

Data File : VW012166.D  
Acq On : 26 Aug 2019 12:31  
Operator : SY/VA  
Sample : K4477-11  
Misc : 6.18G/5ML/MSVOA\_W/SOIL  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
MSVOA\_W  
ClientSampleId :  
TP-2(1-3)

Quant Time: Aug 27 04:50:07 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W082319S.M  
Quant Title : SW846 8260  
QLast Update : Mon Aug 26 07:18:31 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 213229   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 360002   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 304294   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 126034   | 50.00 | ug/l  | 0.00     |

System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 138766   | 54.74 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 109.48% |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 111749   | 52.00 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.00% |      |
| 50) Toluene-d8            | 10.32  | 98  | 441150   | 50.63 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.26% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 142438   | 46.38 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 92.76%  |      |

Target Compounds

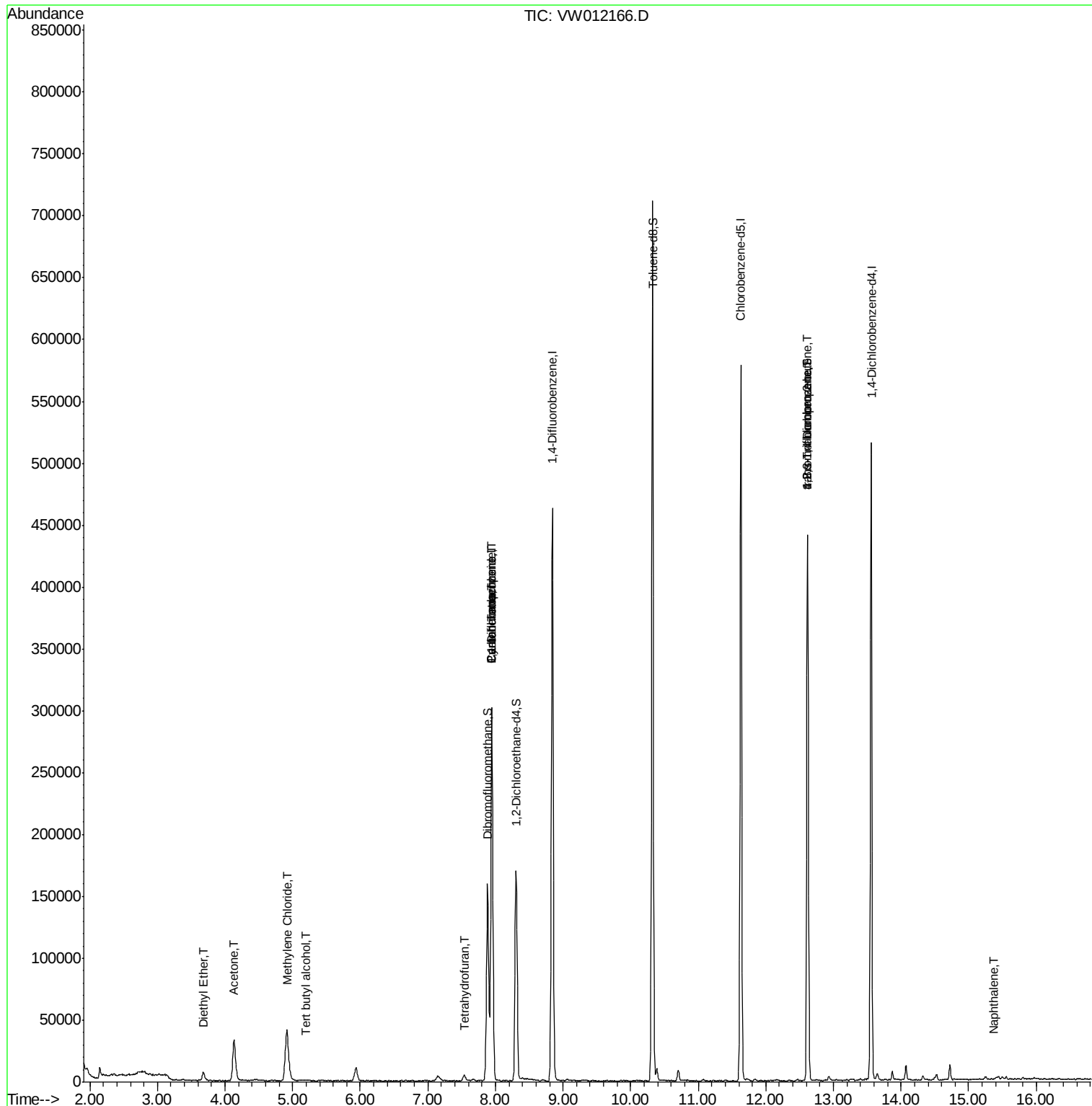
|                                |       |     |       |         |        | Qvalue |
|--------------------------------|-------|-----|-------|---------|--------|--------|
| 8) Diethyl Ether               | 3.68  | 74  | 3478  | 2.931   | ug/l   | 89     |
| 11) Tert butyl alcohol         | 5.20  | 59  | 745   | 4.884   | ug/l # | 79     |
| 16) Acetone                    | 4.14  | 43  | 67226 | 103.753 | ug/l   | 94     |
| 20) Methylene Chloride         | 4.92  | 84  | 31097 | 12.695  | ug/l   | 97     |
| 29) Tetrahydrofuran            | 7.54  | 42  | 4087  | 7.737   | ug/l   | 96     |
| 31) Cyclohexane                | 7.95  | 56  | 5355  | 1.173   | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.95  | 75  | 18623 | 5.006   | ug/l # | 51     |
| 38) Carbon Tetrachloride       | 7.95  | 117 | 21423 | 6.653   | ug/l # | 17     |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75  | 77160 | 62.860  | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75  | 77160 | 137.824 | ug/l # | 6      |
| 95) Naphthalene                | 15.37 | 128 | 456   | 4.409   | ug/l # | 69     |

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

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#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 991

Delta R.T. 0.00 min

Lab File: VW012166.D

Acq: 26 Aug 2019 12:31

Instrument :

MSVOA\_W

ClientSampleId :

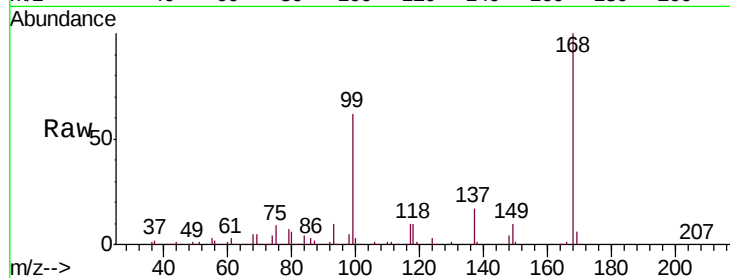
TP-2(1-3)

