

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL121322\Reviewed data\  
 Data File : VL040010.D  
 Acq On : 13 Dec 2022 17:36  
 Operator : SY/MD  
 Sample : N5969-01DL2 400X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SG-1DL2

Quant Time: Dec 21 15:04:44 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL111822AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Fri Dec 02 23:21:36 2022  
 Response via : Initial Calibration

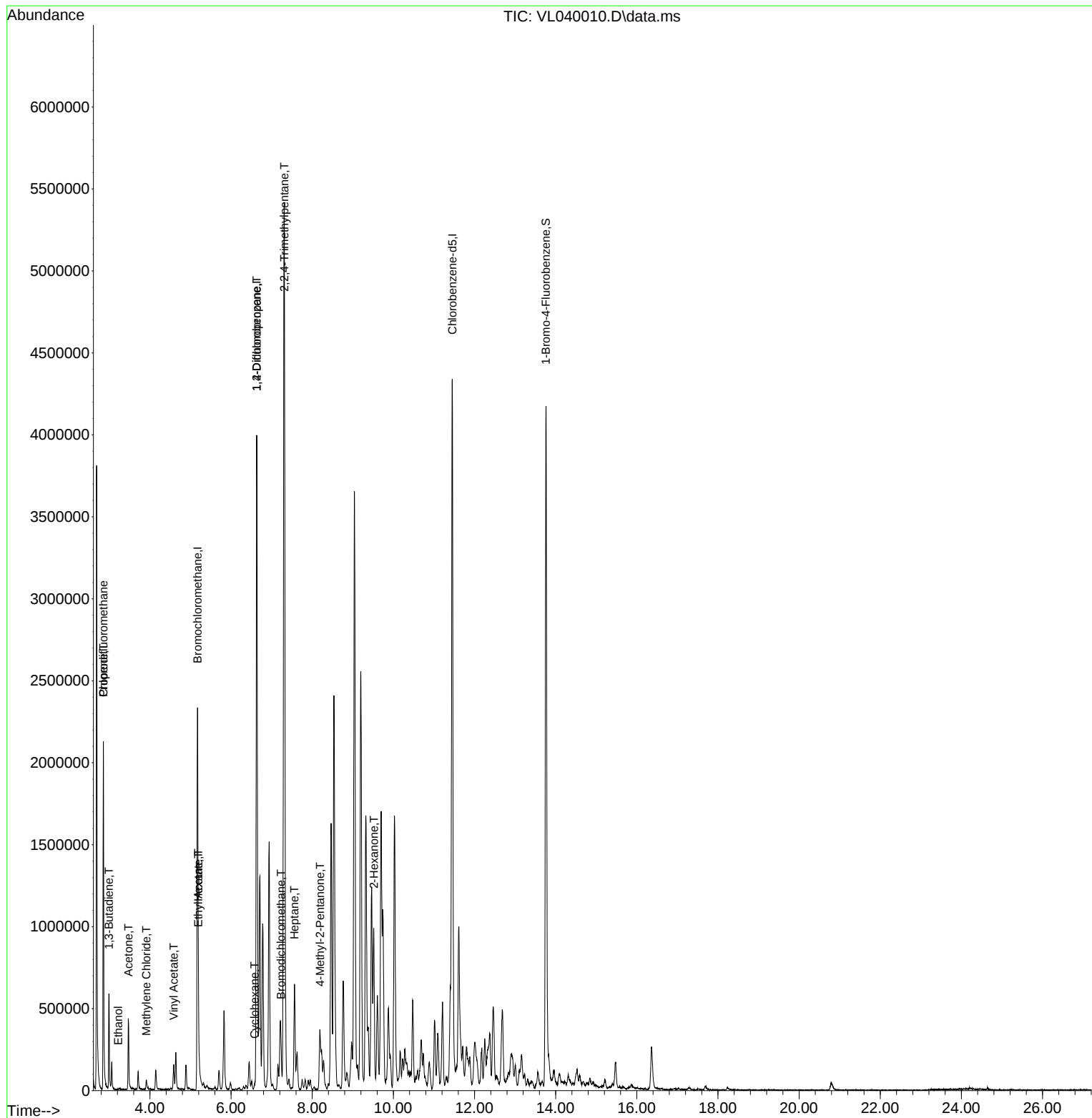
| Compound                    | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-----------------------------|--------|-------|----------|----------|--------|----------|
| -----                       |        |       |          |          |        |          |
| Internal Standards          |        |       |          |          |        |          |
| 1) Bromochloromethane       | 5.172  | 49    | 1142282  | 10.000   | ppbv   | 0.02     |
| 33) 1,4-Difluorobenzene     | 6.632  | 114   | 3128838  | 10.000   | ppbv   | 0.01     |
| 55) Chlorobenzene-d5        | 11.452 | 117   | 2856571  | 10.000   | ppbv   | 0.02     |
| System Monitoring Compounds |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene | 13.760 | 95    | 2172606  | 9.957    | ppbv   | 0.02     |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =      | 99.600%  |
| Target Compounds            |        |       |          |          |        |          |
|                             |        |       |          |          | Qvalue |          |
| 3) Chlorodifluoromethane    | 2.851  | 51    | 13273    | 0.084    | ppbv # | 60       |
| 9) Propene                  | 2.851  | 41    | 596003   | 8.027    | ppbv   | 93       |
| 10) Heptane                 | 7.561  | 43    | 278429   | 1.554    | ppbv # | 27       |
| 13) Ethanol                 | 3.217  | 45    | 188      | 0.033    | ppbv # | 38       |
| 15) Acetone                 | 3.471  | 43    | 151231   | 0.998    | ppbv # | 62       |
| 16) 1,3-Butadiene           | 2.989  | 39    | 64936    | 0.860    | ppbv # | 10       |
| 20) Methylene Chloride      | 3.912  | 84    | 10110    | 0.138    | ppbv   | 92       |
| 23) Vinyl Acetate           | 4.587  | 43    | 78667    | 1.264    | ppbv # | 5        |
| 25) Ethyl Acetate           | 5.195  | 43    | 40452    | 0.145    | ppbv # | 75       |
| 26) Hexane                  | 5.192  | 57    | 57907    | 0.477    | ppbv # | 37       |
| 30) Cyclohexane             | 6.581  | 84    | 5596     | 0.047    | ppbv # | 1        |
| 39) 1,2-Dichloropropane     | 6.632  | 63    | 761014   | 7.345    | ppbv # | 27       |
| 42) Bromodichloromethane    | 7.233  | 83    | 20665    | 0.105    | ppbv # | 24       |
| 44) 2,2,4-Trimethylpentane  | 7.311  | 57    | 5661729  | 12.752   | ppbv   | 97       |
| 50) 4-Methyl-2-Pentanone    | 8.192  | 43    | 35278    | 0.132    | ppbv   | 92       |
| 51) 2-Hexanone              | 9.519  | 43    | 577280   | 2.773    | ppbv # | 27       |
| -----                       |        |       |          |          |        |          |

