :  
MSVOA\_V  
ClientSampleId :

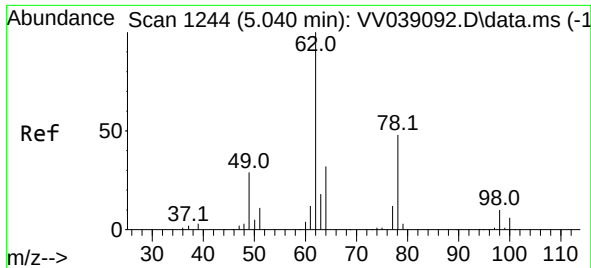
Tgt Ion: 63 Resp: 858479  
Ion Ratio Lower Upper  
63 100  
65 31.5 21.5 39.9  
83 13.2 9.2 17.2



#22  
cis-1,2-Dichloroethene  
Concen: 90.409 ug/L  
RT: 3.815 min Scan# 863  
Delta R.T. -0.003 min  
Lab File: VV039102.D  
Acq: 16 Sep 2025 13:28

Tgt Ion: 96 Resp: 2706458  
Ion Ratio Lower Upper  
96 100  
61 121.2 85.4 158.6  
98 64.2 46.6 86.6





#27

1,2-Dichloroethane

Concen: 0.652 ug/L

RT: 5.056 min Scan# 11

Delta R.T. 0.016 min

Lab File: VV039102.D

Acq: 16 Sep 2025 13:28

Instrument :

MSVOA\_V

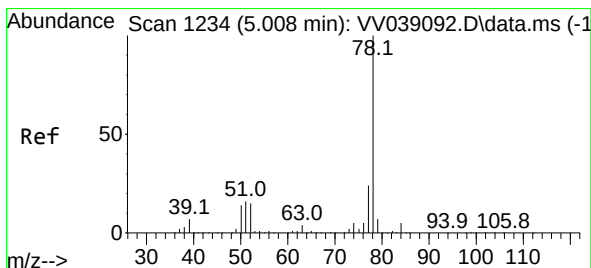
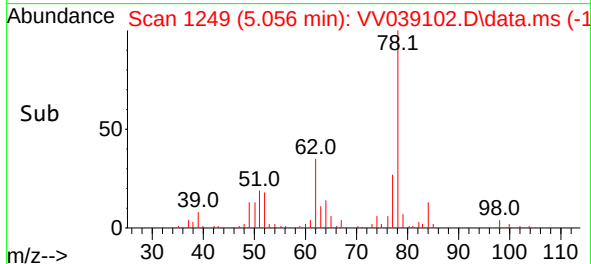
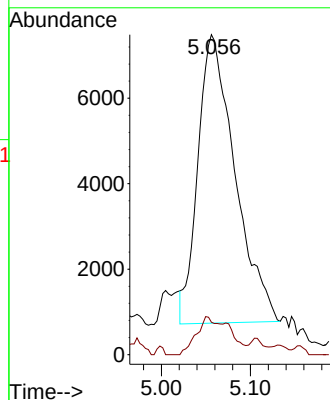
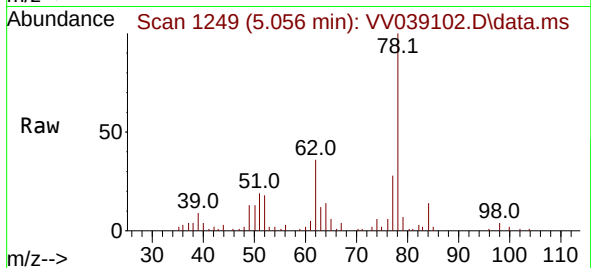
ClientSampleId :

