

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_D\Data\VD120721\  
 Data File : VD071184.D  
 Acq On : 07 Dec 2021 15:36  
 Operator : VA/SY  
 Sample : M4955-01  
 Misc : 5.03G/5.00ml/MSVOA\_D/SOIL  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Dec 08 02:50:24 2021  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_D\Method\82D112921S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Nov 29 17:54:09 2021  
 Response via : Initial Calibration

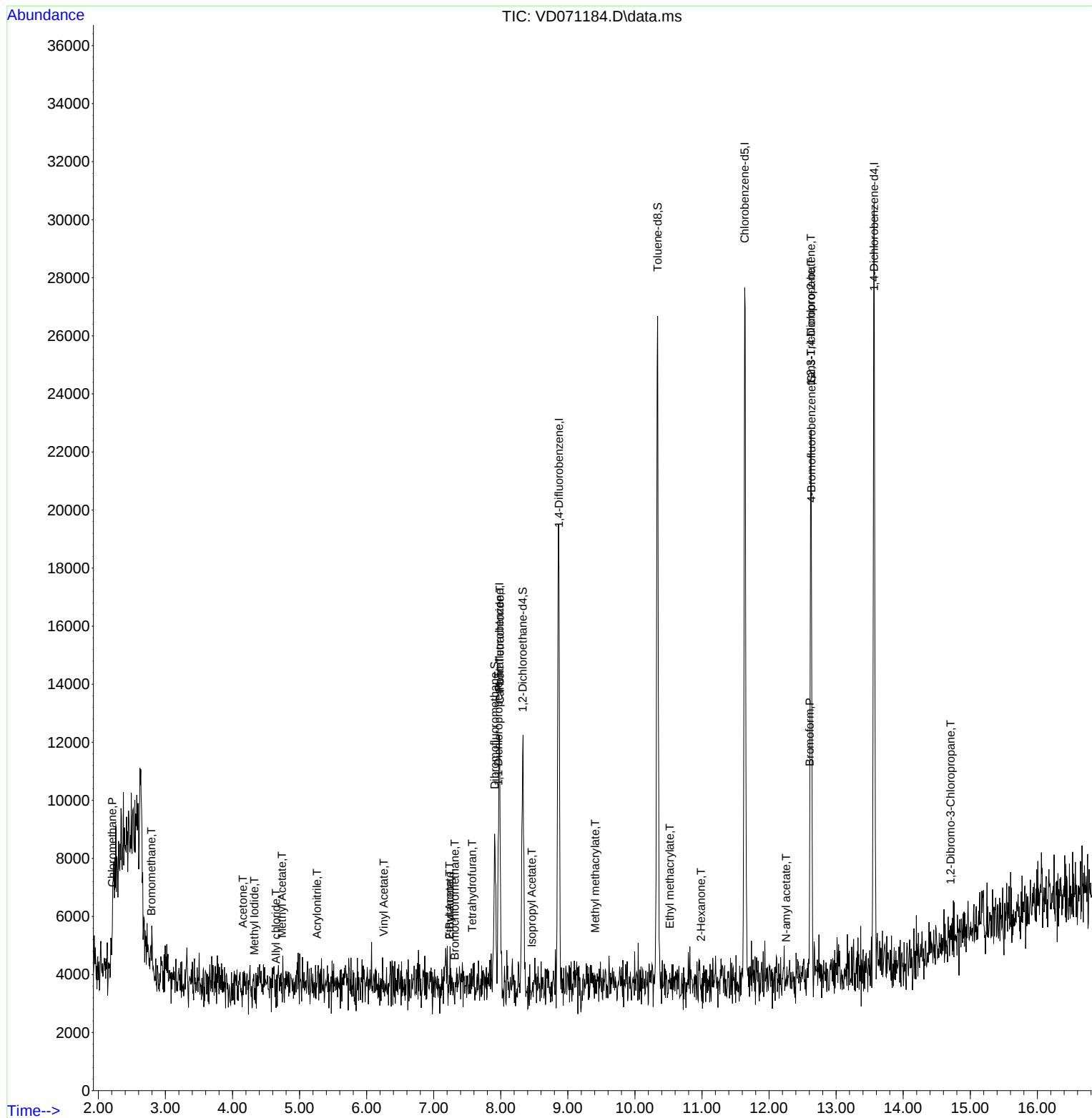
| Compound                      | R.T.           | QIon | Response   | Conc      | Units | Dev(Min) |
|-------------------------------|----------------|------|------------|-----------|-------|----------|
| -----                         |                |      |            |           |       |          |
| Internal Standards            |                |      |            |           |       |          |
| 1) Pentafluorobenzene         | 7.979          | 168  | 6746       | 50.00     | ug/l  | # 0.00   |
| 34) 1,4-Difluorobenzene       | 8.867          | 114  | 11858      | 50.00     | ug/l  | 0.00     |
| 63) Chlorobenzene-d5          | 11.638         | 117  | 13051      | 50.00     | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 13.567         | 152  | 6269       | 50.00     | ug/l  | 0.00     |
|                               |                |      |            |           |       |          |
| System Monitoring Compounds   |                |      |            |           |       |          |
| 33) 1,2-Dichloroethane-d4     | 8.326          | 65   | 5353       | 67.63     | ug/l  | 0.00     |
| Spiked Amount 50.000          | Range 50 - 163 |      | Recovery = | 135.26%   |       |          |
| 35) Dibromofluoromethane      | 7.908          | 113  | 3283       | 43.48     | ug/l  | -0.01    |
| Spiked Amount 50.000          | Range 54 - 147 |      | Recovery = | 86.96%    |       |          |
| 50) Toluene-d8                | 10.338         | 98   | 14246      | 49.58     | ug/l  | 0.00     |
| Spiked Amount 50.000          | Range 49 - 140 |      | Recovery = | 99.16%    |       |          |
| 62) 4-Bromofluorobenzene      | 12.632         | 95   | 6380       | 64.05     | ug/l  | 0.00     |
| Spiked Amount 50.000          | Range 25 - 144 |      | Recovery = | 128.10%   |       |          |
|                               |                |      |            |           |       |          |
| Target Compounds              |                |      |            |           |       | Qvalue   |
| 3) Chloromethane              | 2.209          | 50   | 184        | 2.42      | ug/l  | # 42     |
| 5) Bromomethane               | 2.791          | 94   | 510        | 8.33      | ug/l  | 82       |
| 10) Methyl Iodide             | 4.326          | 142  | 352        | 8.62      | ug/l  | # 60     |
| 14) Allyl chloride            | 4.650          | 41   | 124        | 1.04      | ug/l  | # 28     |
| 15) Acrylonitrile             | 5.262          | 53   | 65         | 4.29      | ug/l  | # 19     |
| 16) Acetone                   | 4.156          | 43   | 60         | 33.30     | ug/l  | # 40     |
| 18) Methyl Acetate            | 4.738          | 43   | 64         | 1.10      | ug/l  | # 51     |
| 20) Methylene Chloride        | 4.979          | 84   | 57         | Below Cal | #     | 1        |
| 23) Vinyl Acetate             | 6.256          | 43   | 63         | 27.65     | ug/l  | # 72     |
| 25) 2-Butanone                | 7.238          | 43   | 69         | 30.88     | ug/l  | # 45     |
| 28) Bromochloromethane        | 7.314          | 49   | 62         | 1.04      | ug/l  | # 14     |
| 29) Tetrahydrofuran           | 7.573          | 42   | 57         | 4.53      | ug/l  | # 34     |
| 36) 1,1-Dichloropropene       | 7.967          | 75   | 346        | 3.12      | ug/l  | # 41     |
| 37) Ethyl Acetate             | 7.238          | 43   | 69         | 1.44      | ug/l  | # 66     |
| 38) Carbon Tetrachloride      | 7.985          | 117  | 925        | 8.47      | ug/l  | # 12     |
| 41) Methacrylonitrile         | 7.491          | 41   | 55         | Below Cal | #     | 1        |
| 43) Isopropyl Acetate         | 8.461          | 43   | 67         | 5.79      | ug/l  | # 47     |
| 48) Methyl methacrylate       | 9.408          | 41   | 59         | 1.26      | ug/l  | # 15     |
| 56) Ethyl methacrylate        | 10.520         | 69   | 67         | 6.73      | ug/l  | # 64     |
| 59) 2-Hexanone                | 10.985         | 43   | 61         | 35.87     | ug/l  | # 22     |
| 71) Bromoform                 | 12.608         | 173  | 53         | 1.16      | ug/l  | # 1      |
| 74) N-amyl acetate            | 12.255         | 43   | 55         | 6.09      | ug/l  | # 40     |
| 76) 1,2,3-Trichloropropane    | 12.626         | 75   | 3517       | 58.88     | ug/l  | # 1      |
| 81) trans-1,4-Dichloro-2-b... | 12.626         | 75   | 3517       | 127.59    | ug/l  | # 18     |
| 92) 1,2-Dibromo-3-Chloropr... | 14.708         | 75   | 55         | 4.52      | ug/l  | # 4      |
| -----                         |                |      |            |           |       |          |

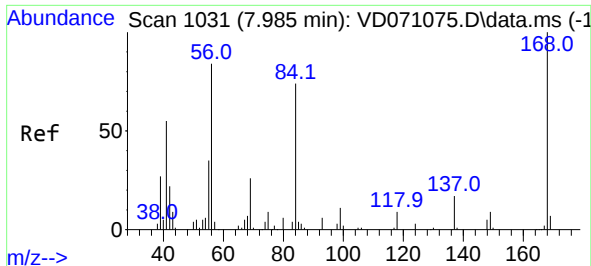
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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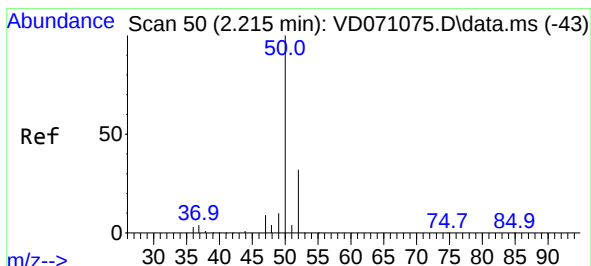
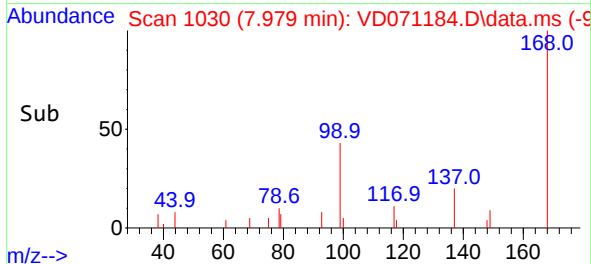
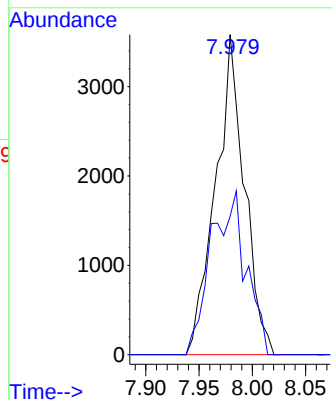
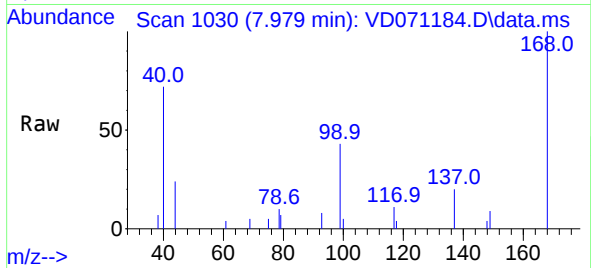