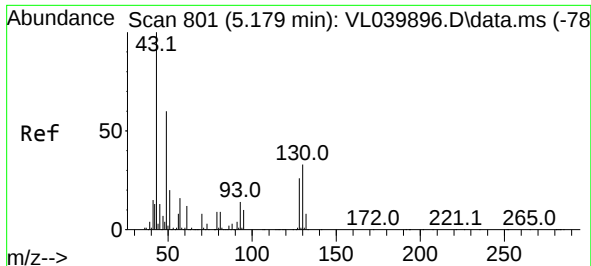
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Data File : VL040010.D  
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ClientSampleId :  
SG-1DL2

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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL111822AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Fri Dec 02 23:21:36 2022  
Response via : Initial Calibration

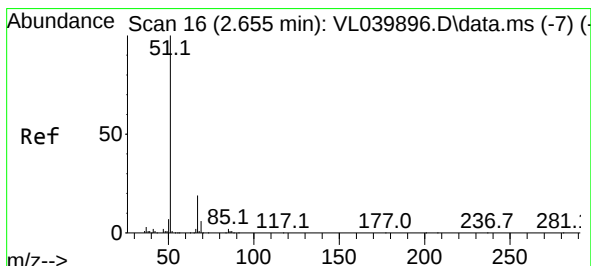
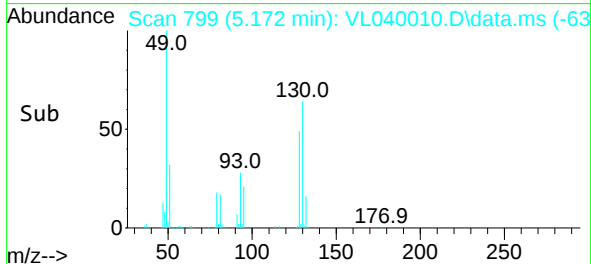
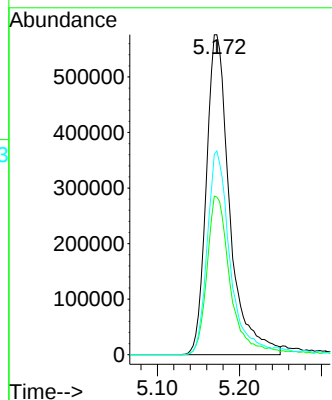
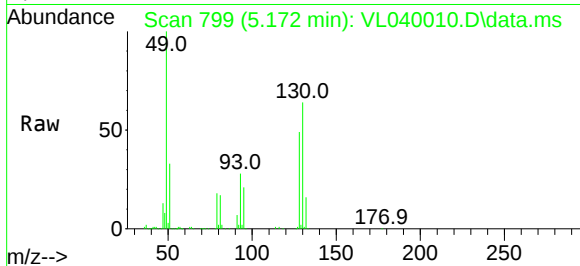




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.172 min Scan# 79  
Delta R.T. 0.016 min  
Lab File: VL040010.D  
Acq: 13 Dec 2022 17:36

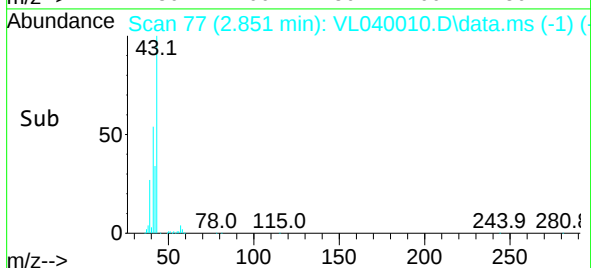
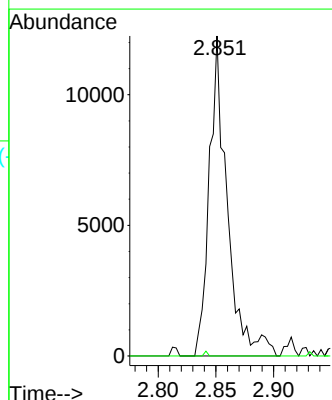
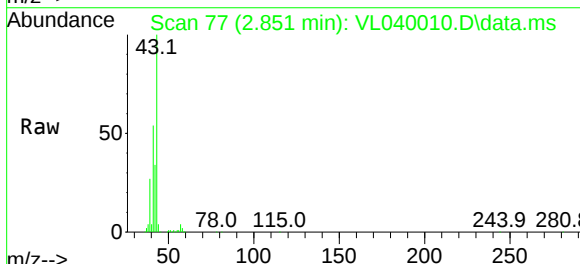
Instrument :  
MSVOA\_1  
ClientSampleId :  
SG-1DL2

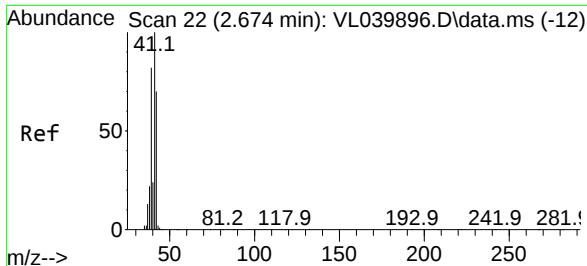
Tgt Ion: 49 Resp: 1142282  
Ion Ratio Lower Upper  
49 100  
128 50.6 22.1 66.3  
130 64.1 27.7 83.1



#3  
Chlorodifluoromethane  
Concen: 0.084 ppbv  
RT: 2.851 min Scan# 77  
Delta R.T. 0.209 min  
Lab File: VL040010.D  
Acq: 13 Dec 2022 17:36

Tgt Ion: 51 Resp: 13273  
Ion Ratio Lower Upper  
51 100  
67 0.0 14.2 21.4#





#9

Propene

Concen: 8.027 ppbv

RT: 2.851 min Scan# 71

Delta R.T. 0.190 min

Lab File: VL040010.D

Acq: 13 Dec 2022 17:36

Instrument :

MSVOA\_L

ClientSampleId :