Tgt Ion: 62 Resp: 19504

Ion Ratio Lower Upper

62 100

98 10.2 8.6 12.8



#33

Benzene

Concen: 3.514 ug/L

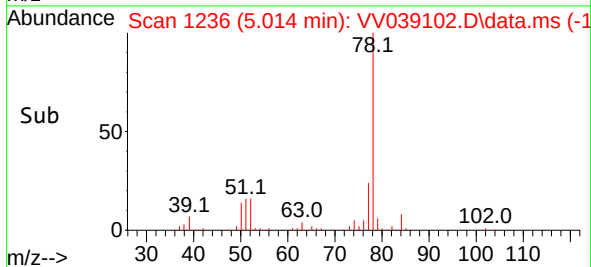
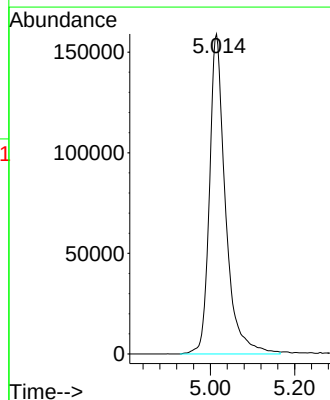
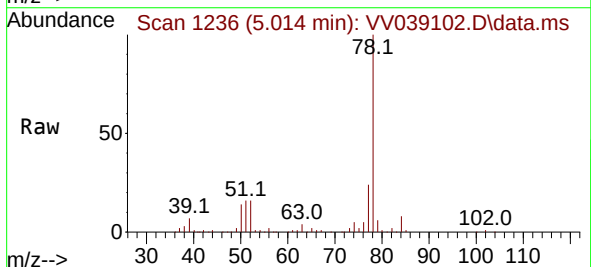
RT: 5.014 min Scan# 1236

Delta R.T. 0.006 min

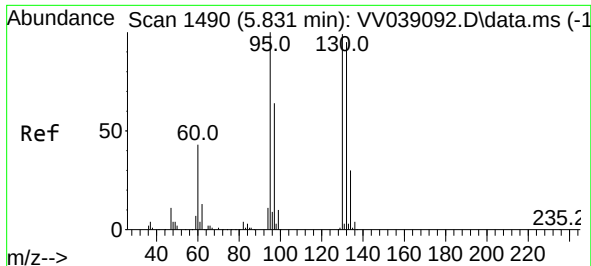
Lab File: VV039102.D

Acq: 16 Sep 2025 13:28

Tgt Ion: 78 Resp: 420192

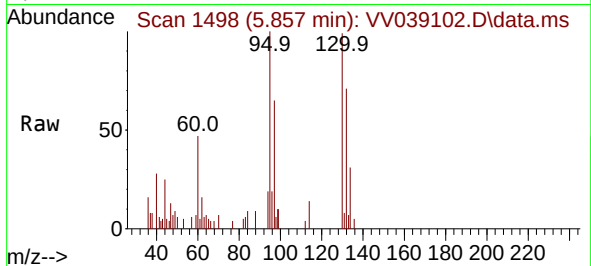




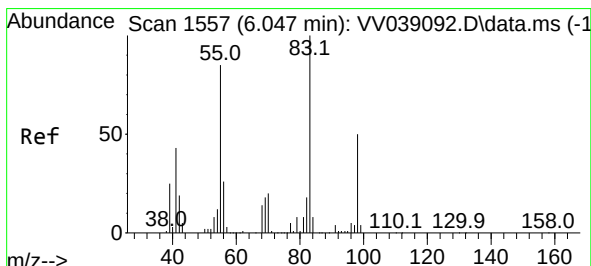
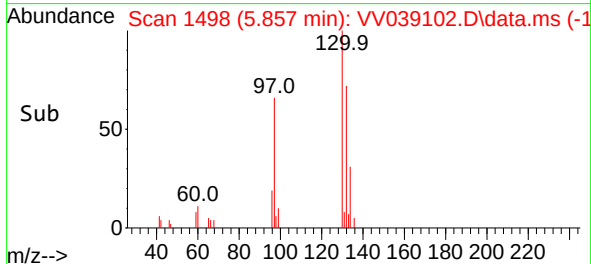
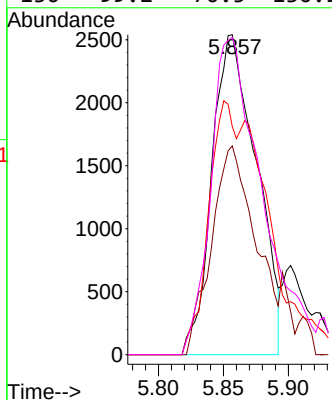


#34  
 Trichloroethene  
 Concen: 0.188 ug/L  
 RT: 5.857 min Scan# 1498  
 Delta R.T. 0.026 min  
 Lab File: VV039102.D  
 Acq: 16 Sep 2025 13:28

Instrument :  
 MSVOA\_V  
 ClientSampleId :