Tgt Ion:168 Resp: 213229

Ion Ratio Lower Upper

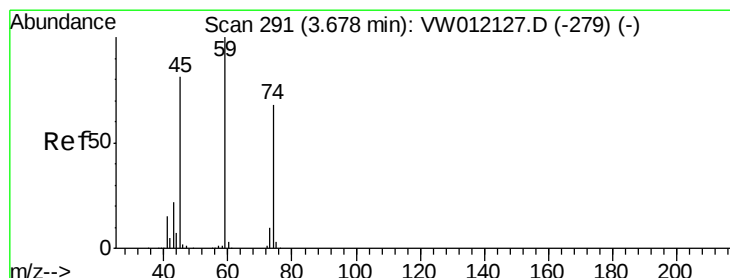
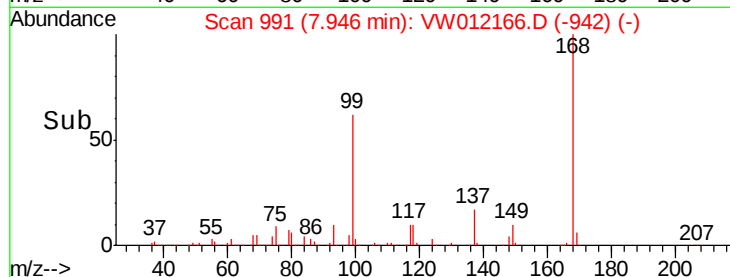
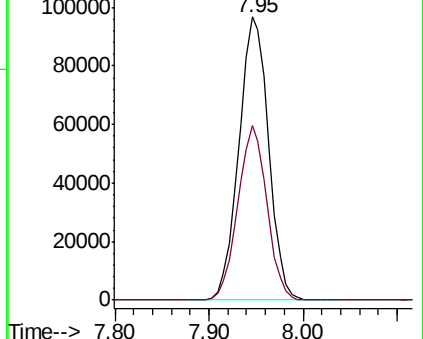
168 100

99 61.8 49.2 73.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW



#8

Diethyl Ether

Concen: 2.931 ug/l

RT: 3.68 min Scan# 291

Delta R.T. 0.00 min

Lab File: VW012166.D

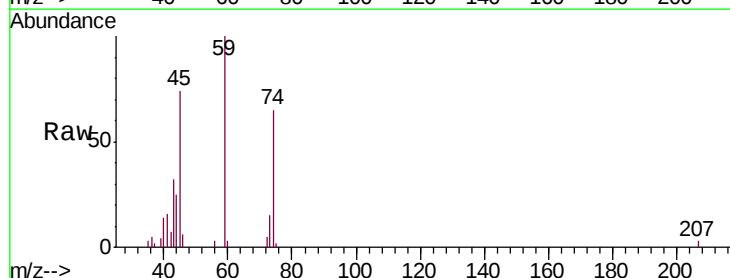
Acq: 26 Aug 2019 12:31

Tgt Ion: 74 Resp: 3478

Ion Ratio Lower Upper

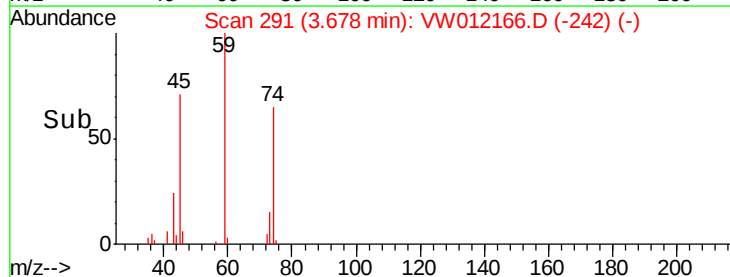
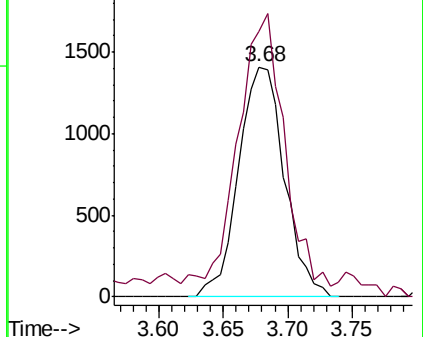
74 100

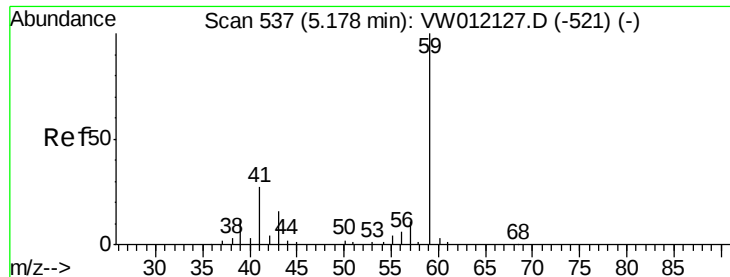
45 130.4 59.2 177.6



Abundance Ion 74.00 (73.70 to 74.70): VW

Ion 45.00 (44.70 to 45.70): VW

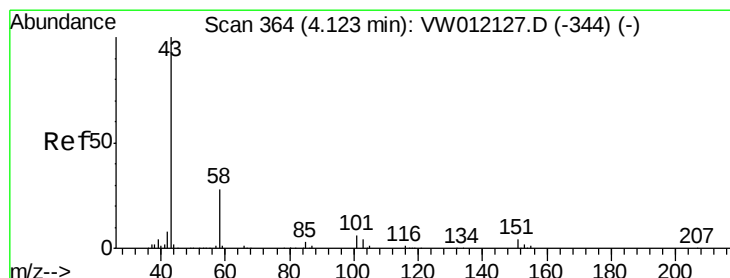
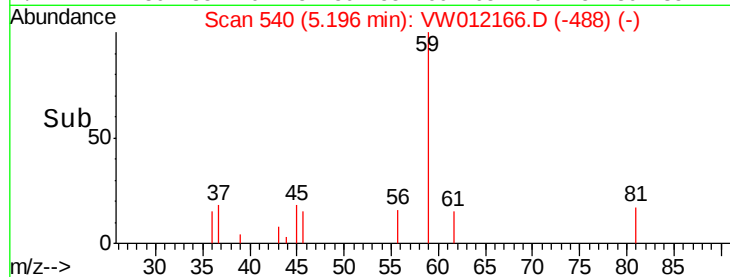
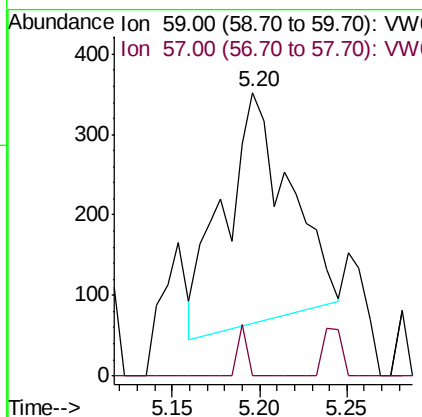
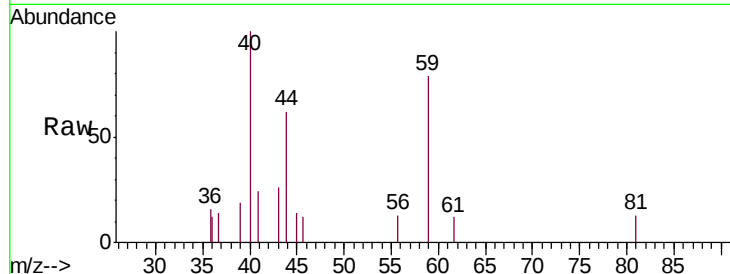




#11  
 Tert butyl alcohol  
 Concen: 4.884 ug/l  
 RT: 5.20 min Scan# 540  
 Delta R.T. 0.02 min  
 Lab File: VW012166.D  
 Acq: 26 Aug 2019 12:31

