

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\DATA\VU070618\  
 Data File : VU025232.D  
 Acq On : 06 Jul 2018 09:36  
 Operator : MD/SY  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05047

Quant Time: Jul 06 23:11:39 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM062918WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Jun 29 23:41:20 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.89  | 114  | 331228   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 310002   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.49 | 152  | 162785   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |        |
|--------------------------------|---------|-------|----------|----------|------|--------|
| 4) Vinyl Chloride-d3           | 1.40    | 65    | 86443    | 43.66    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 87.32% |
| 7) Chloroethane-d5             | 1.68    | 69    | 74442    | 45.58    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 91.16% |
| 11) 1,1-Dichloroethene-d2      | 2.27    | 63    | 201735   | 46.71    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 93.42% |
| 21) 2-Butanone-d5              | 4.17    | 46    | 164158   | 99.19    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 99.19% |
| 24) Chloroform-d               | 4.65    | 84    | 203456   | 47.97    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 95.94% |
| 26) 1,2-Dichloroethane-d4      | 5.31    | 65    | 141409   | 47.02    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 94.04% |
| 32) Benzene-d6                 | 5.35    | 84    | 382600   | 44.98    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 89.96% |
| 36) 1,2-Dichloropropane-d6     | 6.33    | 67    | 124844   | 46.08    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 92.16% |
| 41) Toluene-d8                 | 7.57    | 98    | 380625   | 45.74    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 91.48% |
| 43) trans-1,3-Dichloropropene- | 7.85    | 79    | 62898    | 46.30    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 92.60% |
| 47) 2-Hexanone-d5              | 8.31    | 63    | 116434   | 94.17    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 94.17% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.44   | 84    | 183451   | 47.79    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 95.58% |
| 64) 1,2-Dichlorobenzene-d4     | 11.86   | 152   | 165466   | 46.65    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 93.30% |

## Target Compounds

|                                |      |     |        |         | Qvalue   |
|--------------------------------|------|-----|--------|---------|----------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 153979 | 51.164  | ug/L 98  |
| 3) Chloromethane               | 1.33 | 50  | 120745 | 48.636  | ug/L 100 |
| 5) Vinyl chloride              | 1.40 | 62  | 125379 | 48.807  | ug/L 100 |
| 6) Bromomethane                | 1.62 | 94  | 69584  | 50.452  | ug/L 98  |
| 8) Chloroethane                | 1.70 | 64  | 78554  | 50.734  | ug/L 94  |
| 9) Trichlorofluoromethane      | 1.89 | 101 | 191835 | 51.137  | ug/L 100 |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.29 | 101 | 117194 | 52.631  | ug/L 99  |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 100757 | 49.593  | ug/L 90  |
| 13) Acetone                    | 2.32 | 43  | 237531 | 139.635 | ug/L 99  |
| 14) Carbon disulfide           | 2.48 | 76  | 299974 | 48.898  | ug/L 100 |
| 15) Methyl Acetate             | 2.62 | 43  | 131811 | 50.643  | ug/L 98  |
| 16) Methylene chloride         | 2.70 | 84  | 122553 | 51.404  | ug/L 99  |
| 17) trans-1,2-Dichloroethene   | 2.99 | 96  | 110898 | 50.415  | ug/L 98  |
| 18) Methyl tert-butyl Ether    | 3.00 | 73  | 384367 | 50.216  | ug/L 100 |
| 19) 1,1-Dichloroethane         | 3.45 | 63  | 212834 | 50.833  | ug/L 99  |
| 20) cis-1,2-Dichloroethene     | 4.23 | 96  | 130656 | 51.430  | ug/L 98  |
| 22) 2-Butanone                 | 4.26 | 43  | 252290 | 125.368 | ug/L 98  |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\DATA\VU070618\  
 Data File : VU025232.D  
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 Operator : MD/SY  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 2 Sample Multiplier: 1

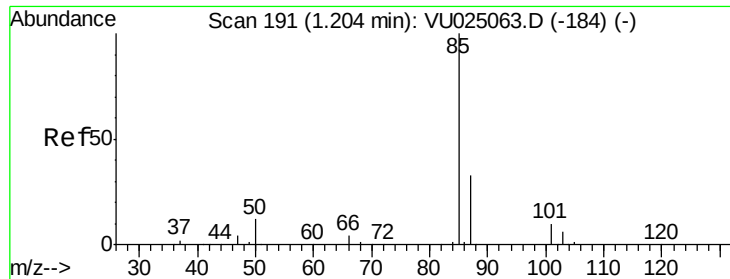
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05047

Quant Time: Jul 06 23:11:39 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM062918WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Jun 29 23:41:20 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 23) Bromochloromethane         | 4.55  | 128  | 66786    | 51.135  | ug/L  | 97       |
| 25) Chloroform                 | 4.68  | 83   | 230819   | 51.633  | ug/L  | 99       |
| 27) 1,2-Dichloroethane         | 5.41  | 62   | 191070   | 50.999  | ug/L  | 100      |
| 29) Cyclohexane                | 5.00  | 56   | 196092   | 48.931  | ug/L  | 99       |
| 30) 1,1,1-Trichloroethane      | 4.92  | 97   | 202129   | 48.817  | ug/L  | 99       |
| 31) Carbon tetrachloride       | 5.14  | 117  | 184935   | 51.104  | ug/L  | 100      |
| 33) Benzene                    | 5.39  | 78   | 462430   | 49.186  | ug/L  | 100      |
| 34) Trichloroethene            | 6.19  | 95   | 128979   | 51.572  | ug/L  | 98       |
| 35) Methylcyclohexane          | 6.42  | 83   | 207189   | 49.644  | ug/L  | 99       |
| 37) 1,2-Dichloropropane        | 6.44  | 63   | 125143   | 49.845  | ug/L  | 100      |
| 38) Bromodichloromethane       | 6.76  | 83   | 169834   | 50.893  | ug/L  | 99       |
| 39) cis-1,3-Dichloropropene    | 7.27  | 75   | 192984   | 48.535  | ug/L  | 98       |
| 40) 4-Methyl-2-pentanone       | 7.46  | 43   | 364179   | 100.682 | ug/L  | 100      |
| 42) Toluene                    | 7.64  | 91   | 512530   | 50.161  | ug/L  | 99       |
| 44) trans-1,3-Dichloropropene  | 7.88  | 75   | 184287   | 49.821  | ug/L  | 99       |
| 45) 1,1,2-Trichloroethane      | 8.07  | 97   | 119790   | 50.000  | ug/L  | 99       |
| 46) Tetrachloroethene          | 8.23  | 164  | 107168   | 50.622  | ug/L  | 97       |
| 48) 2-Hexanone                 | 8.36  | 43   | 326497   | 113.462 | ug/L  | 99       |
| 49) Dibromochloromethane       | 8.48  | 129  | 145258   | 51.667  | ug/L  | 99       |
| 50) 1,2-Dibromoethane          | 8.59  | 107  | 129562   | 48.891  | ug/L  | 99       |
| 51) Chlorobenzene              | 9.12  | 112  | 338643   | 49.728  | ug/L  | 99       |
| 52) Ethylbenzene               | 9.25  | 91   | 583107   | 50.740  | ug/L  | 98       |
| 53) m,p-Xylene                 | 9.38  | 106  | 226060   | 50.832  | ug/L  | 99       |
| 54) o-xylene                   | 9.78  | 106  | 225756   | 50.611  | ug/L  | 98       |
| 55) Styrene                    | 9.80  | 104  | 376549   | 51.502  | ug/L  | 99       |
| 56) Isopropylbenzene           | 10.17 | 105  | 602660   | 51.437  | ug/L  | 100      |
| 58) 1,1,2,2-Tetrachloroethane  | 10.46 | 83   | 200096   | 50.050  | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane     | 10.50 | 75   | 162640   | 49.966  | ug/L  | 99       |
| 61) Bromoform                  | 9.96  | 173  | 108131   | 50.597  | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene        | 11.42 | 146  | 275322   | 50.484  | ug/L  | 100      |
| 63) 1,4-Dichlorobenzene        | 11.51 | 146  | 276039   | 50.318  | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene        | 11.88 | 146  | 288142   | 50.054  | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan | 12.66 | 75   | 48186    | 50.585  | ug/L  | 97       |
| 67) 1,3,5-Trichlorobenzene     | 12.89 | 180  | 208176   | 51.416  | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.51 | 180  | 173029   | 51.117  | ug/L  | 100      |
| 69) Naphthalene                | 13.75 | 128  | 541278   | 48.091  | ug/L  | 99       |
| 70) 1,2,3-Trichlorobenzene     | 13.99 | 180  | 183172   | 50.383  | ug/L  | 100      |

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





#2

Dichlorodifluoromethane

Concen: 51.164 ug/L

RT: 1.20 min Scan# 191

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

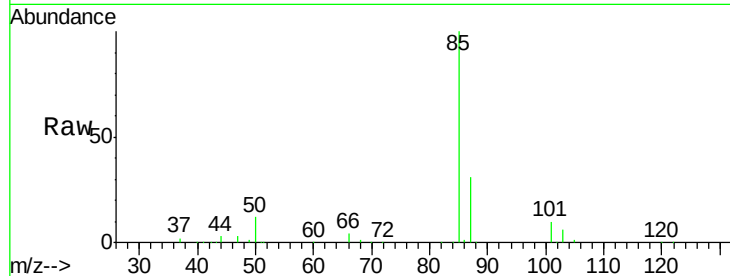
VSTD05047

Tgt Ion: 85 Resp: 153979

Ion Ratio Lower Upper

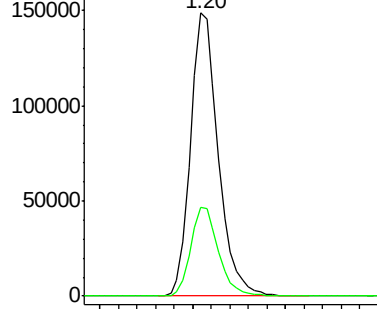
85 100

87 31.4 26.1 39.1

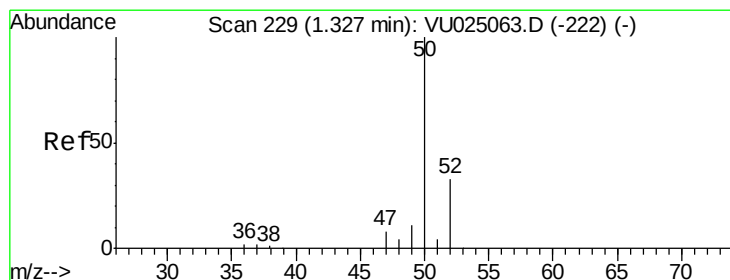
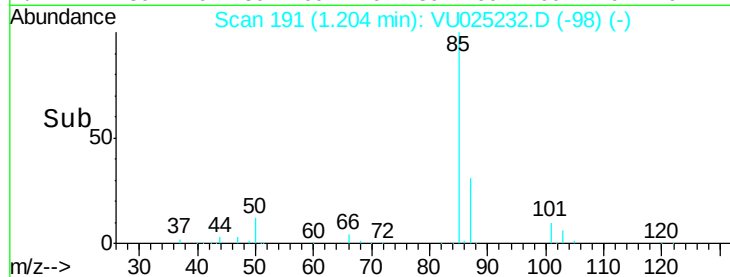


Abundance Ion 85.00 (84.70 to 85.70): VU0

Ion 87.00 (86.70 to 87.70): VU0



Time-->



#3

Chloromethane

Concen: 48.636 ug/L

RT: 1.33 min Scan# 229

Delta R.T. -0.00 min

Lab File: VU025232.D

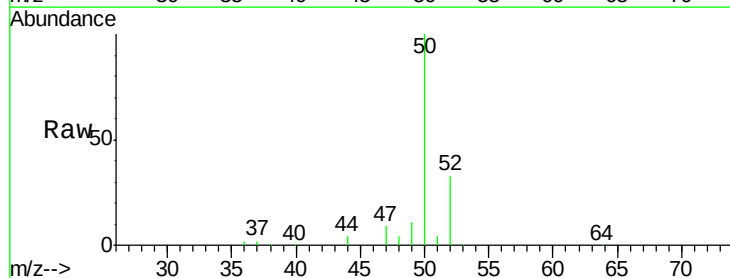
Acq: 06 Jul 2018 09:36

Tgt Ion: 50 Resp: 120745

Ion Ratio Lower Upper

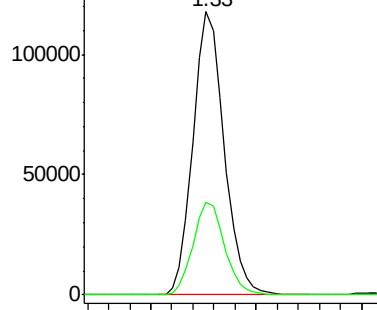
50 100

52 32.9 23.1 42.9

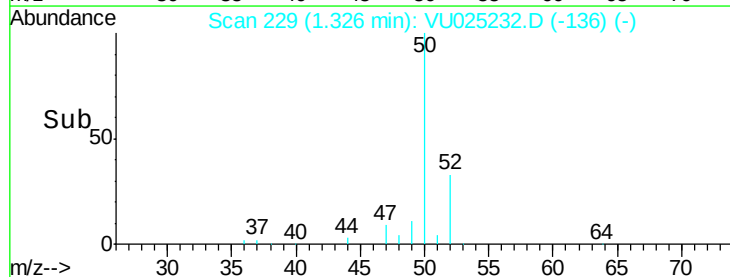


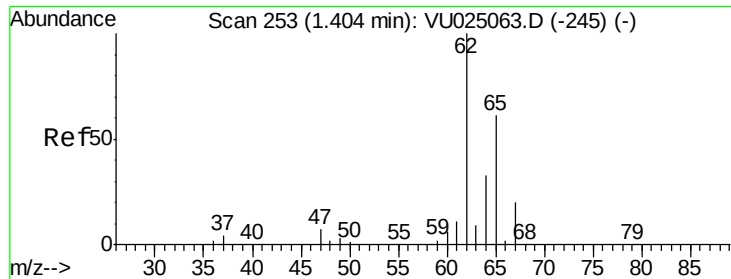
Abundance Ion 50.00 (49.70 to 50.70): VU0

Ion 52.00 (51.70 to 52.70): VU0



Time-->





#5

Vinyl chloride

Concen: 48.807 ug/L

RT: 1.40 min Scan# 253

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

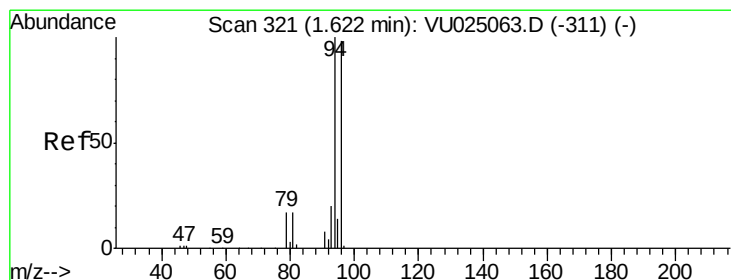
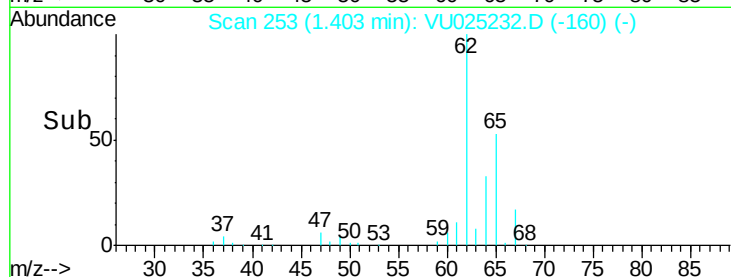
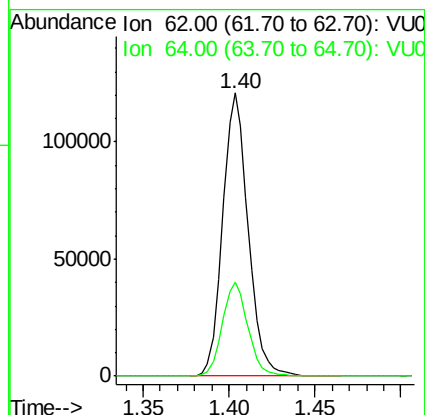
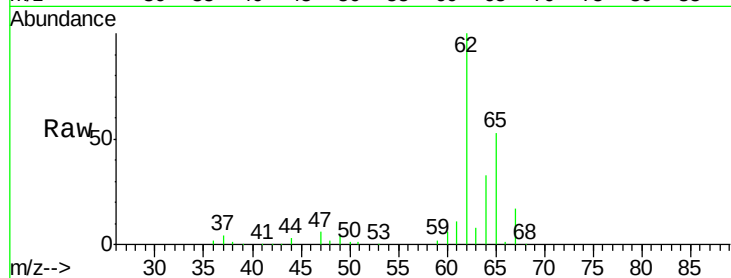
VSTD05047

Tgt Ion: 62 Resp: 125379

Ion Ratio Lower Upper

62 100

64 33.2 23.0 42.8



#6

Bromomethane

Concen: 50.452 ug/L

RT: 1.62 min Scan# 321

Delta R.T. -0.00 min

Lab File: VU025232.D

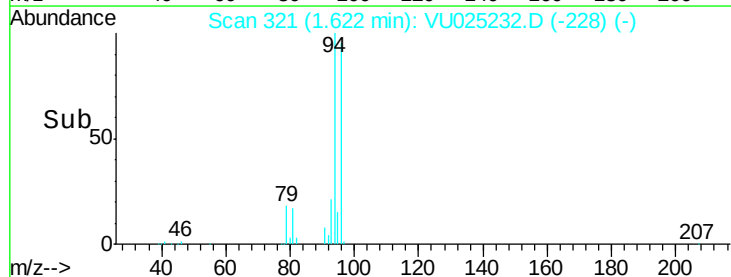
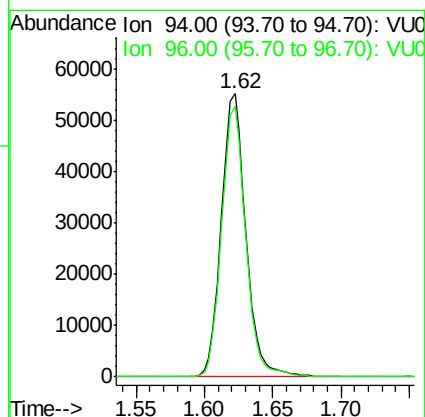
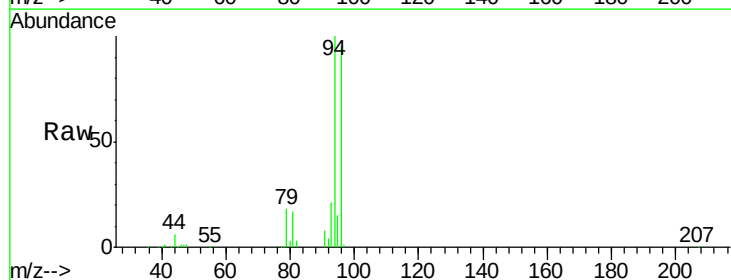
Acq: 06 Jul 2018 09:36

