

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN091924\  
 Data File : VN084044.D  
 Acq On : 19 Sep 2024 19:17  
 Operator : JC\MD  
 Sample : P4003-09  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 RE120D2-20240912

Quant Time: Sep 20 01:36:09 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N091024W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Sep 11 15:18:56 2024  
 Response via : Initial Calibration

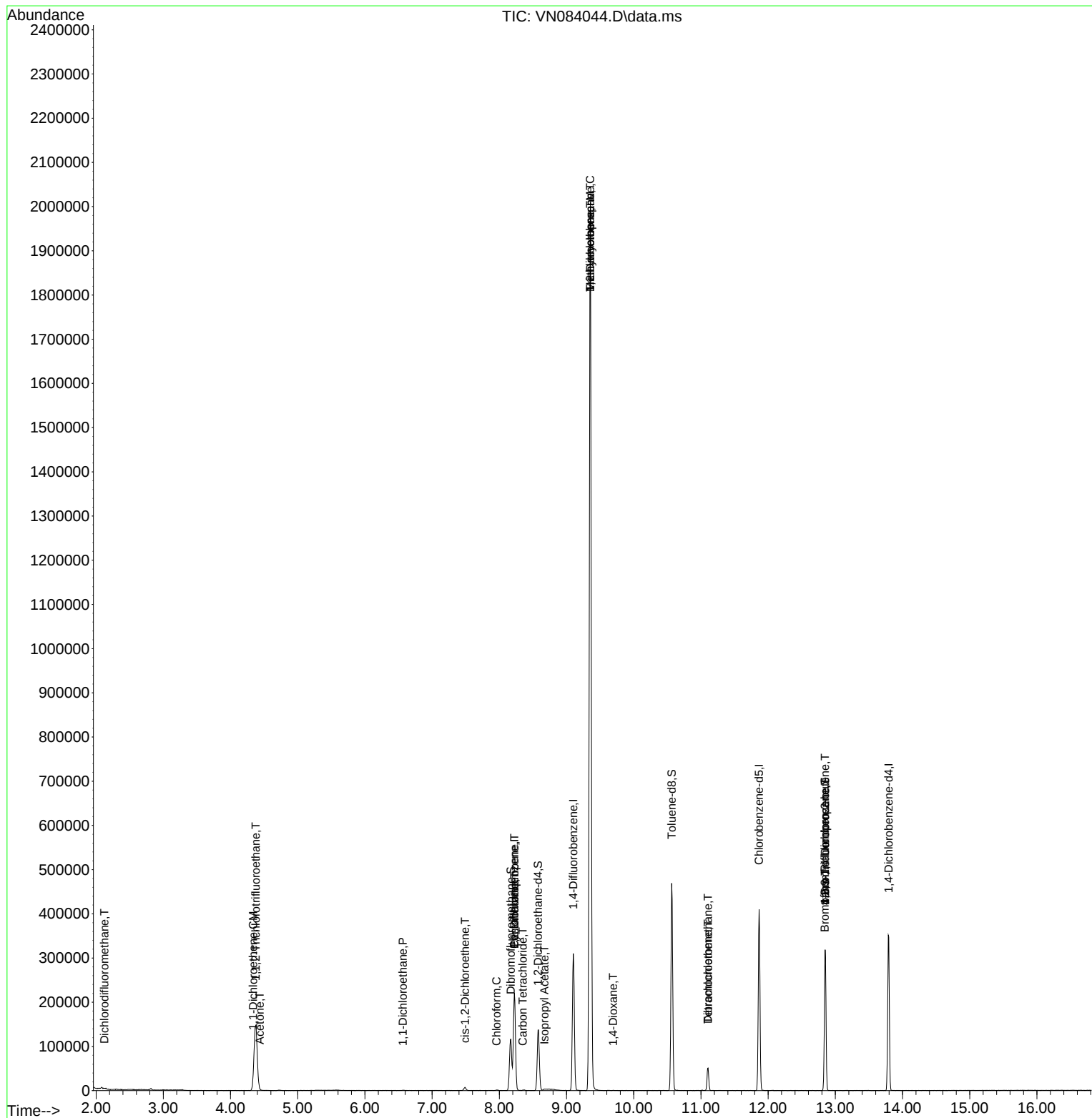
| Compound                      | R.T.           | QIon | Response            | Conc      | Units  | Dev(Min) |
|-------------------------------|----------------|------|---------------------|-----------|--------|----------|
| -----                         |                |      |                     |           |        |          |
| Internal Standards            |                |      |                     |           |        |          |
| 1) Pentafluorobenzene         | 8.224          | 168  | 148695              | 50.000    | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene       | 9.100          | 114  | 253486              | 50.000    | ug/l   | 0.00     |
| 63) Chlorobenzene-d5          | 11.865         | 117  | 218147              | 50.000    | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4    | 13.794         | 152  | 88945               | 50.000    | ug/l   | 0.00     |
|                               |                |      |                     |           |        |          |
| System Monitoring Compounds   |                |      |                     |           |        |          |
| 33) 1,2-Dichloroethane-d4     | 8.577          | 65   | 115782              | 51.640    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 74 - 125 |      | Recovery = 103.280% |           |        |          |
| 35) Dibromofluoromethane      | 8.171          | 113  | 82772               | 51.006    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 75 - 124 |      | Recovery = 102.020% |           |        |          |
| 50) Toluene-d8                | 10.565         | 98   | 309570              | 55.181    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 86 - 113 |      | Recovery = 110.360% |           |        |          |
| 62) 4-Bromofluorobenzene      | 12.847         | 95   | 108837              | 47.023    | ug/l   | 0.00     |
| Spiked Amount 50.000          | Range 77 - 121 |      | Recovery = 94.040%  |           |        |          |
|                               |                |      |                     |           |        |          |
| Target Compounds              |                |      |                     |           |        | Qvalue   |
| 2) Dichlorodifluoromethane    | 2.124          | 85   | 555                 | 0.321     | ug/l # | 43       |
| 3) Chloromethane              | 2.365          | 50   | 599                 | Below Cal | #      | 41       |
| 9) 1,1,2-Trichlorotrifluo...  | 4.377          | 101  | 102957              | 60.457    | ug/l   | 99       |
| 12) 1,1-Dichloroethene        | 4.336          | 96   | 1102                | 0.685     | ug/l # | 63       |
| 16) Acetone                   | 4.436          | 43   | 1038                | 1.155     | ug/l # | 45       |
| 18) Methyl Acetate            | 5.024          | 43   | 56                  | Below Cal | #      | 52       |
| 24) 1,1-Dichloroethane        | 6.565          | 63   | 1005                | 0.296     | ug/l # | 82       |
| 27) cis-1,2-Dichloroethene    | 7.489          | 96   | 3971                | 1.941     | ug/l   | 87       |
| 30) Chloroform                | 7.959          | 83   | 1694                | 0.469     | ug/l # | 71       |
| 31) Cyclohexane               | 8.224          | 56   | 3998                | 1.234     | ug/l # | 1        |
| 36) 1,1-Dichloropropene       | 8.224          | 75   | 13438               | 5.502     | ug/l # | 51       |
| 38) Carbon Tetrachloride      | 8.347          | 117  | 1317                | 0.475     | ug/l # | 68       |
| 39) Methylcyclohexane         | 9.353          | 83   | 9524                | 3.426     | ug/l # | 1        |
| 43) Isopropyl Acetate         | 8.671          | 43   | 3303                | 0.822     | ug/l # | 57       |
| 44) Trichloroethene           | 9.353          | 130  | 666147              | 391.286   | ug/l   | 91       |
| 45) 1,2-Dichloropropane       | 9.353          | 63   | 2625                | 1.477     | ug/l # | 1        |
| 49) 1,4-Dioxane               | 9.694          | 88   | 303                 | 9.663     | ug/l # | 98       |
| 60) Dibromochloromethane      | 11.106         | 129  | 11200               | 5.961     | ug/l # | 10       |
| 64) Tetrachloroethene         | 11.106         | 164  | 11127               | 7.670     | ug/l   | 90       |
| 71) Bromoform                 | 12.841         | 173  | 800                 | 0.706     | ug/l # | 1        |
| 76) 1,2,3-Trichloropropane    | 12.847         | 75   | 62702               | 34.937    | ug/l # | 1        |
| 81) trans-1,4-Dichloro-2-b... | 12.847         | 75   | 62702               | 91.502    | ug/l # | 9        |
| -----                         |                |      |                     |           |        |          |

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

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Instrument :  
MSVOA\_N  
ClientSampleId :  
RE120D2-20240912

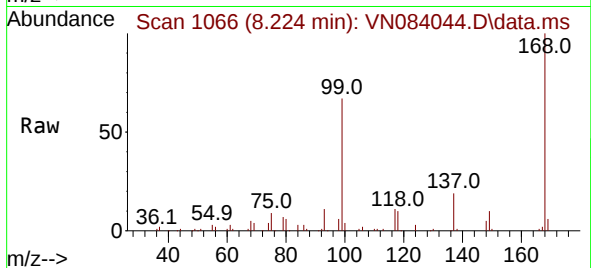
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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\82N091024W.M  
Quant Title : SW846 8260  
QLast Update : Wed Sep 11 15:18:56 2024  
Response via : Initial Calibration



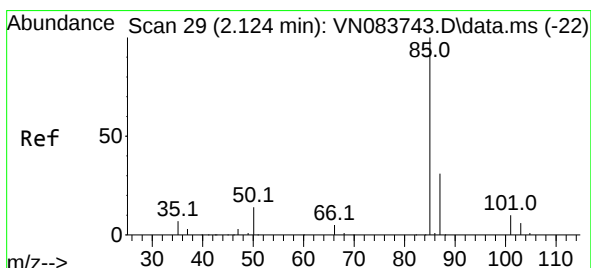
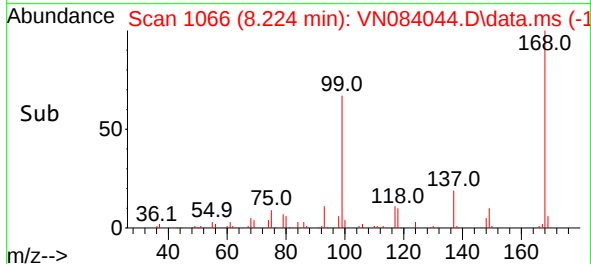
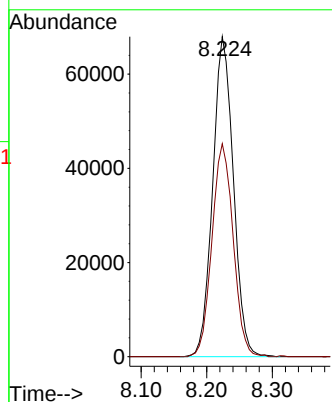


