

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN071421\  
 Data File : VN067735.D  
 Acq On : 14 Jul 2021 11:17  
 Operator : JC/MD  
 Sample : VN0714WBL02  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Jul 14 17:15:04 2021  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N071421W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Wed Jul 14 01:19:19 2021  
 Response via : Initial Calibration

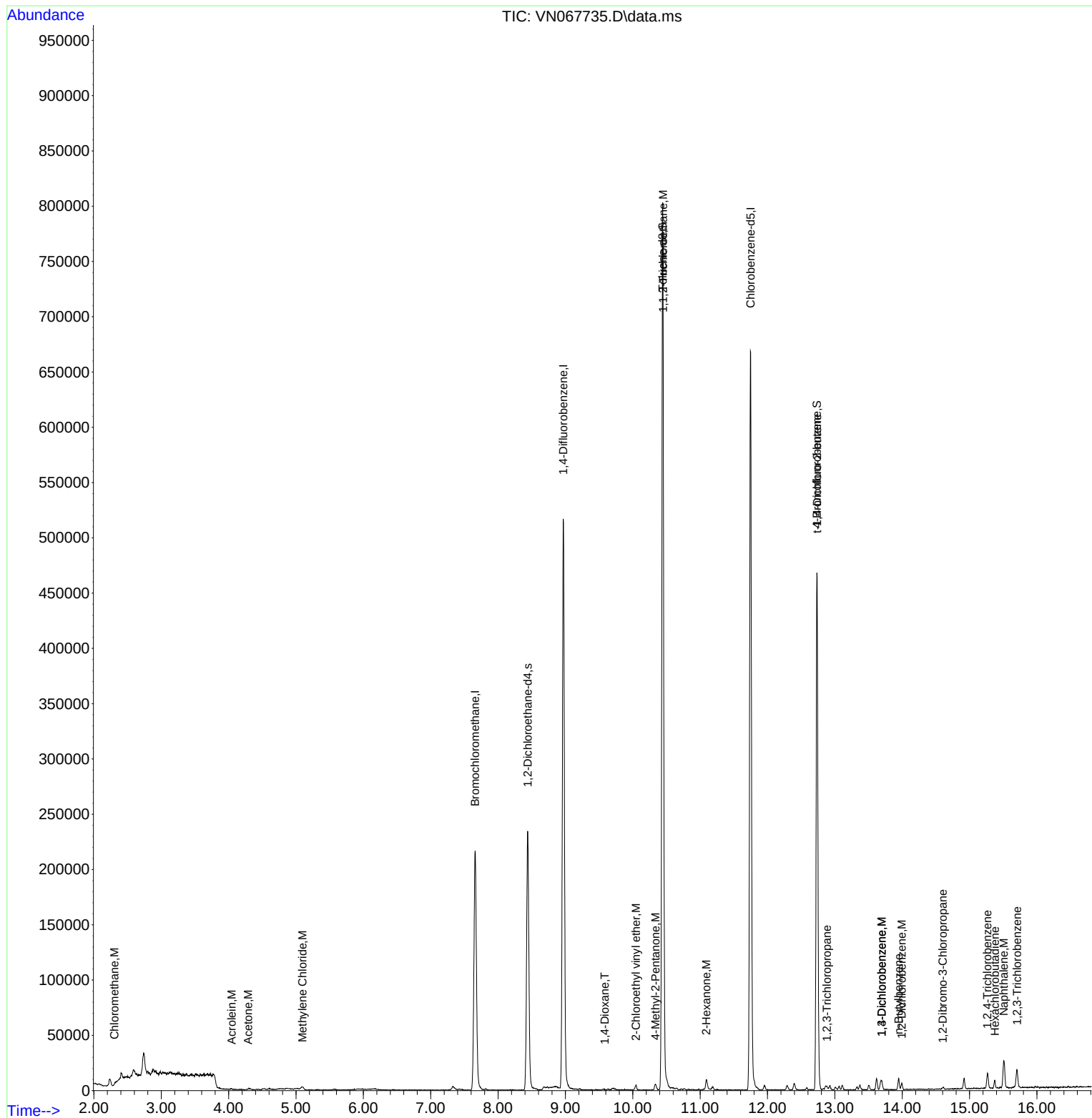
| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Bromochloromethane         | 7.659  | 128   | 76424    | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene       | 8.968  | 114   | 458934   | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5          | 11.749 | 117   | 394649   | 30.000   | ug/l   | 0.00     |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 27) 1,2-Dichloroethane-d4     | 8.440  | 65    | 200519   | 32.477   | ug/l   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 91 - 110 | Recovery | =      | 108.267% |
| 60) 4-Bromofluorobenzene      | 12.734 | 95    | 166049   | 25.908   | ug/l   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 63 - 112 | Recovery | =      | 86.367%  |
| 63) Toluene-d8                | 10.443 | 98    | 567964   | 31.290   | ug/l   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 91 - 112 | Recovery | =      | 104.300% |
| Target Compounds              |        |       |          |          |        |          |
|                               |        |       |          |          | Qvalue |          |
| 3) Chloromethane              | 2.303  | 50    | 979      | 0.201    | ug/l   | 96       |
| 13) Acrolein                  | 4.044  | 56    | 531      | 1.002    | ug/l # | 50       |
| 15) Acetone                   | 4.291  | 58    | 129      | 0.234    | ug/l # | 1        |
| 18) Methylene Chloride        | 5.095  | 84    | 1543     | 0.301    | ug/l # | 71       |
| 45) 1,4-Dioxane               | 9.582  | 88    | 53       | 0.572    | ug/l # | 5        |
| 50) 1,1,2-Trichloroethane     | 10.451 | 97    | 20947    | 3.719    | ug/l # | 1        |
| 55) 2-Chloroethyl vinyl ether | 10.046 | 63    | 2109     | 1.245    | ug/l # | 87       |
| 58) 4-Methyl-2-Pentanone      | 10.339 | 43    | 4272     | 0.630    | ug/l # | 72       |
| 59) 2-Hexanone                | 11.092 | 43    | 7500     | 1.579    | ug/l # | 92       |
| 72) 1,2,3-Trichloropropane    | 12.881 | 75    | 1500     | 0.255    | ug/l   | 69       |
| 77) t-1,4-Dichloro-2-butene   | 12.736 | 75    | 96161    | 48.368   | ug/l # | 4        |
| 83) 1,3-Dichlorobenzene       | 13.696 | 146   | 2964     | 0.277    | ug/l   | 81       |
| 84) 1,4-Dichlorobenzene       | 13.696 | 146   | 2964     | 0.284    | ug/l   | 79       |
| 85) n-Butylbenzene            | 13.946 | 91    | 6392     | 0.378    | ug/l   | 96       |
| 87) 1,2-Dichlorobenzene       | 13.994 | 146   | 2431     | 0.238    | ug/l   | 89       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.603 | 75    | 352      | 0.278    | ug/l # | 25       |
| 89) 1,2,4-Trichlorobenzene    | 15.265 | 180   | 4754     | 1.019    | ug/l # | 88       |
| 90) Hexachlorobutadiene       | 15.375 | 225   | 1323     | 0.590    | ug/l   | 83       |
| 91) Naphthalene               | 15.507 | 128   | 24179    | 1.825    | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene    | 15.705 | 180   | 5561     | 1.245    | ug/l   | 86       |
| -----                         |        |       |          |          |        |          |

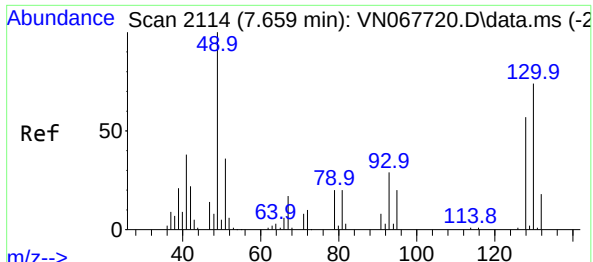
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN071421\  
Data File : VN067735.D  
Acq On : 14 Jul 2021 11:17  
Operator : JC/MD  
Sample : VN0714WBL02  
Misc : 5.00mL/MSVOA\_N/WATER  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampled :

Quant Time: Jul 14 17:15:04 2021  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N071421W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Wed Jul 14 01:19:19 2021  
Response via : Initial Calibration

