

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL080923\  
 Data File : VL040612.D  
 Acq On : 9 Aug 2023 19:19  
 Operator : SY/MD  
 Sample : 03950-03  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

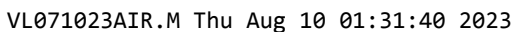
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA1

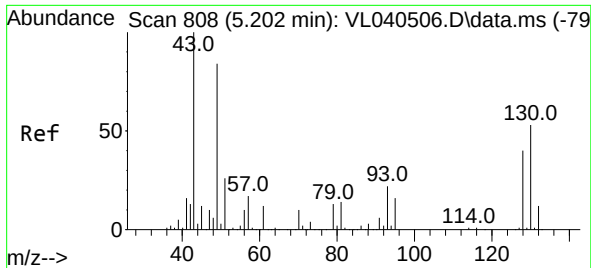
Quant Time: Aug 10 01:31:30 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL071023AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Mon Jul 10 16:32:00 2023  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Bromochloromethane         | 5.195  | 49    | 267865   | 10.000   | ppbv   | 0.00     |
| 33) 1,4-Difluorobenzene       | 6.658  | 114   | 615566   | 10.000   | ppbv   | 0.00     |
| 55) Chlorobenzene-d5          | 11.478 | 117   | 451293   | 10.000   | ppbv   | 0.00     |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 68) 1-Bromo-4-Fluorobenzene   | 13.789 | 95    | 346367   | 9.698    | ppbv   | 0.00     |
| Spiked Amount                 | 10.000 | Range | 65 - 135 | Recovery | =      | 97.000%  |
| Target Compounds              |        |       |          |          |        |          |
|                               |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane    | 2.719  | 85    | 32374    | 0.604    | ppbv   | 99       |
| 3) Chlorodifluoromethane      | 2.661  | 51    | 18303    | 0.431    | ppbv   | 97       |
| 4) Chloromethane              | 2.822  | 50    | 668      | 0.040    | ppbv # | 68       |
| 8) Dichlorotetrafluoroethane  | 2.845  | 85    | 1488     | 0.034    | ppbv # | 82       |
| 9) Propene                    | 2.693  | 41    | 14689    | 1.011    | ppbv   | 84       |
| 11) Trichlorofluoromethane    | 3.558  | 101   | 5893     | 0.136    | ppbv   | 93       |
| 12) 1,1,2-Trichlorotrifluo... | 4.060  | 101   | 2285     | 0.075    | ppbv   | 86       |
| 13) Ethanol                   | 3.240  | 45    | 486      | 0.154    | ppbv # | 37       |
| 15) Acetone                   | 3.481  | 43    | 111803   | 3.626    | ppbv   | 98       |
| 16) 1,3-Butadiene             | 2.996  | 39    | 1448     | 0.093    | ppbv # | 46       |
| 20) Methylene Chloride        | 3.928  | 84    | 176884   | 13.487   | ppbv   | 95       |
| 23) Vinyl Acetate             | 4.632  | 43    | 1520     | 0.052    | ppbv # | 1        |
| 25) Ethyl Acetate             | 5.217  | 43    | 42621    | 0.726    | ppbv # | 77       |
| 26) Hexane                    | 5.211  | 57    | 34958    | 1.282    | ppbv # | 1        |
| 30) Cyclohexane               | 6.629  | 84    | 758      | 0.033    | ppbv # | 19       |
| 35) Carbon Tetrachloride      | 6.500  | 117   | 1347     | 0.036    | ppbv # | 63       |
| 36) Benzene                   | 6.378  | 78    | 2391     | 0.048    | ppbv # | 74       |
| 39) 1,2-Dichloropropane       | 6.700  | 63    | 2532     | 0.133    | ppbv # | 31       |
| -----                         |        |       |          |          |        |          |

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

Quant Time: Aug 10 01:31:30 2023  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL071023AIR.M  
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_LFri Aug 26 06:05:16 2022  
QLast Update : Mon Jul 10 16:32:00 2023  
Response via : Initial Calibration

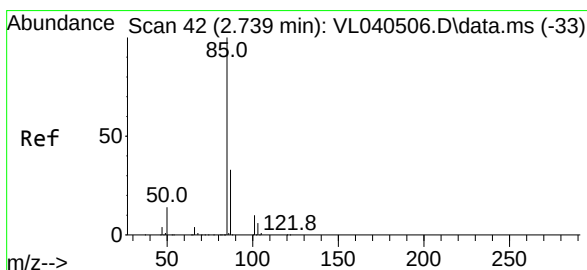
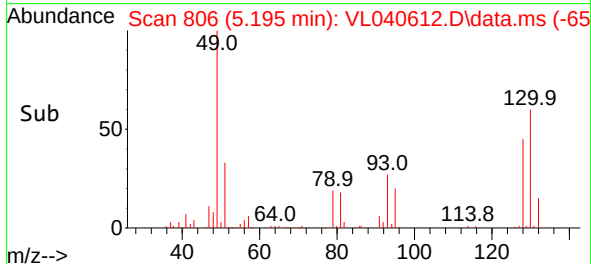
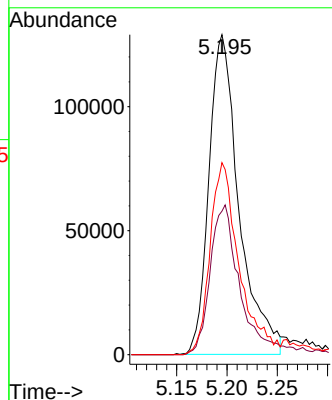
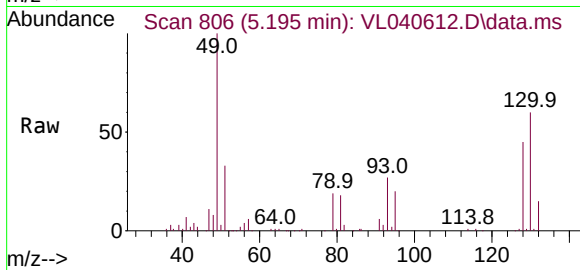




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.195 min Scan# 80  
Delta R.T. -0.007 min  
Lab File: VL040612.D  
Acq: 9 Aug 2023 19:19

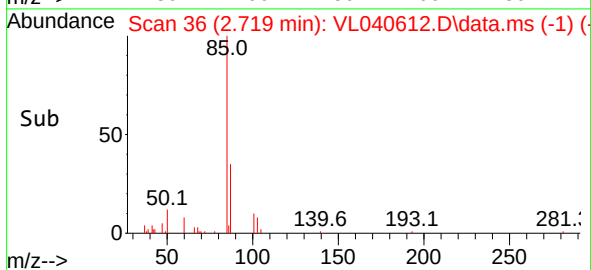
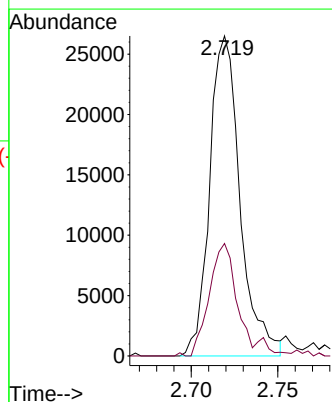
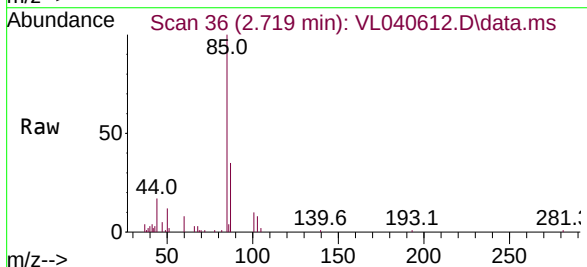
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