#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 8.224 min Scan# 1066  
Delta R.T. -0.000 min  
Lab File: VN084044.D  
Acq: 19 Sep 2024 19:17

Instrument :  
MSVOA\_N  
ClientSampleId :  
RE120D2-20240912

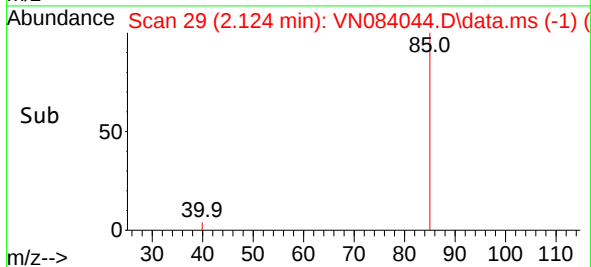
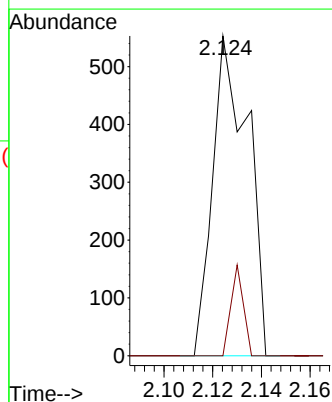
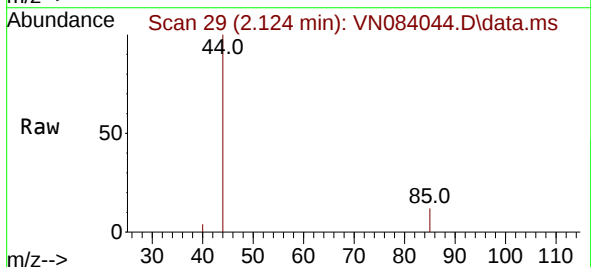


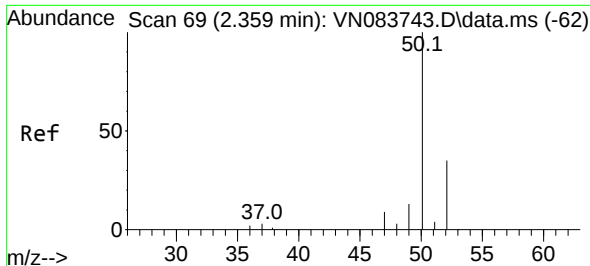
Tgt Ion:168 Resp: 148695  
Ion Ratio Lower Upper  
168 100  
99 66.5 54.2 81.2



#2  
Dichlorodifluoromethane  
Concen: 0.321 ug/l  
RT: 2.124 min Scan# 29  
Delta R.T. 0.000 min  
Lab File: VN084044.D  
Acq: 19 Sep 2024 19:17

Tgt Ion: 85 Resp: 555  
Ion Ratio Lower Upper  
85 100  
87 0.0 15.7 47.0#

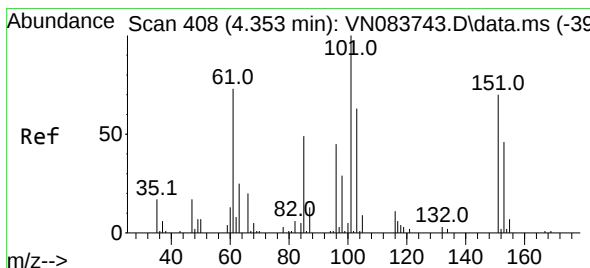
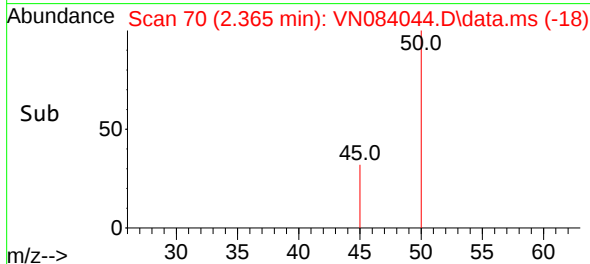
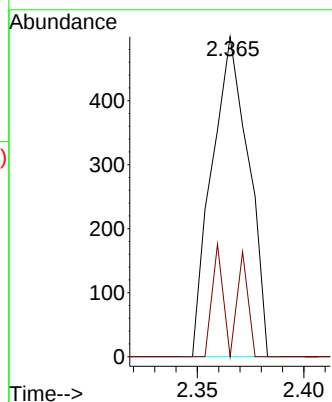
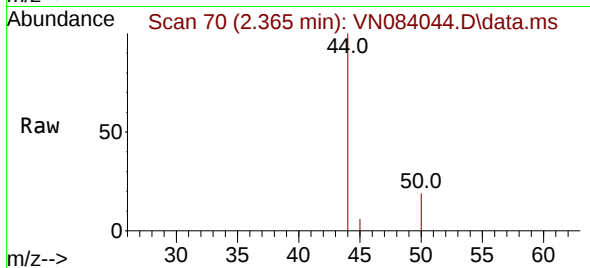




#3  
Chloromethane  
Concen: Below Cal  
RT: 2.365 min Scan# 70  
Delta R.T. 0.006 min  
Lab File: VN084044.D  
Acq: 19 Sep 2024 19:17

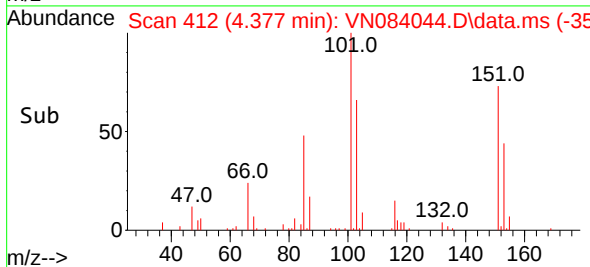
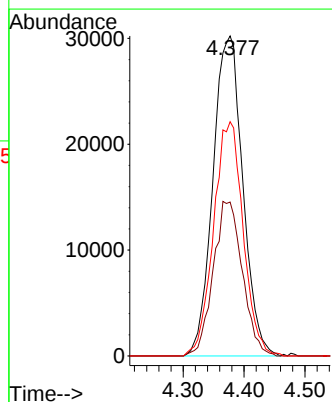
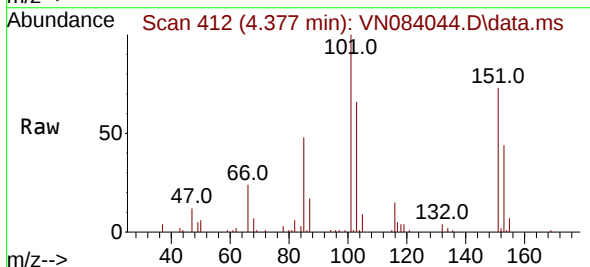
Instrument :  
MSVOA\_N  
ClientSampleId :  
RE120D2-20240912

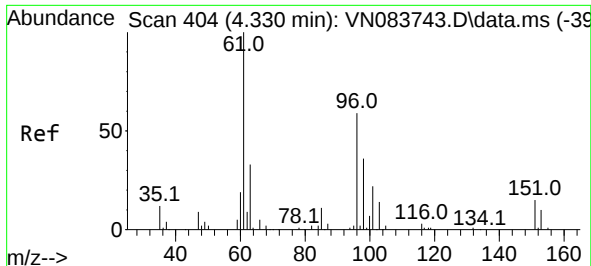
Tgt Ion: 50 Resp: 599  
Ion Ratio Lower Upper  
50 100  
52 0.0 27.2 40.8#



#9  
1,1,2-Trichlorotrifluoroethane  
Concen: 60.457 ug/l  
RT: 4.377 min Scan# 412  
Delta R.T. 0.024 min  
Lab File: VN084044.D  
Acq: 19 Sep 2024 19:17

Tgt Ion: 101 Resp: 102957  
Ion Ratio Lower Upper  
101 100  
85 47.2 36.2 54.4  
151 72.6 57.7 86.5





#12

1,1-Dichloroethene

Concen: 0.685 ug/l

RT: 4.336 min Scan# 404

Delta R.T. 0.006 min

Lab File: VN084044.D

Acq: 19 Sep 2024 19:17

Instrument :

MSVOA\_N

ClientSampleId :

RE120D2-20240912

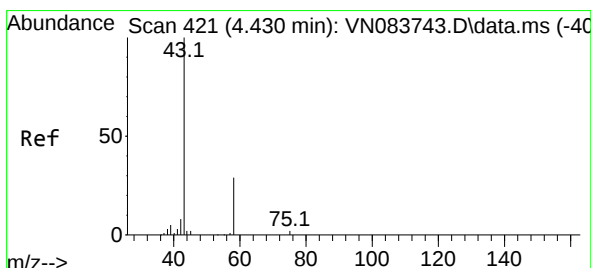
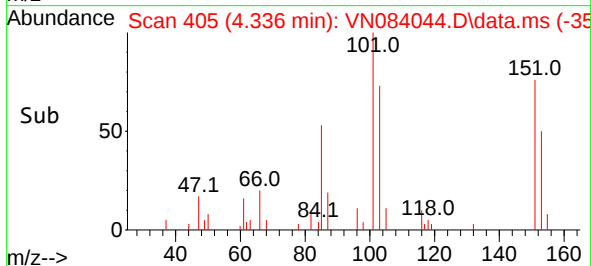
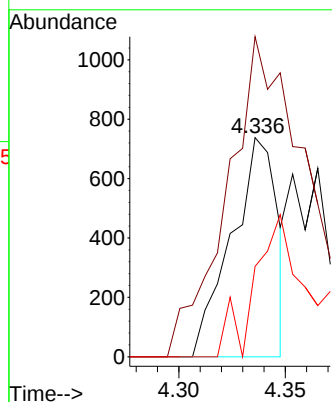
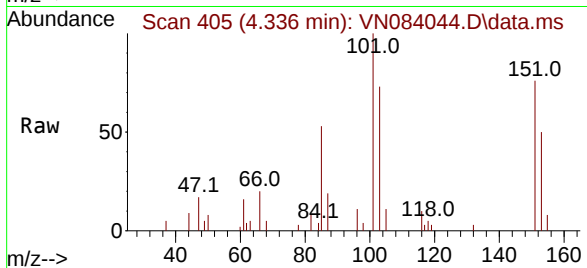
Tgt Ion: 96 Resp: 1102

