

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN062220\  
 Data File : VN062008.D  
 Acq On : 22 Jun 2020 18:43  
 Operator : JC/MD  
 Sample : L3043-08  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 RE122D1-20200615

Quant Time: Jun 23 05:18:58 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N061620W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jun 17 01:19:44 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.63  | 168  | 144640   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.55  | 114  | 268224   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.38 | 117  | 260845   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.32 | 152  | 99136    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 7.99   | 65  | 101252   | 52.20 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.40% |      |
| 35) Dibromofluoromethane  | 7.55   | 113 | 88175    | 51.39 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.78% |      |
| 50) Toluene-d8            | 10.06  | 98  | 341862   | 50.68 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.36% |      |
| 62) 4-Bromofluorobenzene  | 12.38  | 95  | 111028   | 47.98 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.96%  |      |

## Target Compounds

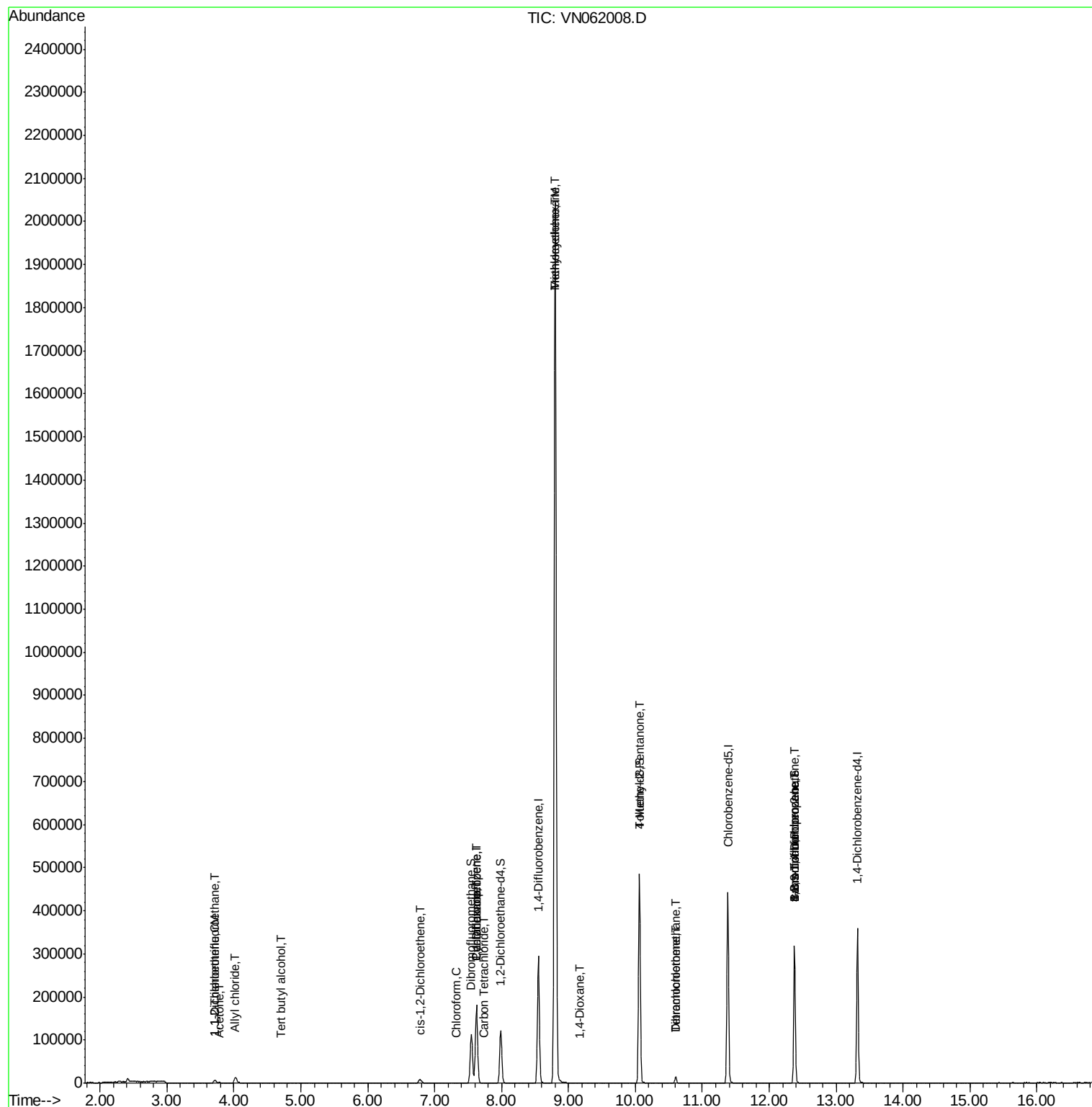
|                                |       |     |        |         |        | Qvalue |
|--------------------------------|-------|-----|--------|---------|--------|--------|
| 9) 1,1,2-Trichlorotrifluoroet  | 3.71  | 101 | 4062   | 2.769   | ug/l   | 96     |
| 11) Tert butyl alcohol         | 4.70  | 59  | 90     | 0.335   | ug/l # | 74     |
| 12) 1,1-Dichloroethene         | 3.70  | 96  | 775    | 0.527   | ug/l # | 60     |
| 14) Allyl chloride             | 4.03  | 41  | 1954   | 1.002   | ug/l # | 56     |
| 16) Acetone                    | 3.79  | 43  | 2704   | 4.719   | ug/l   | 90     |
| 27) cis-1,2-Dichloroethene     | 6.78  | 96  | 2956   | 1.518   | ug/l   | 96     |
| 30) Chloroform                 | 7.33  | 83  | 717    | 0.230   | ug/l   | 94     |
| 31) Cyclohexane                | 7.62  | 56  | 3204   | 1.253   | ug/l # | 26     |
| 36) 1,1-Dichloropropene        | 7.63  | 75  | 11978  | 4.896   | ug/l # | 48     |
| 38) Carbon Tetrachloride       | 7.73  | 117 | 830    | 0.343   | ug/l # | 72     |
| 39) Methylcyclohexane          | 8.80  | 83  | 8951   | 3.398   | ug/l # | 1      |
| 44) Trichloroethene            | 8.80  | 130 | 754059 | 386.620 | ug/l   | 99     |
| 49) 1,4-Dioxane                | 9.17  | 88  | 354    | 10.531  | ug/l # | 28     |
| 51) 4-Methyl-2-Pentanone       | 10.06 | 43  | 1151   | 0.605   | ug/l # | 1      |
| 60) Dibromochloromethane       | 10.60 | 129 | 3156   | 1.544   | ug/l # | 11     |
| 64) Tetrachloroethene          | 10.60 | 164 | 3325   | 2.000   | ug/l   | 93     |
| 71) Bromoform                  | 12.37 | 173 | 1048   | 0.749   | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 12.38 | 75  | 55803  | 28.672  | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.38 | 75  | 55803  | 78.199  | ug/l # | 14     |

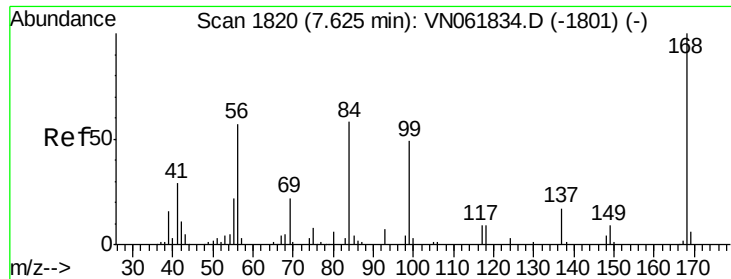
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Jun 17 01:19:44 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.63 min Scan# 1820

Delta R.T. -0.00 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

Instrument :

MSVOA\_N

ClientSampleId :

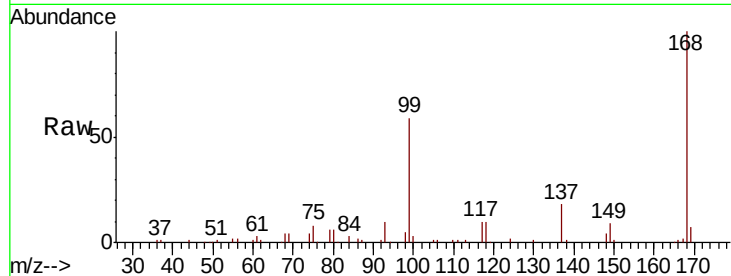
RE122D1-20200615

Tot Ion:168 Resp: 144640

Ion Ratio Lower Upper

168 100

99 58.7 44.6 67.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.63

60000

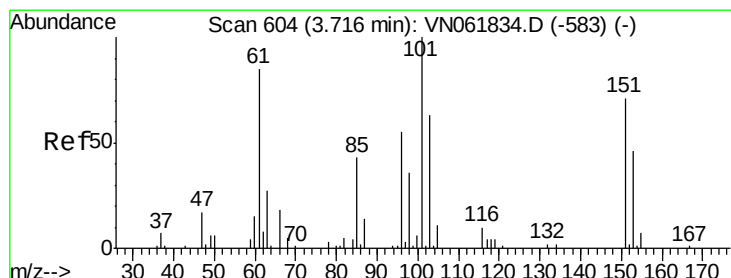
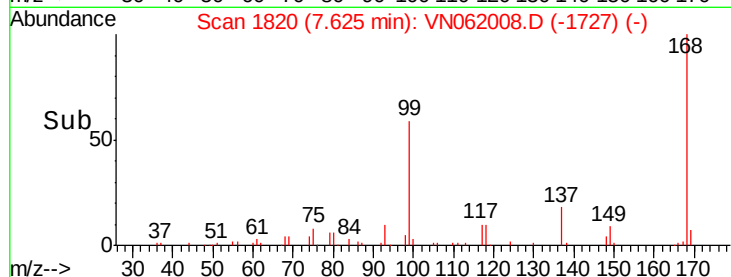
40000