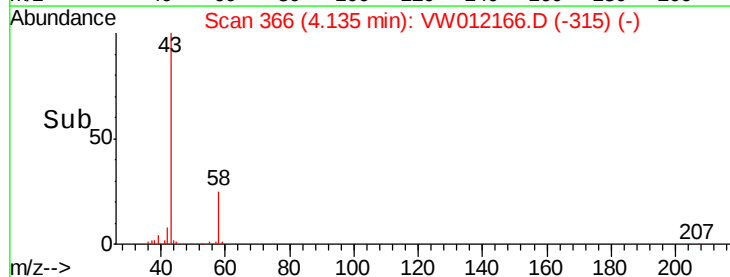
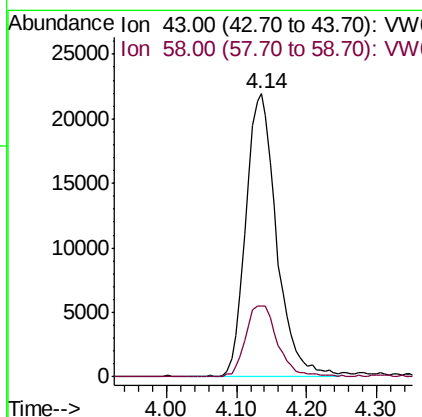
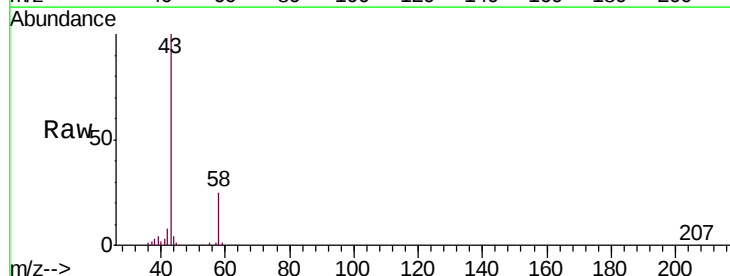
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 TP-2(1-3)

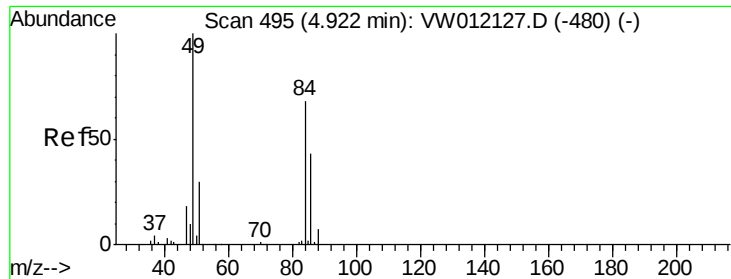
Tgt Ion: 59 Resp: 745  
 Ion Ratio Lower Upper  
 59 100  
 57 3.1 9.0 13.4#



#16  
 Acetone  
 Concen: 103.753 ug/l  
 RT: 4.14 min Scan# 366  
 Delta R.T. 0.01 min  
 Lab File: VW012166.D  
 Acq: 26 Aug 2019 12:31

Tgt Ion: 43 Resp: 67226  
 Ion Ratio Lower Upper  
 43 100  
 58 25.0 22.4 33.6

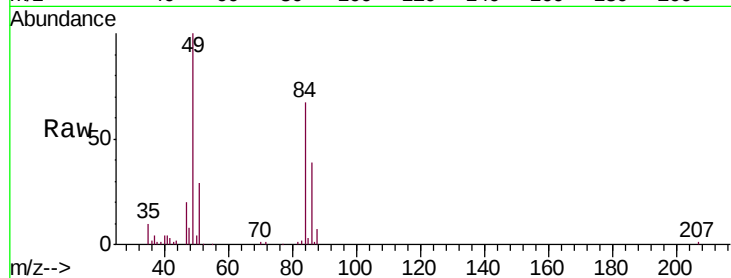




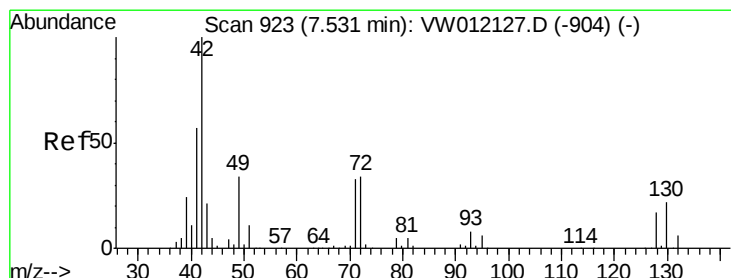
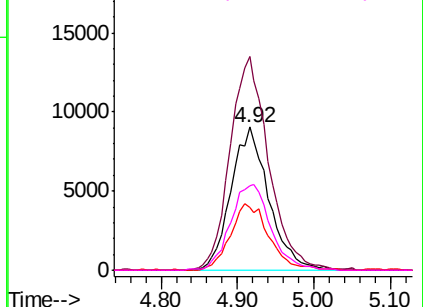
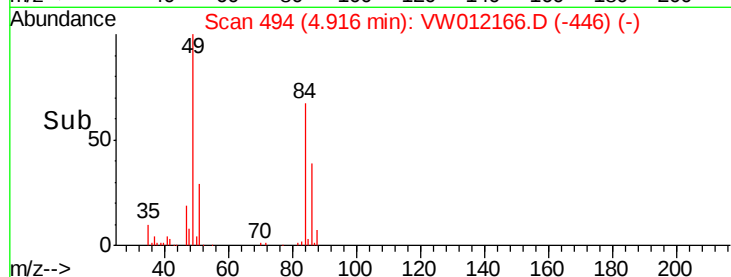
#20  
Methylene Chloride  
Concen: 12.695 ug/l  
RT: 4.92 min Scan# 494  
Delta R.T. -0.01 min  
Lab File: VW012166.D  
Acq: 26 Aug 2019 12:31

Instrument :  
MSVOA\_W  
ClientSampleId :  
TP-2(1-3)

Tgt Ion: 84 Resp: 31097  
Ion Ratio Lower Upper  
84 100  
49 149.4 117.8 176.8  
51 43.6 35.6 53.4  
86 58.9 51.2 76.8

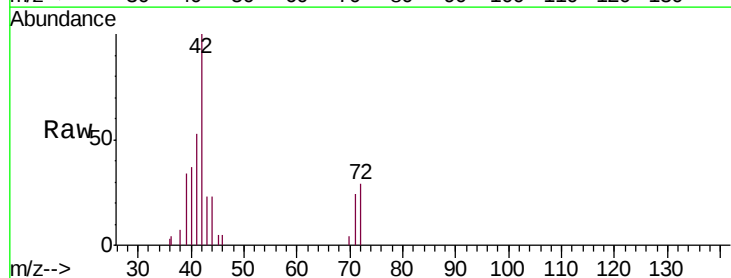


Abundance Ion 83.90 (83.60 to 84.60): VW  
Ion 48.90 (48.60 to 49.60): VW  
Ion 50.90 (50.60 to 51.60): VW  
Ion 85.90 (85.60 to 86.60): VW

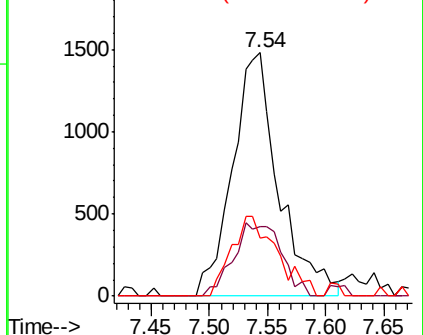
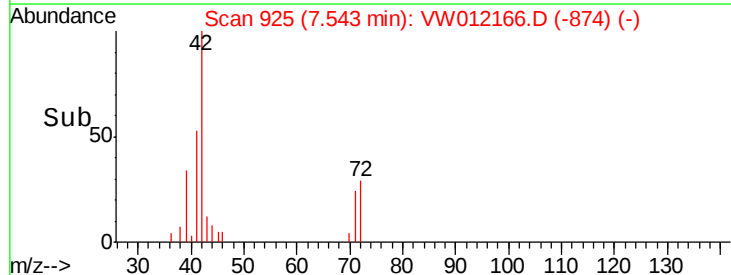