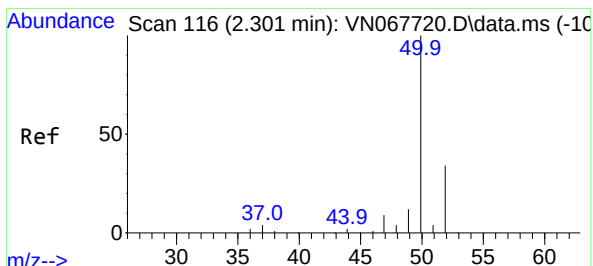
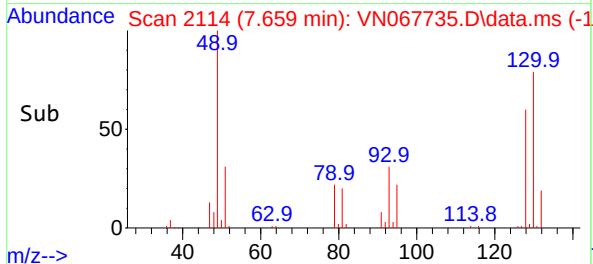
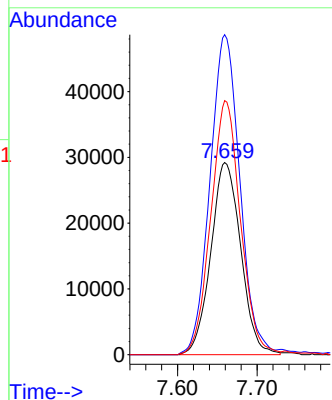
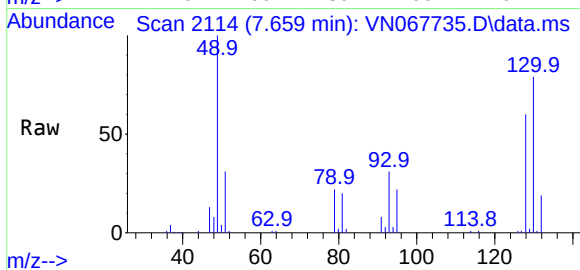




#1  
Bromochloromethane  
Concen: 30.000 ug/l  
RT: 7.659 min Scan# 2114  
Delta R.T. 0.000 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

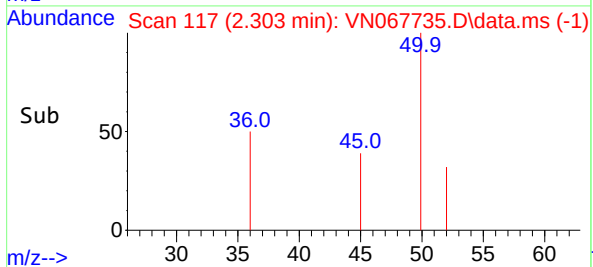
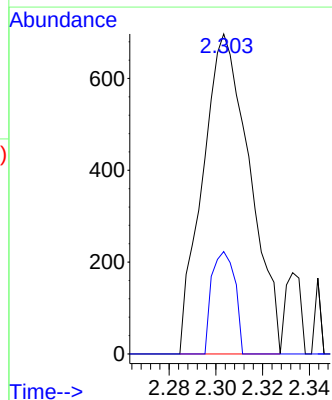
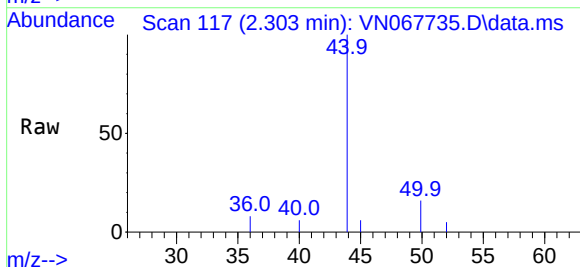
Instrument :  
MSVOA\_N  
ClientSampled :

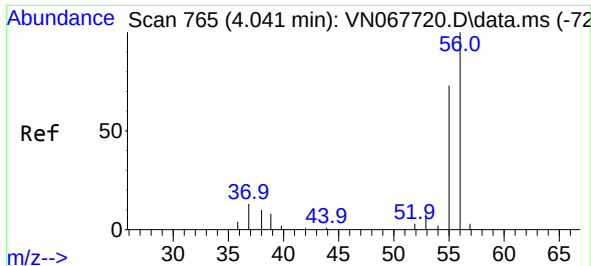
Tgt Ion:128 Resp: 76424  
Ion Ratio Lower Upper  
128 100  
49 165.8 0.0 433.0  
130 131.0 0.0 323.8



#3  
Chloromethane  
Concen: 0.201 ug/l  
RT: 2.303 min Scan# 117  
Delta R.T. 0.003 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

Tgt Ion: 50 Resp: 979  
Ion Ratio Lower Upper  
50 100  
52 32.0 27.2 40.8

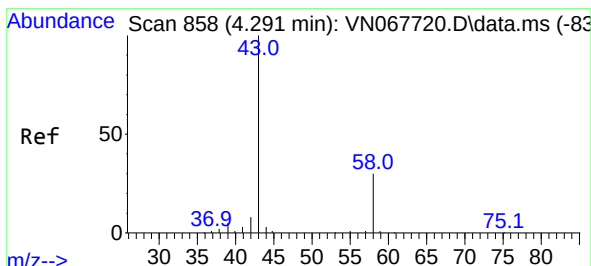
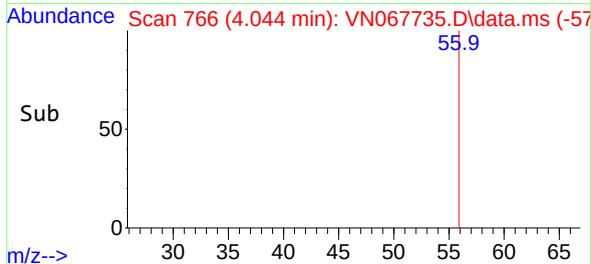
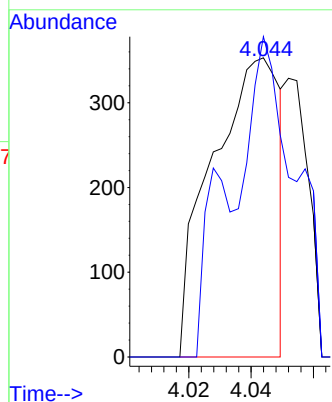
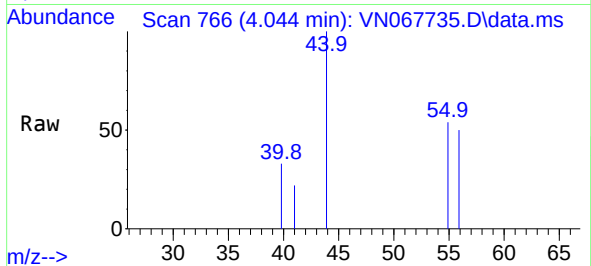




#13  
Acrolein  
Concen: 1.002 ug/l  
RT: 4.044 min Scan# 766  
Delta R.T. 0.003 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

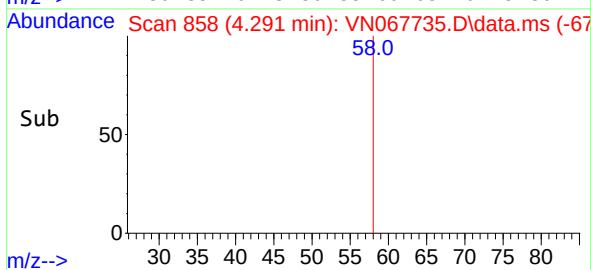
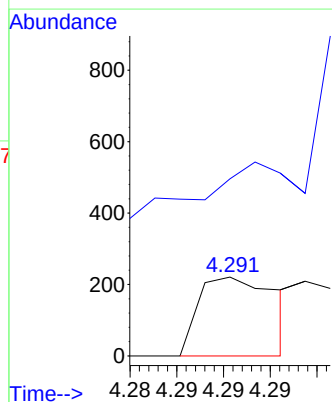
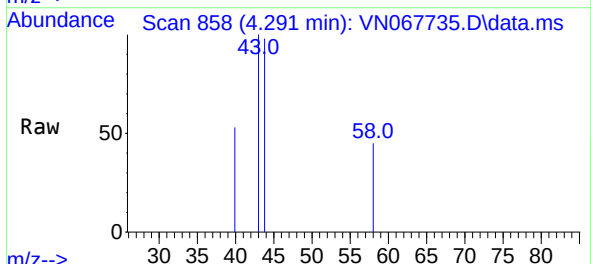
Instrument :  
MSVOA\_N  
ClientSampled :

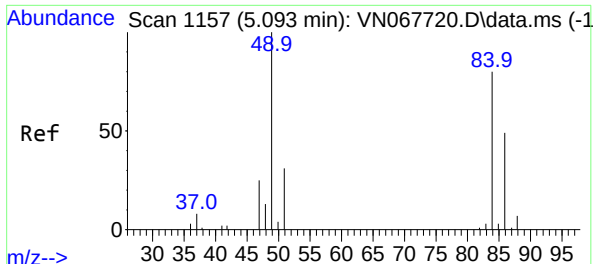
Tgt Ion: 56 Resp: 531  
Ion Ratio Lower Upper  
56 100  
55 64.4 0.2 0.2#



