

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081023\  
 Data File : VN078843.D  
 Acq On : 10 Aug 2023 17:33  
 Operator : JC\MD  
 Sample : PB154726ZHE#14  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

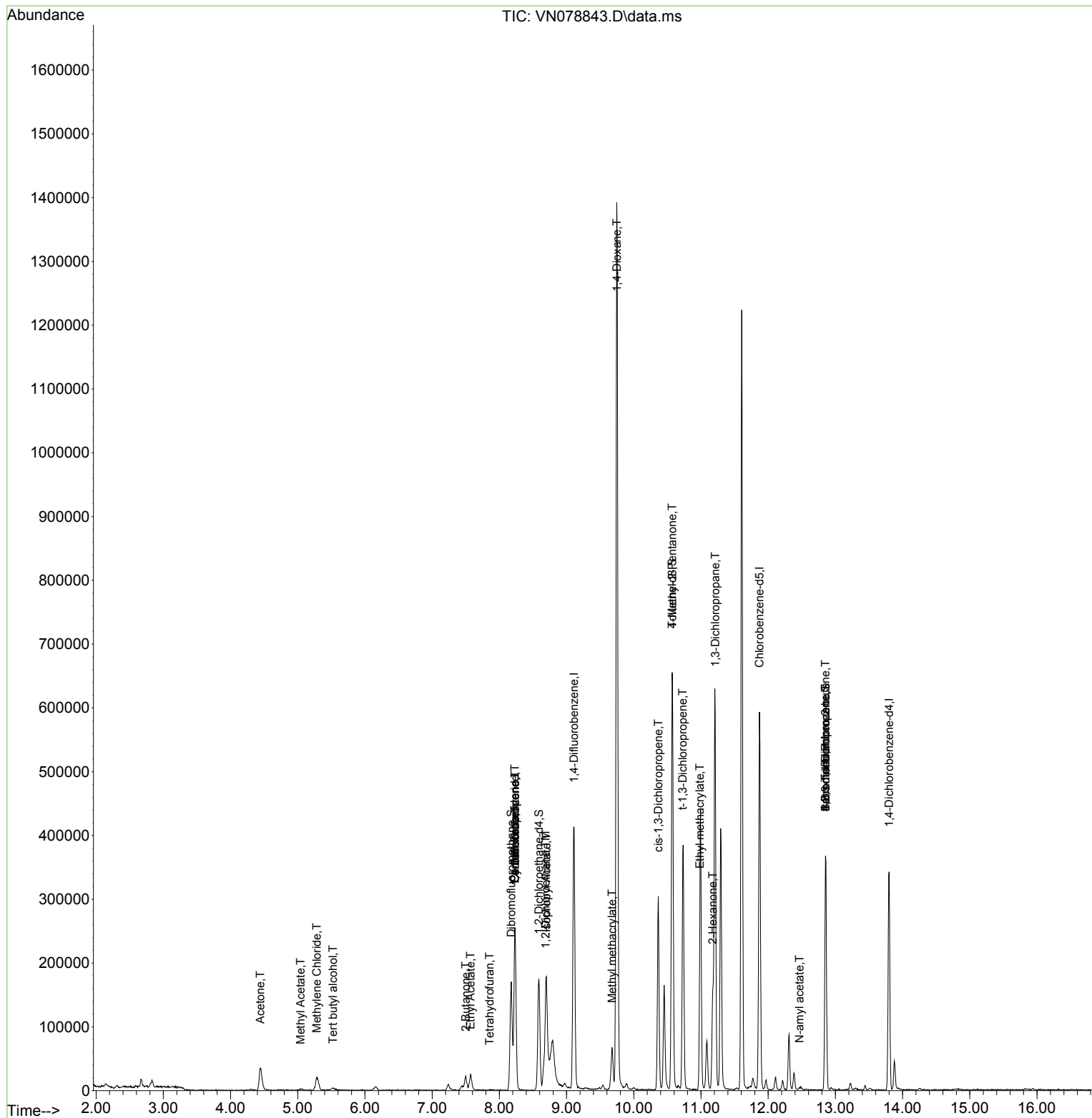
Quant Time: Aug 10 23:54:44 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N080723W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Aug 08 05:03:52 2023  
 Response via : Initial Calibration

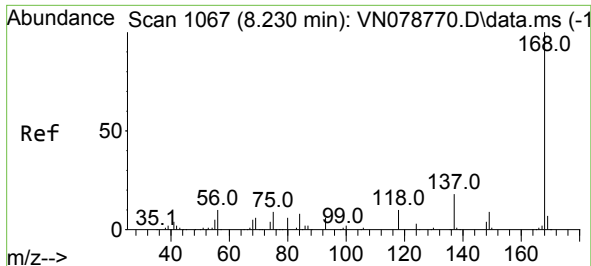
| Compound                      | R.T.   | QIon           | Response | Conc       | Units  | Dev(Min) |
|-------------------------------|--------|----------------|----------|------------|--------|----------|
| Internal Standards            |        |                |          |            |        |          |
| 1) Pentafluorobenzene         | 8.229  | 168            | 172011   | 50.000     | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene       | 9.112  | 114            | 342458   | 50.000     | ug/l   | 0.00     |
| 63) Chlorobenzene-d5          | 11.870 | 117            | 320098   | 50.000     | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 13.800 | 152            | 87923    | 50.000     | ug/l   | 0.00     |
| System Monitoring Compounds   |        |                |          |            |        |          |
| 33) 1,2-Dichloroethane-d4     | 8.588  | 65             | 139636   | 54.150     | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range 74 - 125 | Recovery | = 108.300% |        |          |
| 35) Dibromofluoromethane      | 8.177  | 113            | 115798   | 50.071     | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range 75 - 124 | Recovery | = 100.140% |        |          |
| 50) Toluene-d8                | 10.570 | 98             | 437767   | 51.438     | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range 86 - 113 | Recovery | = 102.880% |        |          |
| 62) 4-Bromofluorobenzene      | 12.853 | 95             | 117965   | 46.380     | ug/l   | 0.00     |
| Spiked Amount                 | 50.000 | Range 83 - 123 | Recovery | = 92.760%  |        |          |
| Target Compounds              |        |                |          |            |        | Qvalue   |
| 11) Tert butyl alcohol        | 5.524  | 59             | 434      | 0.959      | ug/l # | 72       |
| 16) Acetone                   | 4.441  | 43             | 65849    | 66.368     | ug/l # | 81       |
| 18) Methyl Acetate            | 5.041  | 43             | 4064     | 0.912      | ug/l # | 58       |
| 20) Methylene Chloride        | 5.283  | 84             | 14484    | 5.894      | ug/l # | 80       |
| 25) 2-Butanone                | 7.500  | 43             | 32530    | 19.362     | ug/l # | 74       |
| 29) Tetrahydrofuran           | 7.853  | 42             | 315      | 0.280      | ug/l # | 20       |
| 31) Cyclohexane               | 8.229  | 56             | 5741     | 1.515      | ug/l # | 62       |
| 36) 1,1-Dichloropropene       | 8.235  | 75             | 16534    | 4.608      | ug/l # | 46       |
| 37) Ethyl Acetate             | 7.571  | 43             | 37336    | 9.787      | ug/l # | 90       |
| 38) Carbon Tetrachloride      | 8.229  | 117            | 18849    | 5.096      | ug/l # | 15       |
| 42) 1,2-Dichloroethane        | 8.688  | 62             | 1071     | 0.275      | ug/l # | 73       |
| 43) Isopropyl Acetate         | 8.700  | 43             | 233894   | 36.366     | ug/l # | 70       |
| 48) Methyl methacrylate       | 9.676  | 41             | 5609     | 1.887      | ug/l # | 34       |
| 49) 1,4-Dioxane               | 9.747  | 88             | 116      | 2.404      | ug/l # | 1        |
| 51) 4-Methyl-2-Pentanone      | 10.570 | 43             | 7432     | 1.887      | ug/l   | 87       |
| 53) t-1,3-Dichloropropene     | 10.729 | 75             | 1066     | 0.271      | ug/l # | 58       |
| 54) cis-1,3-Dichloropropene   | 10.365 | 75             | 46028    | 10.759     | ug/l # | 73       |
| 56) Ethyl methacrylate        | 10.982 | 69             | 2002     | 0.524      | ug/l # | 1        |
| 57) 1,3-Dichloropropane       | 11.212 | 76             | 5532     | 1.208      | ug/l # | 42       |
| 59) 2-Hexanone                | 11.176 | 43             | 129741   | 46.511     | ug/l # | 19       |
| 71) Bromoform                 | 12.853 | 173            | 1241     | 0.630      | ug/l # | 28       |
| 74) N-amyl acetate            | 12.464 | 43             | 2215     | 0.564      | ug/l # | 36       |
| 76) 1,2,3-Trichloropropane    | 12.853 | 75             | 69787    | 29.357     | ug/l # | 1        |
| 81) trans-1,4-Dichloro-2-b... | 12.853 | 75             | 69787    | 78.776     | ug/l # | 15       |

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

**Instrument :**  
MSVOA\_N  
**ClientSampleId :**

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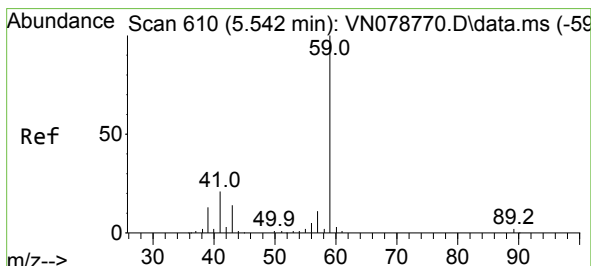
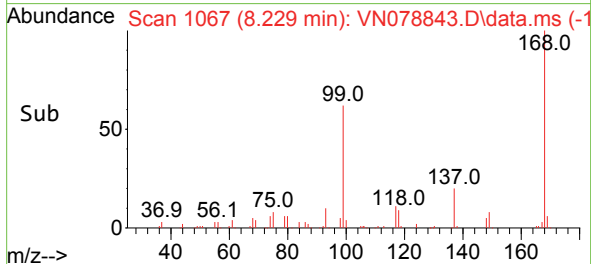
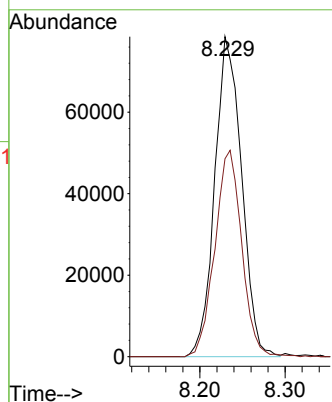
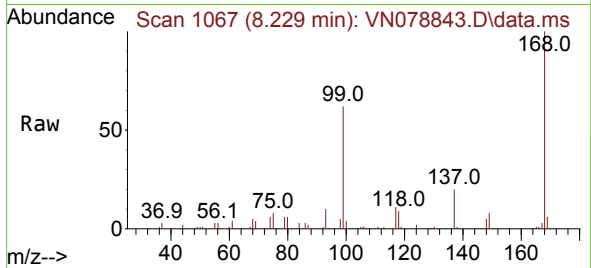