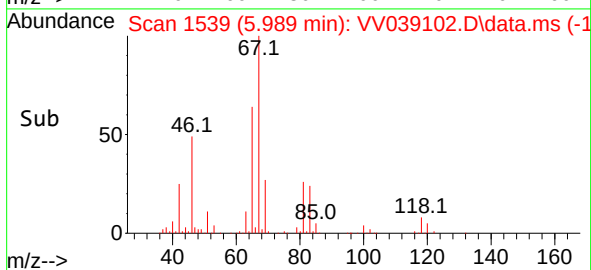
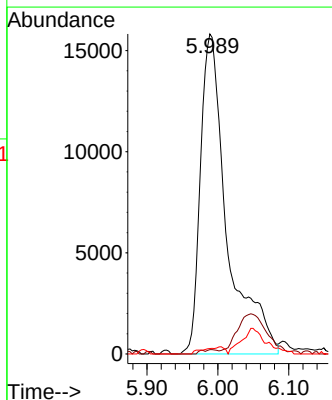
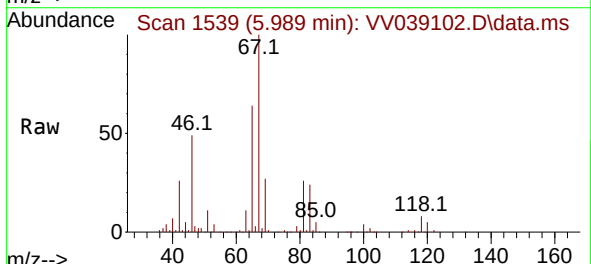


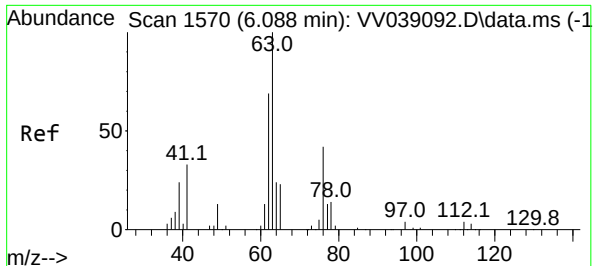
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 97      | 65.2  | 43.3  | 80.5  |
| 132     | 71.3  | 65.5  | 121.7 |
| 130     | 99.2  | 70.5  | 130.9 |



#35  
 Methylcyclohexane  
 Concen: 0.824 ug/L  
 RT: 5.989 min Scan# 1539  
 Delta R.T. -0.058 min  
 Lab File: VV039102.D  
 Acq: 16 Sep 2025 13:28

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 55      | 0.5   | 61.4  | 92.2# |
| 98      | 1.7   | 38.2  | 57.4# |





#37

1,2-Dichloropropane

Concen: 0.536 ug/L

RT: 5.989 min Scan# 1539

Delta R.T. -0.100 min

Lab File: VV039102.D

Acq: 16 Sep 2025 13:28

Instrument :

MSVOA\_V

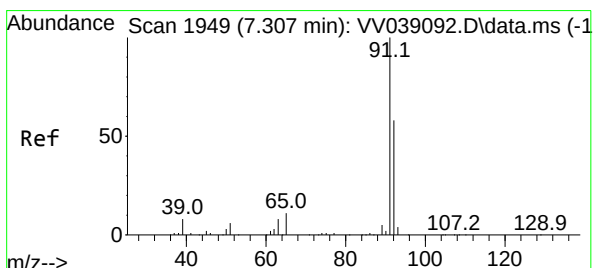
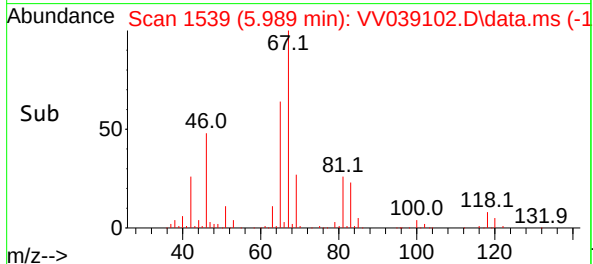
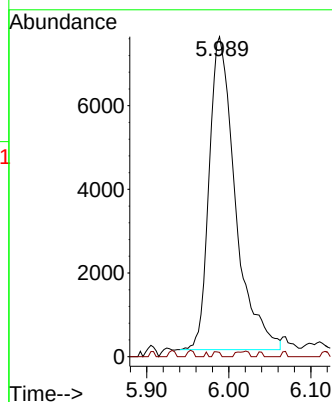
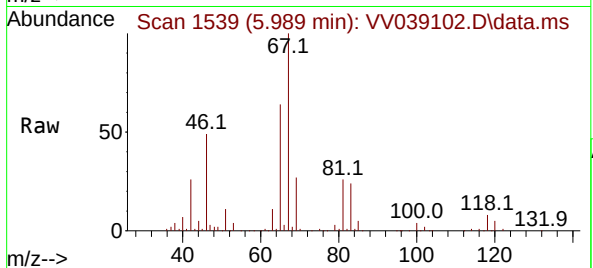
ClientSampleId :

