

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_W\DATA\VW072518\  
 Data File : VW004190.D  
 Acq On : 25 Jul 2018 10:03  
 Operator : SY/AP  
 Sample : VSTDCCC025  
 Misc : 5.00G/10ML/MSVOA\_W/SOIL  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTD02599

Quant Time: Jul 26 00:46:35 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\SOM2WLM071818S.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Jul 25 00:28:45 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 8.84  | 114  | 315788   | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 11.63 | 117  | 325859   | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 167151   | 25.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 2.35   | 65    | 59613    | 19.08    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 76.32%  |
| 7) Chloroethane-d5             | 2.89   | 69    | 47340    | 21.03    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 84.12%  |
| 10) 1,1-Dichloroethene-d2      | 4.01   | 63    | 155193   | 20.71    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 82.84%  |
| 20) 2-Butanone-d5              | 7.09   | 46    | 96269    | 52.56    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 105.12% |
| 24) Chloroform-d               | 7.65   | 84    | 185228   | 24.71    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 98.84%  |
| 26) 1,2-Dichloroethane-d4      | 8.31   | 65    | 109651   | 24.29    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 97.16%  |
| 29) Benzene-d6                 | 8.28   | 84    | 316642   | 20.95    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 83.80%  |
| 33) 1,2-Dichloropropane-d6     | 9.27   | 67    | 110844   | 21.99    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 87.96%  |
| 37) Toluene-d8                 | 10.33  | 98    | 287677   | 21.18    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 84.72%  |
| 38) trans-1,3-Dichloropropene- | 10.58  | 79    | 49344    | 22.27    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 89.08%  |
| 39) 2-Hexanone-d5              | 10.93  | 63    | 77773    | 57.31    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 114.62% |
| 48) 1,1,2,2-Tetrachloroethane- | 12.70  | 84    | 148329   | 26.86    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 107.44% |
| 61) 1,2-Dichlorobenzene-d4     | 13.86  | 152   | 132691   | 24.69    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 98.76%  |

## Target Compounds

| Target Compounds               | R.T. | QIon | Response | Conc   | Units | Qvalue |
|--------------------------------|------|------|----------|--------|-------|--------|
| 2) Dichlorodifluoromethane     | 2.00 | 85   | 35999    | 17.805 | ug/L  | # 86   |
| 3) Chloromethane               | 2.21 | 50   | 76148    | 23.558 | ug/L  | 95     |
| 5) Vinyl chloride              | 2.36 | 62   | 110384   | 22.679 | ug/L  | 99     |
| 6) Bromomethane                | 2.78 | 94   | 60940    | 23.585 | ug/L  | 97     |
| 8) Chloroethane                | 2.92 | 64   | 59654    | 23.379 | ug/L  | 98     |
| 9) Trichlorofluoromethane      | 3.25 | 101  | 55034    | 22.694 | ug/L  | 99     |
| 11) 1,1,2-Trichloro-1,2,2-trif | 4.05 | 101  | 103923   | 24.099 | ug/L  | 96     |
| 12) 1,1-Dichloroethene         | 4.03 | 96   | 98790    | 23.501 | ug/L  | 93     |
| 13) Acetone                    | 4.13 | 43   | 88167    | 44.274 | ug/L  | 99     |
| 14) Carbon disulfide           | 4.37 | 76   | 303816   | 22.341 | ug/L  | 100    |
| 15) Methyl Acetate             | 4.67 | 43   | 80856    | 23.801 | ug/L  | 98     |
| 16) Methylene chloride         | 4.90 | 84   | 114215   | 18.853 | ug/L  | 97     |
| 17) Methyl tert-butyl Ether    | 5.42 | 73   | 202649   | 24.927 | ug/L  | 100    |
| 18) trans-1,2-Dichloroethene   | 5.41 | 96   | 107764   | 24.901 | ug/L  | 96     |
| 19) 1,1-Dichloroethane         | 6.21 | 63   | 210439   | 25.559 | ug/L  | 98     |
| 21) 2-Butanone                 | 7.18 | 43   | 115481   | 46.738 | ug/L  | 99     |
| 22) cis-1,2-Dichloroethene     | 7.17 | 96   | 119262   | 25.783 | ug/L  | 95     |

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 Operator : SY/AP  
 Sample : VSTDCCC025  
 Misc : 5.00G/10ML/MSVOA\_W/SOIL  
 ALS Vial : 1 Sample Multiplier: 1

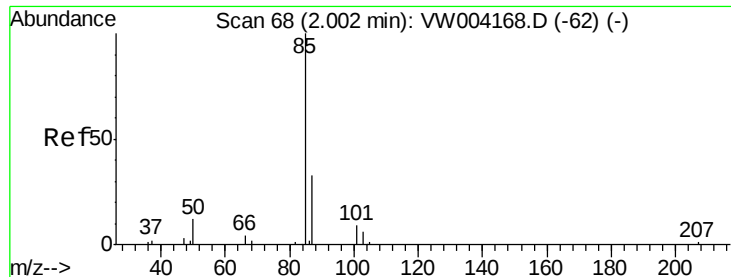
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTD02599

Quant Time: Jul 26 00:46:35 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\SOM2WLM071818S.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Jul 25 00:28:45 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane         | 7.51  | 128  | 56821    | 26.125 | ug/L  | 97       |
| 25) Chloroform                 | 7.67  | 83   | 218572   | 25.996 | ug/L  | 100      |
| 27) 1,2-Dichloroethane         | 8.40  | 62   | 160658   | 25.926 | ug/L  | 99       |
| 30) Cyclohexane                | 7.95  | 56   | 176695   | 22.233 | ug/L  | 98       |
| 31) 1,1,1-Trichloroethane      | 7.87  | 97   | 170506   | 23.007 | ug/L  | 99       |
| 32) Carbon tetrachloride       | 8.07  | 117  | 164791   | 23.047 | ug/L  | 100      |
| 34) Benzene                    | 8.32  | 78   | 472163   | 23.638 | ug/L  | 100      |
| 35) Trichloroethene            | 9.09  | 95   | 121034   | 22.647 | ug/L  | 98       |
| 36) Methylcyclohexane          | 9.34  | 83   | 204756   | 23.180 | ug/L  | 99       |
| 40) 1,2-Dichloropropane        | 9.37  | 63   | 128798   | 23.786 | ug/L  | 98       |
| 41) Bromodichloromethane       | 9.65  | 83   | 162068   | 24.309 | ug/L  | 100      |
| 42) cis-1,3-Dichloropropene    | 10.07 | 75   | 188284   | 24.677 | ug/L  | 98       |
| 43) 4-Methyl-2-pentanone       | 10.21 | 43   | 225348   | 47.340 | ug/L  | 99       |
| 44) Toluene                    | 10.39 | 91   | 517588   | 24.729 | ug/L  | 99       |
| 45) trans-1,3-Dichloropropene  | 10.61 | 75   | 176647   | 25.101 | ug/L  | 99       |
| 46) 1,1,2-Trichloroethane      | 10.79 | 97   | 109189   | 25.946 | ug/L  | 99       |
| 47) Tetrachloroethene          | 10.87 | 164  | 109425   | 25.387 | ug/L  | 96       |
| 49) 2-Hexanone                 | 10.98 | 43   | 196332   | 53.274 | ug/L  | 100      |
| 50) Dibromochloromethane       | 11.13 | 129  | 126641   | 26.863 | ug/L  | 96       |
| 51) 1,2-Dibromoethane          | 11.24 | 107  | 106226   | 25.844 | ug/L  | 99       |
| 52) Chlorobenzene              | 11.66 | 112  | 355162   | 26.465 | ug/L  | 100      |
| 53) Ethylbenzene               | 11.74 | 91   | 625475   | 27.607 | ug/L  | 99       |
| 54) m,p-Xylene                 | 11.85 | 106  | 238595   | 28.573 | ug/L  | 97       |
| 55) o-xylene                   | 12.17 | 106  | 221473   | 27.729 | ug/L  | 99       |
| 56) Styrene                    | 12.19 | 104  | 392626   | 28.456 | ug/L  | 96       |
| 57) Isopropylbenzene           | 12.47 | 105  | 602855   | 27.529 | ug/L  | 100      |
| 58) 1,1,2,2-Tetrachloroethane  | 12.72 | 83   | 154535   | 25.690 | ug/L  | 99       |
| 59) 1,2,3-Trichloropropane     | 12.77 | 75   | 118320   | 25.410 | ug/L  | 98       |
| 62) Bromoform                  | 12.35 | 173  | 80378    | 25.481 | ug/L  | 99       |
| 63) 1,3-Dichlorobenzene        | 13.51 | 146  | 267485   | 25.982 | ug/L  | 99       |
| 64) 1,4-Dichlorobenzene        | 13.59 | 146  | 283085   | 25.645 | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene        | 13.88 | 146  | 260041   | 25.920 | ug/L  | 98       |
| 66) 1,2-Dibromo-3-chloropropan | 14.49 | 75   | 28469    | 24.340 | ug/L  | 93       |
| 67) 1,3,5-Trichlorobenzene     | 14.64 | 180  | 203523   | 25.000 | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene     | 15.15 | 180  | 165604   | 25.366 | ug/L  | 98       |
| 69) Naphthalene                | 15.38 | 128  | 396795   | 26.995 | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene     | 15.57 | 180  | 163465   | 26.317 | ug/L  | 100      |

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





#2

Dichlorodifluoromethane

Concen: 17.805 ug/L

RT: 2.00 min Scan# 68

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

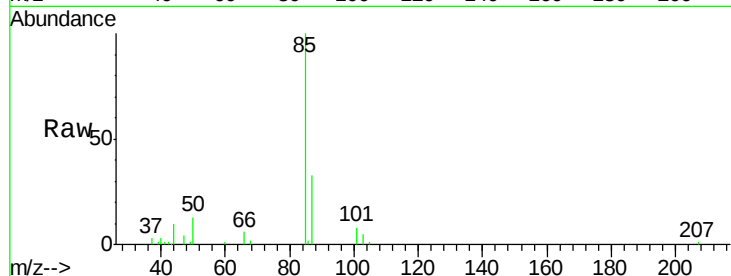
VSTD02599

Tgt Ion: 85 Resp: 35999

Ion Ratio Lower Upper

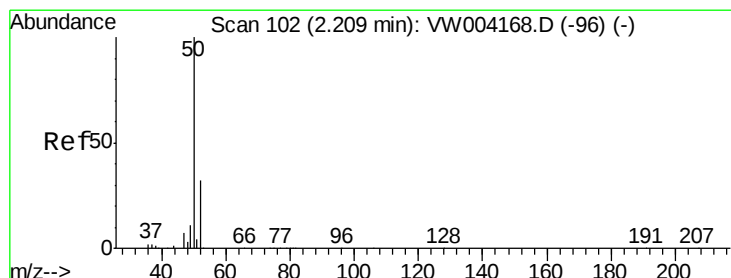
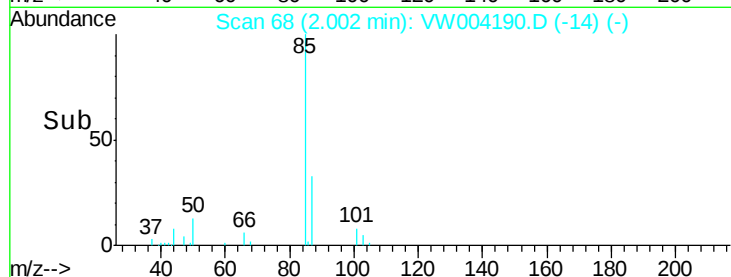
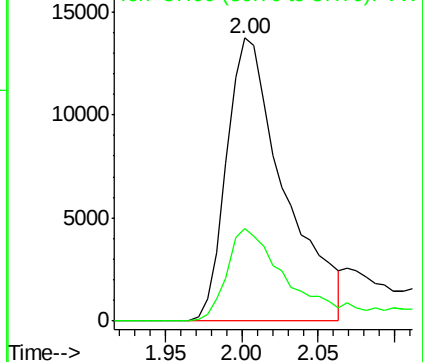
85 100

87 32.6 0.1 0.1#



Abundance Ion 85.00 (84.70 to 85.70): VW

Ion 87.00 (86.70 to 87.70): VW



#3

Chloromethane

Concen: 23.558 ug/L

RT: 2.21 min Scan# 102

Delta R.T. 0.00 min

Lab File: VW004190.D

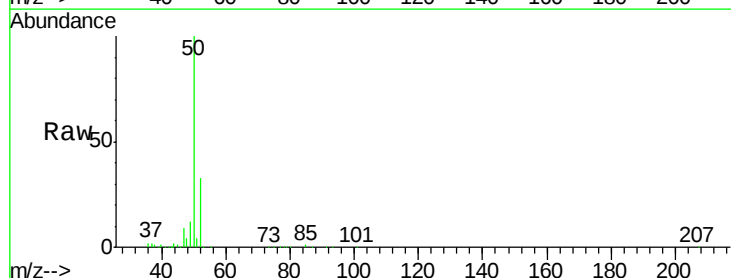
Acq: 25 Jul 2018 10:03

Tgt Ion: 50 Resp: 76148

Ion Ratio Lower Upper

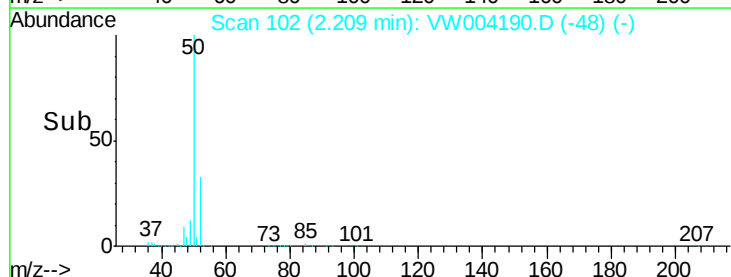
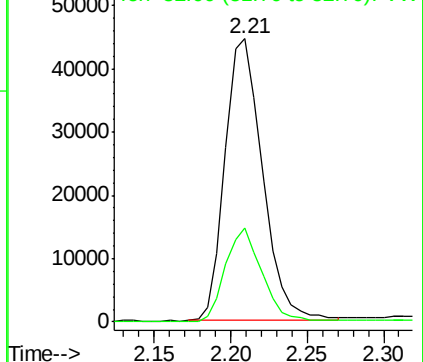
50 100

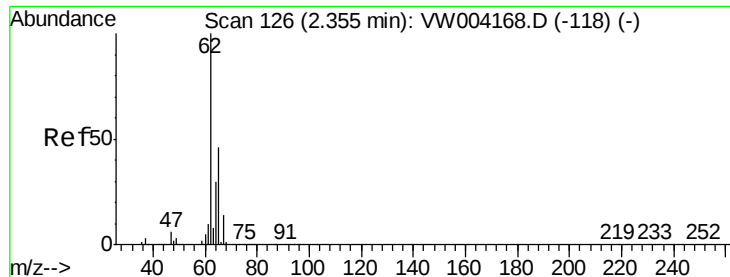
52 33.2 21.3 39.6



Abundance Ion 50.00 (49.70 to 50.70): VW

Ion 52.00 (51.70 to 52.70): VW





#5

Vinyl chloride

Concen: 22.679 ug/L

RT: 2.36 min Scan# 126

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

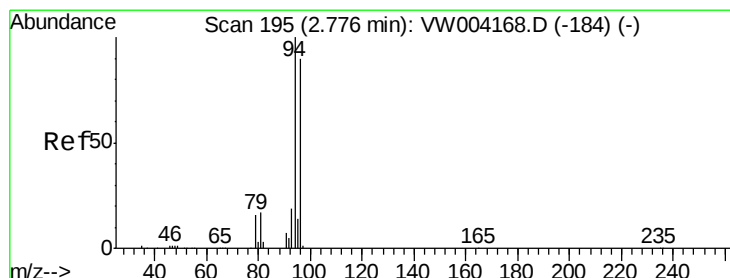
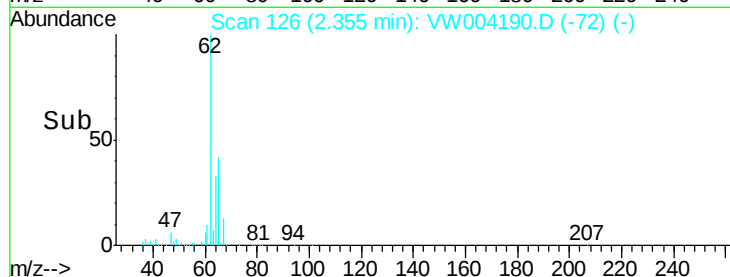
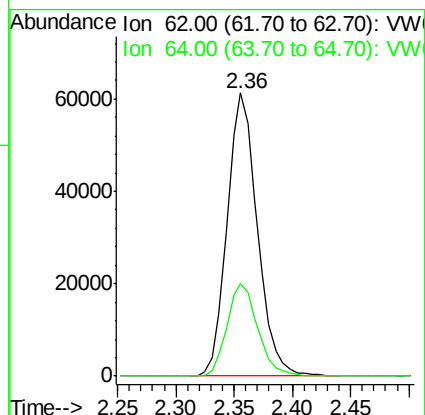
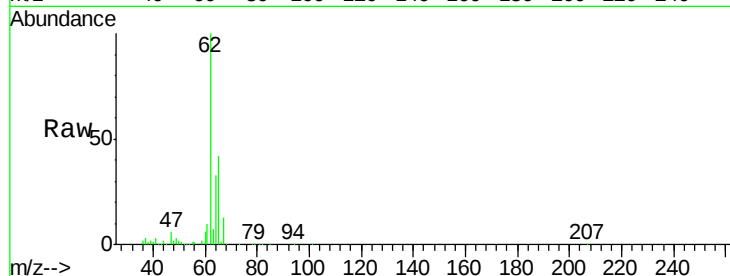
VSTD02599

Tgt Ion: 62 Resp: 110384

Ion Ratio Lower Upper

62 100

64 32.7 23.1 42.9



#6

Bromomethane

Concen: 23.585 ug/L

RT: 2.78 min Scan# 195

Delta R.T. 0.00 min

Lab File: VW004190.D

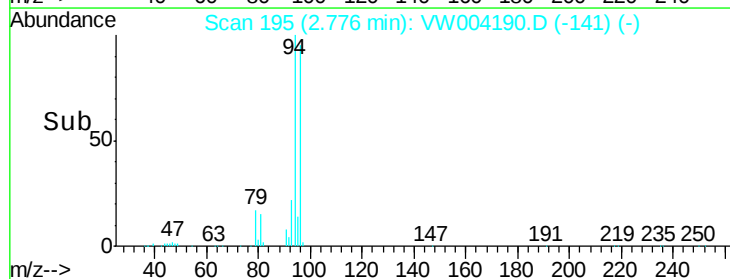
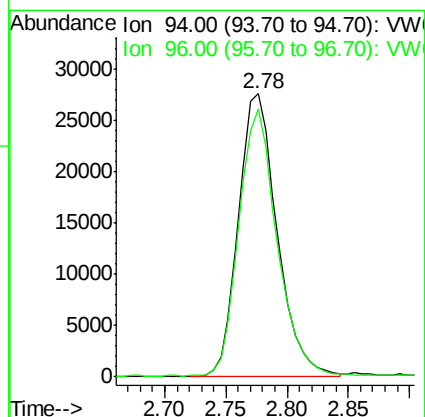
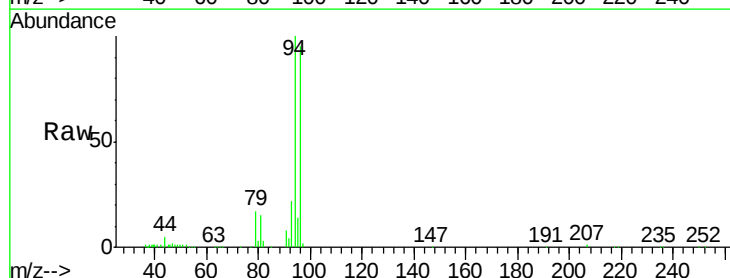
Acq: 25 Jul 2018 10:03

