

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL090523\  
 Data File : VL040654.D  
 Acq On : 5 Sep 2023 19:38  
 Operator : SY/MD  
 Sample : 04261-01DL 4X  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Sep 06 02:07:27 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL081523AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 26 06:05:16 2022  
 QLast Update : Wed Aug 16 05:43:50 2023  
 Response via : Initial Calibration

| Compound                | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------|--------|------|----------|--------|-------|----------|
| -----                   |        |      |          |        |       |          |
| Internal Standards      |        |      |          |        |       |          |
| 1) Bromochloromethane   | 5.185  | 49   | 885018   | 10.000 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 6.648  | 114  | 2293866  | 10.000 | ppbv  | -0.01    |
| 55) Chlorobenzene-d5    | 11.468 | 117  | 1995953  | 10.000 | ppbv  | -0.01    |

|                             |        |       |          |          |      |          |
|-----------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds |        |       |          |          |      |          |
| 68) 1-Bromo-4-Fluorobenzene | 13.780 | 95    | 1629641  | 10.266   | ppbv | -0.01    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 102.700% |

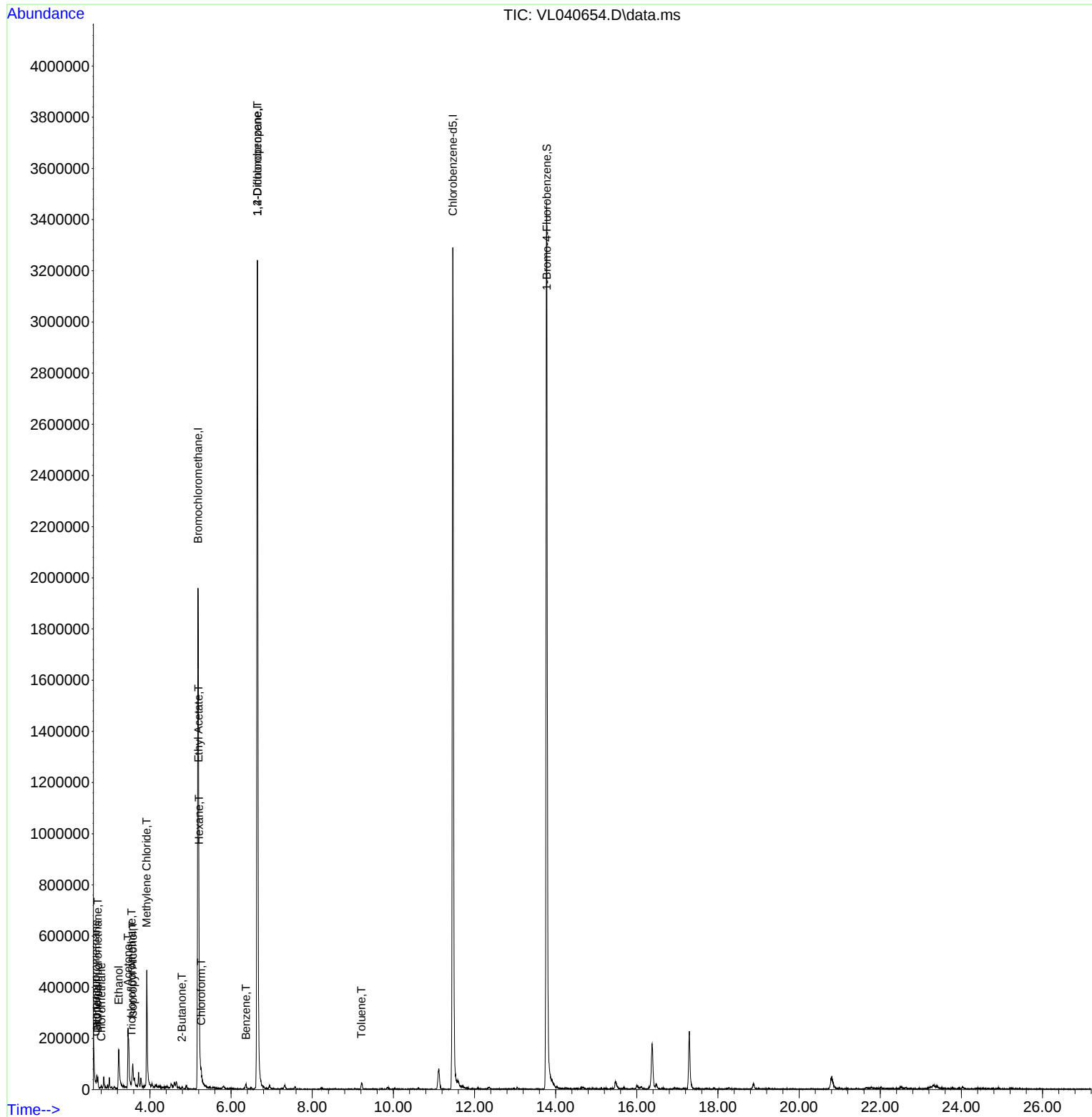
| Target Compounds           |       |     |        |        |        | Qvalue |
|----------------------------|-------|-----|--------|--------|--------|--------|
| 2) Dichlorodifluoromethane | 2.716 | 85  | 23183  | 0.122  | ppbv   | 98     |
| 3) Chlorodifluoromethane   | 2.661 | 51  | 14695  | 0.101  | ppbv   | 99     |
| 4) Chloromethane           | 2.800 | 50  | 7713   | 0.136  | ppbv # | 88     |
| 9) Propene                 | 2.690 | 41  | 11437  | 0.254  | ppbv   | 94     |
| 11) Trichlorofluoromethane | 3.549 | 101 | 9033   | 0.059  | ppbv   | 97     |
| 13) Ethanol                | 3.230 | 45  | 181164 | 14.417 | ppbv   | 97     |
| 15) Acetone                | 3.459 | 43  | 257551 | 2.379  | ppbv   | 96     |
| 19) Isopropyl Alcohol      | 3.578 | 45  | 85717  | 1.249  | ppbv # | 81     |
| 20) Methylene Chloride     | 3.922 | 84  | 158809 | 3.002  | ppbv   | 98     |
| 25) Ethyl Acetate          | 5.201 | 43  | 84785  | 0.417  | ppbv # | 78     |
| 26) Hexane                 | 5.208 | 57  | 116162 | 1.181  | ppbv # | 37     |
| 29) Chloroform             | 5.266 | 83  | 14165  | 0.091  | ppbv # | 79     |
| 34) 2-Butanone             | 4.787 | 43  | 4412   | 0.038  | ppbv # | 30     |
| 36) Benzene                | 6.365 | 78  | 6782   | 0.037  | ppbv # | 88     |
| 39) 1,2-Dichloropropane    | 6.648 | 63  | 581638 | 8.378  | ppbv # | 25     |
| 53) Toluene                | 9.211 | 91  | 7597   | 0.039  | ppbv # | 1      |

