

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL111423\  
 Data File : VL040854.D  
 Acq On : 14 Nov 2023 17:15  
 Operator : SY/MD  
 Sample : 05365-01DL 20X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 SV1DL

Quant Time: Nov 22 00:44:46 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL111323AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Mon Nov 20 03:50:24 2023  
 Response via : Initial Calibration

| Compound                | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------|--------|------|----------|--------|-------|----------|
| -----                   |        |      |          |        |       |          |
| Internal Standards      |        |      |          |        |       |          |
| 1) Bromochloromethane   | 5.192  | 49   | 1156142  | 10.000 | ppbv  | -0.02    |
| 33) 1,4-Difluorobenzene | 6.642  | 114  | 3065800  | 10.000 | ppbv  | -0.02    |
| 55) Chlorobenzene-d5    | 11.439 | 117  | 2766509  | 10.000 | ppbv  | -0.02    |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 13.744 | 95    | 2091538  | 9.656    | ppbv | -0.03   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 96.600% |

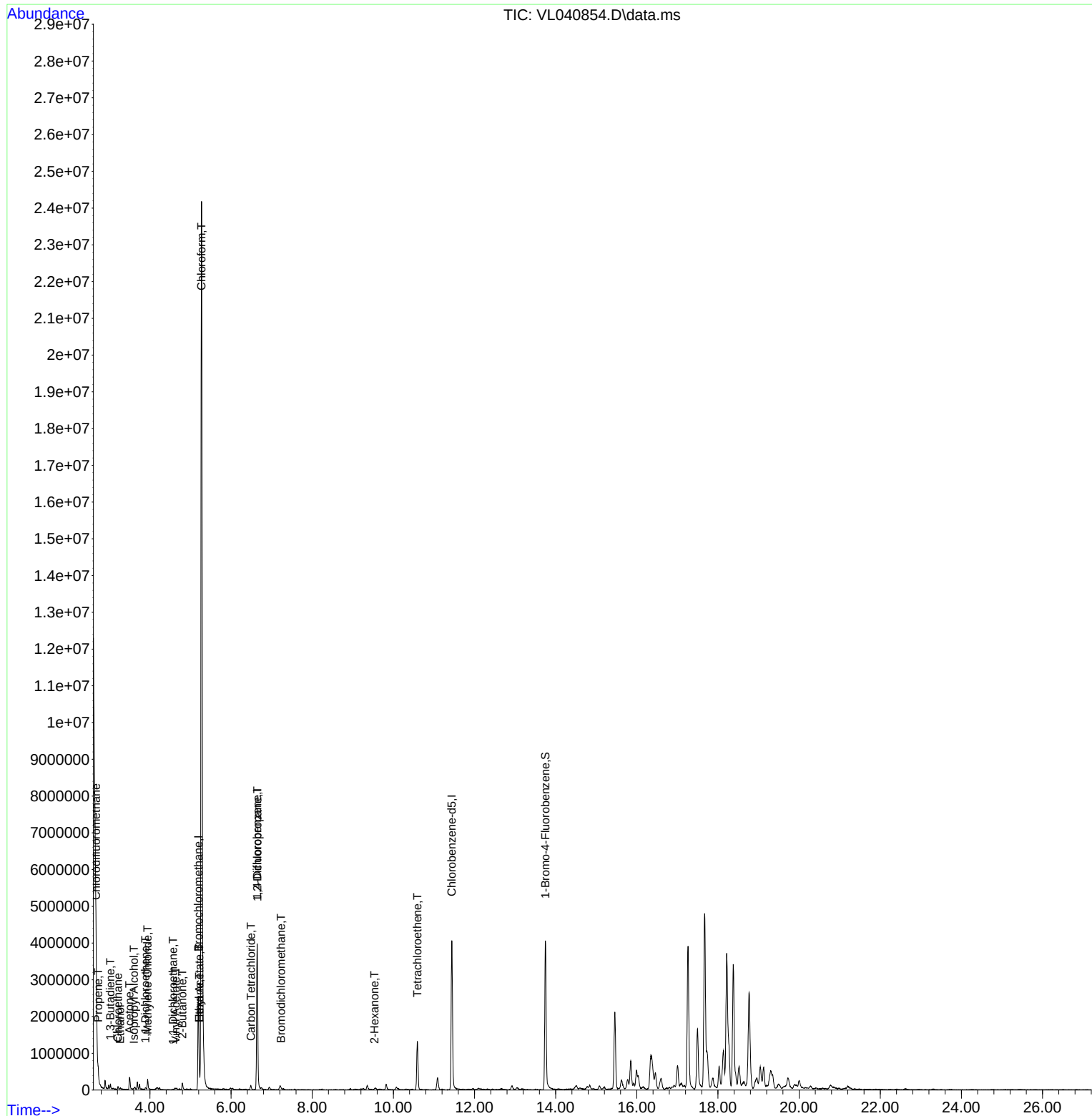
| Target Compounds         | R.T.   | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------|--------|------|----------|--------|--------|--------|
| 3) Chlorodifluoromethane | 2.674  | 51   | 50208    | 0.272  | ppbv # | 62     |
| 7) Chloroethane          | 3.211  | 64   | 42288    | 1.850  | ppbv   | 93     |
| 9) Propene               | 2.726  | 41   | 60896    | 0.979  | ppbv   | 88     |
| 13) Ethanol              | 3.266  | 45   | 34556    | 2.861  | ppbv # | 100    |
| 15) Acetone              | 3.494  | 43   | 264321   | 2.147  | ppbv   | 97     |
| 16) 1,3-Butadiene        | 3.025  | 39   | 15708    | 0.252  | ppbv # | 11     |
| 18) 1,1-Dichloroethene   | 3.886  | 96   | 5795     | 0.102  | ppbv   | 97     |
| 19) Isopropyl Alcohol    | 3.607  | 45   | 32589    | 0.440  | ppbv # | 94     |
| 20) Methylene Chloride   | 3.944  | 84   | 80809    | 1.590  | ppbv   | 92     |
| 23) Vinyl Acetate        | 4.632  | 43   | 38111    | 0.240  | ppbv # | 83     |
| 24) 1,1-Dichloroethane   | 4.571  | 63   | 5068     | 0.036  | ppbv # | 93     |
| 25) Ethyl Acetate        | 5.217  | 43   | 53505    | 0.210  | ppbv # | 78     |
| 26) Hexane               | 5.217  | 57   | 114877   | 1.018  | ppbv # | 30     |
| 29) Chloroform           | 5.272  | 83   | 16838752 | 88.047 | ppbv # | 72     |
| 34) 2-Butanone           | 4.799  | 43   | 224379   | 1.437  | ppbv   | 99     |
| 35) Carbon Tetrachloride | 6.487  | 117  | 64198    | 0.341  | ppbv   | 93     |
| 39) 1,2-Dichloropropane  | 6.645  | 63   | 749622   | 7.598  | ppbv # | 23     |
| 42) Bromodichloromethane | 7.233  | 83   | 10237    | 0.049  | ppbv # | 69     |
| 51) 2-Hexanone           | 9.536  | 43   | 13321    | 0.078  | ppbv # | 30     |
| 52) Tetrachloroethene    | 10.590 | 164  | 322536   | 3.849  | ppbv   | 98     |

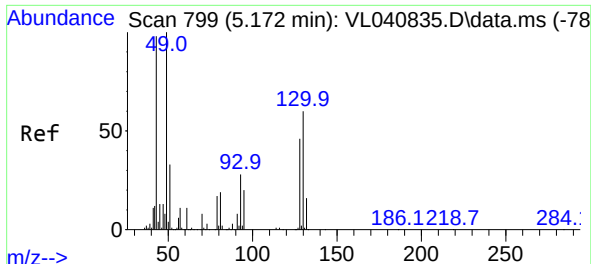
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :  
MSVOA\_L  
ClientSampleId :  
SV1DL

Quant Time: Nov 22 00:44:46 2023  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL111323AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
QLast Update : Mon Nov 20 03:50:24 2023  
Response via : Initial Calibration

