

Data File : VV012303.D  
Acq On : 20 Aug 2019 03:17  
Operator : SY/MD  
Sample : VSTDCCC005EC  
Misc : 25mL/MSVOA\_V/WATER  
ALS Vial : 31 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00546

Quant Time: Aug 20 04:50:36 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR081919WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Tue Aug 20 02:35:23 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.66  | 114  | 136836   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.89  | 117  | 127626   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.29 | 152  | 69589    | 5.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |        |       |          |          |      |          |
|--------------------------------|--------|-------|----------|----------|------|----------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 24967    | 3.57     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 71.40%   |
| 7) Chloroethane-d5             | 1.58   | 69    | 21691    | 4.25     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 85.00%   |
| 11) 1,1-Dichloroethene-d2      | 2.13   | 63    | 57386    | 4.32     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 86.40%   |
| 20) 2-Butanone-d5              | 3.96   | 46    | 104581   | 55.48    | ug/L | 0.00     |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 110.96%  |
| 24) Chloroform-d               | 4.40   | 84    | 89948    | 4.76     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 95.20%   |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 47232    | 4.85     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 97.00%   |
| 32) Benzene-d6                 | 5.10   | 84    | 160182   | 4.75     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 95.00%   |
| 36) 1,2-Dichloropropane-d6     | 6.12   | 67    | 44833    | 4.70     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 94.00%   |
| 41) Toluene-d8                 | 7.36   | 98    | 149315   | 4.75     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 95.00%   |
| 43) trans-1,3-Dichloropropene- | 7.66   | 79    | 20674    | 5.04     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 100.80%  |
| 46) 2-Hexanone-d5              | 8.13   | 63    | 89653    | 69.30    | ug/L | 0.00     |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 138.60%# |
| 57) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 38002    | 5.24     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 104.80%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 66828    | 4.77     | ug/L | 0.00     |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 95.40%   |

#### Target Compounds

|                                |      |     |        |               | Qvalue |
|--------------------------------|------|-----|--------|---------------|--------|
| 2) Dichlorodifluoromethane     | 1.14 | 85  | 73121  | 4.475 ug/L    | 97     |
| 3) Chloromethane               | 1.25 | 50  | 31187  | 3.649 ug/L    | 94     |
| 5) Vinyl chloride              | 1.32 | 62  | 37328  | 4.149 ug/L    | 99     |
| 6) Bromomethane                | 1.53 | 94  | 5504   | 1.187 ug/L    | 98     |
| 8) Chloroethane                | 1.60 | 64  | 20654  | 4.607 ug/L    | 98     |
| 9) Trichlorofluoromethane      | 1.77 | 101 | 72283  | 4.465 ug/L    | 98     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.14 | 101 | 32449  | 4.643 ug/L    | 99     |
| 12) 1,1-Dichloroethene         | 2.14 | 96  | 30284  | 4.822 ug/L    | 98     |
| 13) Acetone                    | 2.23 | 43  | 49303  | 50.000 ug/L # | 63     |
| 14) Carbon disulfide           | 2.32 | 76  | 82363  | 4.724 ug/L    | 97     |
| 15) Methyl Acetate             | 2.47 | 43  | 9867   | 5.046 ug/L    | 97     |
| 16) Methylene chloride         | 2.53 | 84  | 29989  | 4.587 ug/L    | 95     |
| 17) Methyl tert-butyl Ether    | 2.81 | 73  | 114416 | 5.712 ug/L    | 98     |
| 18) trans-1,2-Dichloroethene   | 2.78 | 96  | 45190  | 4.916 ug/L    | 100    |
| 19) 1,1-Dichloroethane         | 3.23 | 63  | 77980  | 4.946 ug/L    | 99     |
| 21) 2-Butanone                 | 4.04 | 43  | 100185 | 53.547 ug/L   | 96     |
| 22) cis-1,2-Dichloroethene     | 3.96 | 96  | 50752  | 5.130 ug/L    | 97     |

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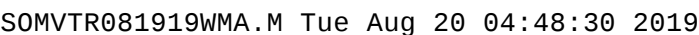
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00546

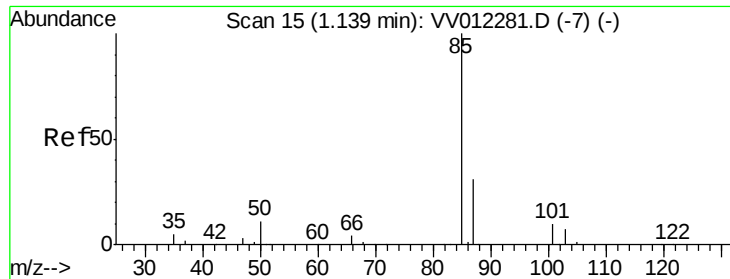
Quant Time: Aug 20 04:50:36 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR081919WMA.M  
Quant Title : TRACE VOA SOM01.0  
QLast Update : Tue Aug 20 02:35:23 2019  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 23) Bromochloromethane         | 4.30  | 128  | 23640    | 5.232  | ug/L   | 93       |
| 25) Chloroform                 | 4.42  | 83   | 89595    | 4.542  | ug/L   | 98       |
| 27) 1,2-Dichloroethane         | 5.18  | 62   | 57560    | 5.119  | ug/L   | 98       |
| 29) 1,1,1-Trichloroethane      | 4.65  | 97   | 86767    | 5.082  | ug/L   | 99       |
| 30) Cyclohexane                | 4.72  | 56   | 65634    | 5.135  | ug/L   | 97       |
| 31) Carbon tetrachloride       | 4.87  | 117  | 80996    | 5.083  | ug/L   | 99       |
| 33) Benzene                    | 5.14  | 78   | 179766   | 5.092  | ug/L   | 100      |
| 34) Trichloroethene            | 5.96  | 95   | 51464    | 4.971  | ug/L   | 98       |
| 35) Methylcyclohexane          | 6.17  | 83   | 76021    | 4.905  | ug/L   | 98       |
| 37) 1,2-Dichloropropane        | 6.22  | 63   | 40475    | 4.900  | ug/L   | 99       |
| 38) Bromodichloromethane       | 6.55  | 83   | 64817    | 5.194  | ug/L   | 97       |
| 39) cis-1,3-Dichloropropene    | 7.07  | 75   | 65757    | 5.015  | ug/L   | 99       |
| 40) 4-Methyl-2-pentanone       | 7.28  | 43   | 254362   | 58.647 | ug/L   | 97       |
| 42) Toluene                    | 7.43  | 91   | 203627   | 5.211  | ug/L   | 100      |
| 44) trans-1,3-Dichloropropene  | 7.69  | 75   | 53511    | 5.110  | ug/L   | 98       |
| 45) 1,1,2-Trichloroethane      | 7.88  | 97   | 32879    | 5.188  | ug/L   | 99       |
| 47) Tetrachloroethene          | 8.02  | 164  | 46691    | 4.887  | ug/L   | 99       |
| 48) 2-Hexanone                 | 8.19  | 43   | 184494   | 59.098 | ug/L   | 99       |
| 49) Dibromochloromethane       | 8.29  | 129  | 47230    | 5.486  | ug/L   | 99       |
| 50) 1,2-Dibromoethane          | 8.40  | 107  | 32977    | 5.509  | ug/L # | 97       |
| 51) Chlorobenzene              | 8.92  | 112  | 138325   | 5.188  | ug/L   | 98       |
| 52) Ethylbenzene               | 9.05  | 91   | 232567   | 5.320  | ug/L   | 100      |
| 53) m,p-xylene                 | 9.18  | 106  | 90159    | 5.283  | ug/L   | 95       |
| 54) o-xylene                   | 9.59  | 106  | 88589    | 5.397  | ug/L   | 100      |
| 55) Styrene                    | 9.60  | 104  | 146690   | 5.291  | ug/L   | 99       |
| 56) Isopropylbenzene           | 9.97  | 105  | 241911   | 5.339  | ug/L   | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.28 | 83   | 37698    | 5.823  | ug/L   | 96       |
| 59) 1,2,3-Trichloropropane     | 10.32 | 75   | 28245    | 5.516  | ug/L   | 99       |
| 61) Bromoform                  | 9.77  | 173  | 26742    | 5.563  | ug/L   | 100      |
| 62) 1,3-Dichlorobenzene        | 11.22 | 146  | 117366   | 4.983  | ug/L   | 97       |
| 63) 1,4-Dichlorobenzene        | 11.31 | 146  | 118541   | 5.060  | ug/L   | 98       |
| 65) 1,2-Dichlorobenzene        | 11.69 | 146  | 111060   | 5.139  | ug/L   | 99       |
| 66) 1,2-Dibromo-3-chloropropan | 12.48 | 75   | 7117     | 6.303  | ug/L   | 86       |
| 67) 1,3,5-Trichlorobenzene     | 12.69 | 180  | 97982    | 5.071  | ug/L   | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.31 | 180  | 84879    | 5.942  | ug/L   | 98       |
| 69) Naphthalene                | 13.55 | 128  | 266829   | 13.732 | ug/L   | 99       |
| 70) 1,2,3-Trichlorobenzene     | 13.79 | 180  | 79835    | 6.040  | ug/L   | 98       |

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

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QLast Update : Tue Aug 20 02:35:23 2019  
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#2

Dichlorodifluoromethane

Concen: 4.475 ug/L

RT: 1.14 min Scan# 15

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

Instrument :

MSVOA\_V

ClientSampleId :