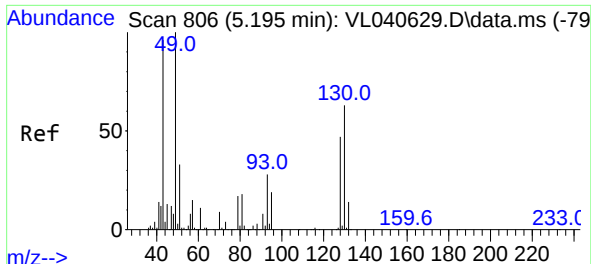
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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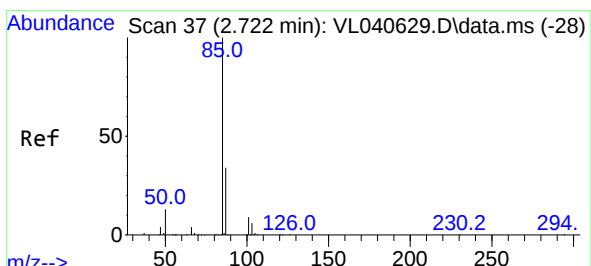
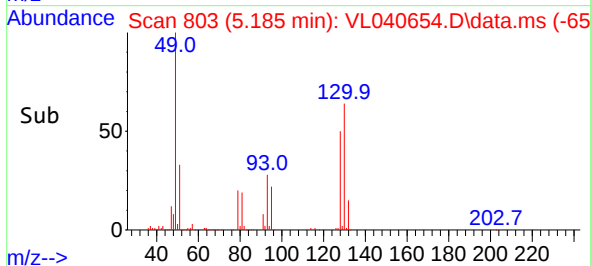
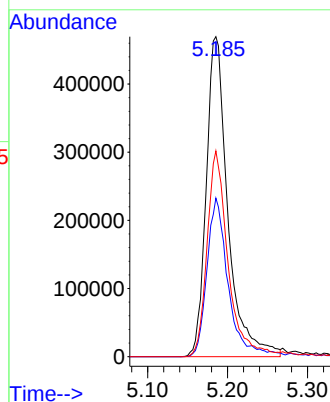
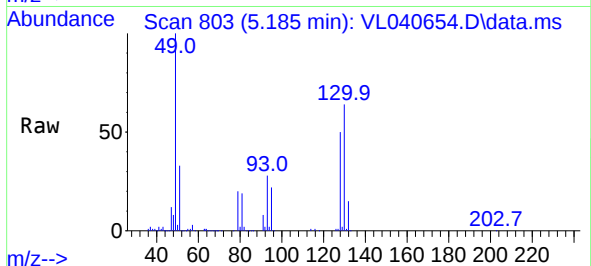




#1  
Bromochloromethane  
Concen: 10.000 ppbv  
RT: 5.185 min Scan# 80  
Delta R.T. -0.010 min  
Lab File: VL040654.D  
Acq: 5 Sep 2023 19:38

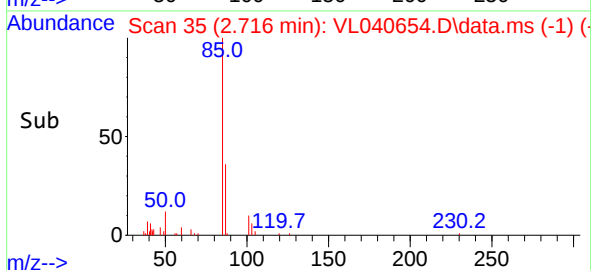
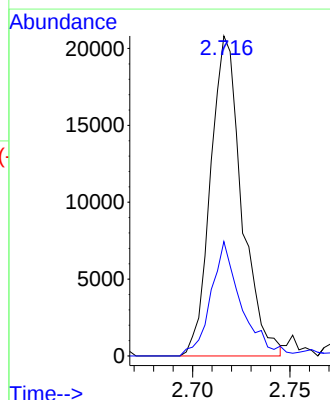
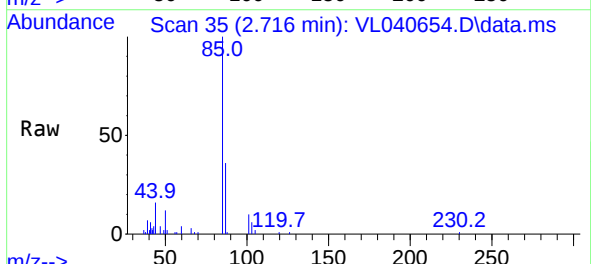
Instrument :  
MSVOA\_L  
ClientSampleId :

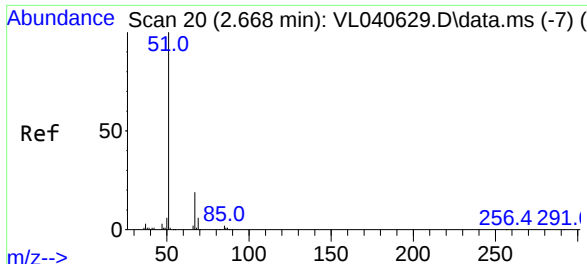
Tgt Ion: 49 Resp: 885018  
Ion Ratio Lower Upper  
49 100  
128 49.6 24.9 74.7  
130 64.2 32.2 96.6



#2  
Dichlorodifluoromethane  
Concen: 0.122 ppbv  
RT: 2.716 min Scan# 35  
Delta R.T. -0.006 min  
Lab File: VL040654.D  
Acq: 5 Sep 2023 19:38

Tgt Ion: 85 Resp: 23183  
Ion Ratio Lower Upper  
85 100  
87 35.8 27.5 41.3

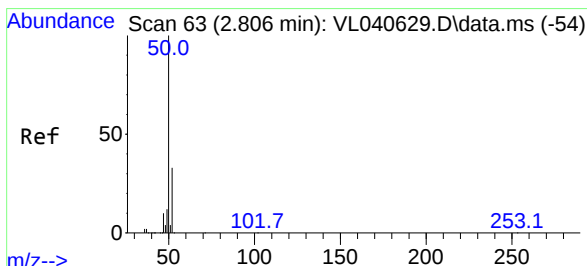
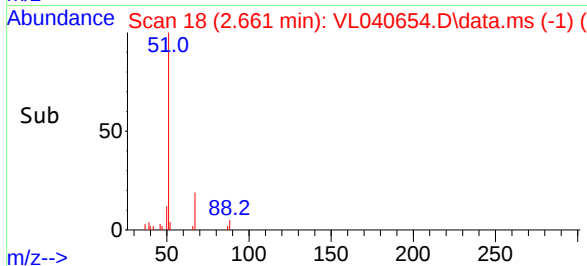
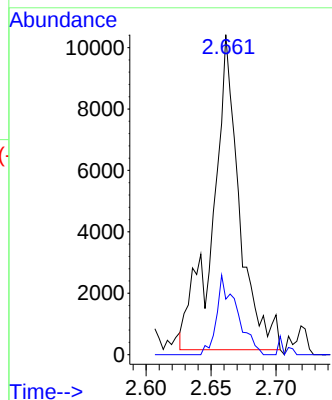
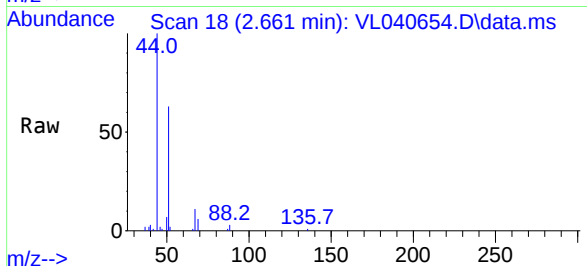




