

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL041525\  
 Data File : VL042338.D  
 Acq On : 15 Apr 2025 18:21  
 Operator : SY/MD  
 Sample : Q1802-01DL 40X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV1DL

Quant Time: Apr 16 01:35:32 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL032725AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Fri Mar 28 02:00:52 2025  
 Response via : Initial Calibration

| Compound                | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------|-------|------|----------|--------|-------|----------|
| -----                   |       |      |          |        |       |          |
| Internal Standards      |       |      |          |        |       |          |
| 1) Bromochloromethane   | 2.810 | 49   | 177469   | 10.000 | ppbv  | 0.03     |
| 33) 1,4-Difluorobenzene | 3.991 | 114  | 444007   | 10.000 | ppbv  | 0.04     |
| 55) Chlorobenzene-d5    | 8.911 | 117  | 384020   | 10.000 | ppbv  | 0.04     |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 10.403 | 95    | 297137   | 9.422    | ppbv | 0.03    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 94.200% |

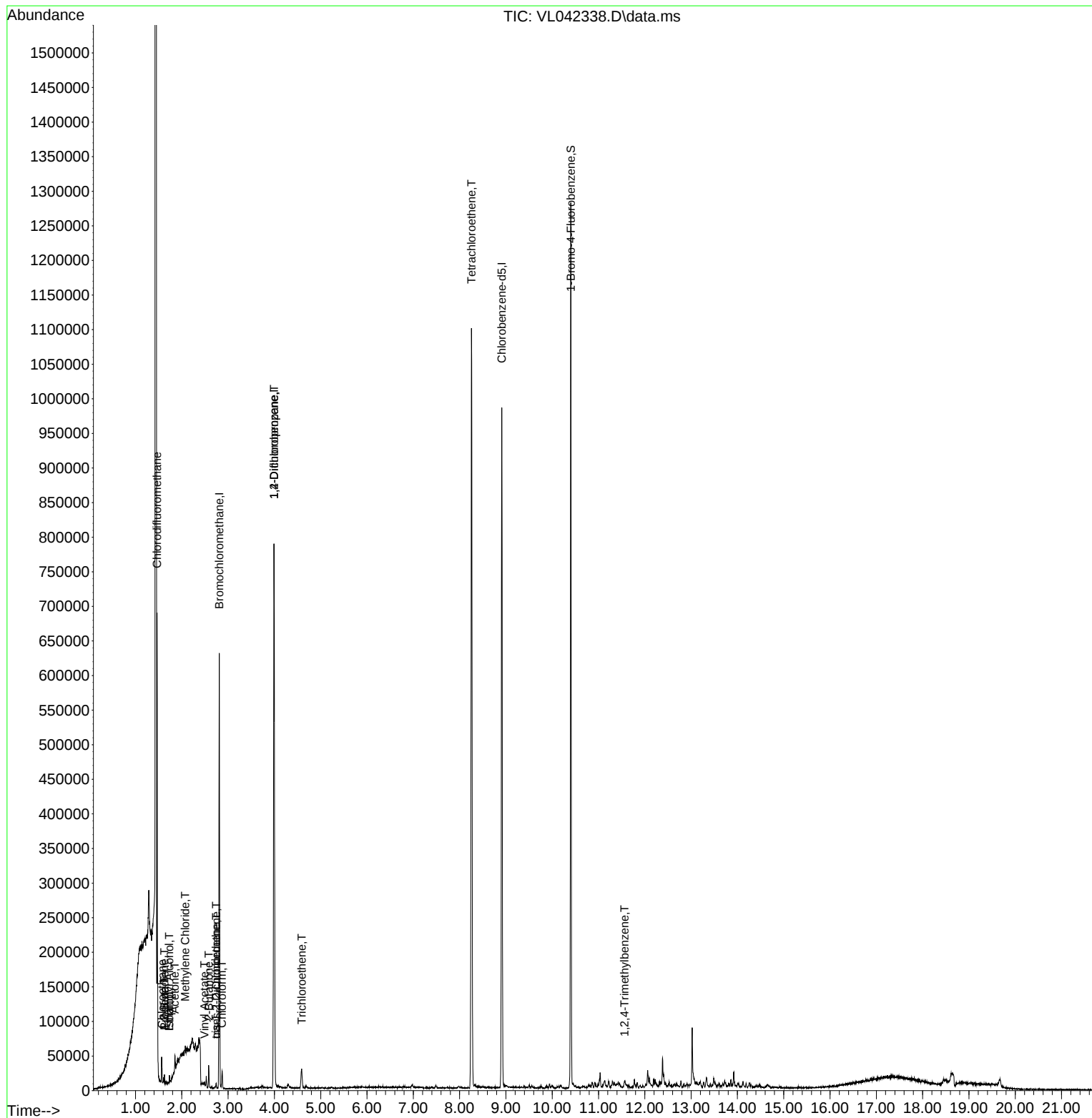
| Target Compounds             |        |     |        |        |        | Qvalue |
|------------------------------|--------|-----|--------|--------|--------|--------|
| 3) Chlorodifluoromethane     | 1.467  | 51  | 160191 | 5.984  | ppbv # | 58     |
| 7) Chloroethane              | 1.577  | 64  | 132    | 0.031  | ppbv # | 43     |
| 9) Propene                   | 1.625  | 41  | 1346   | 0.110  | ppbv   | 96     |
| 13) Ethanol                  | 1.732  | 45  | 3659   | 3.155  | ppbv # | 27     |
| 15) Acetone                  | 1.848  | 43  | 5789   | 0.233  | ppbv # | 39     |
| 16) 1,3-Butadiene            | 1.625  | 39  | 715    | 0.059  | ppbv # | 70     |
| 19) Isopropyl Alcohol        | 1.732  | 45  | 3659   | 0.261  | ppbv # | 49     |
| 20) Methylene Chloride       | 2.075  | 84  | 1377   | 0.149  | ppbv # | 90     |
| 22) trans-1,2-Dichloroethene | 2.742  | 96  | 1286   | 0.114  | ppbv   | 84     |
| 23) Vinyl Acetate            | 2.489  | 43  | 588    | 0.055  | ppbv # | 1      |
| 29) Chloroform               | 2.868  | 83  | 10125  | 0.278  | ppbv   | 90     |
| 31) cis-1,2-Dichloroethene   | 2.742  | 61  | 2123   | 0.084  | ppbv # | 88     |
| 34) 2-Butanone               | 2.580  | 43  | 17870  | 0.555  | ppbv   | 97     |
| 38) Trichloroethene          | 4.590  | 130 | 3508   | 0.191  | ppbv   | 97     |
| 39) 1,2-Dichloropropane      | 3.991  | 63  | 114047 | 7.114  | ppbv # | 22     |
| 52) Tetrachloroethene        | 8.257  | 164 | 187304 | 10.730 | ppbv   | 98     |
| 74) 1,2,4-Trimethylbenzene   | 11.562 | 105 | 2244   | 0.033  | ppbv # | 67     |

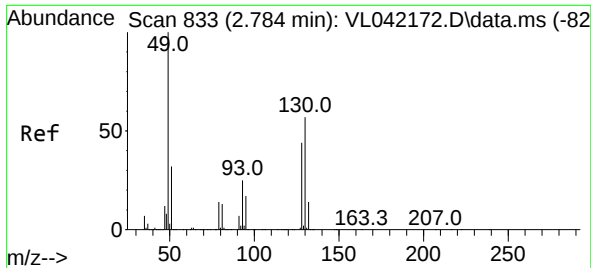
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL041525\  
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Quant Time: Apr 16 01:35:32 2025  
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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Fri Mar 28 02:00:52 2025  
Response via : Initial Calibration