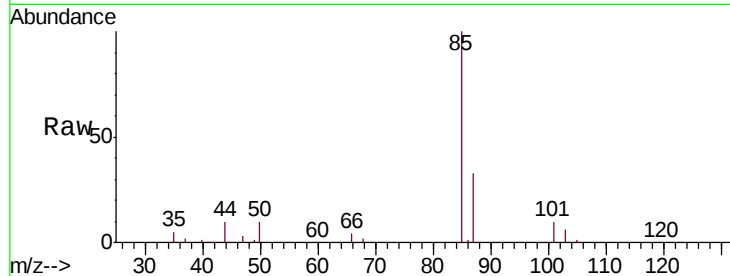
VSTD00546

Tgt Ion: 85 Resp: 73121

Ion Ratio Lower Upper

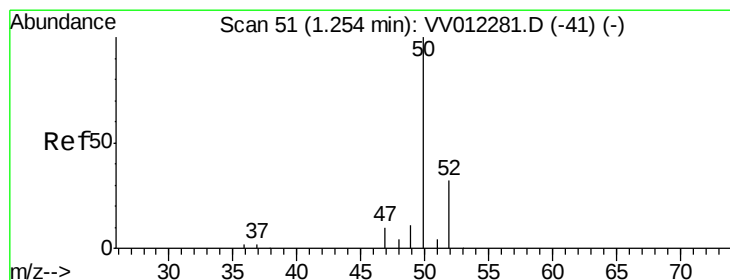
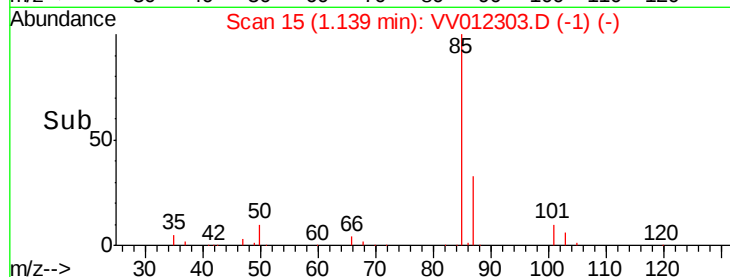
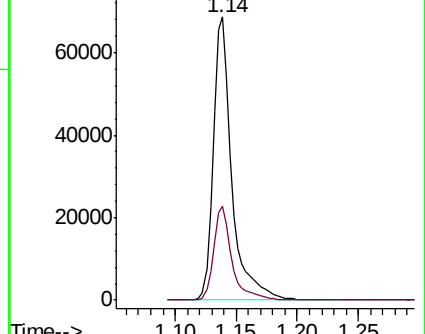
85 100

87 32.7 24.6 37.0



Abundance Ion 85.00 (84.70 to 85.70): VV012281.D (-7) (-)

Ion 87.00 (86.70 to 87.70): VV012281.D (-7) (-)



#3

Chloromethane

Concen: 3.649 ug/L

RT: 1.25 min Scan# 50

Delta R.T. -0.00 min

Lab File: VV012303.D

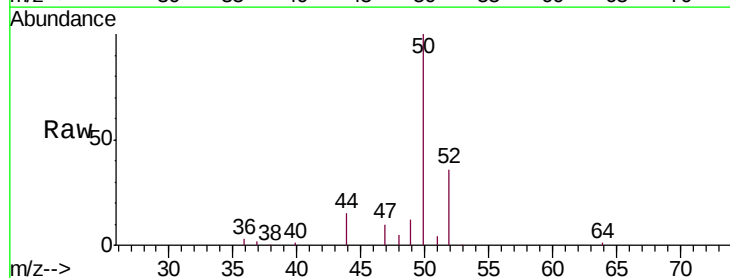
Acq: 20 Aug 2019 03:17

Tgt Ion: 50 Resp: 31187

Ion Ratio Lower Upper

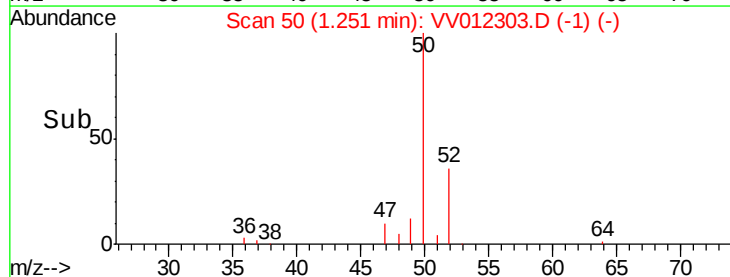
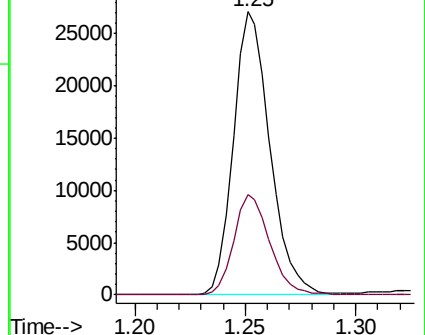
50 100

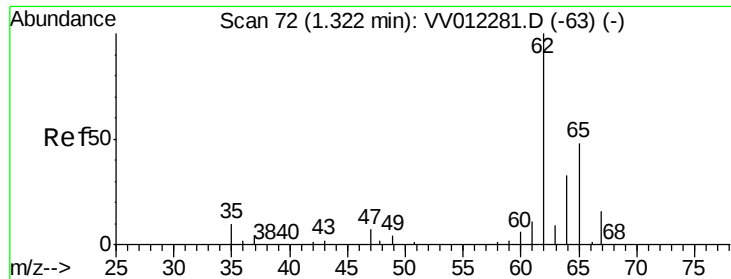
52 35.6 22.6 42.0



Abundance Ion 50.05 (49.75 to 50.75): VV012281.D (-41) (-)

Ion 52.05 (51.75 to 52.75): VV012281.D (-41) (-)





#5

Vinyl chloride

Concen: 4.149 ug/L

RT: 1.32 min Scan# 72

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

Instrument :

MSVOA\_V

ClientSampleId :

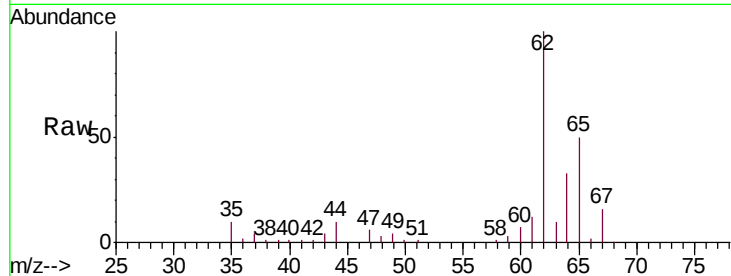
VSTD00546

Tgt Ion: 62 Resp: 37328

Ion Ratio Lower Upper

62 100

64 33.3 23.8 44.2



Abundance Ion 62.00 (61.70 to 62.70): VV0

Ion 64.10 (63.80 to 64.80): VV0

1.32

40000

30000

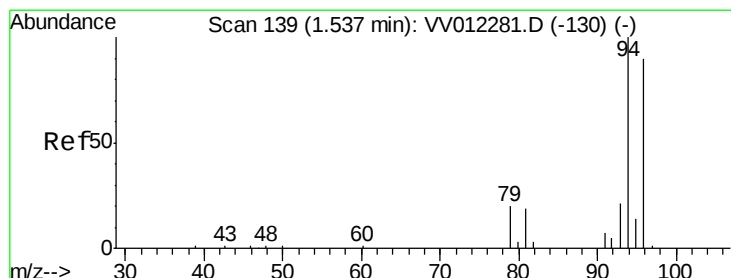
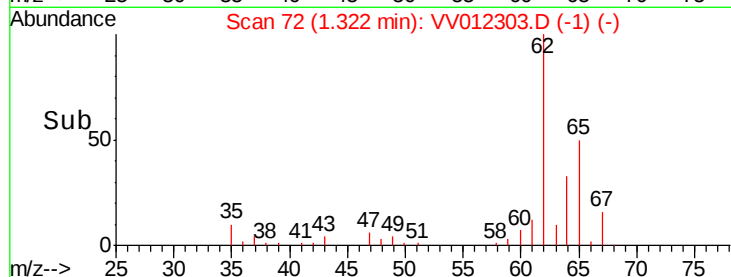
20000

10000

0

Time-->

1.25 1.30 1.35 1.40



#6

Bromomethane

Concen: 1.187 ug/L

RT: 1.53 min Scan# 138

Delta R.T. -0.00 min

Lab File: VV012303.D

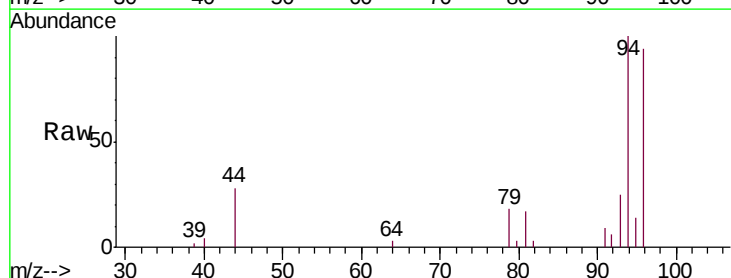
Acq: 20 Aug 2019 03:17

Tgt Ion: 94 Resp: 5504

Ion Ratio Lower Upper

94 100

96 93.8 67.3 125.1



Abundance Ion 94.00 (93.70 to 94.70): VV0

Ion 96.00 (95.70 to 96.70): VV0

1.53

5000

4000

3000

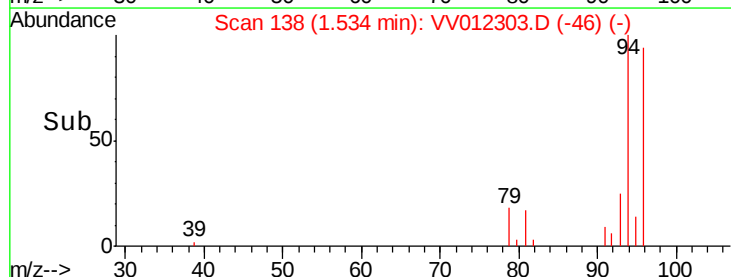
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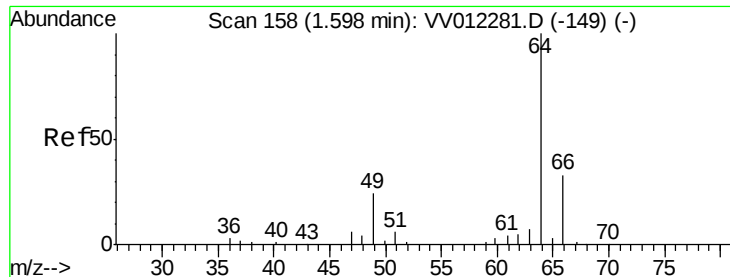
1000