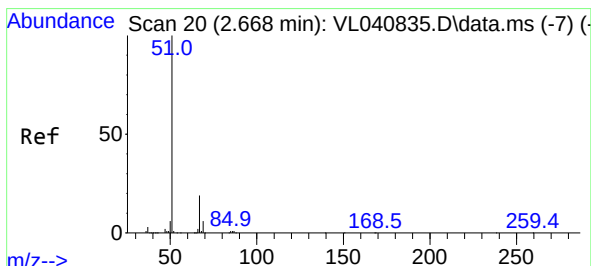
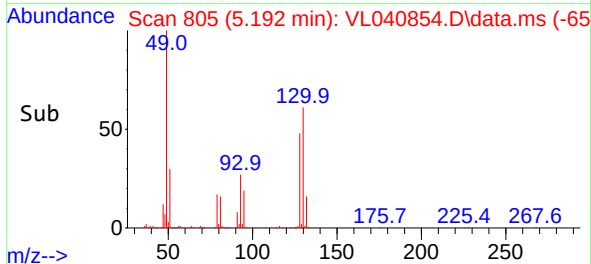
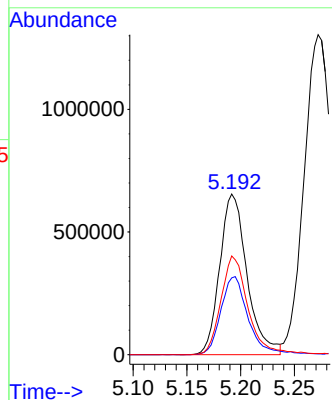
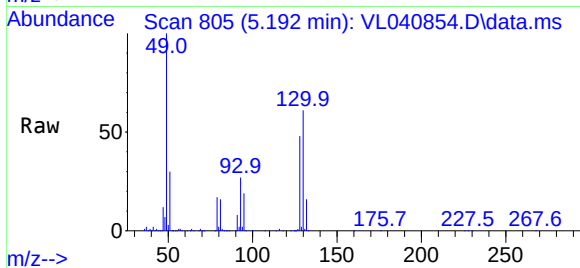




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.192 min Scan# 80  
Delta R.T. -0.019 min  
Lab File: VL040854.D  
Acq: 14 Nov 2023 17:15

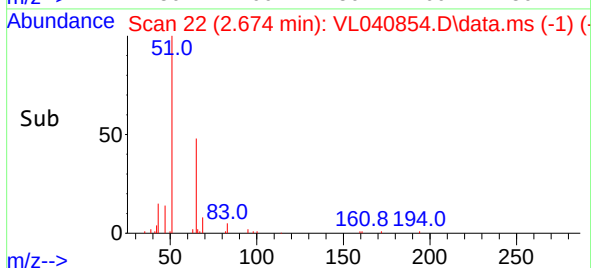
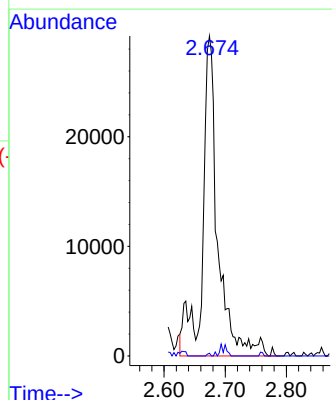
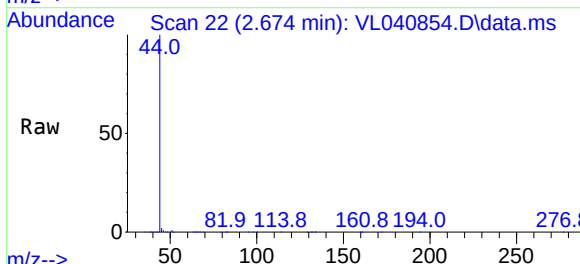
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV1DL

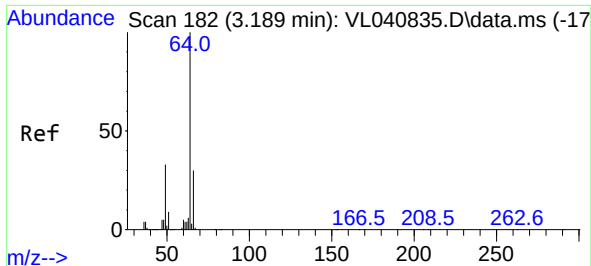
Tgt Ion: 49 Resp: 1156142  
Ion Ratio Lower Upper  
49 100  
128 48.9 23.8 71.2  
130 62.2 30.9 92.8



#3  
Chlorodifluoromethane  
Concen: 0.272 ppbv  
RT: 2.674 min Scan# 22  
Delta R.T. -0.045 min  
Lab File: VL040854.D  
Acq: 14 Nov 2023 17:15

Tgt Ion: 51 Resp: 50208  
Ion Ratio Lower Upper  
51 100  
67 1.6 15.0 22.4#

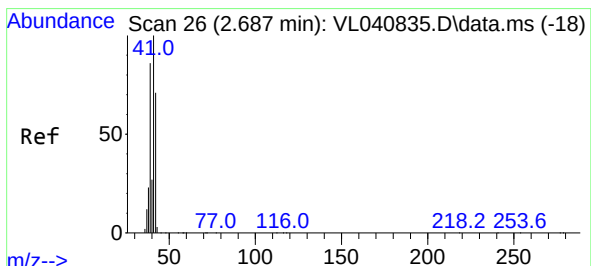
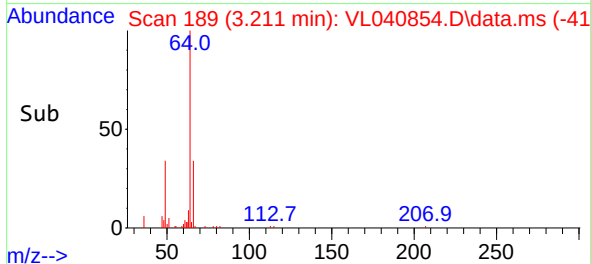
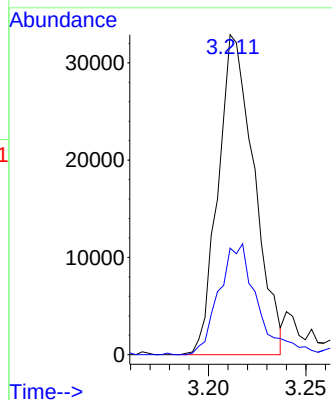
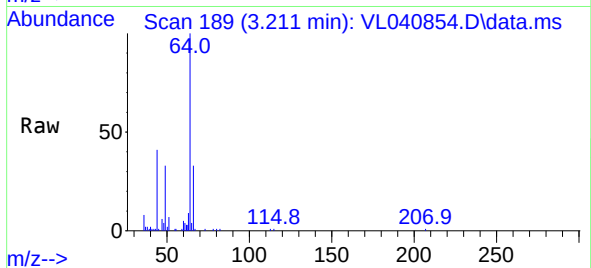




#7  
Chloroethane  
Concen: 1.850 ppbv  
RT: 3.211 min Scan# 11  
Delta R.T. -0.023 min  
Lab File: VL040854.D  
Acq: 14 Nov 2023 17:15

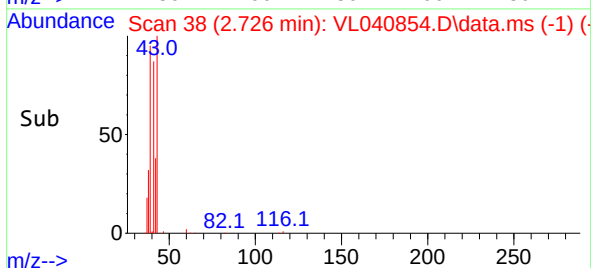
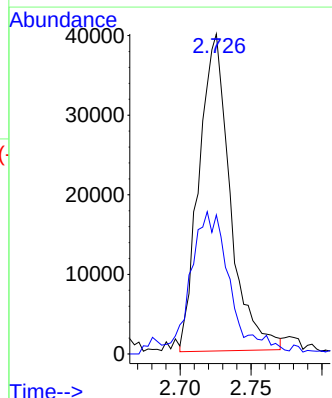
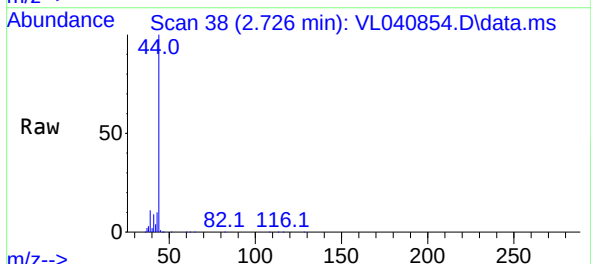
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV1DL