Tgt Ion: 63 Resp: 16619

Ion Ratio Lower Upper

63 100

112 0.4 3.6 5.4#



#42

Toluene

Concen: 0.249 ug/L

RT: 7.329 min Scan# 1956

Delta R.T. 0.022 min

Lab File: VV039102.D

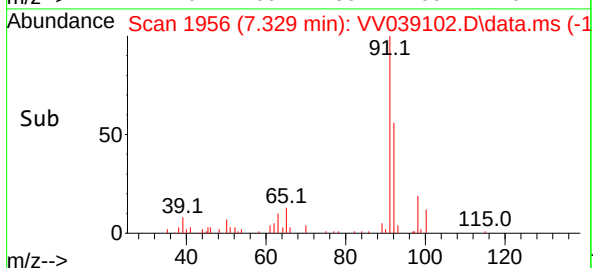
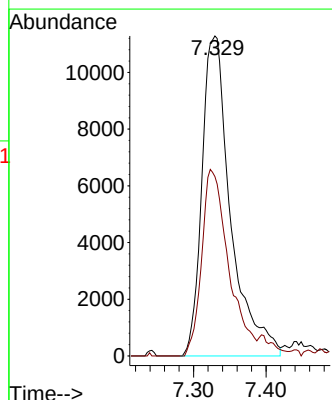
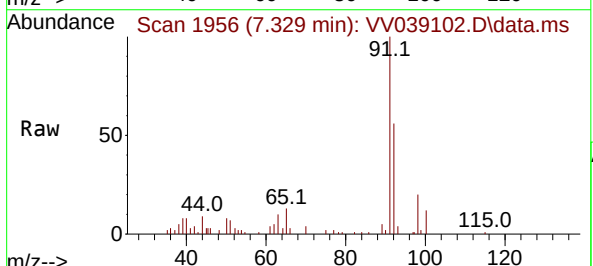
Acq: 16 Sep 2025 13:28

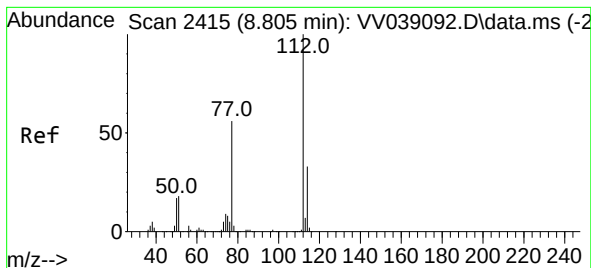
Tgt Ion: 91 Resp: 31022

Ion Ratio Lower Upper

91 100

92 56.0 40.5 75.1





#51

Chlorobenzene

Concen: 40.887 ug/L

RT: 8.802 min Scan# 2415

Delta R.T. -0.003 min

Lab File: VV039102.D

Acq: 16 Sep 2025 13:28

Instrument :

MSVOA\_V

ClientSampleId :