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.229 min Scan# 1067  
Delta R.T. -0.001 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

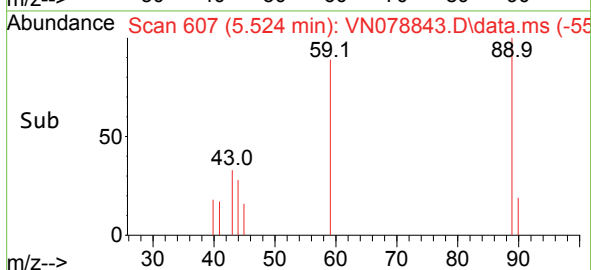
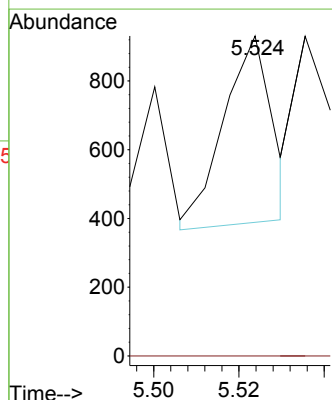
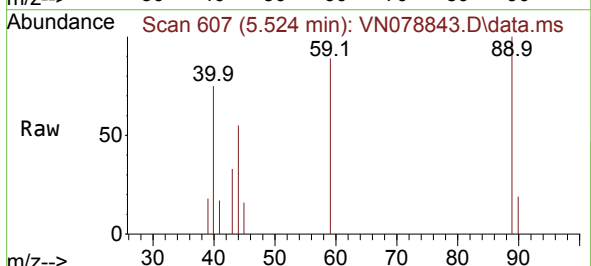
Instrument :  
MSVOA\_N  
ClientSampleId :

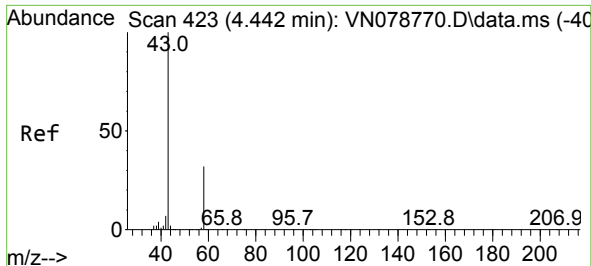
Tgt Ion:168 Resp: 172011  
Ion Ratio Lower Upper  
168 100  
99 61.8 53.0 79.6



#11  
Tert butyl alcohol  
Concen: 0.959 ug/l  
RT: 5.524 min Scan# 607  
Delta R.T. -0.018 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

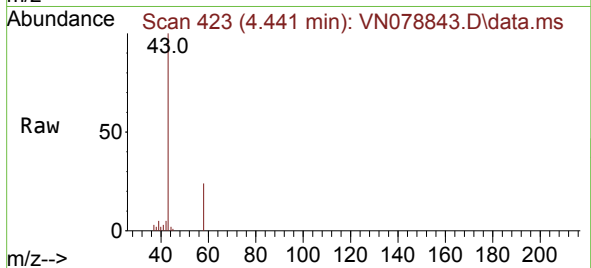
Tgt Ion: 59 Resp: 434  
Ion Ratio Lower Upper  
59 100  
57 0.0 8.2 12.4#



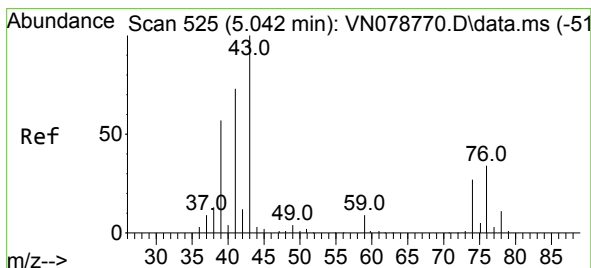
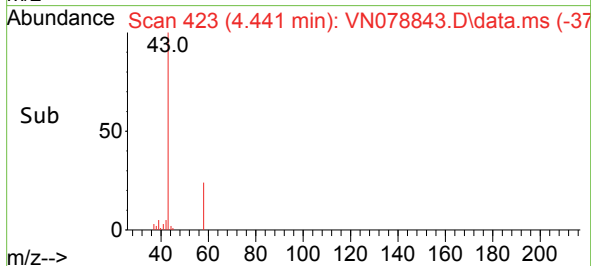
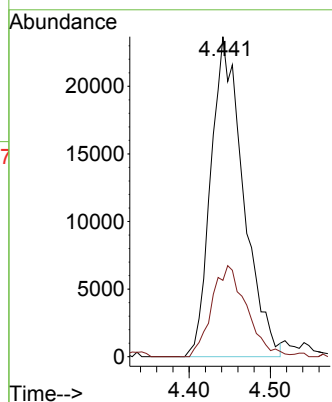


#16  
Acetone  
Concen: 66.368 ug/l  
RT: 4.441 min Scan# 41  
Delta R.T. -0.001 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

Instrument :  
MSVOA\_N  
ClientSampleId :

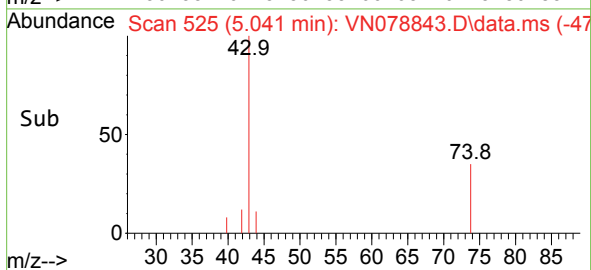
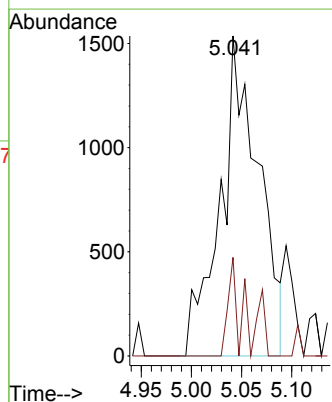
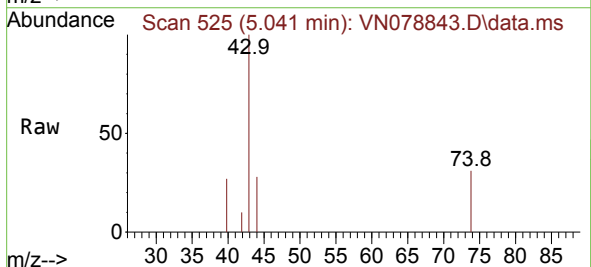


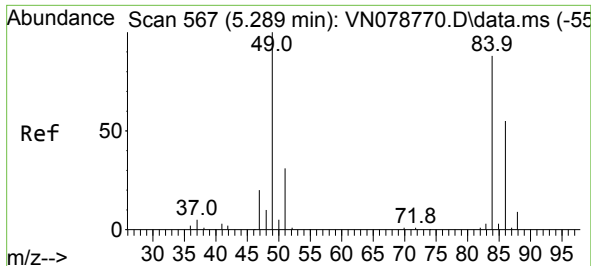
Tgt Ion: 43 Resp: 65849  
Ion Ratio Lower Upper  
43 100  
58 23.9 28.0 42.0#



#18  
Methyl Acetate  
Concen: 0.912 ug/l  
RT: 5.041 min Scan# 525  
Delta R.T. -0.000 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

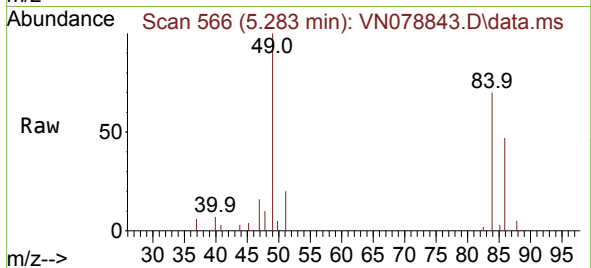
Tgt Ion: 43 Resp: 4064  
Ion Ratio Lower Upper  
43 100  
74 9.2 26.2 39.4#



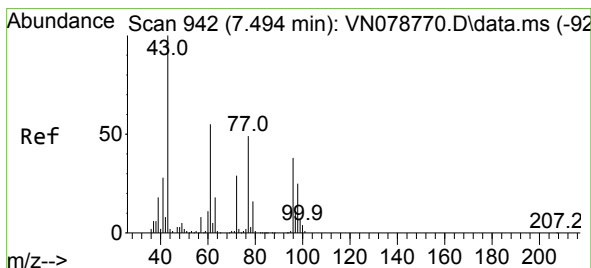
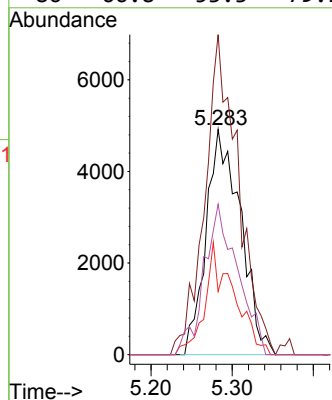


#20  
Methylene Chloride  
Concen: 5.894 ug/l  
RT: 5.283 min Scan# 51  
Delta R.T. -0.006 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

Instrument :  
MSVOA\_N  
ClientSampleId :

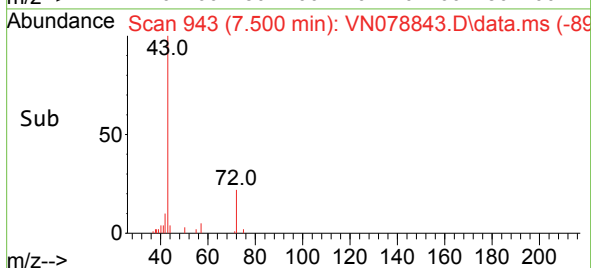
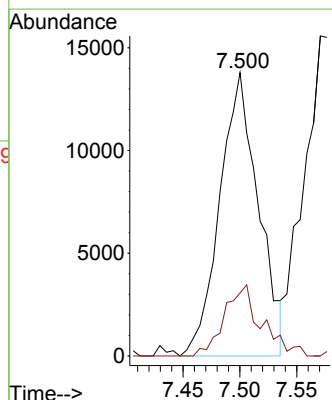
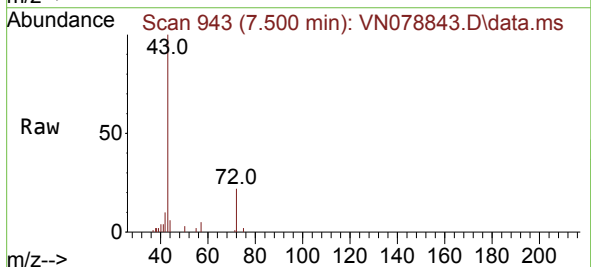