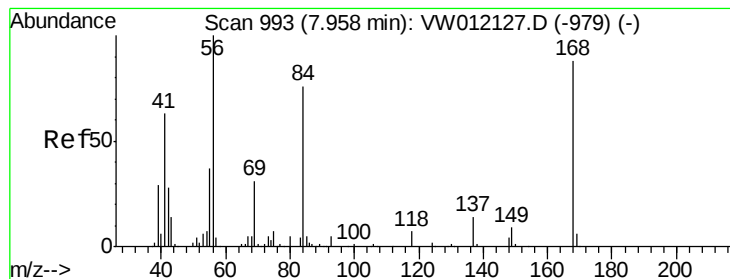
#29  
Tetrahydrofuran  
Concen: 7.737 ug/l  
RT: 7.54 min Scan# 925  
Delta R.T. 0.01 min  
Lab File: VW012166.D  
Acq: 26 Aug 2019 12:31

Tgt Ion: 42 Resp: 4087  
Ion Ratio Lower Upper  
42 100  
72 30.9 27.3 40.9  
71 32.7 25.5 38.3



Abundance Ion 42.00 (41.70 to 42.70): VW  
Ion 72.00 (71.70 to 72.70): VW  
Ion 71.00 (70.70 to 71.70): VW





#31

Cyclohexane

Concen: 1.173 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.01 min

Lab File: VW012166.D

Acq: 26 Aug 2019 12:31

Instrument :

MSVOA\_W

ClientSampled :

TP-2(1-3)

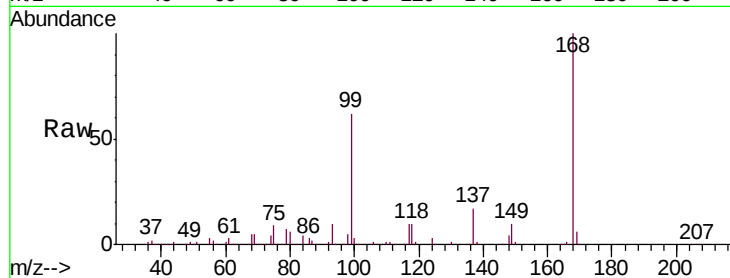
Tgt Ion: 56 Resp: 5355

Ion Ratio Lower Upper

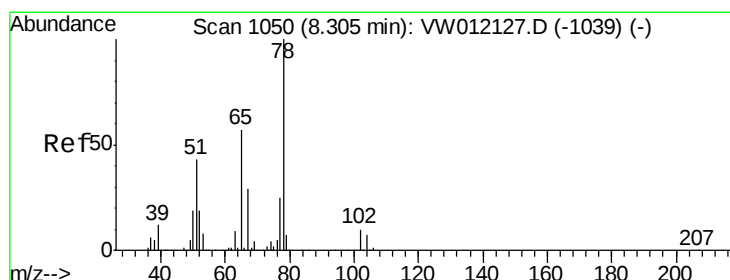
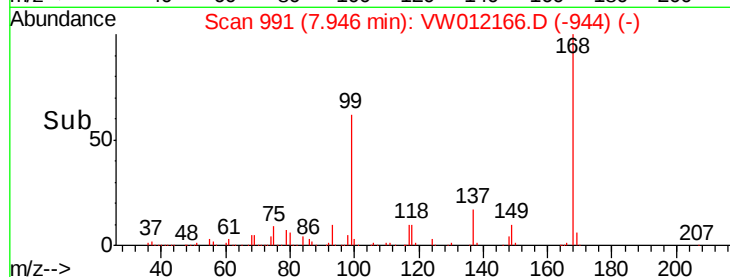
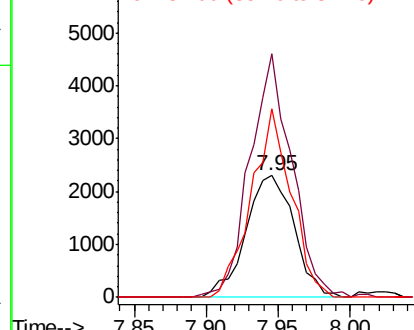
56 100

69 200.5 24.9 37.3#

84 155.6 60.6 90.8#



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



#33

1,2-Dichloroethane-d4

Concen: 54.745 ug/l

RT: 8.31 min Scan# 1050

Delta R.T. 0.00 min

Lab File: VW012166.D

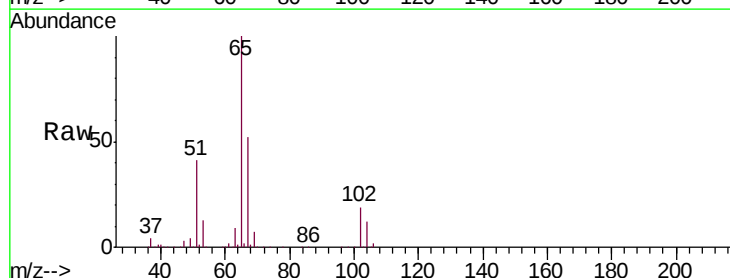
Acq: 26 Aug 2019 12:31

Tgt Ion: 65 Resp: 138766

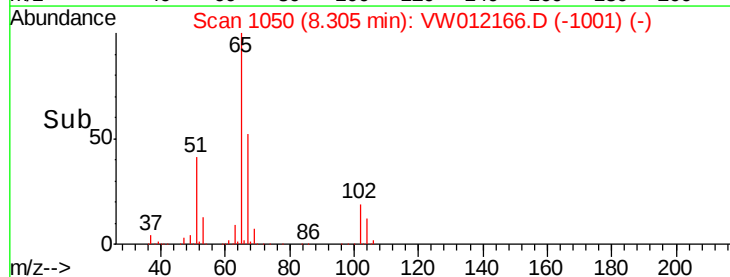
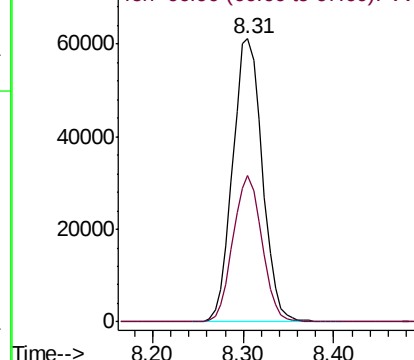
Ion Ratio Lower Upper