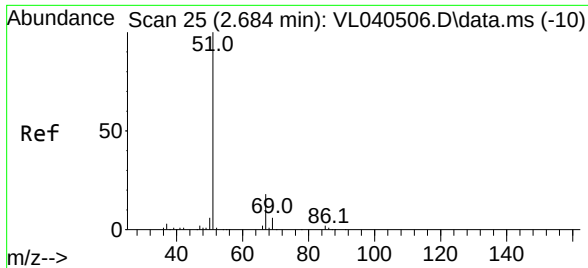
Tgt Ion: 49 Resp: 267865  
Ion Ratio Lower Upper  
49 100  
128 48.3 25.1 75.4  
130 62.4 31.6 94.7



#2  
Dichlorodifluoromethane  
Concen: 0.604 ppbv  
RT: 2.719 min Scan# 36  
Delta R.T. -0.019 min  
Lab File: VL040612.D  
Acq: 9 Aug 2023 19:19

Tgt Ion: 85 Resp: 32374  
Ion Ratio Lower Upper  
85 100  
87 34.1 26.8 40.2

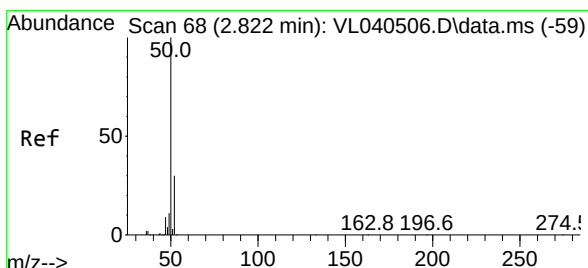
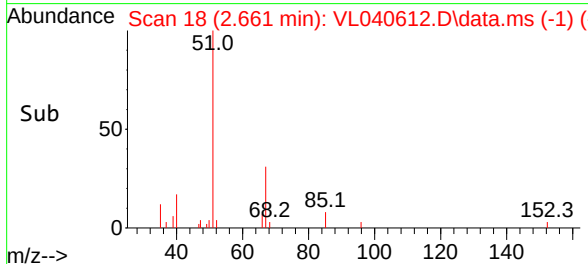
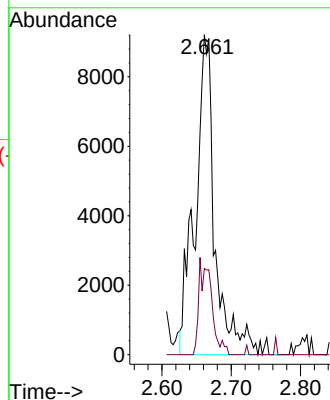
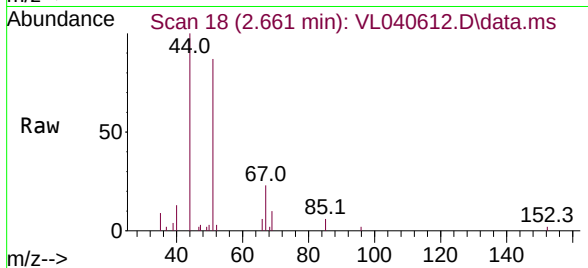




#3  
Chlorodifluoromethane  
Concen: 0.431 ppbv  
RT: 2.661 min Scan# 18  
Delta R.T. -0.023 min  
Lab File: VL040612.D  
Acq: 9 Aug 2023 19:19

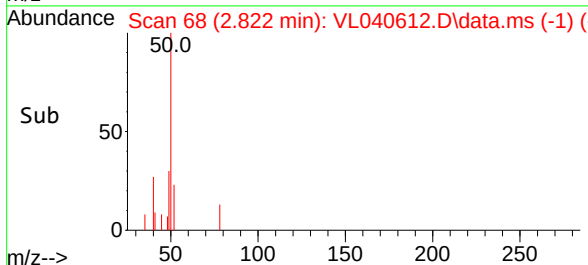
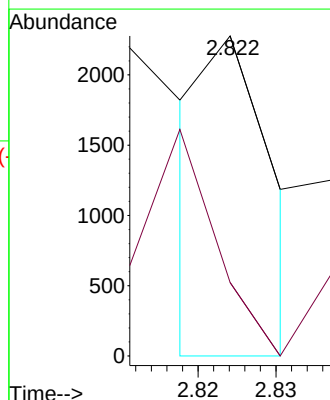
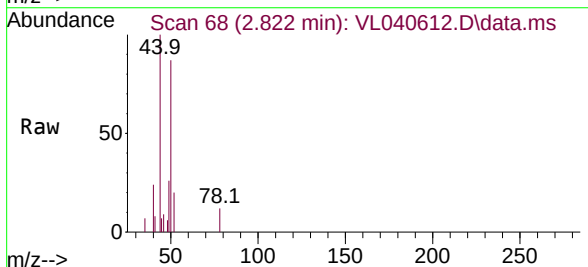
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

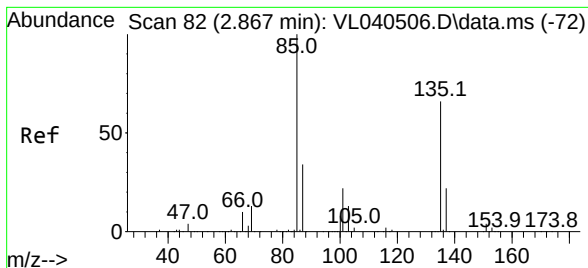
Tgt Ion: 51 Resp: 18303  
Ion Ratio Lower Upper  
51 100  
67 19.3 14.6 21.8



#4  
Chloromethane  
Concen: 0.040 ppbv  
RT: 2.822 min Scan# 68  
Delta R.T. -0.000 min  
Lab File: VL040612.D  
Acq: 9 Aug 2023 19:19

