

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_D\Data\VD121523\  
 Data File : VD077897.D  
 Acq On : 15 Dec 2023 12:20  
 Operator : RP/MD  
 Sample : 05611-06  
 Misc : 5.02G/5.0ml/MSVOA\_D/SOIL  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Dec 16 03:59:21 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_D\Method\82D120823S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 14 14:48:10 2023  
 Response via : Initial Calibration

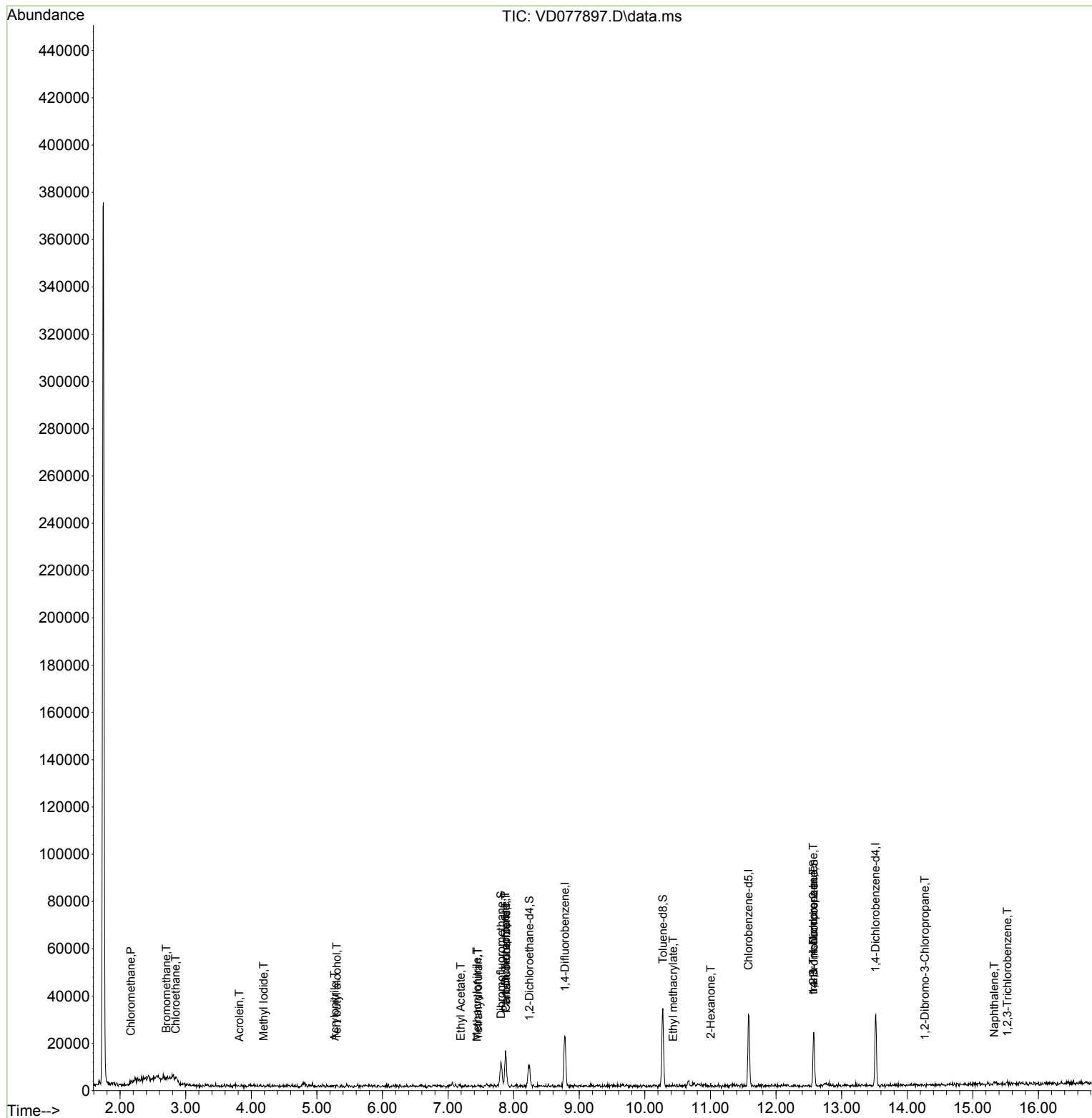
| Compound                      | R.T.   | QIon  | Response | Conc      | Units      | Dev(Min) |
|-------------------------------|--------|-------|----------|-----------|------------|----------|
| -----                         |        |       |          |           |            |          |
| Internal Standards            |        |       |          |           |            |          |
| 1) Pentafluorobenzene         | 7.887  | 168   | 10654    | 50.000    | ug/l       | # 0.01   |
| 34) 1,4-Difluorobenzene       | 8.781  | 114   | 19285    | 50.000    | ug/l       | 0.00     |
| 63) Chlorobenzene-d5          | 11.581 | 117   | 18443    | 50.000    | ug/l       | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 13.516 | 152   | 8526     | 50.000    | ug/l       | 0.00     |
| System Monitoring Compounds   |        |       |          |           |            |          |
| 33) 1,2-Dichloroethane-d4     | 8.240  | 65    | 6981     | 55.607    | ug/l       | 0.01     |
| Spiked Amount                 | 50.000 | Range | 50 - 163 | Recovery  | = 111.220% |          |
| 35) Dibromofluoromethane      | 7.810  | 113   | 6347     | 46.985    | ug/l       | 0.00     |
| Spiked Amount                 | 50.000 | Range | 54 - 147 | Recovery  | = 93.980%  |          |
| 50) Toluene-d8                | 10.275 | 98    | 22819    | 42.177    | ug/l       | 0.00     |
| Spiked Amount                 | 50.000 | Range | 58 - 134 | Recovery  | = 84.360%  |          |
| 62) 4-Bromofluorobenzene      | 12.575 | 95    | 7356     | 45.476    | ug/l       | 0.00     |
| Spiked Amount                 | 50.000 | Range | 30 - 143 | Recovery  | = 90.960%  |          |
| Target Compounds              |        |       |          |           |            |          |
|                               |        |       |          |           | Qvalue     |          |
| 3) Chloromethane              | 2.164  | 50    | 281      | 1.549     | ug/l       | # 41     |
| 5) Bromomethane               | 2.705  | 94    | 256      | 1.853     | ug/l       | # 43     |
| 6) Chloroethane               | 2.846  | 64    | 412      | 2.454     | ug/l       | # 43     |
| 10) Methyl Iodide             | 4.187  | 142   | 66       | 7.244     | ug/l       | # 46     |
| 11) Tert butyl alcohol        | 5.305  | 59    | 79       | 1.880     | ug/l       | # 73     |
| 13) Acrolein                  | 3.816  | 56    | 54       | 4.066     | ug/l       | # 15     |
| 15) Acrylonitrile             | 5.269  | 53    | 61       | 2.237     | ug/l       | # 1      |
| 16) Acetone                   | 4.040  | 43    | 161      | Below Cal | #          | 32       |
| 20) Methylene Chloride        | 4.816  | 84    | 591      | Below Cal | #          | 62       |
| 25) 2-Butanone                | 7.052  | 43    | 124      | Below Cal | #          | 37       |
| 29) Tetrahydrofuran           | 7.457  | 42    | 206      | 10.304    | ug/l       | # 23     |
| 36) 1,1-Dichloropropene       | 7.875  | 75    | 717      | 3.318     | ug/l       | # 39     |
| 37) Ethyl Acetate             | 7.193  | 43    | 136      | 1.614     | ug/l       | # 62     |
| 38) Carbon Tetrachloride      | 7.881  | 117   | 977      | 4.535     | ug/l       | # 11     |
| 41) Methacrylonitrile         | 7.440  | 41    | 66       | 1.541     | ug/l       | # 10     |
| 56) Ethyl methacrylate        | 10.434 | 69    | 137      | 1.440     | ug/l       | # 78     |
| 59) 2-Hexanone                | 11.004 | 43    | 137      | 2.160     | ug/l       | 77       |
| 65) Chlorobenzene             | 11.604 | 112   | 155      | Below Cal | #          | 43       |
| 76) 1,2,3-Trichloropropane    | 12.569 | 75    | 3783     | 51.088    | ug/l       | # 100    |
| 81) trans-1,4-Dichloro-2-b... | 12.569 | 75    | 3783     | 103.508   | ug/l       | # 19     |
| 88) 1,4-Dichlorobenzene       | 13.539 | 146   | 218      | Below Cal | #          | 34       |
| 92) 1,2-Dibromo-3-Chloropr... | 14.269 | 75    | 72       | 3.500     | ug/l       | # 1      |
| 95) Naphthalene               | 15.328 | 128   | 773      | 2.577     | ug/l       | # 56     |
| 96) 1,2,3-Trichlorobenzene    | 15.528 | 180   | 206      | 1.384     | ug/l       | 67       |
| -----                         |        |       |          |           |            |          |

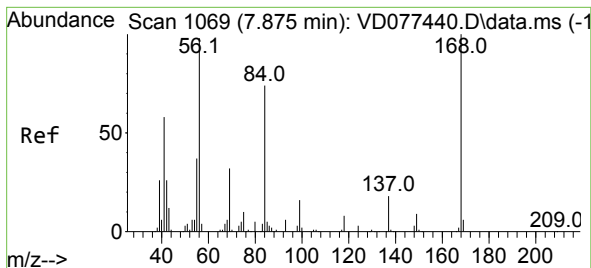
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_D\Method\82D120823S.M  
Quant Title : SW846 8260  
QLast Update : Thu Dec 14 14:48:10 2023  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.887 min Scan# 10

Delta R.T. 0.012 min

Lab File: VD077897.D

Acq: 15 Dec 2023 12:20

Instrument :