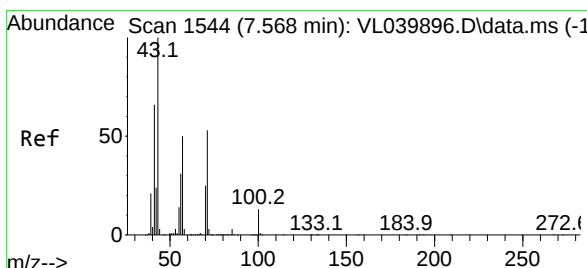
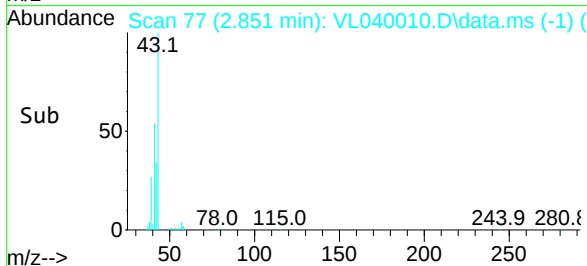
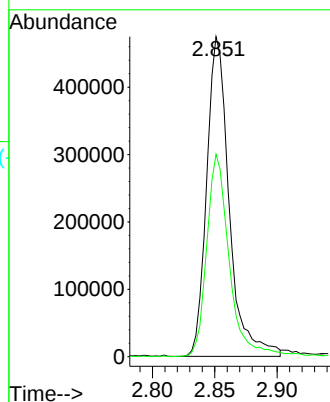
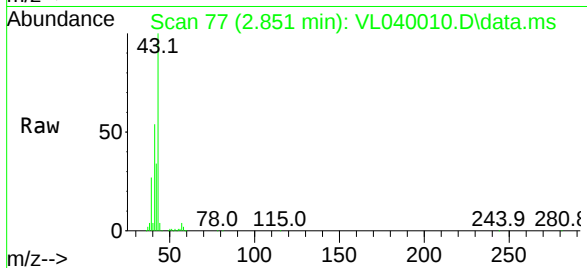
SG-1DL2

Tgt Ion: 41 Resp: 596003

Ion Ratio Lower Upper

41 100

42 64.3 55.8 83.6



#10

Heptane

Concen: 1.554 ppbv

RT: 7.561 min Scan# 1542

Delta R.T. 0.016 min

Lab File: VL040010.D

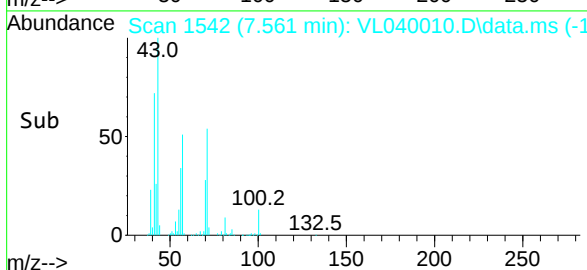
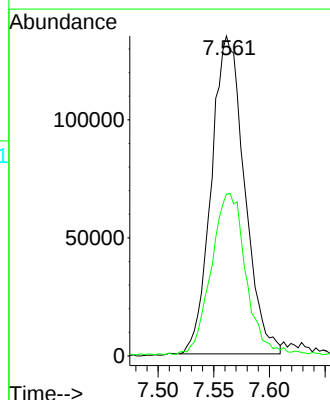
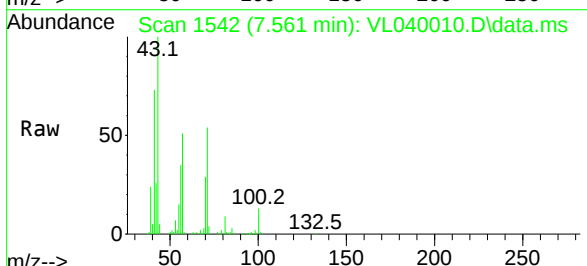
Acq: 13 Dec 2022 17:36

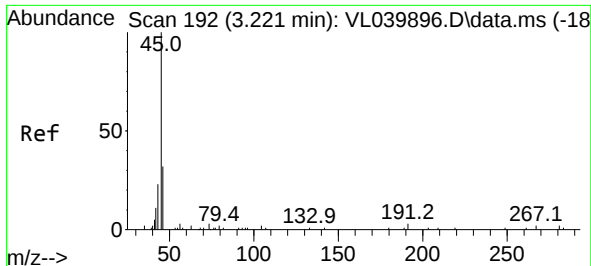
Tgt Ion: 43 Resp: 278429

Ion Ratio Lower Upper

43 100

57 0.0 40.7 61.1#

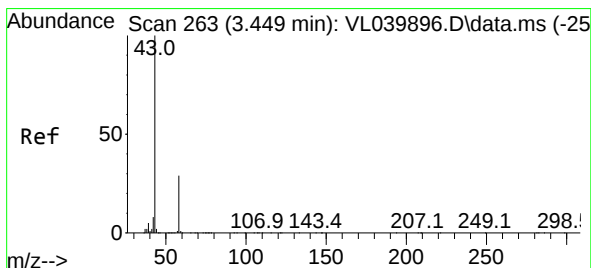
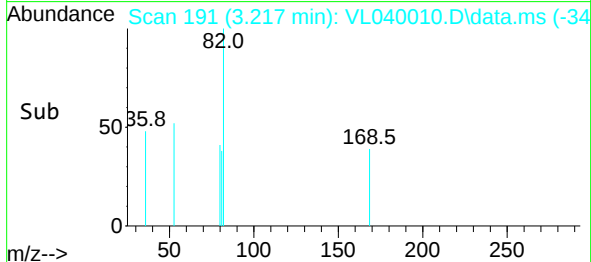
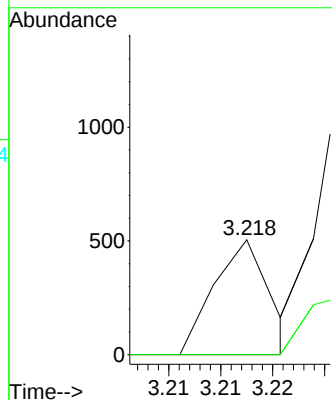
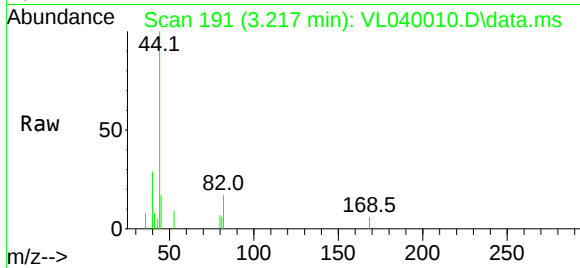




#13  
Ethanol  
Concen: 0.033 ppbv  
RT: 3.217 min Scan# 19  
Delta R.T. 0.003 min  
Lab File: VL040010.D  
Acq: 13 Dec 2022 17:36

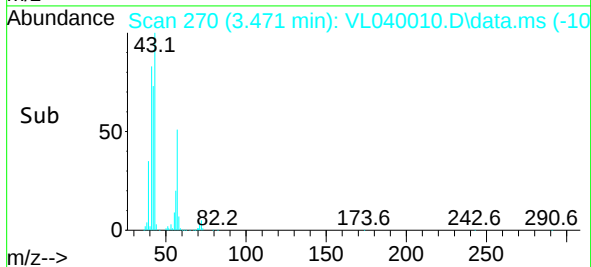
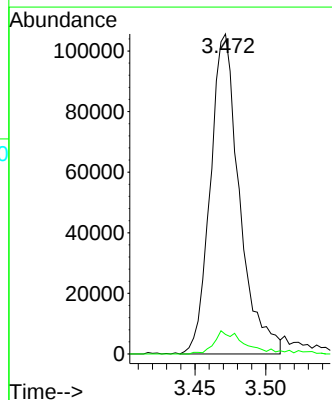
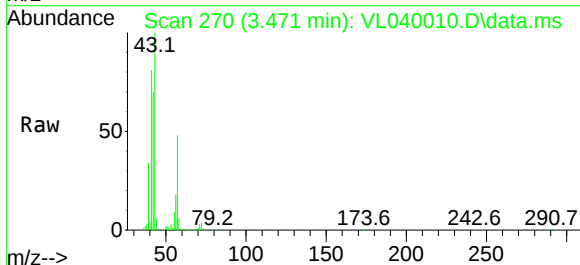
Instrument :  
MSVOA\_1  
ClientSampleId :  
SG-1DL2