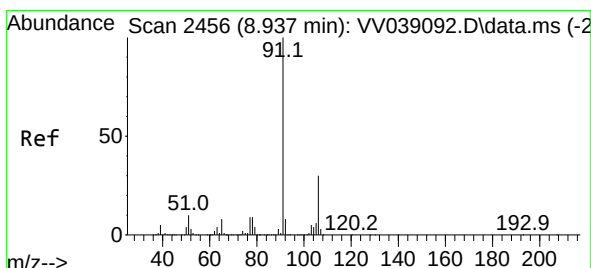
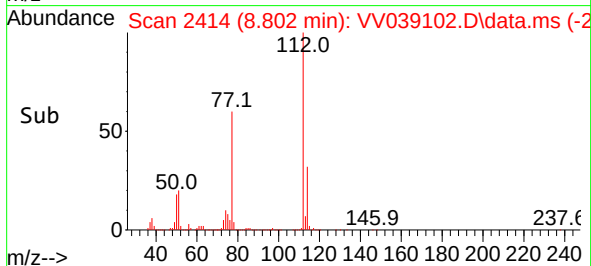
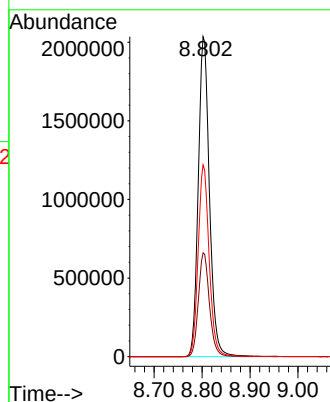
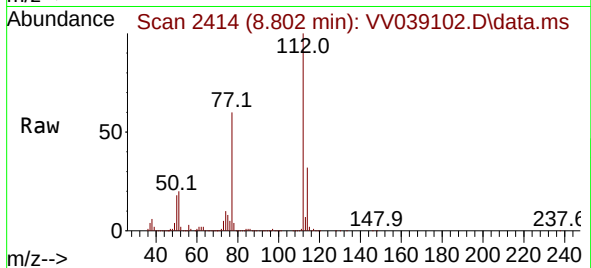
Tgt Ion:112 Resp: 3289111

Ion Ratio Lower Upper

112 100

114 32.5 23.0 42.6

77 60.0 46.6 69.8



#52

Ethylbenzene

Concen: 0.087 ug/L

RT: 8.953 min Scan# 2461

Delta R.T. 0.016 min

Lab File: VV039102.D

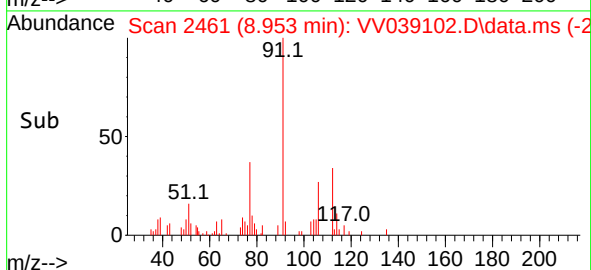
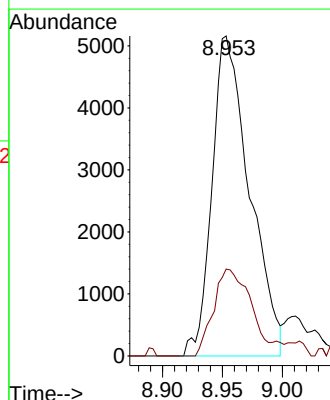
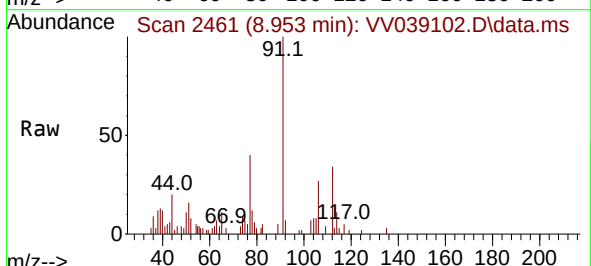
Acq: 16 Sep 2025 13:28