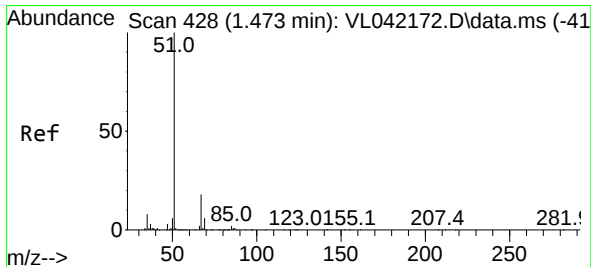
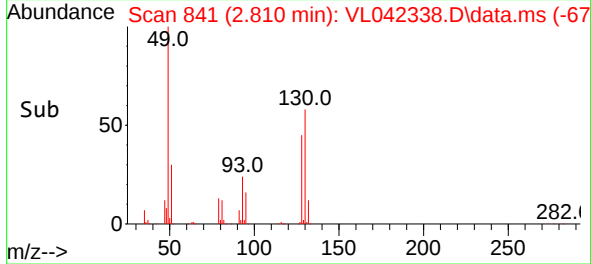
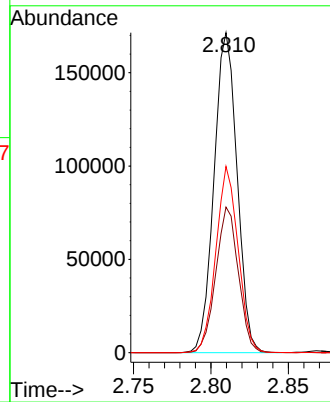
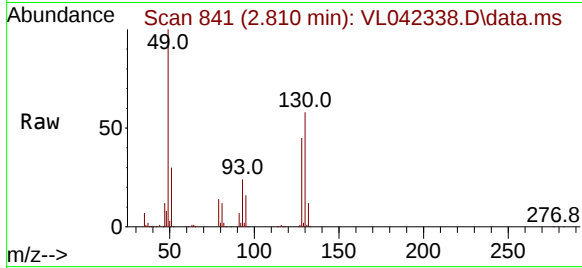




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 2.810 min Scan# 841  
Delta R.T. 0.026 min  
Lab File: VL042338.D  
Acq: 15 Apr 2025 18:21

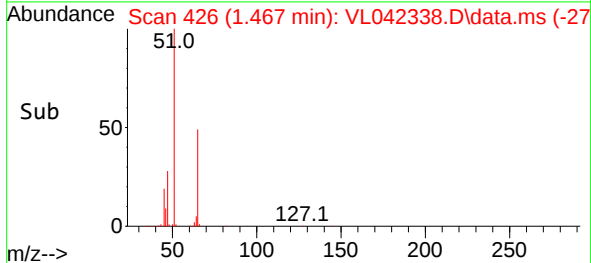
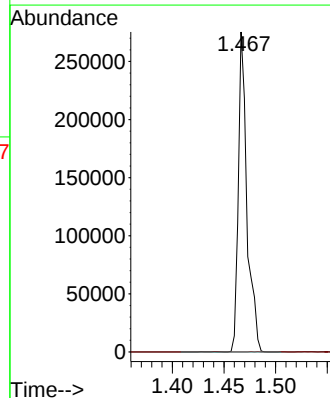
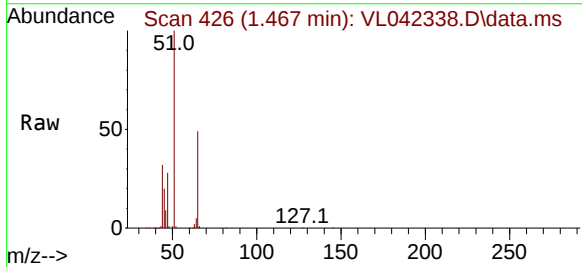
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV1DL

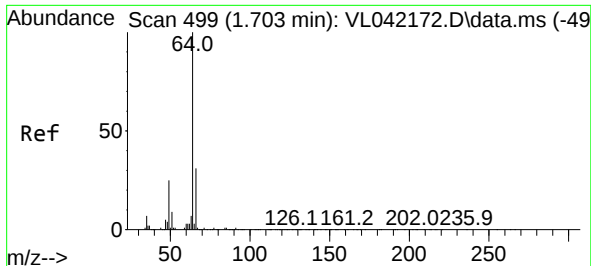
Tgt Ion: 49 Resp: 177469  
Ion Ratio Lower Upper  
49 100  
128 44.6 22.9 68.5  
130 56.2 28.8 86.4



#3  
Chlorodifluoromethane  
Concen: 5.984 ppbv  
RT: 1.467 min Scan# 426  
Delta R.T. -0.007 min  
Lab File: VL042338.D  
Acq: 15 Apr 2025 18:21

Tgt Ion: 51 Resp: 160191  
Ion Ratio Lower Upper  
51 100  
67 0.0 15.0 22.6#

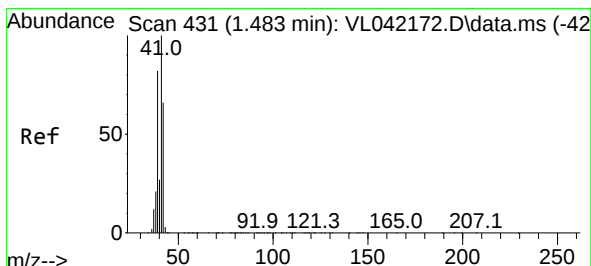
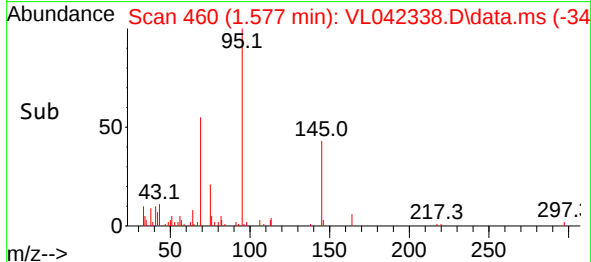
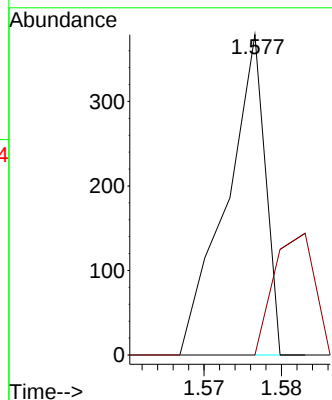
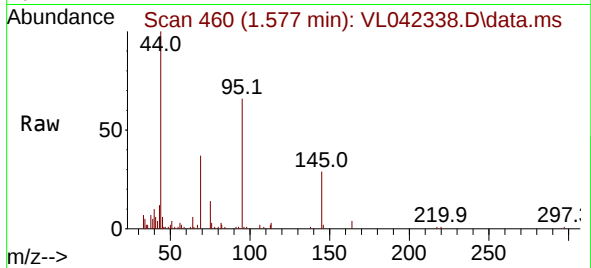