20000

0

7.55 7.60 7.65 7.70

Time-->



#9

1,1,2-Trichlorotrifluoroethane

Concen: 2.769 ug/l

RT: 3.71 min Scan# 603

Delta R.T. -0.00 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

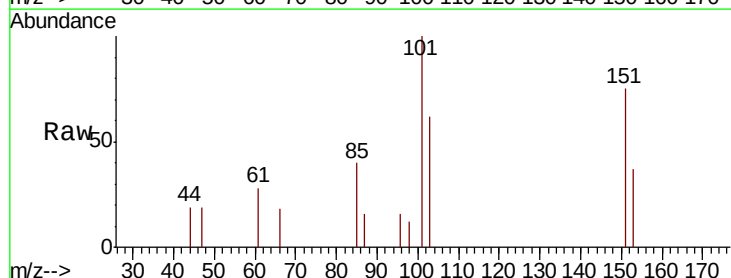
Tgt Ion:101 Resp: 4062

Ion Ratio Lower Upper

101 100

85 38.4 35.0 52.6

151 72.7 59.2 88.8



Abundance Ion 100.90 (100.60 to 101.60): V

Ion 84.90 (84.60 to 85.60): VN

Ion 150.80 (150.50 to 151.50): V

3.71

1500

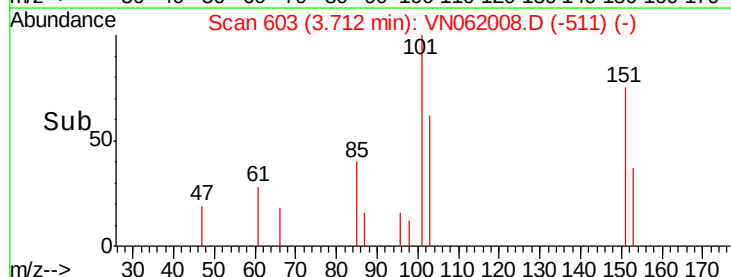
1000

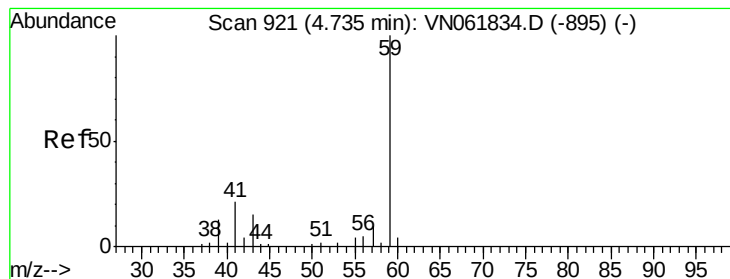
500

0

3.65 3.70 3.75 3.80

Time-->





#11

Tert butyl alcohol

Concen: 0.335 ug/l

RT: 4.70 min Scan# 911

Delta R.T. -0.03 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

Instrument :

MSVOA\_N

ClientSampleId :

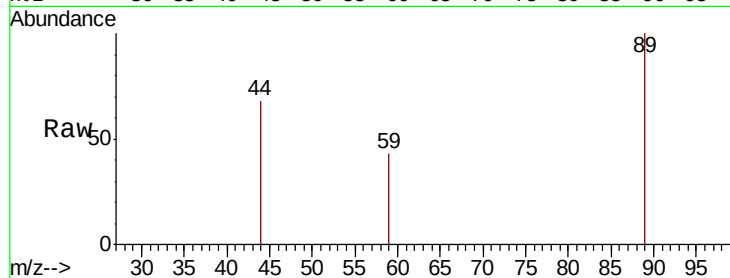
RE122D1-20200615

Tot Ion: 59 Resp: 90

Ion Ratio Lower Upper

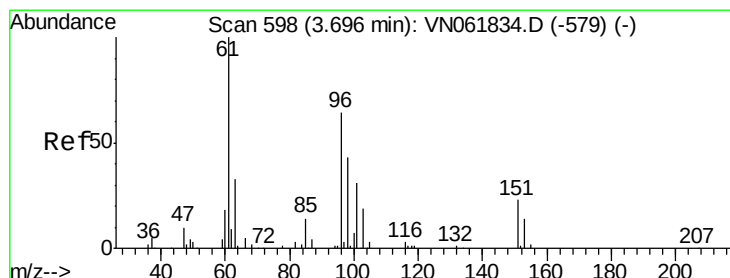
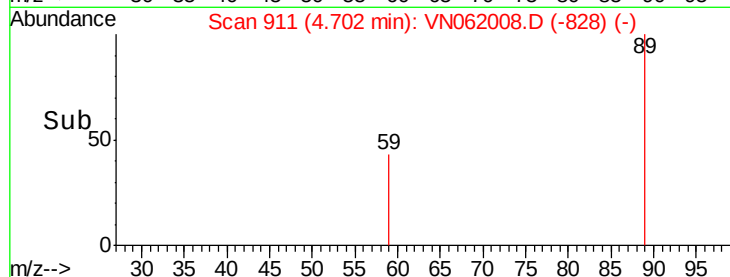
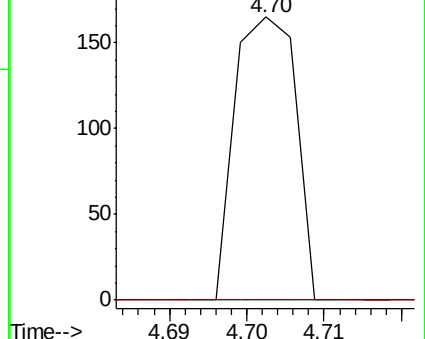
59 100

57 0.0 7.7 11.5#



Abundance Ion 59.00 (58.70 to 59.70): VN0

Ion 57.00 (56.70 to 57.70): VN0



#12

1,1-Dichloroethene

Concen: 0.527 ug/l

RT: 3.70 min Scan# 600

Delta R.T. 0.01 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

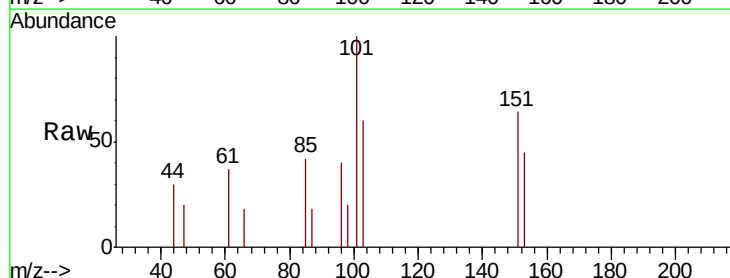
Tgt Ion: 96 Resp: 775

Ion Ratio Lower Upper

96 100

61 92.9 124.3 186.5#

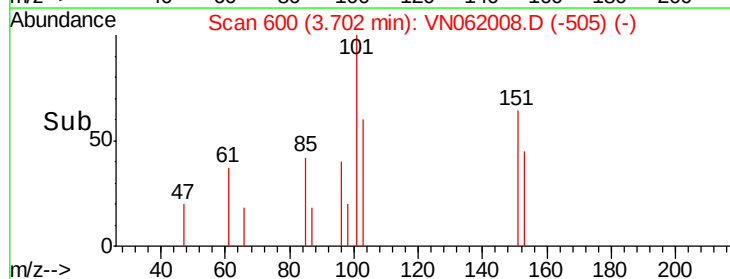
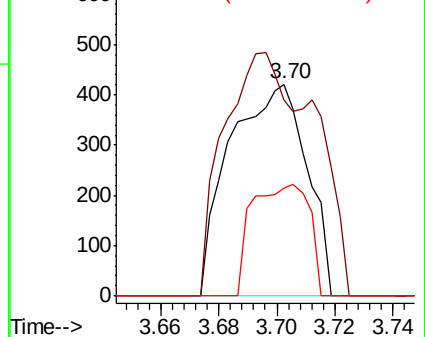
98 50.8 53.1 79.7#

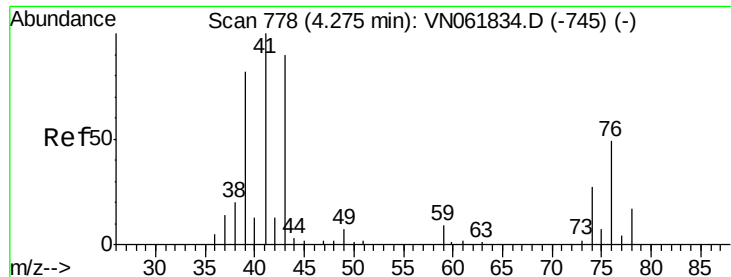


Abundance Ion 95.90 (95.60 to 96.60): VN0

Ion 60.90 (60.60 to 61.60): VN0

Ion 97.90 (97.60 to 98.60): VN0

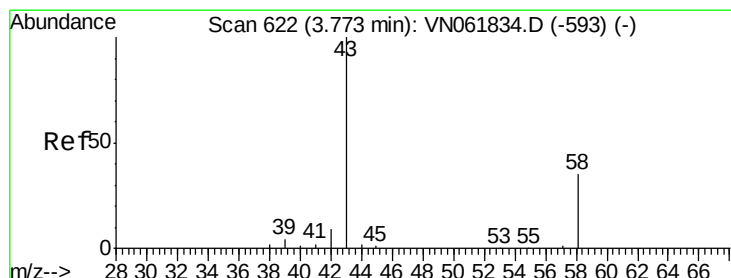
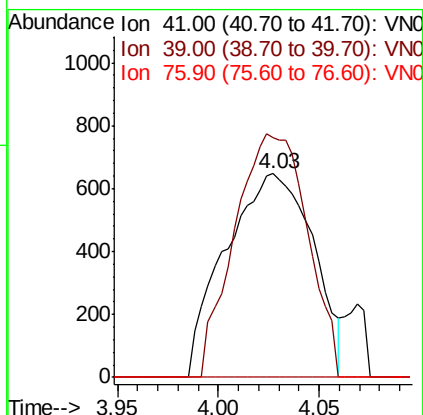
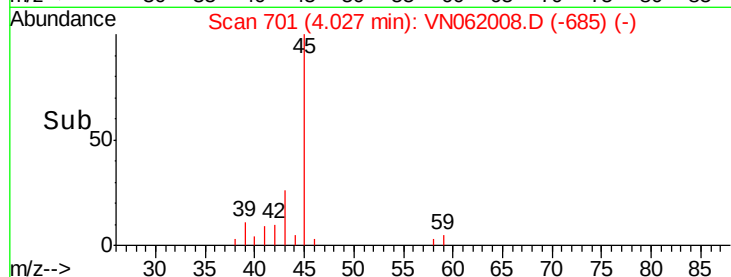
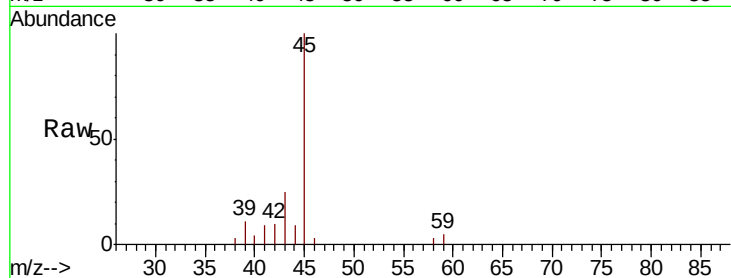




#14  
Allvl chloride  
Concen: 1.002 ug/l  
RT: 4.03 min Scan# 701  
Delta R.T. -0.25 min  
Lab File: VN062008.D  
Acq: 22 Jun 2020 18:43