#3  
Chlorodifluoromethane  
Concen: 0.101 ppbv  
RT: 2.661 min Scan# 11  
Delta R.T. -0.006 min  
Lab File: VL040654.D  
Acq: 5 Sep 2023 19:38

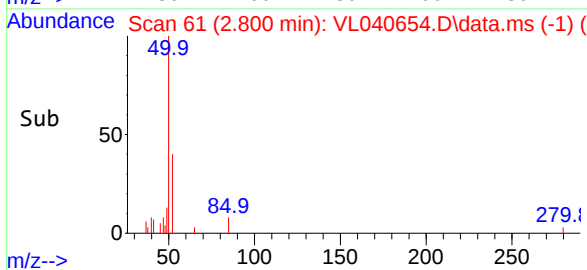
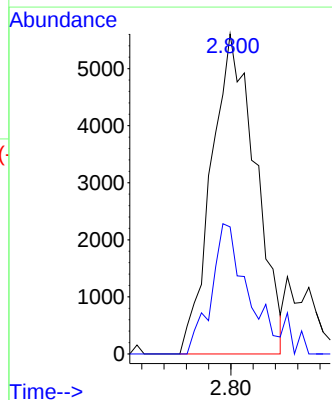
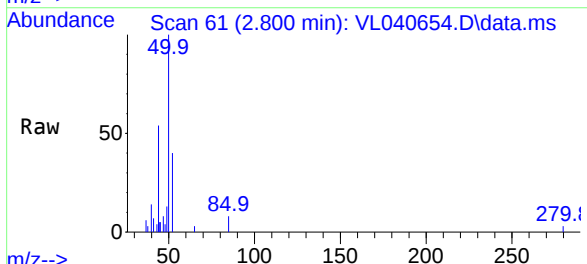
Instrument :  
MSVOA\_L  
ClientSampleId :

Tgt Ion: 51 Resp: 14695  
Ion Ratio Lower Upper  
51 100  
67 19.2 15.0 22.6

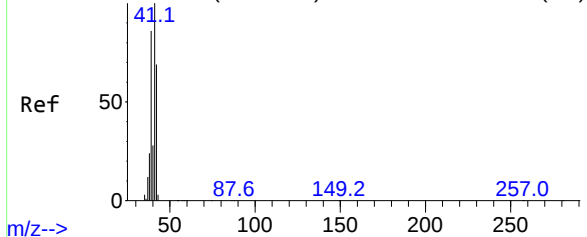


#4  
Chloromethane  
Concen: 0.136 ppbv  
RT: 2.800 min Scan# 61  
Delta R.T. -0.006 min  
Lab File: VL040654.D  
Acq: 5 Sep 2023 19:38

Tgt Ion: 50 Resp: 7713  
Ion Ratio Lower Upper  
50 100  
52 39.7 26.2 39.2#



Abundance Scan 26 (2.687 min): VL040629.D\data.ms (-17)



#9

Propene

Concen: 0.254 ppbv

RT: 2.690 min Scan# 21

Delta R.T. 0.003 min

Lab File: VL040654.D

Acq: 5 Sep 2023 19:38

Instrument :

MSVOA\_L

ClientSampleId :

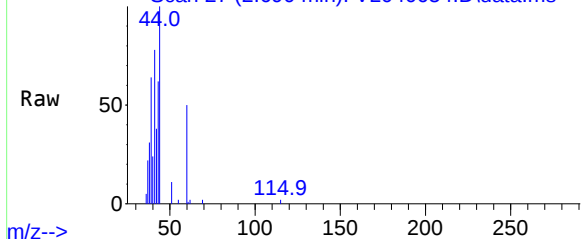
Tgt Ion: 41 Resp: 11437

Ion Ratio Lower Upper

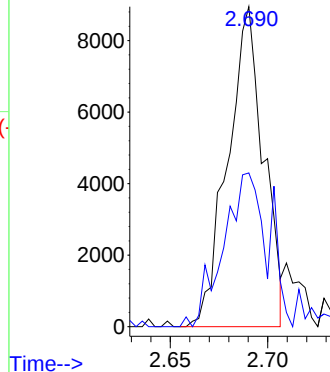
41 100

42 65.8 56.5 84.7

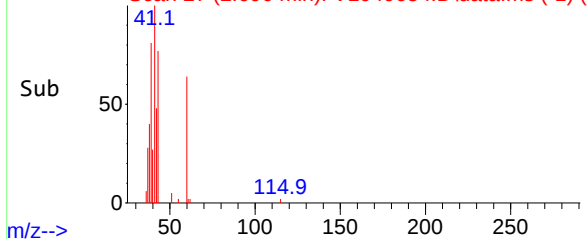
Abundance Scan 27 (2.690 min): VL040654.D\data.ms



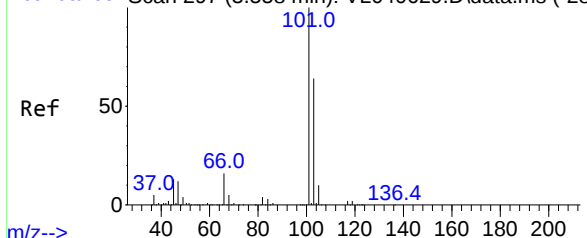
Abundance



Abundance Scan 27 (2.690 min): VL040654.D\data.ms (-1) (-



Abundance Scan 297 (3.558 min): VL040629.D\data.ms (-28



#11

Trichlorofluoromethane

Concen: 0.059 ppbv

RT: 3.549 min Scan# 294

Delta R.T. -0.010 min

Lab File: VL040654.D

Acq: 5 Sep 2023 19:38

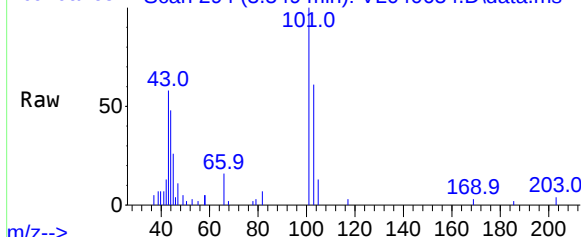
Tgt Ion:101 Resp: 9033

Ion Ratio Lower Upper

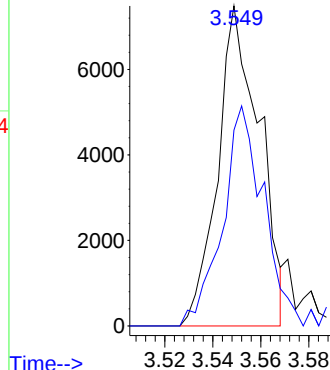
101 100

103 61.2 51.1 76.7

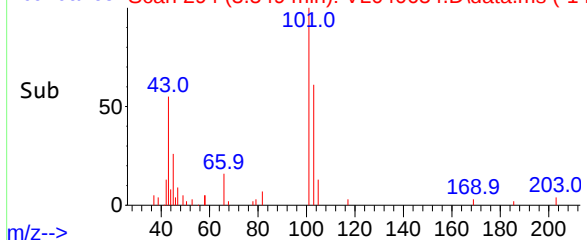
Abundance Scan 294 (3.549 min): VL040654.D\data.ms