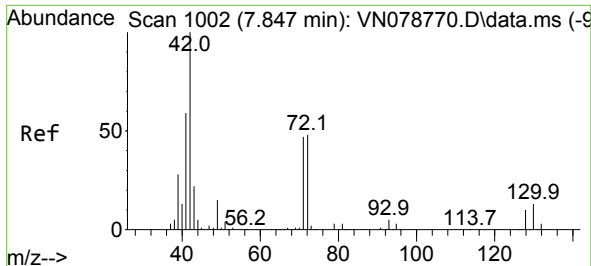
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 84    | Resp: | 14484  |
| Ion      | Ratio | Lower | Upper  |
| 84       | 100   |       |        |
| 49       | 137.7 | 79.7  | 119.5# |
| 51       | 28.1  | 25.2  | 37.8   |
| 86       | 66.8  | 53.3  | 79.9   |



#25  
2-Butanone  
Concen: 19.362 ug/l  
RT: 7.500 min Scan# 943  
Delta R.T. 0.006 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

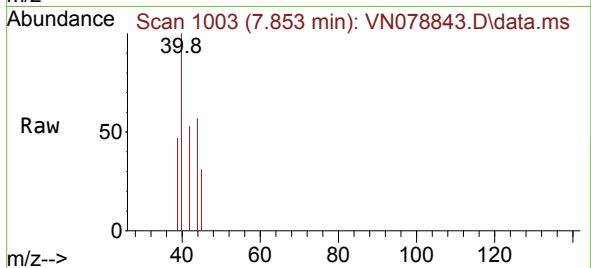
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 32530 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 22.2  | 30.2  | 45.2# |



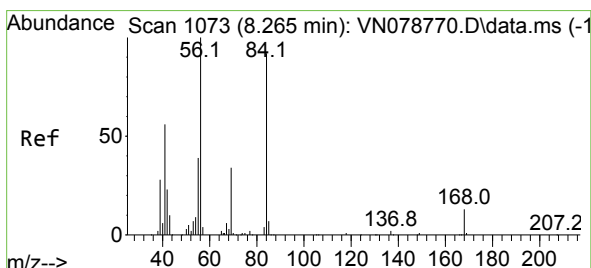
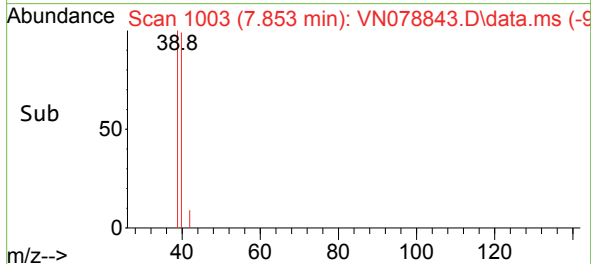
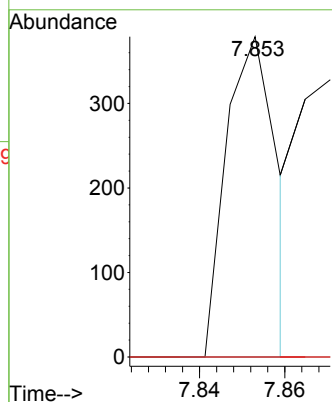


#29  
Tetrahydrofuran  
Concen: 0.280 ug/l  
RT: 7.853 min Scan# 1067  
Delta R.T. 0.006 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

Instrument :  
MSVOA\_N  
ClientSampleId :

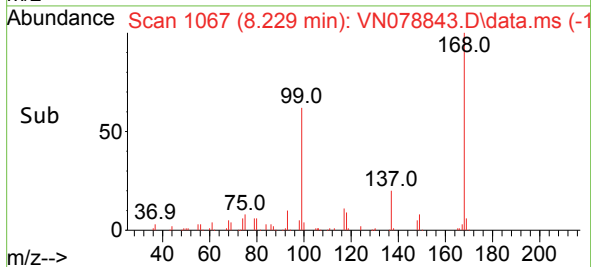
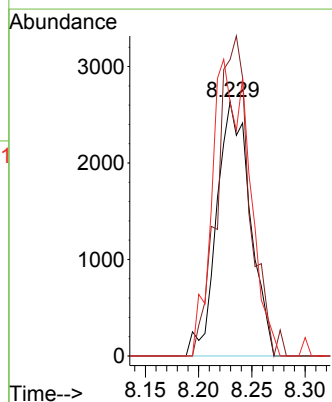
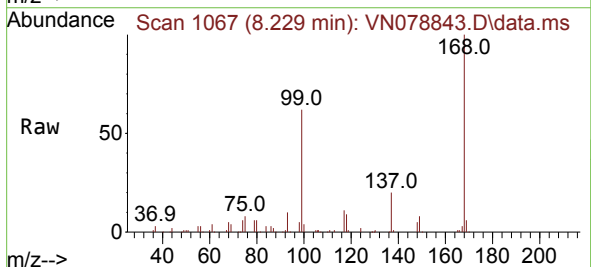


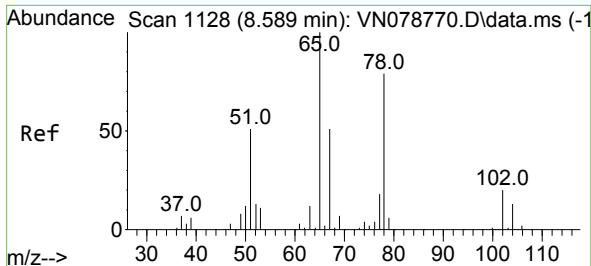
Tgt Ion: 42 Resp: 315  
Ion Ratio Lower Upper  
42 100  
72 0.0 49.8 74.6#  
71 0.0 47.4 71.2#



#31  
Cyclohexane  
Concen: 1.515 ug/l  
RT: 8.229 min Scan# 1067  
Delta R.T. -0.036 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

Tgt Ion: 56 Resp: 5741  
Ion Ratio Lower Upper  
56 100  
69 116.7 26.8 40.2#  
84 99.8 81.8 122.6





#33

1,2-Dichloroethane-d4

Concen: 54.150 ug/l

RT: 8.588 min Scan# 1128

Delta R.T. -0.000 min

Lab File: VN078843.D

Acq: 10 Aug 2023 17:33

Instrument :

MSVOA\_N

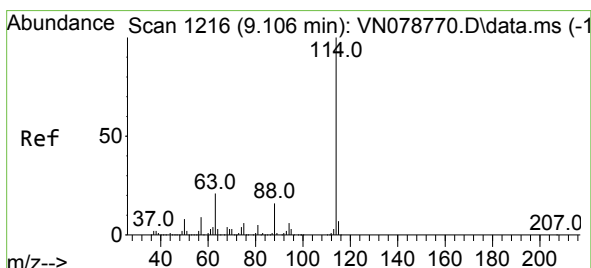
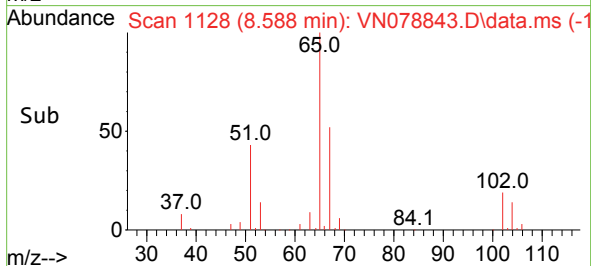
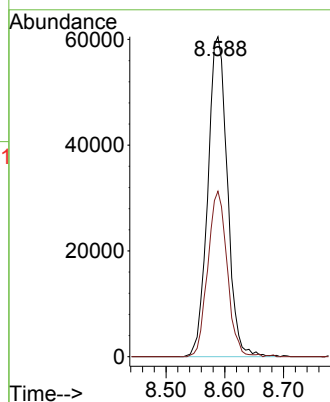
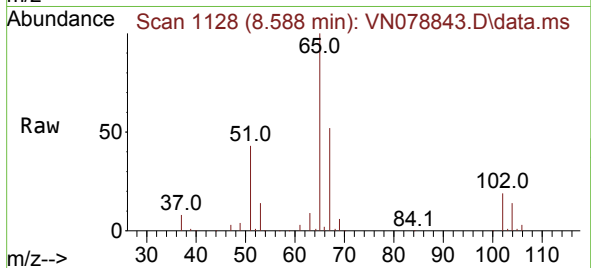
ClientSampleId :

Tgt Ion: 65 Resp: 139636

Ion Ratio Lower Upper

65 100

67 51.2 0.0 106.6



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.112 min Scan# 1217

Delta R.T. 0.006 min

Lab File: VN078843.D

Acq: 10 Aug 2023 17:33

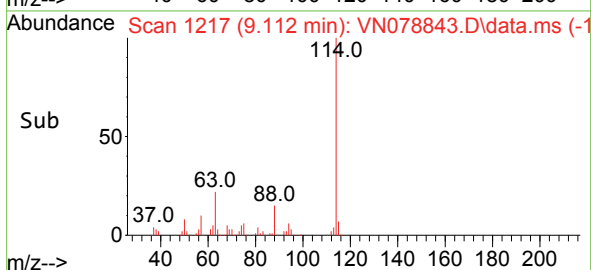
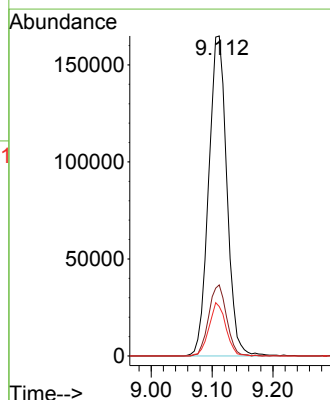
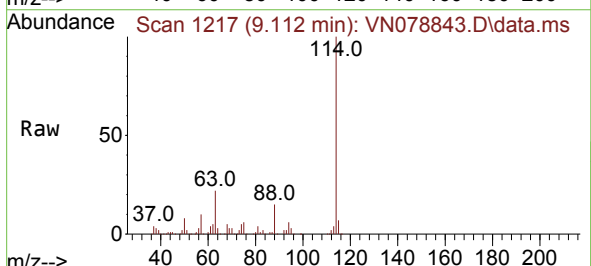
Tgt Ion: 114 Resp: 342458