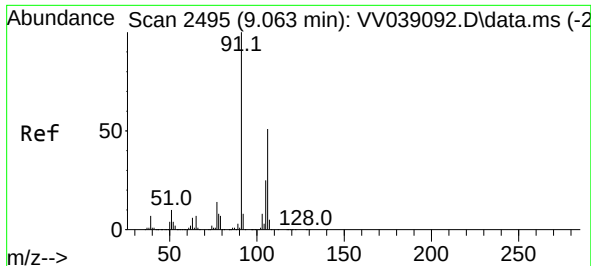
Tgt Ion: 91 Resp: 11229

Ion Ratio Lower Upper

91 100

106 27.2 20.8 38.6

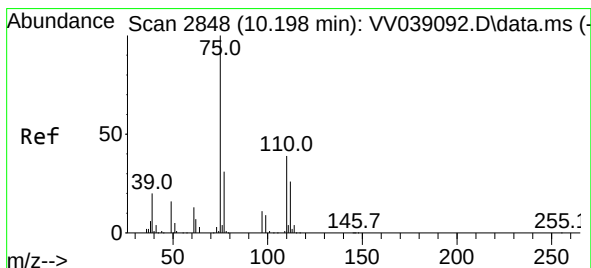
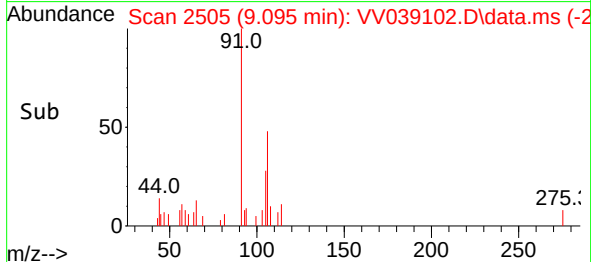
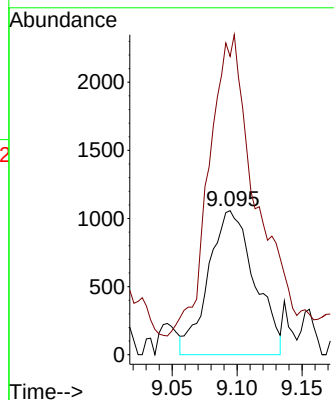
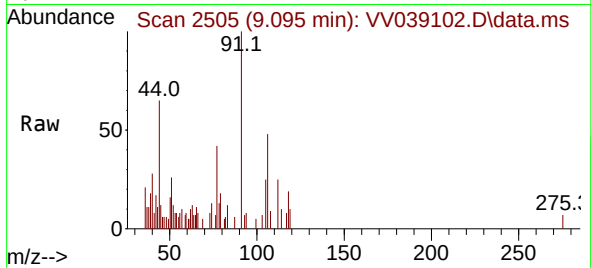




#53  
m,p-Xylene  
Concen: 0.052 ug/L  
RT: 9.095 min Scan# 21  
Delta R.T. 0.032 min  
Lab File: VV039102.D  
Acq: 16 Sep 2025 13:28

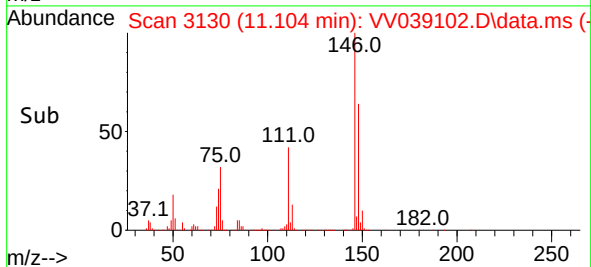
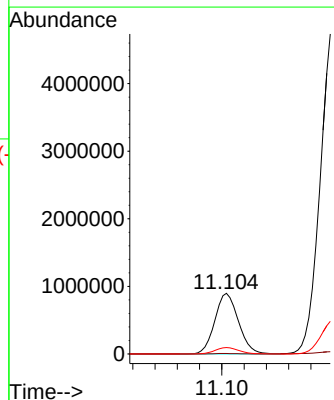
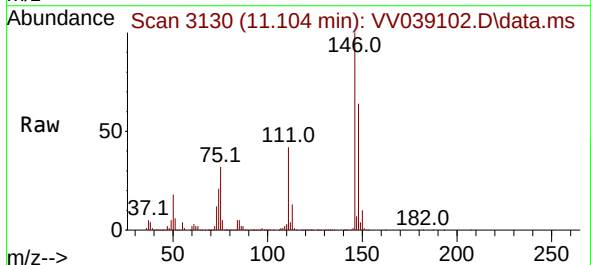
Instrument :  
MSVOA\_V  
ClientSampleId :

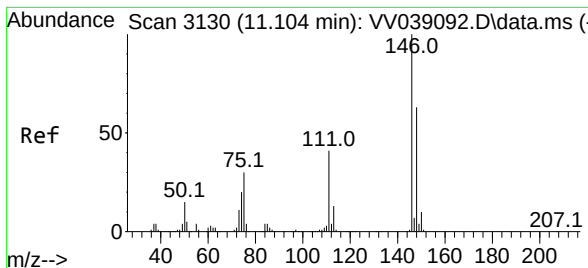
Tgt Ion:106 Resp: 2607  
Ion Ratio Lower Upper  
106 100  
91 207.1 140.1 260.3



