

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN081718\  
 Data File : VN050718.D  
 Acq On : 17 Aug 2018 9:37  
 Operator : MD\SY  
 Sample : J4527-01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Aug 17 14:21:53 2018  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA N\methods\624N072518W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Jul 26 15:21:50 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.20  | 128  | 113979   | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.59  | 114  | 568052   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.41 | 117  | 469179   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

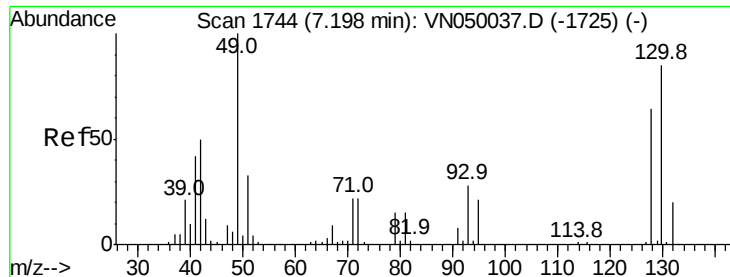
|                           |        |       |          |          |      |        |
|---------------------------|--------|-------|----------|----------|------|--------|
| 27) 1,2-Dichloroethane-d4 | 8.03   | 65    | 226882   | 29.29    | ug/l | 0.00   |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 97.63% |
| 60) 4-Bromofluorobenzene  | 12.40  | 95    | 152822   | 21.20    | ug/l | 0.00   |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 70.67% |
| 63) Toluene-d8            | 10.09  | 98    | 661109   | 29.50    | ug/l | 0.00   |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 98.33% |

## Target Compounds

|                             |       |     |       |        | Ovalue     |
|-----------------------------|-------|-----|-------|--------|------------|
| 3) Chloromethane            | 2.06  | 50  | 3224  | 0.398  | ug/l 97    |
| 12) Methyl Acetate          | 4.33  | 43  | 5807  | 0.834  | ug/l # 77  |
| 15) Acetone                 | 3.82  | 58  | 3141  | 5.088  | ug/l # 42  |
| 16) Carbon Disulfide        | 4.05  | 76  | 4411  | 0.237  | ug/l 97    |
| 17) Allyl chloride          | 4.07  | 41  | 5013  | 0.522  | ug/l 73    |
| 18) Methylene Chloride      | 4.55  | 84  | 4481  | 0.639  | ug/l # 91  |
| 23) tert-Butyl Alcohol      | 4.77  | 59  | 157   | 0.302  | ug/l # 100 |
| 25) Chloroform              | 7.37  | 83  | 22490 | 1.795  | ug/l 86    |
| 30) 2-Butanone              | 6.83  | 43  | 582   | 0.210  | ug/l # 55  |
| 51) Ethyl methacrylate      | 10.10 | 69  | 1898  | 0.250  | ug/l 93    |
| 58) 4-Methyl-2-Pentanone    | 9.99  | 43  | 1092  | 0.200  | ug/l # 80  |
| 59) 2-Hexanone              | 10.76 | 43  | 911   | 0.245  | ug/l # 79  |
| 77) t-1,4-Dichloro-2-butene | 12.40 | 75  | 72149 | 35.277 | ug/l # 14  |
| 89) 1,2,4-Trichlorobenzene  | 15.31 | 180 | 1807  | 0.313  | ug/l 90    |
| 90) Hexachlorobutadiene     | 15.01 | 225 | 1063  | 0.279  | ug/l 91    |
| 91) Naphthalene             | 15.14 | 128 | 4056  | 7.863  | ug/l # 84  |
| 92) 1,2,3-Trichlorobenzene  | 15.31 | 180 | 1807  | 0.308  | ug/l 88    |

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





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 7.20 min Scan# 1744

Delta R.T. 0.00 min

Lab File: VN050718.D

Acq: 17 Aug 2018 9:37

Instrument :

MSVOA\_N

ClientSampleId :

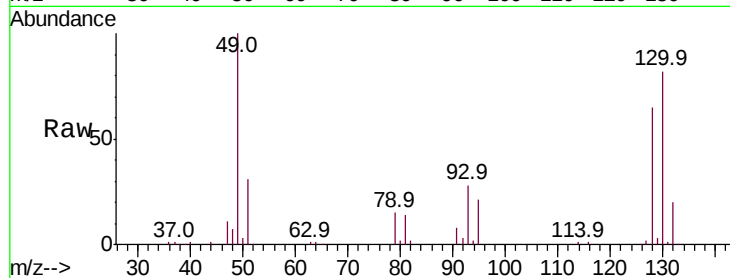
Tot Ion:128 Resp: 113979

Ion Ratio Lower Upper

128 100

49 150.9 0.0 378.3

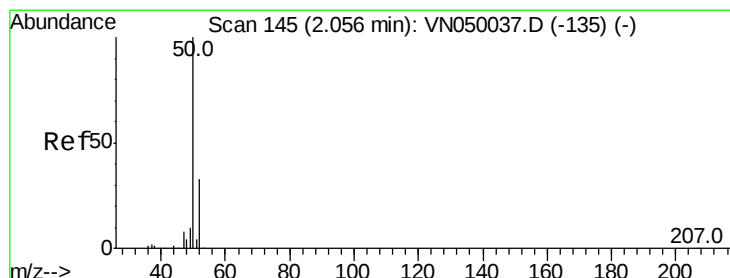
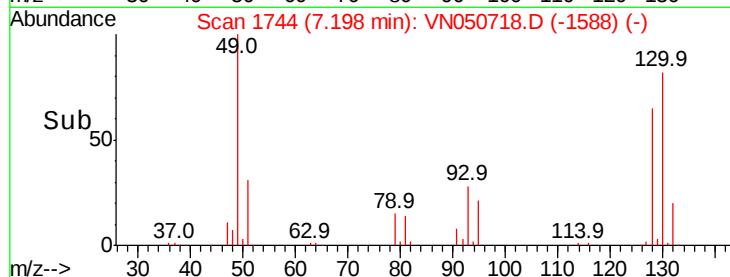
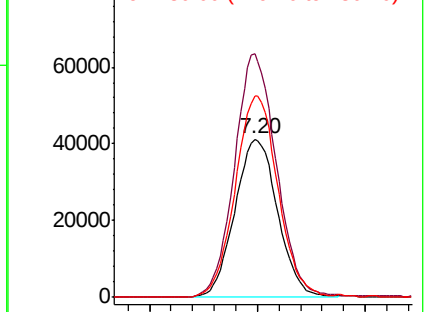
130 127.0 0.0 320.7



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 49.00 (48.70 to 49.70): VN0

Ion 130.00 (129.70 to 130.70): V



#3

Chloromethane

Concen: 0.398 ug/l

RT: 2.06 min Scan# 145

Delta R.T. 0.00 min

Lab File: VN050718.D

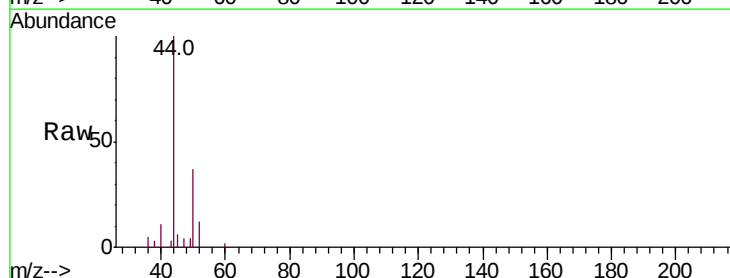
Acq: 17 Aug 2018 9:37

Tgt Ion: 50 Resp: 3224

Ion Ratio Lower Upper

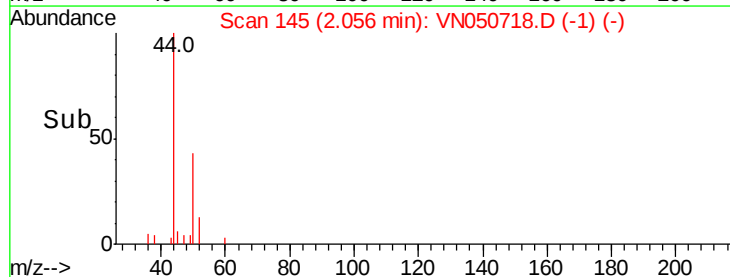
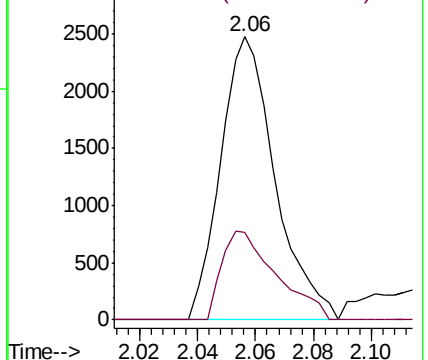
50 100

