

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL031025\  
 Data File : VL042121.D  
 Acq On : 10 Mar 2025 12:59  
 Operator : SY/MD  
 Sample : Q1532-01  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 1

Quant Time: Mar 11 01:23:55 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL022525AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Wed Feb 26 01:08:36 2025  
 Response via : Initial Calibration

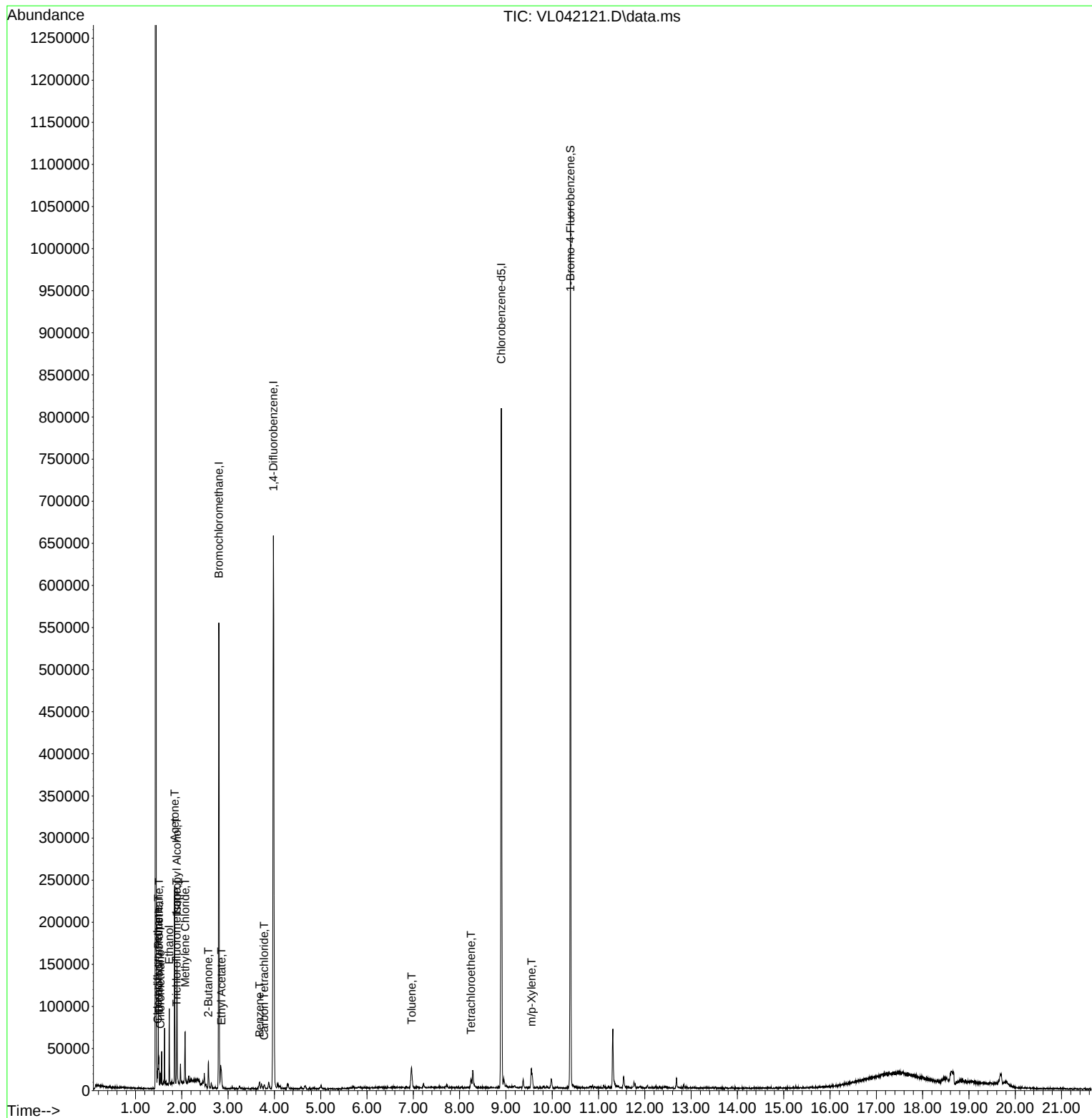
| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 2.800  | 49    | 161577   | 10.000   | ppbv   | 0.00     |
| 33) 1,4-Difluorobenzene     | 3.978  | 114   | 375440   | 10.000   | ppbv   | 0.00     |
| 55) Chlorobenzene-d5        | 8.901  | 117   | 321830   | 10.000   | ppbv   | 0.00     |
|                             |        |       |          |          |        |          |
| System Monitoring Compounds |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene | 10.393 | 95    | 253211   | 10.227   | ppbv   | 0.00     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =      | 102.300% |
|                             |        |       |          |          |        |          |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          |        | Qvalue   |
| 2) Dichlorodifluoromethane  | 1.505  | 85    | 8597     | 0.512    | ppbv   | 98       |
| 3) Chlorodifluoromethane    | 1.482  | 51    | 5866m    | 0.250    | ppbv   |          |
| 4) Chloromethane            | 1.538  | 50    | 3305     | 0.532    | ppbv   | 94       |
| 9) Propene                  | 1.492  | 41    | 7521m    | 0.786    | ppbv   |          |
| 11) Trichlorofluoromethane  | 1.887  | 101   | 4307     | 0.256    | ppbv   | 100      |
| 13) Ethanol                 | 1.728  | 45    | 28335    | 46.657   | ppbv   | 99       |
| 15) Acetone                 | 1.845  | 43    | 102118   | 7.157    | ppbv   | 100      |
| 19) Isopropyl Alcohol       | 1.894  | 45    | 61180    | 7.464    | ppbv   | 98       |
| 20) Methylene Chloride      | 2.072  | 84    | 8920     | 1.653    | ppbv   | 89       |
| 25) Ethyl Acetate           | 2.855  | 43    | 14868    | 0.260    | ppbv # | 96       |
| 34) 2-Butanone              | 2.573  | 43    | 19052    | 0.651    | ppbv   | 97       |
| 35) Carbon Tetrachloride    | 3.777  | 117   | 1796m    | 0.069    | ppbv   |          |
| 36) Benzene                 | 3.680  | 78    | 4940m    | 0.126    | ppbv   |          |
| 52) Tetrachloroethene       | 8.244  | 164   | 1656m    | 0.123    | ppbv   |          |
| 53) Toluene                 | 6.965  | 91    | 17418m   | 0.397    | ppbv   |          |
| 59) m/p-Xylene              | 9.555  | 91    | 16147m   | 0.342    | ppbv   |          |
| -----                       |        |       |          |          |        |          |