#61  
1,2,3-Trichloropropane  
Concen: 72.600 ug/L  
RT: 11.104 min Scan# 3130  
Delta R.T. 0.907 min  
Lab File: VV039102.D  
Acq: 16 Sep 2025 13:28

Tgt Ion: 75 Resp: 1320010  
Ion Ratio Lower Upper  
75 100  
77 0.0 25.1 37.7#  
110 10.8 31.0 46.4#





#64

1,3-Dichlorobenzene

Concen: 59.504 ug/L

RT: 11.104 min Scan# 3130

Delta R.T. -0.000 min

Lab File: VV039102.D

Acq: 16 Sep 2025 13:28

Instrument :

MSVOA\_V

ClientSampleId :

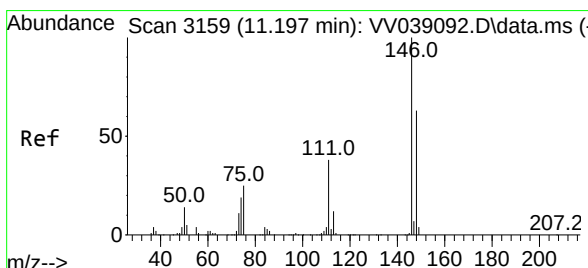
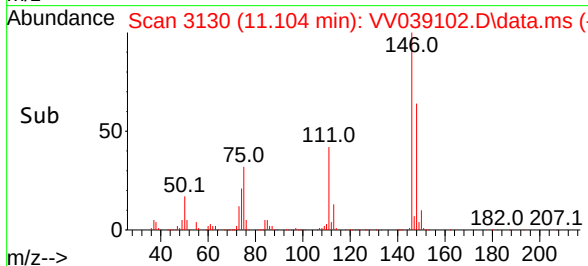
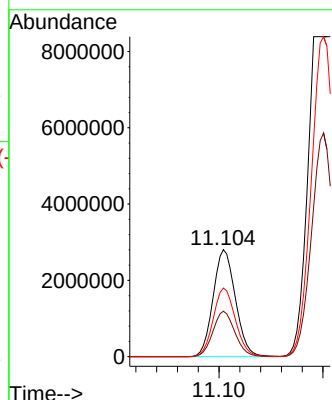
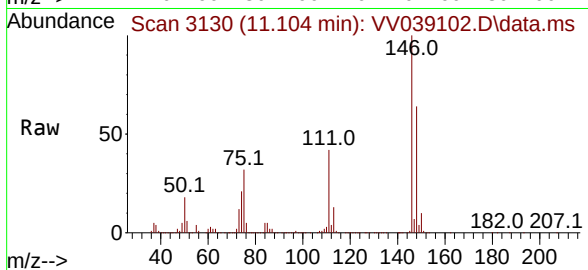
Tgt Ion:146 Resp: 4192048

Ion Ratio Lower Upper

146 100

111 42.4 28.3 52.7

148 64.1 42.9 79.7



#65

1,4-Dichlorobenzene

Concen: 57.520 ug/L

RT: 11.104 min Scan# 3130

Delta R.T. -0.093 min

Lab File: VV039102.D

Acq: 16 Sep 2025 13:28

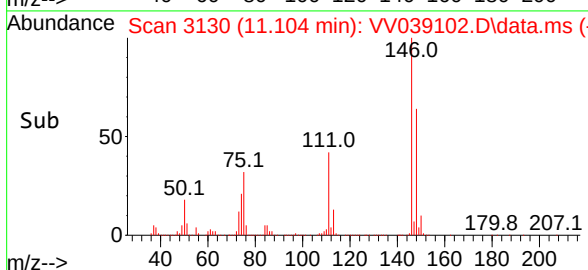
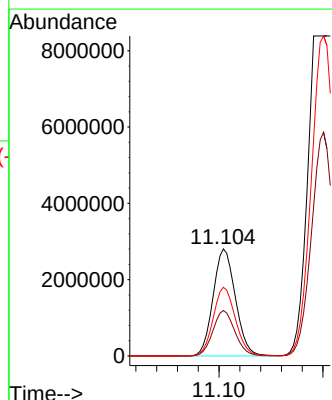
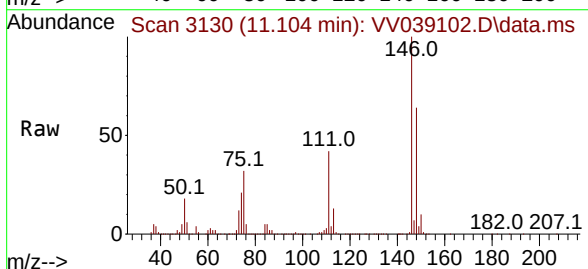
Tgt Ion:146 Resp: 4192048

