

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW010720\  
 Data File : VW014547.D  
 Acq On : 07 Jan 2020 15:22  
 Operator : SY/VA  
 Sample : K6476-07  
 Misc : 8.05G/5ML/MSVOA W/SOIL  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :

Quant Time: Jan 08 05:48:38 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W010320S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jan 03 16:07:20 2020  
 Response via : Initial Calibration

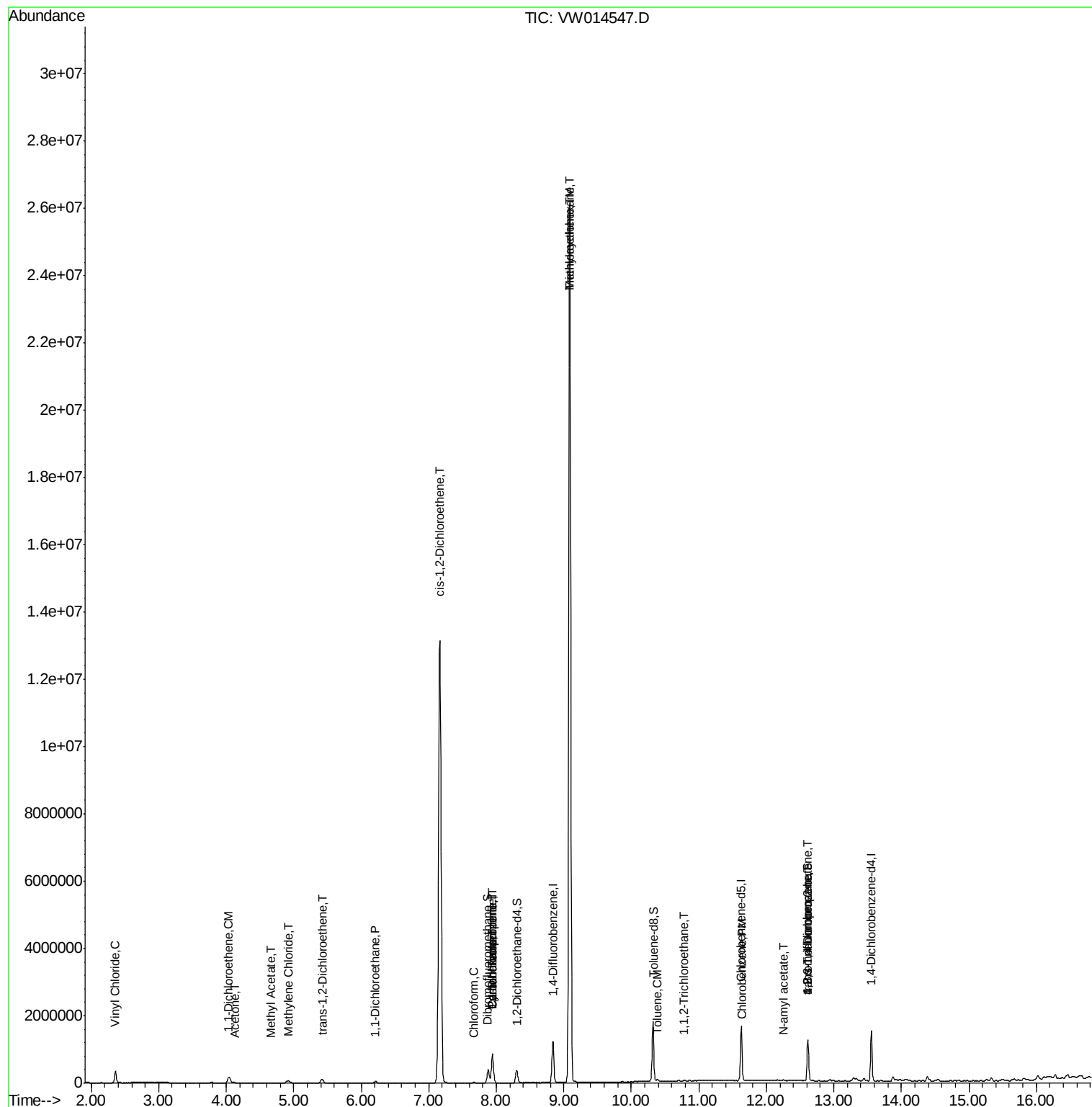
| Internal Standards             | R.T.  | QIon | Response | Conc      | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-----------|--------|----------|
| 1) Pentafluorobenzene          | 7.95  | 168  | 701487   | 50.00     | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene        | 8.84  | 114  | 1098598  | 50.00     | ug/l   | 0.00     |
| 63) Chlorobenzene-d5           | 11.63 | 117  | 937777   | 50.00     | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4     | 13.55 | 152  | 429677   | 50.00     | ug/l   | 0.00     |
| System Monitoring Compounds    |       |      |          |           |        |          |
| 33) 1,2-Dichloroethane-d4      | 8.30  | 65   | 284198   | 46.34     | ug/l   | 0.00     |
| Spiked Amount 50.000           |       |      | Recovery | =         | 92.68% |          |
| 35) Dibromofluoromethane       | 7.88  | 113  | 291988   | 46.50     | ug/l   | 0.00     |
| Spiked Amount 50.000           |       |      | Recovery | =         | 93.00% |          |
| 50) Toluene-d8                 | 10.32 | 98   | 1235457  | 47.15     | ug/l   | 0.00     |
| Spiked Amount 50.000           |       |      | Recovery | =         | 94.30% |          |
| 62) 4-Bromofluorobenzene       | 12.62 | 95   | 426986   | 48.04     | ug/l   | 0.00     |
| Spiked Amount 50.000           |       |      | Recovery | =         | 96.08% |          |
| Target Compounds               |       |      |          |           |        |          |
|                                |       |      |          |           | Qvalue |          |
| 4) Vinyl Chloride              | 2.35  | 62   | 374198   | 52.477    | ug/l   | 99       |
| 11) Tert butyl alcohol         | 5.12  | 59   | 415      | Below Cal | #      | 88       |
| 12) 1,1-Dichloroethene         | 4.04  | 96   | 114847   | 16.452    | ug/l   | 98       |
| 16) Acetone                    | 4.12  | 43   | 26327    | 15.202    | ug/l   | 100      |
| 18) Methyl Acetate             | 4.67  | 43   | 25070    | 5.994     | ug/l   | 93       |
| 20) Methylene Chloride         | 4.92  | 84   | 64459    | 5.150     | ug/l   | 97       |
| 21) trans-1,2-Dichloroethene   | 5.42  | 96   | 69615    | 9.392     | ug/l   | 94       |
| 24) 1,1-Dichloroethane         | 6.21  | 63   | 66741    | 5.299     | ug/l   | 98       |
| 27) cis-1,2-Dichloroethene     | 7.16  | 96   | 8486441  | 1089.588  | ug/l   | 92       |
| 30) Chloroform                 | 7.67  | 83   | 14652    | 1.244     | ug/l   | 97       |
| 31) Cyclohexane                | 7.95  | 56   | 13310    | 1.017     | ug/l # | 1        |
| 36) 1,1-Dichloropropene        | 7.95  | 75   | 47717    | 4.505     | ug/l # | 51       |
| 38) Carbon Tetrachloride       | 7.95  | 117  | 62673    | 6.821     | ug/l # | 16       |
| 39) Methylcyclohexane          | 9.09  | 83   | 115035   | 8.464     | ug/l # | 1        |
| 44) Trichloroethene            | 9.09  | 130  | 10172267 | 1254.521  | ug/l   | 94       |
| 52) Toluene                    | 10.38 | 92   | 23371    | 1.240     | ug/l   | 92       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 12622    | 2.381     | ug/l # | 87       |
| 65) Chlorobenzene              | 11.65 | 112  | 24319    | 1.266     | ug/l   | 100      |
| 74) N-amyl acetate             | 12.26 | 43   | 7571     | 1.071     | ug/l # | 49       |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75   | 191168   | 47.056    | ug/l # | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75   | 191168   | 104.844   | ug/l # | 14       |

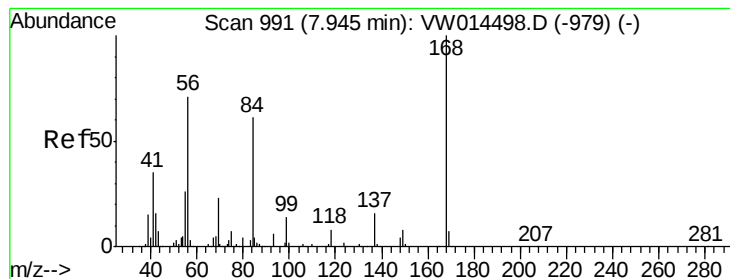
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA W\DATA\VW010720\  
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MSVOA\_W  
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Quant Time: Jan 08 05:48:38 2020  
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Quant Title : SW846 8260  
QLast Update : Fri Jan 03 16:07:20 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.00 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

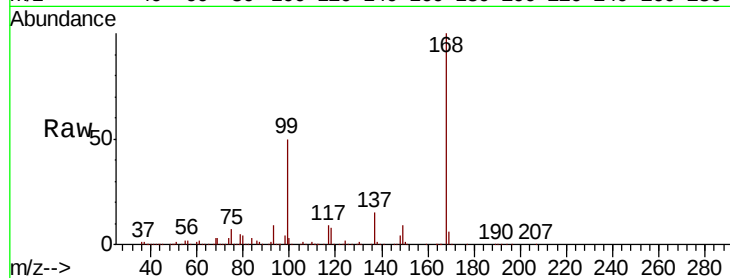
Instrument :  
MSVOA\_W  
ClientSampleId :

Tot Ion:168 Resp: 701487

Ion Ratio Lower Upper

168 100

99 49.7 41.1 61.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW

7.95

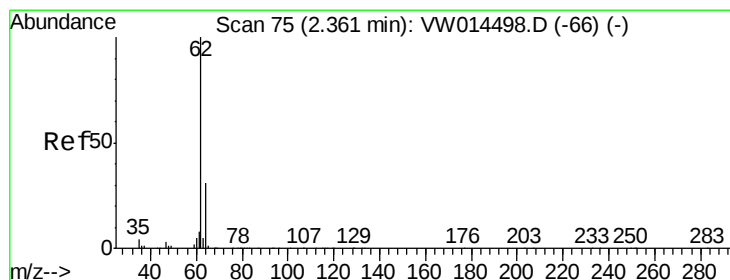
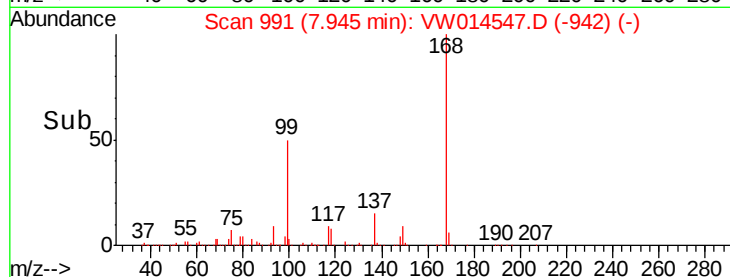
300000

