

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN041924\  
 Data File : VN081817.D  
 Acq On : 19 Apr 2024 18:28  
 Operator : JC\MD  
 Sample : P2215-01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Apr 19 23:53:23 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N041024W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Apr 11 09:25:01 2024  
 Response via : Initial Calibration

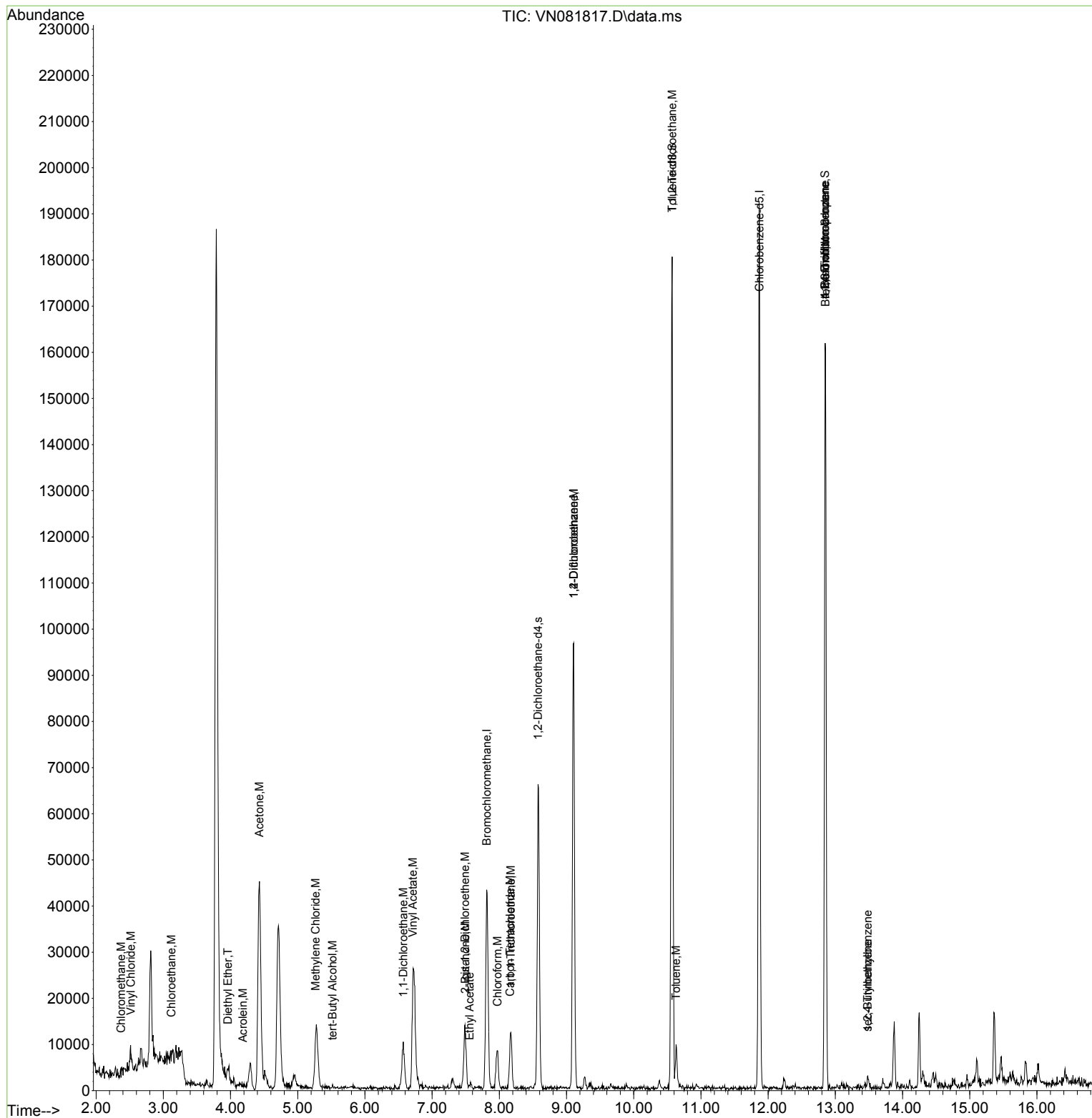
| Compound                    | R.T.           | QIon | Response   | Conc    | Units  | Dev(Min) |
|-----------------------------|----------------|------|------------|---------|--------|----------|
| -----                       |                |      |            |         |        |          |
| Internal Standards          |                |      |            |         |        |          |
| 1) Bromochloromethane       | 7.812          | 128  | 14683      | 30.000  | ug/l   | -0.01    |
| 28) 1,4-Difluorobenzene     | 9.106          | 114  | 81432      | 30.000  | ug/l   | 0.00     |
| 57) Chlorobenzene-d5        | 11.871         | 117  | 106351     | 30.000  | ug/l   | 0.00     |
|                             |                |      |            |         |        |          |
| System Monitoring Compounds |                |      |            |         |        |          |
| 27) 1,2-Dichloroethane-d4   | 8.577          | 65   | 51429      | 28.511  | ug/l   | 0.00     |
| Spiked Amount 30.000        | Range 91 - 110 |      | Recovery = | 95.033% |        |          |
| 60) 4-Bromofluorobenzene    | 12.847         | 95   | 52924      | 25.311  | ug/l   | 0.00     |
| Spiked Amount 30.000        | Range 63 - 112 |      | Recovery = | 84.367% |        |          |
| 63) Toluene-d8              | 10.571         | 98   | 122535     | 28.724  | ug/l   | 0.00     |
| Spiked Amount 30.000        | Range 91 - 112 |      | Recovery = | 95.733% |        |          |
|                             |                |      |            |         |        |          |
| Target Compounds            |                |      |            |         |        | Qvalue   |
| 3) Chloromethane            | 2.371          | 50   | 474        | 0.266   | ug/l # | 43       |
| 4) Vinyl Chloride           | 2.518          | 62   | 2486       | 1.358   | ug/l # | 80       |
| 6) Chloroethane             | 3.118          | 64   | 1123       | 0.784   | ug/l # | 41       |
| 8) Diethyl Ether            | 3.959          | 74   | 1390       | 1.240   | ug/l   | 52       |
| 13) Acrolein                | 4.183          | 56   | 120        | 0.525   | ug/l # | 62       |
| 15) Acetone                 | 4.430          | 58   | 26998      | 142.037 | ug/l   | 99       |
| 18) Methylene Chloride      | 5.265          | 84   | 6697       | 3.076   | ug/l # | 83       |
| 21) 1,1-Dichloroethane      | 6.571          | 63   | 13103      | 3.609   | ug/l   | 96       |
| 22) cis-1,2-Dichloroethene  | 7.489          | 96   | 5482       | 2.189   | ug/l # | 68       |
| 23) tert-Butyl Alcohol      | 5.518          | 59   | 247        | 0.805   | ug/l # | 100      |
| 25) Chloroform              | 7.971          | 83   | 8050       | 1.949   | ug/l   | 97       |
| 30) 2-Butanone              | 7.494          | 43   | 2800       | 3.425   | ug/l # | 73       |
| 32) 1,1,1-Trichloroethane   | 8.171          | 97   | 9481       | 3.213   | ug/l   | 91       |
| 33) Carbon Tetrachloride    | 8.159          | 117  | 768        | 0.287   | ug/l # | 17       |
| 36) 1,2-Dichloroethane      | 9.106          | 62   | 3357       | 1.484   | ug/l # | 72       |
| 42) Vinyl Acetate           | 6.712          | 43   | 2497       | 0.733   | ug/l # | 69       |
| 43) Ethyl Acetate           | 7.559          | 43   | 400        | 0.222   | ug/l # | 67       |
| 50) 1,1,2-Trichloroethane   | 10.571         | 97   | 3994       | 2.327   | ug/l # | 1        |
| 56) Bromoform               | 12.853         | 173  | 770        | 0.587   | ug/l # | 1        |
| 62) Toluene                 | 10.630         | 91   | 6777       | 0.876   | ug/l   | 91       |
| 72) 1,2,3-Trichloropropane  | 12.847         | 75   | 29492      | 15.281  | ug/l   | 1        |
| 77) t-1,4-Dichloro-2-butene | 12.847         | 75   | 29492      | 36.898  | ug/l # | 12       |
| 80) 1,2,4-Trimethylbenzene  | 13.482         | 105  | 1851       | 0.274   | ug/l   | 84       |
| 81) sec-Butylbenzene        | 13.482         | 105  | 1851       | 0.223   | ug/l # | 57       |
| -----                       |                |      |            |         |        |          |

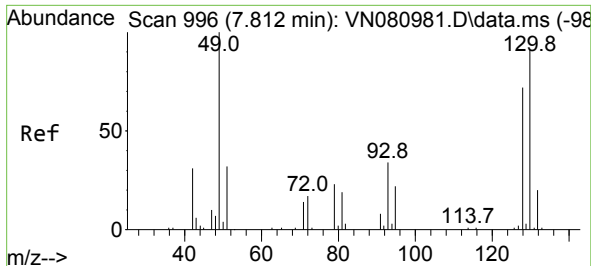
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN041924\  
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MSVOA\_N  
ClientSampleId :

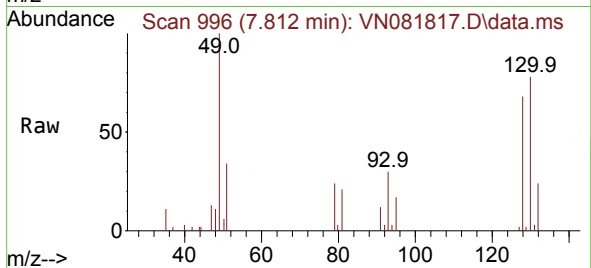
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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N041024W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Thu Apr 11 09:25:01 2024  
Response via : Initial Calibration



