

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW092218\  
 Data File : VW005564.D  
 Acq On : 21 Sep 2018 16:58  
 Operator : VA/AP  
 Sample : J5042-03  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :

Quant Time: Sep 21 17:48:57 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W092118S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Sep 21 17:28:42 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 113433   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.85  | 114  | 178845   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 141464   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 41466    | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.31  | 65   | 77108    | 57.70 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 115.40% |          |
| 35) Dibromofluoromethane    | 7.89  | 113  | 60959    | 54.20 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 108.40% |          |
| 50) Toluene-d8              | 10.33 | 98   | 188206   | 41.10 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 82.20%  |          |
| 62) 4-Bromofluorobenzene    | 12.62 | 95   | 47156    | 27.83 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 55.66%  |          |

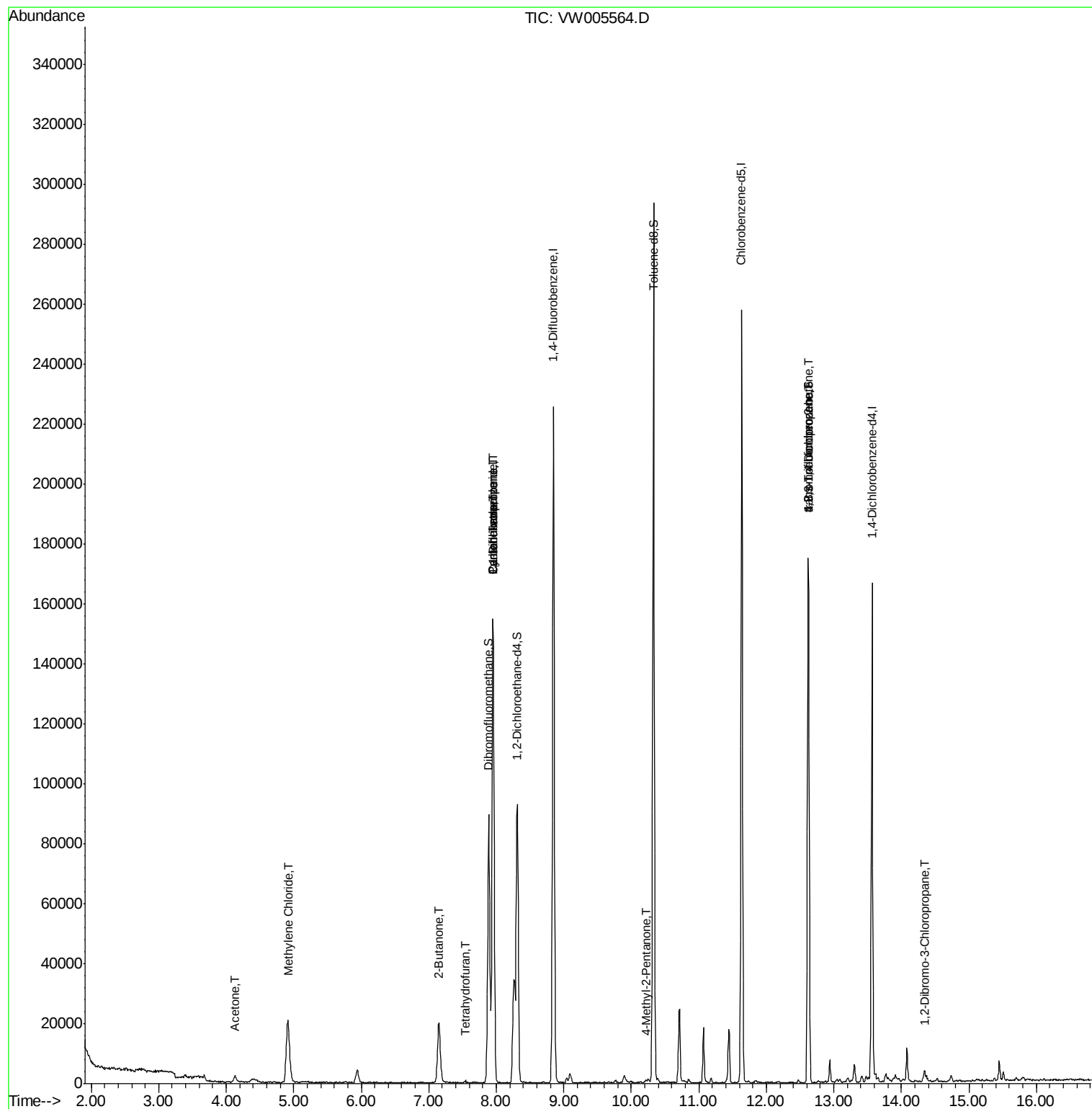
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 2) Dichlorodifluoromethane     | 2.00  | 85   | 42       | Below Cal | #      | 41     |
| 11) Tert butyl alcohol         | 5.17  | 59   | 155      | Below Cal | #      | 72     |
| 16) Acetone                    | 4.13  | 43   | 4076     | 10.356    | ug/l # | 89     |
| 20) Methylene Chloride         | 4.92  | 84   | 16799    | 11.721    | ug/l   | 97     |
| 25) 2-Butanone                 | 7.15  | 43   | 707      | 2.178     | ug/l # | 50     |
| 29) Tetrahydrofuran            | 7.55  | 42   | 314      | 1.549     | ug/l # | 47     |
| 31) Cyclohexane                | 7.95  | 56   | 2703     | 1.305     | ug/l # | 28     |
| 36) 1,1-Dichloropropene        | 7.95  | 75   | 8993     | 4.995     | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 7.95  | 117  | 11145    | 5.777     | ug/l # | 16     |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 767      | 1.022     | ug/l   | 95     |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75   | 24637    | 69.700    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75   | 24637    | 156.986   | ug/l # | 7      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.35 | 75   | 100      | 1.099     | ug/l # | 4      |

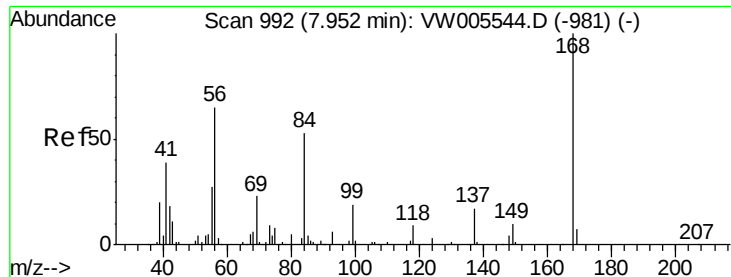
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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ALS Vial : 16 Sample Multiplier: 1

Instrument :  
MSVOA\_W  
ClientSampleId :

Quant Time: Sep 21 17:48:57 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_W\METHOD\82W092118S.M  
Quant Title : SW846 8260  
QLast Update : Fri Sep 21 17:28:42 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 992

Delta R.T. -0.00 min

Lab File: VW005564.D

Acq: 21 Sep 2018 16:58

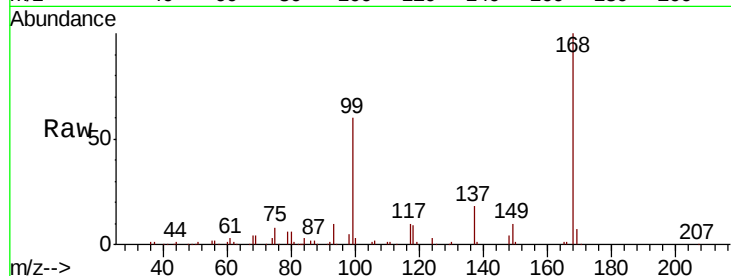
Instrument :  
MSVOA\_W  
ClientSampled :