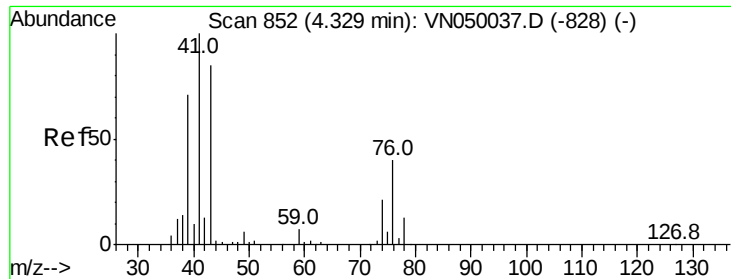
52 31.0 26.1 39.1



Abundance Ion 50.00 (49.70 to 50.70): VN0

Ion 52.00 (51.70 to 52.70): VN0

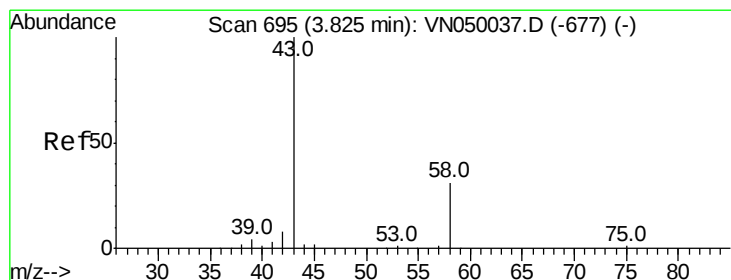
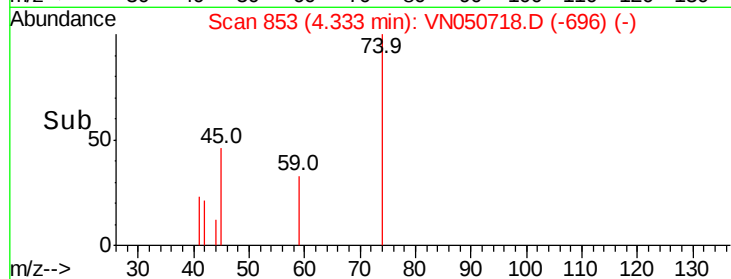
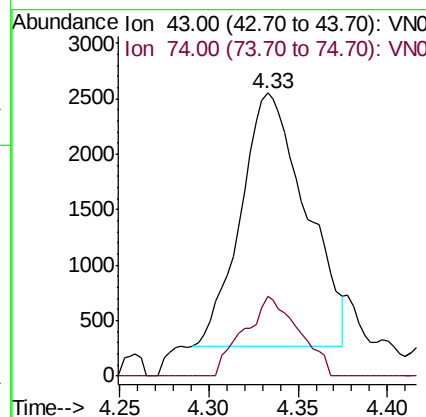
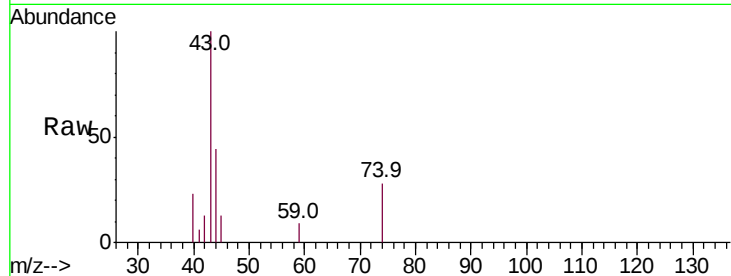




#12  
Methvl Acetate  
Concen: 0.834 ug/l  
RT: 4.33 min Scan# 853  
Delta R.T. 0.00 min  
Lab File: VN050718.D  
Acq: 17 Aug 2018 9:37

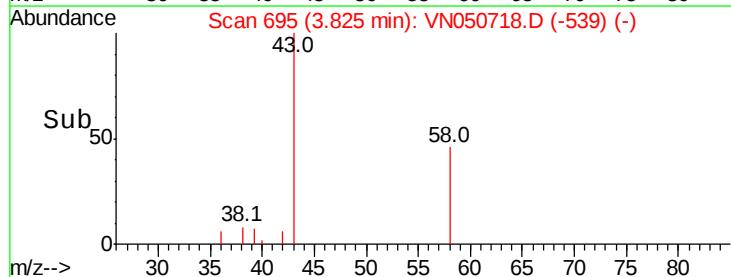
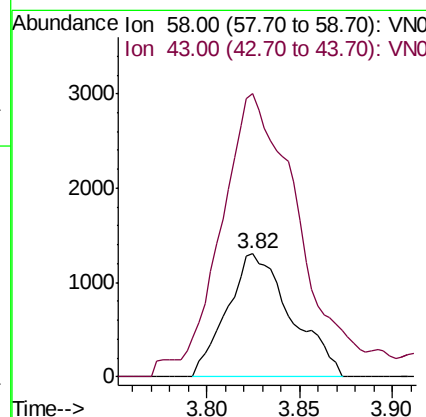
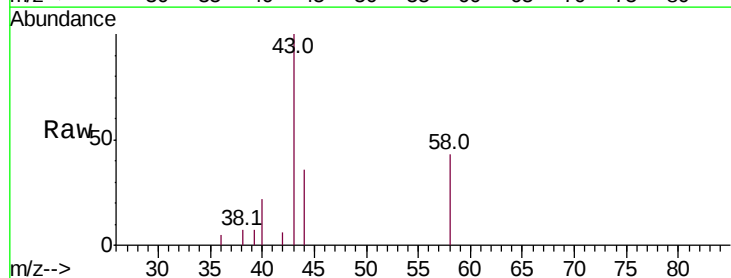
Instrument :  
MSVOA\_N  
ClientSampled :

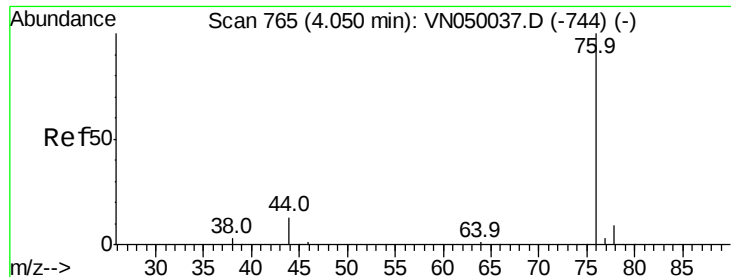
Tot Ion: 43 Resp: 5807  
Ion Ratio Lower Upper  
43 100  
74 35.3 19.3 28.9#



#15  
Acetone  
Concen: 5.088 ug/l  
RT: 3.82 min Scan# 695  
Delta R.T. 0.00 min  
Lab File: VN050718.D  
Acq: 17 Aug 2018 9:37

Tgt Ion: 58 Resp: 3141  
Ion Ratio Lower Upper  
58 100  
43 198.5 252.0 378.0#

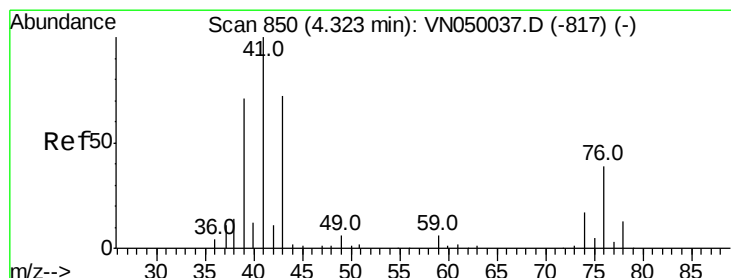
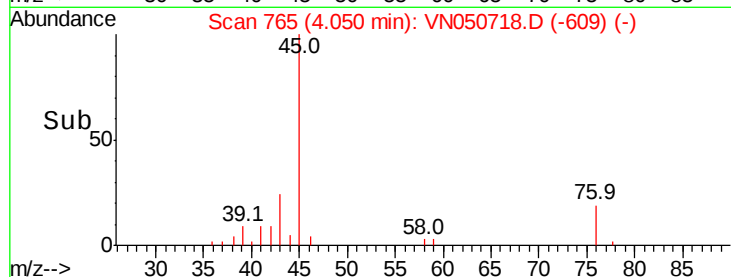
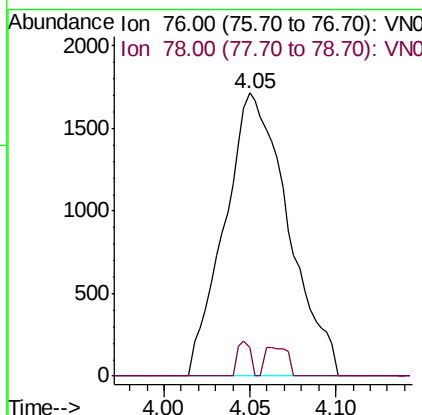
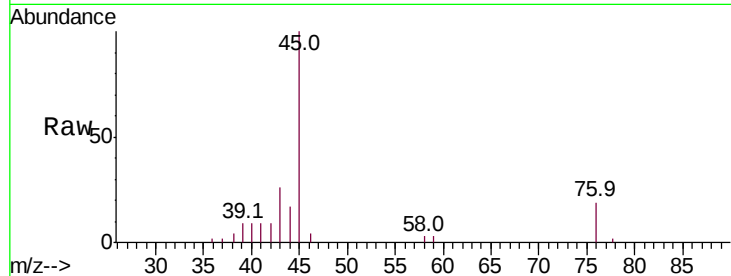