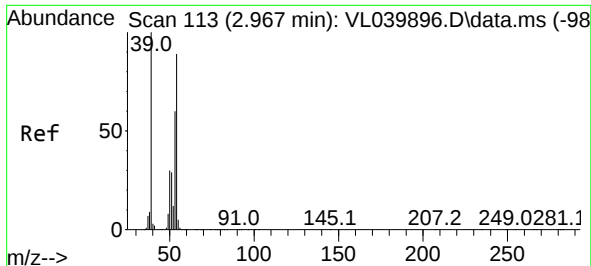
Tgt Ion: 45 Resp: 188  
Ion Ratio Lower Upper  
45 100  
46 0.0 14.6 58.2#



#15  
Acetone  
Concen: 0.998 ppbv  
RT: 3.471 min Scan# 270  
Delta R.T. 0.039 min  
Lab File: VL040010.D  
Acq: 13 Dec 2022 17:36

Tgt Ion: 43 Resp: 151231  
Ion Ratio Lower Upper  
43 100  
58 8.2 22.9 34.3#





#16

1,3-Butadiene

Concen: 0.860 ppbv

RT: 2.989 min Scan# 113

Delta R.T. 0.039 min

Lab File: VL040010.D

Acq: 13 Dec 2022 17:36

Instrument :

MSVOA\_L

ClientSampleId :

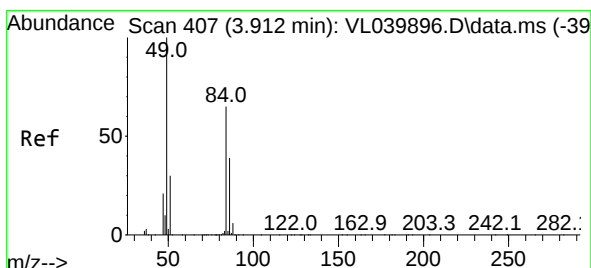
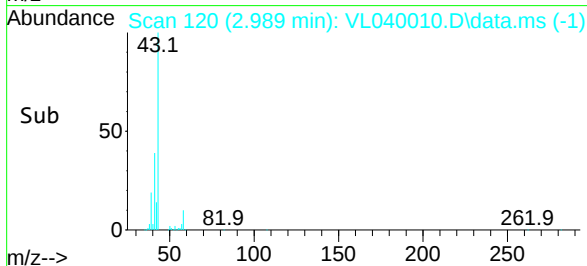
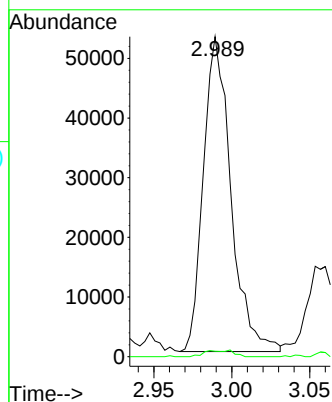
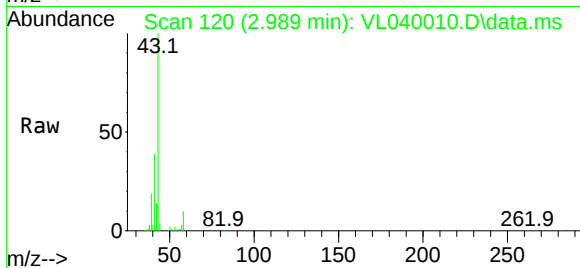
SG-1DL2

Tgt Ion: 39 Resp: 64936

Ion Ratio Lower Upper

39 100

54 2.1 66.6 99.8#



#20

Methylene Chloride

Concen: 0.138 ppbv

RT: 3.912 min Scan# 407

Delta R.T. 0.016 min

Lab File: VL040010.D

Acq: 13 Dec 2022 17:36

Tgt Ion: 84 Resp: 10110

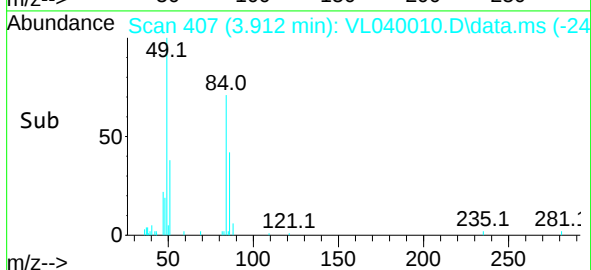
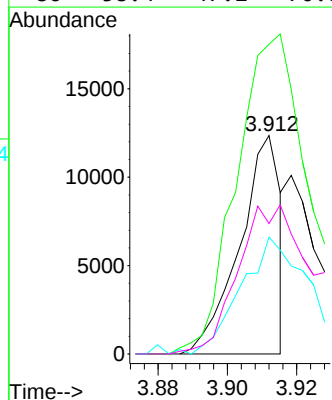
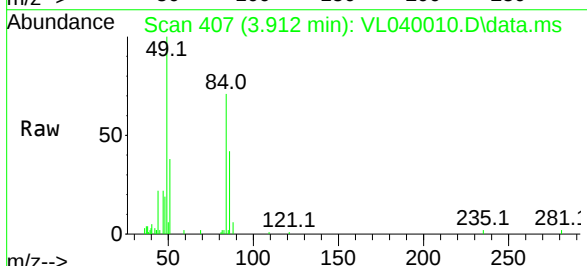
Ion Ratio Lower Upper