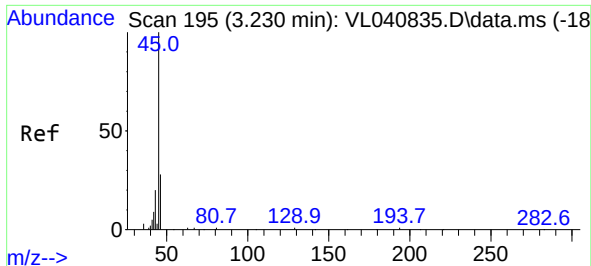
Tgt Ion: 64 Resp: 42288  
Ion Ratio Lower Upper  
64 100  
66 33.3 23.8 35.6



#9  
Propene  
Concen: 0.979 ppbv  
RT: 2.726 min Scan# 38  
Delta R.T. -0.013 min  
Lab File: VL040854.D  
Acq: 14 Nov 2023 17:15

Tgt Ion: 41 Resp: 60896  
Ion Ratio Lower Upper  
41 100  
42 60.5 56.5 84.7





#13

Ethanol

Concen: 2.861 ppbv

RT: 3.266 min Scan# 206

Delta R.T. -0.013 min

Lab File: VL040854.D

Acq: 14 Nov 2023 17:15

Instrument :

MSVOA\_L

ClientSampleId :

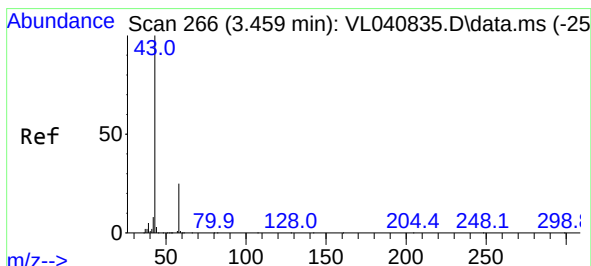
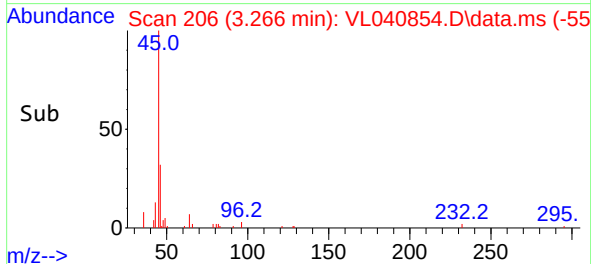
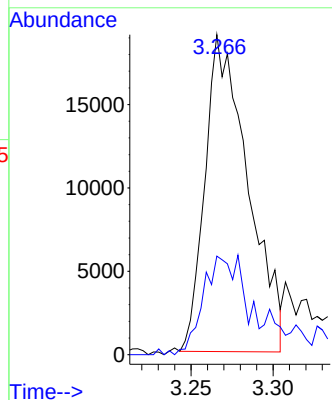
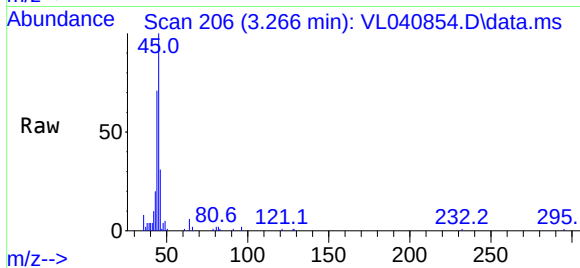
SV1DL

Tgt Ion: 45 Resp: 34556

Ion Ratio Lower Upper

45 100

46 44.6 0.0 0.0#



#15

Acetone

Concen: 2.147 ppbv

RT: 3.494 min Scan# 277

Delta R.T. -0.007 min

Lab File: VL040854.D

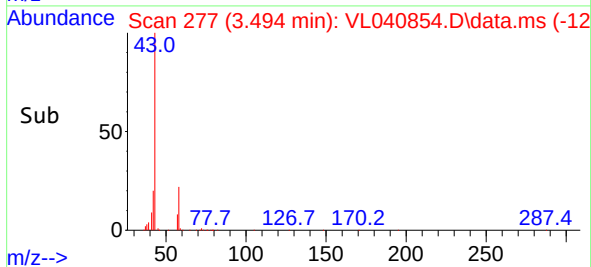
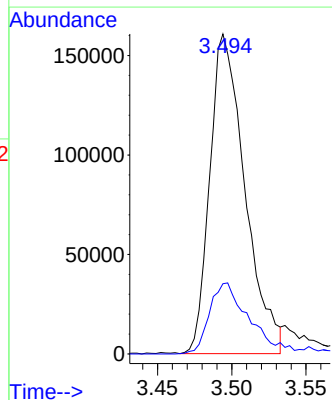
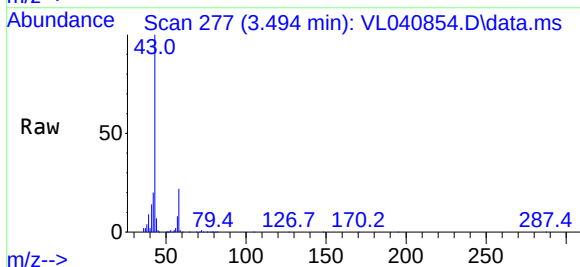
Acq: 14 Nov 2023 17:15

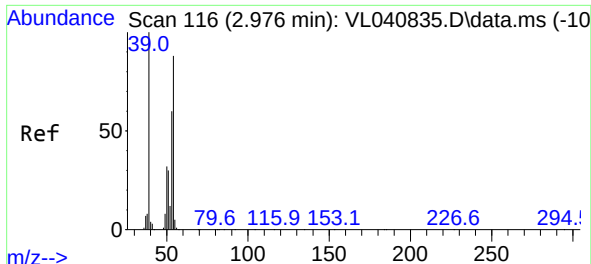
Tgt Ion: 43 Resp: 264321

Ion Ratio Lower Upper

43 100

58 27.4 20.9 31.3

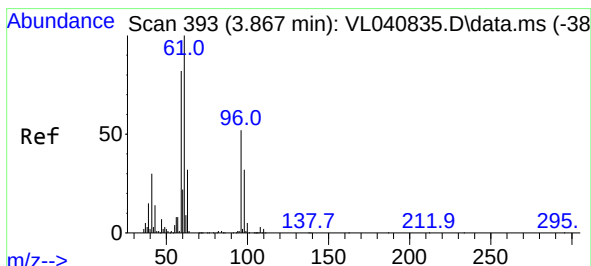
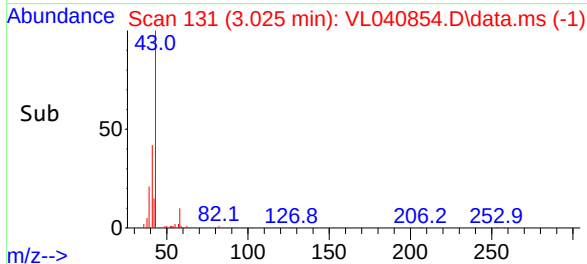
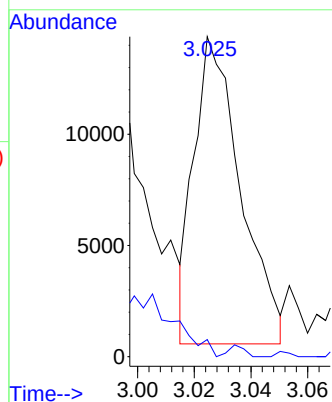
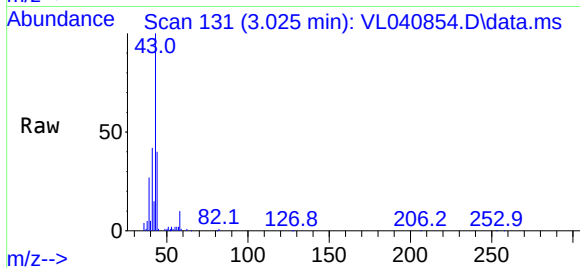