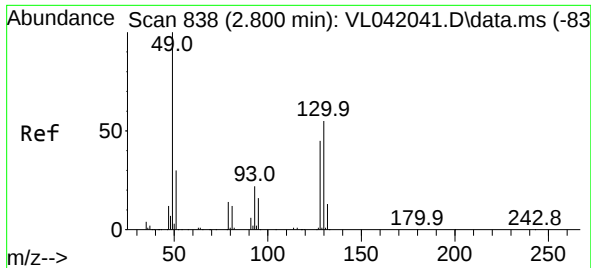
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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1

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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL022525AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Wed Feb 26 01:08:36 2025  
Response via : Initial Calibration

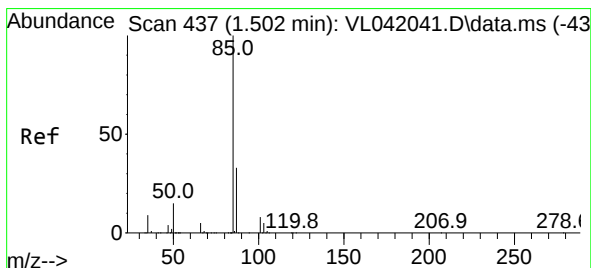
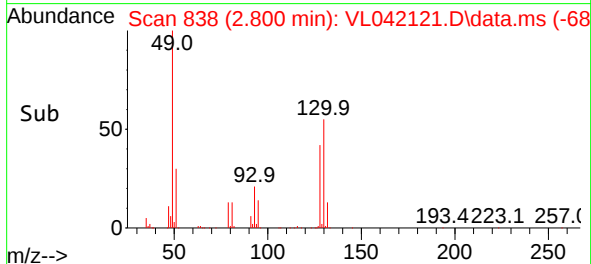
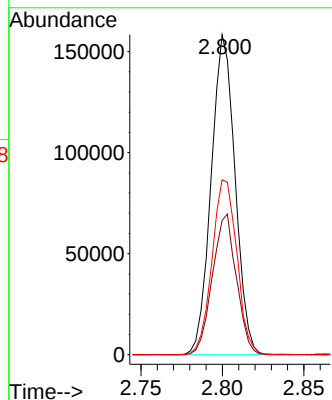
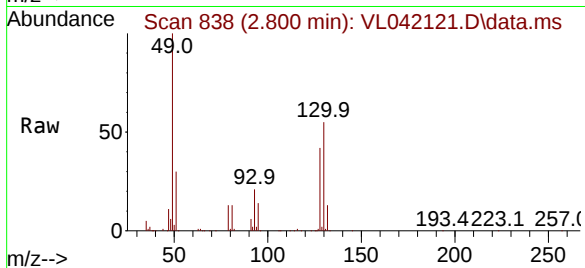




#1  
 Bromochloromethane  
 Concen: 10.000 ppbv  
 RT: 2.800 min Scan# 838  
 Delta R.T. -0.000 min  
 Lab File: VL042121.D  
 Acq: 10 Mar 2025 12:59

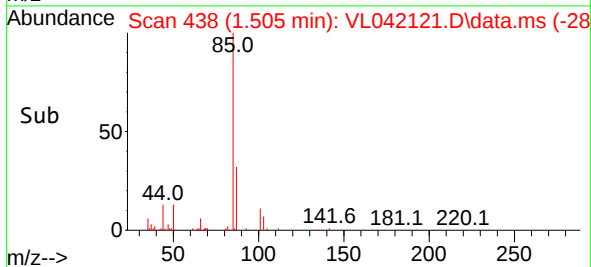
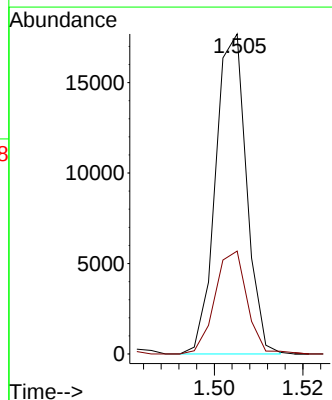
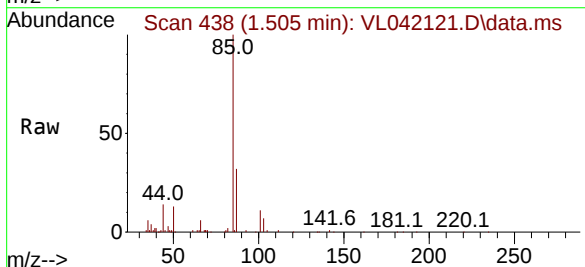
Instrument :  
 MSVOA\_1  
 ClientSampleId :  
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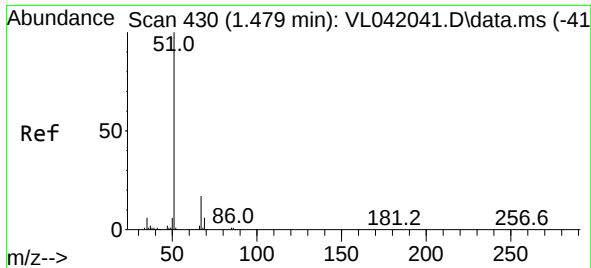
Tgt Ion: 49 Resp: 161577  
 Ion Ratio Lower Upper  
 49 100  
 128 43.9 21.6 64.8  
 130 56.8 27.8 83.4



#2  
 Dichlorodifluoromethane  
 Concen: 0.512 ppbv  
 RT: 1.505 min Scan# 438  
 Delta R.T. 0.003 min  
 Lab File: VL042121.D  
 Acq: 10 Mar 2025 12:59

Tgt Ion: 85 Resp: 8597  
 Ion Ratio Lower Upper  
 85 100  
 87 32.1 26.4 39.6





#3

Chlorodifluoromethane

Concen: 0.250 ppbv m

RT: 1.482 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL042121.D

Acq: 10 Mar 2025 12:59

Instrument :

MSVOA\_L

ClientSampleId :