#16  
Carbon Disulfide  
Concen: 0.237 ug/l  
RT: 4.05 min Scan# 765  
Delta R.T. 0.00 min  
Lab File: VN050718.D  
Acq: 17 Aug 2018 9:37

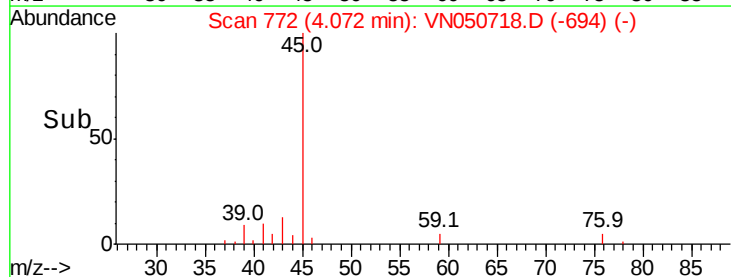
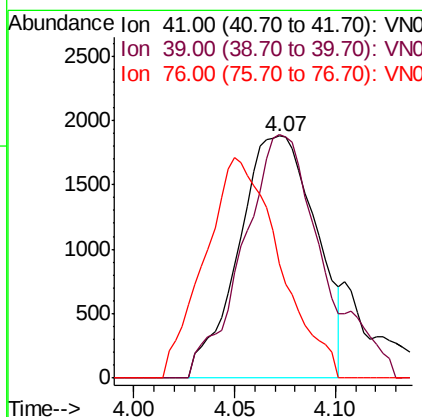
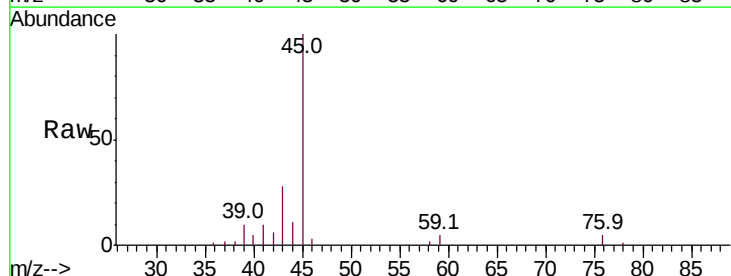
Instrument :  
MSVOA\_N  
ClientSampleId :

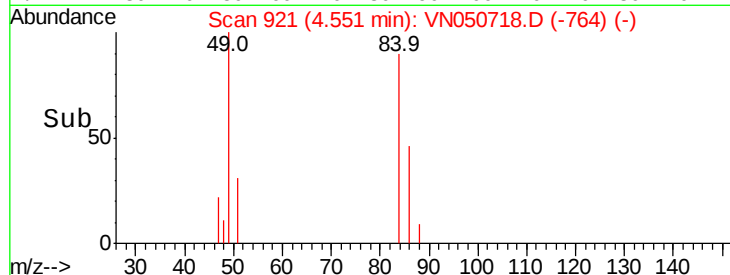
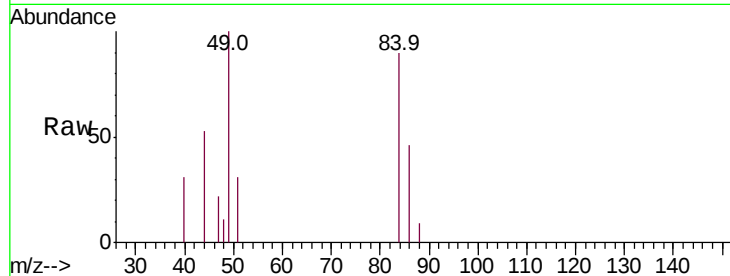
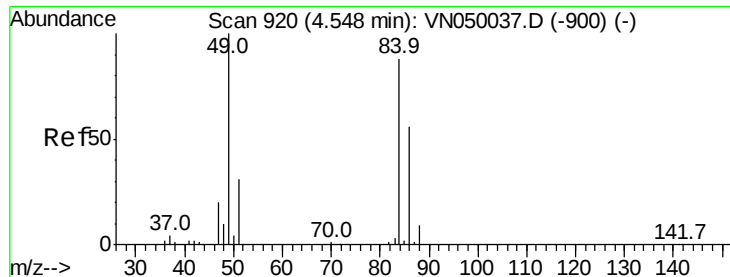
Tot Ion: 76 Resp: 4411  
Ion Ratio Lower Upper  
76 100  
78 10.2 7.3 10.9



#17  
Allyl chloride  
Concen: 0.522 ug/l  
RT: 4.07 min Scan# 772  
Delta R.T. -0.25 min  
Lab File: VN050718.D  
Acq: 17 Aug 2018 9:37

Tgt Ion: 41 Resp: 5013  
Ion Ratio Lower Upper  
41 100  
39 100.5 35.4 106.3  
76 47.0 19.7 59.1

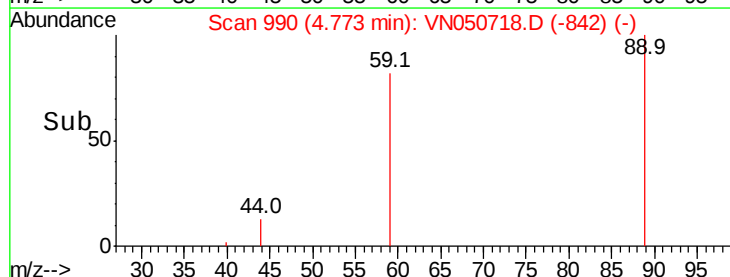
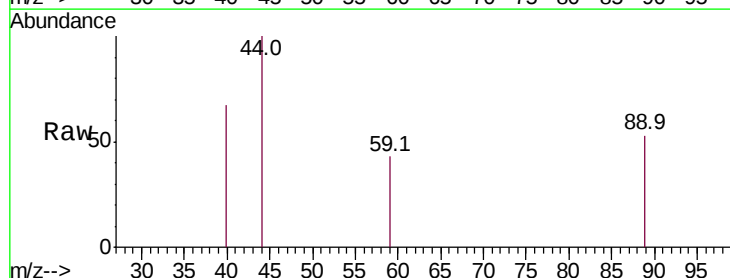
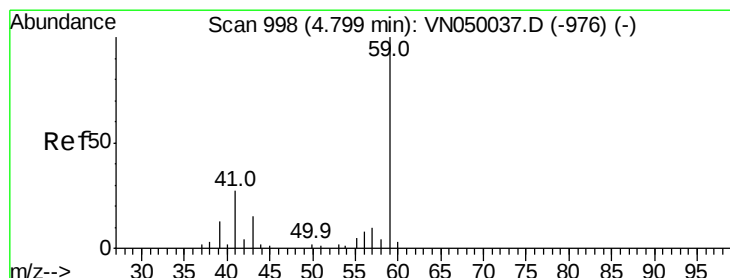
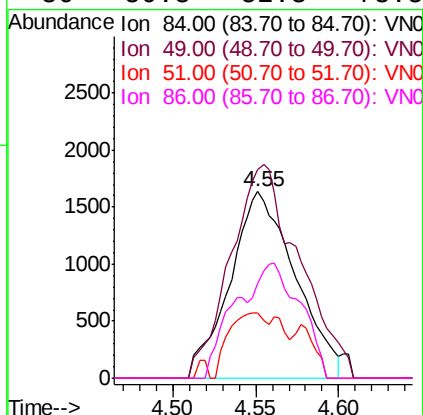




#18  
Methylene Chloride  
Concen: 0.639 ug/l  
RT: 4.55 min Scan# 921  
Delta R.T. 0.00 min  
Lab File: VN050718.D  
Acq: 17 Aug 2018 9:37

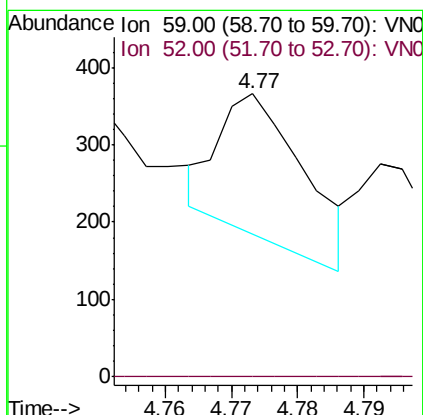
Instrument :  
MSVOA\_N  
ClientSampled :

