

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_W\DATA\VW091118\  
 Data File : VW005286.D  
 Acq On : 11 Sep 2018 19:43  
 Operator : SY/AP  
 Sample : J4838-05  
 Misc : 5.67G/5ML/MSVOA\_W/SOIL  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 SUP-1B-G-090718-2

Quant Time: Sep 12 01:03:38 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W091018S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Sep 11 03:48:23 2018  
 Response via : Initial Calibration

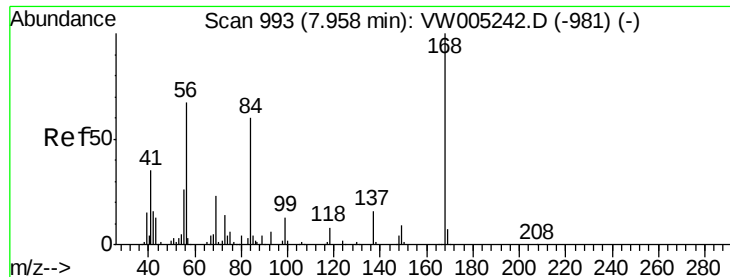
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.96  | 168  | 438666   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.85  | 114  | 701379   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 679603   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 315917   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 8.31   | 65  | 190915   | 58.35 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 116.70% |      |
| 35) Dibromofluoromethane    | 7.89   | 113 | 162087   | 44.12 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 88.24%  |      |
| 50) Toluene-d8              | 10.33  | 98  | 703354   | 37.88 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 75.76%  |      |
| 62) 4-Bromofluorobenzene    | 12.62  | 95  | 253836   | 37.38 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 74.76%  |      |

| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 5) Bromomethane                | 2.77  | 94   | 853      | Below Cal |        | 88     |
| 10) Methyl Iodide              | 4.28  | 142  | 665      | 3.460     | ug/l # | 80     |
| 11) Tert butyl alcohol         | 5.14  | 59   | 2340     | 8.721     | ug/l # | 82     |
| 16) Acetone                    | 4.12  | 43   | 108914   | 179.340   | ug/l   | 100    |
| 18) Methyl Acetate             | 4.67  | 43   | 5784     | 3.190     | ug/l # | 89     |
| 20) Methylene Chloride         | 4.93  | 84   | 27669    | 3.038     | ug/l   | 92     |
| 25) 2-Butanone                 | 7.18  | 43   | 39470    | 41.203    | ug/l   | 90     |
| 26) 2,2-Dichloropropane        | 7.15  | 77   | 6383     | 1.119     | ug/l # | 51     |
| 29) Tetrahydrofuran            | 7.55  | 42   | 1094     | 1.695     | ug/l   | 94     |
| 31) Cyclohexane                | 7.95  | 56   | 8351     | 1.193     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.95  | 75   | 30702    | 4.778     | ug/l # | 48     |
| 37) Ethyl Acetate              | 7.18  | 43   | 39470    | 16.149    | ug/l # | 67     |
| 38) Carbon Tetrachloride       | 7.96  | 117  | 39570    | 6.574     | ug/l # | 16     |
| 74) N-amyl acetate             | 12.26 | 43   | 8078     | 1.902     | ug/l # | 69     |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75   | 119150   | 49.035    | ug/l # | 100    |
| 80) 1,3,5-Trimethylbenzene     | 12.95 | 105  | 30228    | 1.590     | ug/l   | 95     |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75   | 119150   | 114.999   | ug/l # | 16     |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 119431   | 6.253     | ug/l   | 98     |
| 90) Hexachloroethane           | 14.10 | 117  | 3708     | 1.094     | ug/l # | 5      |
| 95) Naphthalene                | 15.38 | 128  | 14648    | 1.316     | ug/l   | 98     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.96 min Scan# 993

Delta R.T. 0.00 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

Instrument :

MSVOA\_W

ClientSampleId :

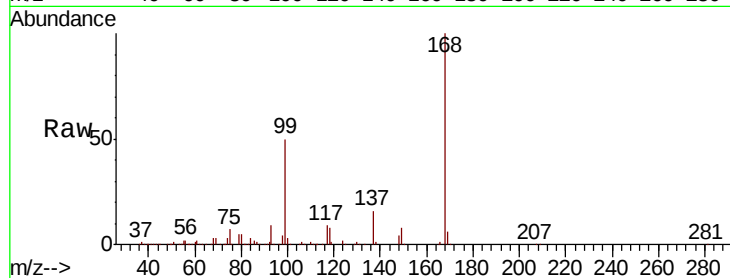
SUP-1B-G-090718-2

Tgt Ion:168 Resp: 438666

Ion Ratio Lower Upper

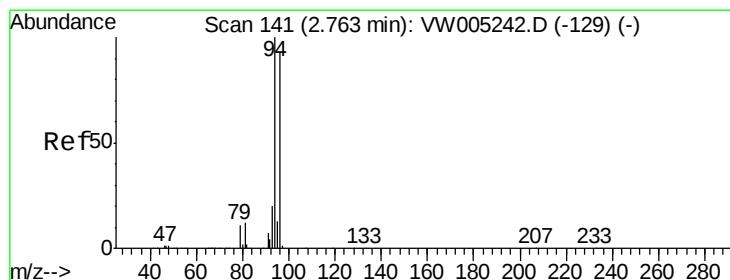
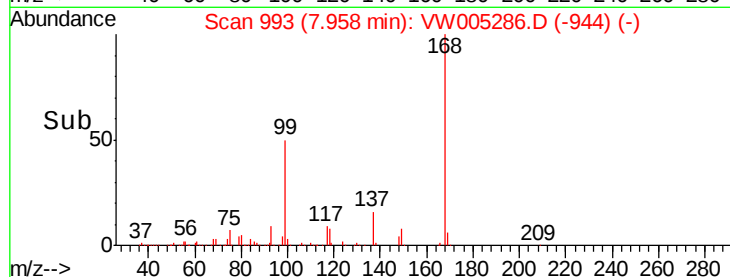
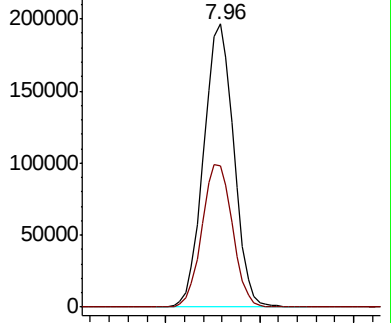
168 100

99 49.7 39.1 58.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW



#5

Bromomethane

Concen: Below Cal

RT: 2.77 min Scan# 142

Delta R.T. 0.01 min

Lab File: VW005286.D

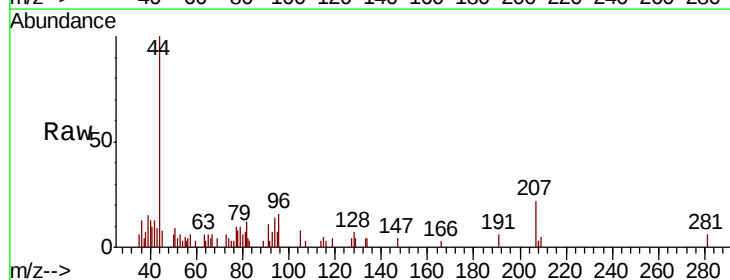
Acq: 11 Sep 2018 19:43

Tgt Ion: 94 Resp: 853

Ion Ratio Lower Upper

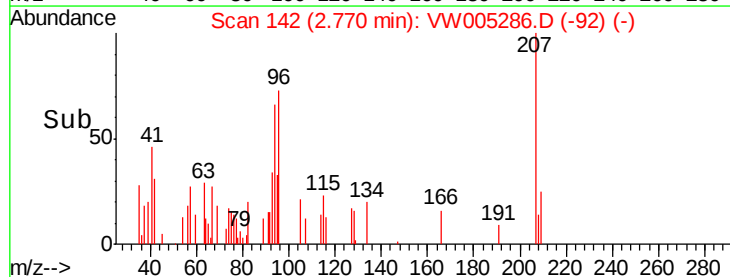
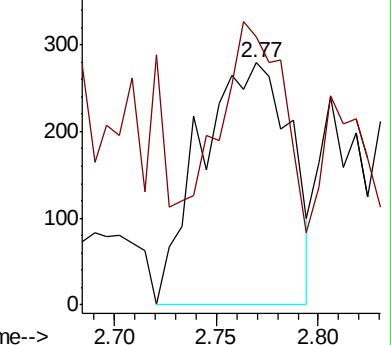
94 100

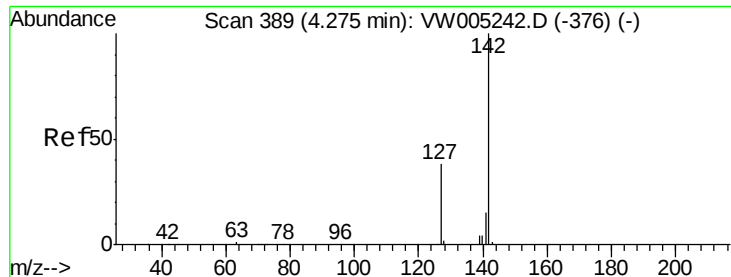
96 81.4 74.1 111.1



Abundance Ion 93.90 (93.60 to 94.60): VW

Ion 95.90 (95.60 to 96.60): VW





#10

Methyl Iodide

Concen: 3.460 ug/l

RT: 4.28 min Scan# 389

Delta R.T. 0.00 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

Instrument :

MSVOA\_W

ClientSampleId :