Ion Ratio Lower Upper

96 100

61 124.0 143.4 215.0#

98 41.2 52.7 79.1#



#16

Acetone

Concen: 1.155 ug/l

RT: 4.436 min Scan# 422

Delta R.T. 0.006 min

Lab File: VN084044.D

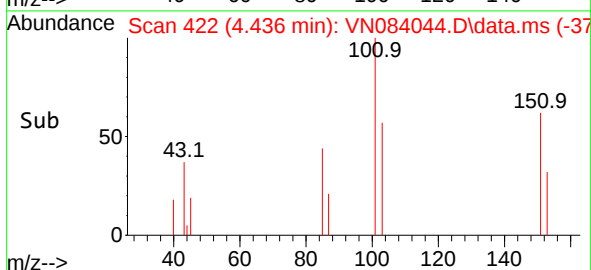
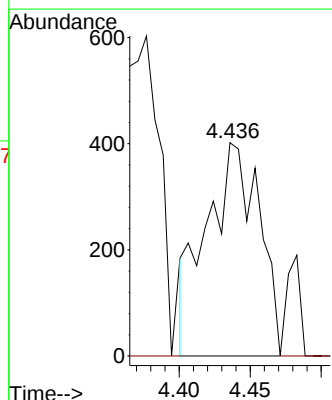
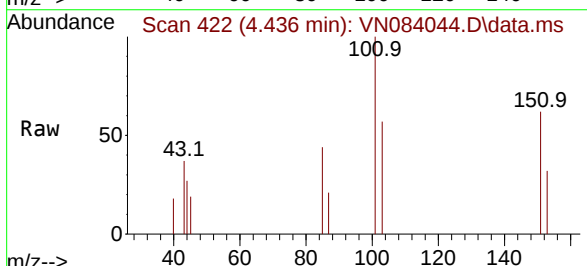
Acq: 19 Sep 2024 19:17

Tgt Ion: 43 Resp: 1038

Ion Ratio Lower Upper

43 100

58 0.0 23.7 35.5#





#18

Methyl Acetate

Concen: Below Cal

RT: 5.024 min Scan# 51

Delta R.T. -0.000 min

Lab File: VN084044.D

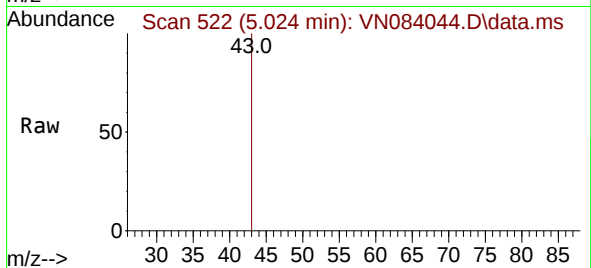
Acq: 19 Sep 2024 19:17

Instrument :

MSVOA\_N

ClientSampleId :

RE120D2-20240912

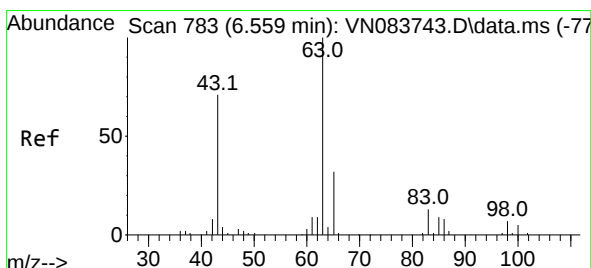
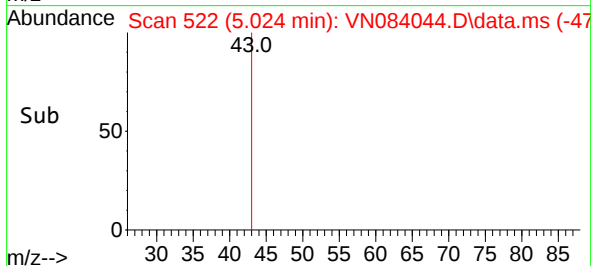
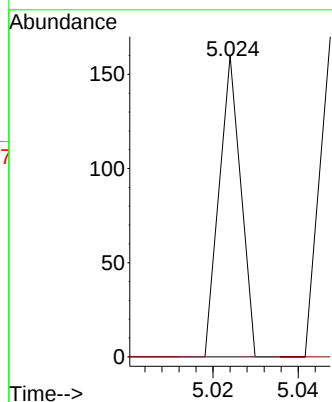


Tgt Ion: 43 Resp: 56

Ion Ratio Lower Upper

43 100

74 0.0 19.0 28.4#



#24

1,1-Dichloroethane

Concen: 0.296 ug/l

RT: 6.565 min Scan# 784

Delta R.T. 0.006 min

Lab File: VN084044.D

Acq: 19 Sep 2024 19:17

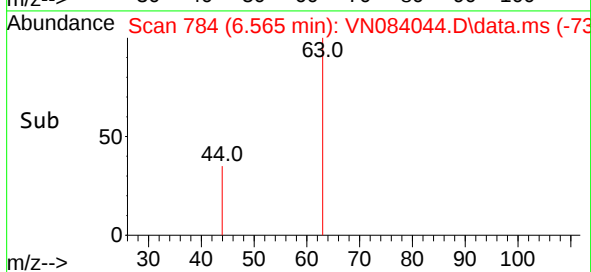
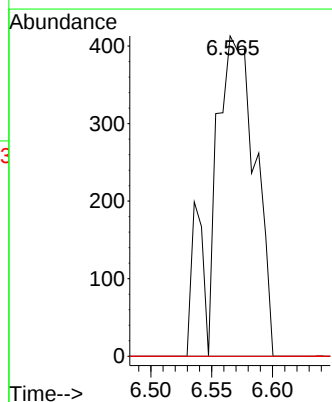
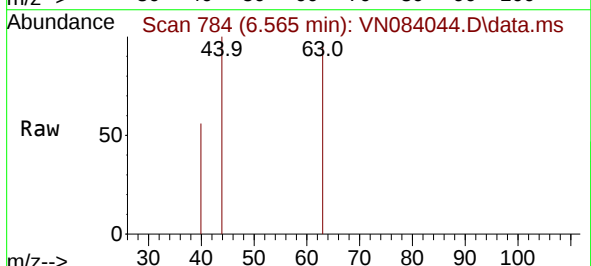
Tgt Ion: 63 Resp: 1005

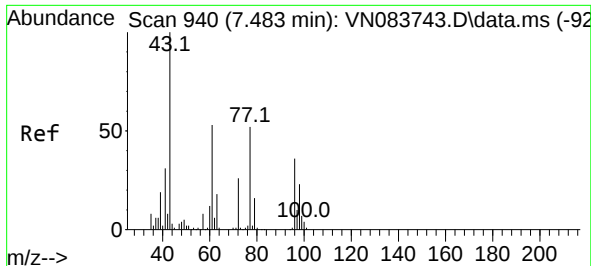
Ion Ratio Lower Upper

63 100

98 0.0 3.5 10.4#

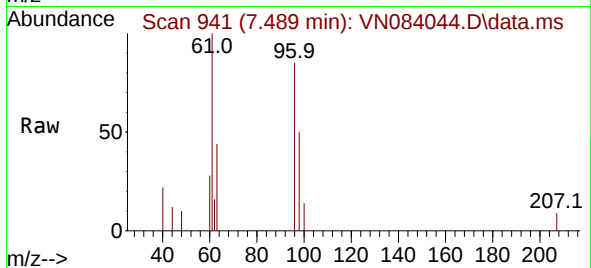
100 0.0 2.5 7.5#



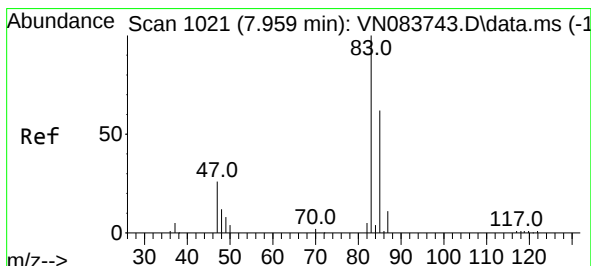
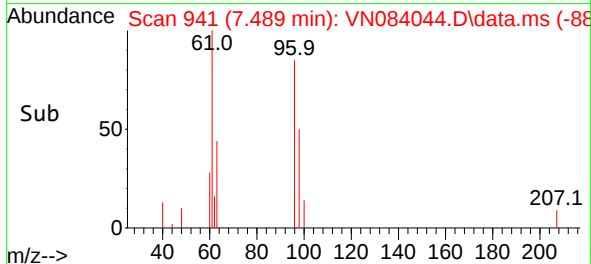
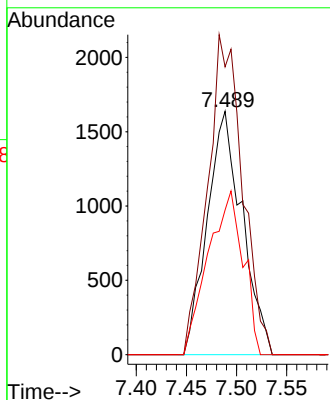


#27  
cis-1,2-Dichloroethene  
Concen: 1.941 ug/l  
RT: 7.489 min Scan# 941  
Delta R.T. 0.006 min  
Lab File: VN084044.D  
Acq: 19 Sep 2024 19:17