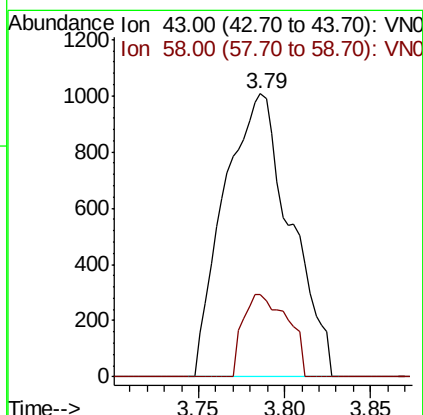
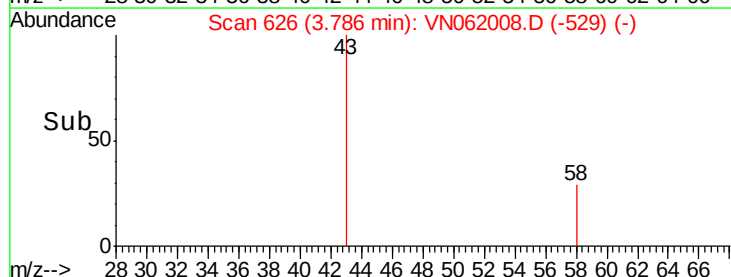
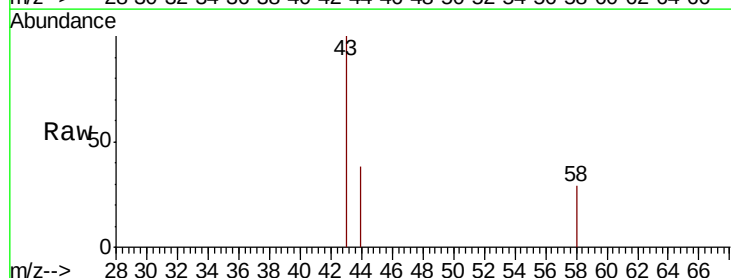
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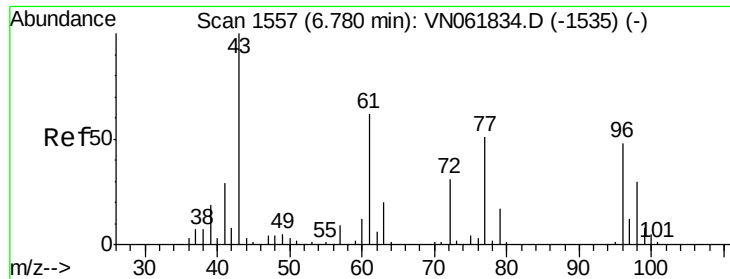
Tot Ion: 41 Resp: 1954  
Ion Ratio Lower Upper  
41 100  
39 99.2 60.2 90.2#  
76 0.0 36.3 54.5#



#16  
Acetone  
Concen: 4.719 ug/l  
RT: 3.79 min Scan# 626  
Delta R.T. 0.01 min  
Lab File: VN062008.D  
Acq: 22 Jun 2020 18:43

Tgt Ion: 43 Resp: 2704  
Ion Ratio Lower Upper  
43 100  
58 29.3 27.8 41.8

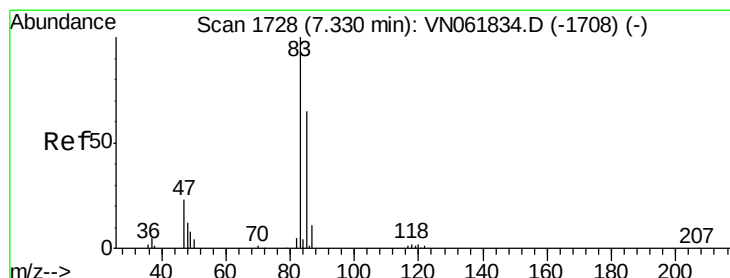
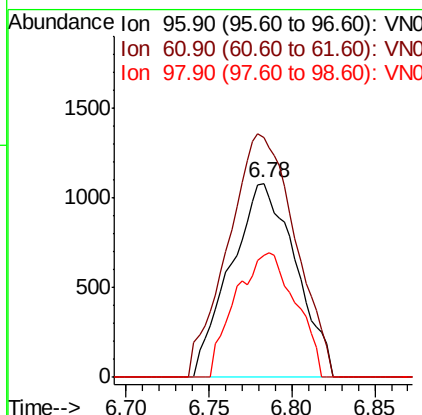
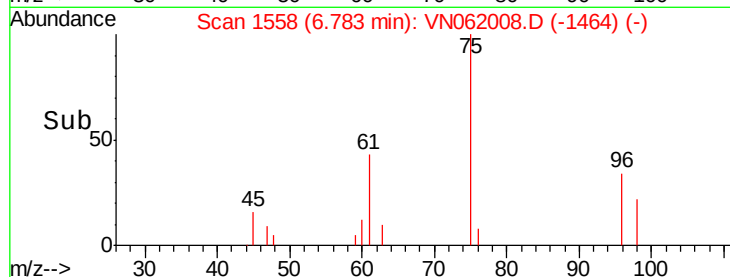
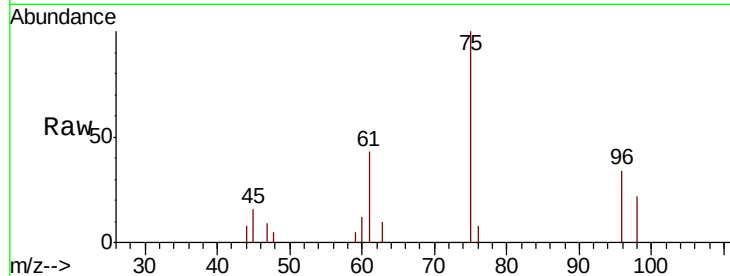




#27  
 cis-1,2-Dichloroethene  
 Concen: 1.518 ug/l  
 RT: 6.78 min Scan# 1558  
 Delta R.T. 0.00 min  
 Lab File: VN062008.D  
 Acq: 22 Jun 2020 18:43

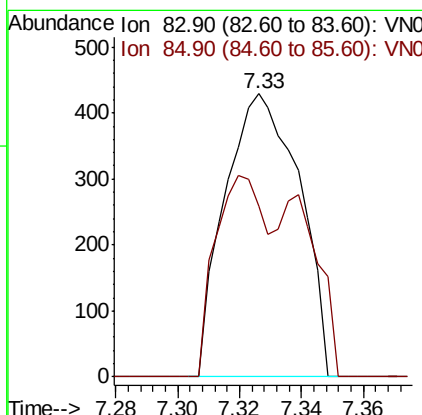
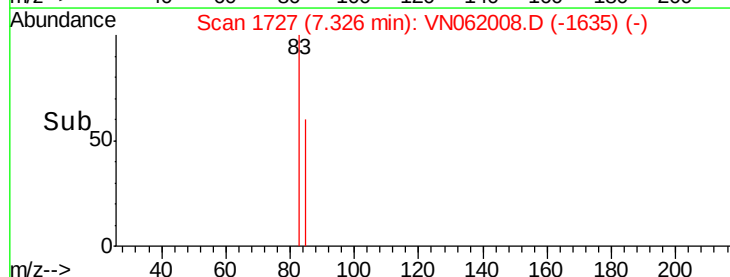
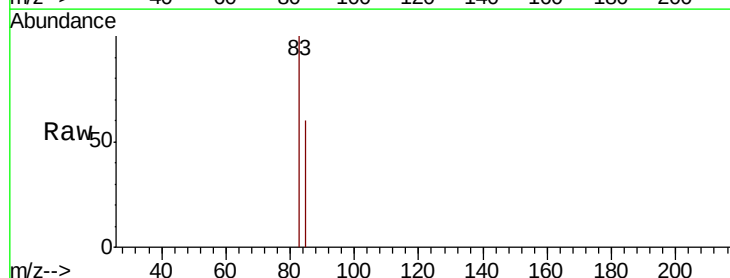
Instrument :  
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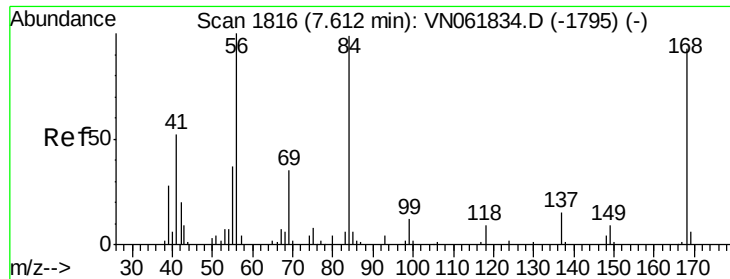
Tot Ion: 96 Resp: 2956  
 Ion Ratio Lower Upper  
 96 100  
 61 129.4 0.0 265.6  
 98 59.4 0.0 128.2



#30  
 Chloroform  
 Concen: 0.230 ug/l  
 RT: 7.33 min Scan# 1727  
 Delta R.T. -0.00 min  
 Lab File: VN062008.D  
 Acq: 22 Jun 2020 18:43

Tgt Ion: 83 Resp: 717  
 Ion Ratio Lower Upper  
 83 100  
 85 60.1 52.0 78.0

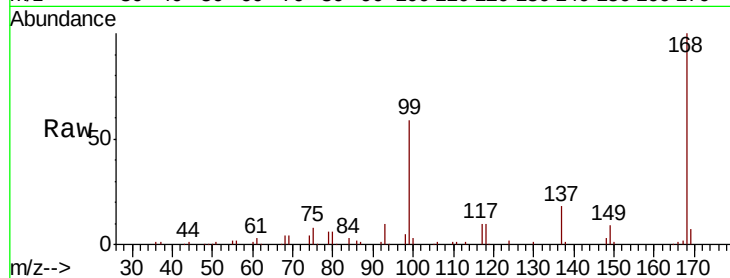




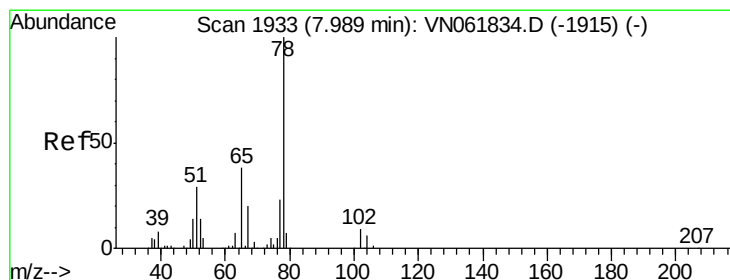
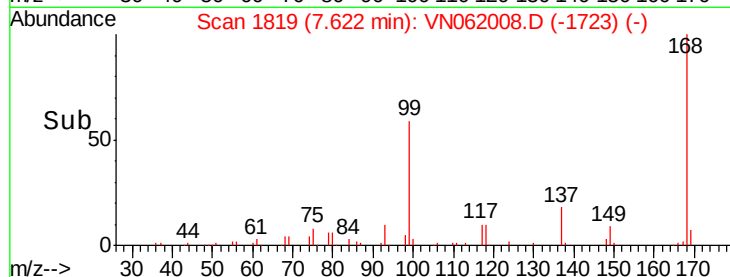
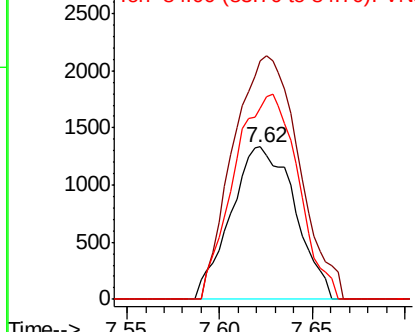
#31  
Cyclohexane  
Concen: 1.253 ug/l  
RT: 7.62 min Scan# 1819  
Delta R.T. 0.01 min  
Lab File: VN062008.D  
Acq: 22 Jun 2020 18:43