SUP-1B-G-090718-2

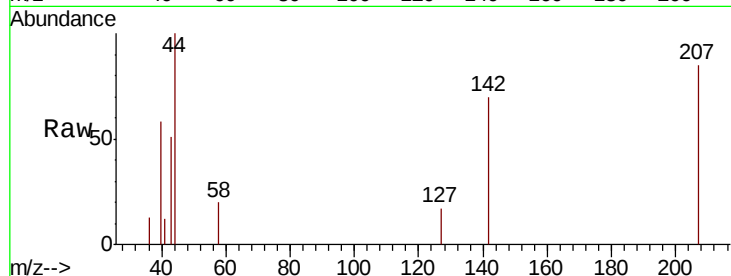
Tgt Ion: 142 Resp: 665

Ion Ratio Lower Upper

142 100

127 29.3 30.3 45.5#

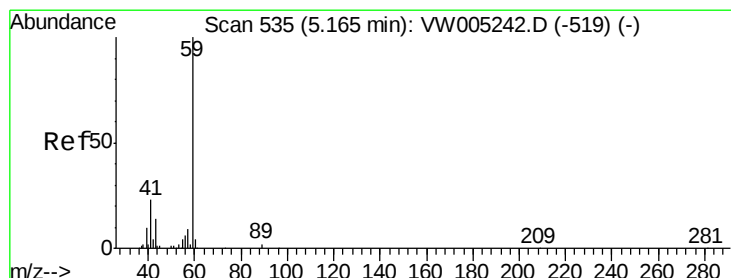
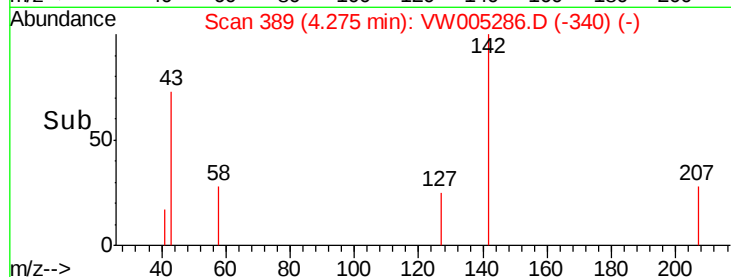
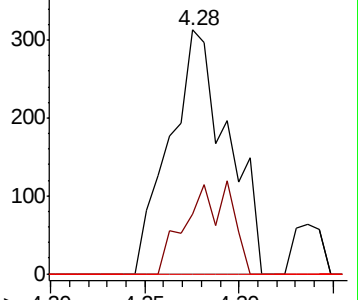
141 0.0 11.4 17.0#



Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V



#11

Tert butyl alcohol

Concen: 8.721 ug/l

RT: 5.14 min Scan# 531

Delta R.T. -0.02 min

Lab File: VW005286.D

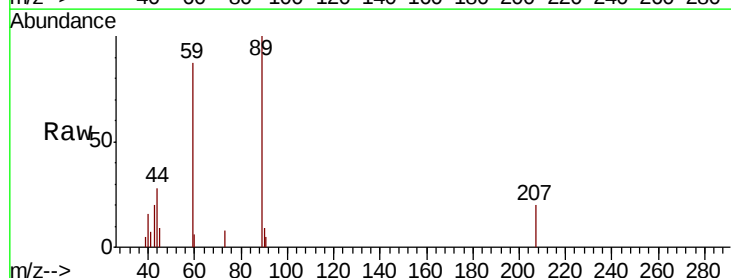
Acq: 11 Sep 2018 19:43

Tgt Ion: 59 Resp: 2340

Ion Ratio Lower Upper

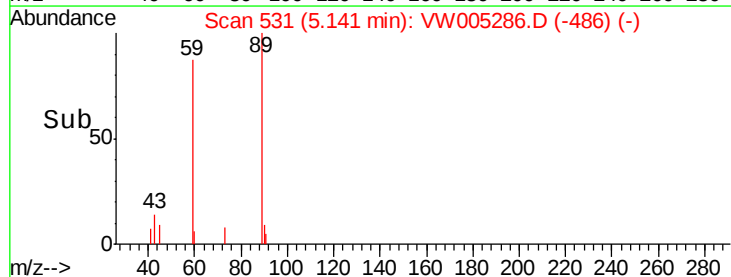
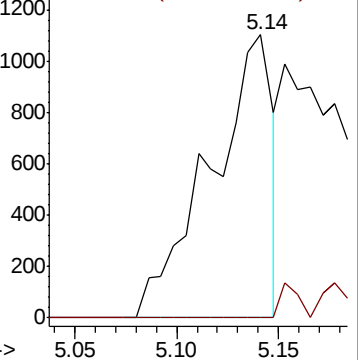
59 100

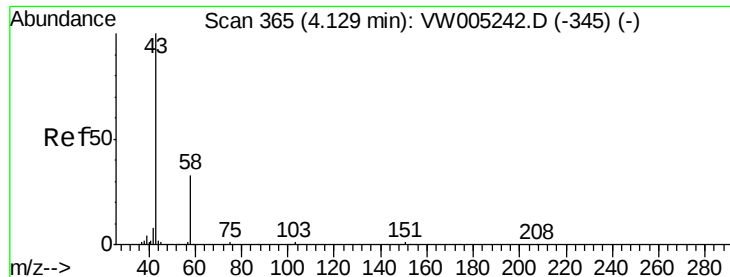
57 3.5 8.1 12.1#



Abundance Ion 59.00 (58.70 to 59.70): VW

Ion 57.00 (56.70 to 57.70): VW





#16

Acetone

Concen: 179.340 ug/l

RT: 4.12 min Scan# 364

Delta R.T. -0.01 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

Instrument :

MSVOA\_W

ClientSampleId :

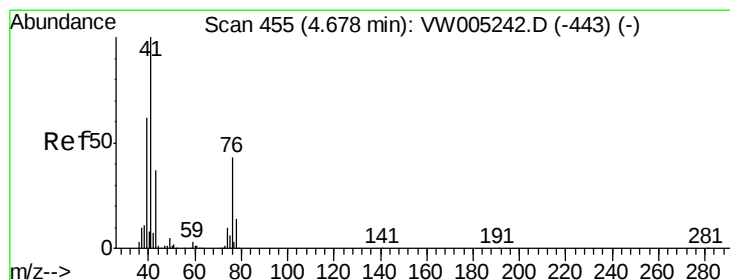
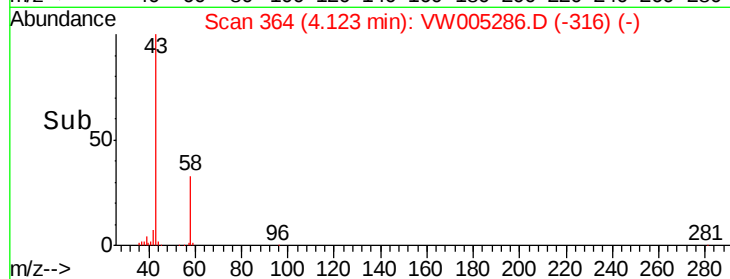
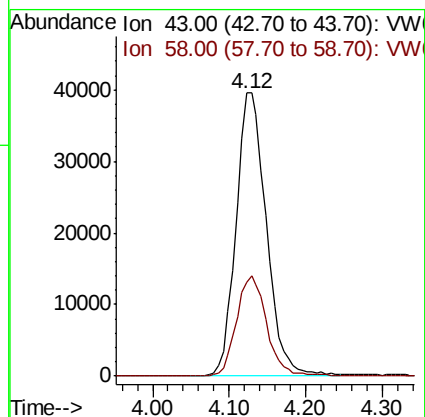
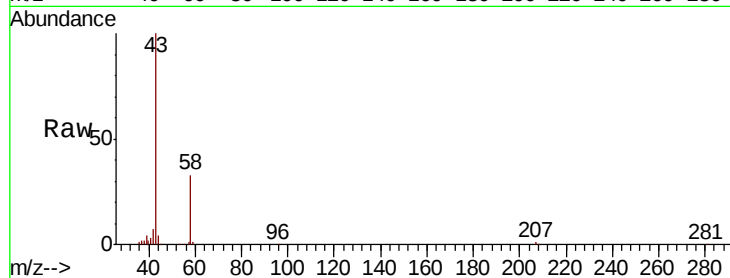
SUP-1B-G-090718-2

Tgt Ion: 43 Resp: 108914

Ion Ratio Lower Upper

43 100

58 33.2 26.7 40.1



#18

Methyl Acetate

Concen: 3.190 ug/l

RT: 4.67 min Scan# 454

Delta R.T. -0.01 min

Lab File: VW005286.D

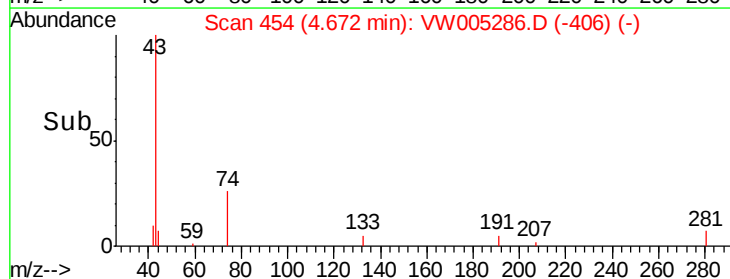
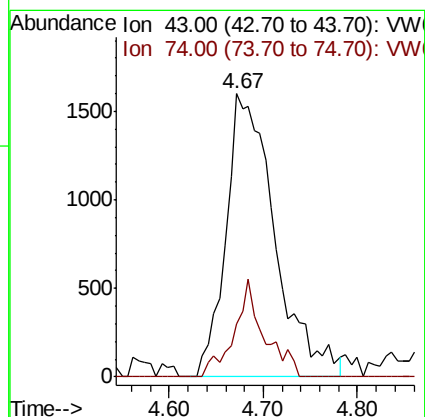
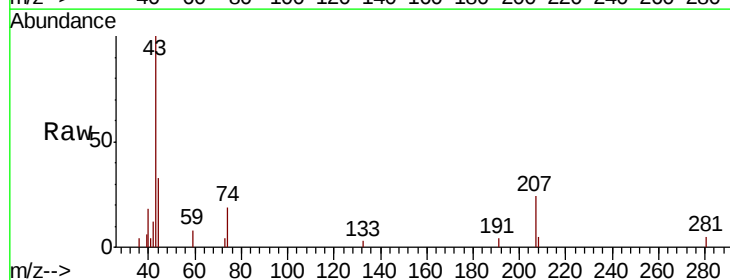
Acq: 11 Sep 2018 19:43

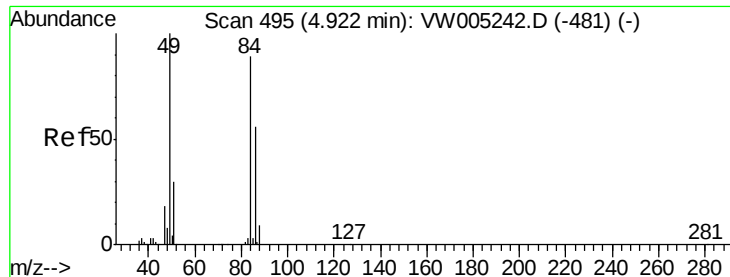
Tgt Ion: 43 Resp: 5784

Ion Ratio Lower Upper

43 100

74 21.0 21.4 32.2#





#20

Methylene Chloride

Concen: 3.038 ug/l

RT: 4.93 min Scan# 496

Delta R.T. 0.01 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

Instrument :