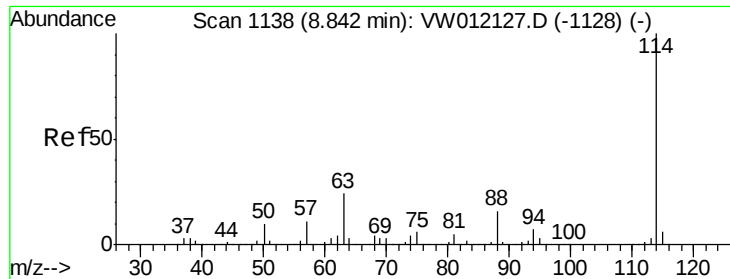
65 100

67 50.6 0.0 102.6



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

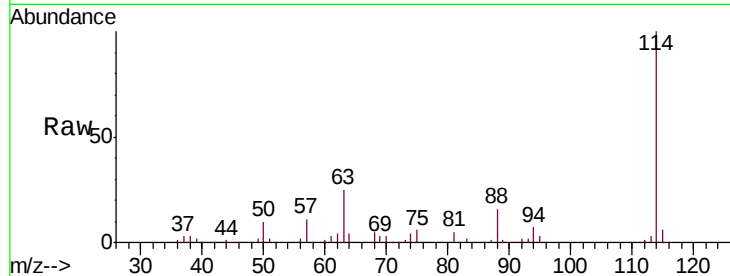




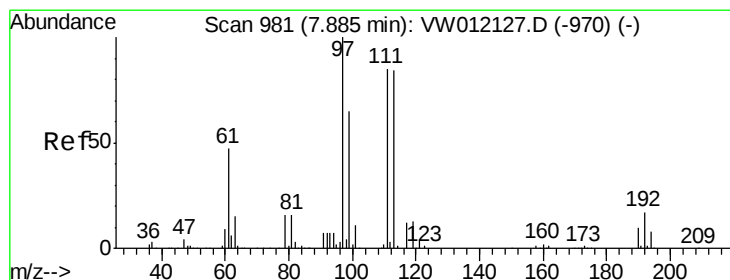
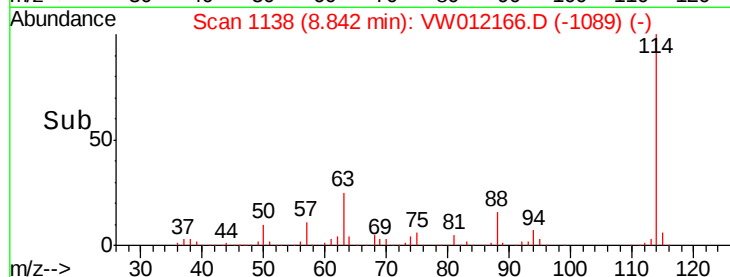
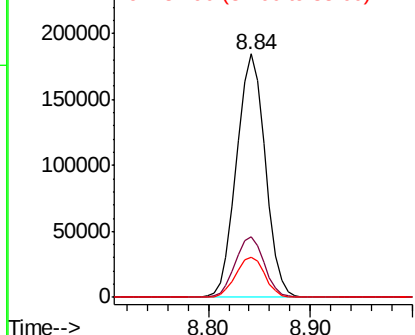
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.84 min Scan# 1138  
 Delta R.T. 0.00 min  
 Lab File: VW012166.D  
 Acq: 26 Aug 2019 12:31

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 TP-2(1-3)

Tgt Ion:114 Resp: 360002  
 Ion Ratio Lower Upper  
 114 100  
 63 25.0 0.0 48.6  
 88 16.4 0.0 32.2

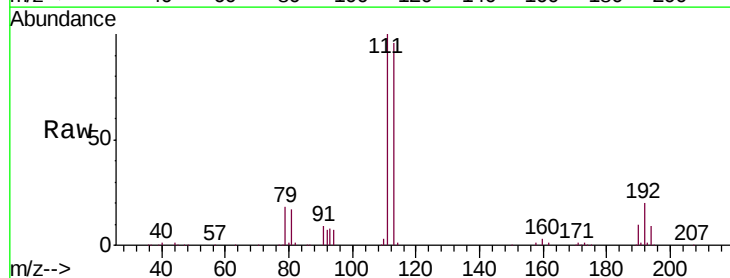


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VW  
 Ion 87.90 (87.60 to 88.60): VW

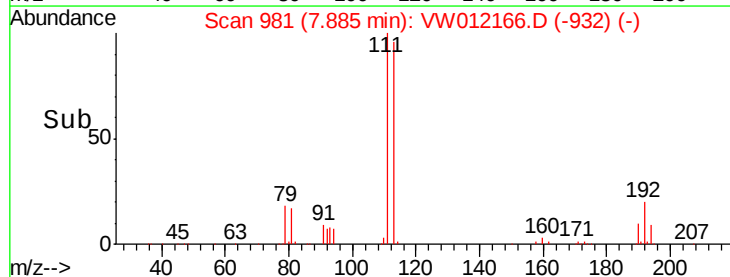
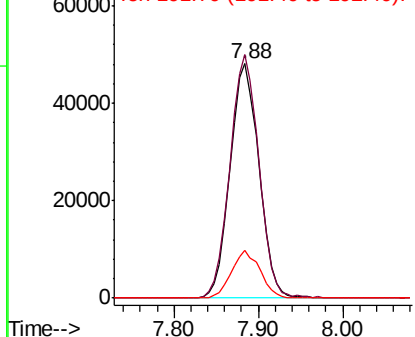


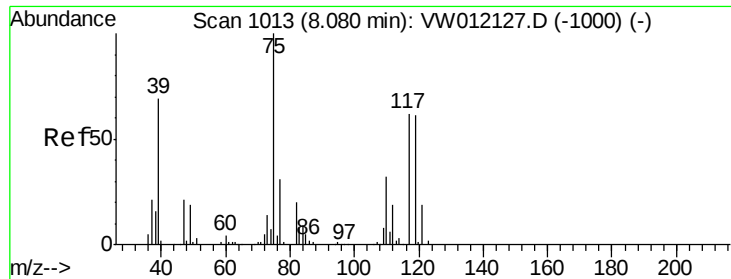
#35  
 Dibromofluoromethane  
 Concen: 52.004 ug/l  
 RT: 7.88 min Scan# 981  
 Delta R.T. 0.00 min  
 Lab File: VW012166.D  
 Acq: 26 Aug 2019 12:31

Tgt Ion:113 Resp: 111749  
 Ion Ratio Lower Upper  
 113 100  
 111 103.9 82.7 124.1  
 192 20.2 16.2 24.2



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

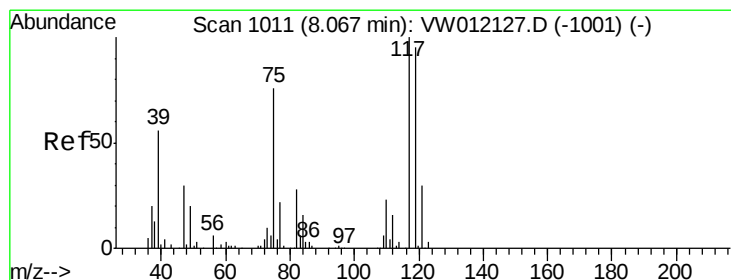
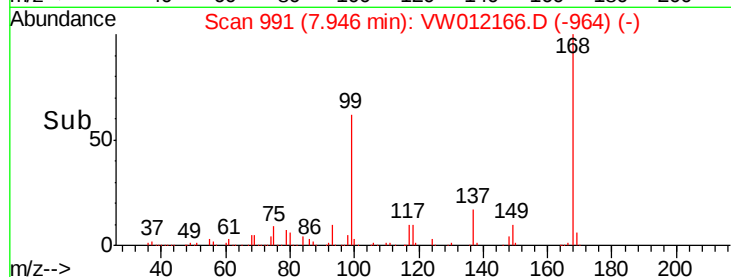
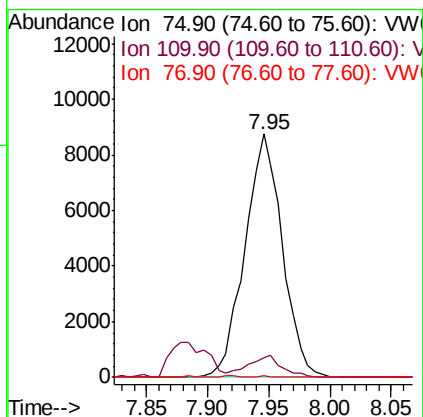
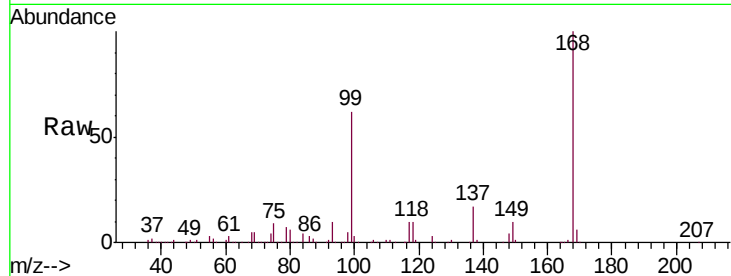