#15  
Acetone  
Concen: 0.234 ug/l  
RT: 4.291 min Scan# 858  
Delta R.T. -0.000 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

Tgt Ion: 58 Resp: 129  
Ion Ratio Lower Upper  
58 100  
43 25.8 268.2 402.4#





#18

Methylene Chloride

Concen: 0.301 ug/l

RT: 5.095 min Scan# 1158

Delta R.T. 0.003 min

Lab File: VN067735.D

Acq: 14 Jul 2021 11:17

Tgt Ion: 84 Resp: 1543

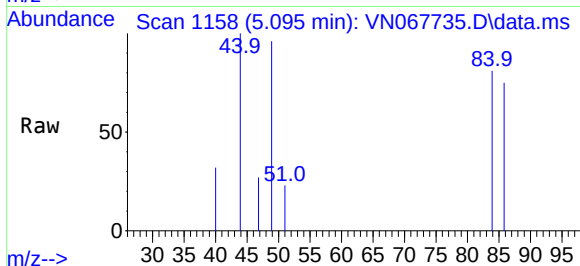
Ion Ratio Lower Upper

84 100

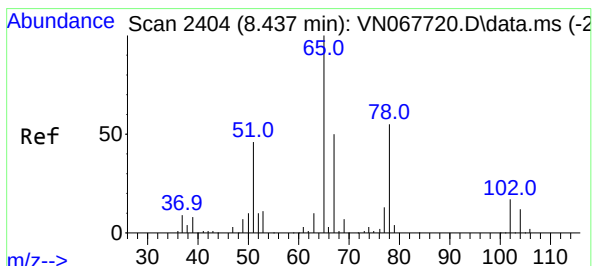
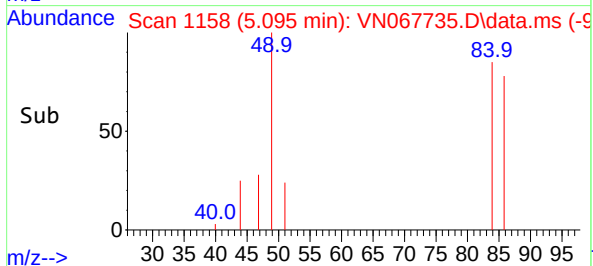
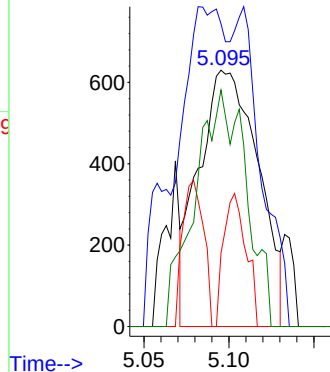
49 117.9 100.5 150.7

51 40.4 30.7 46.1

86 130.3 49.4 74.2#



Abundance



#27

1,2-Dichloroethane-d4

Concen: 32.477 ug/l

RT: 8.440 min Scan# 2405

Delta R.T. 0.003 min

Lab File: VN067735.D

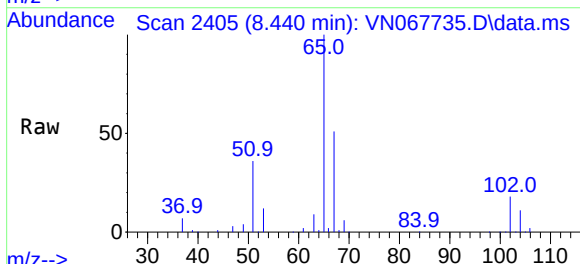
Acq: 14 Jul 2021 11:17

Tgt Ion: 65 Resp: 200519

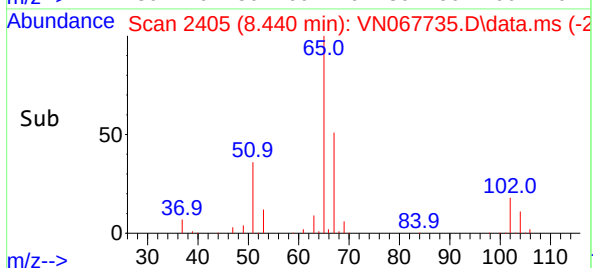
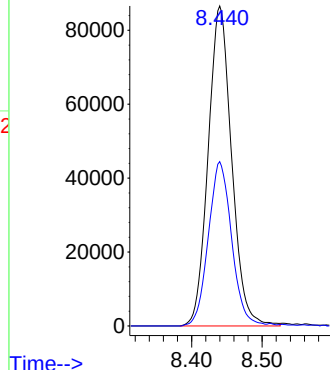
Ion Ratio Lower Upper

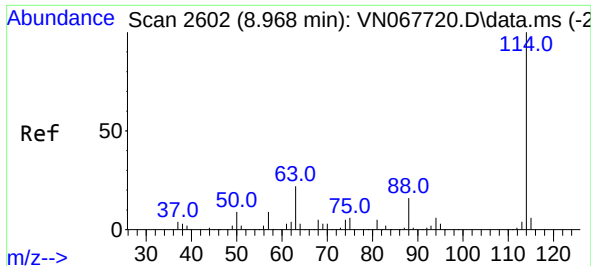
65 100

67 50.8 40.6 60.8



Abundance

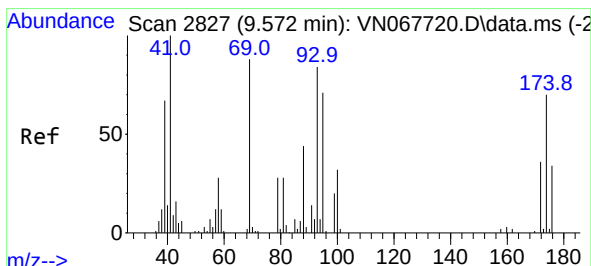
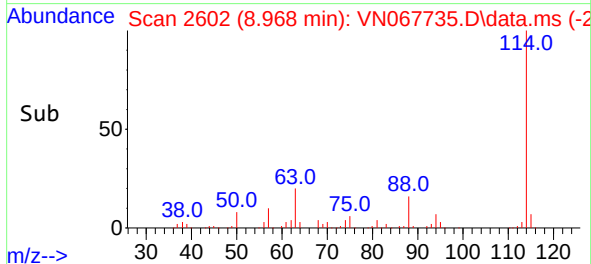
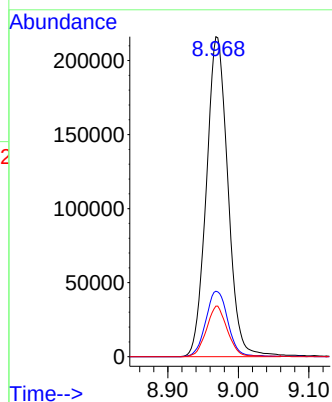
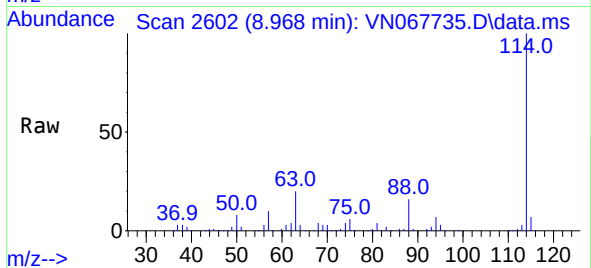




#28  
1,4-Difluorobenzene  
Concen: 30.000 ug/l  
RT: 8.968 min Scan# 2602  
Delta R.T. -0.000 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

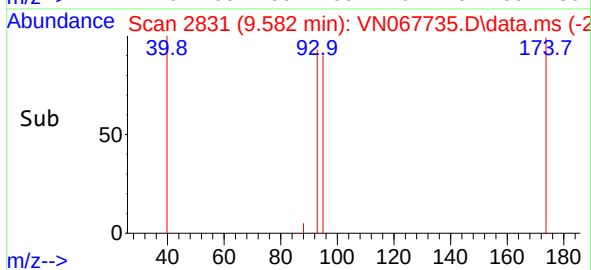
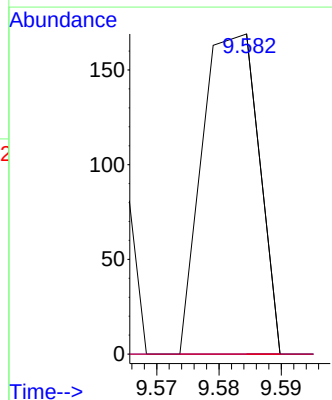
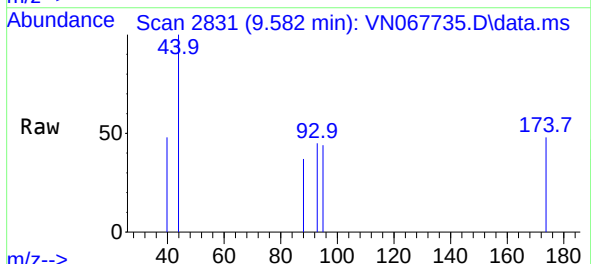
Instrument :  
MSVOA\_N  
ClientSampleId :