Tgt Ion: 50 Resp: 668  
Ion Ratio Lower Upper  
50 100  
52 47.9 24.4 36.6#

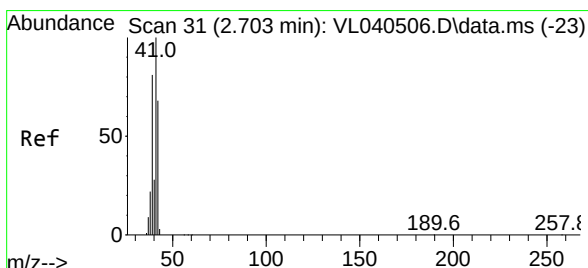
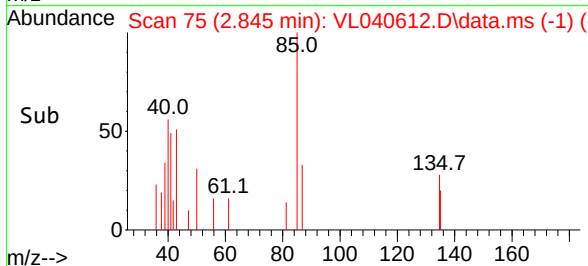
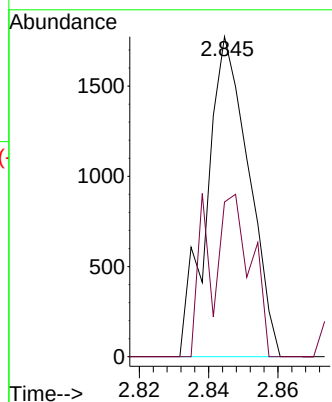
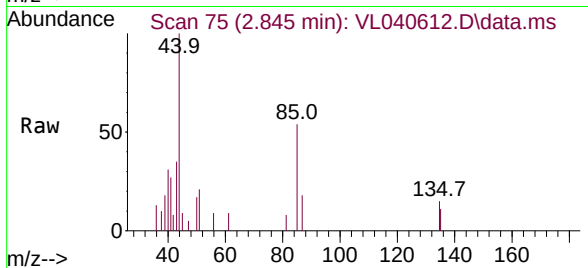




#8  
 Dichlorotetrafluoroethane  
 Concen: 0.034 ppbv  
 RT: 2.845 min Scan# 71  
 Delta R.T. -0.023 min  
 Lab File: VL040612.D  
 Acq: 9 Aug 2023 19:19

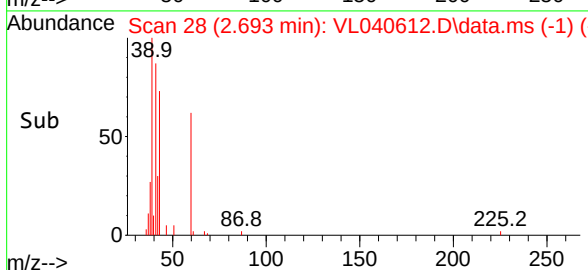
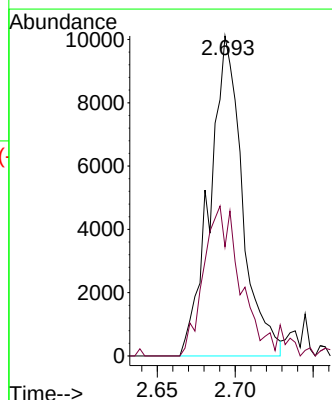
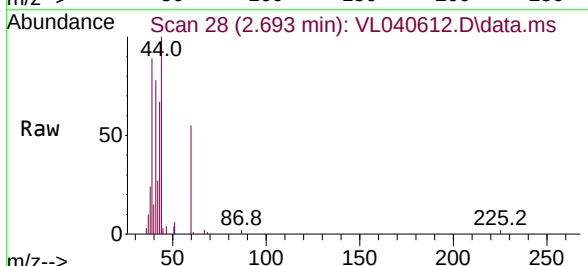
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA1

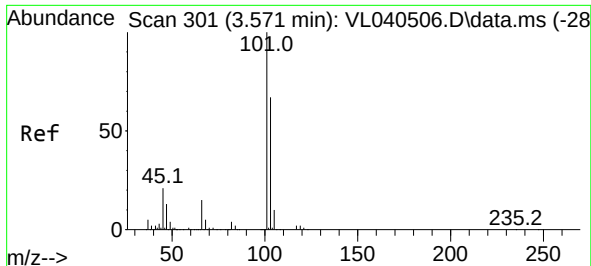
Tgt Ion: 85 Resp: 1488  
 Ion Ratio Lower Upper  
 85 100  
 135 51.3 52.4 78.6#



#9  
 Propene  
 Concen: 1.011 ppbv  
 RT: 2.693 min Scan# 28  
 Delta R.T. -0.010 min  
 Lab File: VL040612.D  
 Acq: 9 Aug 2023 19:19

Tgt Ion: 41 Resp: 14689  
 Ion Ratio Lower Upper  
 41 100  
 42 56.2 55.0 82.6

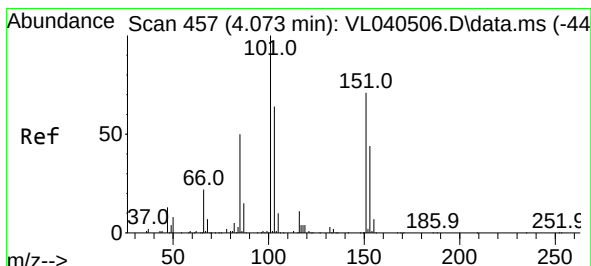
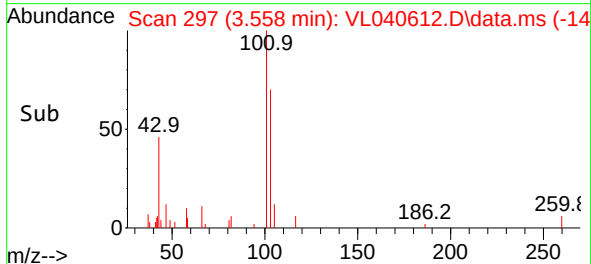
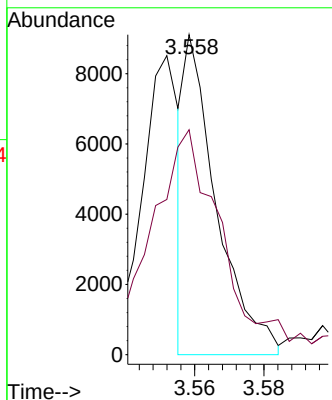
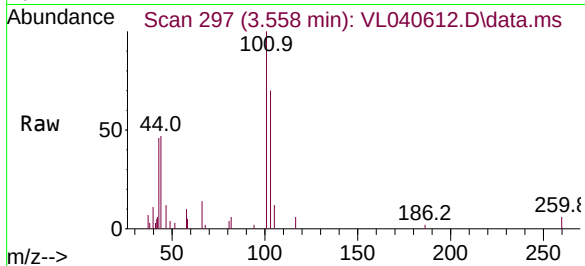




#11  
 Trichlorofluoromethane  
 Concen: 0.136 ppbv  
 RT: 3.558 min Scan# 297  
 Delta R.T. -0.013 min  
 Lab File: VL040612.D  
 Acq: 9 Aug 2023 19:19