#36  
 1,1-Dichloropropene  
 Concen: 5.006 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.13 min  
 Lab File: VW012166.D  
 Acq: 26 Aug 2019 12:31

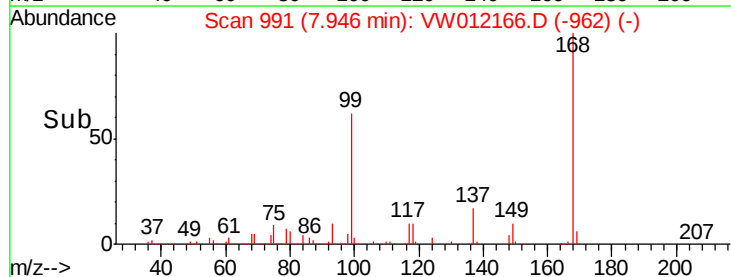
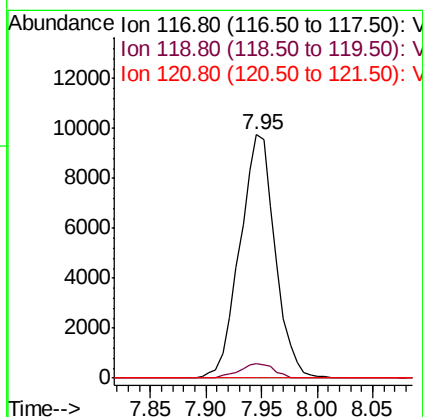
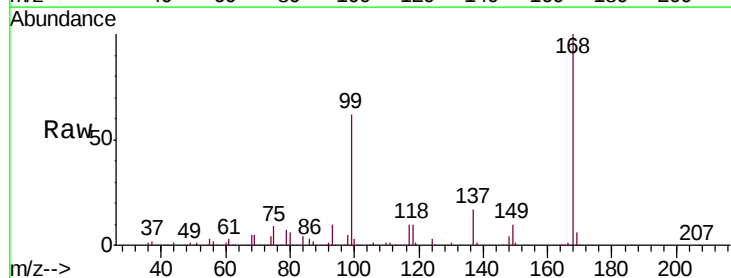
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 TP-2(1-3)

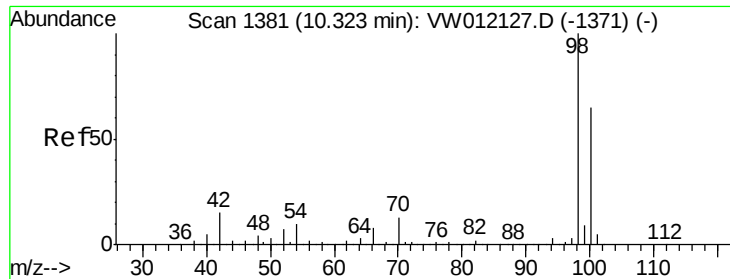
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.2   | 15.6  | 46.8# |
| 77      | 0.1   | 24.6  | 36.8# |



#38  
 Carbon Tetrachloride  
 Concen: 6.653 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.12 min  
 Lab File: VW012166.D  
 Acq: 26 Aug 2019 12:31

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 6.2   | 76.2  | 114.2# |
| 121     | 0.0   | 23.8  | 35.8#  |





#50

Toluene-d8

Concen: 50.631 ug/l

RT: 10.32 min Scan# 1381

Delta R.T. 0.00 min

Lab File: VW012166.D

Acq: 26 Aug 2019 12:31

Instrument :

MSVOA\_W

ClientSampled :

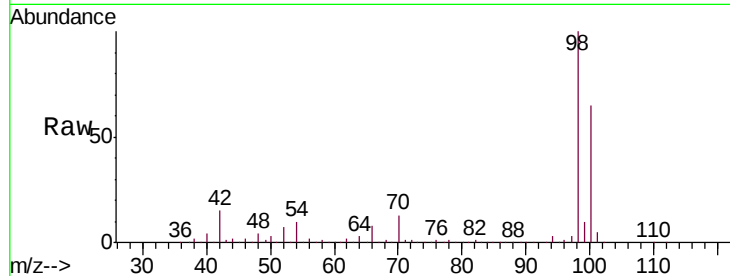
TP-2(1-3)

Tgt Ion: 98 Resp: 441150

Ion Ratio Lower Upper

98 100

100 64.6 52.4 78.6



Abundance Ion 98.00 (97.70 to 98.70): VW

Ion 100.00 (99.70 to 100.70): VW

300000

250000

200000

150000

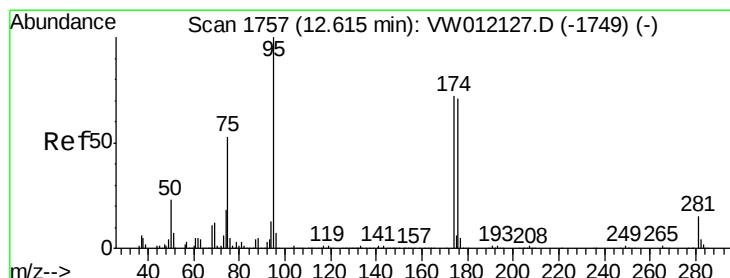
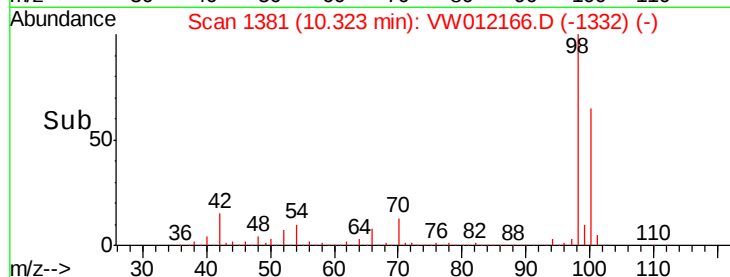
100000