0

Time-->

1.50 1.55

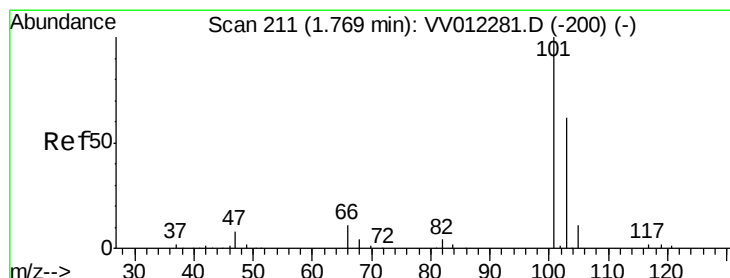
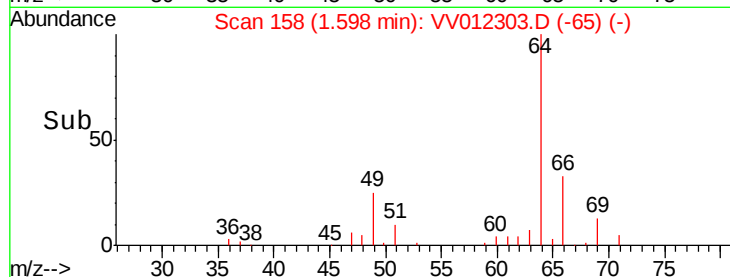
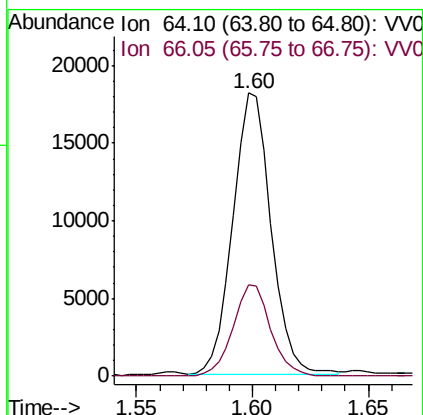
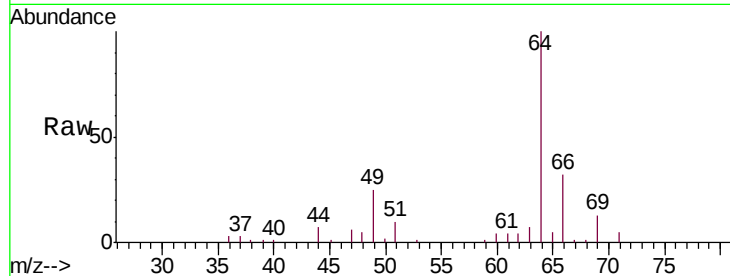




#8  
Chloroethane  
Concen: 4.607 ug/L  
RT: 1.60 min Scan# 158  
Delta R.T. -0.00 min  
Lab File: VV012303.D  
Acq: 20 Aug 2019 03:17

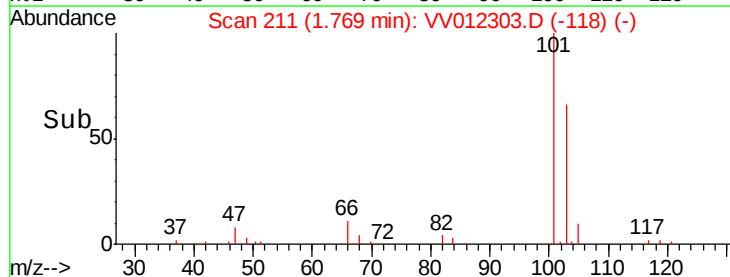
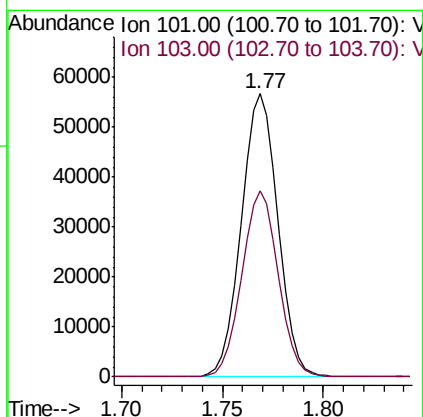
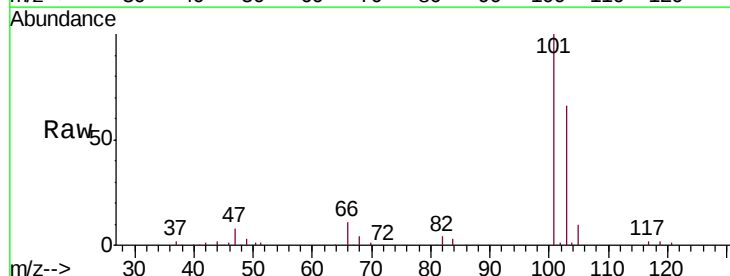
Instrument :  
MSVOA\_V  
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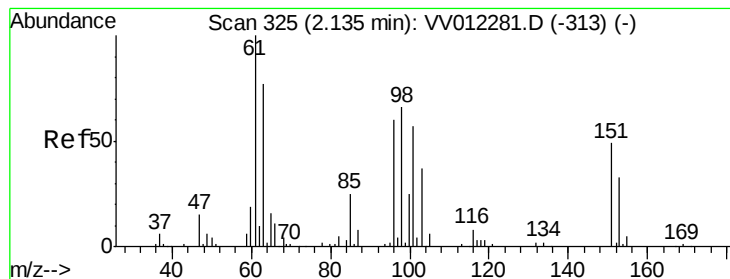
Tgt Ion: 64 Resp: 20654  
Ion Ratio Lower Upper  
64 100  
66 32.5 23.7 44.1



#9  
Trichlorofluoromethane  
Concen: 4.465 ug/L  
RT: 1.77 min Scan# 211  
Delta R.T. -0.00 min  
Lab File: VV012303.D  
Acq: 20 Aug 2019 03:17

Tgt Ion: 101 Resp: 72283  
Ion Ratio Lower Upper  
101 100  
103 65.7 51.5 77.3





#10

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

Concen: 4.643 ug/L

RT: 2.14 min Scan# 326

Delta R.T. 0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00546

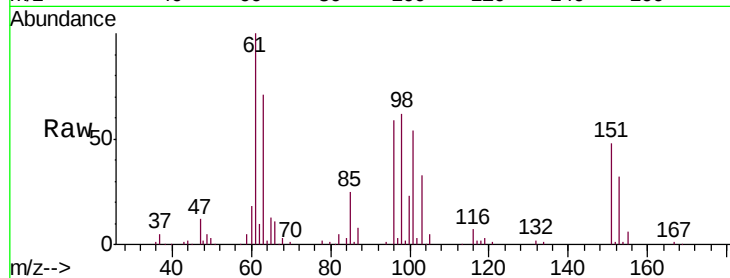
Tgt Ion: 101 Resp: 32449

Ion Ratio Lower Upper

101 100

85 43.8 34.9 52.3

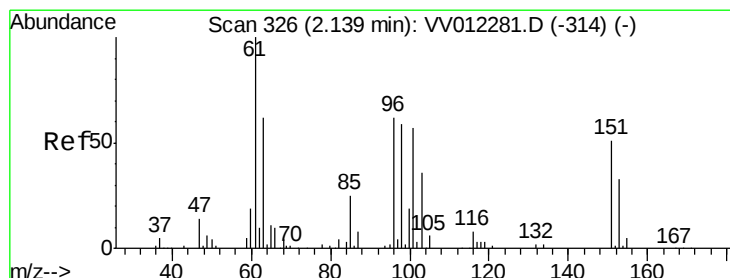
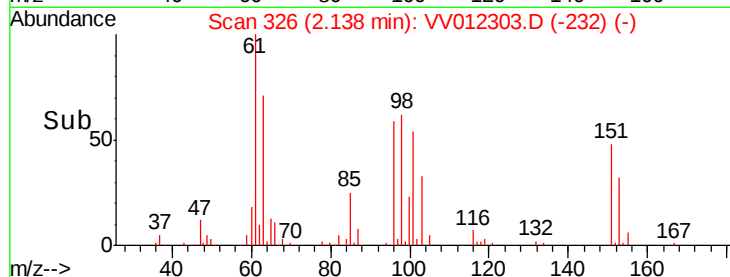
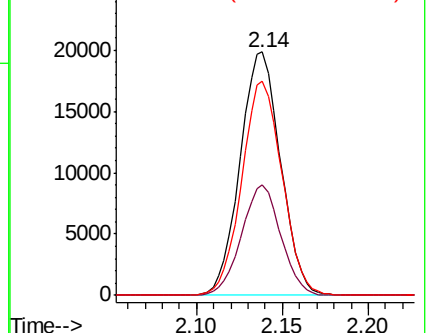
151 87.6 71.5 107.3



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VV0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 4.822 ug/L

RT: 2.14 min Scan# 326

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

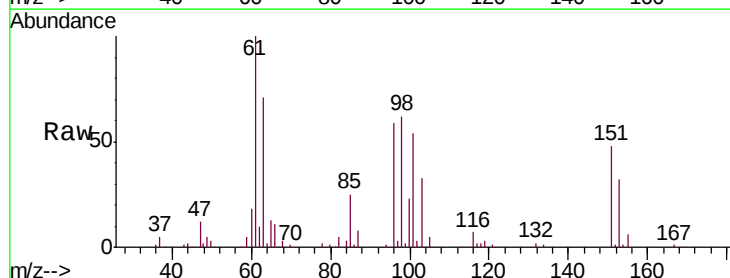
Tgt Ion: 96 Resp: 30284

Ion Ratio Lower Upper

96 100

61 168.6 117.7 218.7

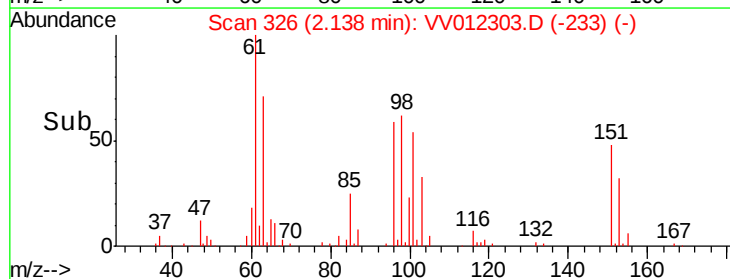
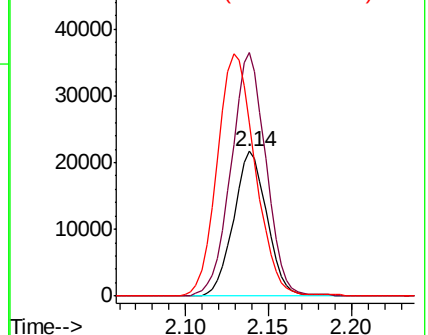
63 120.2 81.1 150.5

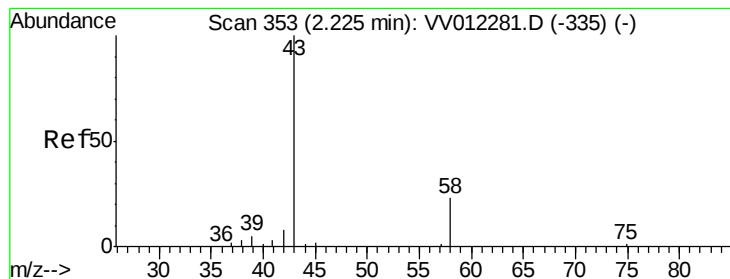


Abundance Ion 96.00 (95.70 to 96.70): VV0

Ion 61.05 (60.75 to 61.75): VV0

Ion 63.00 (62.70 to 63.70): VV0





#13

Acetone

Concen: 50.000 ug/L

RT: 2.23 min Scan# 353

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

Instrument :