MSVOA\_D

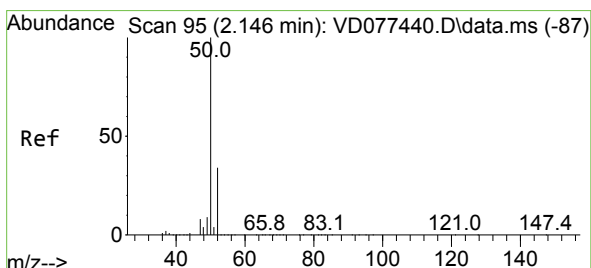
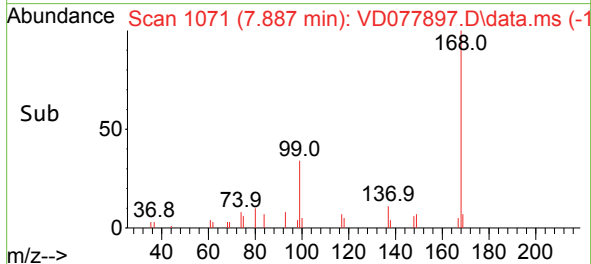
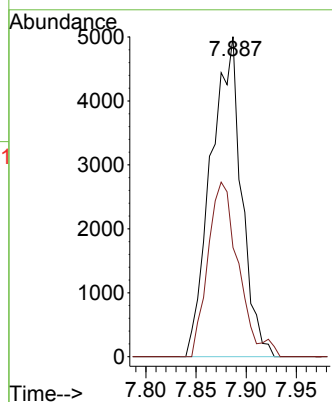
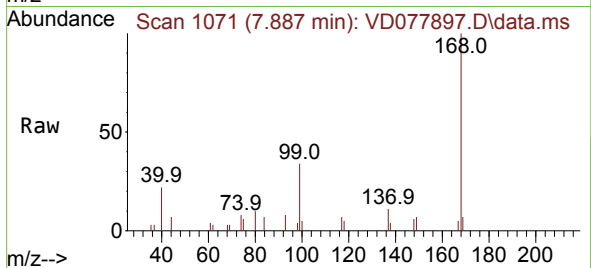
ClientSampleId :

Tgt Ion:168 Resp: 10654

Ion Ratio Lower Upper

168 100

99 34.1 36.7 55.1#



#3

Chloromethane

Concen: 1.549 ug/l

RT: 2.164 min Scan# 98

Delta R.T. 0.018 min

Lab File: VD077897.D

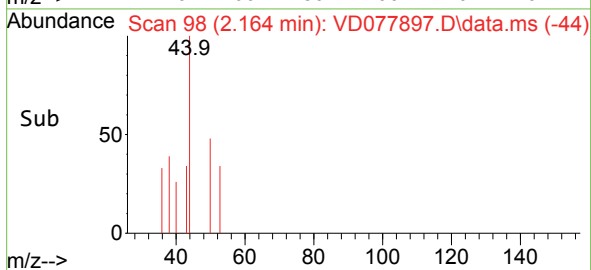
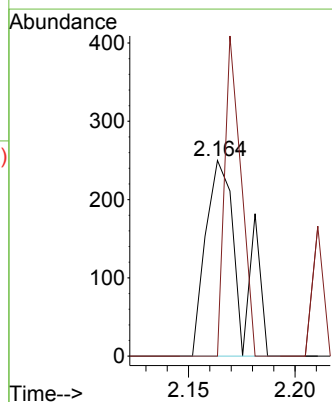
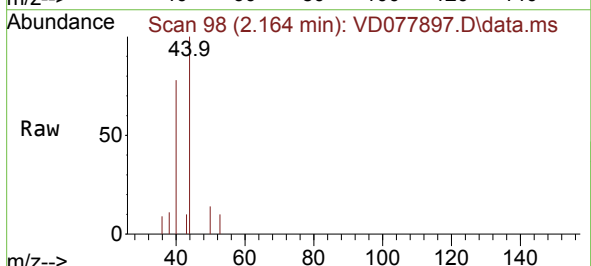
Acq: 15 Dec 2023 12:20

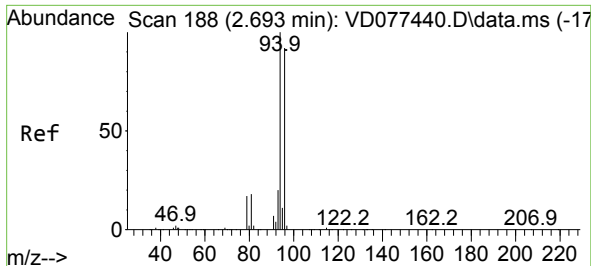
Tgt Ion: 50 Resp: 281

Ion Ratio Lower Upper

50 100

52 0.0 26.6 40.0#

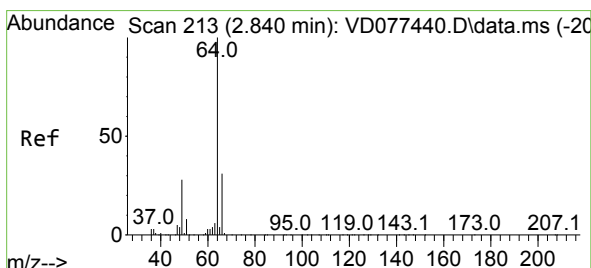
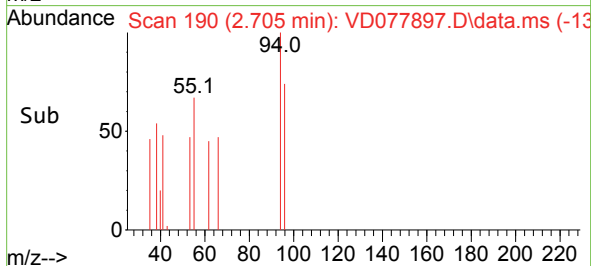
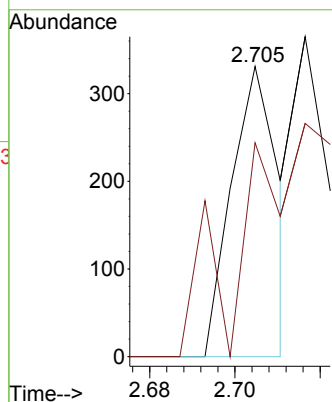
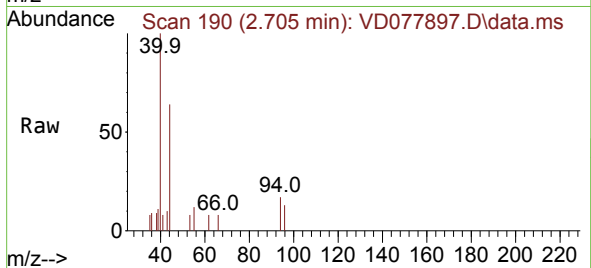




#5  
Bromomethane  
Concen: 1.853 ug/l  
RT: 2.705 min Scan# 190  
Delta R.T. 0.012 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

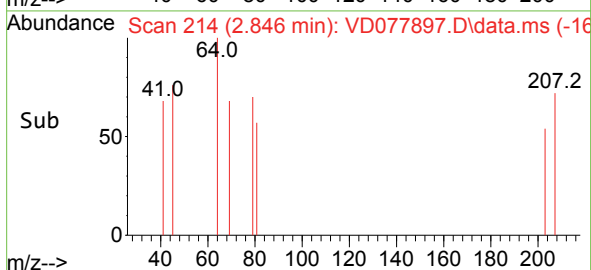
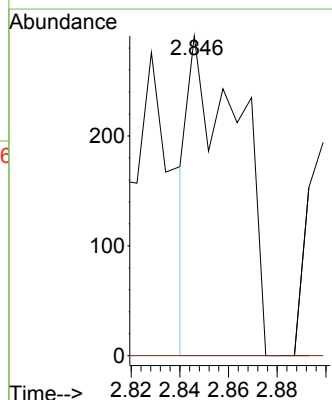
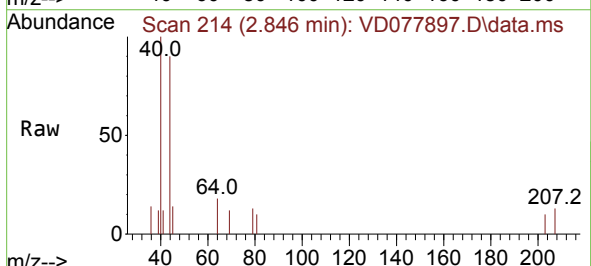
Instrument :  
MSVOA\_D  
ClientSampleId :

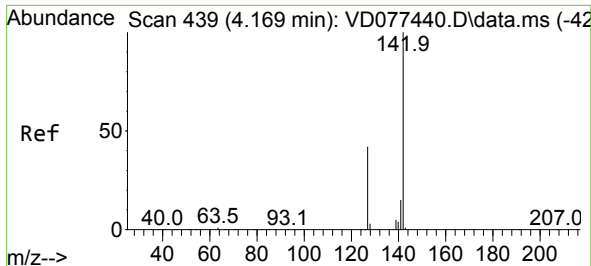
Tgt Ion: 94 Resp: 256  
Ion Ratio Lower Upper  
94 100  
96 150.4 75.8 113.8#



#6  
Chloroethane  
Concen: 2.454 ug/l  
RT: 2.846 min Scan# 214  
Delta R.T. 0.006 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

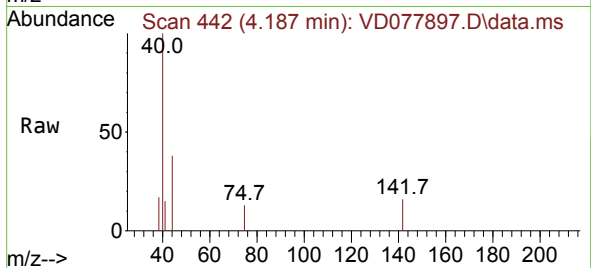
Tgt Ion: 64 Resp: 412  
Ion Ratio Lower Upper  
64 100  
66 0.0 25.5 38.3#