#7  
Chloroethane  
Concen: 0.031 ppbv  
RT: 1.577 min Scan# 410  
Delta R.T. -0.126 min  
Lab File: VL042338.D  
Acq: 15 Apr 2025 18:21

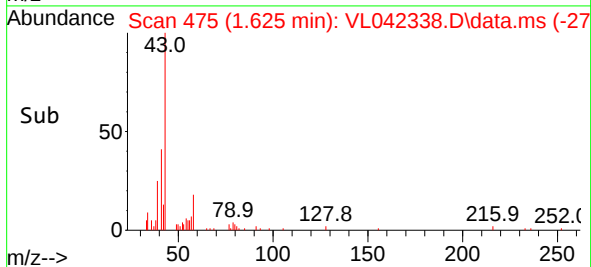
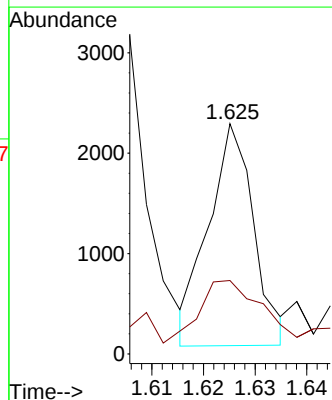
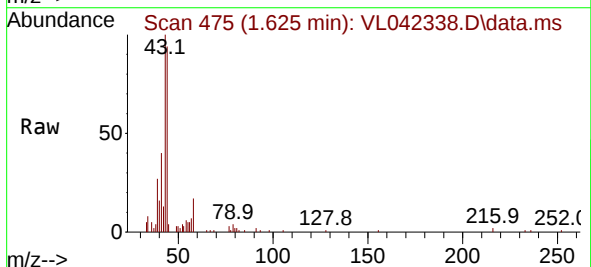
Instrument :  
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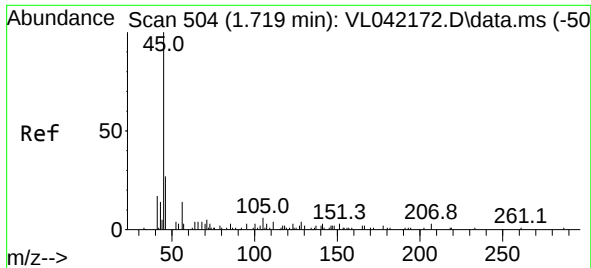
Tgt Ion: 64 Resp: 132  
Ion Ratio Lower Upper  
64 100  
66 0.0 25.2 37.8#



#9  
Propene  
Concen: 0.110 ppbv  
RT: 1.625 min Scan# 475  
Delta R.T. 0.142 min  
Lab File: VL042338.D  
Acq: 15 Apr 2025 18:21

Tgt Ion: 41 Resp: 1346  
Ion Ratio Lower Upper  
41 100  
42 66.4 55.4 83.2

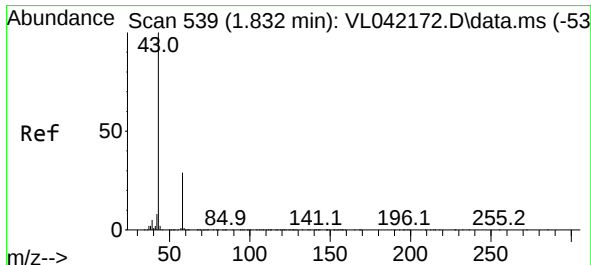
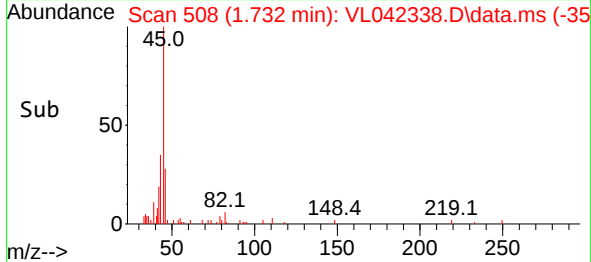
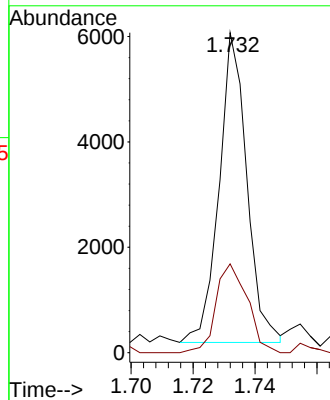
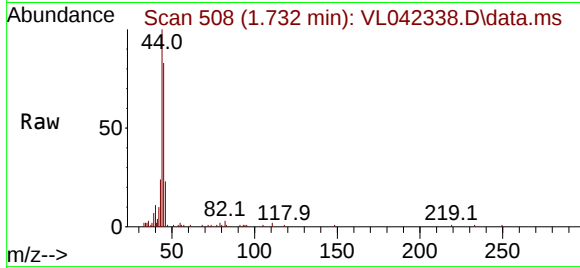




#13  
Ethanol  
Concen: 3.155 ppbv  
RT: 1.732 min Scan# 504  
Delta R.T. 0.013 min  
Lab File: VL042338.D  
Acq: 15 Apr 2025 18:21

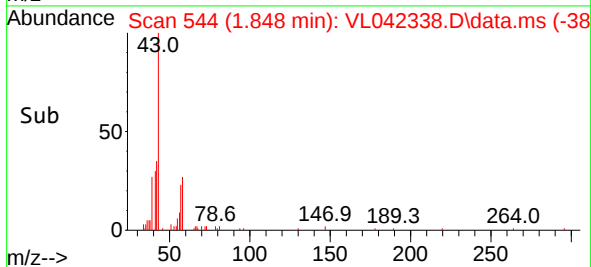
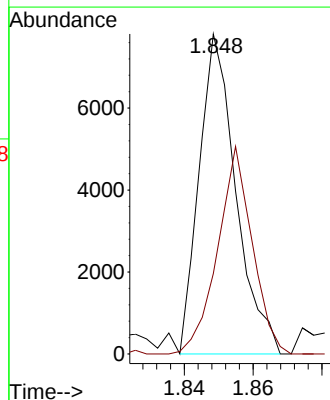
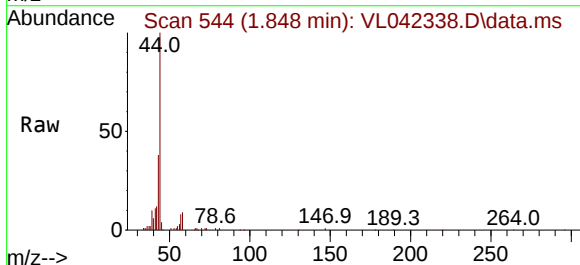
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV1DL

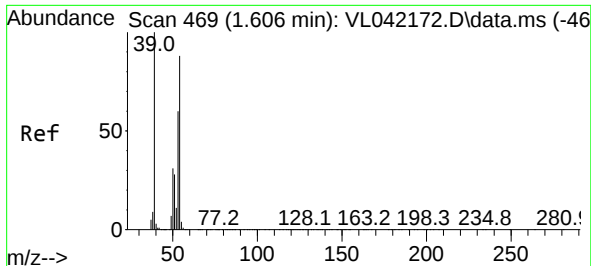
Tgt Ion: 45 Resp: 3659  
Ion Ratio Lower Upper  
45 100  
46 0.0 20.2 80.8#