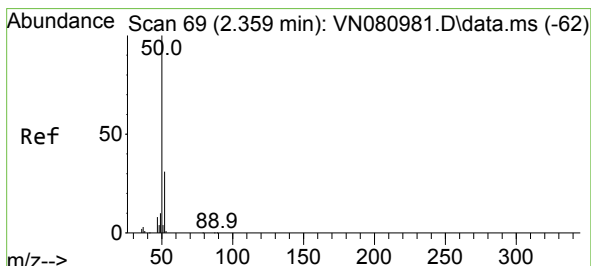
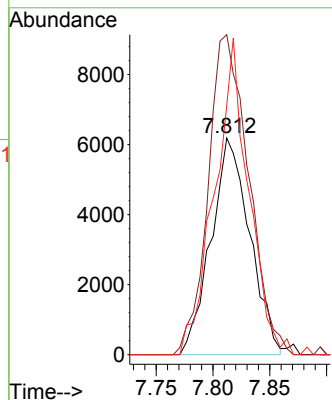
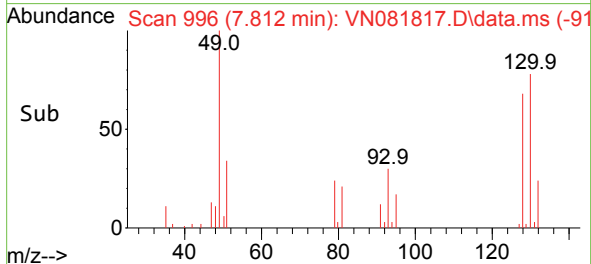


#1  
Bromochloromethane  
Concen: 30.000 ug/l  
RT: 7.812 min Scan# 996  
Delta R.T. -0.012 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

Instrument :  
MSVOA\_N  
ClientSampleId :

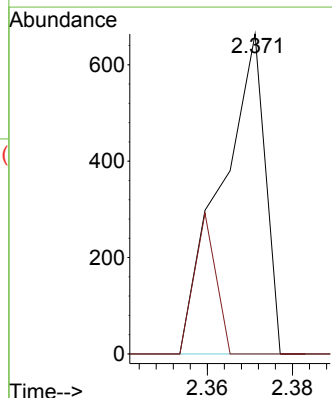
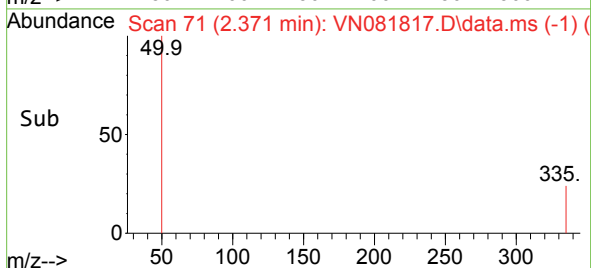
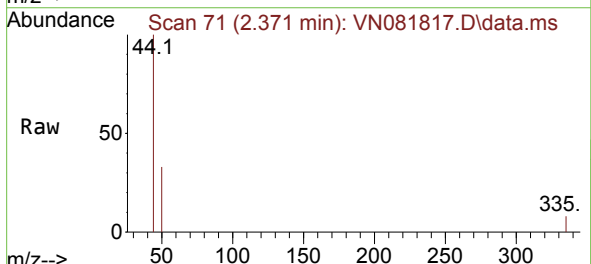


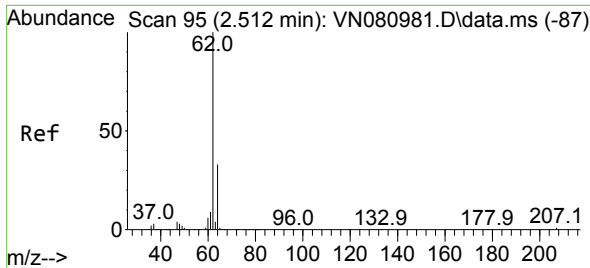
Tgt Ion:128 Resp: 14683  
Ion Ratio Lower Upper  
128 100  
49 154.4 0.0 403.7  
130 128.2 0.0 323.3



#3  
Chloromethane  
Concen: 0.266 ug/l  
RT: 2.371 min Scan# 71  
Delta R.T. 0.006 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

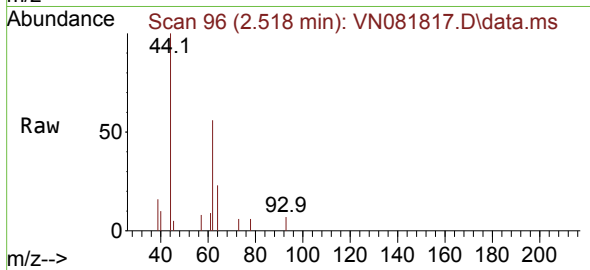
Tgt Ion: 50 Resp: 474  
Ion Ratio Lower Upper  
50 100  
52 0.0 25.4 38.0#



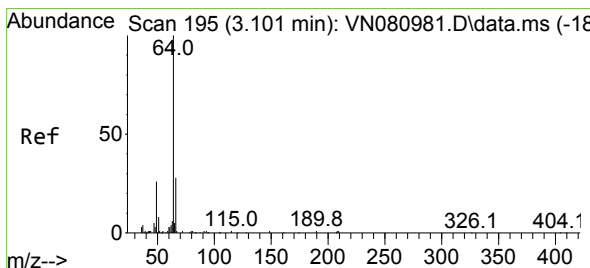
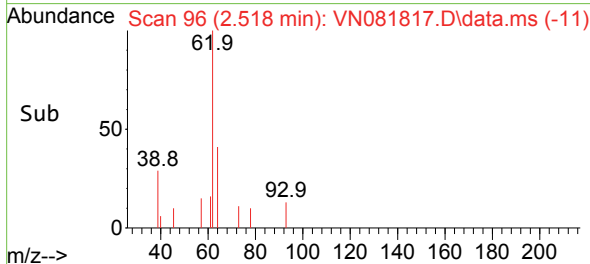
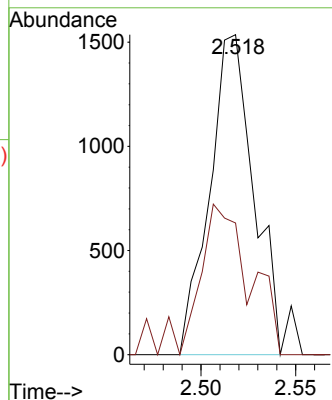


#4  
 Vinyl Chloride  
 Concen: 1.358 ug/l  
 RT: 2.518 min Scan# 90  
 Delta R.T. 0.000 min  
 Lab File: VN081817.D  
 Acq: 19 Apr 2024 18:28

Instrument :  
 MSVOA\_N  
 ClientSampleId :

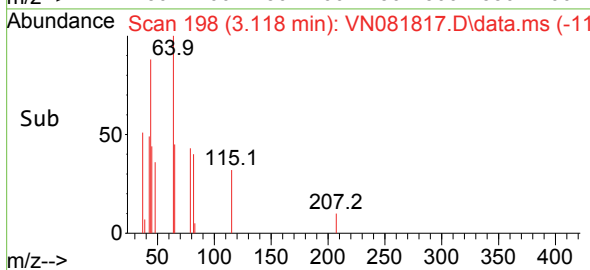
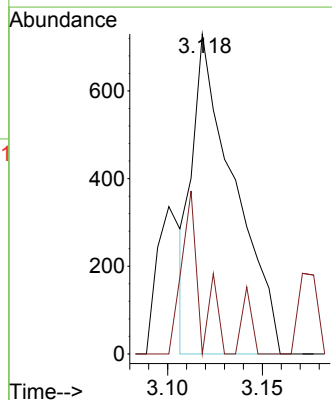
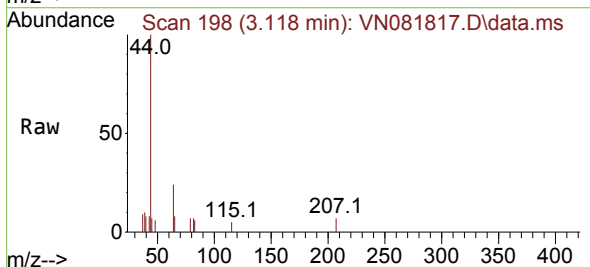


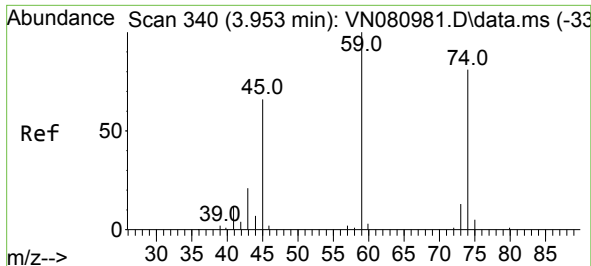
Tgt Ion: 62 Resp: 2486  
 Ion Ratio Lower Upper  
 62 100  
 64 41.1 24.1 36.1#



#6  
 Chloroethane  
 Concen: 0.784 ug/l  
 RT: 3.118 min Scan# 198  
 Delta R.T. -0.006 min  
 Lab File: VN081817.D  
 Acq: 19 Apr 2024 18:28

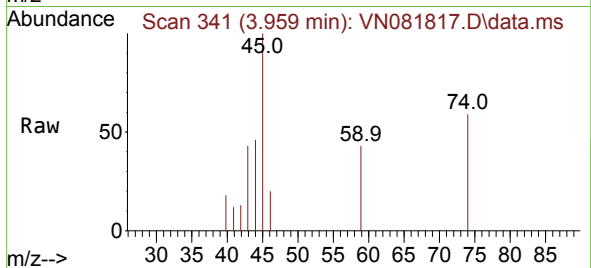
Tgt Ion: 64 Resp: 1123  
 Ion Ratio Lower Upper  
 64 100  
 66 0.0 26.7 40.1#