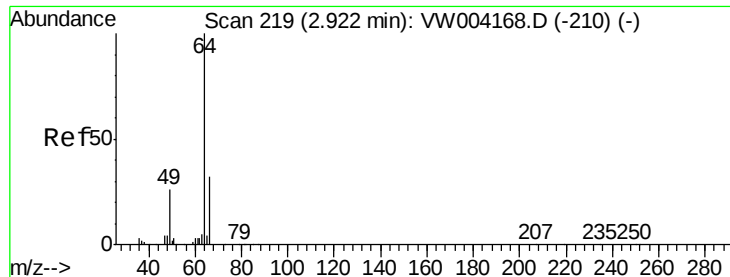
Tgt Ion: 94 Resp: 60940

Ion Ratio Lower Upper

94 100

96 92.1 9.5 179.9





#8

Chloroethane

Concen: 23.379 ug/L

RT: 2.92 min Scan# 218

Delta R.T. -0.01 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

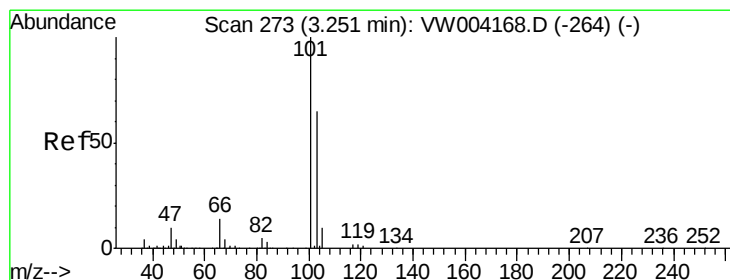
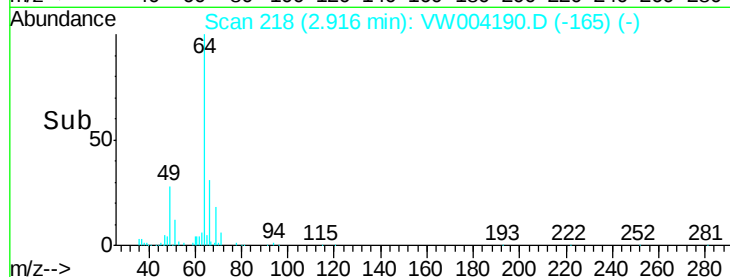
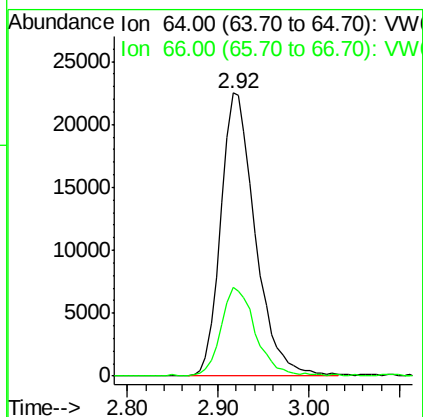
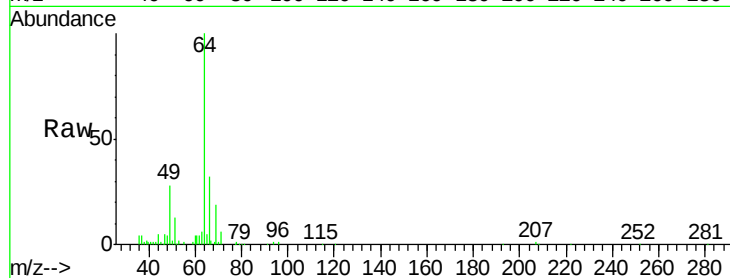
VSTD02599

Tgt Ion: 64 Resp: 59654

Ion Ratio Lower Upper

64 100

66 31.5 21.2 39.4



#9

Trichlorofluoromethane

Concen: 22.694 ug/L

RT: 3.25 min Scan# 273

Delta R.T. 0.00 min

Lab File: VW004190.D

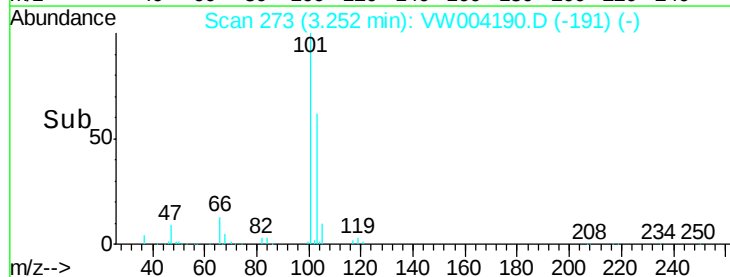
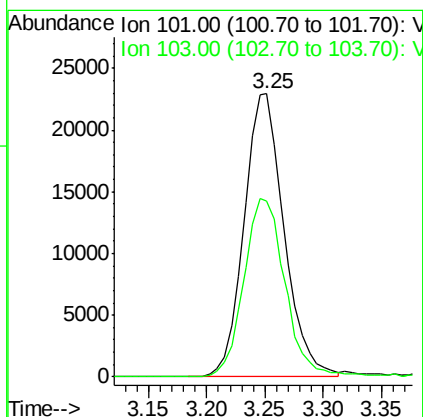
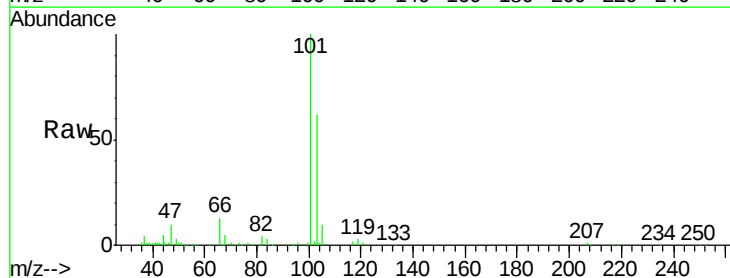
Acq: 25 Jul 2018 10:03

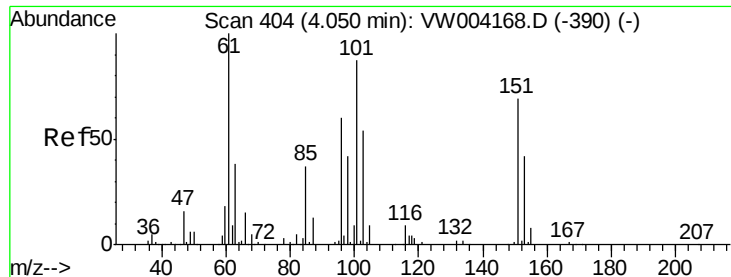
Tgt Ion: 101 Resp: 55034

Ion Ratio Lower Upper

101 100

103 64.7 45.6 84.8





#11

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 24.099 ug/L

RT: 4.05 min Scan# 404

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampled :

VSTD02599

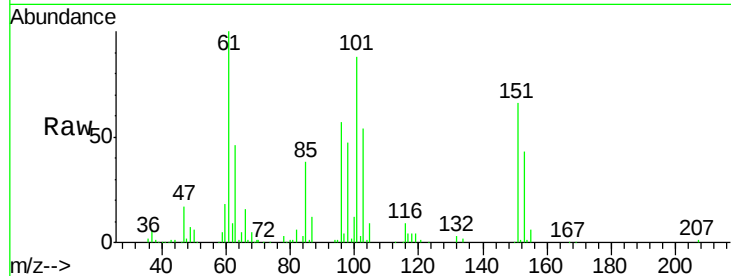
Tgt Ion: 101 Resp: 103923

Ion Ratio Lower Upper

101 100

85 42.6 36.2 54.4

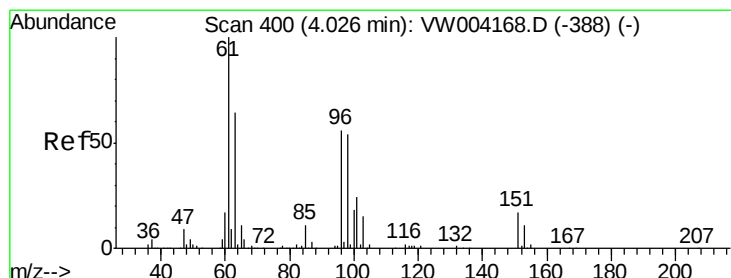
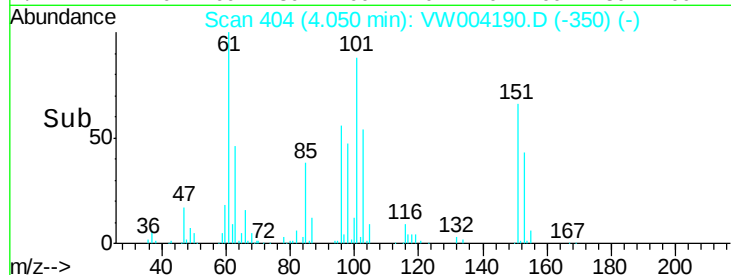
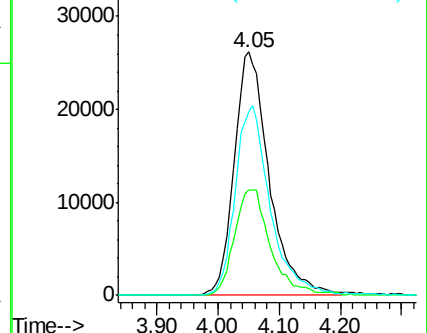
151 77.0 59.5 89.3



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VW

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 23.501 ug/L

RT: 4.03 min Scan# 400

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

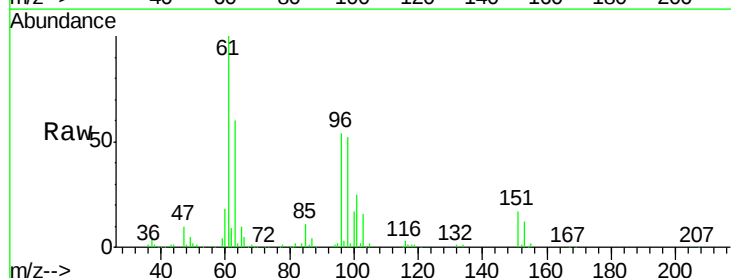
Tgt Ion: 96 Resp: 98790

Ion Ratio Lower Upper

96 100

61 184.9 127.3 236.5

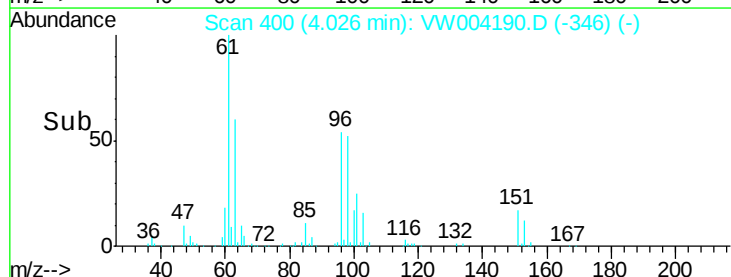
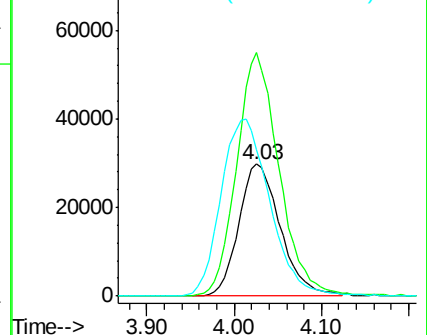
63 111.6 88.5 164.4

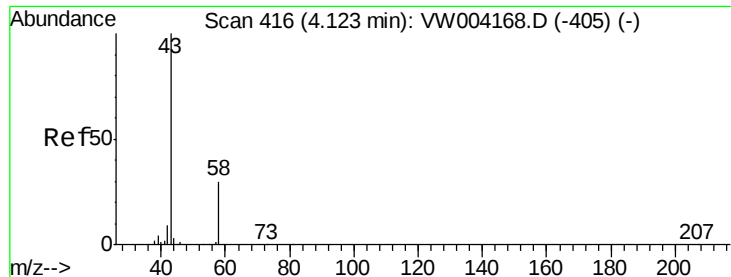


Abundance Ion 96.00 (95.70 to 96.70): VW

Ion 61.00 (60.70 to 61.70): VW

Ion 63.00 (62.70 to 63.70): VW





#13

Acetone

Concen: 44.274 ug/L

RT: 4.13 min Scan# 417

Delta R.T. 0.01 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

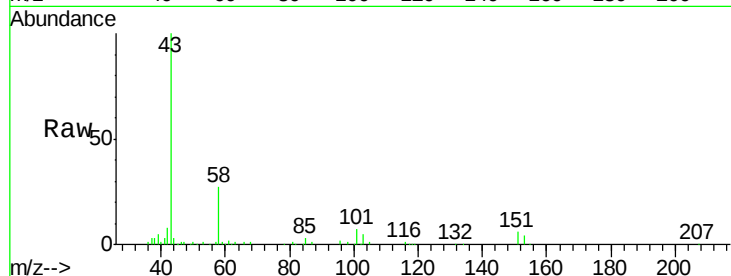
VSTD02599

Tgt Ion: 43 Resp: 88167

Ion Ratio Lower Upper

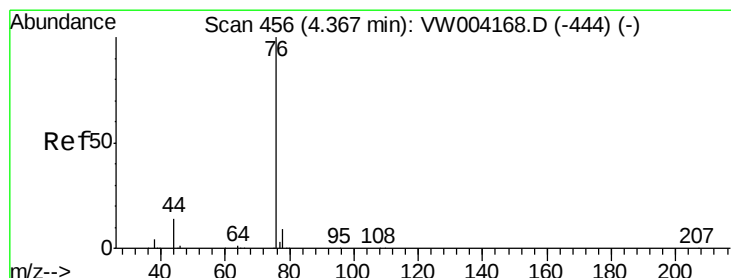
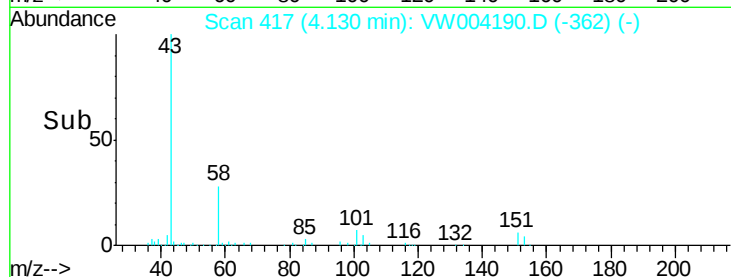
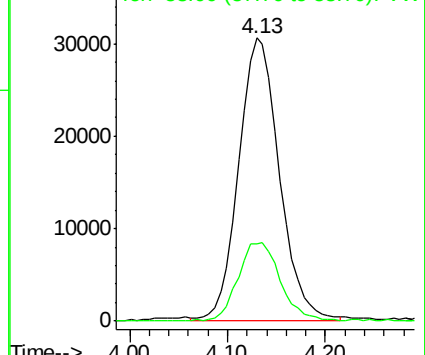
43 100

58 29.0 0.0 59.4



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 58.00 (57.70 to 58.70): VW



#14

Carbon disulfide

Concen: 22.341 ug/L

RT: 4.37 min Scan# 456

Delta R.T. 0.00 min

Lab File: VW004190.D

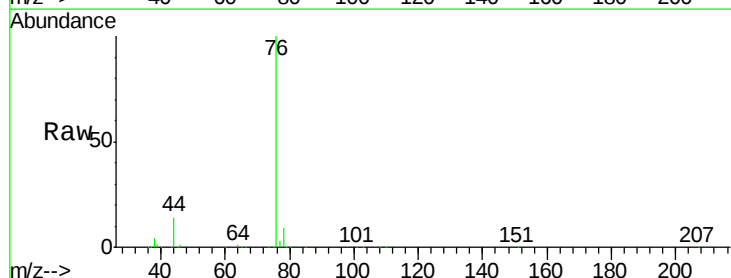
Acq: 25 Jul 2018 10:03

Tgt Ion: 76 Resp: 303816

Ion Ratio Lower Upper

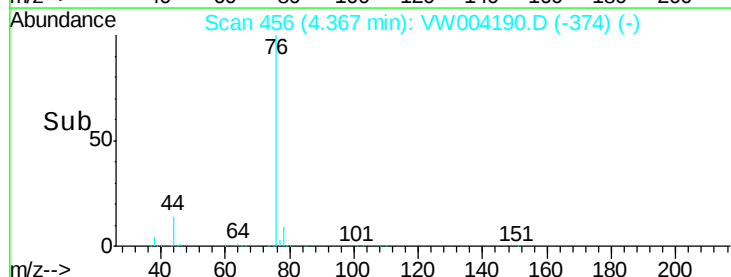
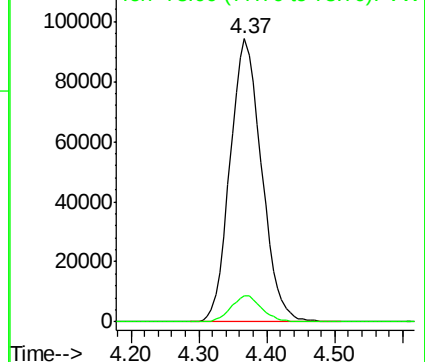
76 100

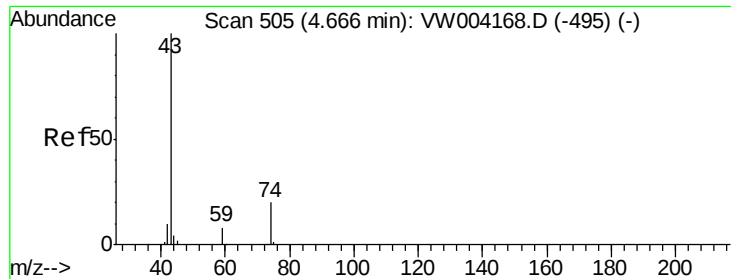
78 9.2 7.3 10.9



Abundance Ion 76.00 (75.70 to 76.70): VW

Ion 78.00 (77.70 to 78.70): VW





#15

Methyl Acetate

Concen: 23.801 ug/L

RT: 4.67 min Scan# 506

Delta R.T. 0.01 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

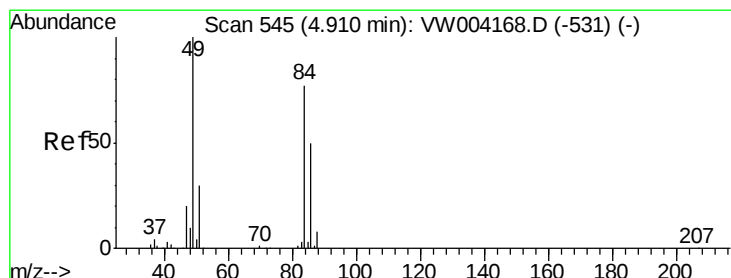
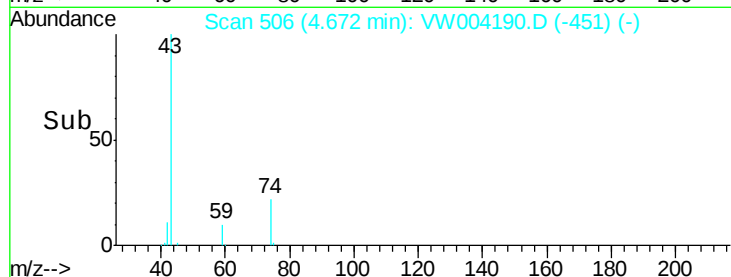
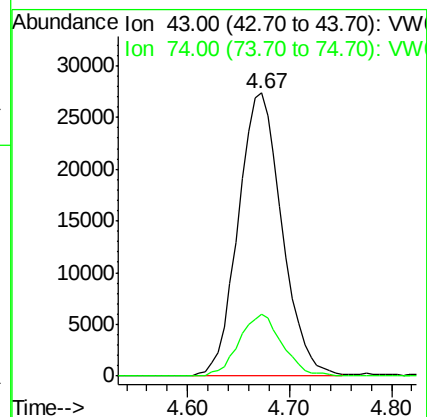
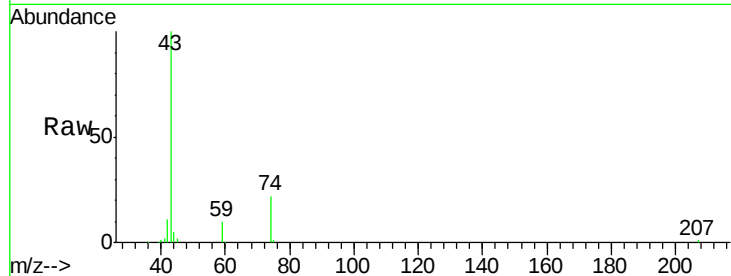
VSTD02599