#15  
Acetone  
Concen: 0.233 ppbv  
RT: 1.848 min Scan# 544  
Delta R.T. 0.016 min  
Lab File: VL042338.D  
Acq: 15 Apr 2025 18:21

Tgt Ion: 43 Resp: 5789  
Ion Ratio Lower Upper  
43 100  
58 61.6 23.2 34.8#





#16

1,3-Butadiene

Concen: 0.059 ppbv

RT: 1.625 min Scan# 41

Delta R.T. 0.019 min

Lab File: VL042338.D

Acq: 15 Apr 2025 18:21

Instrument :

MSVOA\_L

ClientSampleId :

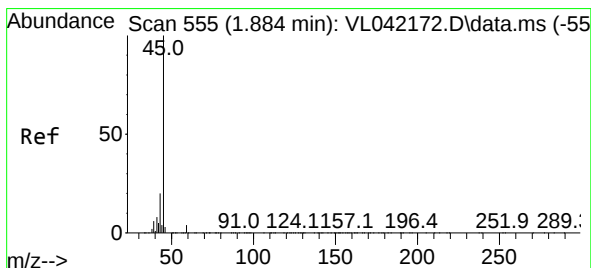
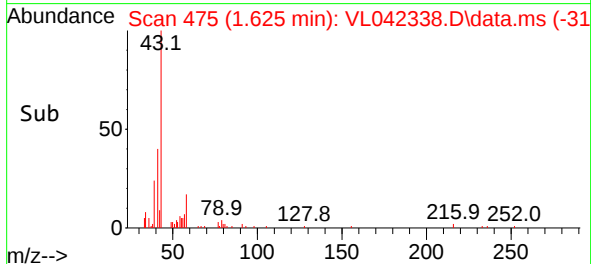
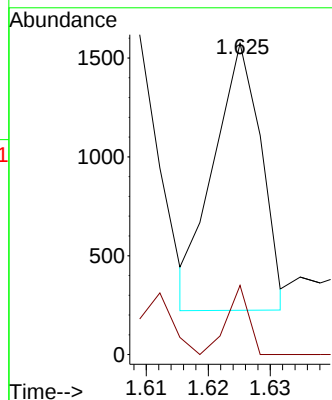
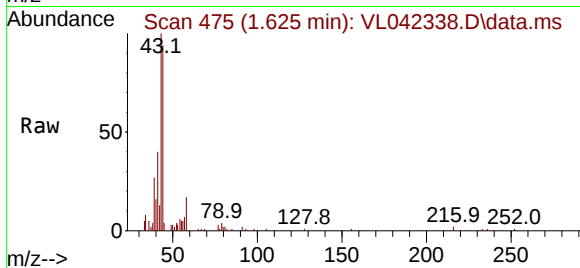
SV1DL

Tgt Ion: 39 Resp: 715

Ion Ratio Lower Upper

39 100

54 50.3 60.7 91.1#



#19

Isopropyl Alcohol

Concen: 0.261 ppbv

RT: 1.732 min Scan# 508

Delta R.T. -0.152 min

Lab File: VL042338.D

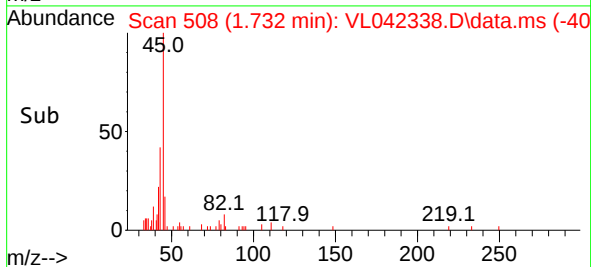
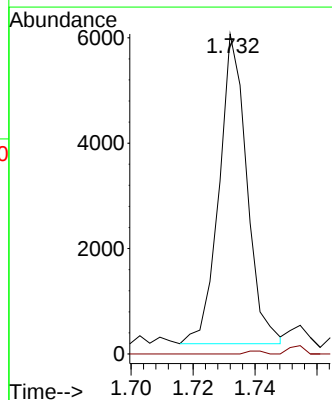
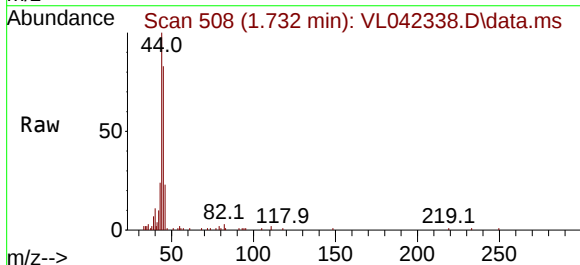
Acq: 15 Apr 2025 18:21

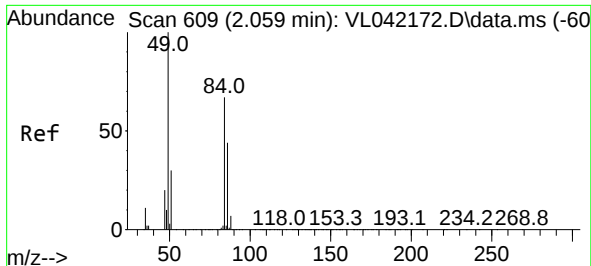
Tgt Ion: 45 Resp: 3659

Ion Ratio Lower Upper

45 100

58 12.5 36.9 55.3#

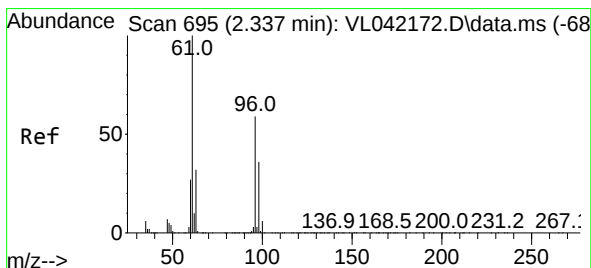
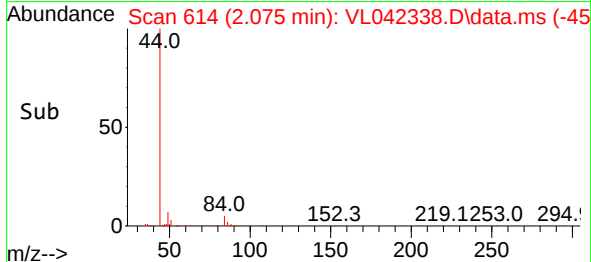
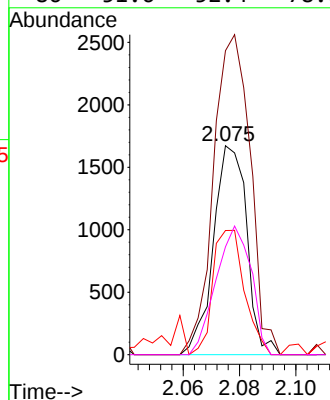
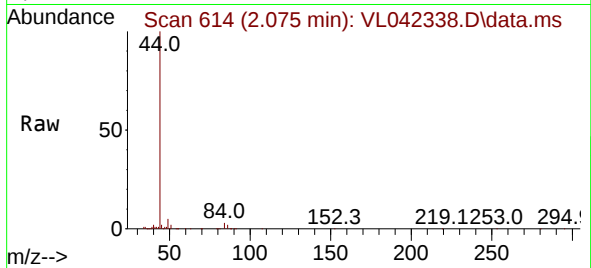