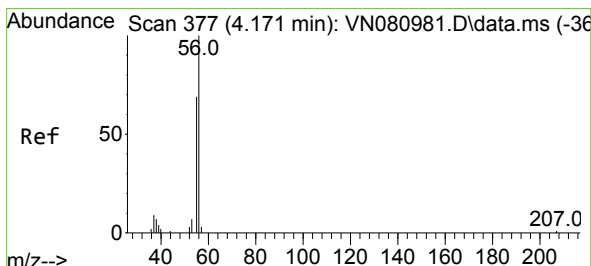
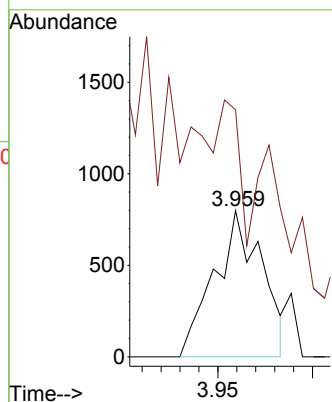
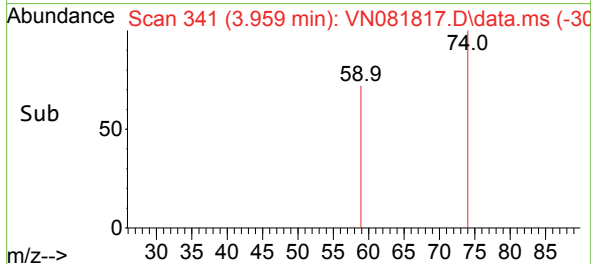


#8  
Diethyl Ether  
Concen: 1.240 ug/l  
RT: 3.959 min Scan# 341  
Delta R.T. 0.000 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

Instrument :  
MSVOA\_N  
ClientSampleId :

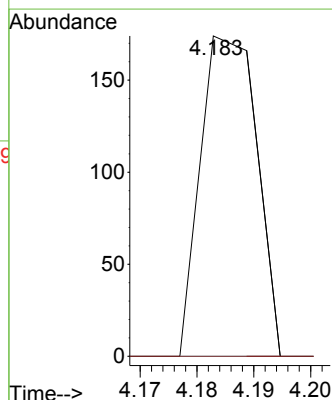
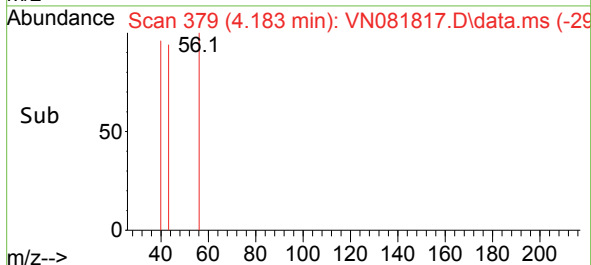
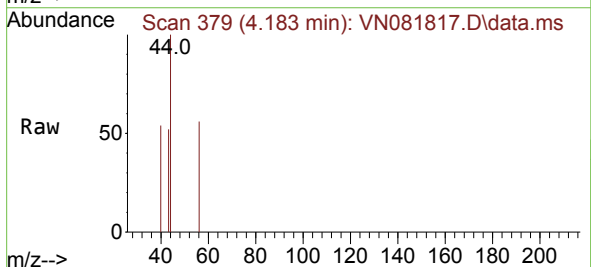


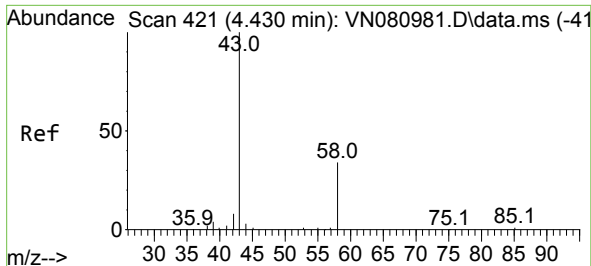
Tgt Ion: 74 Resp: 1390  
Ion Ratio Lower Upper  
74 100  
45 39.1 16.4 147.4



#13  
Acrolein  
Concen: 0.525 ug/l  
RT: 4.183 min Scan# 379  
Delta R.T. 0.000 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

Tgt Ion: 56 Resp: 120  
Ion Ratio Lower Upper  
56 100  
55 100.8 55.5 83.3#





#15

Acetone

Concen: 142.037 ug/l

RT: 4.430 min Scan# 41

Delta R.T. 0.006 min

Lab File: VN081817.D

Acq: 19 Apr 2024 18:28

Instrument :

MSVOA\_N

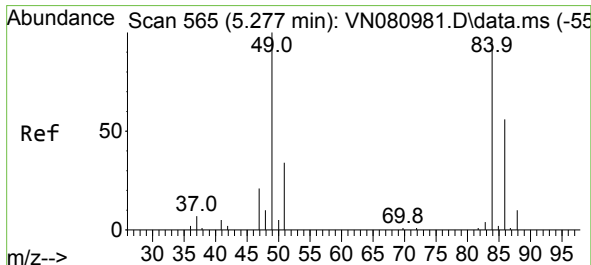
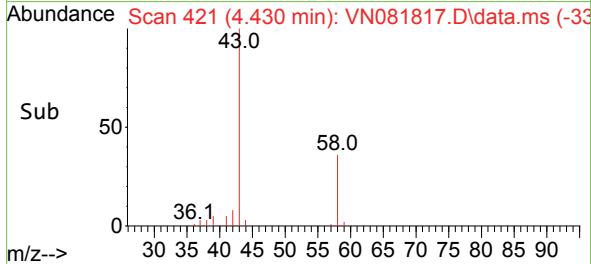
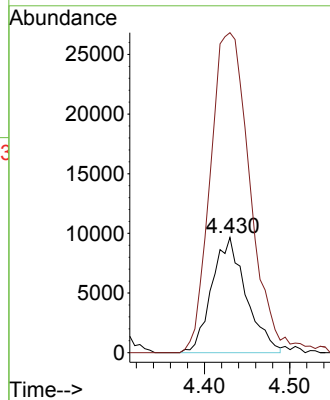
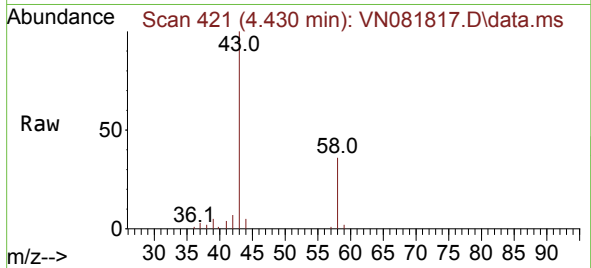
ClientSampleId :

Tgt Ion: 58 Resp: 26998

Ion Ratio Lower Upper

58 100

43 277.8 223.1 334.7



#18

Methylene Chloride

Concen: 3.076 ug/l

RT: 5.265 min Scan# 563

Delta R.T. -0.018 min

Lab File: VN081817.D

Acq: 19 Apr 2024 18:28

Tgt Ion: 84 Resp: 6697

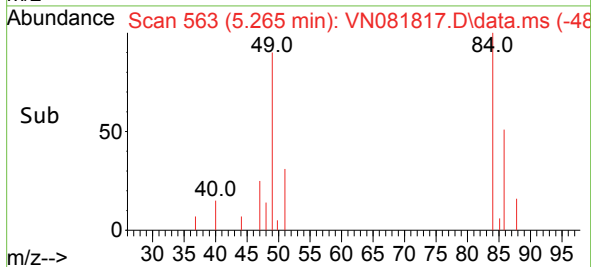
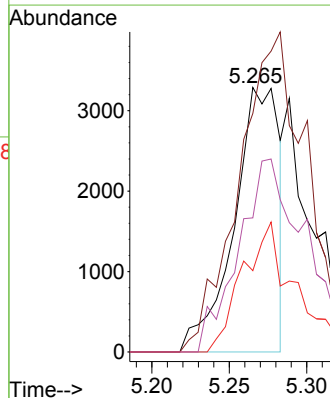
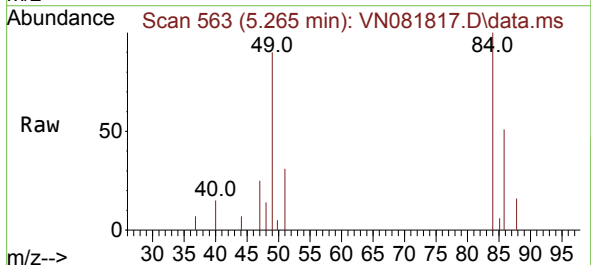
Ion Ratio Lower Upper

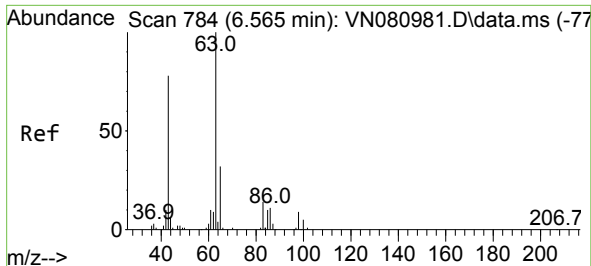
84 100

49 90.2 86.0 129.0

51 30.7 30.0 45.0

86 50.7 53.0 79.4#





#21

1,1-Dichloroethane

Concen: 3.609 ug/l

RT: 6.571 min Scan# 71

Delta R.T. 0.000 min

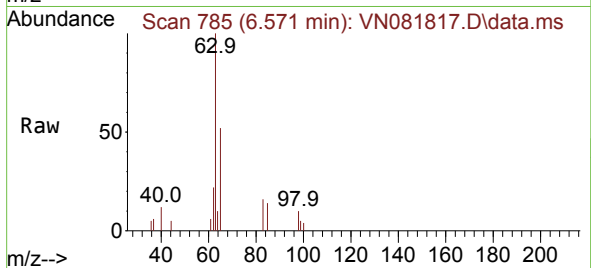
Lab File: VN081817.D

Acq: 19 Apr 2024 18:28

Instrument :

MSVOA\_N

ClientSampleId :