Instrument :  
MSVOA\_N  
ClientSampleId :  
RE120D2-20240912

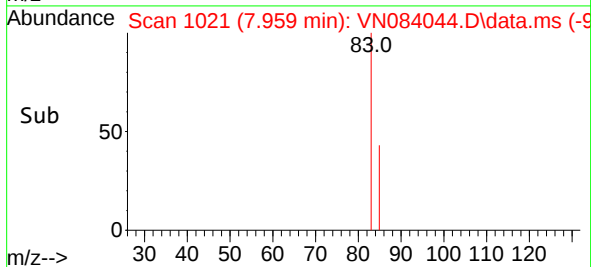
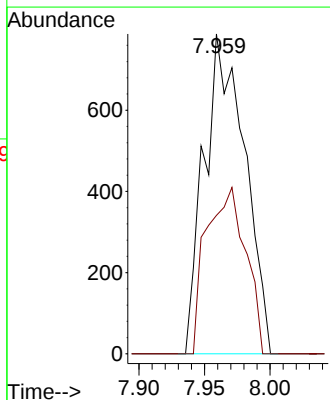
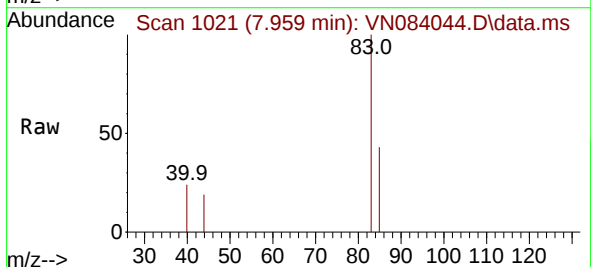


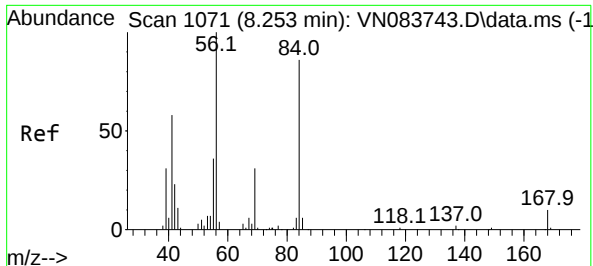
| Tgt Ion: | 96    | Resp: | 3971  |
|----------|-------|-------|-------|
| Ion      | Ratio | Lower | Upper |
| 96       | 100   |       |       |
| 61       | 131.1 | 0.0   | 306.2 |
| 98       | 67.6  | 0.0   | 128.6 |



#30  
Chloroform  
Concen: 0.469 ug/l  
RT: 7.959 min Scan# 1021  
Delta R.T. 0.000 min  
Lab File: VN084044.D  
Acq: 19 Sep 2024 19:17

| Tgt Ion: | 83    | Resp: | 1694  |
|----------|-------|-------|-------|
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 43.3  | 52.8  | 79.2# |





#31

Cyclohexane

Concen: 1.234 ug/l

RT: 8.224 min Scan# 1066

Delta R.T. -0.029 min

Lab File: VN084044.D

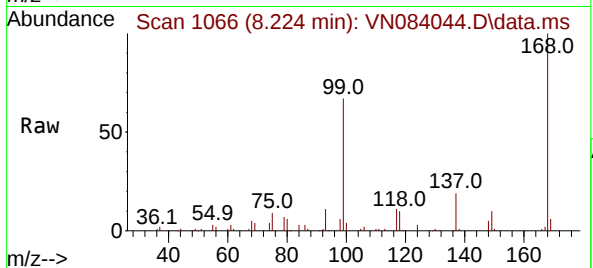
Acq: 19 Sep 2024 19:17

Instrument :

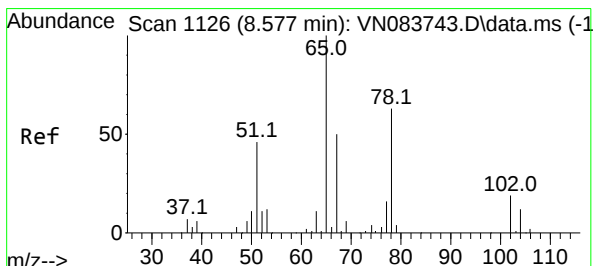
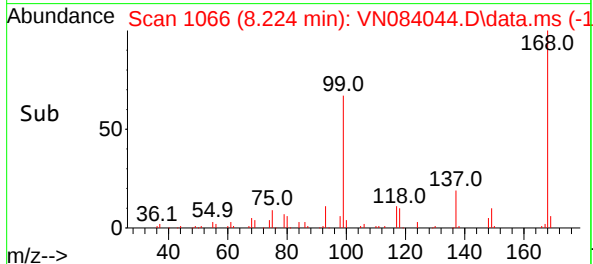
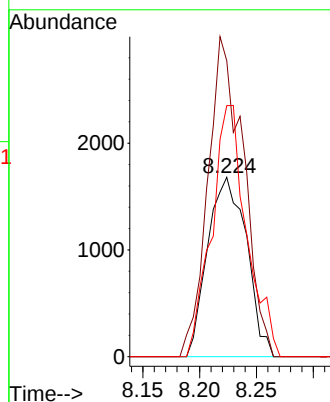
MSVOA\_N

ClientSampleId :

RE120D2-20240912



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 56    | Resp: | 3998   |
| Ion Ratio | Lower | Upper |        |
| 56        | 100   |       |        |
| 69        | 165.1 | 26.9  | 40.3#  |
| 84        | 140.0 | 69.2  | 103.8# |



#33

1,2-Dichloroethane-d4

Concen: 51.640 ug/l

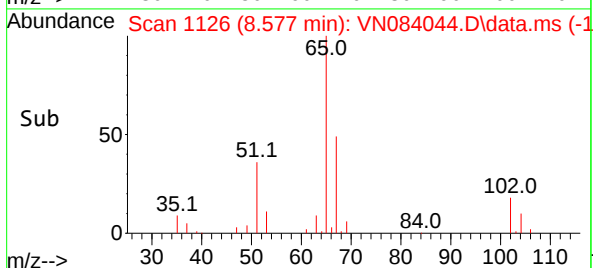
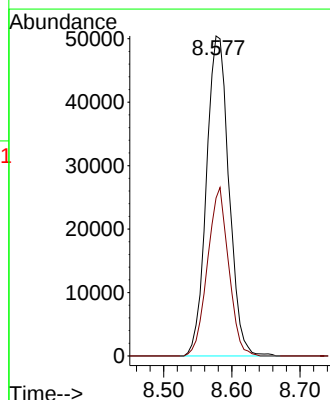
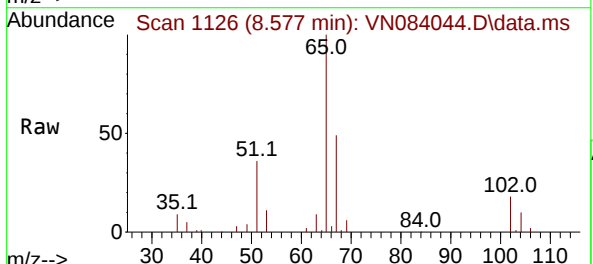
RT: 8.577 min Scan# 1126

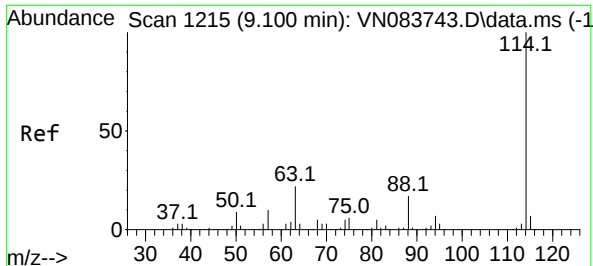
Delta R.T. 0.000 min

Lab File: VN084044.D

Acq: 19 Sep 2024 19:17

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 65    | Resp: | 115782 |
| Ion Ratio | Lower | Upper |        |
| 65        | 100   |       |        |
| 67        | 49.6  | 0.0   | 100.8  |

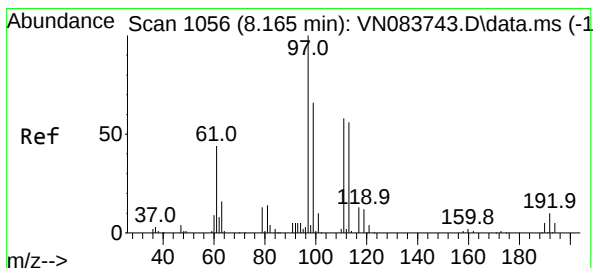
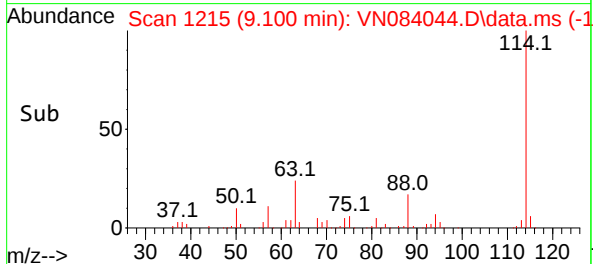
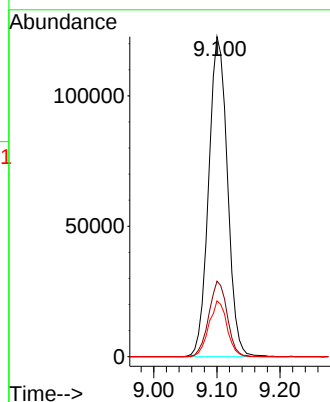
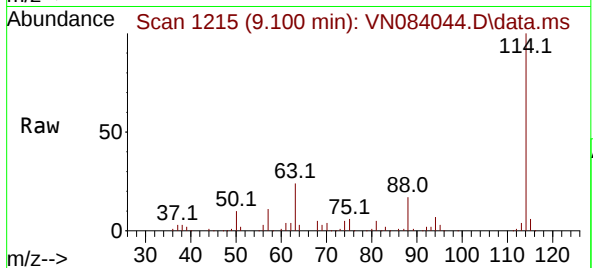




#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 9.100 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VN084044.D  
Acq: 19 Sep 2024 19:17