#20  
Methylene Chloride  
Concen: 0.149 ppbv  
RT: 2.075 min Scan# 61  
Delta R.T. 0.016 min  
Lab File: VL042338.D  
Acq: 15 Apr 2025 18:21

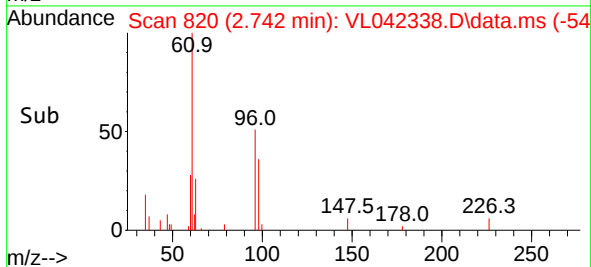
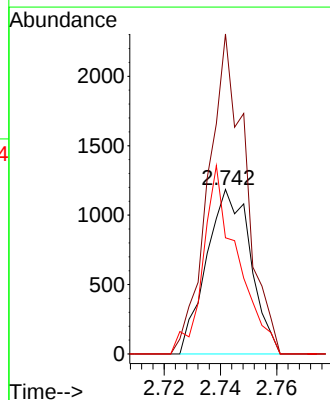
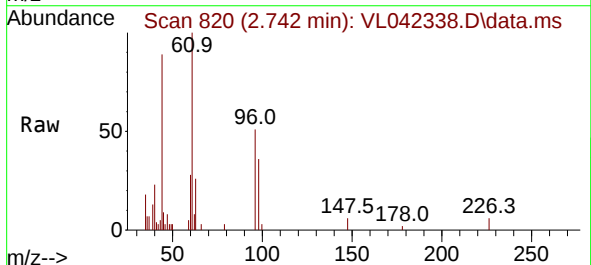
Instrument :  
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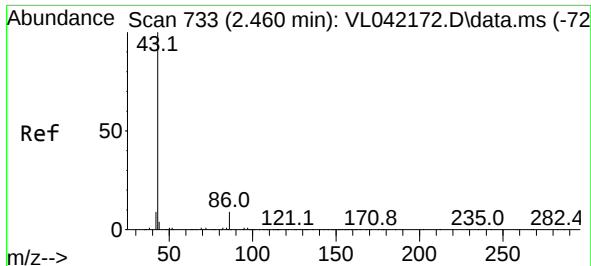
Tgt Ion: 84 Resp: 1377  
Ion Ratio Lower Upper  
84 100  
49 145.5 120.2 180.4  
51 59.4 37.4 56.0#  
86 51.6 52.4 78.6#



#22  
trans-1,2-Dichloroethene  
Concen: 0.114 ppbv  
RT: 2.742 min Scan# 820  
Delta R.T. 0.404 min  
Lab File: VL042338.D  
Acq: 15 Apr 2025 18:21

Tgt Ion: 96 Resp: 1286  
Ion Ratio Lower Upper  
96 100  
61 194.5 136.6 204.8  
98 70.6 49.4 74.2

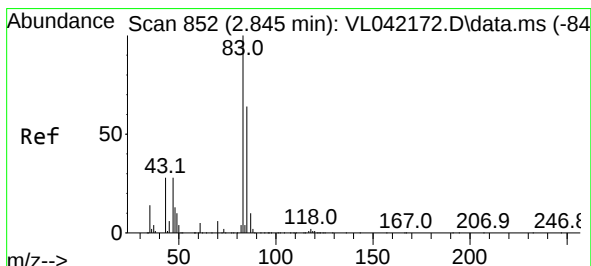
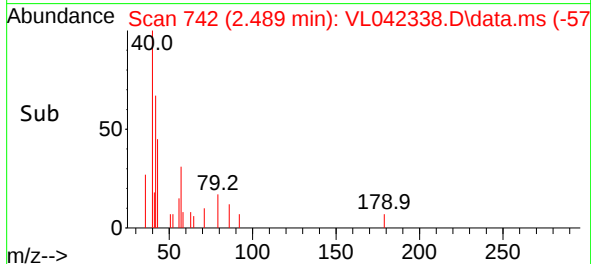
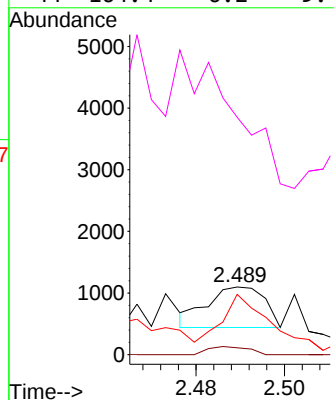
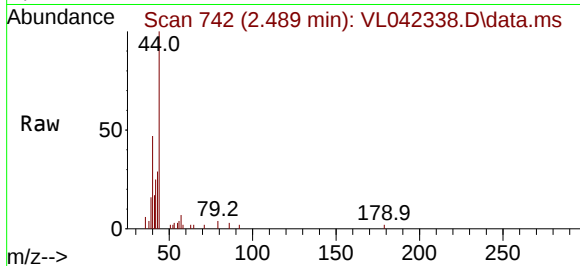




#23  
 Vinyl Acetate  
 Concen: 0.055 ppbv  
 RT: 2.489 min Scan# 741  
 Delta R.T. 0.029 min  
 Lab File: VL042338.D  
 Acq: 15 Apr 2025 18:21

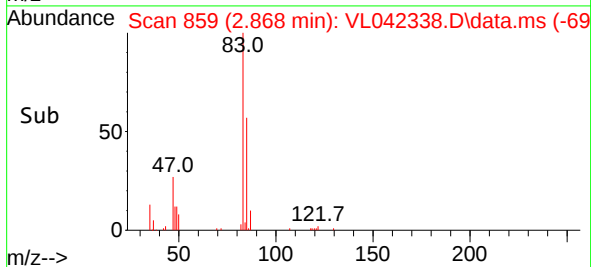
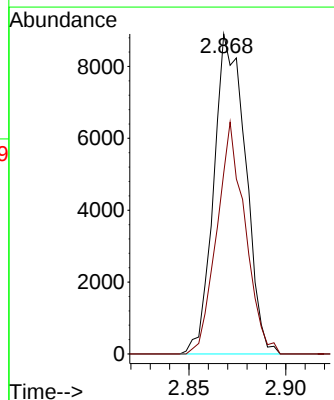
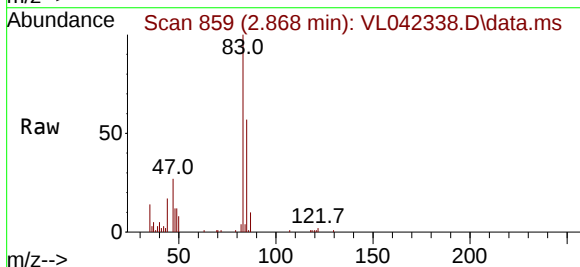
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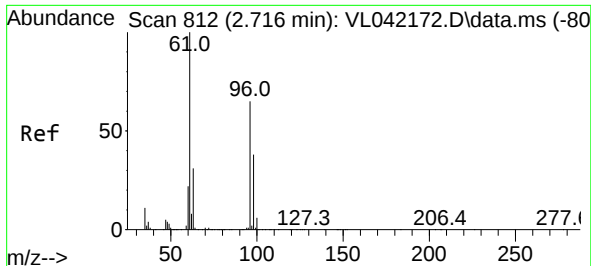
|             |             |
|-------------|-------------|
| Tgt Ion: 43 | Resp: 588   |
| Ion Ratio   | Lower Upper |
| 43 100      |             |
| 86 16.9     | 5.5 8.3#    |
| 42 90.6     | 8.6 13.0#   |
| 44 164.4    | 6.2 9.4#    |