#1  
Pentafluorobenzene  
Concen: 50.00 ug/l  
RT: 7.979 min Scan# 10  
Delta R.T. -0.006 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

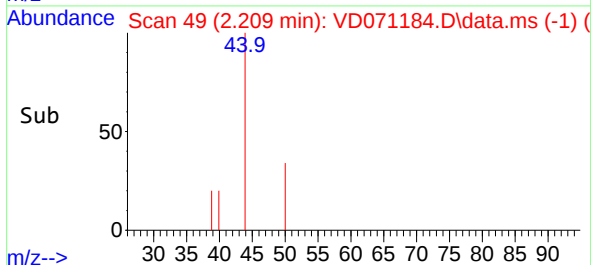
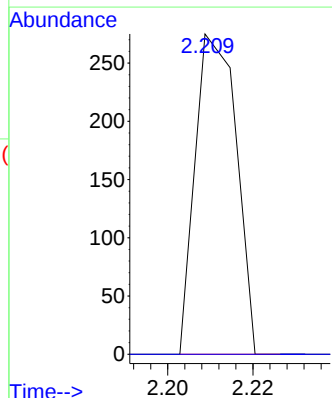
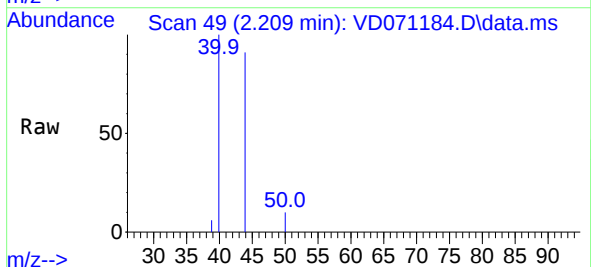
Instrument :  
MSVOA\_D  
ClientSampleId :

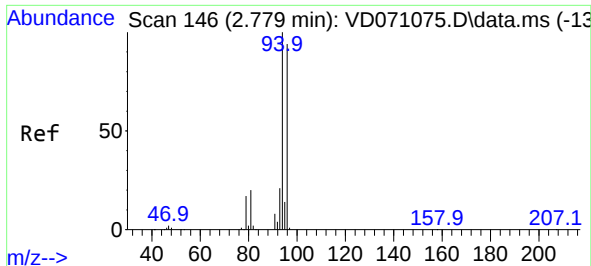
Tgt Ion:168 Resp: 6746  
Ion Ratio Lower Upper  
168 100  
99 43.3 46.6 69.8#



#3  
Chloromethane  
Concen: 2.42 ug/l  
RT: 2.209 min Scan# 49  
Delta R.T. -0.006 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

Tgt Ion: 50 Resp: 184  
Ion Ratio Lower Upper  
50 100  
52 0.0 25.8 38.8#

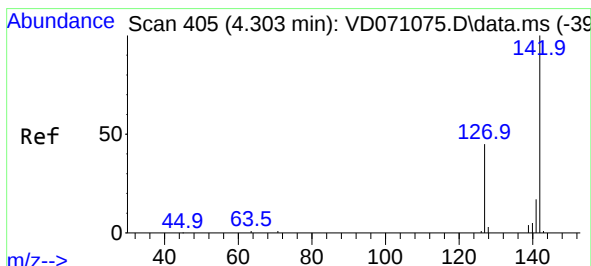
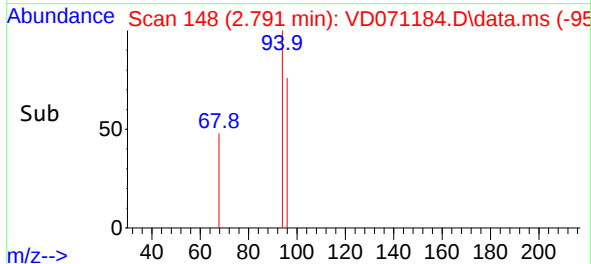
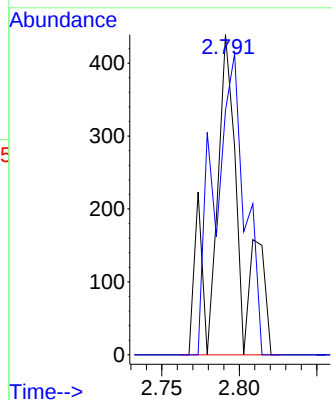
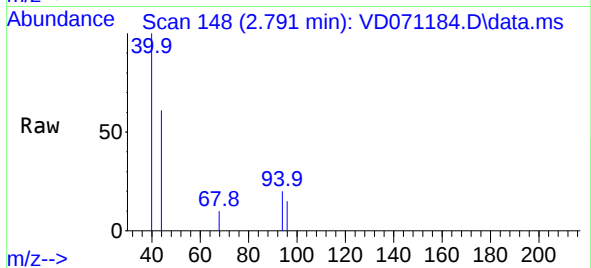




#5  
Bromomethane  
Concen: 8.33 ug/l  
RT: 2.791 min Scan# 146  
Delta R.T. 0.012 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

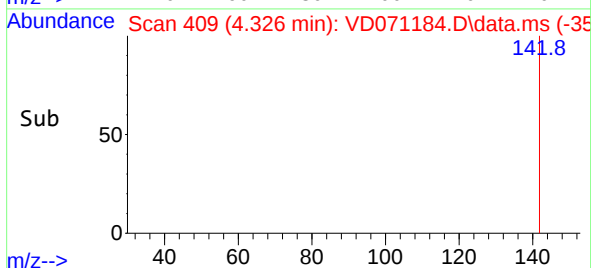
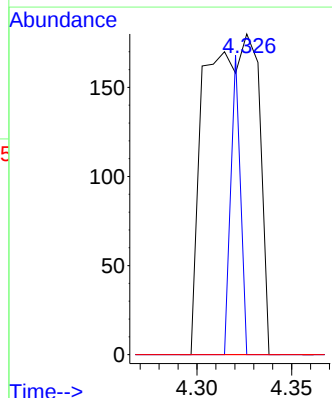
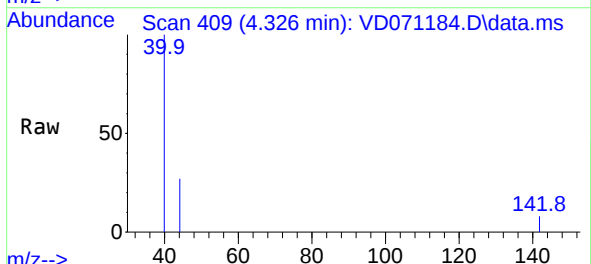
Instrument :  
MSVOA\_D  
ClientSampleId :

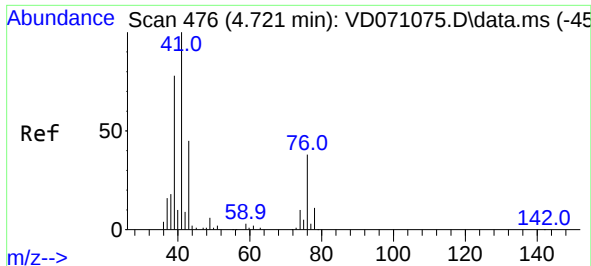
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Ion Ratio Lower Upper  
94 100  
96 76.3 74.8 112.2



#10  
Methyl Iodide  
Concen: 8.62 ug/l  
RT: 4.326 min Scan# 409  
Delta R.T. 0.023 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

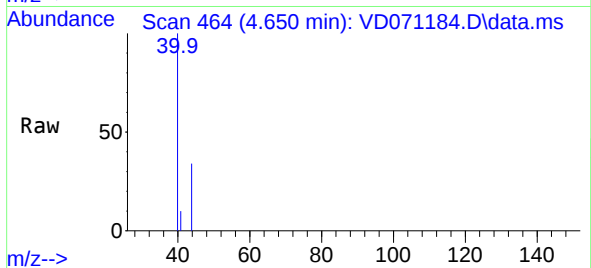
Tgt Ion: 142 Resp: 352  
Ion Ratio Lower Upper  
142 100  
127 16.8 35.0 52.4#  
141 0.0 12.0 18.0#



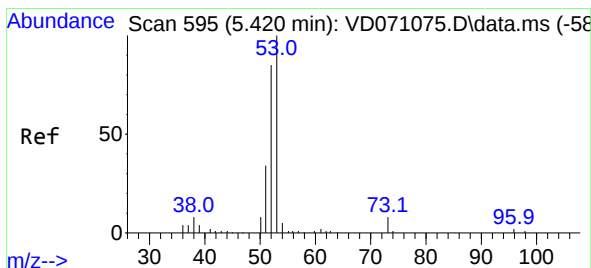
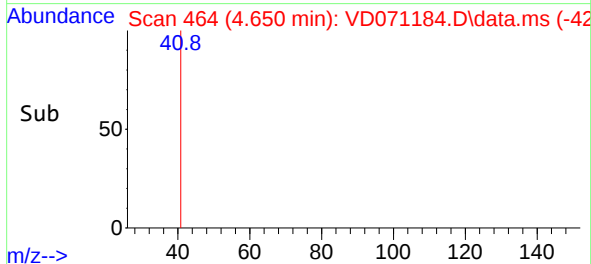
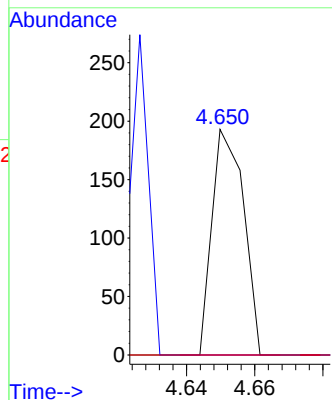


#14  
 Allyl chloride  
 Concen: 1.04 ug/l  
 RT: 4.650 min Scan# 41  
 Delta R.T. -0.071 min  
 Lab File: VD071184.D  
 Acq: 07 Dec 2021 15:36