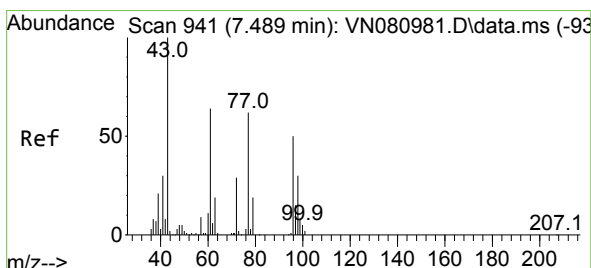
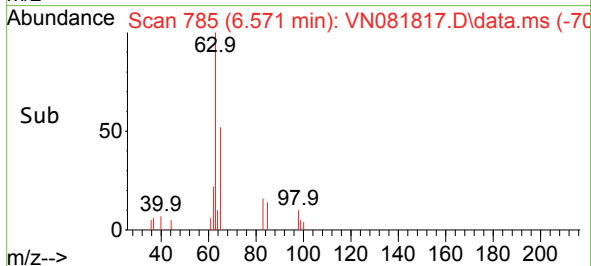
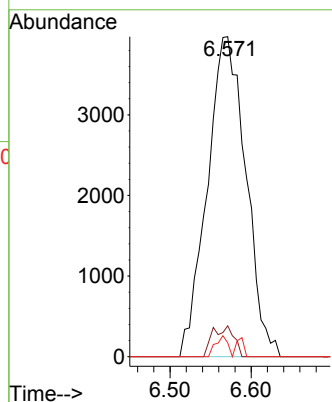
Tgt Ion: 63 Resp: 13103

Ion Ratio Lower Upper

63 100

98 9.7 4.1 12.3

100 4.4 3.0 9.0



#22

cis-1,2-Dichloroethene

Concen: 2.189 ug/l

RT: 7.489 min Scan# 941

Delta R.T. 0.006 min

Lab File: VN081817.D

Acq: 19 Apr 2024 18:28

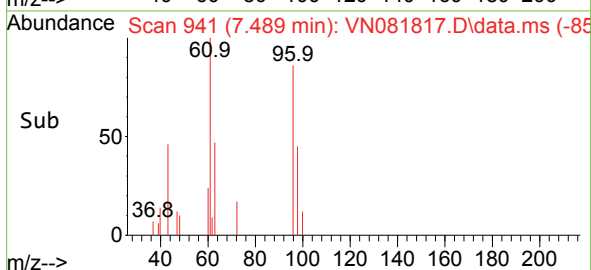
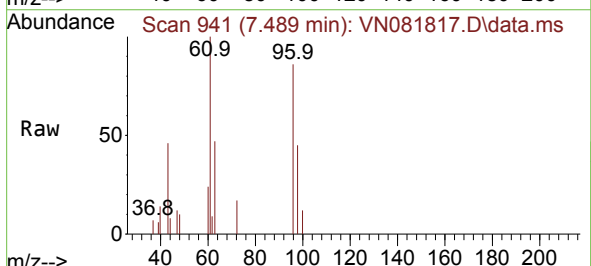
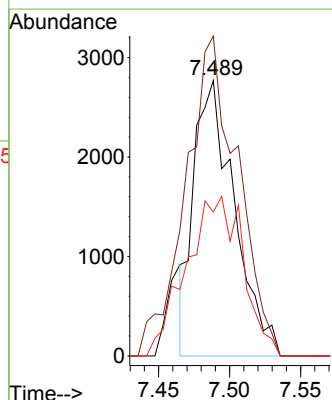
Tgt Ion: 96 Resp: 5482

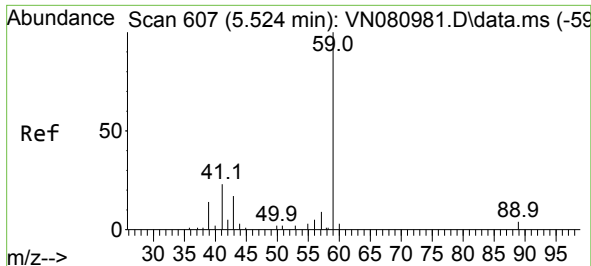
Ion Ratio Lower Upper

96 100

61 87.4 113.5 170.3#

98 61.7 52.0 78.0

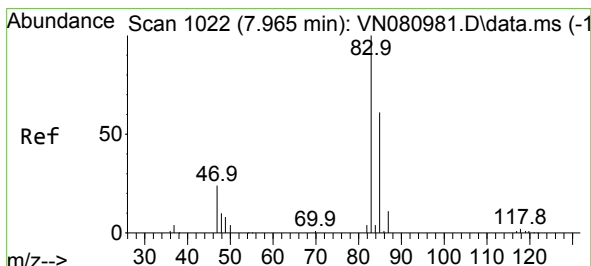
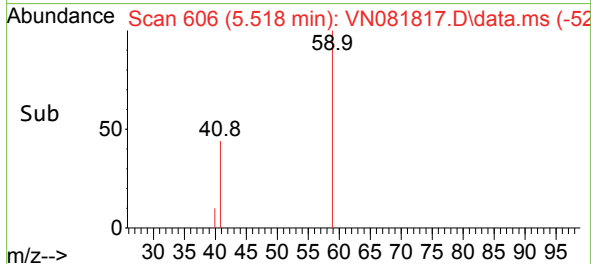
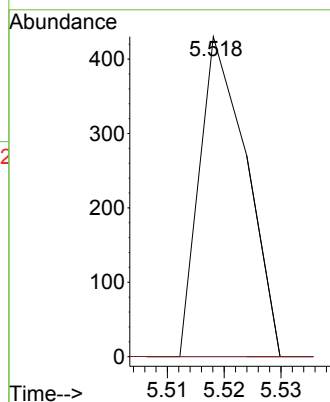
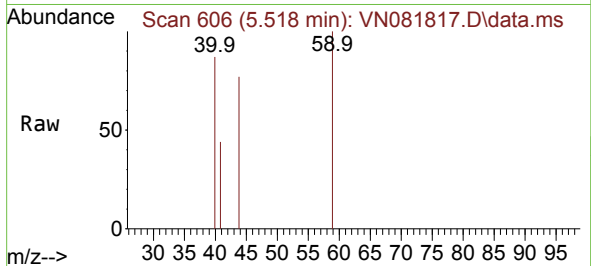




#23  
tert-Butyl Alcohol  
Concen: 0.805 ug/l  
RT: 5.518 min Scan# 607  
Delta R.T. 0.006 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

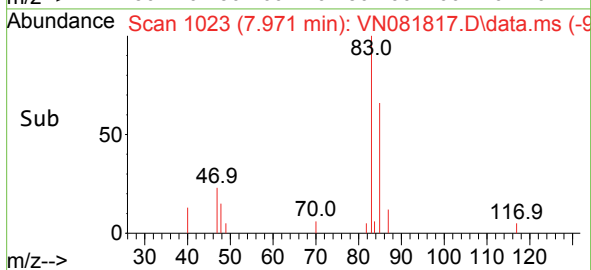
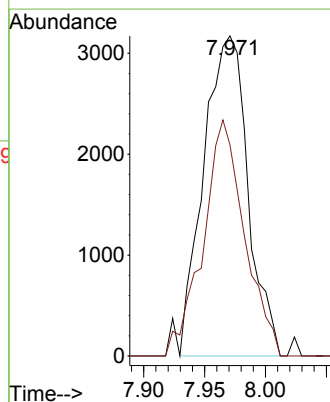
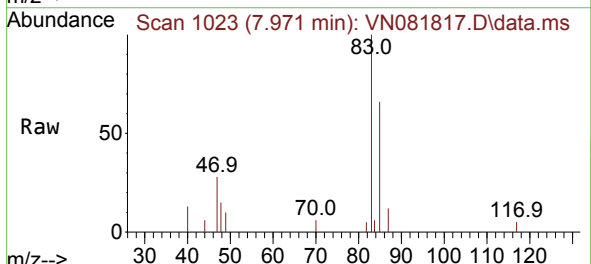
Instrument :  
MSVOA\_N  
ClientSampleId :

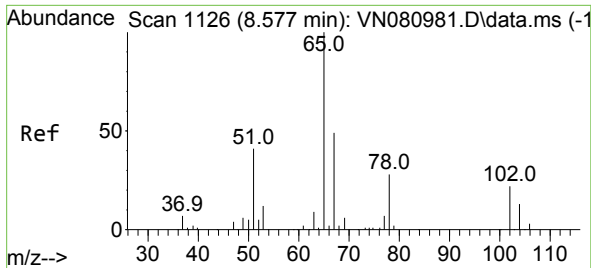
Tgt Ion: 59 Resp: 247  
Ion Ratio Lower Upper  
59 100  
52 0.0 0.0 0.0



#25  
Chloroform  
Concen: 1.949 ug/l  
RT: 7.971 min Scan# 1023  
Delta R.T. 0.000 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

Tgt Ion: 83 Resp: 8050  
Ion Ratio Lower Upper  
83 100  
85 66.0 50.9 76.3





#27

1,2-Dichloroethane-d4

Concen: 28.511 ug/l

RT: 8.577 min Scan# 1126

Delta R.T. -0.006 min

Lab File: VN081817.D

Acq: 19 Apr 2024 18:28

Instrument :

MSVOA\_N

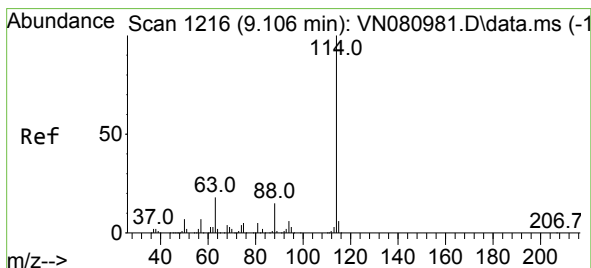
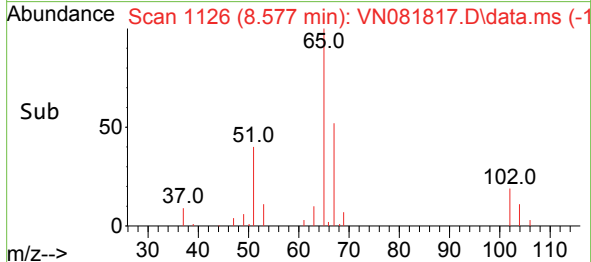
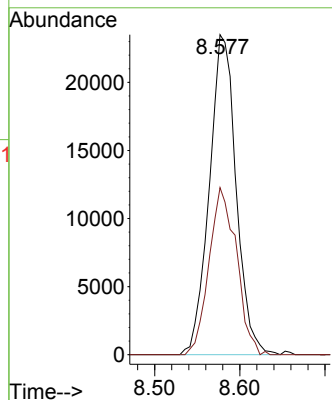
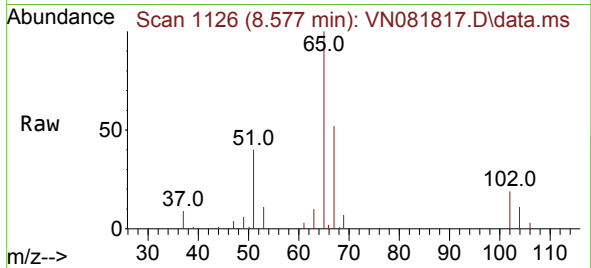
ClientSampleId :