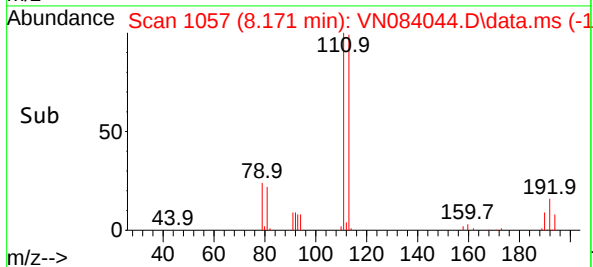
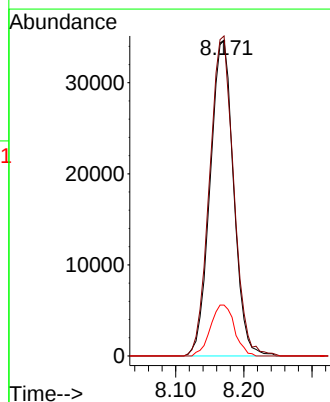
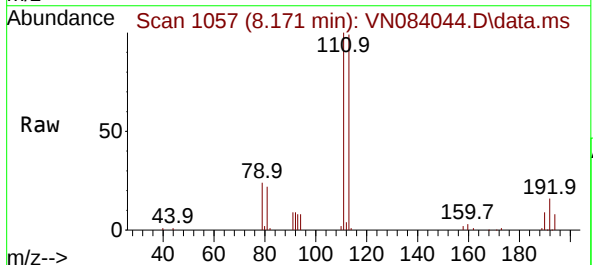
Instrument :  
MSVOA\_N  
ClientSampleId :  
RE120D2-20240912

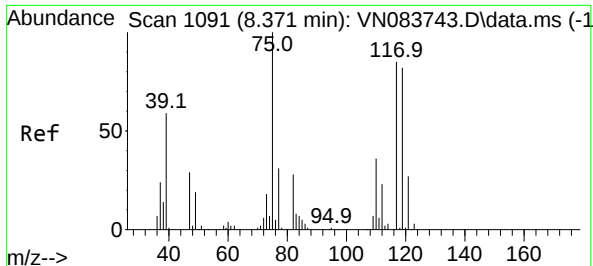
Tgt Ion:114 Resp: 253486  
Ion Ratio Lower Upper  
114 100  
63 23.6 0.0 43.4  
88 17.4 0.0 32.6



#35  
Dibromofluoromethane  
Concen: 51.006 ug/l  
RT: 8.171 min Scan# 1057  
Delta R.T. 0.006 min  
Lab File: VN084044.D  
Acq: 19 Sep 2024 19:17

Tgt Ion:113 Resp: 82772  
Ion Ratio Lower Upper  
113 100  
111 104.3 82.6 124.0  
192 16.5 14.3 21.5





#36

1,1-Dichloropropene

Concen: 5.502 ug/l

RT: 8.224 min Scan# 1066

Delta R.T. -0.147 min

Lab File: VN084044.D

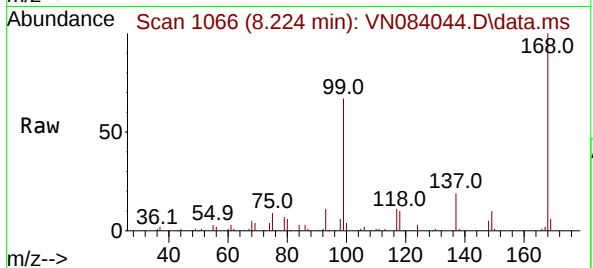
Acq: 19 Sep 2024 19:17

Instrument :

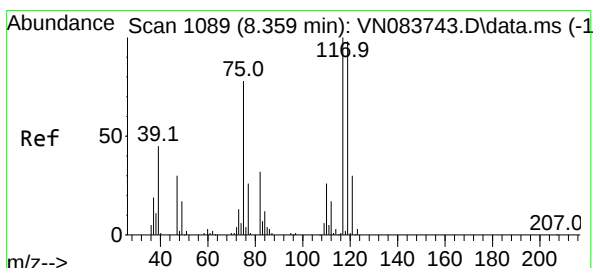
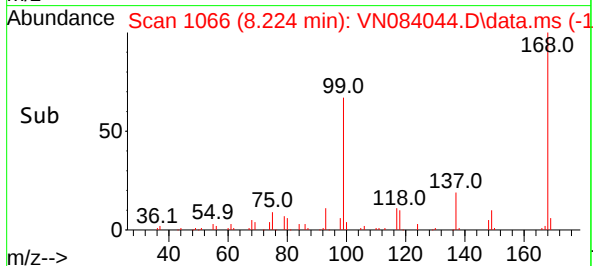
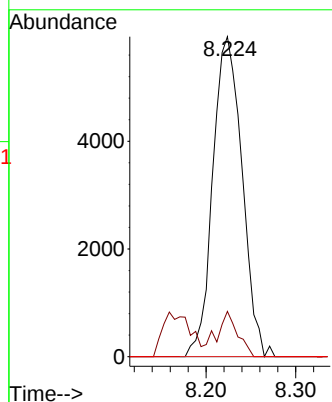
MSVOA\_N

ClientSampleId :

RE120D2-20240912



|           |     |       |       |
|-----------|-----|-------|-------|
| Tgt Ion:  | 75  | Resp: | 13438 |
| Ion Ratio | 100 | Lower | Upper |
| 75        | 100 |       |       |
| 110       | 9.7 | 16.7  | 50.1# |
| 77        | 0.0 | 25.2  | 37.8# |



#38

Carbon Tetrachloride

Concen: 0.475 ug/l

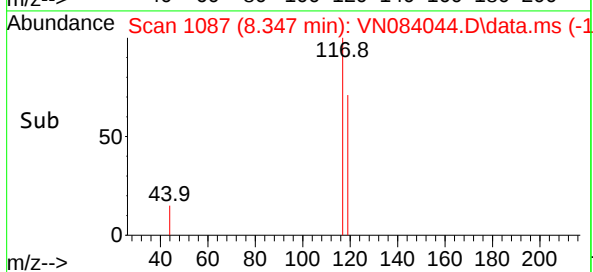
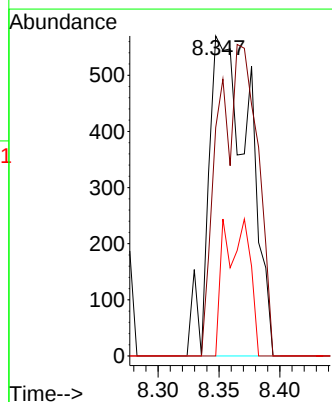
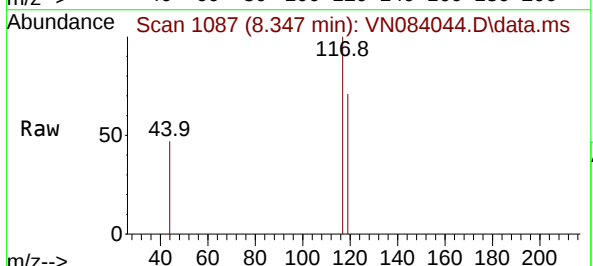
RT: 8.347 min Scan# 1087

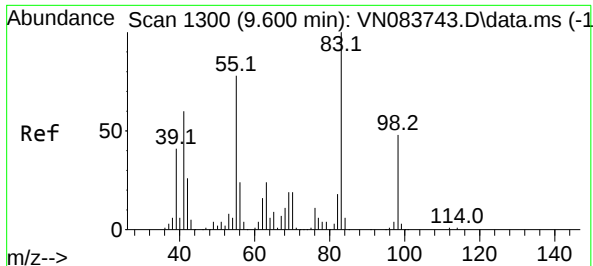
Delta R.T. -0.012 min

Lab File: VN084044.D

Acq: 19 Sep 2024 19:17

|           |      |       |        |
|-----------|------|-------|--------|
| Tgt Ion:  | 117  | Resp: | 1317   |
| Ion Ratio | 100  | Lower | Upper  |
| 117       | 100  |       |        |
| 119       | 71.4 | 76.1  | 114.1# |
| 121       | 0.0  | 24.1  | 36.1#  |





#39

Methylcyclohexane

Concen: 3.426 ug/l

RT: 9.353 min Scan# 1125

Delta R.T. -0.247 min

Lab File: VN084044.D

Acq: 19 Sep 2024 19:17

Instrument :

MSVOA\_N

ClientSampleId :

RE120D2-20240912

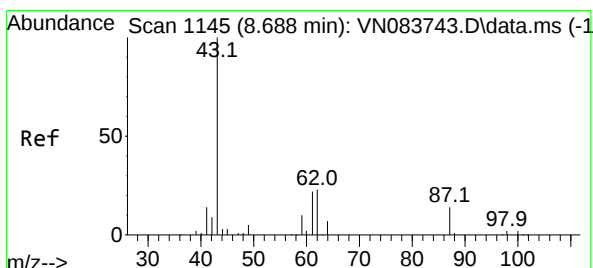
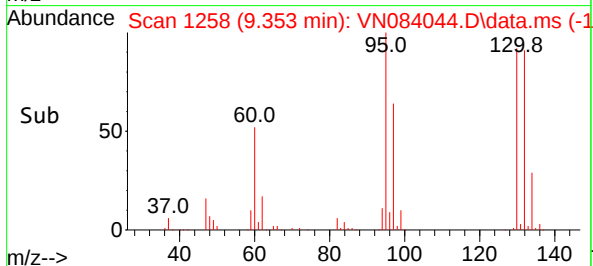
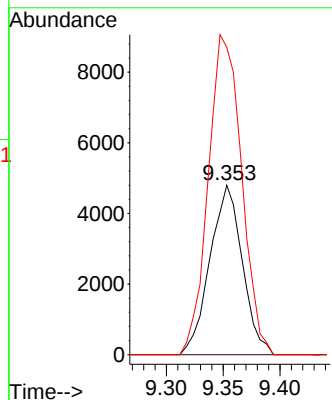
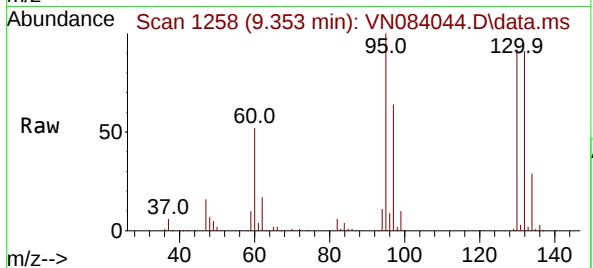
Tgt Ion: 83 Resp: 9524