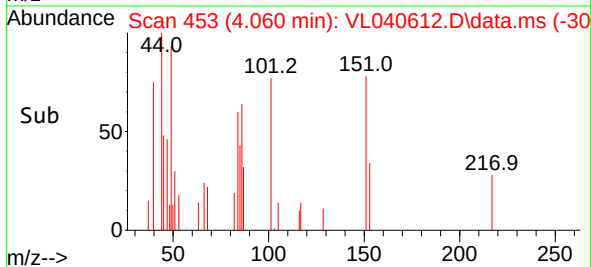
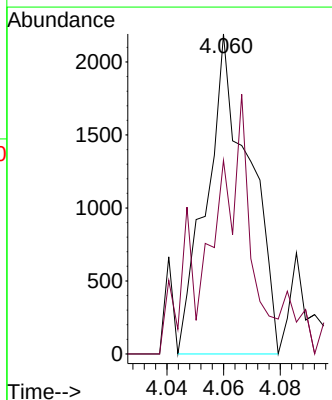
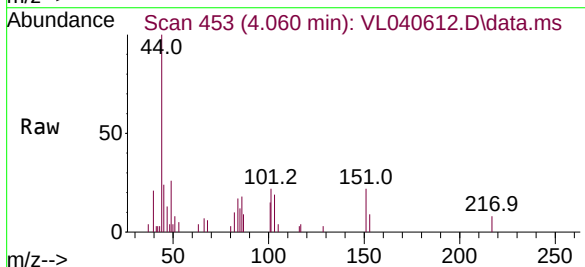
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA1

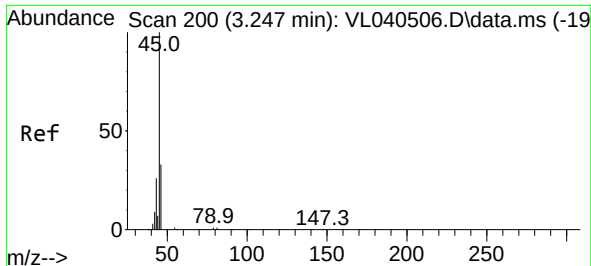
Tgt Ion:101 Resp: 5893  
 Ion Ratio Lower Upper  
 101 100  
 103 61.1 53.4 80.0



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 0.075 ppbv  
 RT: 4.060 min Scan# 453  
 Delta R.T. -0.013 min  
 Lab File: VL040612.D  
 Acq: 9 Aug 2023 19:19

Tgt Ion:101 Resp: 2285  
 Ion Ratio Lower Upper  
 101 100  
 151 84.4 58.2 87.4

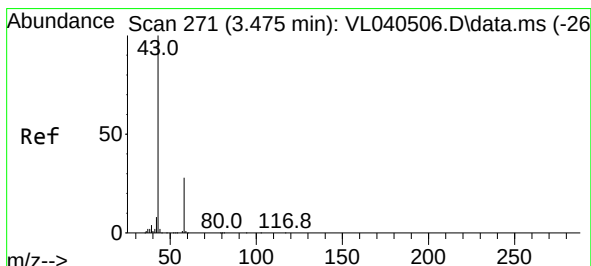
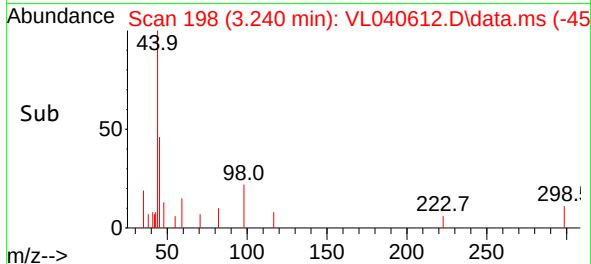
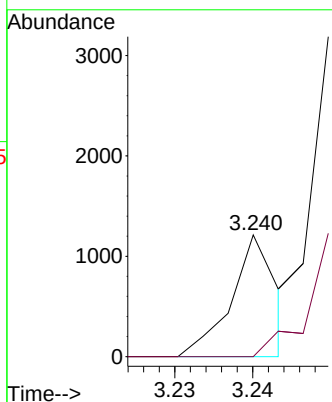
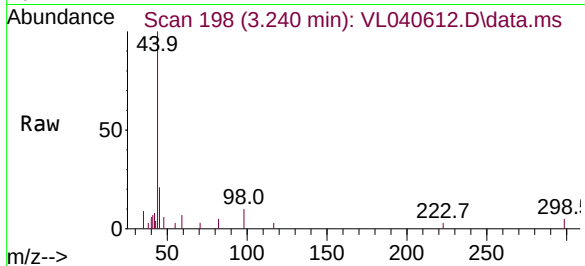




#13  
Ethanol  
Concen: 0.154 ppbv  
RT: 3.240 min Scan# 198  
Delta R.T. -0.007 min  
Lab File: VL040612.D  
Acq: 9 Aug 2023 19:19

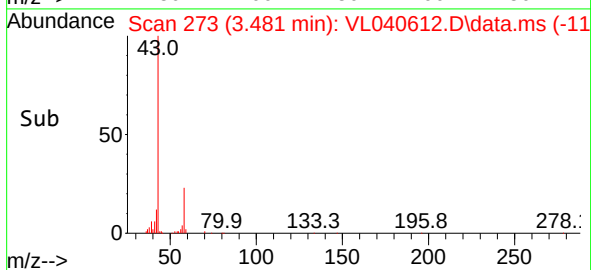
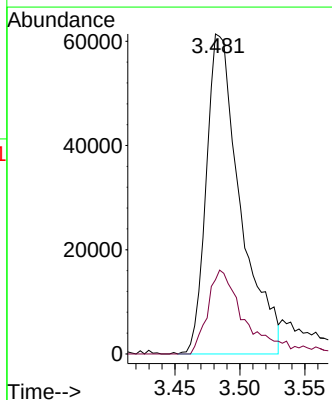
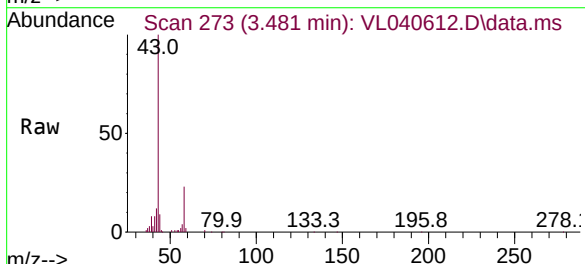
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

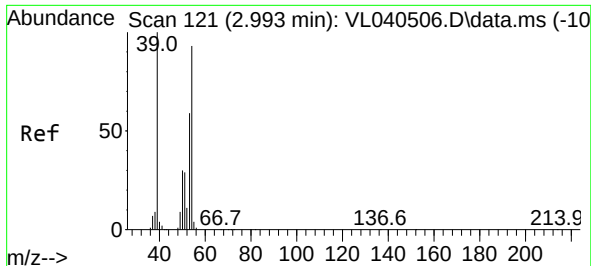
Tgt Ion: 45 Resp: 486  
Ion Ratio Lower Upper  
45 100  
46 0.0 15.3 61.1#



#15  
Acetone  
Concen: 3.626 ppbv  
RT: 3.481 min Scan# 273  
Delta R.T. 0.006 min  
Lab File: VL040612.D  
Acq: 9 Aug 2023 19:19