Instrument :  
 MSVOA\_D  
 ClientSampleId :

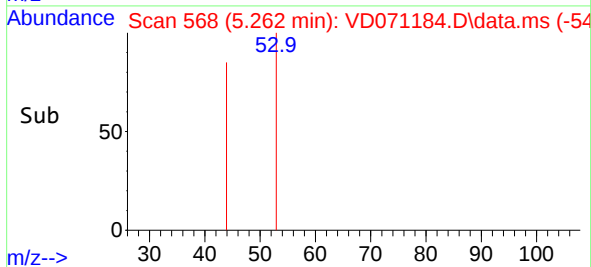
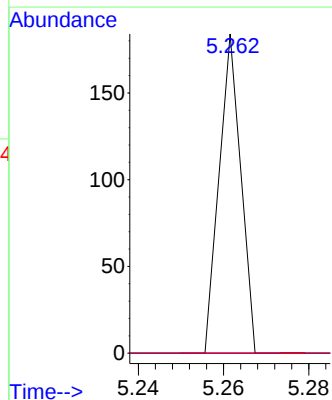
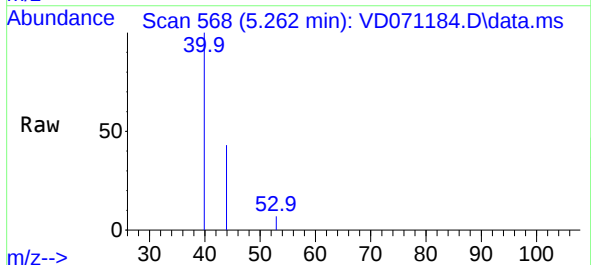


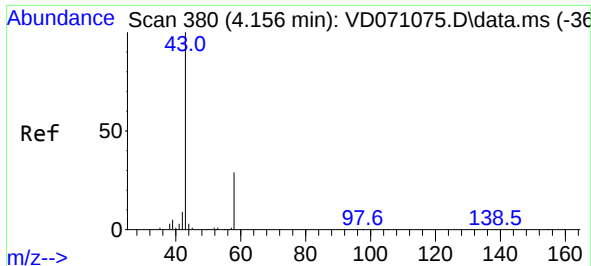
Tgt Ion: 41 Resp: 124  
 Ion Ratio Lower Upper  
 41 100  
 39 0.0 45.6 68.4#  
 76 0.0 30.2 45.4#



#15  
 Acrylonitrile  
 Concen: 4.29 ug/l  
 RT: 5.262 min Scan# 568  
 Delta R.T. -0.158 min  
 Lab File: VD071184.D  
 Acq: 07 Dec 2021 15:36

Tgt Ion: 53 Resp: 65  
 Ion Ratio Lower Upper  
 53 100  
 52 0.0 63.8 95.8#  
 51 0.0 28.5 42.7#

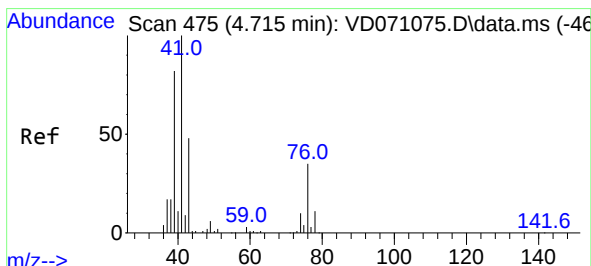
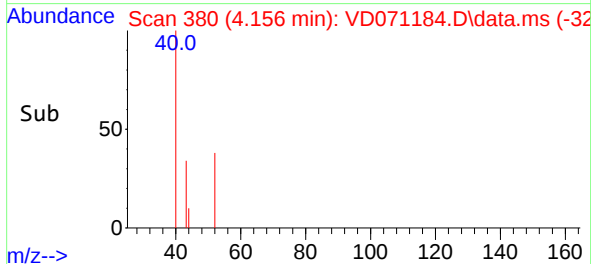
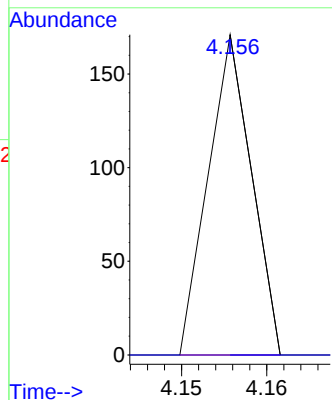
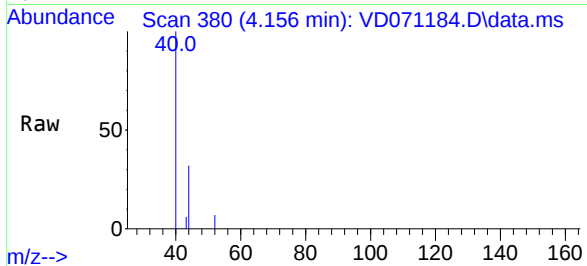




#16  
Acetone  
Concen: 33.30 ug/l  
RT: 4.156 min Scan# 31  
Delta R.T. -0.000 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

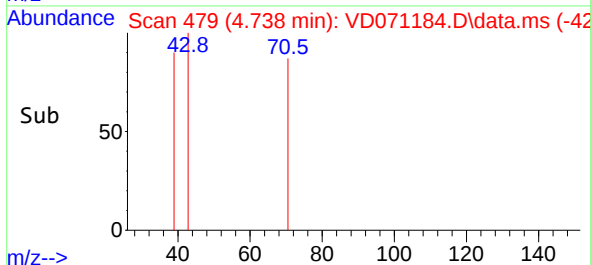
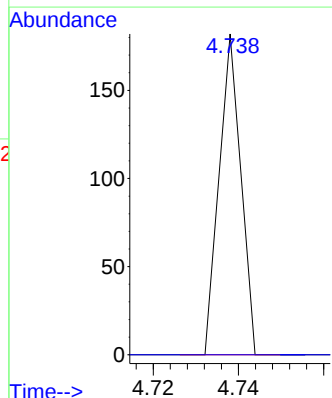
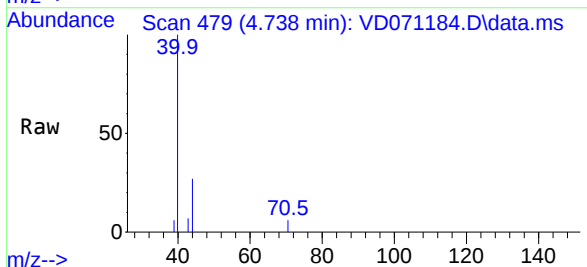
Instrument :  
MSVOA\_D  
ClientSampleId :

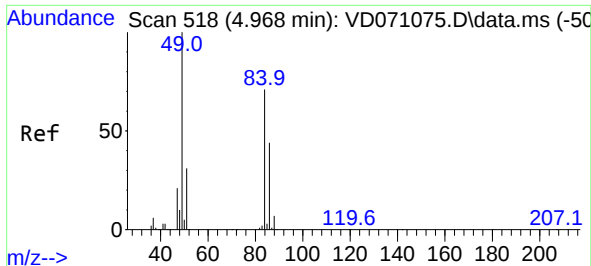
Tgt Ion: 43 Resp: 60  
Ion Ratio Lower Upper  
43 100  
58 0.0 27.8 41.8#



#18  
Methyl Acetate  
Concen: 1.10 ug/l  
RT: 4.738 min Scan# 479  
Delta R.T. 0.023 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

Tgt Ion: 43 Resp: 64  
Ion Ratio Lower Upper  
43 100  
74 0.0 19.3 28.9#





#20

Methylene Chloride

Concen: Below Cal

RT: 4.979 min Scan# 51

Delta R.T. 0.011 min

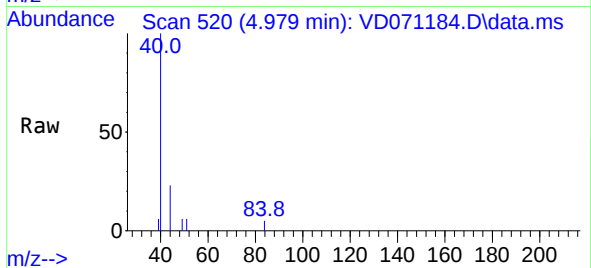
Lab File: VD071184.D

Acq: 07 Dec 2021 15:36

Instrument :

MSVOA\_D

ClientSampleId :



Tgt Ion: 84 Resp: 57

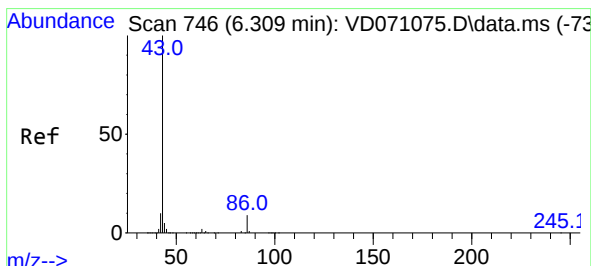
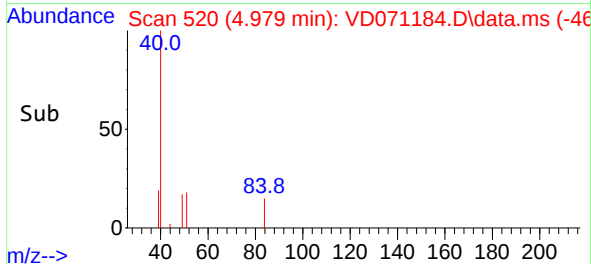
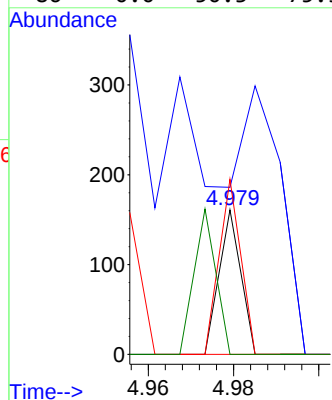
Ion Ratio Lower Upper