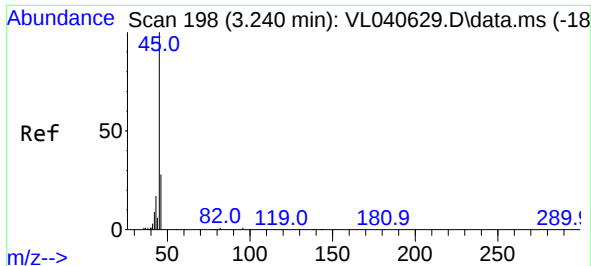


Abundance



Abundance Scan 294 (3.549 min): VL040654.D\data.ms (-14





#13

Ethanol

Concen: 14.417 ppbv

RT: 3.230 min Scan# 19

Delta R.T. -0.010 min

Lab File: VL040654.D

Acq: 5 Sep 2023 19:38

Instrument :

MSVOA\_L

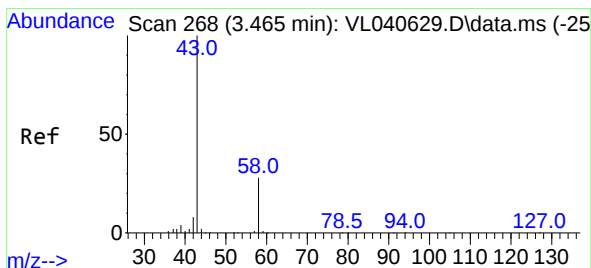
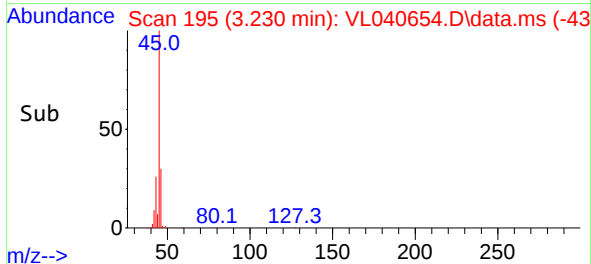
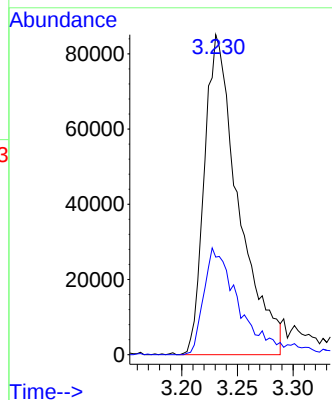
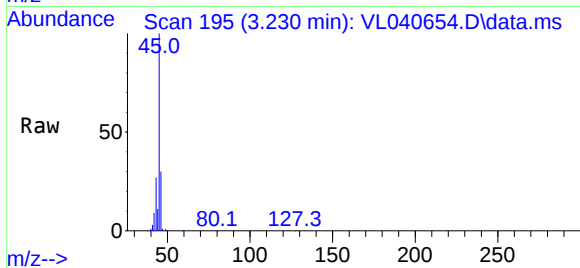
ClientSampleId :

Tgt Ion: 45 Resp: 181164

Ion Ratio Lower Upper

45 100

46 37.2 14.2 56.6



#15

Acetone

Concen: 2.379 ppbv

RT: 3.459 min Scan# 266

Delta R.T. -0.006 min

Lab File: VL040654.D

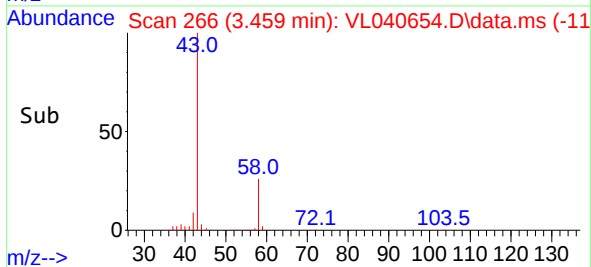
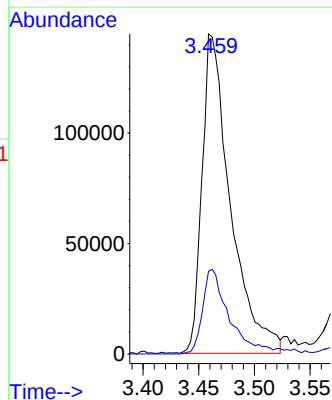
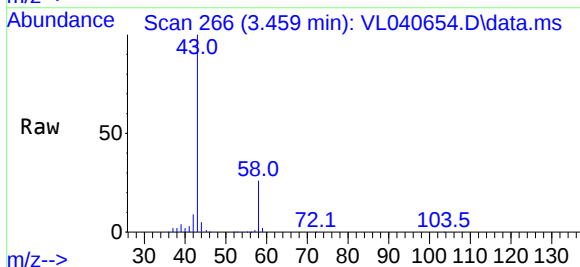
Acq: 5 Sep 2023 19:38

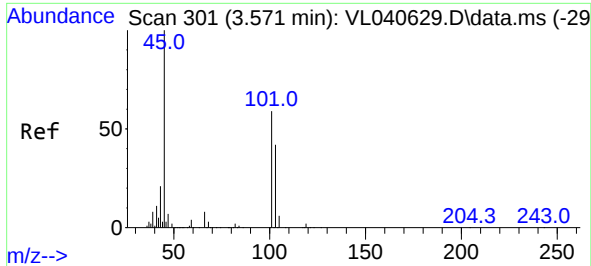
Tgt Ion: 43 Resp: 257551

Ion Ratio Lower Upper

43 100

58 25.7 22.4 33.6





#19

Isopropyl Alcohol

Concen: 1.249 ppbv

RT: 3.578 min Scan# 301

Delta R.T. 0.006 min

Lab File: VL040654.D

Acq: 5 Sep 2023 19:38

Instrument :