Tot Ion:168 Resp: 113433

Ion Ratio Lower Upper

168 100

99 60.5 48.4 72.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW

7.95

60000

50000

40000

30000

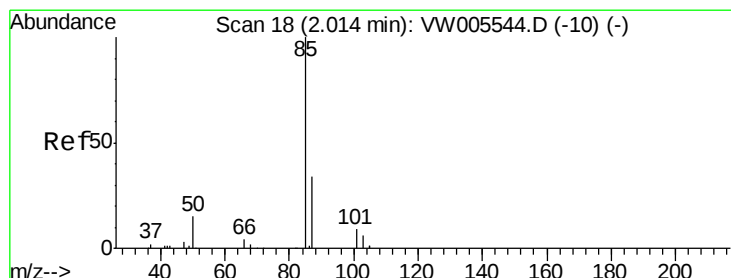
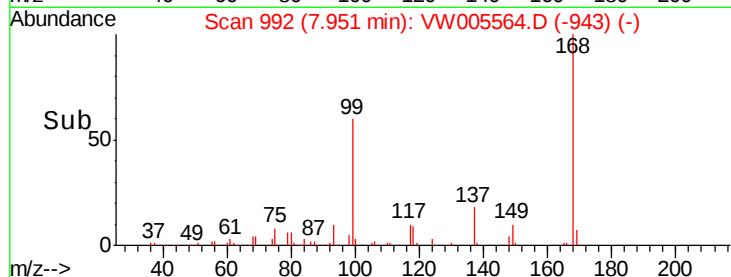
20000

10000

0

7.90 8.00

Time-->



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 2.00 min Scan# 16

Delta R.T. -0.01 min

Lab File: VW005564.D

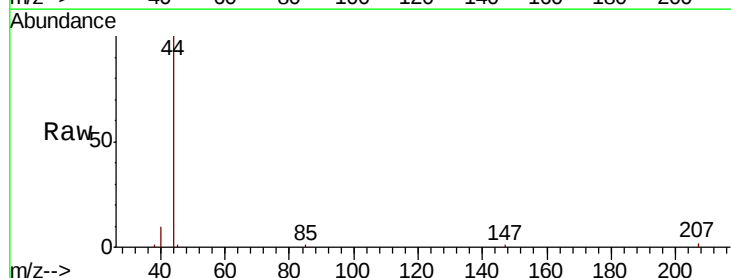
Acq: 21 Sep 2018 16:58

Tgt Ion: 85 Resp: 42

Ion Ratio Lower Upper

85 100

87 0.0 17.0 50.9#



Abundance Ion 84.90 (84.60 to 85.60): VW

Ion 86.90 (86.60 to 87.60): VW

2.00

60

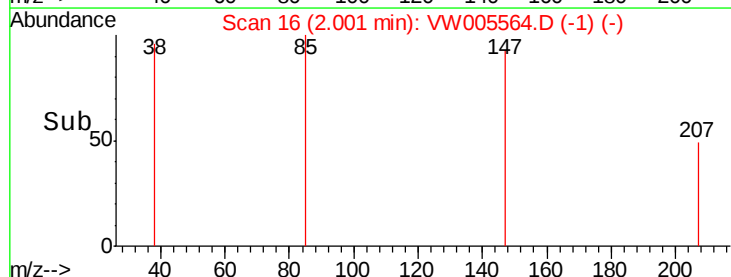
40

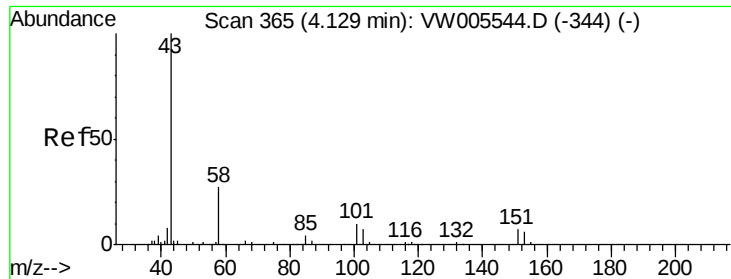
20

0

1.98 2.00 2.02

Time-->

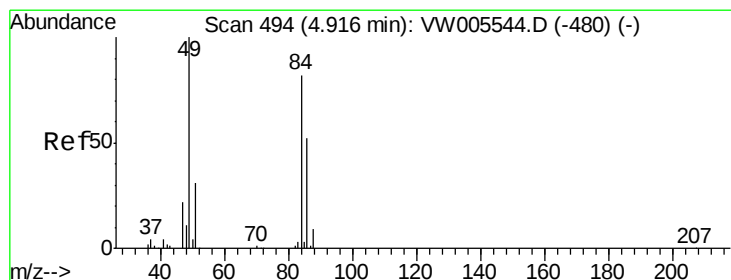
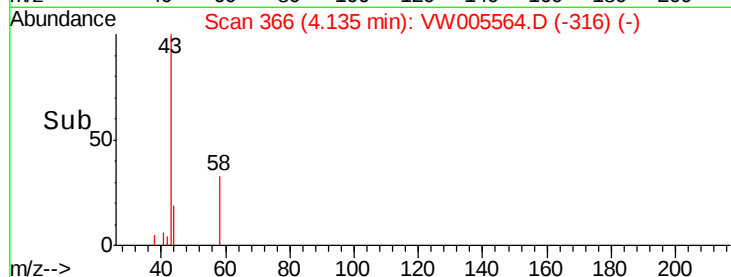
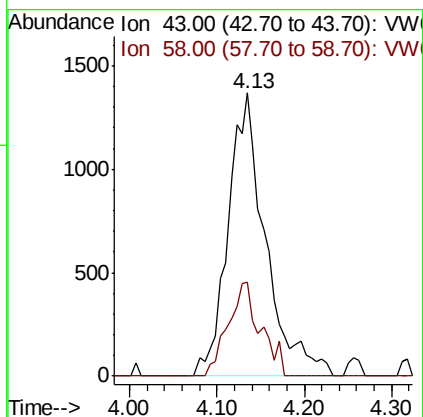
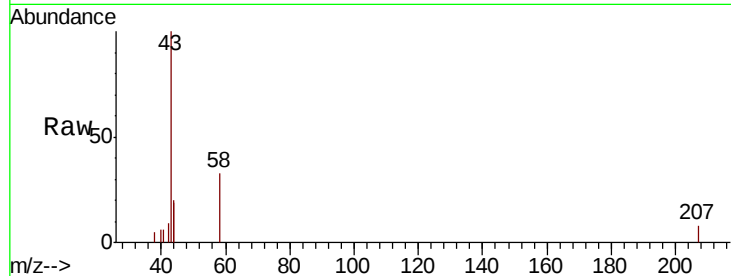




#16  
Acetone  
Concen: 10.356 ug/l  
RT: 4.13 min Scan# 366  
Delta R.T. 0.01 min  
Lab File: VW005564.D  
Acq: 21 Sep 2018 16:58

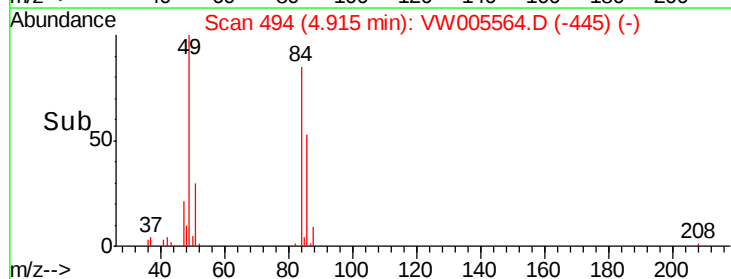
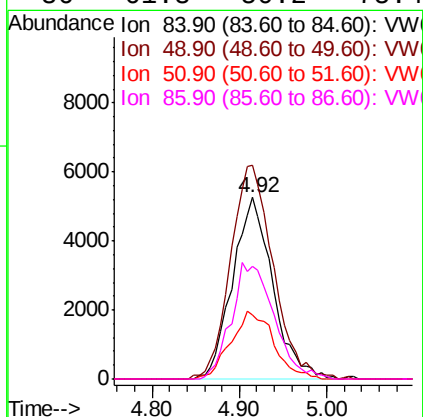
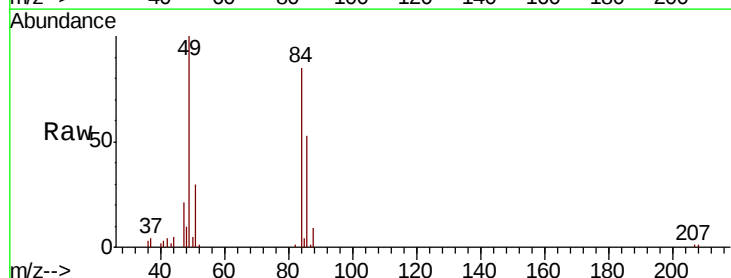
Instrument :  
MSVOA\_W  
ClientSampleId :