200000

100000

0

Time--> 7.80 7.90 8.00 8.10



#4

Vinyl Chloride

Concen: 52.477 ug/l

RT: 2.35 min Scan# 74

Delta R.T. -0.01 min

Lab File: VW014547.D

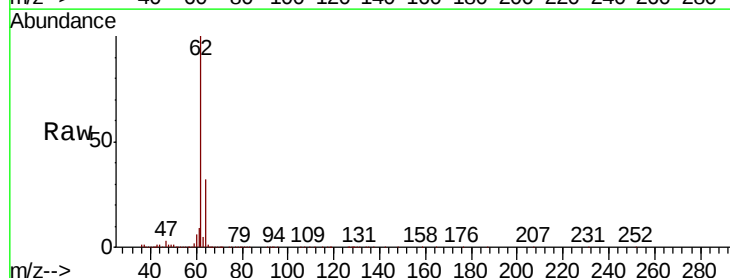
Acq: 07 Jan 2020 15:22

Tgt Ion: 62 Resp: 374198

Ion Ratio Lower Upper

62 100

64 31.5 25.0 37.4



Abundance Ion 61.90 (61.60 to 62.60): VW

Ion 63.90 (63.60 to 64.60): VW

2.35

200000

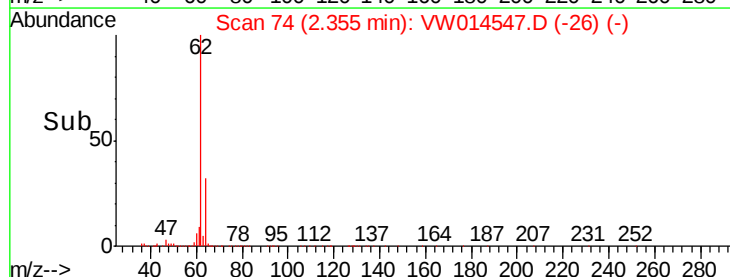
150000

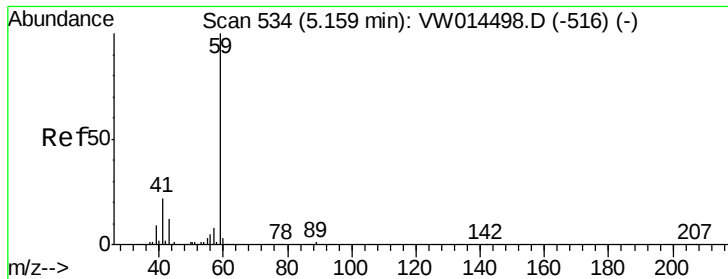
100000

50000

0

Time--> 2.30 2.40 2.50



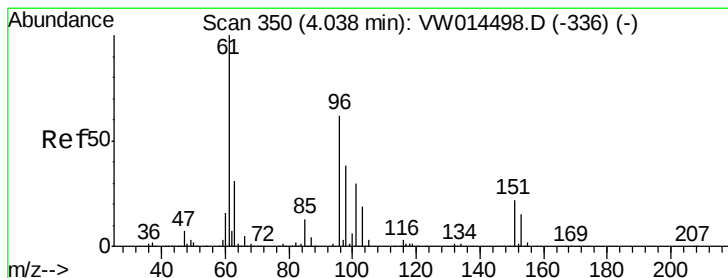
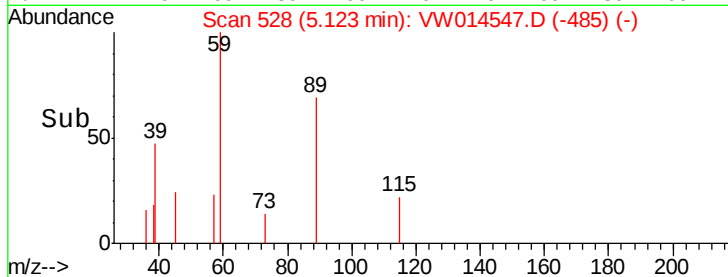
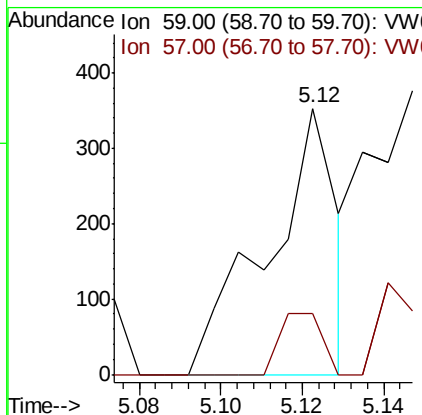
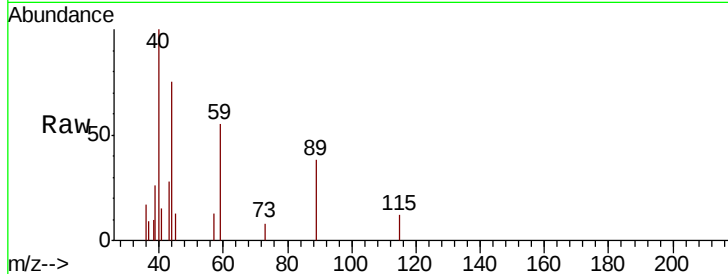


#11

Tert butyl alcohol  
 Concen: Below Cal  
 RT: 5.12 min Scan# 528  
 Delta R.T. -0.04 min  
 Lab File: VW014547.D  
 Acq: 07 Jan 2020 15:22

Instrument :  
 MSVOA\_W  
 ClientSampled :

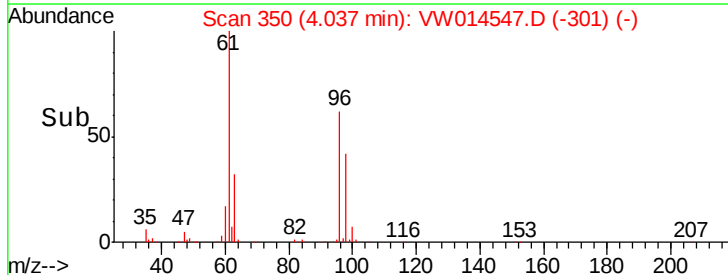
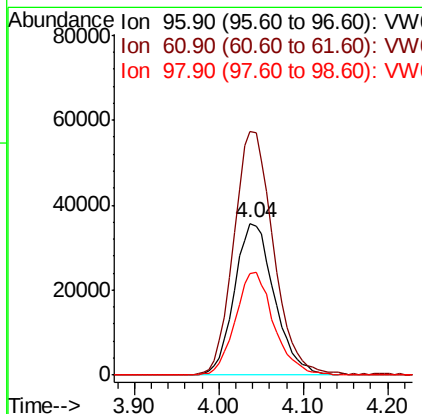
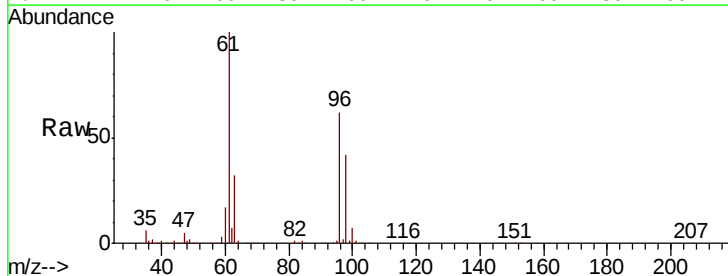
Tot Ion: 59 Resp: 415  
 Ion Ratio Lower Upper  
 59 100  
 57 14.2 7.8 11.8#

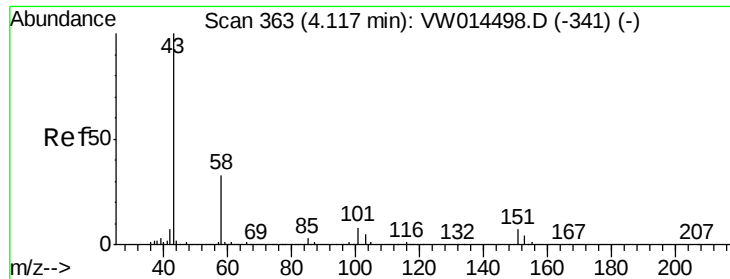


#12

1,1-Dichloroethene  
 Concen: 16.452 ug/l  
 RT: 4.04 min Scan# 350  
 Delta R.T. -0.00 min  
 Lab File: VW014547.D  
 Acq: 07 Jan 2020 15:22

Tgt Ion: 96 Resp: 114847  
 Ion Ratio Lower Upper  
 96 100  
 61 160.2 128.4 192.6  
 98 67.2 49.1 73.7

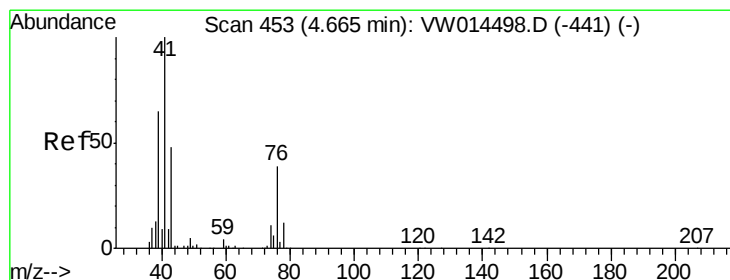
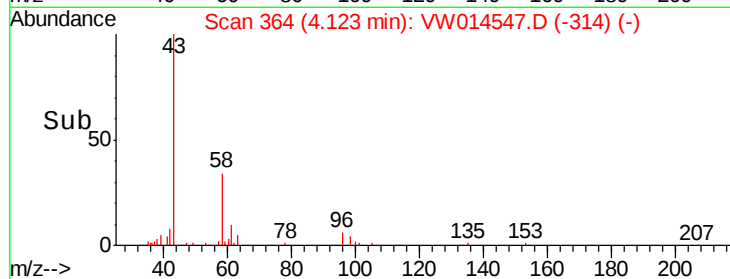
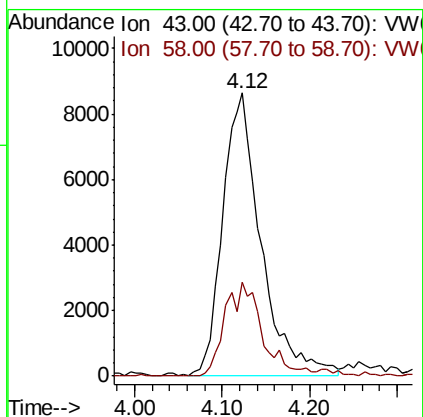
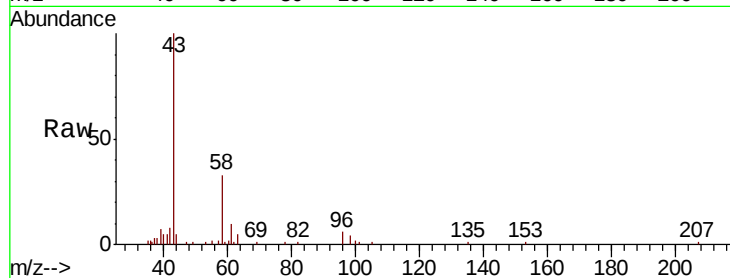




#16  
Acetone  
Concen: 15.202 ug/l  
RT: 4.12 min Scan# 364  
Delta R.T. 0.01 min  
Lab File: VW014547.D  
Acq: 07 Jan 2020 15:22