Tgt Ion: 43 Resp: 80856

Ion Ratio Lower Upper

43 100

74 21.7 16.6 24.8



#16

Methylene chloride

Concen: 18.853 ug/L

RT: 4.90 min Scan# 544

Delta R.T. -0.01 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

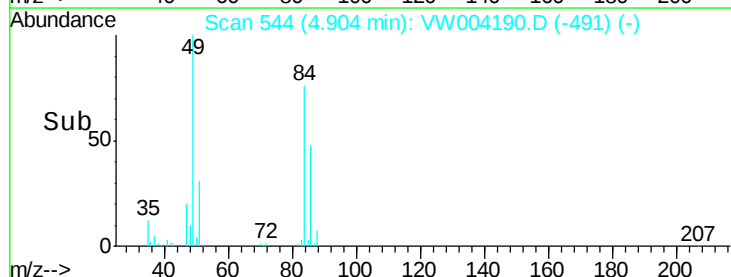
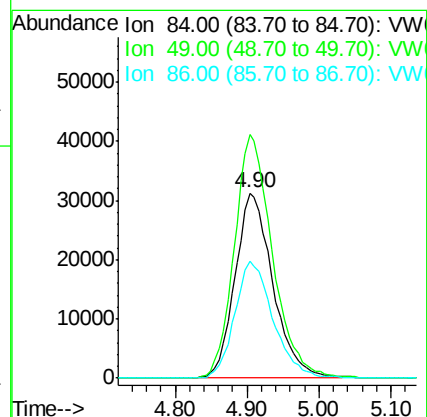
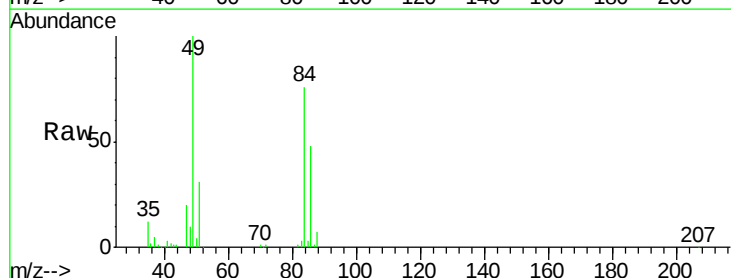
Tgt Ion: 84 Resp: 114215

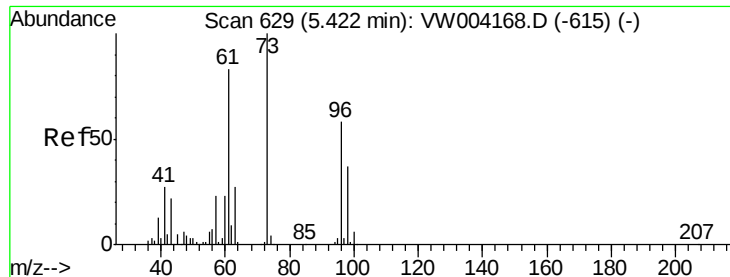
Ion Ratio Lower Upper

84 100

49 131.4 94.2 175.0

86 62.8 45.1 83.9

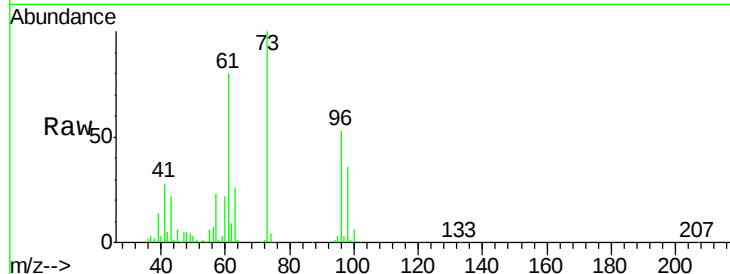




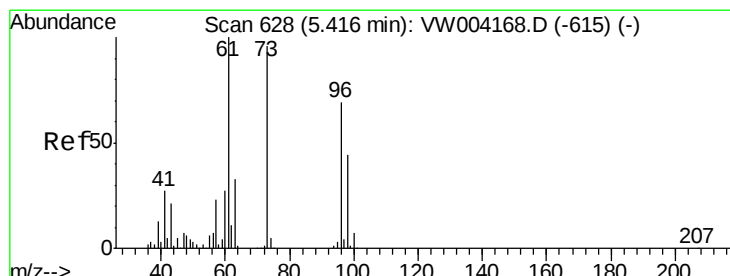
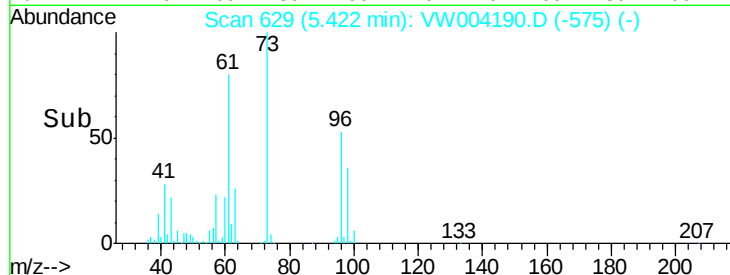
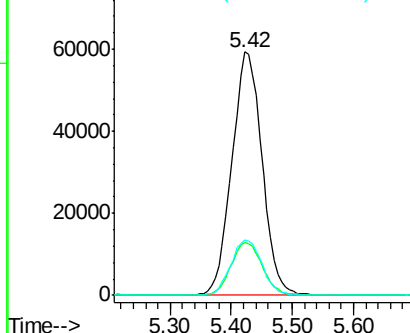
#17  
Methyl tert-butyl Ether  
Concen: 24.927 ug/L  
RT: 5.42 min Scan# 629  
Delta R.T. 0.00 min  
Lab File: VW004190.D  
Acq: 25 Jul 2018 10:03

Instrument :  
MSVOA\_W  
ClientSampleId :  
VSTD02599

Tgt Ion: 73 Resp: 202649  
Ion Ratio Lower Upper  
73 100  
43 22.5 18.1 27.1  
57 23.5 19.0 28.4

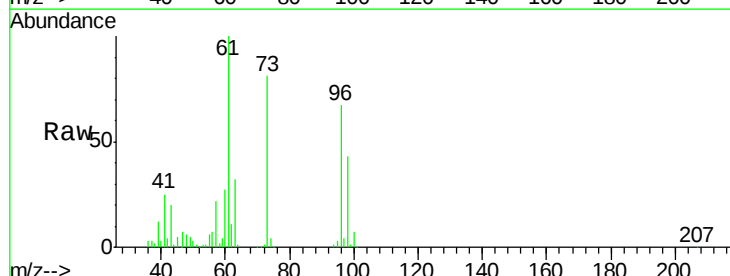


Abundance Ion 73.00 (72.70 to 73.70): VW  
Ion 43.00 (42.70 to 43.70): VW  
Ion 57.00 (56.70 to 57.70): VW

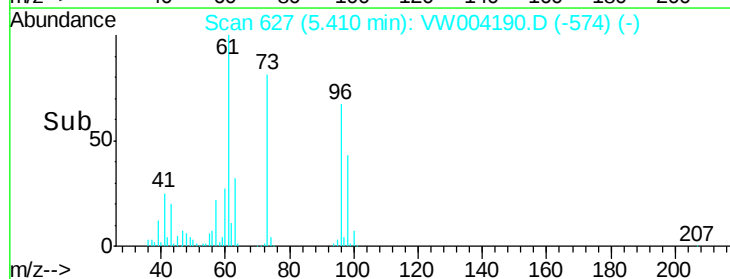
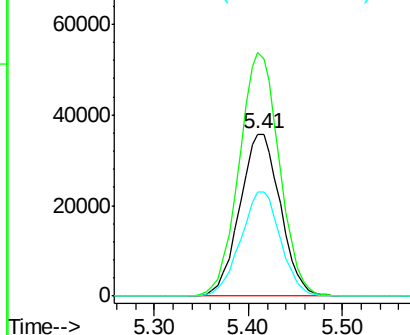


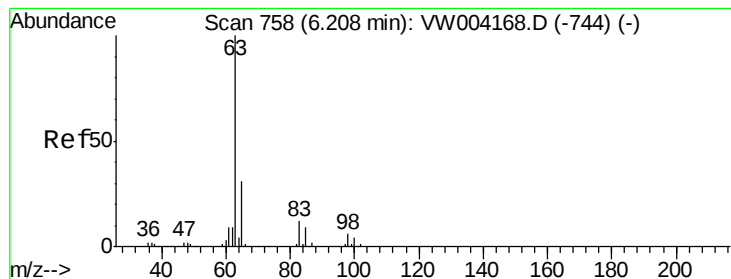
#18  
trans-1,2-Dichloroethene  
Concen: 24.901 ug/L  
RT: 5.41 min Scan# 627  
Delta R.T. -0.01 min  
Lab File: VW004190.D  
Acq: 25 Jul 2018 10:03

Tgt Ion: 96 Resp: 107764  
Ion Ratio Lower Upper  
96 100  
61 150.2 99.8 185.4  
98 64.2 44.9 83.3



Abundance Ion 96.00 (95.70 to 96.70): VW  
Ion 61.00 (60.70 to 61.70): VW  
Ion 98.00 (97.70 to 98.70): VW





#19

1,1-Dichloroethane

Concen: 25.559 ug/L

RT: 6.21 min Scan# 758

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

VSTD02599

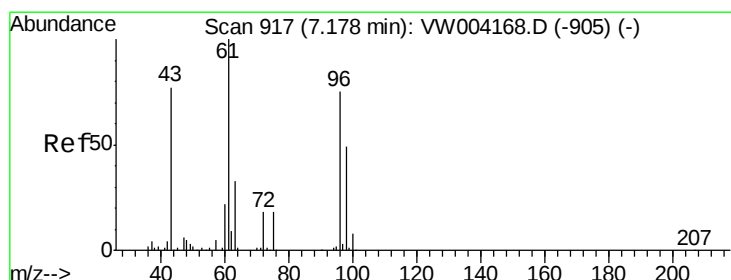
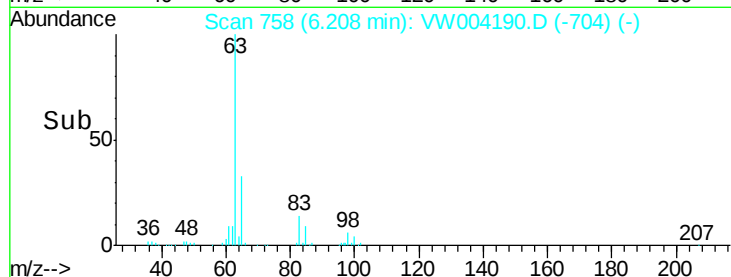
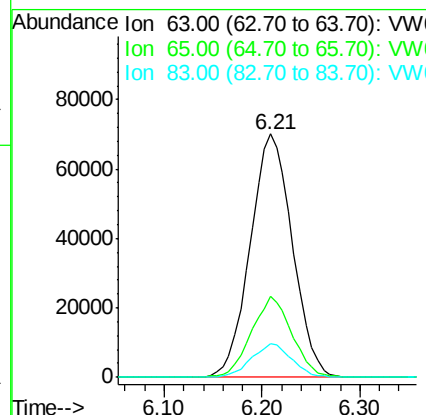
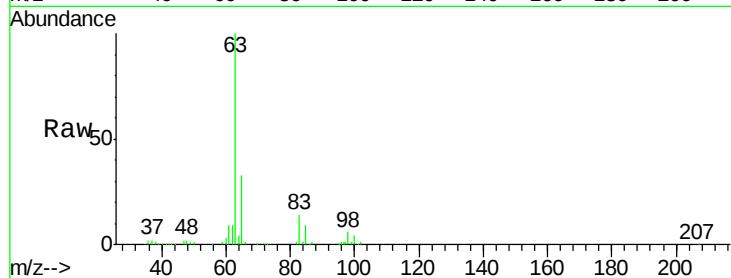
Tgt Ion: 63 Resp: 210439

Ion Ratio Lower Upper

63 100

65 33.1 22.4 41.6

83 13.8 9.2 17.2



#21

2-Butanone

Concen: 46.738 ug/L

RT: 7.18 min Scan# 917

Delta R.T. 0.00 min

Lab File: VW004190.D

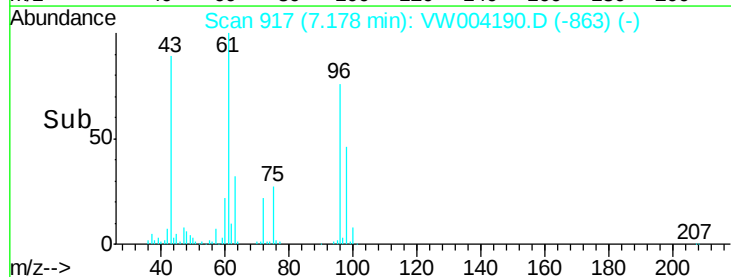
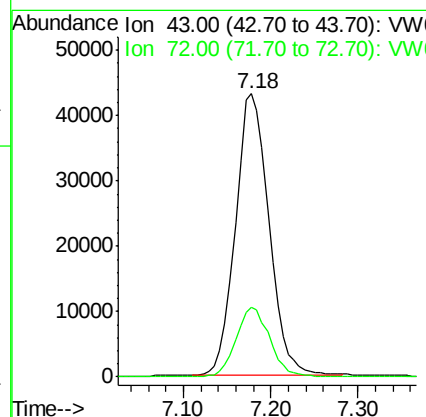
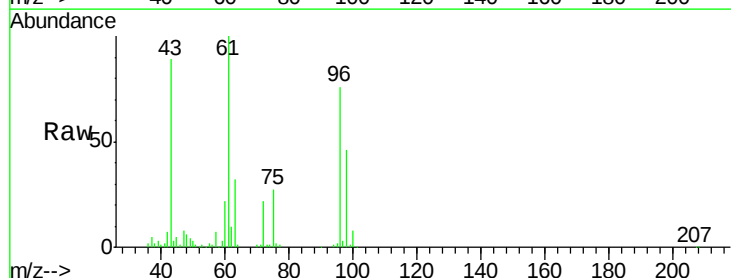
Acq: 25 Jul 2018 10:03

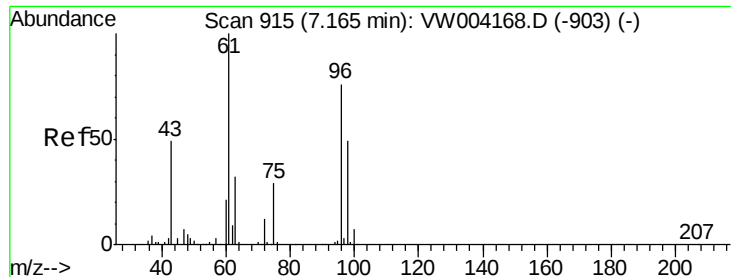
Tgt Ion: 43 Resp: 115481

Ion Ratio Lower Upper

43 100

72 24.8 12.1 36.3



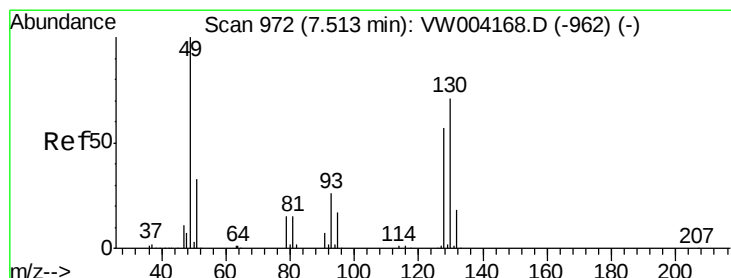
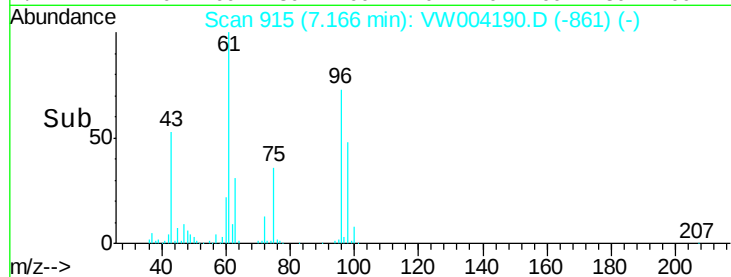
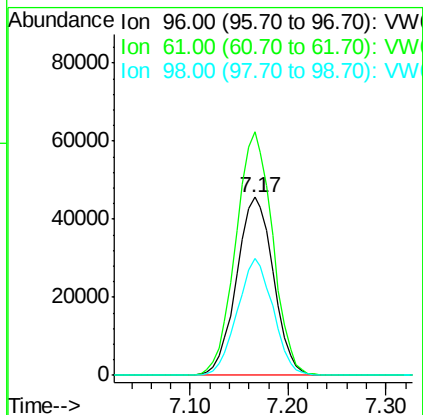
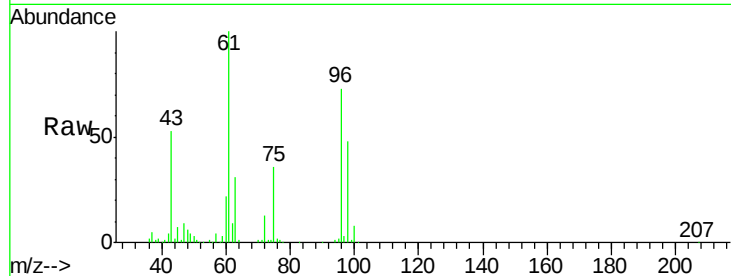


#22

cis-1,2-Dichloroethene  
Concen: 25.783 ug/L  
RT: 7.17 min Scan# 915  
Delta R.T. 0.00 min  
Lab File: VW004190.D  
Acq: 25 Jul 2018 10:03

Instrument :  
MSVOA\_W  
ClientSampleId :  
VSTD02599

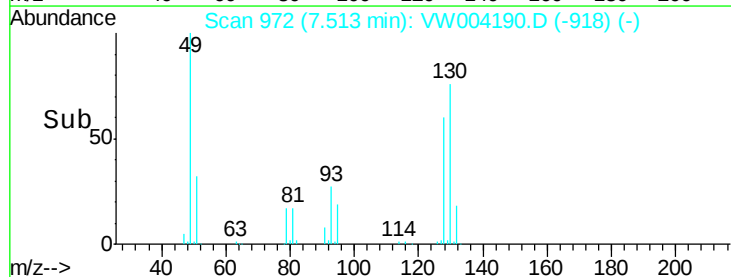
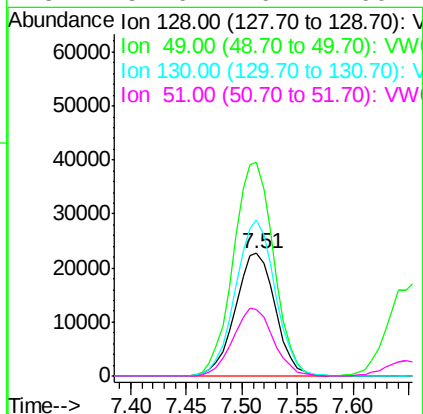
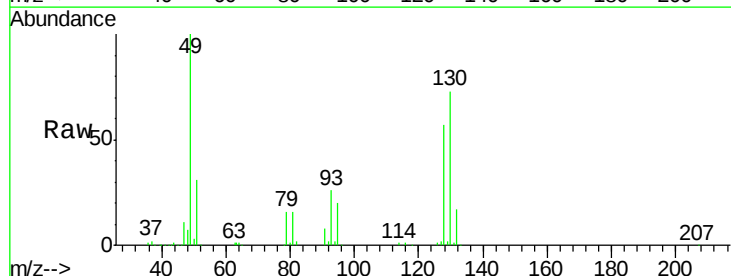
Tgt Ion: 96 Resp: 119262  
Ion Ratio Lower Upper  
96 100  
61 136.8 92.5 171.9  
98 65.9 43.0 80.0

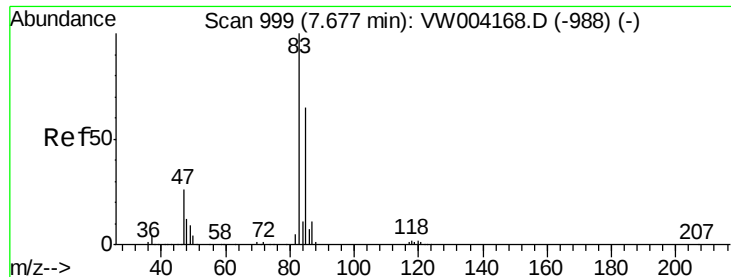


#23

Bromochloromethane  
Concen: 26.125 ug/L  
RT: 7.51 min Scan# 972  
Delta R.T. 0.00 min  
Lab File: VW004190.D  
Acq: 25 Jul 2018 10:03

Tgt Ion: 128 Resp: 56821  
Ion Ratio Lower Upper  
128 100  
49 174.3 126.4 234.8  
130 127.4 87.8 163.0  
51 54.6 46.2 69.2