Instrument :  
MSVOA\_N  
ClientSampleId :  
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Tot Ion: 56 Resp: 3204  
Ion Ratio Lower Upper  
56 100  
69 156.6 27.7 41.5#  
84 125.1 79.1 118.7#

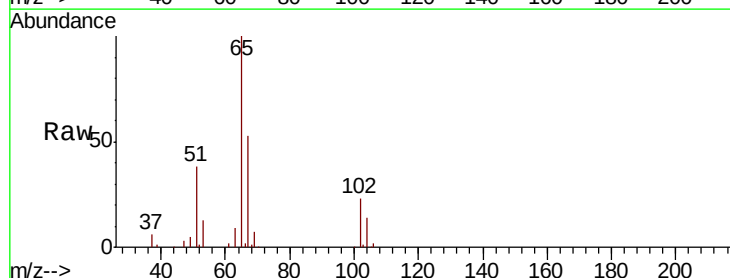


Abundance Ion 56.00 (55.70 to 56.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 84.00 (83.70 to 84.70): VN0

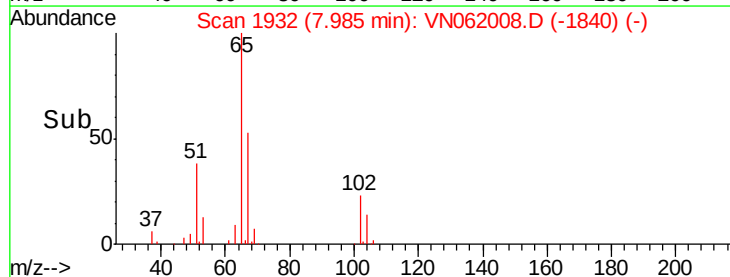
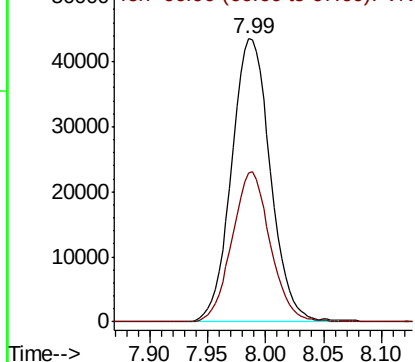


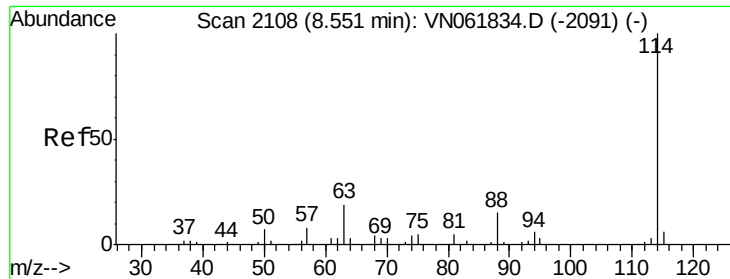
#33  
1,2-Dichloroethane-d4  
Concen: 52.196 ug/l  
RT: 7.99 min Scan# 1932  
Delta R.T. -0.00 min  
Lab File: VN062008.D  
Acq: 22 Jun 2020 18:43

Tgt Ion: 65 Resp: 101252  
Ion Ratio Lower Upper  
65 100  
67 52.1 0.0 106.2



Abundance Ion 64.90 (64.60 to 65.60): VN0  
Ion 66.90 (66.60 to 67.60): VN0

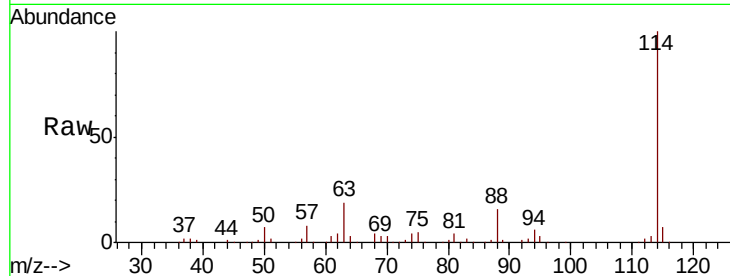




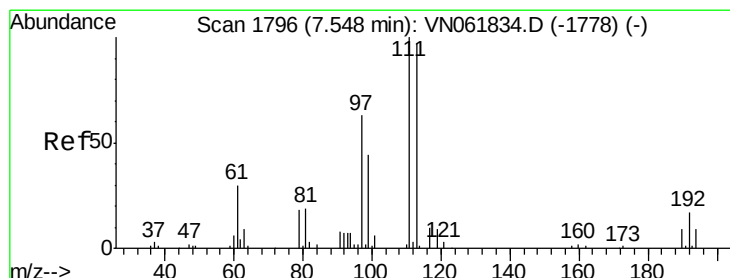
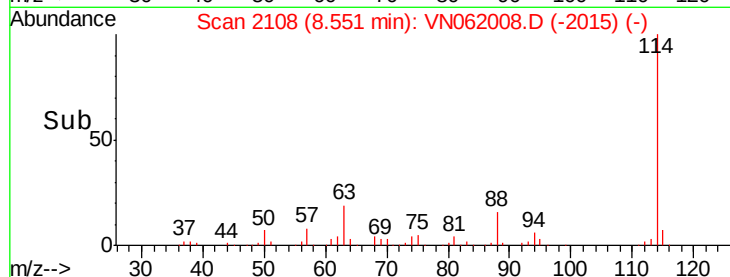
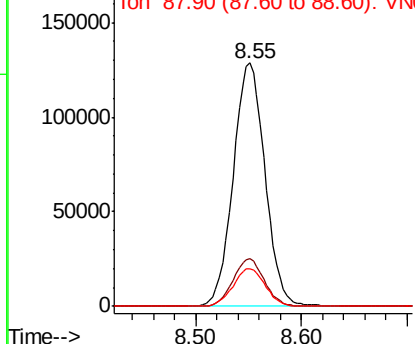
#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 8.55 min Scan# 2108  
Delta R.T. -0.00 min  
Lab File: VN062008.D  
Acq: 22 Jun 2020 18:43

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Tot Ion:114 Resp: 268224  
Ion Ratio Lower Upper  
114 100  
63 19.4 0.0 37.6  
88 15.6 0.0 31.0

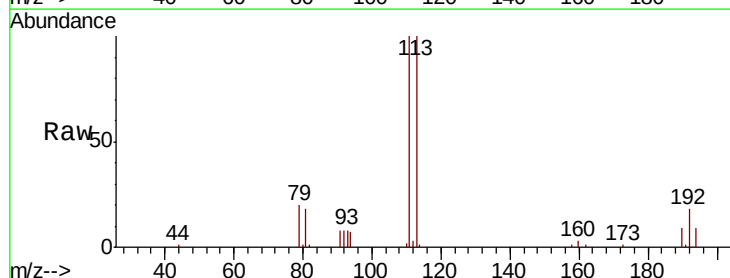


Abundance Ion 113.90 (113.60 to 114.60): V  
Ion 63.00 (62.70 to 63.70): VN  
Ion 87.90 (87.60 to 88.60): VN

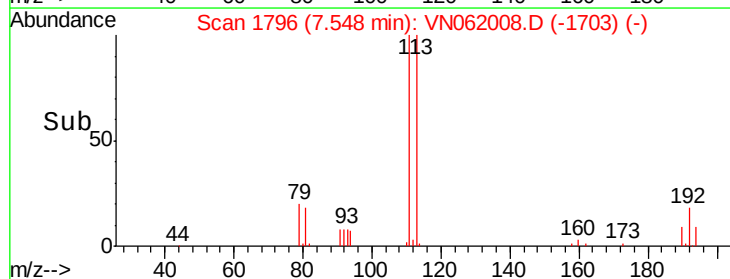
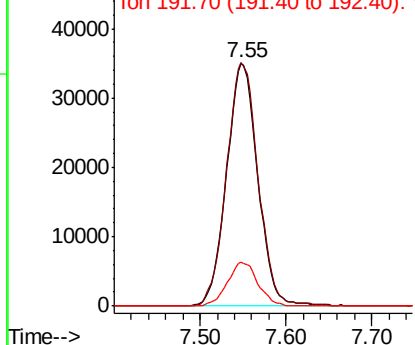


#35  
Dibromofluoromethane  
Concen: 51.385 ug/l  
RT: 7.55 min Scan# 1796  
Delta R.T. -0.00 min  
Lab File: VN062008.D  
Acq: 22 Jun 2020 18:43

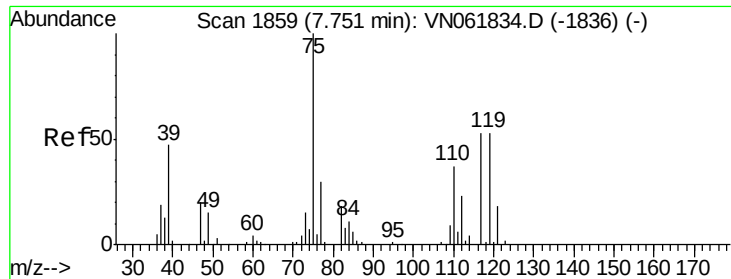
Tgt Ion:113 Resp: 88175  
Ion Ratio Lower Upper  
113 100  
111 100.9 83.7 125.5  
192 17.6 13.9 20.9



Abundance Ion 112.80 (112.50 to 113.50): V  
Ion 110.80 (110.50 to 111.50): V  
Ion 191.70 (191.40 to 192.40): V