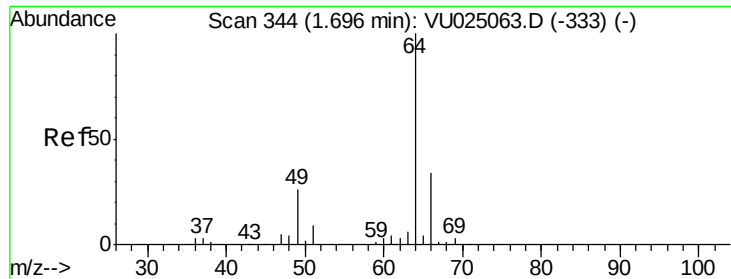
Tgt Ion: 94 Resp: 69584

Ion Ratio Lower Upper

94 100

96 95.5 68.4 127.0

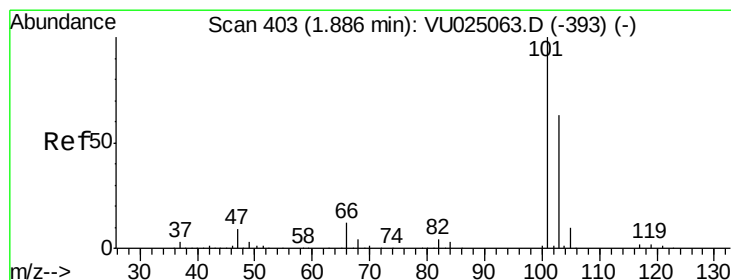
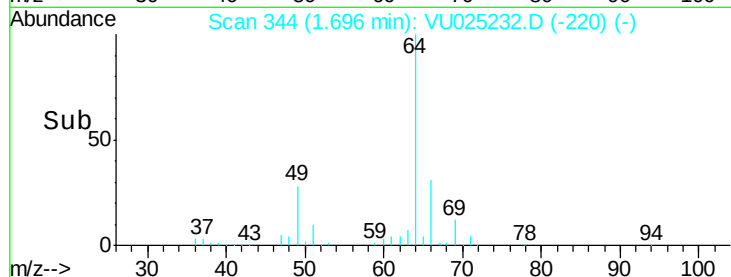
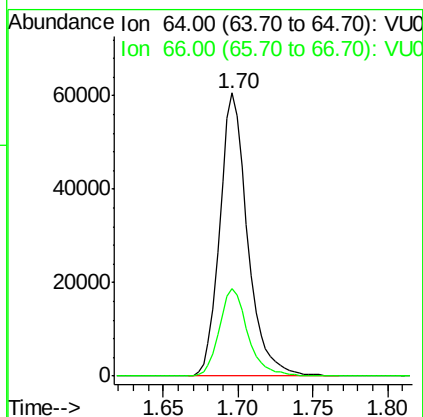
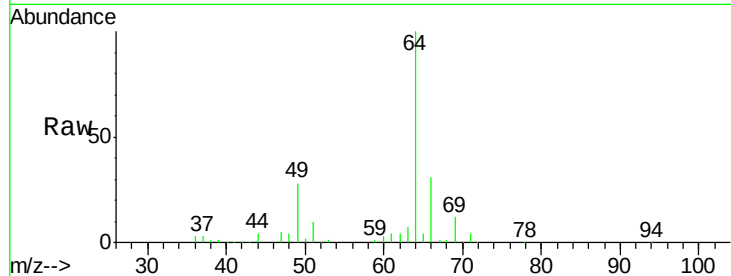




#8  
Chloroethane  
Concen: 50.734 ug/L  
RT: 1.70 min Scan# 344  
Delta R.T. -0.00 min  
Lab File: VU025232.D  
Acq: 06 Jul 2018 09:36

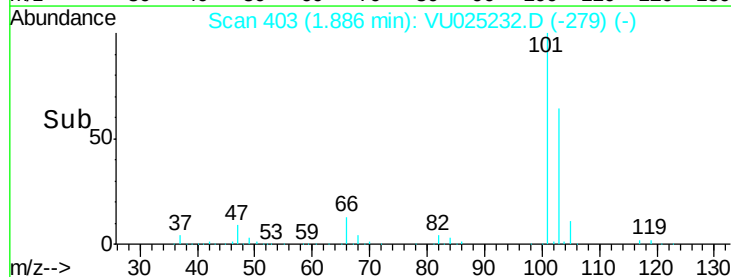
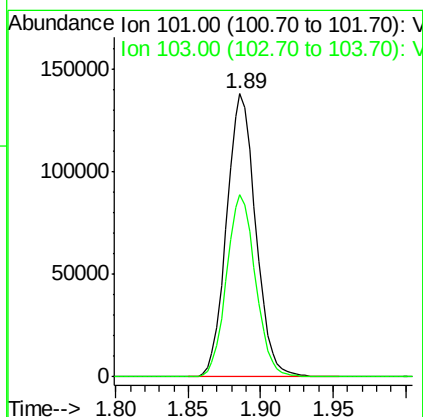
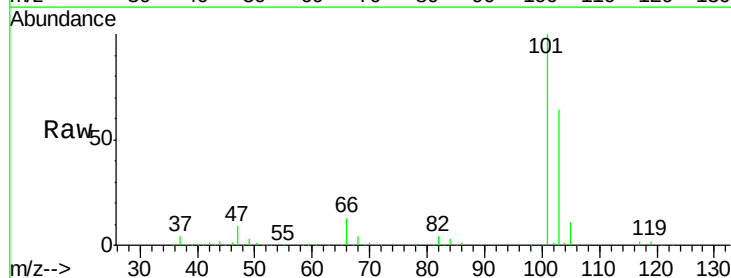
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05047

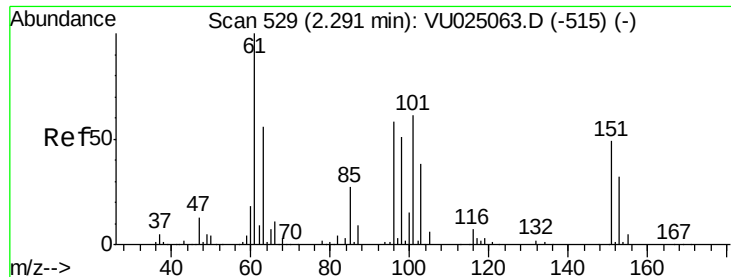
Tgt Ion: 64 Resp: 78554  
Ion Ratio Lower Upper  
64 100  
66 30.8 23.8 44.2



#9  
Trichlorofluoromethane  
Concen: 51.137 ug/L  
RT: 1.89 min Scan# 403  
Delta R.T. -0.00 min  
Lab File: VU025232.D  
Acq: 06 Jul 2018 09:36

Tgt Ion: 101 Resp: 191835  
Ion Ratio Lower Upper  
101 100  
103 64.1 51.1 76.7





#10

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

Concen: 52.631 ug/L

RT: 2.29 min Scan# 528

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05047

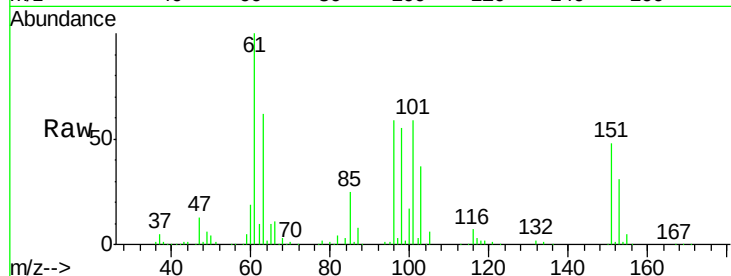
Tgt Ion: 101 Resp: 117194

Ion Ratio Lower Upper

101 100

85 43.6 35.8 53.6

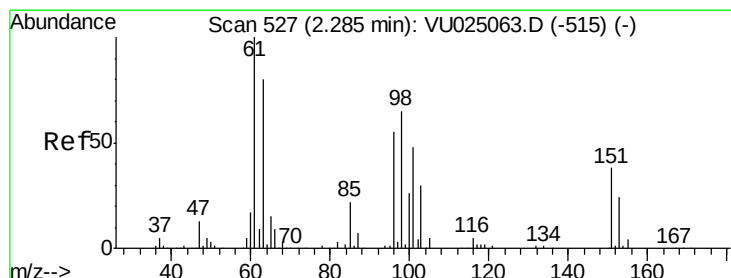
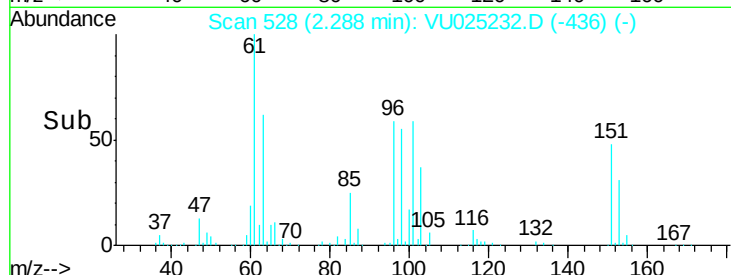
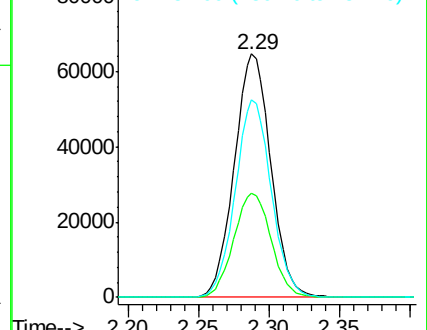
151 80.0 64.6 96.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 49.593 ug/L

RT: 2.28 min Scan# 527

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

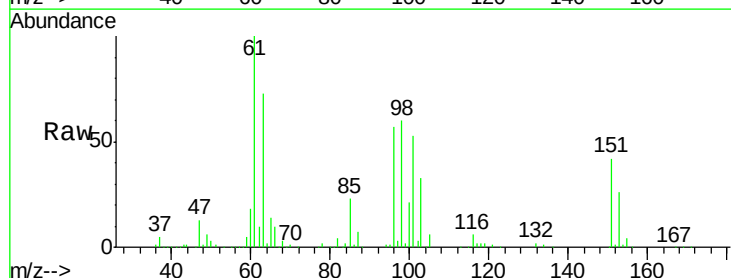
Tgt Ion: 96 Resp: 100757

Ion Ratio Lower Upper

96 100

61 175.8 128.1 237.9

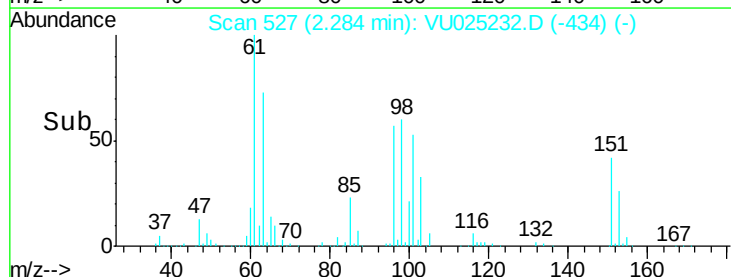
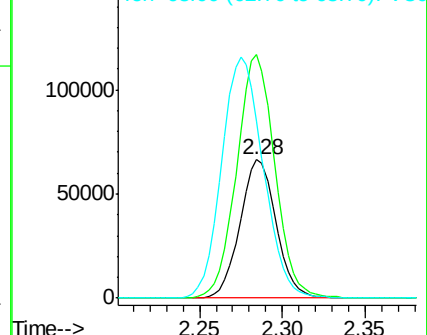
63 128.0 103.6 192.4

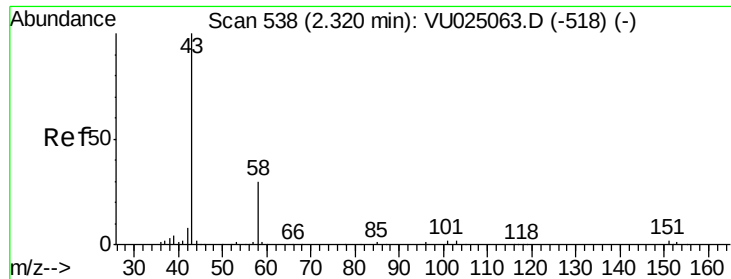


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 139.635 ug/L

RT: 2.32 min Scan# 538

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

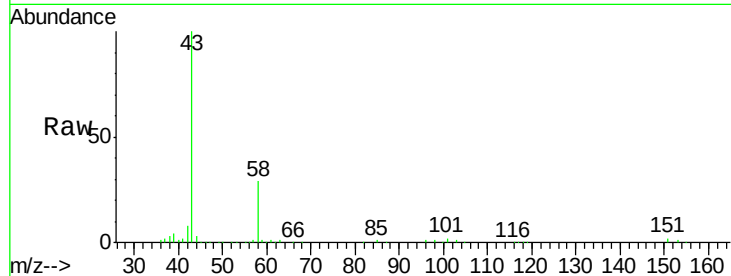
VSTD05047

Tgt Ion: 43 Resp: 237531

Ion Ratio Lower Upper

43 100

58 29.2 0.0 59.4



Abundance Ion 43.00 (42.70 to 43.70): VU025063.D (-518) (-)

Ion 58.00 (57.70 to 58.70): VU025063.D (-518) (-)

2.32

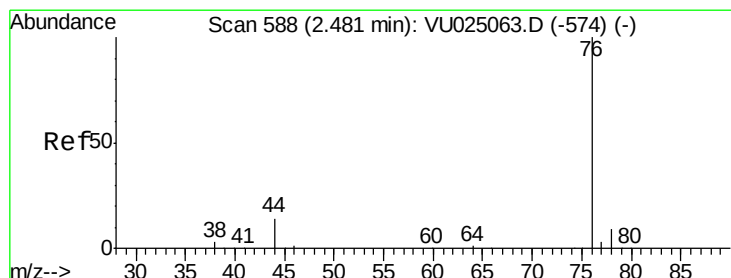
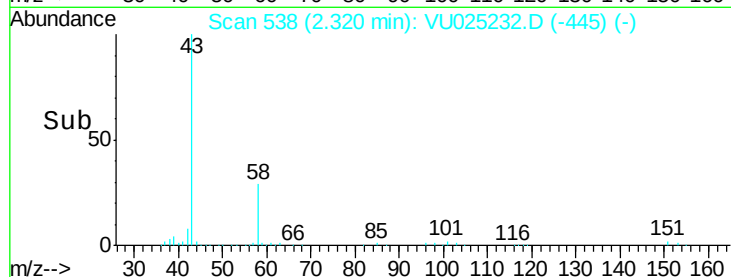
150000

100000

50000

0

Time--> 2.20 2.30 2.40



#14

Carbon disulfide

Concen: 48.898 ug/L

RT: 2.48 min Scan# 588

Delta R.T. -0.00 min

Lab File: VU025232.D

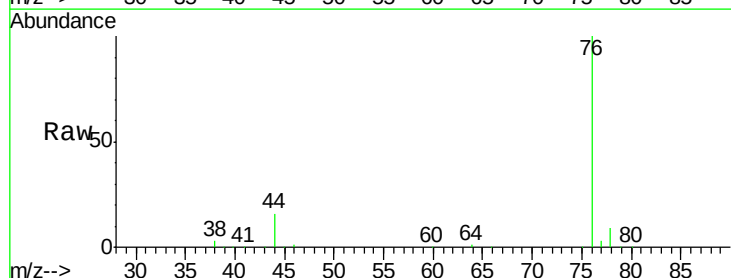
Acq: 06 Jul 2018 09:36

Tgt Ion: 76 Resp: 299974

Ion Ratio Lower Upper

76 100

78 9.1 7.3 10.9



Abundance Ion 76.00 (75.70 to 76.70): VU025063.D (-574) (-)

Ion 78.00 (77.70 to 78.70): VU025063.D (-574) (-)

2.48

200000

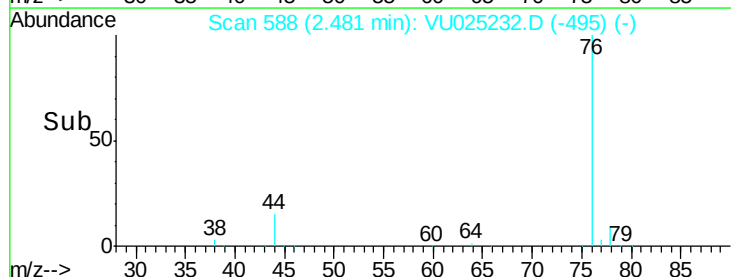
150000

100000

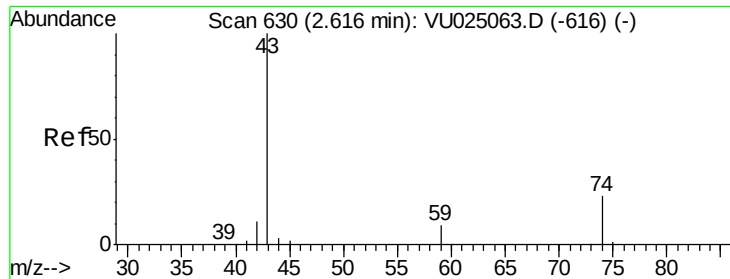
50000

0

Time--> 2.40 2.45 2.50 2.55 2.60



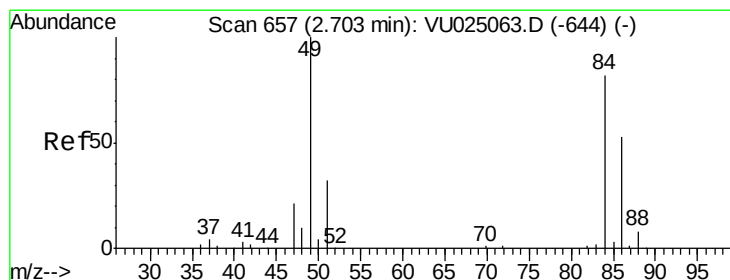
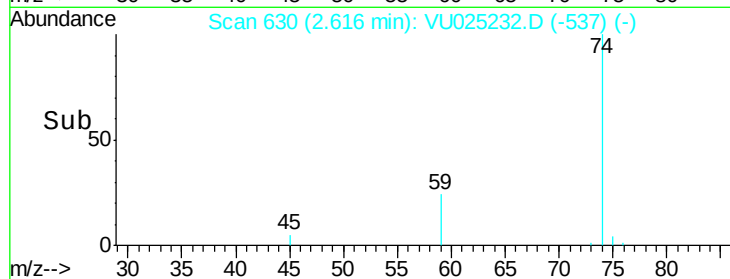
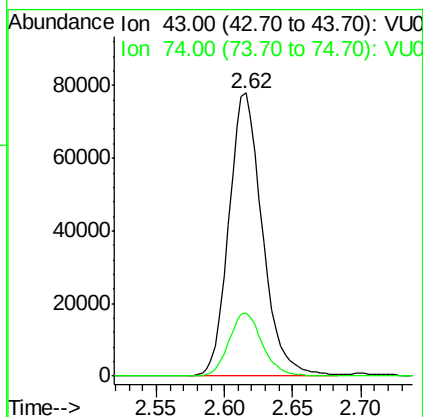
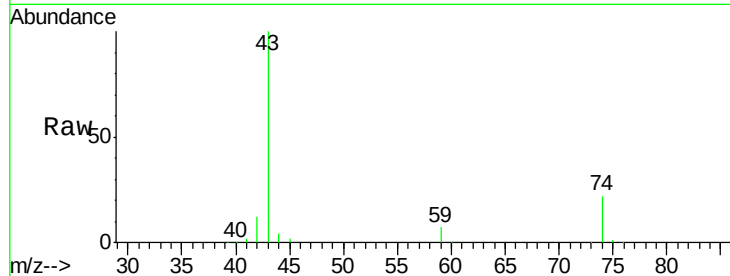




#15  
Methyl Acetate  
Concen: 50.643 ug/L  
RT: 2.62 min Scan# 630  
Delta R.T. -0.00 min  
Lab File: VU025232.D  
Acq: 06 Jul 2018 09:36

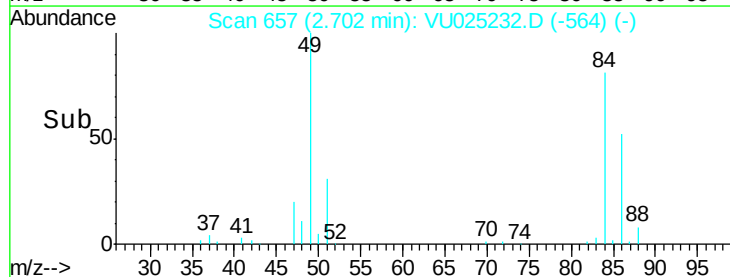
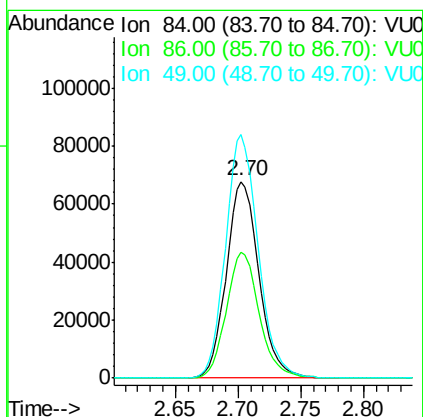
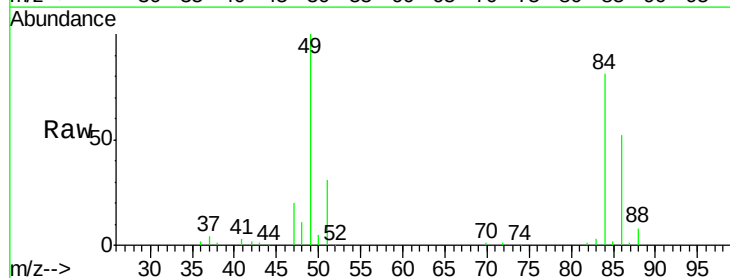
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05047