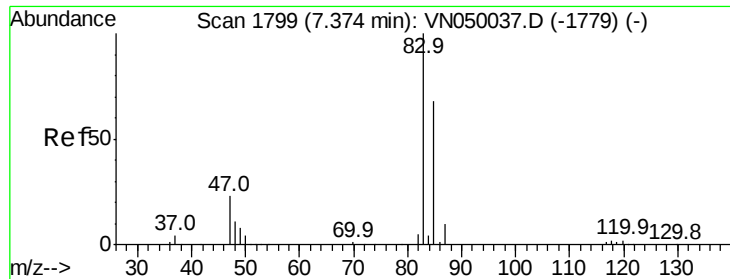
Tot Ion: 84 Resp: 4481  
Ion Ratio Lower Upper  
84 100  
49 111.5 95.1 142.7  
51 34.7 28.8 43.2  
86 50.8 52.3 78.5#



#23  
tert-Butyl Alcohol  
Concen: 0.302 ug/l  
RT: 4.77 min Scan# 990  
Delta R.T. -0.03 min  
Lab File: VN050718.D  
Acq: 17 Aug 2018 9:37

Tgt Ion: 59 Resp: 157  
Ion Ratio Lower Upper  
59 100  
52 0.0 0.1 0.1#

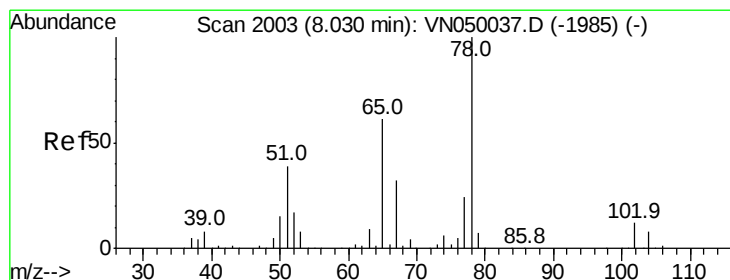
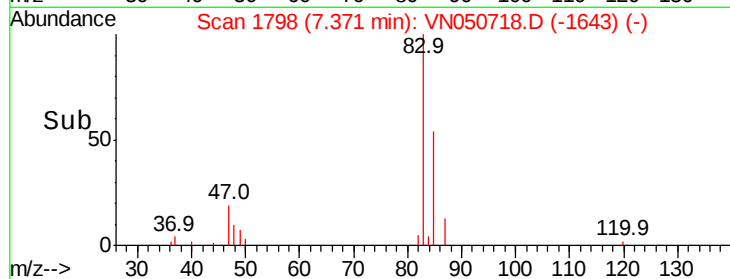
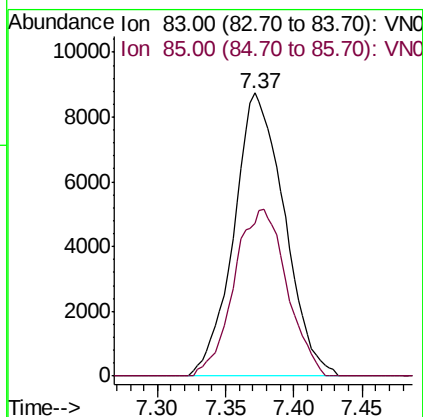
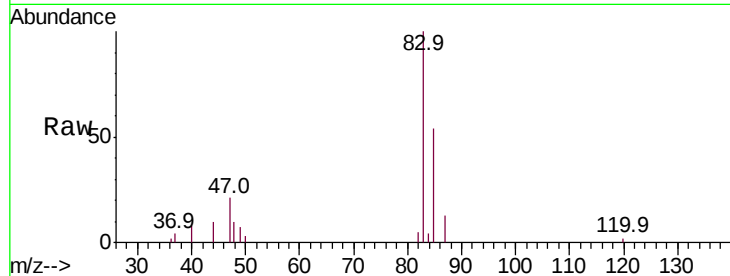




#25  
Chloroform  
Concen: 1.795 ug/l  
RT: 7.37 min Scan# 1798  
Delta R.T. -0.00 min  
Lab File: VN050718.D  
Acq: 17 Aug 2018 9:37

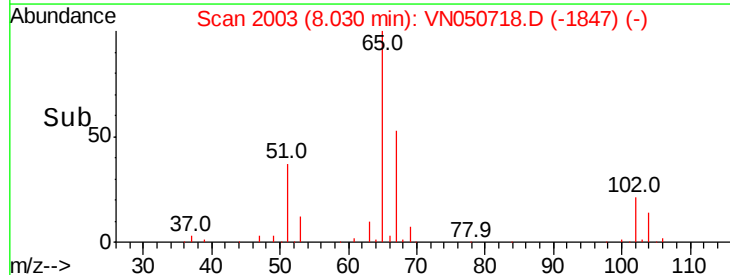
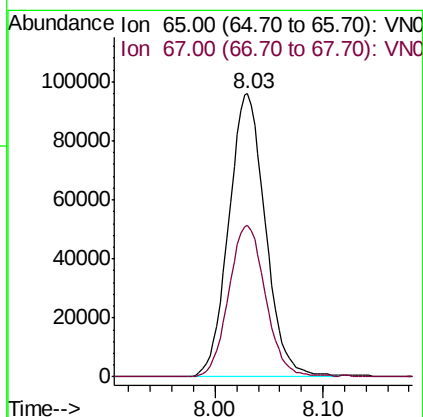
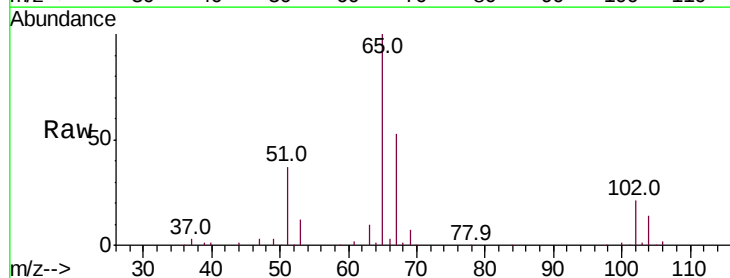
Instrument :  
MSVOA\_N  
ClientSampleId :

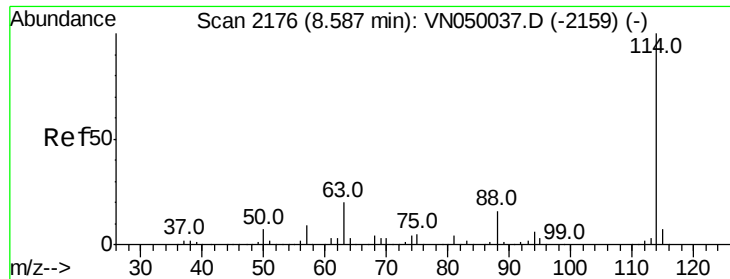
Tot Ion: 83 Resp: 22490  
Ion Ratio Lower Upper  
83 100  
85 54.1 52.1 78.1



#27  
1,2-Dichloroethane-d4  
Concen: 29.285 ug/l  
RT: 8.03 min Scan# 2003  
Delta R.T. 0.00 min  
Lab File: VN050718.D  
Acq: 17 Aug 2018 9:37

Tgt Ion: 65 Resp: 226882  
Ion Ratio Lower Upper  
65 100  
67 53.8 42.7 64.1

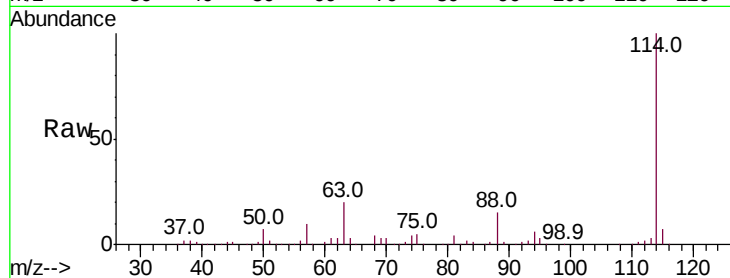




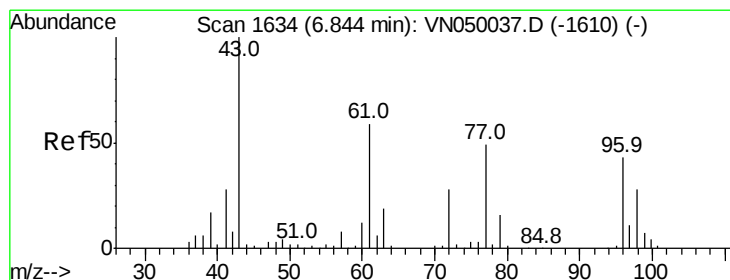
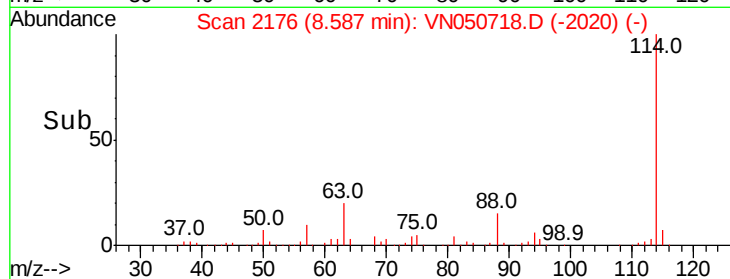
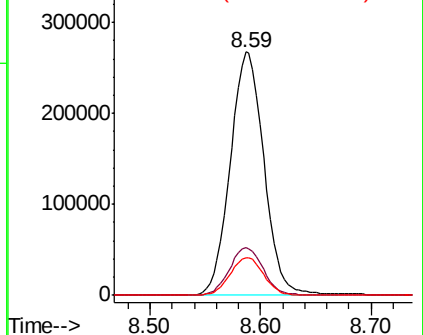
#28  
 1,4-Difluorobenzene  
 Concen: 30.000 ug/l  
 RT: 8.59 min Scan# 2176  
 Delta R.T. 0.00 min  
 Lab File: VN050718.D  
 Acq: 17 Aug 2018 9:37