MSVOA\_L

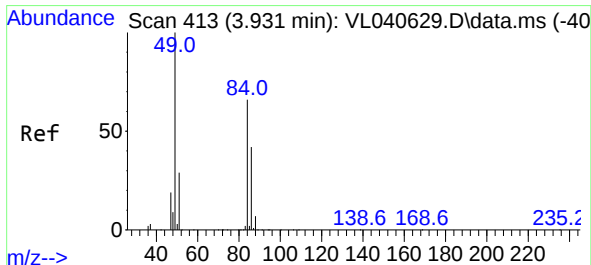
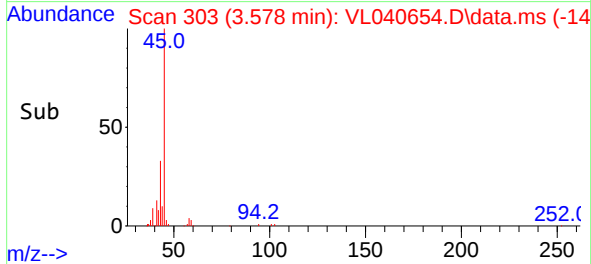
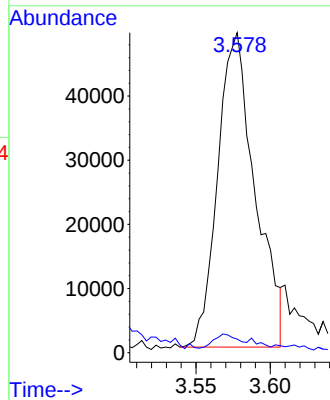
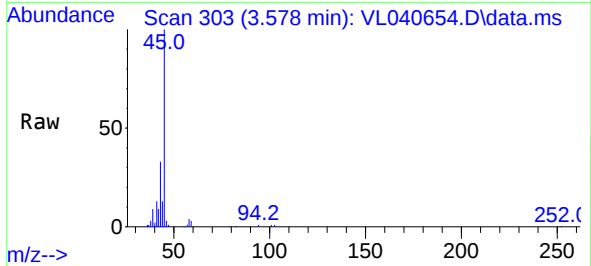
ClientSampleId :

Tgt Ion: 45 Resp: 85717

Ion Ratio Lower Upper

45 100

58 9.0 1.9 2.9#



#20

Methylene Chloride

Concen: 3.002 ppbv

RT: 3.922 min Scan# 410

Delta R.T. -0.010 min

Lab File: VL040654.D

Acq: 5 Sep 2023 19:38

Tgt Ion: 84 Resp: 158809

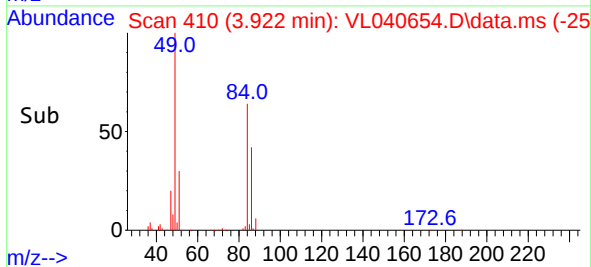
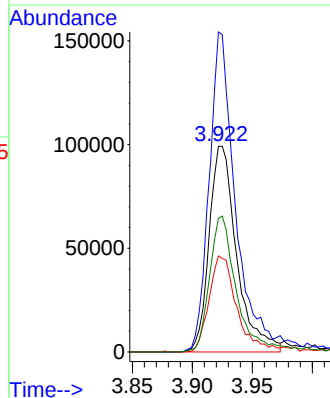
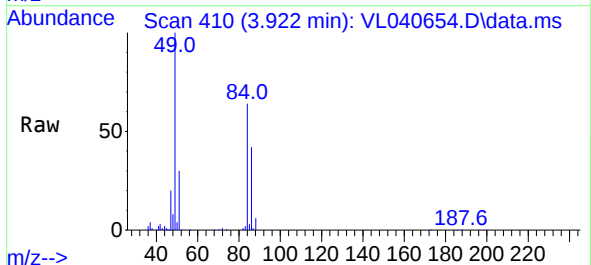
Ion Ratio Lower Upper

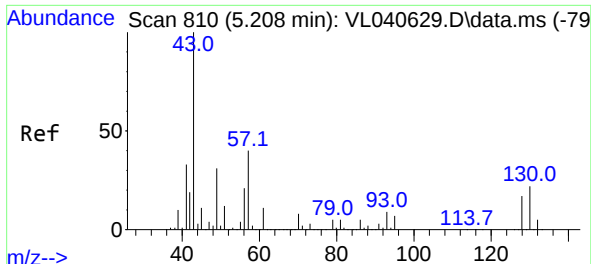
84 100

49 155.6 122.1 183.1

51 46.6 35.4 53.2

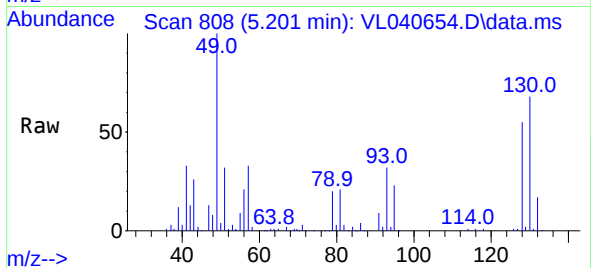
86 65.0 51.7 77.5



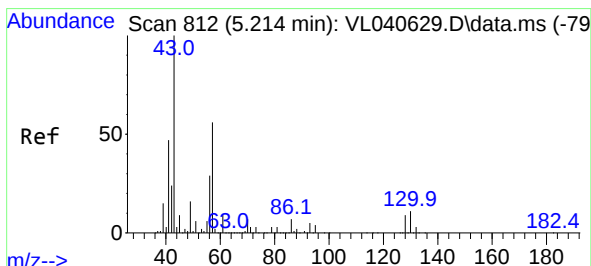
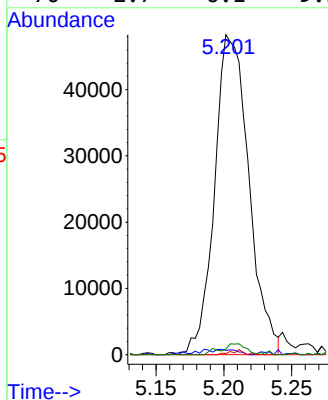
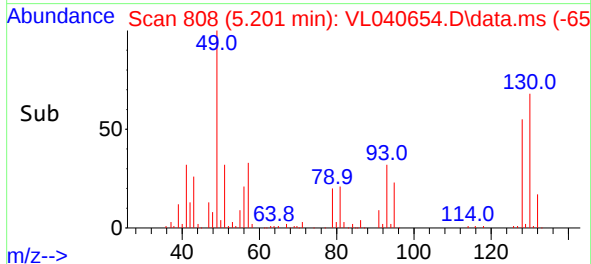


#25  
Ethyl Acetate  
Concen: 0.417 ppbv  
RT: 5.201 min Scan# 810  
Delta R.T. -0.006 min  
Lab File: VL040654.D  
Acq: 5 Sep 2023 19:38