#16  
1,3-Butadiene  
Concen: 0.252 ppbv  
RT: 3.025 min Scan# 116  
Delta R.T. -0.000 min  
Lab File: VL040854.D  
Acq: 14 Nov 2023 17:15

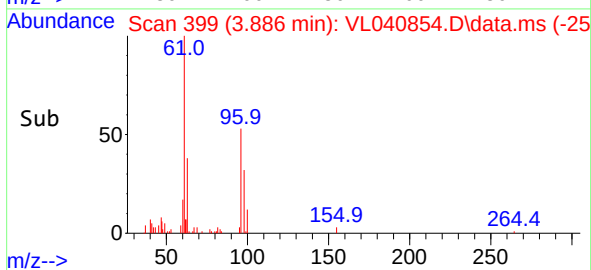
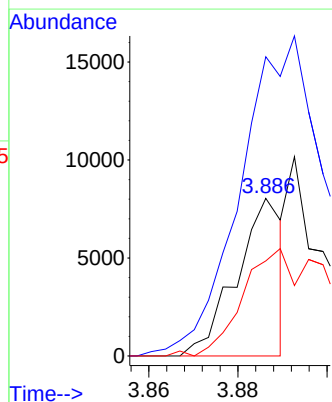
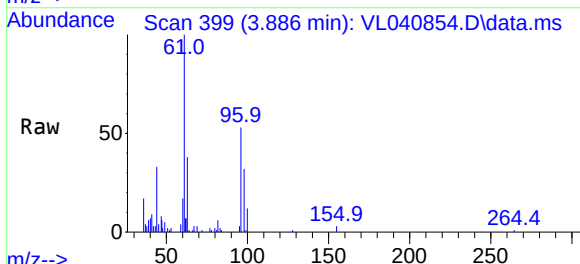
Instrument :  
MSVOA\_L  
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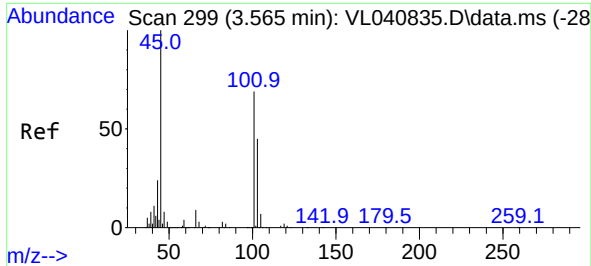
Tgt Ion: 39 Resp: 15708  
Ion Ratio Lower Upper  
39 100  
54 0.0 61.8 92.6#



#18  
1,1-Dichloroethene  
Concen: 0.102 ppbv  
RT: 3.886 min Scan# 399  
Delta R.T. -0.026 min  
Lab File: VL040854.D  
Acq: 14 Nov 2023 17:15

Tgt Ion: 96 Resp: 5795  
Ion Ratio Lower Upper  
96 100  
61 194.0 152.6 228.8  
98 57.2 49.2 73.8





#19

Isopropyl Alcohol

Concen: 0.440 ppbv

RT: 3.607 min Scan# 312

Delta R.T. -0.003 min

Lab File: VL040854.D

Acq: 14 Nov 2023 17:15

Instrument :

MSVOA\_1

ClientSampleId :

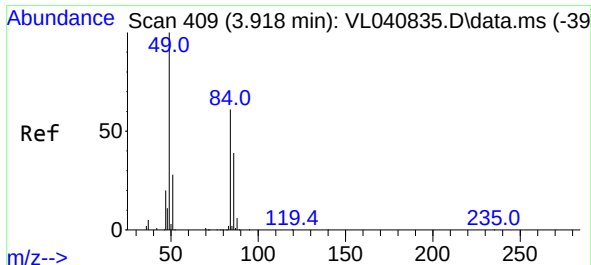
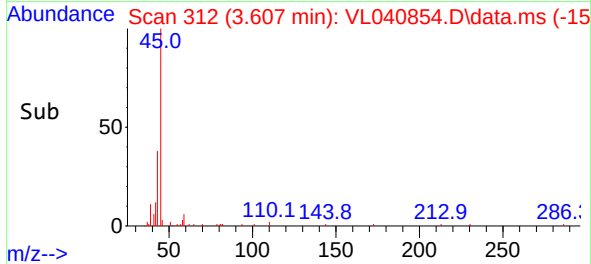
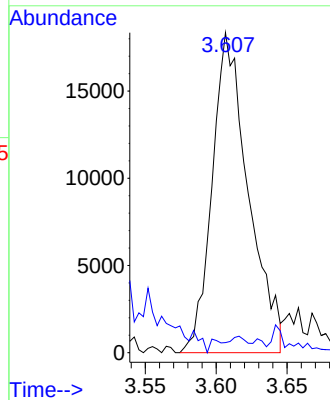
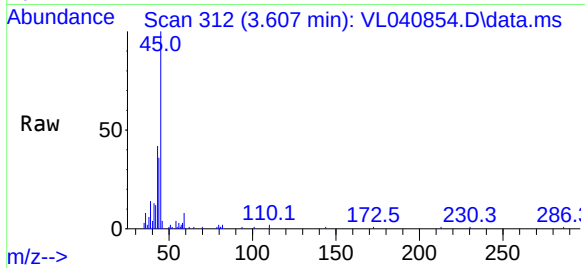
SV1DL

Tgt Ion: 45 Resp: 32589

Ion Ratio Lower Upper

45 100

58 0.0 1.6 2.4#



#20

Methylene Chloride

Concen: 1.590 ppbv

RT: 3.944 min Scan# 417

Delta R.T. -0.020 min

Lab File: VL040854.D

Acq: 14 Nov 2023 17:15

Tgt Ion: 84 Resp: 80809

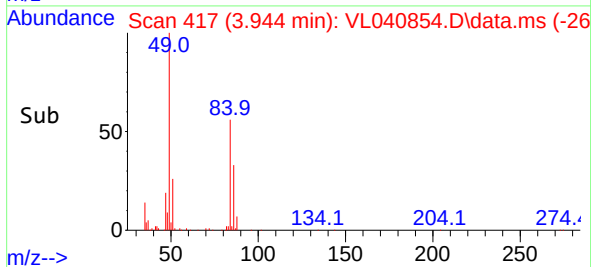
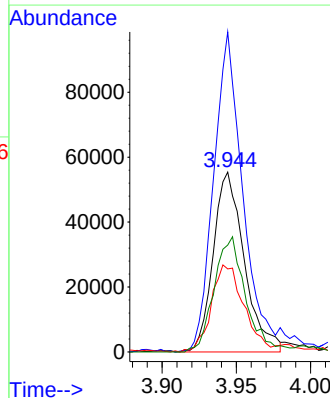
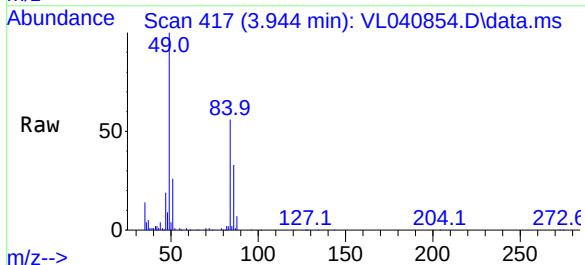
Ion Ratio Lower Upper