MSVOA\_V

ClientSampleId :

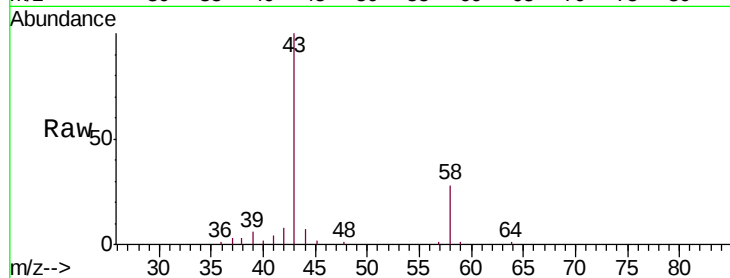
VSTD00546

Tgt Ion: 43 Resp: 49303

Ion Ratio Lower Upper

43 100

58 27.6 0.0 25.6#



Abundance Ion 43.05 (42.75 to 43.75): VV0

Ion 58.05 (57.75 to 58.75): VV0

2.23

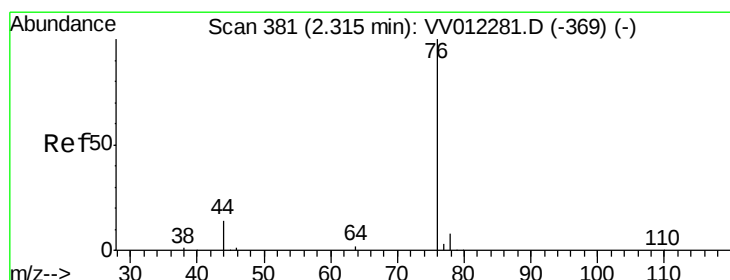
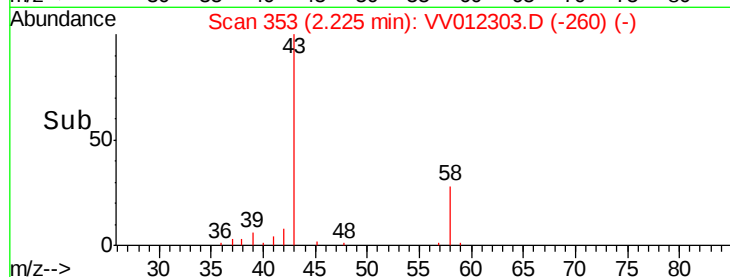
10000

5000

0

Time-->

2.10 2.20 2.30 2.40



#14

Carbon disulfide

Concen: 4.724 ug/L

RT: 2.32 min Scan# 381

Delta R.T. -0.00 min

Lab File: VV012303.D

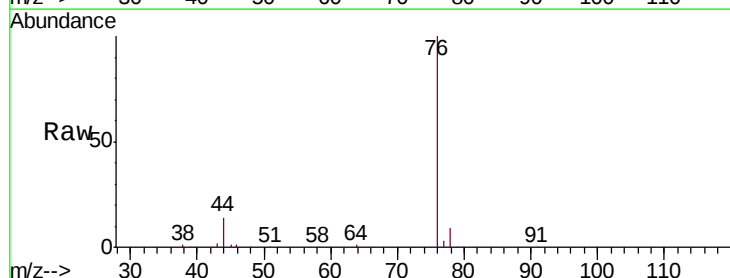
Acq: 20 Aug 2019 03:17

Tgt Ion: 76 Resp: 82363

Ion Ratio Lower Upper

76 100

78 9.2 8.3 12.5



Abundance Ion 76.05 (75.75 to 76.75): VV0

Ion 78.00 (77.70 to 78.70): VV0

2.32

60000

50000

40000

30000

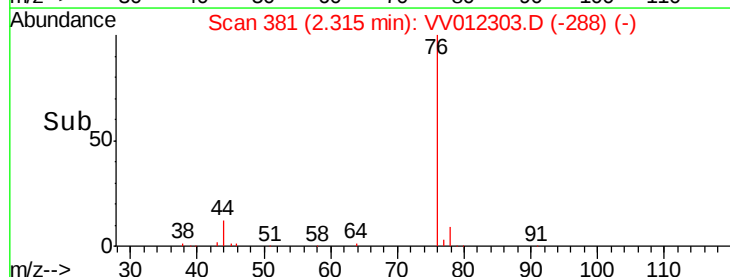
20000

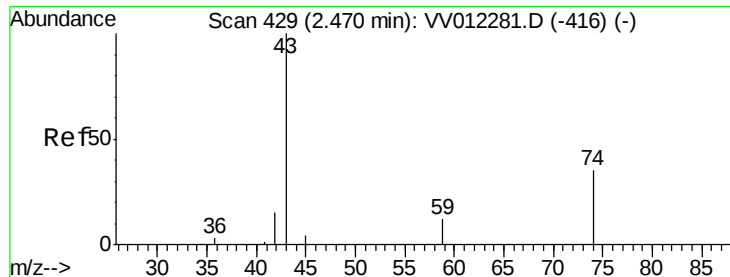
10000

0

Time-->

2.25 2.30 2.35 2.40

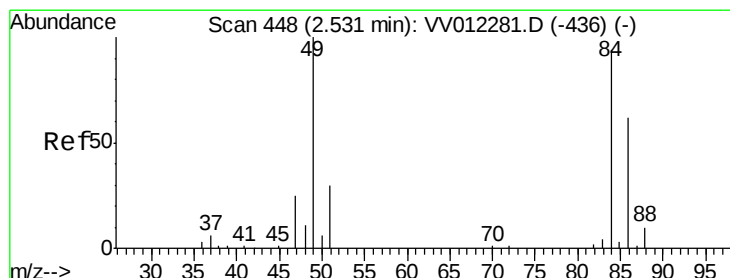
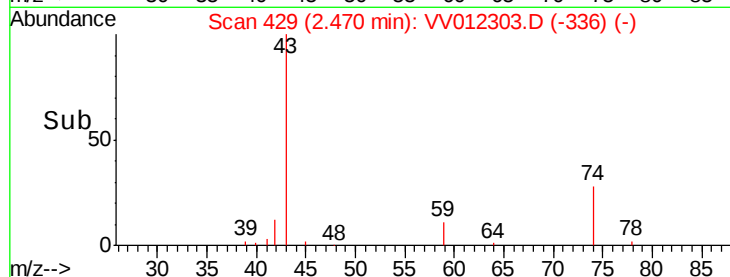
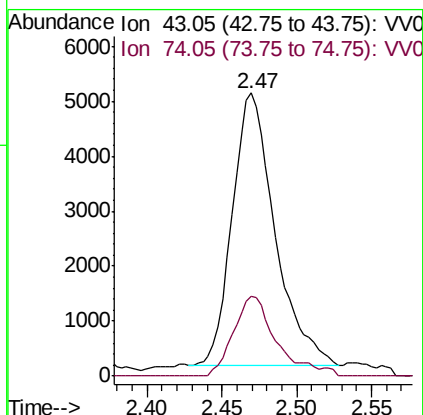
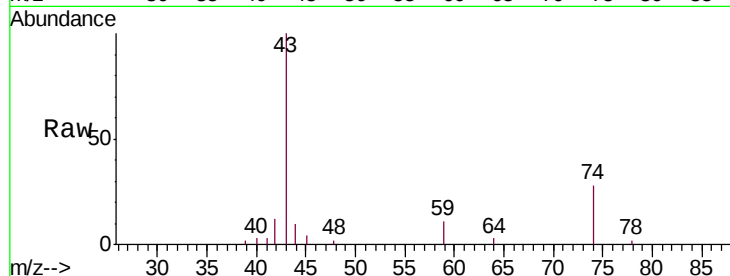




#15  
Methyl Acetate  
Concen: 5.046 ug/L  
RT: 2.47 min Scan# 429  
Delta R.T. -0.00 min  
Lab File: VV012303.D  
Acq: 20 Aug 2019 03:17

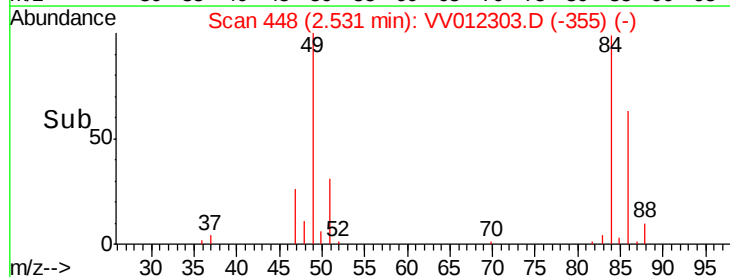
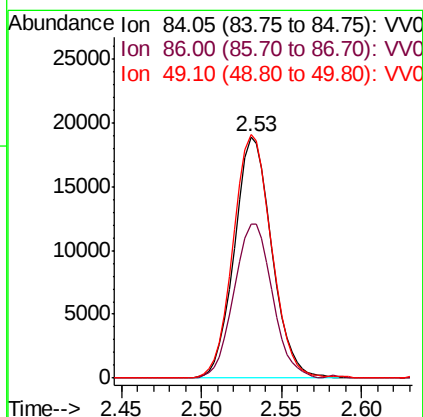
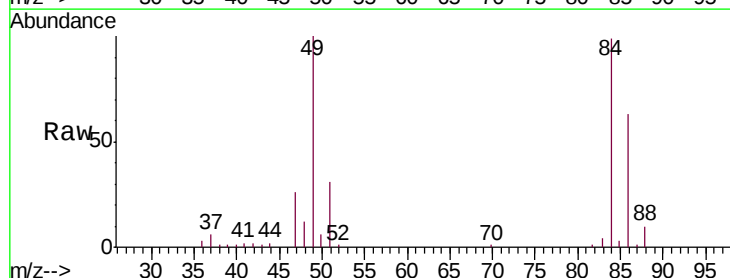
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00546

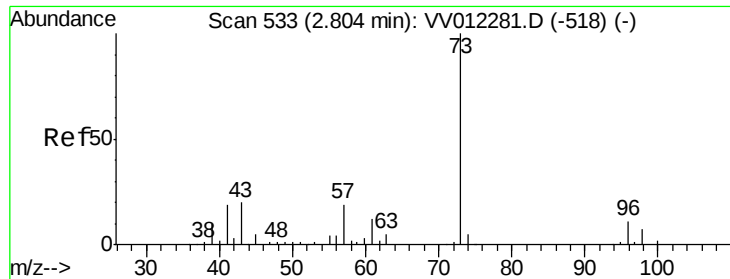
Tgt Ion: 43 Resp: 9867  
Ion Ratio Lower Upper  
43 100  
74 29.4 24.9 37.3