Tgt Ion: 65 Resp: 51429

Ion Ratio Lower Upper

65 100

67 53.2 43.2 64.8



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.106 min Scan# 1216

Delta R.T. 0.006 min

Lab File: VN081817.D

Acq: 19 Apr 2024 18:28

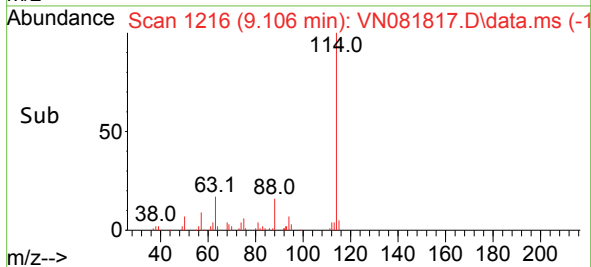
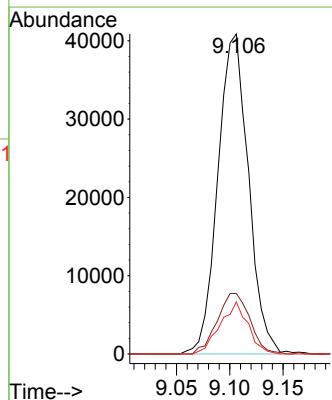
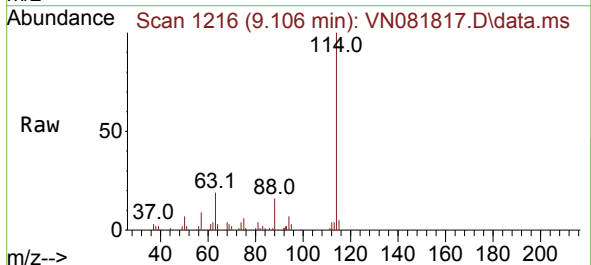
Tgt Ion: 114 Resp: 81432

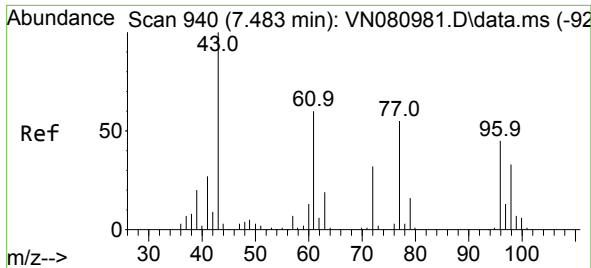
Ion Ratio Lower Upper

114 100

63 20.3 15.9 23.9

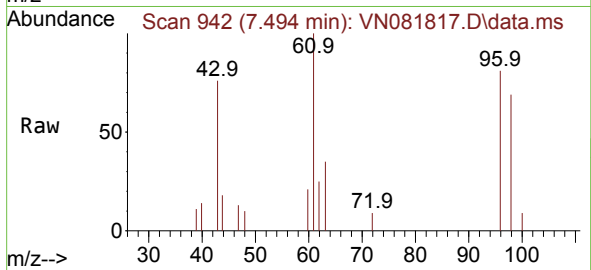
88 14.9 12.7 19.1



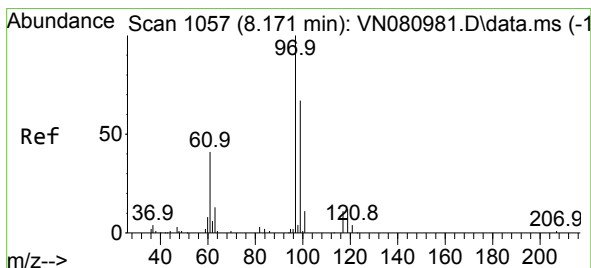
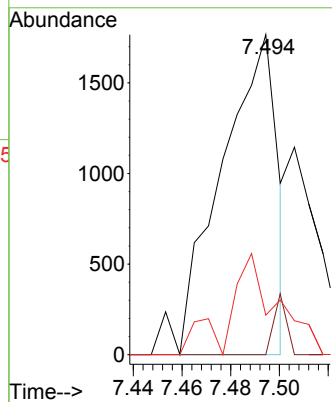
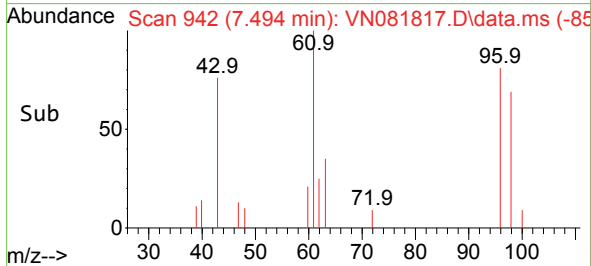


#30  
2-Butanone  
Concen: 3.425 ug/l  
RT: 7.494 min Scan# 940  
Delta R.T. 0.012 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

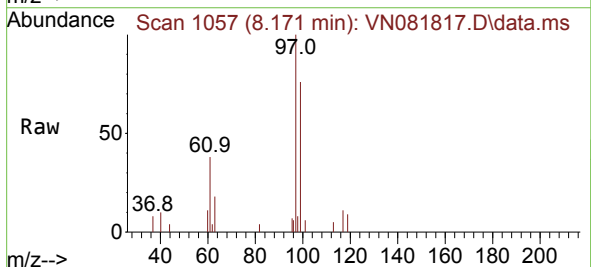
Instrument :  
MSVOA\_N  
ClientSampleId :



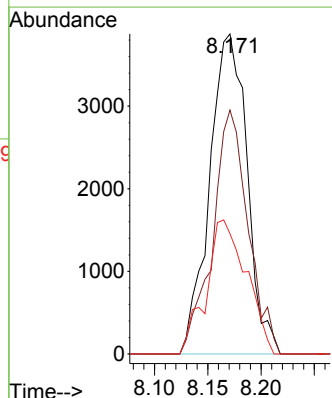
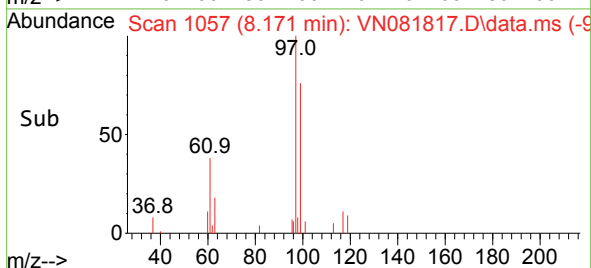
Tgt Ion: 43 Resp: 2800  
Ion Ratio Lower Upper  
43 100  
57 0.0 6.7 10.1#  
72 14.7 24.0 36.0#

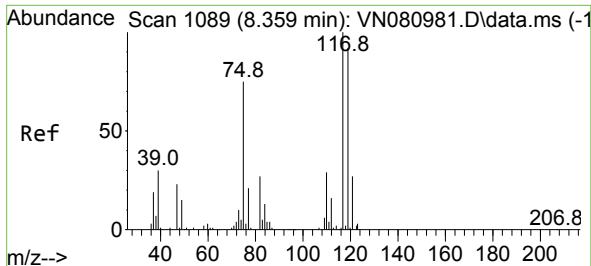


#32  
1,1,1-Trichloroethane  
Concen: 3.213 ug/l  
RT: 8.171 min Scan# 1057  
Delta R.T. 0.000 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28



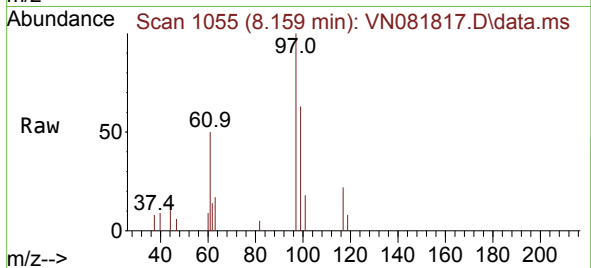
Tgt Ion: 97 Resp: 9481  
Ion Ratio Lower Upper  
97 100  
99 72.1 51.0 76.4  
61 38.3 33.8 50.8



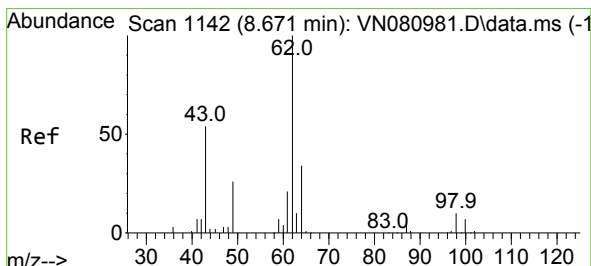
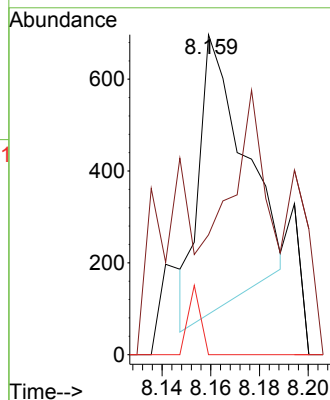
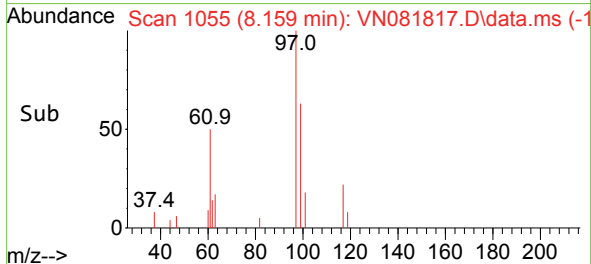