84 100

49 0.0 95.8 143.6#

51 121.1 30.9 46.3#

86 0.0 50.3 75.5#



#23

Vinyl Acetate

Concen: 27.65 ug/l

RT: 6.256 min Scan# 737

Delta R.T. -0.053 min

Lab File: VD071184.D

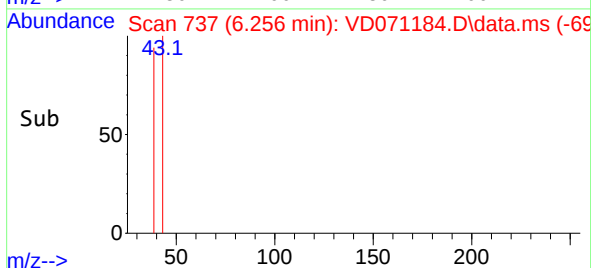
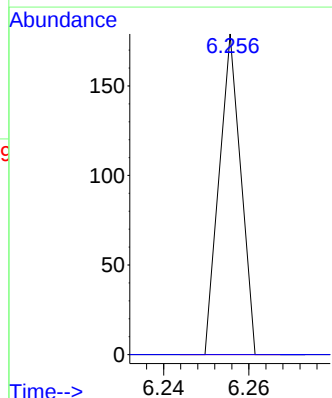
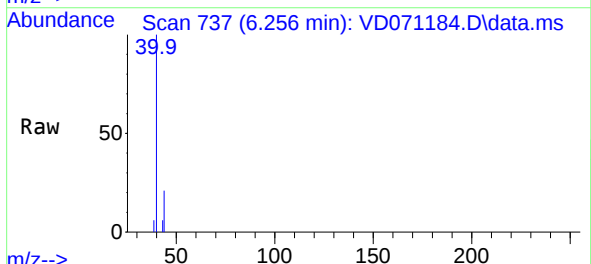
Acq: 07 Dec 2021 15:36

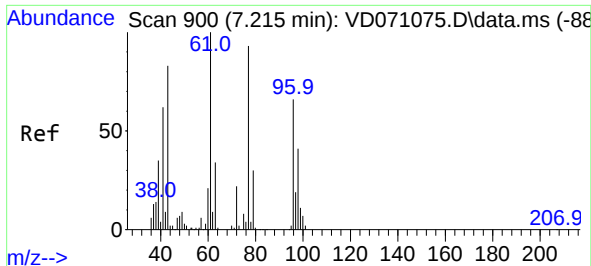
Tgt Ion: 43 Resp: 63

Ion Ratio Lower Upper

43 100

86 0.0 8.2 12.4#

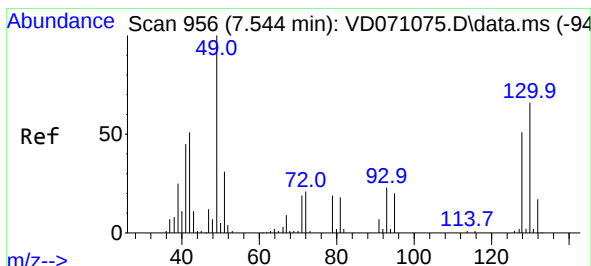
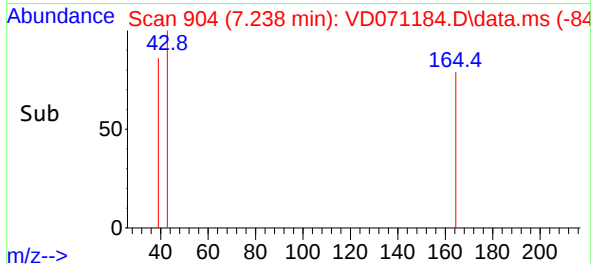
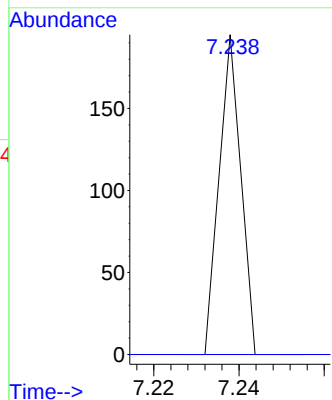
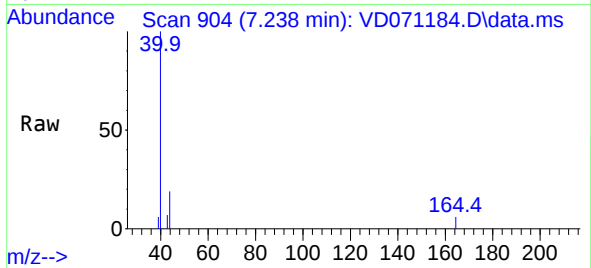




#25  
2-Butanone  
Concen: 30.88 ug/l  
RT: 7.238 min Scan# 904  
Delta R.T. 0.023 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

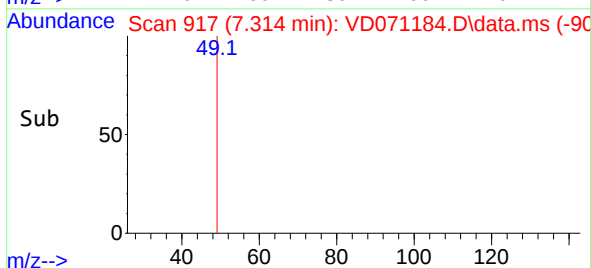
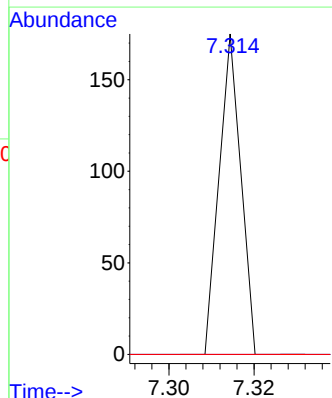
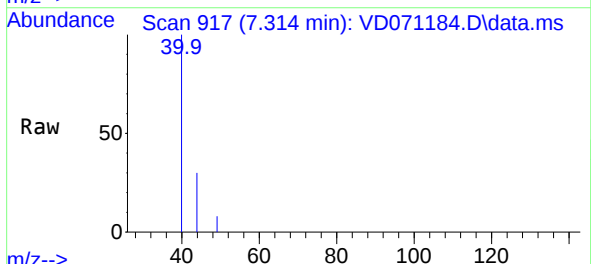
Instrument :  
MSVOA\_D  
ClientSampleId :

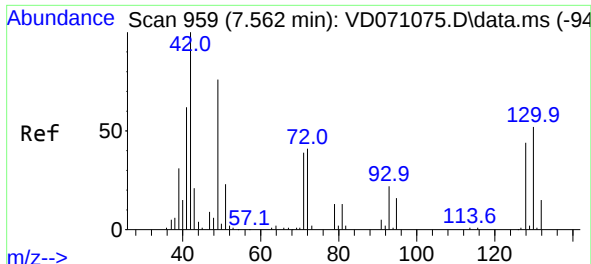
Tgt Ion: 43 Resp: 69  
Ion Ratio Lower Upper  
43 100  
72 0.0 23.8 35.6#



#28  
Bromochloromethane  
Concen: 1.04 ug/l  
RT: 7.314 min Scan# 917  
Delta R.T. -0.230 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

Tgt Ion: 49 Resp: 62  
Ion Ratio Lower Upper  
49 100  
129 0.0 0.0 4.0  
130 0.0 60.2 90.2#

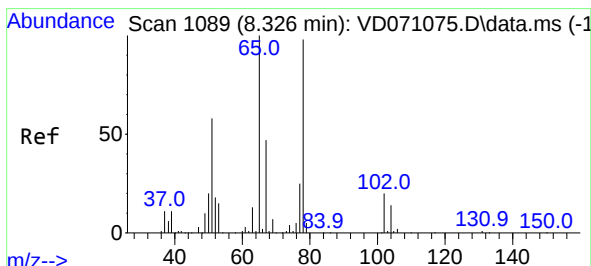
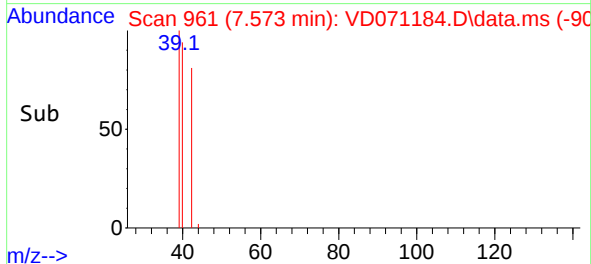
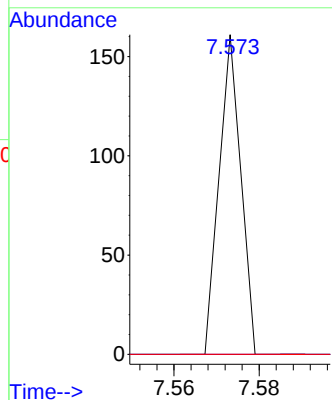
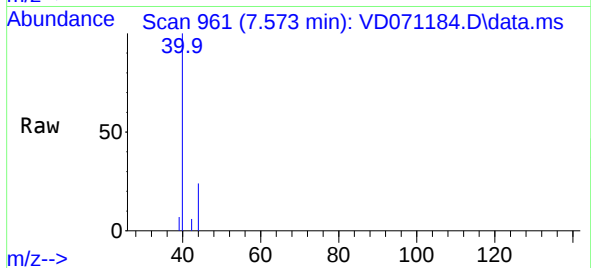




#29  
Tetrahydrofuran  
Concen: 4.53 ug/l  
RT: 7.573 min Scan# 90  
Delta R.T. 0.011 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

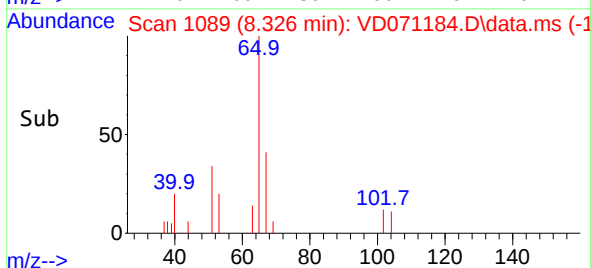
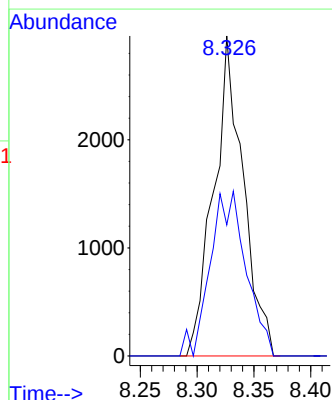
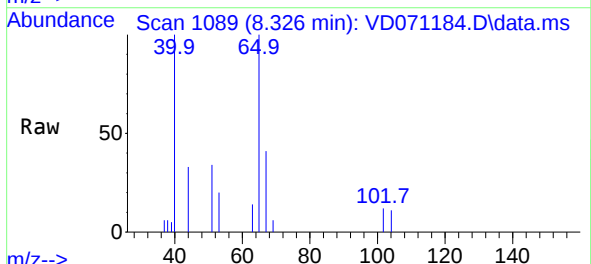
Instrument :  
MSVOA\_D  
ClientSampleId :