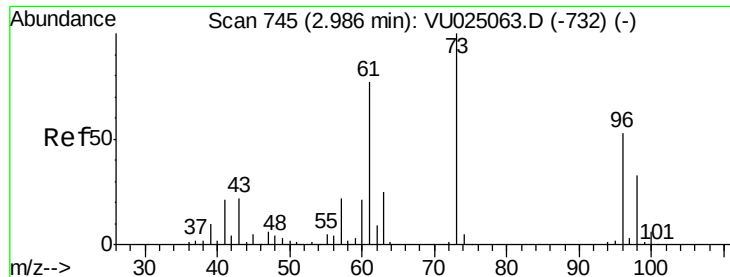
Tgt Ion: 43 Resp: 131811  
Ion Ratio Lower Upper  
43 100  
74 22.4 18.6 28.0



#16  
Methylene chloride  
Concen: 51.404 ug/L  
RT: 2.70 min Scan# 657  
Delta R.T. -0.00 min  
Lab File: VU025232.D  
Acq: 06 Jul 2018 09:36

Tgt Ion: 84 Resp: 122553  
Ion Ratio Lower Upper  
84 100  
86 64.2 44.9 83.5  
49 123.9 85.6 159.0





#17

trans-1,2-Dichloroethene

Concen: 50.415 ug/L

RT: 2.99 min Scan# 745

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05047

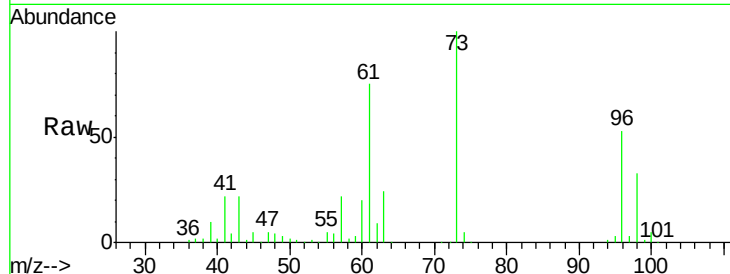
Tgt Ion: 96 Resp: 110898

Ion Ratio Lower Upper

96 100

61 143.0 102.7 190.7

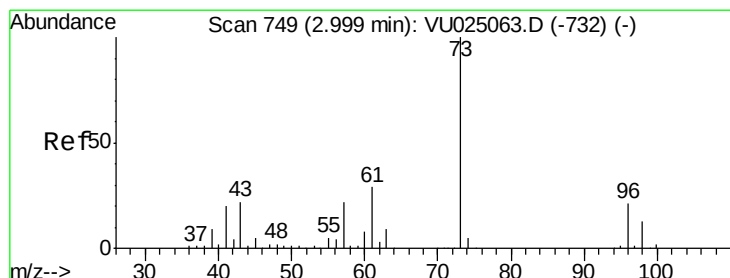
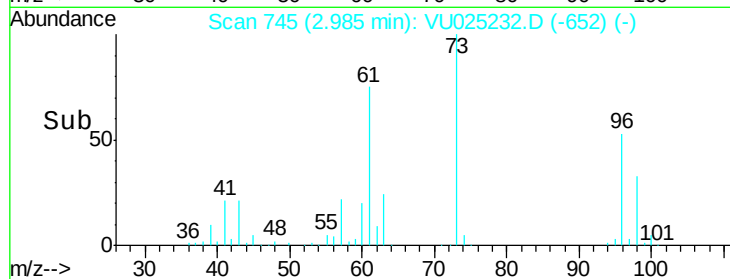
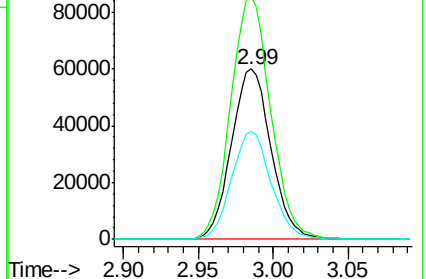
98 63.2 44.4 82.5



Abundance Ion 96.00 (95.70 to 96.70): VU025063.D (-732) (-)

Ion 61.00 (60.70 to 61.70): VU025063.D (-732) (-)

Ion 98.00 (97.70 to 98.70): VU025063.D (-732) (-)



#18

Methyl tert-butyl Ether

Concen: 50.216 ug/L

RT: 3.00 min Scan# 749

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

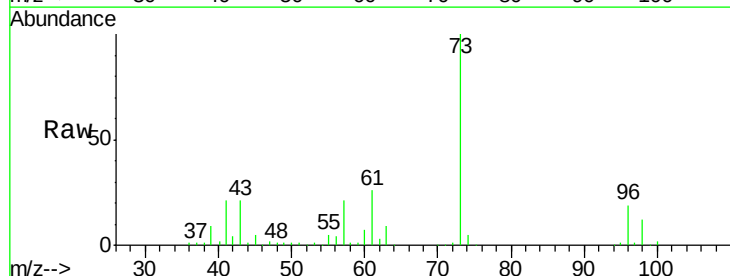
Tgt Ion: 73 Resp: 384367

Ion Ratio Lower Upper

73 100

43 21.5 17.2 25.8

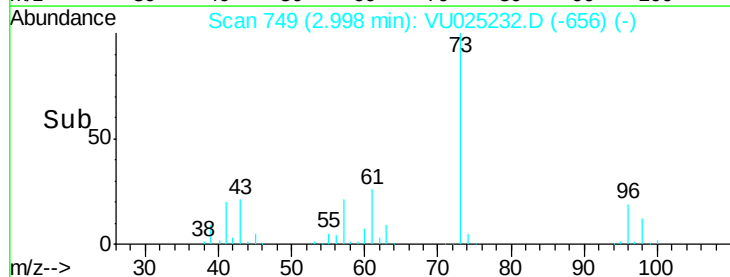
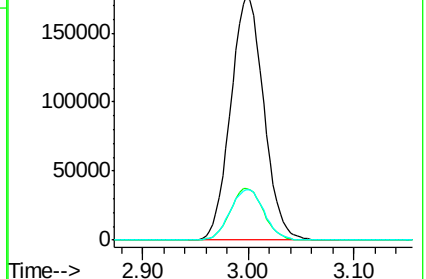
57 21.3 17.2 25.8

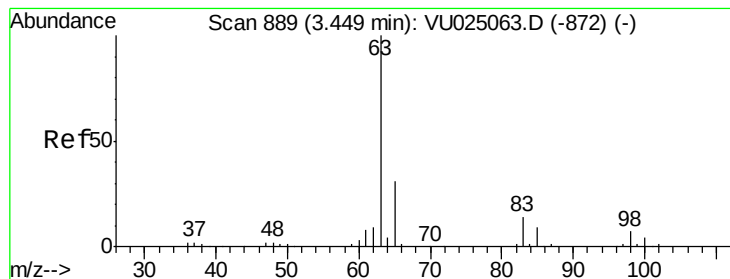


Abundance Ion 73.00 (72.70 to 73.70): VU025063.D (-732) (-)

Ion 43.00 (42.70 to 43.70): VU025063.D (-732) (-)

Ion 57.00 (56.70 to 57.70): VU025063.D (-732) (-)





#19

1,1-Dichloroethane

Concen: 50.833 ug/L

RT: 3.45 min Scan# 889

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05047

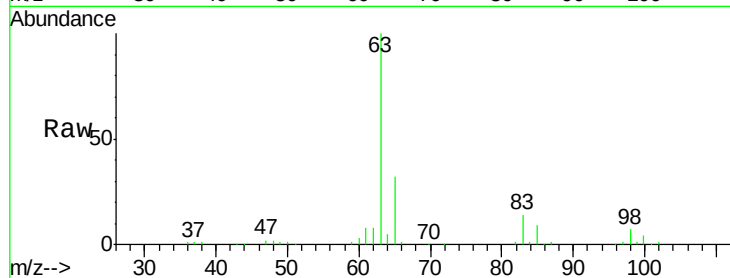
Tgt Ion: 63 Resp: 212834

Ion Ratio Lower Upper

63 100

65 31.9 21.9 40.7

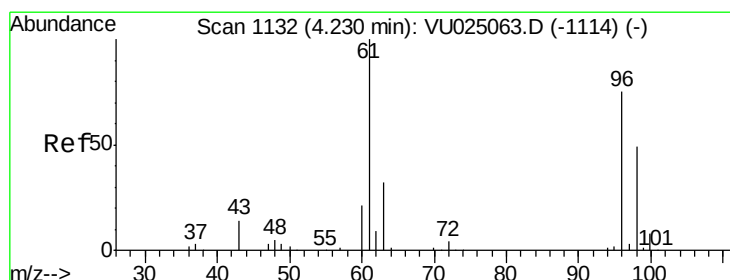
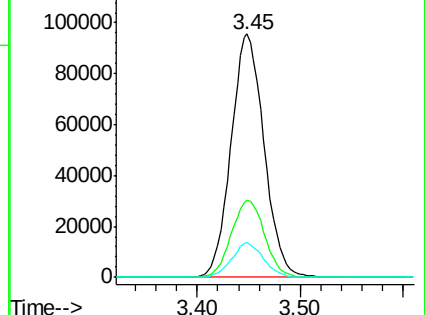
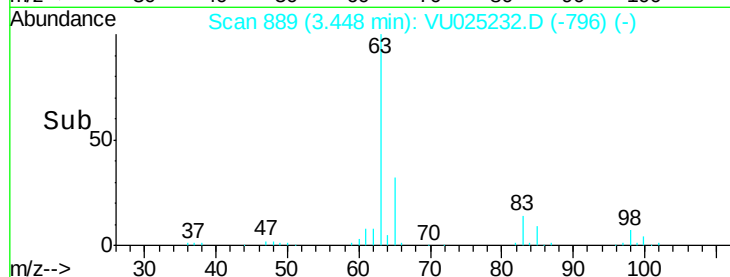
83 14.2 9.7 18.1



Abundance Ion 63.00 (62.70 to 63.70): VU025232.D (-796) (-)

Ion 65.00 (64.70 to 65.70): VU025232.D (-796) (-)

Ion 83.00 (82.70 to 83.70): VU025232.D (-796) (-)



#20

cis-1,2-Dichloroethene

Concen: 51.430 ug/L

RT: 4.23 min Scan# 1131

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

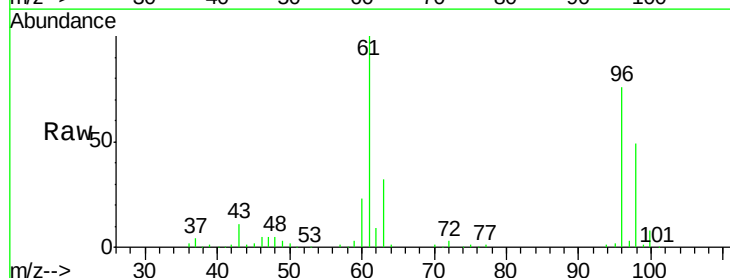
Tgt Ion: 96 Resp: 130656

Ion Ratio Lower Upper

96 100

61 131.1 93.4 173.6

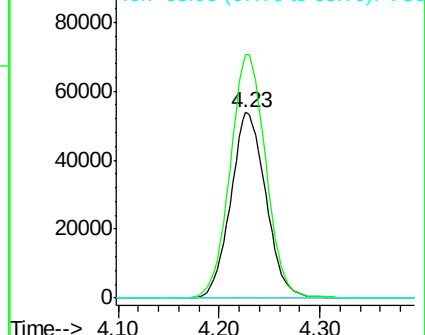
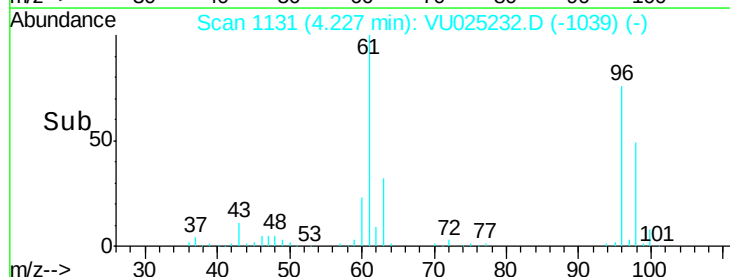
68 0.0 0.0 0.0

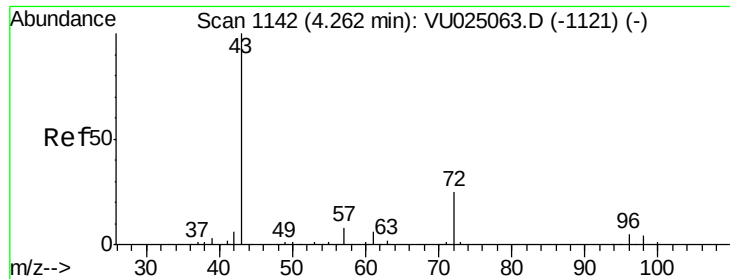


Abundance Ion 96.00 (95.70 to 96.70): VU025232.D (-1039) (-)

Ion 61.00 (60.70 to 61.70): VU025232.D (-1039) (-)

Ion 68.00 (67.70 to 68.70): VU025232.D (-1039) (-)





#22

2-Butanone

Concen: 125.368 ug/L

RT: 4.26 min Scan# 1141

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

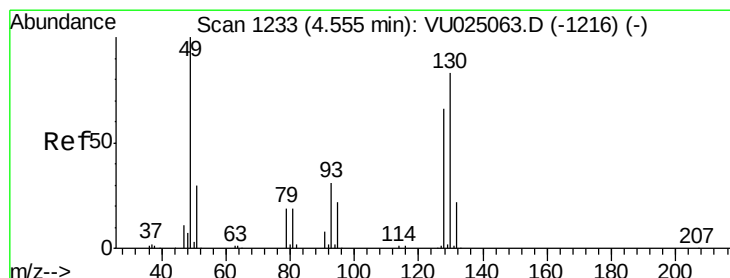
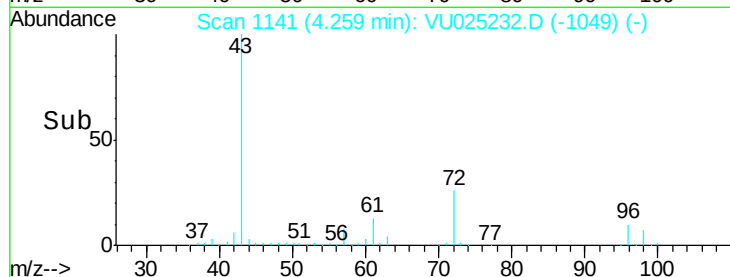
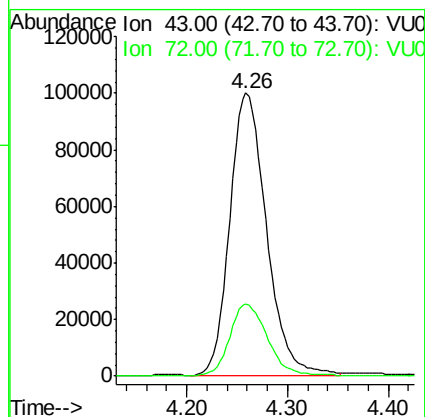
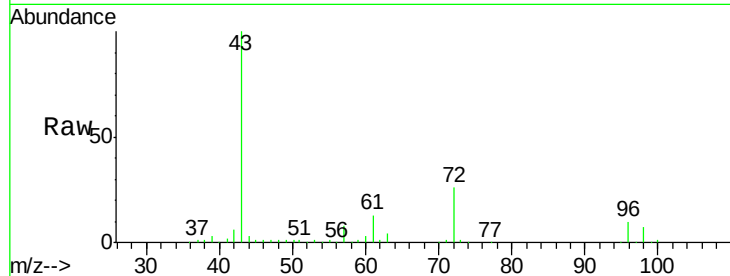
VSTD05047

Tgt Ion: 43 Resp: 252290

Ion Ratio Lower Upper

43 100

72 26.3 13.7 41.0



#23

Bromochloromethane

Concen: 51.135 ug/L

RT: 4.55 min Scan# 1232

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Tgt Ion: 128 Resp: 66786

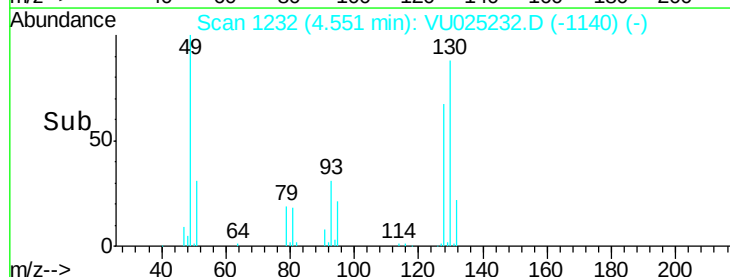
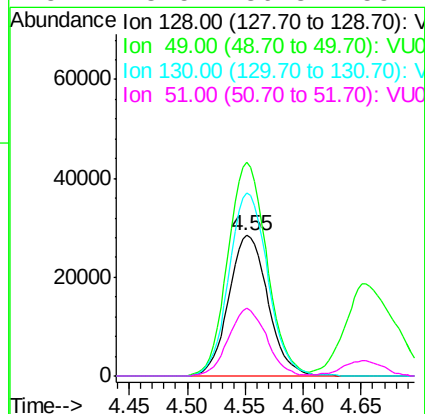
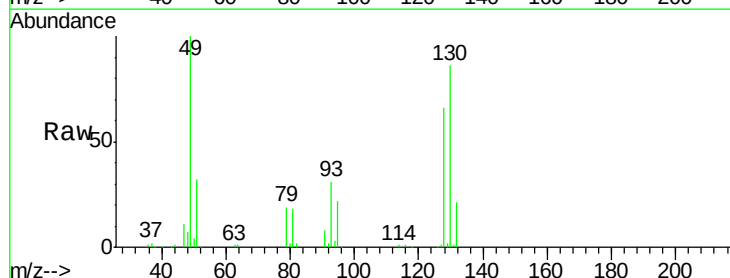
Ion Ratio Lower Upper