#16  
Methylene chloride  
Concen: 4.587 ug/L  
RT: 2.53 min Scan# 448  
Delta R.T. -0.00 min  
Lab File: VV012303.D  
Acq: 20 Aug 2019 03:17

Tgt Ion: 84 Resp: 29989  
Ion Ratio Lower Upper  
84 100  
86 63.7 49.5 91.9  
49 100.9 72.1 133.9





#17

Methyl tert-butyl Ether

Concen: 5.712 ug/L

RT: 2.81 min Scan# 534

Delta R.T. 0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00546

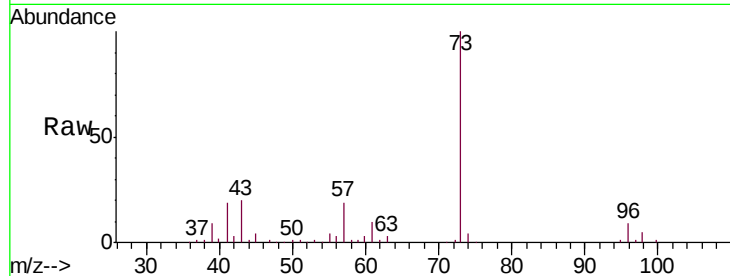
Tgt Ion: 73 Resp: 114416

Ion Ratio Lower Upper

73 100

43 19.8 17.0 25.4

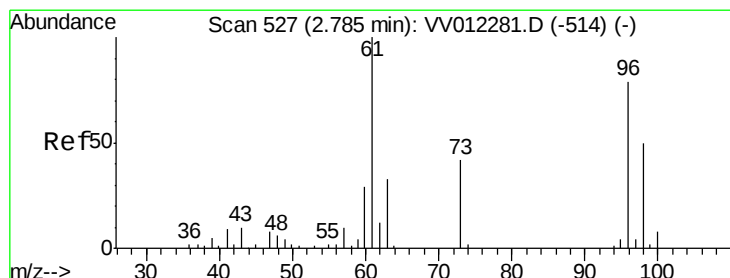
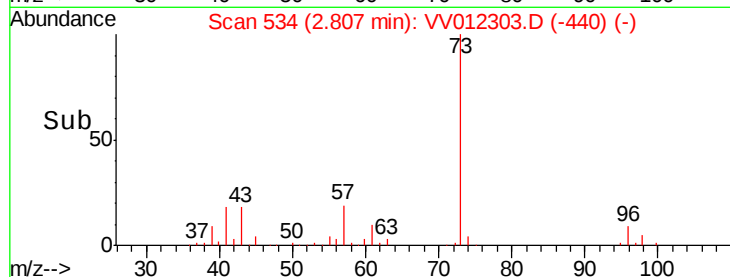
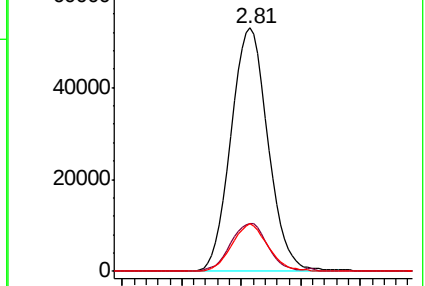
57 19.1 15.8 23.6



Abundance Ion 73.10 (72.80 to 73.80): VV012281.D (-518) (-)

Ion 43.05 (42.75 to 43.75): VV012281.D (-518) (-)

Ion 57.10 (56.80 to 57.80): VV012281.D (-518) (-)



#18

trans-1,2-Dichloroethene

Concen: 4.916 ug/L

RT: 2.78 min Scan# 527

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

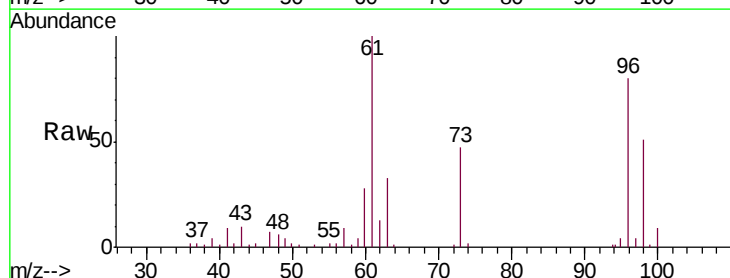
Tgt Ion: 96 Resp: 45190

Ion Ratio Lower Upper

96 100

61 124.9 87.4 162.2

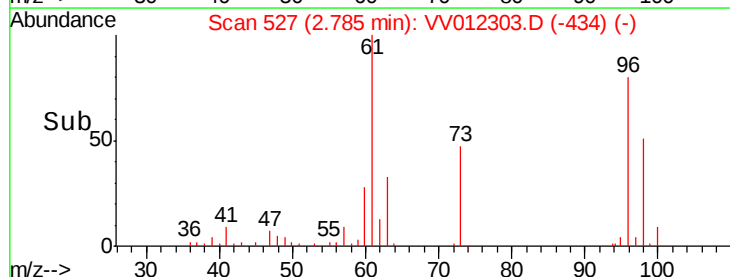
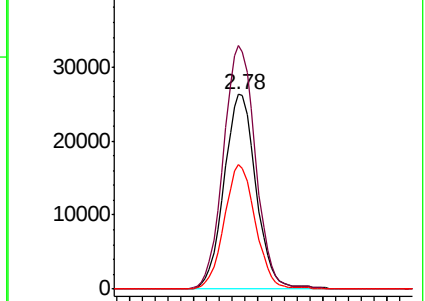
98 64.2 44.7 82.9

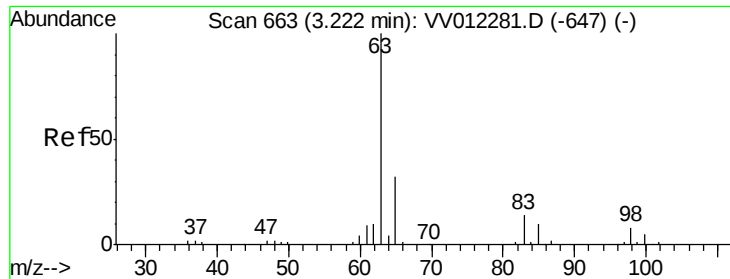


Abundance Ion 96.00 (95.70 to 96.70): VV012281.D (-514) (-)

Ion 61.05 (60.75 to 61.75): VV012281.D (-514) (-)

Ion 97.95 (97.65 to 98.65): VV012281.D (-514) (-)

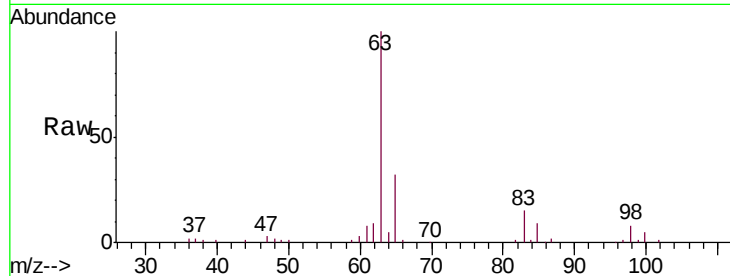




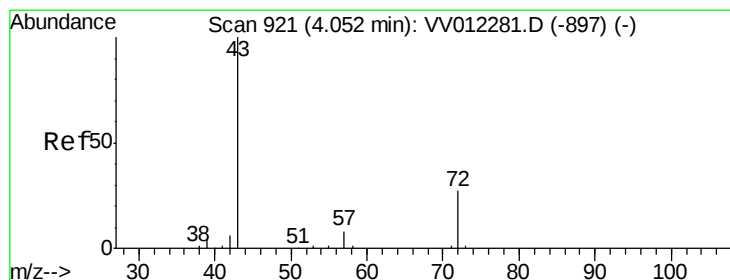
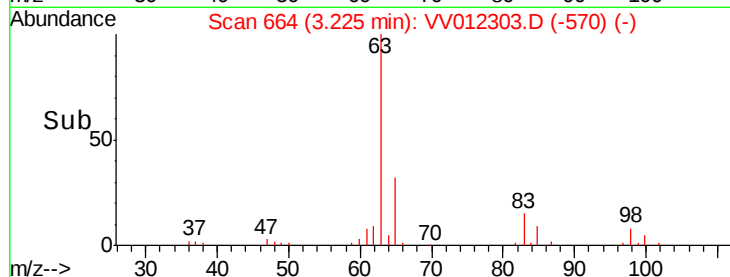
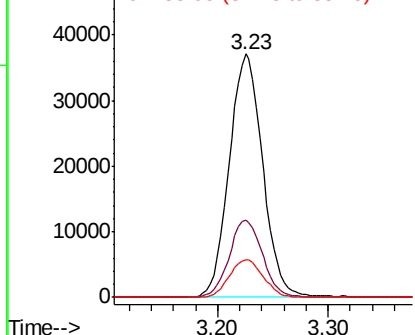
#19  
 1,1-Dichloroethane  
 Concen: 4.946 ug/L  
 RT: 3.23 min Scan# 664  
 Delta R.T. 0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00546

Tgt Ion: 63 Resp: 77980  
 Ion Ratio Lower Upper  
 63 100  
 65 31.5 22.7 42.1  
 83 15.4 10.5 19.5

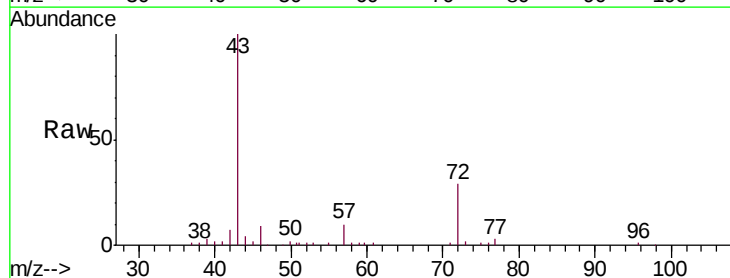


Abundance Ion 63.10 (62.80 to 63.80): VV0  
 Ion 65.10 (64.80 to 65.80): VV0  
 Ion 83.05 (82.75 to 83.75): VV0

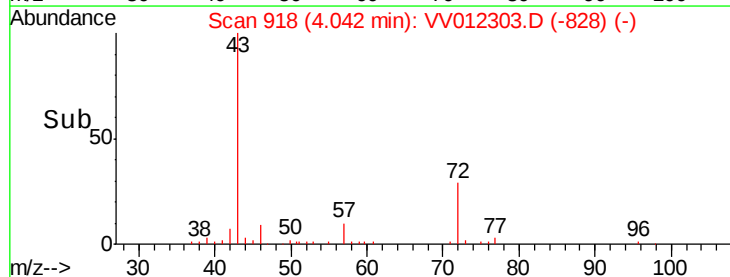
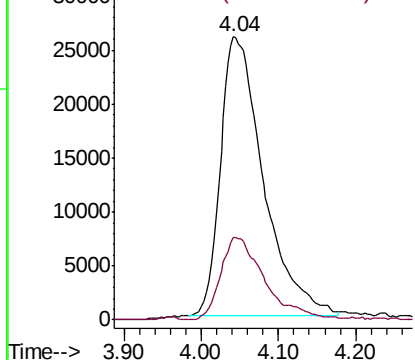