#25

Chloroform

Concen: 25.996 ug/L

RT: 7.67 min Scan# 998

Delta R.T. -0.01 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

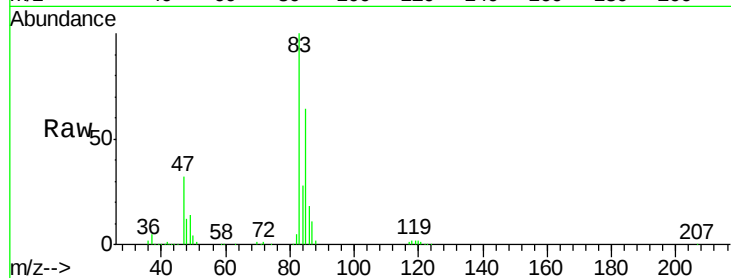
VSTD02599

Tgt Ion: 83 Resp: 218572

Ion Ratio Lower Upper

83 100

85 64.6 45.3 84.1



Abundance Ion 83.00 (82.70 to 83.70): VW

Ion 85.00 (84.70 to 85.70): VW

7.67

100000

80000

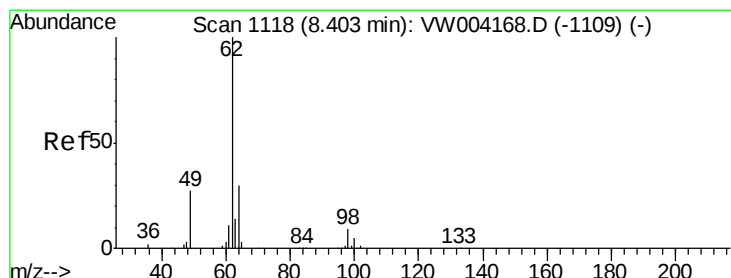
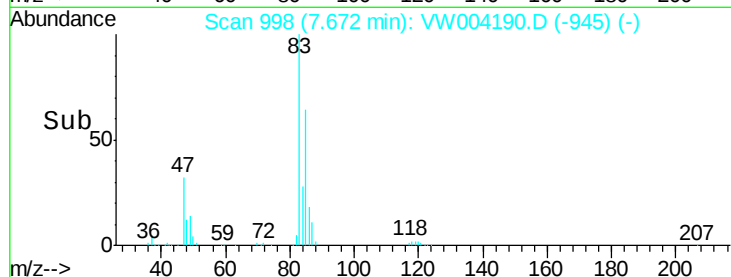
60000

40000

20000

0

Time-->



#27

1,2-Dichloroethane

Concen: 25.926 ug/L

RT: 8.40 min Scan# 1118

Delta R.T. 0.00 min

Lab File: VW004190.D

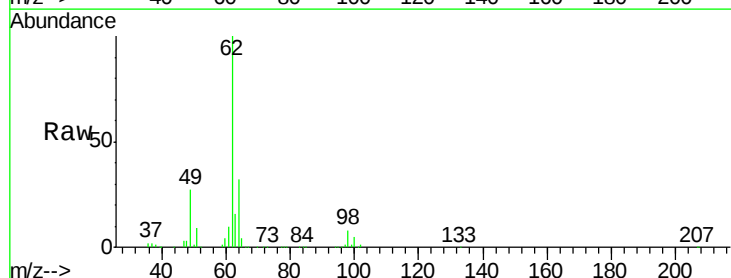
Acq: 25 Jul 2018 10:03

Tgt Ion: 62 Resp: 160658

Ion Ratio Lower Upper

62 100

98 8.1 6.2 9.4



Abundance Ion 62.00 (61.70 to 62.70): VW

Ion 98.00 (97.70 to 98.70): VW

8.40

80000

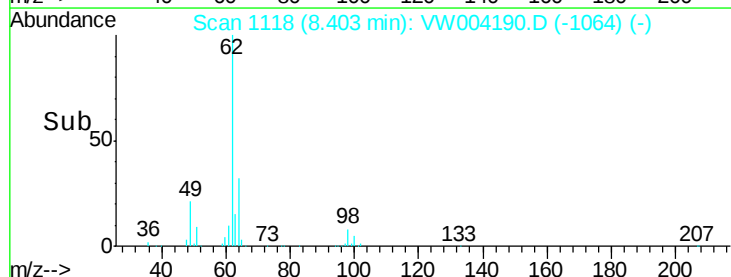
60000

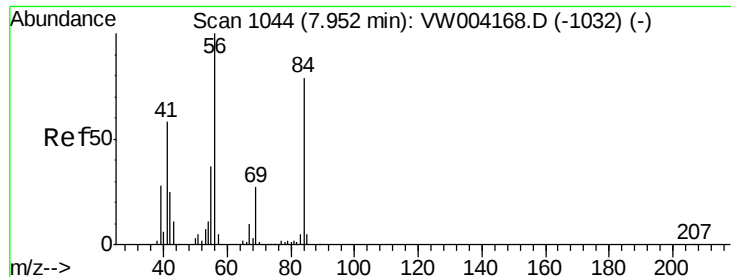
40000

20000

0

Time-->

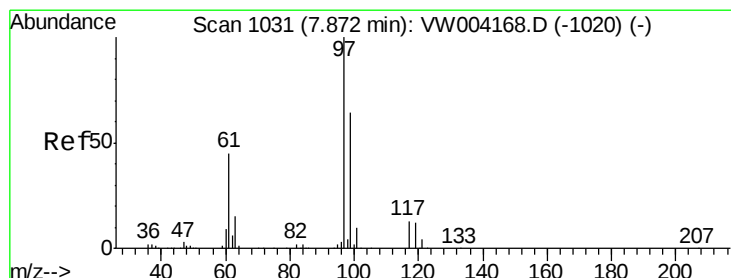
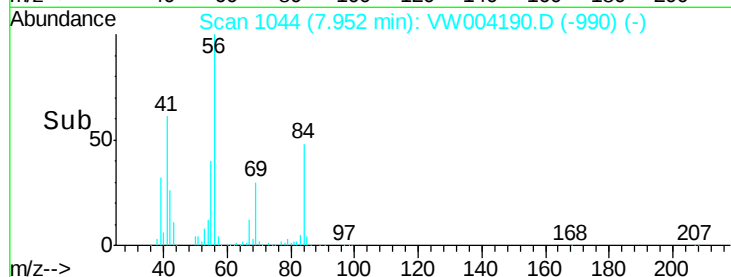
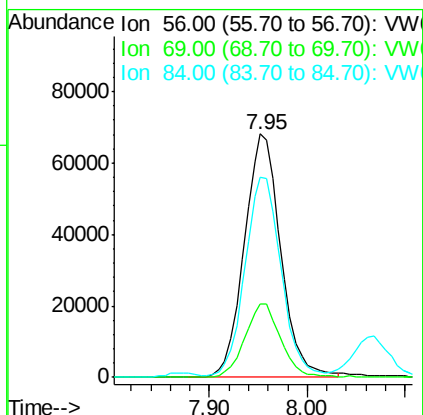
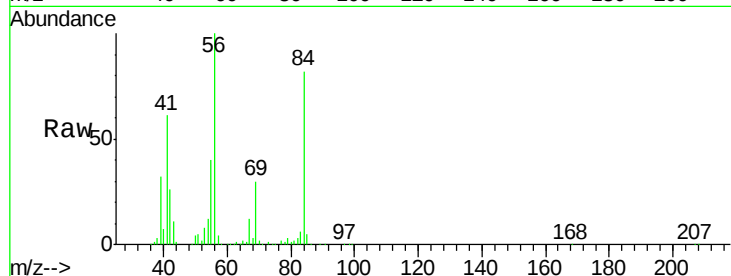




#30  
Cyclohexane  
Concen: 22.233 ug/L  
RT: 7.95 min Scan# 1044  
Delta R.T. 0.00 min  
Lab File: VW004190.D  
Acq: 25 Jul 2018 10:03

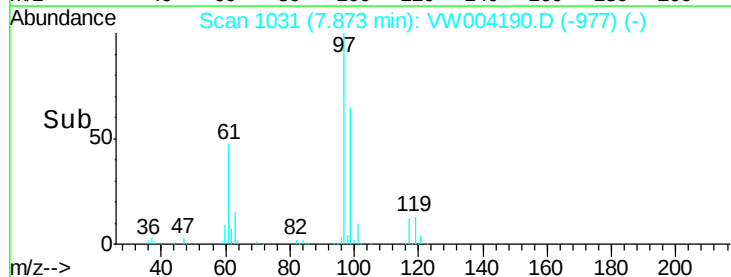
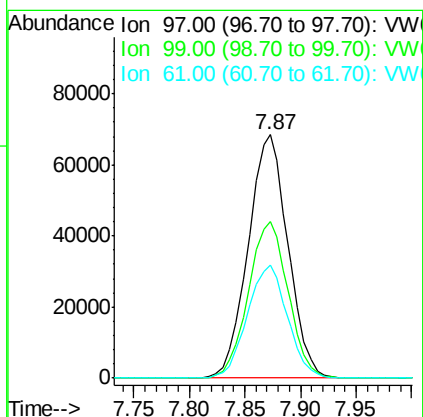
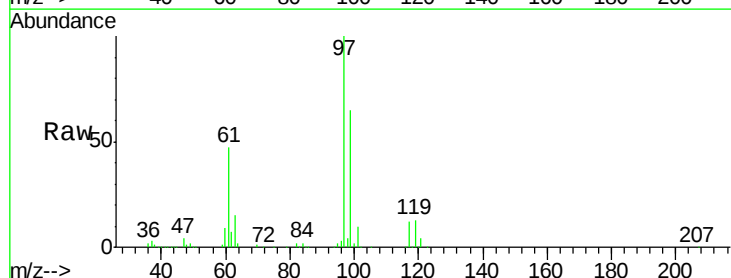
Instrument :  
MSVOA\_W  
ClientSampleId :  
VSTD02599

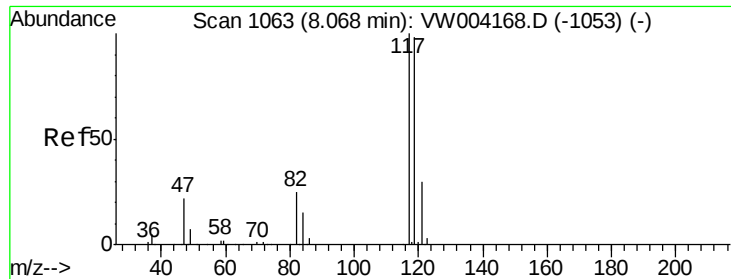
Tgt Ion: 56 Resp: 176695  
Ion Ratio Lower Upper  
56 100  
69 29.6 22.8 34.2  
84 82.1 64.6 96.8



#31  
1,1,1-Trichloroethane  
Concen: 23.007 ug/L  
RT: 7.87 min Scan# 1031  
Delta R.T. 0.00 min  
Lab File: VW004190.D  
Acq: 25 Jul 2018 10:03

Tgt Ion: 97 Resp: 170506  
Ion Ratio Lower Upper  
97 100  
99 64.4 51.8 77.6  
61 46.6 38.6 57.8





#32

Carbon tetrachloride

Concen: 23.047 ug/L

RT: 8.07 min Scan# 1063

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

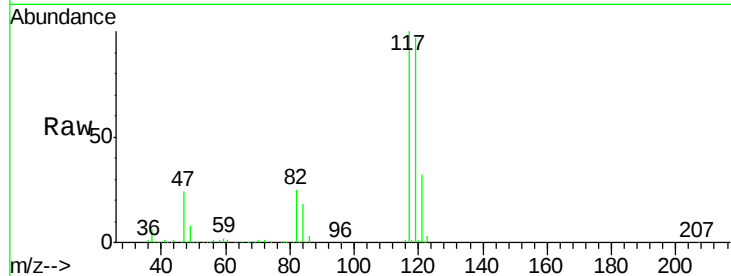
VSTD02599

Tgt Ion:117 Resp: 164791

Ion Ratio Lower Upper

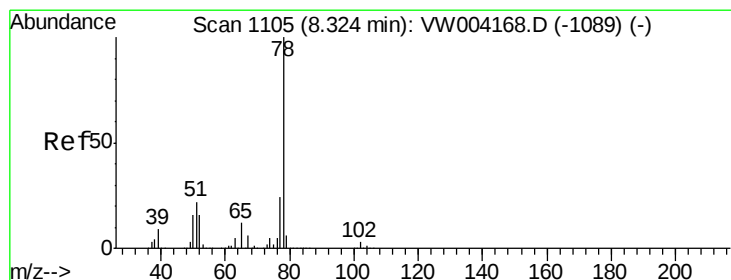
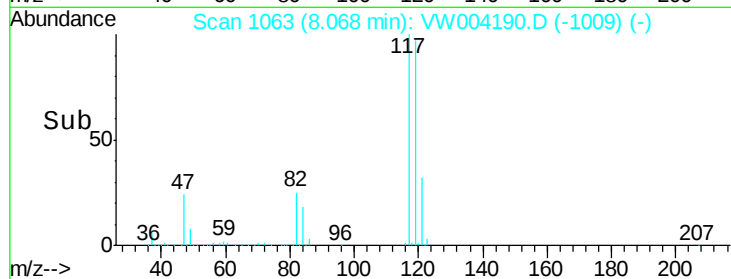
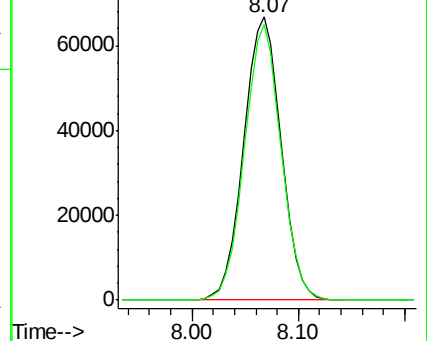
117 100

119 95.2 76.4 114.6



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V



#34

Benzene

Concen: 23.638 ug/L

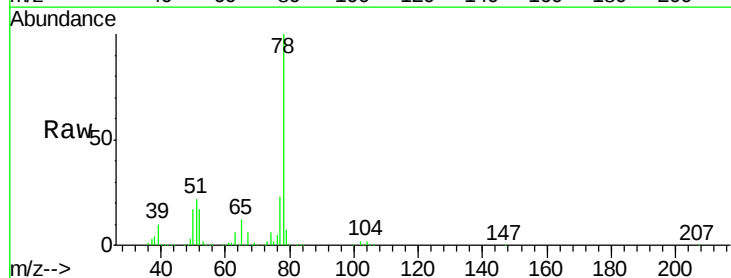
RT: 8.32 min Scan# 1105

Delta R.T. 0.00 min

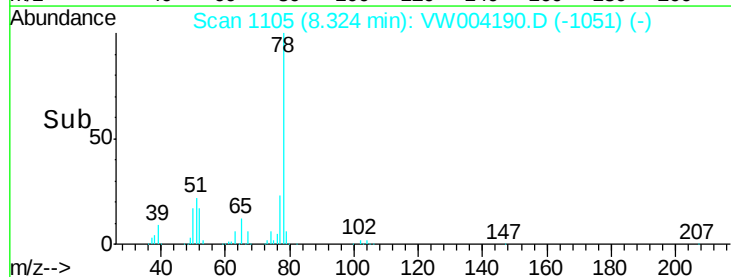
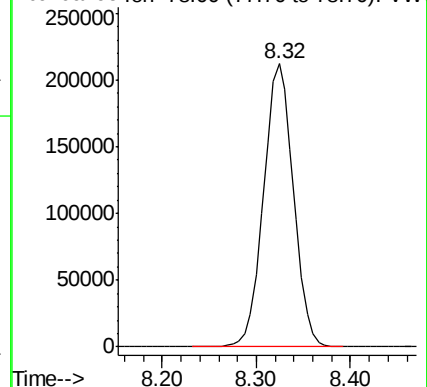
Lab File: VW004190.D

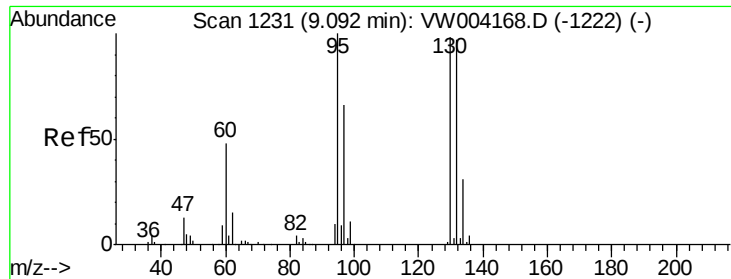
Acq: 25 Jul 2018 10:03

Tgt Ion: 78 Resp: 472163



Abundance Ion 78.00 (77.70 to 78.70): VW

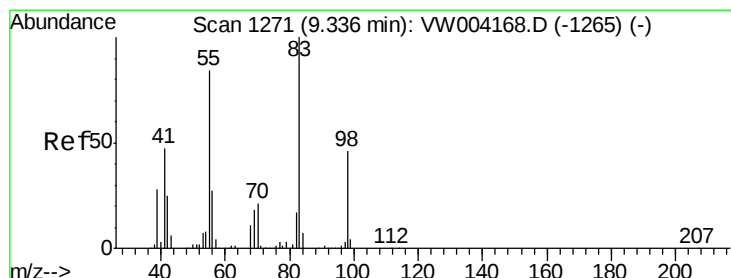
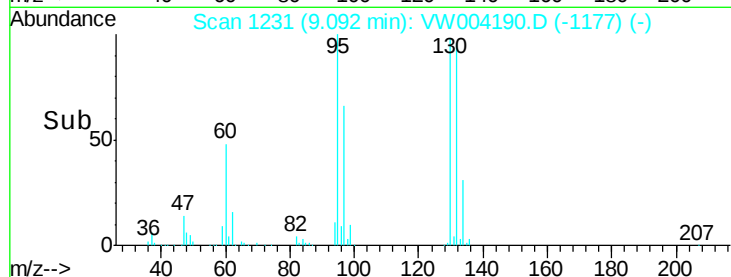
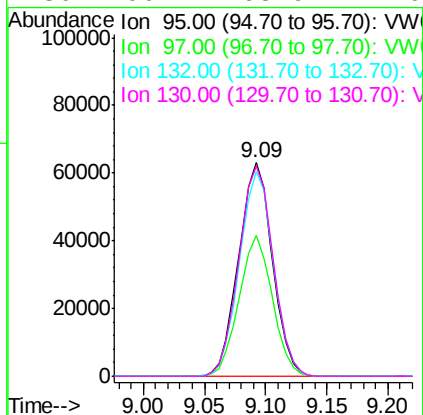
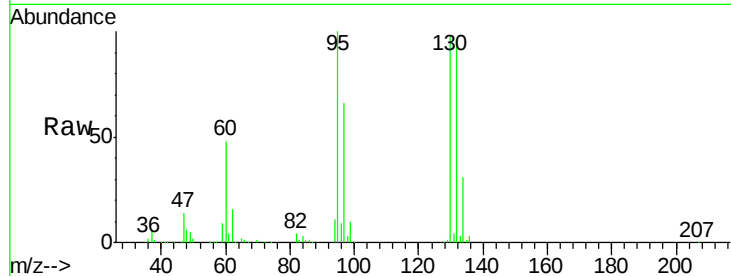




#35  
 Trichloroethene  
 Concen: 22.647 ug/L  
 RT: 9.09 min Scan# 1231  
 Delta R.T. 0.00 min  
 Lab File: VW004190.D  
 Acq: 25 Jul 2018 10:03

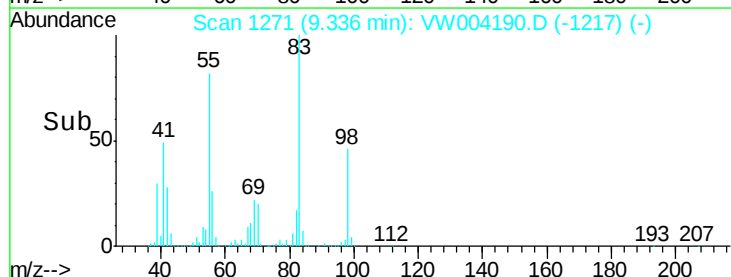
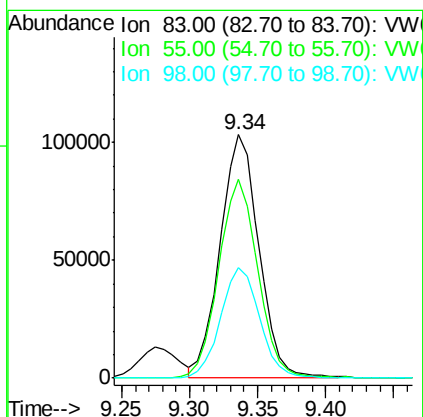
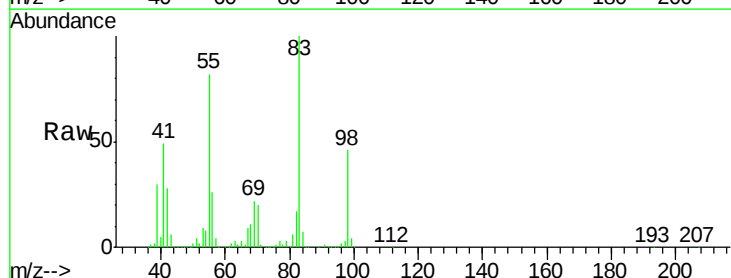
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTD02599