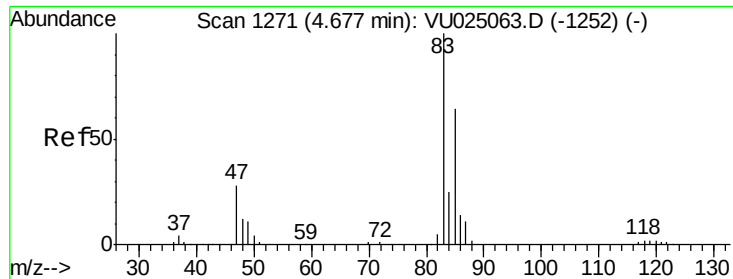
128 100

49 152.3 106.1 197.1

130 130.7 87.7 162.9

51 48.5 36.8 55.2

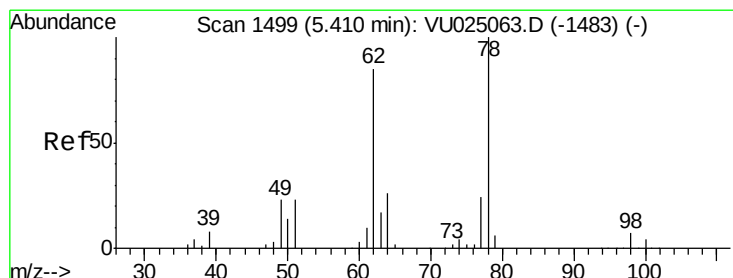
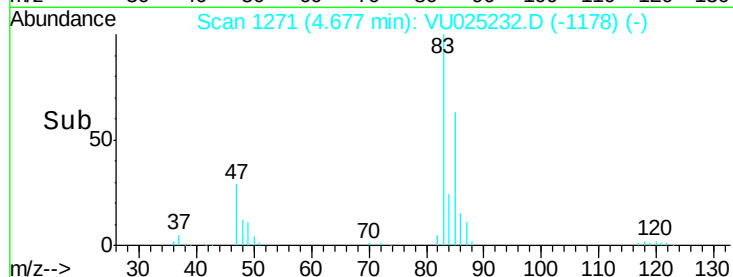
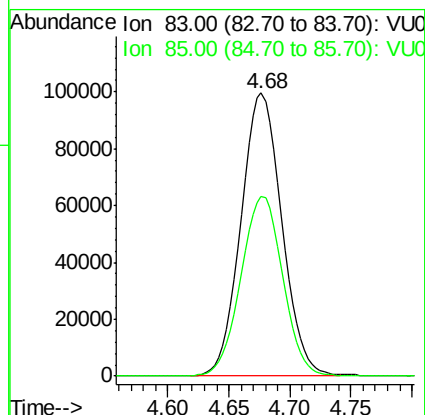
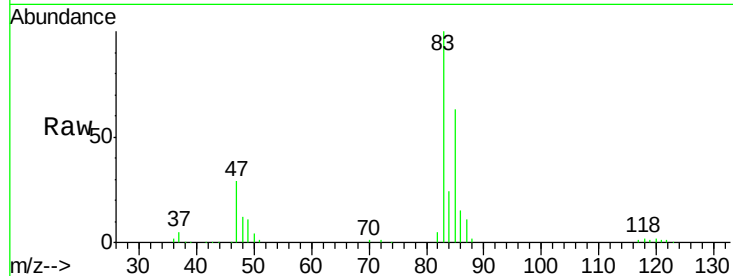




#25  
Chloroform  
Concen: 51.633 ug/L  
RT: 4.68 min Scan# 1271  
Delta R.T. -0.00 min  
Lab File: VU025232.D  
Acq: 06 Jul 2018 09:36

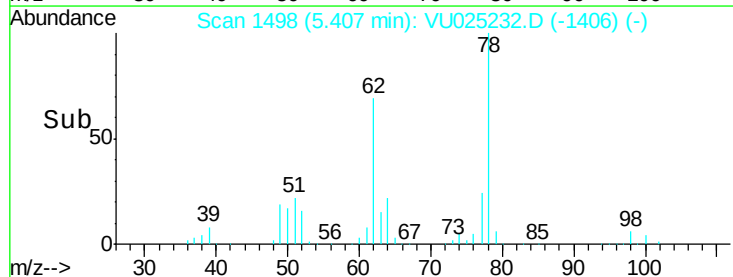
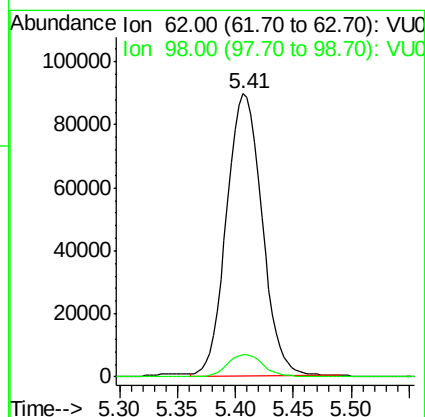
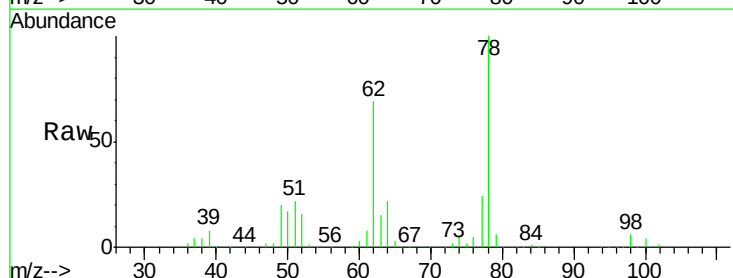
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05047

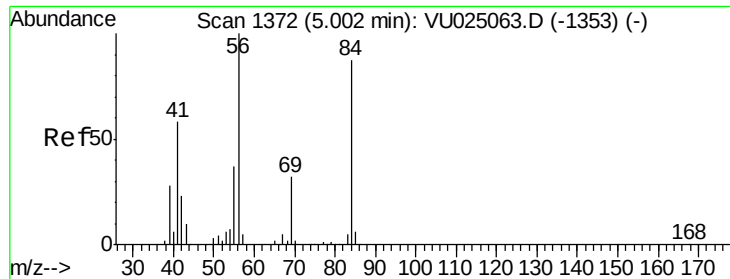
Tgt Ion: 83 Resp: 230819  
Ion Ratio Lower Upper  
83 100  
85 63.4 44.7 83.1



#27  
1,2-Dichloroethane  
Concen: 50.999 ug/L  
RT: 5.41 min Scan# 1498  
Delta R.T. -0.00 min  
Lab File: VU025232.D  
Acq: 06 Jul 2018 09:36

Tgt Ion: 62 Resp: 191070  
Ion Ratio Lower Upper  
62 100  
98 8.1 6.4 9.6

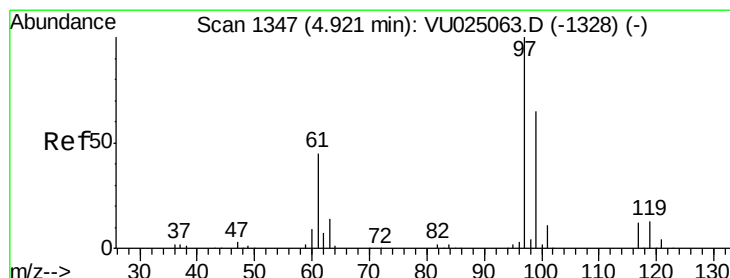
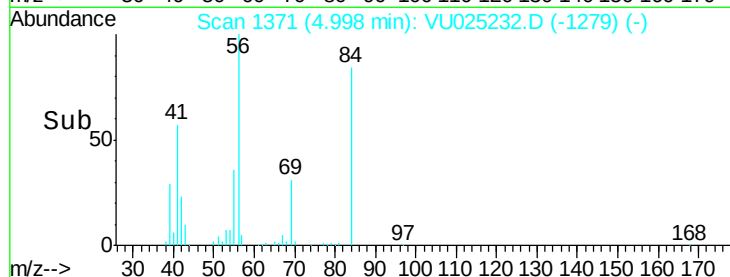
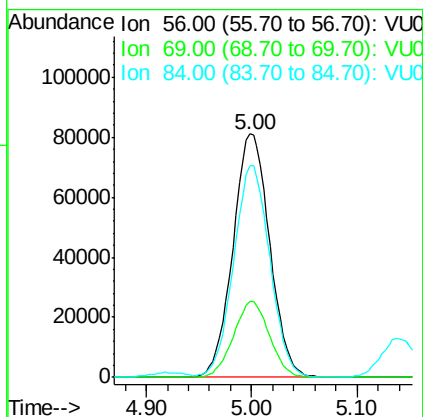
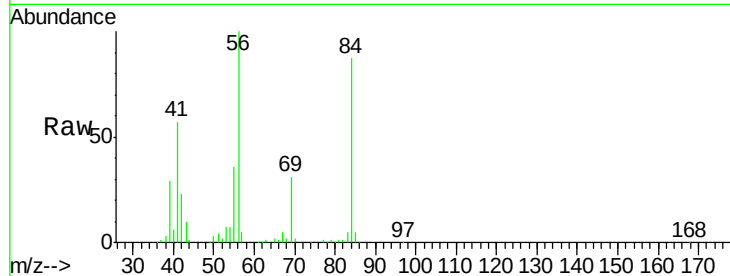




#29  
Cyclohexane  
Concen: 48.931 ug/L  
RT: 5.00 min Scan# 1371  
Delta R.T. -0.00 min  
Lab File: VU025232.D  
Acq: 06 Jul 2018 09:36

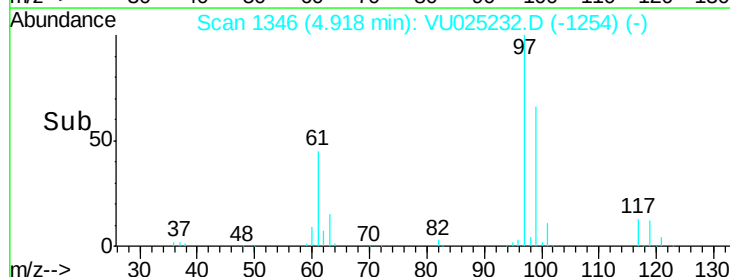
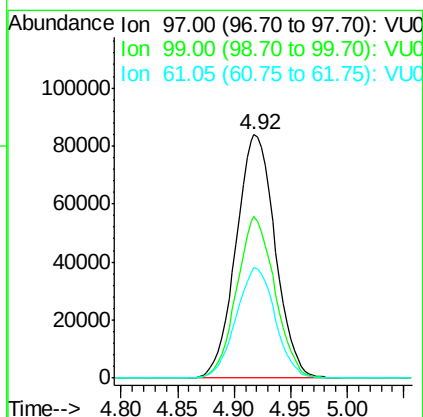
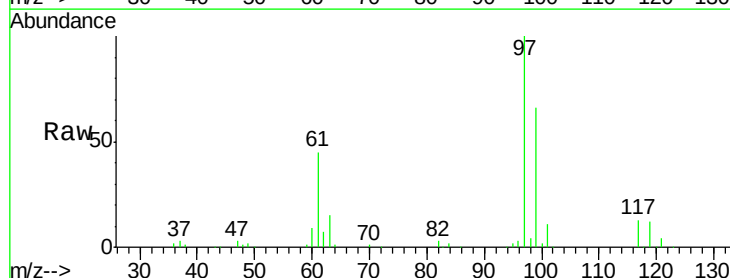
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05047

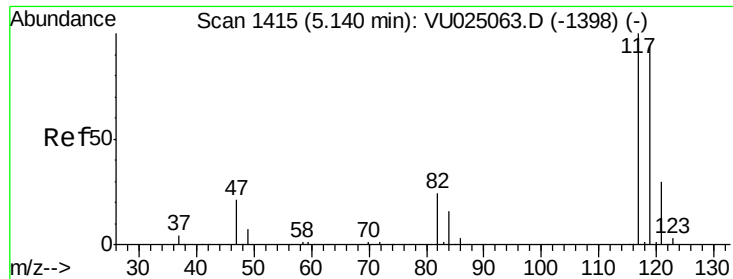
Tgt Ion: 56 Resp: 196092  
Ion Ratio Lower Upper  
56 100  
69 30.6 25.0 37.6  
84 86.1 70.0 105.0



#30  
1,1,1-Trichloroethane  
Concen: 48.817 ug/L  
RT: 4.92 min Scan# 1346  
Delta R.T. -0.00 min  
Lab File: VU025232.D  
Acq: 06 Jul 2018 09:36

Tgt Ion: 97 Resp: 202129  
Ion Ratio Lower Upper  
97 100  
99 64.7 51.4 77.2  
61 45.1 35.5 53.3





#31

Carbon tetrachloride

Concen: 51.104 ug/L

RT: 5.14 min Scan# 1415

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

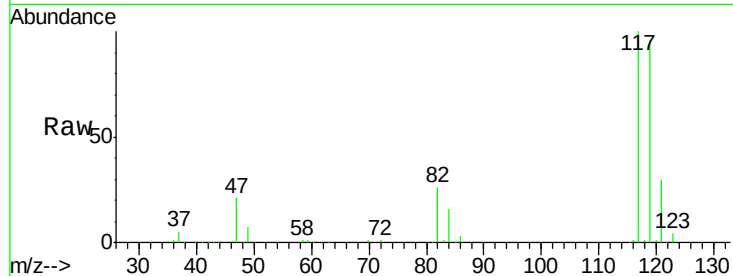
VSTD05047

Tgt Ion:117 Resp: 184935

Ion Ratio Lower Upper

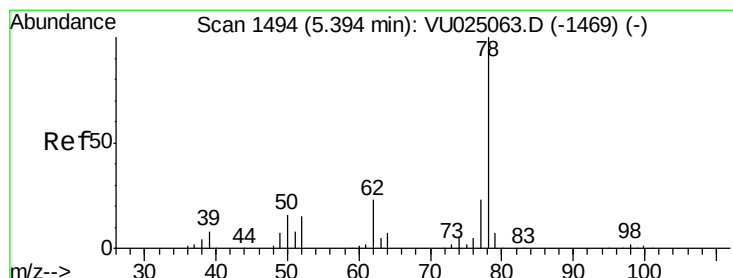
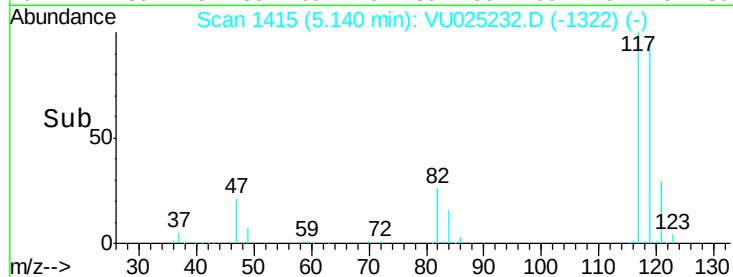
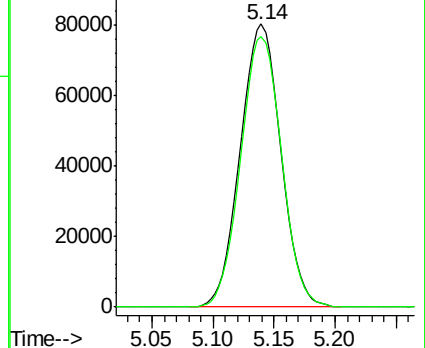
117 100

119 96.2 76.8 115.2



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V



#33

Benzene

Concen: 49.186 ug/L

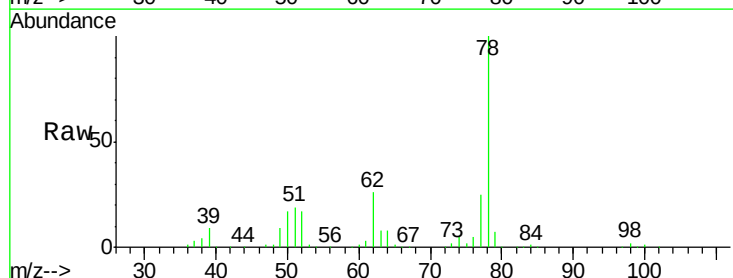
RT: 5.39 min Scan# 1494

Delta R.T. -0.00 min

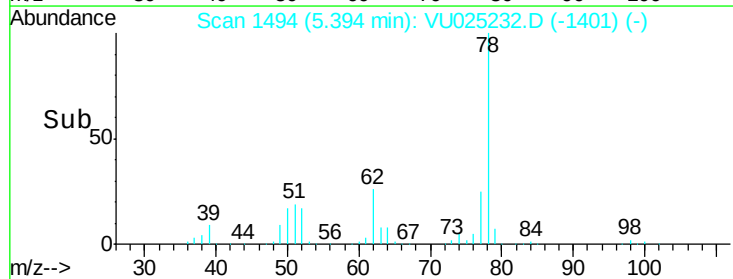
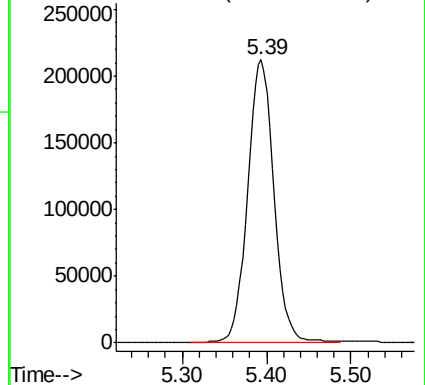
Lab File: VU025232.D

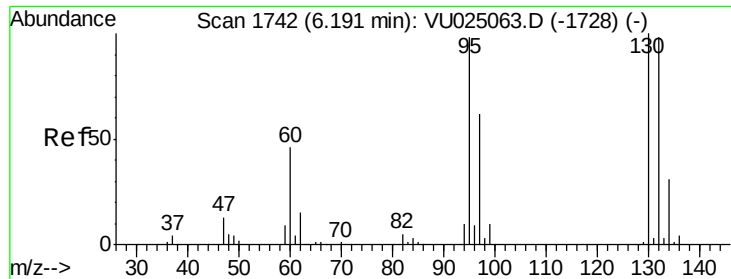
Acq: 06 Jul 2018 09:36

Tgt Ion: 78 Resp: 462430



Abundance Ion 78.00 (77.70 to 78.70): VU0

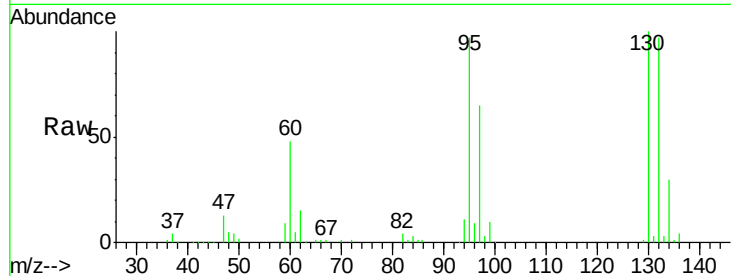




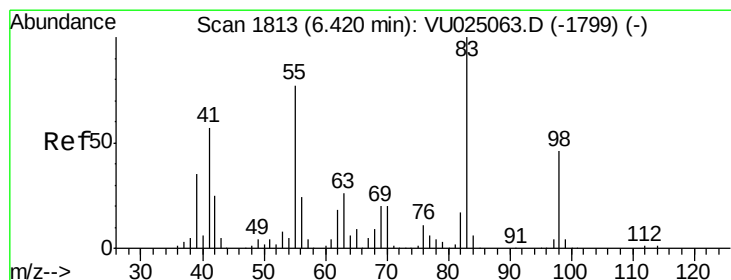
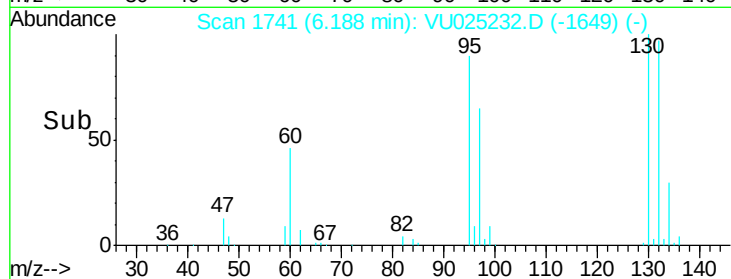
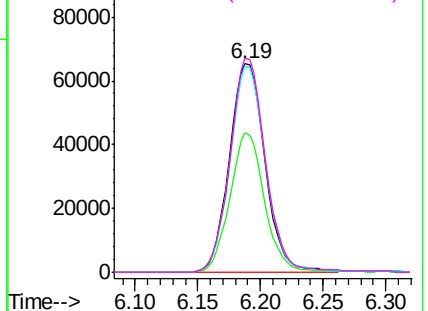
#34  
 Trichloroethene  
 Concen: 51.572 ug/L  
 RT: 6.19 min Scan# 1741  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05047

Tgt Ion: 95 Resp: 128979  
 Ion Ratio Lower Upper  
 95 100  
 97 66.9 44.1 81.9  
 132 99.1 70.2 130.4  
 130 102.6 71.7 133.1