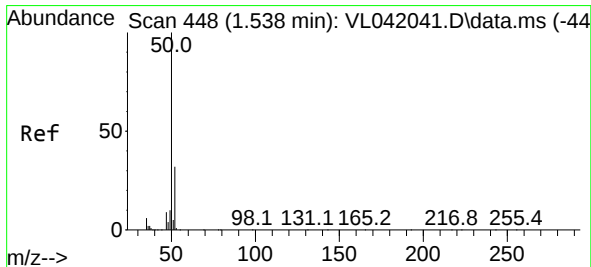
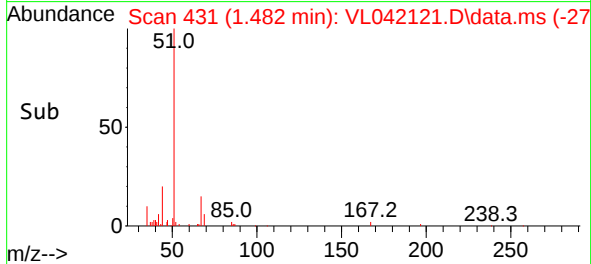
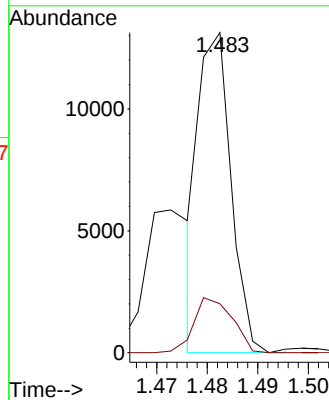
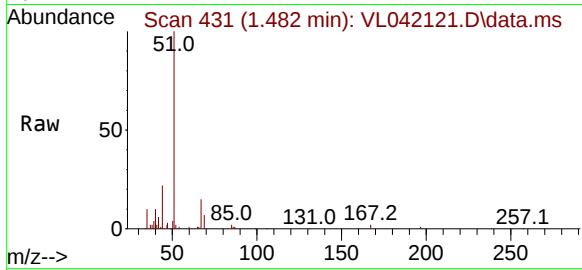
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Tgt Ion: 51 Resp: 5866

Ion Ratio Lower Upper

51 100

67 1.4 13.7 20.5#



#4

Chloromethane

Concen: 0.532 ppbv

RT: 1.538 min Scan# 448

Delta R.T. -0.000 min

Lab File: VL042121.D

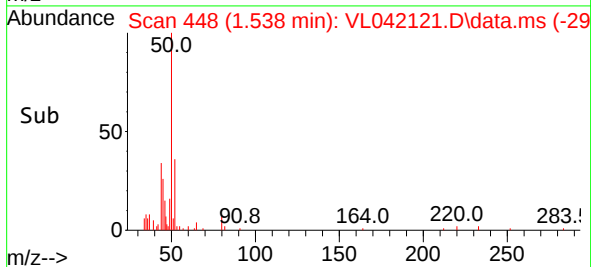
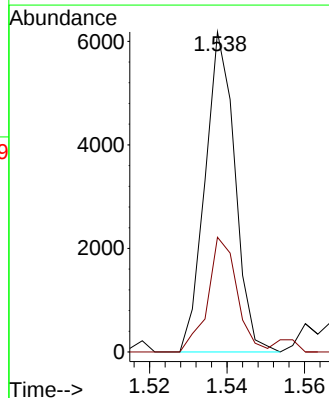
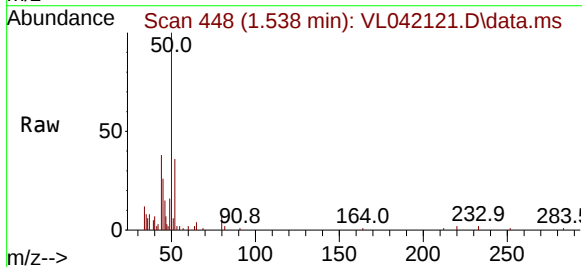
Acq: 10 Mar 2025 12:59

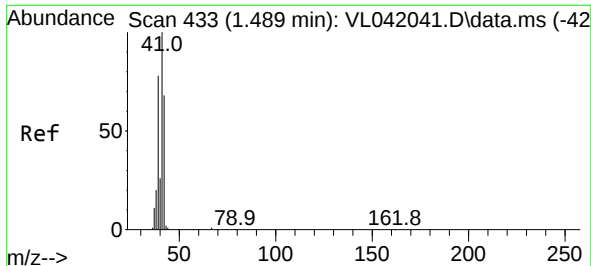
Tgt Ion: 50 Resp: 3305

Ion Ratio Lower Upper

50 100

52 34.8 25.4 38.0





#9

Propene

Concen: 0.786 ppbv m

RT: 1.492 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL042121.D

Acq: 10 Mar 2025 12:59

Instrument :

MSVOA\_L

ClientSampleId :

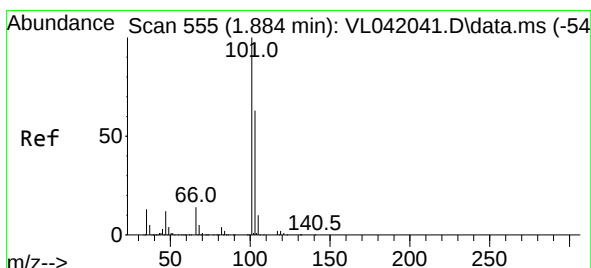
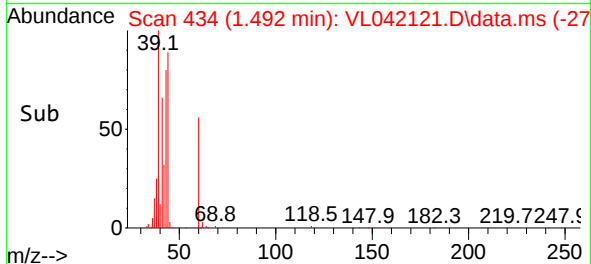
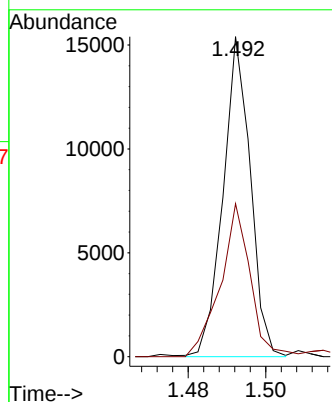
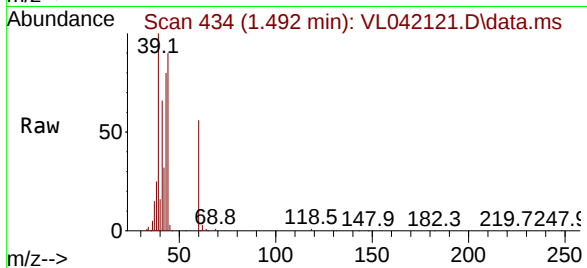
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Tgt Ion: 41 Resp: 7521