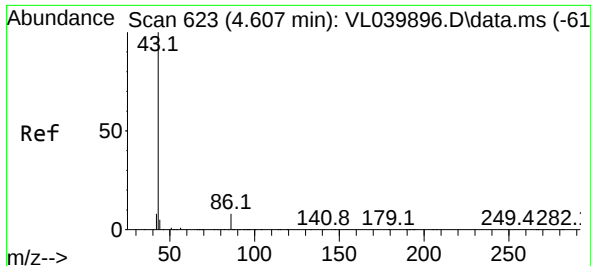
84 100

49 138.9 122.2 183.4

51 51.4 36.3 54.5

86 58.4 47.2 70.8



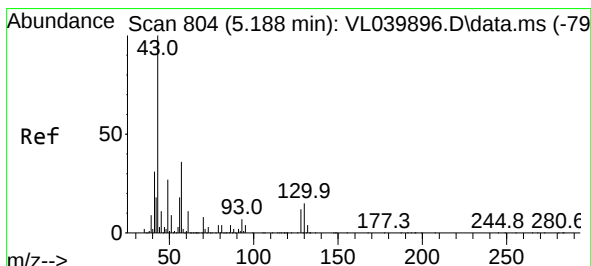
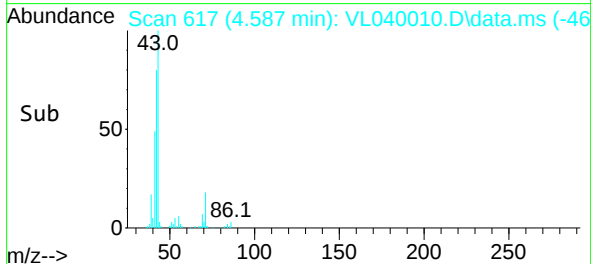
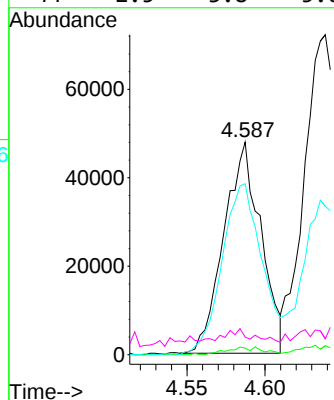
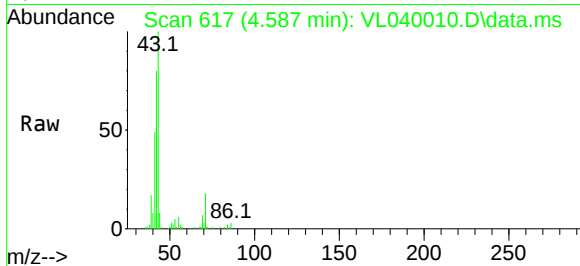


#23  
 Vinyl Acetate  
 Concen: 1.264 ppbv  
 RT: 4.587 min Scan# 617  
 Delta R.T. -0.006 min  
 Lab File: VL040010.D  
 Acq: 13 Dec 2022 17:36

Instrument :  
 MSVOA\_1  
 ClientSampleId :  
 SG-1DL2

Tgt Ion: 43 Resp: 78667

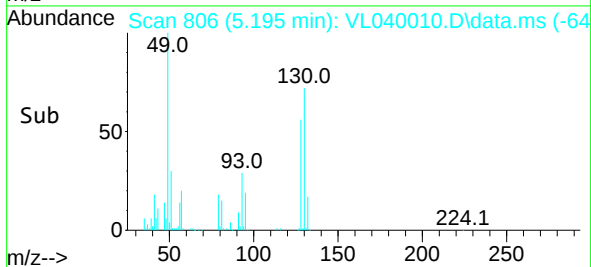
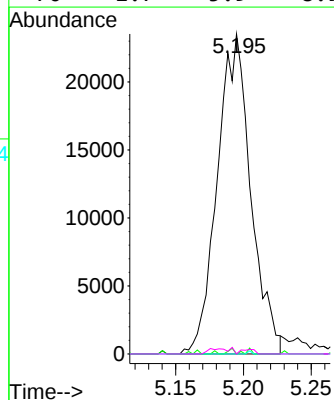
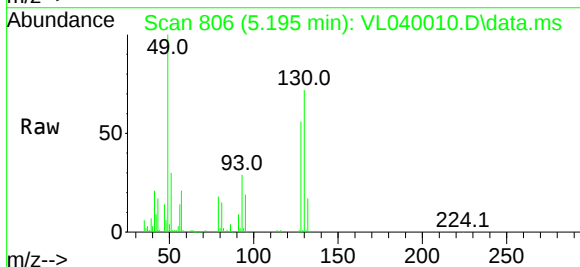
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 86  | 3.1   | 5.0   | 7.4#  |
| 42  | 81.0  | 7.6   | 11.4# |
| 44  | 2.5   | 3.8   | 5.6#  |

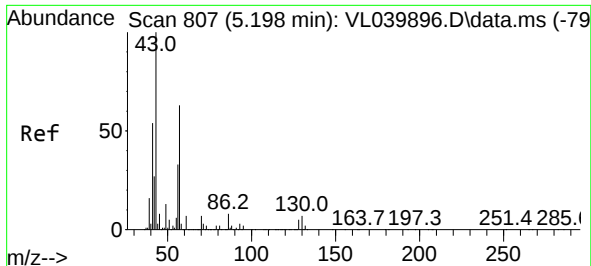


#25  
 Ethyl Acetate  
 Concen: 0.145 ppbv  
 RT: 5.195 min Scan# 806  
 Delta R.T. 0.026 min  
 Lab File: VL040010.D  
 Acq: 13 Dec 2022 17:36

Tgt Ion: 43 Resp: 40452

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 45  | 0.3   | 8.4   | 12.6# |
| 61  | 0.1   | 8.5   | 12.7# |
| 70  | 1.7   | 5.9   | 8.9#  |

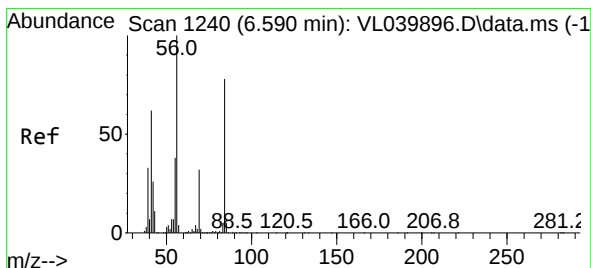
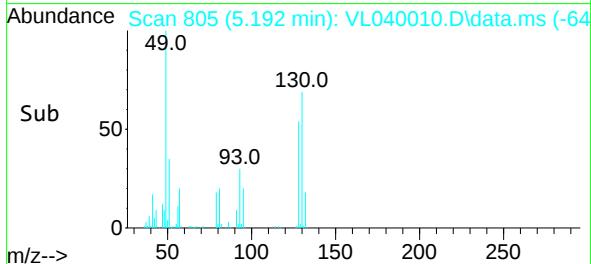
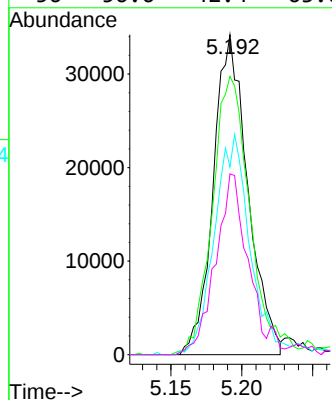
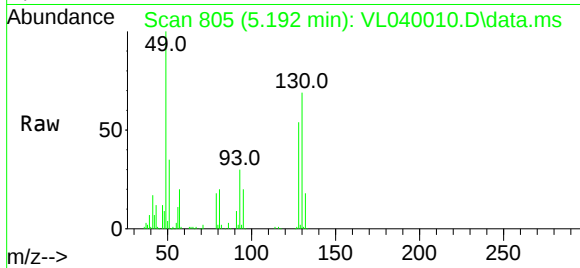