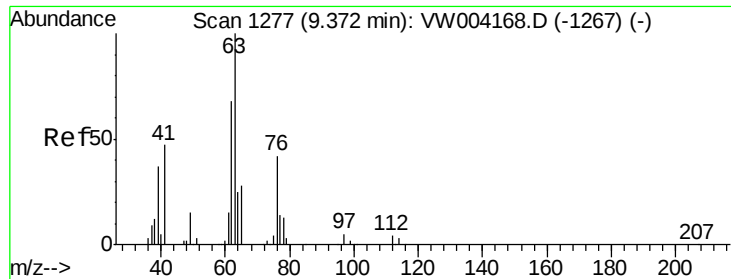
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 95    | Resp: | 121034 |
| Ion      | Ratio | Lower | Upper  |
| 95       | 100   |       |        |
| 97       | 64.8  | 44.7  | 83.1   |
| 132      | 96.8  | 66.1  | 122.7  |
| 130      | 100.2 | 68.9  | 127.9  |



#36  
 Methylcyclohexane  
 Concen: 23.180 ug/L  
 RT: 9.34 min Scan# 1271  
 Delta R.T. 0.00 min  
 Lab File: VW004190.D  
 Acq: 25 Jul 2018 10:03

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 204756 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 55       | 82.9  | 65.8  | 98.6   |
| 98       | 46.1  | 37.0  | 55.6   |

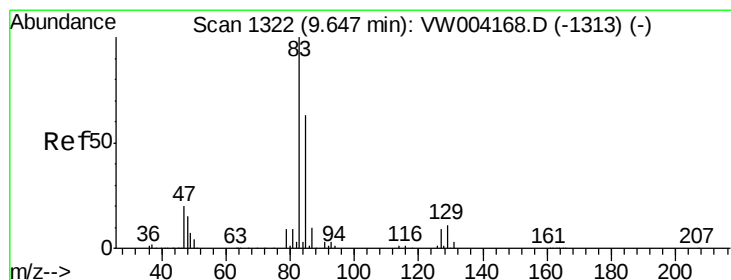
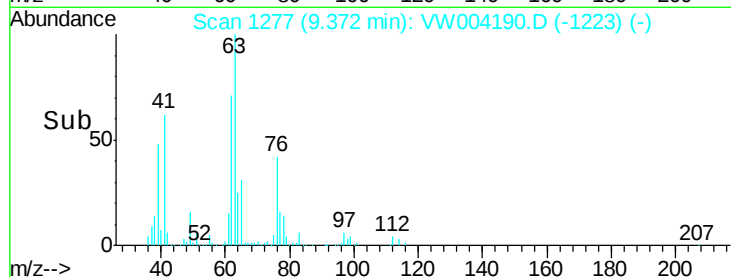
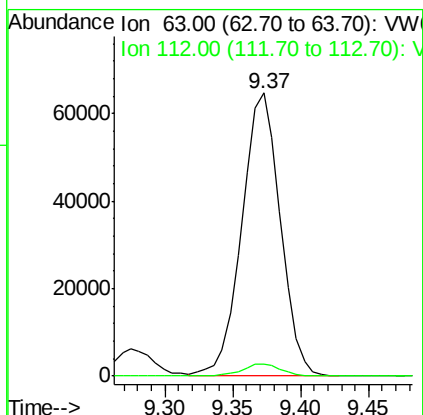
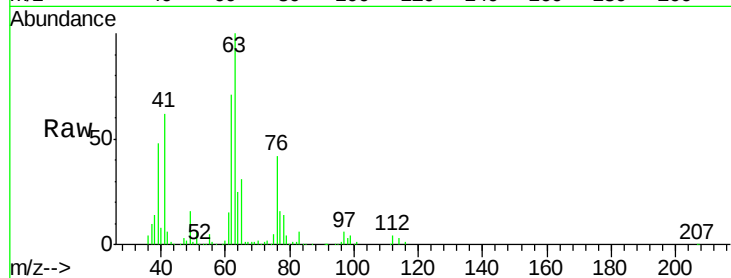




#40  
 1,2-Dichloropropane  
 Concen: 23.786 ug/L  
 RT: 9.37 min Scan# 1277  
 Delta R.T. 0.00 min  
 Lab File: VW004190.D  
 Acq: 25 Jul 2018 10:03

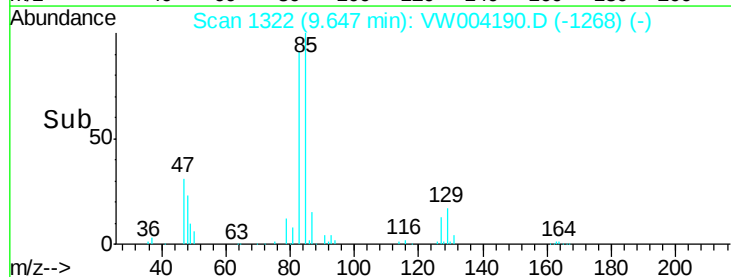
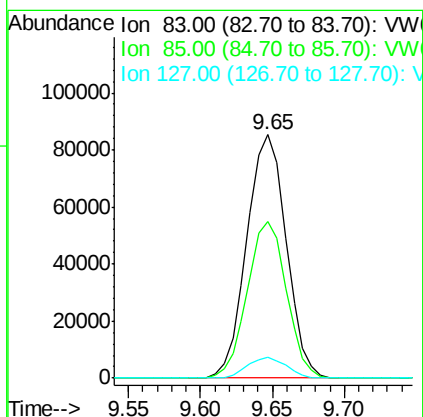
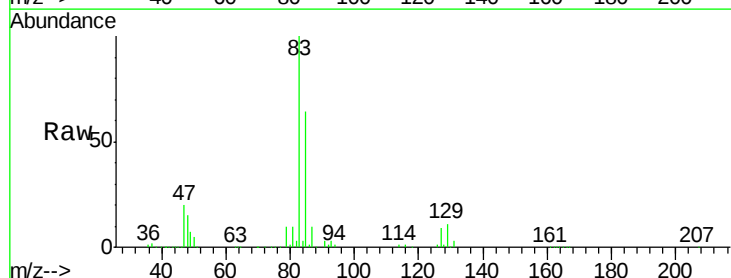
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTD02599

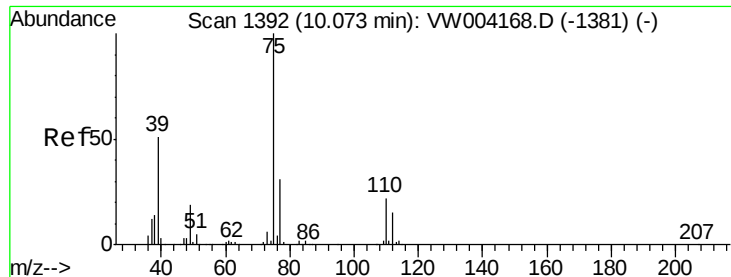
Tgt Ion: 63 Resp: 128798  
 Ion Ratio Lower Upper  
 63 100  
 112 4.3 3.0 4.4



#41  
 Bromodichloromethane  
 Concen: 24.309 ug/L  
 RT: 9.65 min Scan# 1322  
 Delta R.T. 0.00 min  
 Lab File: VW004190.D  
 Acq: 25 Jul 2018 10:03

Tgt Ion: 83 Resp: 162068  
 Ion Ratio Lower Upper  
 83 100  
 85 64.1 44.7 82.9  
 127 8.6 6.7 10.1





#42

cis-1,3-Dichloropropene

Concen: 24.677 ug/L

RT: 10.07 min Scan# 1392

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

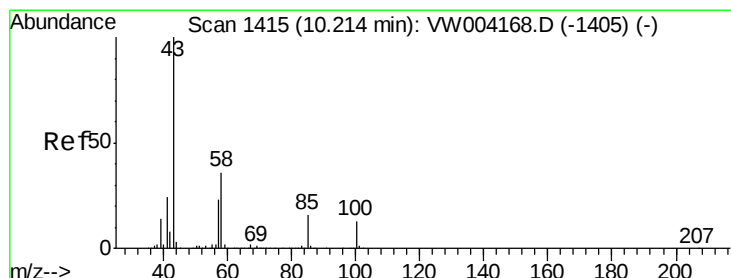
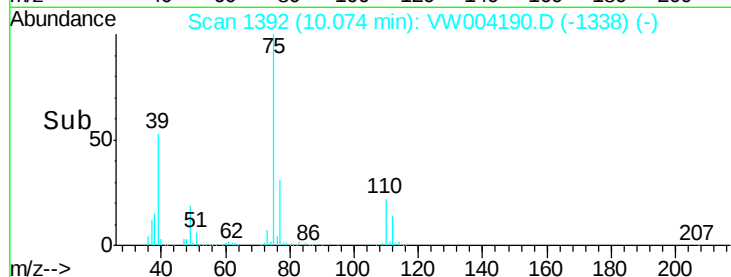
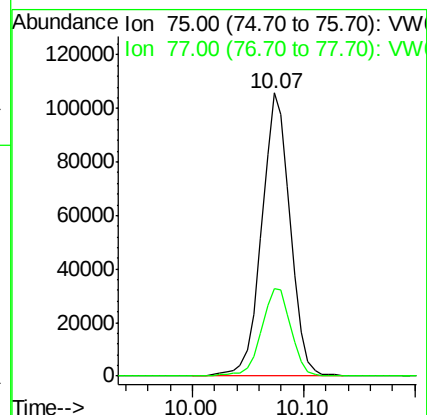
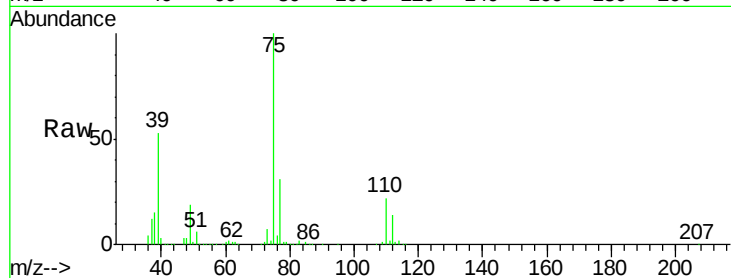
VSTD02599

Tgt Ion: 75 Resp: 188284

Ion Ratio Lower Upper

75 100

77 30.9 22.3 41.5



#43

4-Methyl-2-pentanone

Concen: 47.340 ug/L

RT: 10.21 min Scan# 1415

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

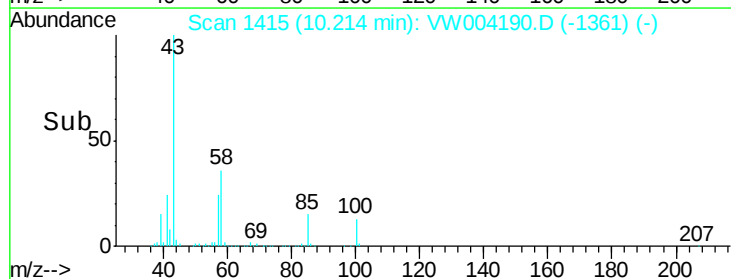
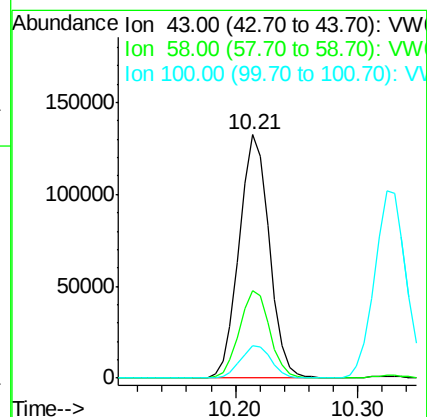
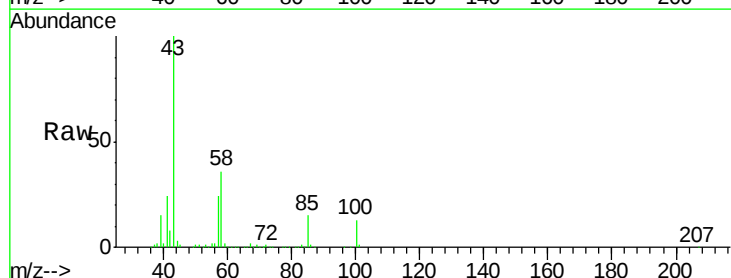
Tgt Ion: 43 Resp: 225348

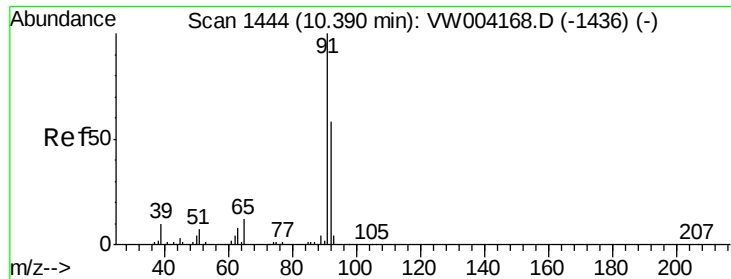
Ion Ratio Lower Upper

43 100

58 36.2 29.4 44.2

100 13.7 10.8 16.2





#44

Toluene

Concen: 24.729 ug/L

RT: 10.39 min Scan# 1444

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

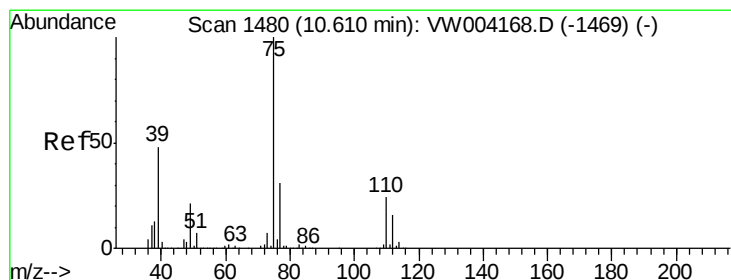
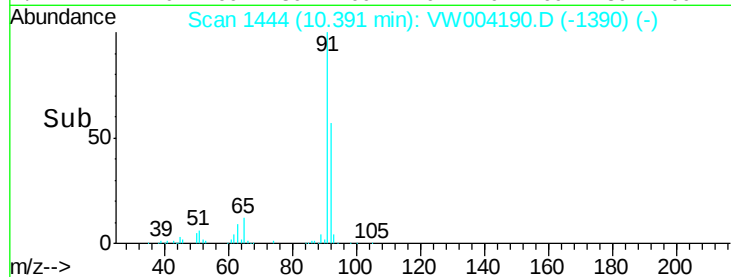
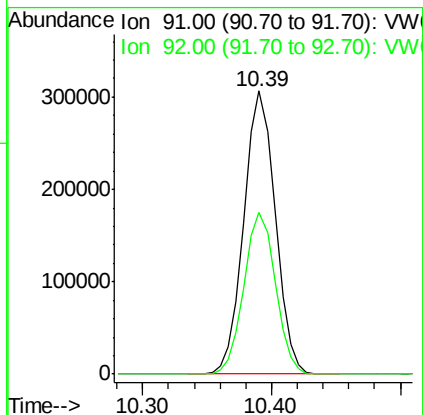
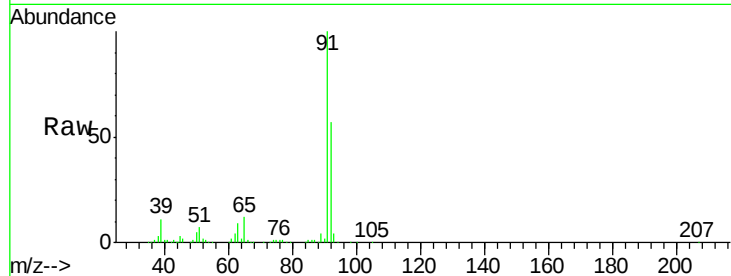
VSTD02599

Tgt Ion: 91 Resp: 517588

Ion Ratio Lower Upper

91 100

92 57.0 39.5 73.4



#45

trans-1,3-Dichloropropene

Concen: 25.101 ug/L

RT: 10.61 min Scan# 1480

Delta R.T. 0.00 min

Lab File: VW004190.D

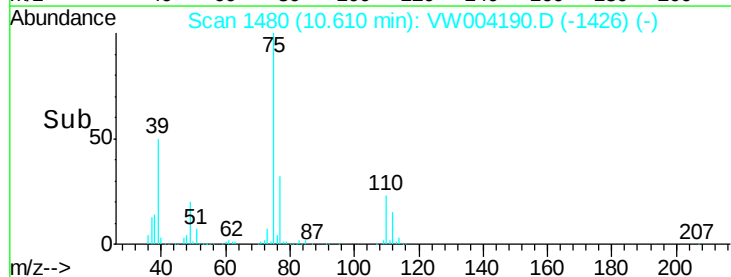
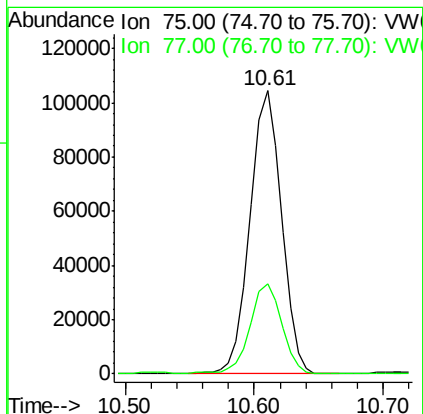
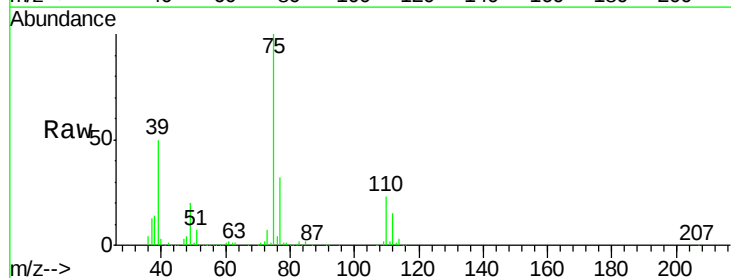
Acq: 25 Jul 2018 10:03

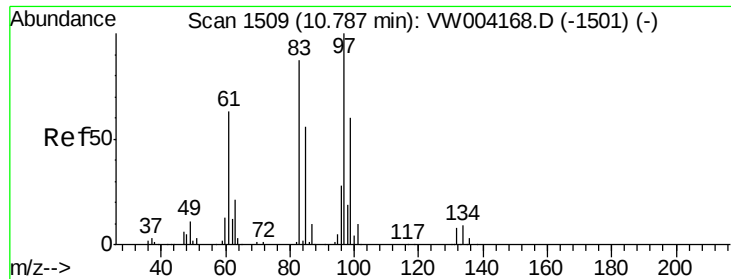
Tgt Ion: 75 Resp: 176647

Ion Ratio Lower Upper

75 100

77 31.8 22.5 41.7

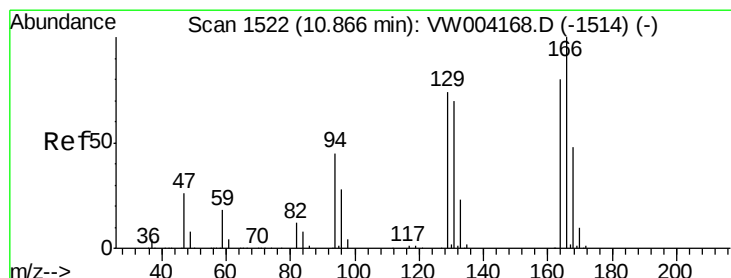
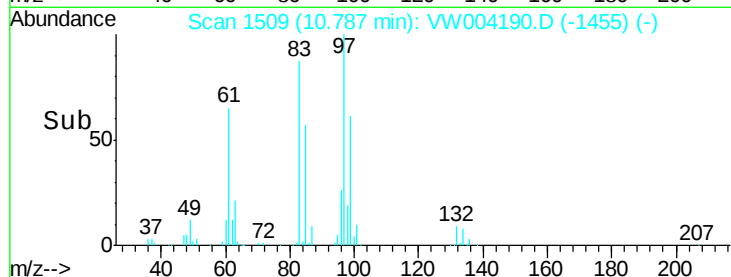
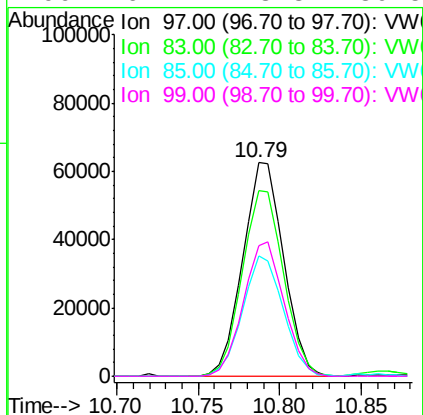
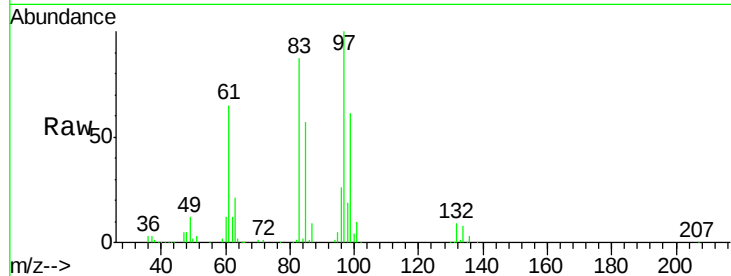