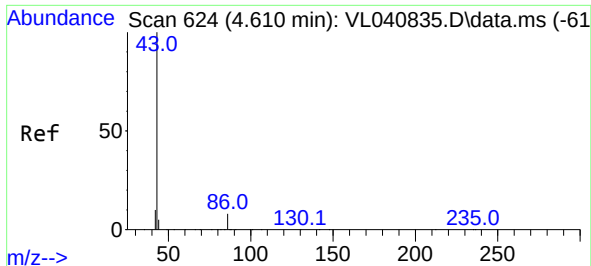
84 100

49 177.5 131.0 196.4

51 45.6 36.9 55.3

86 59.4 51.2 76.8

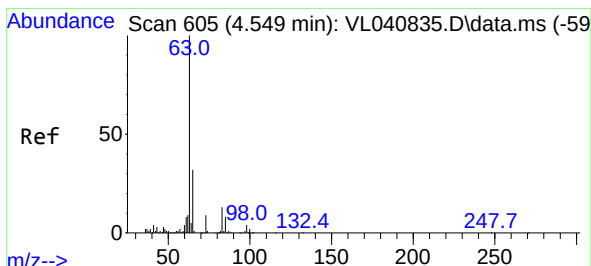
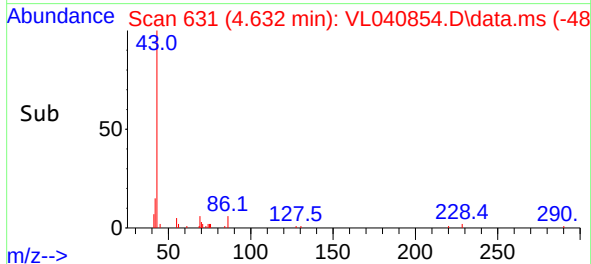
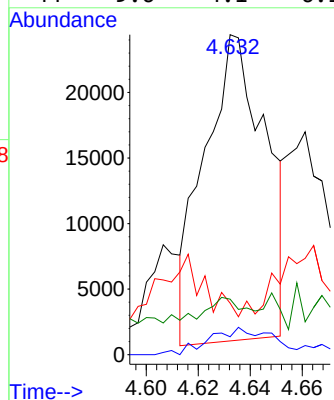
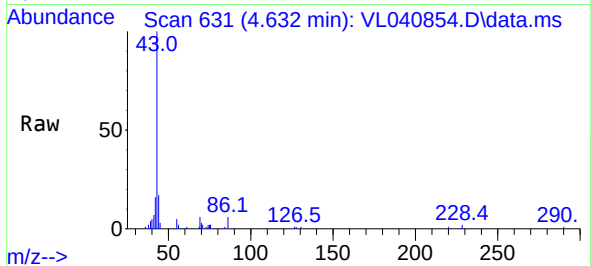




#23  
Vinyl Acetate  
Concen: 0.240 ppbv  
RT: 4.632 min Scan# 61  
Delta R.T. -0.016 min  
Lab File: VL040854.D  
Acq: 14 Nov 2023 17:15

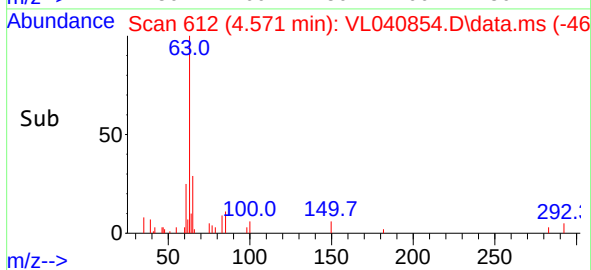
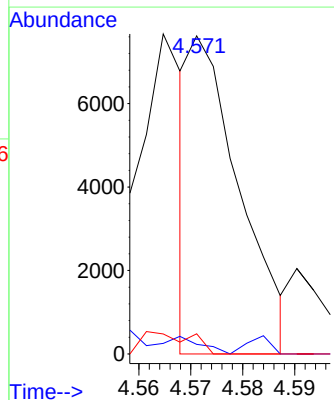
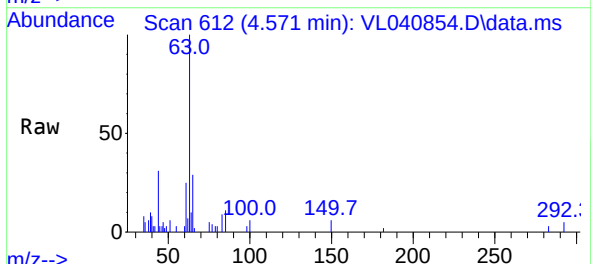
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV1DL

Tgt Ion: 43 Resp: 38111  
Ion Ratio Lower Upper  
43 100  
86 8.1 5.5 8.3  
42 0.0 8.2 12.2#  
44 9.6 4.1 6.1#

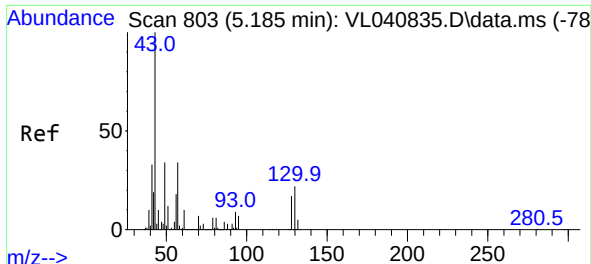


#24  
1,1-Dichloroethane  
Concen: 0.036 ppbv  
RT: 4.571 min Scan# 612  
Delta R.T. -0.016 min  
Lab File: VL040854.D  
Acq: 14 Nov 2023 17:15

Tgt Ion: 63 Resp: 5068  
Ion Ratio Lower Upper  
63 100  
98 3.7 2.2 6.6  
100 7.8 1.0 3.0#







#25

Ethyl Acetate

Concen: 0.210 ppbv

RT: 5.217 min Scan# 813

Delta R.T. -0.003 min

Lab File: VL040854.D

Acq: 14 Nov 2023 17:15

Instrument :

MSVOA\_L

ClientSampleId :

SV1DL

Tgt Ion: 43 Resp: 53505

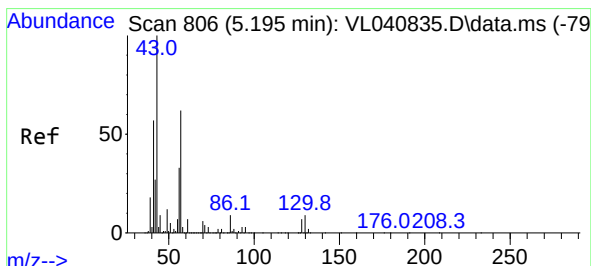
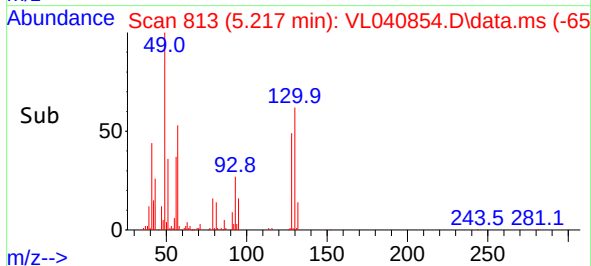
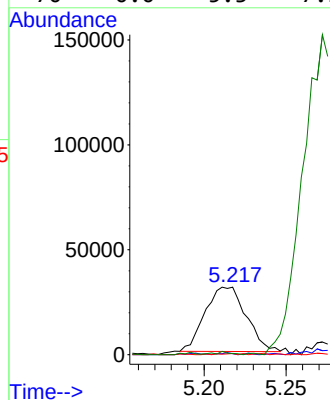
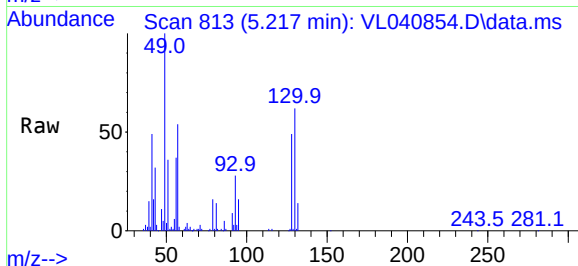
Ion Ratio Lower Upper