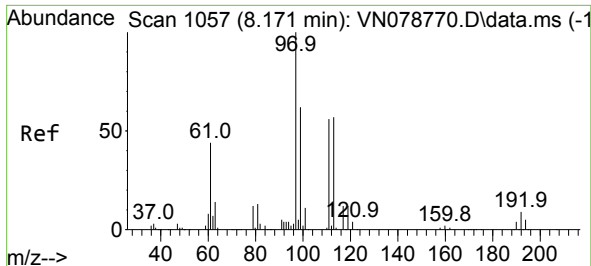
Ion Ratio Lower Upper

114 100

63 22.2 0.0 36.4

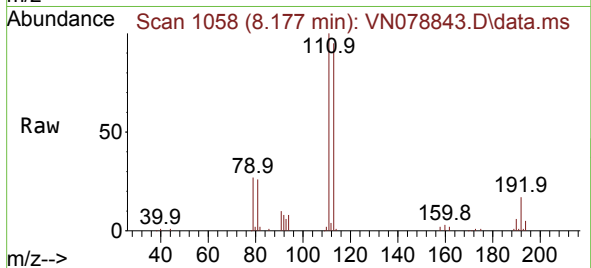
88 15.5 0.0 30.6



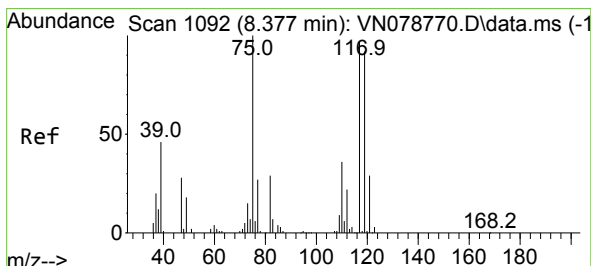
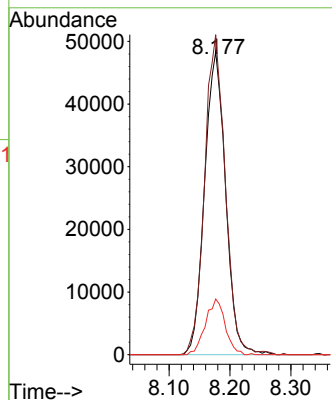
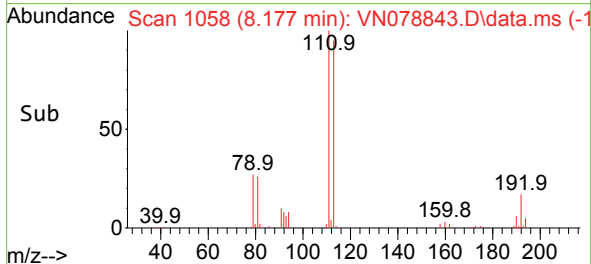


#35  
 Dibromofluoromethane  
 Concen: 50.071 ug/l  
 RT: 8.177 min Scan# 1057  
 Delta R.T. 0.006 min  
 Lab File: VN078843.D  
 Acq: 10 Aug 2023 17:33

Instrument :  
 MSVOA\_N  
 ClientSampleId :

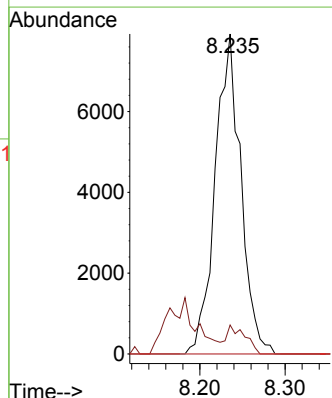
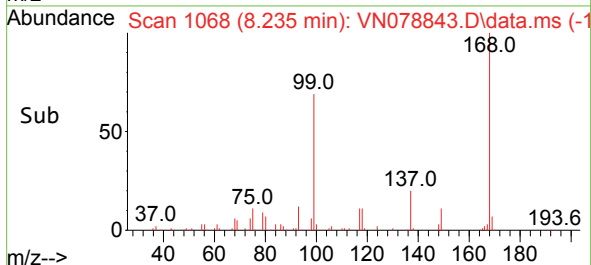
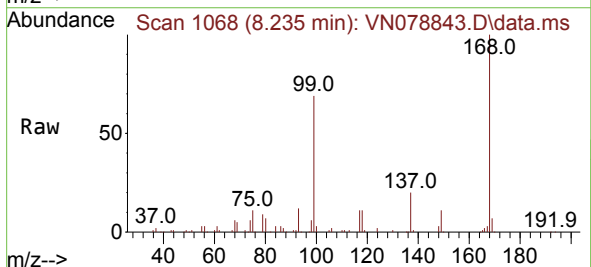


Tgt Ion: 113 Resp: 115798  
 Ion Ratio Lower Upper  
 113 100  
 111 104.3 82.6 123.8  
 192 17.3 12.7 19.1

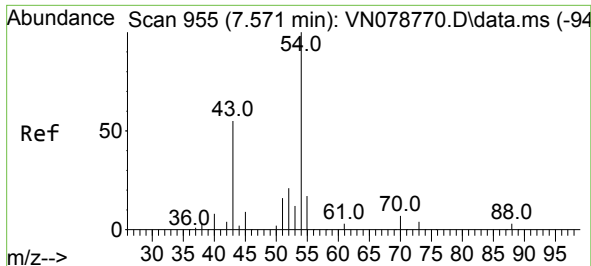


#36  
 1,1-Dichloropropene  
 Concen: 4.608 ug/l  
 RT: 8.235 min Scan# 1068  
 Delta R.T. -0.141 min  
 Lab File: VN078843.D  
 Acq: 10 Aug 2023 17:33

Tgt Ion: 75 Resp: 16534  
 Ion Ratio Lower Upper  
 75 100  
 110 6.6 19.1 57.3#  
 77 0.0 25.0 37.4#

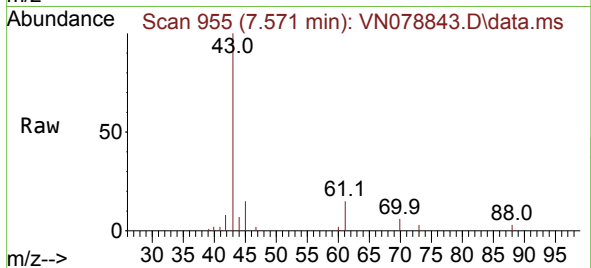




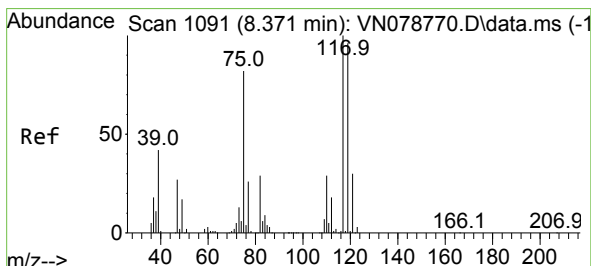
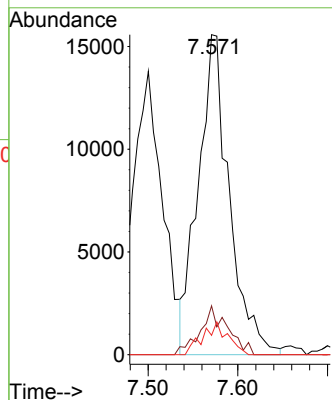
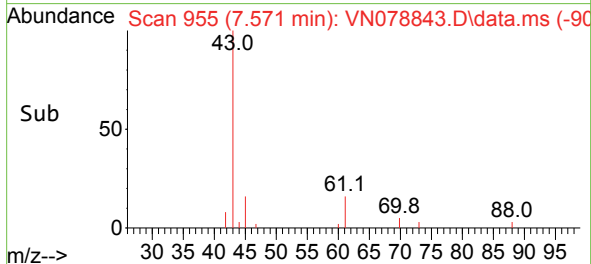


#37  
Ethyl Acetate  
Concen: 9.787 ug/l  
RT: 7.571 min Scan# 91  
Delta R.T. -0.000 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

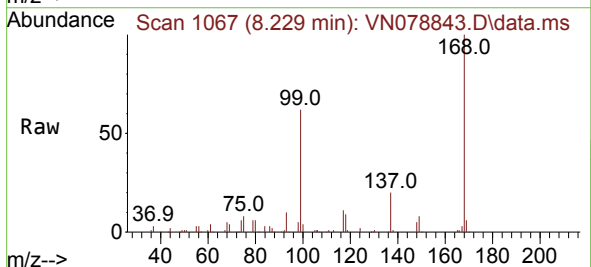
Instrument :  
MSVOA\_N  
ClientSampleId :



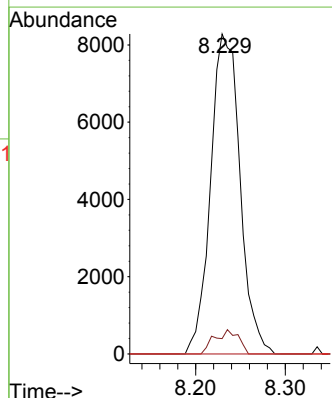
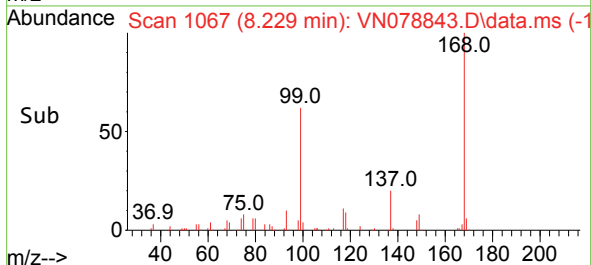
Tgt Ion: 43 Resp: 37336  
Ion Ratio Lower Upper  
43 100  
61 13.6 13.2 19.8  
70 8.3 11.3 16.9#

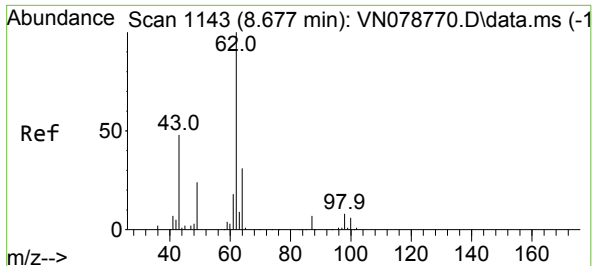


#38  
Carbon Tetrachloride  
Concen: 5.096 ug/l  
RT: 8.229 min Scan# 1067  
Delta R.T. -0.141 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33