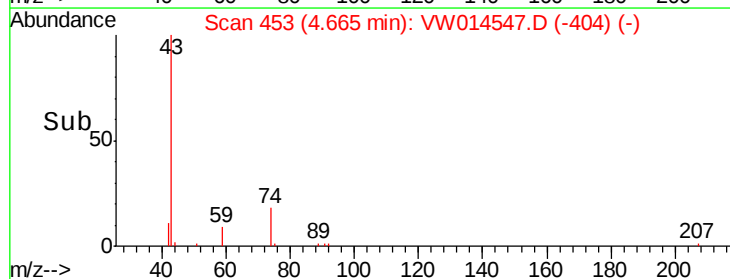
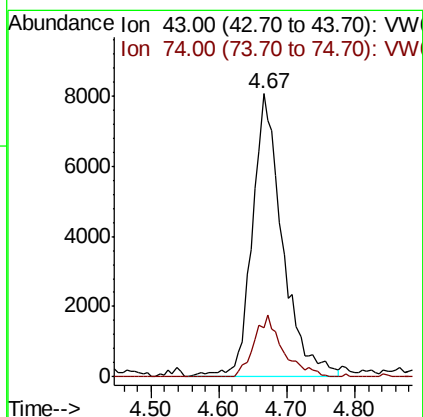
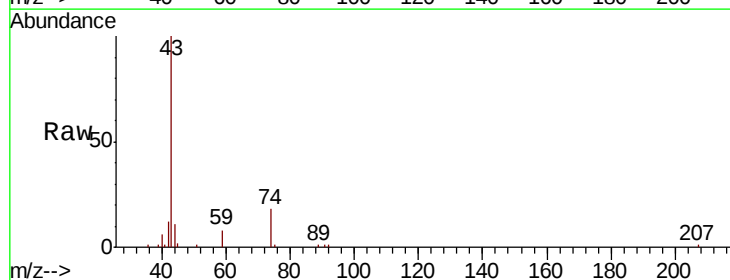
Instrument :  
MSVOA\_W  
ClientSampleId :

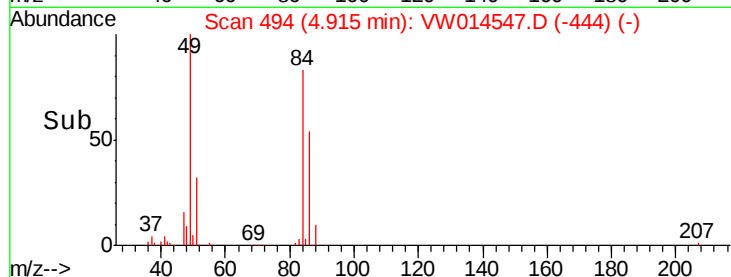
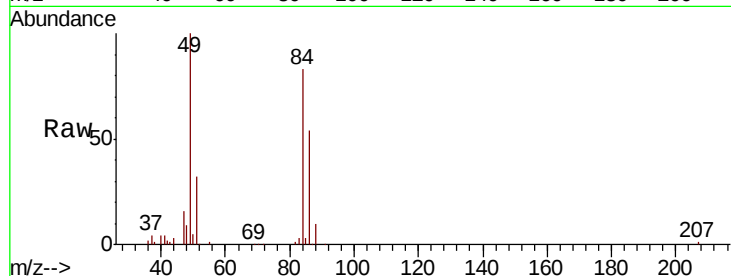
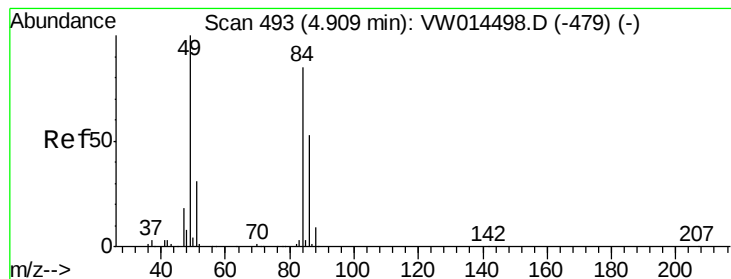
Tot Ion: 43 Resp: 26327  
Ion Ratio Lower Upper  
43 100  
58 33.4 26.6 39.8



#18  
Methyl Acetate  
Concen: 5.994 ug/l  
RT: 4.67 min Scan# 453  
Delta R.T. -0.00 min  
Lab File: VW014547.D  
Acq: 07 Jan 2020 15:22

Tgt Ion: 43 Resp: 25070  
Ion Ratio Lower Upper  
43 100  
74 20.7 19.3 28.9





#20

Methylene Chloride

Concen: 5.150 ug/l

RT: 4.92 min Scan# 494

Delta R.T. 0.01 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

Instrument :

MSVOA\_W

ClientSampleId :

Tot Ion: 84 Resp: 64459

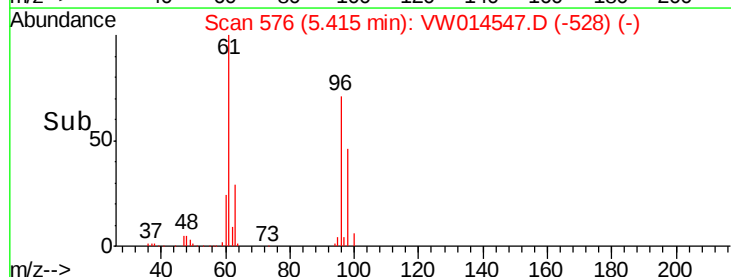
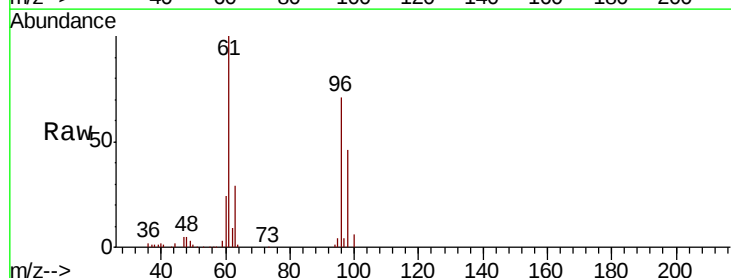
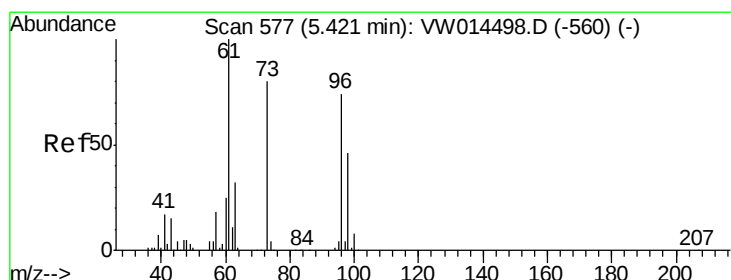
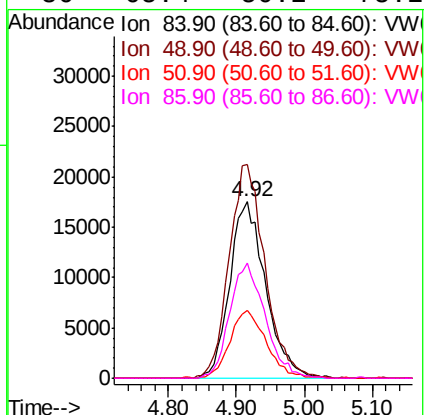
Ion Ratio Lower Upper

84 100

49 121.1 94.4 141.6

51 38.4 29.5 44.3

86 65.4 50.2 75.2



#21

trans-1,2-Dichloroethene

Concen: 9.392 ug/l

RT: 5.42 min Scan# 576

Delta R.T. -0.01 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

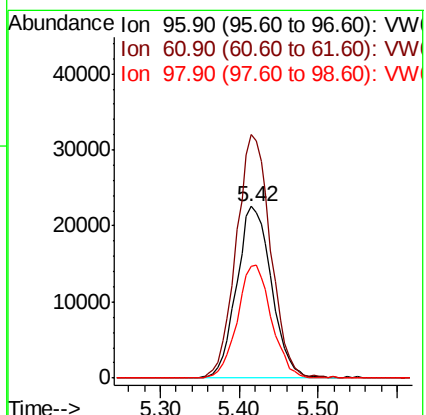
Tgt Ion: 96 Resp: 69615

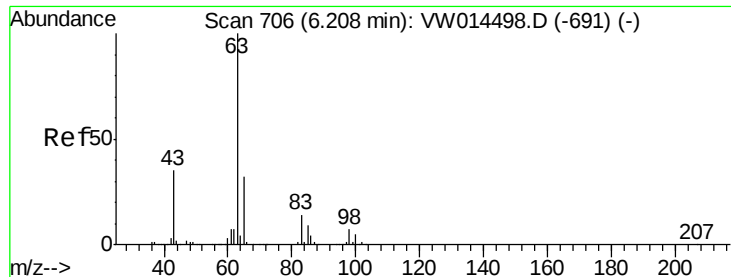
Ion Ratio Lower Upper

96 100

61 141.8 107.8 161.6

98 65.3 49.4 74.0





#24

1,1-Dichloroethane

Concen: 5.299 ug/l

RT: 6.21 min Scan# 706

Delta R.T. -0.00 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

Instrument :

MSVOA\_W

ClientSampleId :

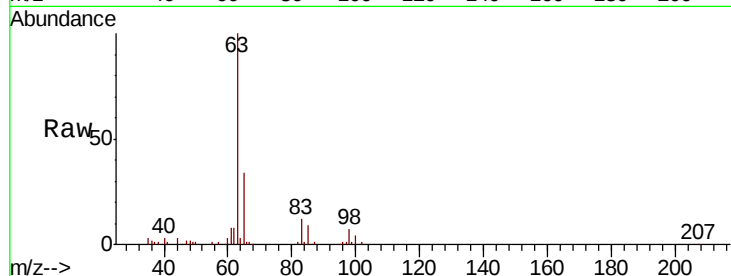
Tot Ion: 63 Resp: 66741

Ion Ratio Lower Upper

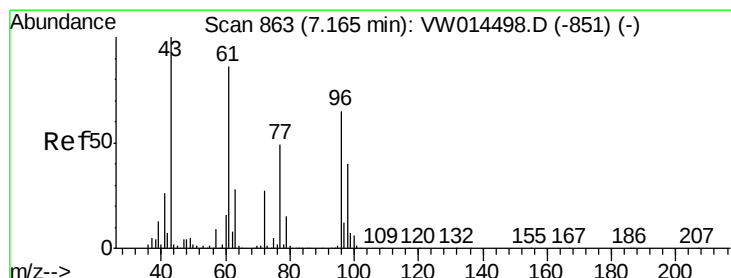
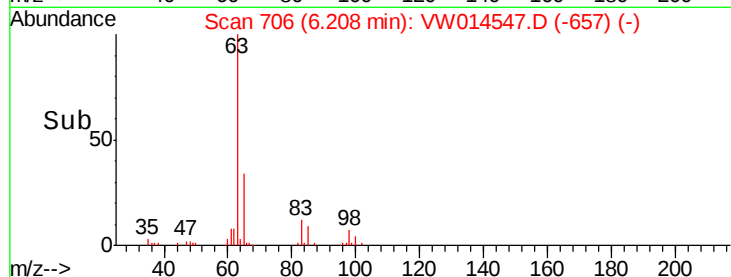
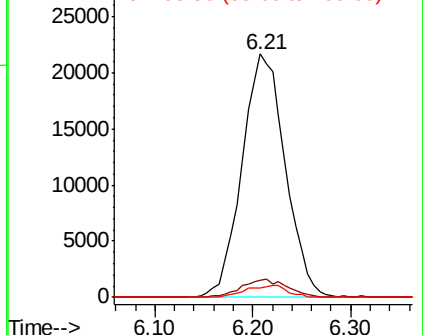
63 100