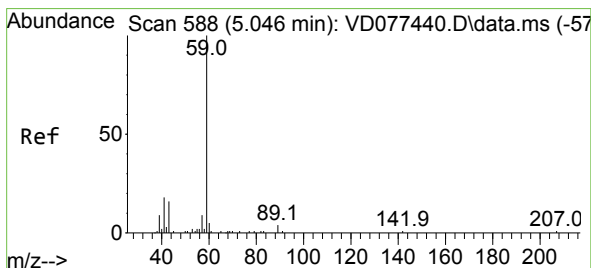
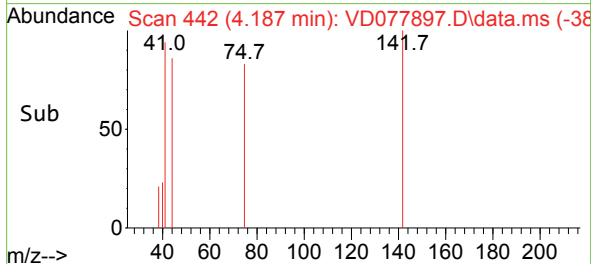
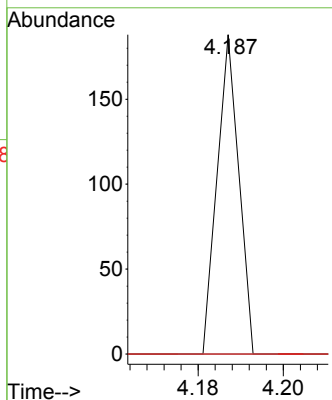


#10  
Methyl Iodide  
Concen: 7.244 ug/l  
RT: 4.187 min Scan# 44  
Delta R.T. 0.018 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

Instrument :  
MSVOA\_D  
ClientSampleId :

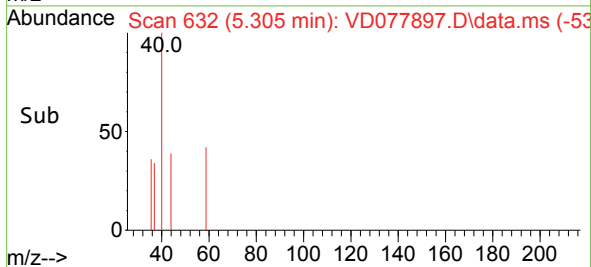
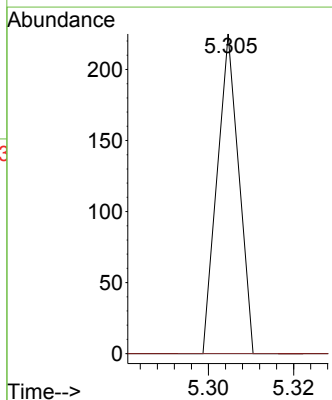
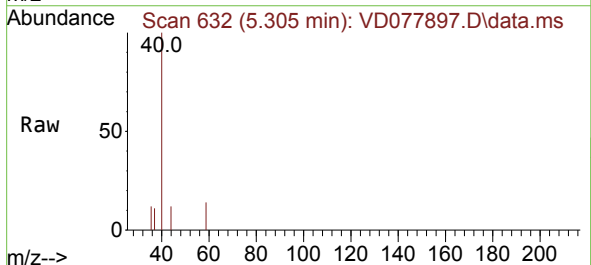


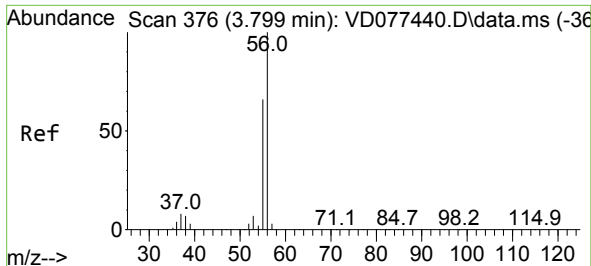
Tgt Ion:142 Resp: 66  
Ion Ratio Lower Upper  
142 100  
127 0.0 29.4 44.0#  
141 0.0 11.1 16.7#



#11  
Tert butyl alcohol  
Concen: 1.880 ug/l  
RT: 5.305 min Scan# 632  
Delta R.T. 0.259 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

Tgt Ion: 59 Resp: 79  
Ion Ratio Lower Upper  
59 100  
57 0.0 7.8 11.8#





#13

Acrolein

Concen: 4.066 ug/l

RT: 3.816 min Scan# 31

Delta R.T. 0.017 min

Lab File: VD077897.D

Acq: 15 Dec 2023 12:20

Instrument :

MSVOA\_D

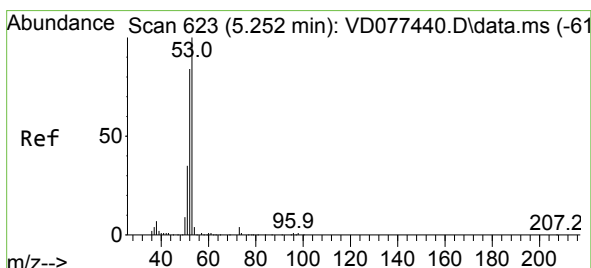
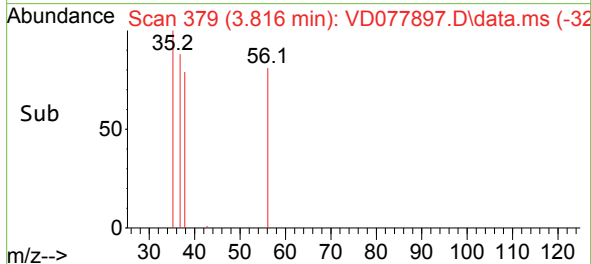
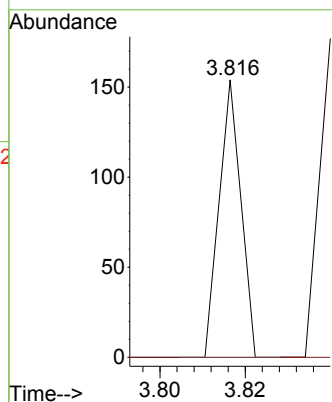
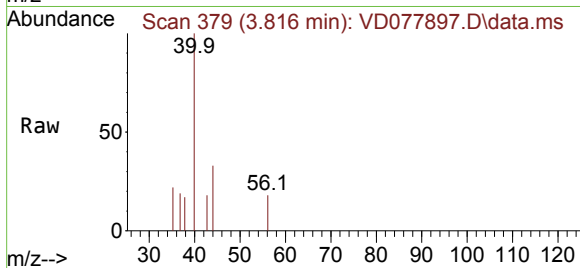
ClientSampleId :

Tgt Ion: 56 Resp: 54

Ion Ratio Lower Upper

56 100

55 0.0 55.1 82.7#



#15

Acrylonitrile

Concen: 2.237 ug/l

RT: 5.269 min Scan# 626

Delta R.T. 0.017 min

Lab File: VD077897.D

Acq: 15 Dec 2023 12:20

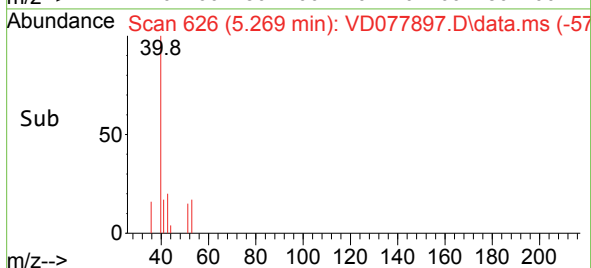
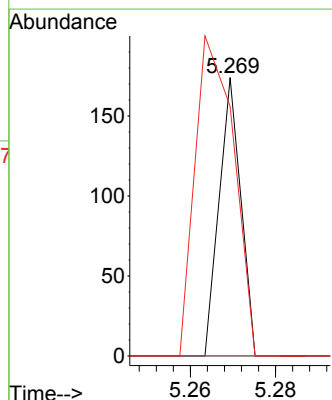
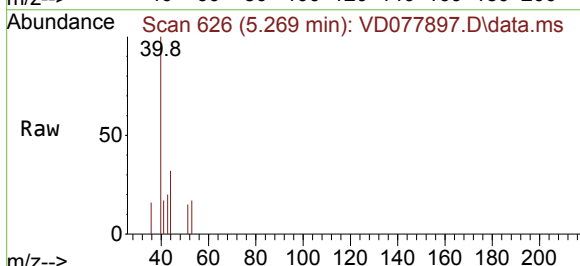
Tgt Ion: 53 Resp: 61

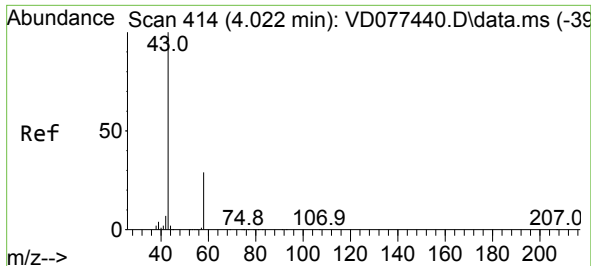
Ion Ratio Lower Upper

53 100

52 0.0 65.0 97.4#

51 206.6 28.3 42.5#

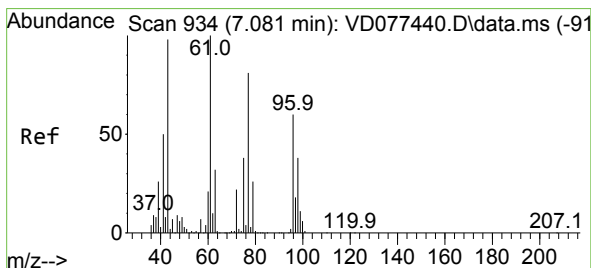
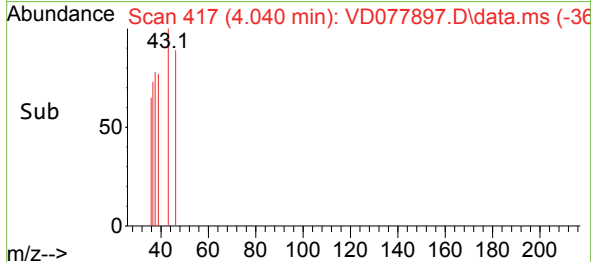
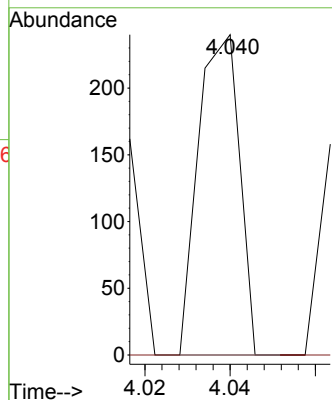
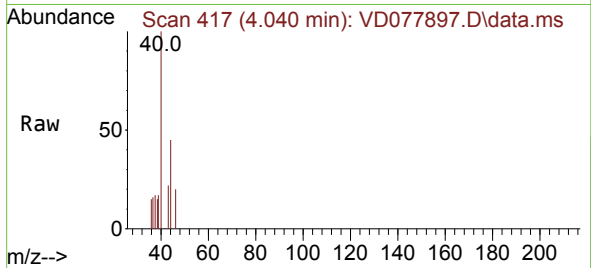