Ion Ratio Lower Upper

41 100

42 54.4 55.8 83.6#



#11

Trichlorofluoromethane

Concen: 0.256 ppbv

RT: 1.887 min Scan# 556

Delta R.T. 0.003 min

Lab File: VL042121.D

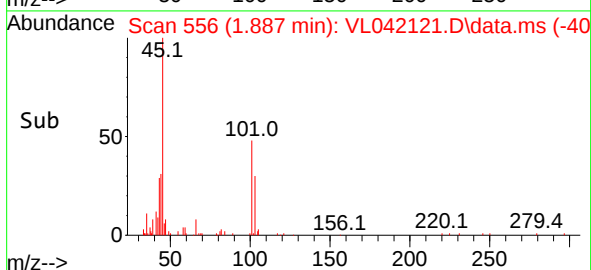
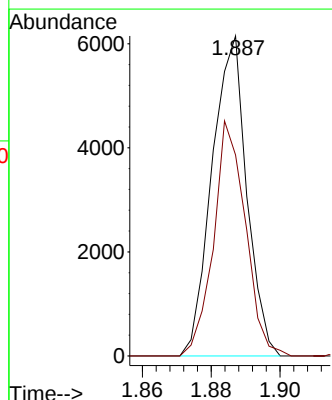
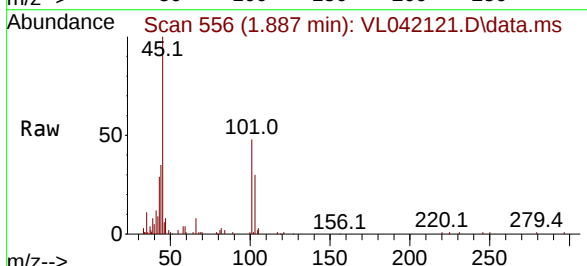
Acq: 10 Mar 2025 12:59

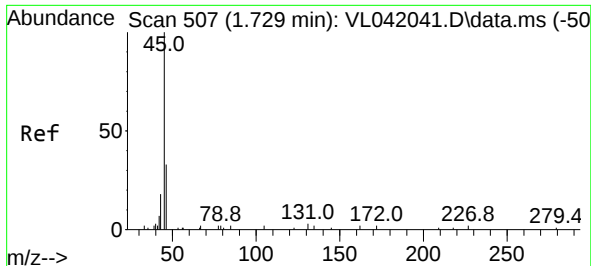
Tgt Ion:101 Resp: 4307

Ion Ratio Lower Upper

101 100

103 62.8 50.6 75.8

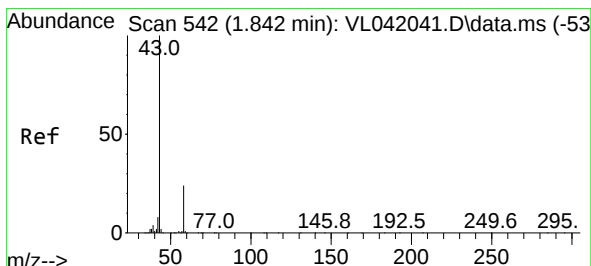
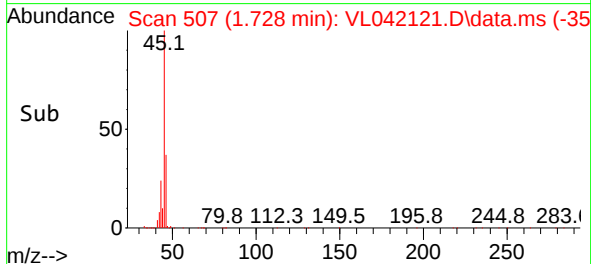
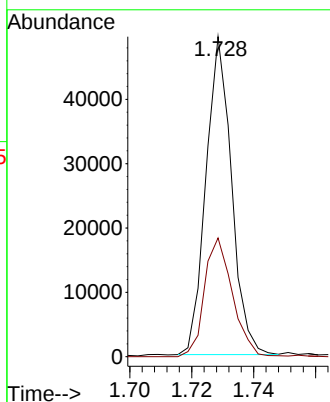
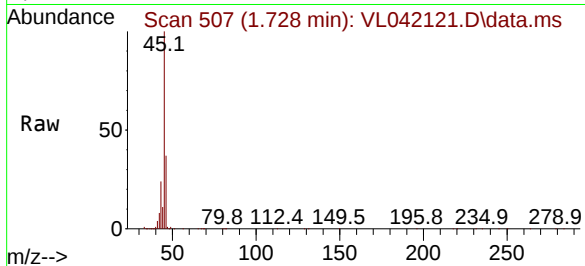




#13  
Ethanol  
Concen: 46.657 ppbv  
RT: 1.728 min Scan# 50  
Delta R.T. -0.000 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

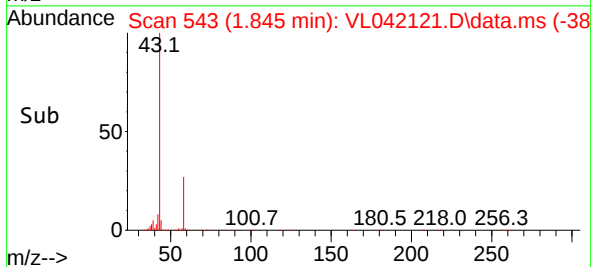
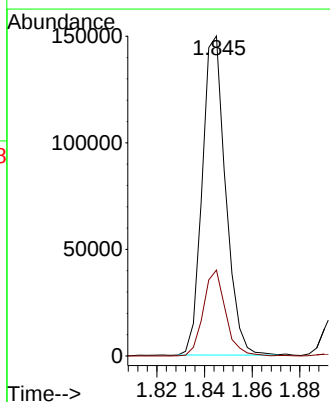
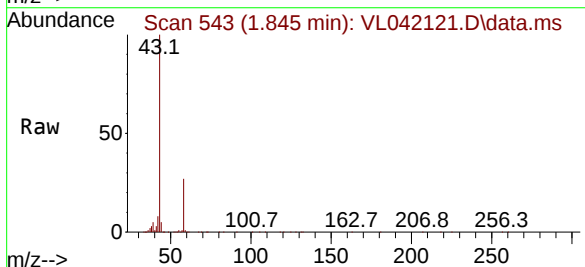
Instrument :  
MSVOA\_L  
ClientSampleId :  
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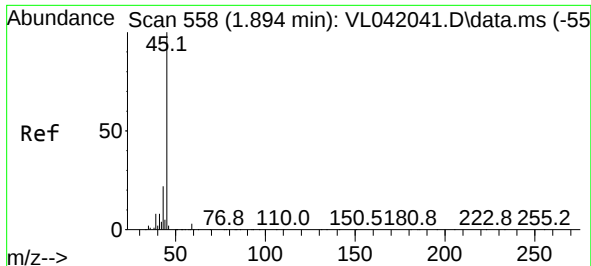
Tgt Ion: 45 Resp: 28335  
Ion Ratio Lower Upper  
45 100  
46 41.8 17.1 68.3



#15  
Acetone  
Concen: 7.157 ppbv  
RT: 1.845 min Scan# 543  
Delta R.T. 0.003 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