#26  
Hexane  
Concen: 0.477 ppbv  
RT: 5.192 min Scan# 807  
Delta R.T. 0.016 min  
Lab File: VL040010.D  
Acq: 13 Dec 2022 17:36

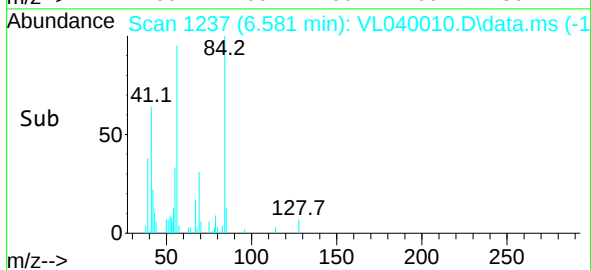
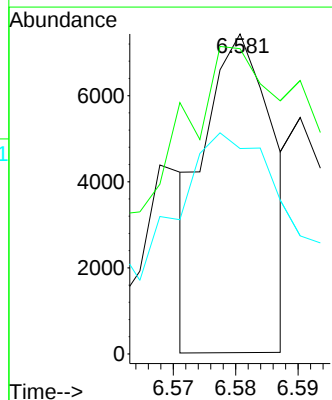
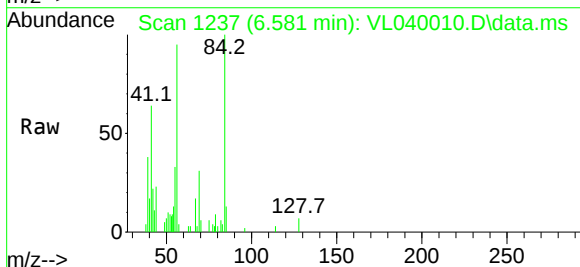
Instrument :  
MSVOA\_L  
ClientSampleId :  
SG-1DL2

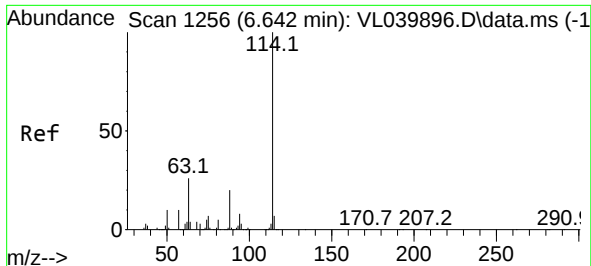
Tgt Ion: 57 Resp: 57907  
Ion Ratio Lower Upper  
57 100  
41 97.1 72.3 108.5  
43 73.2 188.7 283.1#  
56 56.6 42.4 63.6



#30  
Cyclohexane  
Concen: 0.047 ppbv  
RT: 6.581 min Scan# 1237  
Delta R.T. 0.016 min  
Lab File: VL040010.D  
Acq: 13 Dec 2022 17:36

Tgt Ion: 84 Resp: 5596  
Ion Ratio Lower Upper  
84 100  
56 0.0 112.5 168.7#  
41 0.0 67.8 101.8#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.632 min Scan# 1253

Delta R.T. 0.013 min

Lab File: VL040010.D

Acq: 13 Dec 2022 17:36

Instrument :

MSVOA\_1

ClientSampleId :

SG-1DL2

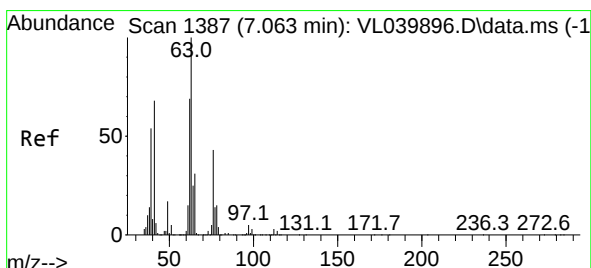
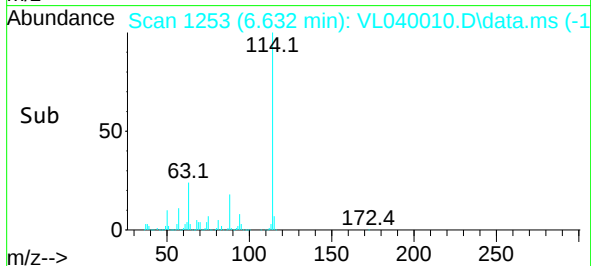
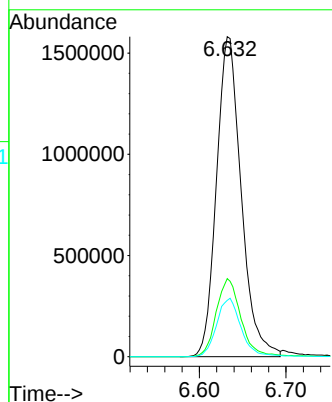
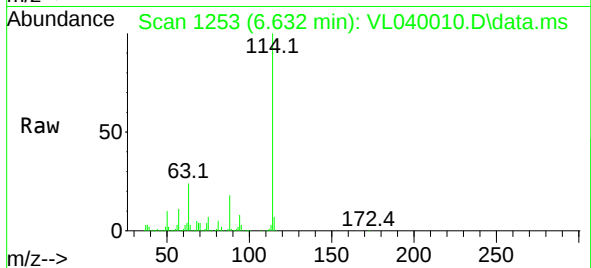
Tgt Ion:114 Resp: 3128838

Ion Ratio Lower Upper

114 100

63 24.6 21.4 32.0

88 18.3 15.3 22.9



#39

1,2-Dichloropropane

Concen: 7.345 ppbv

RT: 6.632 min Scan# 1253

Delta R.T. -0.402 min

Lab File: VL040010.D

Acq: 13 Dec 2022 17:36

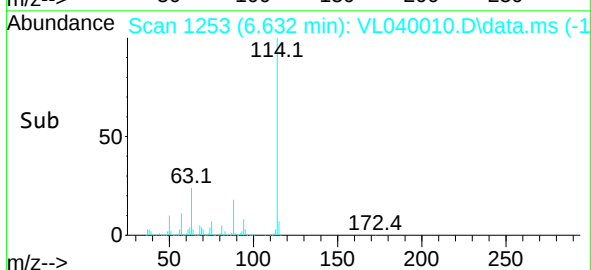
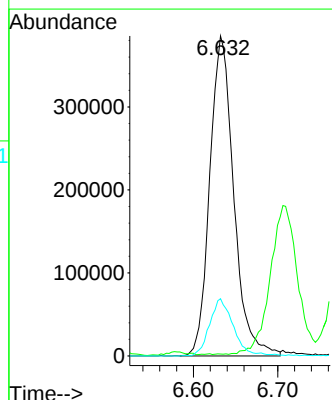
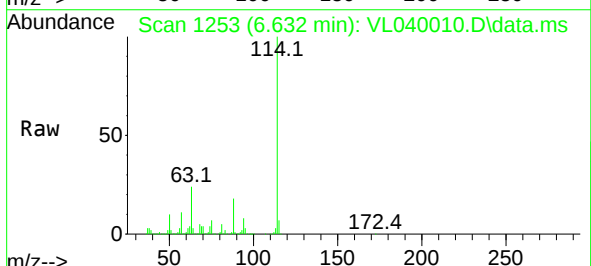
Tgt Ion: 63 Resp: 761014