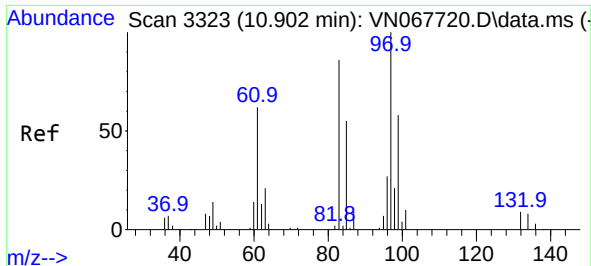
Tgt Ion:114 Resp: 458934  
Ion Ratio Lower Upper  
114 100  
63 20.9 17.2 25.8  
88 15.2 12.4 18.6



#45  
1,4-Dioxane  
Concen: 0.572 ug/l  
RT: 9.582 min Scan# 2831  
Delta R.T. 0.011 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

Tgt Ion: 88 Resp: 53  
Ion Ratio Lower Upper  
88 100  
43 101.9 26.9 40.3#  
58 0.0 52.2 78.4#

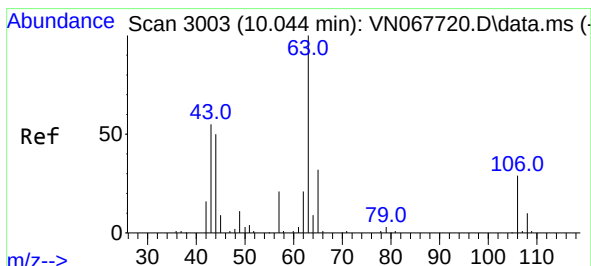
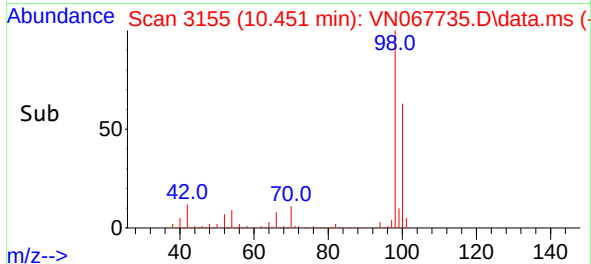
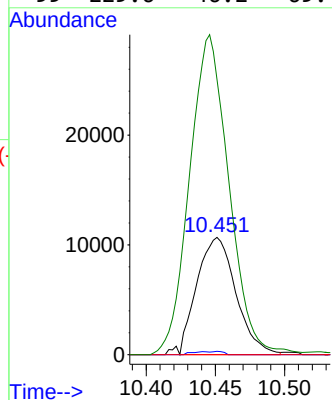
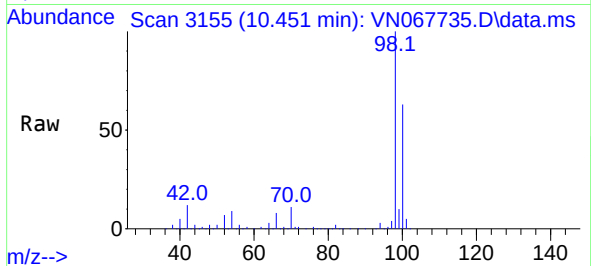




#50  
1,1,2-Trichloroethane  
Concen: 3.719 ug/l  
RT: 10.451 min Scan# 3155  
Delta R.T. -0.451 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

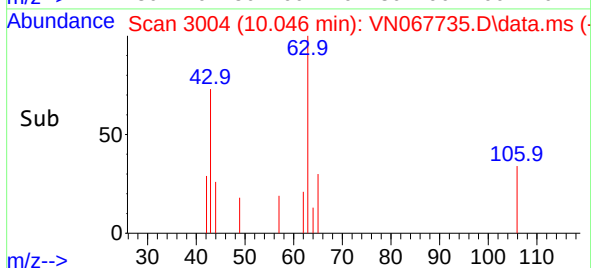
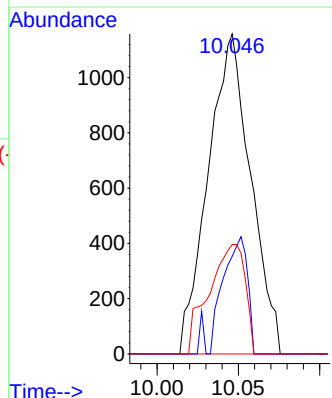
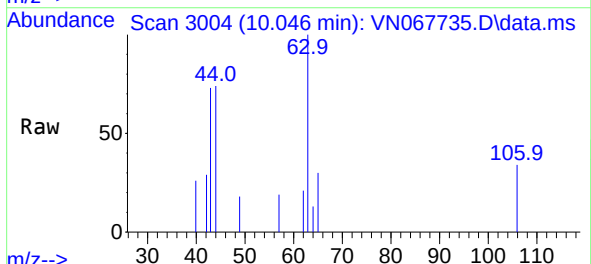
Instrument :  
MSVOA\_N  
ClientSampleId :

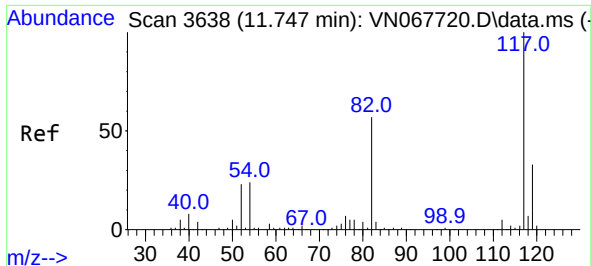
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 97    | Resp: | 20947  |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 83       | 2.9   | 69.0  | 103.4# |
| 85       | 0.0   | 43.8  | 65.8#  |
| 99       | 229.6 | 46.2  | 69.4#  |



#55  
2-Chloroethyl vinyl ether  
Concen: 1.245 ug/l  
RT: 10.046 min Scan# 3004  
Delta R.T. 0.003 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 63    | Resp: | 2109  |
| Ion      | Ratio | Lower | Upper |
| 63       | 100   |       |       |
| 65       | 20.8  | 25.5  | 38.3# |
| 106      | 25.2  | 22.1  | 33.1  |

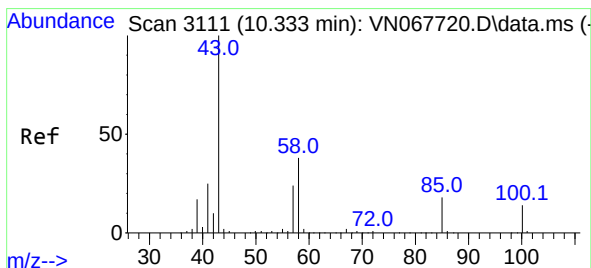
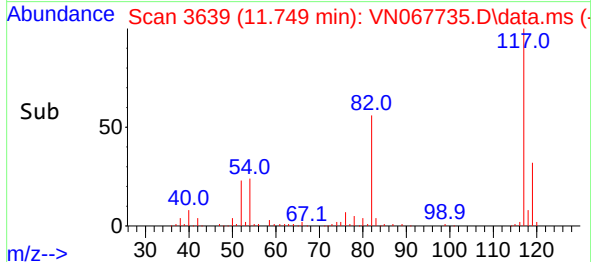
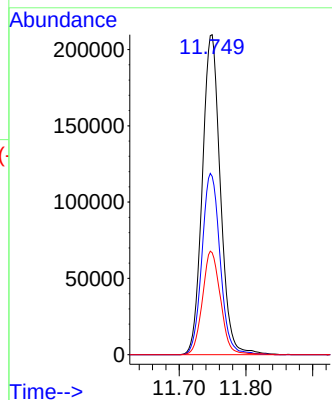
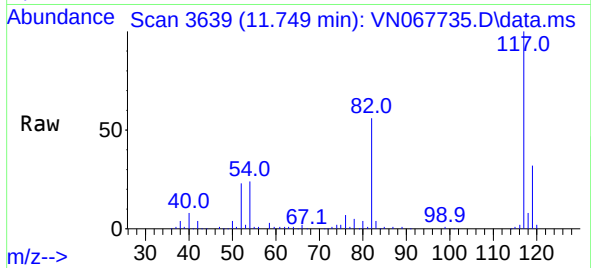




#57  
Chlorobenzene-d5  
Concen: 30.000 ug/l  
RT: 11.749 min Scan# 3639  
Delta R.T. 0.003 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