MSVOA\_W

ClientSampleId :

SUP-1B-G-090718-2

Tgt Ion: 84 Resp: 27669

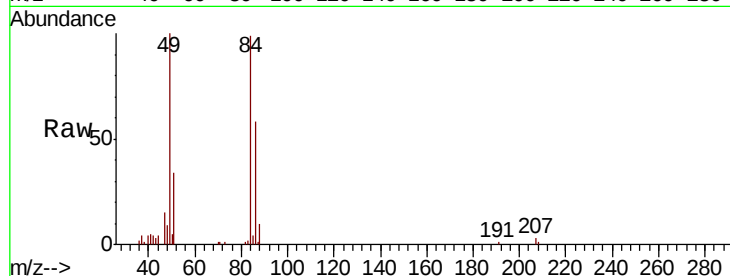
Ion Ratio Lower Upper

84 100

49 100.9 90.3 135.5

51 33.9 26.9 40.3

86 58.5 50.8 76.2

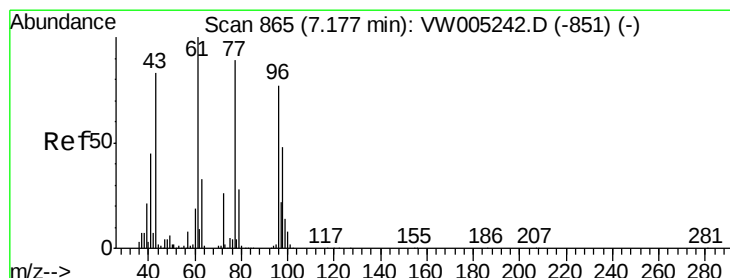
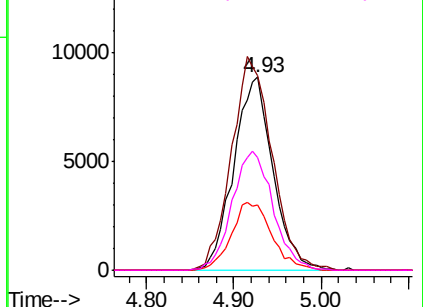
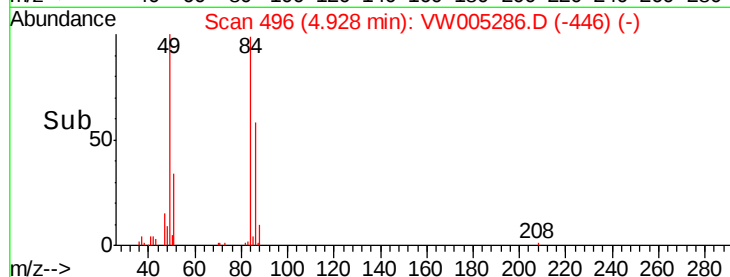


Abundance Ion 83.90 (83.60 to 84.60): VW

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



#25

2-Butanone

Concen: 41.203 ug/l

RT: 7.18 min Scan# 866

Delta R.T. 0.01 min

Lab File: VW005286.D

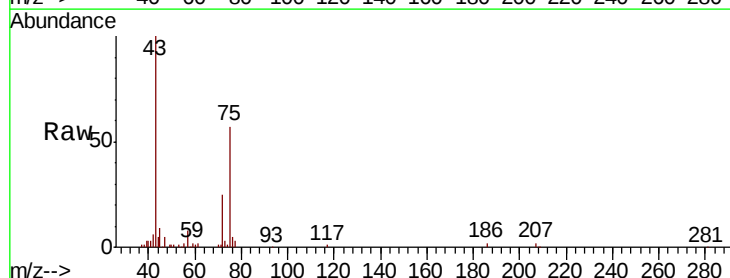
Acq: 11 Sep 2018 19:43

Tgt Ion: 43 Resp: 39470

Ion Ratio Lower Upper

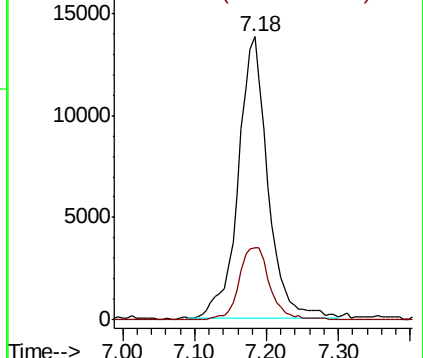
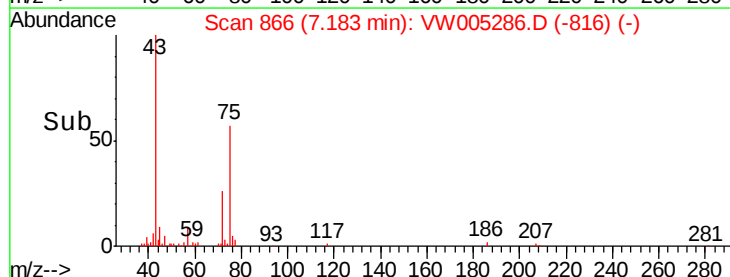
43 100

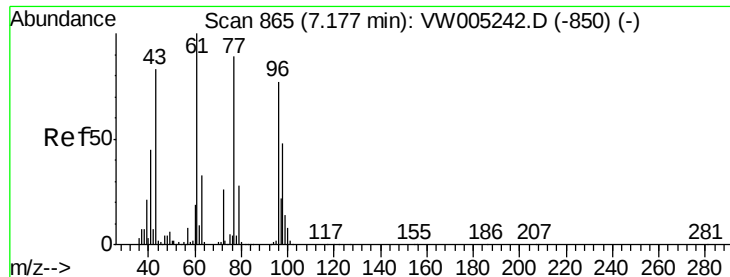
72 25.6 25.0 37.6



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 72.00 (71.70 to 72.70): VW





#26

2,2-Dichloropropane

Concen: 1.119 ug/l

RT: 7.15 min Scan# 860

Delta R.T. -0.03 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

Instrument :

MSVOA\_W

ClientSampleId :

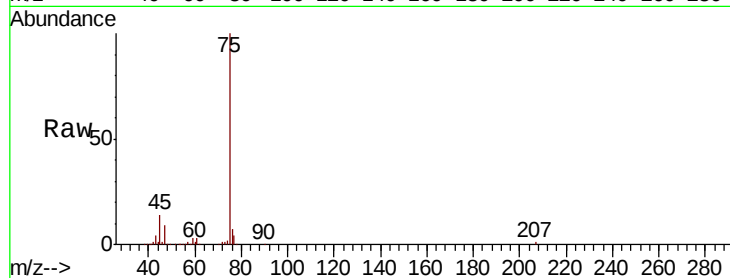
SUP-1B-G-090718-2

Tgt Ion: 77 Resp: 6383

Ion Ratio Lower Upper

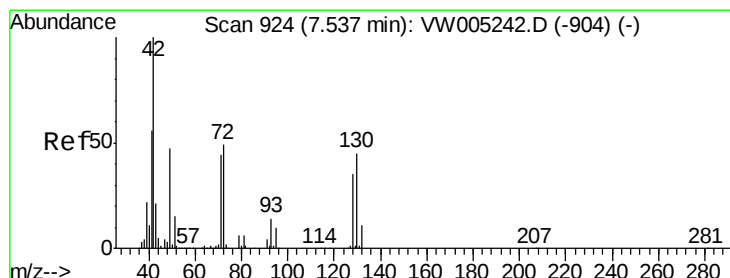
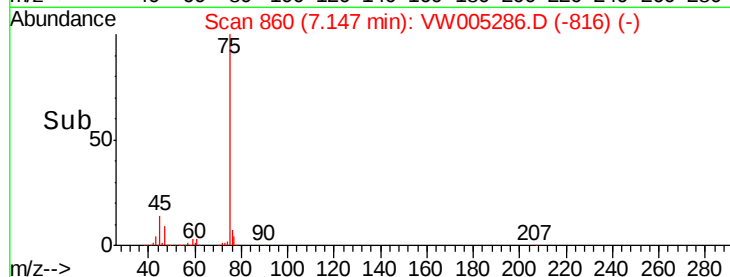
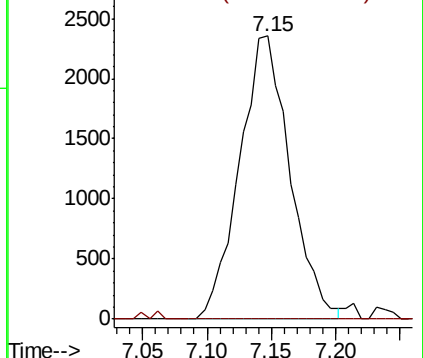
77 100

97 0.0 12.2 36.6#



Abundance Ion 76.90 (76.60 to 77.60): VW

Ion 96.90 (96.60 to 97.60): VW



#29

Tetrahydrofuran

Concen: 1.695 ug/l

RT: 7.55 min Scan# 926

Delta R.T. 0.01 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

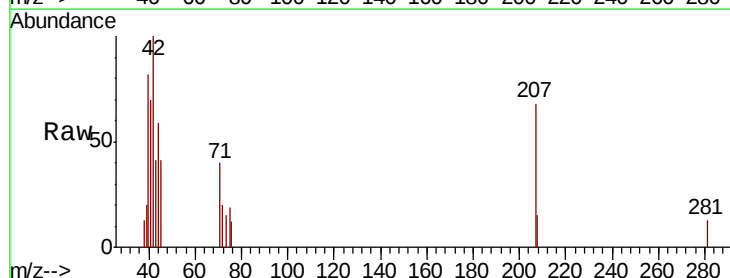
Tgt Ion: 42 Resp: 1094

Ion Ratio Lower Upper

42 100

72 45.2 37.5 56.3

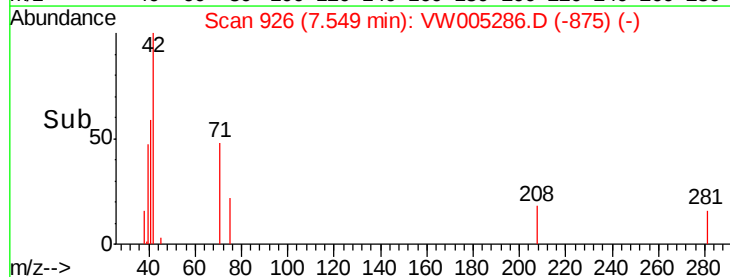
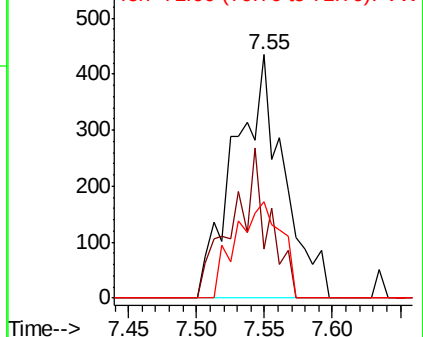
71 36.7 34.8 52.2