#16  
Acetone  
Concen: Below Cal  
RT: 4.040 min Scan# 414  
Delta R.T. 0.018 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

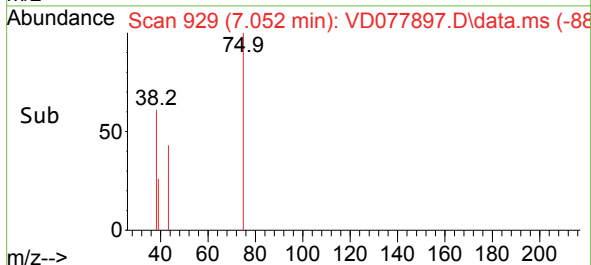
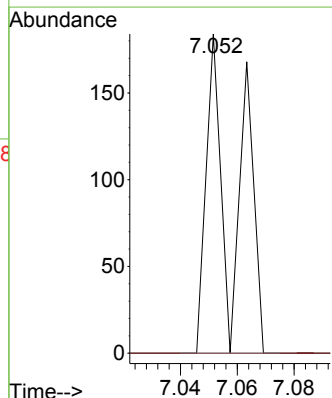
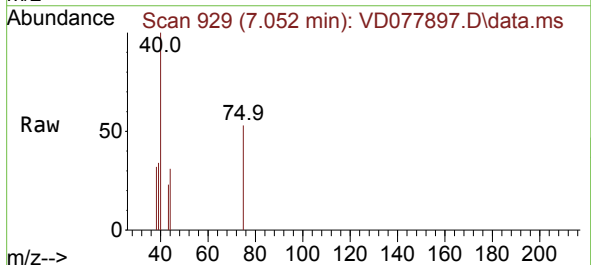
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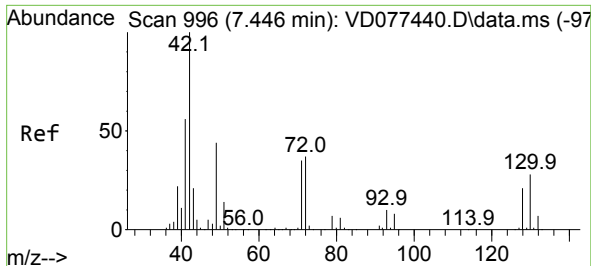
Tgt Ion: 43 Resp: 161  
Ion Ratio Lower Upper  
43 100  
58 0.0 34.7 52.1#



#25  
2-Butanone  
Concen: Below Cal  
RT: 7.052 min Scan# 929  
Delta R.T. -0.029 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

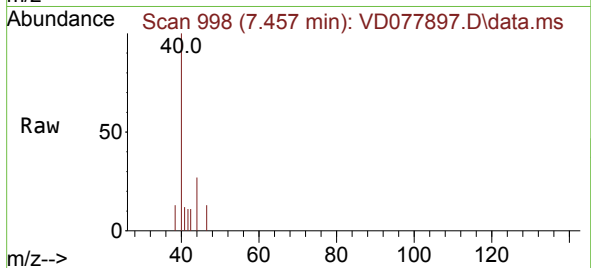
Tgt Ion: 43 Resp: 124  
Ion Ratio Lower Upper  
43 100  
72 0.0 30.7 46.1#



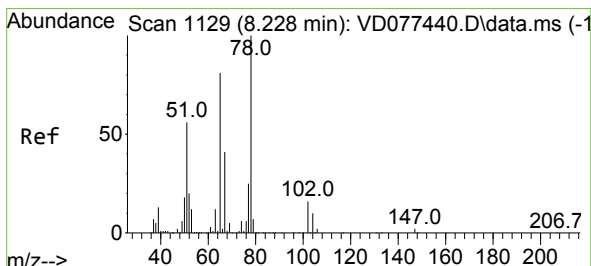
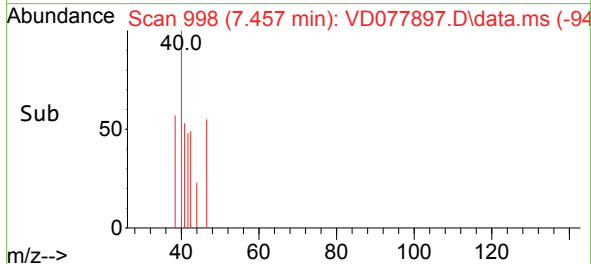
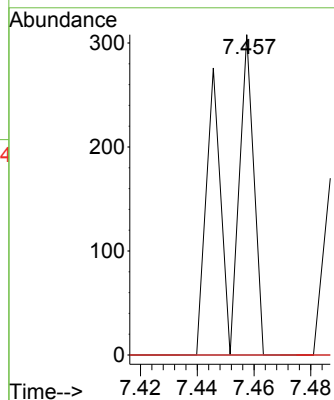


#29  
Tetrahydrofuran  
Concen: 10.304 ug/l  
RT: 7.457 min Scan# 998  
Delta R.T. 0.011 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

Instrument :  
MSVOA\_D  
ClientSampleId :

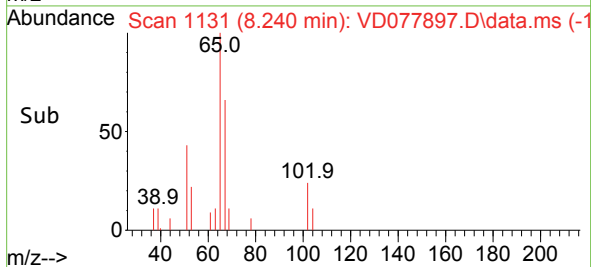
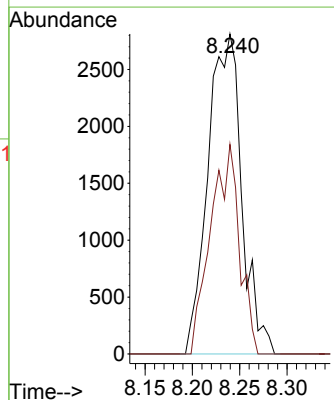
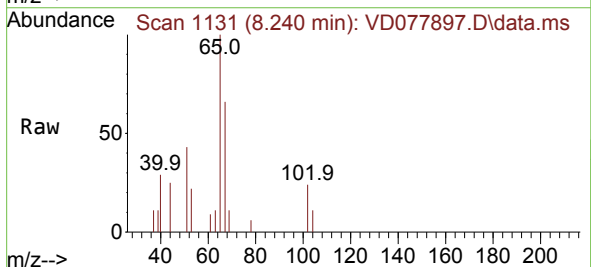


Tgt Ion: 42 Resp: 206  
Ion Ratio Lower Upper  
42 100  
72 0.0 46.5 69.7#  
71 0.0 44.5 66.7#

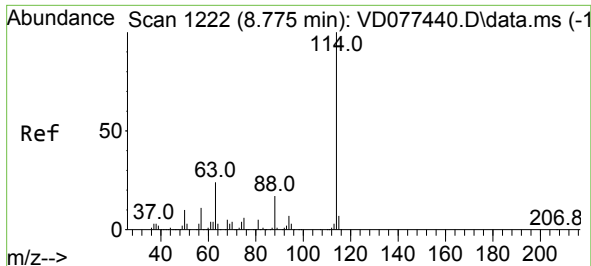


#33  
1,2-Dichloroethane-d4  
Concen: 55.607 ug/l  
RT: 8.240 min Scan# 1131  
Delta R.T. 0.012 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

Tgt Ion: 65 Resp: 6981  
Ion Ratio Lower Upper  
65 100  
67 55.9 0.0 115.0







#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.781 min Scan# 11

Delta R.T. 0.006 min

Lab File: VD077897.D

Acq: 15 Dec 2023 12:20

Instrument :

MSVOA\_D

ClientSampleId :

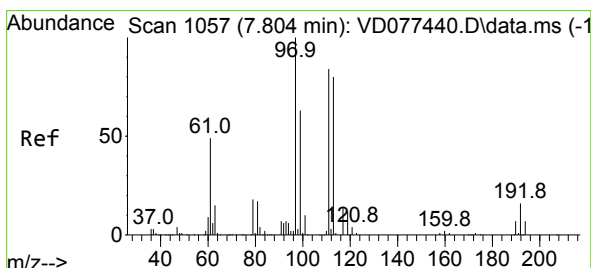
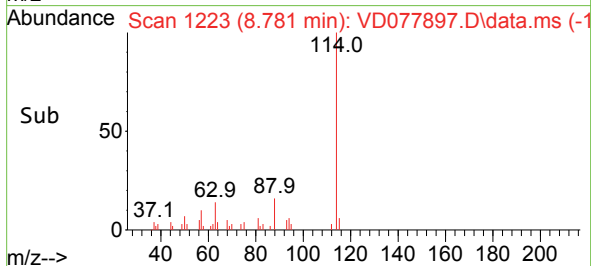
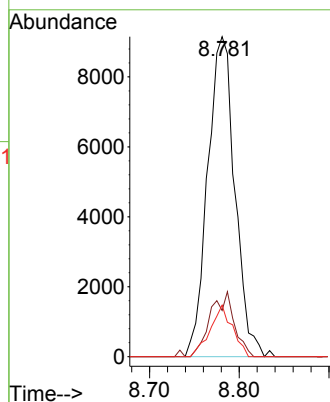
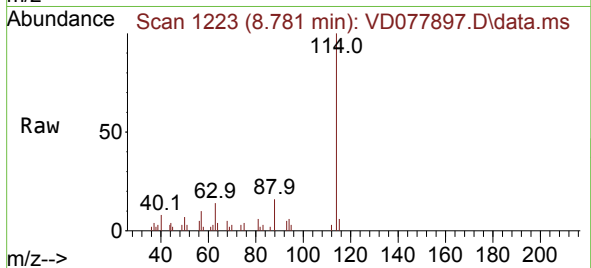
Tgt Ion:114 Resp: 19285