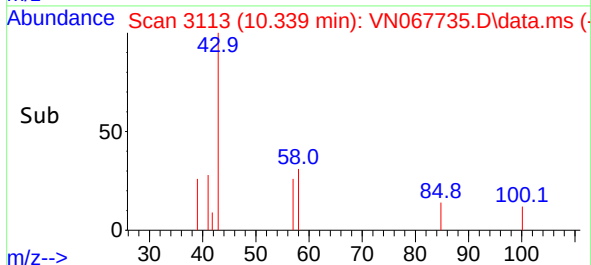
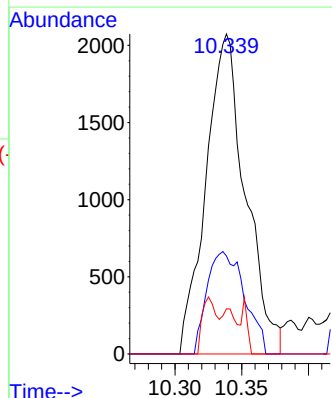
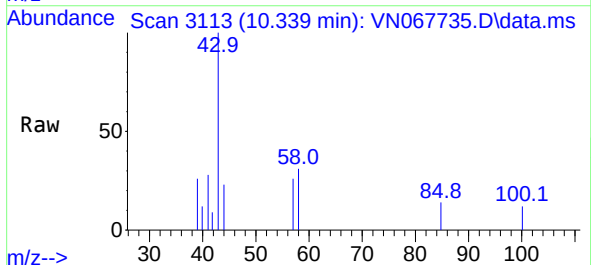
Instrument :  
MSVOA\_N  
ClientSampled :

Tgt Ion:117 Resp: 394649  
Ion Ratio Lower Upper  
117 100  
82 57.1 45.4 68.0  
119 32.2 25.7 38.5

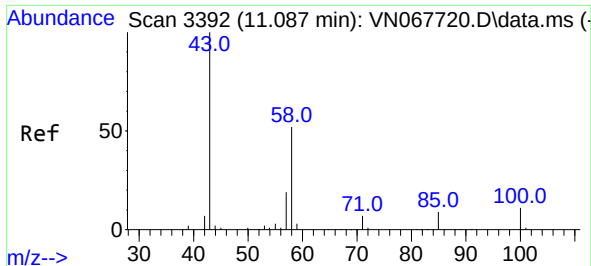


#58  
4-Methyl-2-Pentanone  
Concen: 0.630 ug/l  
RT: 10.339 min Scan# 3113  
Delta R.T. 0.005 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

Tgt Ion: 43 Resp: 4272  
Ion Ratio Lower Upper  
43 100  
58 20.7 29.9 44.9#  
85 5.4 14.1 21.1#



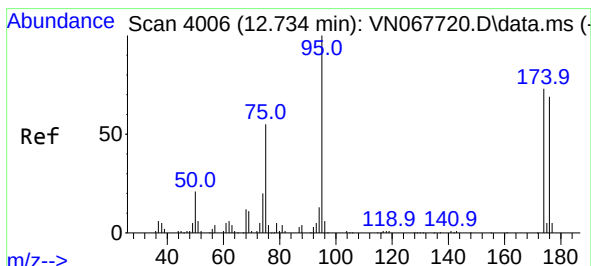
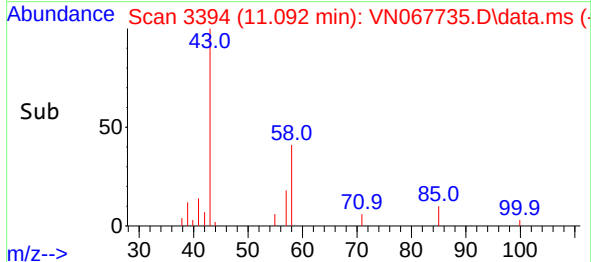
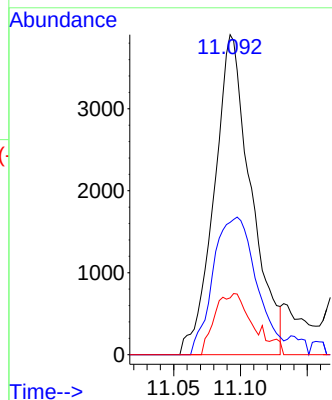
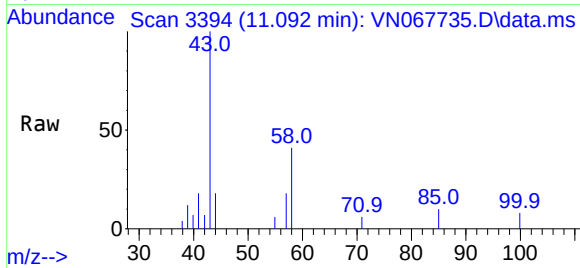




#59  
2-Hexanone  
Concen: 1.579 ug/l  
RT: 11.092 min Scan# 3394  
Delta R.T. 0.005 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

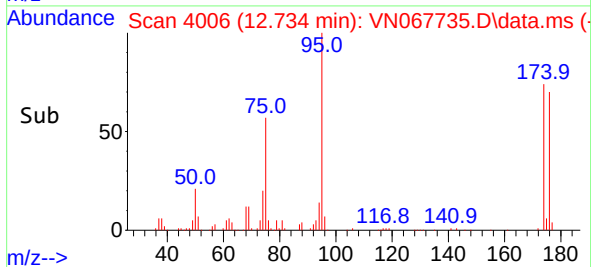
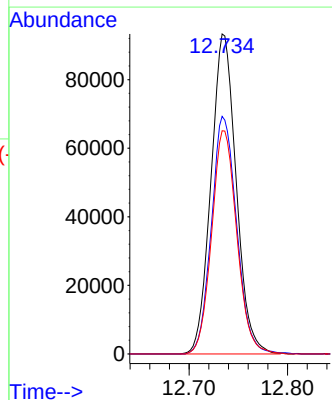
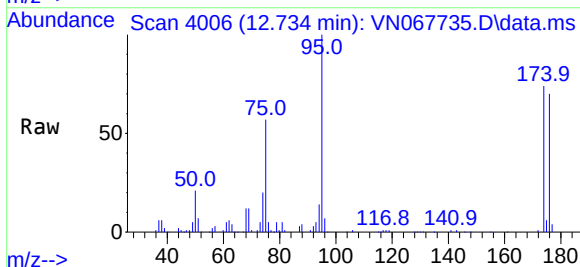
Instrument :  
MSVOA\_N  
ClientSampled :

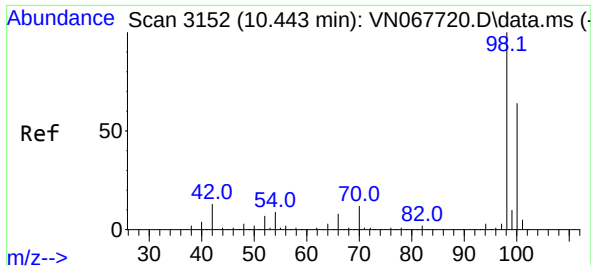
Tgt Ion: 43 Resp: 7500  
Ion Ratio Lower Upper  
43 100  
58 50.5 41.5 62.3  
57 7.3 15.1 22.7#



#60  
4-Bromofluorobenzene  
Concen: 25.908 ug/l  
RT: 12.734 min Scan# 4006  
Delta R.T. -0.000 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

Tgt Ion: 95 Resp: 166049  
Ion Ratio Lower Upper  
95 100  
174 74.5 57.1 85.7  
176 69.8 54.6 81.8

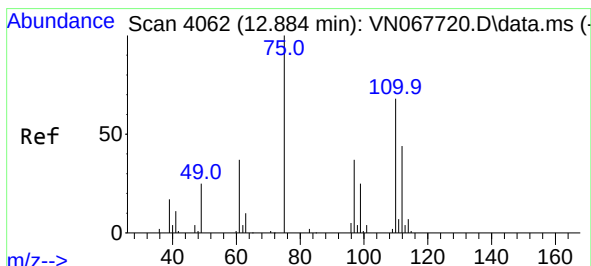
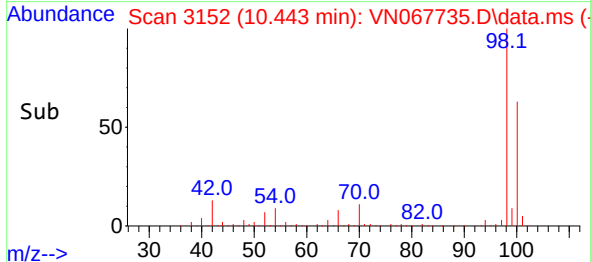
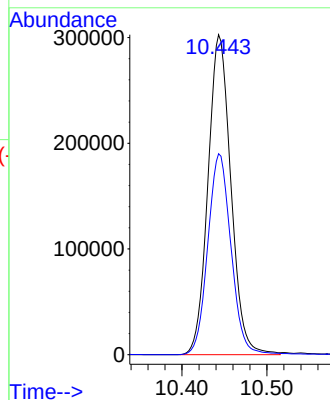
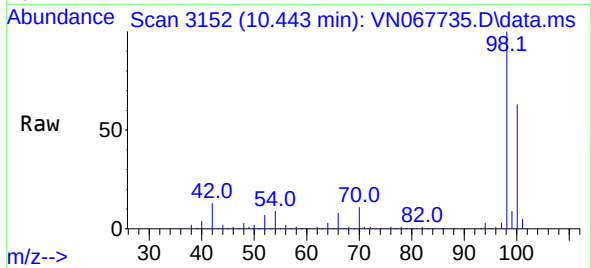