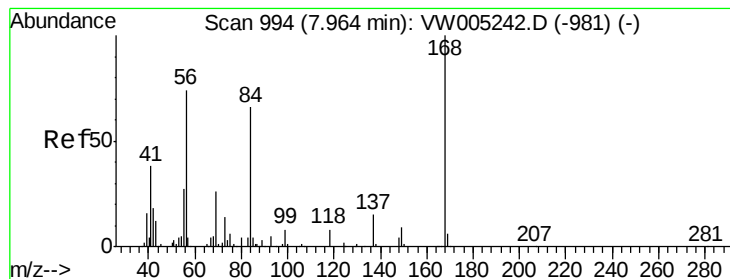


Abundance Ion 42.00 (41.70 to 42.70): VW

Ion 72.00 (71.70 to 72.70): VW

Ion 71.00 (70.70 to 71.70): VW





#31

Cyclohexane

Concen: 1.193 ug/l

RT: 7.95 min Scan# 992

Delta R.T. -0.01 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

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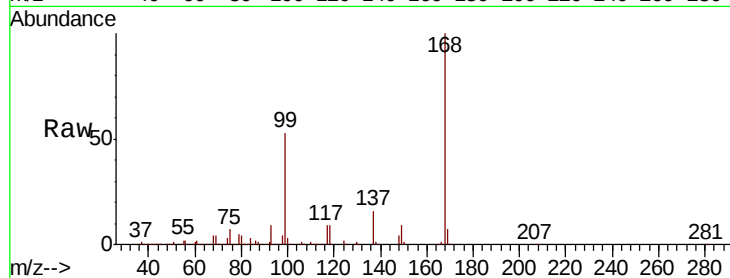
Tgt Ion: 56 Resp: 8351

Ion Ratio Lower Upper

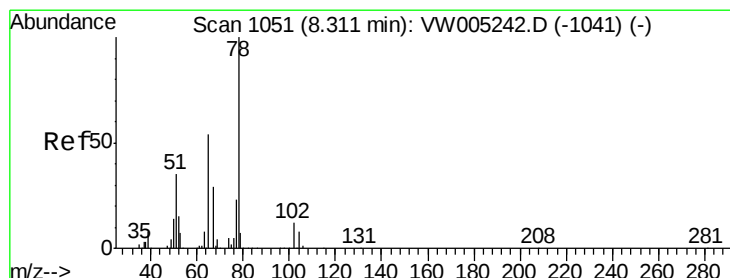
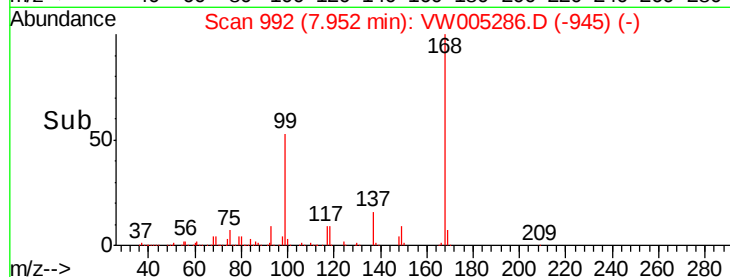
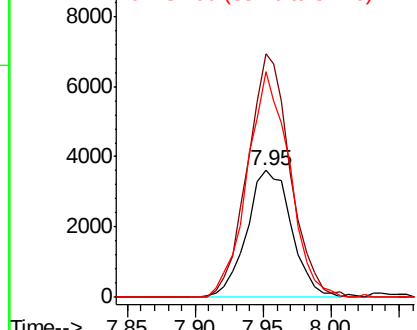
56 100

69 192.3 27.8 41.8#

84 177.7 72.1 108.1#



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: 58.351 ug/l

RT: 8.31 min Scan# 1051

Delta R.T. 0.00 min

Lab File: VW005286.D

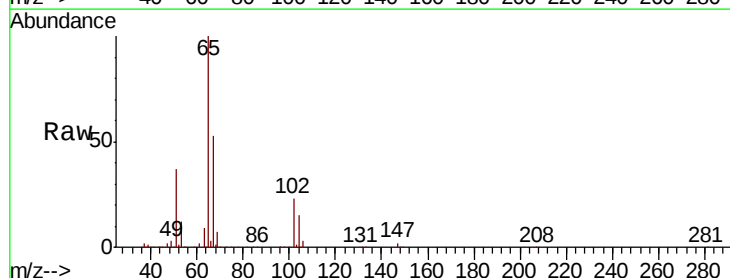
Acq: 11 Sep 2018 19:43

Tgt Ion: 65 Resp: 190915

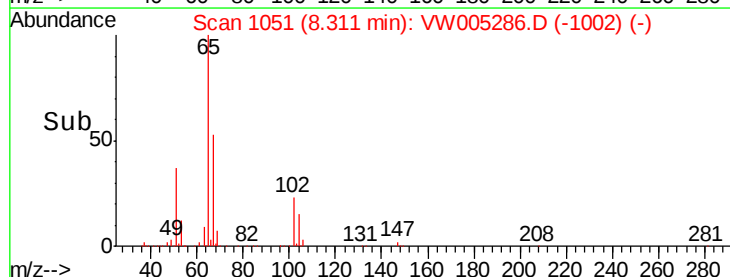
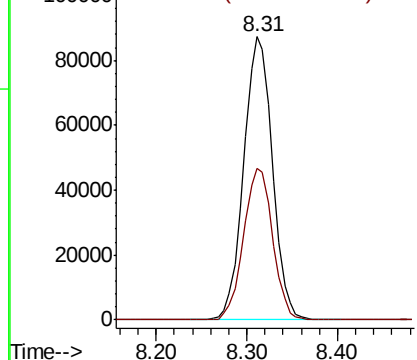
Ion Ratio Lower Upper

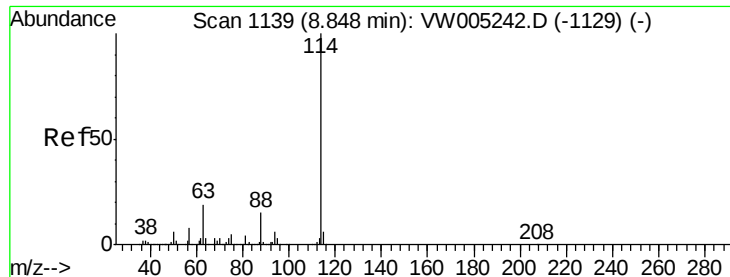
65 100

67 54.1 0.0 112.2



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

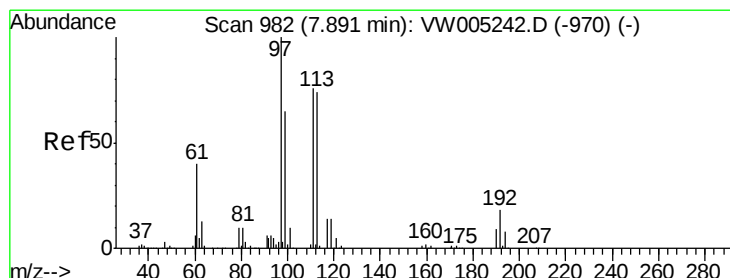
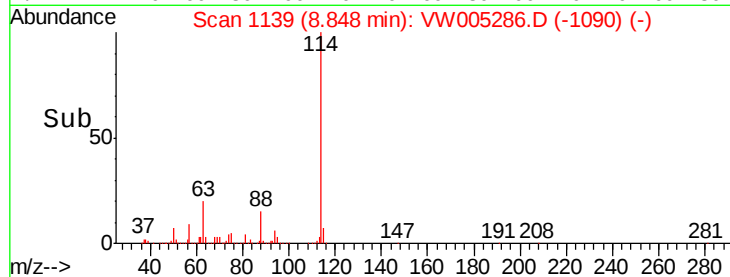
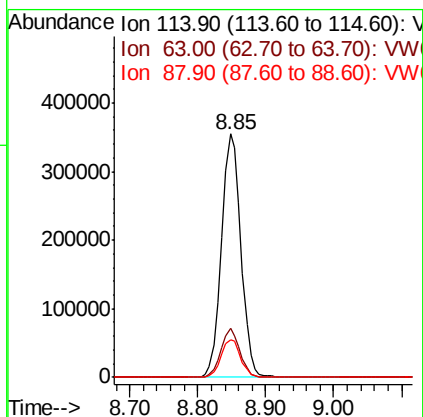
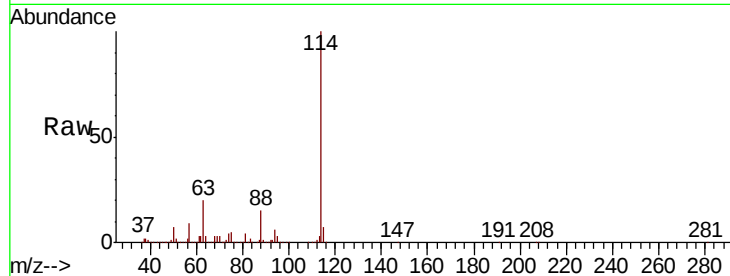




#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.85 min Scan# 1139  
 Delta R.T. 0.00 min  
 Lab File: VW005286.D  
 Acq: 11 Sep 2018 19:43