50000

0

10.20 10.30 10.40 10.50

Time-->



#62

4-Bromofluorobenzene

Concen: 46.377 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. 0.00 min

Lab File: VW012166.D

Acq: 26 Aug 2019 12:31

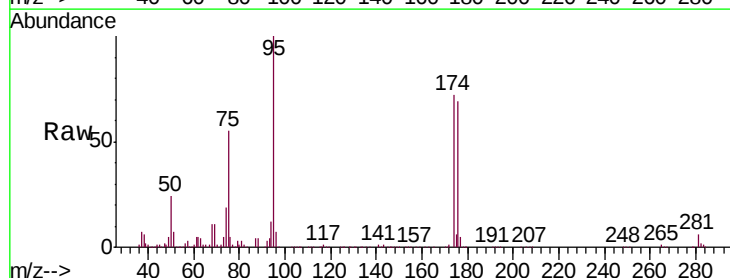
Tgt Ion: 95 Resp: 142438

Ion Ratio Lower Upper

95 100

174 75.5 0.0 150.8

176 73.2 0.0 148.6



Abundance Ion 94.90 (94.60 to 95.60): VW

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

120000

100000

80000

60000

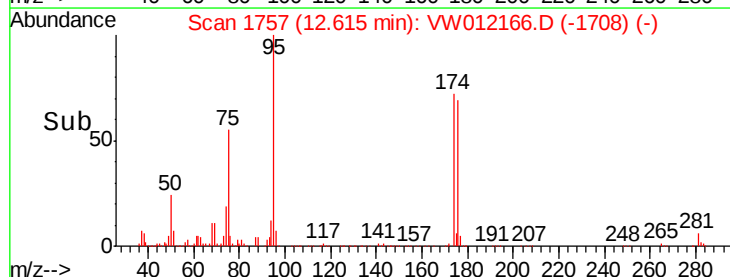
40000

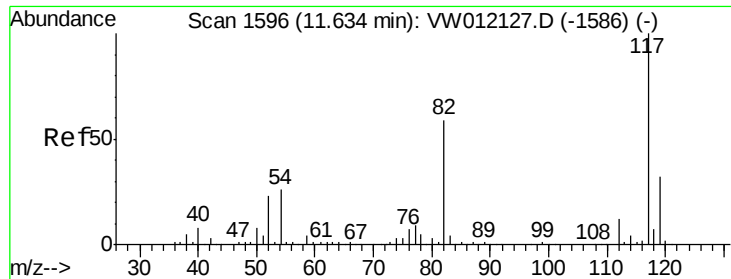
20000

0

12.50 12.60 12.70

Time-->

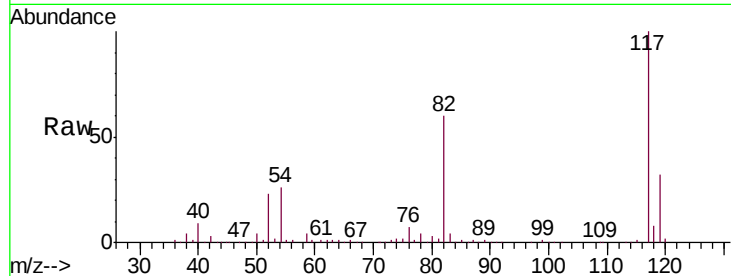




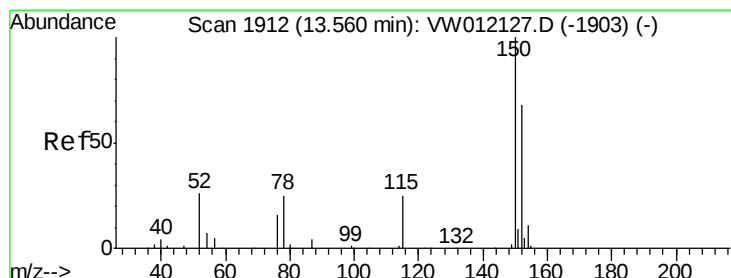
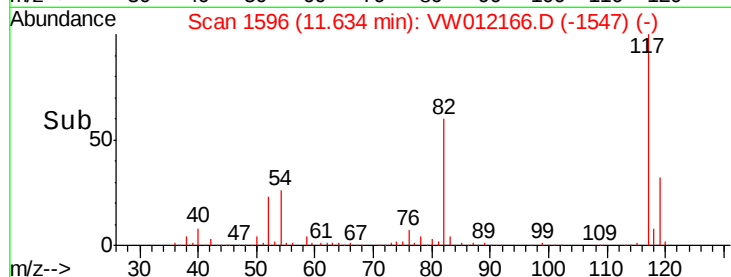
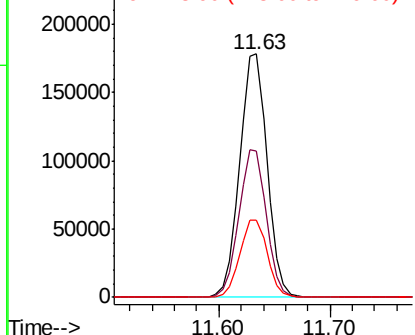
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1596  
Delta R.T. 0.00 min  
Lab File: VW012166.D  
Acq: 26 Aug 2019 12:31

Instrument :  
MSVOA\_W  
ClientSampleId :  
TP-2(1-3)

Tgt Ion:117 Resp: 304294  
Ion Ratio Lower Upper  
117 100  
82 60.2 47.4 71.2  
119 31.8 25.4 38.2

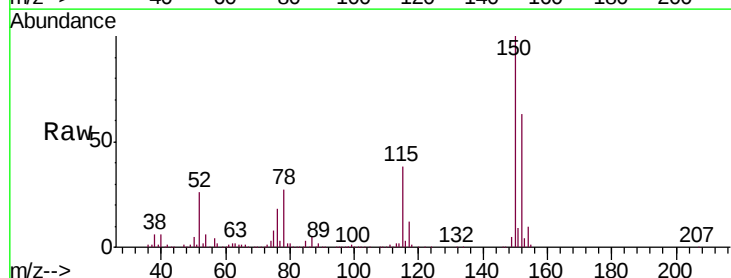


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VW  
Ion 118.90 (118.60 to 119.60): V

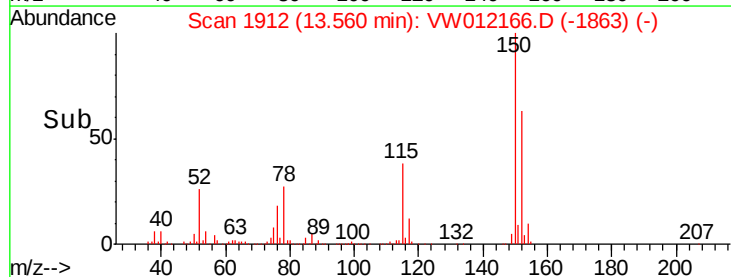
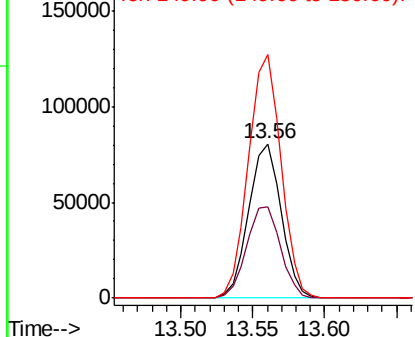


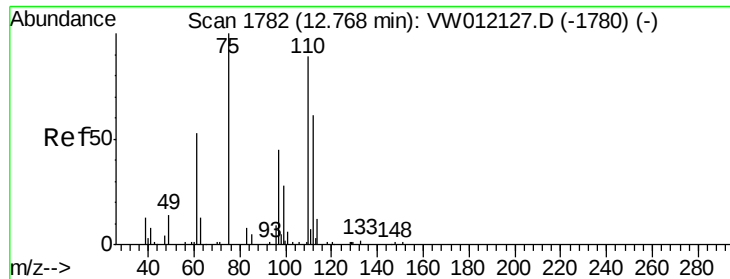
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.56 min Scan# 1912  
Delta R.T. 0.00 min  
Lab File: VW012166.D  
Acq: 26 Aug 2019 12:31