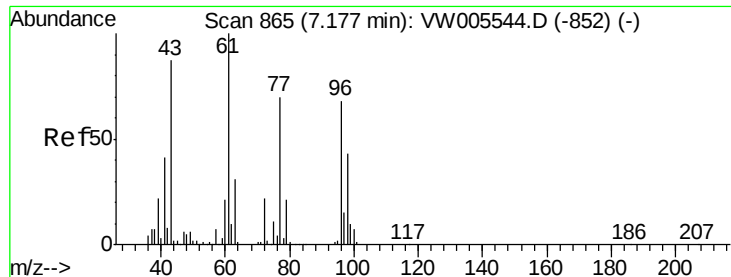
Tot Ion: 43 Resp: 4076  
Ion Ratio Lower Upper  
43 100  
58 33.0 21.8 32.8#



#20  
Methylene Chloride  
Concen: 11.721 ug/l  
RT: 4.92 min Scan# 494  
Delta R.T. 0.00 min  
Lab File: VW005564.D  
Acq: 21 Sep 2018 16:58

Tgt Ion: 84 Resp: 16799  
Ion Ratio Lower Upper  
84 100  
49 117.6 97.0 145.6  
51 35.5 30.2 45.2  
86 61.8 50.2 75.4





#25

2-Butanone

Concen: 2.178 ug/l

RT: 7.15 min Scan# 860

Delta R.T. -0.03 min

Lab File: VW005564.D

Acq: 21 Sep 2018 16:58

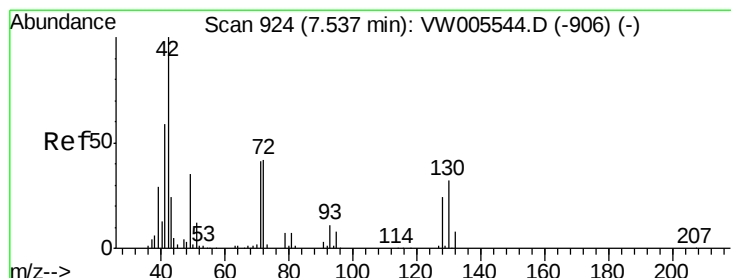
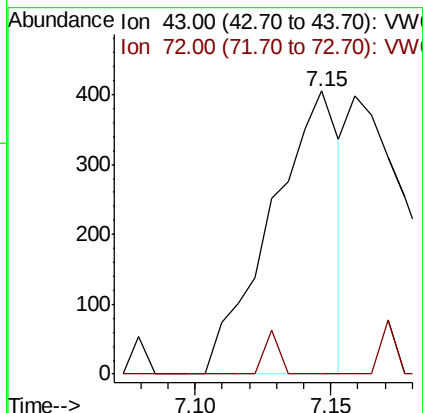
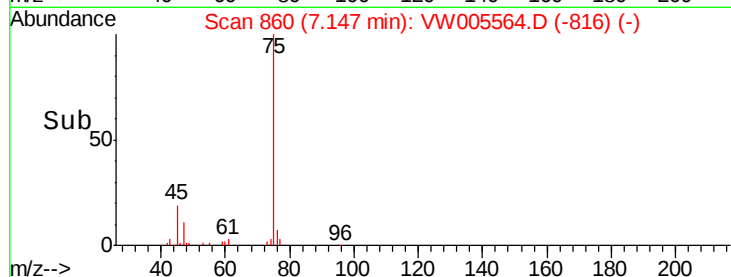
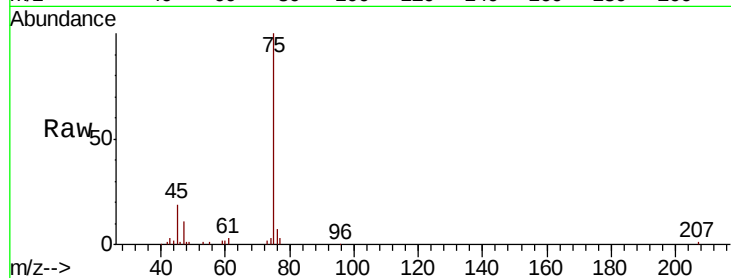
Instrument :  
MSVOA\_W  
ClientSampled :

Tot Ion: 43 Resp: 707

Ion Ratio Lower Upper

43 100

72 0.0 19.9 29.9#



#29

Tetrahydrofuran

Concen: 1.549 ug/l

RT: 7.55 min Scan# 926

Delta R.T. 0.01 min

Lab File: VW005564.D

Acq: 21 Sep 2018 16:58

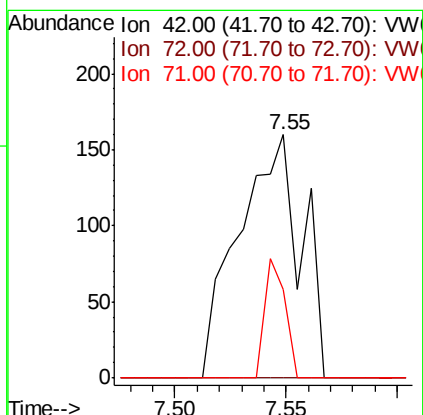
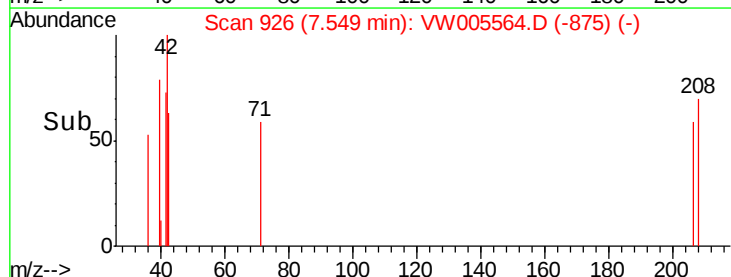
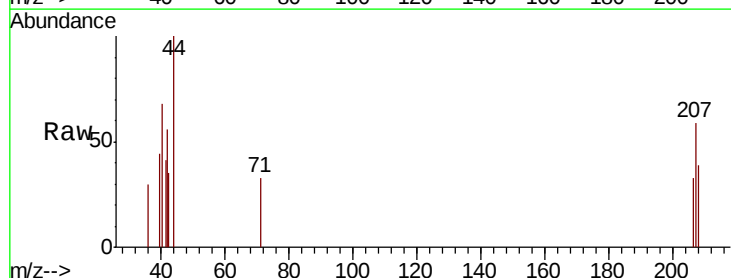
Tgt Ion: 42 Resp: 314