Tgt Ion: 117 Resp: 18849  
Ion Ratio Lower Upper  
117 100  
119 4.8 77.3 115.9#  
121 0.0 23.3 34.9#





#42

1,2-Dichloroethane

Concen: 0.275 ug/l

RT: 8.688 min Scan# 1145

Delta R.T. 0.011 min

Lab File: VN078843.D

Acq: 10 Aug 2023 17:33

Instrument :

MSVOA\_N

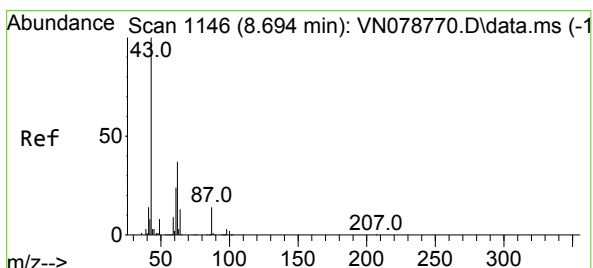
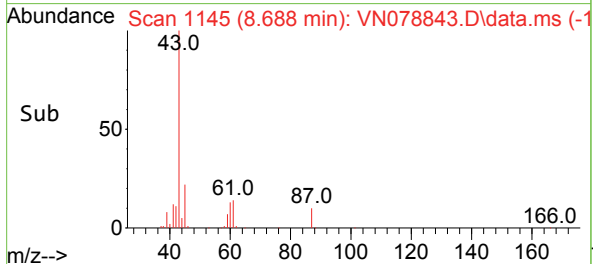
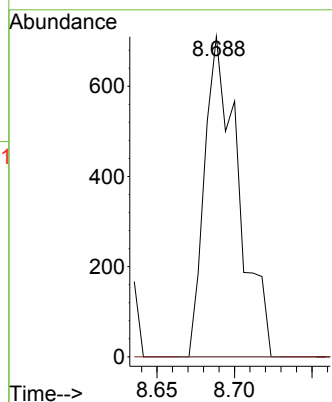
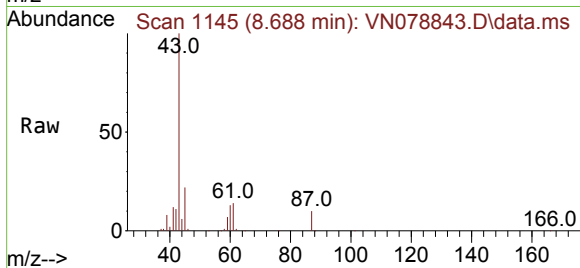
ClientSampleId :

Tgt Ion: 62 Resp: 1071

Ion Ratio Lower Upper

62 100

98 0.0 0.0 19.8



#43

Isopropyl Acetate

Concen: 36.366 ug/l

RT: 8.700 min Scan# 1147

Delta R.T. 0.006 min

Lab File: VN078843.D

Acq: 10 Aug 2023 17:33

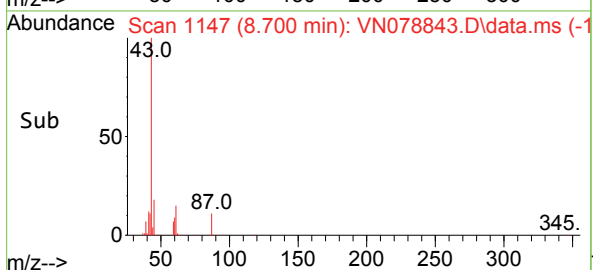
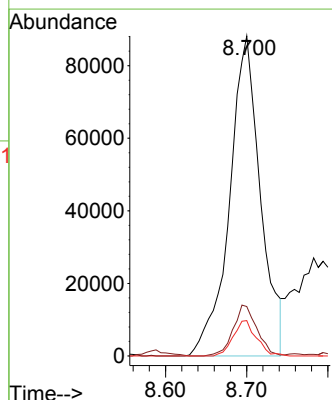
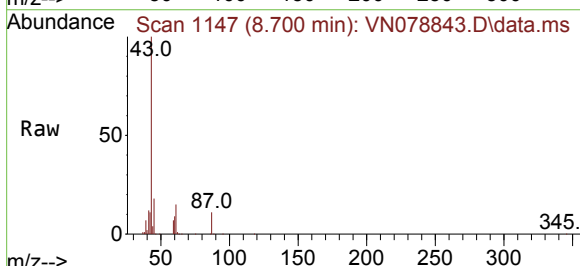
Tgt Ion: 43 Resp: 233894

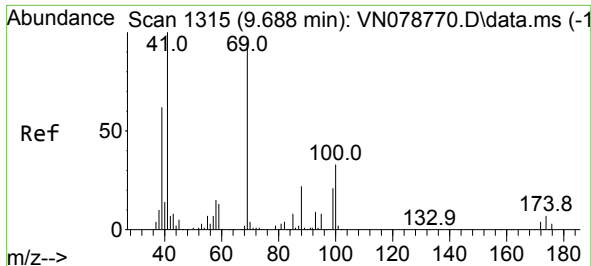
Ion Ratio Lower Upper

43 100

61 12.2 24.7 37.1#

87 8.3 14.6 21.8#

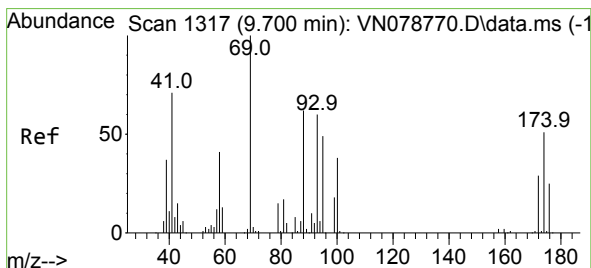
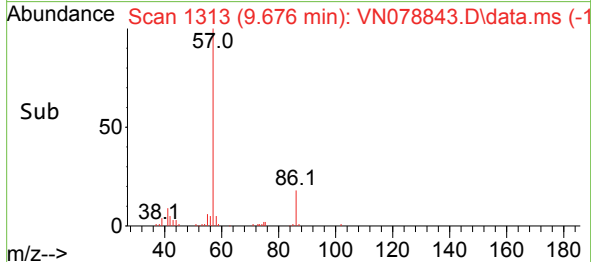
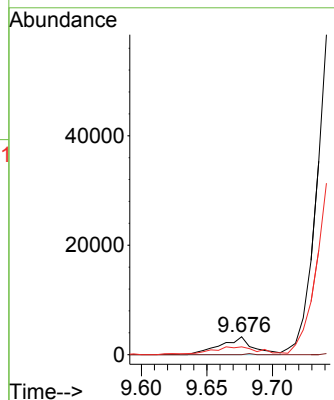
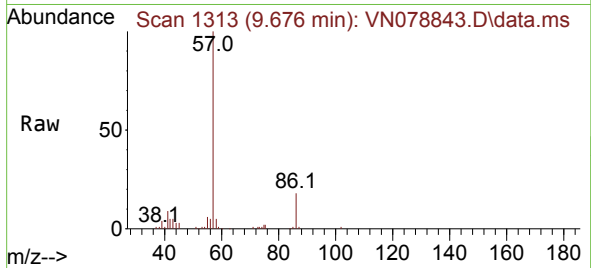




#48  
Methyl methacrylate  
Concen: 1.887 ug/l  
RT: 9.676 min Scan# 11  
Delta R.T. -0.012 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

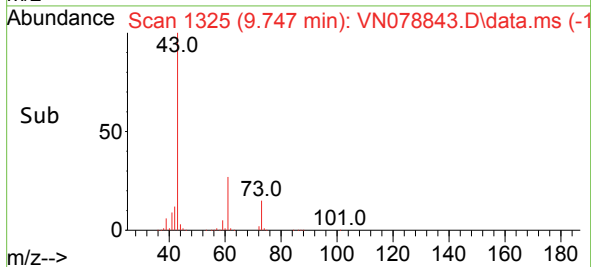
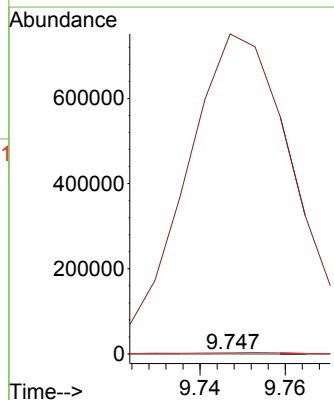
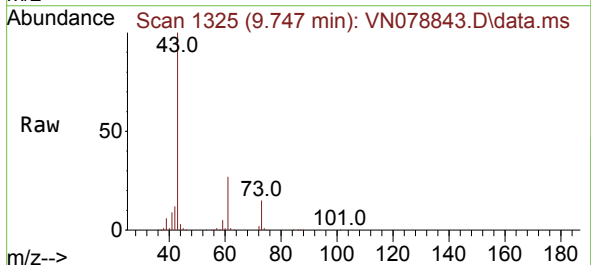
Instrument :  
MSVOA\_N  
ClientSampleId :

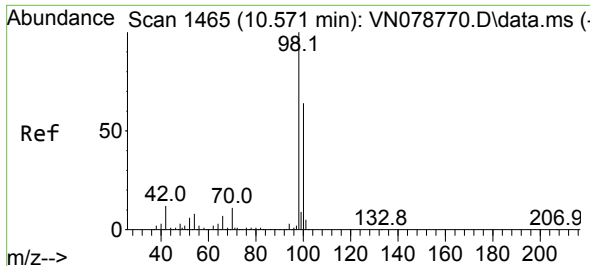
Tgt Ion: 41 Resp: 5609  
Ion Ratio Lower Upper  
41 100  
69 1.3 90.4 135.6#  
39 65.0 54.6 81.8



#49  
1,4-Dioxane  
Concen: 2.404 ug/l  
RT: 9.747 min Scan# 1325  
Delta R.T. 0.047 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

Tgt Ion: 88 Resp: 116  
Ion Ratio Lower Upper  
88 100  
43 1178218.1 17.0 25.6#  
58 5482.8 47.0 70.4#