#29  
 Chloroform  
 Concen: 0.278 ppbv  
 RT: 2.868 min Scan# 859  
 Delta R.T. 0.023 min  
 Lab File: VL042338.D  
 Acq: 15 Apr 2025 18:21

|             |             |       |  |
|-------------|-------------|-------|--|
| Tgt Ion: 83 | Resp: 10125 |       |  |
| Ion Ratio   | Lower       | Upper |  |
| 83 100      |             |       |  |
| 85 56.5     | 51.4        | 77.2  |  |

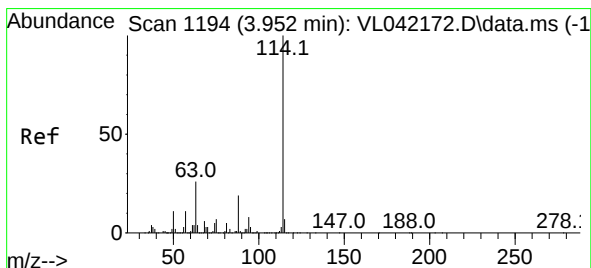
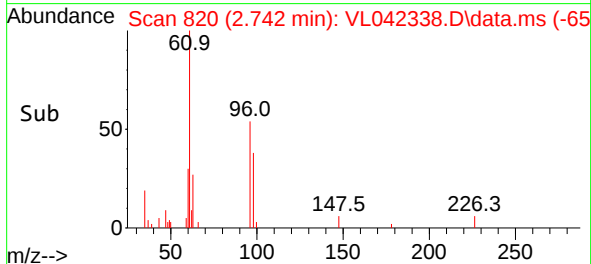
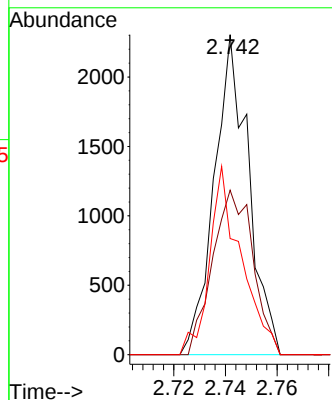
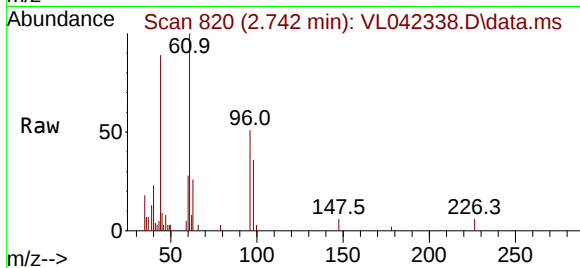




#31  
 cis-1,2-Dichloroethene  
 Concen: 0.084 ppbv  
 RT: 2.742 min Scan# 812  
 Delta R.T. 0.026 min  
 Lab File: VL042338.D  
 Acq: 15 Apr 2025 18:21

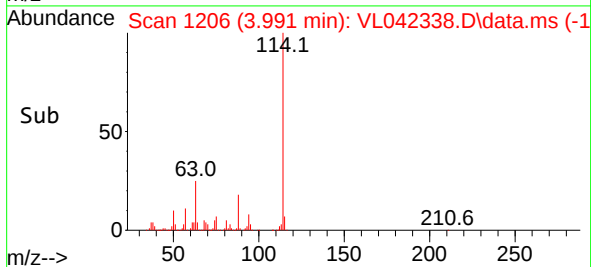
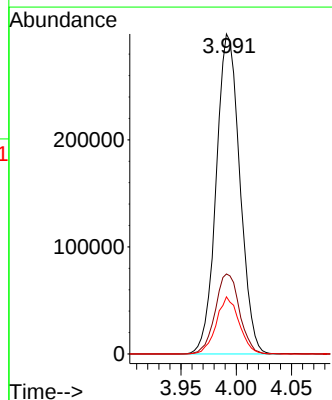
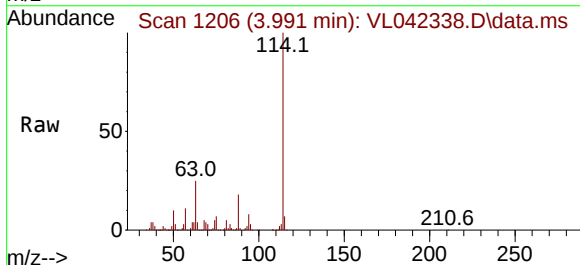
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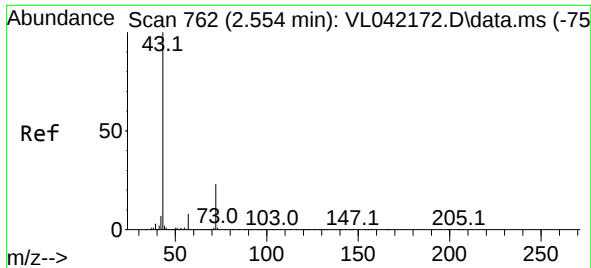
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 96 51.4 51.8 77.8#  
 98 36.3 30.6 46.0



#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 3.991 min Scan# 1206  
 Delta R.T. 0.039 min  
 Lab File: VL042338.D  
 Acq: 15 Apr 2025 18:21

Tgt Ion: 114 Resp: 444007  
 Ion Ratio Lower Upper  
 114 100  
 63 25.8 20.7 31.1  
 88 17.3 15.0 22.4

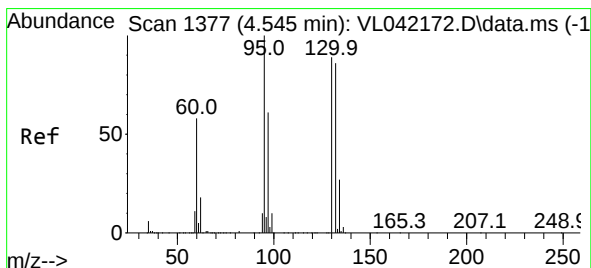
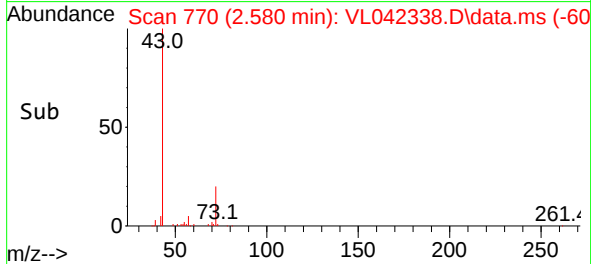
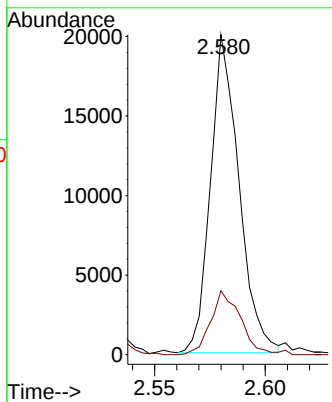
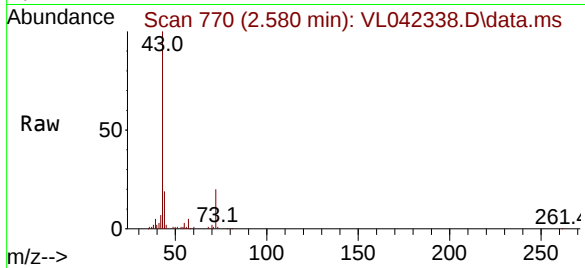