#63  
Toluene-d8  
Concen: 31.290 ug/l  
RT: 10.443 min Scan# 3152  
Delta R.T. -0.000 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

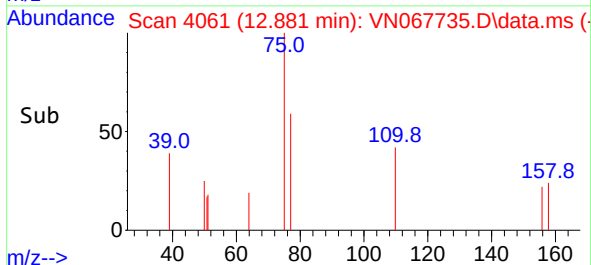
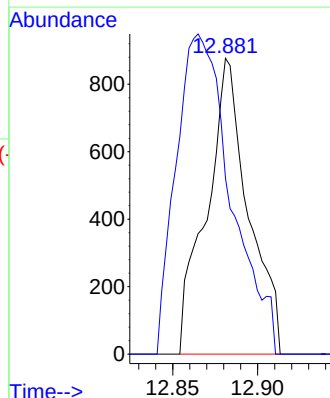
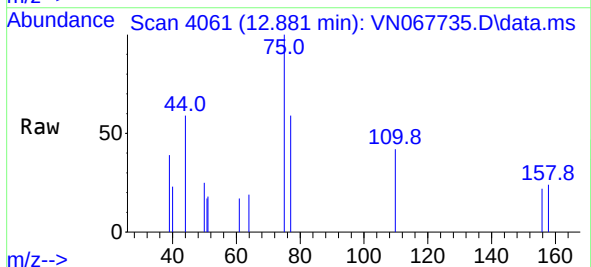
Instrument :  
MSVOA\_N  
ClientSampled :

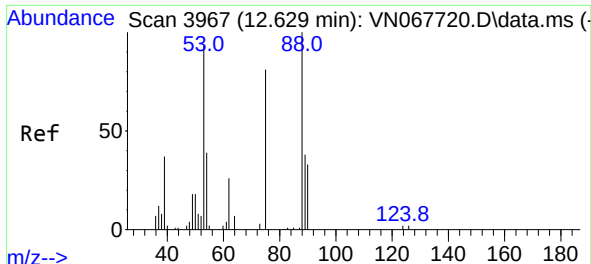
Tgt Ion: 98 Resp: 567964  
Ion Ratio Lower Upper  
98 100  
100 63.6 51.0 76.4



#72  
1,2,3-Trichloropropane  
Concen: 0.255 ug/l  
RT: 12.881 min Scan# 4061  
Delta R.T. -0.003 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

Tgt Ion: 75 Resp: 1500  
Ion Ratio Lower Upper  
75 100  
77 138.1 0.0 365.2

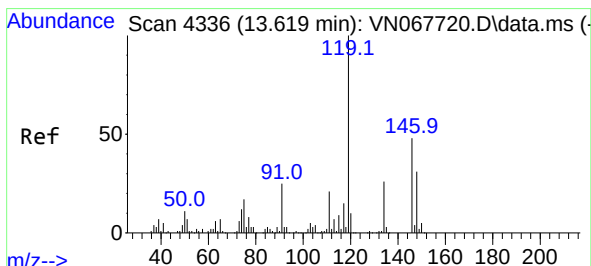
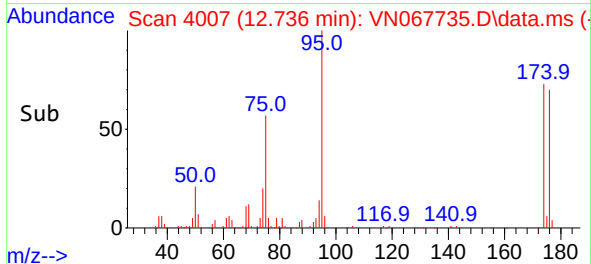
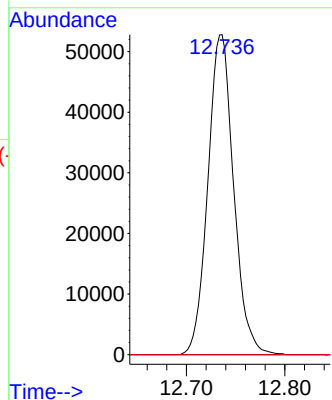
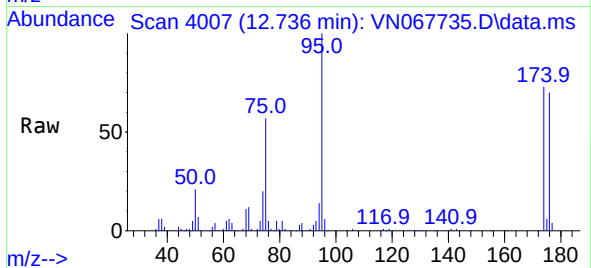




#77  
t-1,4-Dichloro-2-butene  
Concen: 48.368 ug/l  
RT: 12.736 min Scan# 4007  
Delta R.T. 0.107 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

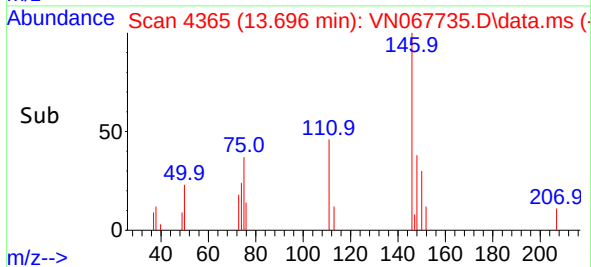
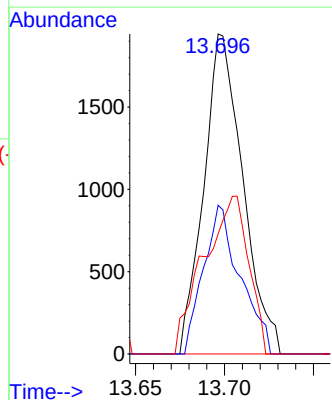
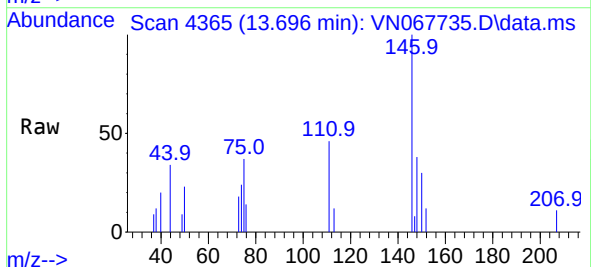
Instrument :  
MSVOA\_N  
ClientSampled :

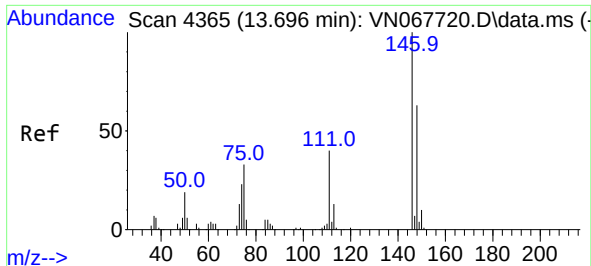
Tgt Ion: 75 Resp: 96161  
Ion Ratio Lower Upper  
75 100  
53 0.0 57.0 171.0#  
89 0.0 24.7 74.1#



#83  
1,3-Dichlorobenzene  
Concen: 0.277 ug/l  
RT: 13.696 min Scan# 4365  
Delta R.T. 0.078 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

Tgt Ion:146 Resp: 2964  
Ion Ratio Lower Upper  
146 100  
111 43.8 21.1 63.1  
148 40.3 31.9 95.7