Tgt Ion:152 Resp: 126034  
Ion Ratio Lower Upper  
152 100  
115 61.6 30.1 90.3  
150 157.8 0.0 345.8



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

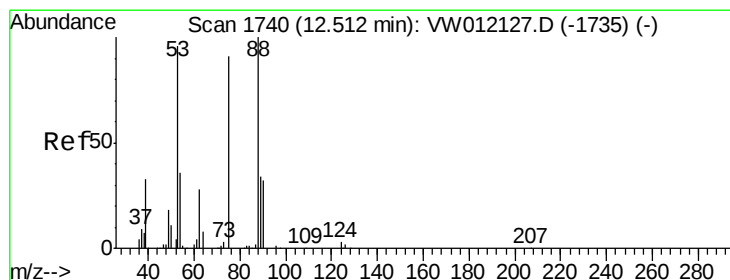
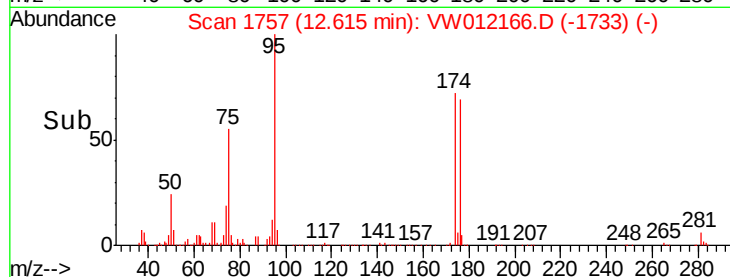
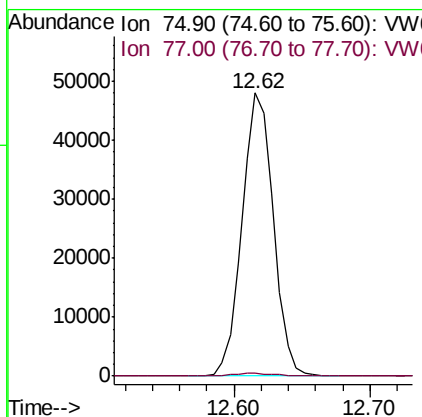
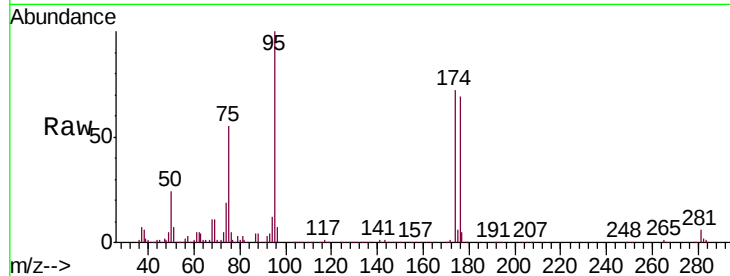




#76  
 1,2,3-Trichloropropane  
 Concen: 62.860 ug/l  
 RT: 12.62 min Scan# 1757  
 Delta R.T. -0.15 min  
 Lab File: VW012166.D  
 Acq: 26 Aug 2019 12:31

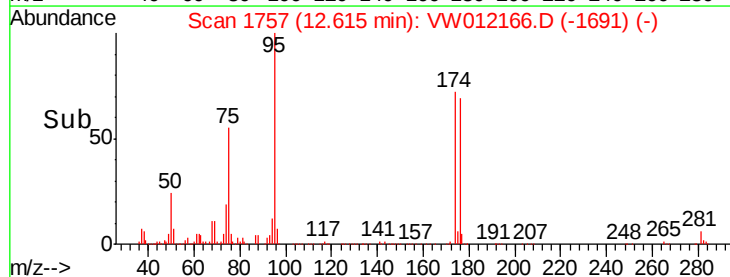
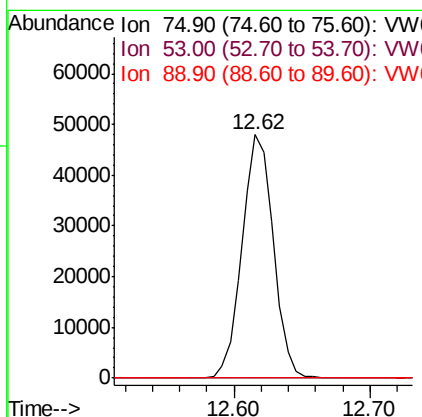
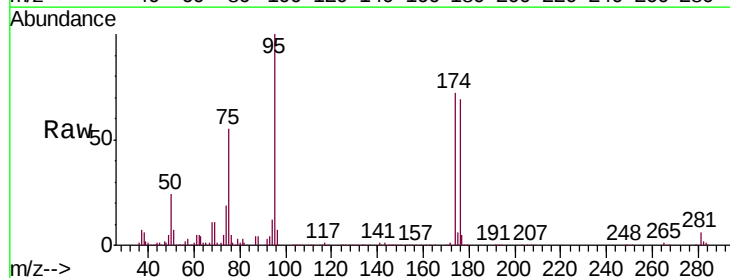
Instrument :  
 MSVOA\_W  
 ClientSampled :  
 TP-2(1-3)

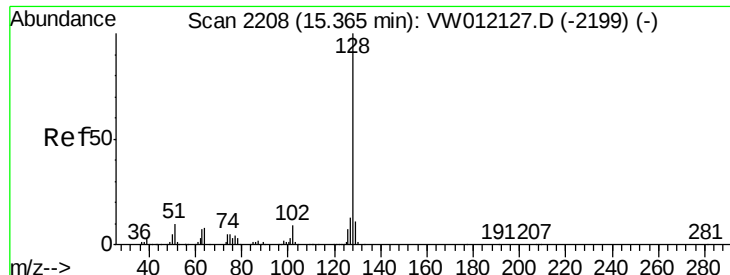
Tgt Ion: 75 Resp: 77160  
 Ion Ratio Lower Upper  
 75 100  
 77 1.3 0.0 0.0#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 137.824 ug/l  
 RT: 12.62 min Scan# 1757  
 Delta R.T. 0.10 min  
 Lab File: VW012166.D  
 Acq: 26 Aug 2019 12:31

Tgt Ion: 75 Resp: 77160  
 Ion Ratio Lower Upper  
 75 100  
 53 0.3 89.4 134.0#  
 89 0.1 34.5 51.7#





#95

Naphthalene

Concen: 4.409 ug/l

RT: 15.37 min Scan# 2209

Delta R.T. 0.01 min

Lab File: VW012166.D

Acq: 26 Aug 2019 12:31

Instrument :

MSVOA\_W

ClientSampleId :

TP-2(1-3)

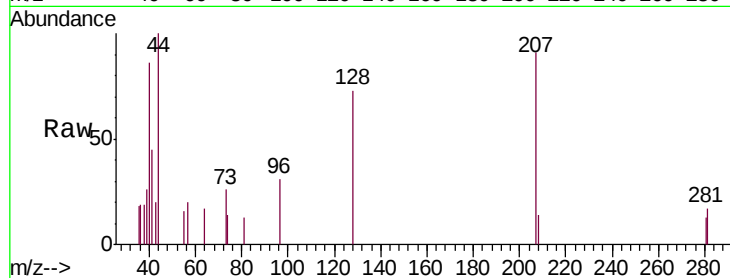
Tgt Ion:128 Resp: 456

Ion Ratio Lower Upper

128 100

127 0.0 10.7 16.1#

129 0.0 8.7 13.1#



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