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Tot Ion:114 Resp: 568052  
 Ion Ratio Lower Upper  
 114 100  
 63 19.8 16.2 24.2  
 88 15.6 12.3 18.5

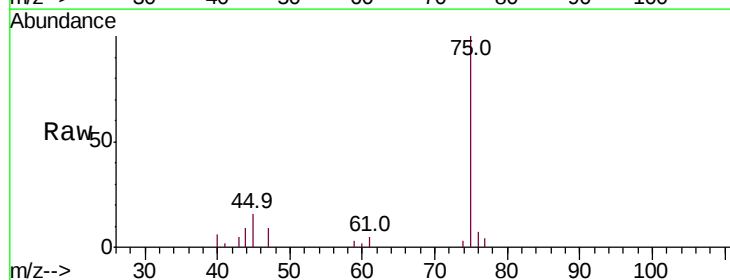


Abundance Ion 114.00 (113.70 to 114.70): VN050037.D (-2159) (-)  
 Ion 63.00 (62.70 to 63.70): VN050037.D (-2159) (-)  
 Ion 88.00 (87.70 to 88.70): VN050037.D (-2159) (-)

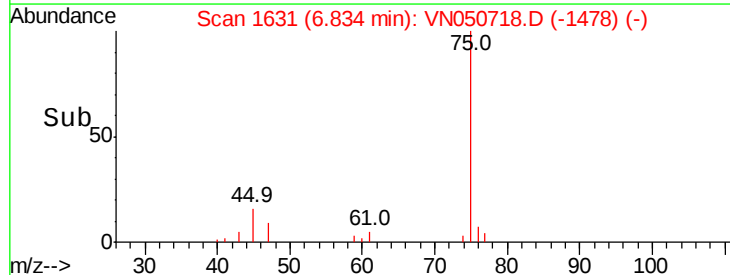
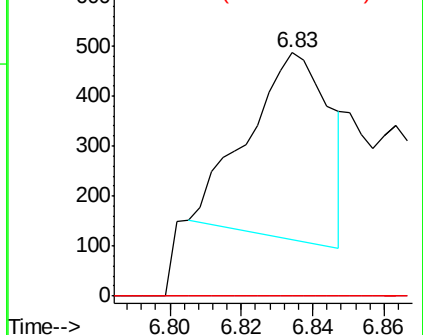


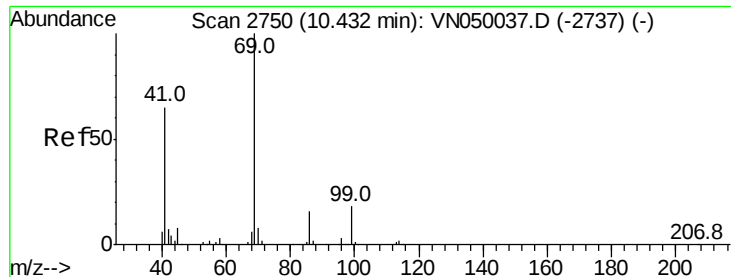
#30  
 2-Butanone  
 Concen: 0.210 ug/l  
 RT: 6.83 min Scan# 1631  
 Delta R.T. -0.01 min  
 Lab File: VN050718.D  
 Acq: 17 Aug 2018 9:37

Tgt Ion: 43 Resp: 582  
 Ion Ratio Lower Upper  
 43 100  
 57 0.0 6.8 10.2#  
 72 0.0 21.4 32.0#



Abundance Ion 43.00 (42.70 to 43.70): VN050037.D (-1610) (-)  
 Ion 57.00 (56.70 to 57.70): VN050037.D (-1610) (-)  
 Ion 72.00 (71.70 to 72.70): VN050037.D (-1610) (-)





#51

Ethyl methacrylate

Concen: 0.250 ug/l

RT: 10.10 min Scan# 2646

Delta R.T. -0.33 min

Lab File: VN050718.D

Acq: 17 Aug 2018 9:37

Instrument :

MSVOA\_N

ClientSampleId :

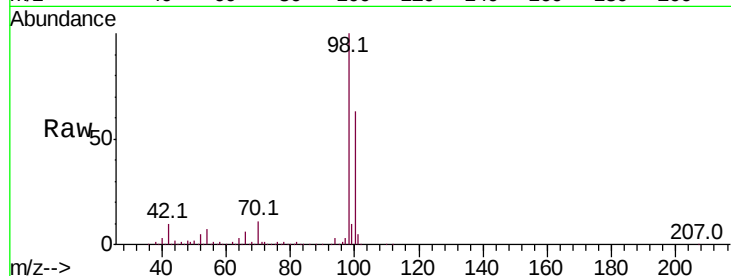
Tot Ion: 69 Resp: 1898

Ion Ratio Lower Upper

69 100

41 58.4 31.9 95.9

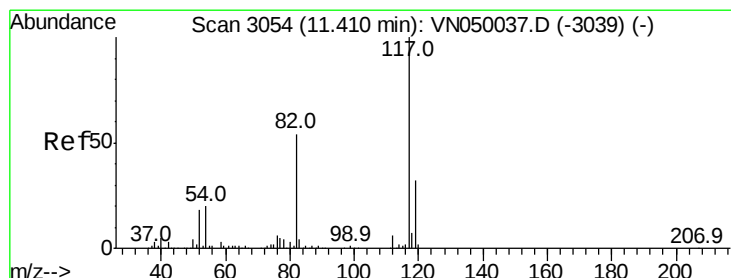
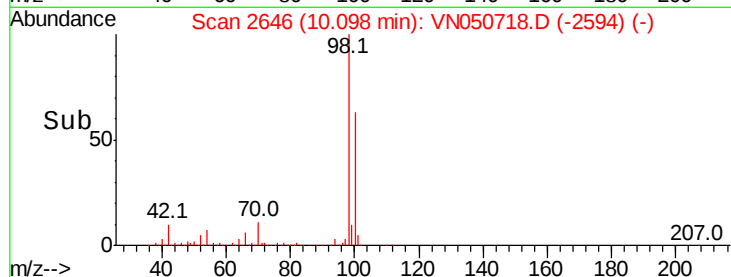
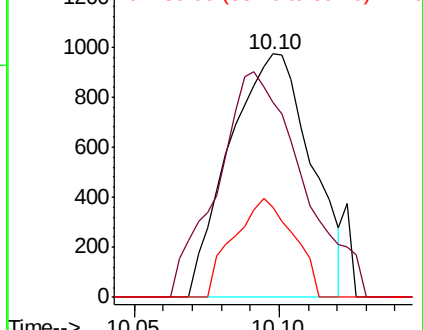
39 37.0 16.7 50.1



Abundance Ion 69.00 (68.70 to 69.70): VN050037.D (-2737) (-)

Ion 41.00 (40.70 to 41.70): VN050037.D (-2737) (-)

Ion 39.00 (38.70 to 39.70): VN050037.D (-2737) (-)



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.41 min Scan# 3054

Delta R.T. 0.00 min

Lab File: VN050718.D

Acq: 17 Aug 2018 9:37

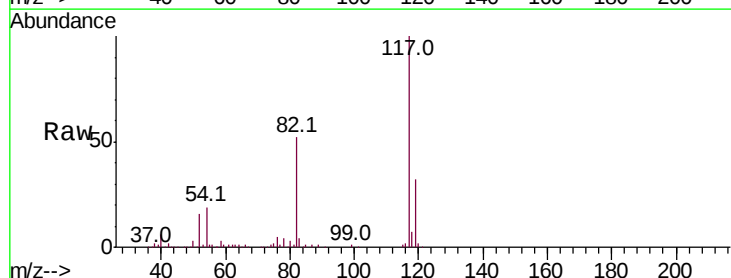
Tgt Ion: 117 Resp: 469179

Ion Ratio Lower Upper

117 100

82 52.8 42.4 63.6

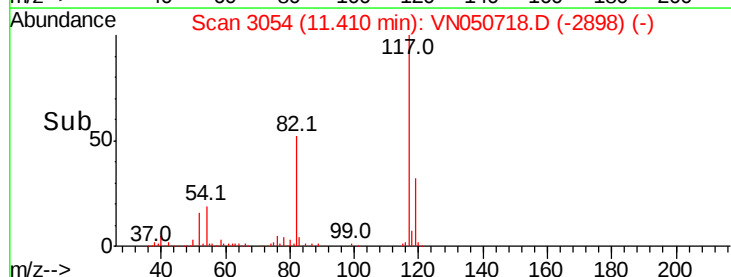
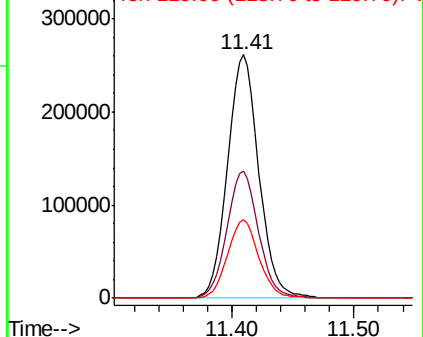
119 32.2 25.4 38.0