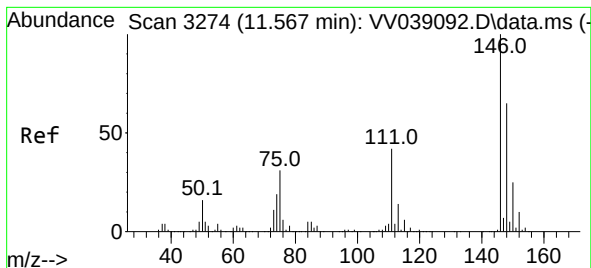
Ion Ratio Lower Upper

146 100

111 42.4 27.2 50.6

148 64.1 43.8 81.4





#67

1,2-Dichlorobenzene

Concen: 3.754 ug/L

RT: 11.567 min Scan# 31

Delta R.T. -0.000 min

Lab File: VV039102.D

Acq: 16 Sep 2025 13:28

Instrument :

MSVOA\_V

ClientSampleId :

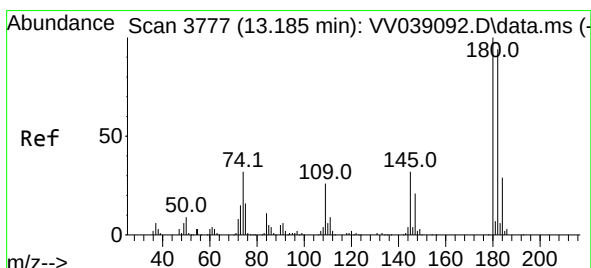
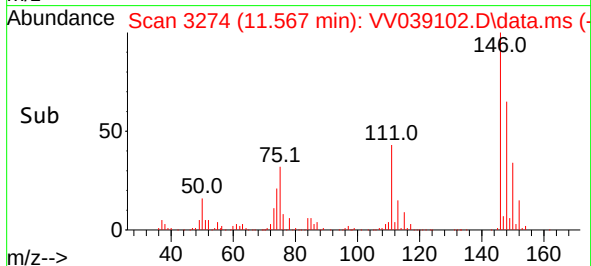
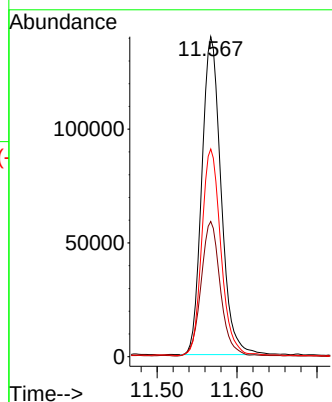
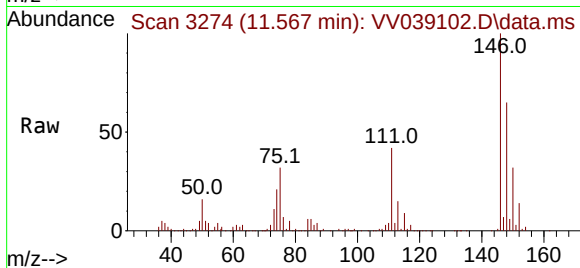
Tgt Ion:146 Resp: 234359

Ion Ratio Lower Upper

146 100

111 42.2 33.4 50.2

148 64.9 51.1 76.7



#70

1,2,4-trichlorobenzene

Concen: 0.199 ug/L

RT: 13.197 min Scan# 3781

Delta R.T. 0.013 min

Lab File: VV039102.D

Acq: 16 Sep 2025 13:28

Tgt Ion:180 Resp: 6922

Ion Ratio Lower Upper

180 100

182 95.4 73.2 109.8

145 28.1 25.0 37.4