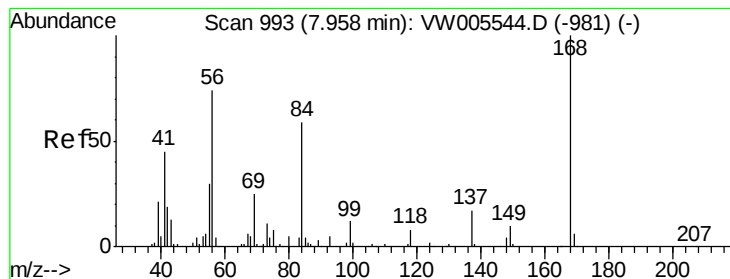
Ion Ratio Lower Upper

42 100

72 0.0 33.6 50.4#

71 15.9 31.8 47.6#





#31

Cyclohexane

Concen: 1.305 ug/l

RT: 7.95 min Scan# 991

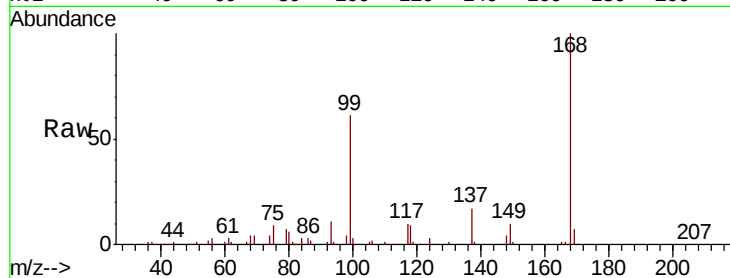
Delta R.T. -0.01 min

Lab File: VW005564.D

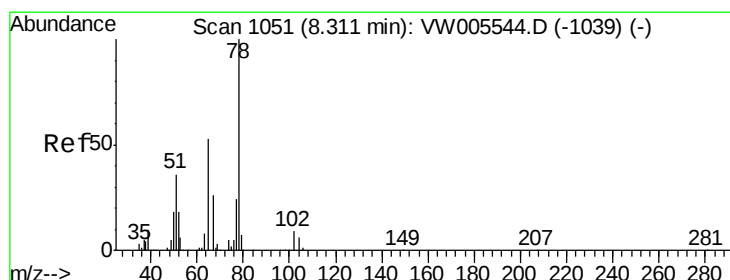
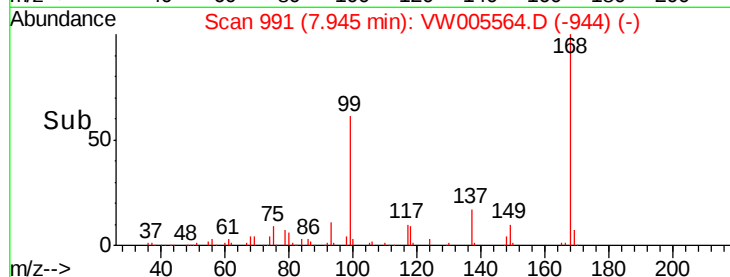
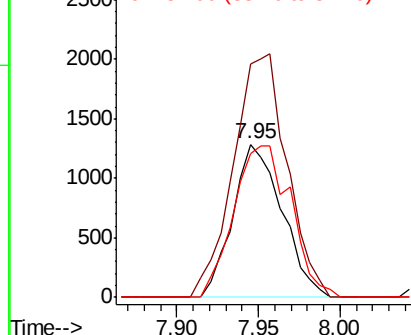
Acq: 21 Sep 2018 16:58

Instrument :  
MSVOA\_W  
ClientSampled :

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 56    | Resp: | 2703  |
| Ion      | Ratio | Lower | Upper |
| 56       | 100   |       |       |
| 69       | 152.3 | 27.0  | 40.4# |
| 84       | 93.5  | 64.2  | 96.4  |



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: 57.702 ug/l

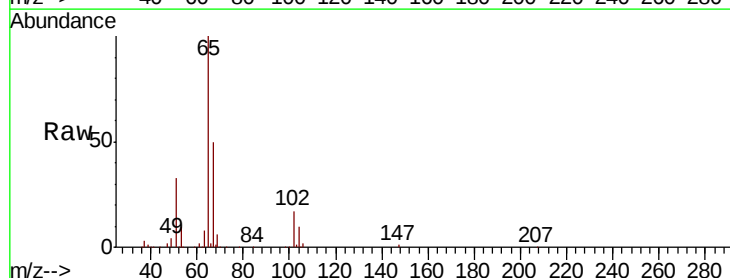
RT: 8.31 min Scan# 1051

Delta R.T. -0.00 min

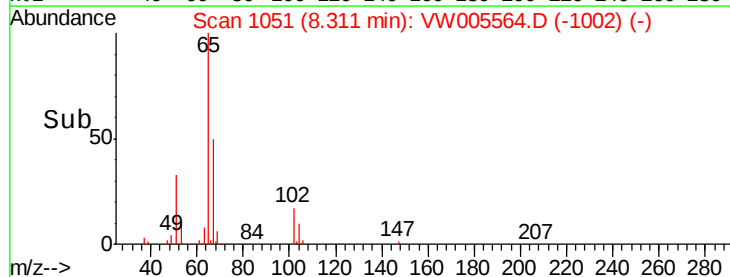
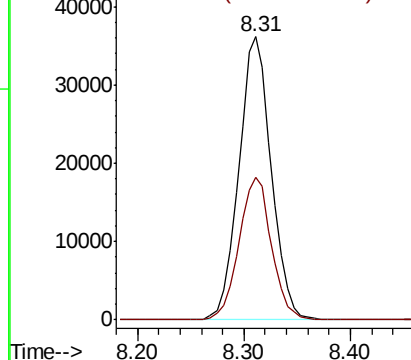
Lab File: VW005564.D

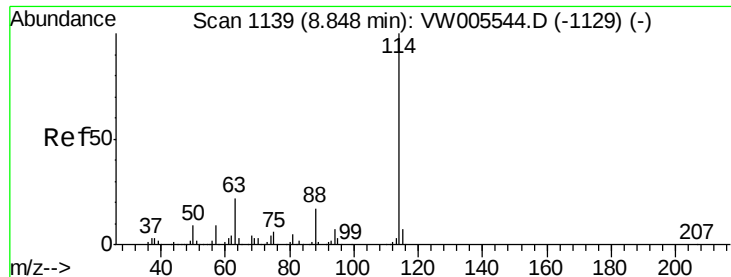
Acq: 21 Sep 2018 16:58

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 65    | Resp: | 77108 |
| Ion      | Ratio | Lower | Upper |
| 65       | 100   |       |       |
| 67       | 50.6  | 0.0   | 100.6 |



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

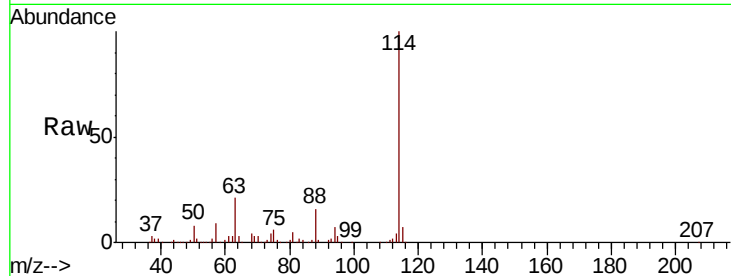




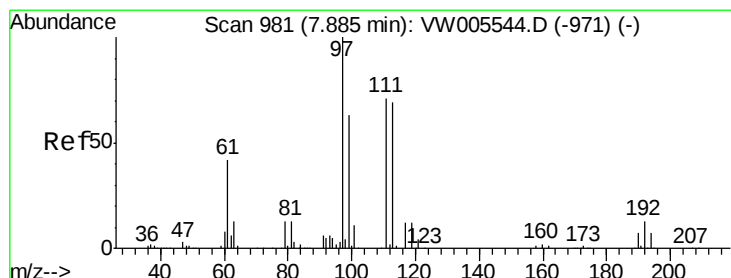
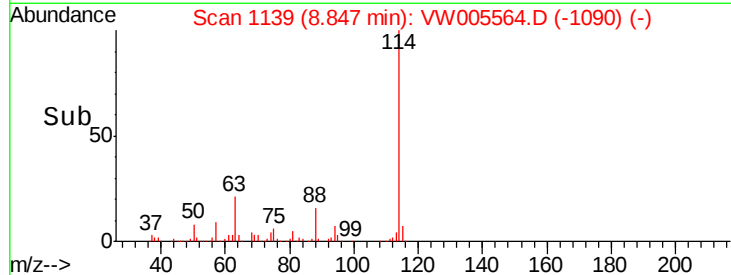
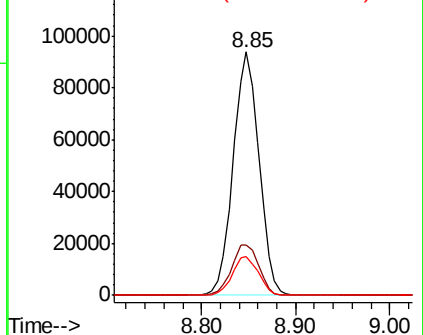
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.85 min Scan# 1139  
 Delta R.T. -0.00 min  
 Lab File: VW005564.D  
 Acq: 21 Sep 2018 16:58