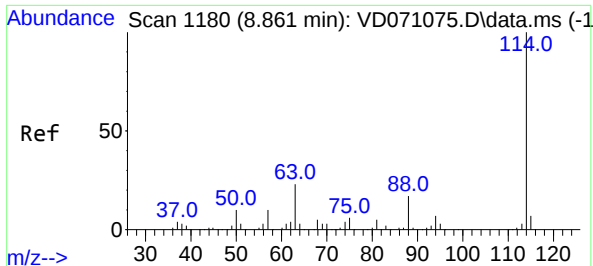
Tgt Ion: 42 Resp: 57  
Ion Ratio Lower Upper  
42 100  
72 0.0 33.7 50.5#  
71 0.0 32.7 49.1#



#33  
1,2-Dichloroethane-d4  
Concen: 67.63 ug/l  
RT: 8.326 min Scan# 1089  
Delta R.T. 0.000 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

Tgt Ion: 65 Resp: 5353  
Ion Ratio Lower Upper  
65 100  
67 62.4 0.0 112.2





#34

1,4-Difluorobenzene

Concen: 50.00 ug/l

RT: 8.867 min Scan# 1180

Delta R.T. 0.006 min

Lab File: VD071184.D

Acq: 07 Dec 2021 15:36

Instrument :

MSVOA\_D

ClientSampleId :

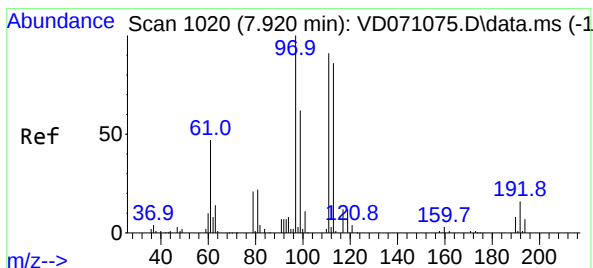
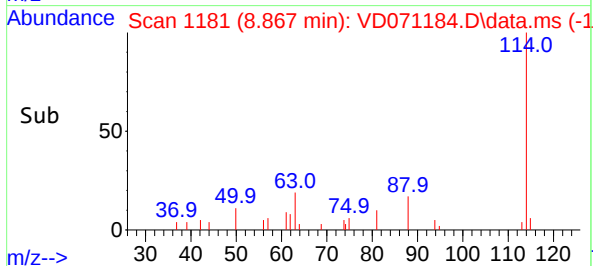
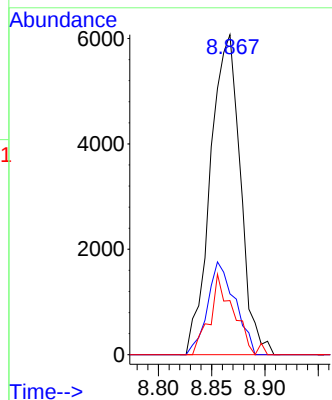
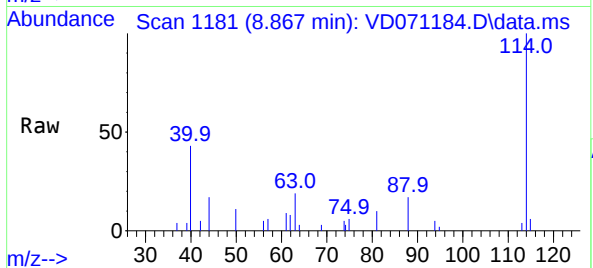
Tgt Ion:114 Resp: 11858

Ion Ratio Lower Upper

114 100

63 19.0 0.0 41.8

88 16.9 0.0 32.8



#35

Dibromofluoromethane

Concen: 43.48 ug/l

RT: 7.908 min Scan# 1018

Delta R.T. -0.012 min

Lab File: VD071184.D

Acq: 07 Dec 2021 15:36

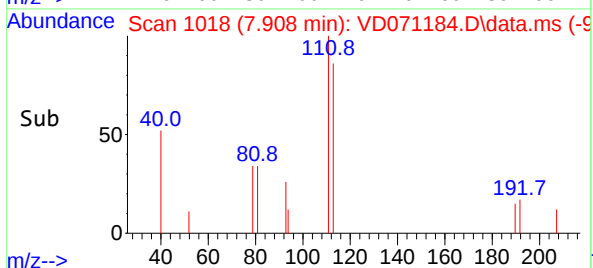
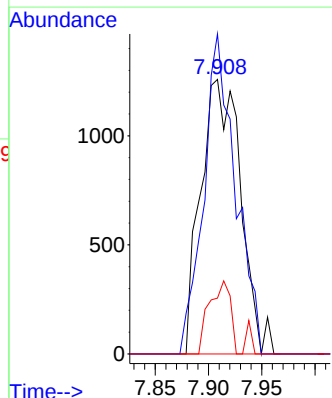
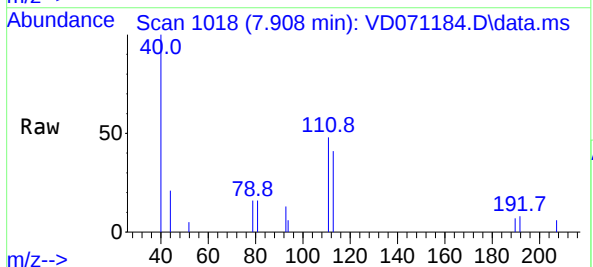
Tgt Ion:113 Resp: 3283

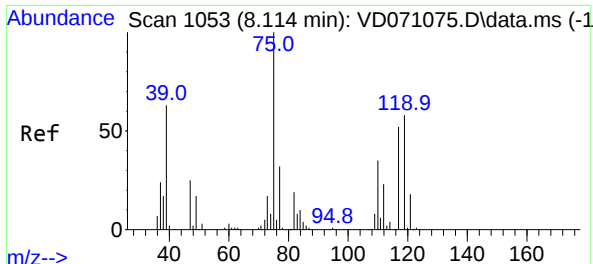
Ion Ratio Lower Upper

113 100

111 92.9 82.0 123.0

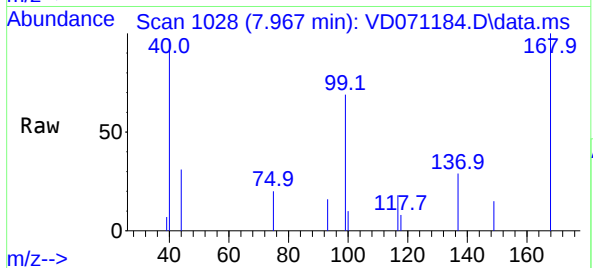
192 14.1 15.2 22.8#



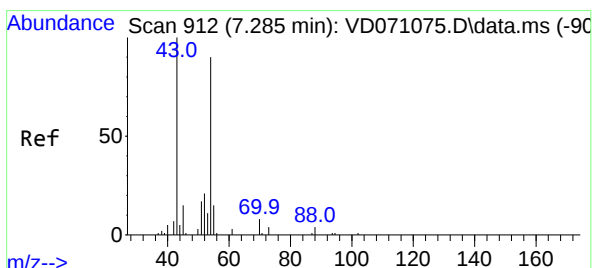
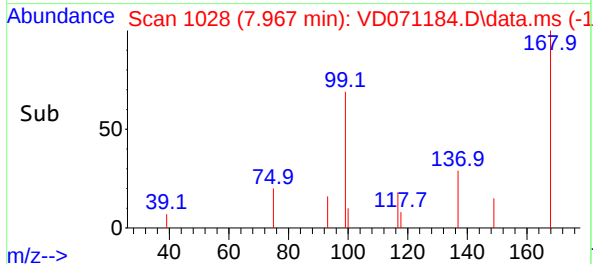
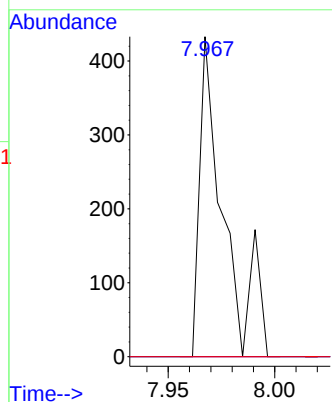


#36  
1,1-Dichloropropene  
Concen: 3.12 ug/l  
RT: 7.967 min Scan# 1053  
Delta R.T. -0.147 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

Instrument :  
MSVOA\_D  
ClientSampleId :

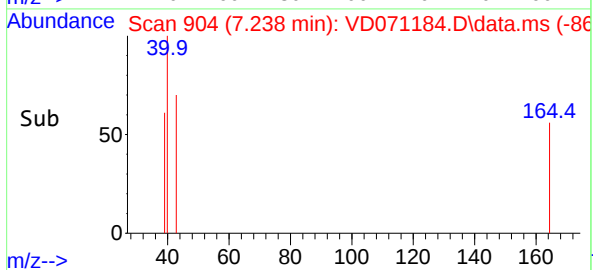
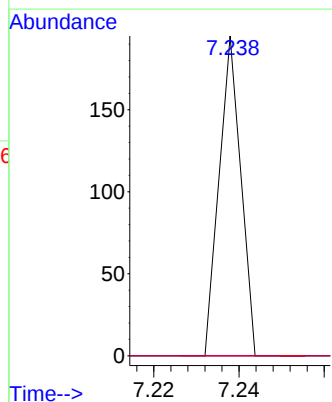
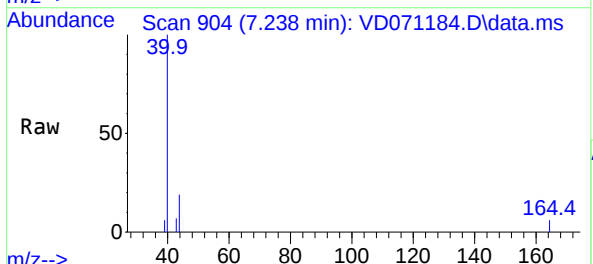


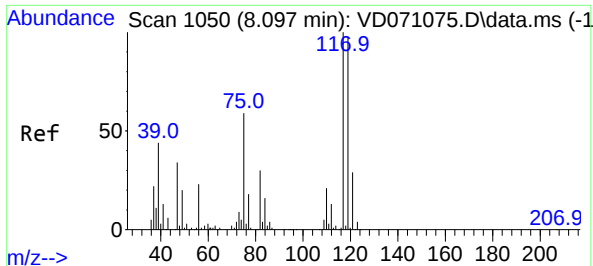
Tgt Ion: 75 Resp: 346  
Ion Ratio Lower Upper  
75 100  
110 0.0 17.8 53.4#  
77 0.0 24.8 37.2#



#37  
Ethyl Acetate  
Concen: 1.44 ug/l  
RT: 7.238 min Scan# 904  
Delta R.T. -0.047 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