#33  
Carbon Tetrachloride  
Concen: 0.287 ug/l  
RT: 8.159 min Scan# 117  
Delta R.T. -0.206 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

Instrument :  
MSVOA\_N  
ClientSampleId :

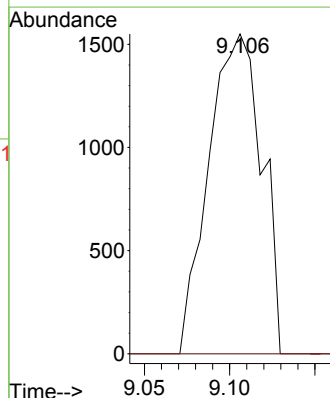
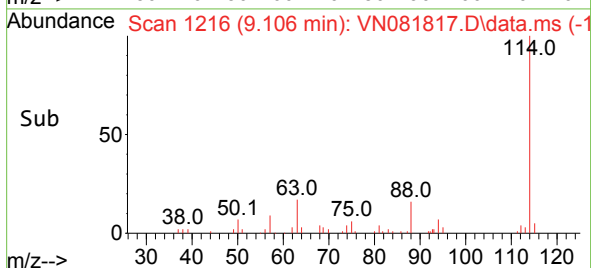
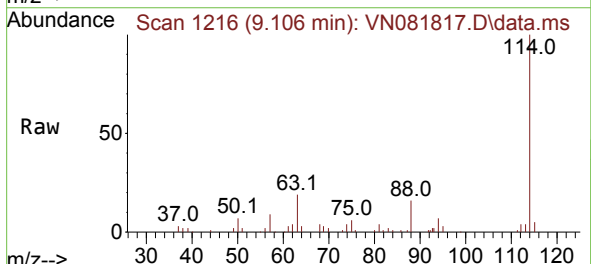


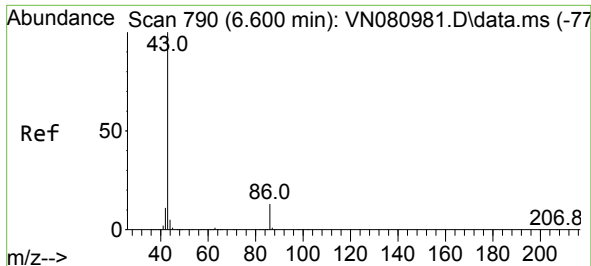
Tgt Ion:117 Resp: 768  
Ion Ratio Lower Upper  
117 100  
119 7.6 77.7 116.5#  
121 0.0 27.0 40.6#



#36  
1,2-Dichloroethane  
Concen: 1.484 ug/l  
RT: 9.106 min Scan# 1216  
Delta R.T. 0.435 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

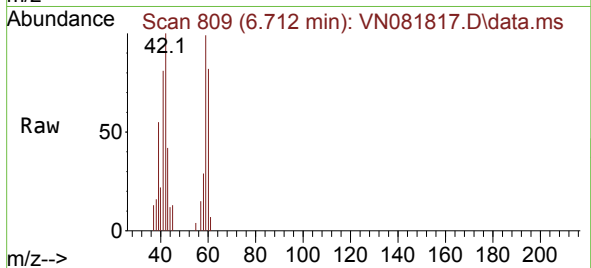
Tgt Ion: 62 Resp: 3357  
Ion Ratio Lower Upper  
62 100  
98 0.0 8.2 12.4#



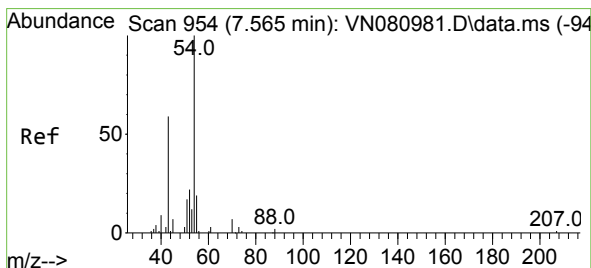
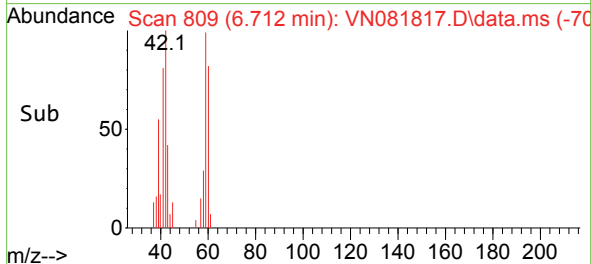
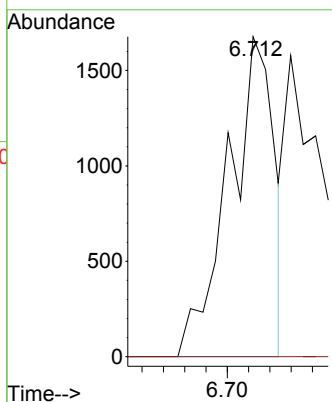


#42  
 Vinyl Acetate  
 Concen: 0.733 ug/l  
 RT: 6.712 min Scan# 809  
 Delta R.T. 0.106 min  
 Lab File: VN081817.D  
 Acq: 19 Apr 2024 18:28

Instrument :  
 MSVOA\_N  
 ClientSampleId :

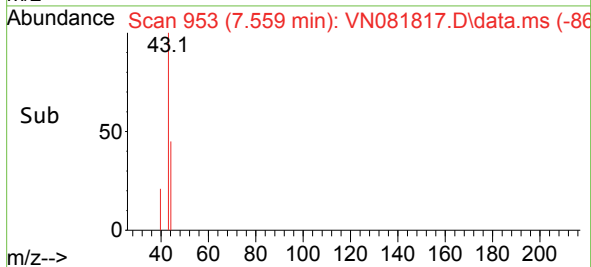
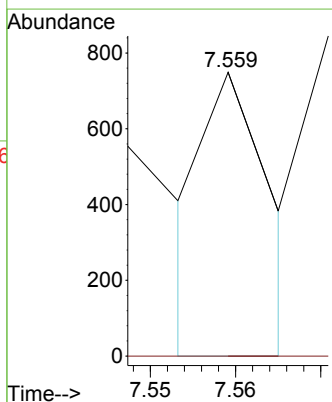
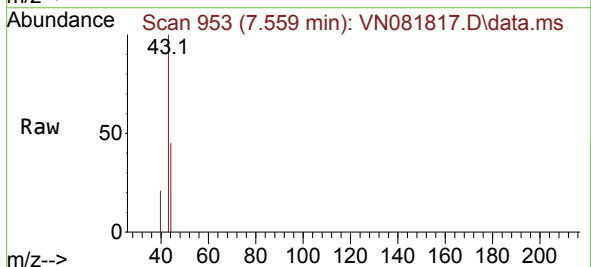


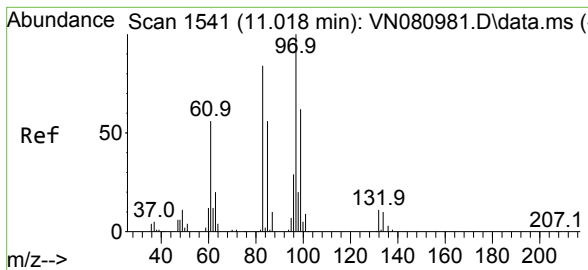
Tgt Ion: 43 Resp: 2497  
 Ion Ratio Lower Upper  
 43 100  
 86 0.0 9.4 14.2#



#43  
 Ethyl Acetate  
 Concen: 0.222 ug/l  
 RT: 7.559 min Scan# 953  
 Delta R.T. 0.000 min  
 Lab File: VN081817.D  
 Acq: 19 Apr 2024 18:28

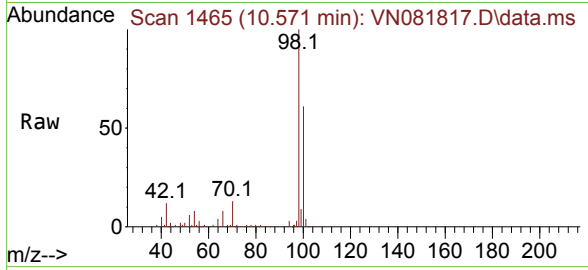
Tgt Ion: 43 Resp: 400  
 Ion Ratio Lower Upper  
 43 100  
 45 0.0 10.6 15.8#



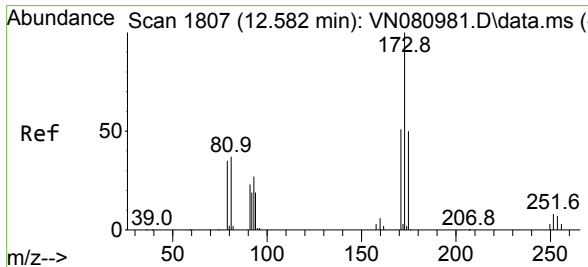
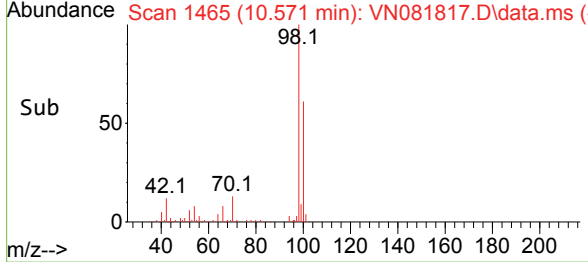
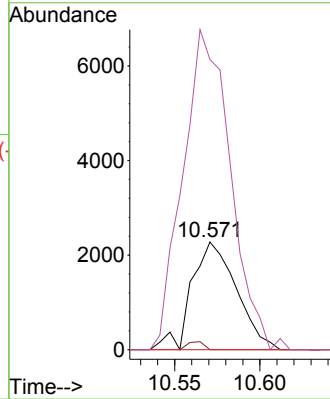