Instrument :  
 MSVOA\_W  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 20.8  | 0.0   | 43.0  |
| 88      | 16.1  | 0.0   | 33.0  |

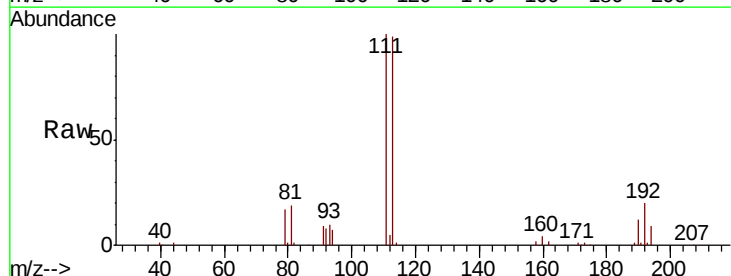


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VW  
 Ion 87.90 (87.60 to 88.60): VW

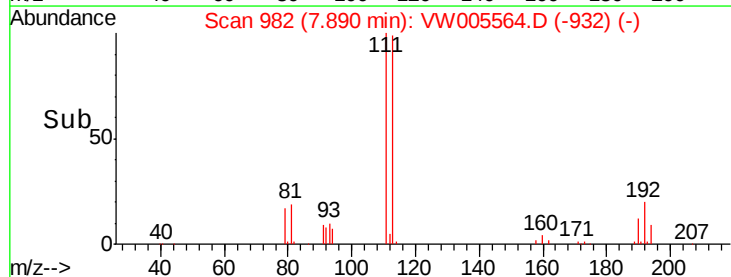
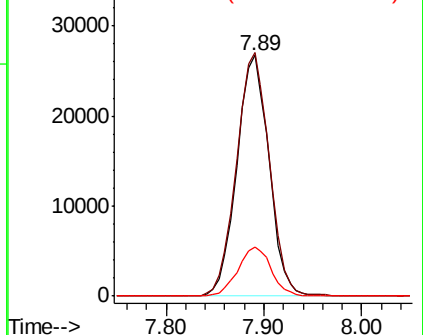


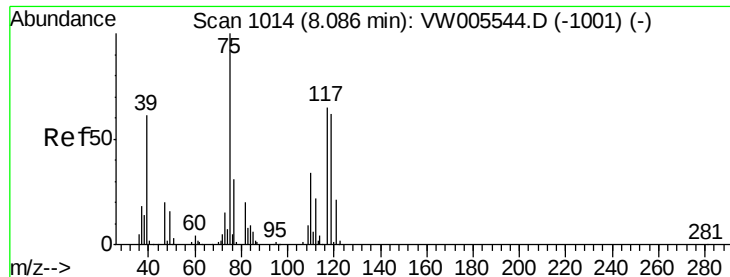
#35  
 Dibromofluoromethane  
 Concen: 54.201 ug/l  
 RT: 7.89 min Scan# 982  
 Delta R.T. 0.01 min  
 Lab File: VW005564.D  
 Acq: 21 Sep 2018 16:58

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 103.7 | 82.6  | 123.8 |
| 192     | 20.8  | 17.0  | 25.4  |



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

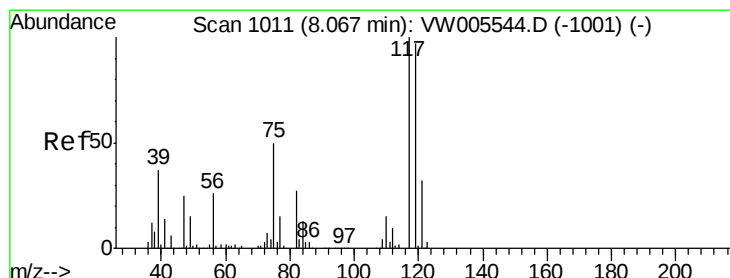
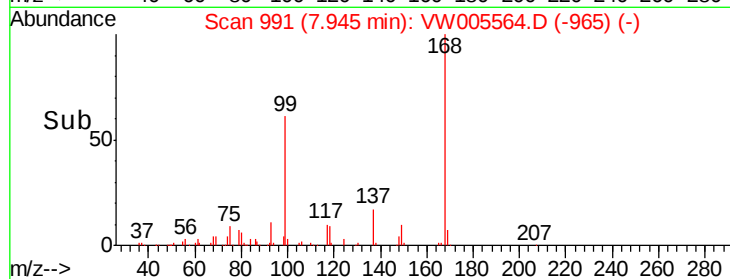
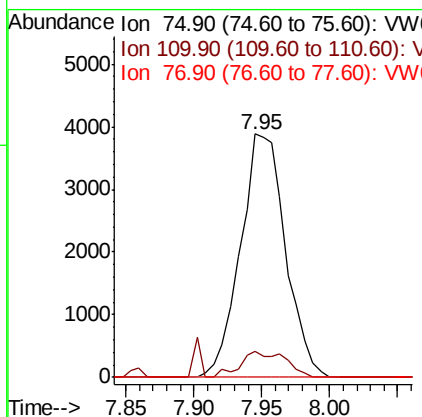
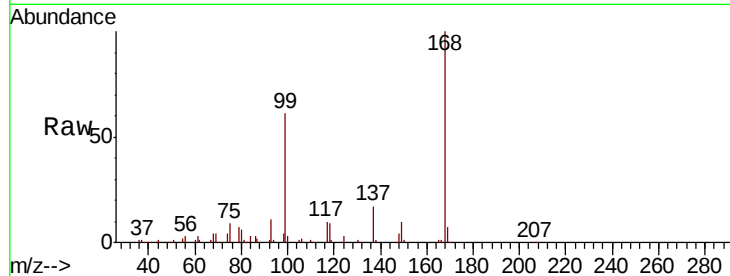




#36  
 1,1-Dichloropropene  
 Concen: 4.995 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.14 min  
 Lab File: VW005564.D  
 Acq: 21 Sep 2018 16:58

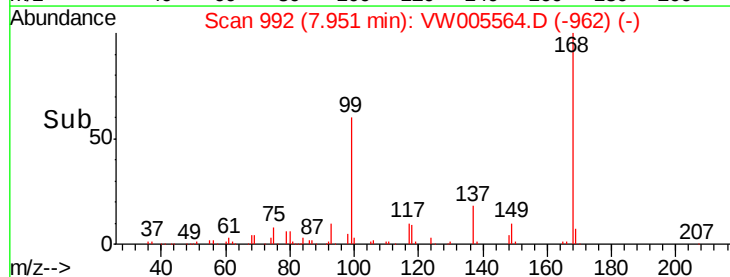
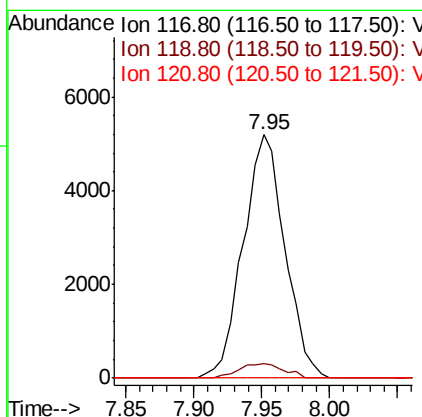
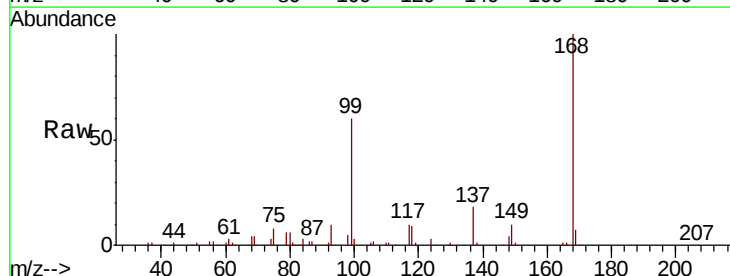
Instrument :  
 MSVOA\_W  
 ClientSampled :