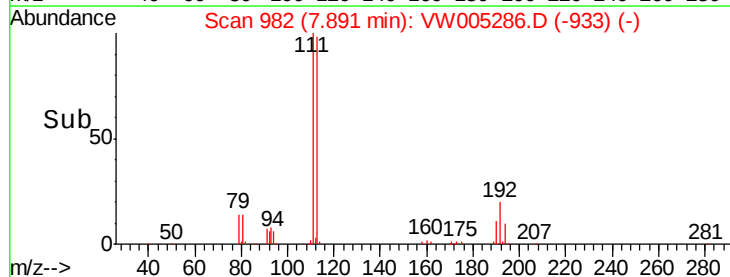
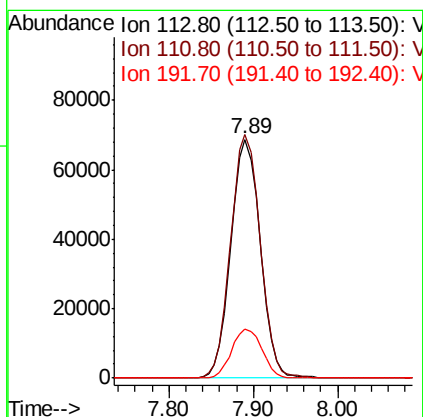
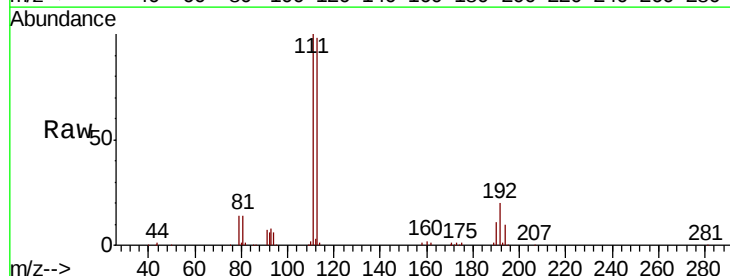
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 SUP-1B-G-090718-2

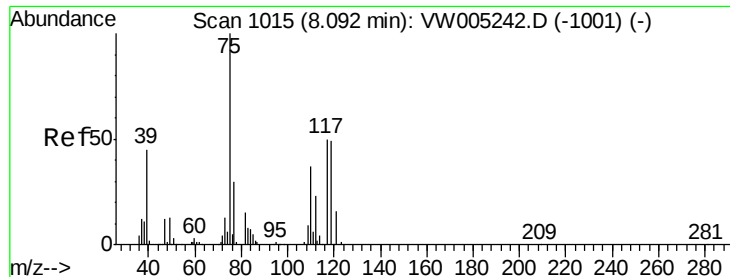
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 20.2  | 0.0   | 37.0  |
| 88      | 15.4  | 0.0   | 30.4  |



#35  
 Dibromofluoromethane  
 Concen: 44.116 ug/l  
 RT: 7.89 min Scan# 982  
 Delta R.T. 0.00 min  
 Lab File: VW005286.D  
 Acq: 11 Sep 2018 19:43

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 102.6 | 80.6  | 121.0 |
| 192     | 21.2  | 18.3  | 27.5  |





#36

1,1-Dichloropropene

Concen: 4.778 ug/l

RT: 7.95 min Scan# 992

Delta R.T. -0.14 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

Instrument :

MSVOA\_W

ClientSampleId :

SUP-1B-G-090718-2

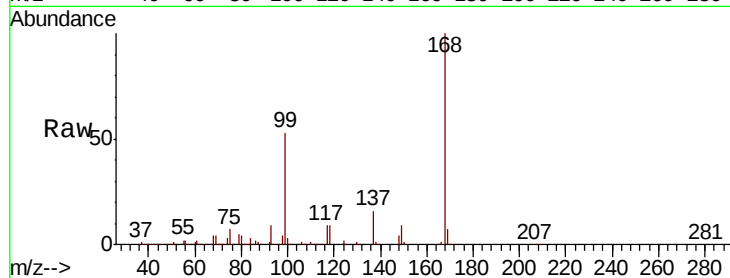
Tgt Ion: 75 Resp: 30702

Ion Ratio Lower Upper

75 100

110 8.3 18.8 56.4#

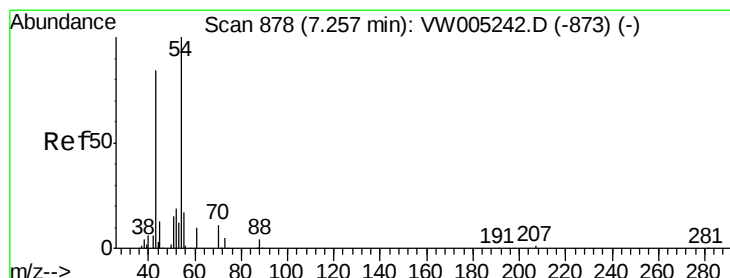
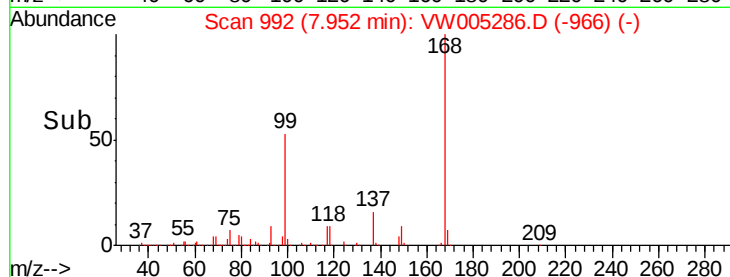
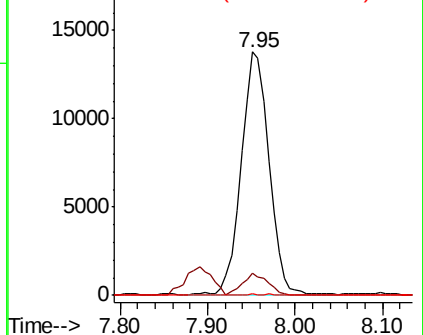
77 0.1 24.9 37.3#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 109.90 (109.60 to 110.60): VW

Ion 76.90 (76.60 to 77.60): VW



#37

Ethyl Acetate

Concen: 16.149 ug/l

RT: 7.18 min Scan# 866

Delta R.T. -0.07 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

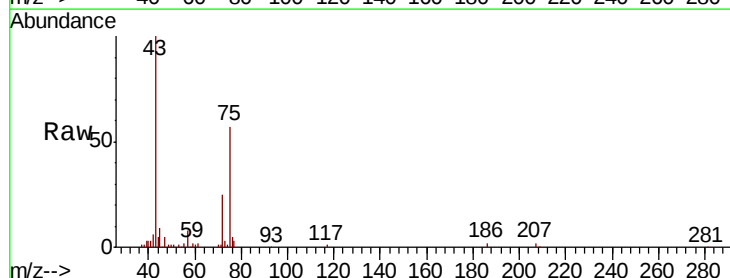
Tgt Ion: 43 Resp: 39470

Ion Ratio Lower Upper

43 100

61 0.0 12.3 18.5#

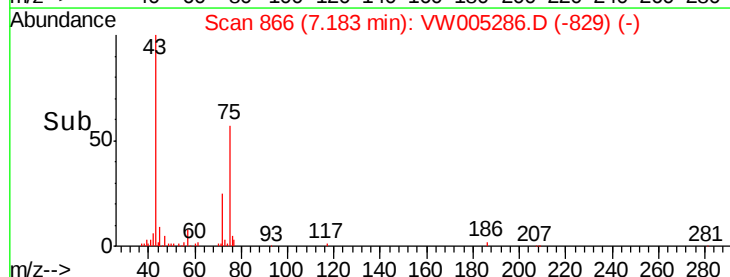
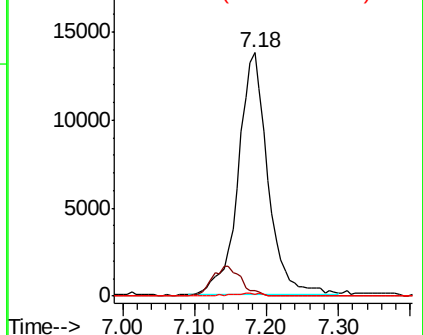
70 0.6 9.5 14.3#

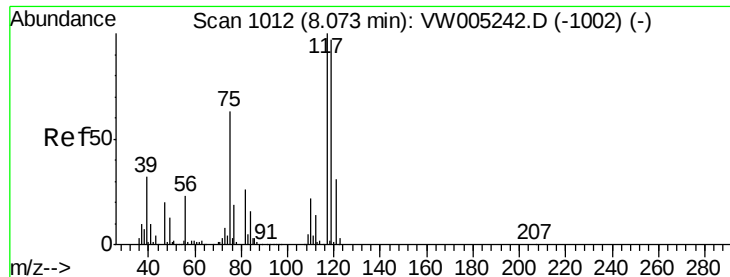


Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 60.90 (60.60 to 61.60): VW

Ion 70.00 (69.70 to 70.70): VW





#38

Carbon Tetrachloride

Concen: 6.574 ug/l

RT: 7.96 min Scan# 993

Delta R.T. -0.12 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

Instrument :

MSVOA\_W

ClientSampleId :