Tgt Ion: 43 Resp: 102118  
Ion Ratio Lower Upper  
43 100  
58 25.8 20.7 31.1

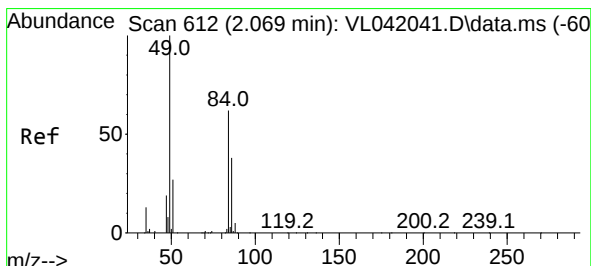
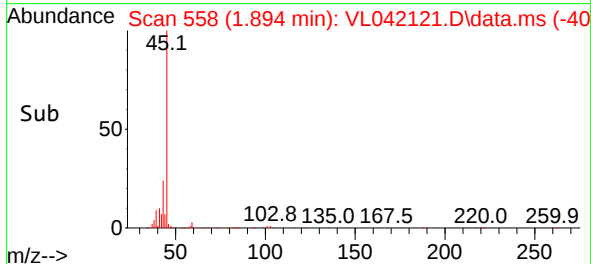
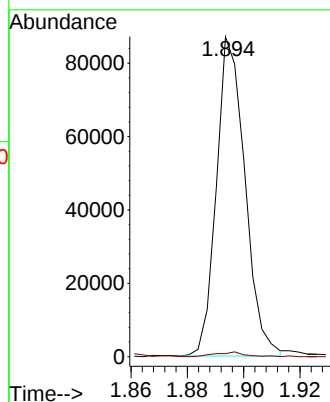
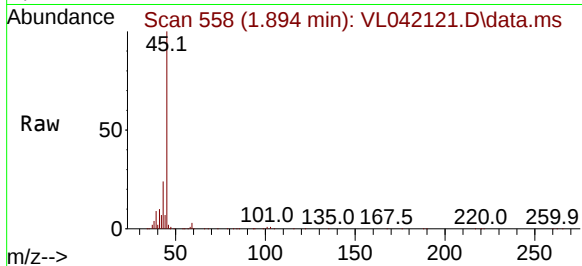




#19  
Isopropyl Alcohol  
Concen: 7.464 ppbv  
RT: 1.894 min Scan# 51  
Delta R.T. -0.000 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

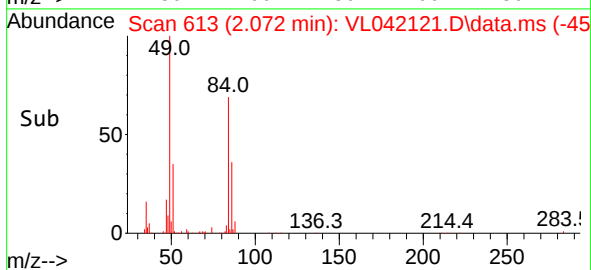
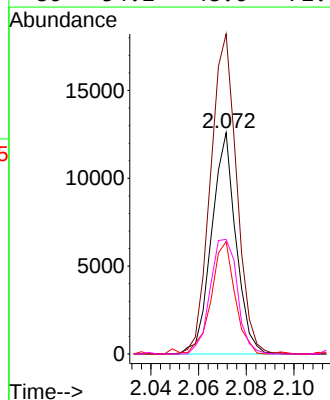
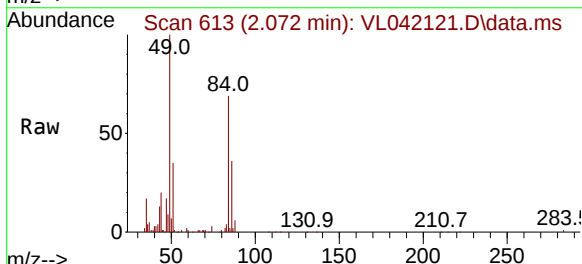
Instrument :  
MSVOA\_L  
ClientSampleId :  
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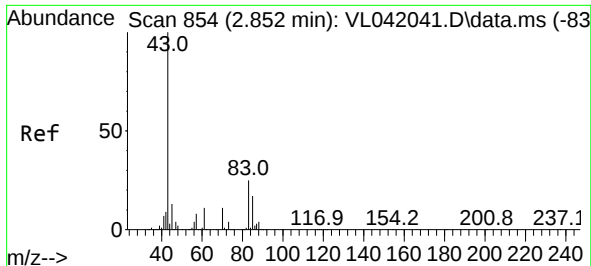
Tgt Ion: 45 Resp: 61180  
Ion Ratio Lower Upper  
45 100  
58 43.0 35.3 52.9



#20  
Methylene Chloride  
Concen: 1.653 ppbv  
RT: 2.072 min Scan# 613  
Delta R.T. 0.003 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

Tgt Ion: 84 Resp: 8920  
Ion Ratio Lower Upper  
84 100  
49 144.0 130.0 195.0  
51 50.1 37.4 56.0  
86 54.2 48.6 72.8

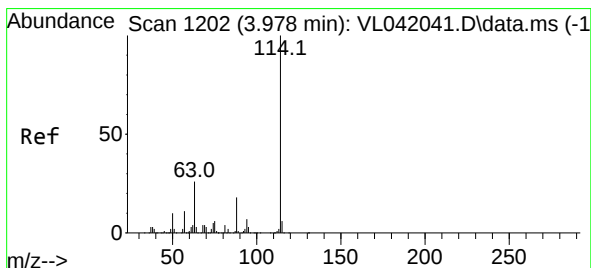
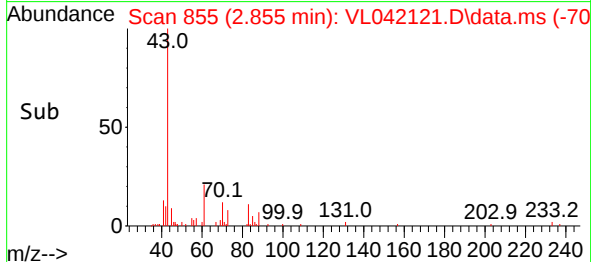
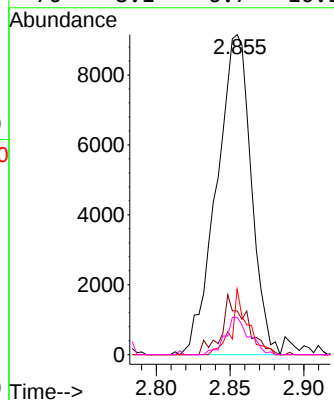
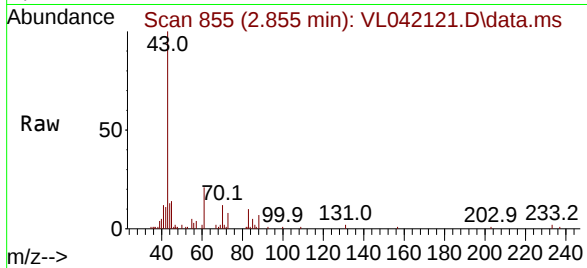




#25  
Ethyl Acetate  
Concen: 0.260 ppbv  
RT: 2.855 min Scan# 81  
Delta R.T. 0.003 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