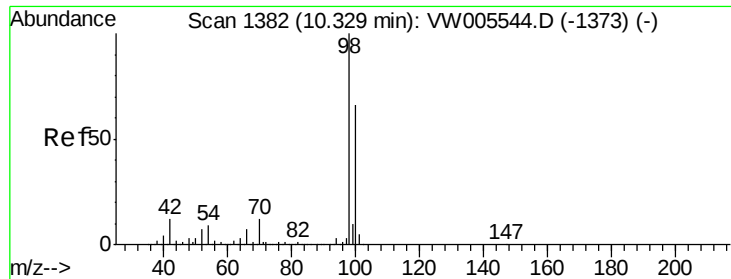
| Tot Ion   | 75    | Resp  | 8993  |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 75        | 100   |       |       |
| 110       | 10.6  | 17.0  | 50.9# |
| 77        | 0.0   | 24.8  | 37.2# |



#38  
 Carbon Tetrachloride  
 Concen: 5.777 ug/l  
 RT: 7.95 min Scan# 992  
 Delta R.T. -0.12 min  
 Lab File: VW005564.D  
 Acq: 21 Sep 2018 16:58

| Tgt Ion   | 117   | Resp  | 11145  |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 119       | 5.7   | 77.6  | 116.4# |
| 121       | 0.0   | 25.7  | 38.5#  |





#50

Toluene-d8

Concen: 41.098 ug/l

RT: 10.33 min Scan# 1382

Delta R.T. -0.00 min

Lab File: VW005564.D

Acq: 21 Sep 2018 16:58

Instrument :

MSVOA\_W

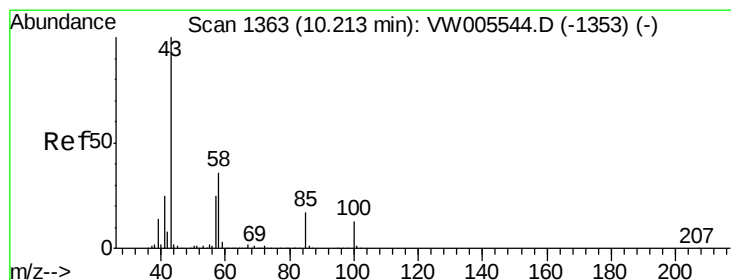
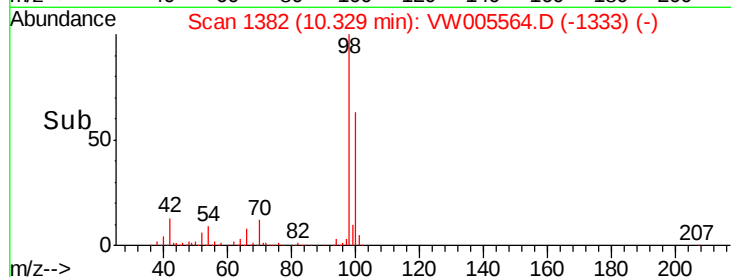
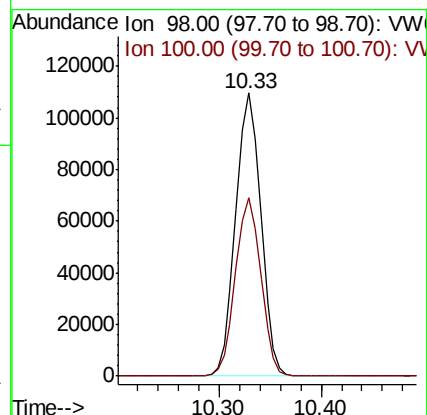
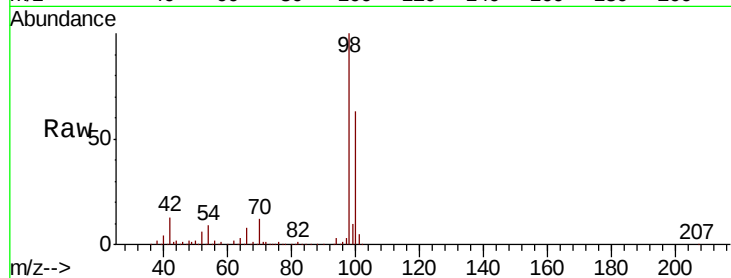
ClientSampled :

Tot Ion: 98 Resp: 188206

Ion Ratio Lower Upper

98 100

100 63.4 51.6 77.4



#51

4-Methyl-2-Pentanone

Concen: 1.022 ug/l

RT: 10.21 min Scan# 1363

Delta R.T. -0.00 min

Lab File: VW005564.D

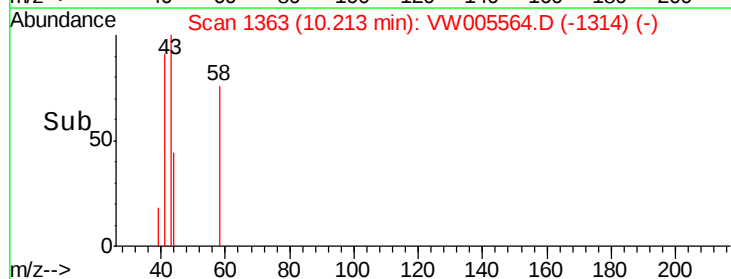
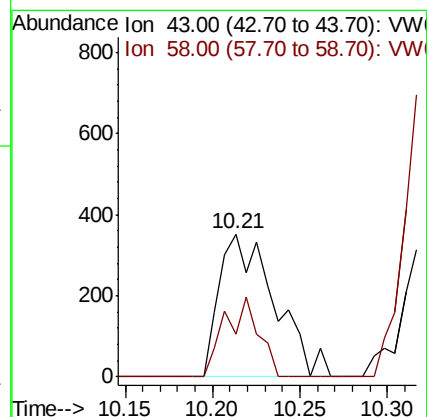
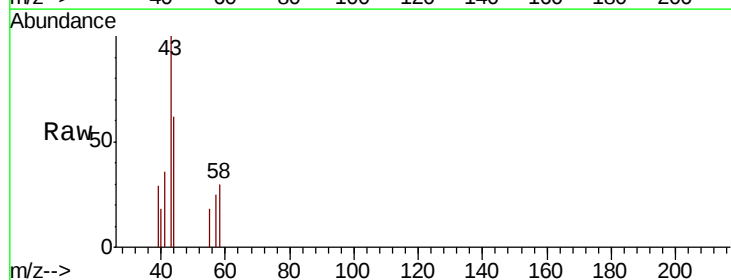
Acq: 21 Sep 2018 16:58