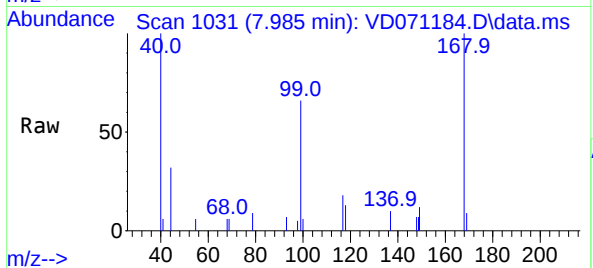
Tgt Ion: 43 Resp: 69  
Ion Ratio Lower Upper  
43 100  
61 0.0 13.0 19.6#  
70 0.0 8.7 13.1#



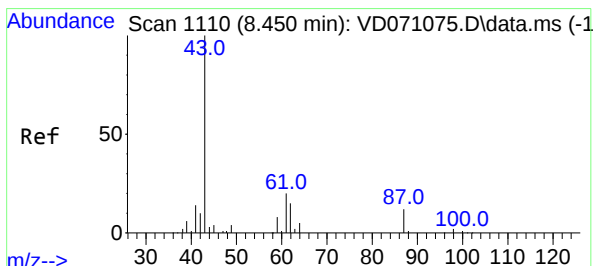
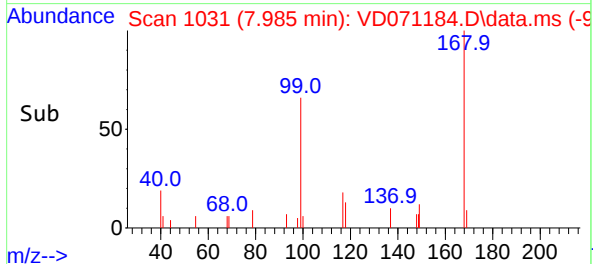
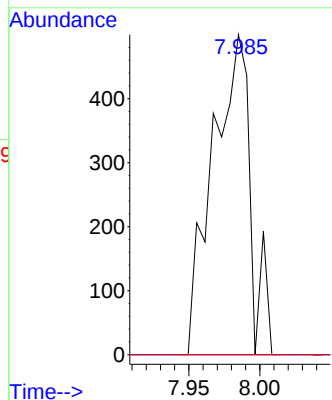


#38  
Carbon Tetrachloride  
Concen: 8.47 ug/l  
RT: 7.985 min Scan# 110  
Delta R.T. -0.112 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

Instrument :  
MSVOA\_D  
ClientSampleId :

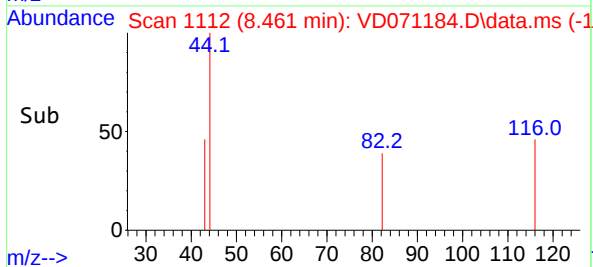
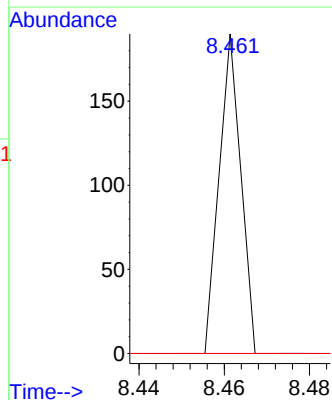
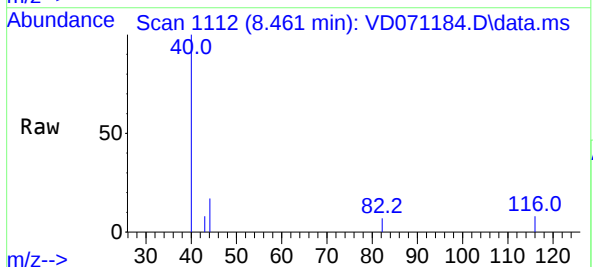


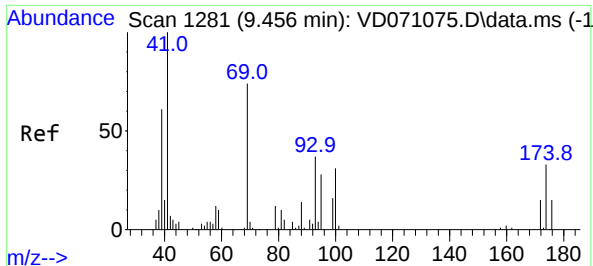
Tgt Ion:117 Resp: 925  
Ion Ratio Lower Upper  
117 100  
119 0.0 75.8 113.6#  
121 0.0 23.6 35.4#



#43  
Isopropyl Acetate  
Concen: 5.79 ug/l  
RT: 8.461 min Scan# 1112  
Delta R.T. 0.011 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

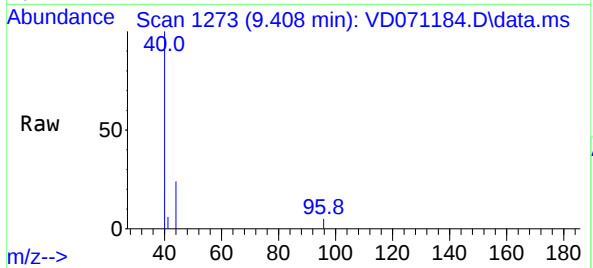
Tgt Ion: 43 Resp: 67  
Ion Ratio Lower Upper  
43 100  
61 0.0 28.2 42.4#  
87 0.0 10.7 16.1#



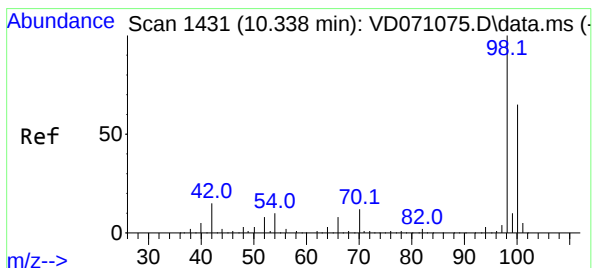
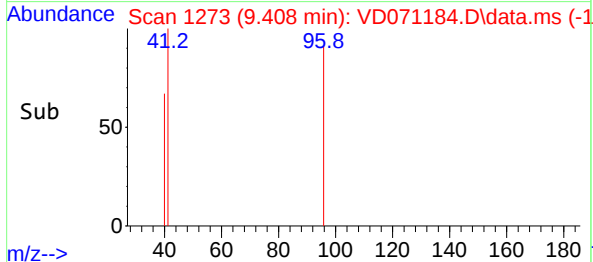
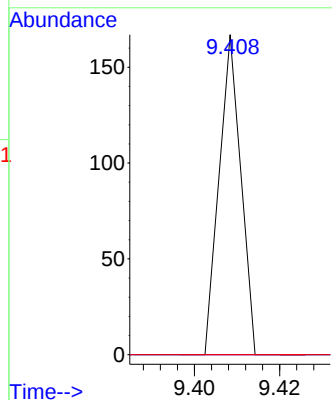


#48  
Methyl methacrylate  
Concen: 1.26 ug/l  
RT: 9.408 min Scan# 11  
Delta R.T. -0.048 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

Instrument :  
MSVOA\_D  
ClientSampleId :

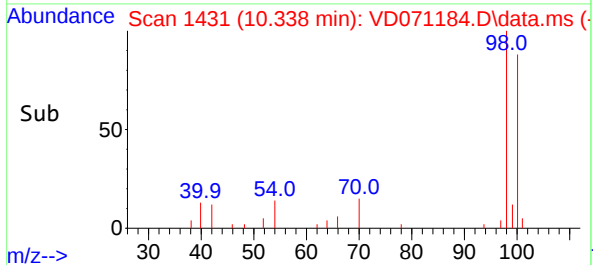
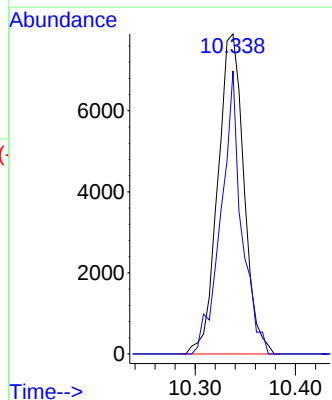
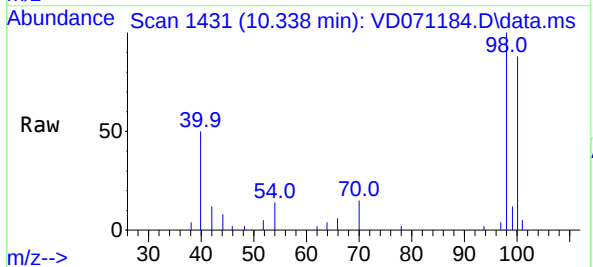


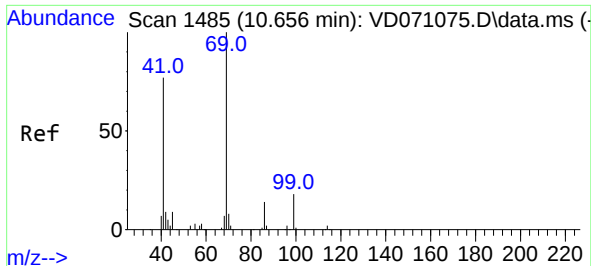
Tgt Ion: 41 Resp: 59  
Ion Ratio Lower Upper  
41 100  
69 0.0 69.8 104.6#  
39 0.0 35.6 53.4#



#50  
Toluene-d8  
Concen: 49.58 ug/l  
RT: 10.338 min Scan# 1431  
Delta R.T. -0.000 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

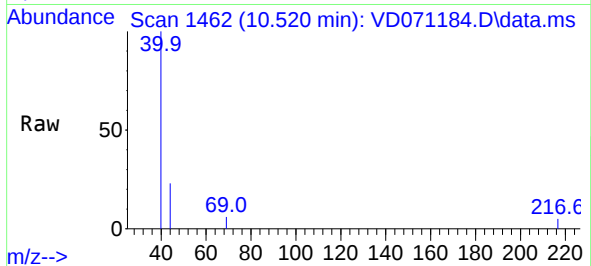
Tgt Ion: 98 Resp: 14246  
Ion Ratio Lower Upper  
98 100  
100 70.0 51.8 77.6