#36

1,1-Dichloropropene

Concen: 4.896 ug/l

RT: 7.63 min Scan# 1820

Delta R.T. -0.13 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

Instrument :

MSVOA\_N

ClientSampleId :

RE122D1-20200615

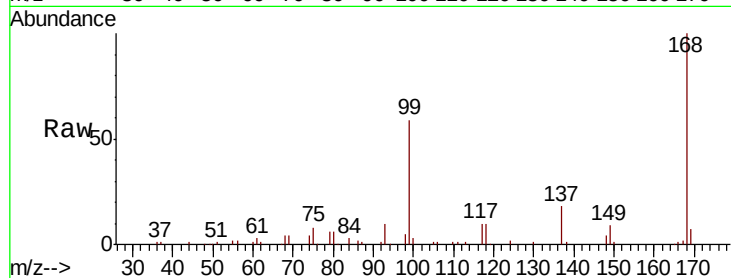
Tot Ion: 75 Resp: 11978

Ion Ratio Lower Upper

75 100

110 7.5 18.2 54.6#

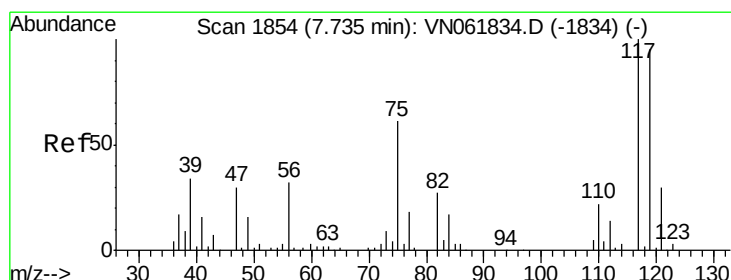
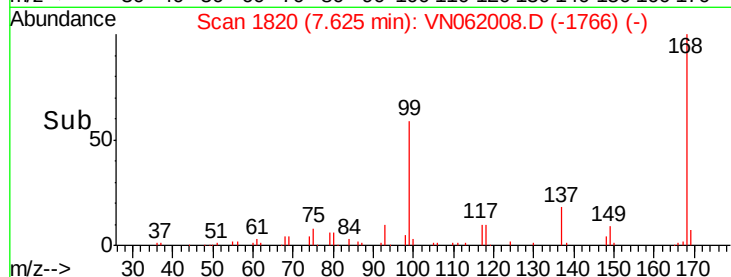
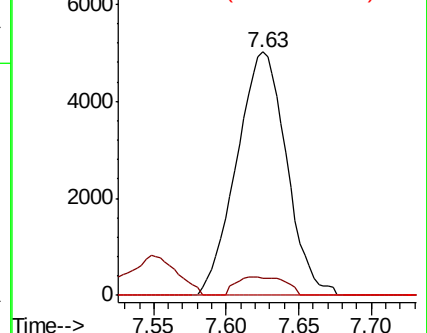
77 0.0 24.2 36.4#



Abundance Ion 74.90 (74.60 to 75.60): VN061834.D (-1836) (-)

Ion 109.90 (109.60 to 110.60): VN061834.D (-1836) (-)

Ion 76.90 (76.60 to 77.60): VN061834.D (-1836) (-)



#38

Carbon Tetrachloride

Concen: 0.343 ug/l

RT: 7.73 min Scan# 1853

Delta R.T. -0.00 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

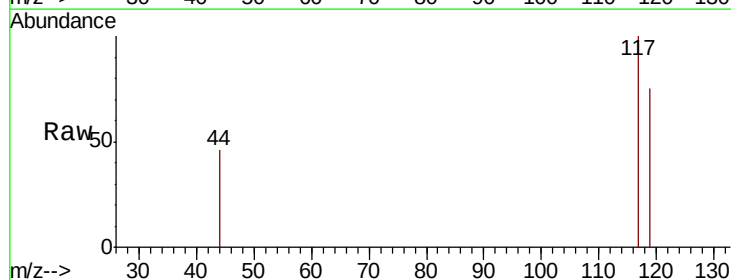
Tgt Ion: 117 Resp: 830

Ion Ratio Lower Upper

117 100

119 75.2 75.8 113.6#

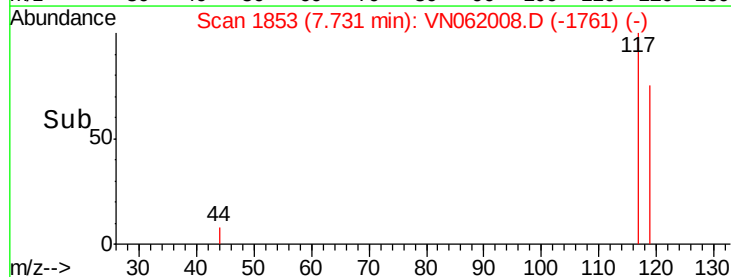
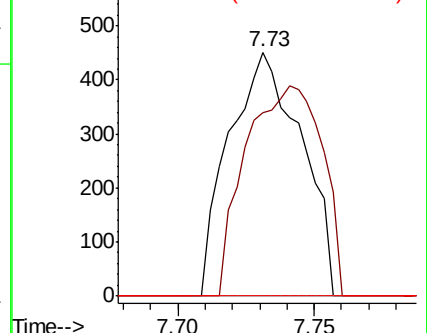
121 0.0 23.8 35.6#

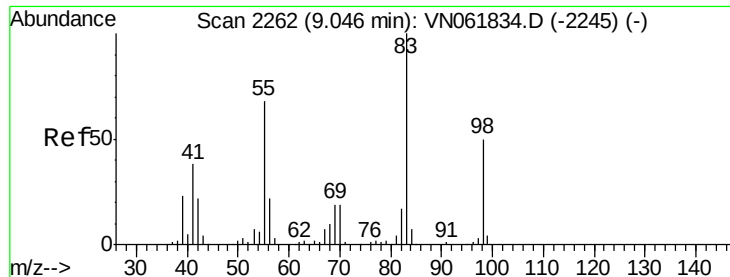


Abundance Ion 116.80 (116.50 to 117.50): VN061834.D (-1834) (-)

Ion 118.80 (118.50 to 119.50): VN061834.D (-1834) (-)

Ion 120.80 (120.50 to 121.50): VN061834.D (-1834) (-)

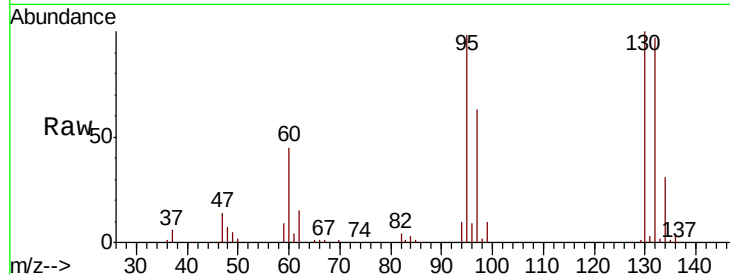




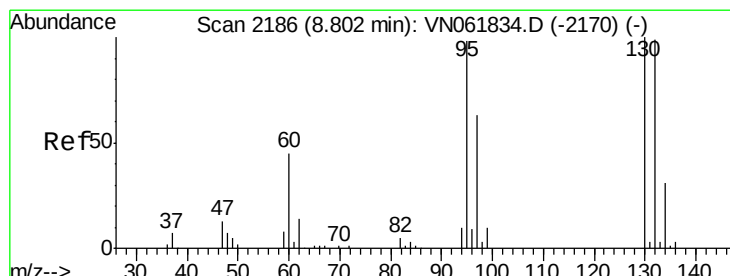
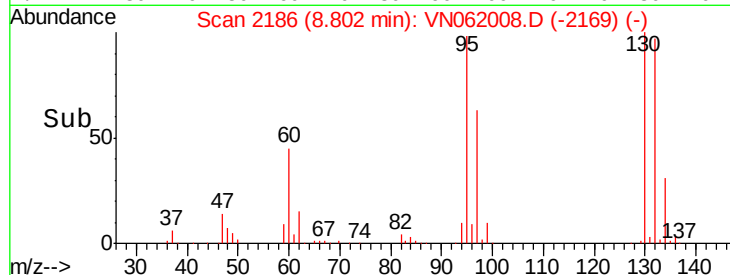
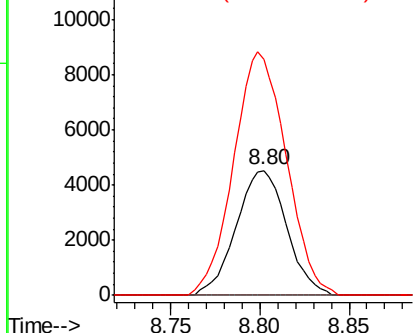
#39  
Methvlcvclohexane  
Concen: 3.398 ug/l  
RT: 8.80 min Scan# 2186  
Delta R.T. -0.24 min  
Lab File: VN062008.D  
Acq: 22 Jun 2020 18:43

Instrument :  
MSVOA\_N  
ClientSampleId :  
RE122D1-20200615

Tot Ion: 83 Resp: 8951  
Ion Ratio Lower Upper  
83 100  
55 0.0 54.2 81.4#  
98 188.2 39.8 59.6#

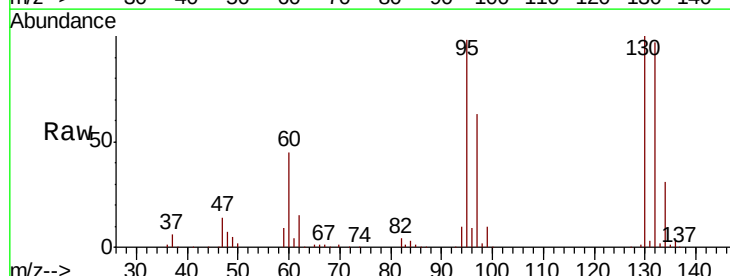


Abundance Ion 83.00 (82.70 to 83.70): VN0  
Ion 55.00 (54.70 to 55.70): VN0  
Ion 98.00 (97.70 to 98.70): VN0

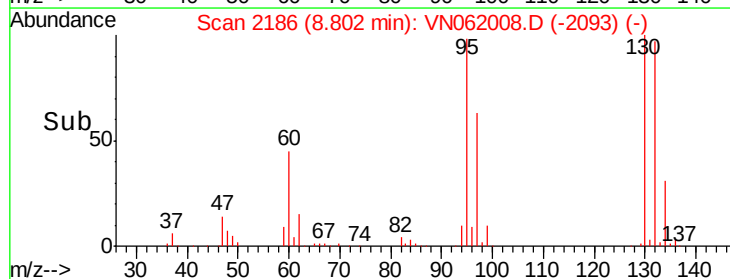
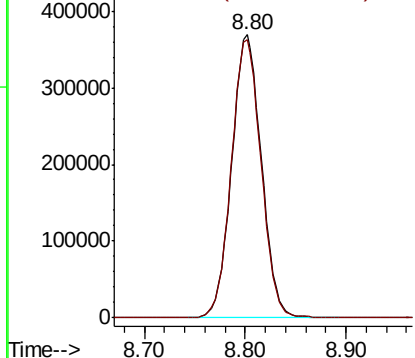