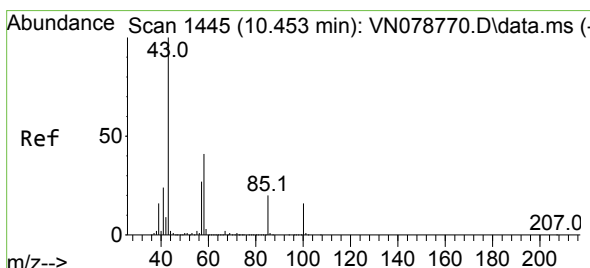
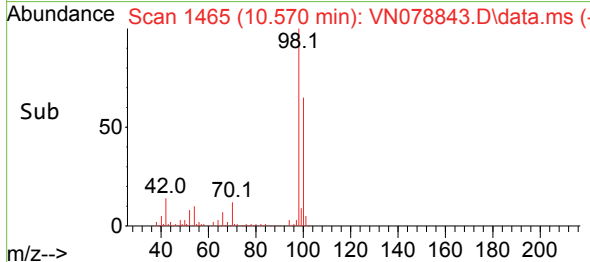
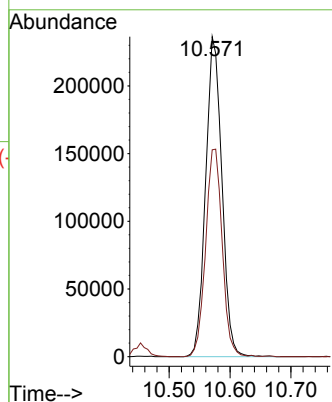
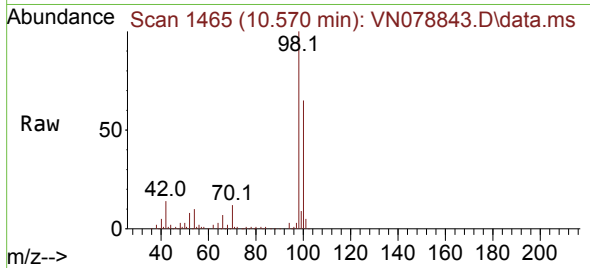




#50  
Toluene-d8  
Concen: 51.438 ug/l  
RT: 10.570 min Scan# 1465  
Delta R.T. -0.000 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

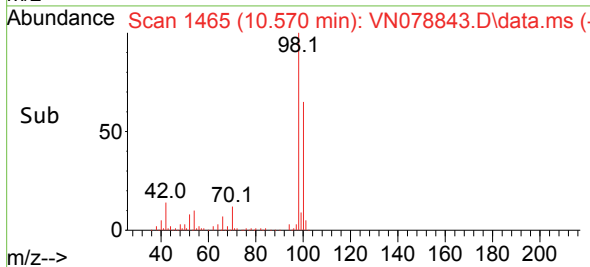
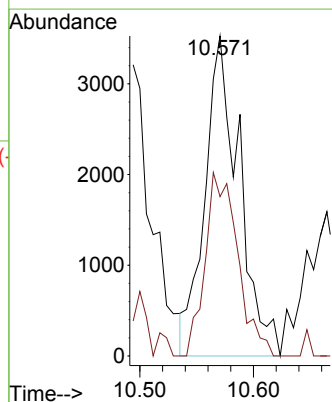
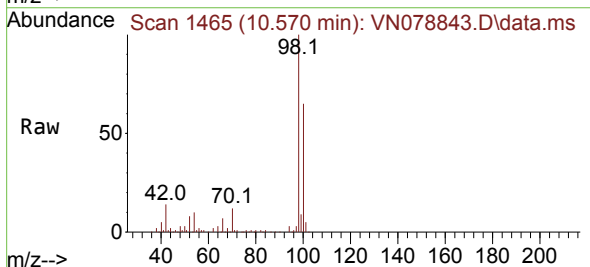
Instrument :  
MSVOA\_N  
ClientSampleId :

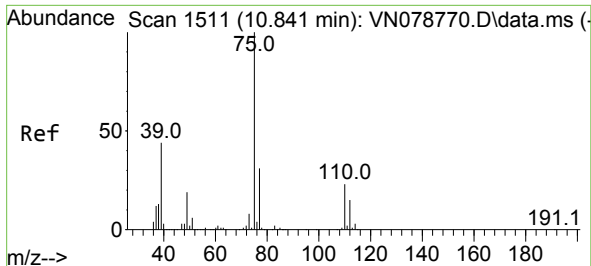
Tgt Ion: 98 Resp: 437767  
Ion Ratio Lower Upper  
98 100  
100 66.2 52.0 78.0



#51  
4-Methyl-2-Pentanone  
Concen: 1.887 ug/l  
RT: 10.570 min Scan# 1465  
Delta R.T. 0.117 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

Tgt Ion: 43 Resp: 7432  
Ion Ratio Lower Upper  
43 100  
58 54.1 36.6 54.8

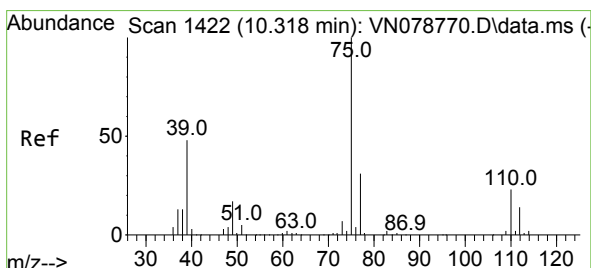
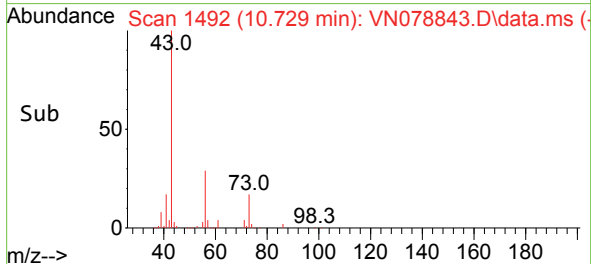
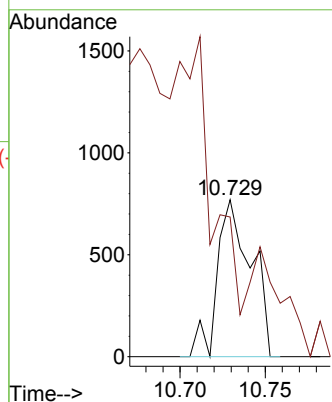
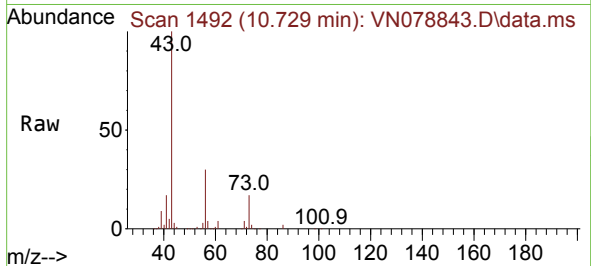




#53  
 t-1,3-Dichloropropene  
 Concen: 0.271 ug/l  
 RT: 10.729 min Scan# 14  
 Delta R.T. -0.112 min  
 Lab File: VN078843.D  
 Acq: 10 Aug 2023 17:33

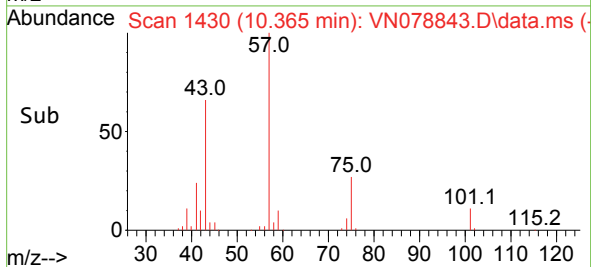
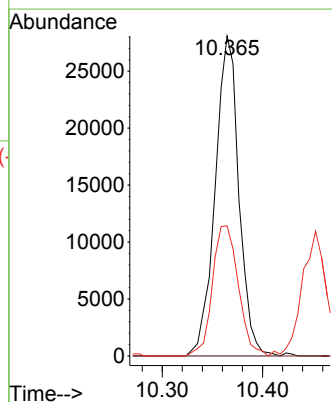
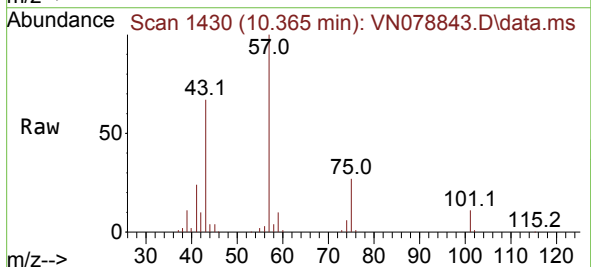
Instrument :  
 MSVOA\_N  
 ClientSampleId :

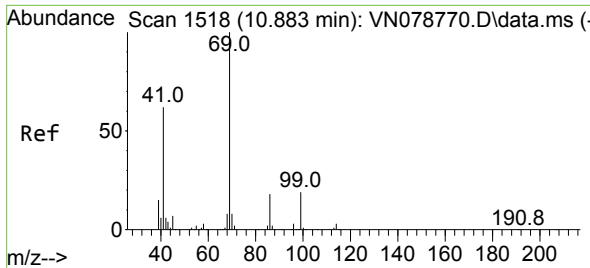
Tgt Ion: 75 Resp: 1066  
 Ion Ratio Lower Upper  
 75 100  
 77 54.9 25.4 38.0#



#54  
 cis-1,3-Dichloropropene  
 Concen: 10.759 ug/l  
 RT: 10.365 min Scan# 1430  
 Delta R.T. 0.047 min  
 Lab File: VN078843.D  
 Acq: 10 Aug 2023 17:33

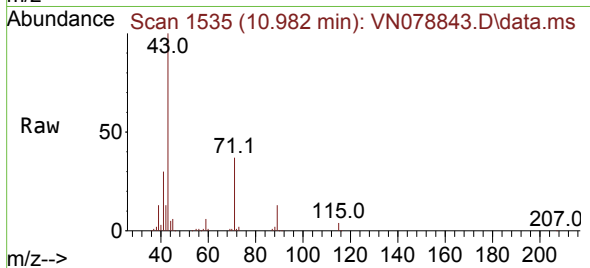
Tgt Ion: 75 Resp: 46028  
 Ion Ratio Lower Upper  
 75 100  
 77 0.0 26.1 39.1#  
 39 40.7 31.6 47.4