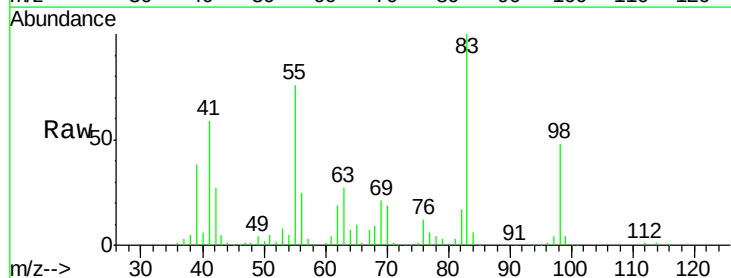


Abundance Ion 95.00 (94.70 to 95.70): VU0  
 Ion 97.00 (96.70 to 97.70): VU0  
 Ion 132.00 (131.70 to 132.70): V  
 Ion 130.00 (129.70 to 130.70): V

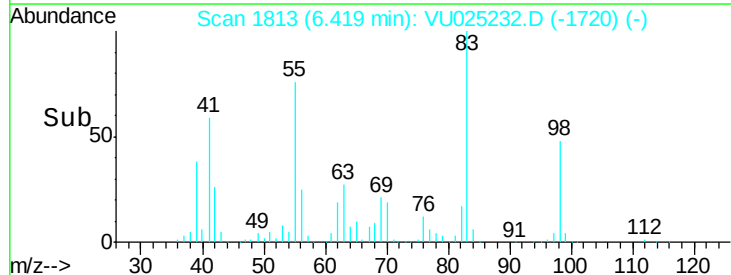
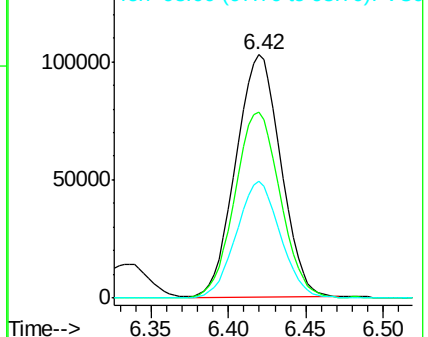


#35  
 Methylcyclohexane  
 Concen: 49.644 ug/L  
 RT: 6.42 min Scan# 1813  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

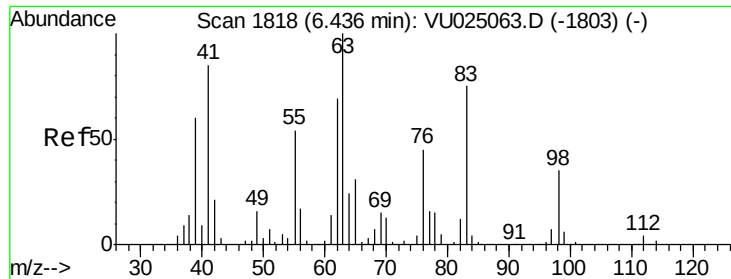
Tgt Ion: 83 Resp: 207189  
 Ion Ratio Lower Upper  
 83 100  
 55 77.8 61.8 92.6  
 98 47.4 37.4 56.0



Abundance Ion 83.00 (82.70 to 83.70): VU0  
 Ion 55.00 (54.70 to 55.70): VU0  
 Ion 98.00 (97.70 to 98.70): VU0



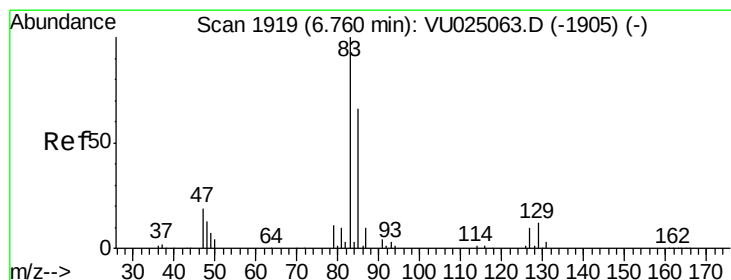
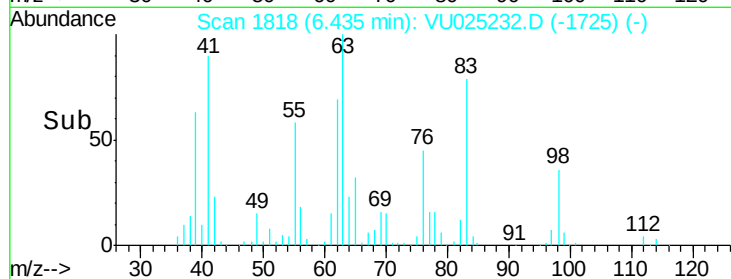
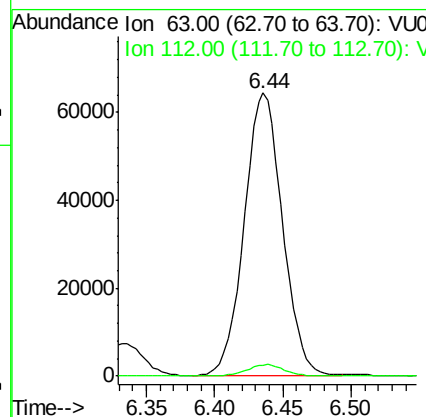
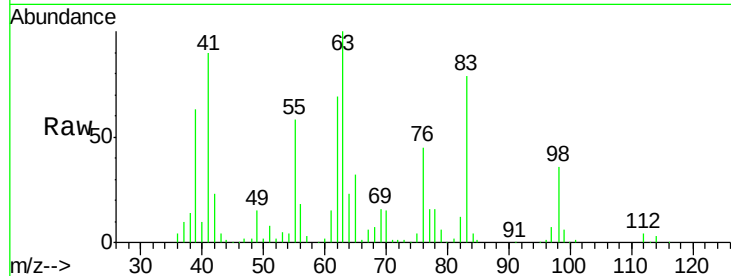




#37  
 1,2-Dichloropropane  
 Concen: 49.845 ug/L  
 RT: 6.44 min Scan# 1818  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

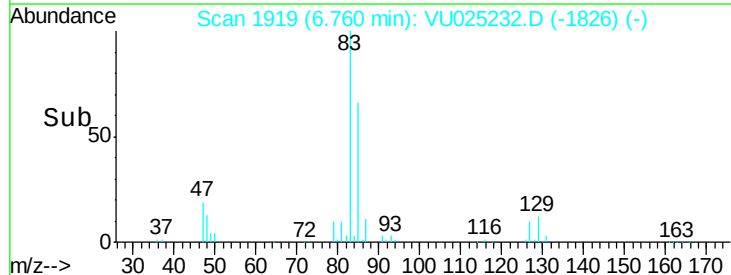
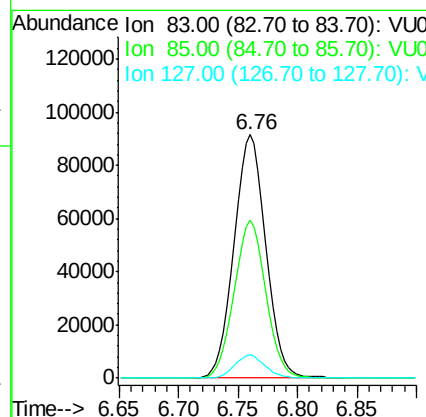
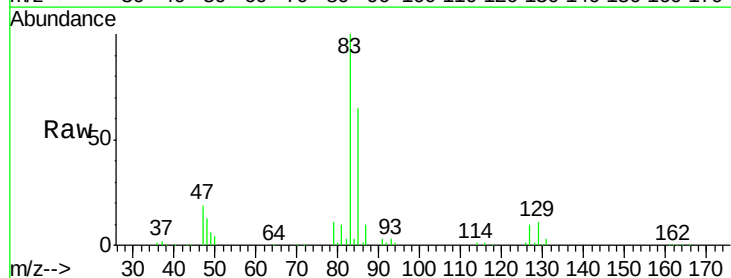
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05047

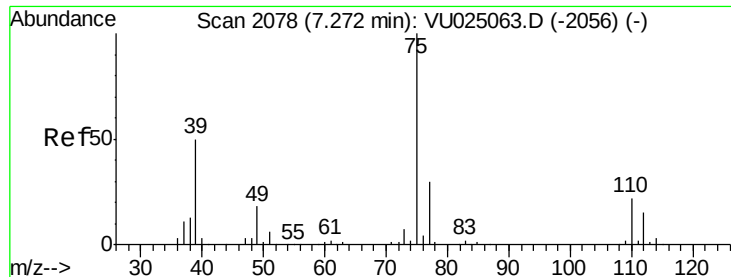
Tgt Ion: 63 Resp: 125143  
 Ion Ratio Lower Upper  
 63 100  
 112 4.0 3.2 4.8



#38  
 Bromodichloromethane  
 Concen: 50.893 ug/L  
 RT: 6.76 min Scan# 1919  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

Tgt Ion: 83 Resp: 169834  
 Ion Ratio Lower Upper  
 83 100  
 85 64.7 45.9 85.3  
 127 9.5 7.7 11.5

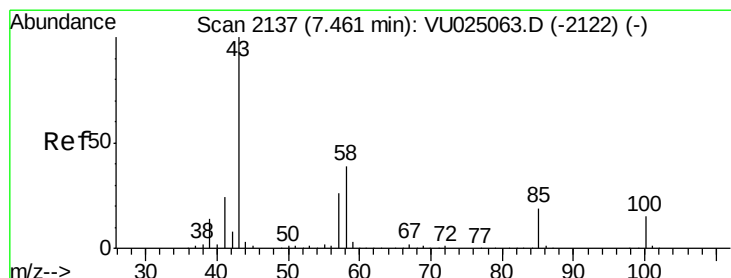
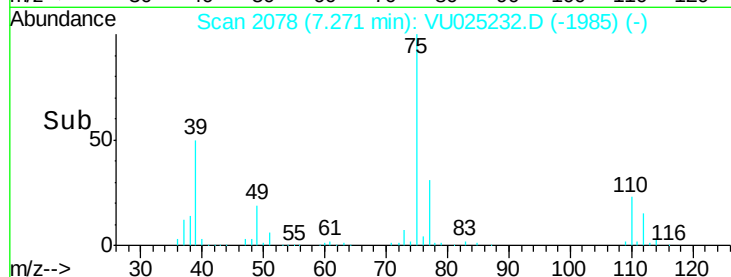
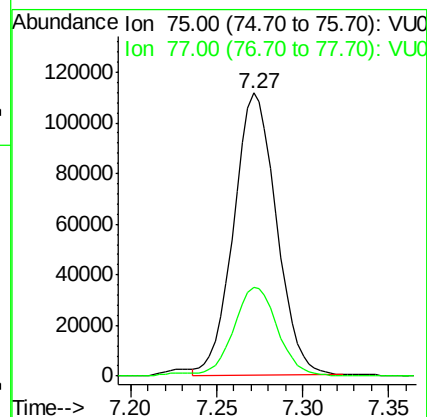
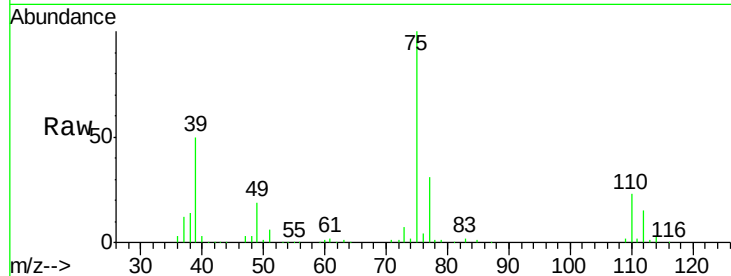




#39  
 cis-1,3-Dichloropropene  
 Concen: 48.535 ug/L  
 RT: 7.27 min Scan# 2078  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

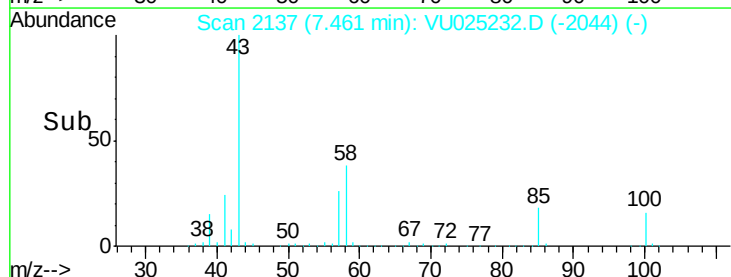
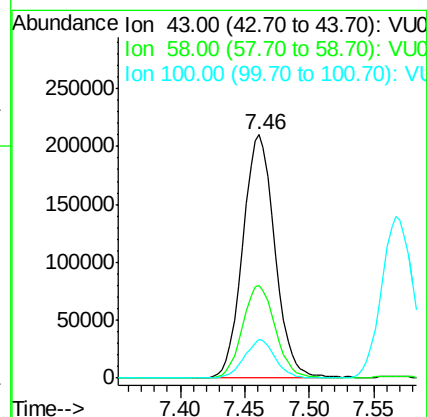
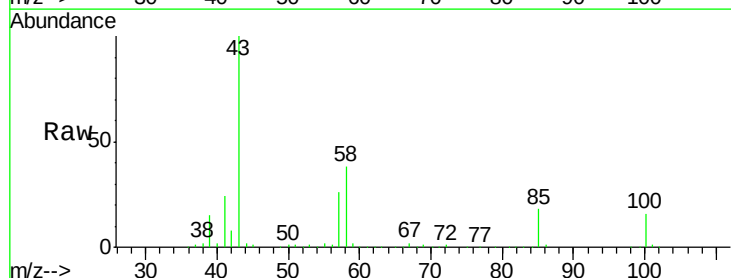
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05047

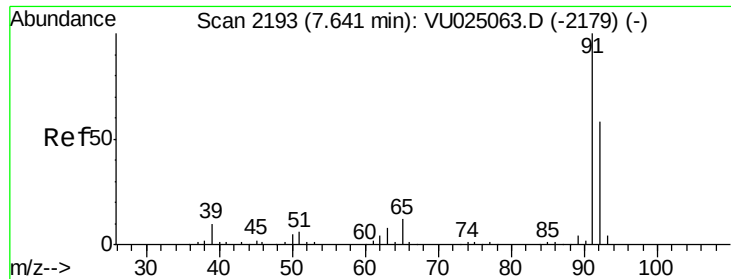
Tgt Ion: 75 Resp: 192984  
 Ion Ratio Lower Upper  
 75 100  
 77 31.3 21.3 39.5



#40  
 4-Methyl-2-pentanone  
 Concen: 100.682 ug/L  
 RT: 7.46 min Scan# 2137  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

Tgt Ion: 43 Resp: 364179  
 Ion Ratio Lower Upper  
 43 100  
 58 38.9 31.0 46.6  
 100 15.3 12.3 18.5





#42

Toluene

Concen: 50.161 ug/L

RT: 7.64 min Scan# 2193

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

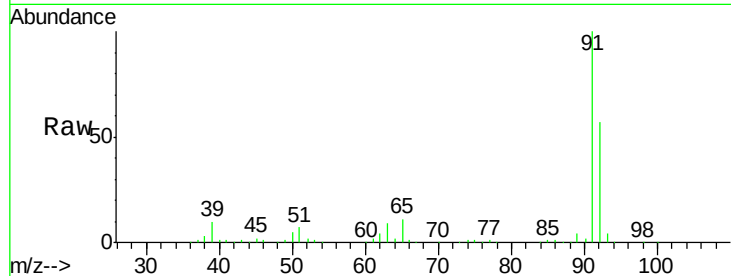
VSTD05047

Tgt Ion: 91 Resp: 512530

Ion Ratio Lower Upper

91 100

92 57.3 40.7 75.5



Abundance Ion 91.00 (90.70 to 91.70): VU0

Ion 92.00 (91.70 to 92.70): VU0

7.64

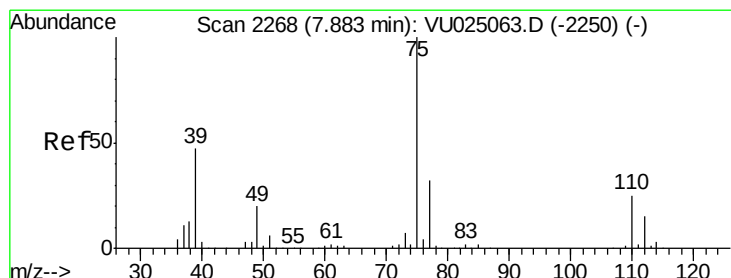
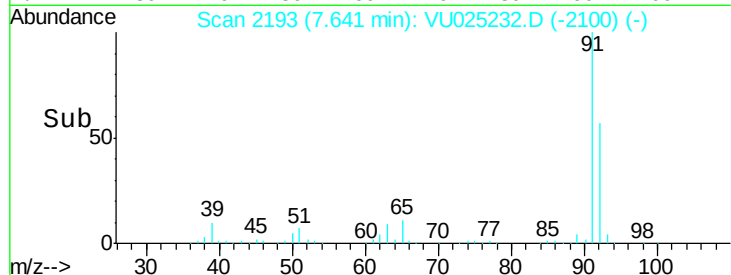
300000

200000

100000

0

Time-->



#44

trans-1,3-Dichloropropene

Concen: 49.821 ug/L

RT: 7.88 min Scan# 2268

Delta R.T. -0.00 min

Lab File: VU025232.D

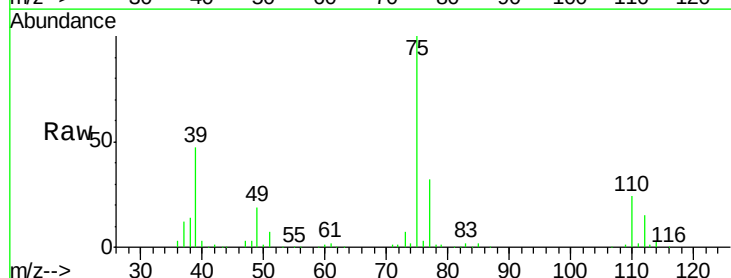
Acq: 06 Jul 2018 09:36

Tgt Ion: 75 Resp: 184287

Ion Ratio Lower Upper

75 100

77 32.1 22.1 41.1



Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 77.00 (76.70 to 77.70): VU0

7.88

120000

100000

80000

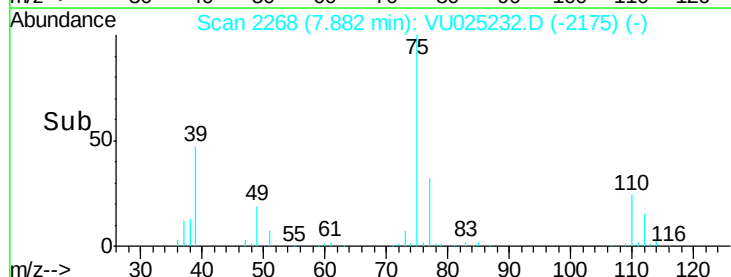
60000

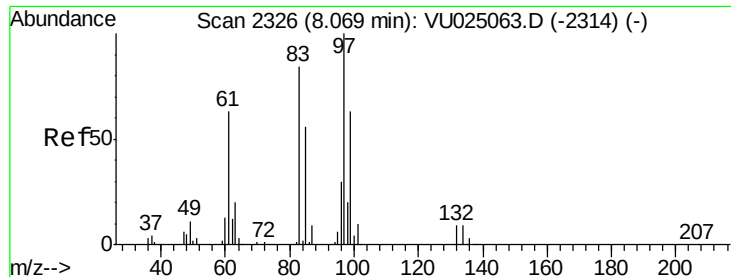
40000

20000

0

Time-->

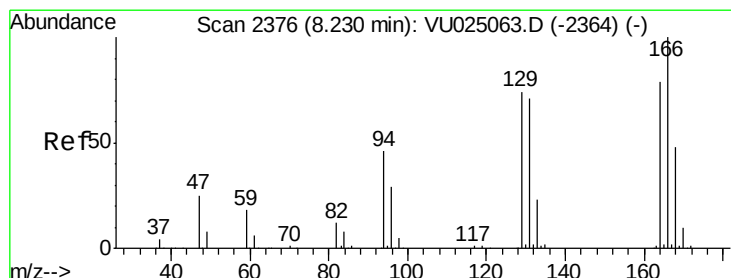
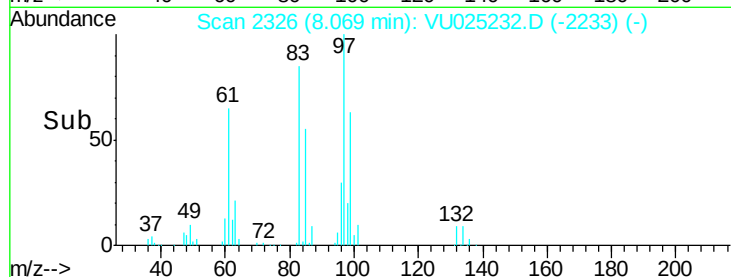
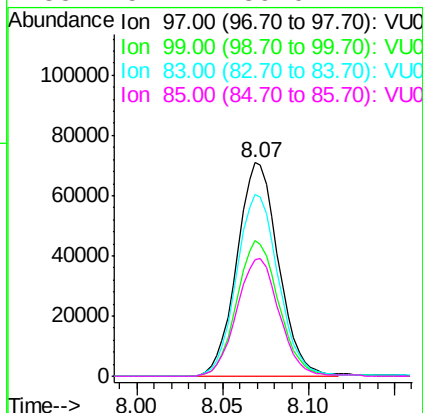
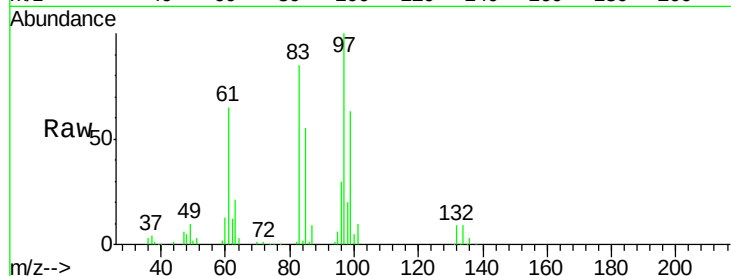