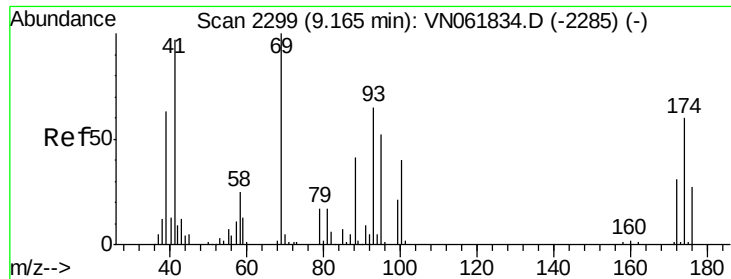
#44  
Trichloroethene  
Concen: 386.620 ug/l  
RT: 8.80 min Scan# 2186  
Delta R.T. -0.00 min  
Lab File: VN062008.D  
Acq: 22 Jun 2020 18:43

Tgt Ion:130 Resp: 754059  
Ion Ratio Lower Upper  
130 100  
95 98.3 0.0 195.6



Abundance Ion 129.80 (129.50 to 130.50): V  
Ion 94.90 (94.60 to 95.60): VN0





#49

1,4-Dioxane

Concen: 10.531 ug/l

RT: 9.17 min Scan# 2302

Delta R.T. 0.01 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

Instrument :

MSVOA\_N

ClientSampleId :

RE122D1-20200615

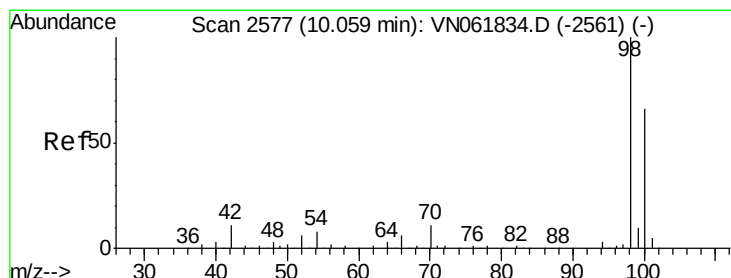
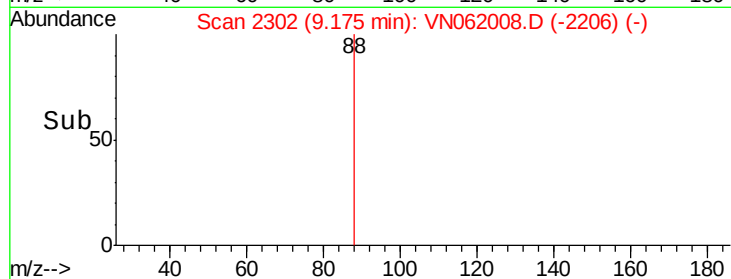
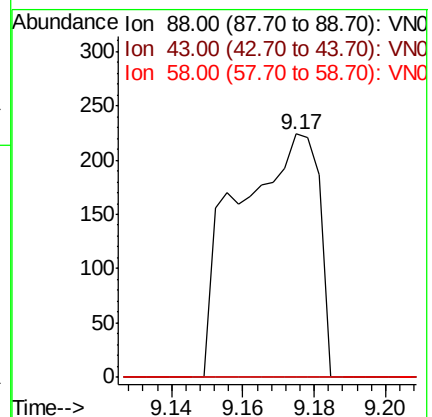
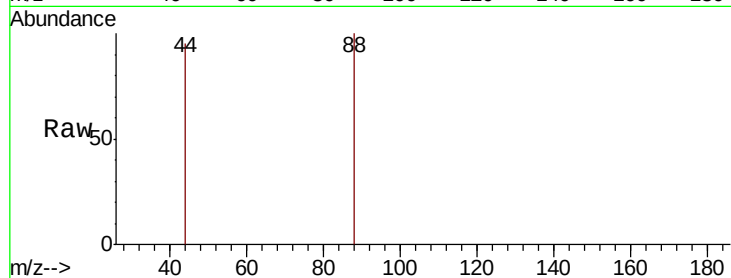
Tot Ion: 88 Resp: 354

Ion Ratio Lower Upper

88 100

43 0.0 23.4 35.2#

58 0.0 49.8 74.6#



#50

Toluene-d8

Concen: 50.675 ug/l

RT: 10.06 min Scan# 2577

Delta R.T. -0.00 min

Lab File: VN062008.D

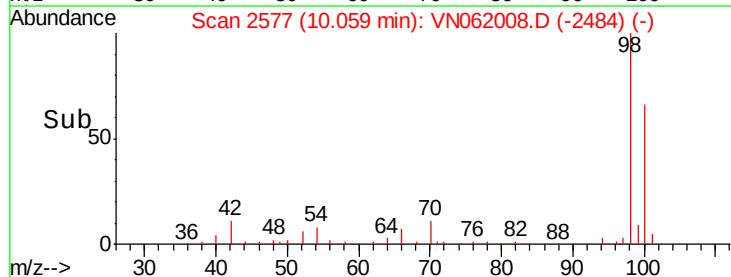
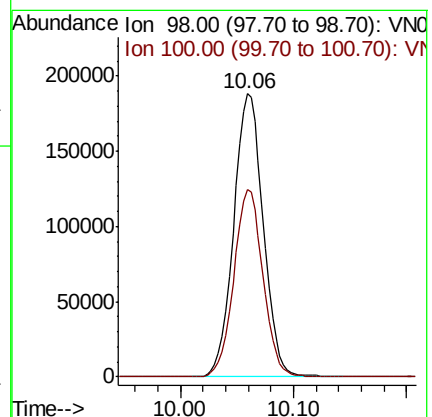
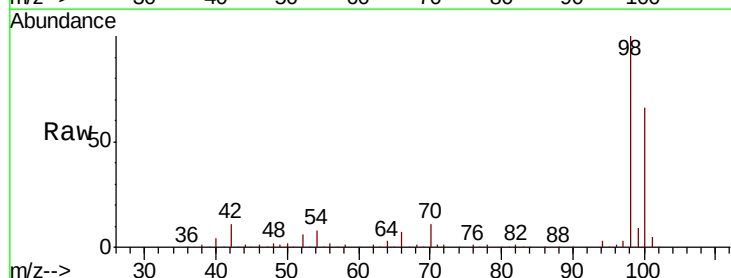
Acq: 22 Jun 2020 18:43

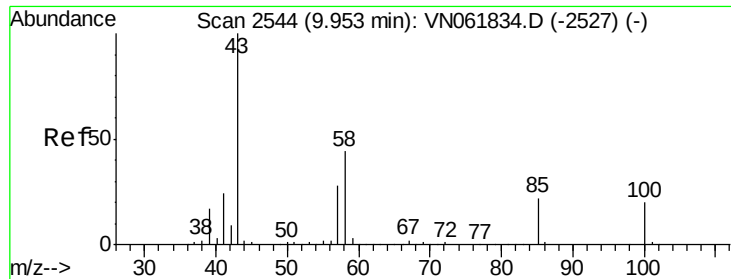
Tgt Ion: 98 Resp: 341862

Ion Ratio Lower Upper

98 100

100 65.4 52.7 79.1

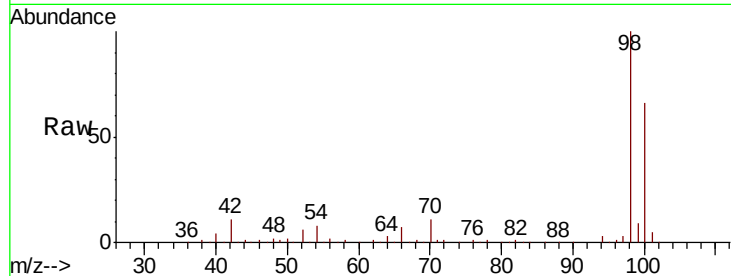




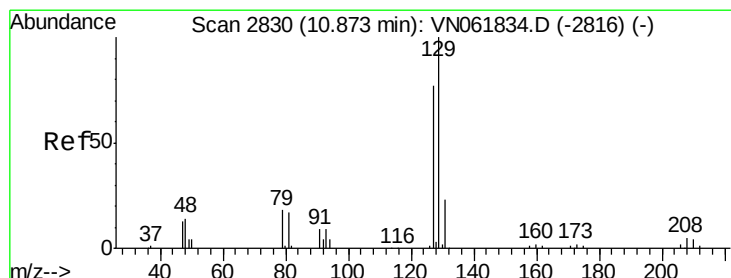
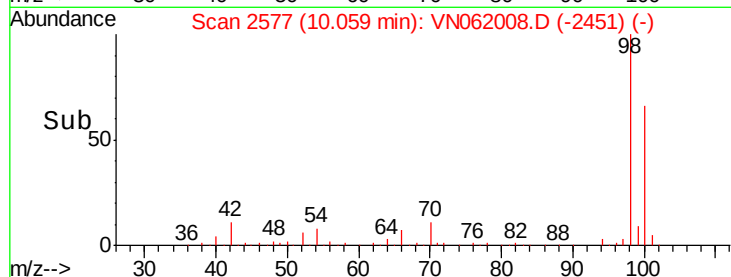
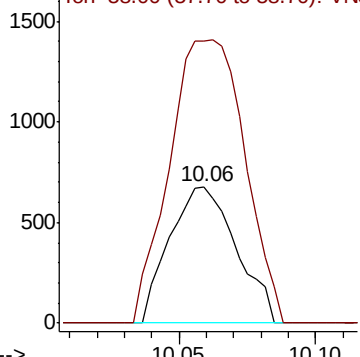
#51  
4-Methyl-2-Pentanone  
Concen: 0.605 ug/l  
RT: 10.06 min Scan# 2577  
Delta R.T. 0.11 min  
Lab File: VN062008.D  
Acq: 22 Jun 2020 18:43