Ion Ratio Lower Upper

83 100

55 0.0 62.2 93.4#

98 181.5 37.6 56.4#



#43

Isopropyl Acetate

Concen: 0.822 ug/l

RT: 8.671 min Scan# 1142

Delta R.T. -0.018 min

Lab File: VN084044.D

Acq: 19 Sep 2024 19:17

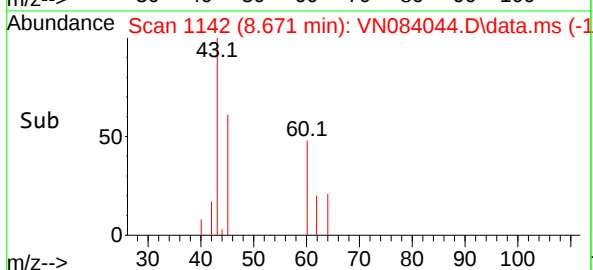
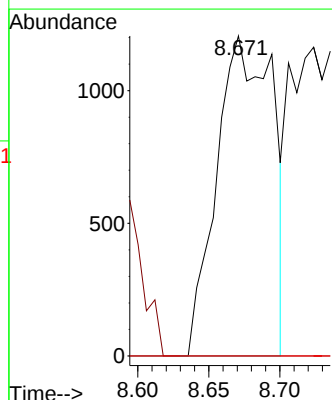
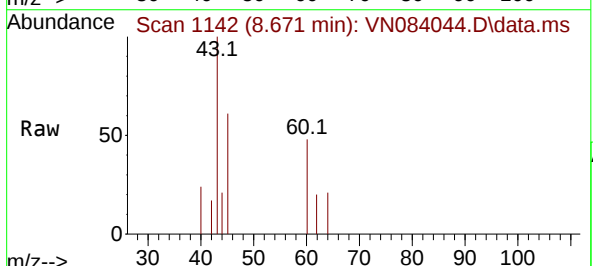
Tgt Ion: 43 Resp: 3303

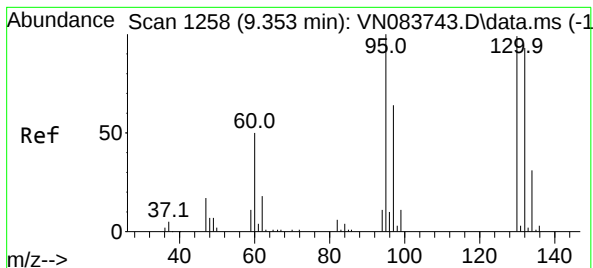
Ion Ratio Lower Upper

43 100

61 0.0 19.4 29.0#

87 0.0 9.8 14.6#





#44

Trichloroethene

Concen: 391.286 ug/l

RT: 9.353 min Scan# 1258

Delta R.T. 0.000 min

Lab File: VN084044.D

Acq: 19 Sep 2024 19:17

Instrument :

MSVOA\_N

ClientSampleId :

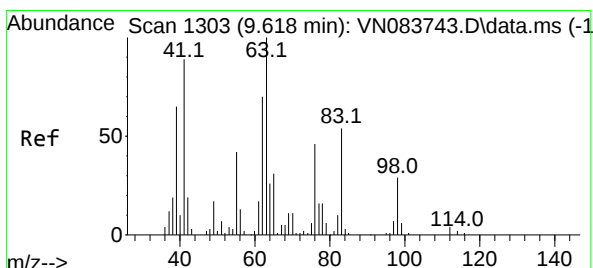
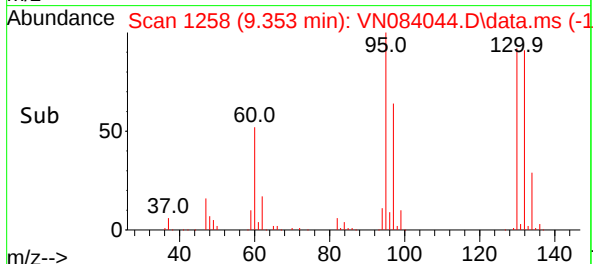
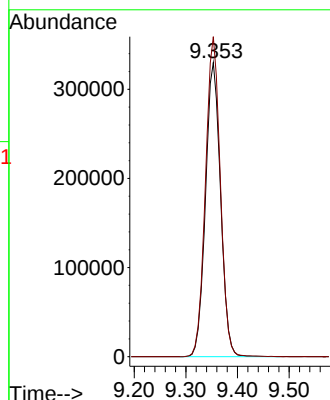
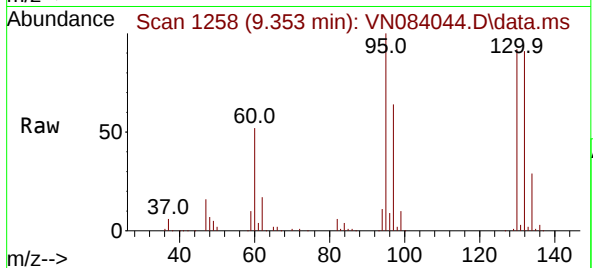
RE120D2-20240912

Tgt Ion:130 Resp: 666147

Ion Ratio Lower Upper

130 100

95 108.8 0.0 200.4



#45

1,2-Dichloropropane

Concen: 1.477 ug/l

RT: 9.353 min Scan# 1258

Delta R.T. -0.265 min

Lab File: VN084044.D

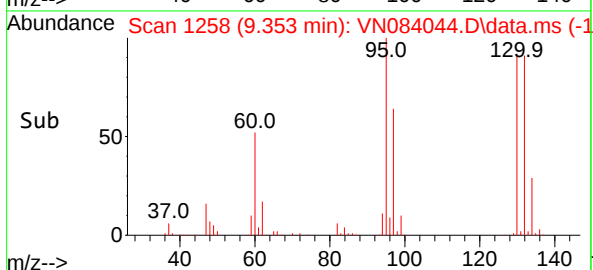
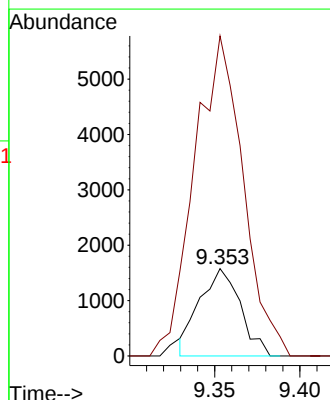
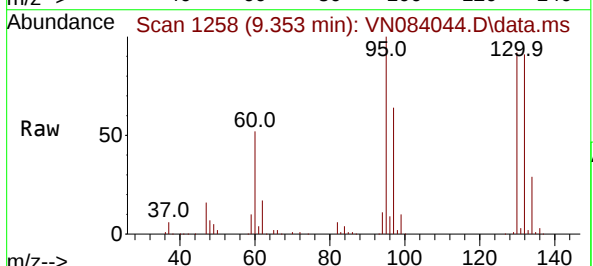
Acq: 19 Sep 2024 19:17

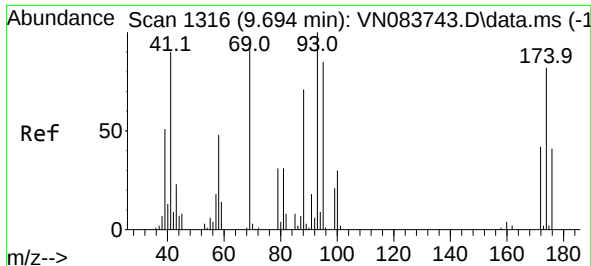
Tgt Ion: 63 Resp: 2625

Ion Ratio Lower Upper

63 100

65 344.2 25.9 38.9#





#49

1,4-Dioxane

Concen: 9.663 ug/l

RT: 9.694 min Scan# 1316

Delta R.T. 0.000 min

Lab File: VN084044.D

Acq: 19 Sep 2024 19:17

Instrument :

MSVOA\_N

ClientSampleId :

RE120D2-20240912

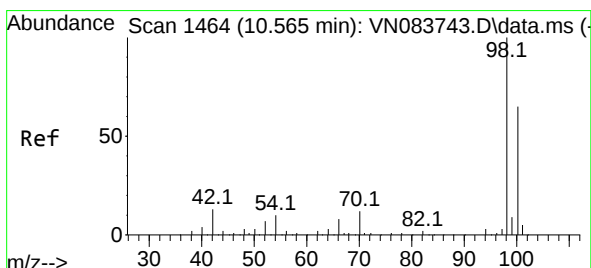
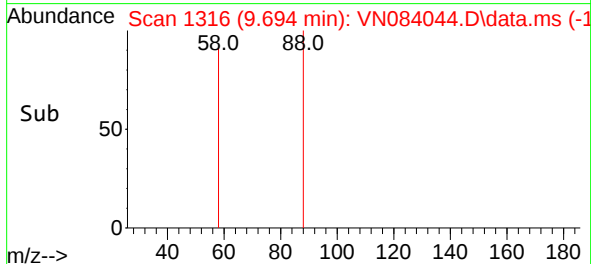
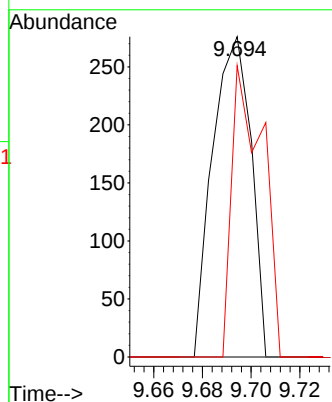
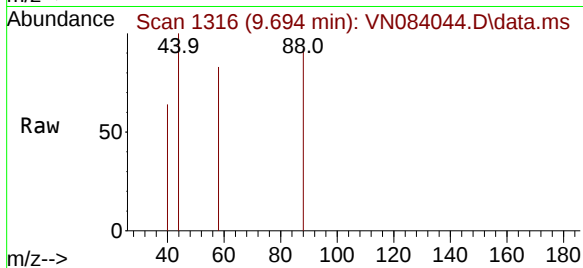
Tgt Ion: 88 Resp: 303