98 6.8 3.5 10.4

100 3.8 2.5 7.4



Abundance Ion 62.90 (62.60 to 63.60): VW  
Ion 97.90 (97.60 to 98.60): VW  
Ion 99.90 (99.60 to 100.60): VW



#27

cis-1,2-Dichloroethene

Concen: 1089.588 ug/l

RT: 7.16 min Scan# 863

Delta R.T. -0.00 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

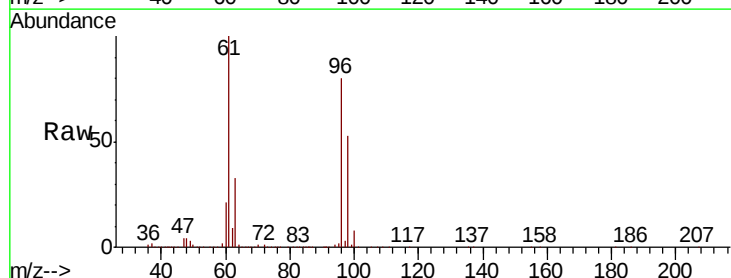
Tgt Ion: 96 Resp: 8486441

Ion Ratio Lower Upper

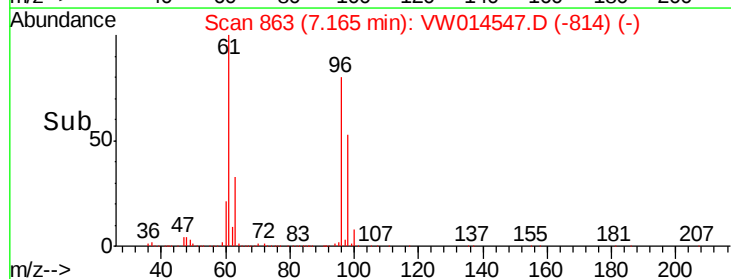
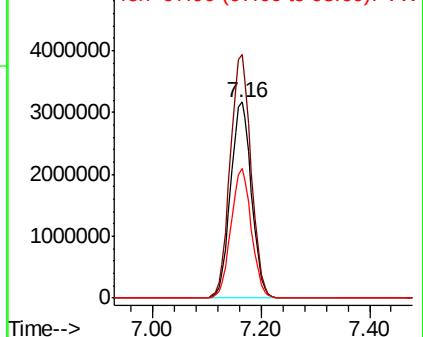
96 100

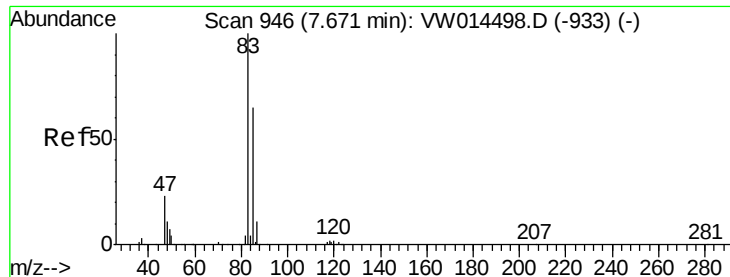
61 124.2 0.0 274.8

98 64.8 0.0 128.6



Abundance Ion 95.90 (95.60 to 96.60): VW  
Ion 60.90 (60.60 to 61.60): VW  
Ion 97.90 (97.60 to 98.60): VW

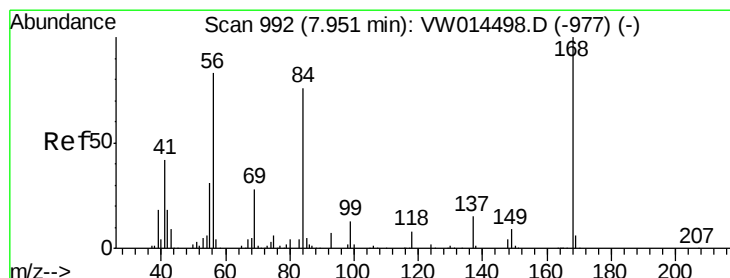
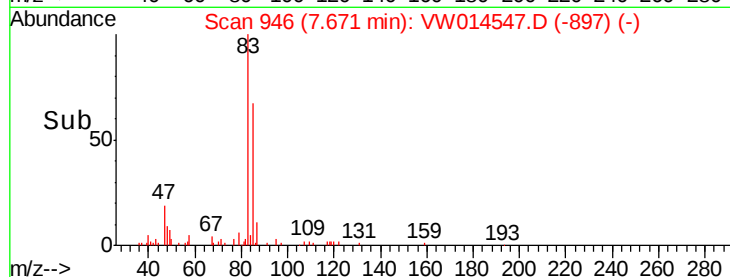
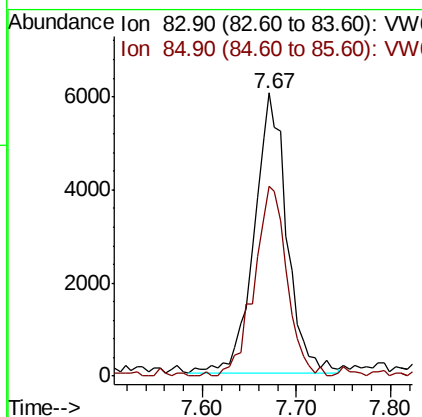
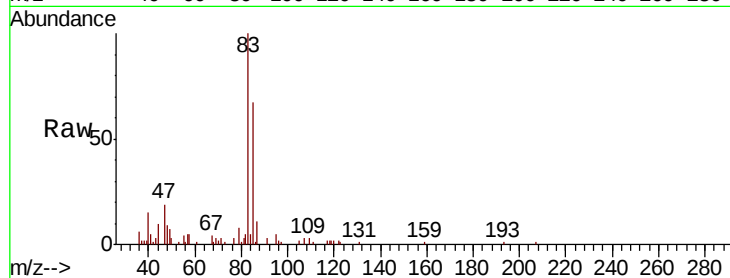




#30  
Chloroform  
Concen: 1.244 ug/l  
RT: 7.67 min Scan# 946  
Delta R.T. -0.00 min  
Lab File: VW014547.D  
Acq: 07 Jan 2020 15:22

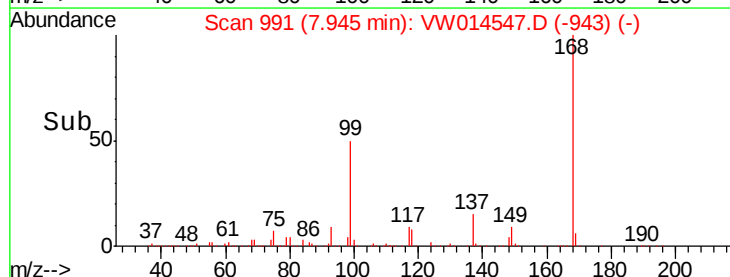
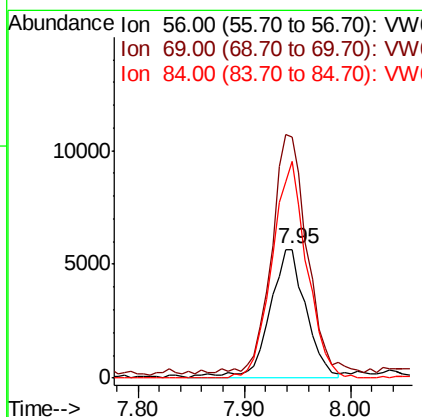
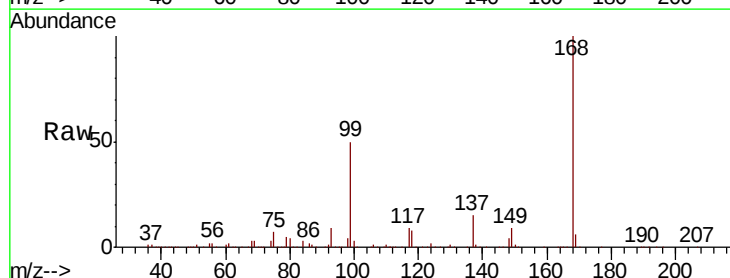
Instrument :  
MSVOA\_W  
ClientSampleId :

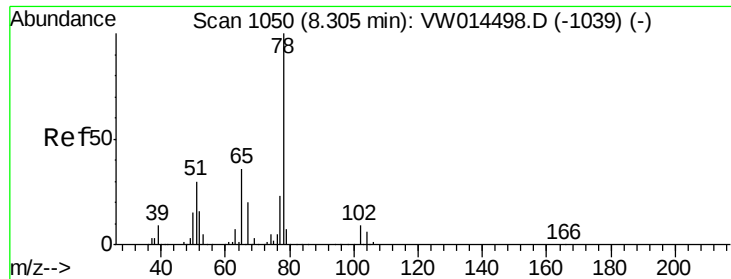
Tot Ion: 83 Resp: 14652  
Ion Ratio Lower Upper  
83 100  
85 67.8 52.2 78.2



#31  
Cyclohexane  
Concen: 1.017 ug/l  
RT: 7.95 min Scan# 991  
Delta R.T. -0.01 min  
Lab File: VW014547.D  
Acq: 07 Jan 2020 15:22

Tgt Ion: 56 Resp: 13310  
Ion Ratio Lower Upper  
56 100  
69 182.5 26.8 40.2#  
84 168.6 71.8 107.6#

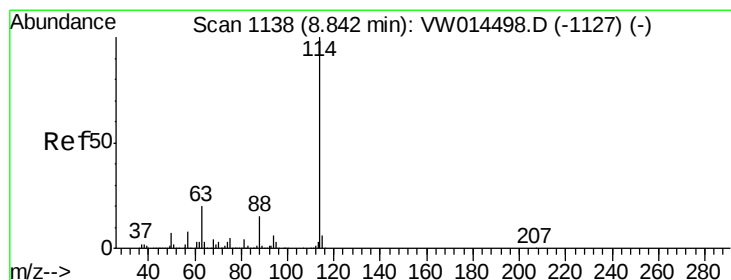
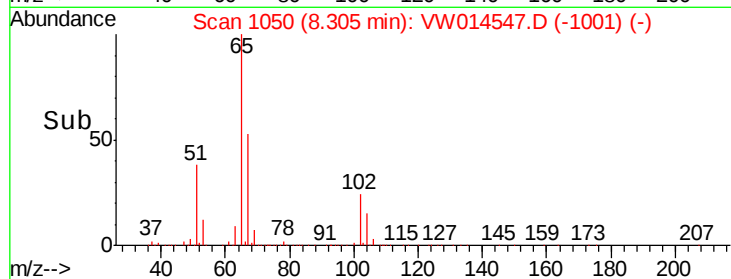
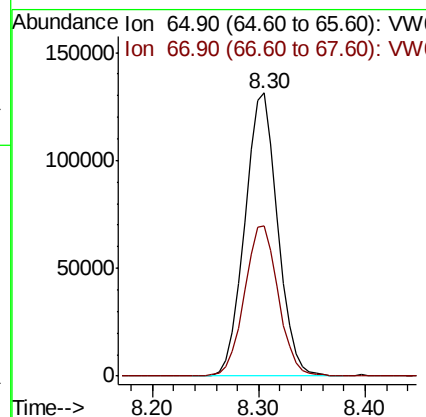
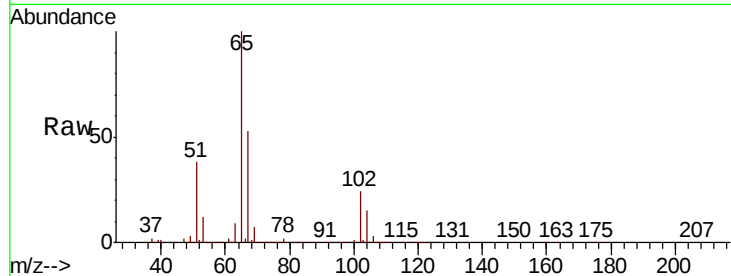