#34  
2-Butanone  
Concen: 0.555 ppbv  
RT: 2.580 min Scan# 71  
Delta R.T. 0.026 min  
Lab File: VL042338.D  
Acq: 15 Apr 2025 18:21

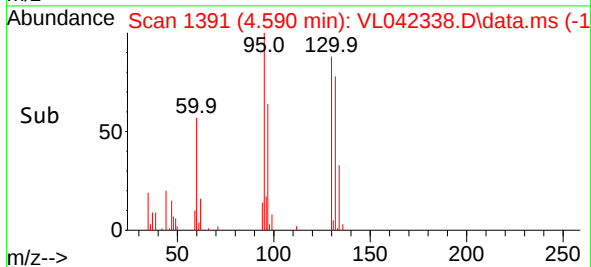
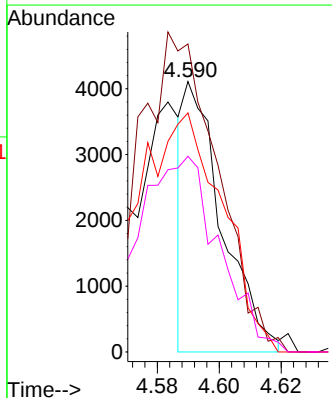
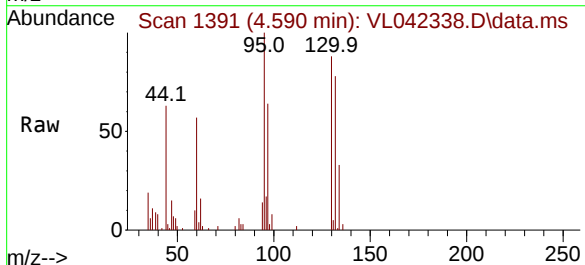
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV1DL

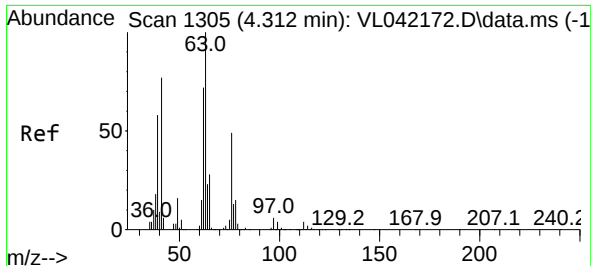
Tgt Ion: 43 Resp: 17870  
Ion Ratio Lower Upper  
43 100  
72 21.4 18.2 27.2



#38  
Trichloroethene  
Concen: 0.191 ppbv  
RT: 4.590 min Scan# 1391  
Delta R.T. 0.045 min  
Lab File: VL042338.D  
Acq: 15 Apr 2025 18:21

Tgt Ion:130 Resp: 3508  
Ion Ratio Lower Upper  
130 100  
95 113.3 89.8 134.8  
132 92.2 77.4 116.2  
97 71.7 55.1 82.7





#39

1,2-Dichloropropane

Concen: 7.114 ppbv

RT: 3.991 min Scan# 11

Delta R.T. -0.321 min

Lab File: VL042338.D

Acq: 15 Apr 2025 18:21

Instrument :

MSVOA\_L

ClientSampleId :

SV1DL

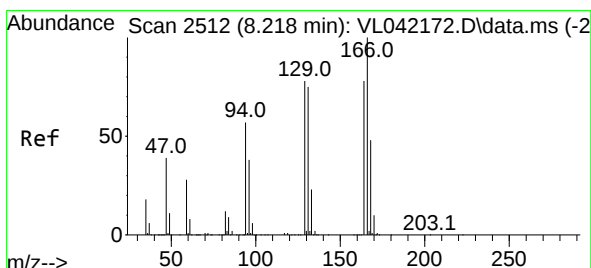
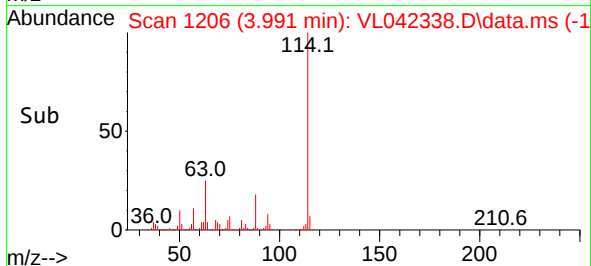
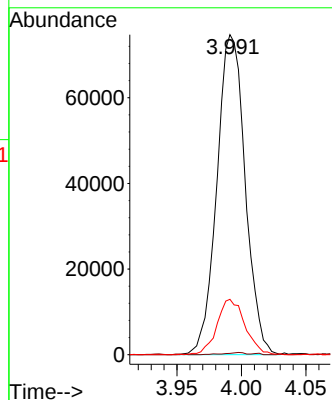
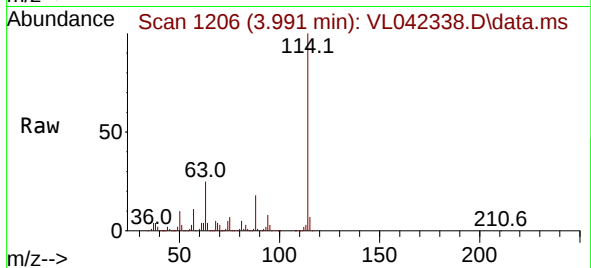
Tgt Ion: 63 Resp: 114047

Ion Ratio Lower Upper

63 100

41 0.5 61.7 92.5#

62 17.2 57.6 86.4#



#52

Tetrachloroethene

Concen: 10.730 ppbv

RT: 8.257 min Scan# 2524

Delta R.T. 0.039 min

Lab File: VL042338.D

Acq: 15 Apr 2025 18:21

Tgt Ion:164 Resp: 187304

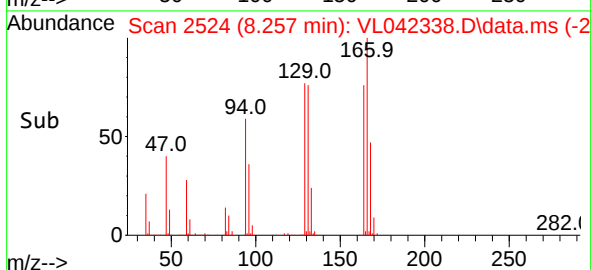
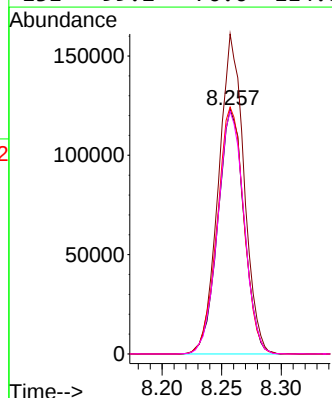
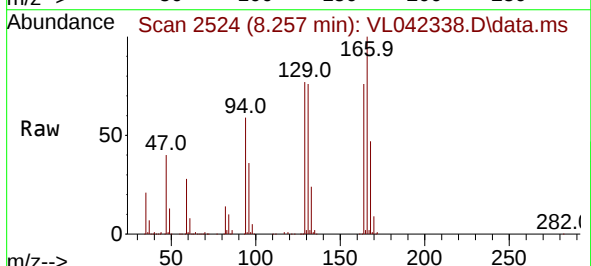
Ion Ratio Lower Upper