Ion Ratio Lower Upper

88 100

43 0.0 0.0 0.0

58 73.3 57.1 85.7



#50

Toluene-d8

Concen: 55.181 ug/l

RT: 10.565 min Scan# 1464

Delta R.T. 0.000 min

Lab File: VN084044.D

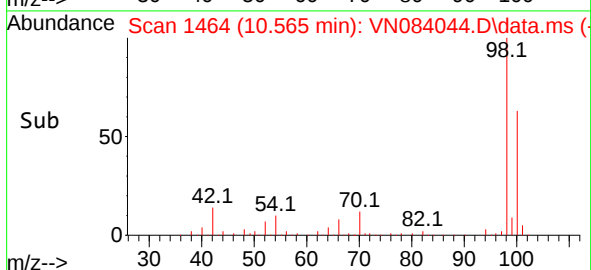
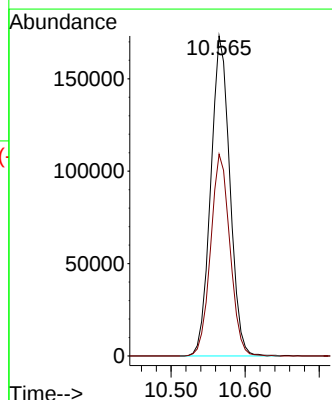
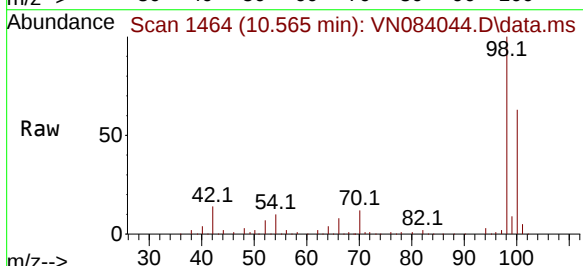
Acq: 19 Sep 2024 19:17

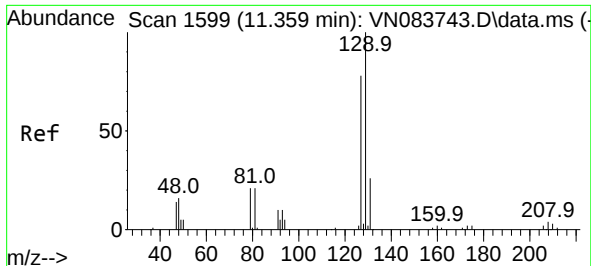
Tgt Ion: 98 Resp: 309570

Ion Ratio Lower Upper

98 100

100 63.8 52.0 78.0

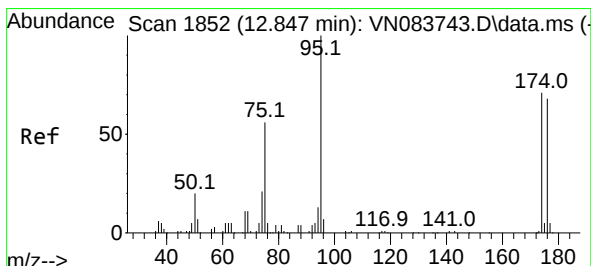
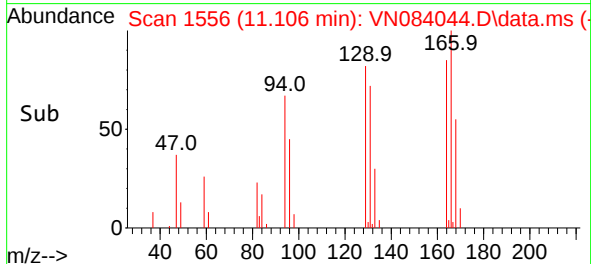
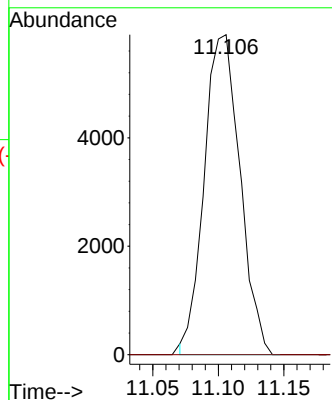
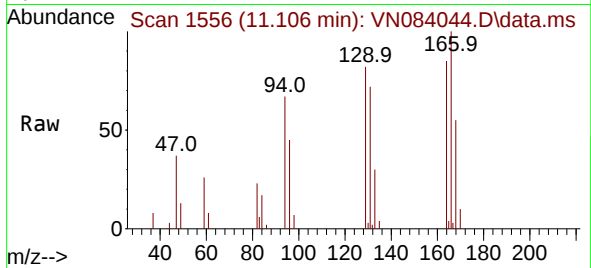




#60  
Dibromochloromethane  
Concen: 5.961 ug/l  
RT: 11.106 min Scan# 11  
Delta R.T. -0.253 min  
Lab File: VN084044.D  
Acq: 19 Sep 2024 19:17

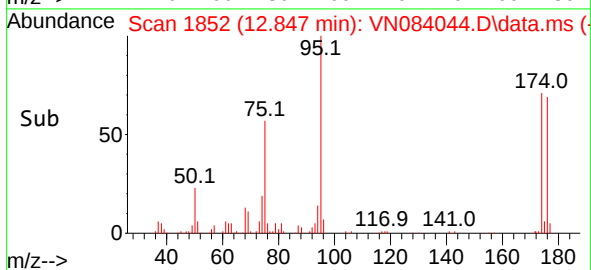
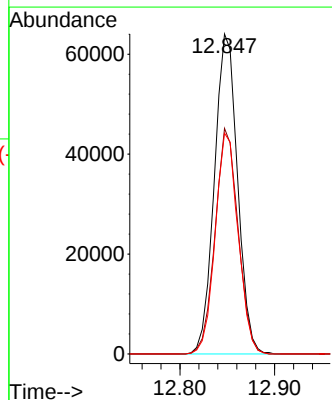
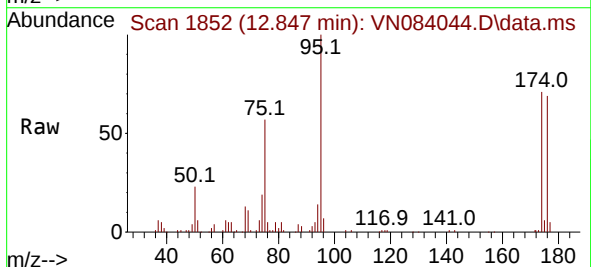
Instrument :  
MSVOA\_N  
ClientSampleId :  
RE120D2-20240912

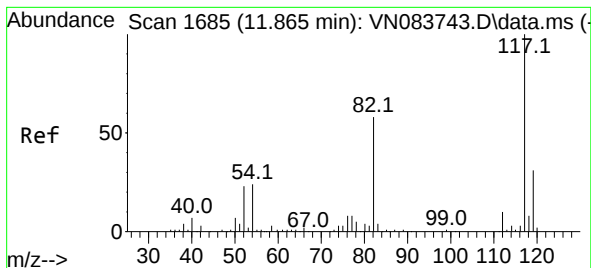
Tgt Ion:129 Resp: 11200  
Ion Ratio Lower Upper  
129 100  
127 0.0 39.0 116.9#



#62  
4-Bromofluorobenzene  
Concen: 47.023 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN084044.D  
Acq: 19 Sep 2024 19:17

Tgt Ion: 95 Resp: 108837  
Ion Ratio Lower Upper  
95 100  
174 70.2 0.0 139.8  
176 68.2 0.0 131.4





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.865 min Scan# 1

Delta R.T. 0.000 min

Lab File: VN084044.D

Acq: 19 Sep 2024 19:17

Instrument :

MSVOA\_N

ClientSampleId :

RE120D2-20240912

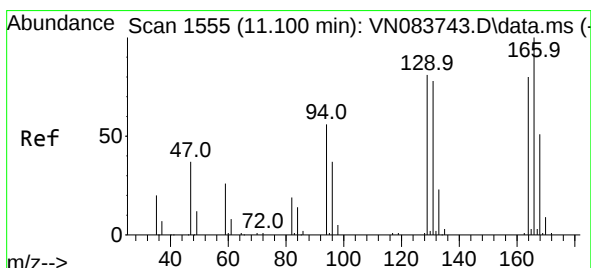
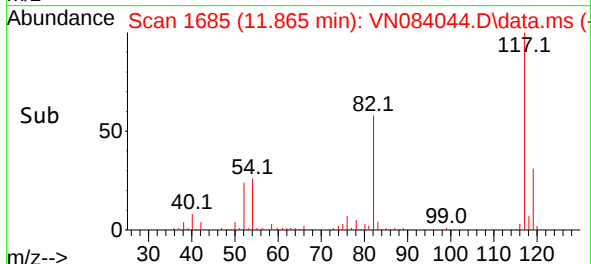
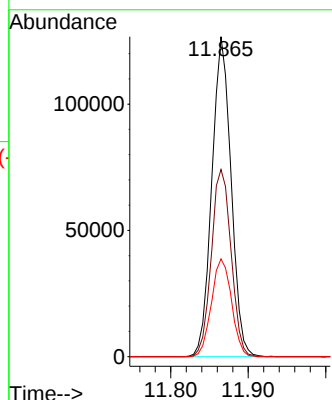
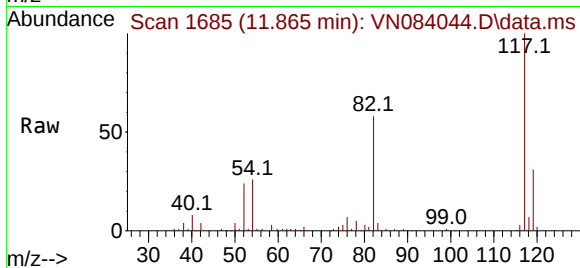
Tgt Ion:117 Resp: 218147