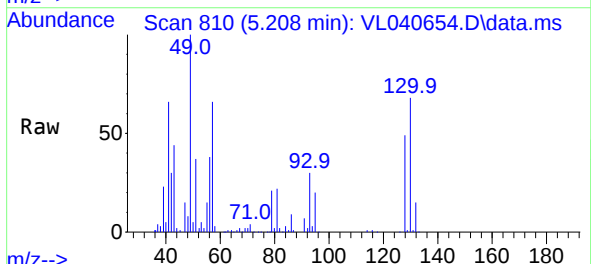
Instrument :  
MSVOA\_L  
ClientSampleId :



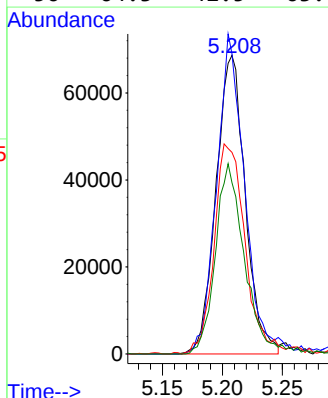
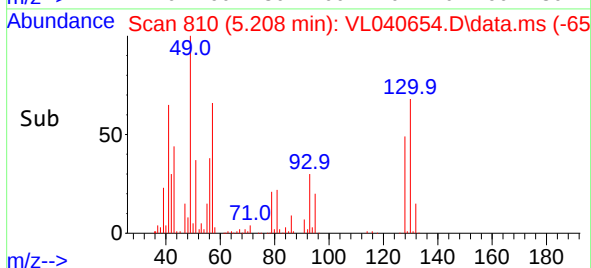
Tgt Ion: 43 Resp: 84785  
Ion Ratio Lower Upper  
43 100  
45 1.9 8.2 12.4#  
61 0.6 8.3 12.5#  
70 2.7 6.1 9.1#

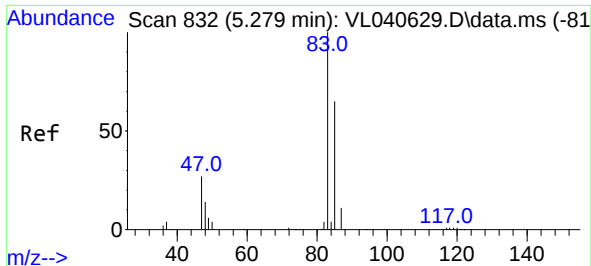


#26  
Hexane  
Concen: 1.181 ppbv  
RT: 5.208 min Scan# 810  
Delta R.T. -0.006 min  
Lab File: VL040654.D  
Acq: 5 Sep 2023 19:38



Tgt Ion: 57 Resp: 116162  
Ion Ratio Lower Upper  
57 100  
41 105.3 69.3 103.9#  
43 76.0 177.9 266.9#  
56 64.3 42.5 63.7#





#29

Chloroform

Concen: 0.091 ppbv

RT: 5.266 min Scan# 81

Delta R.T. -0.013 min

Lab File: VL040654.D

Acq: 5 Sep 2023 19:38

Instrument :

MSVOA\_L

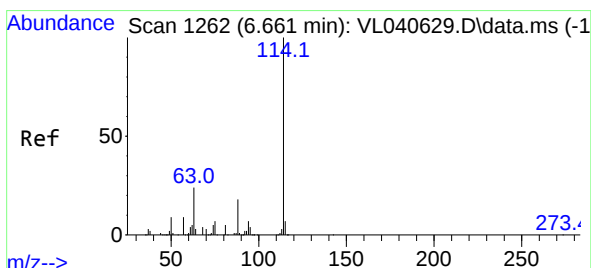
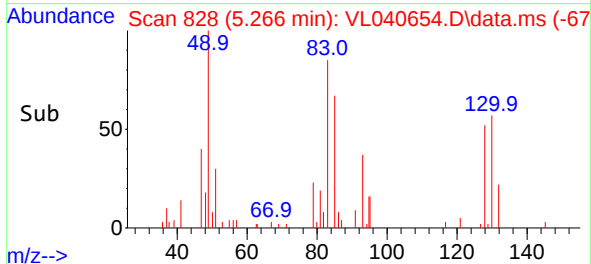
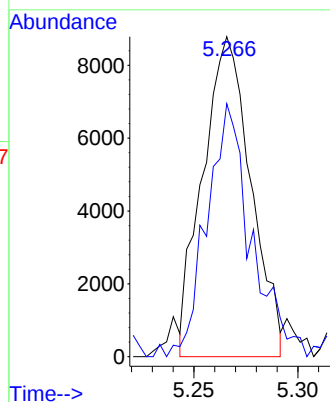
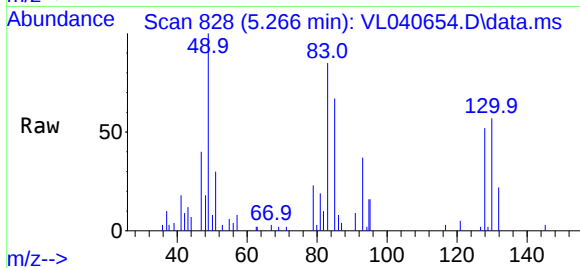
ClientSampleId :

Tgt Ion: 83 Resp: 14165

Ion Ratio Lower Upper

83 100

85 81.8 52.2 78.2#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.648 min Scan# 1258

Delta R.T. -0.013 min

Lab File: VL040654.D

Acq: 5 Sep 2023 19:38

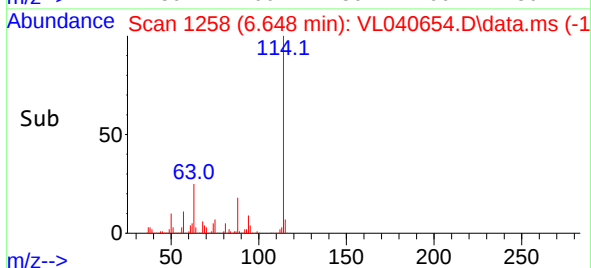
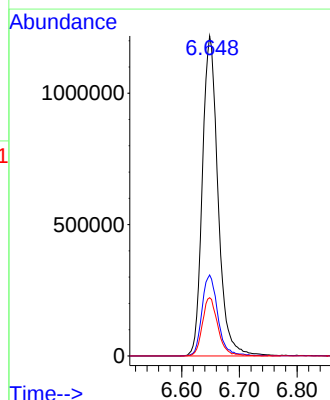
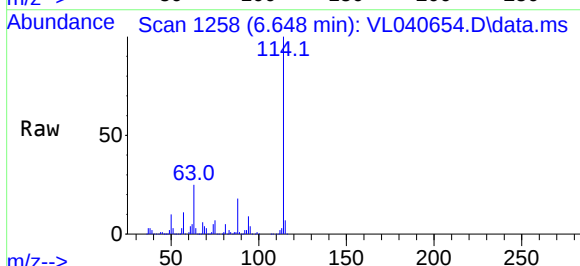
Tgt Ion: 114 Resp: 2293866