#45  
 1,1,2-Trichloroethane  
 Concen: 50.000 ug/L  
 RT: 8.07 min Scan# 2326  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

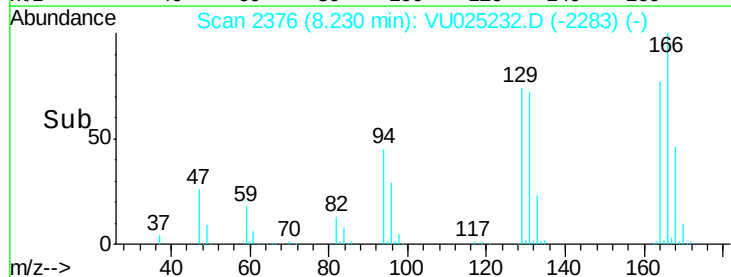
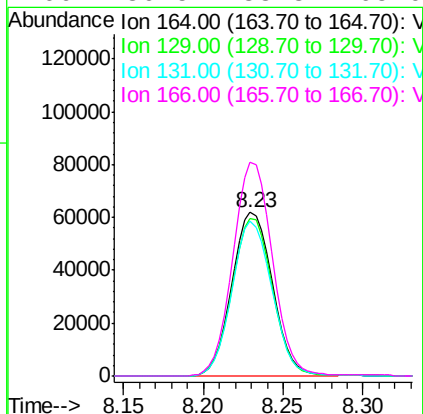
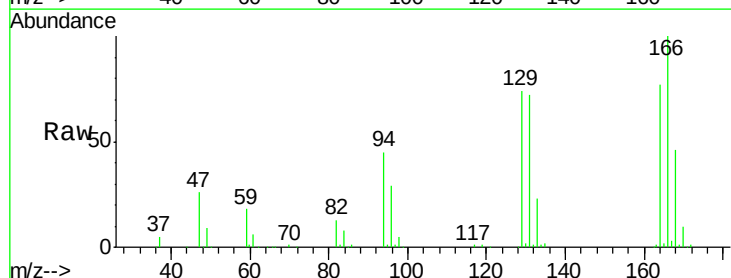
Instrument :  
 MSVOA\_U  
 ClientSampled :  
 VSTD05047

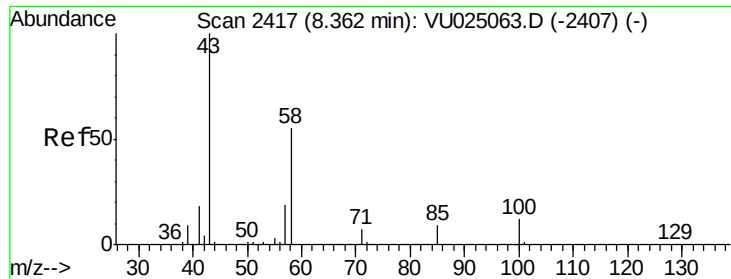
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 97    | Resp: | 119790 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 99       | 63.3  | 44.1  | 81.9   |
| 83       | 85.1  | 58.7  | 108.9  |
| 85       | 54.7  | 39.0  | 72.4   |



#46  
 Tetrachloroethene  
 Concen: 50.622 ug/L  
 RT: 8.23 min Scan# 2376  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 164   | Resp: | 107168 |
| Ion      | Ratio | Lower | Upper  |
| 164      | 100   |       |        |
| 129      | 96.5  | 66.1  | 122.8  |
| 131      | 94.3  | 62.7  | 116.5  |
| 166      | 130.5 | 88.8  | 165.0  |

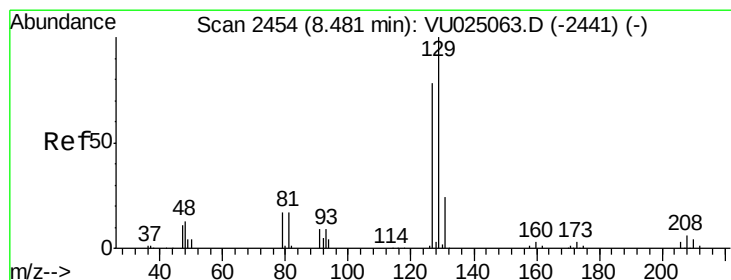
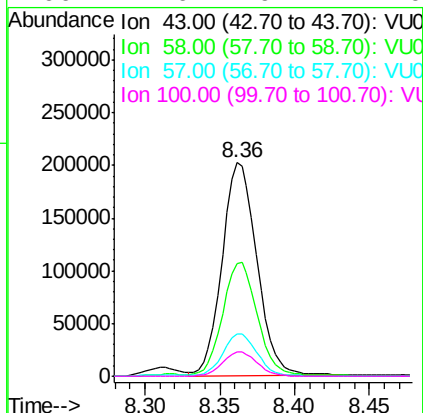
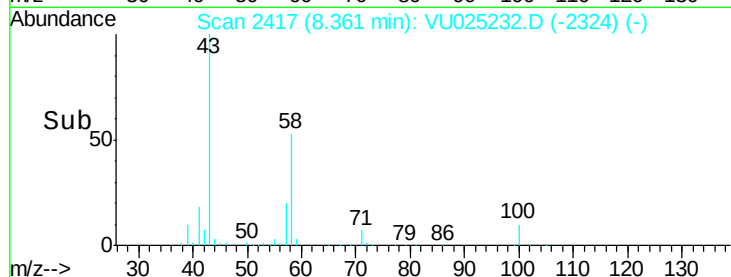
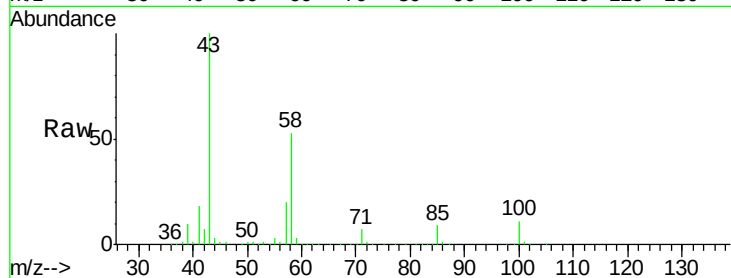




#48  
2-Hexanone  
Concen: 113.462 ug/L  
RT: 8.36 min Scan# 2417  
Delta R.T. -0.00 min  
Lab File: VU025232.D  
Acq: 06 Jul 2018 09:36

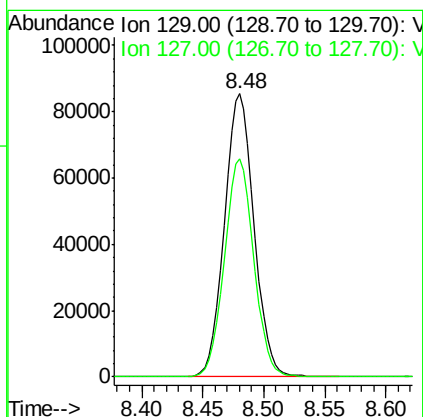
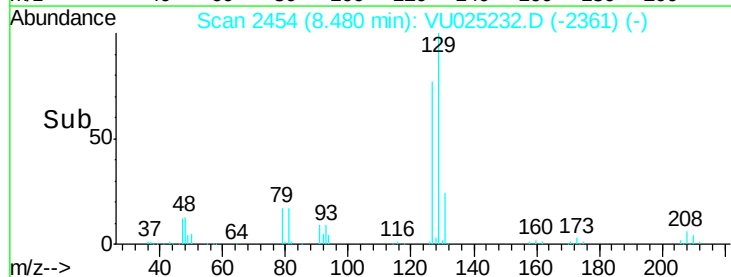
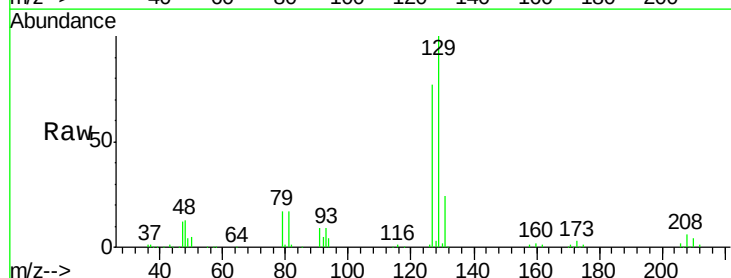
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05047

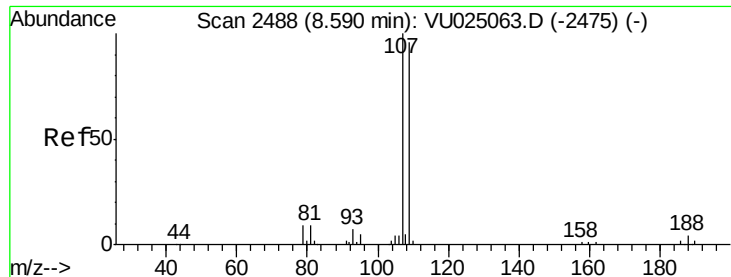
Tgt Ion: 43 Resp: 326497  
Ion Ratio Lower Upper  
43 100  
58 53.1 43.2 64.8  
57 19.4 15.8 23.8  
100 11.6 9.4 14.0



#49  
Dibromochloromethane  
Concen: 51.667 ug/L  
RT: 8.48 min Scan# 2454  
Delta R.T. -0.00 min  
Lab File: VU025232.D  
Acq: 06 Jul 2018 09:36

Tgt Ion: 129 Resp: 145258  
Ion Ratio Lower Upper  
129 100  
127 77.3 54.6 101.4

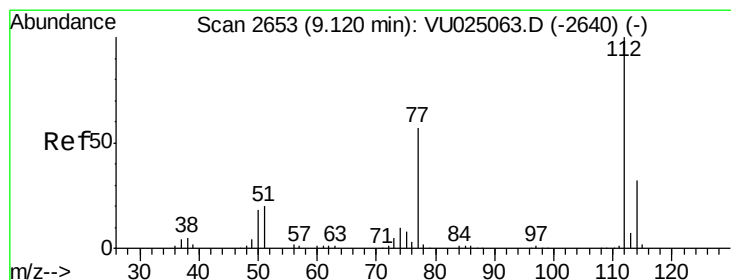
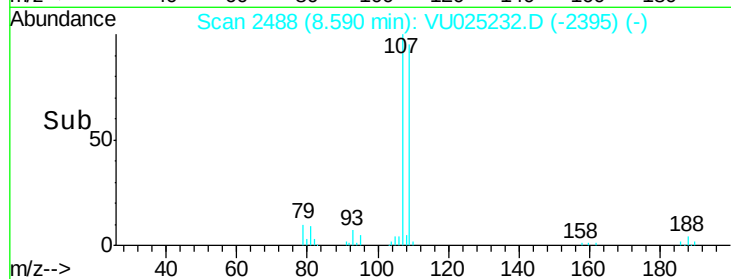
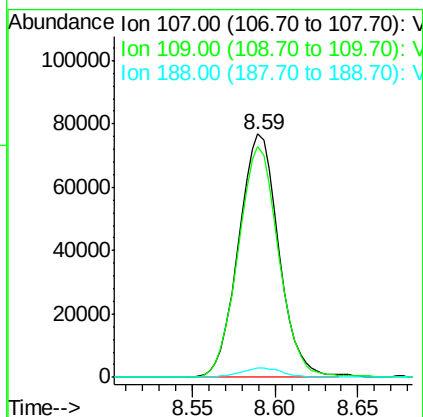
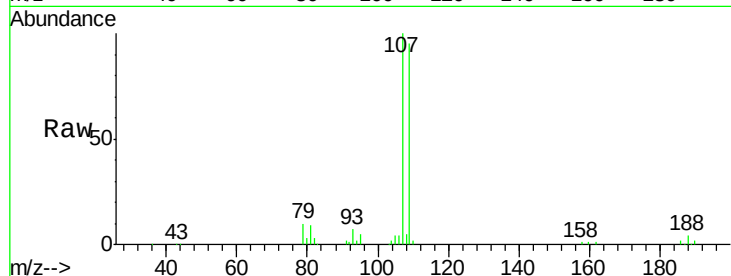




#50  
1,2-Dibromoethane  
Concen: 48.891 ug/L  
RT: 8.59 min Scan# 2488  
Delta R.T. -0.00 min  
Lab File: VU025232.D  
Acq: 06 Jul 2018 09:36

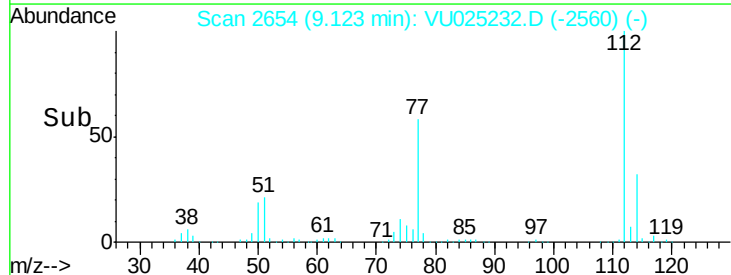
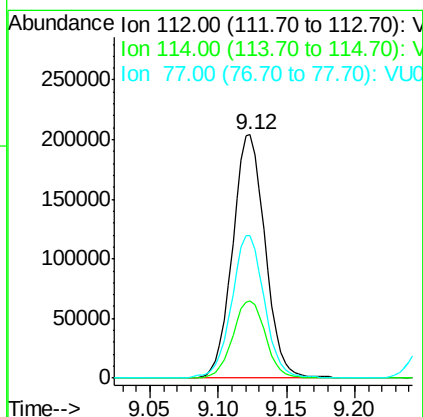
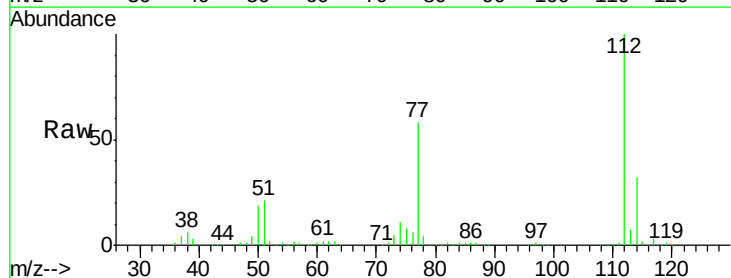
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05047

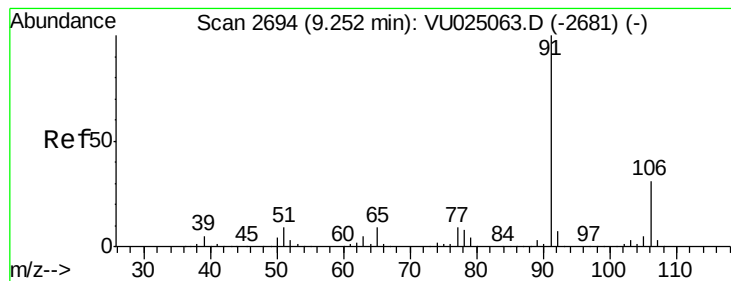
Tgt Ion:107 Resp: 129562  
Ion Ratio Lower Upper  
107 100  
109 94.5 67.1 124.5  
188 3.9 3.4 5.0



#51  
Chlorobenzene  
Concen: 49.728 ug/L  
RT: 9.12 min Scan# 2654  
Delta R.T. 0.00 min  
Lab File: VU025232.D  
Acq: 06 Jul 2018 09:36

Tgt Ion:112 Resp: 338643  
Ion Ratio Lower Upper  
112 100  
114 31.8 22.7 42.1  
77 58.5 46.2 69.4





#52

Ethylbenzene

Concen: 50.740 ug/L

RT: 9.25 min Scan# 2694

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

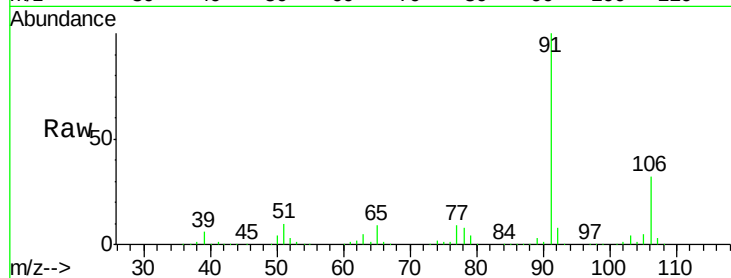
VSTD05047

Tgt Ion: 91 Resp: 583107

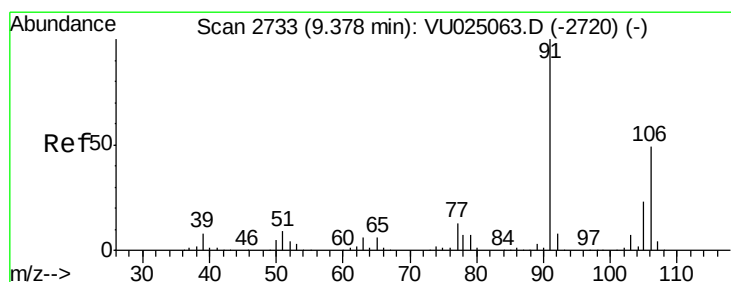
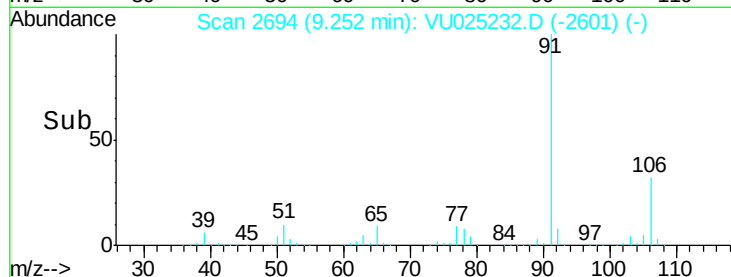
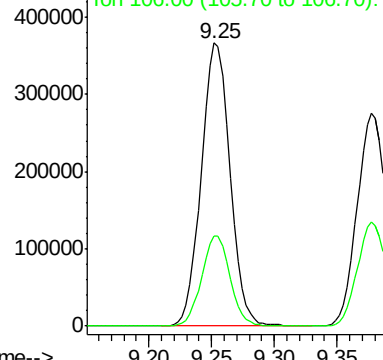
Ion Ratio Lower Upper

91 100

106 31.9 21.6 40.2



Abundance Ion 91.00 (90.70 to 91.70): VU025063.D (-2681) (-)