Ion Ratio Lower Upper

114 100

63 14.4 0.0 33.4

88 16.1 0.0 26.2



#35

Dibromofluoromethane

Concen: 46.985 ug/l

RT: 7.810 min Scan# 1058

Delta R.T. 0.006 min

Lab File: VD077897.D

Acq: 15 Dec 2023 12:20

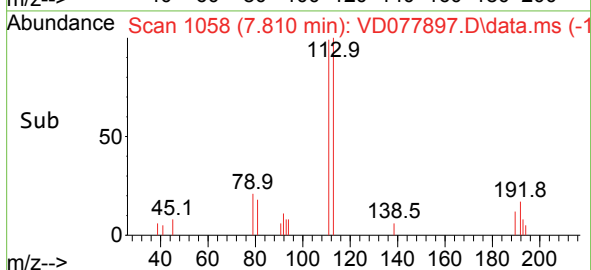
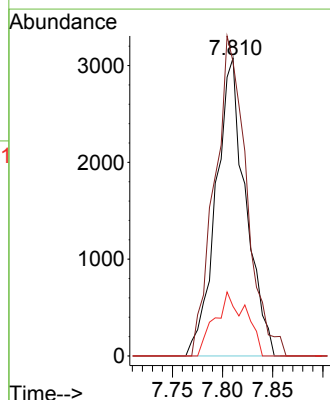
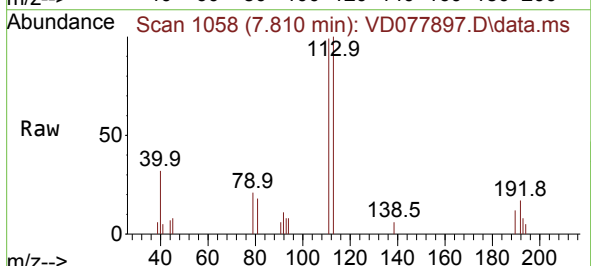
Tgt Ion:113 Resp: 6347

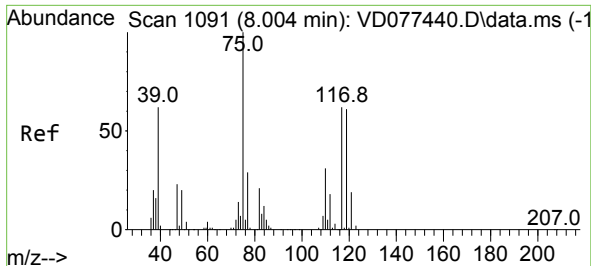
Ion Ratio Lower Upper

113 100

111 115.0 84.7 127.1

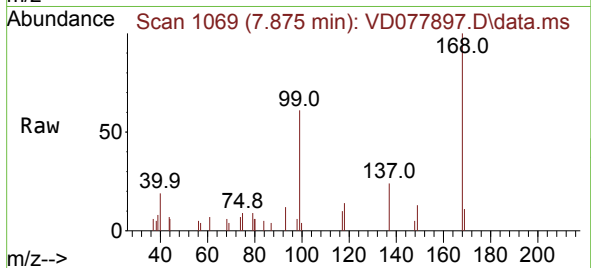
192 22.5 16.8 25.2



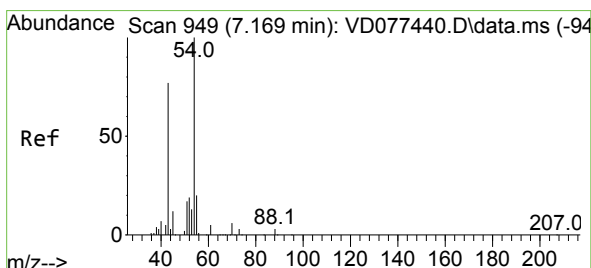
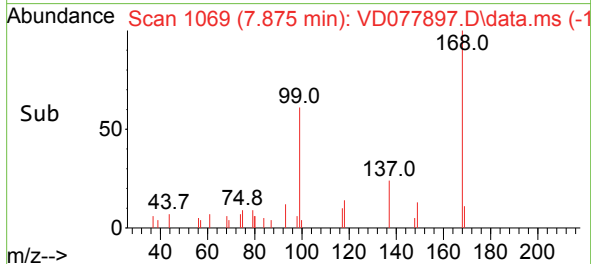
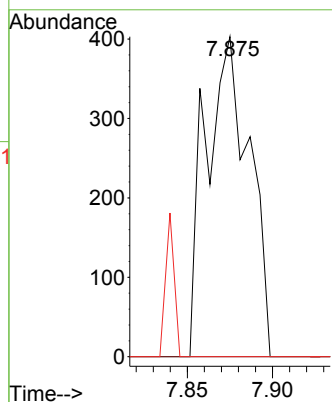


#36  
1,1-Dichloropropene  
Concen: 3.318 ug/l  
RT: 7.875 min Scan# 1091  
Delta R.T. -0.129 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

Instrument :  
MSVOA\_D  
ClientSampleId :

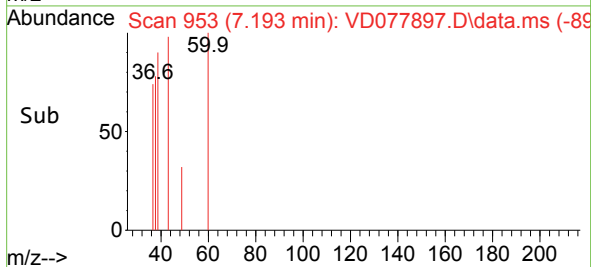
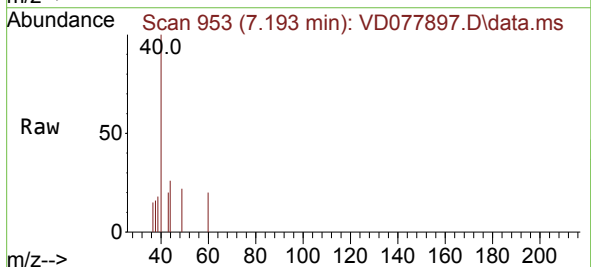
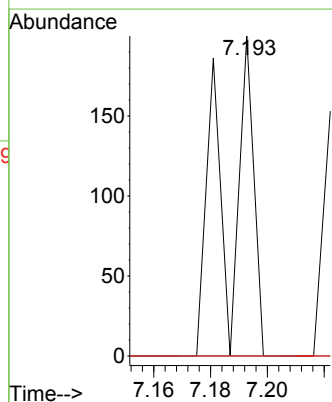


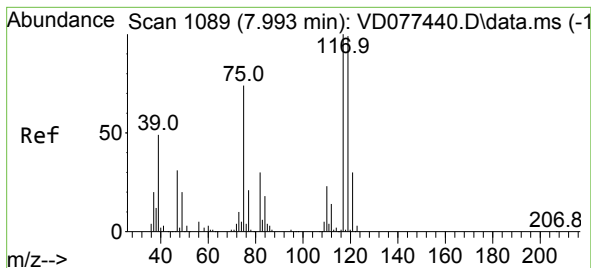
Tgt Ion: 75 Resp: 717  
Ion Ratio Lower Upper  
75 100  
110 0.0 19.9 59.6#  
77 0.0 24.7 37.1#



#37  
Ethyl Acetate  
Concen: 1.614 ug/l  
RT: 7.193 min Scan# 953  
Delta R.T. 0.024 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

Tgt Ion: 43 Resp: 136  
Ion Ratio Lower Upper  
43 100  
61 0.0 14.9 22.3#  
70 0.0 10.0 15.0#





#38

Carbon Tetrachloride

Concen: 4.535 ug/l

RT: 7.881 min Scan# 1089

Delta R.T. -0.112 min

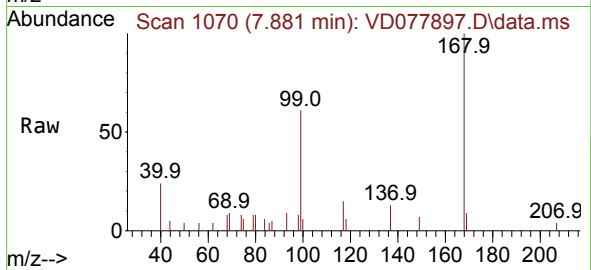
Lab File: VD077897.D

Acq: 15 Dec 2023 12:20

Instrument :

MSVOA\_D

ClientSampleId :



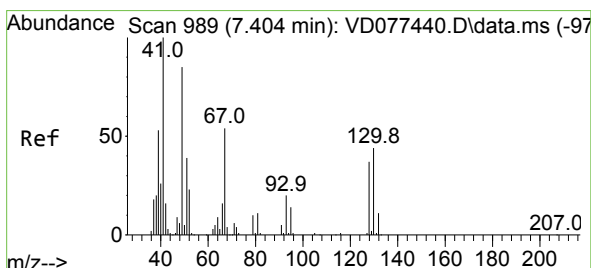
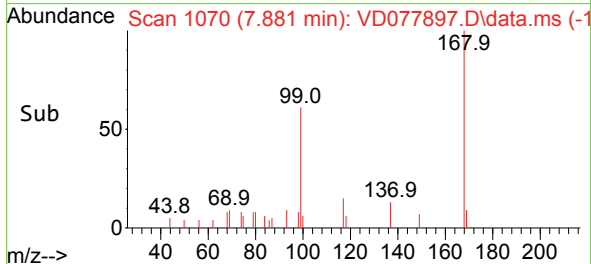
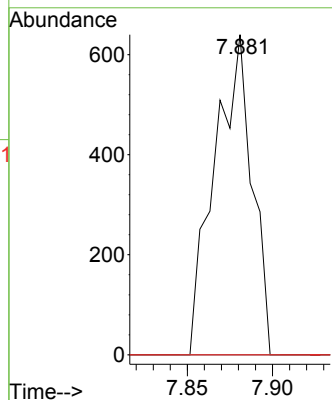
Tgt Ion:117 Resp: 977