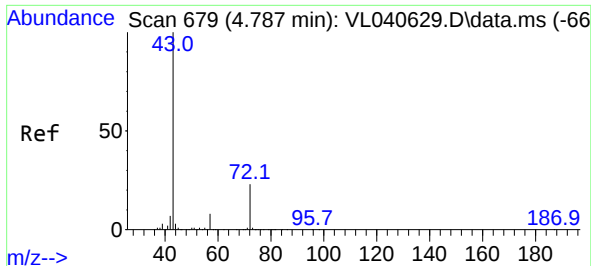
Ion Ratio Lower Upper

114 100

63 25.8 20.2 30.2

88 18.1 14.1 21.1

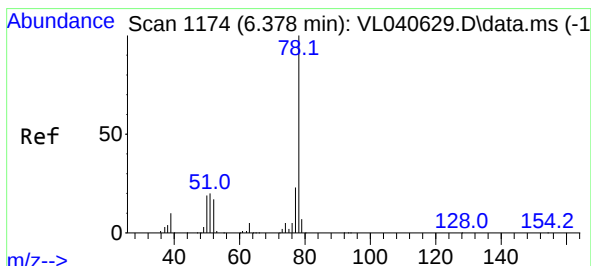
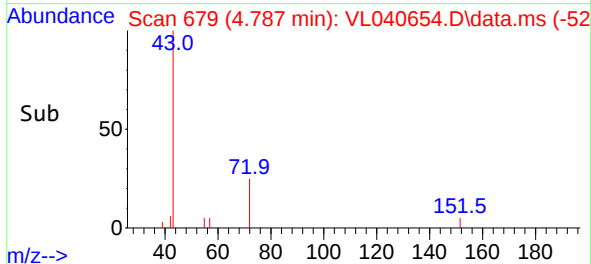
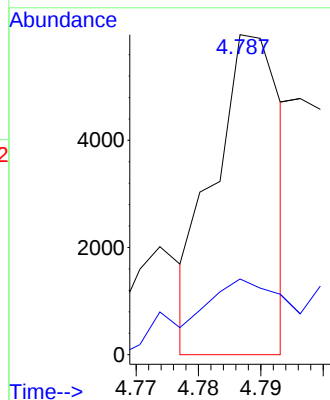
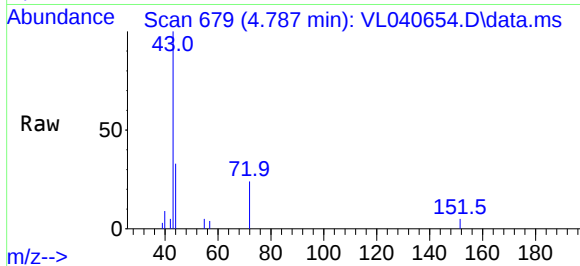




#34  
2-Butanone  
Concen: 0.038 ppbv  
RT: 4.787 min Scan# 61  
Delta R.T. -0.000 min  
Lab File: VL040654.D  
Acq: 5 Sep 2023 19:38

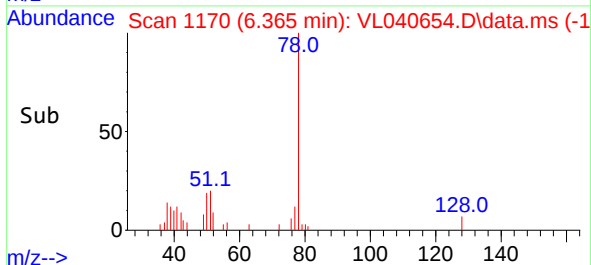
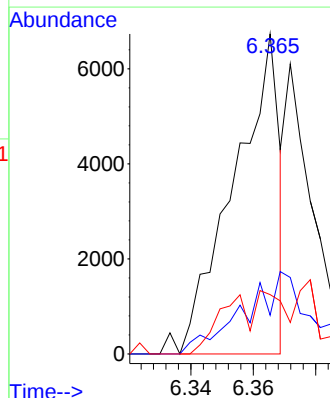
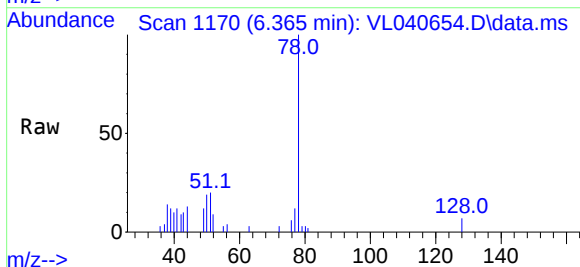
Instrument :  
MSVOA\_L  
ClientSampleId :

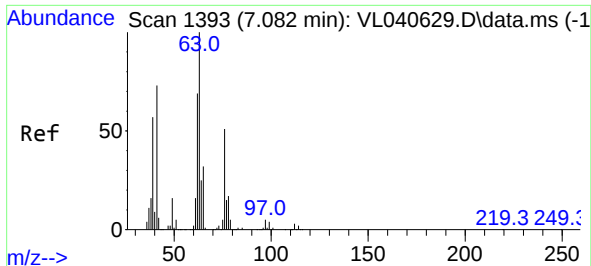
Tgt Ion: 43 Resp: 4412  
Ion Ratio Lower Upper  
43 100  
72 58.7 19.2 28.8#



#36  
Benzene  
Concen: 0.037 ppbv  
RT: 6.365 min Scan# 1170  
Delta R.T. -0.013 min  
Lab File: VL040654.D  
Acq: 5 Sep 2023 19:38

Tgt Ion: 78 Resp: 6782  
Ion Ratio Lower Upper  
78 100  
77 12.1 18.2 27.2#  
50 18.6 15.0 22.6





#39

1,2-Dichloropropane

Concen: 8.378 ppbv

RT: 6.648 min Scan# 1

Delta R.T. -0.434 min

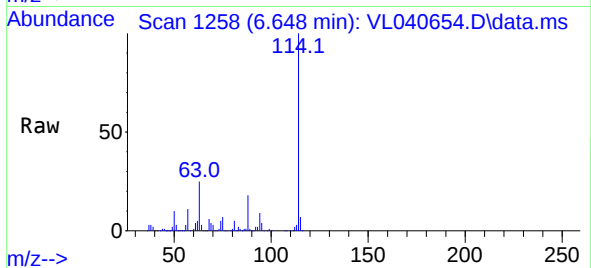
Lab File: VL040654.D

Acq: 5 Sep 2023 19:38

Instrument :

MSVOA\_L

ClientSampleId :