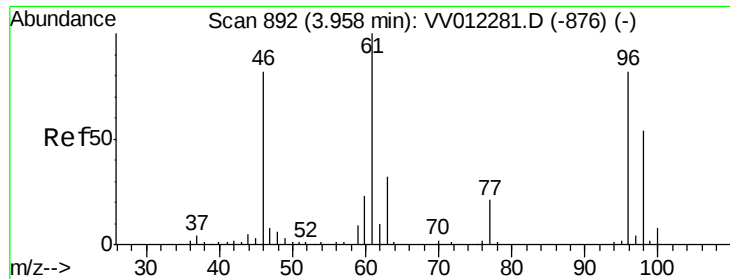
#21  
 2-Butanone  
 Concen: 53.547 ug/L  
 RT: 4.04 min Scan# 918  
 Delta R.T. -0.01 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

Tgt Ion: 43 Resp: 100185  
 Ion Ratio Lower Upper  
 43 100  
 72 27.6 14.8 44.4



Abundance Ion 43.05 (42.75 to 43.75): VV0  
 Ion 72.10 (71.80 to 72.80): VV0



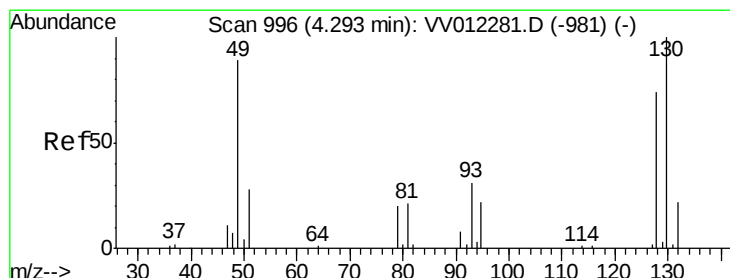
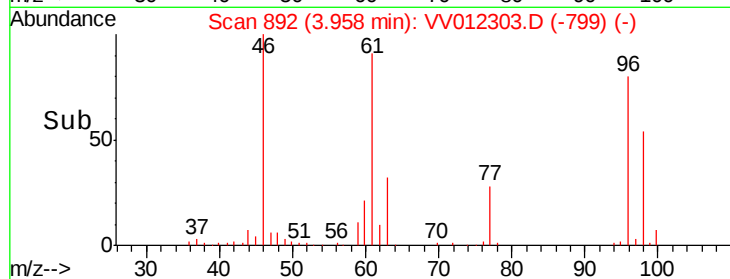
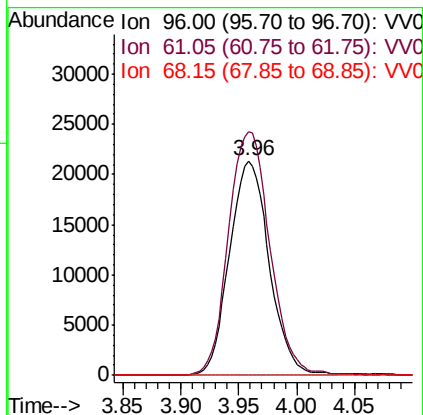
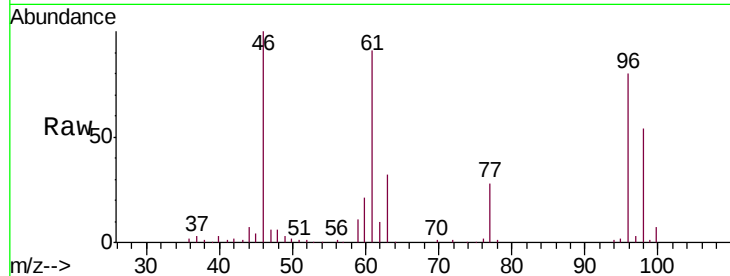


#22

cis-1,2-Dichloroethene  
Concen: 5.130 ug/L  
RT: 3.96 min Scan# 892  
Delta R.T. -0.00 min  
Lab File: VV012303.D  
Acq: 20 Aug 2019 03:17

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00546

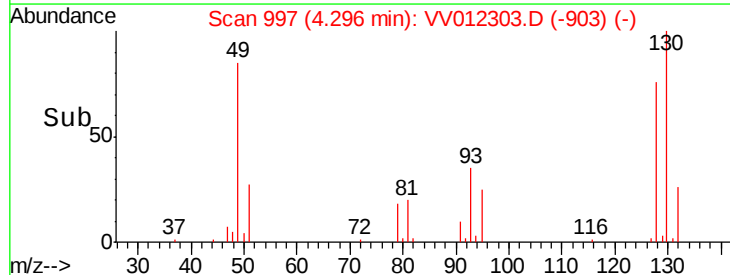
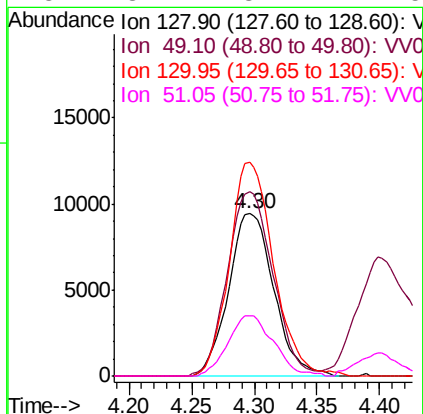
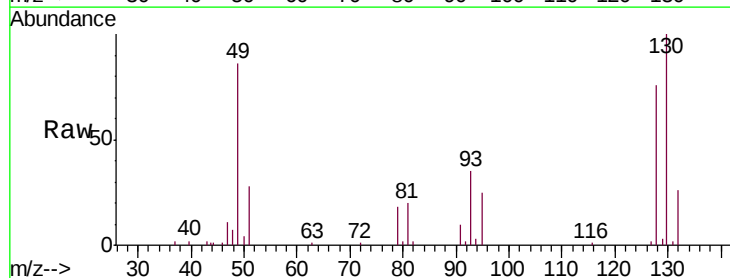
Tgt Ion: 96 Resp: 50752  
Ion Ratio Lower Upper  
96 100  
61 113.7 81.6 151.6  
68 0.0 0.0 0.0

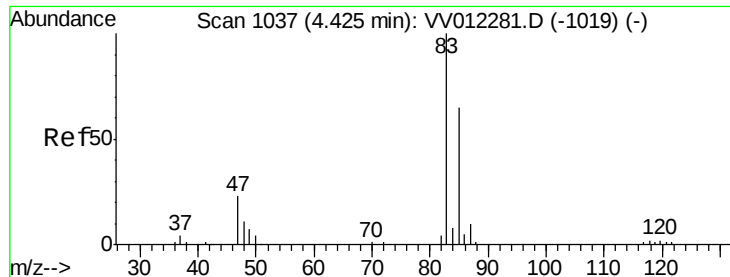


#23

Bromochloromethane  
Concen: 5.232 ug/L  
RT: 4.30 min Scan# 997  
Delta R.T. 0.00 min  
Lab File: VV012303.D  
Acq: 20 Aug 2019 03:17

Tgt Ion: 128 Resp: 23640  
Ion Ratio Lower Upper  
128 100  
49 113.2 90.2 167.6  
130 131.5 91.2 169.4  
51 37.2 31.7 47.5

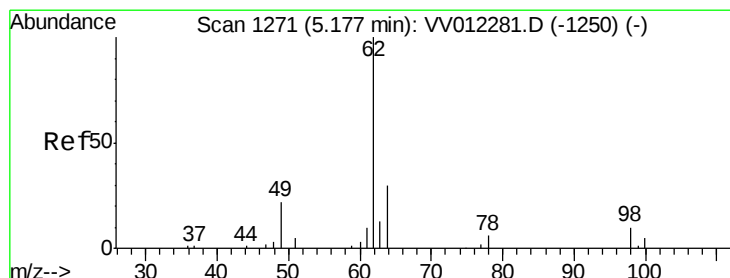
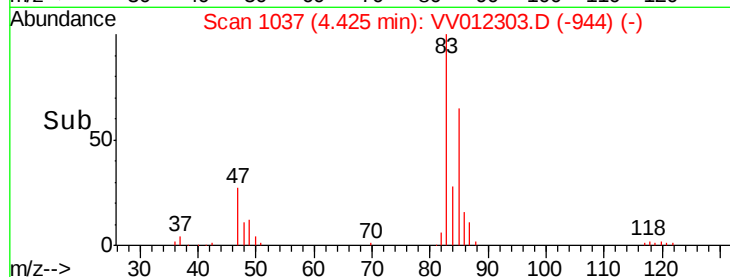
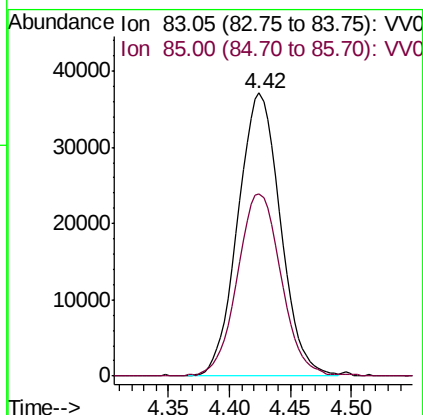
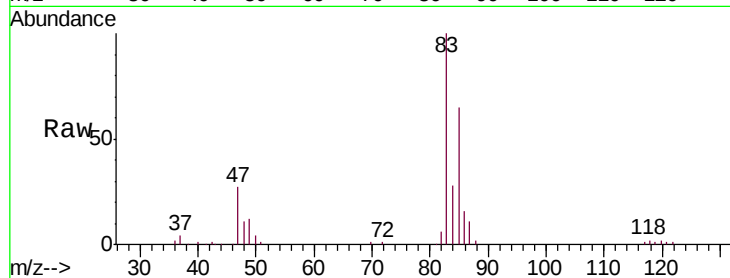




#25  
Chloroform  
Concen: 4.542 ug/L  
RT: 4.42 min Scan# 1037  
Delta R.T. -0.00 min  
Lab File: VV012303.D  
Acq: 20 Aug 2019 03:17