#50  
1,1,2-Trichloroethane  
Concen: 2.327 ug/l  
RT: 10.571 min Scan# 1465  
Delta R.T. -0.447 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

Instrument :  
MSVOA\_N  
ClientSampleId :

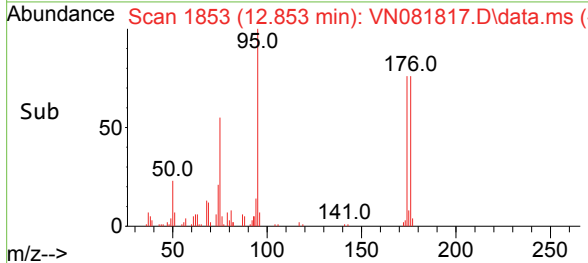
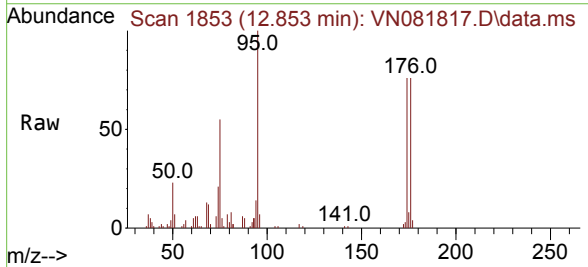
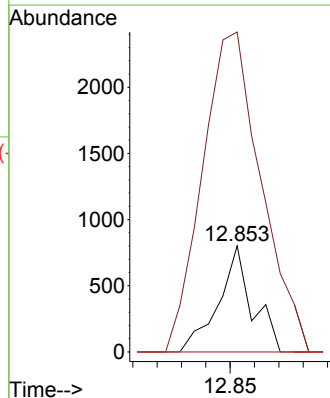


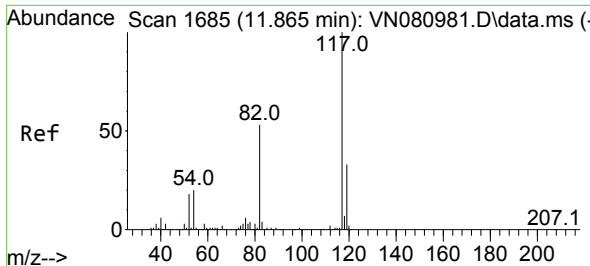
Tgt Ion: 97 Resp: 3994  
Ion Ratio Lower Upper  
97 100  
83 0.0 68.1 102.1#  
85 0.0 41.8 62.6#  
99 259.1 47.0 70.4#



#56  
Bromoform  
Concen: 0.587 ug/l  
RT: 12.853 min Scan# 1853  
Delta R.T. 0.271 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

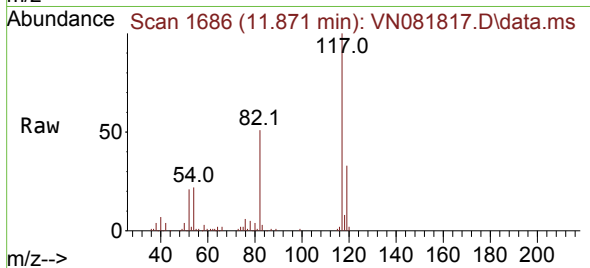
Tgt Ion: 173 Resp: 770  
Ion Ratio Lower Upper  
173 100  
175 526.6 40.0 60.0#  
254 0.0 8.3 12.5#



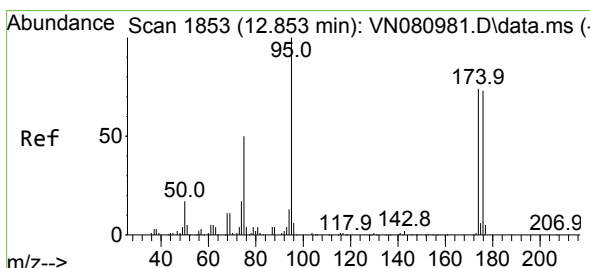
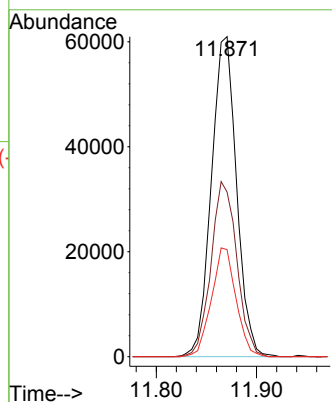
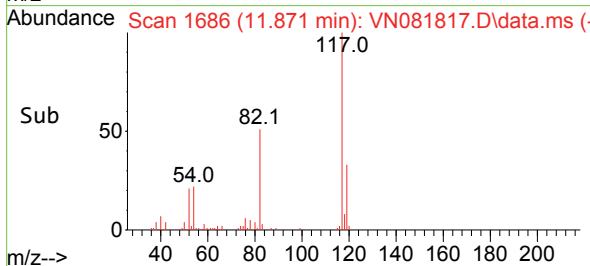


#57  
Chlorobenzene-d5  
Concen: 30.000 ug/l  
RT: 11.871 min Scan# 11  
Delta R.T. 0.006 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

Instrument :  
MSVOA\_N  
ClientSampleId :

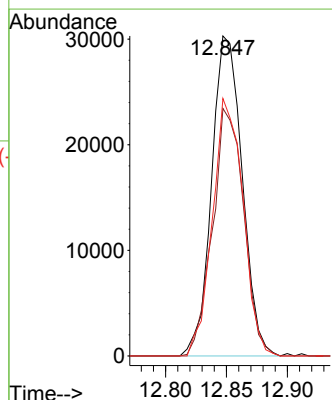
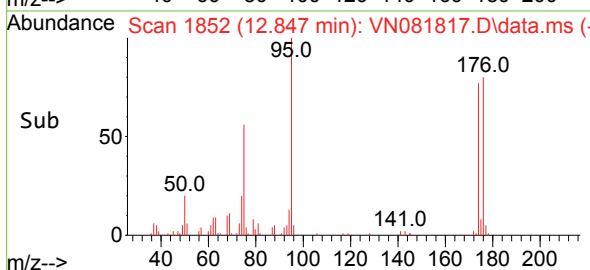
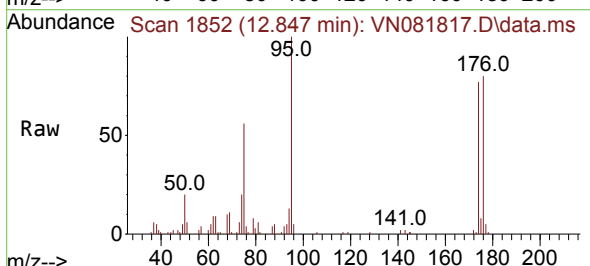


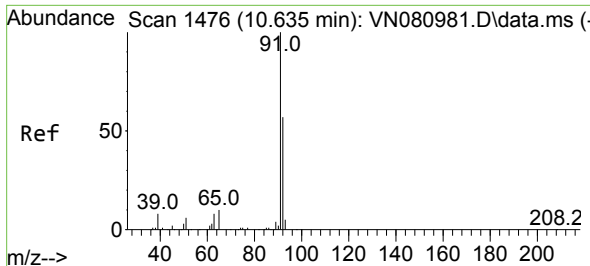
Tgt Ion:117 Resp: 106351  
Ion Ratio Lower Upper  
117 100  
82 56.3 46.6 69.8  
119 33.2 25.4 38.2



#60  
4-Bromofluorobenzene  
Concen: 25.311 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.000 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

Tgt Ion: 95 Resp: 52924  
Ion Ratio Lower Upper  
95 100  
174 78.7 60.5 90.7  
176 80.4 57.8 86.6

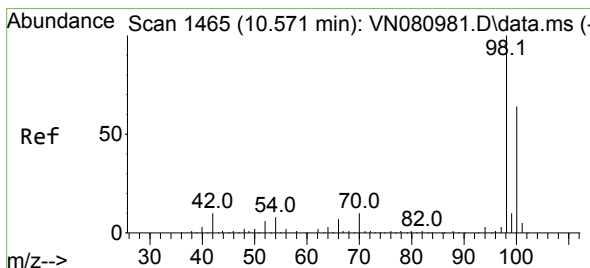
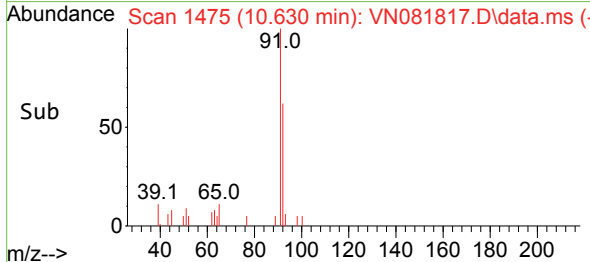
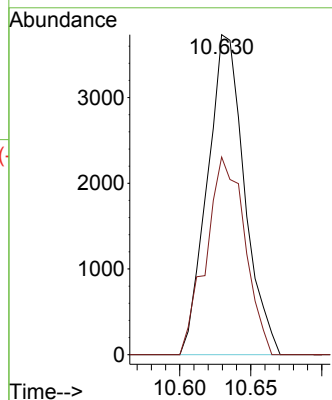
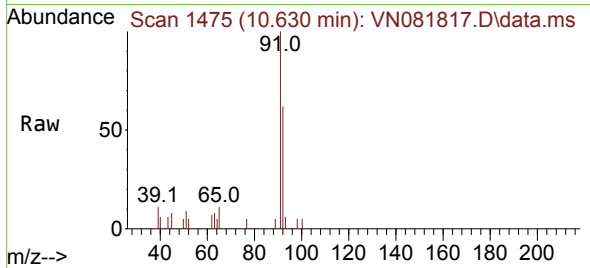




#62  
Toluene  
Concen: 0.876 ug/l  
RT: 10.630 min Scan# 1476  
Delta R.T. 0.000 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