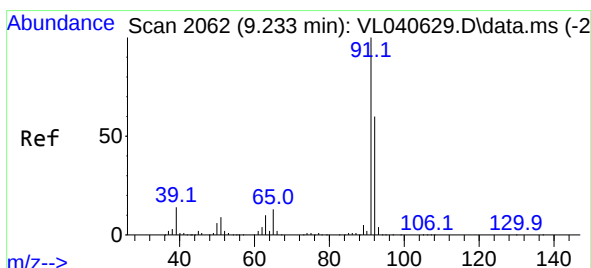
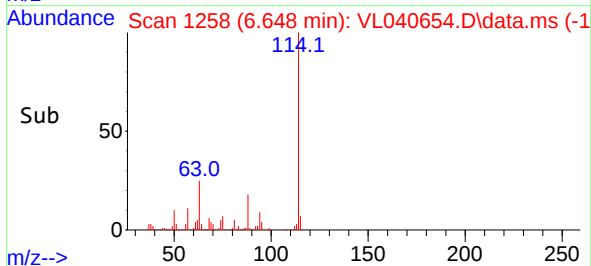
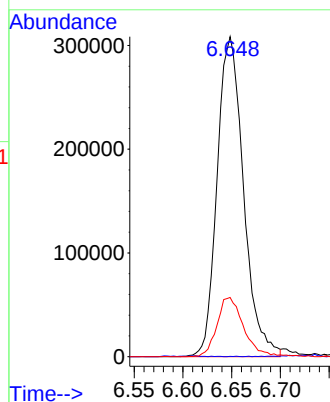
Tgt Ion: 63 Resp: 581638

Ion Ratio Lower Upper

63 100

41 0.0 58.2 87.2#

62 18.5 55.0 82.4#



#53

Toluene

Concen: 0.039 ppbv

RT: 9.211 min Scan# 2055

Delta R.T. -0.023 min

Lab File: VL040654.D

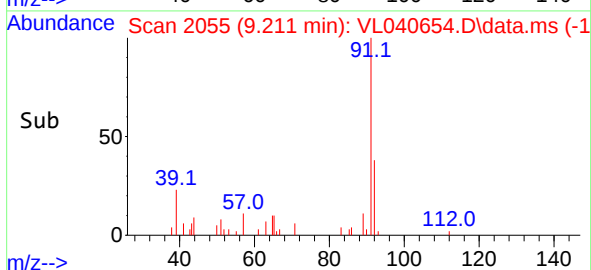
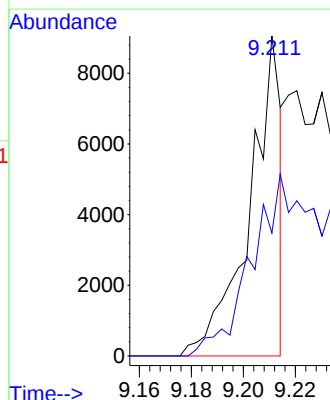
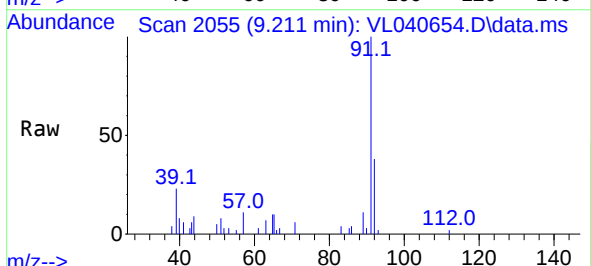
Acq: 5 Sep 2023 19:38

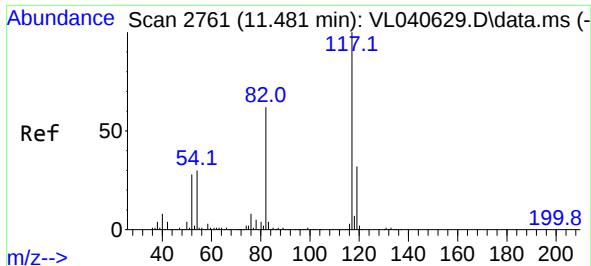
Tgt Ion: 91 Resp: 7597

Ion Ratio Lower Upper

91 100

92 143.7 48.0 72.0#

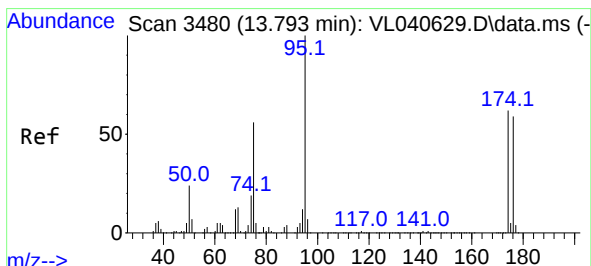
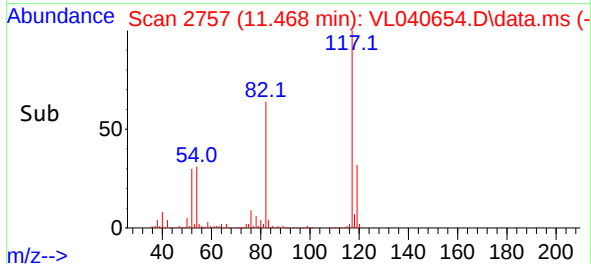
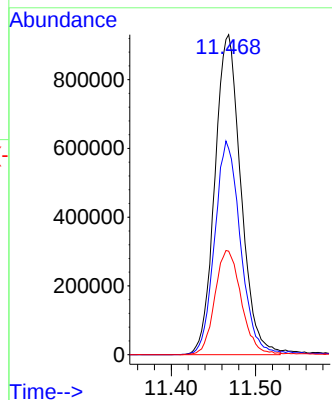
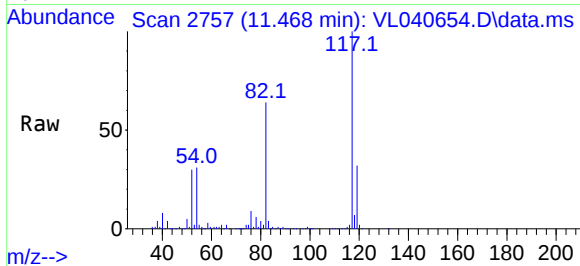




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 11.468 min Scan# 21  
Delta R.T. -0.013 min  
Lab File: VL040654.D  
Acq: 5 Sep 2023 19:38

Instrument :  
MSVOA\_L  
ClientSampleId :

Tgt Ion:117 Resp: 1995953  
Ion Ratio Lower Upper  
117 100  
82 67.5 49.5 74.3  
119 33.4 24.5 36.7



#68  
1-Bromo-4-Fluorobenzene  
Concen: 10.266 ppbv  
RT: 13.780 min Scan# 3476  
Delta R.T. -0.013 min  
Lab File: VL040654.D  
Acq: 5 Sep 2023 19:38

Tgt Ion: 95 Resp: 1629641  
Ion Ratio Lower Upper  
95 100  
174 62.3 49.1 73.7  
175 4.4 3.7 5.5