#33  
 1,2-Dichloroethane-d4  
 Concen: 46.338 ug/l  
 RT: 8.30 min Scan# 1050  
 Delta R.T. -0.00 min  
 Lab File: VW014547.D  
 Acq: 07 Jan 2020 15:22

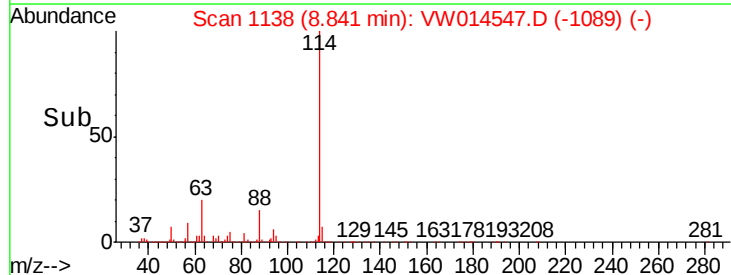
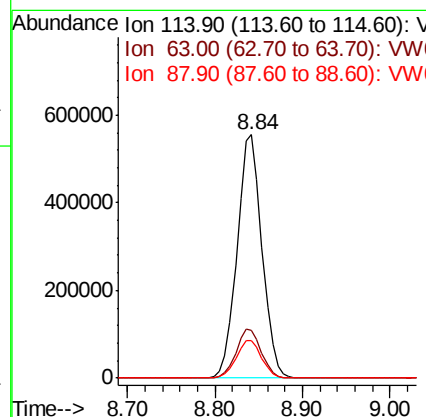
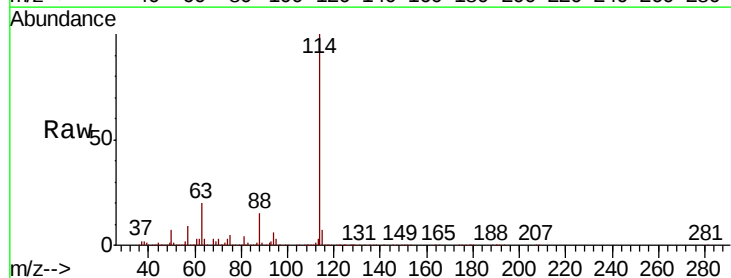
Instrument :  
 MSVOA\_W  
 ClientSampleId :

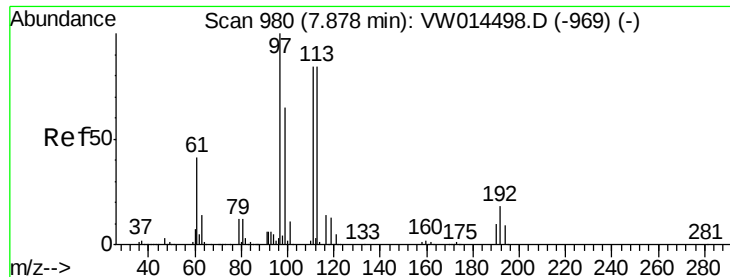
Tot Ion: 65 Resp: 284198  
 Ion Ratio Lower Upper  
 65 100  
 67 54.2 0.0 108.4



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.84 min Scan# 1138  
 Delta R.T. -0.00 min  
 Lab File: VW014547.D  
 Acq: 07 Jan 2020 15:22

Tgt Ion: 114 Resp: 1098598  
 Ion Ratio Lower Upper  
 114 100  
 63 19.6 0.0 40.4  
 88 15.2 0.0 30.6

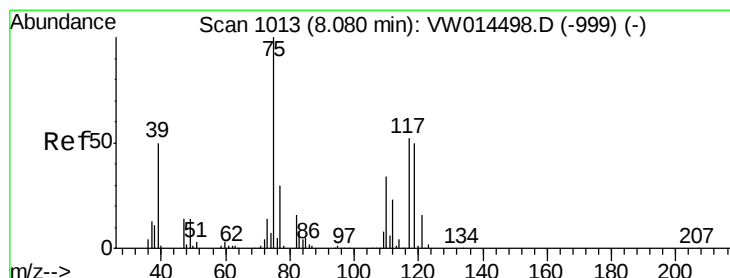
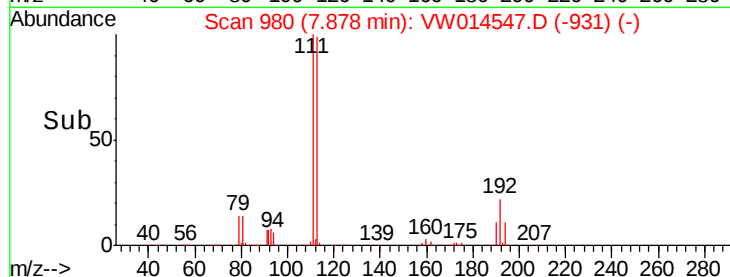
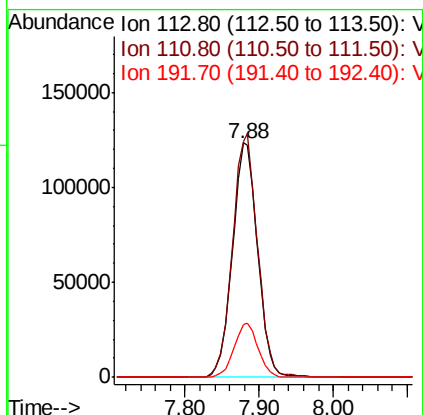
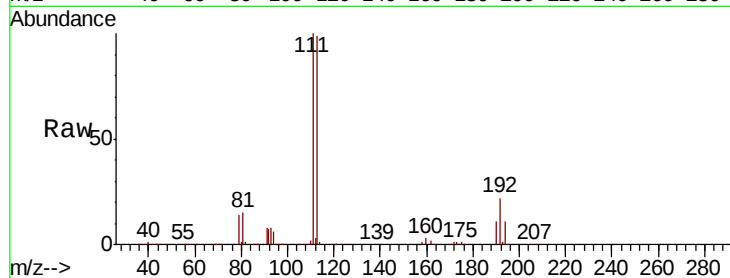




#35  
 Dibromofluoromethane  
 Concen: 46.505 ug/l  
 RT: 7.88 min Scan# 980  
 Delta R.T. -0.00 min  
 Lab File: VW014547.D  
 Acq: 07 Jan 2020 15:22

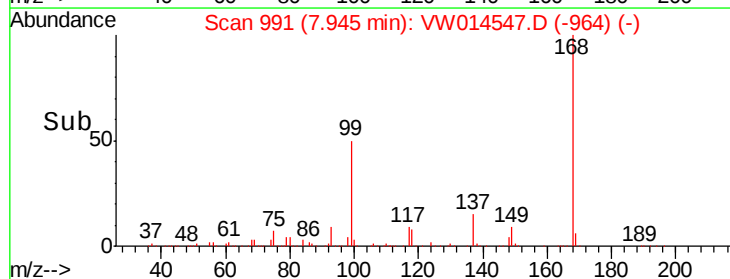
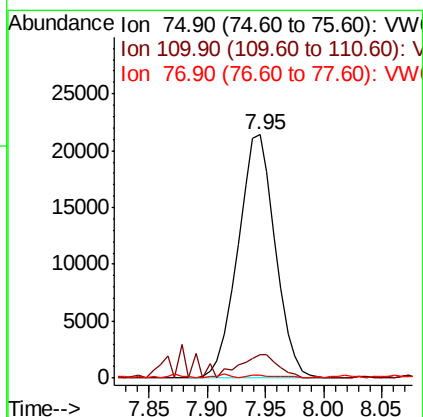
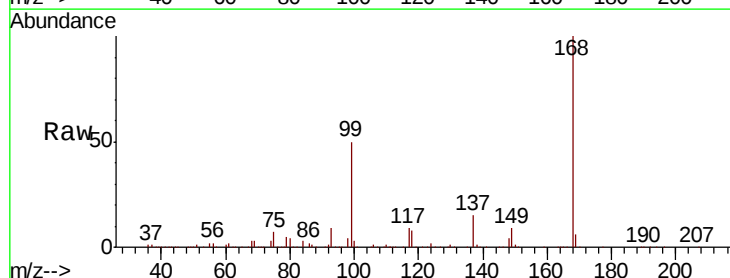
Instrument :  
 MSVOA\_W  
 ClientSampleId :

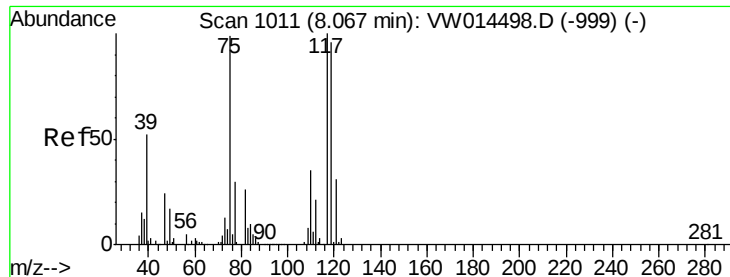
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 103.2 | 81.4  | 122.2 |
| 192     | 22.3  | 17.8  | 26.8  |



#36  
 1,1-Dichloropropene  
 Concen: 4.505 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.13 min  
 Lab File: VW014547.D  
 Acq: 07 Jan 2020 15:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 10.0  | 17.8  | 53.5# |
| 77      | 0.6   | 24.7  | 37.1# |





#38

Carbon Tetrachloride

Concen: 6.821 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.12 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

Instrument :

MSVOA\_W

ClientSampleId :