43 100

45 1.3 8.1 12.1#

61 1.5 7.8 11.6#

70 0.0 5.3 7.9#



#26

Hexane

Concen: 1.018 ppbv

RT: 5.217 min Scan# 813

Delta R.T. -0.013 min

Lab File: VL040854.D

Acq: 14 Nov 2023 17:15

Tgt Ion: 57 Resp: 114877

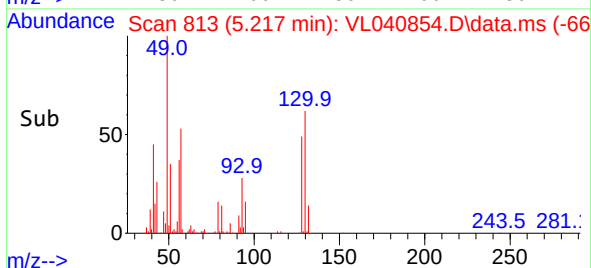
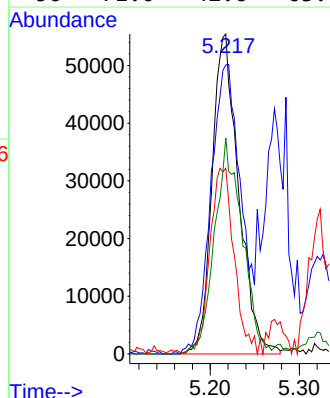
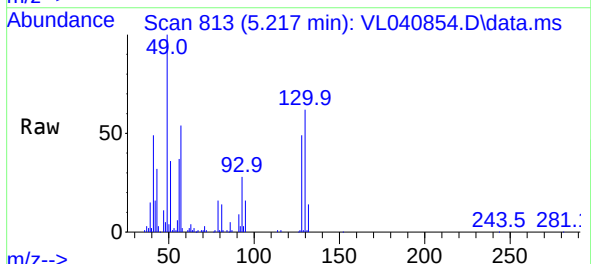
Ion Ratio Lower Upper

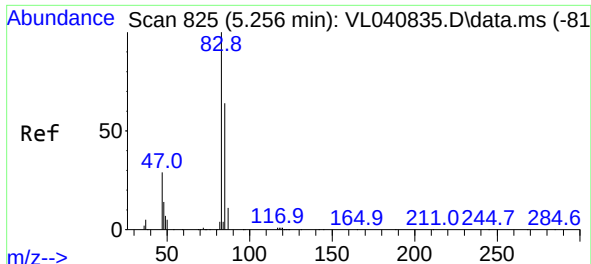
57 100

41 97.4 75.4 113.0

43 52.9 185.9 278.9#

56 71.0 42.6 63.8#





#29

Chloroform

Concen: 88.047 ppbv

RT: 5.272 min Scan# 81

Delta R.T. -0.023 min

Lab File: VL040854.D

Acq: 14 Nov 2023 17:15

Instrument :

MSVOA\_L

ClientSampleId :

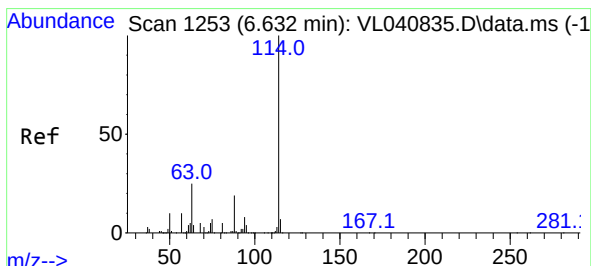
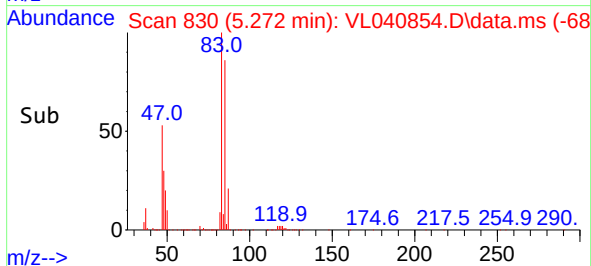
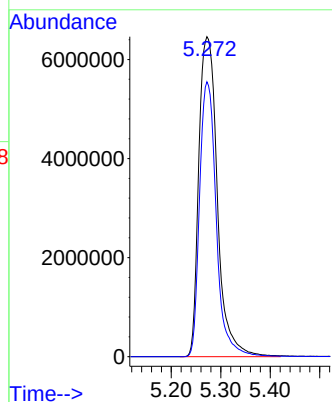
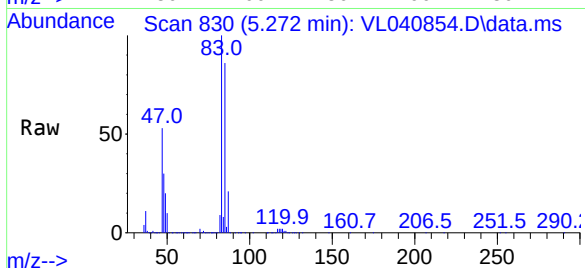
SV1DL

Tgt Ion: 83 Resp:16838752

Ion Ratio Lower Upper

83 100

85 85.9 51.4 77.0#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.642 min Scan# 1256

Delta R.T. -0.023 min

Lab File: VL040854.D

Acq: 14 Nov 2023 17:15

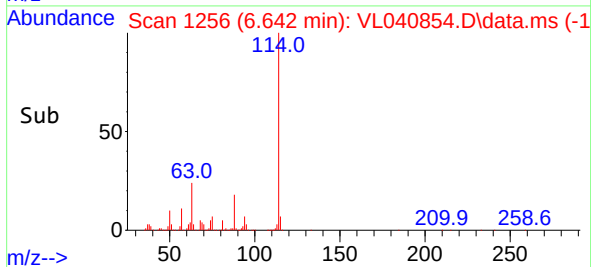
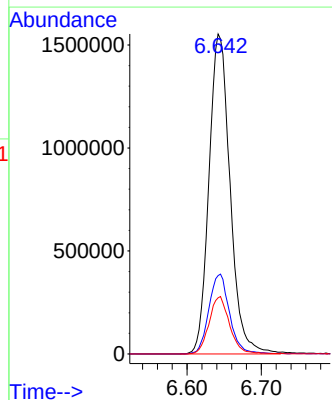
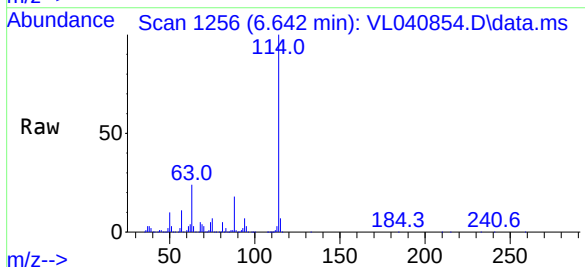
Tgt Ion:114 Resp: 3065800

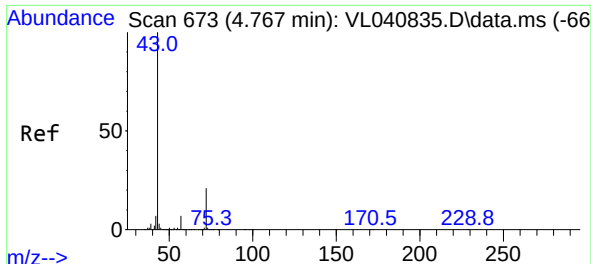
Ion Ratio Lower Upper

114 100

63 24.5 20.9 31.3

88 17.5 14.3 21.5

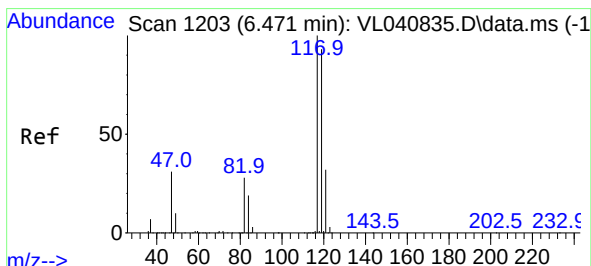
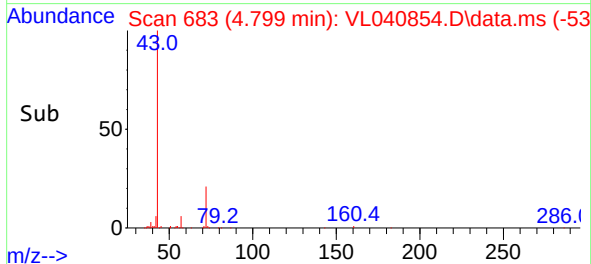
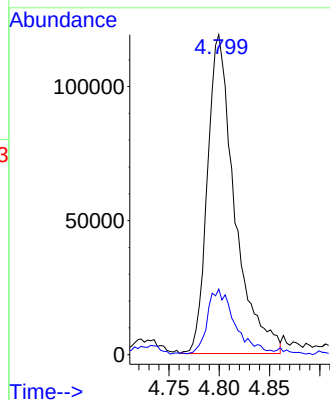
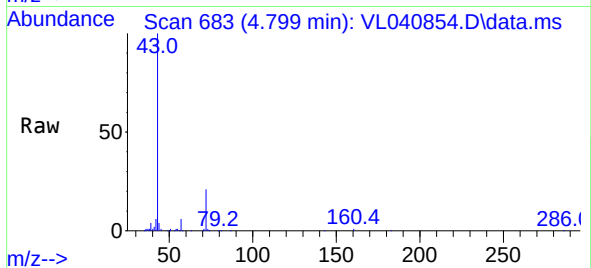