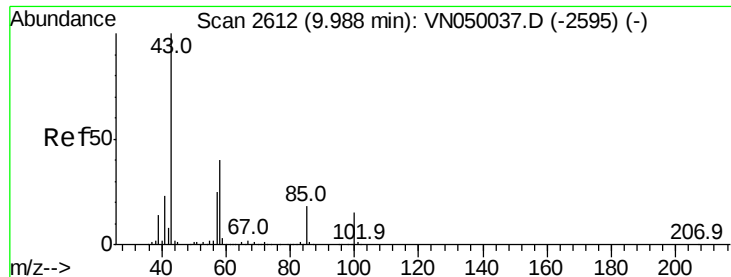


Abundance Ion 117.00 (116.70 to 117.70): VN050037.D (-3039) (-)

Ion 82.00 (81.70 to 82.70): VN050037.D (-3039) (-)

Ion 119.00 (118.70 to 119.70): VN050037.D (-3039) (-)

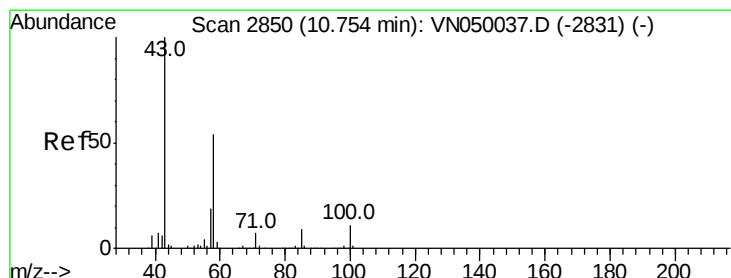
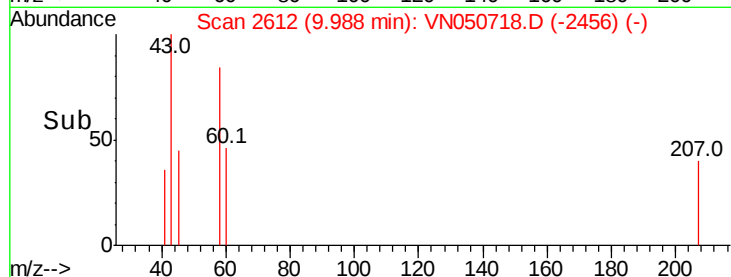
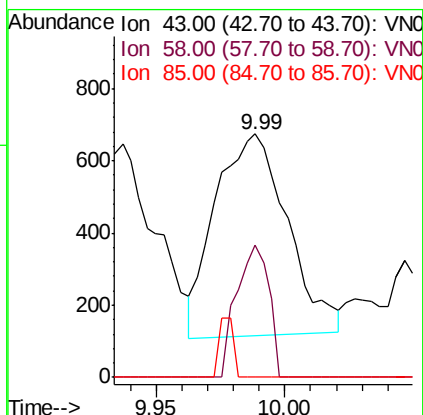
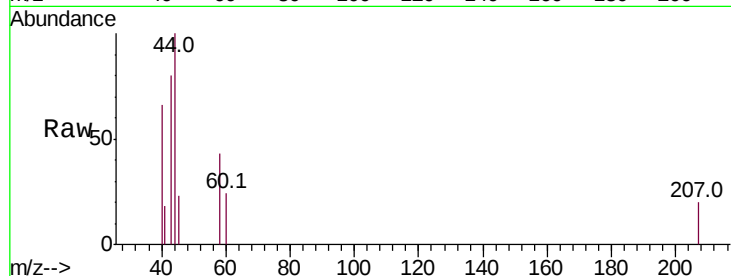




#58  
4-Methyl-2-Pentanone  
Concen: 0.200 ug/l  
RT: 9.99 min Scan# 2612  
Delta R.T. 0.00 min  
Lab File: VN050718.D  
Acq: 17 Aug 2018 9:37

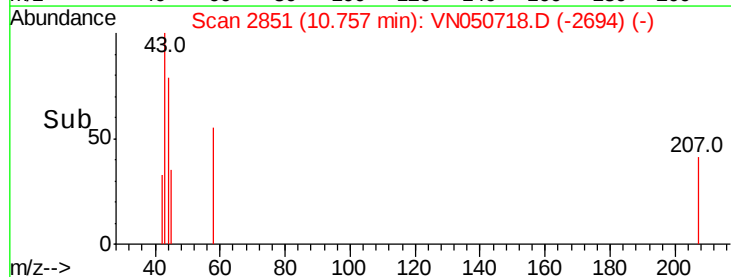
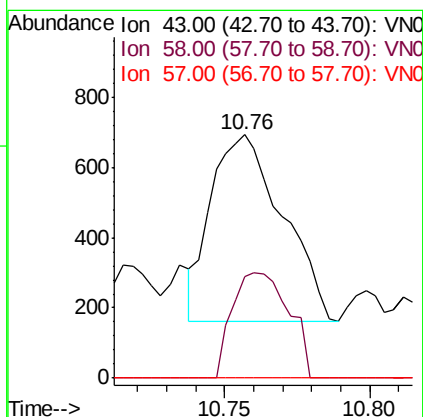
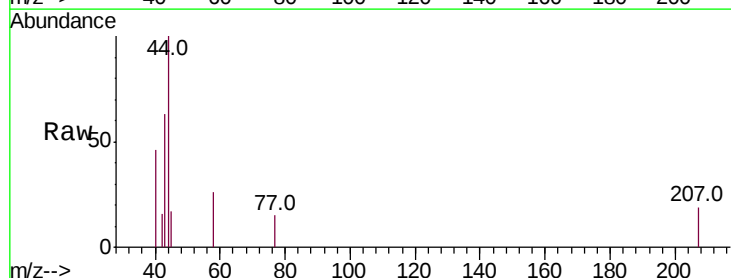
Instrument :  
MSVOA\_N  
ClientSampled :

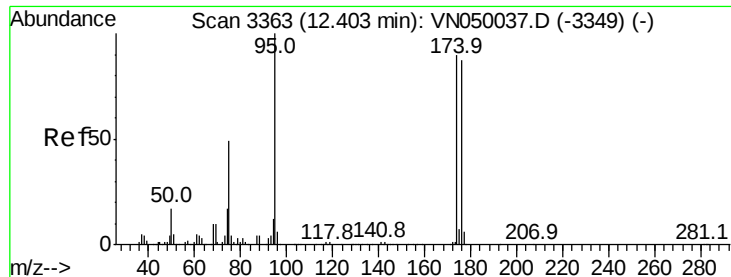
Tot Ion: 43 Resp: 1092  
Ion Ratio Lower Upper  
43 100  
58 29.3 31.2 46.8#  
85 5.9 14.4 21.6#



#59  
2-Hexanone  
Concen: 0.245 ug/l  
RT: 10.76 min Scan# 2851  
Delta R.T. 0.00 min  
Lab File: VN050718.D  
Acq: 17 Aug 2018 9:37

Tgt Ion: 43 Resp: 911  
Ion Ratio Lower Upper  
43 100  
58 44.7 43.8 65.8  
57 0.0 15.1 22.7#





#60

4-Bromofluorobenzene

Concen: 21.202 ug/l

RT: 12.40 min Scan# 3363

Delta R.T. 0.00 min

Lab File: VN050718.D

Acq: 17 Aug 2018 9:37

Instrument :

MSVOA\_N

ClientSampled :