SUP-1B-G-090718-2

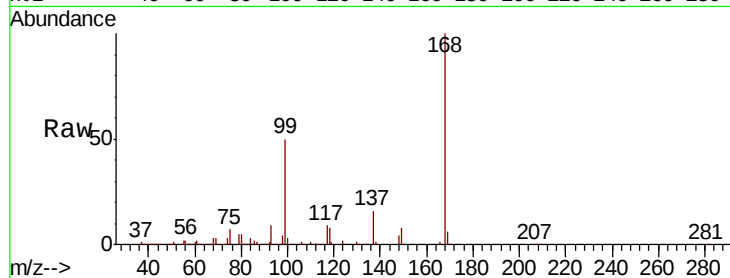
Tgt Ion:117 Resp: 39570

Ion Ratio Lower Upper

117 100

119 5.7 77.5 116.3#

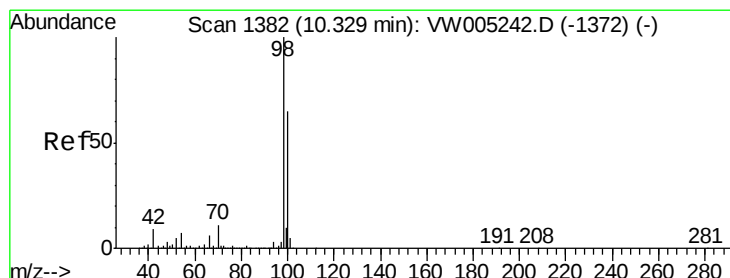
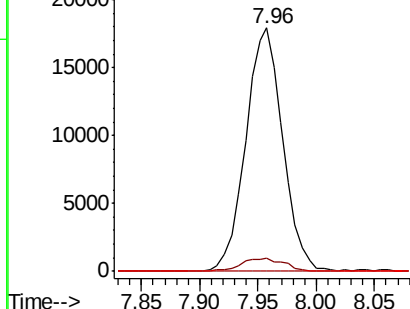
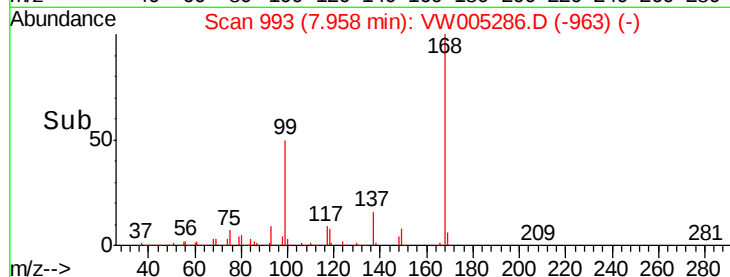
121 0.0 24.7 37.1#



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



#50

Toluene-d8

Concen: 37.885 ug/l

RT: 10.33 min Scan# 1382

Delta R.T. 0.00 min

Lab File: VW005286.D

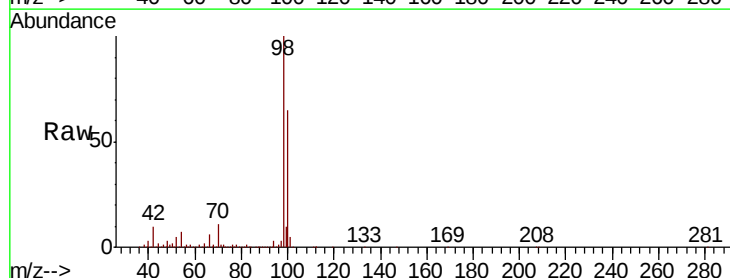
Acq: 11 Sep 2018 19:43

Tgt Ion: 98 Resp: 703354

Ion Ratio Lower Upper

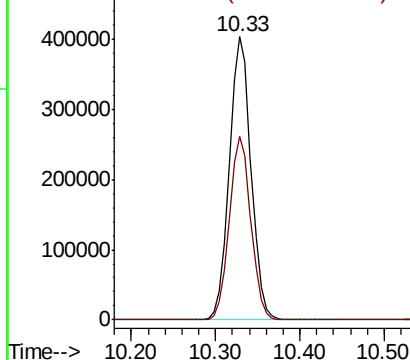
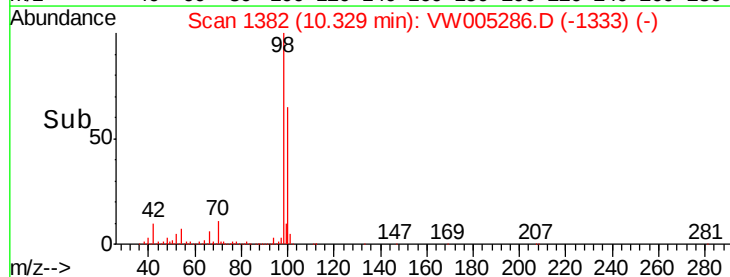
98 100

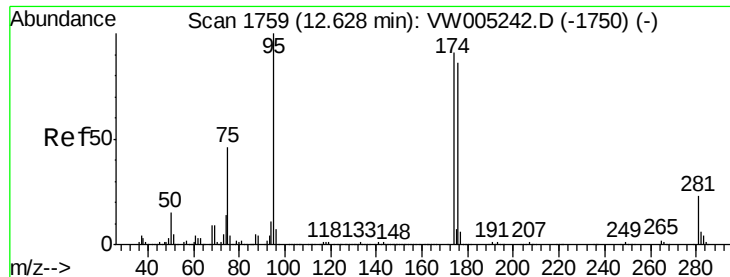
100 64.6 52.0 78.0



Abundance Ion 98.00 (97.70 to 98.70): VW

Ion 100.00 (99.70 to 100.70): VW

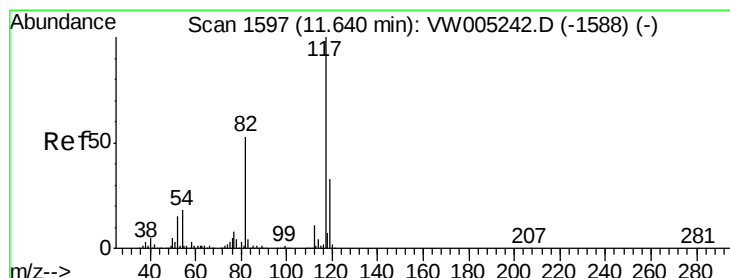
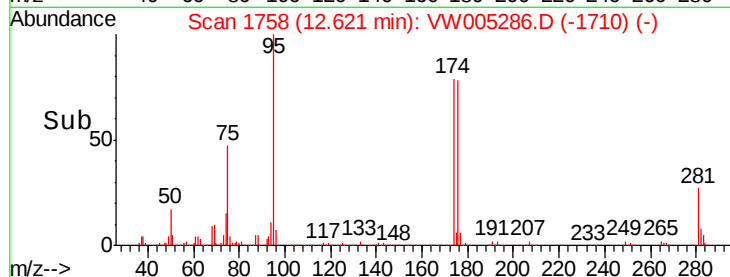
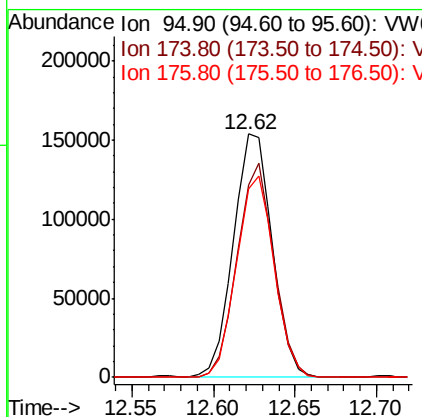
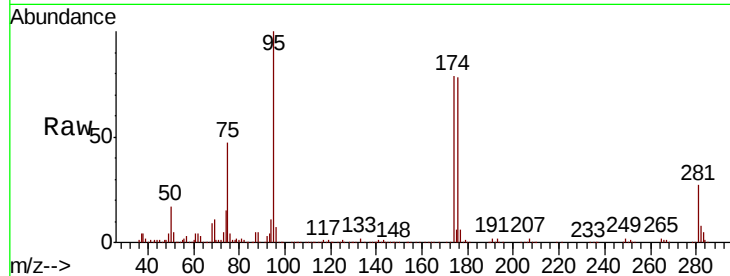




#62  
4-Bromofluorobenzene  
Concen: 37.379 ug/l  
RT: 12.62 min Scan# 1758  
Delta R.T. -0.01 min  
Lab File: VW005286.D  
Acq: 11 Sep 2018 19:43

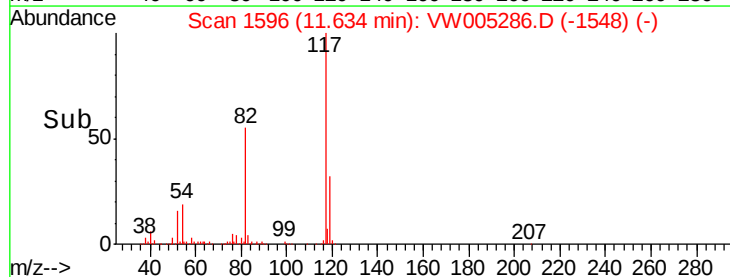
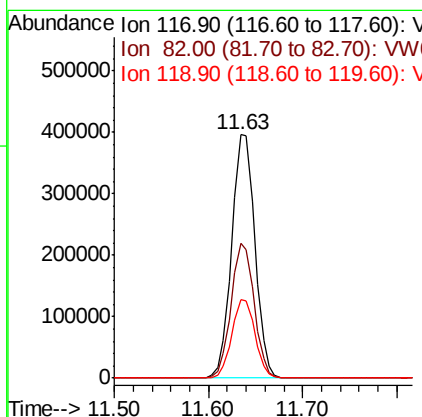
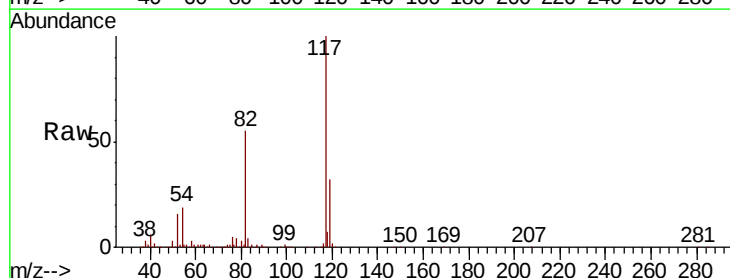
Instrument :  
MSVOA\_W  
ClientSampleId :  
SUP-1B-G-090718-2

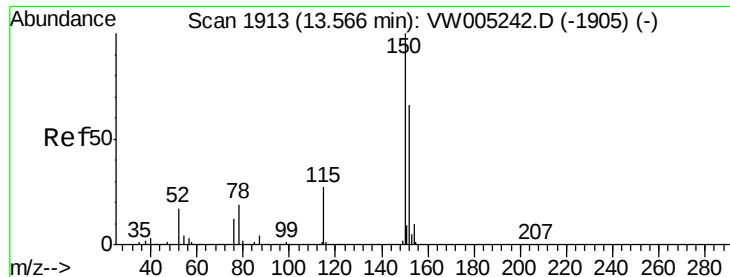
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 84.2  | 0.0   | 174.6 |
| 176     | 81.1  | 0.0   | 167.6 |



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1596  
Delta R.T. -0.01 min  
Lab File: VW005286.D  
Acq: 11 Sep 2018 19:43

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 55.4  | 42.6  | 63.8  |
| 119     | 32.1  | 26.2  | 39.4  |