Tgt Ion: 43 Resp: 111803  
Ion Ratio Lower Upper  
43 100  
58 29.7 22.9 34.3

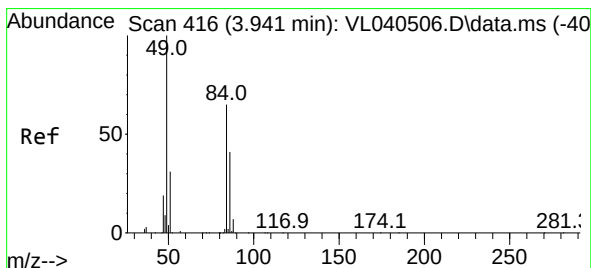
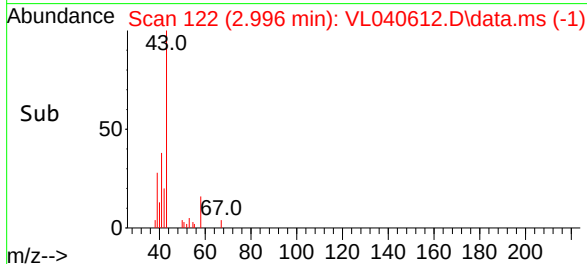
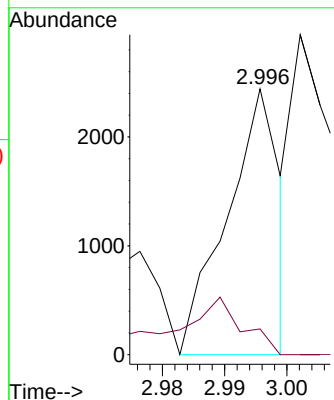
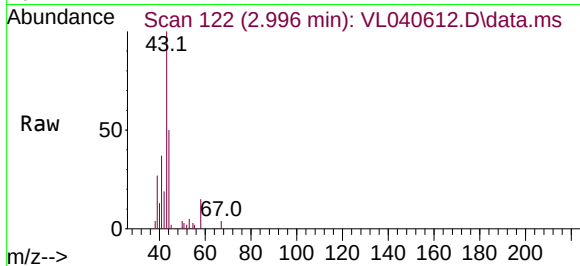




#16  
1,3-Butadiene  
Concen: 0.093 ppbv  
RT: 2.996 min Scan# 11  
Delta R.T. 0.003 min  
Lab File: VL040612.D  
Acq: 9 Aug 2023 19:19

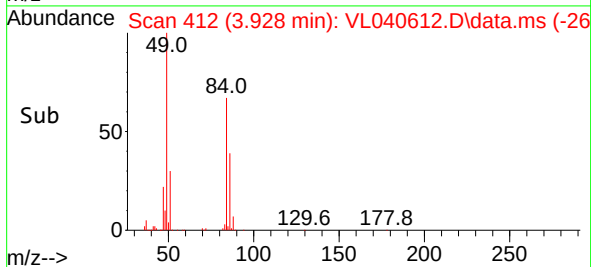
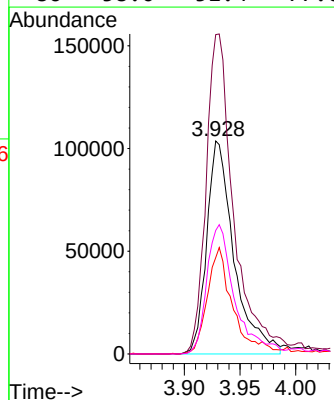
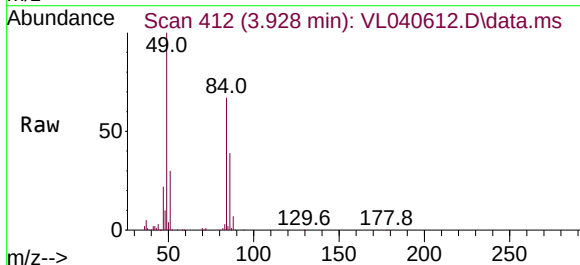
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

Tgt Ion: 39 Resp: 1448  
Ion Ratio Lower Upper  
39 100  
54 34.9 66.6 100.0#

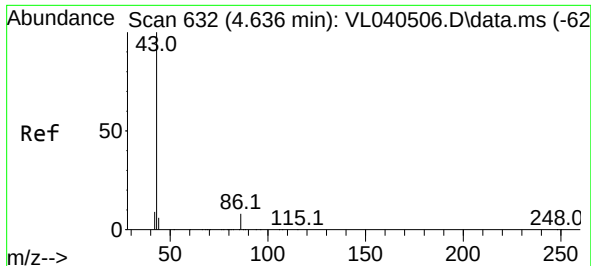


#20  
Methylene Chloride  
Concen: 13.487 ppbv  
RT: 3.928 min Scan# 412  
Delta R.T. -0.013 min  
Lab File: VL040612.D  
Acq: 9 Aug 2023 19:19

Tgt Ion: 84 Resp: 176884  
Ion Ratio Lower Upper  
84 100  
49 150.0 123.4 185.2  
51 45.2 38.3 57.5  
86 58.0 51.4 77.0



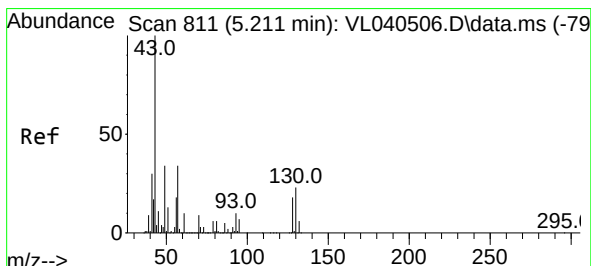
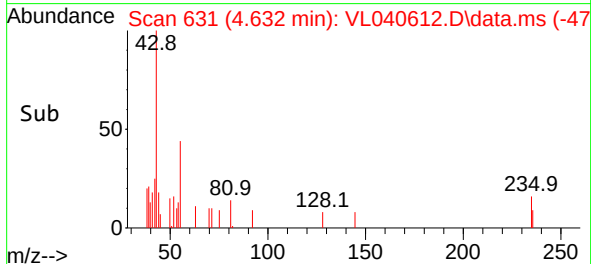
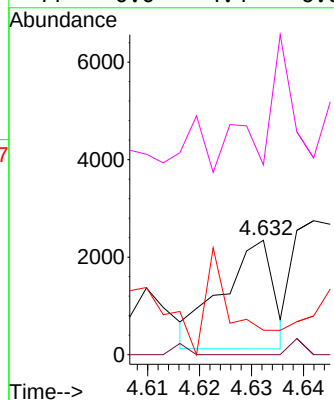
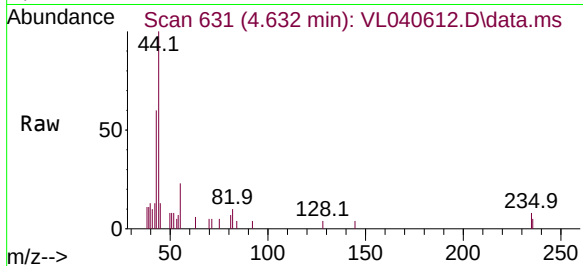