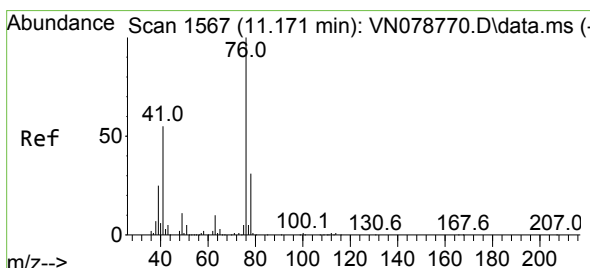
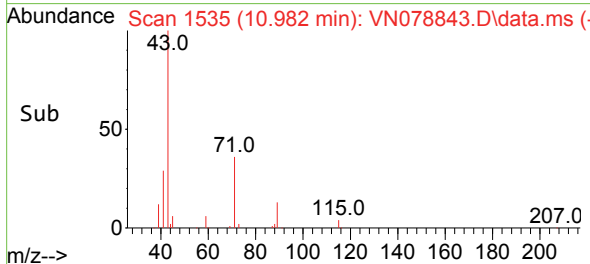
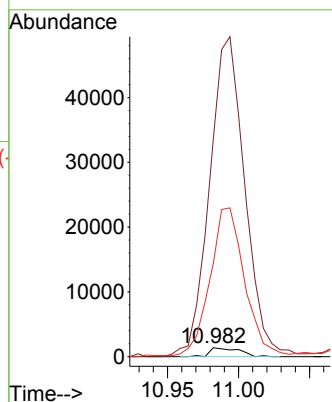


#56  
Ethyl methacrylate  
Concen: 0.524 ug/l  
RT: 10.982 min Scan# 1535  
Delta R.T. 0.100 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

Instrument :  
MSVOA\_N  
ClientSampleId :

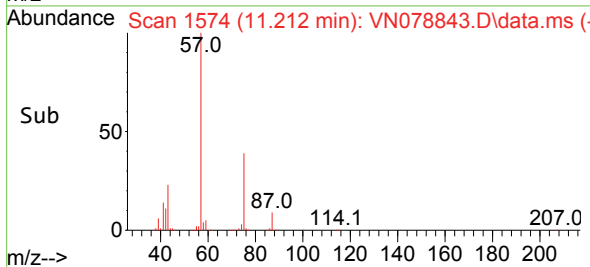
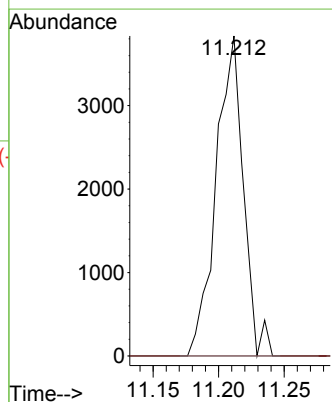
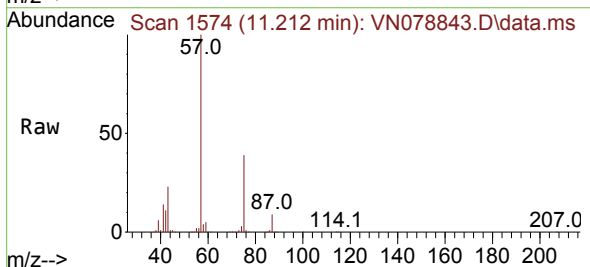


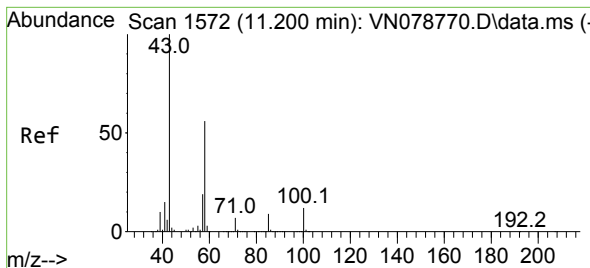
Tgt Ion: 69 Resp: 2002  
Ion Ratio Lower Upper  
69 100  
41 4270.8 39.6 59.4#  
39 1961.8 28.6 43.0#



#57  
1,3-Dichloropropane  
Concen: 1.208 ug/l  
RT: 11.212 min Scan# 1574  
Delta R.T. 0.041 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

Tgt Ion: 76 Resp: 5532  
Ion Ratio Lower Upper  
76 100  
78 0.0 26.1 39.1#

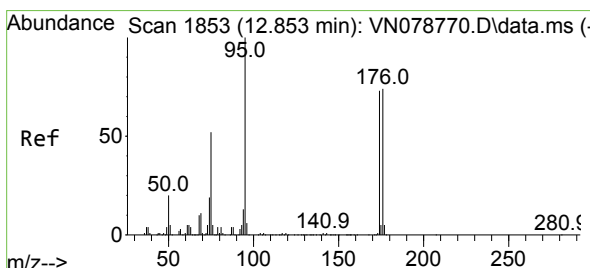
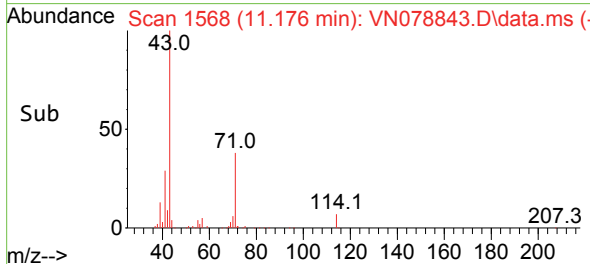
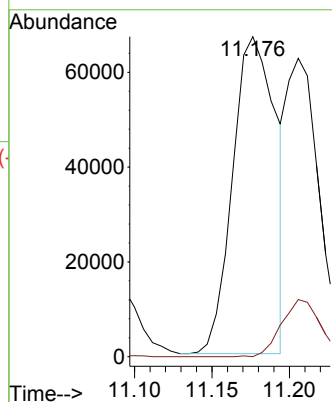
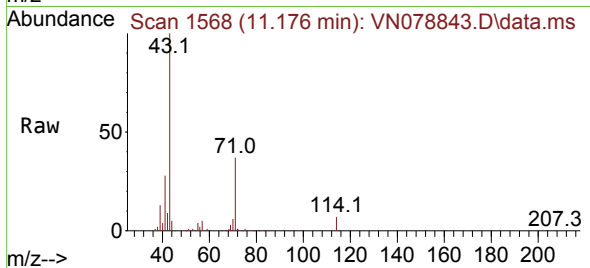




#59  
2-Hexanone  
Concen: 46.511 ug/l  
RT: 11.176 min Scan# 11176  
Delta R.T. -0.024 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

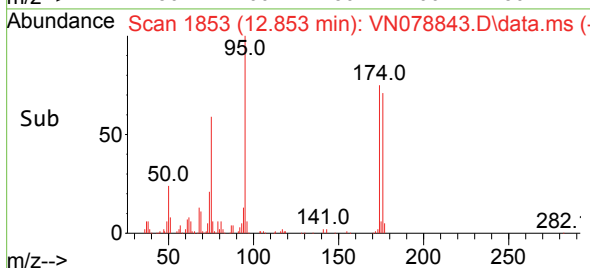
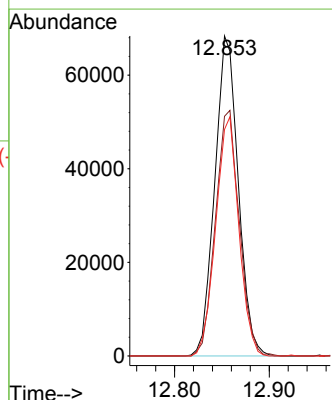
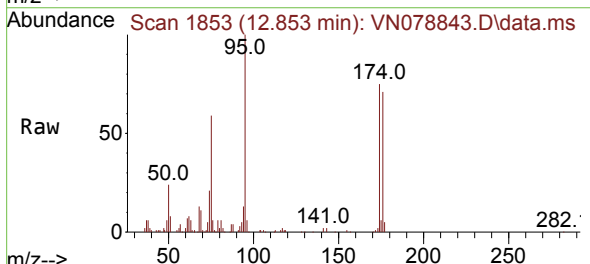
Instrument :  
MSVOA\_N  
ClientSampleId :

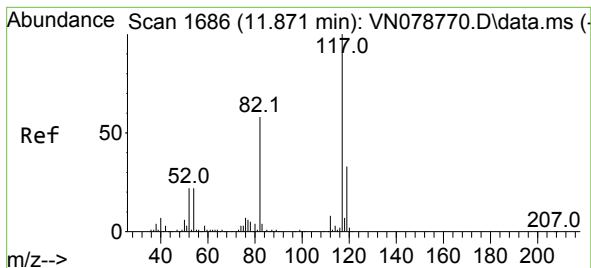
Tgt Ion: 43 Resp: 129741  
Ion Ratio Lower Upper  
43 100  
58 0.0 31.7 95.1#



#62  
4-Bromofluorobenzene  
Concen: 46.380 ug/l  
RT: 12.853 min Scan# 1853  
Delta R.T. -0.000 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

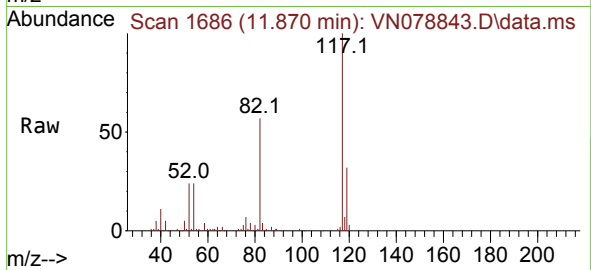
Tgt Ion: 95 Resp: 117965  
Ion Ratio Lower Upper  
95 100  
174 78.1 0.0 143.8  
176 73.4 0.0 135.8



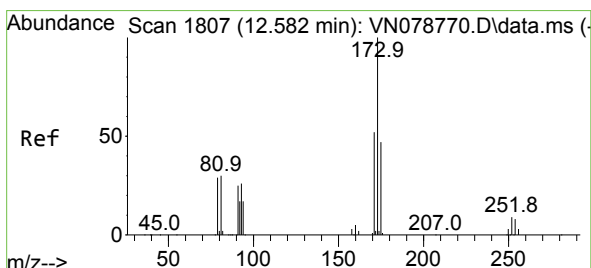
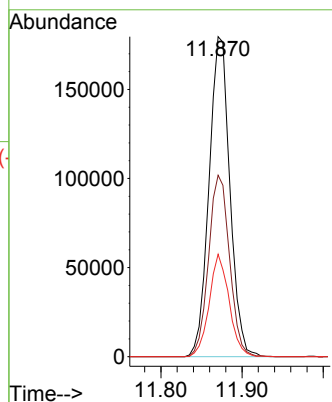
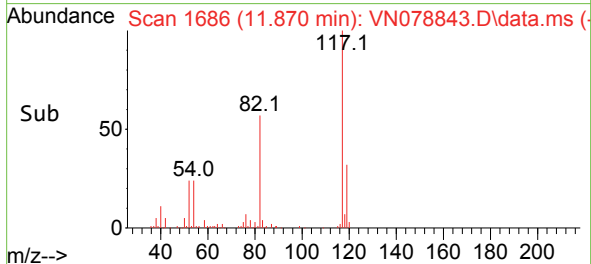