Ion Ratio Lower Upper

117 100

119 0.0 78.0 117.0#

121 0.0 24.2 36.2#



#41

Methacrylonitrile

Concen: 1.541 ug/l

RT: 7.440 min Scan# 995

Delta R.T. 0.036 min

Lab File: VD077897.D

Acq: 15 Dec 2023 12:20

Tgt Ion: 41 Resp: 66

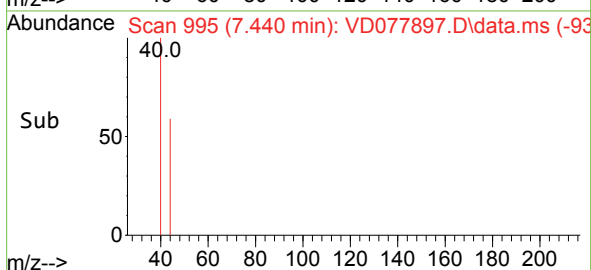
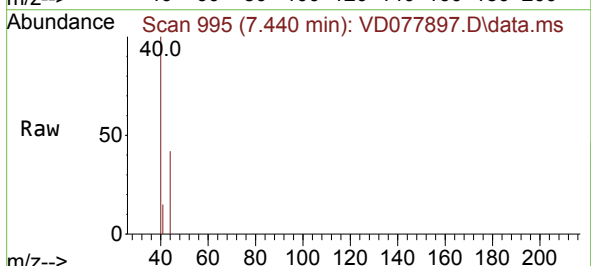
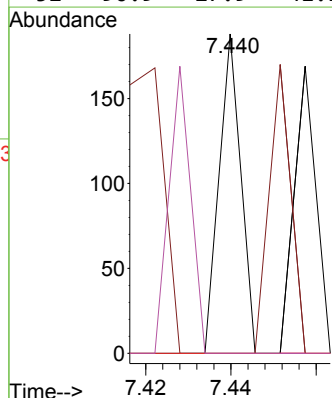
Ion Ratio Lower Upper

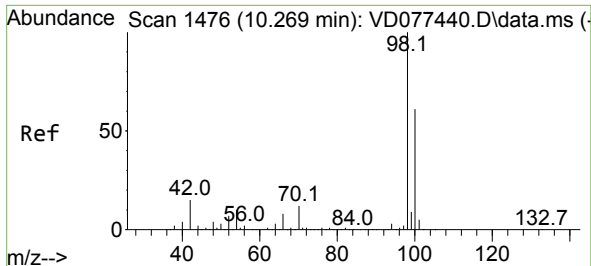
41 100

39 0.0 34.0 51.0#

67 0.0 77.0 115.4#

52 90.9 27.9 41.9#

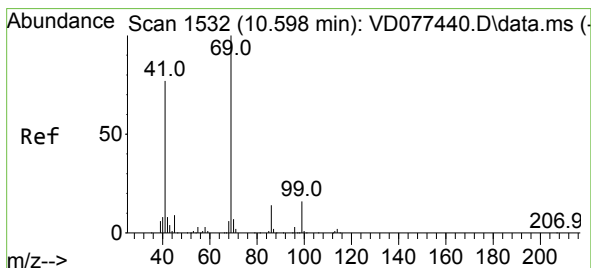
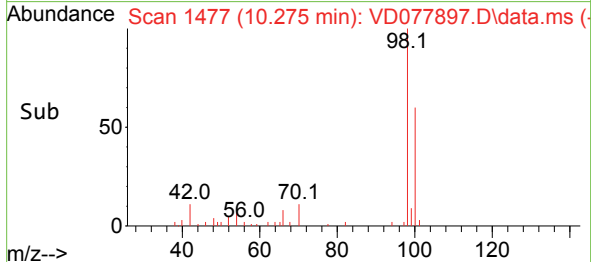
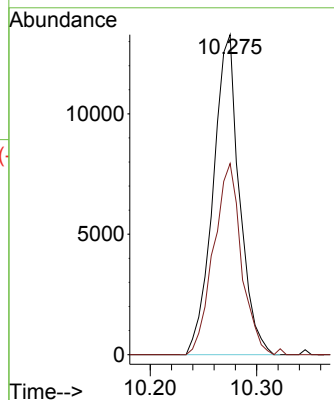
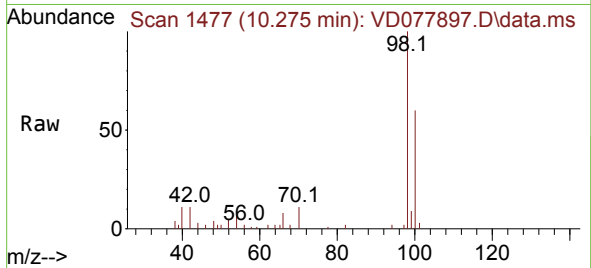




#50  
Toluene-d8  
Concen: 42.177 ug/l  
RT: 10.275 min Scan# 1476  
Delta R.T. 0.006 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

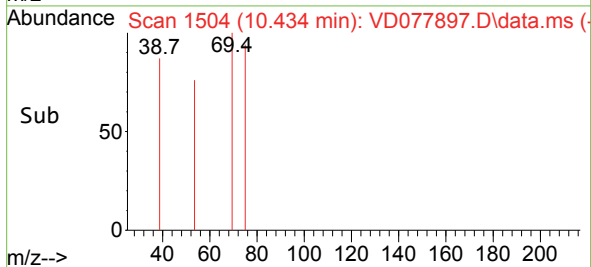
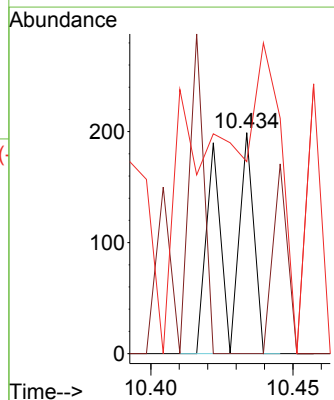
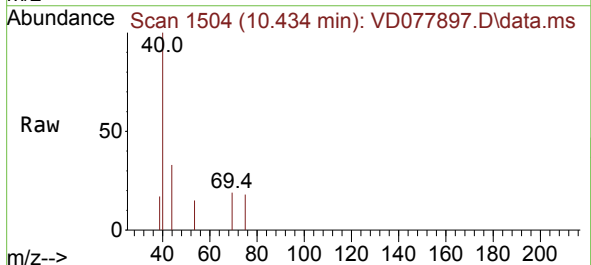
Instrument :  
MSVOA\_D  
ClientSampleId :

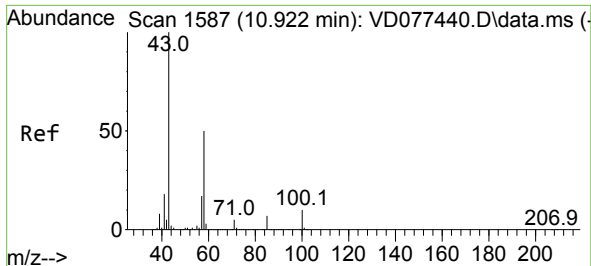
Tgt Ion: 98 Resp: 22819  
Ion Ratio Lower Upper  
98 100  
100 63.0 50.3 75.5



#56  
Ethyl methacrylate  
Concen: 1.440 ug/l  
RT: 10.434 min Scan# 1504  
Delta R.T. -0.164 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

Tgt Ion: 69 Resp: 137  
Ion Ratio Lower Upper  
69 100  
41 43.8 39.1 58.7  
39 0.0 20.0 30.0#

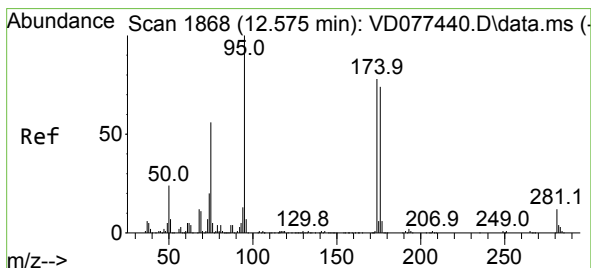
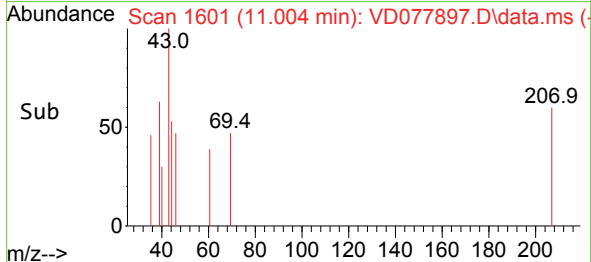
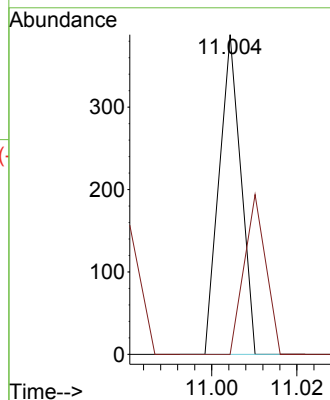
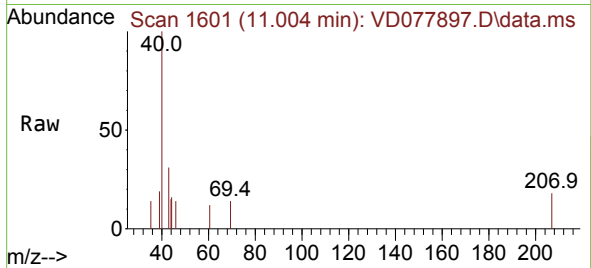




#59  
2-Hexanone  
Concen: 2.160 ug/l  
RT: 11.004 min Scan# 1  
Delta R.T. 0.082 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