#23  
 Vinyl Acetate  
 Concen: 0.052 ppbv  
 RT: 4.632 min Scan# 61  
 Delta R.T. -0.003 min  
 Lab File: VL040612.D  
 Acq: 9 Aug 2023 19:19

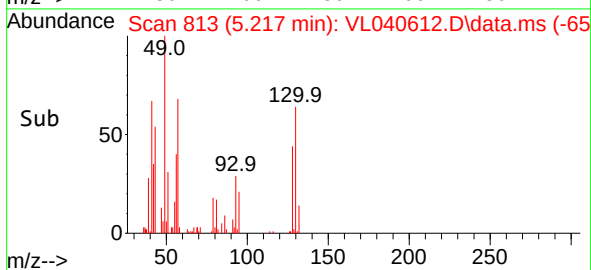
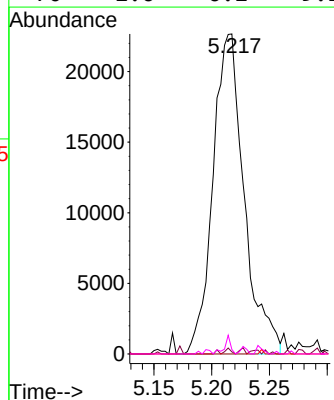
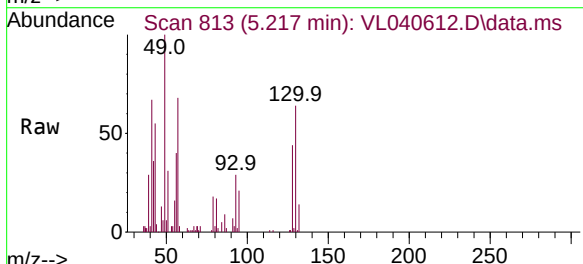
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA1

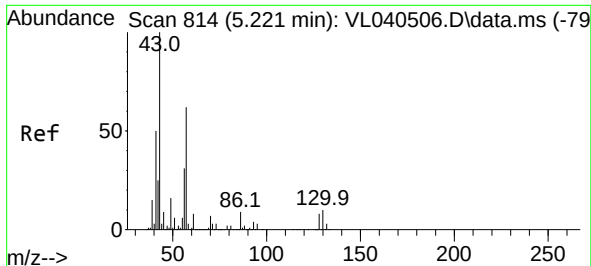
|             |             |
|-------------|-------------|
| Tgt Ion: 43 | Resp: 1520  |
| Ion Ratio   | Lower Upper |
| 43 100      |             |
| 86 0.0      | 5.6 8.4#    |
| 42 97.4     | 7.4 11.2#   |
| 44 0.0      | 4.4 6.6#    |



#25  
 Ethyl Acetate  
 Concen: 0.726 ppbv  
 RT: 5.217 min Scan# 813  
 Delta R.T. 0.006 min  
 Lab File: VL040612.D  
 Acq: 9 Aug 2023 19:19

|             |             |
|-------------|-------------|
| Tgt Ion: 43 | Resp: 42621 |
| Ion Ratio   | Lower Upper |
| 43 100      |             |
| 45 1.3      | 8.2 12.4#   |
| 61 0.0      | 8.3 12.5#   |
| 70 2.6      | 6.2 9.2#    |

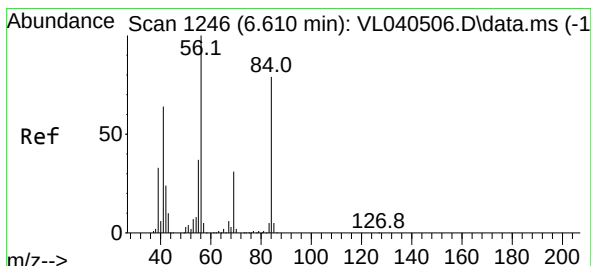
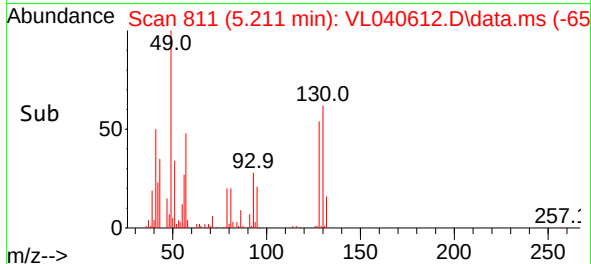
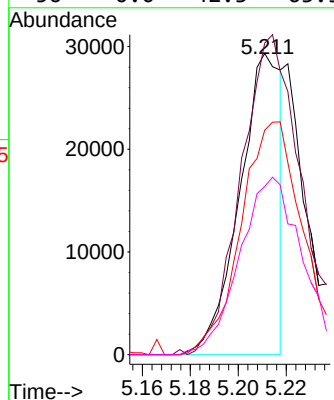
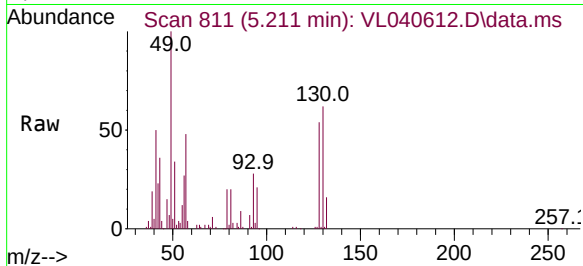




#26  
Hexane  
Concen: 1.282 ppbv  
RT: 5.211 min Scan# 814  
Delta R.T. -0.010 min  
Lab File: VL040612.D  
Acq: 9 Aug 2023 19:19

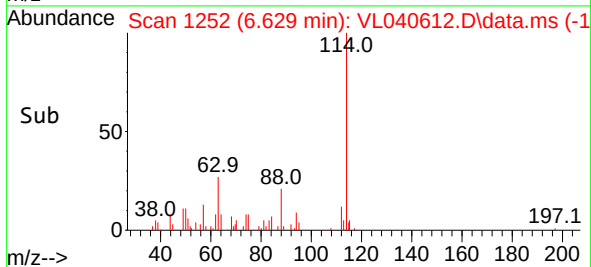
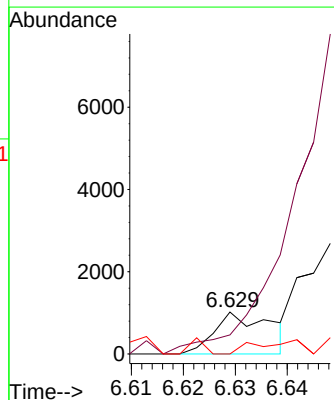
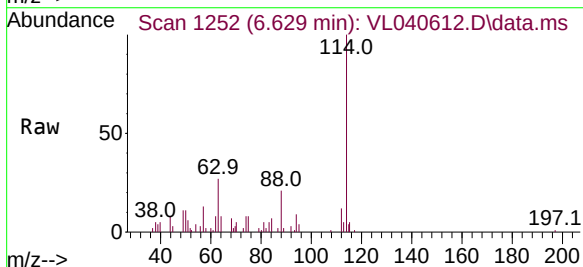
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