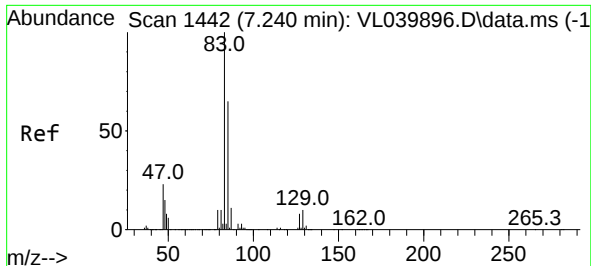
Ion Ratio Lower Upper

63 100

41 0.0 54.7 82.1#

62 17.9 55.0 82.6#





#42

Bromodichloromethane

Concen: 0.105 ppbv

RT: 7.233 min Scan# 1442

Delta R.T. 0.023 min

Lab File: VL040010.D

Acq: 13 Dec 2022 17:36

Instrument :

MSVOA\_1

ClientSampleId :

SG-1DL2

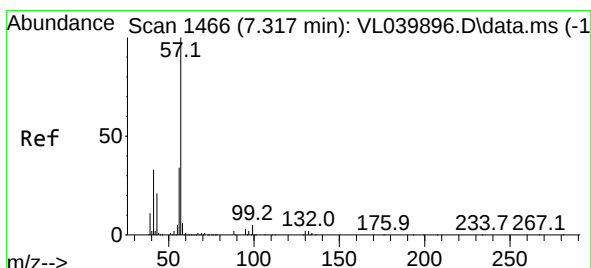
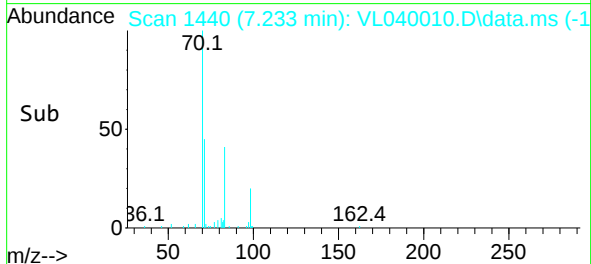
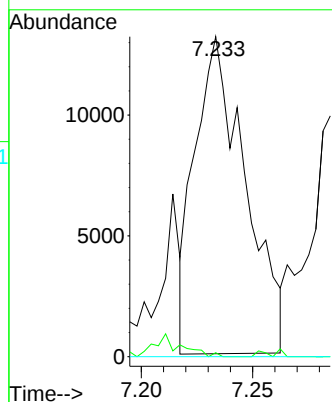
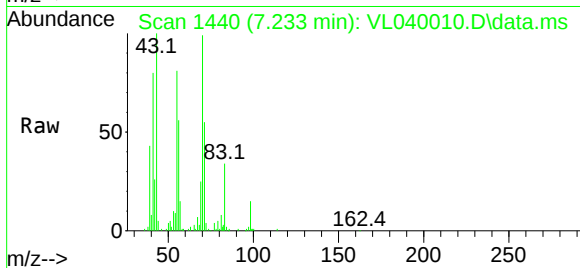
Tgt Ion: 83 Resp: 20665

Ion Ratio Lower Upper

83 100

85 0.0 52.0 78.0#

127 0.0 6.5 9.7#



#44

2,2,4-Trimethylpentane

Concen: 12.752 ppbv

RT: 7.311 min Scan# 1464

Delta R.T. 0.019 min

Lab File: VL040010.D

Acq: 13 Dec 2022 17:36

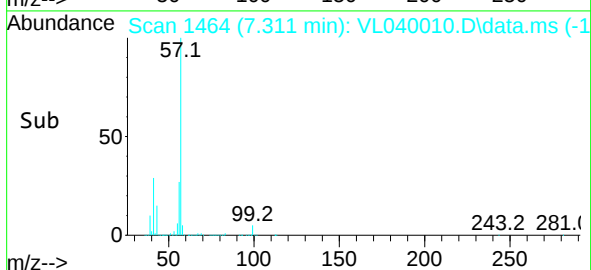
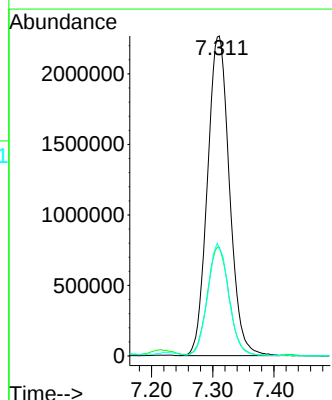
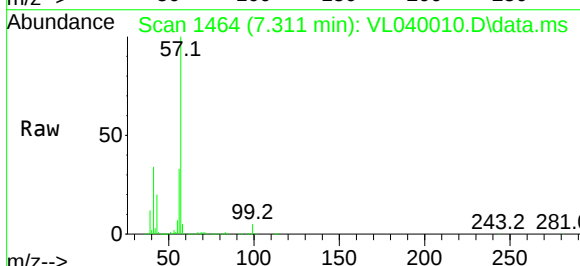
Tgt Ion: 57 Resp: 5661729

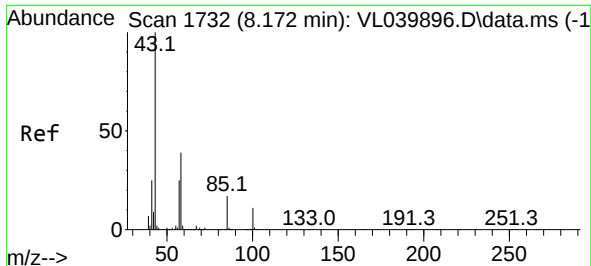
Ion Ratio Lower Upper

57 100

41 33.8 26.2 39.2

56 34.1 25.5 38.3





#50

4-Methyl-2-Pentanone

Concen: 0.132 ppbv

RT: 8.192 min Scan# 1

Delta R.T. 0.045 min

Lab File: VL040010.D

Acq: 13 Dec 2022 17:36

Instrument :

MSVOA\_L

ClientSampleId :