Instrument :  
MSVOA\_N  
ClientSampleId :  
RE122D1-20200615

Tot Ion: 43 Resp: 1151  
Ion Ratio Lower Upper  
43 100  
58 234.3 34.6 52.0#

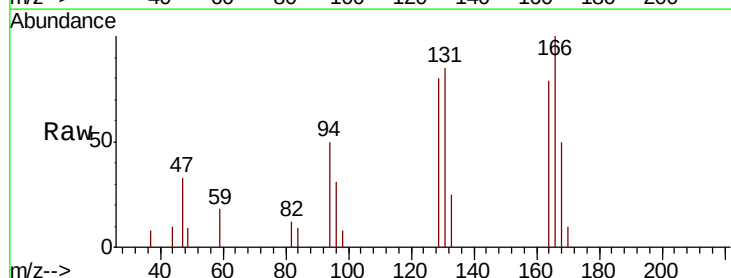


Abundance Ion 43.00 (42.70 to 43.70): VN061834.D (-2527) (-)  
Ion 58.00 (57.70 to 58.70): VN061834.D (-2527) (-)

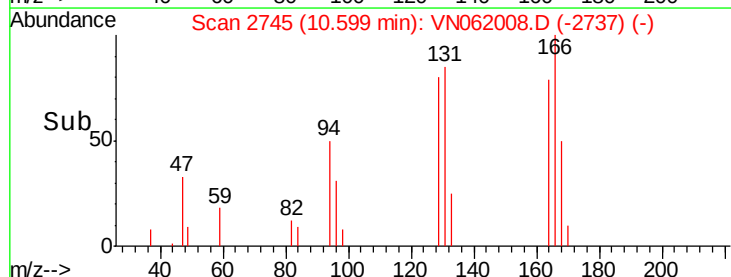
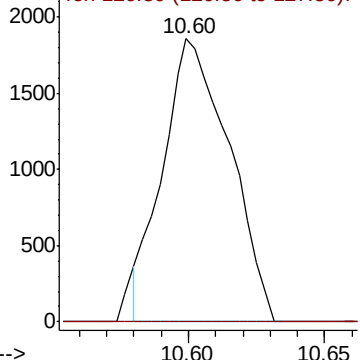


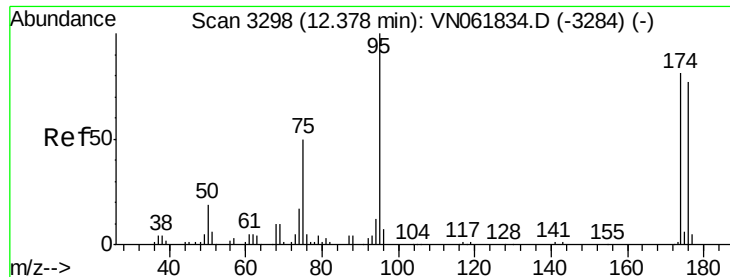
#60  
Dibromochloromethane  
Concen: 1.544 ug/l  
RT: 10.60 min Scan# 2745  
Delta R.T. -0.27 min  
Lab File: VN062008.D  
Acq: 22 Jun 2020 18:43

Tgt Ion: 129 Resp: 3156  
Ion Ratio Lower Upper  
129 100  
127 0.0 38.5 115.5#



Abundance Ion 128.80 (128.50 to 129.50): VN061834.D (-2816) (-)  
Ion 126.80 (126.50 to 127.50): VN061834.D (-2816) (-)





#62

4-Bromofluorobenzene

Concen: 47.980 ug/l

RT: 12.38 min Scan# 3298

Delta R.T. -0.00 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

Instrument :

MSVOA\_N

ClientSampleId :

RE122D1-20200615

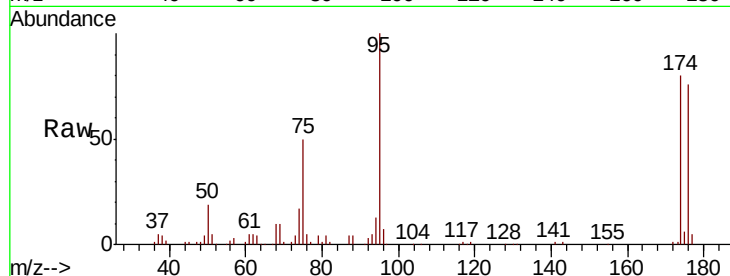
Tot Ion: 95 Resp: 111028

Ion Ratio Lower Upper

95 100

174 79.6 0.0 158.6

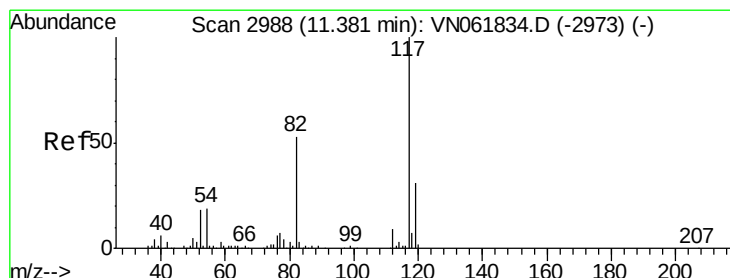
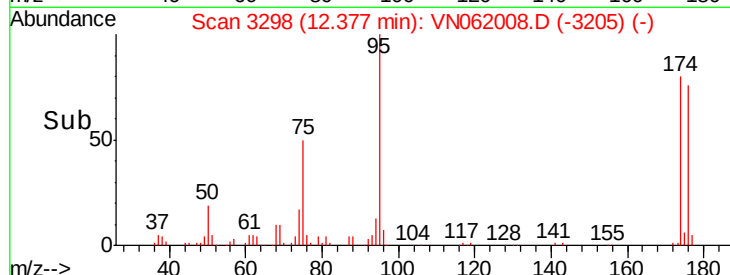
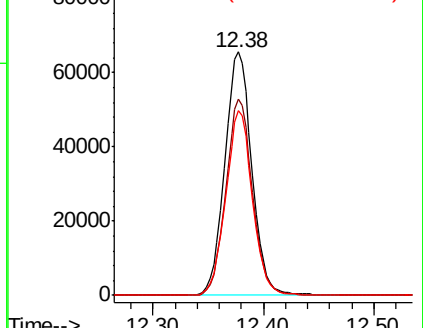
176 75.1 0.0 152.0



Abundance Ion 94.90 (94.60 to 95.60): VN061834.D (-3284) (-)

Ion 173.80 (173.50 to 174.50): VN061834.D (-3284) (-)

Ion 175.80 (175.50 to 176.50): VN061834.D (-3284) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.38 min Scan# 2988

Delta R.T. -0.00 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

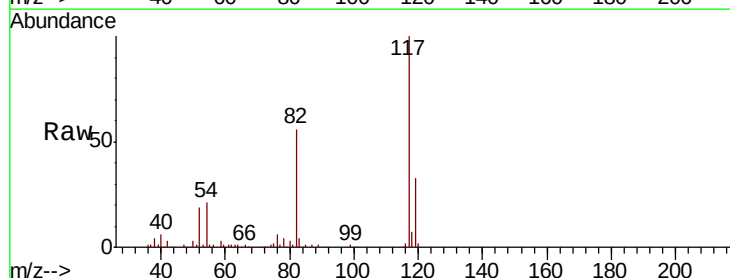
Tgt Ion: 117 Resp: 260845

Ion Ratio Lower Upper

117 100

82 56.0 42.6 64.0

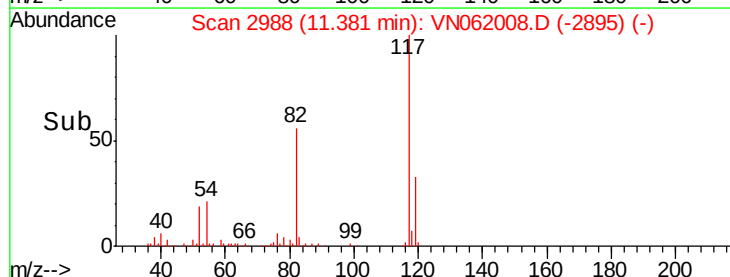
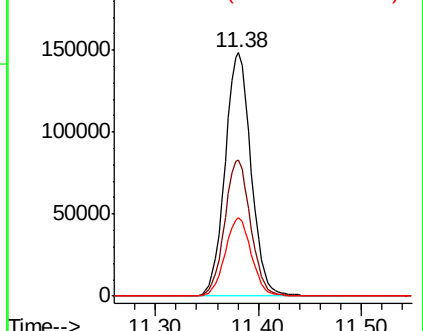
119 32.5 24.7 37.1

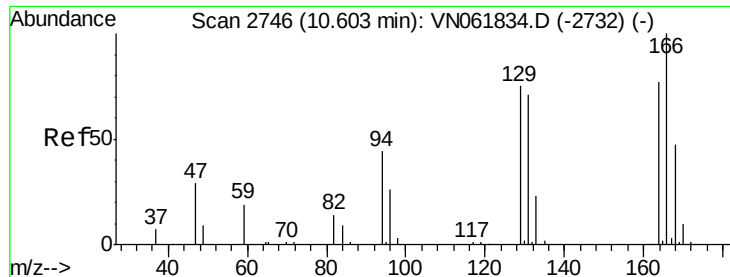


Abundance Ion 116.90 (116.60 to 117.60): VN061834.D (-2973) (-)

Ion 82.00 (81.70 to 82.70): VN061834.D (-2973) (-)

Ion 118.90 (118.60 to 119.60): VN061834.D (-2973) (-)





#64

Tetrachloroethene

Concen: 2.000 ug/l

RT: 10.60 min Scan# 2745

Delta R.T. -0.00 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

Instrument :

MSVOA\_N

ClientSampleId :

RE122D1-20200615

Tot Ion:164 Resp: 3325

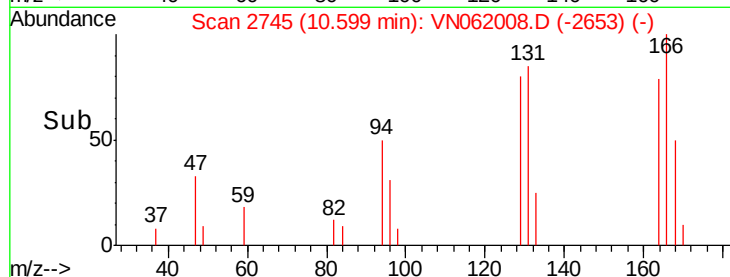
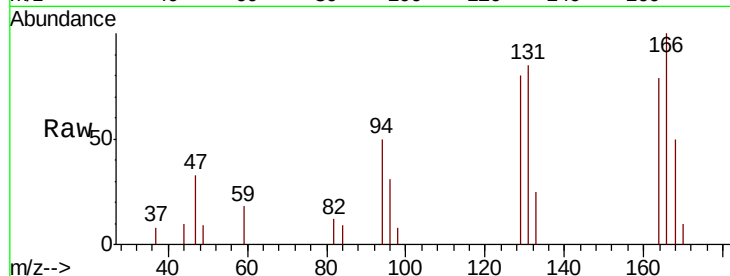
Ion Ratio Lower Upper