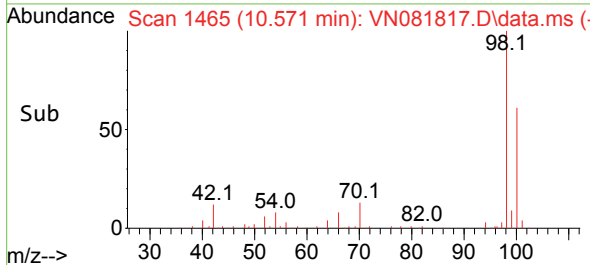
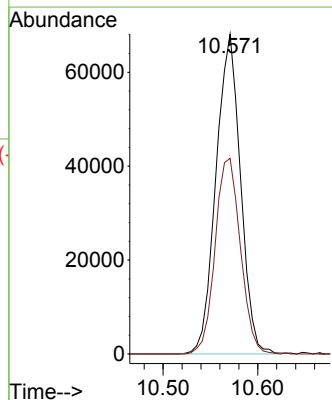
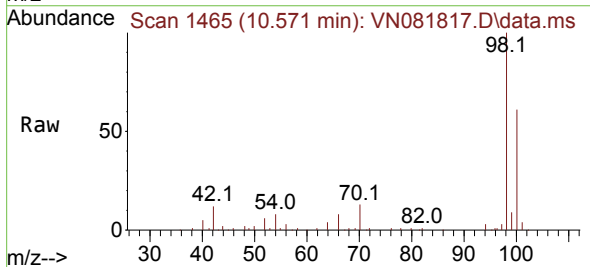
Instrument :  
MSVOA\_N  
ClientSampleId :

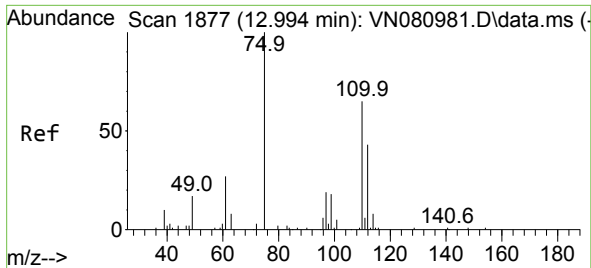
Tgt Ion: 91 Resp: 6777  
Ion Ratio Lower Upper  
91 100  
92 64.5 46.5 69.7



#63  
Toluene-d8  
Concen: 28.724 ug/l  
RT: 10.571 min Scan# 1465  
Delta R.T. 0.006 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

Tgt Ion: 98 Resp: 122535  
Ion Ratio Lower Upper  
98 100  
100 63.1 52.7 79.1

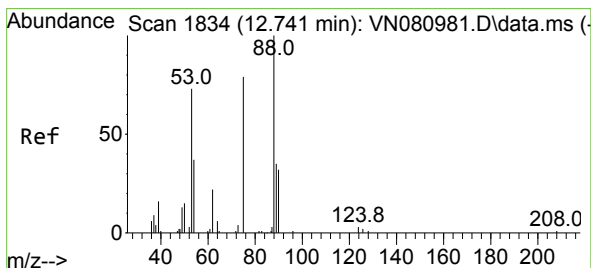
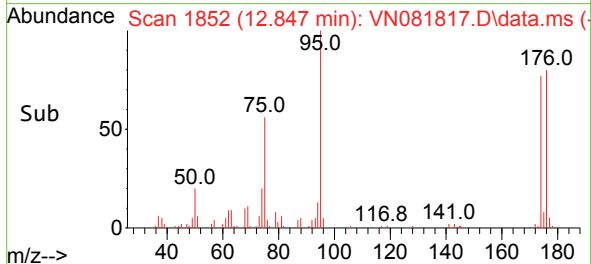
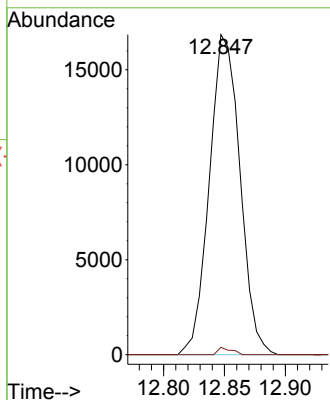
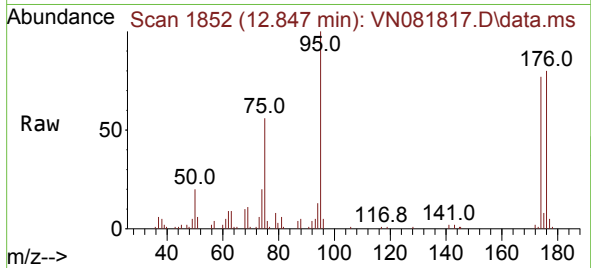




#72  
1,2,3-Trichloropropane  
Concen: 15.281 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. -0.147 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

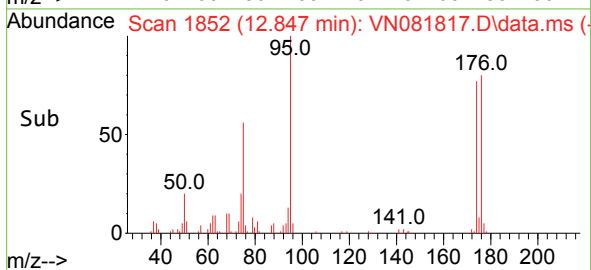
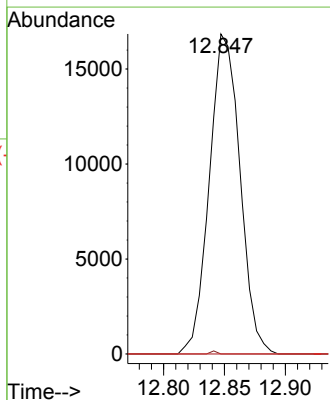
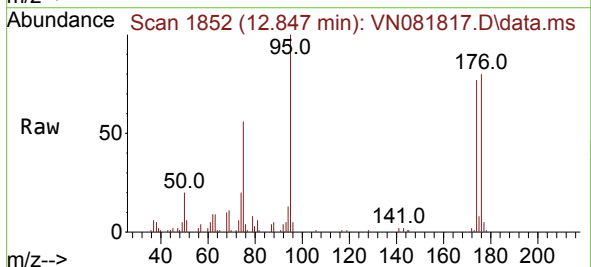
Instrument :  
MSVOA\_N  
ClientSampleId :

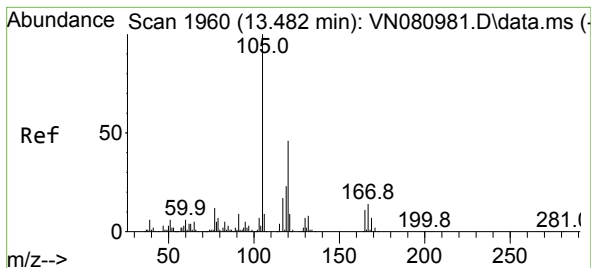
Tgt Ion: 75 Resp: 29492  
Ion Ratio Lower Upper  
75 100  
77 1.0 0.0 367.6



#77  
t-1,4-Dichloro-2-butene  
Concen: 36.898 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. 0.106 min  
Lab File: VN081817.D  
Acq: 19 Apr 2024 18:28

Tgt Ion: 75 Resp: 29492  
Ion Ratio Lower Upper  
75 100  
53 0.0 45.9 137.7#  
89 0.0 25.9 77.7#





#80

1,2,4-Trimethylbenzene

Concen: 0.274 ug/l

RT: 13.482 min Scan# 1960

Delta R.T. 0.000 min

Lab File: VN081817.D

Acq: 19 Apr 2024 18:28

Instrument :

MSVOA\_N

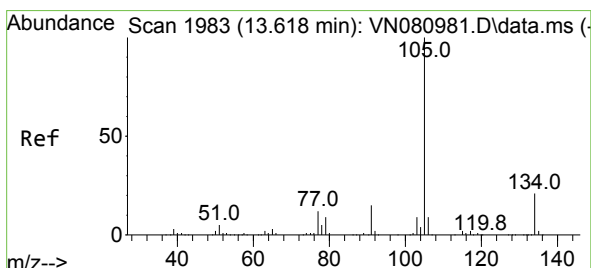
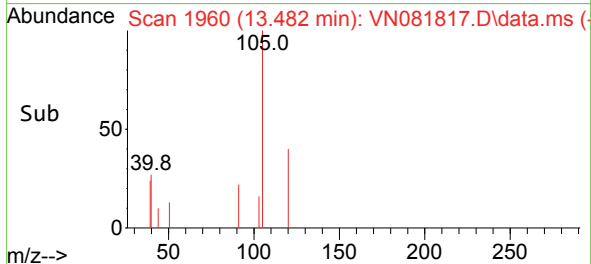
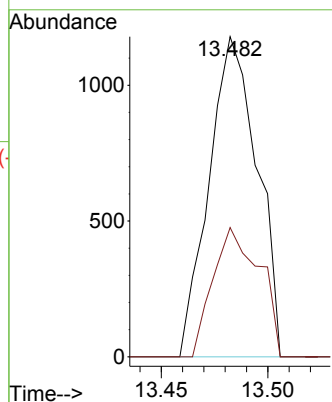
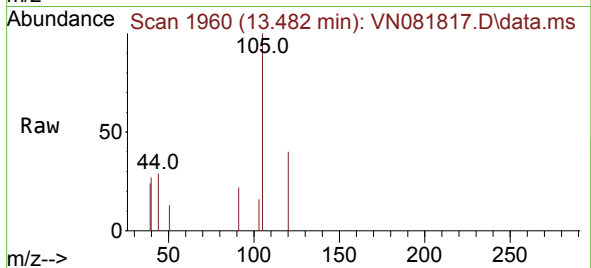
ClientSampleId :

Tgt Ion:105 Resp: 1851

Ion Ratio Lower Upper

105 100

120 32.9 0.0 86.8



#81

sec-Butylbenzene

Concen: 0.223 ug/l

RT: 13.482 min Scan# 1960

Delta R.T. -0.135 min

Lab File: VN081817.D

Acq: 19 Apr 2024 18:28

Tgt Ion:105 Resp: 1851

Ion Ratio Lower Upper

105 100

134 0.0 0.0 39.0