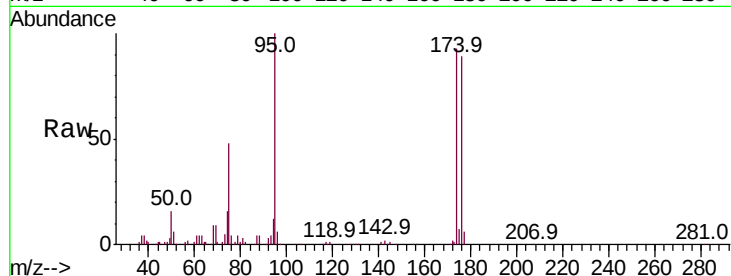
Tot Ion: 95 Resp: 152822

Ion Ratio Lower Upper

95 100

174 93.5 72.3 108.5

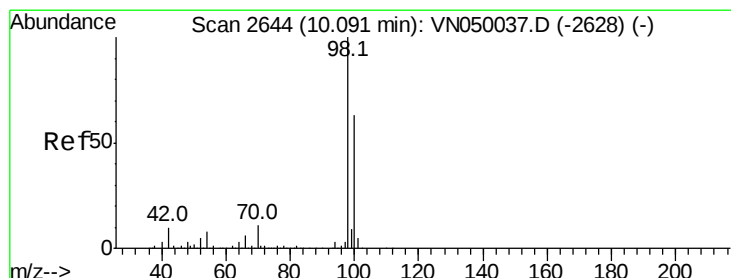
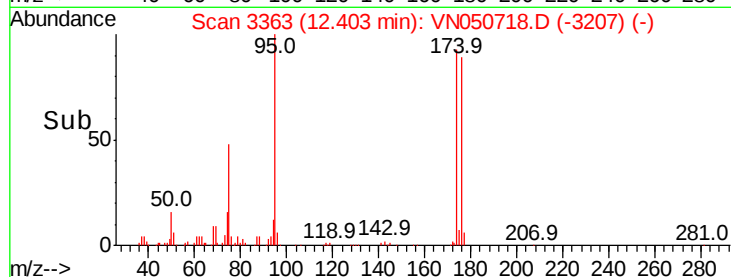
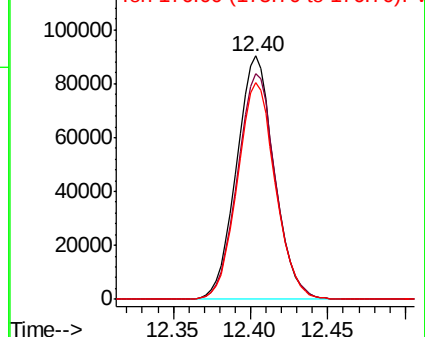
176 89.4 70.0 105.0



Abundance Ion 95.00 (94.70 to 95.70): VN050037.D (-3349) (-)

Ion 174.00 (173.70 to 174.70): VN050037.D (-3349) (-)

Ion 176.00 (175.70 to 176.70): VN050037.D (-3349) (-)



#63

Toluene-d8

Concen: 29.500 ug/l

RT: 10.09 min Scan# 2644

Delta R.T. 0.00 min

Lab File: VN050718.D

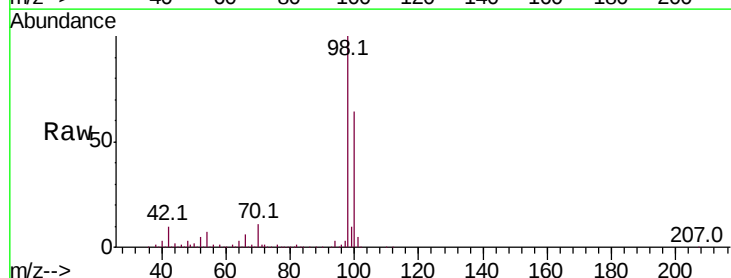
Acq: 17 Aug 2018 9:37

Tgt Ion: 98 Resp: 661109

Ion Ratio Lower Upper

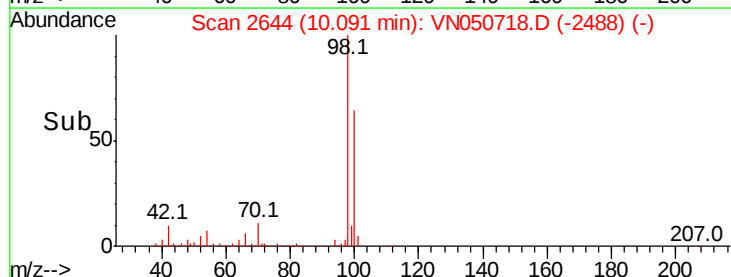
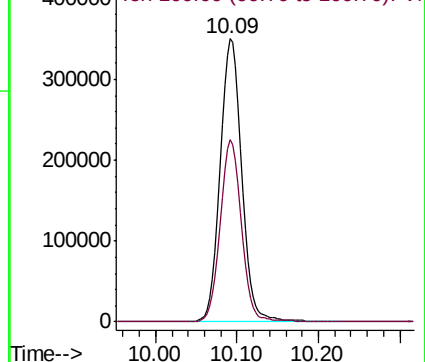
98 100

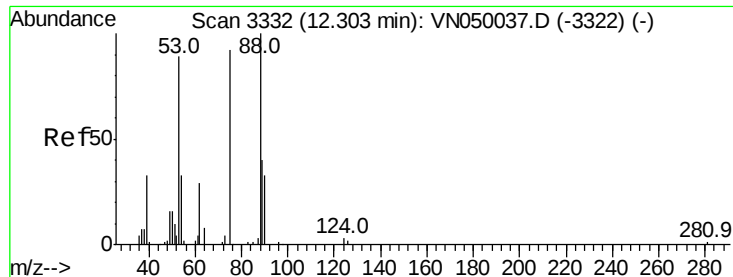
100 62.9 51.2 76.8



Abundance Ion 98.00 (97.70 to 98.70): VN050037.D (-2628) (-)

Ion 100.00 (99.70 to 100.70): VN050037.D (-2628) (-)

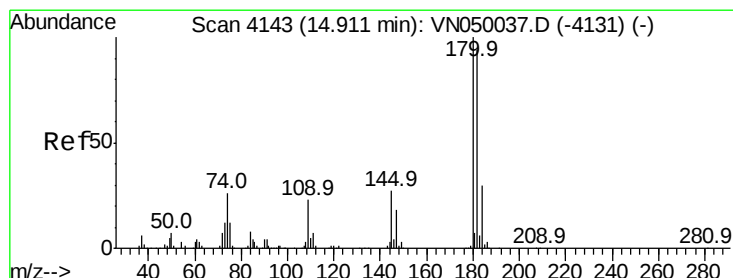
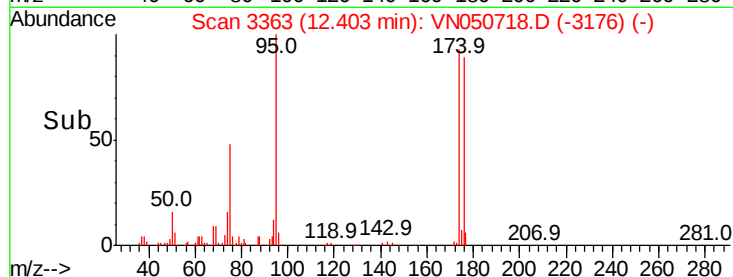
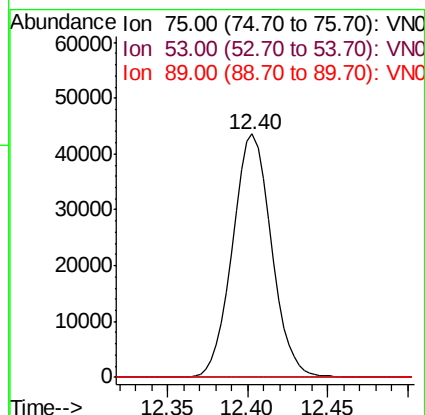
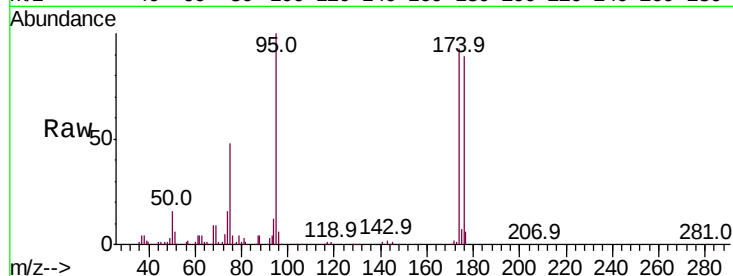




#77  
t-1,4-Dichloro-2-butene  
Concen: 35.277 ug/l  
RT: 12.40 min Scan# 3363  
Delta R.T. 0.10 min  
Lab File: VN050718.D  
Acq: 17 Aug 2018 9:37