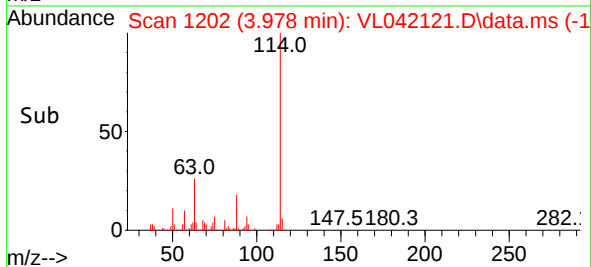
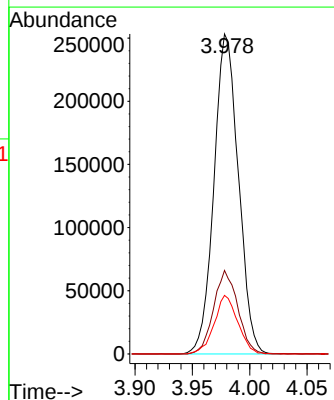
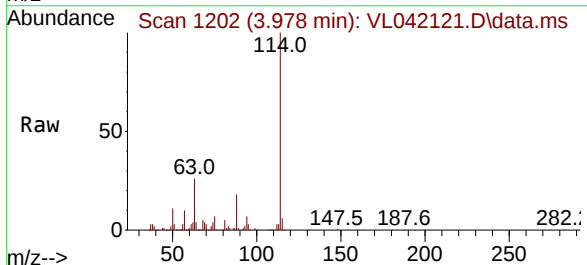
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ClientSampleId :  
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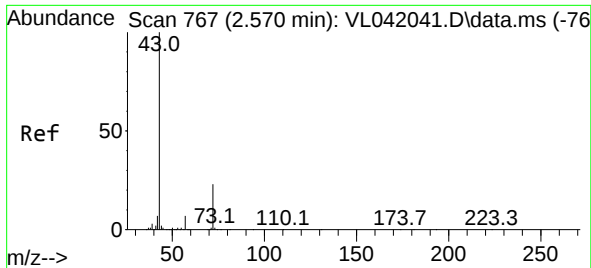
|             |             |
|-------------|-------------|
| Tgt Ion: 43 | Resp: 14868 |
| Ion Ratio   | Lower Upper |
| 43 100      |             |
| 45 13.4     | 8.1 12.1#   |
| 61 9.7      | 7.2 10.8    |
| 70 8.1      | 6.7 10.1    |



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 3.978 min Scan# 1202  
Delta R.T. -0.000 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

|             |              |       |  |
|-------------|--------------|-------|--|
| Tgt Ion:114 | Resp: 375440 |       |  |
| Ion Ratio   | Lower        | Upper |  |
| 114 100     |              |       |  |
| 63 25.8     | 20.1         | 30.1  |  |
| 88 17.7     | 14.3         | 21.5  |  |

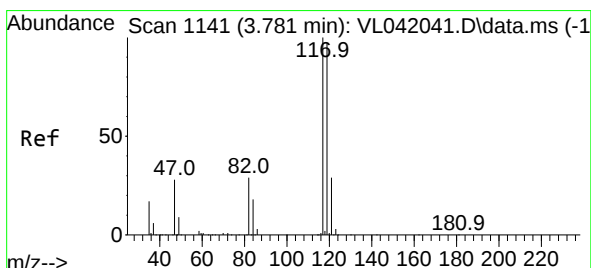
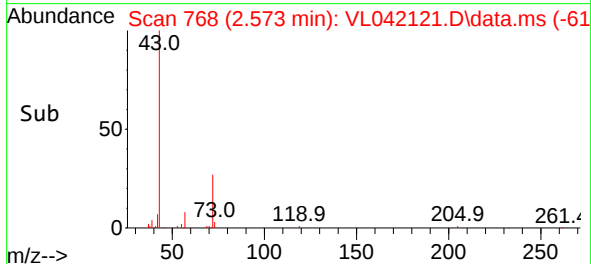
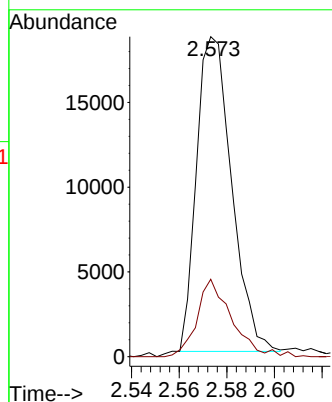
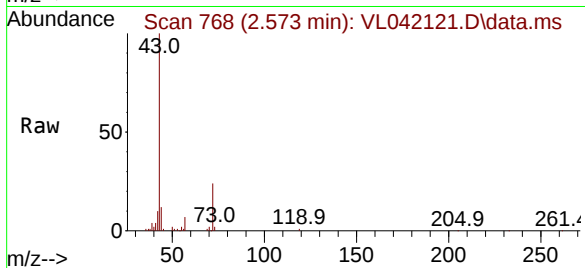




#34  
2-Butanone  
Concen: 0.651 ppbv  
RT: 2.573 min Scan# 70  
Delta R.T. 0.003 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

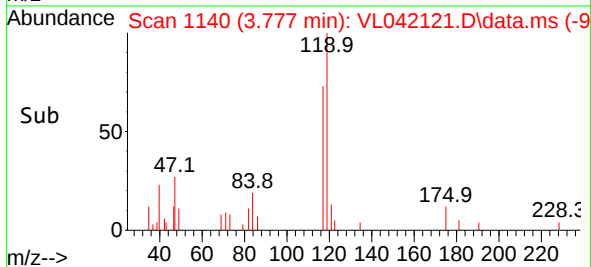
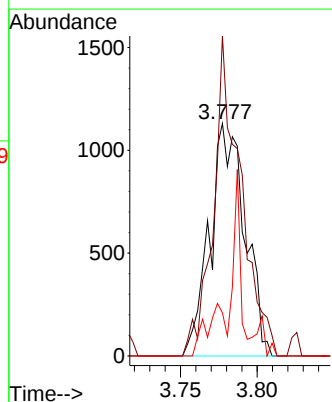
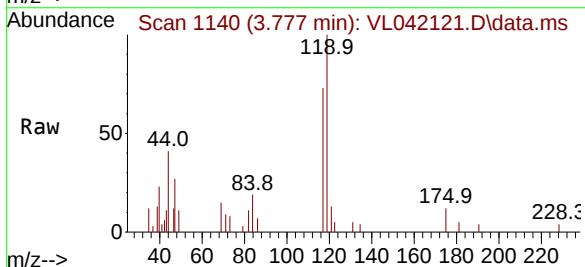
Instrument :  
MSVOA\_L  
ClientSampleId :  
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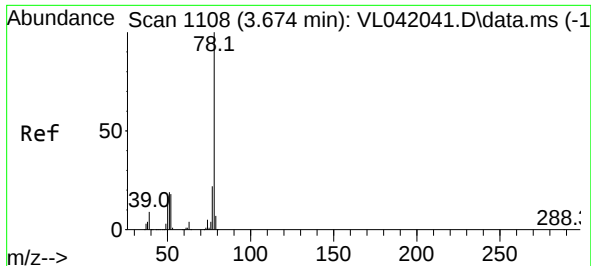
Tgt Ion: 43 Resp: 19052  
Ion Ratio Lower Upper  
43 100  
72 24.4 18.5 27.7