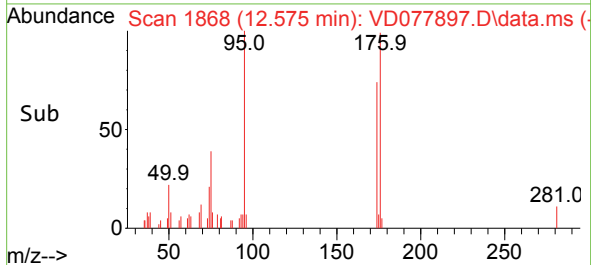
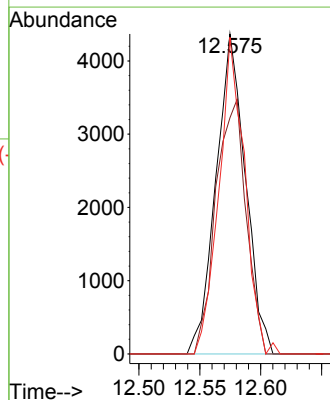
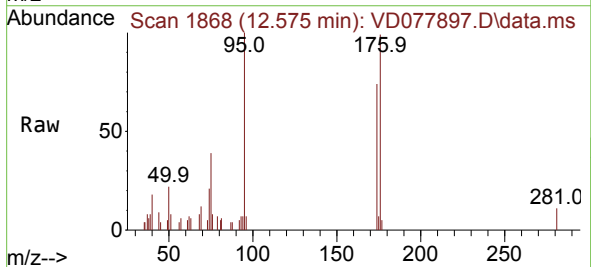
Instrument :  
MSVOA\_D  
ClientSampleId :

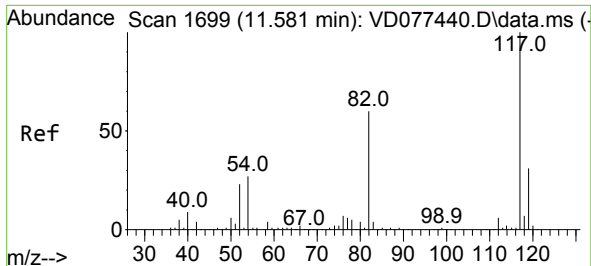
Tgt Ion: 43 Resp: 137  
Ion Ratio Lower Upper  
43 100  
58 49.6 34.1 102.2



#62  
4-Bromofluorobenzene  
Concen: 45.476 ug/l  
RT: 12.575 min Scan# 1868  
Delta R.T. -0.000 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

Tgt Ion: 95 Resp: 7356  
Ion Ratio Lower Upper  
95 100  
174 81.6 0.0 201.8  
176 86.0 0.0 191.8

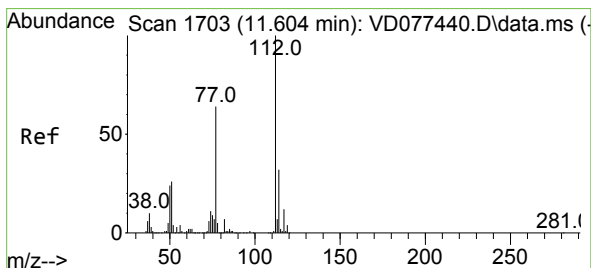
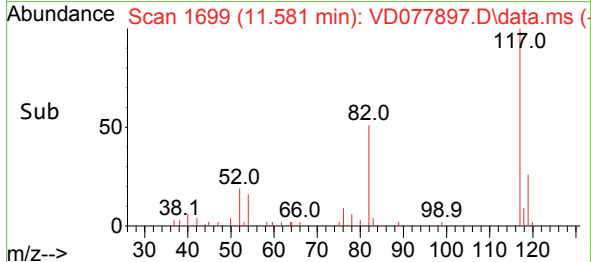
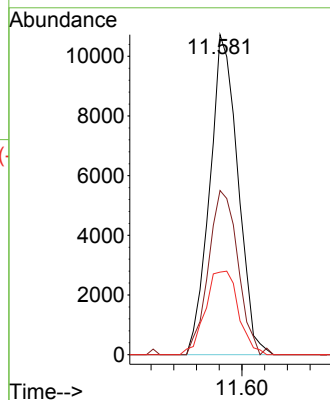
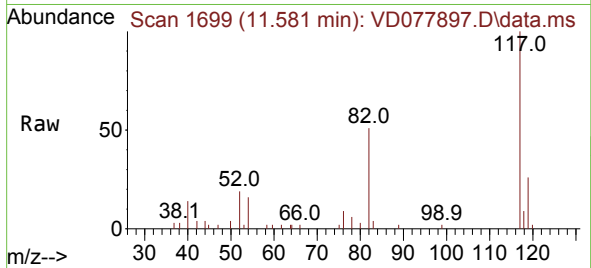




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.581 min Scan# 117  
Delta R.T. -0.000 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

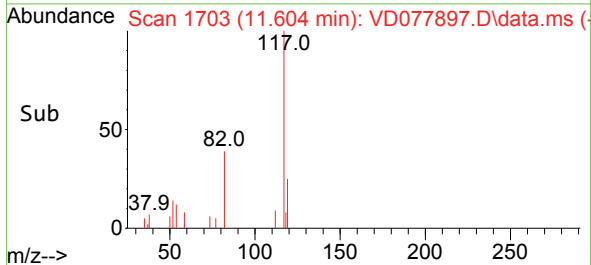
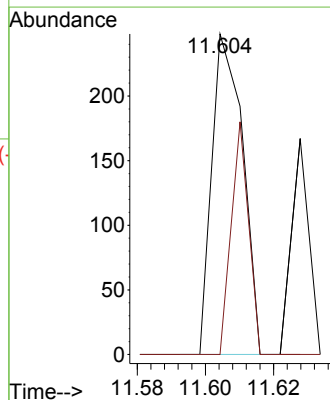
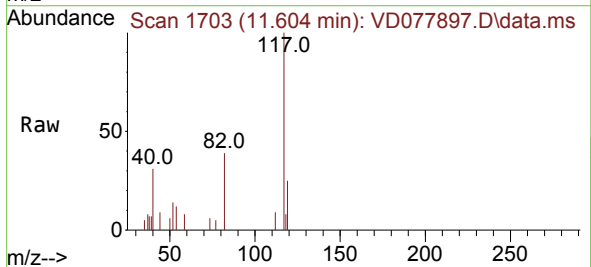
Instrument :  
MSVOA\_D  
ClientSampleId :

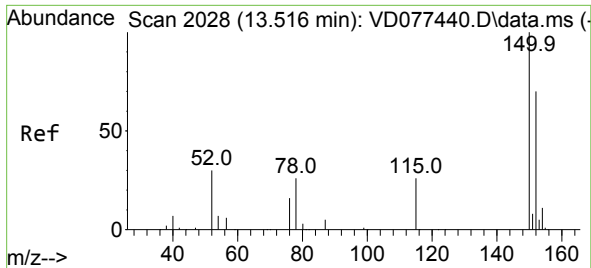
Tgt Ion:117 Resp: 18443  
Ion Ratio Lower Upper  
117 100  
82 51.3 38.3 57.5  
119 25.8 25.0 37.4



#65  
Chlorobenzene  
Concen: Below Cal  
RT: 11.604 min Scan# 1703  
Delta R.T. 0.000 min  
Lab File: VD077897.D  
Acq: 15 Dec 2023 12:20

Tgt Ion:112 Resp: 155  
Ion Ratio Lower Upper  
112 100  
114 0.0 25.1 37.7#

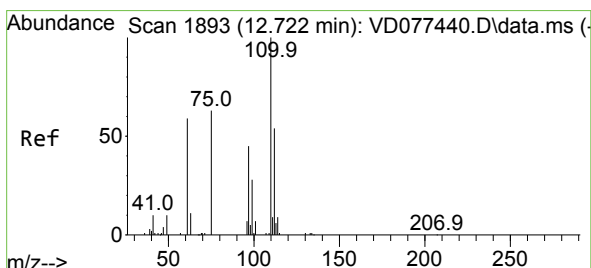
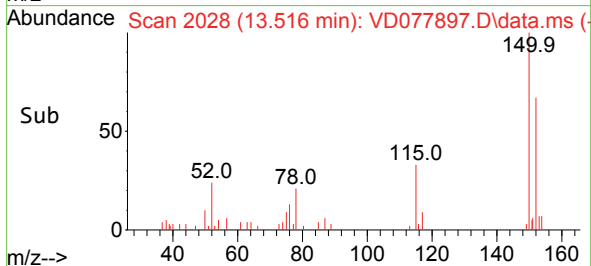
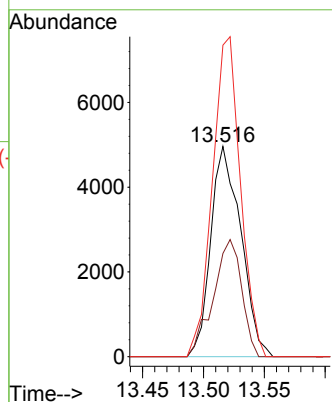
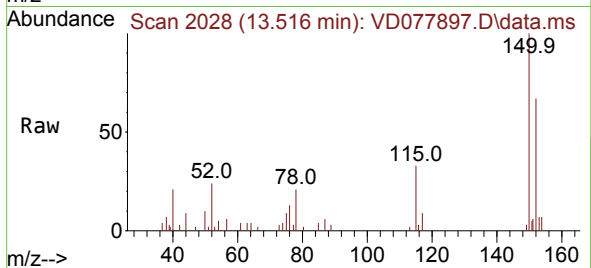




#72  
 1,4-Dichlorobenzene-d4  
 Concen: 50.000 ug/l  
 RT: 13.516 min Scan# 2028  
 Delta R.T. -0.000 min  
 Lab File: VD077897.D  
 Acq: 15 Dec 2023 12:20