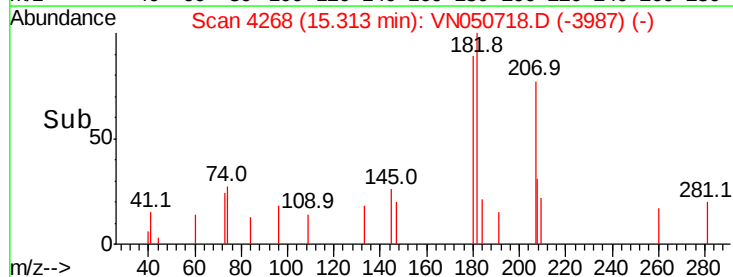
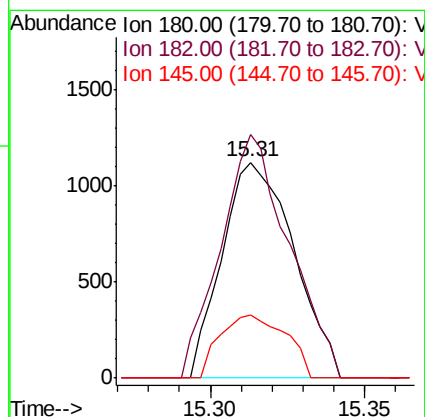
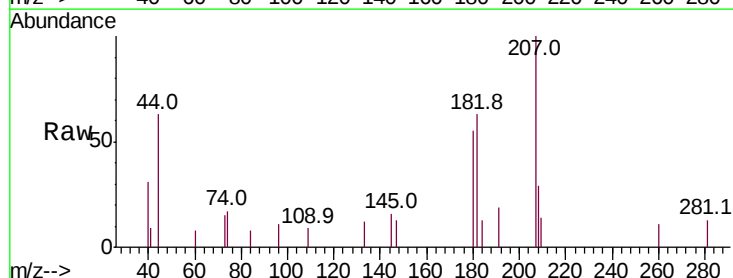
Instrument :  
MSVOA\_N  
ClientSampleId :

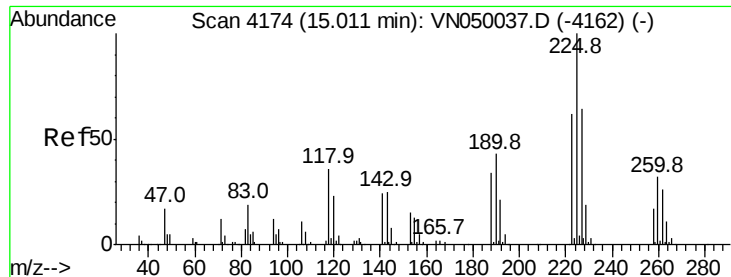
Tot Ion: 75 Resp: 72149  
Ion Ratio Lower Upper  
75 100  
53 0.0 44.6 134.0#  
89 0.0 20.7 62.1#



#89  
1,2,4-Trichlorobenzene  
Concen: 0.313 ug/l  
RT: 15.31 min Scan# 4268  
Delta R.T. 0.40 min  
Lab File: VN050718.D  
Acq: 17 Aug 2018 9:37

Tgt Ion: 180 Resp: 1807  
Ion Ratio Lower Upper  
180 100  
182 107.1 76.7 115.1  
145 26.7 23.4 35.0





#90

Hexachlorobutadiene

Concen: 0.279 ug/l

RT: 15.01 min Scan# 4175

Delta R.T. 0.00 min

Lab File: VN050718.D

Acq: 17 Aug 2018 9:37

Instrument :

MSVOA\_N

ClientSampled :

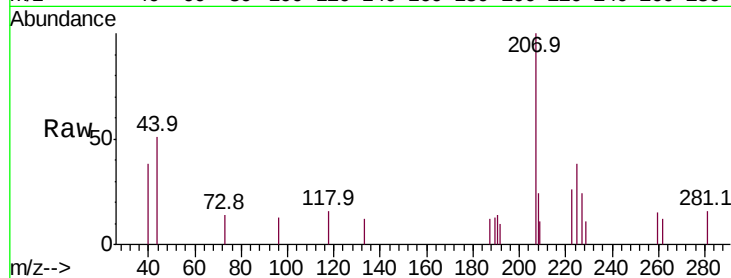
Tot Ion:225 Resp: 1063

Ion Ratio Lower Upper

225 100

223 65.5 0.0 124.4

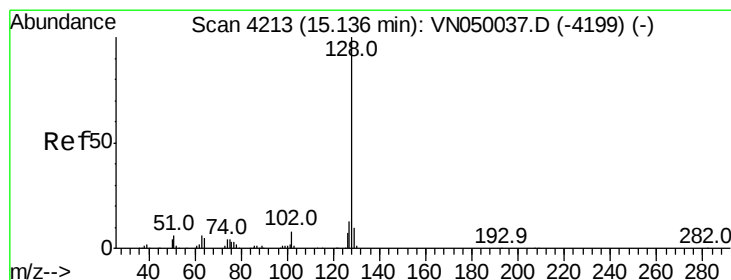
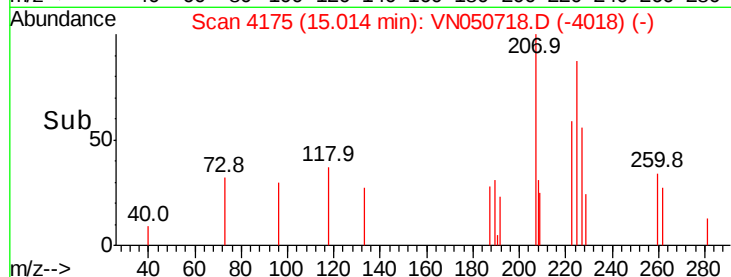
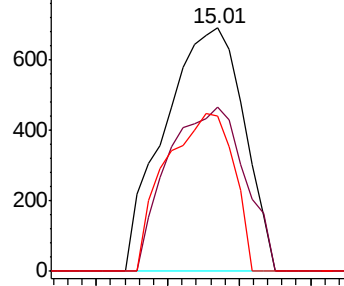
227 55.7 0.0 133.0



Abundance Ion 225.00 (224.70 to 225.70): V

Ion 223.00 (222.70 to 223.70): V

Ion 227.00 (226.70 to 227.70): V



#91

Naphthalene

Concen: 7.863 ug/l

RT: 15.14 min Scan# 4214

Delta R.T. 0.00 min

Lab File: VN050718.D

Acq: 17 Aug 2018 9:37

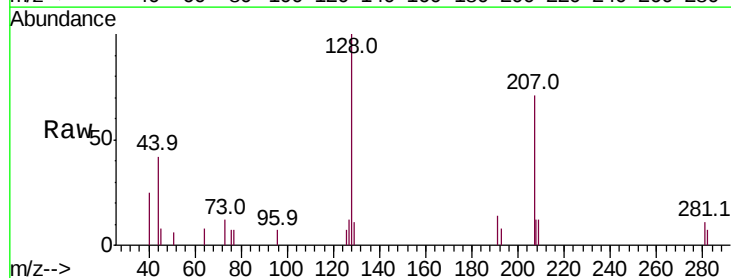
Tgt Ion:128 Resp: 4056

Ion Ratio Lower Upper

128 100

127 14.8 10.2 15.4

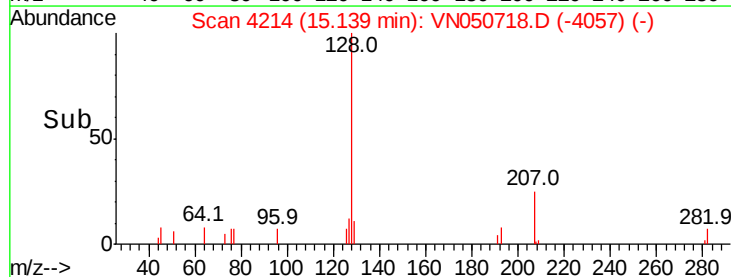
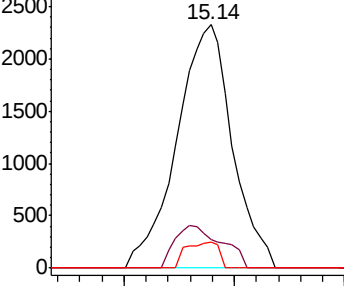
129 0.0 9.0 13.4#

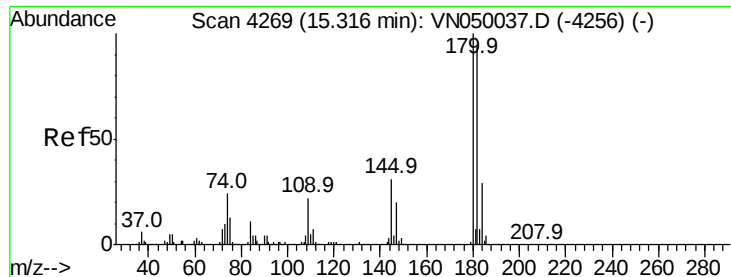


Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V





#92  
 1,2,3-Trichlorobenzene  
 Concen: 0.308 ug/l  
 RT: 15.31 min Scan# 4268  
 Delta R.T. -0.00 min  
 Lab File: VN050718.D  
 Acq: 17 Aug 2018 9:37

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Tot Ion:180 Resp: 1807  
 Ion Ratio Lower Upper  
 180 100  
 182 107.1 0.0 188.8  
 145 26.7 0.0 60.8