#35  
Carbon Tetrachloride  
Concen: 0.069 ppbv m  
RT: 3.777 min Scan# 1140  
Delta R.T. -0.003 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

Tgt Ion: 117 Resp: 1796  
Ion Ratio Lower Upper  
117 100  
119 137.7 77.8 116.8#  
121 18.5 23.4 35.0#

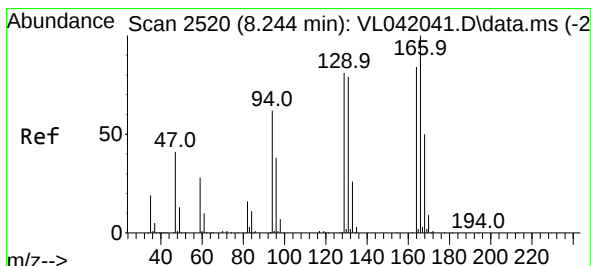
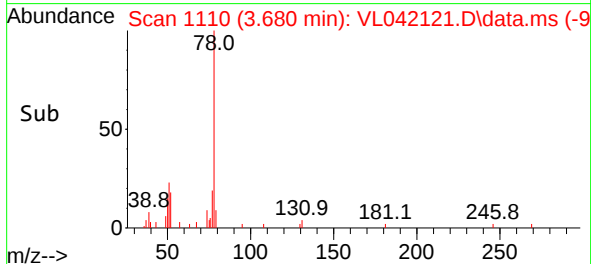
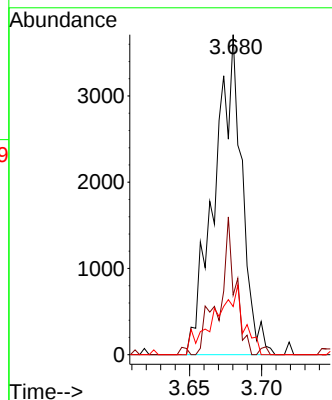
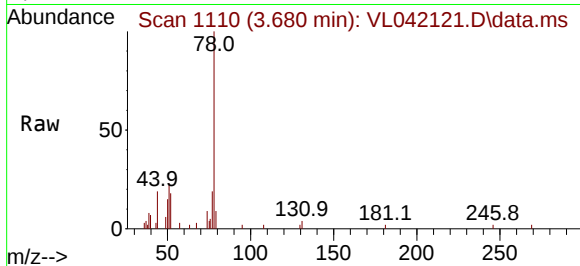




#36  
Benzene  
Concen: 0.126 ppbv m  
RT: 3.680 min Scan# 1110  
Delta R.T. 0.006 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

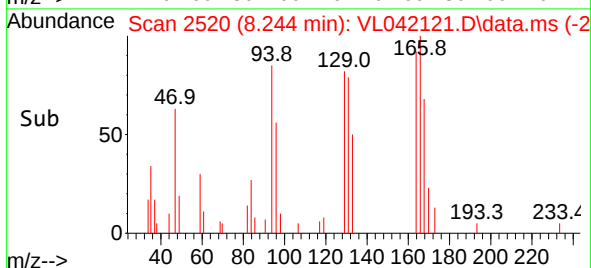
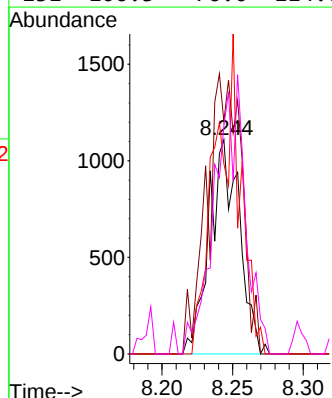
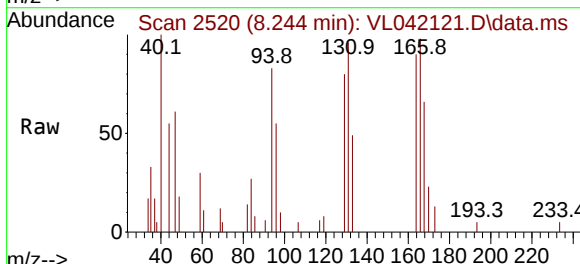
Instrument :  
MSVOA\_L  
ClientSampleId :  
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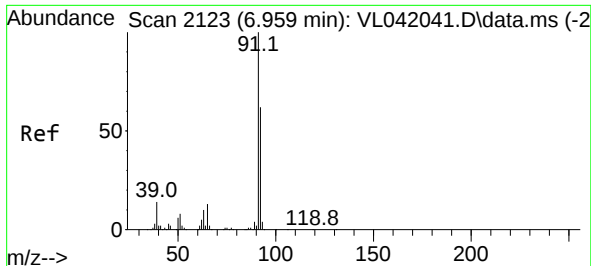
|             |             |
|-------------|-------------|
| Tgt Ion: 78 | Resp: 4940  |
| Ion Ratio   | Lower Upper |
| 78 100      |             |
| 77 18.6     | 17.7 26.5   |
| 50 15.1     | 13.9 20.9   |



#52  
Tetrachloroethene  
Concen: 0.123 ppbv m  
RT: 8.244 min Scan# 2520  
Delta R.T. -0.000 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

|              |             |
|--------------|-------------|
| Tgt Ion: 164 | Resp: 1656  |
| Ion Ratio    | Lower Upper |
| 164 100      |             |
| 166 108.7    | 95.7 143.5  |
| 129 88.8     | 77.1 115.7  |
| 131 106.3    | 76.0 114.0  |