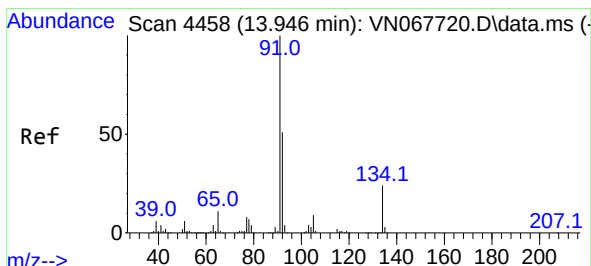
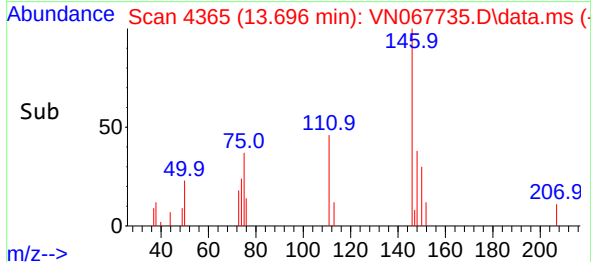
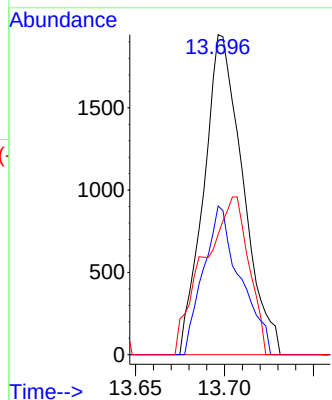
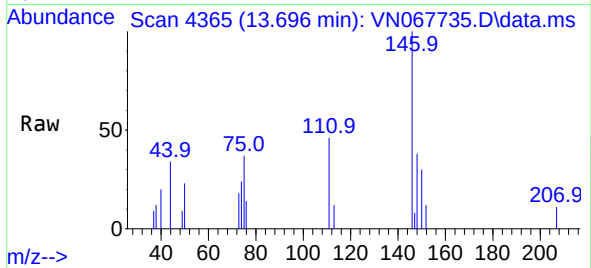




#84  
1,4-Dichlorobenzene  
Concen: 0.284 ug/l  
RT: 13.696 min Scan# 4365  
Delta R.T. -0.000 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

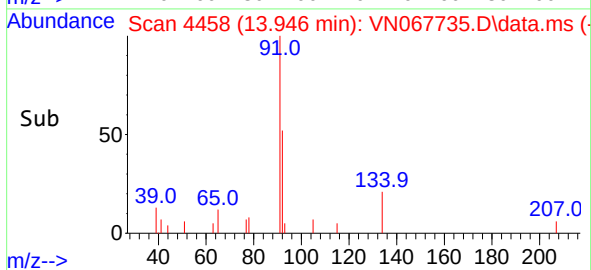
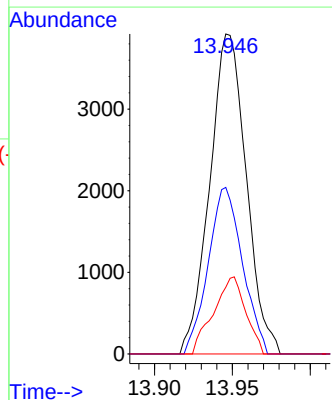
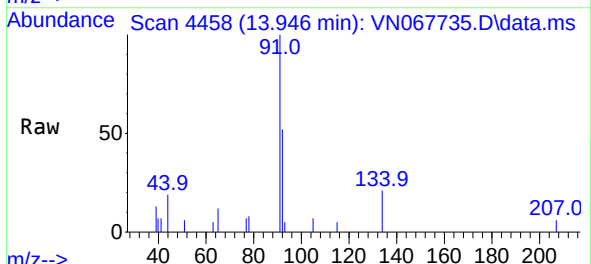
Instrument :  
MSVOA\_N  
ClientSampleId :

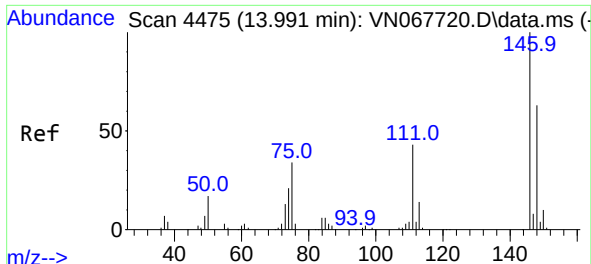
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 146   | Resp: | 2964  |
| Ion      | Ratio | Lower | Upper |
| 146      | 100   |       |       |
| 111      | 43.8  | 20.0  | 59.9  |
| 148      | 40.3  | 31.8  | 95.3  |



#85  
n-Butylbenzene  
Concen: 0.378 ug/l  
RT: 13.946 min Scan# 4458  
Delta R.T. -0.000 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 91    | Resp: | 6392  |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 92       | 48.8  | 0.0   | 102.6 |
| 134      | 21.2  | 0.0   | 48.6  |



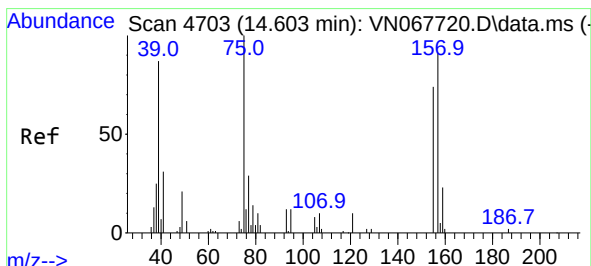
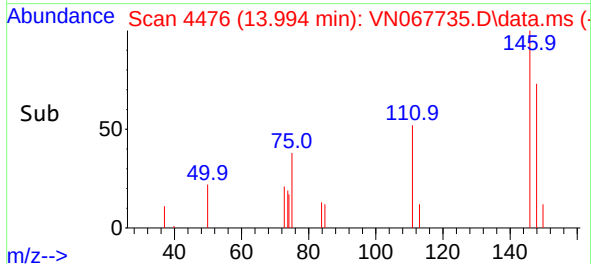
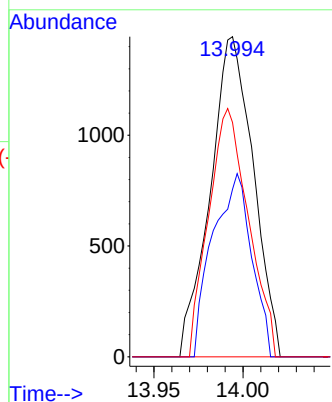
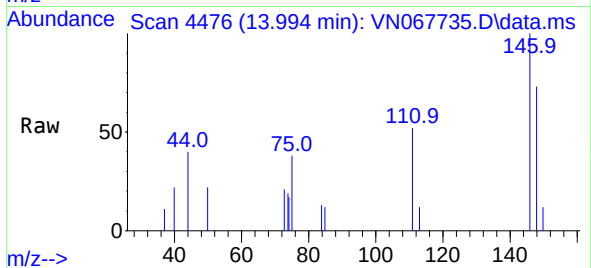


#87

1,2-Dichlorobenzene  
Concen: 0.238 ug/l  
RT: 13.994 min Scan# 4476  
Delta R.T. 0.003 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

Instrument :  
MSVOA\_N  
ClientSampled :

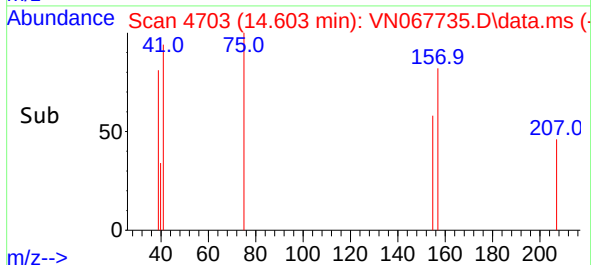
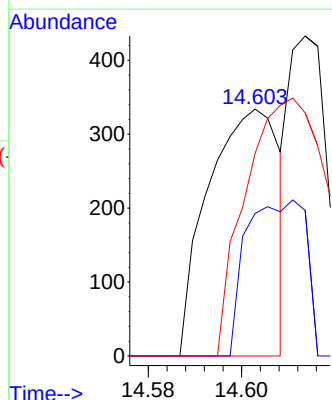
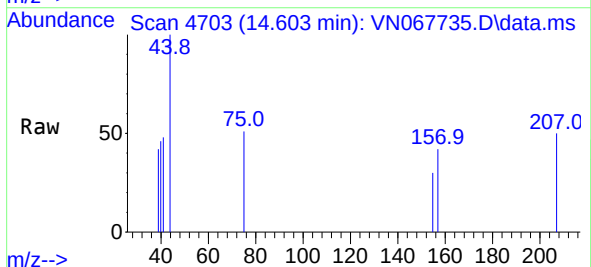
Tgt Ion:146 Resp: 2431  
Ion Ratio Lower Upper  
146 100  
111 51.6 22.0 66.0  
148 71.7 31.7 95.1