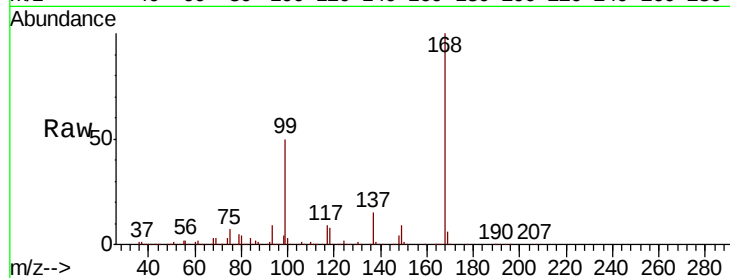
Tot Ion:117 Resp: 62673

Ion Ratio Lower Upper

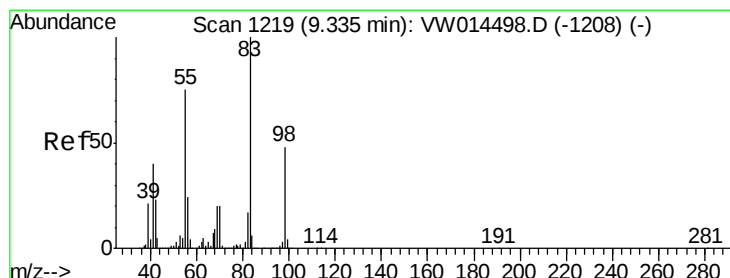
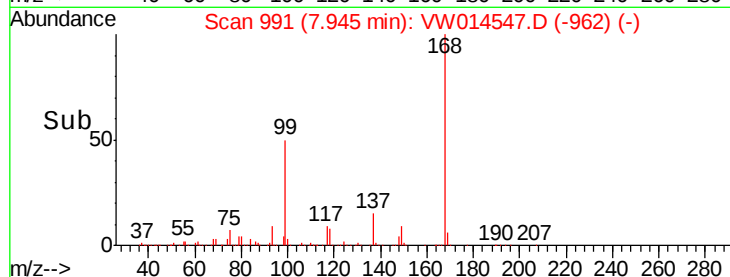
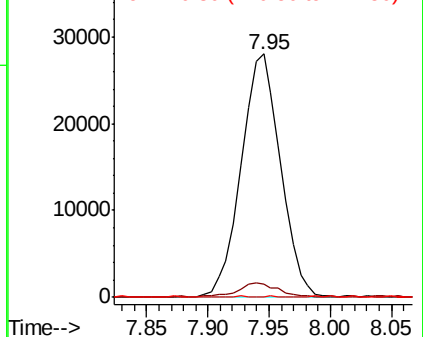
117 100

119 5.1 77.0 115.6#

121 0.3 24.6 36.8#



Abundance Ion 116.80 (116.50 to 117.50): V  
Ion 118.80 (118.50 to 119.50): V  
Ion 120.80 (120.50 to 121.50): V



#39

Methylcyclohexane

Concen: 8.464 ug/l

RT: 9.09 min Scan# 1178

Delta R.T. -0.25 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

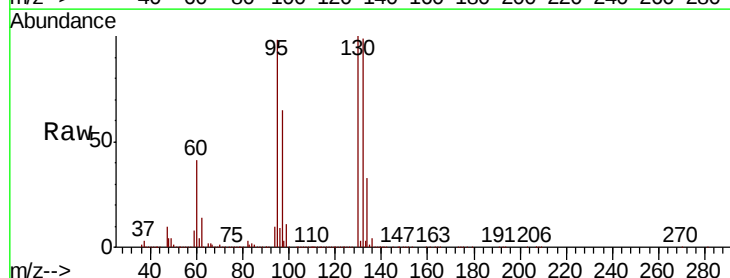
Tgt Ion: 83 Resp: 115035

Ion Ratio Lower Upper

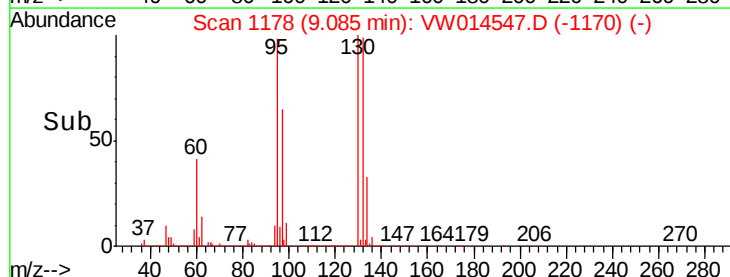
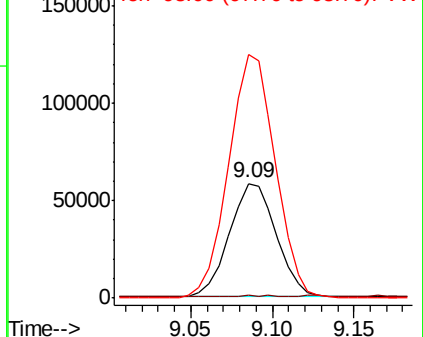
83 100

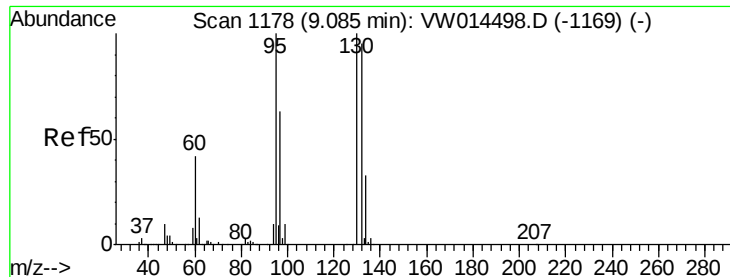
55 0.8 60.1 90.1#

98 214.6 38.8 58.2#



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





#44

Trichloroethene

Concen: 1254.521 ug/l

RT: 9.09 min Scan# 1179

Delta R.T. 0.01 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

Instrument :

MSVOA\_W

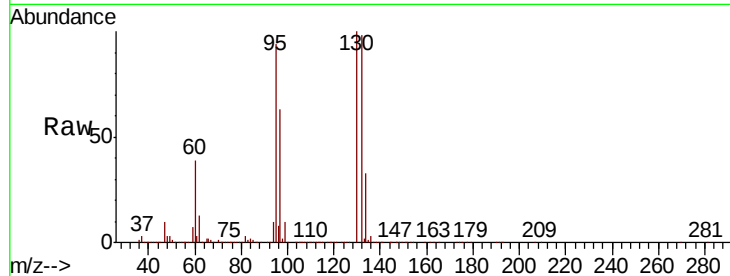
ClientSampled :

Tot Ion:130 Resp:10172267

Ion Ratio Lower Upper

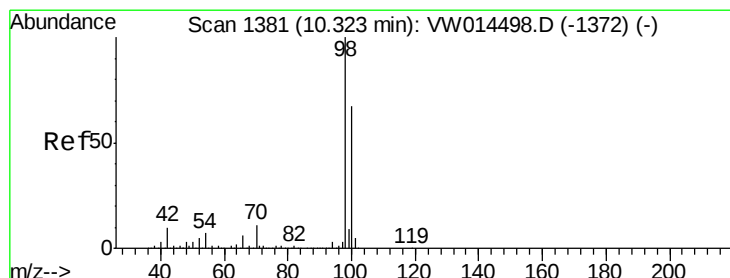
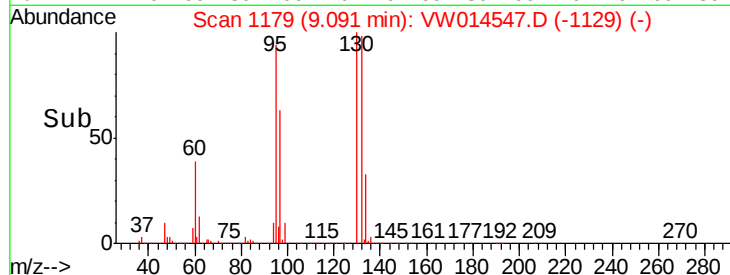
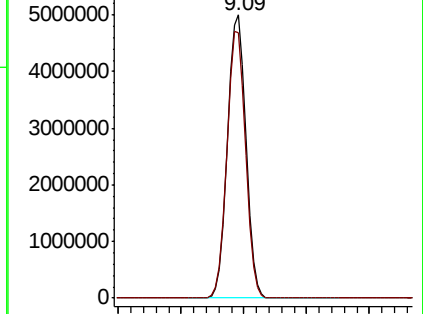
130 100

95 93.6 0.0 199.4



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VW



#50

Toluene-d8

Concen: 47.150 ug/l

RT: 10.32 min Scan# 1381

Delta R.T. -0.00 min

Lab File: VW014547.D

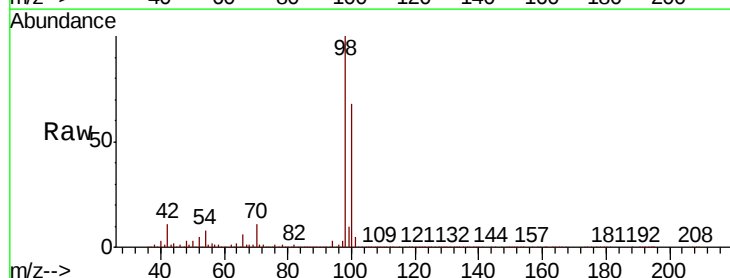
Acq: 07 Jan 2020 15:22

Tgt Ion: 98 Resp: 1235457

Ion Ratio Lower Upper

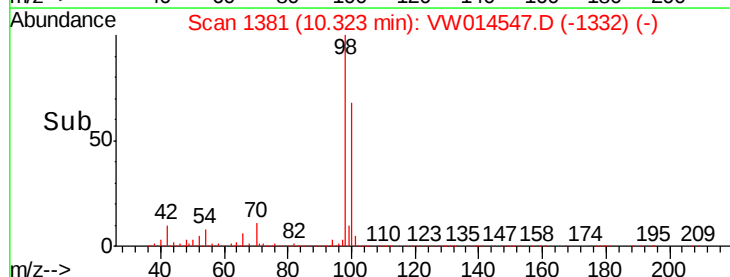
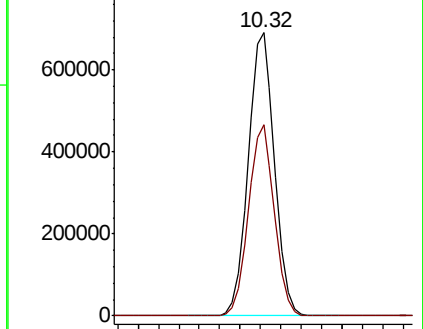
98 100

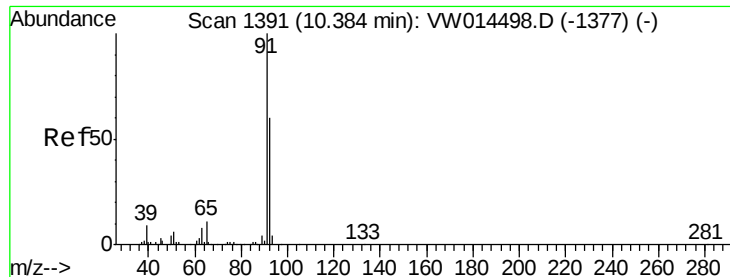
100 66.7 53.8 80.6



Abundance Ion 98.00 (97.70 to 98.70): VW

Ion 100.00 (99.70 to 100.70): VW





#52

Toluene

Concen: 1.240 ug/l

RT: 10.38 min Scan# 1391

Delta R.T. -0.00 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

Instrument :