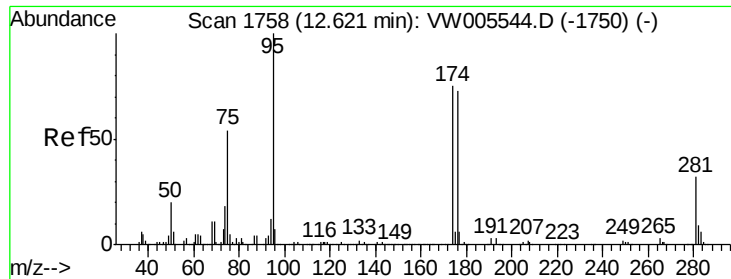
Tgt Ion: 43 Resp: 767

Ion Ratio Lower Upper

43 100

58 34.4 30.0 45.0

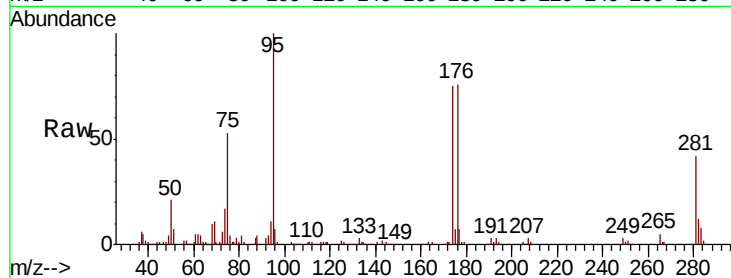




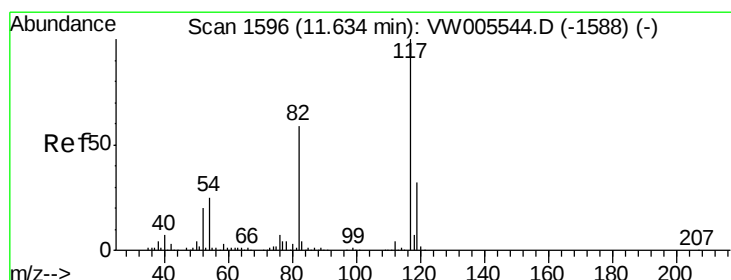
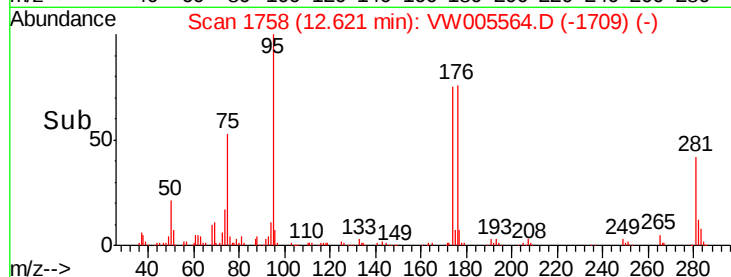
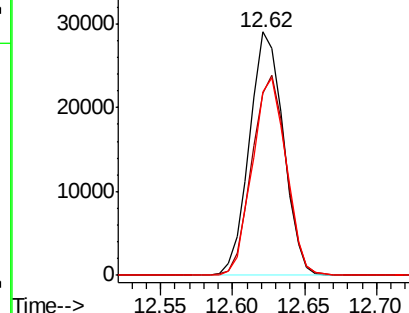
#62  
4-Bromofluorobenzene  
Concen: 27.829 ug/l  
RT: 12.62 min Scan# 1758  
Delta R.T. -0.00 min  
Lab File: VW005564.D  
Acq: 21 Sep 2018 16:58

Instrument :  
MSVOA\_W  
ClientSampleId :

Tot Ion: 95 Resp: 47156  
Ion Ratio Lower Upper  
95 100  
174 82.7 0.0 163.8  
176 81.2 0.0 158.0

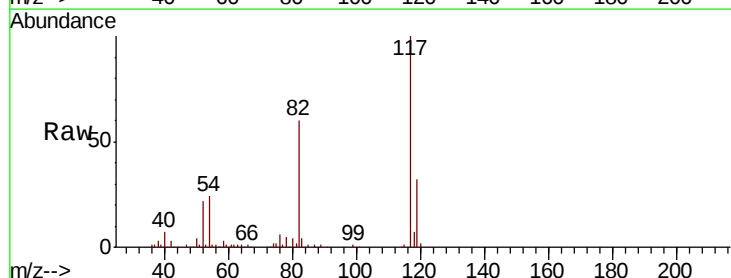


Abundance Ion 94.90 (94.60 to 95.60): VW  
Ion 173.80 (173.50 to 174.50): VW  
Ion 175.80 (175.50 to 176.50): VW

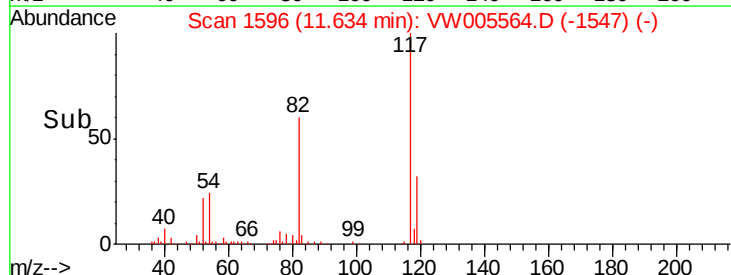
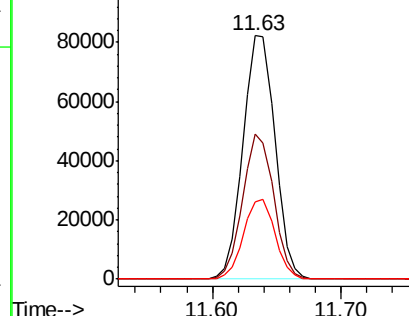


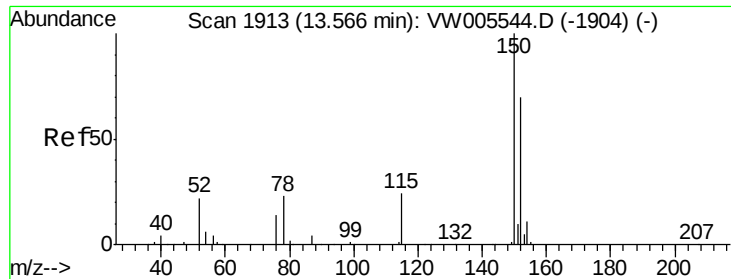
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1596  
Delta R.T. -0.00 min  
Lab File: VW005564.D  
Acq: 21 Sep 2018 16:58

Tgt Ion: 117 Resp: 141464  
Ion Ratio Lower Upper  
117 100  
82 59.7 46.9 70.3  
119 31.9 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



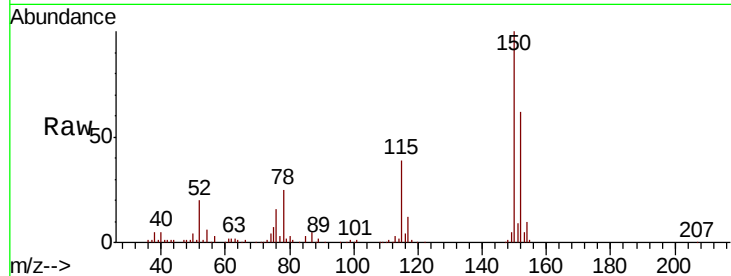


#72

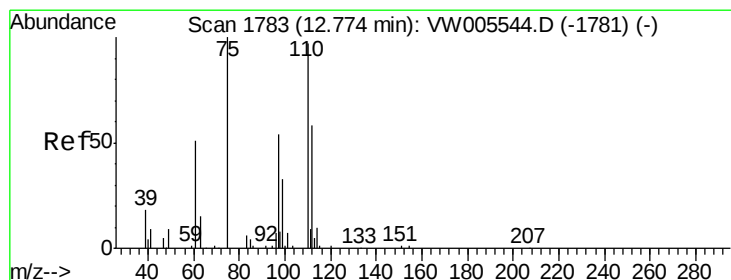
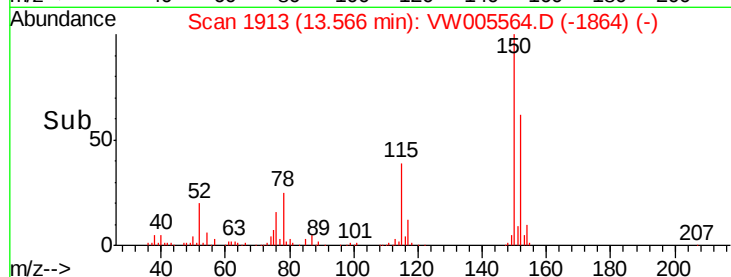
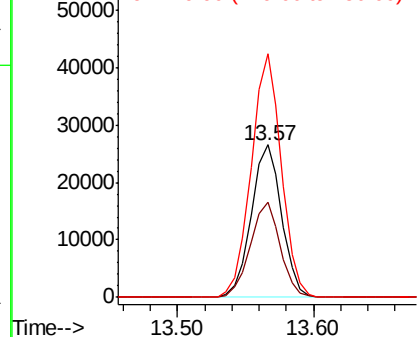
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.57 min Scan# 1913  
Delta R.T. -0.00 min  
Lab File: VW005564.D  
Acq: 21 Sep 2018 16:58