#34  
2-Butanone  
Concen: 1.437 ppbv  
RT: 4.799 min Scan# 61  
Delta R.T. -0.007 min  
Lab File: VL040854.D  
Acq: 14 Nov 2023 17:15

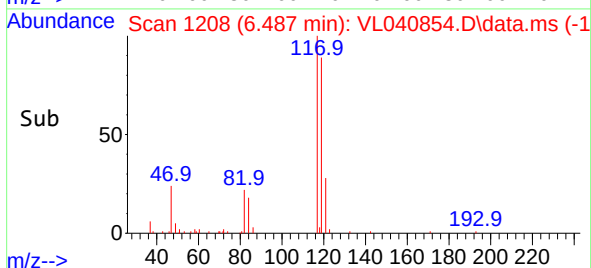
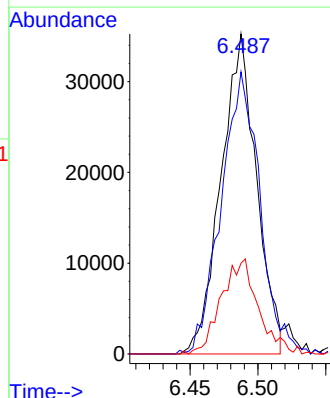
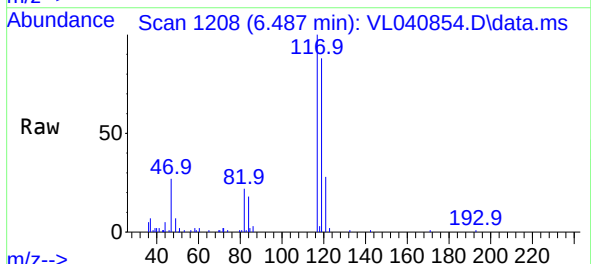
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV1DL

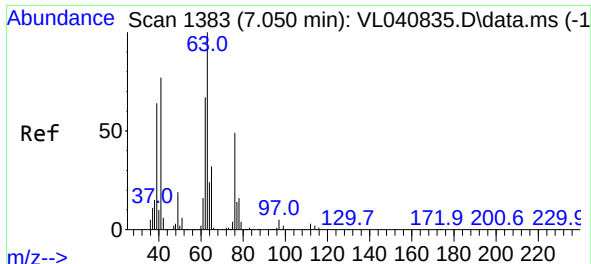
Tgt Ion: 43 Resp: 224379  
Ion Ratio Lower Upper  
43 100  
72 21.0 17.2 25.8



#35  
Carbon Tetrachloride  
Concen: 0.341 ppbv  
RT: 6.487 min Scan# 1208  
Delta R.T. -0.020 min  
Lab File: VL040854.D  
Acq: 14 Nov 2023 17:15

Tgt Ion: 117 Resp: 64198  
Ion Ratio Lower Upper  
117 100  
119 87.0 74.7 112.1  
121 28.3 25.5 38.3





#39

1,2-Dichloropropane

Concen: 7.598 ppbv

RT: 6.645 min Scan# 11

Delta R.T. -0.438 min

Lab File: VL040854.D

Acq: 14 Nov 2023 17:15

Instrument :

MSVOA\_L

ClientSampleId :

SV1DL

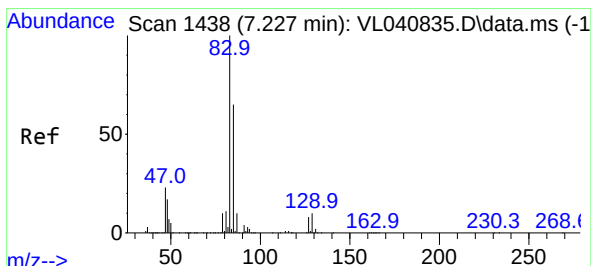
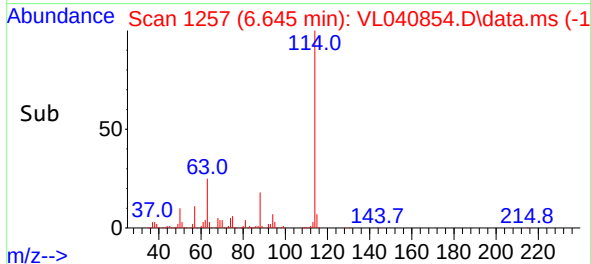
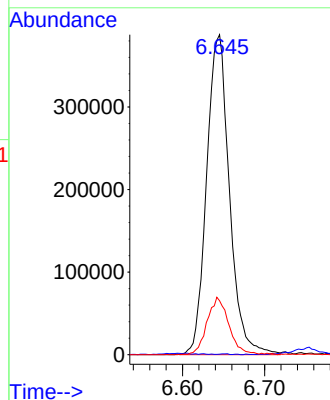
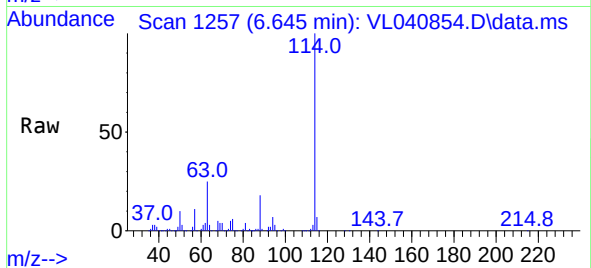
Tgt Ion: 63 Resp: 749622

Ion Ratio Lower Upper

63 100

41 0.0 61.5 92.3#

62 16.8 53.9 80.9#



#42

Bromodichloromethane

Concen: 0.049 ppbv

RT: 7.233 min Scan# 1440

Delta R.T. -0.026 min

Lab File: VL040854.D

Acq: 14 Nov 2023 17:15

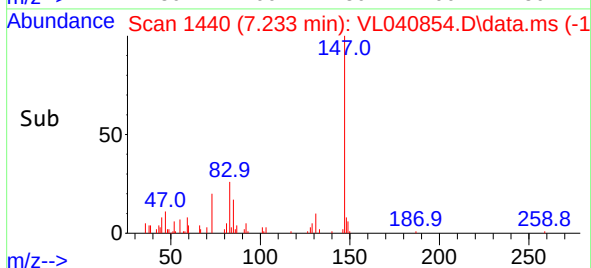
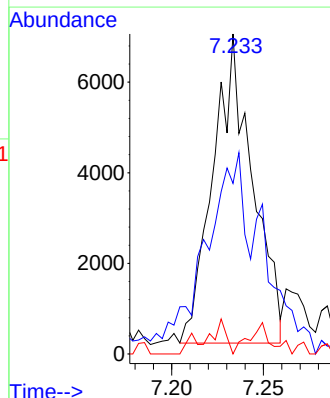
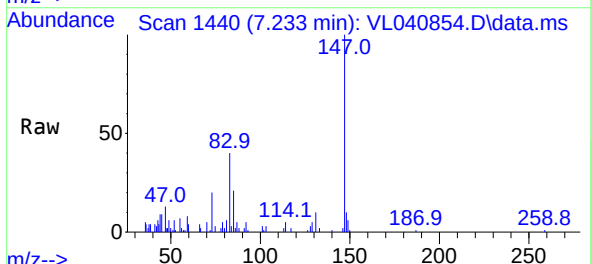
Tgt Ion: 83 Resp: 10237