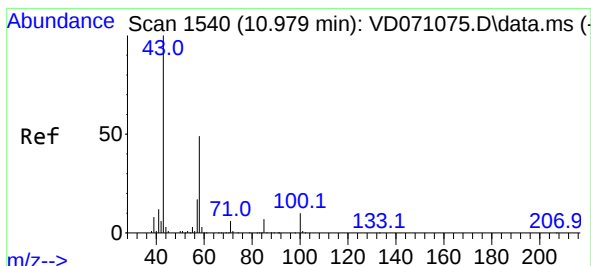
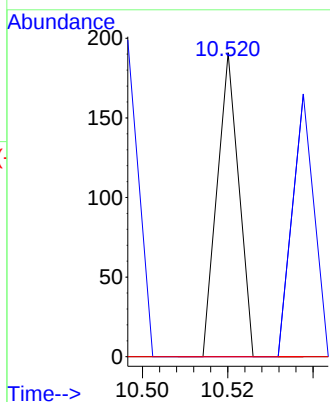
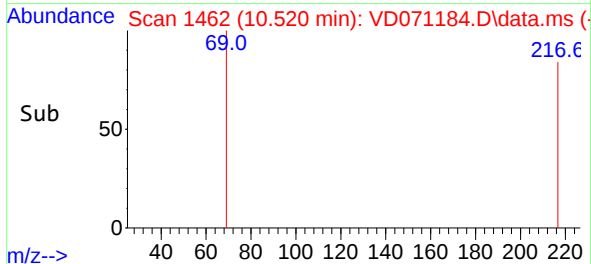


#56  
Ethyl methacrylate  
Concen: 6.73 ug/l  
RT: 10.520 min Scan# 1485  
Delta R.T. -0.136 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

Instrument :  
MSVOA\_D  
ClientSampleId :

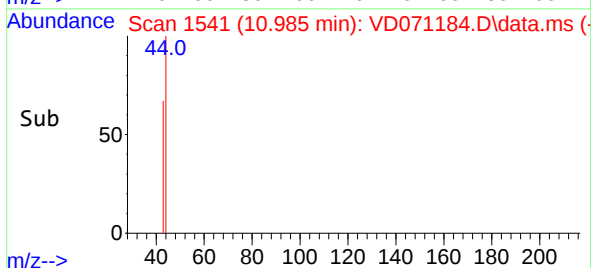
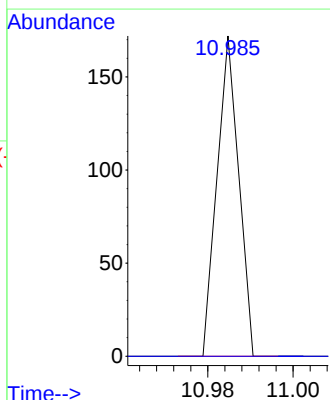
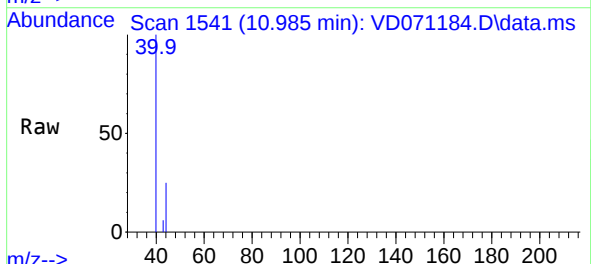


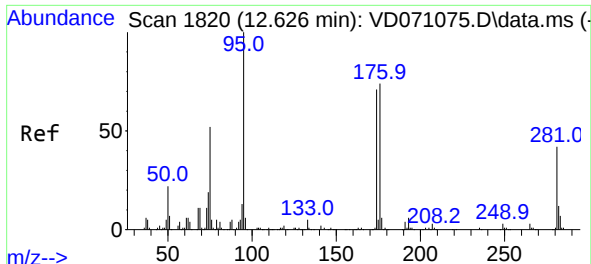
Tgt Ion: 69 Resp: 67  
Ion Ratio Lower Upper  
69 100  
41 86.6 50.2 75.2#  
39 0.0 19.8 29.8#



#59  
2-Hexanone  
Concen: 35.87 ug/l  
RT: 10.985 min Scan# 1541  
Delta R.T. 0.006 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

Tgt Ion: 43 Resp: 61  
Ion Ratio Lower Upper  
43 100  
58 0.0 28.7 86.1#

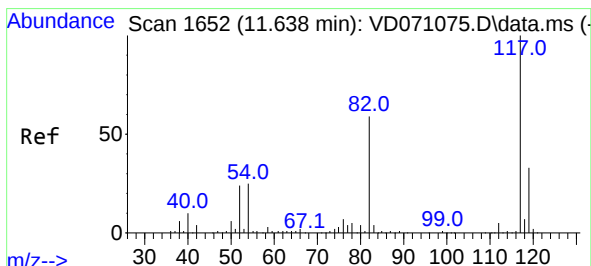
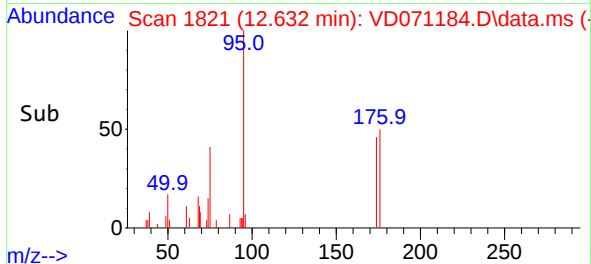
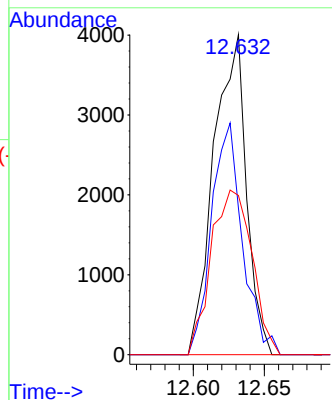
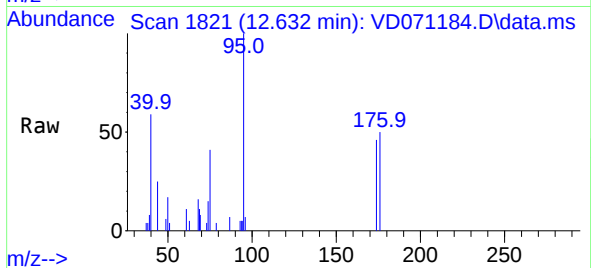




#62  
4-Bromofluorobenzene  
Concen: 64.05 ug/l  
RT: 12.632 min Scan# 1821  
Delta R.T. 0.006 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

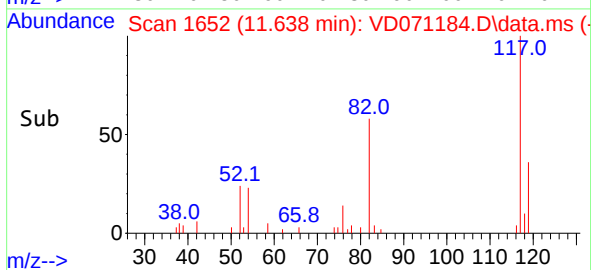
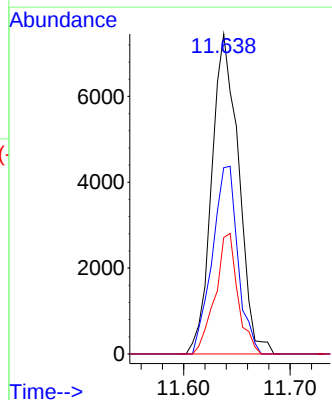
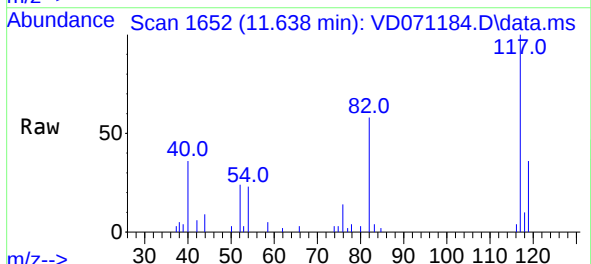
Instrument :  
MSVOA\_D  
ClientSampleId :

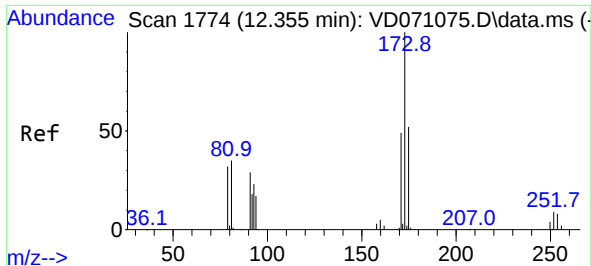
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 95    | Resp: | 6380  |
| Ion      | Ratio | Lower | Upper |
| 95       | 100   |       |       |
| 174      | 68.9  | 0.0   | 159.4 |
| 176      | 64.5  | 0.0   | 154.0 |



#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 11.638 min Scan# 1652  
Delta R.T. -0.000 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 117   | Resp: | 13051 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 82       | 58.2  | 44.7  | 67.1  |
| 119      | 36.4  | 26.2  | 39.4  |

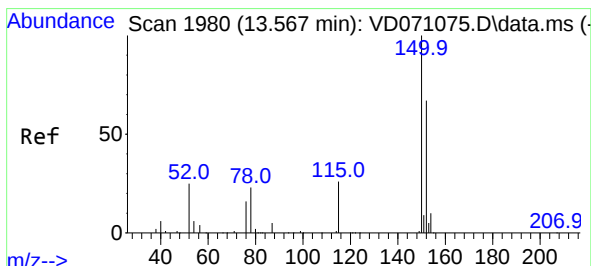
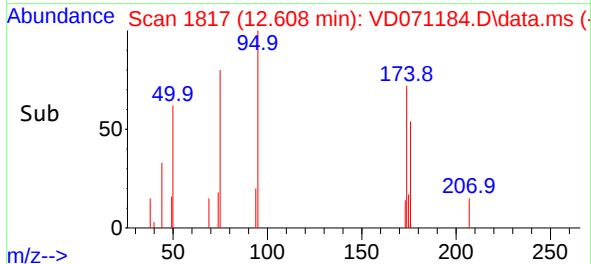
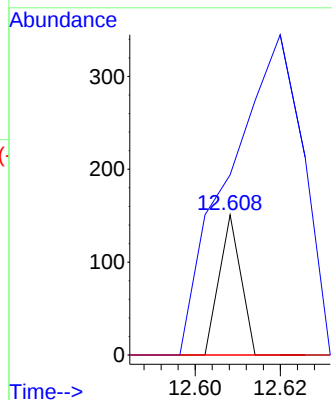
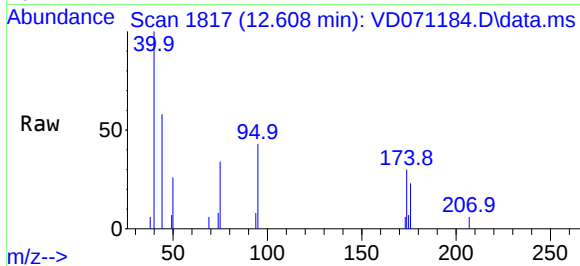