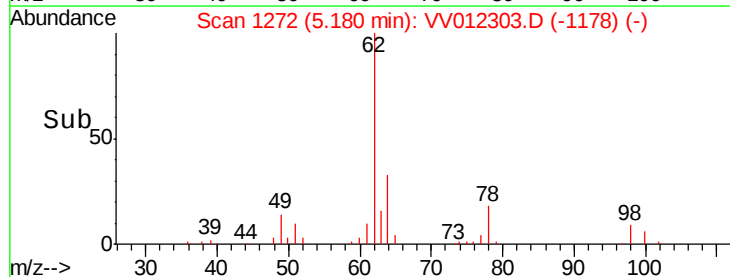
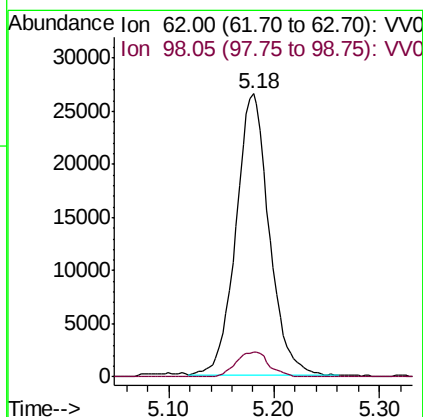
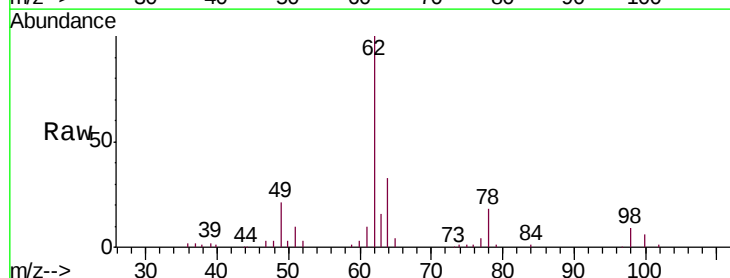
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00546

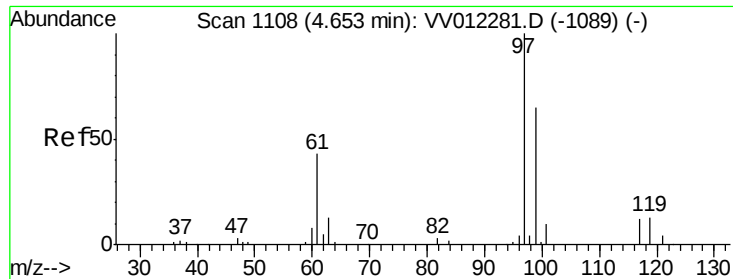
Tgt Ion: 83 Resp: 89595  
Ion Ratio Lower Upper  
83 100  
85 64.6 46.1 85.5



#27  
1,2-Dichloroethane  
Concen: 5.119 ug/L  
RT: 5.18 min Scan# 1272  
Delta R.T. 0.00 min  
Lab File: VV012303.D  
Acq: 20 Aug 2019 03:17

Tgt Ion: 62 Resp: 57560  
Ion Ratio Lower Upper  
62 100  
98 8.6 7.6 11.4

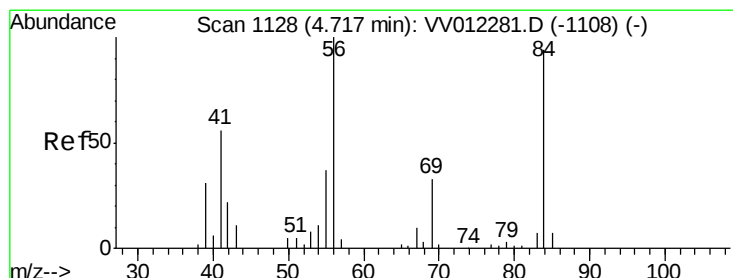
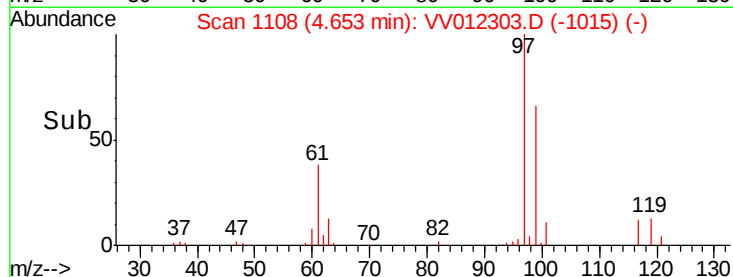
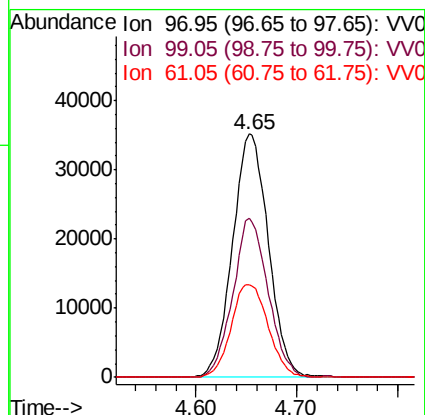
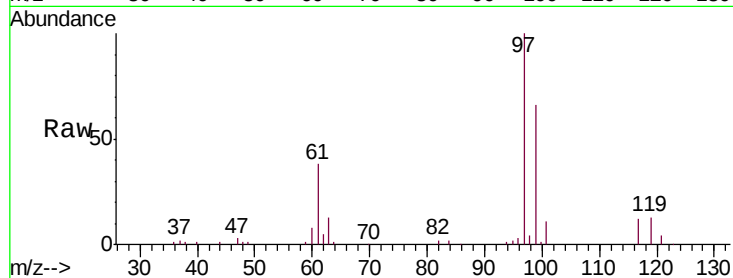




#29  
 1,1,1-Trichloroethane  
 Concen: 5.082 ug/L  
 RT: 4.65 min Scan# 1108  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

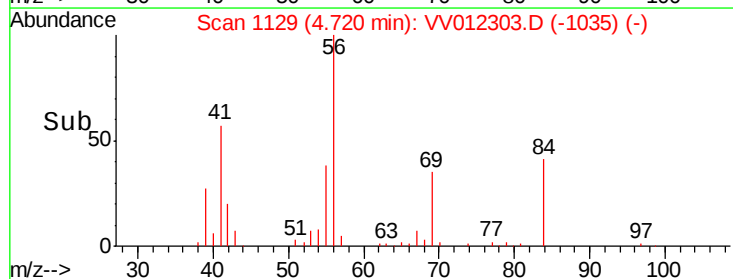
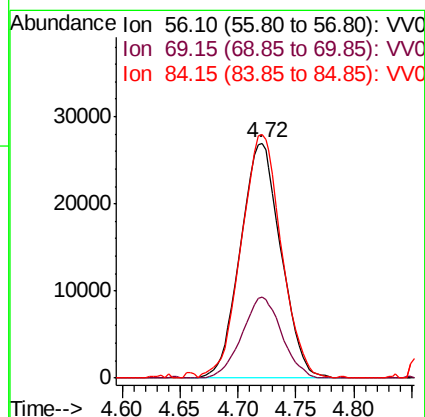
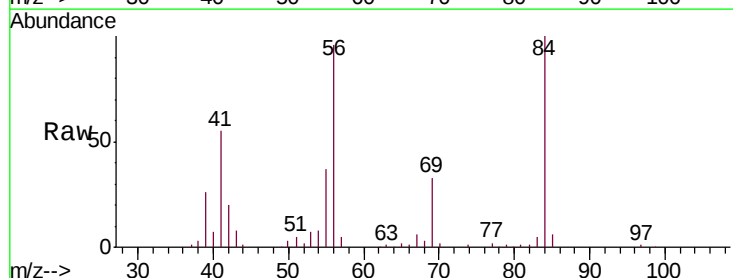
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00546

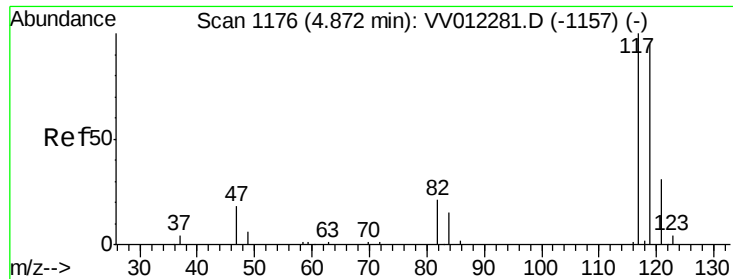
Tgt Ion: 97 Resp: 86767  
 Ion Ratio Lower Upper  
 97 100  
 99 64.0 51.7 77.5  
 61 39.4 31.7 47.5



#30  
 Cyclohexane  
 Concen: 5.135 ug/L  
 RT: 4.72 min Scan# 1129  
 Delta R.T. 0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

Tgt Ion: 56 Resp: 65634  
 Ion Ratio Lower Upper  
 56 100  
 69 33.8 25.3 37.9  
 84 102.9 79.9 119.9





#31

Carbon tetrachloride

Concen: 5.083 ug/L

RT: 4.87 min Scan# 1176

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

Instrument :

MSVOA\_V

ClientSampleId :

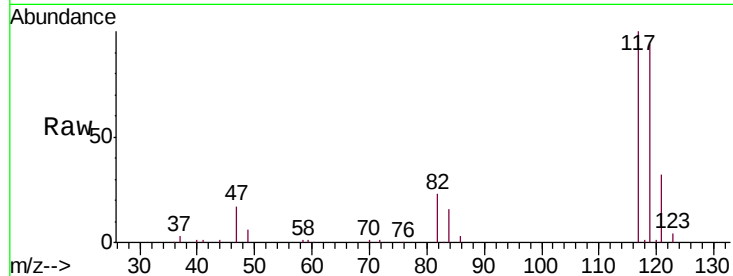
VSTD00546

Tgt Ion:117 Resp: 80996

Ion Ratio Lower Upper

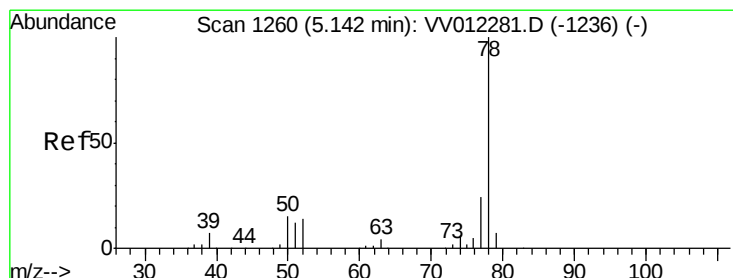
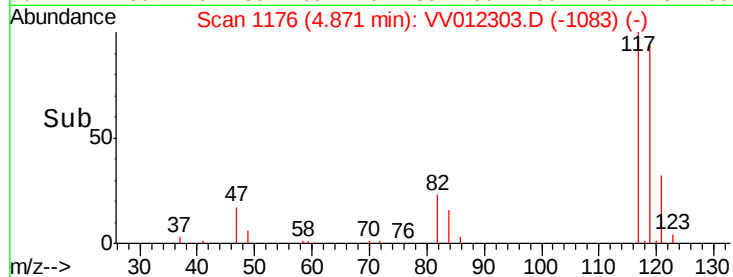
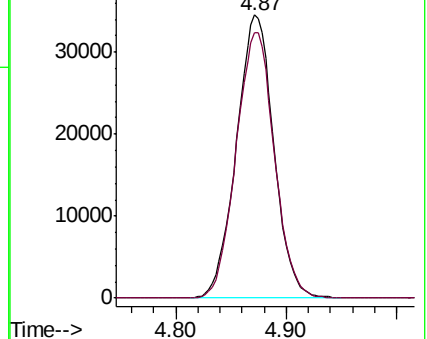
117 100