#46  
 1,1,2-Trichloroethane  
 Concen: 25.946 ug/L  
 RT: 10.79 min Scan# 1509  
 Delta R.T. 0.00 min  
 Lab File: VW004190.D  
 Acq: 25 Jul 2018 10:03

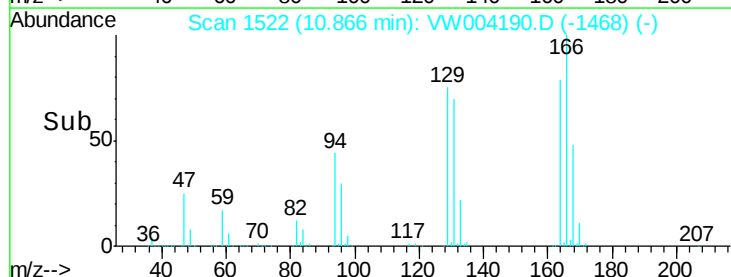
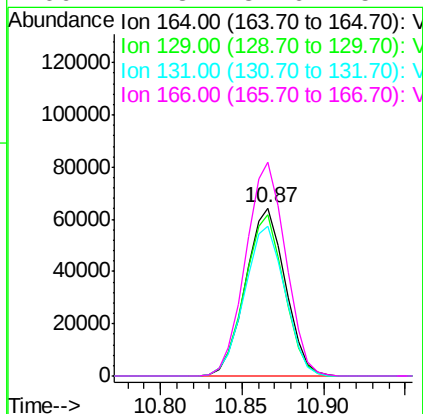
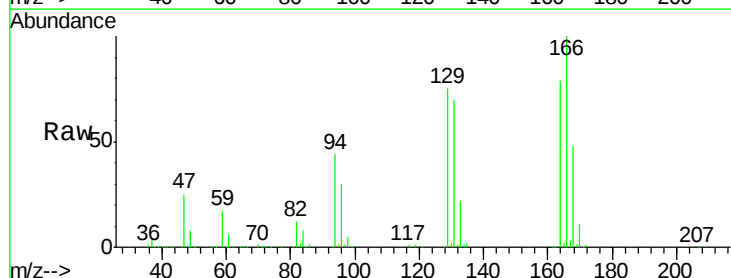
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTD02599

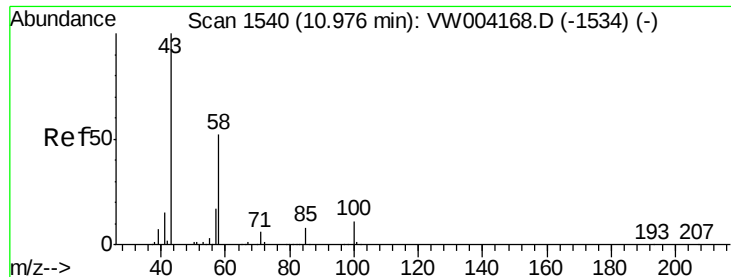
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 97    | Resp: | 109189 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 83       | 86.8  | 59.4  | 110.4  |
| 85       | 56.6  | 40.0  | 74.2   |
| 99       | 61.4  | 43.3  | 80.5   |



#47  
 Tetrachloroethene  
 Concen: 25.387 ug/L  
 RT: 10.87 min Scan# 1522  
 Delta R.T. 0.00 min  
 Lab File: VW004190.D  
 Acq: 25 Jul 2018 10:03

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 164   | Resp: | 109425 |
| Ion      | Ratio | Lower | Upper  |
| 164      | 100   |       |        |
| 129      | 96.1  | 63.1  | 117.3  |
| 131      | 89.3  | 62.8  | 116.6  |
| 166      | 127.3 | 84.6  | 157.2  |

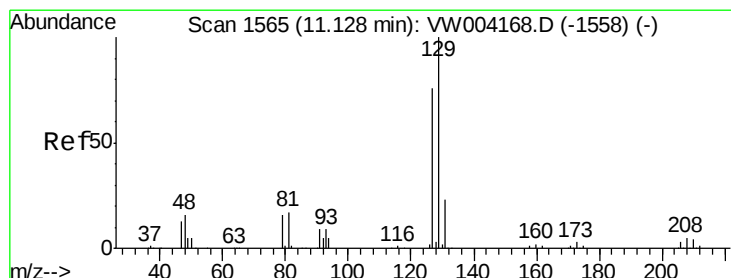
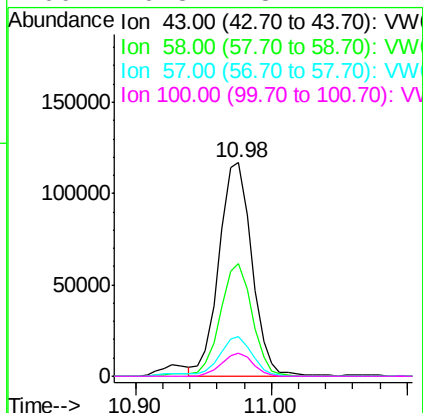
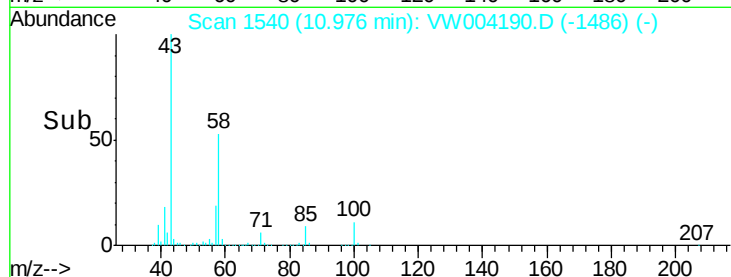
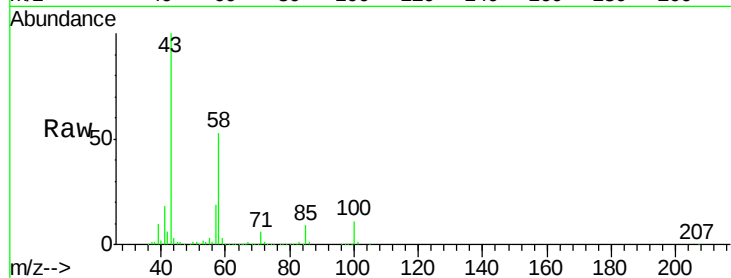




#49  
2-Hexanone  
Concen: 53.274 ug/L  
RT: 10.98 min Scan# 1540  
Delta R.T. 0.00 min  
Lab File: VW004190.D  
Acq: 25 Jul 2018 10:03

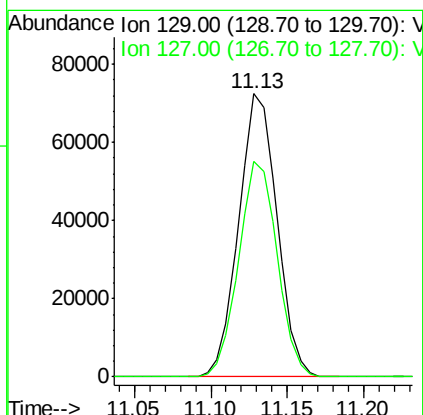
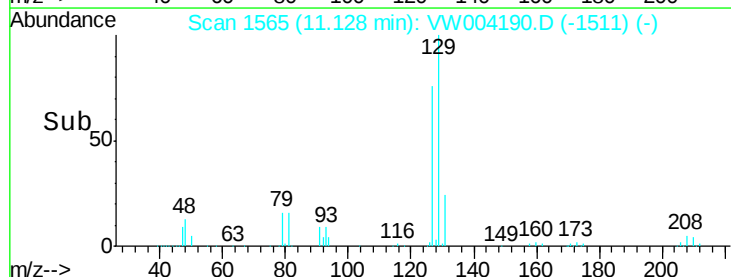
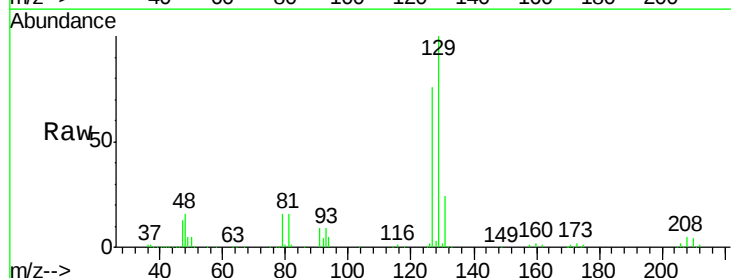
Instrument :  
MSVOA\_W  
ClientSampled :  
VSTD02599

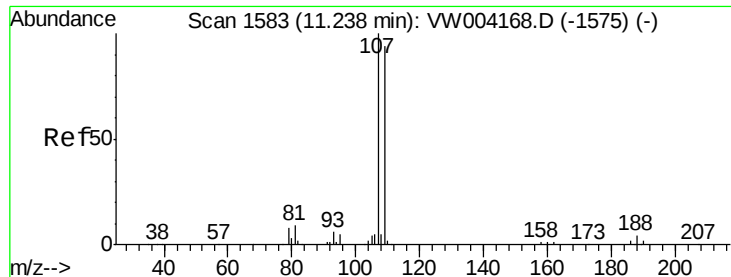
Tgt Ion: 43 Resp: 196332  
Ion Ratio Lower Upper  
43 100  
58 50.6 40.4 60.6  
57 17.8 14.0 21.0  
100 10.3 8.2 12.2



#50  
Dibromochloromethane  
Concen: 26.863 ug/L  
RT: 11.13 min Scan# 1565  
Delta R.T. 0.00 min  
Lab File: VW004190.D  
Acq: 25 Jul 2018 10:03

Tgt Ion: 129 Resp: 126641  
Ion Ratio Lower Upper  
129 100  
127 76.3 56.1 104.3

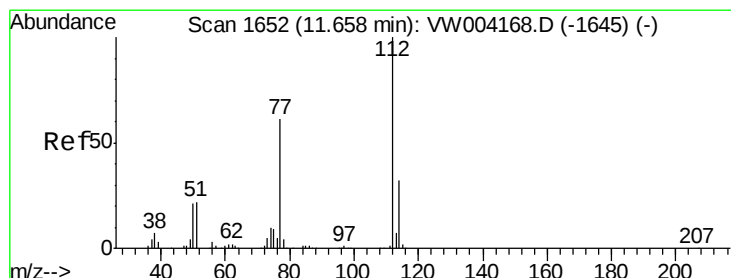
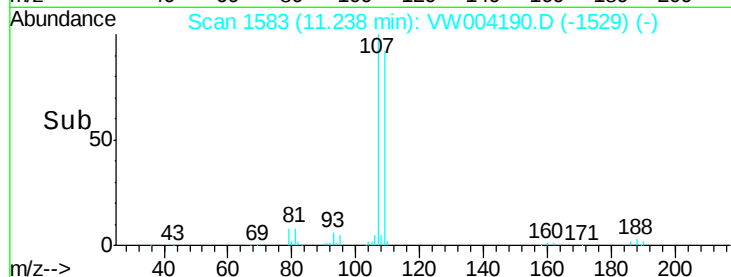
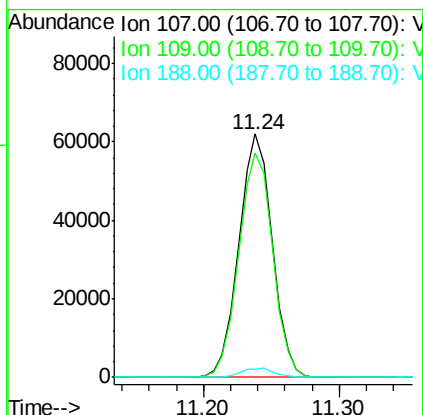
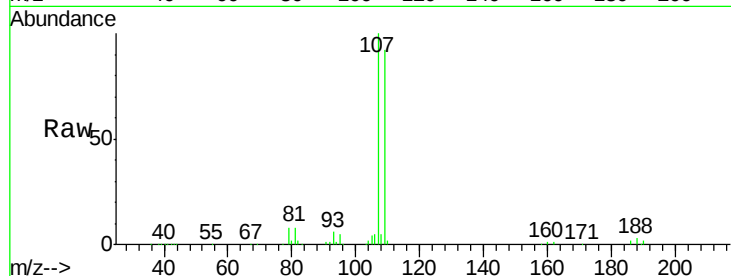




#51  
1,2-Dibromoethane  
Concen: 25.844 ug/L  
RT: 11.24 min Scan# 1583  
Delta R.T. 0.00 min  
Lab File: VW004190.D  
Acq: 25 Jul 2018 10:03

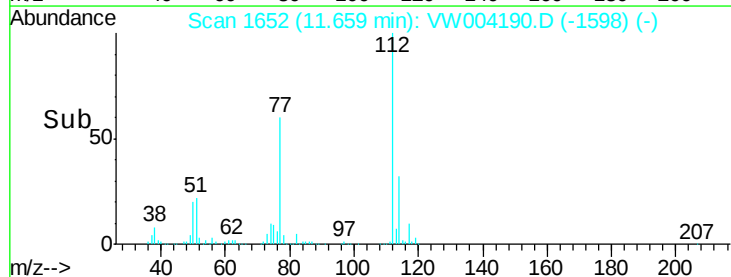
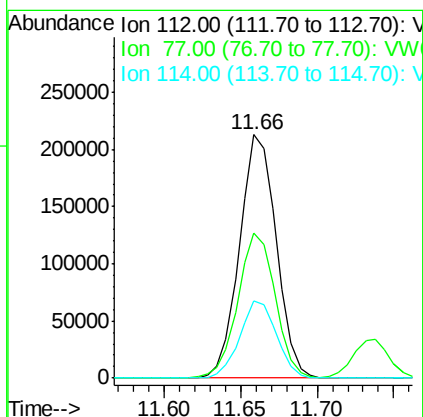
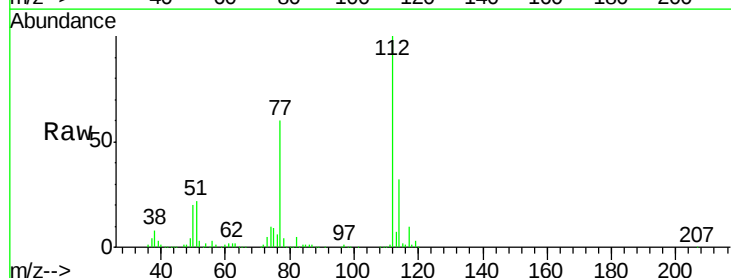
Instrument :  
MSVOA\_W  
ClientSampleId :  
VSTD02599

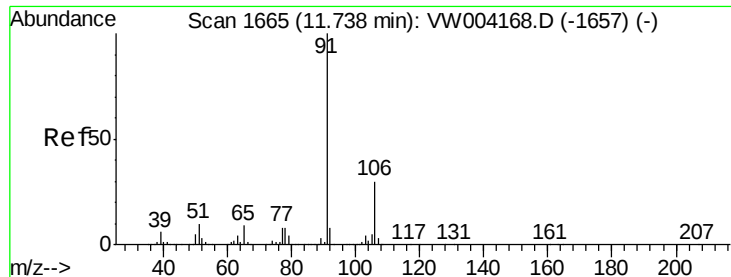
Tgt Ion:107 Resp: 106226  
Ion Ratio Lower Upper  
107 100  
109 92.4 65.2 121.0  
188 3.1 2.9 4.3



#52  
Chlorobenzene  
Concen: 26.465 ug/L  
RT: 11.66 min Scan# 1652  
Delta R.T. 0.00 min  
Lab File: VW004190.D  
Acq: 25 Jul 2018 10:03

Tgt Ion:112 Resp: 355162  
Ion Ratio Lower Upper  
112 100  
77 59.6 47.7 71.5  
114 31.7 22.2 41.2





#53

Ethylbenzene

Concen: 27.607 ug/L

RT: 11.74 min Scan# 1665

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

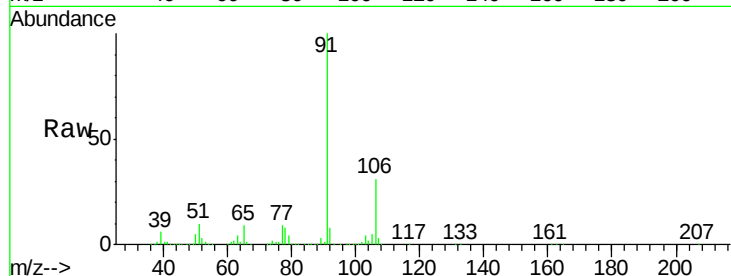
VSTD02599

Tgt Ion: 91 Resp: 625475

Ion Ratio Lower Upper

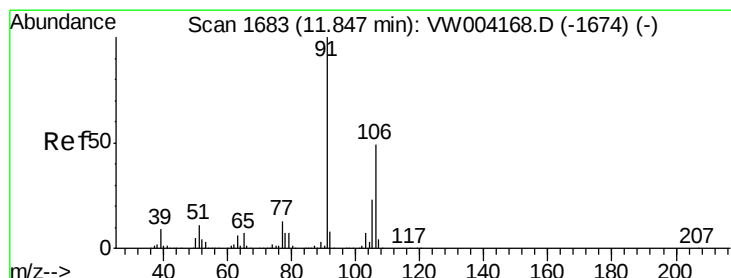
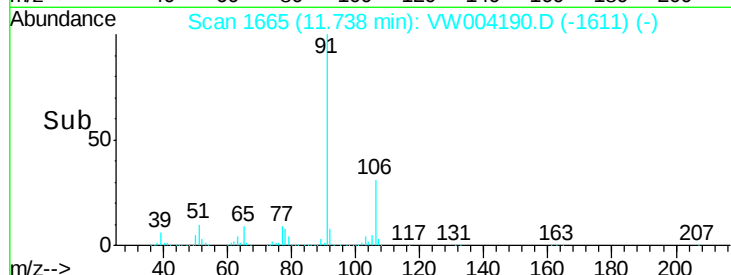
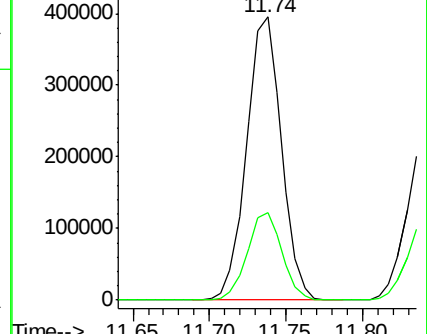
91 100