#71  
Bromoform  
Concen: 1.16 ug/l  
RT: 12.608 min Scan# 1817  
Delta R.T. 0.253 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

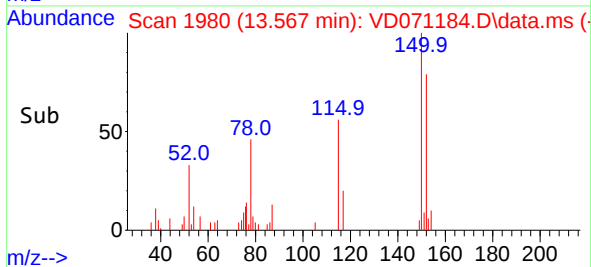
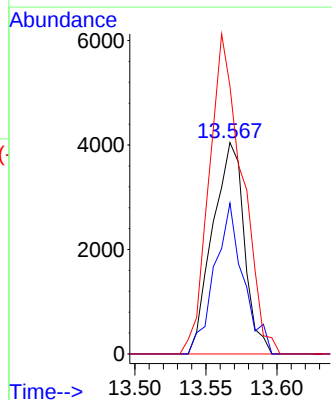
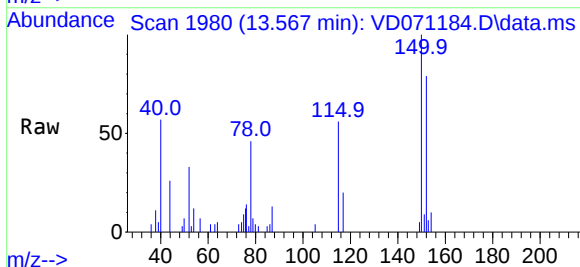
Instrument :  
MSVOA\_D  
ClientSampleId :

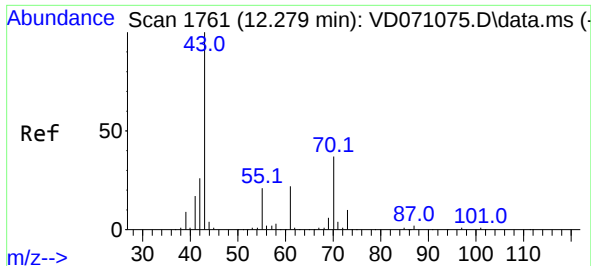
Tgt Ion:173 Resp: 53  
Ion Ratio Lower Upper  
173 100  
175 783.0 24.1 72.2#  
254 0.0 0.1 0.1#



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.00 ug/l  
RT: 13.567 min Scan# 1980  
Delta R.T. -0.000 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

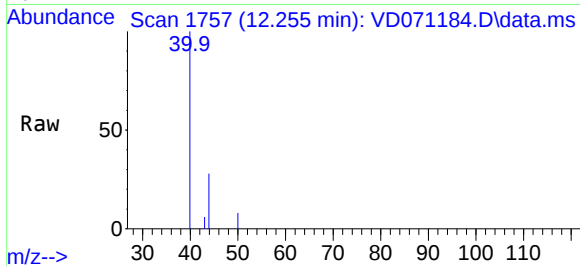
Tgt Ion:152 Resp: 6269  
Ion Ratio Lower Upper  
152 100  
115 64.8 29.8 89.3  
150 158.3 0.0 349.2



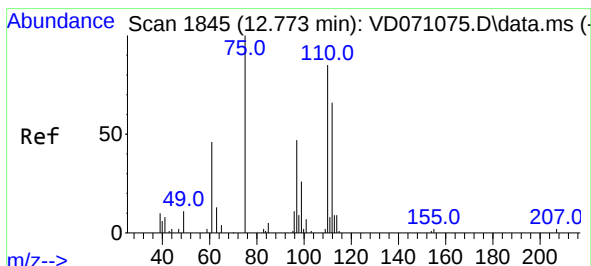
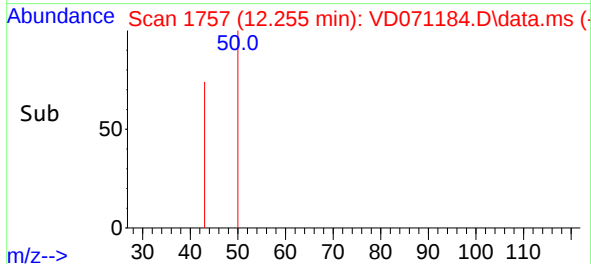
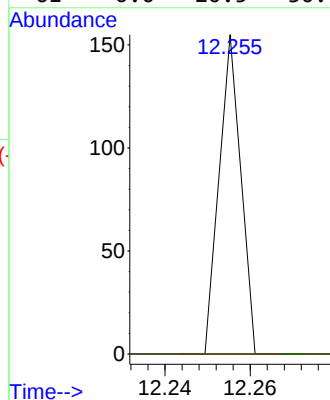


#74  
N-amy1 acetate  
Concen: 6.09 ug/l  
RT: 12.255 min Scan# 11  
Delta R.T. -0.024 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

Instrument :  
MSVOA\_D  
ClientSampleId :

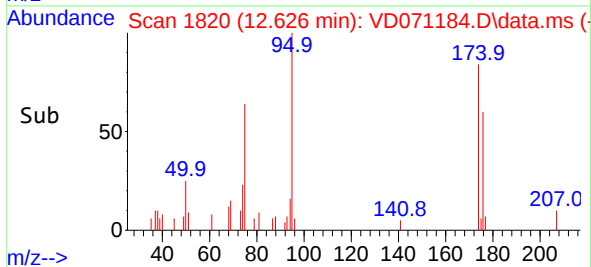
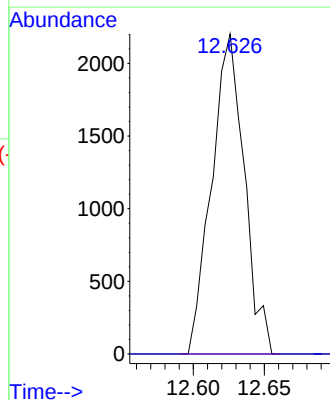
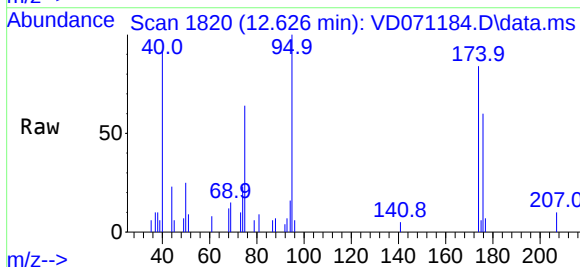


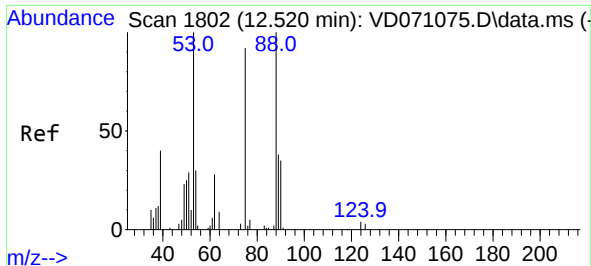
|             |                |
|-------------|----------------|
| Tgt Ion: 43 | Resp: 55       |
| Ion Ratio   | Lower Upper    |
| 43          | 100            |
| 70          | 0.0 36.6 55.0# |
| 55          | 0.0 22.5 33.7# |
| 61          | 0.0 20.5 30.7# |



#76  
1,2,3-Trichloropropane  
Concen: 58.88 ug/l  
RT: 12.626 min Scan# 1820  
Delta R.T. -0.147 min  
Lab File: VD071184.D  
Acq: 07 Dec 2021 15:36

|             |                  |
|-------------|------------------|
| Tgt Ion: 75 | Resp: 3517       |
| Ion Ratio   | Lower Upper      |
| 75          | 100              |
| 77          | 0.0 158.4 475.3# |

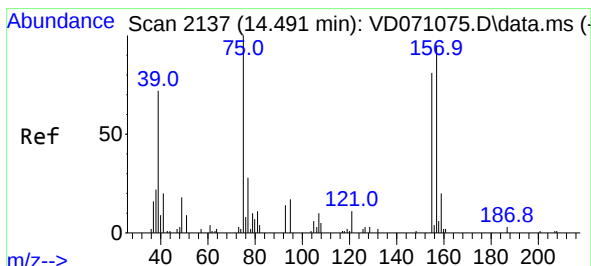
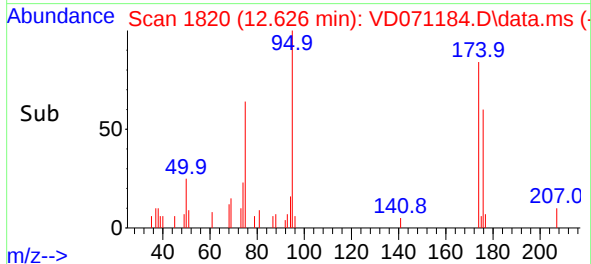
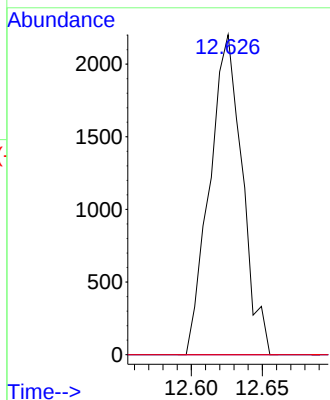
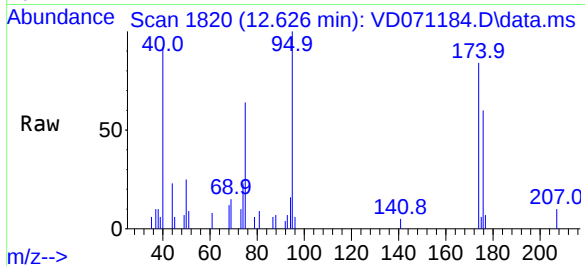




#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 127.59 ug/l  
 RT: 12.626 min Scan# 11  
 Delta R.T. 0.106 min  
 Lab File: VD071184.D  
 Acq: 07 Dec 2021 15:36

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Tgt Ion: 75 Resp: 3517  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 62.6 94.0#  
 89 0.0 34.5 51.7#



#92  
 1,2-Dibromo-3-Chloropropane  
 Concen: 4.52 ug/l  
 RT: 14.708 min Scan# 2174  
 Delta R.T. 0.217 min  
 Lab File: VD071184.D  
 Acq: 07 Dec 2021 15:36

Tgt Ion: 75 Resp: 55  
 Ion Ratio Lower Upper  
 75 100  
 155 0.0 40.0 120.0#  
 157 0.0 49.8 149.3#