Ion Ratio Lower Upper

117 100

82 58.5 47.4 71.0

119 30.6 26.3 39.5



#64

Tetrachloroethene

Concen: 7.670 ug/l

RT: 11.106 min Scan# 1556

Delta R.T. 0.006 min

Lab File: VN084044.D

Acq: 19 Sep 2024 19:17

Tgt Ion:164 Resp: 11127

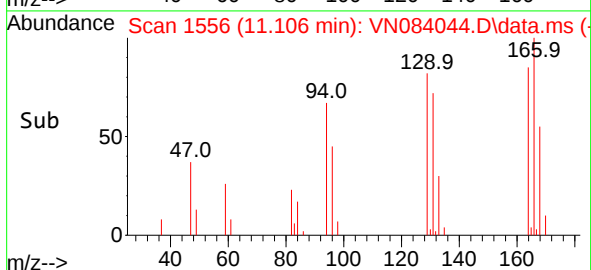
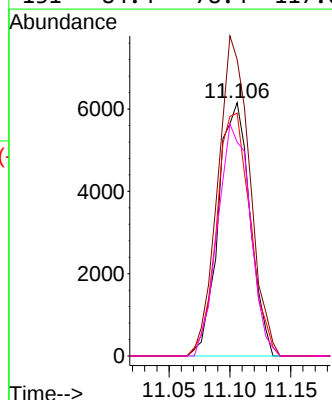
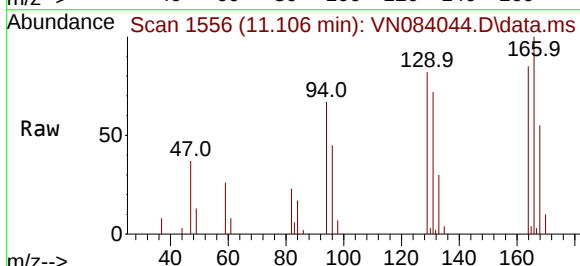
Ion Ratio Lower Upper

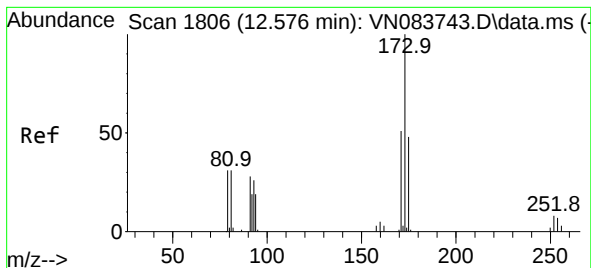
164 100

166 117.0 103.7 155.5

129 95.9 79.9 119.9

131 84.4 78.4 117.6





#71

Bromoform

Concen: 0.706 ug/l

RT: 12.841 min Scan# 1

Delta R.T. 0.265 min

Lab File: VN084044.D

Acq: 19 Sep 2024 19:17

Instrument :

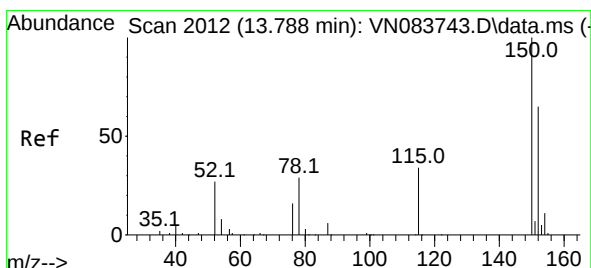
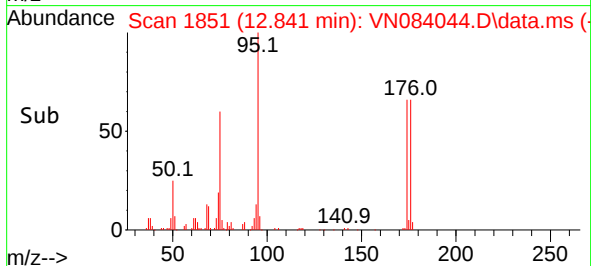
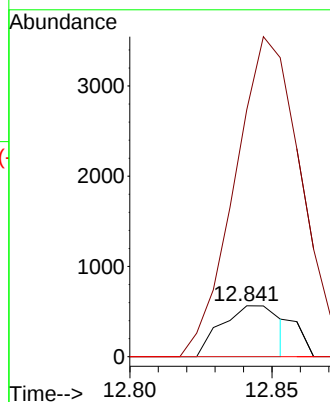
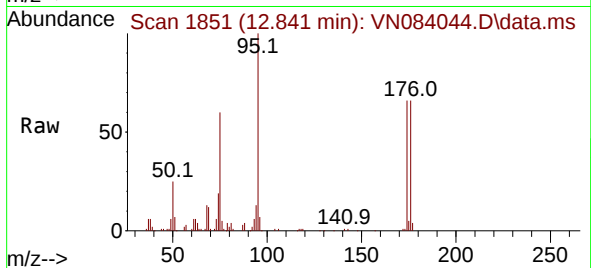
MSVOA\_N

ClientSampleId :

RE120D2-20240912

Tgt Ion:173 Resp: 800

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 173 | 100   |       |       |
| 175 | 540.5 | 24.1  | 72.2# |
| 254 | 0.0   | 0.0   | 0.0   |



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.794 min Scan# 2013

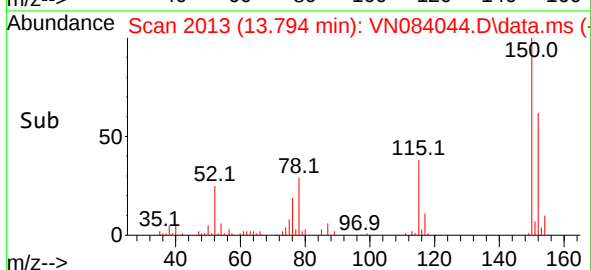
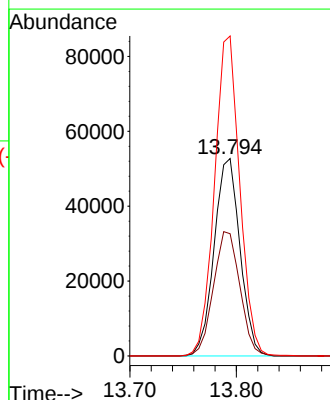
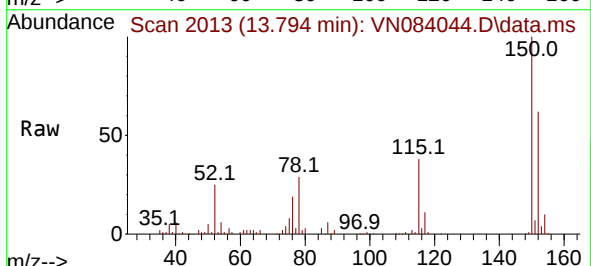
Delta R.T. 0.006 min

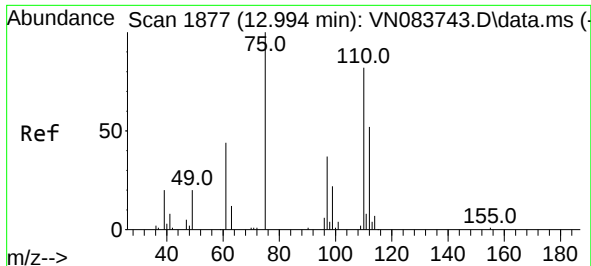
Lab File: VN084044.D

Acq: 19 Sep 2024 19:17

Tgt Ion:152 Resp: 88945

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 152 | 100   |       |       |
| 115 | 64.5  | 32.2  | 96.6  |
| 150 | 158.0 | 0.0   | 348.6 |

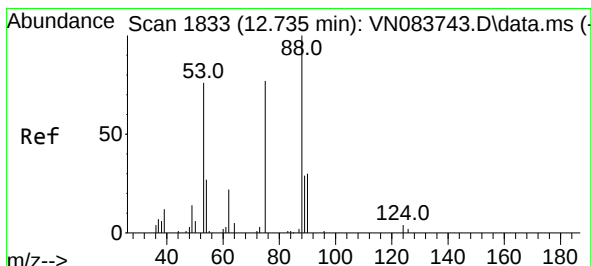
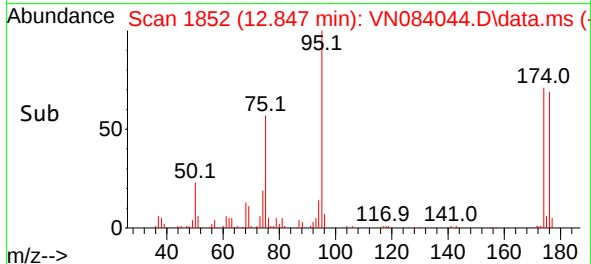
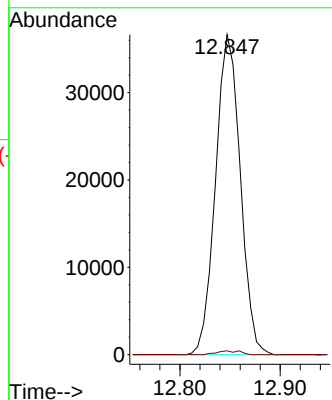
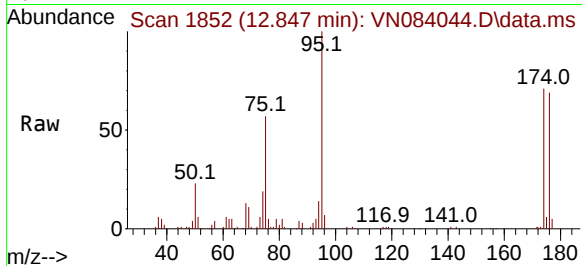




#76  
1,2,3-Trichloropropane  
Concen: 34.937 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. -0.147 min  
Lab File: VN084044.D  
Acq: 19 Sep 2024 19:17

Instrument :  
MSVOA\_N  
ClientSampleId :  
RE120D2-20240912

Tgt Ion: 75 Resp: 62702  
Ion Ratio Lower Upper  
75 100  
77 1.1 95.2 285.6#



#81  
trans-1,4-Dichloro-2-butene  
Concen: 91.502 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.112 min  
Lab File: VN084044.D  
Acq: 19 Sep 2024 19:17

Tgt Ion: 75 Resp: 62702  
Ion Ratio Lower Upper  
75 100  
53 0.0 81.2 121.8#  
89 0.0 35.7 53.5#