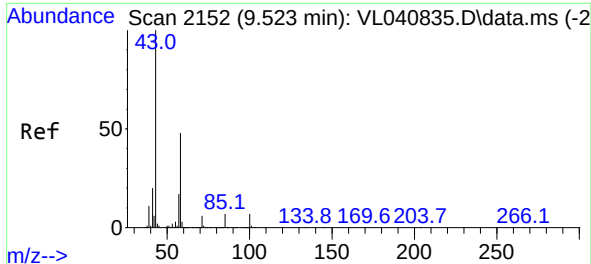
Ion Ratio Lower Upper

83 100

85 39.9 52.3 78.5#

127 0.0 6.6 10.0#

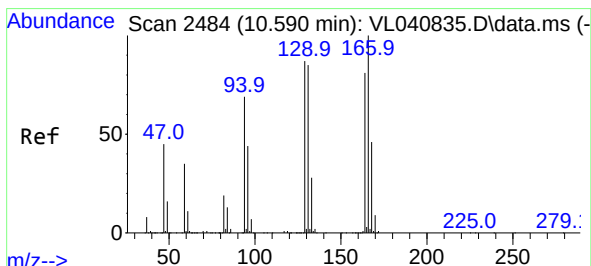
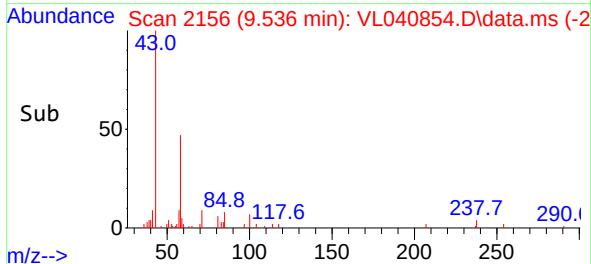
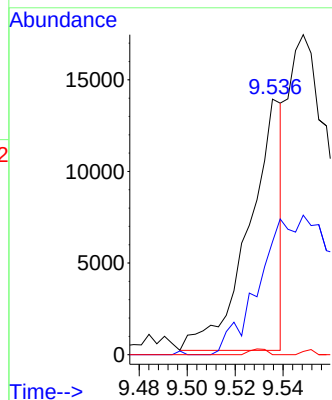
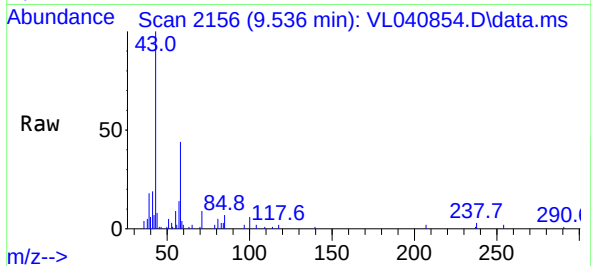




#51  
2-Hexanone  
Concen: 0.078 ppbv  
RT: 9.536 min Scan# 2152  
Delta R.T. -0.013 min  
Lab File: VL040854.D  
Acq: 14 Nov 2023 17:15

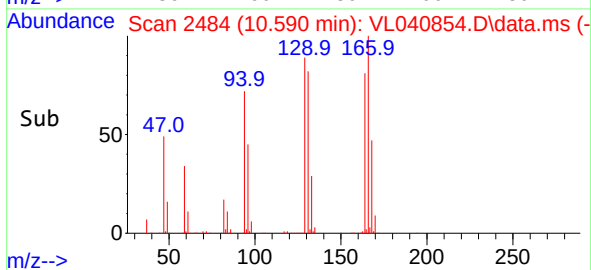
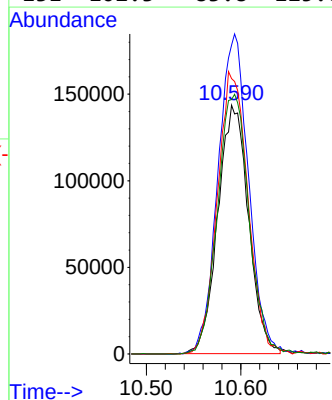
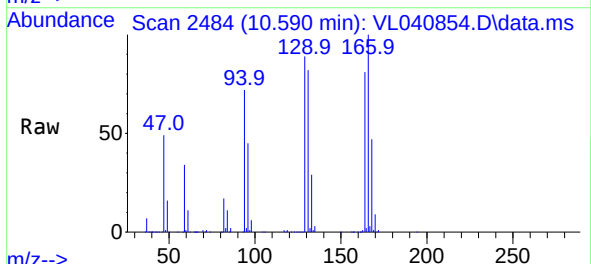
Instrument :  
MSVOA\_L  
ClientSampleId :  
SV1DL

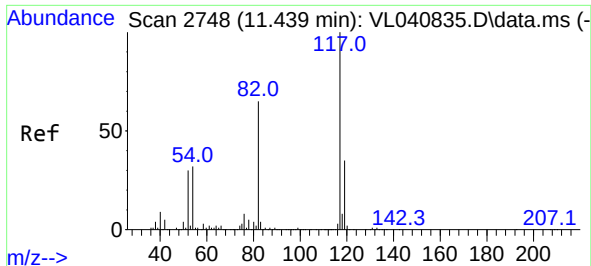
Tgt Ion: 43 Resp: 13321  
Ion Ratio Lower Upper  
43 100  
58 0.0 37.4 56.2#  
98 1.8 0.2 0.2#



#52  
Tetrachloroethene  
Concen: 3.849 ppbv  
RT: 10.590 min Scan# 2484  
Delta R.T. -0.026 min  
Lab File: VL040854.D  
Acq: 14 Nov 2023 17:15

Tgt Ion: 164 Resp: 322536  
Ion Ratio Lower Upper  
164 100  
166 123.8 98.3 147.5  
129 110.8 85.1 127.7  
131 102.3 83.8 125.6





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.439 min Scan# 21

Delta R.T. -0.023 min

Lab File: VL040854.D

Acq: 14 Nov 2023 17:15

Instrument :

MSVOA\_L

ClientSampleId :

SV1DL

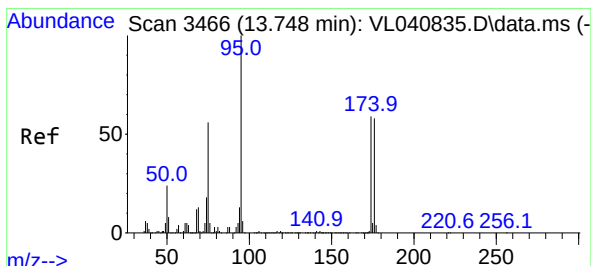
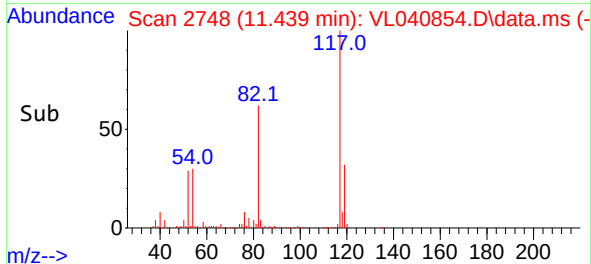
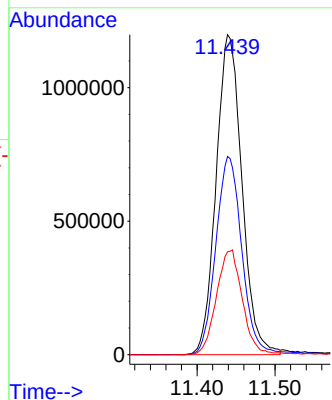
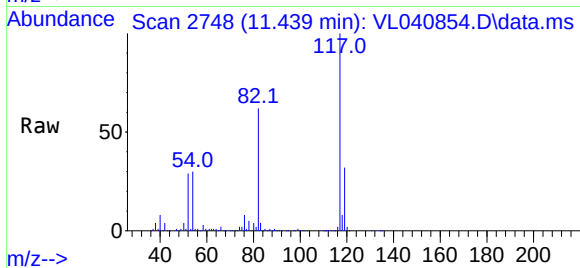
Tgt Ion:117 Resp: 2766509

Ion Ratio Lower Upper

117 100

82 62.9 50.6 75.8

119 33.2 23.3 34.9



#68

1-Bromo-4-Fluorobenzene

Concen: 9.656 ppbv

RT: 13.744 min Scan# 3465

Delta R.T. -0.026 min

Lab File: VL040854.D

Acq: 14 Nov 2023 17:15

Tgt Ion: 95 Resp: 2091538

Ion Ratio Lower Upper

95 100

174 64.4 47.5 71.3

175 4.8 3.6 5.4