#53

m,p-Xylene

Concen: 50.832 ug/L

RT: 9.38 min Scan# 2733

Delta R.T. -0.00 min

Lab File: VU025232.D

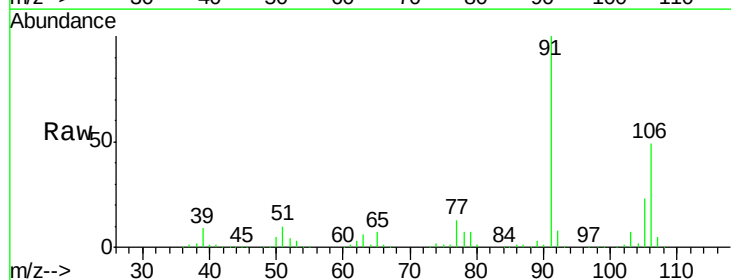
Acq: 06 Jul 2018 09:36

Tgt Ion: 106 Resp: 226060

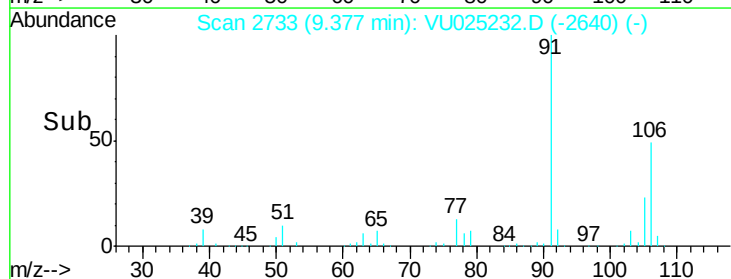
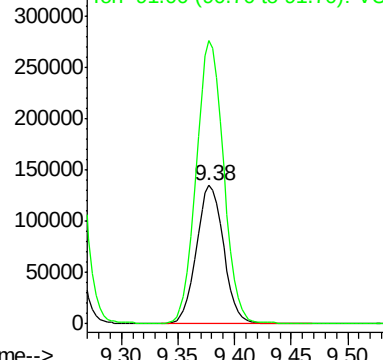
Ion Ratio Lower Upper

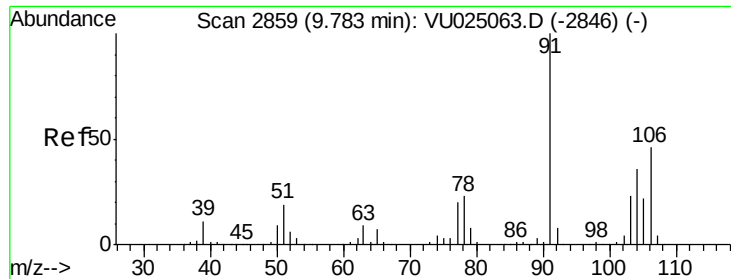
106 100

91 204.5 142.0 263.8



Abundance Ion 106.00 (105.70 to 106.70): VU025063.D (-2720) (-)





#54

o-xylene

Concen: 50.611 ug/L

RT: 9.78 min Scan# 2859

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

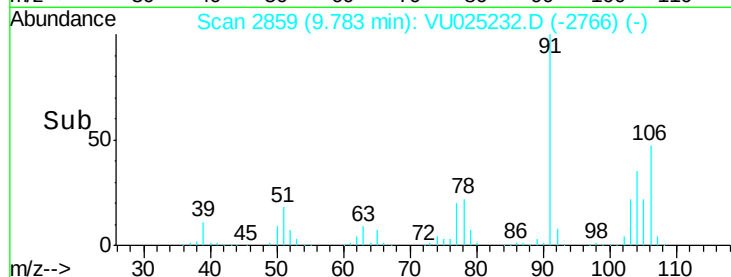
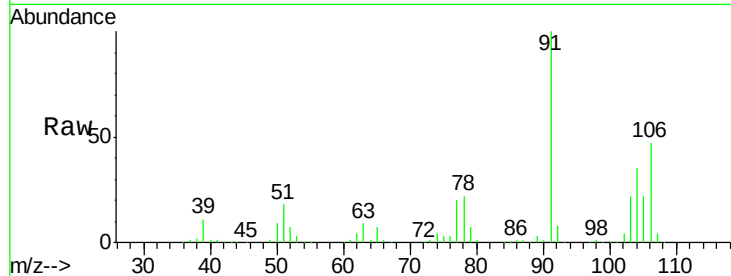
VSTD05047

Tgt Ion:106 Resp: 225756

Ion Ratio Lower Upper

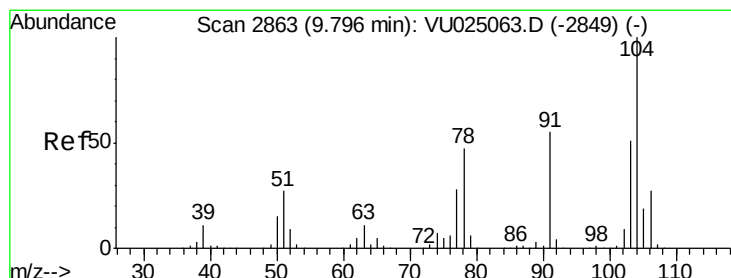
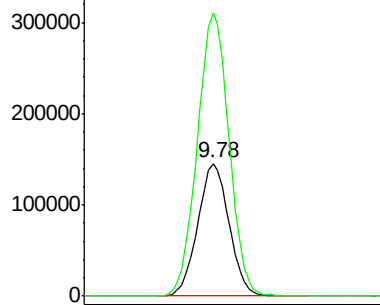
106 100

91 213.4 152.0 282.4



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0



#55

Styrene

Concen: 51.502 ug/L

RT: 9.80 min Scan# 2863

Delta R.T. -0.00 min

Lab File: VU025232.D

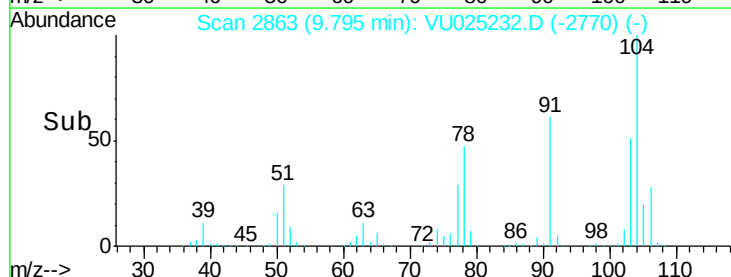
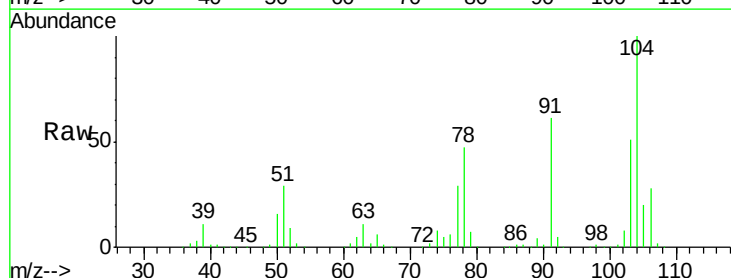
Acq: 06 Jul 2018 09:36

Tgt Ion:104 Resp: 376549

Ion Ratio Lower Upper

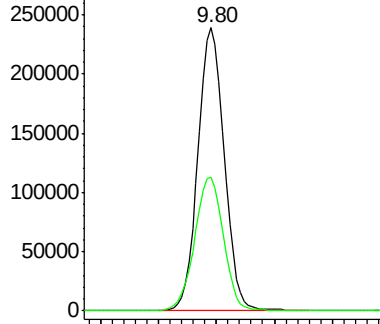
104 100

78 47.2 32.6 60.6

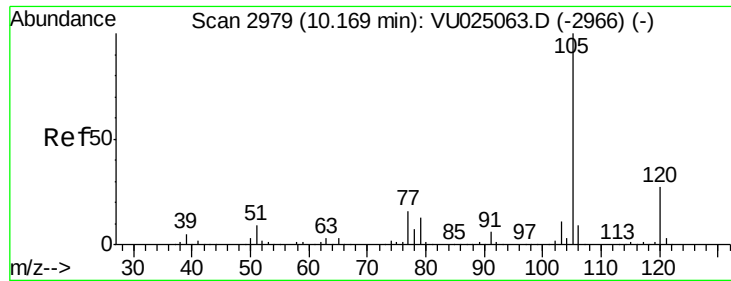


Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0







#56

Isopropylbenzene

Concen: 51.437 ug/L

RT: 10.17 min Scan# 2979

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05047

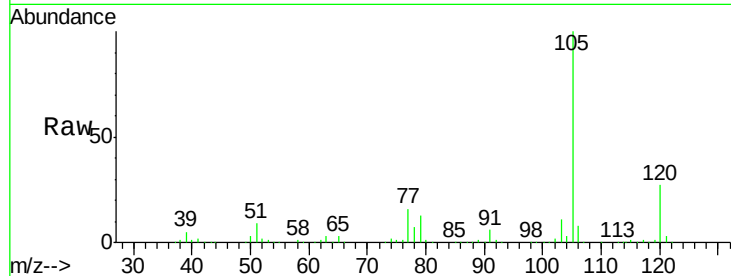
Tgt Ion: 105 Resp: 602660

Ion Ratio Lower Upper

105 100

120 26.8 21.4 32.0

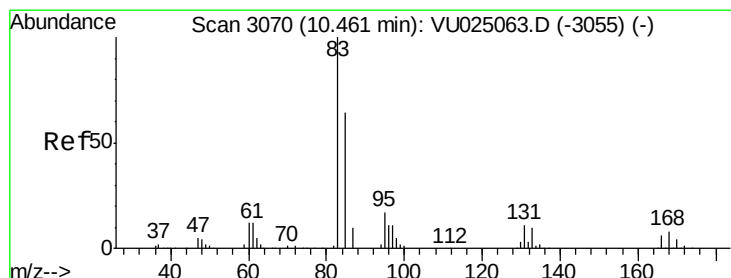
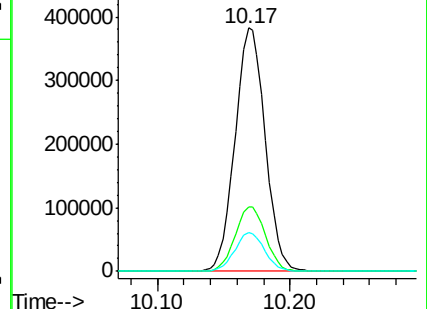
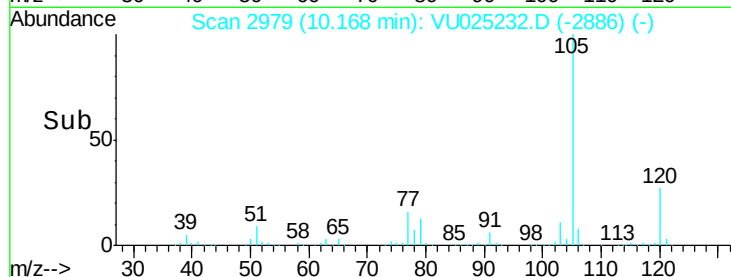
77 15.7 12.5 18.7



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: 50.050 ug/L

RT: 10.46 min Scan# 3070

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

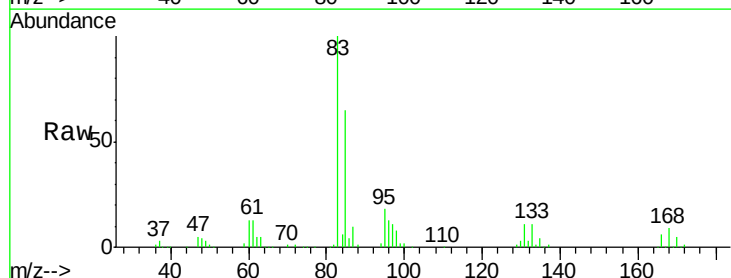
Tgt Ion: 83 Resp: 200096

Ion Ratio Lower Upper

83 100

85 64.8 45.1 83.7

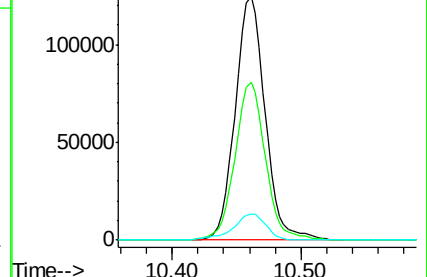
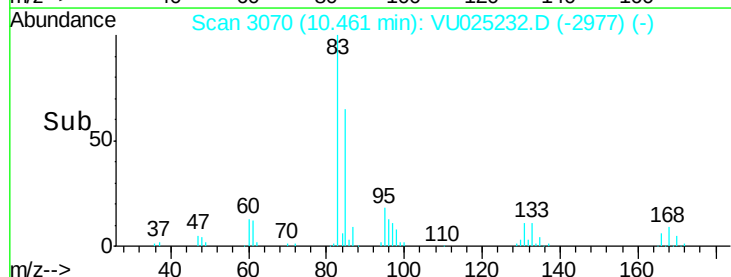
131 10.9 8.7 13.1

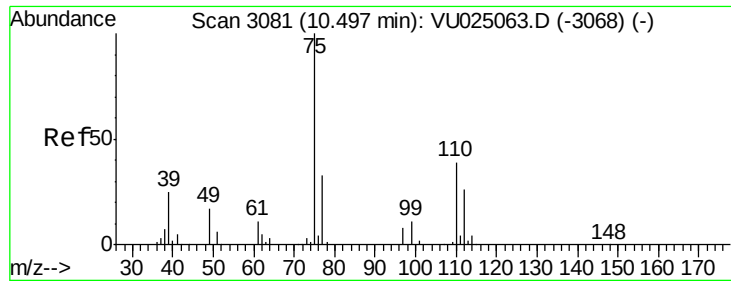


Abundance Ion 83.00 (82.70 to 83.70): VU0

Ion 85.00 (84.70 to 85.70): VU0

Ion 131.00 (130.70 to 131.70): V

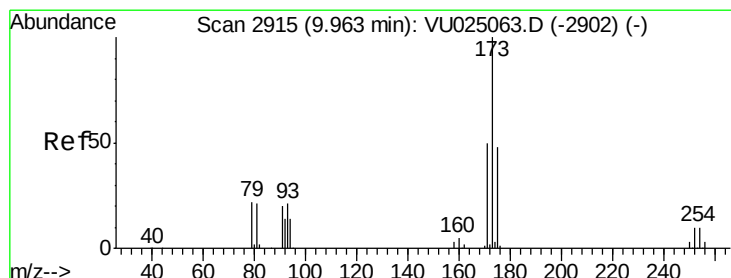
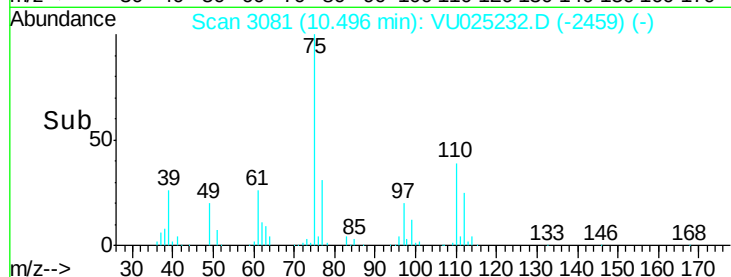
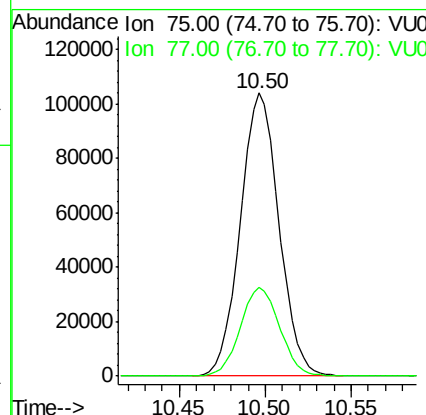
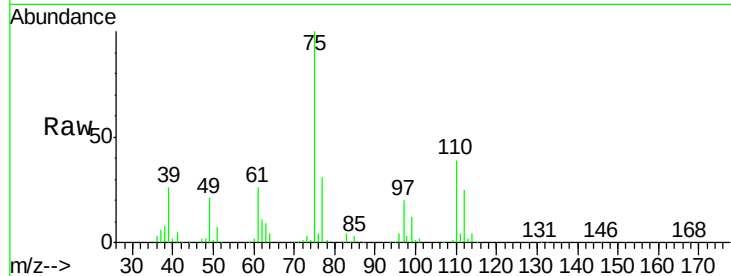




#59  
 1,2,3-Trichloropropane  
 Concen: 49.966 ug/L  
 RT: 10.50 min Scan# 3081  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

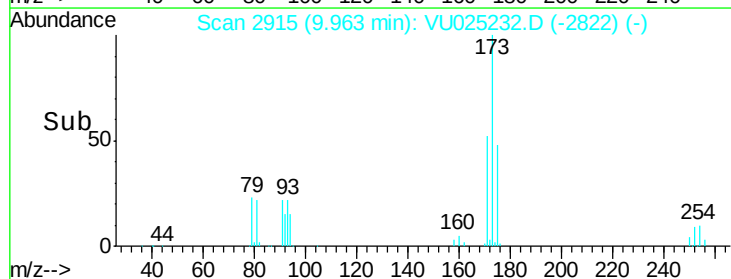
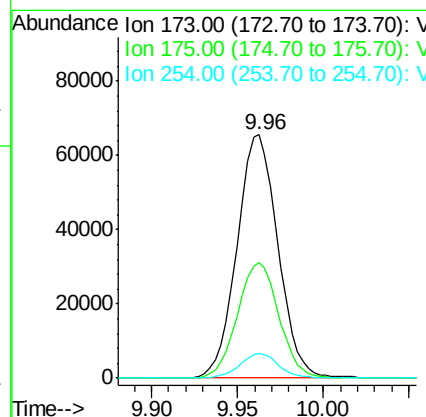
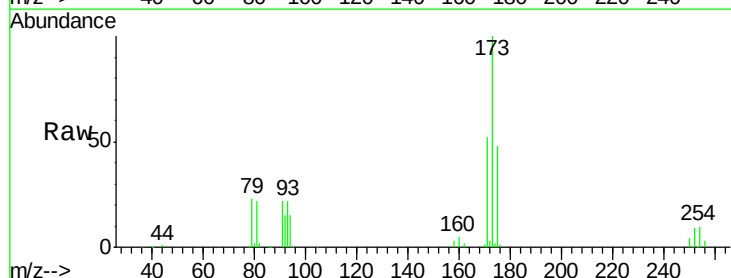
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05047

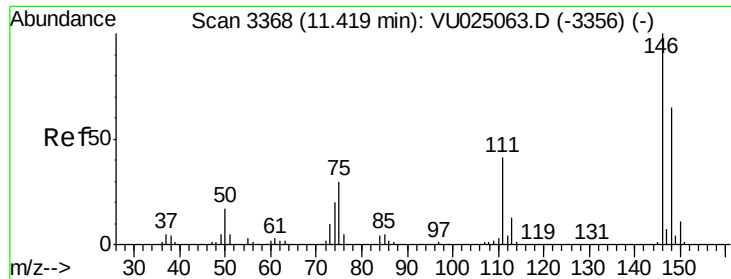
Tgt Ion: 75 Resp: 162640  
 Ion Ratio Lower Upper  
 75 100  
 77 32.0 26.2 39.4



#61  
 Bromoform  
 Concen: 50.597 ug/L  
 RT: 9.96 min Scan# 2915  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

Tgt Ion: 173 Resp: 108131  
 Ion Ratio Lower Upper  
 173 100  
 175 48.1 39.1 58.7  
 254 9.5 7.7 11.5