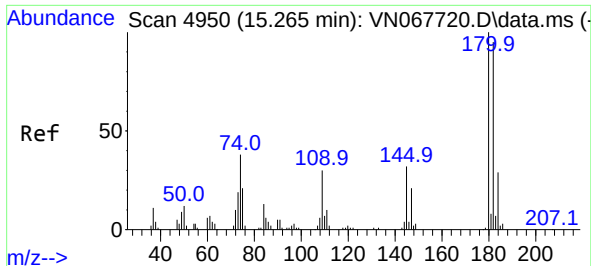


#88

1,2-Dibromo-3-Chloropropane  
Concen: 0.278 ug/l  
RT: 14.603 min Scan# 4703  
Delta R.T. -0.000 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

Tgt Ion: 75 Resp: 352  
Ion Ratio Lower Upper  
75 100  
155 34.4 59.2 88.8#  
157 0.0 75.4 113.2#

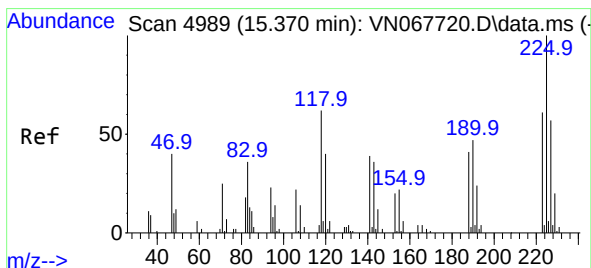
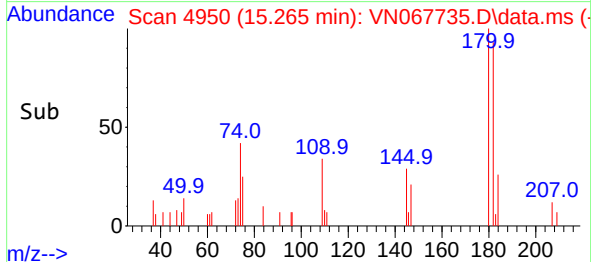
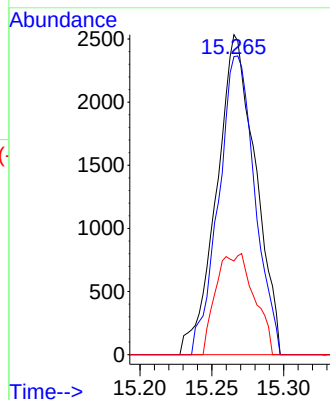
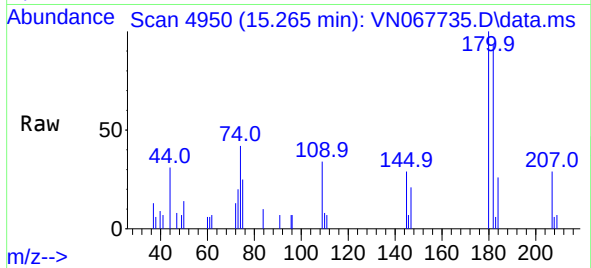




#89  
1,2,4-Trichlorobenzene  
Concen: 1.019 ug/l  
RT: 15.265 min Scan# 4950  
Delta R.T. -0.000 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

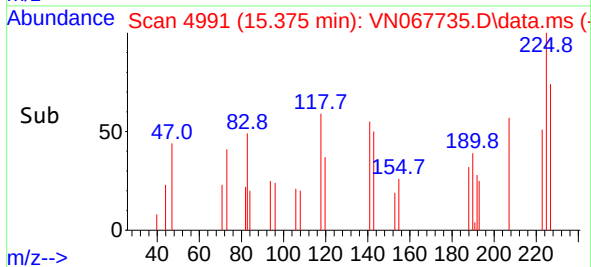
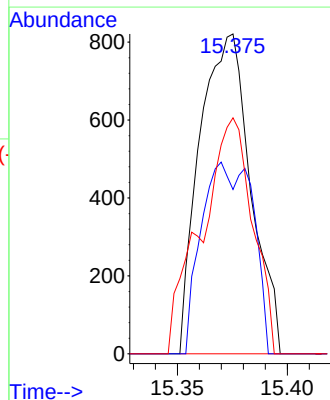
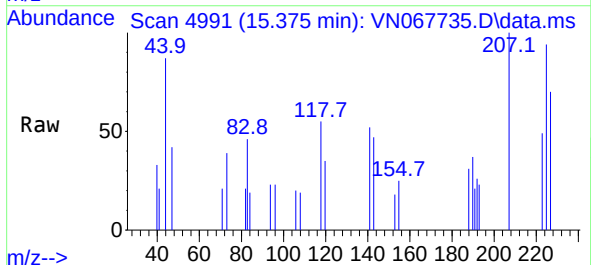
Instrument :  
MSVOA\_N  
ClientSampleId :

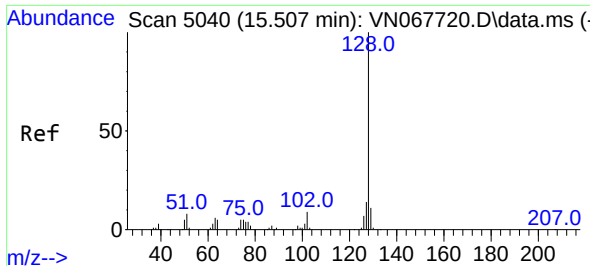
Tgt Ion:180 Resp: 4754  
Ion Ratio Lower Upper  
180 100  
182 87.0 74.5 111.7  
145 15.8 25.4 38.0#



#90  
Hexachlorobutadiene  
Concen: 0.590 ug/l  
RT: 15.375 min Scan# 4991  
Delta R.T. 0.005 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

Tgt Ion:225 Resp: 1323  
Ion Ratio Lower Upper  
225 100  
223 37.7 0.0 124.6  
227 56.3 0.0 115.6

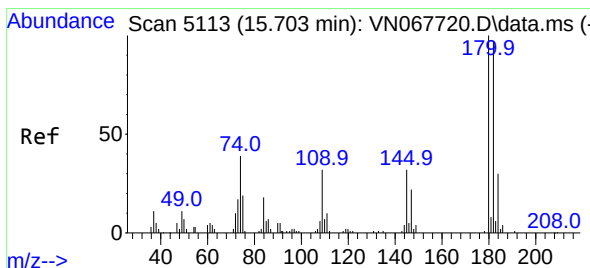
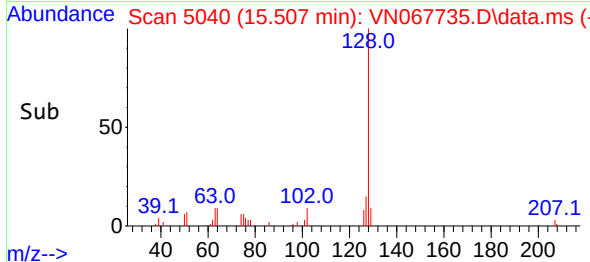
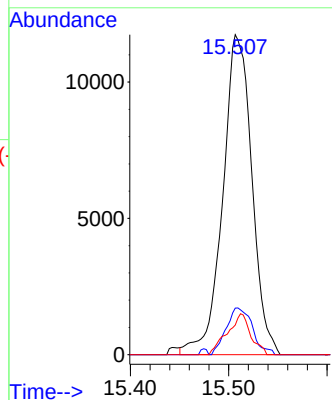
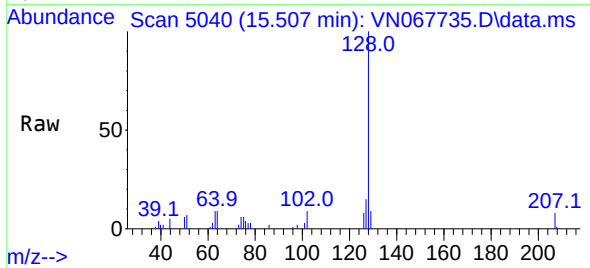




#91  
Naphthalene  
Concen: 1.825 ug/l  
RT: 15.507 min Scan# 5040  
Delta R.T. -0.000 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

Instrument :  
MSVOA\_N  
ClientSampleId :

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 128   | Resp: | 24179 |
| Ion Ratio | Lower | Upper |       |
| 128       | 100   |       |       |
| 127       | 13.2  | 10.9  | 16.3  |
| 129       | 10.2  | 8.7   | 13.1  |



#92  
1,2,3-Trichlorobenzene  
Concen: 1.245 ug/l  
RT: 15.705 min Scan# 5114  
Delta R.T. 0.003 min  
Lab File: VN067735.D  
Acq: 14 Jul 2021 11:17

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 180   | Resp: | 5561  |
| Ion Ratio | Lower | Upper |       |
| 180       | 100   |       |       |
| 182       | 101.4 | 0.0   | 190.8 |
| 145       | 13.6  | 0.0   | 68.2  |