106 31.1 21.3 39.5



Abundance Ion 91.00 (90.70 to 91.70): VW

Ion 106.00 (105.70 to 106.70): V



#54

m,p-Xylene

Concen: 28.573 ug/L

RT: 11.85 min Scan# 1683

Delta R.T. 0.00 min

Lab File: VW004190.D

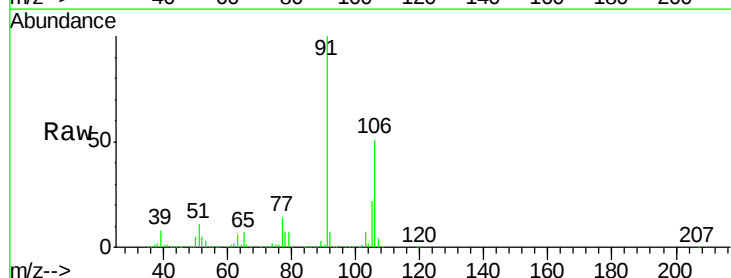
Acq: 25 Jul 2018 10:03

Tgt Ion: 106 Resp: 238595

Ion Ratio Lower Upper

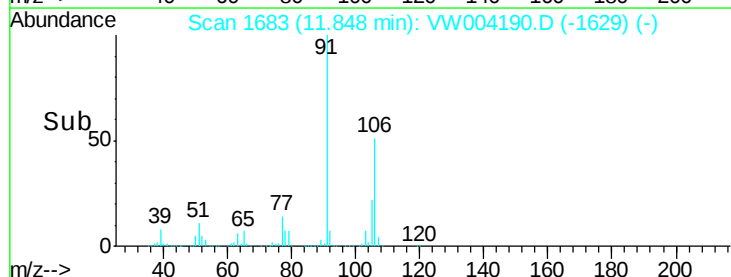
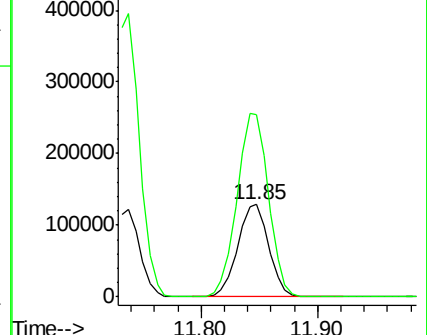
106 100

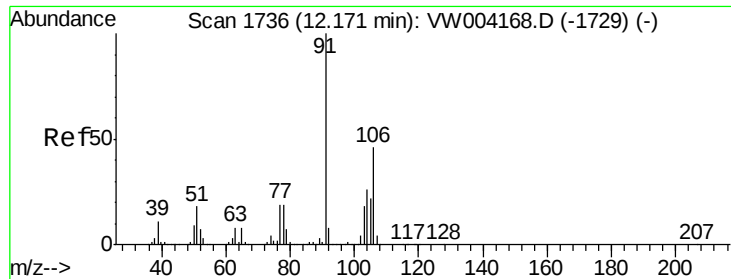
91 197.7 142.1 263.9



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VW

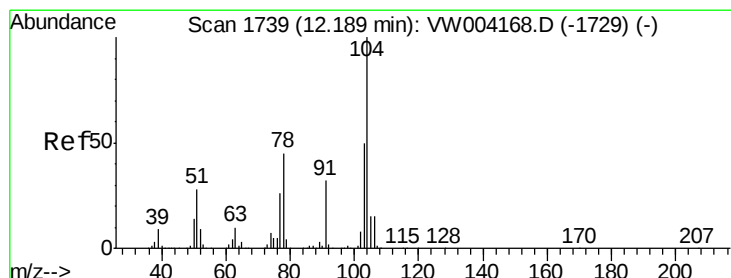
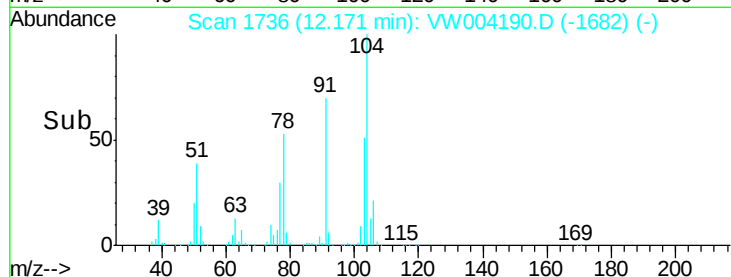
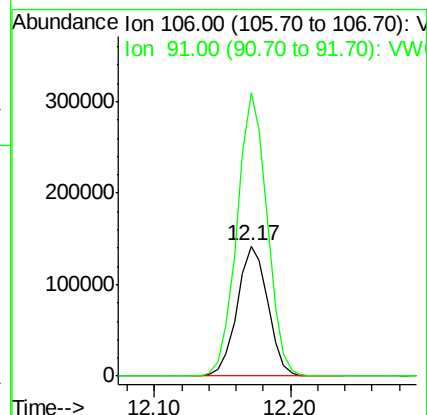
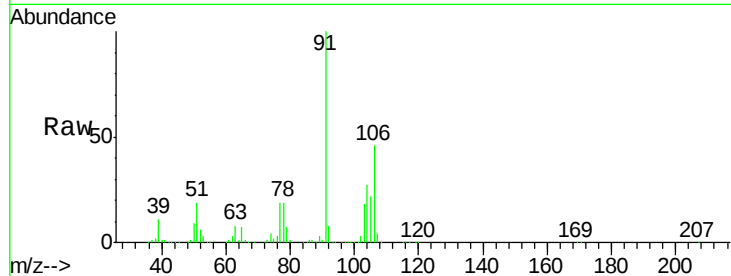




#55  
o-xylene  
Concen: 27.729 ug/L  
RT: 12.17 min Scan# 1736  
Delta R.T. 0.00 min  
Lab File: VW004190.D  
Acq: 25 Jul 2018 10:03

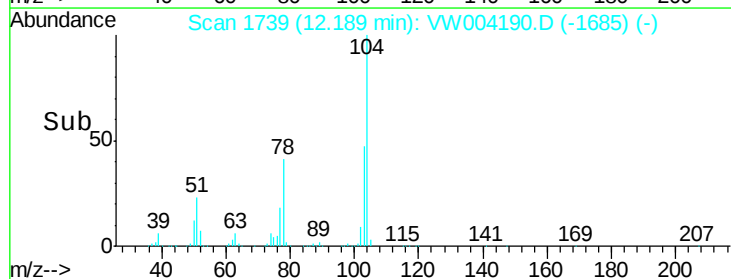
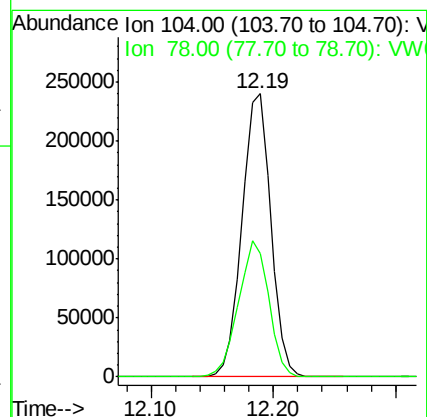
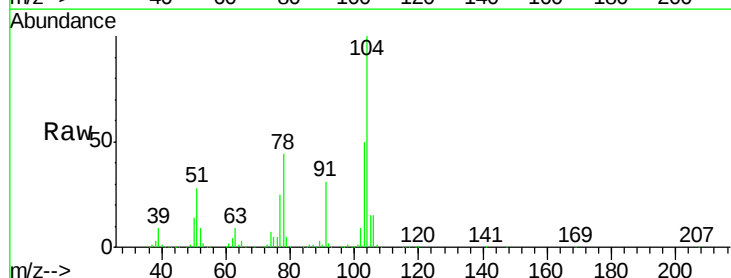
Instrument :  
MSVOA\_W  
ClientSampleId :  
VSTD02599

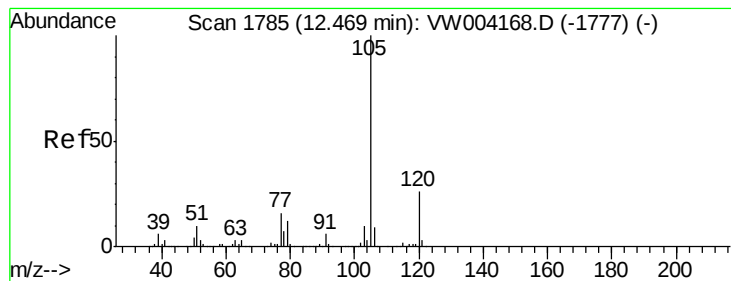
Tgt Ion:106 Resp: 221473  
Ion Ratio Lower Upper  
106 100  
91 218.1 151.3 280.9



#56  
Styrene  
Concen: 28.456 ug/L  
RT: 12.19 min Scan# 1739  
Delta R.T. 0.00 min  
Lab File: VW004190.D  
Acq: 25 Jul 2018 10:03

Tgt Ion:104 Resp: 392626  
Ion Ratio Lower Upper  
104 100  
78 43.6 32.2 59.8





#57

Isopropylbenzene

Concen: 27.529 ug/L

RT: 12.47 min Scan# 1785

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

VSTD02599

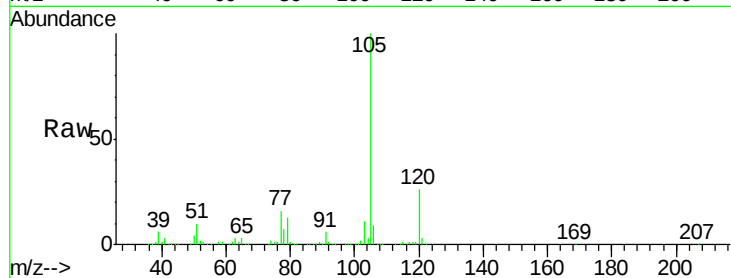
Tgt Ion:105 Resp: 602855

Ion Ratio Lower Upper

105 100

120 26.2 21.0 31.4

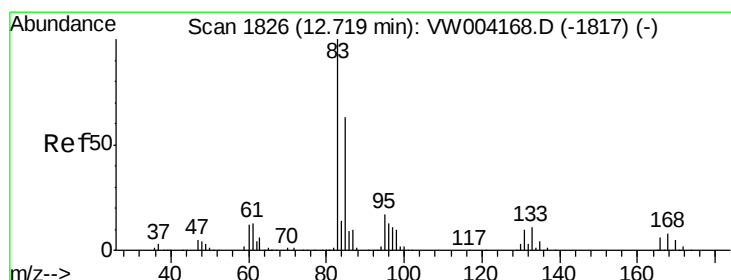
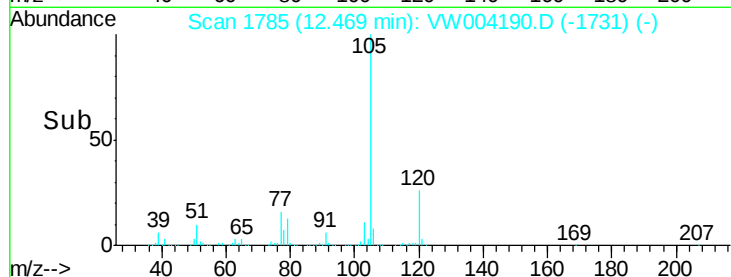
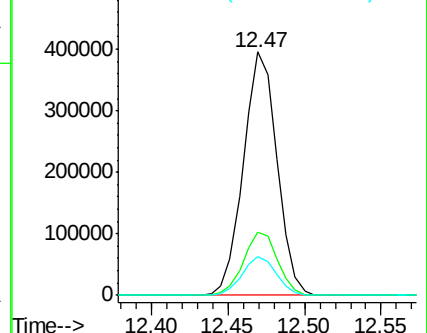
77 16.1 13.1 19.7



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

Ion 77.00 (76.70 to 77.70): V



#58

1,1,2,2-Tetrachloroethane

Concen: 25.690 ug/L

RT: 12.72 min Scan# 1826

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

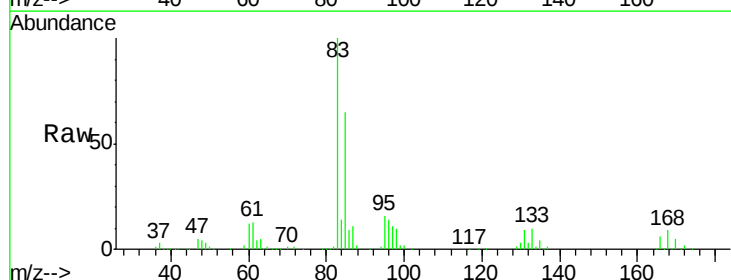
Tgt Ion: 83 Resp: 154535

Ion Ratio Lower Upper

83 100

85 64.8 44.7 83.1

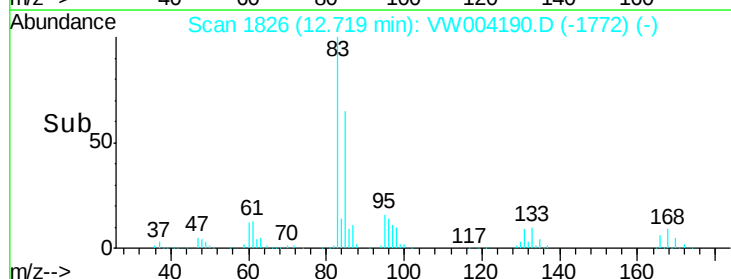
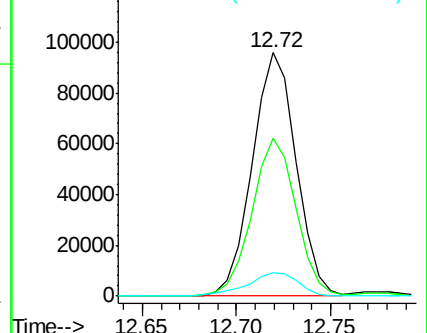
131 9.4 7.8 11.6

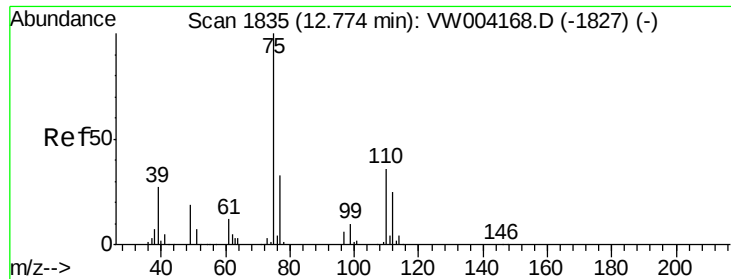


Abundance Ion 83.00 (82.70 to 83.70): VW

Ion 85.00 (84.70 to 85.70): VW

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 25.410 ug/L

RT: 12.77 min Scan# 1835

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

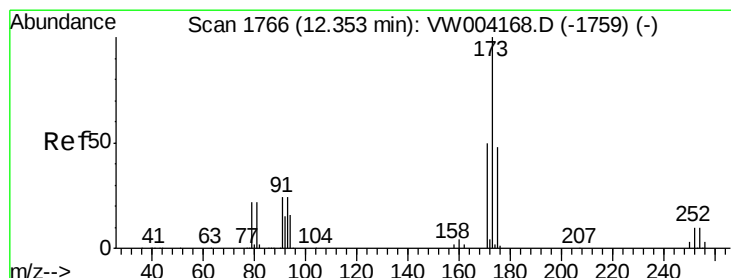
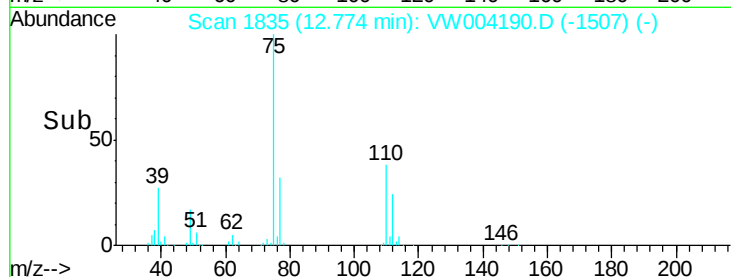
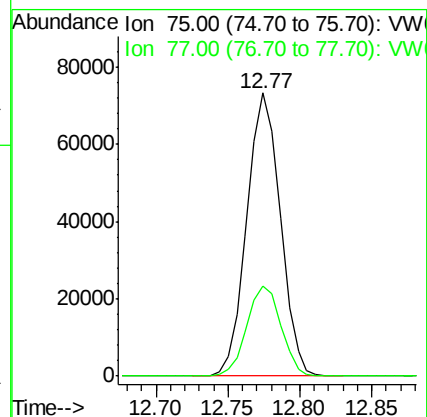
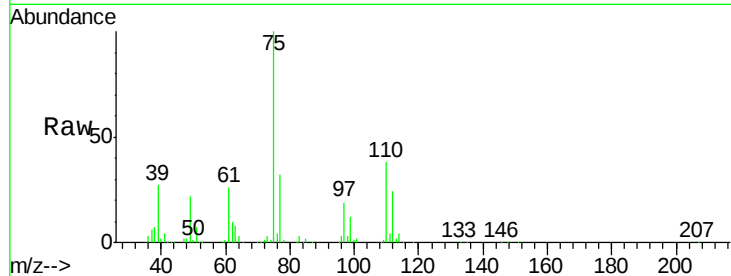
VSTD02599

Tgt Ion: 75 Resp: 118320

Ion Ratio Lower Upper

75 100

77 32.6 25.4 38.0



#62

Bromoform

Concen: 25.481 ug/L

RT: 12.35 min Scan# 1766

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

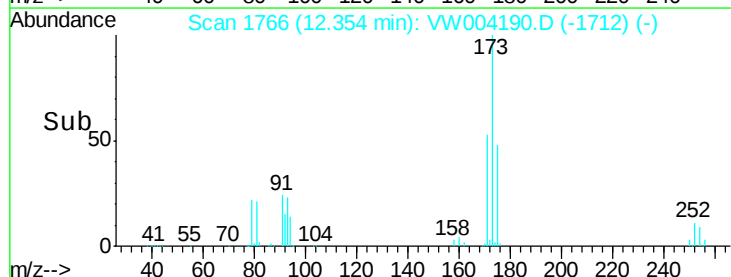
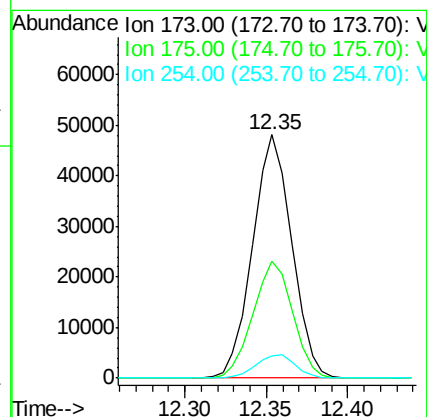
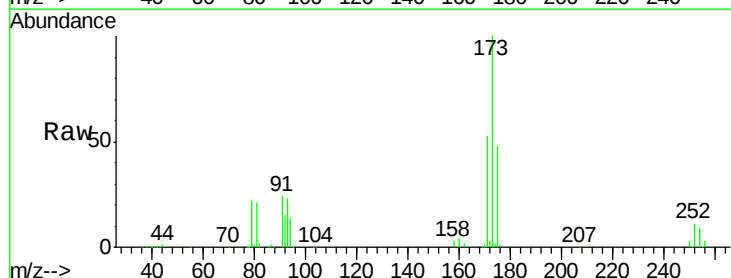
Tgt Ion: 173 Resp: 80378

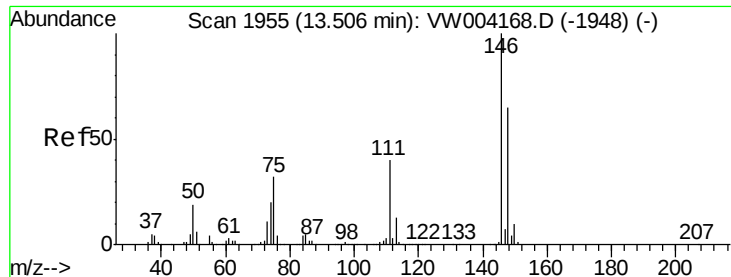
Ion Ratio Lower Upper

173 100

175 48.5 39.4 59.0

254 9.8 7.4 11.2

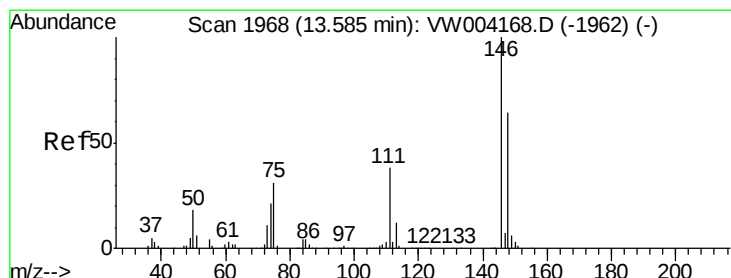
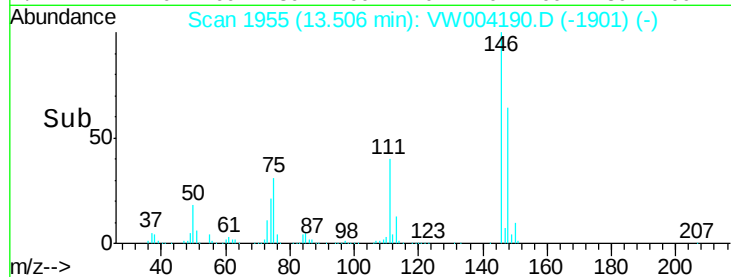
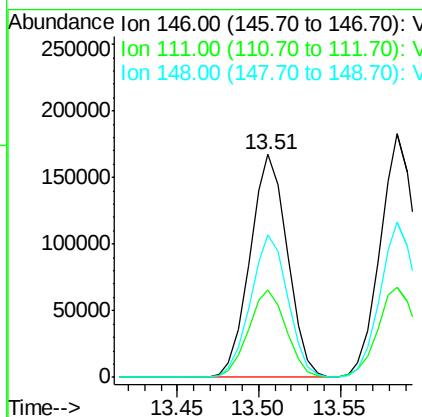
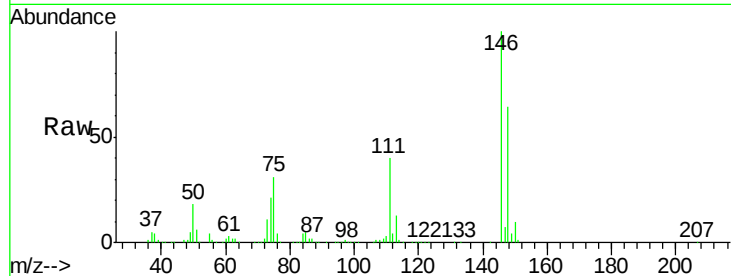