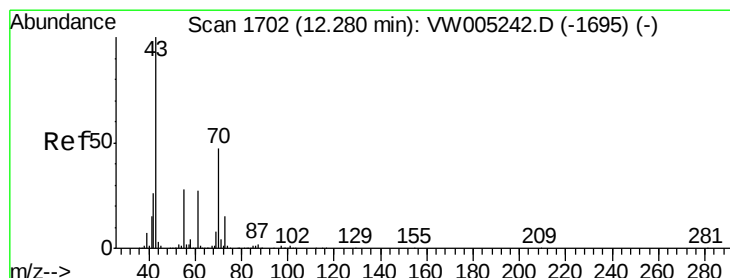
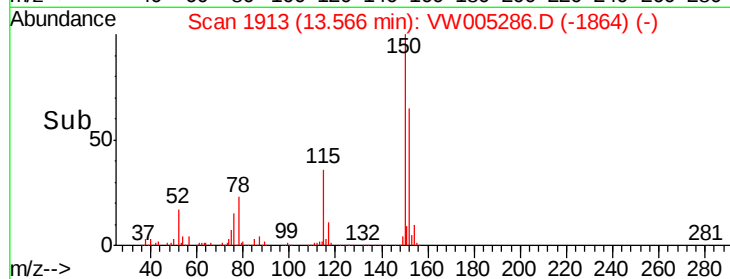
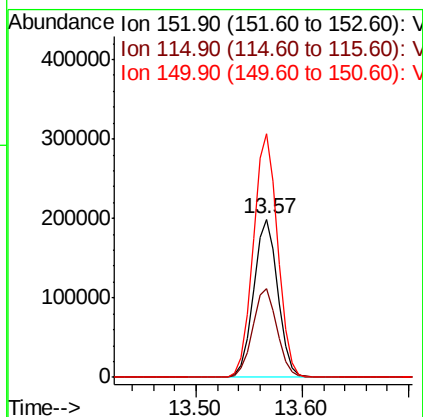
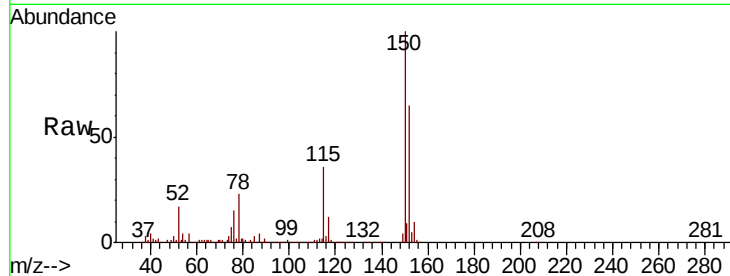




#72  
 1,4-Dichlorobenzene-d4  
 Concen: 50.000 ug/l  
 RT: 13.57 min Scan# 1913  
 Delta R.T. 0.00 min  
 Lab File: VW005286.D  
 Acq: 11 Sep 2018 19:43

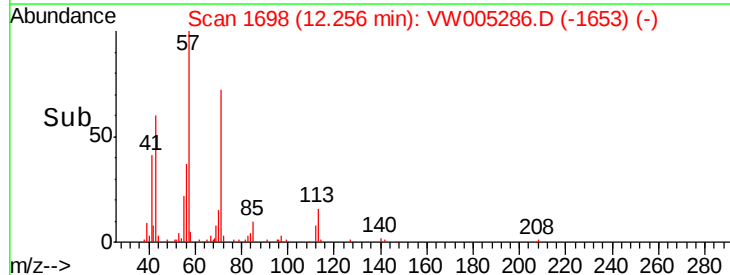
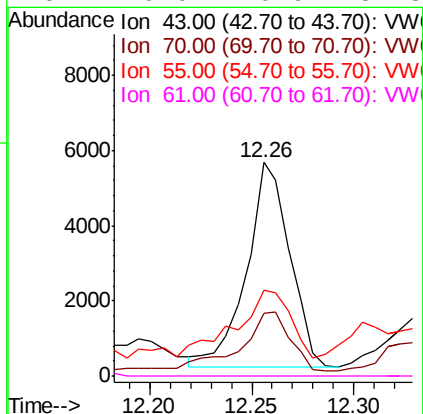
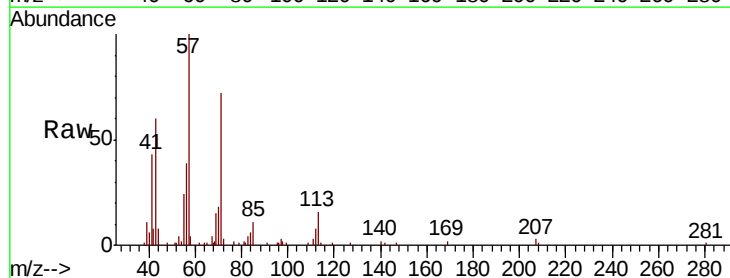
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 SUP-1B-G-090718-2

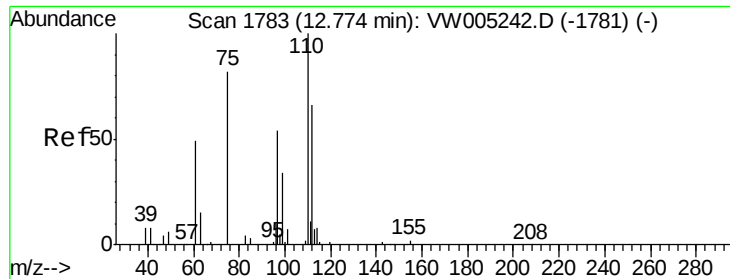
Tgt Ion:152 Resp: 315917  
 Ion Ratio Lower Upper  
 152 100  
 115 57.2 27.5 82.4  
 150 155.2 0.0 347.4



#74  
 N-ethyl acetate  
 Concen: 1.902 ug/l  
 RT: 12.26 min Scan# 1698  
 Delta R.T. -0.02 min  
 Lab File: VW005286.D  
 Acq: 11 Sep 2018 19:43

Tgt Ion: 43 Resp: 8078  
 Ion Ratio Lower Upper  
 43 100  
 70 32.8 37.9 56.9#  
 55 42.3 22.6 33.8#  
 61 0.0 20.9 31.3#





#76

1,2,3-Trichloropropane

Concen: 49.035 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. -0.15 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

Instrument :

MSVOA\_W

ClientSampleId :

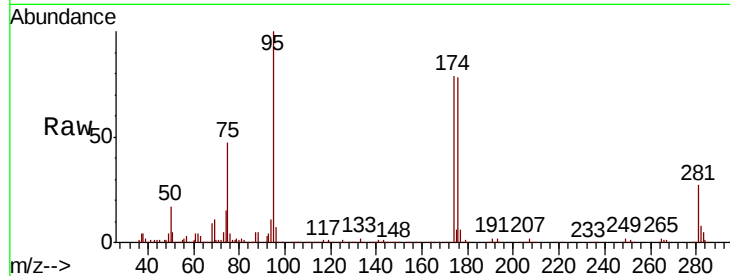
SUP-1B-G-090718-2

Tgt Ion: 75 Resp: 119150

Ion Ratio Lower Upper

75 100

77 1.6 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 77.00 (76.70 to 77.70): VW

12.62

80000

60000

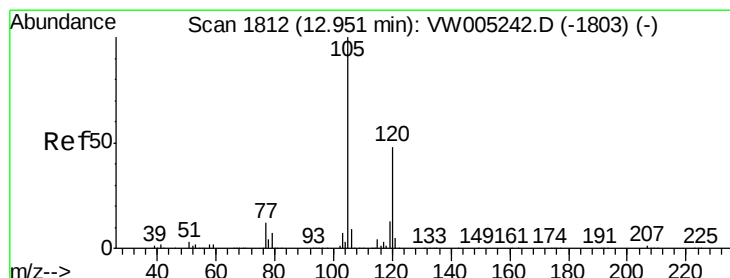
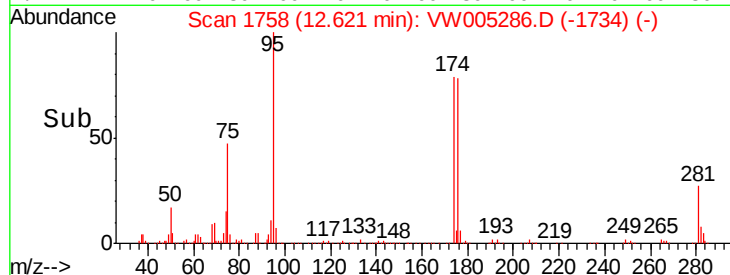
40000

20000

0

Time-->

12.60 12.70



#80

1,3,5-Trimethylbenzene

Concen: 1.590 ug/l

RT: 12.95 min Scan# 1812

Delta R.T. 0.00 min

Lab File: VW005286.D

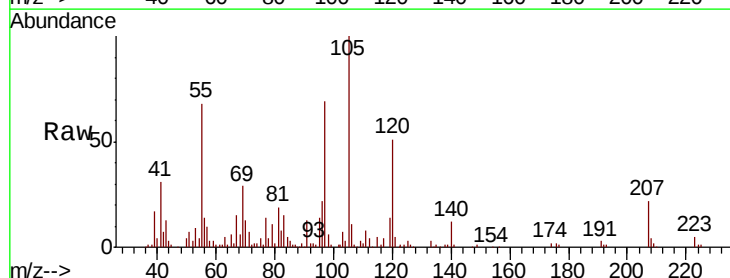
Acq: 11 Sep 2018 19:43

Tgt Ion: 105 Resp: 30228

Ion Ratio Lower Upper

105 100

120 52.6 24.4 73.4



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

12.95

20000

15000

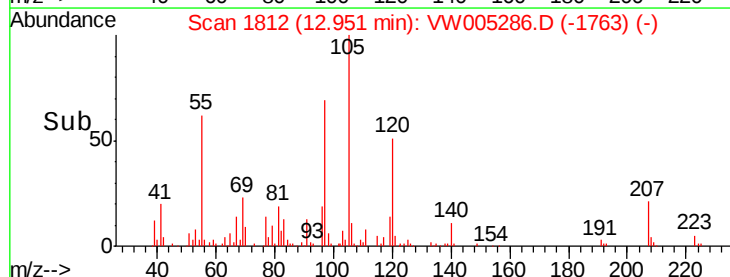
10000

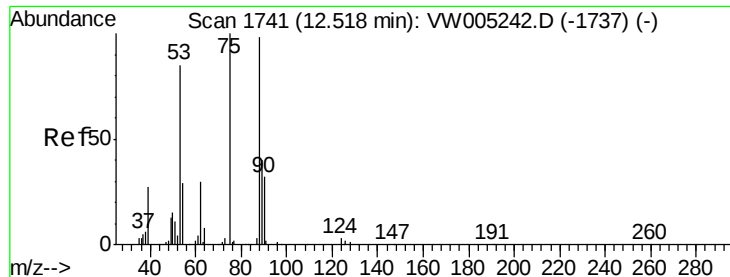
5000

0

Time-->

12.90 12.95 13.00





#81

trans-1,4-Dichloro-2-butene

Concen: 114.999 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. 0.10 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