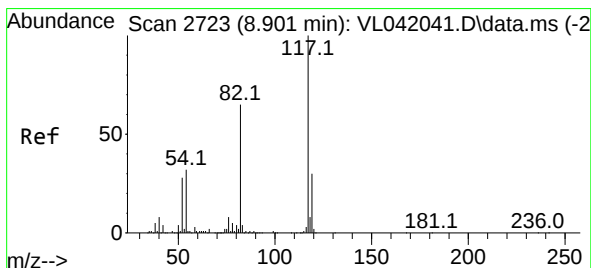
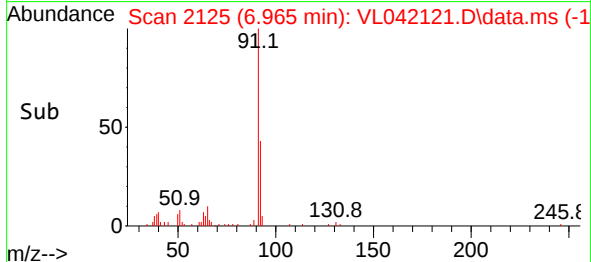
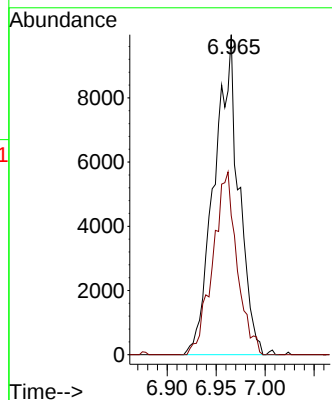
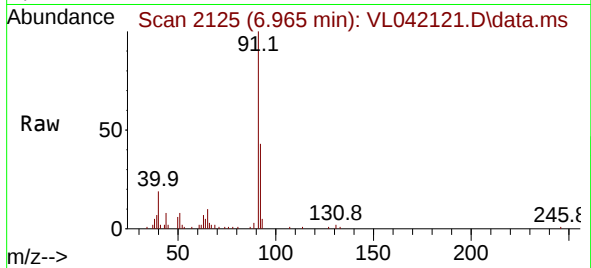




#53  
Toluene  
Concen: 0.397 ppbv m  
RT: 6.965 min Scan# 2125  
Delta R.T. 0.006 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

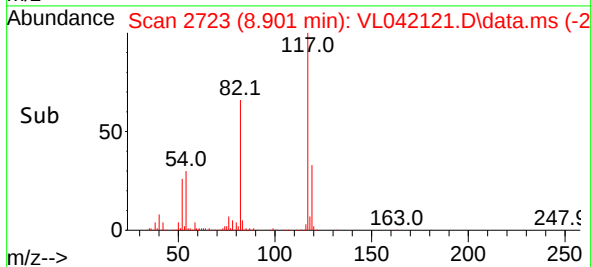
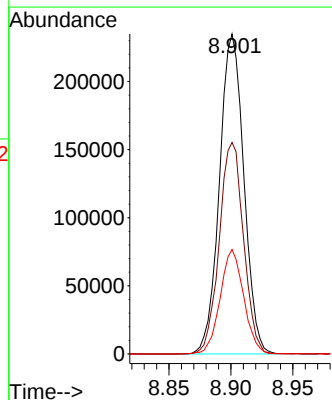
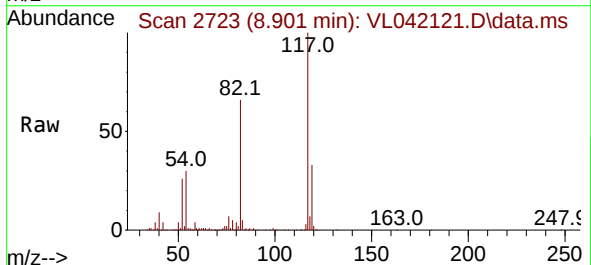
Instrument :  
MSVOA\_L  
ClientSampleId :  
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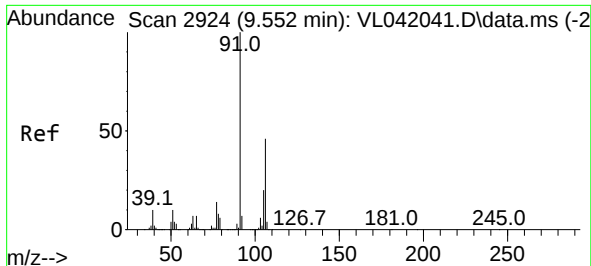
Tgt Ion: 91 Resp: 17418  
Ion Ratio Lower Upper  
91 100  
92 0.0 49.0 73.6#



#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 8.901 min Scan# 2723  
Delta R.T. -0.000 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

Tgt Ion: 117 Resp: 321830  
Ion Ratio Lower Upper  
117 100  
82 65.8 55.0 82.6  
119 31.7 25.9 38.9

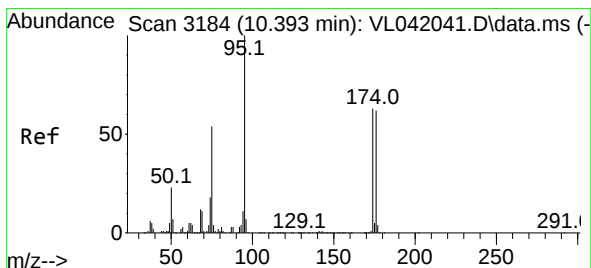
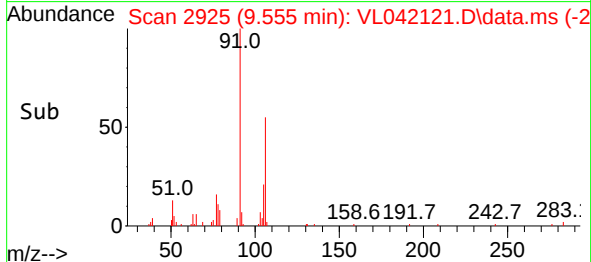
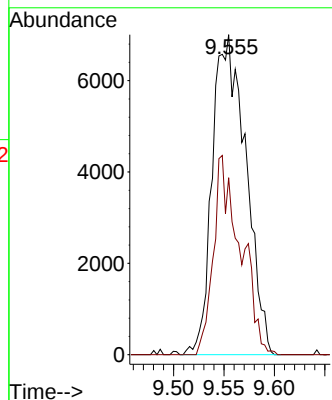
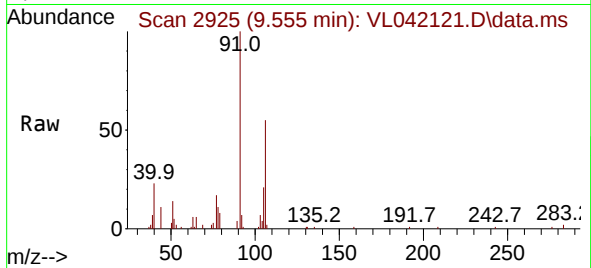




#59  
m/p-Xylene  
Concen: 0.342 ppbv m  
RT: 9.555 min Scan# 2924  
Delta R.T. 0.003 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

Instrument :  
MSVOA\_L  
ClientSampleId :  
1

Tgt Ion: 91 Resp: 16147  
Ion Ratio Lower Upper  
91 100  
106 50.1 0.0 0.0#



#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.227 ppbv  
RT: 10.393 min Scan# 3184  
Delta R.T. -0.000 min  
Lab File: VL042121.D  
Acq: 10 Mar 2025 12:59

Tgt Ion: 95 Resp: 253211  
Ion Ratio Lower Upper  
95 100  
174 65.1 51.8 77.6  
175 4.7 3.9 5.9