Instrument :  
MSVOA\_W  
ClientSampleId :

Tot Ion:152 Resp: 41466  
Ion Ratio Lower Upper  
152 100  
115 61.5 30.0 90.0  
150 158.0 0.0 348.6



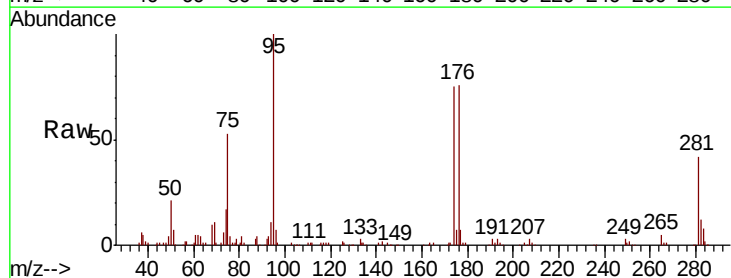
Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V



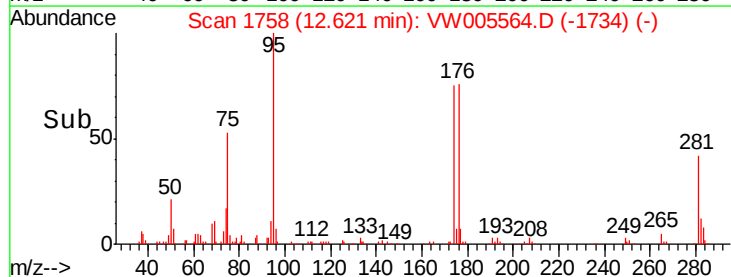
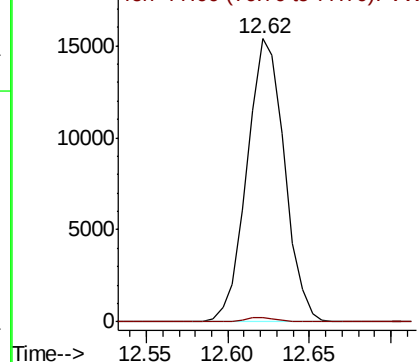
#76

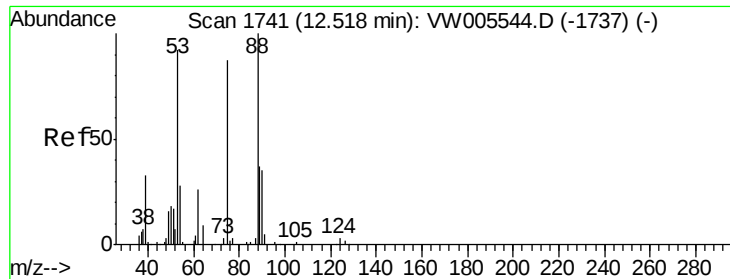
1,2,3-Trichloropropane  
Concen: 69.700 ug/l  
RT: 12.62 min Scan# 1758  
Delta R.T. -0.15 min  
Lab File: VW005564.D  
Acq: 21 Sep 2018 16:58

Tgt Ion: 75 Resp: 24637  
Ion Ratio Lower Upper  
75 100  
77 1.5 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: 156.986 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. 0.10 min

Lab File: VW005564.D

Acq: 21 Sep 2018 16:58

Instrument :

MSVOA\_W

ClientSampleId :

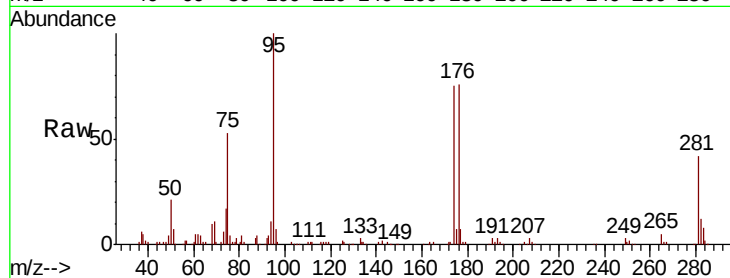
Tot Ion: 75 Resp: 24637

Ion Ratio Lower Upper

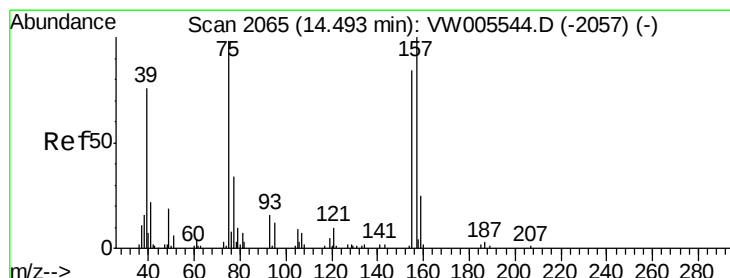
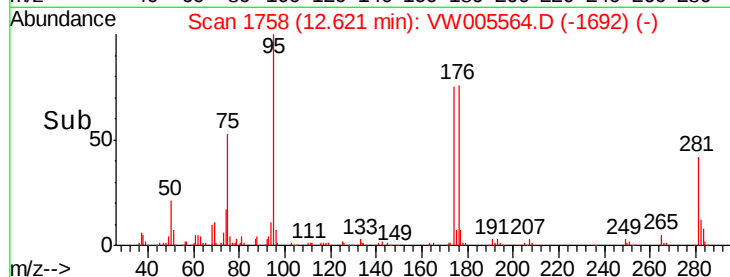
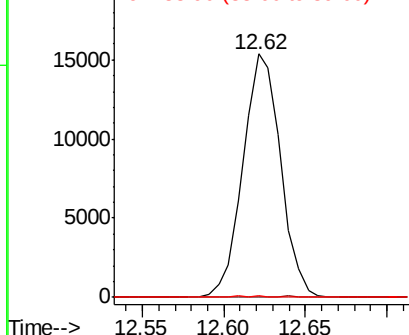
75 100

53 0.0 85.8 128.6#

89 0.1 37.3 55.9#



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



#92

1,2-Dibromo-3-Chloropropane

Concen: 1.099 ug/l

RT: 14.35 min Scan# 2041

Delta R.T. -0.15 min

Lab File: VW005564.D

Acq: 21 Sep 2018 16:58

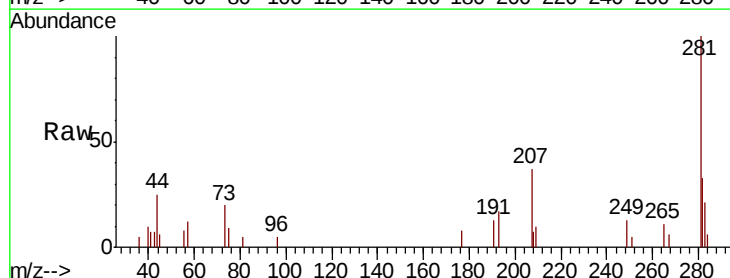
Tgt Ion: 75 Resp: 100

Ion Ratio Lower Upper

75 100

155 0.0 39.1 117.5#

157 0.0 50.8 152.4#



Abundance Ion 74.90 (74.60 to 75.60): VW  
Ion 154.80 (154.50 to 155.50): V  
Ion 156.80 (156.50 to 157.50): V