MSVOA\_W

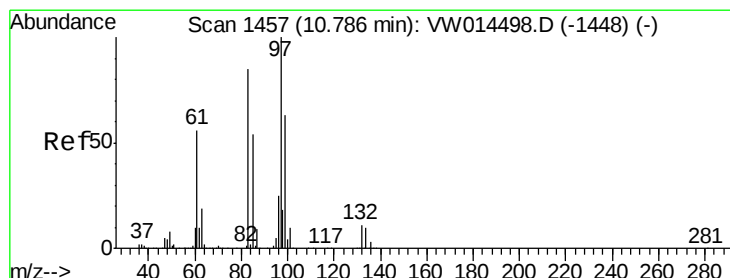
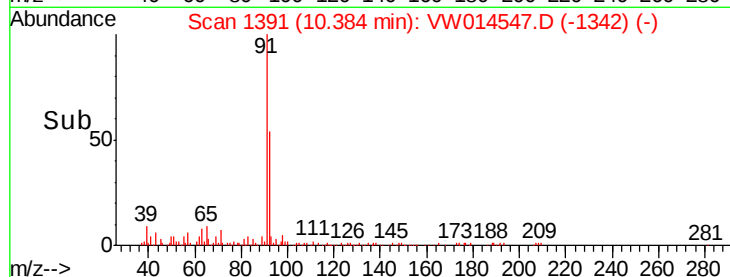
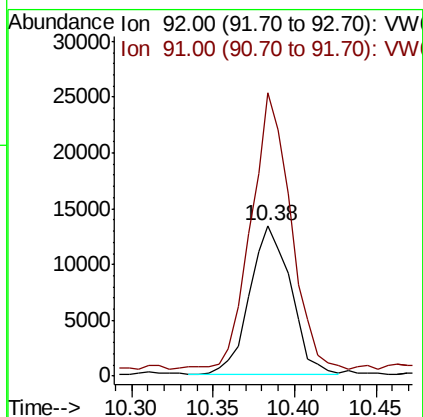
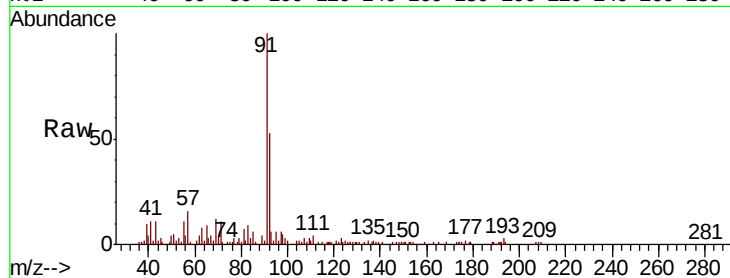
ClientSampleId :

Tot Ion: 92 Resp: 23371

Ion Ratio Lower Upper

92 100

91 178.3 134.1 201.1



#55

1,1,2-Trichloroethane

Concen: 2.381 ug/l

RT: 10.79 min Scan# 1457

Delta R.T. -0.00 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

Tgt Ion: 97 Resp: 12622

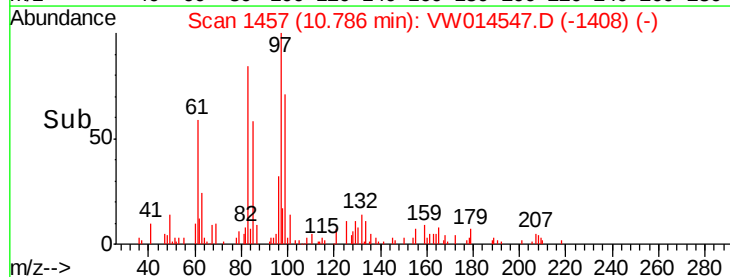
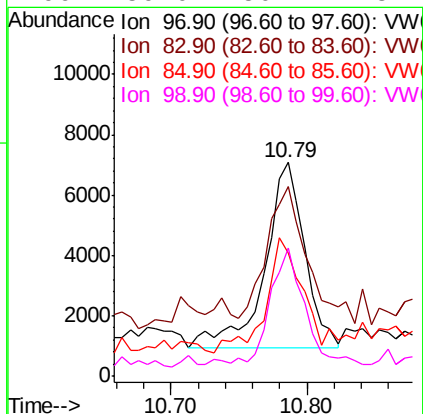
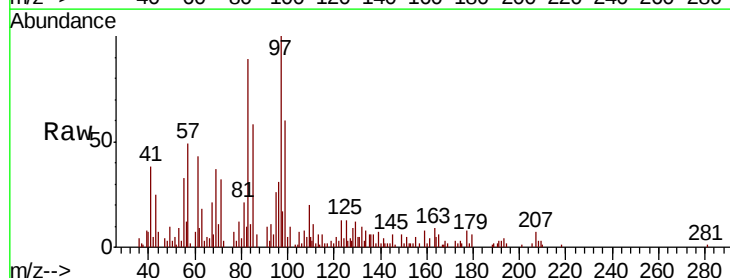
Ion Ratio Lower Upper

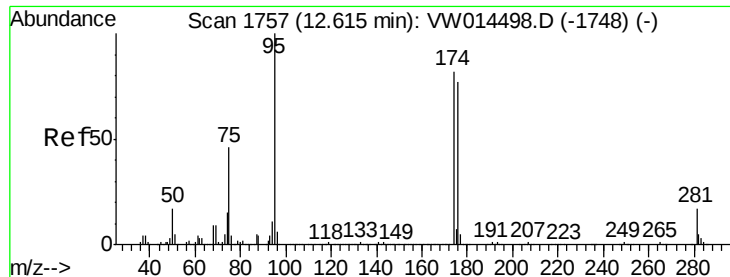
97 100

83 65.0 68.2 102.4#

85 48.4 43.0 64.4

99 59.0 50.1 75.1





#62

4-Bromofluorobenzene

Concen: 48.043 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. -0.00 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

Instrument :

MSVOA\_W

ClientSampleId :

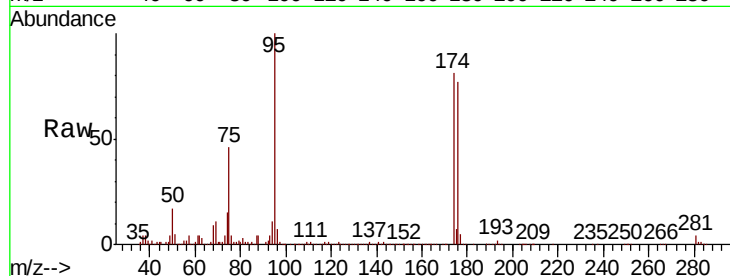
Tot Ion: 95 Resp: 426986

Ion Ratio Lower Upper

95 100

174 80.7 0.0 168.6

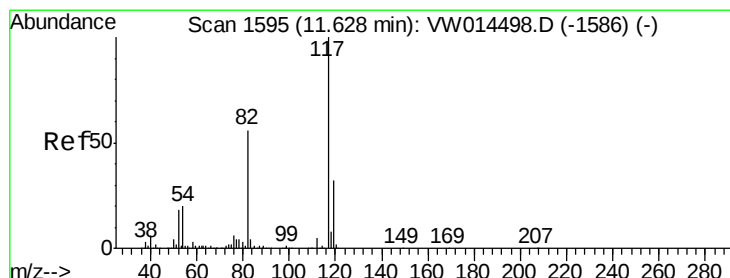
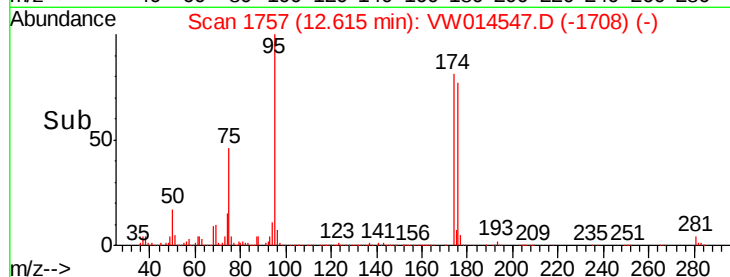
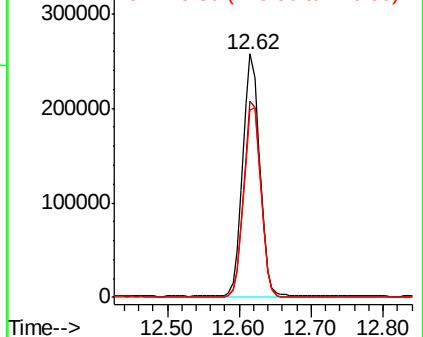
176 77.7 0.0 162.0



Abundance Ion 94.90 (94.60 to 95.60): VW

Ion 173.80 (173.50 to 174.50): VW

Ion 175.80 (175.50 to 176.50): VW



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.63 min Scan# 1595

Delta R.T. -0.00 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

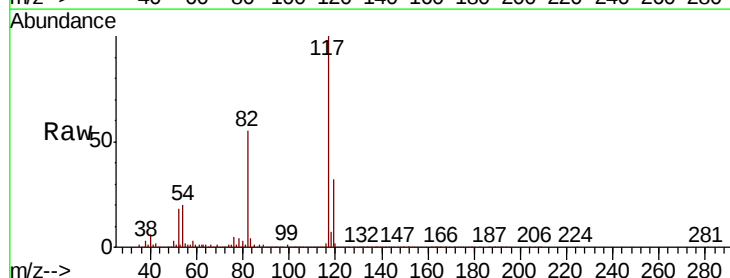
Tgt Ion: 117 Resp: 937777

Ion Ratio Lower Upper

117 100

82 54.9 44.6 67.0

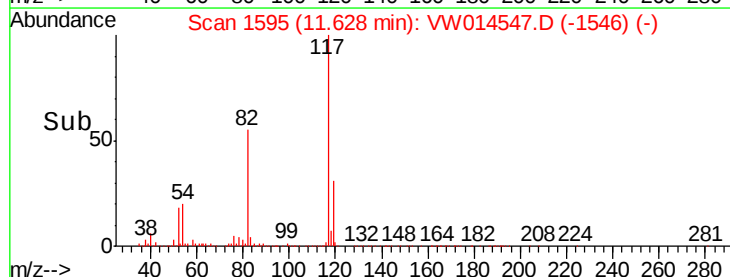
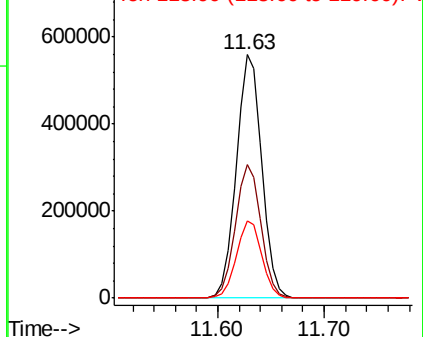
119 31.5 25.7 38.5

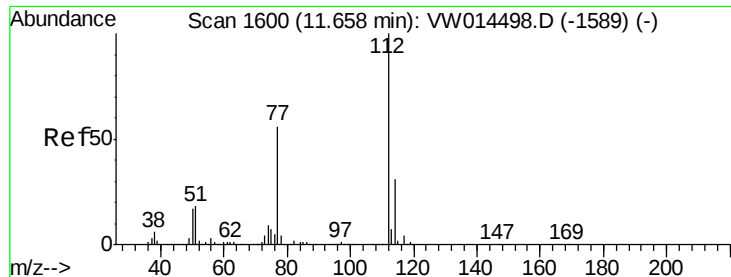


Abundance Ion 116.90 (116.60 to 117.60): VW

Ion 82.00 (81.70 to 82.70): VW

Ion 118.90 (118.60 to 119.60): VW





#65

Chlorobenzene

Concen: 1.266 ug/l

RT: 11.65 min Scan# 1599

Delta R.T. -0.01 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

Instrument :

MSVOA\_W

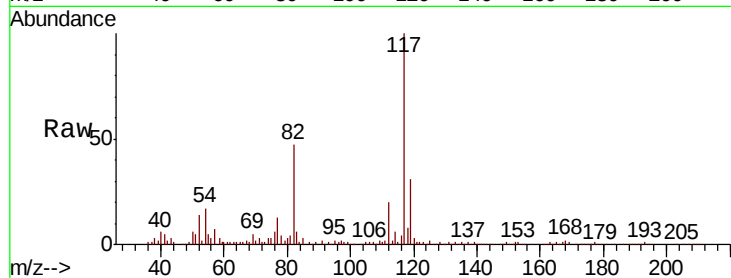
ClientSampleId :