164 100

166 126.0 103.5 155.3

129 100.4 77.5 116.3

131 106.8 73.8 110.8

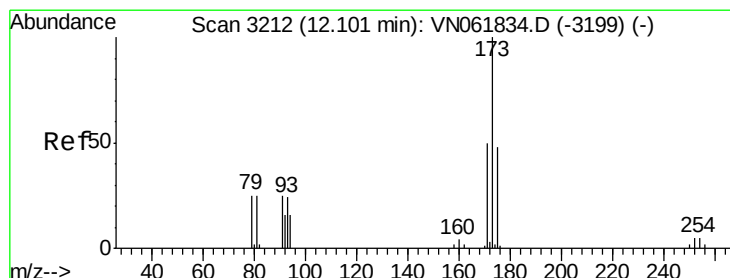
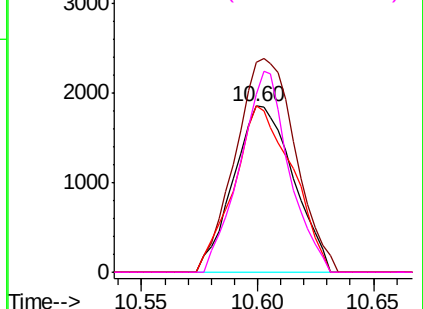


Abundance Ion 163.80 (163.50 to 164.50): V

Ion 165.80 (165.50 to 166.50): V

Ion 128.80 (128.50 to 129.50): V

Ion 130.80 (130.50 to 131.50): V



#71

Bromoform

Concen: 0.749 ug/l

RT: 12.37 min Scan# 3297

Delta R.T. 0.27 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

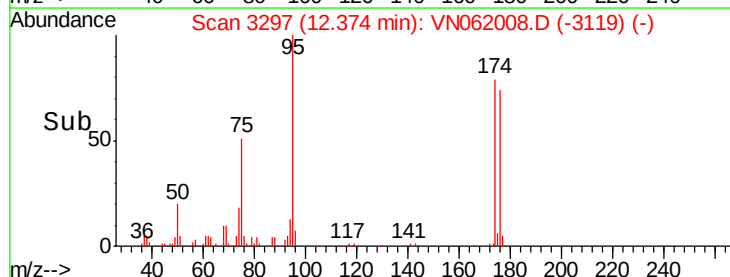
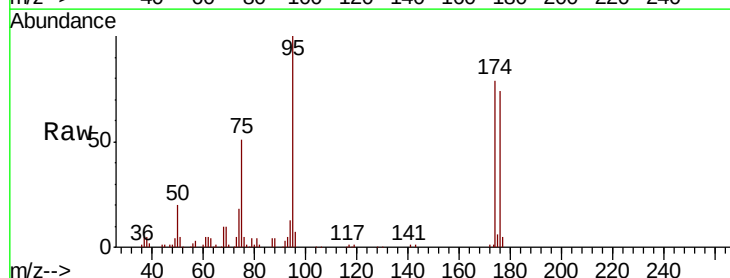
Tgt Ion:173 Resp: 1048

Ion Ratio Lower Upper

173 100

175 546.9 23.9 71.7#

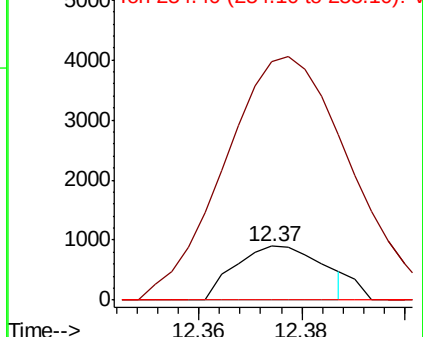
254 0.0 0.0 0.0

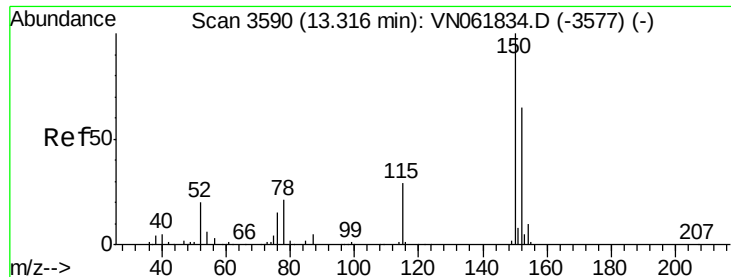


Abundance Ion 172.70 (172.40 to 173.40): V

Ion 174.70 (174.40 to 175.40): V

Ion 254.40 (254.10 to 255.10): V





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.32 min Scan# 3591

Delta R.T. 0.00 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

Instrument :

MSVOA\_N

ClientSampleId :

RE122D1-20200615

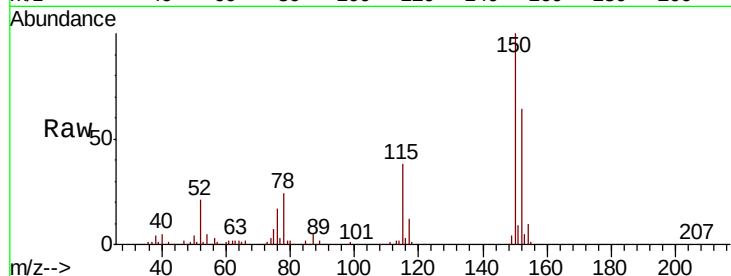
Tot Ion:152 Resp: 99136

Ion Ratio Lower Upper

152 100

115 58.3 29.1 87.3

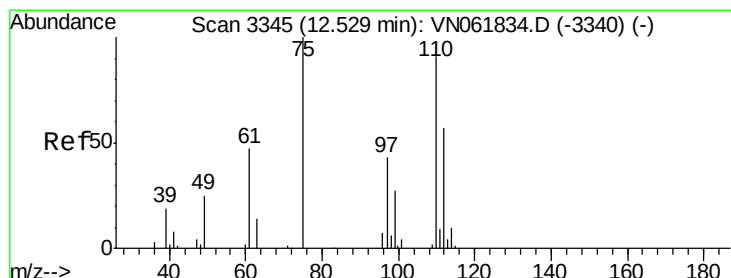
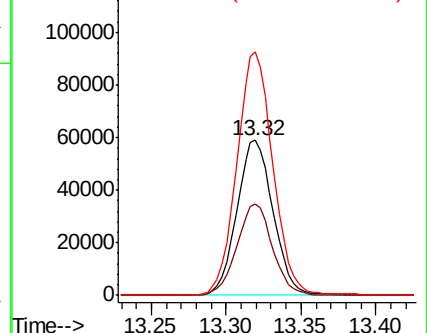
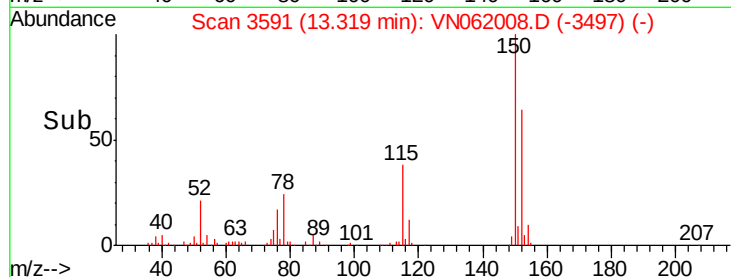
150 157.1 0.0 347.6



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 28.672 ug/l

RT: 12.38 min Scan# 3298

Delta R.T. -0.15 min

Lab File: VN062008.D

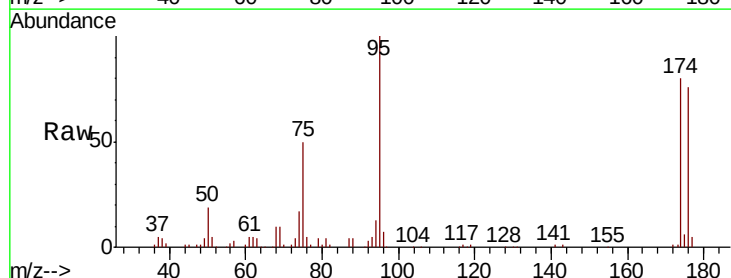
Acq: 22 Jun 2020 18:43

Tgt Ion: 75 Resp: 55803

Ion Ratio Lower Upper

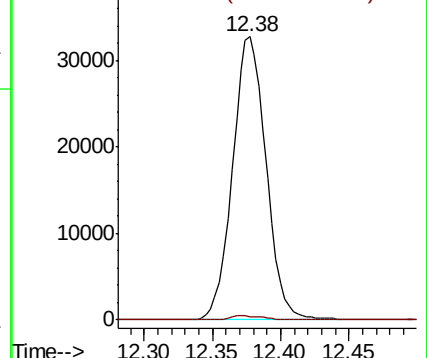
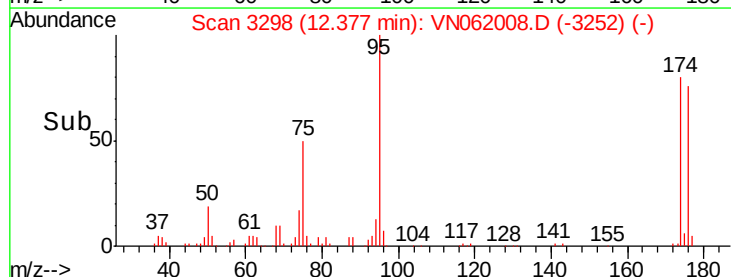
75 100

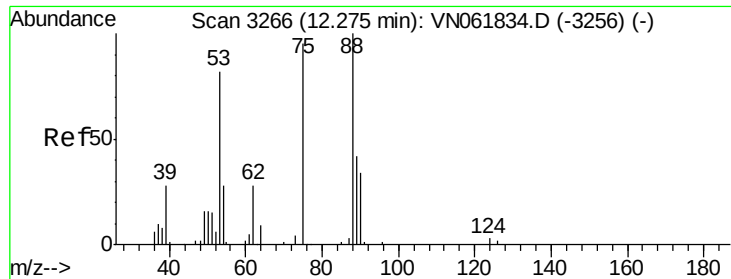
77 1.3 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): V

Ion 77.00 (76.70 to 77.70): V





#81

trans-1,4-Dichloro-2-butene

Concen: 78.199 ug/l

RT: 12.38 min Scan# 3298

Delta R.T. 0.10 min

Lab File: VN062008.D

Acq: 22 Jun 2020 18:43

Instrument :

MSVOA\_N

ClientSampleId :

RE122D1-20200615

Tot Ion: 75 Resp: 55803

Ion Ratio Lower Upper

75 100

53 0.0 70.4 105.6#

89 0.0 36.0 54.0#