#63  
 1,3-Dichlorobenzene  
 Concen: 25.982 ug/L  
 RT: 13.51 min Scan# 1955  
 Delta R.T. 0.00 min  
 Lab File: VW004190.D  
 Acq: 25 Jul 2018 10:03

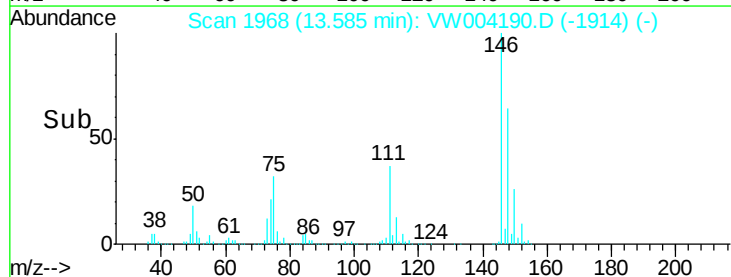
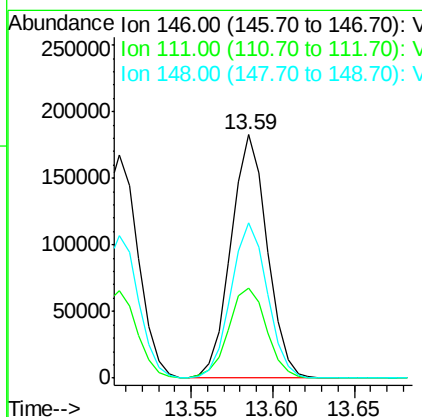
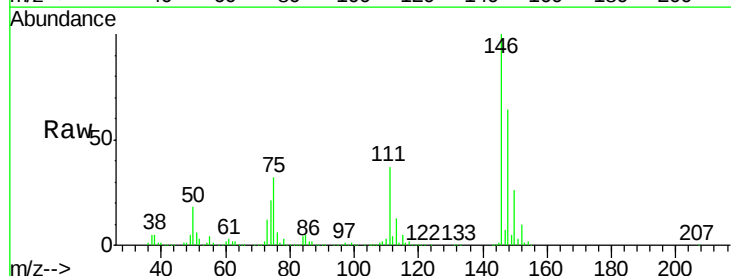
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTD02599

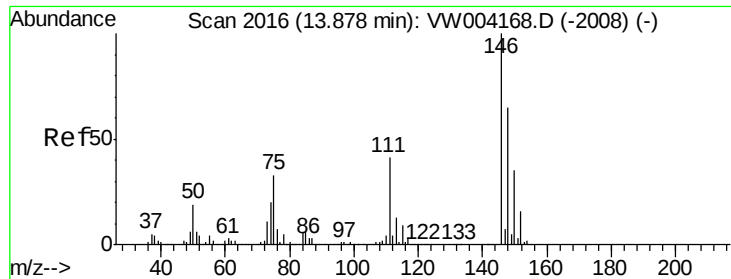
Tgt Ion:146 Resp: 267485  
 Ion Ratio Lower Upper  
 146 100  
 111 39.5 27.9 51.7  
 148 64.2 44.2 82.0



#64  
 1,4-Dichlorobenzene  
 Concen: 25.645 ug/L  
 RT: 13.59 min Scan# 1968  
 Delta R.T. 0.00 min  
 Lab File: VW004190.D  
 Acq: 25 Jul 2018 10:03

Tgt Ion:146 Resp: 283085  
 Ion Ratio Lower Upper  
 146 100  
 111 36.7 26.8 49.8  
 148 63.7 44.3 82.3

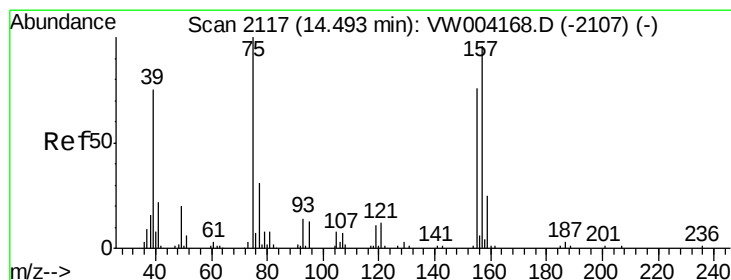
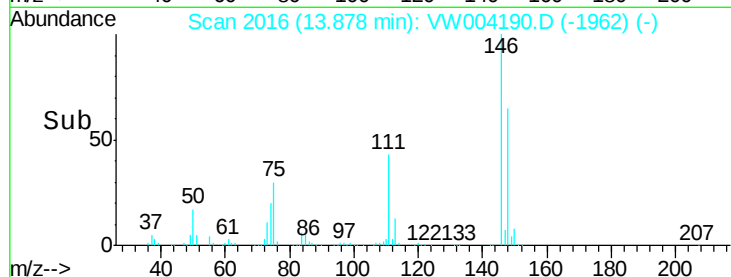
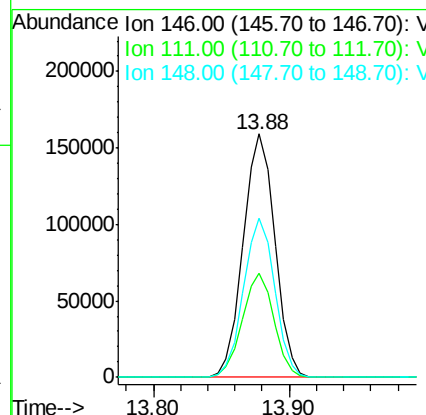
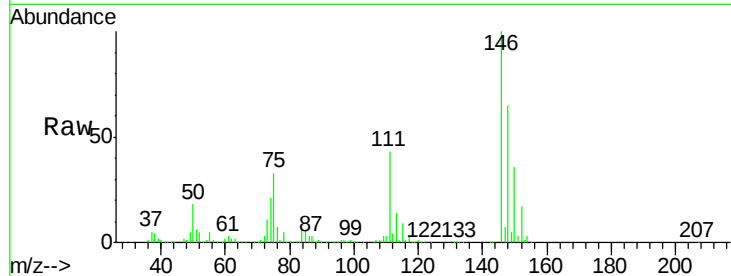




#65  
 1,2-Dichlorobenzene  
 Concen: 25.920 ug/L  
 RT: 13.88 min Scan# 2016  
 Delta R.T. 0.00 min  
 Lab File: VW004190.D  
 Acq: 25 Jul 2018 10:03

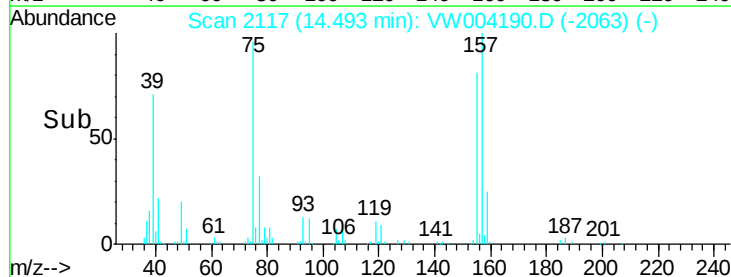
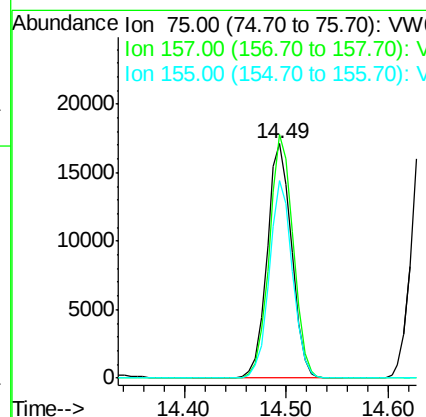
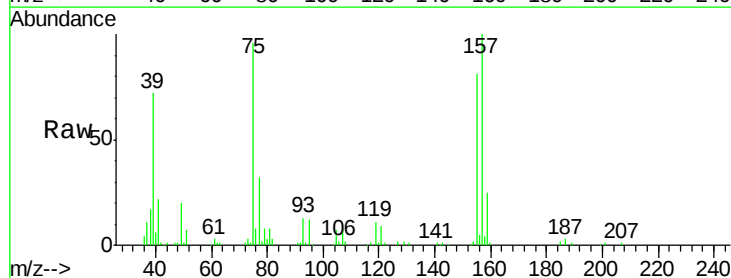
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTD02599

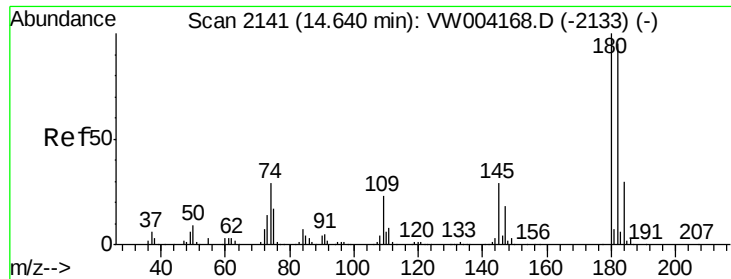
Tgt Ion: 146 Resp: 260041  
 Ion Ratio Lower Upper  
 146 100  
 111 42.9 33.2 49.8  
 148 65.3 51.0 76.4



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 24.340 ug/L  
 RT: 14.49 min Scan# 2117  
 Delta R.T. 0.00 min  
 Lab File: VW004190.D  
 Acq: 25 Jul 2018 10:03

Tgt Ion: 75 Resp: 28469  
 Ion Ratio Lower Upper  
 75 100  
 157 104.0 77.9 116.9  
 155 84.4 61.8 92.8

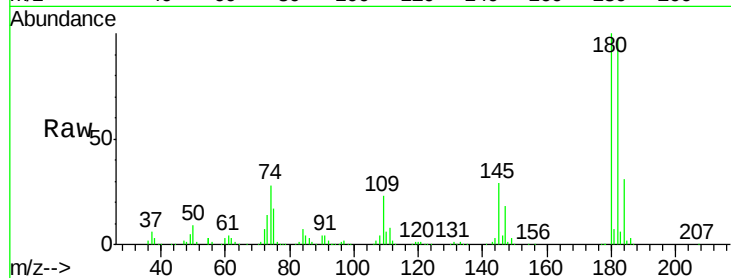




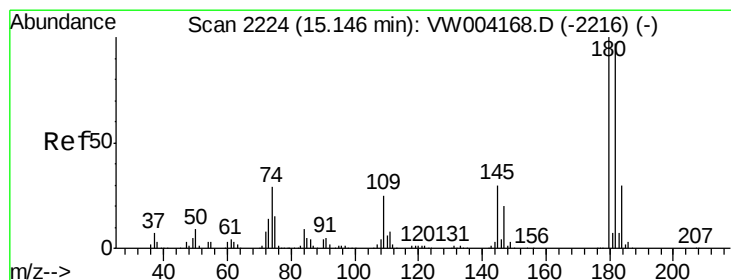
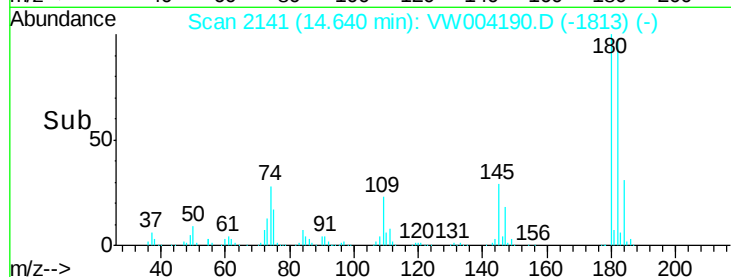
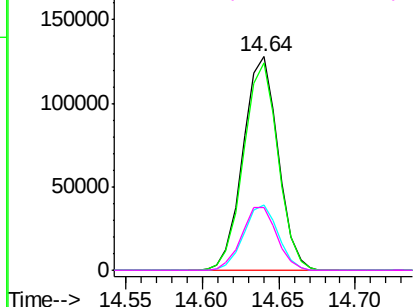
#67  
 1,3,5-Trichlorobenzene  
 Concen: 25.000 ug/L  
 RT: 14.64 min Scan# 2141  
 Delta R.T. 0.00 min  
 Lab File: VW004190.D  
 Acq: 25 Jul 2018 10:03

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTD02599

Tgt Ion:180 Resp: 203523  
 Ion Ratio Lower Upper  
 180 100  
 182 95.6 75.5 113.3  
 184 30.2 24.0 36.0  
 145 29.8 23.3 34.9

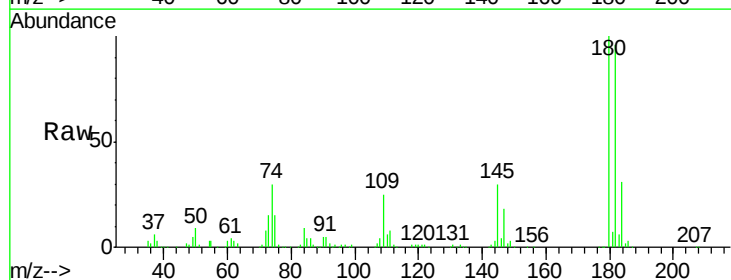


Abundance Ion 180.00 (179.70 to 180.70): V  
 200000  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

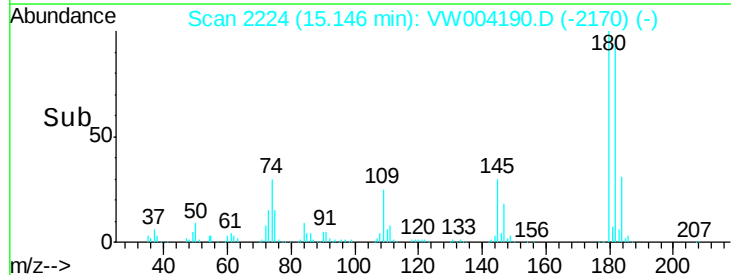
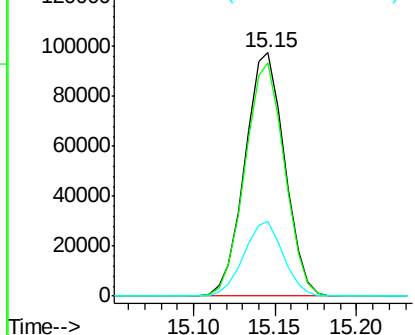


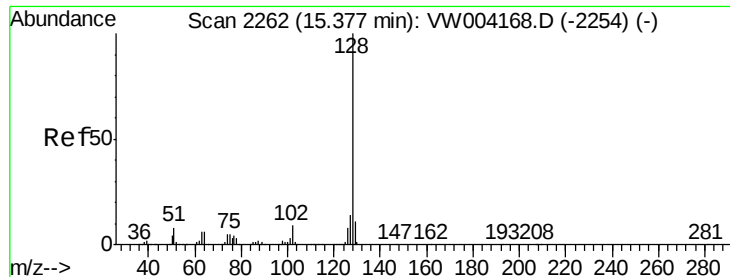
#68  
 1,2,4-trichlorobenzene  
 Concen: 25.366 ug/L  
 RT: 15.15 min Scan# 2224  
 Delta R.T. 0.00 min  
 Lab File: VW004190.D  
 Acq: 25 Jul 2018 10:03

Tgt Ion:180 Resp: 165604  
 Ion Ratio Lower Upper  
 180 100  
 182 95.2 77.8 116.6  
 145 30.3 24.4 36.6



Abundance Ion 180.00 (179.70 to 180.70): V  
 120000  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 145.00 (144.70 to 145.70): V





#69

Naphthalene

Concen: 26.995 ug/L

RT: 15.38 min Scan# 2262

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

Instrument :

MSVOA\_W

ClientSampleId :

VSTD02599

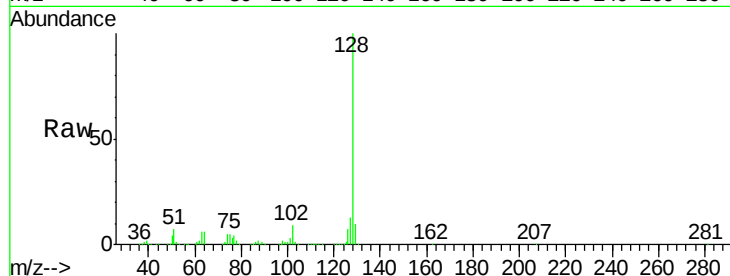
Tgt Ion:128 Resp: 396795

Ion Ratio Lower Upper

128 100

129 10.8 8.7 13.1

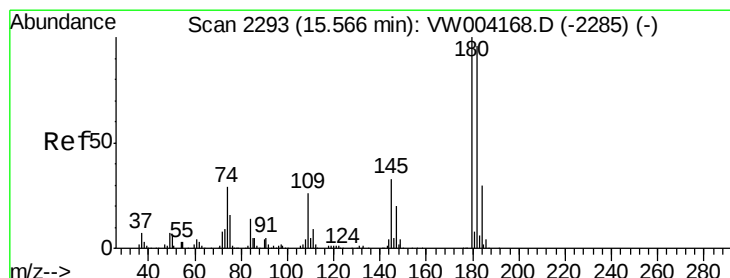
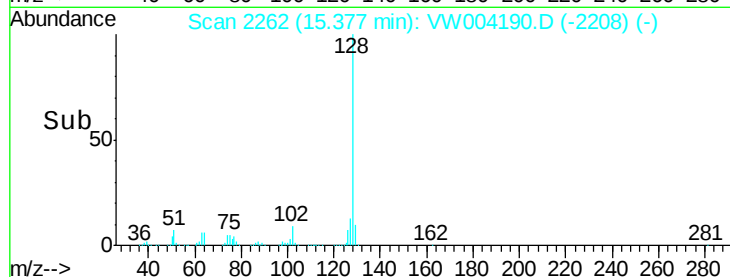
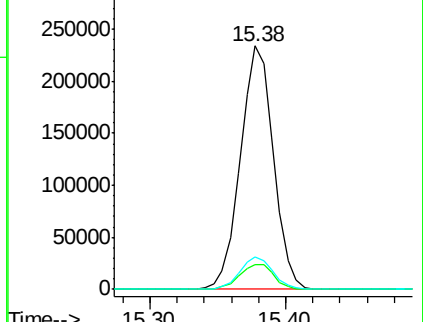
127 13.4 10.9 16.3



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V



#70

1,2,3-Trichlorobenzene

Concen: 26.317 ug/L

RT: 15.57 min Scan# 2293

Delta R.T. 0.00 min

Lab File: VW004190.D

Acq: 25 Jul 2018 10:03

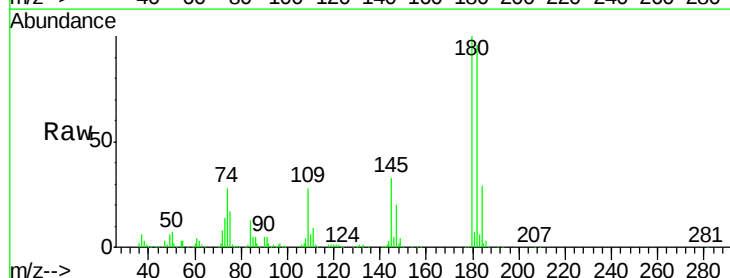
Tgt Ion:180 Resp: 163465

Ion Ratio Lower Upper

180 100

182 95.7 76.6 115.0

145 32.0 25.3 37.9



Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V