#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.870 min Scan# 117  
Delta R.T. -0.000 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

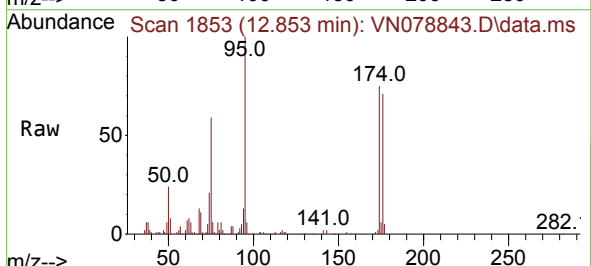
Instrument :  
MSVOA\_N  
ClientSampleId :



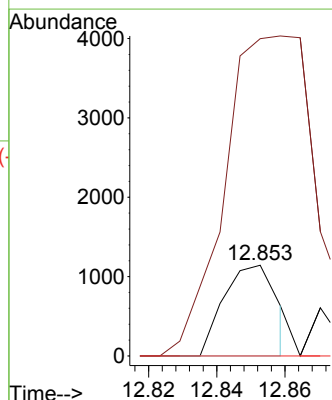
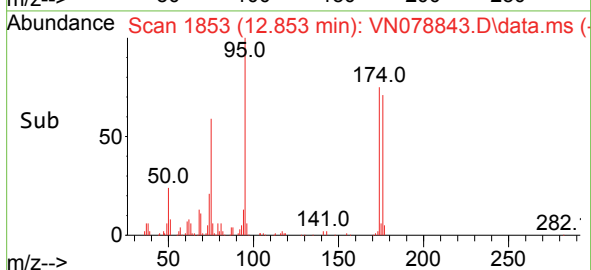
Tgt Ion:117 Resp: 320098  
Ion Ratio Lower Upper  
117 100  
82 56.7 44.0 66.0  
119 32.0 25.6 38.4



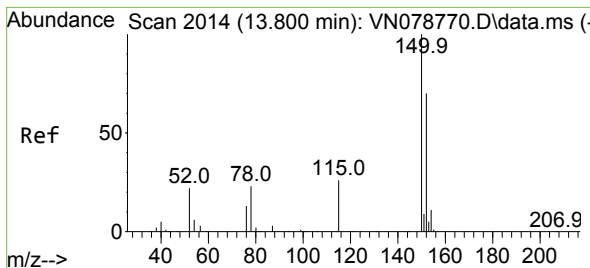
#71  
Bromoform  
Concen: 0.630 ug/l  
RT: 12.853 min Scan# 1853  
Delta R.T. 0.270 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33



Tgt Ion:173 Resp: 1241  
Ion Ratio Lower Upper  
173 100  
175 0.0 24.3 73.0#  
254 0.0 0.0 0.0







#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.800 min Scan# 20

Delta R.T. -0.000 min

Lab File: VN078843.D

Acq: 10 Aug 2023 17:33

Instrument :

MSVOA\_N

ClientSampleId :

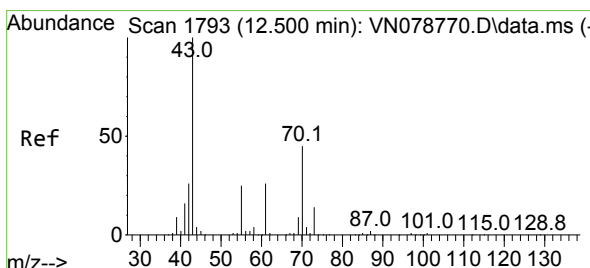
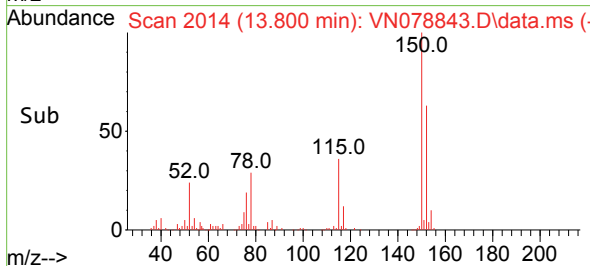
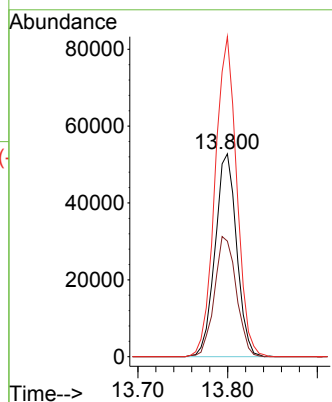
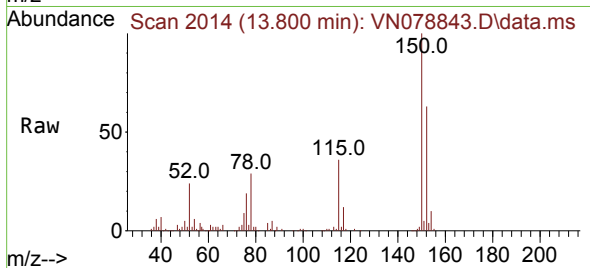
Tgt Ion:152 Resp: 87923

Ion Ratio Lower Upper

152 100

115 60.2 32.3 96.8

150 158.9 0.0 355.8



#74

N-ethyl acetate

Concen: 0.564 ug/l

RT: 12.464 min Scan# 1787

Delta R.T. -0.036 min

Lab File: VN078843.D

Acq: 10 Aug 2023 17:33

Tgt Ion: 43 Resp: 2215

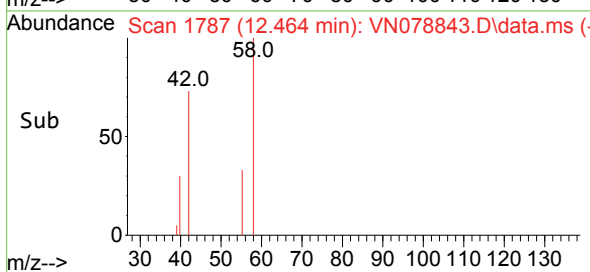
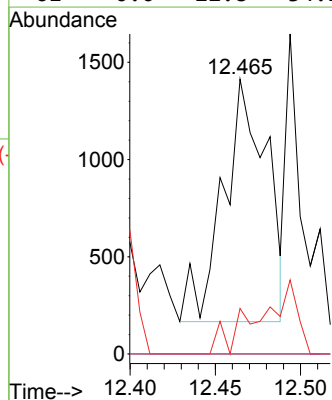
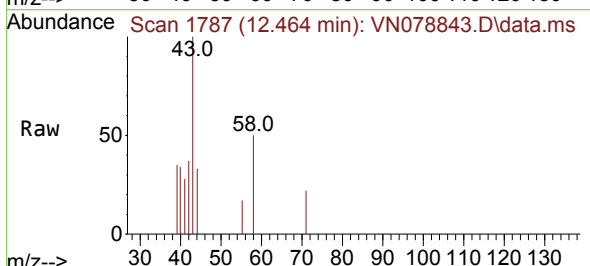
Ion Ratio Lower Upper

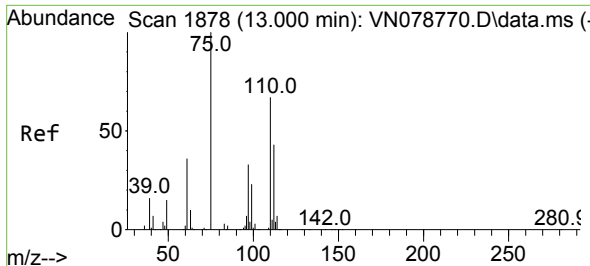
43 100

70 0.0 43.4 65.2#

55 0.0 21.4 32.0#

61 0.0 22.8 34.2#

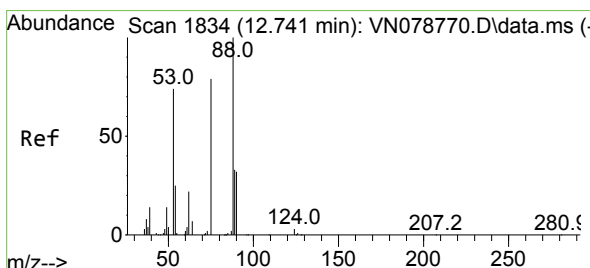
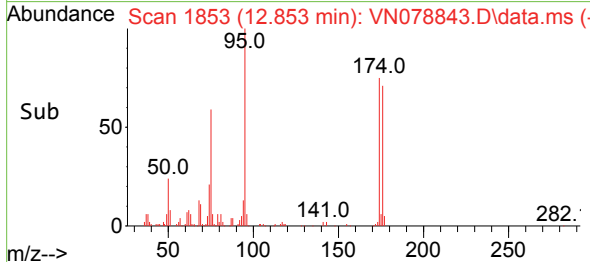
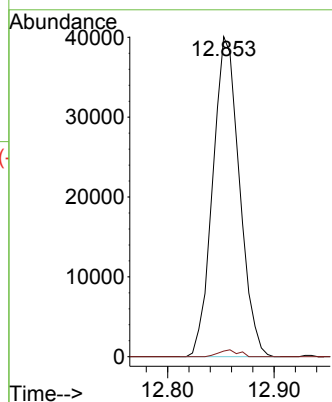
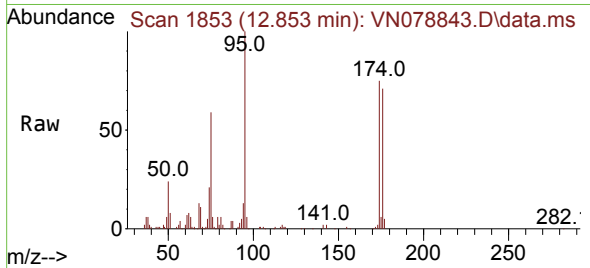




#76  
1,2,3-Trichloropropane  
Concen: 29.357 ug/l  
RT: 12.853 min Scan# 1853  
Delta R.T. -0.147 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

Instrument :  
MSVOA\_N  
ClientSampleId :

Tgt Ion: 75 Resp: 69787  
Ion Ratio Lower Upper  
75 100  
77 1.6 84.5 253.5#



#81  
trans-1,4-Dichloro-2-butene  
Concen: 78.776 ug/l  
RT: 12.853 min Scan# 1853  
Delta R.T. 0.111 min  
Lab File: VN078843.D  
Acq: 10 Aug 2023 17:33

Tgt Ion: 75 Resp: 69787  
Ion Ratio Lower Upper  
75 100  
53 0.1 67.4 101.2#  
89 0.0 38.8 58.2#