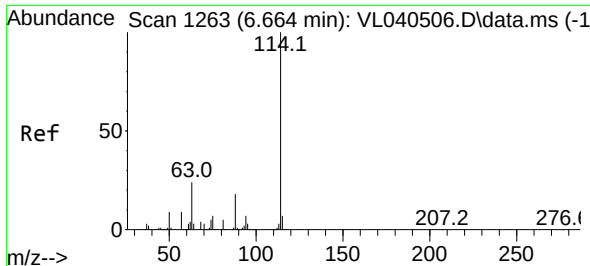
Tgt Ion: 57 Resp: 34958  
Ion Ratio Lower Upper  
57 100  
41 0.0 69.5 104.3#  
43 0.0 177.1 265.7#  
56 0.0 42.3 63.5#



#30  
Cyclohexane  
Concen: 0.033 ppbv  
RT: 6.629 min Scan# 1252  
Delta R.T. 0.019 min  
Lab File: VL040612.D  
Acq: 9 Aug 2023 19:19

Tgt Ion: 84 Resp: 758  
Ion Ratio Lower Upper  
84 100  
56 0.0 108.7 163.1#  
41 104.0 64.5 96.7#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.658 min Scan# 11

Delta R.T. -0.007 min

Lab File: VL040612.D

Acq: 9 Aug 2023 19:19

Instrument :

MSVOA\_L

ClientSampleId :

IA1

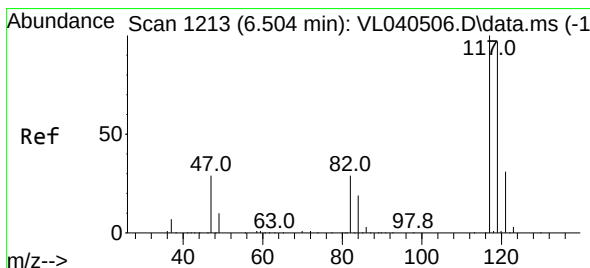
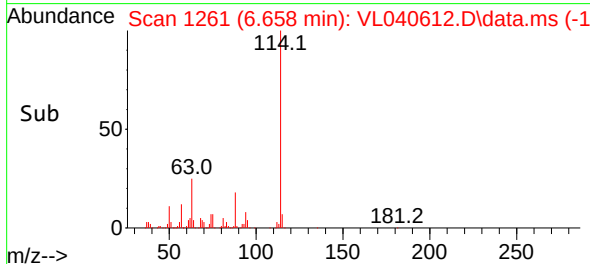
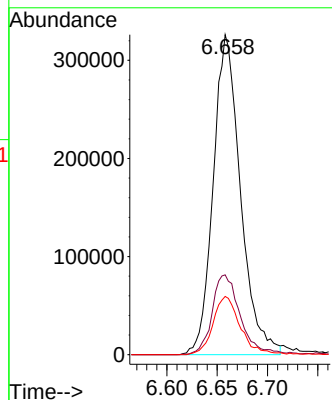
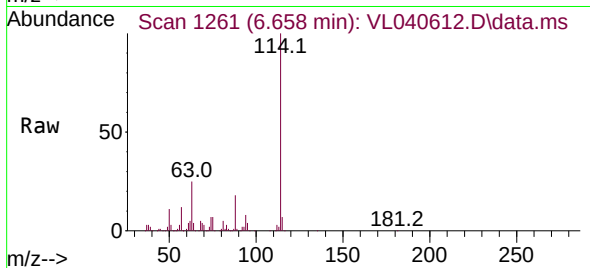
Tgt Ion:114 Resp: 615566

Ion Ratio Lower Upper

114 100

63 26.2 19.6 29.4

88 18.4 14.2 21.2



#35

Carbon Tetrachloride

Concen: 0.036 ppbv

RT: 6.500 min Scan# 1212

Delta R.T. -0.003 min

Lab File: VL040612.D

Acq: 9 Aug 2023 19:19

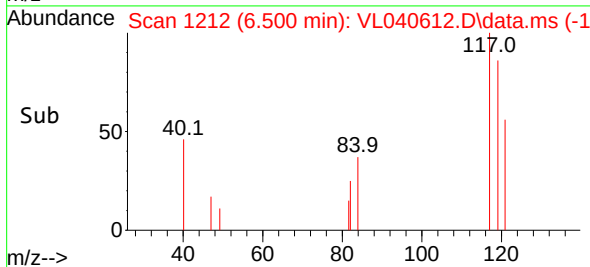
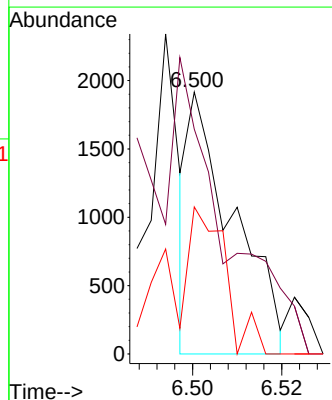
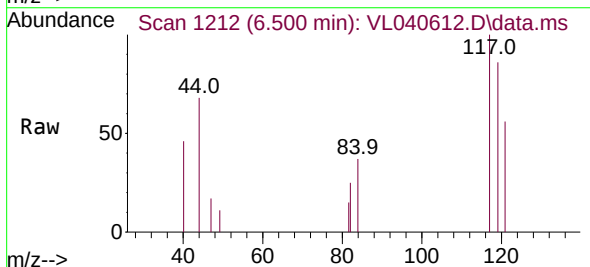
Tgt Ion:117 Resp: 1347

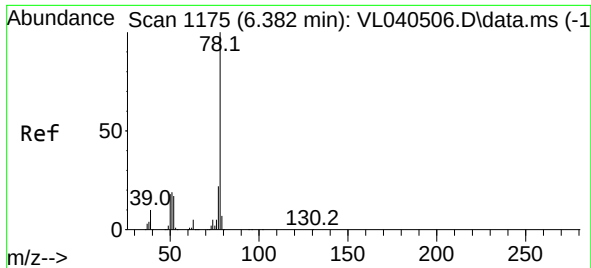
Ion Ratio Lower Upper

117 100

119 66.6 77.8 116.6#

121 61.7 24.8 37.2#





#36

Benzene

Concen: 0.048 ppbv

RT: 6.378 min Scan# 1175

Delta R.T. -0.003 min

Lab File: VL040612.D

Acq: 9 Aug 2023 19:19

Instrument :

MSVOA\_L

ClientSampleId :