Instrument :

MSVOA\_W

ClientSampleId :

SUP-1B-G-090718-2

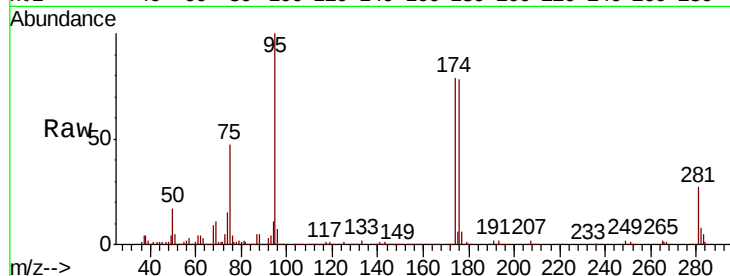
Tgt Ion: 75 Resp: 119150

Ion Ratio Lower Upper

75 100

53 0.5 67.0 100.6#

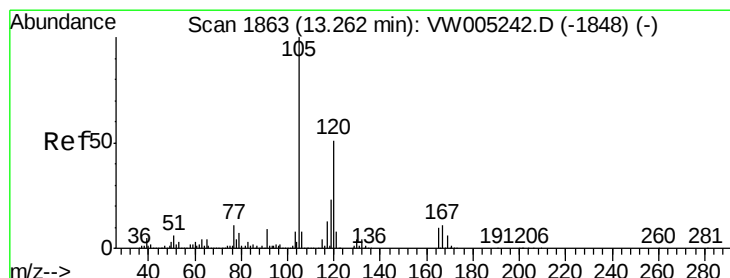
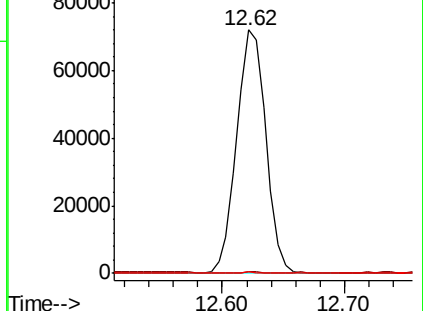
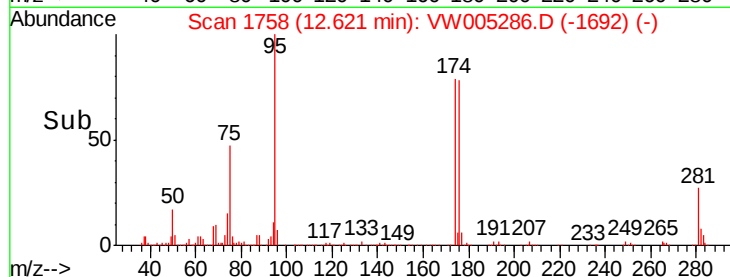
89 0.2 37.0 55.4#



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



#84

1,2,4-Trimethylbenzene

Concen: 6.253 ug/l

RT: 13.26 min Scan# 1862

Delta R.T. -0.01 min

Lab File: VW005286.D

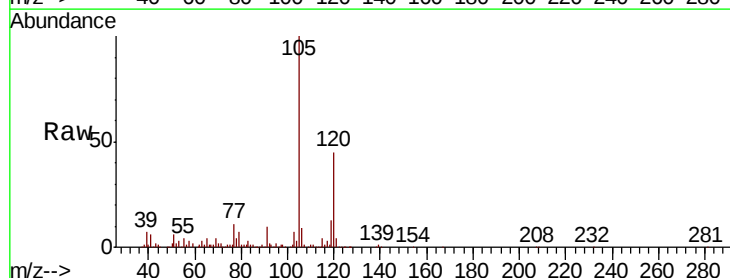
Acq: 11 Sep 2018 19:43

Tgt Ion: 105 Resp: 119431

Ion Ratio Lower Upper

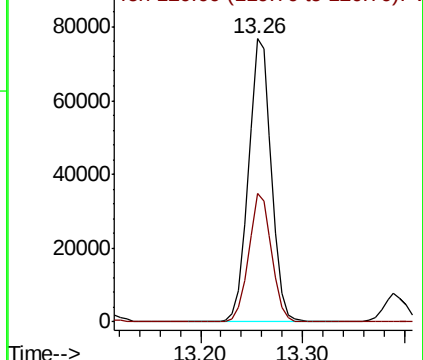
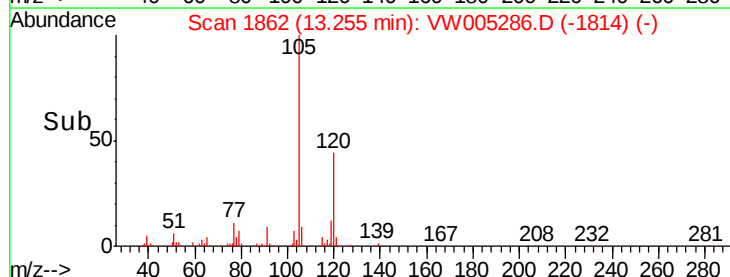
105 100

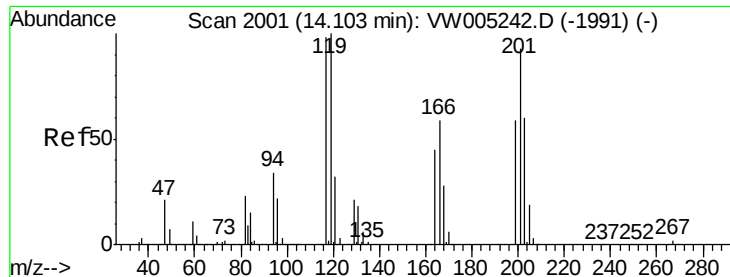
120 45.6 23.4 70.3



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V





#90

Hexachloroethane

Concen: 1.094 ug/l

RT: 14.10 min Scan# 2001

Delta R.T. 0.00 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

Instrument :

MSVOA\_W

ClientSampleId :

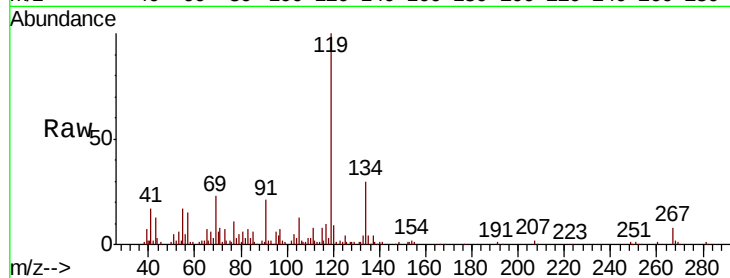
SUP-1B-G-090718-2

Tgt Ion:117 Resp: 3708

Ion Ratio Lower Upper

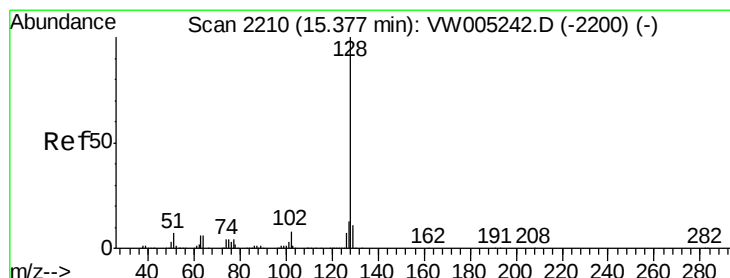
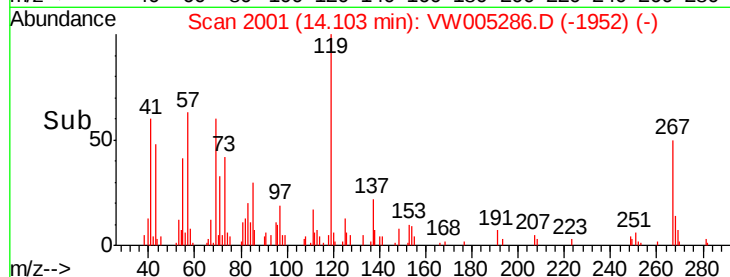
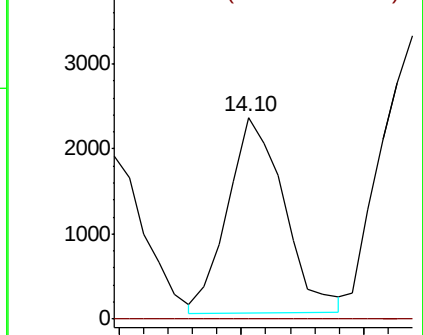
117 100

201 0.0 44.0 132.1#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 200.70 (200.40 to 201.40): V



#95

Naphthalene

Concen: 1.316 ug/l

RT: 15.38 min Scan# 2210

Delta R.T. 0.00 min

Lab File: VW005286.D

Acq: 11 Sep 2018 19:43

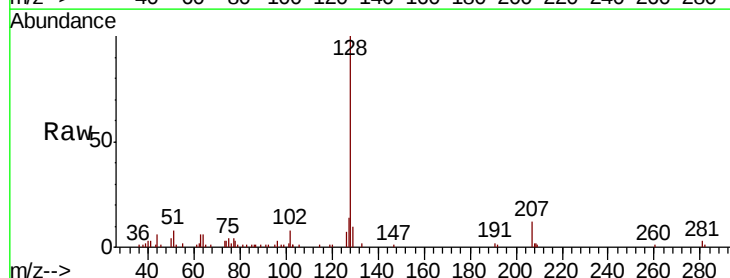
Tgt Ion:128 Resp: 14648

Ion Ratio Lower Upper

128 100

127 13.9 10.3 15.5

129 11.5 8.8 13.2



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