Tot Ion:112 Resp: 24319

Ion Ratio Lower Upper

112 100

114 31.0 24.6 37.0



Abundance Ion 111.90 (111.60 to 112.60): V

Ion 113.90 (113.60 to 114.60): V

11.65

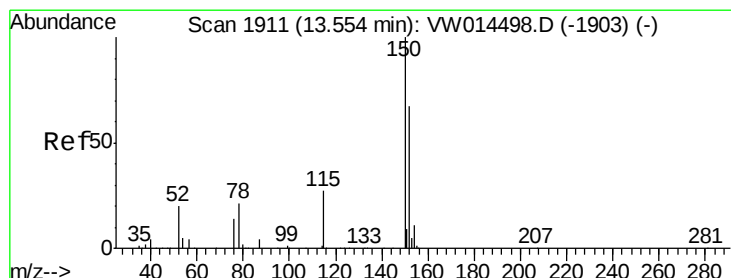
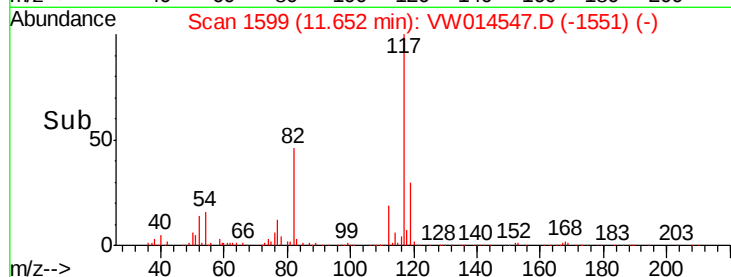
15000

10000

5000

0

Time-->



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.55 min Scan# 1911

Delta R.T. -0.00 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

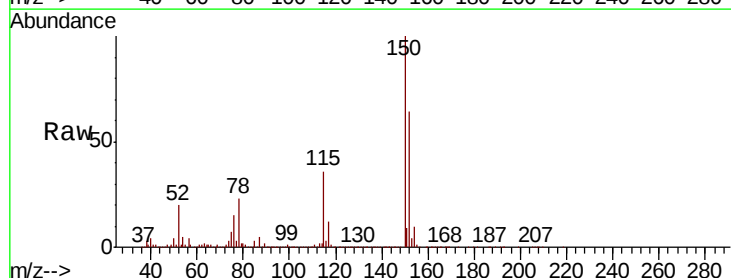
Tgt Ion:152 Resp: 429677

Ion Ratio Lower Upper

152 100

115 56.3 27.7 83.1

150 156.3 0.0 343.4



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

13.55

500000

400000

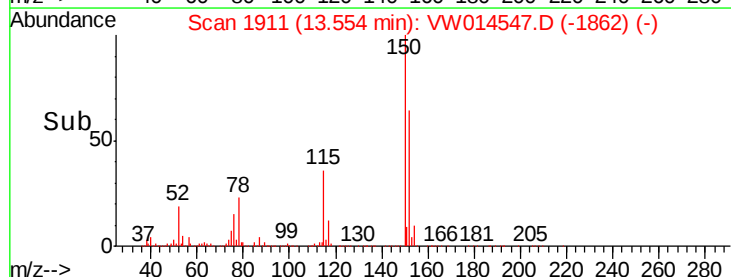
300000

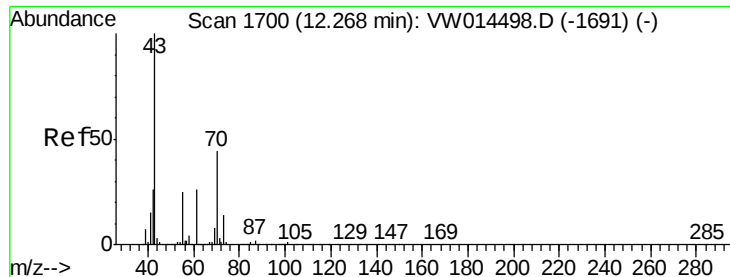
200000

100000

0

Time-->





#74

N-amvl acetate

Concen: 1.071 ug/l

RT: 12.26 min Scan# 1698

Delta R.T. -0.01 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

Instrument :

MSVOA\_W

ClientSampled :

Tot Ion: 43 Resp: 7571

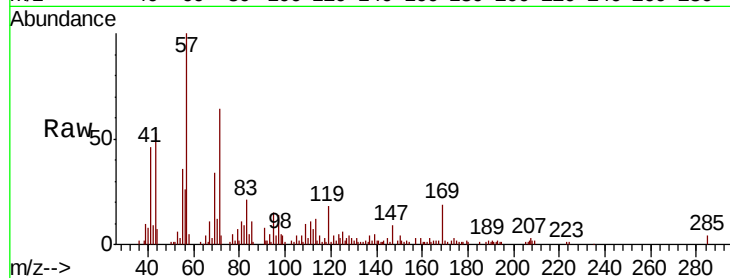
Ion Ratio Lower Upper

43 100

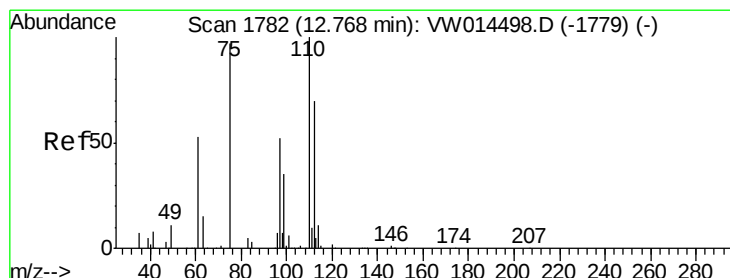
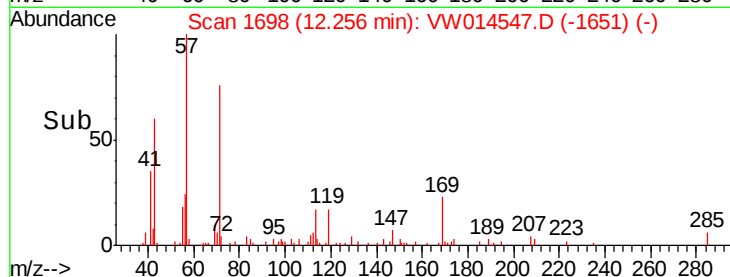
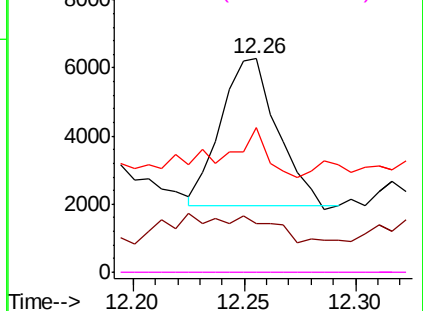
70 0.0 36.5 54.7#

55 17.1 20.9 31.3#

61 0.0 20.7 31.1#



Abundance Ion 43.00 (42.70 to 43.70): VW  
Ion 70.00 (69.70 to 70.70): VW  
Ion 55.00 (54.70 to 55.70): VW  
Ion 61.00 (60.70 to 61.70): VW



#76

1,2,3-Trichloropropane

Concen: 47.056 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. -0.15 min

Lab File: VW014547.D

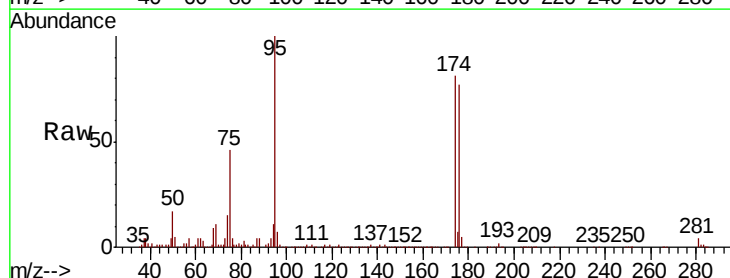
Acq: 07 Jan 2020 15:22

Tgt Ion: 75 Resp: 191168

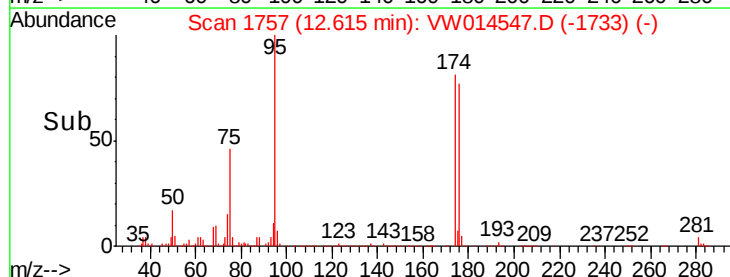
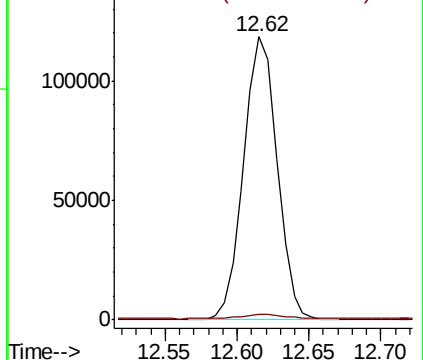
Ion Ratio Lower Upper

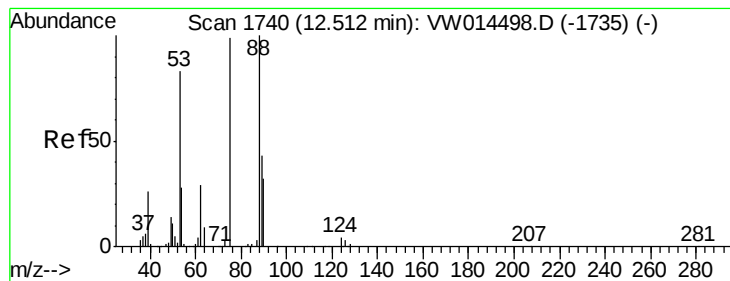
75 100

77 1.9 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VW  
Ion 77.00 (76.70 to 77.70): VW





#81

trans-1,4-Dichloro-2-butene

Concen: 104.844 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. 0.10 min

Lab File: VW014547.D

Acq: 07 Jan 2020 15:22

Instrument :

MSVOA\_W

ClientSampleId :

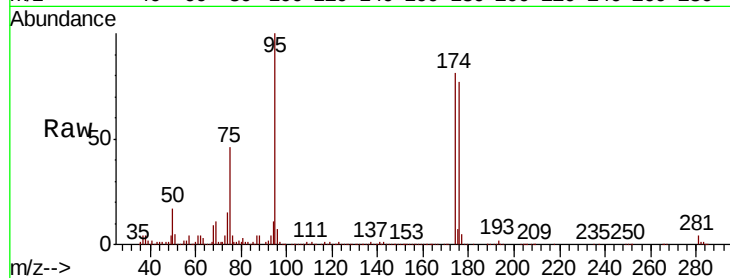
Tot Ion: 75 Resp: 191168

Ion Ratio Lower Upper

75 100

53 0.1 70.9 106.3#

89 0.0 35.8 53.8#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 53.00 (52.70 to 53.70): VW

Ion 88.90 (88.60 to 89.60): VW