#62

1,3-Dichlorobenzene

Concen: 50.484 ug/L

RT: 11.42 min Scan# 3368

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05047

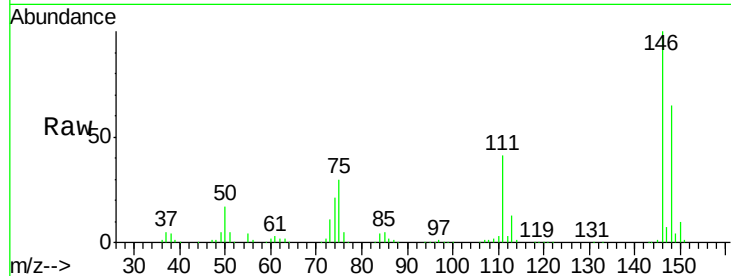
Tgt Ion:146 Resp: 275322

Ion Ratio Lower Upper

146 100

111 41.1 28.7 53.3

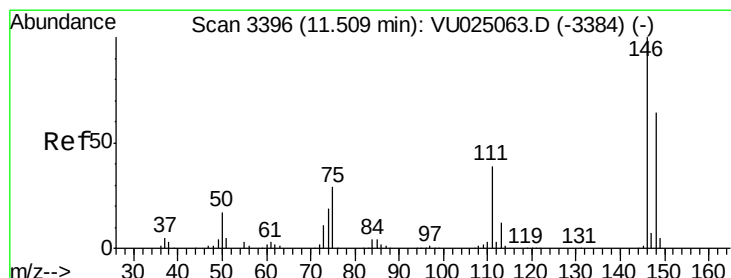
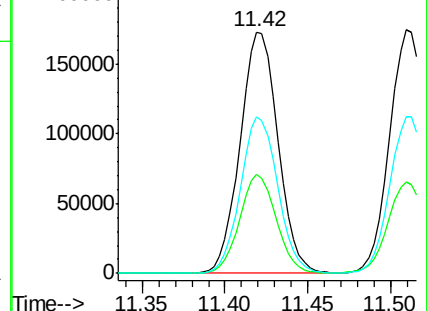
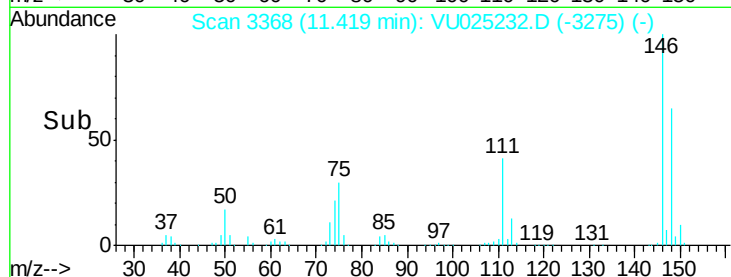
148 64.9 45.3 84.1



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#63

1,4-Dichlorobenzene

Concen: 50.318 ug/L

RT: 11.51 min Scan# 3396

Delta R.T. -0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

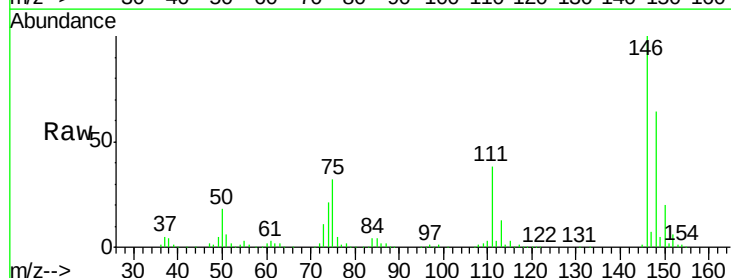
Tgt Ion:146 Resp: 276039

Ion Ratio Lower Upper

146 100

111 37.7 27.7 51.5

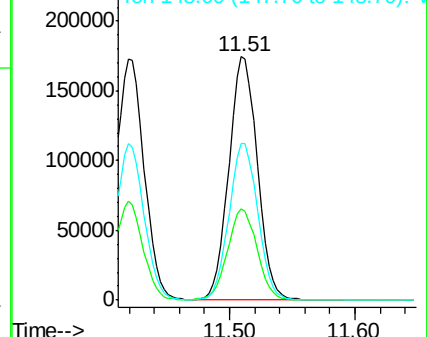
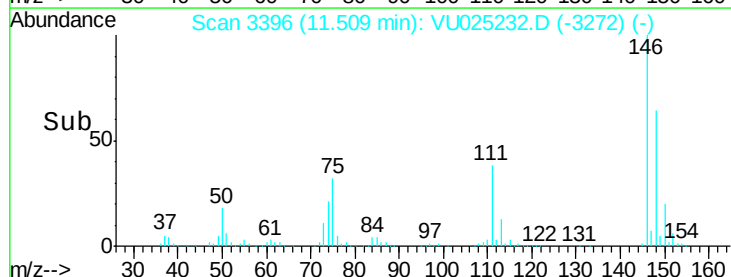
148 64.2 44.7 83.1

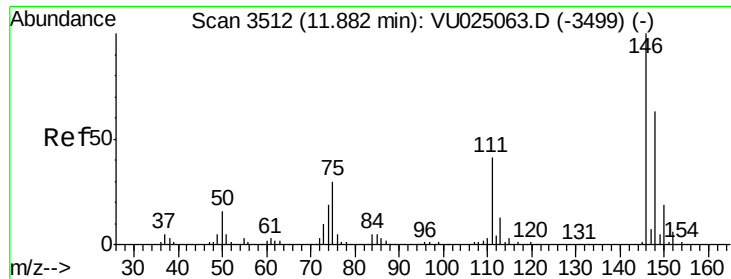


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V

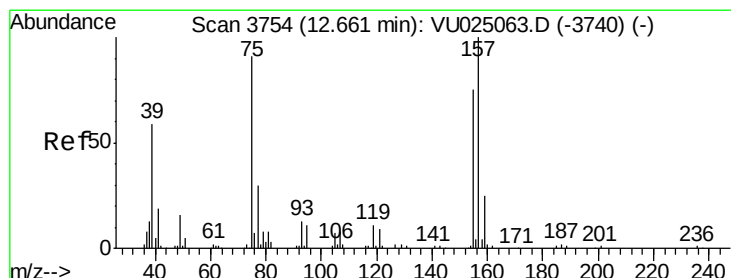
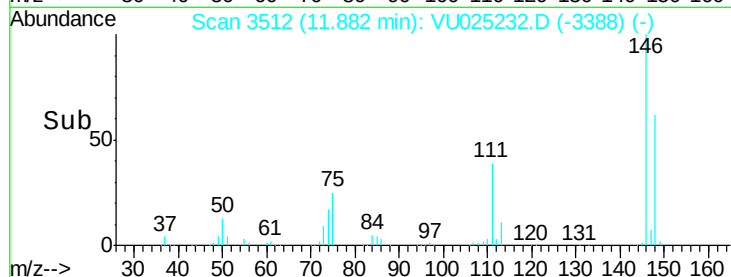
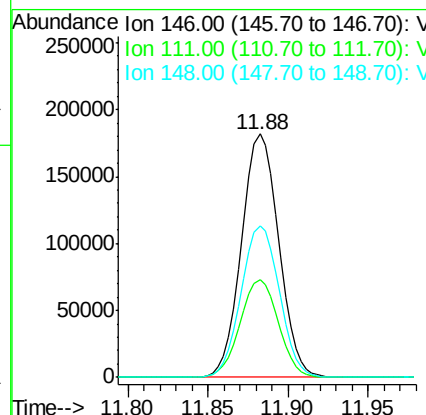
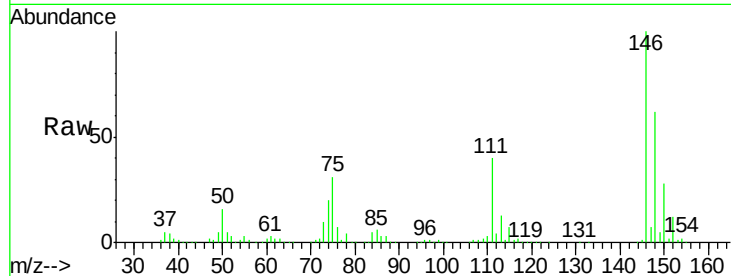




#65  
 1,2-Dichlorobenzene  
 Concen: 50.054 ug/L  
 RT: 11.88 min Scan# 3512  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

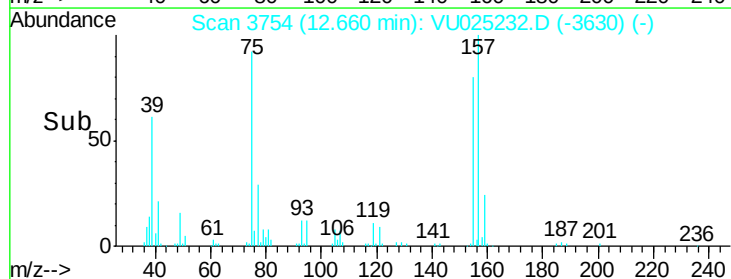
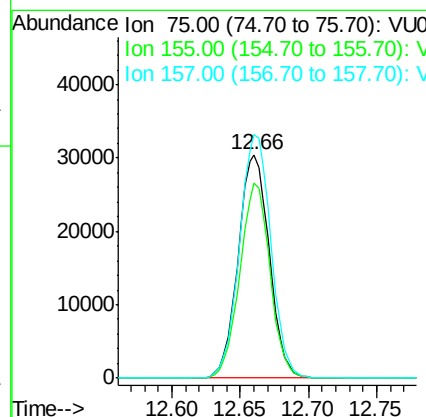
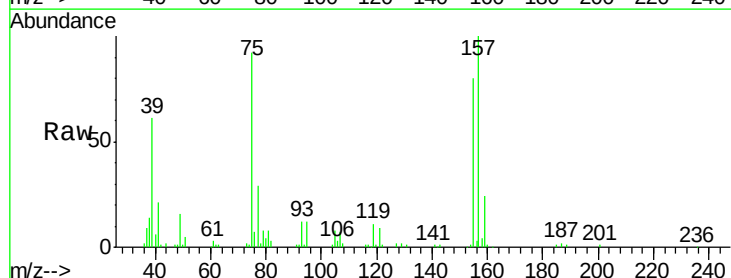
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05047

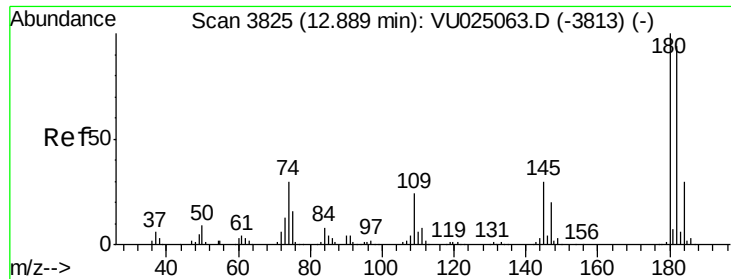
Tgt Ion: 146 Resp: 288142  
 Ion Ratio Lower Upper  
 146 100  
 111 40.1 33.0 49.4  
 148 62.4 50.1 75.1



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 50.585 ug/L  
 RT: 12.66 min Scan# 3754  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

Tgt Ion: 75 Resp: 48186  
 Ion Ratio Lower Upper  
 75 100  
 155 87.3 66.3 99.5  
 157 109.1 87.9 131.9

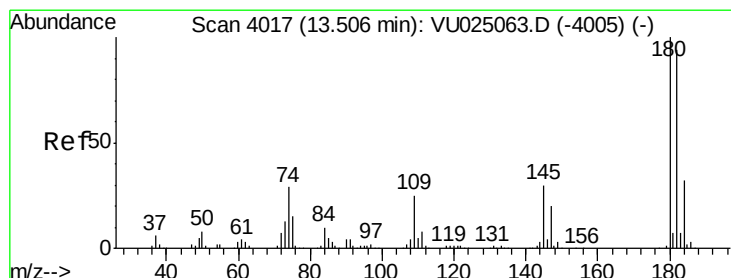
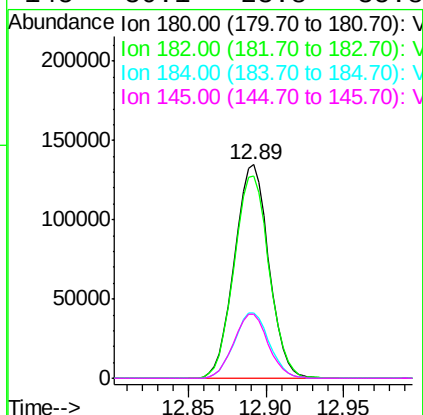
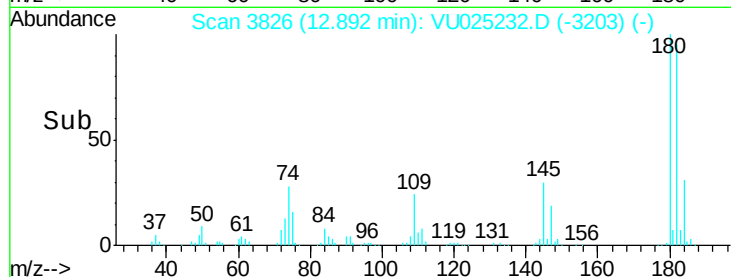
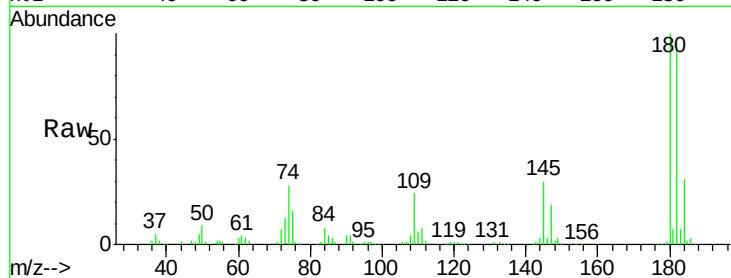




#67  
 1,3,5-Trichlorobenzene  
 Concen: 51.416 ug/L  
 RT: 12.89 min Scan# 3826  
 Delta R.T. 0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

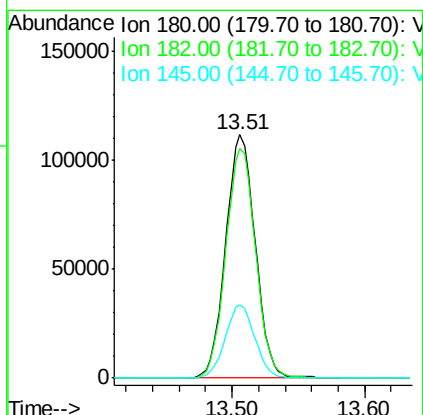
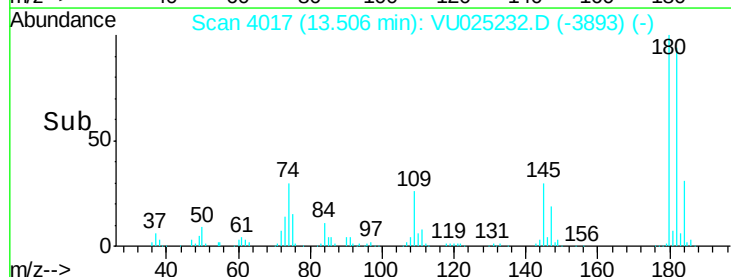
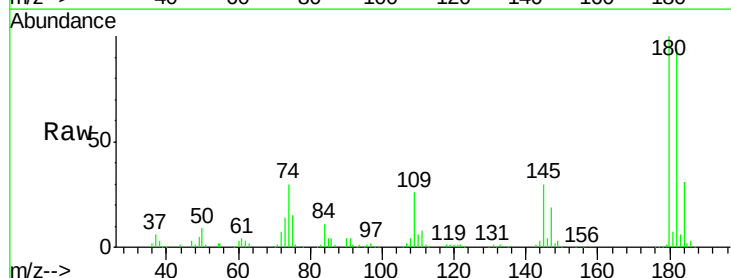
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05047

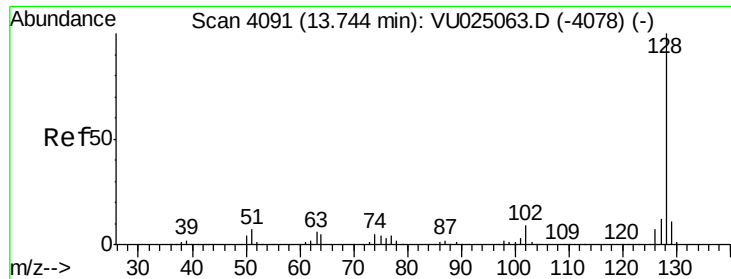
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 180   | Resp: | 208176 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 96.6  | 76.8  | 115.2  |
| 184      | 31.2  | 24.3  | 36.5   |
| 145      | 30.1  | 23.8  | 35.8   |



#68  
 1,2,4-trichlorobenzene  
 Concen: 51.117 ug/L  
 RT: 13.51 min Scan# 4017  
 Delta R.T. -0.00 min  
 Lab File: VU025232.D  
 Acq: 06 Jul 2018 09:36

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 180   | Resp: | 173029 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 95.1  | 75.9  | 113.9  |
| 145      | 29.9  | 23.8  | 35.8   |





#69

Naphthalene

Concen: 48.091 ug/L

RT: 13.75 min Scan# 4092

Delta R.T. 0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05047

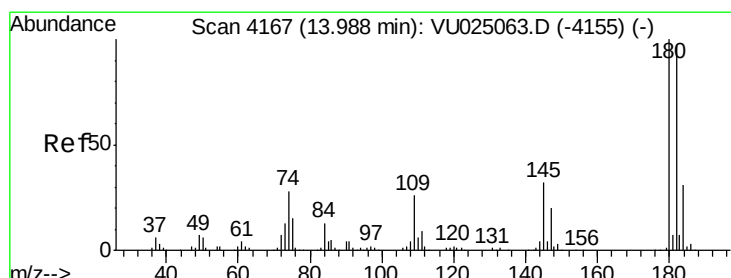
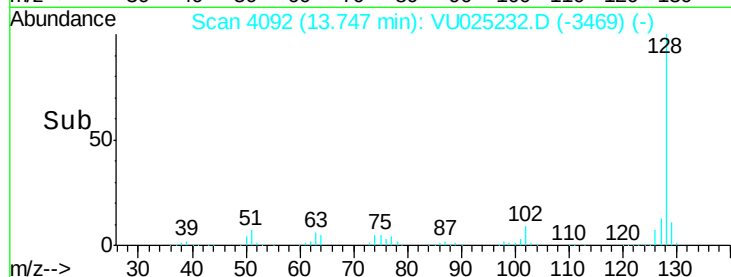
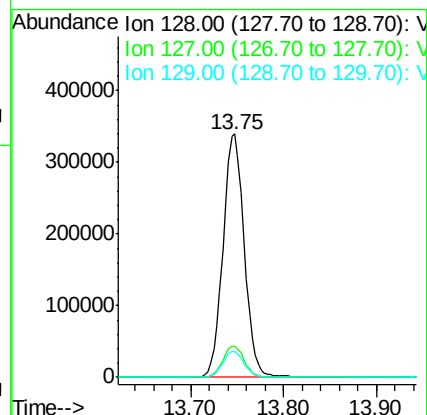
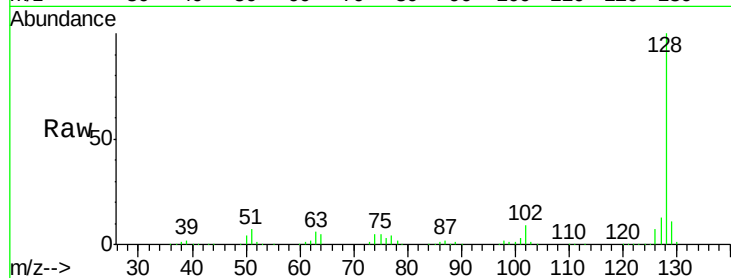
Tgt Ion:128 Resp: 541278

Ion Ratio Lower Upper

128 100

127 12.9 10.2 15.2

129 10.8 8.8 13.2



#70

1,2,3-Trichlorobenzene

Concen: 50.383 ug/L

RT: 13.99 min Scan# 4168

Delta R.T. 0.00 min

Lab File: VU025232.D

Acq: 06 Jul 2018 09:36

Tgt Ion:180 Resp: 183172

Ion Ratio Lower Upper

180 100

182 96.6 77.4 116.0

145 31.7 25.4 38.0