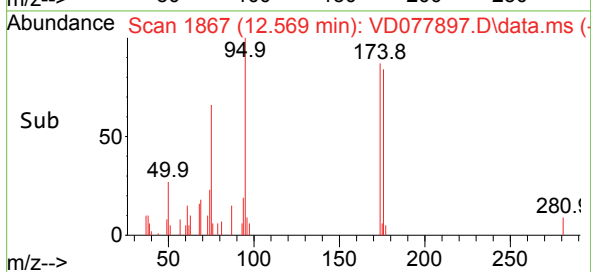
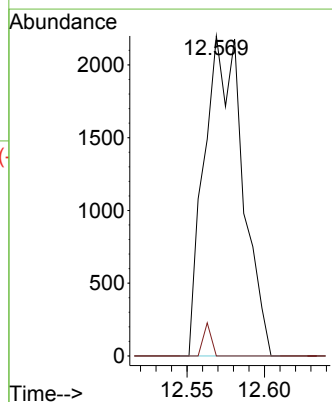
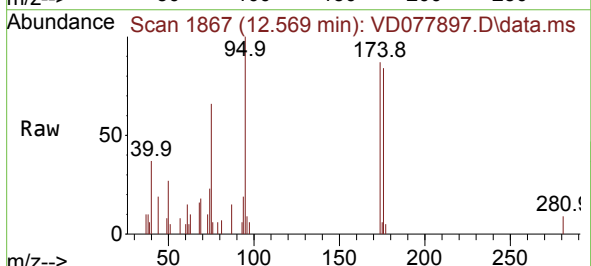
Instrument :  
 MSVOA\_D  
 ClientSampleId :

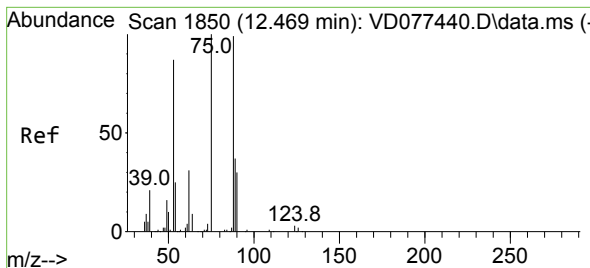
Tgt Ion:152 Resp: 8526  
 Ion Ratio Lower Upper  
 152 100  
 115 52.6 27.1 81.3  
 150 142.0 0.0 353.6



#76  
 1,2,3-Trichloropropane  
 Concen: 51.088 ug/l  
 RT: 12.569 min Scan# 1867  
 Delta R.T. -0.153 min  
 Lab File: VD077897.D  
 Acq: 15 Dec 2023 12:20

Tgt Ion: 75 Resp: 3783  
 Ion Ratio Lower Upper  
 75 100  
 77 2.1 0.0 0.0#

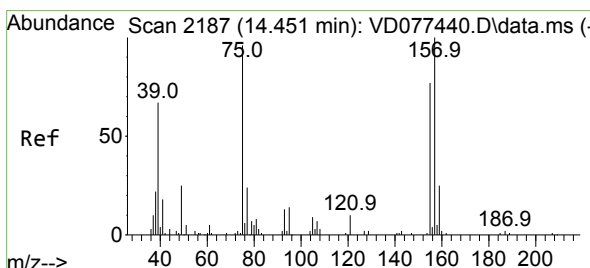
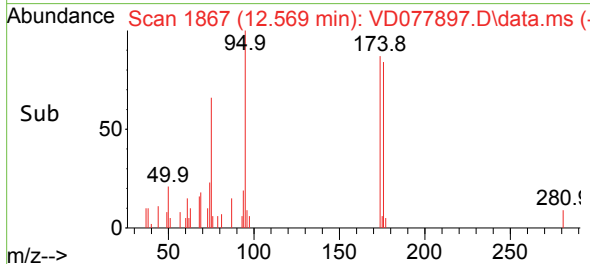
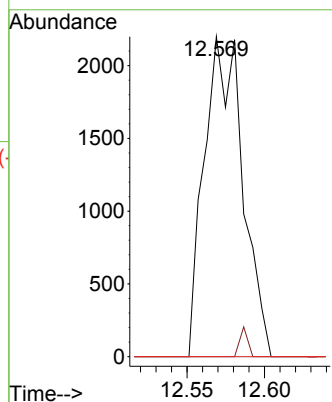
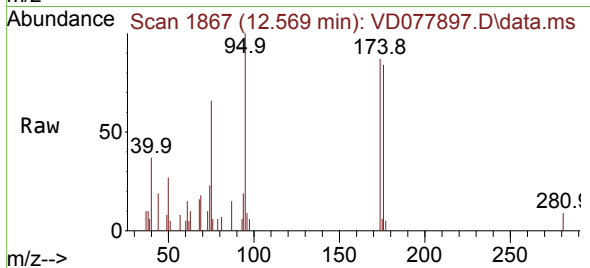




#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 103.508 ug/l  
 RT: 12.569 min Scan# 11  
 Delta R.T. 0.100 min  
 Lab File: VD077897.D  
 Acq: 15 Dec 2023 12:20

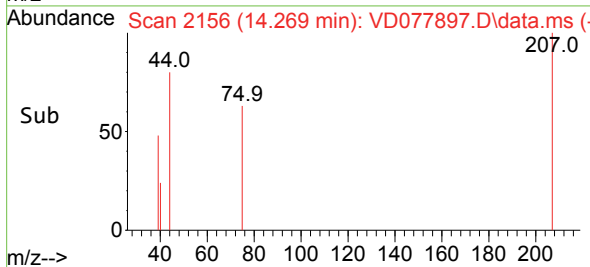
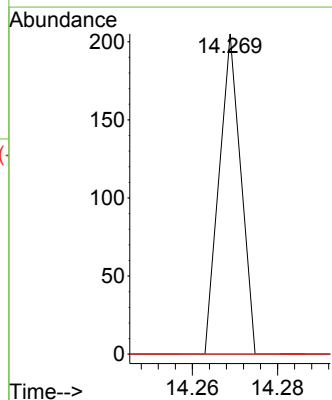
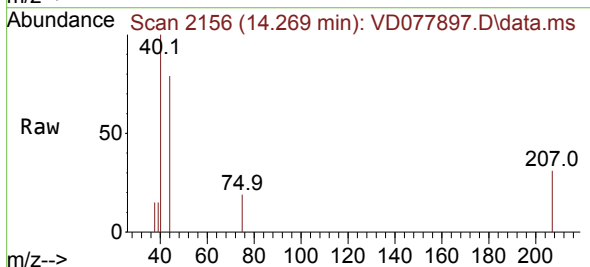
Instrument :  
 MSVOA\_D  
 ClientSampleId :

Tgt Ion: 75 Resp: 3783  
 Ion Ratio Lower Upper  
 75 100  
 53 1.9 63.0 94.4#  
 89 0.0 37.9 56.9#

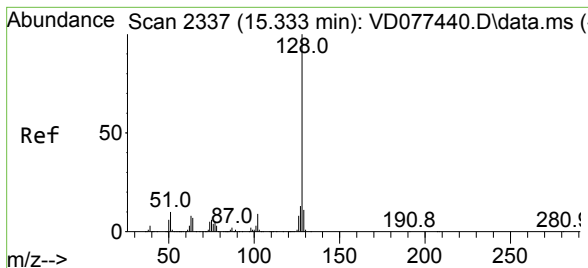


#92  
 1,2-Dibromo-3-Chloropropane  
 Concen: 3.500 ug/l  
 RT: 14.269 min Scan# 2156  
 Delta R.T. -0.182 min  
 Lab File: VD077897.D  
 Acq: 15 Dec 2023 12:20

Tgt Ion: 75 Resp: 72  
 Ion Ratio Lower Upper  
 75 100  
 155 0.0 47.9 143.8#  
 157 0.0 59.9 179.7#







#95

Naphthalene

Concen: 2.577 ug/l

RT: 15.328 min Scan# 21

Delta R.T. -0.005 min

Lab File: VD077897.D

Acq: 15 Dec 2023 12:20

Instrument :

MSVOA\_D

ClientSampleId :

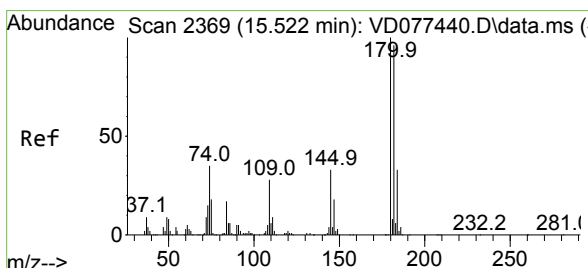
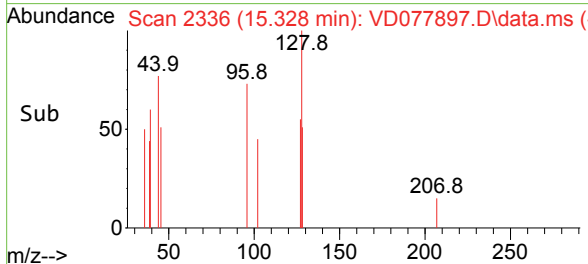
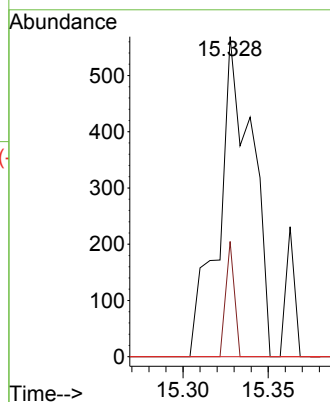
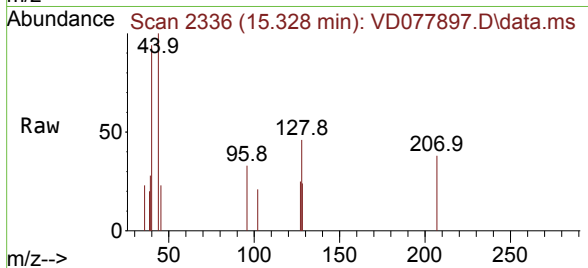
Tgt Ion:128 Resp: 773

Ion Ratio Lower Upper

128 100

127 36.0 10.5 15.7#

129 0.0 8.7 13.1#



#96

1,2,3-Trichlorobenzene

Concen: 1.384 ug/l

RT: 15.528 min Scan# 2370

Delta R.T. 0.006 min

Lab File: VD077897.D

Acq: 15 Dec 2023 12:20

Tgt Ion:180 Resp: 206

Ion Ratio Lower Upper

180 100

182 135.0 47.3 141.9

145 27.2 15.1 45.3