IA1

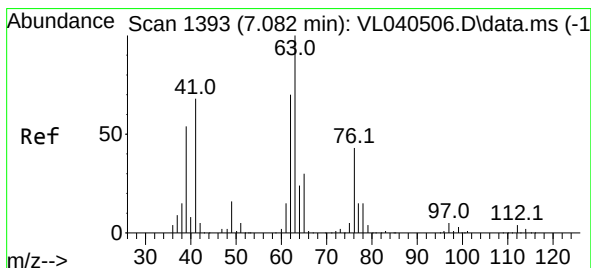
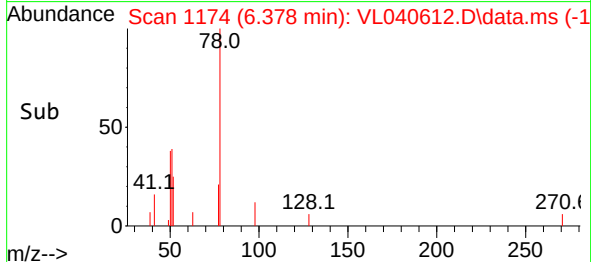
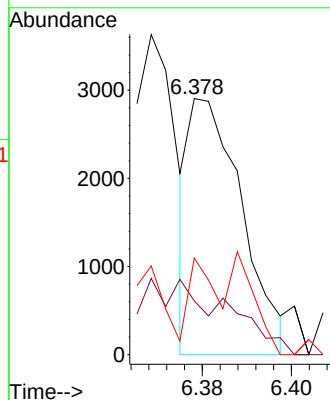
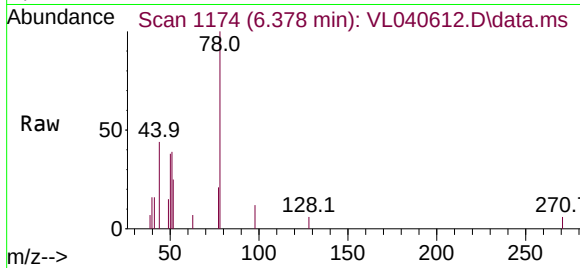
Tgt Ion: 78 Resp: 2391

Ion Ratio Lower Upper

78 100

77 17.0 17.4 26.0#

50 38.3 14.4 21.6#



#39

1,2-Dichloropropane

Concen: 0.133 ppbv

RT: 6.700 min Scan# 1274

Delta R.T. -0.383 min

Lab File: VL040612.D

Acq: 9 Aug 2023 19:19

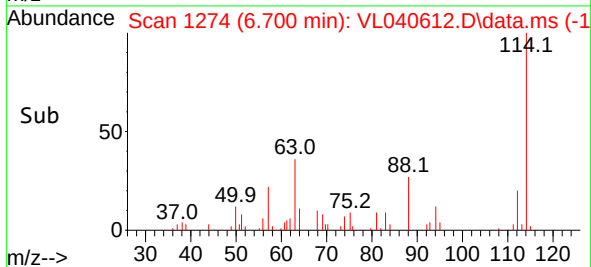
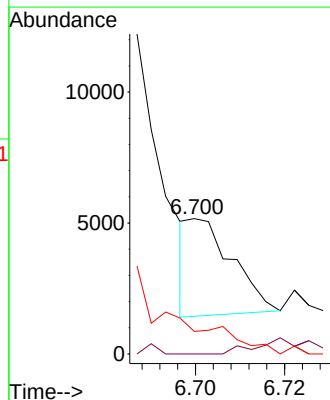
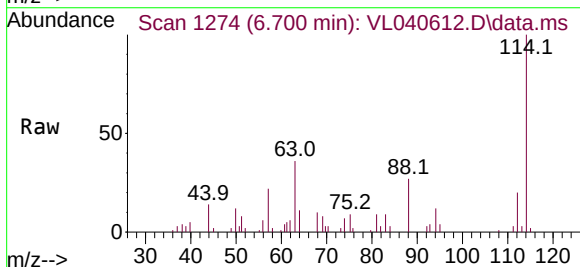
Tgt Ion: 63 Resp: 2532

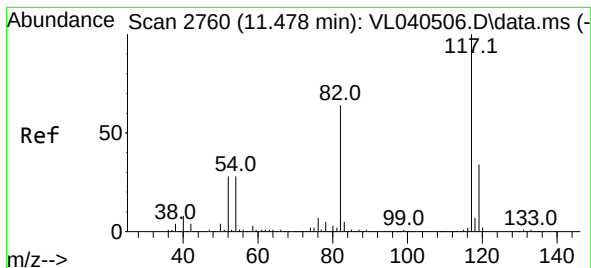
Ion Ratio Lower Upper

63 100

41 0.0 54.3 81.5#

62 24.6 55.6 83.4#

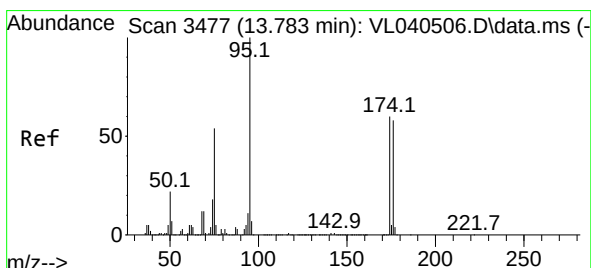
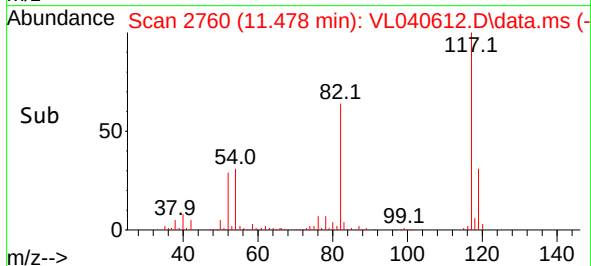
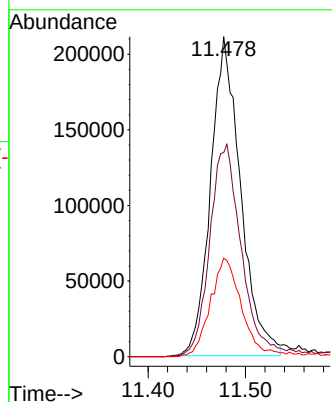
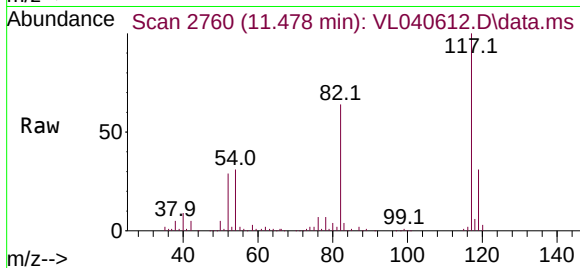




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.478 min Scan# 21  
Delta R.T. -0.000 min  
Lab File: VL040612.D  
Acq: 9 Aug 2023 19:19

Instrument :  
MSVOA\_L  
ClientSampleId :  
IA1

Tgt Ion:117 Resp: 451293  
Ion Ratio Lower Upper  
117 100  
82 71.4 50.2 75.4  
119 33.5 26.9 40.3



#68  
1-Bromo-4-Fluorobenzene  
Concen: 9.698 ppbv  
RT: 13.789 min Scan# 3479  
Delta R.T. 0.006 min  
Lab File: VL040612.D  
Acq: 9 Aug 2023 19:19

Tgt Ion: 95 Resp: 346367  
Ion Ratio Lower Upper  
95 100  
174 61.5 50.6 75.8  
175 5.0 3.7 5.5