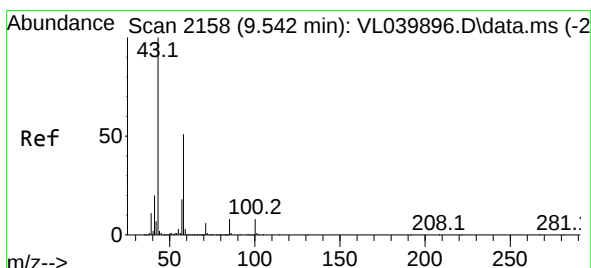
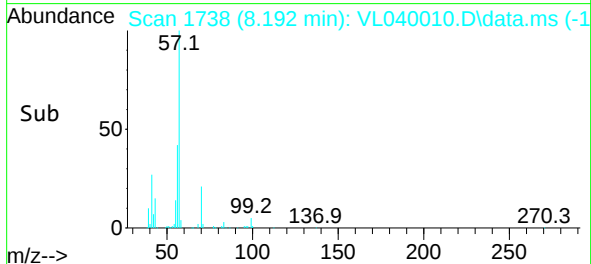
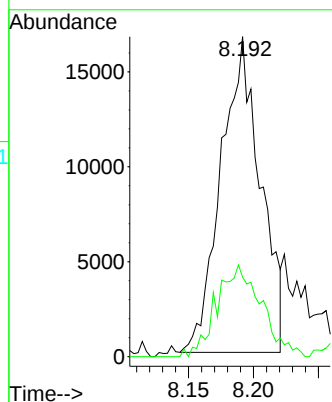
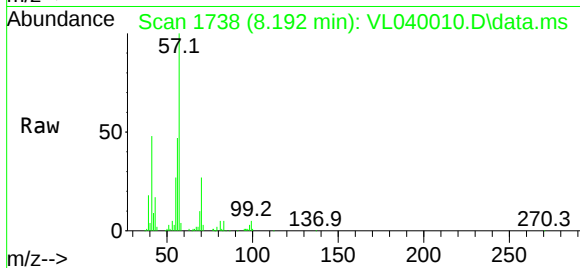
SG-1DL2

Tgt Ion: 43 Resp: 35278

Ion Ratio Lower Upper

43 100

58 32.6 29.8 44.6



#51

2-Hexanone

Concen: 2.773 ppbv

RT: 9.519 min Scan# 2151

Delta R.T. 0.003 min

Lab File: VL040010.D

Acq: 13 Dec 2022 17:36

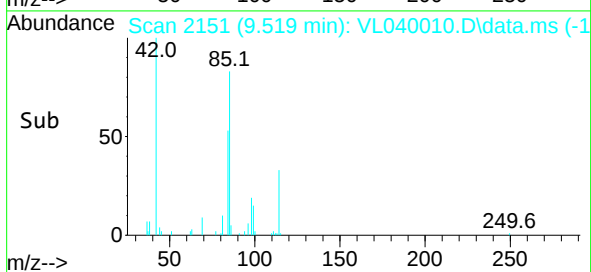
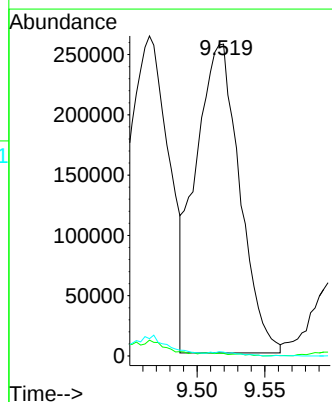
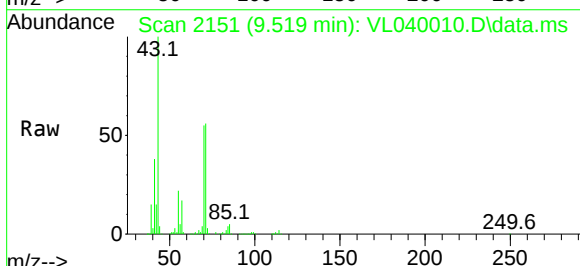
Tgt Ion: 43 Resp: 577280

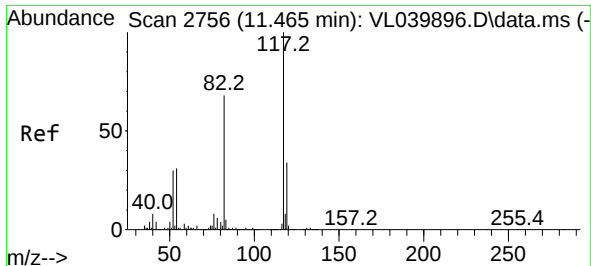
Ion Ratio Lower Upper

43 100

58 0.0 40.2 60.4#

98 0.9 0.1 0.1#

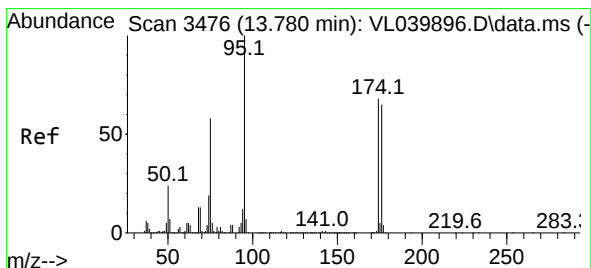
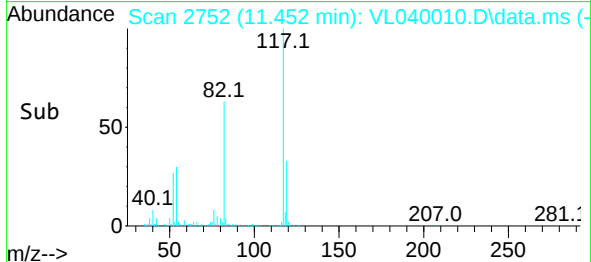
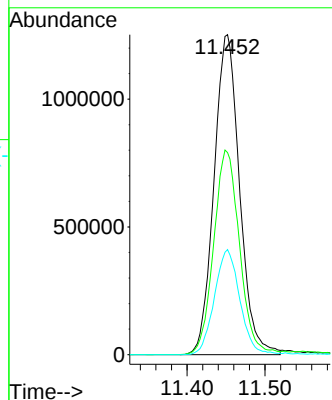
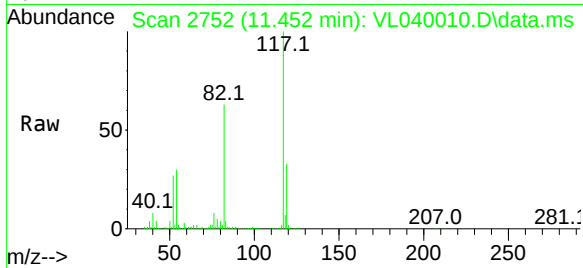




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.452 min Scan# 21  
Delta R.T. 0.019 min  
Lab File: VL040010.D  
Acq: 13 Dec 2022 17:36

Instrument :  
MSVOA\_1  
ClientSampleId :  
SG-1DL2

Tgt Ion:117 Resp: 2856571  
Ion Ratio Lower Upper  
117 100  
82 65.1 52.3 78.5  
119 33.0 25.7 38.5



#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.957 ppbv  
RT: 13.760 min Scan# 3470  
Delta R.T. 0.019 min  
Lab File: VL040010.D  
Acq: 13 Dec 2022 17:36

Tgt Ion: 95 Resp: 2172606  
Ion Ratio Lower Upper  
95 100  
174 63.2 53.7 80.5  
175 4.5 4.0 6.0