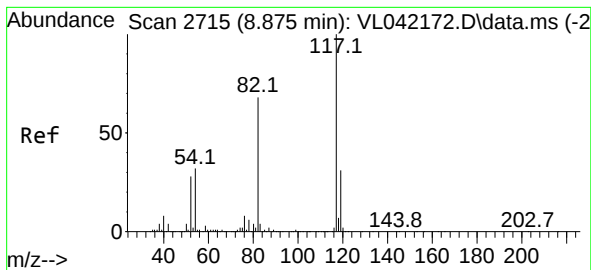
164 100

166 130.9 102.5 153.7

129 101.0 79.8 119.8

131 99.2 76.6 114.8





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.911 min Scan# 21

Delta R.T. 0.036 min

Lab File: VL042338.D

Acq: 15 Apr 2025 18:21

Instrument :

MSVOA\_L

ClientSampleId :

SV1DL

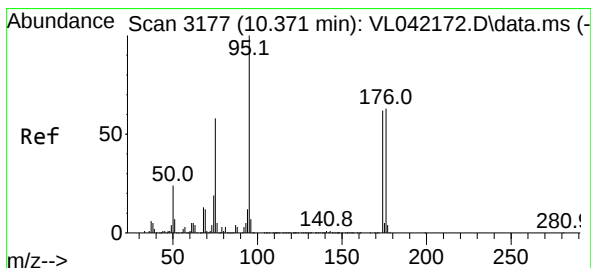
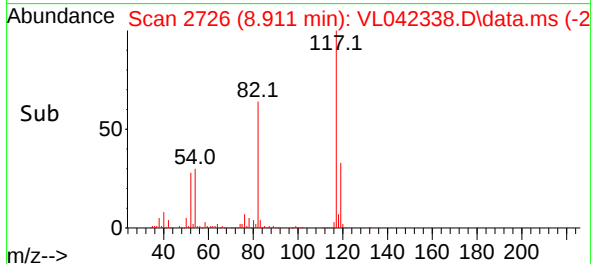
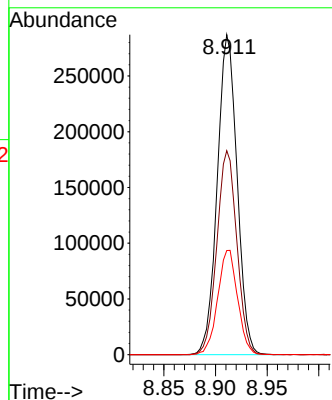
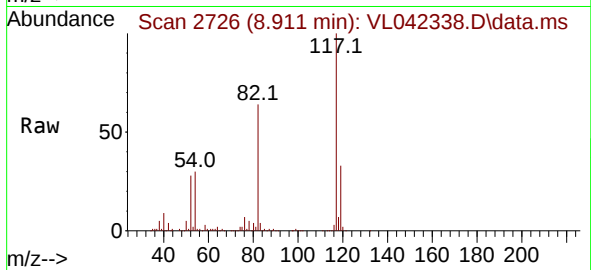
Tgt Ion:117 Resp: 384020

Ion Ratio Lower Upper

117 100

82 64.3 55.8 83.6

119 32.8 25.5 38.3



#68

1-Bromo-4-Fluorobenzene

Concen: 9.422 ppbv

RT: 10.403 min Scan# 3187

Delta R.T. 0.032 min

Lab File: VL042338.D

Acq: 15 Apr 2025 18:21

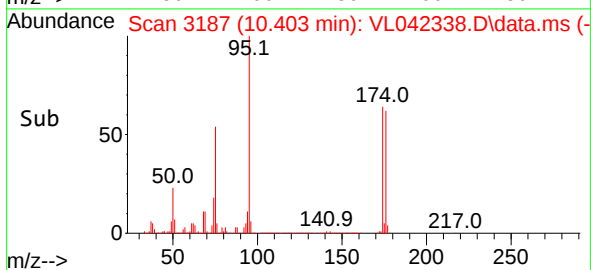
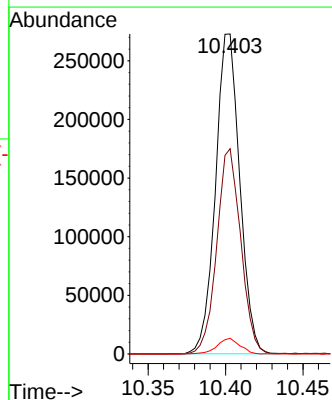
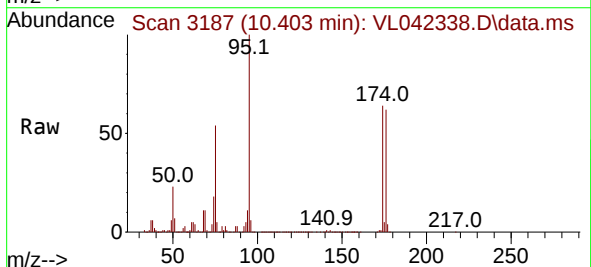
Tgt Ion: 95 Resp: 297137

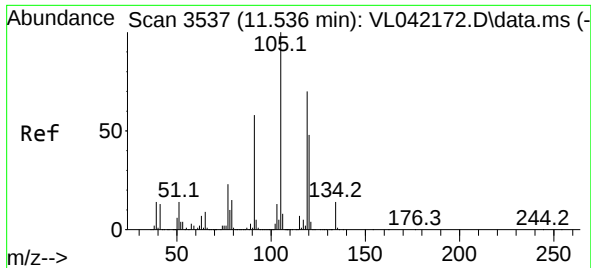
Ion Ratio Lower Upper

95 100

174 63.5 50.6 76.0

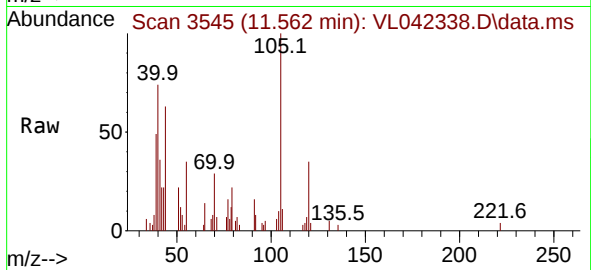
175 4.6 3.8 5.6





#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.033 ppbv  
 RT: 11.562 min Scan# 31  
 Delta R.T. 0.026 min  
 Lab File: VL042338.D  
 Acq: 15 Apr 2025 18:21

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV1DL



|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 105   | Resp: | 2244  |
| Ion      | Ratio | Lower | Upper |
| 105      | 100   |       |       |
| 120      | 34.8  | 38.6  | 58.0# |
| 91       | 23.6  | 46.2  | 69.2# |
| 77       | 10.1  | 18.6  | 27.8# |