119 95.8 77.6 116.4



Abundance Ion 116.90 (116.60 to 117.60): V

Ion 118.90 (118.60 to 119.60): V



#33

Benzene

Concen: 5.092 ug/L

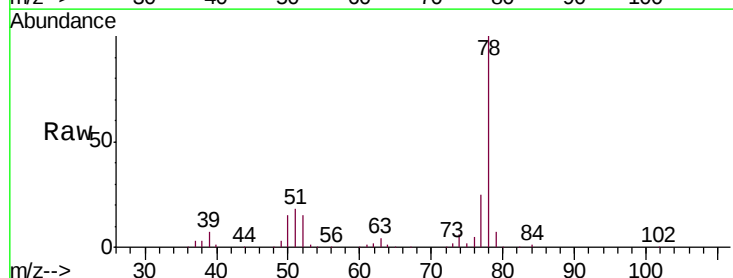
RT: 5.14 min Scan# 1261

Delta R.T. 0.00 min

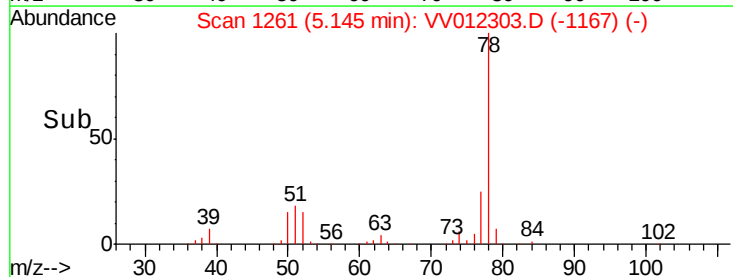
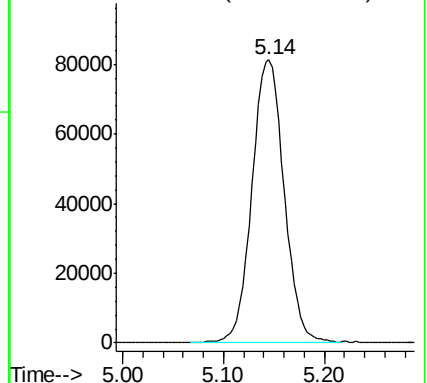
Lab File: VV012303.D

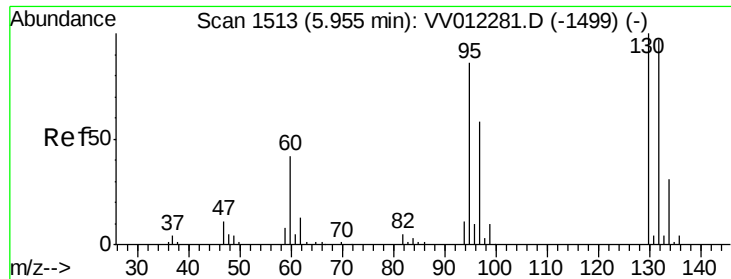
Acq: 20 Aug 2019 03:17

Tgt Ion: 78 Resp: 179766



Abundance Ion 78.10 (77.80 to 78.80): VV0

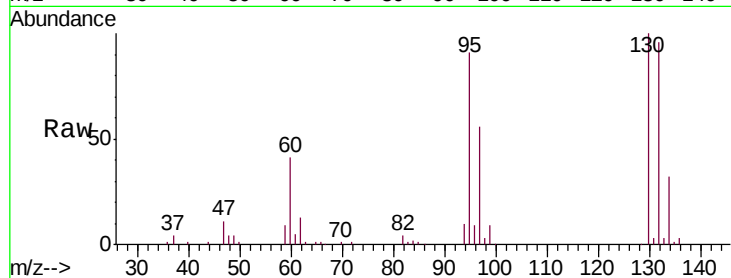




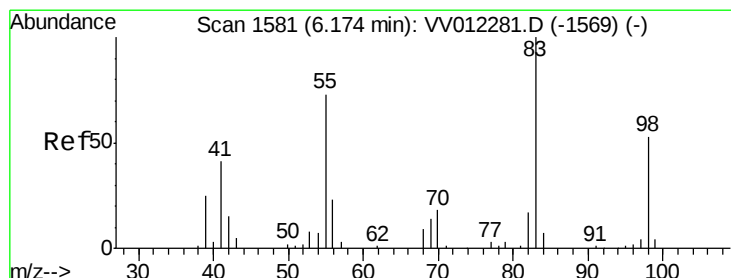
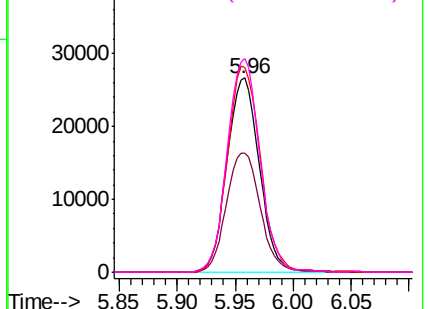
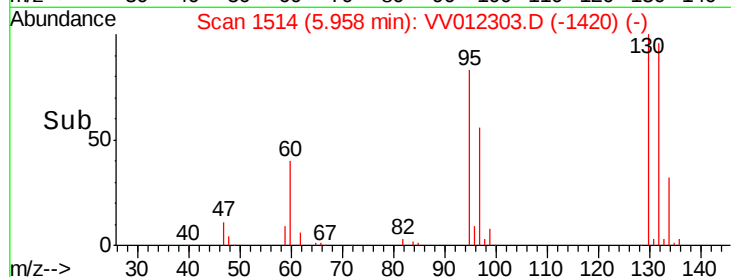
#34  
 Trichloroethene  
 Concen: 4.971 ug/L  
 RT: 5.96 min Scan# 1514  
 Delta R.T. 0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00546

Tgt Ion: 95 Resp: 51464  
 Ion Ratio Lower Upper  
 95 100  
 97 61.5 44.9 83.5  
 132 105.7 74.9 139.1  
 130 110.0 79.0 146.8

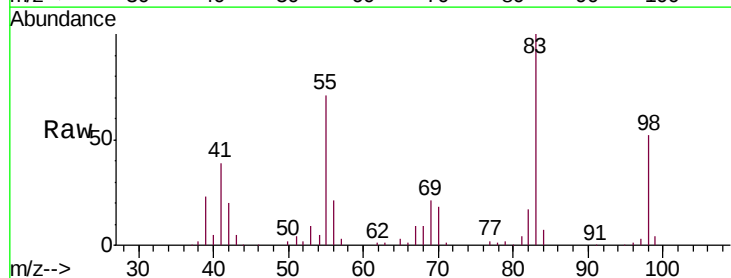


Abundance Ion 95.00 (94.70 to 95.70): VV0  
 Ion 96.95 (96.65 to 97.65): VV0  
 Ion 131.95 (131.65 to 132.65): VV0  
 Ion 129.95 (129.65 to 130.65): VV0

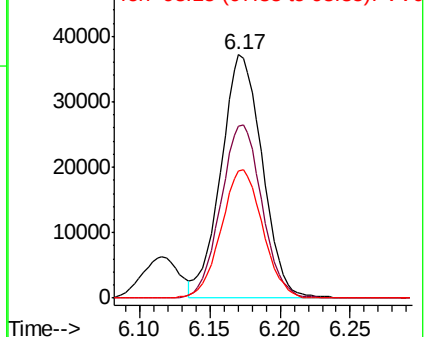
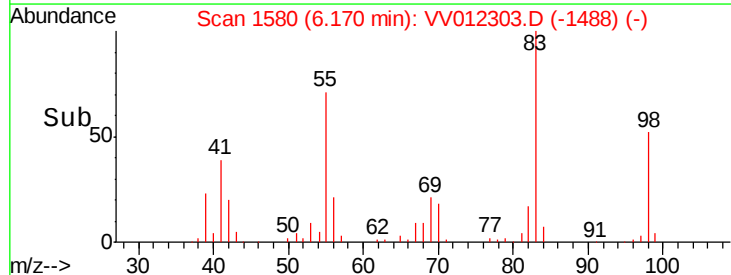


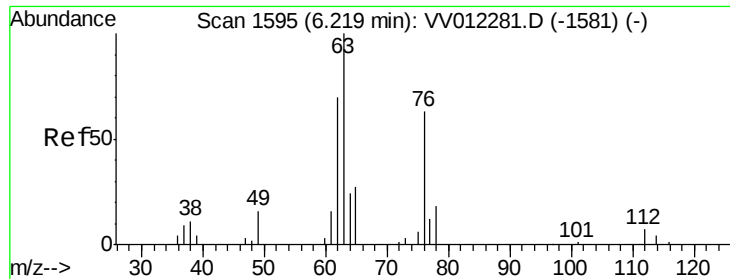
#35  
 Methylcyclohexane  
 Concen: 4.905 ug/L  
 RT: 6.17 min Scan# 1580  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

Tgt Ion: 83 Resp: 76021  
 Ion Ratio Lower Upper  
 83 100  
 55 70.8 57.3 85.9  
 98 52.7 40.3 60.5



Abundance Ion 83.15 (82.85 to 83.85): VV0  
 Ion 55.10 (54.80 to 55.80): VV0  
 Ion 98.15 (97.85 to 98.85): VV0

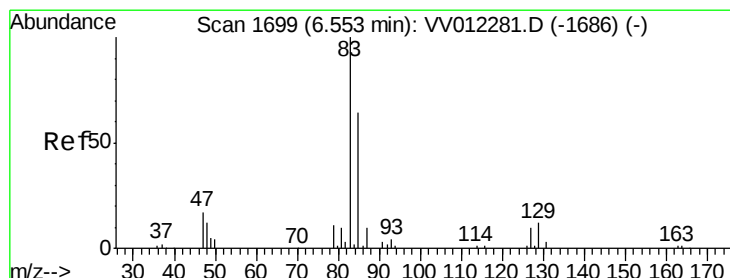
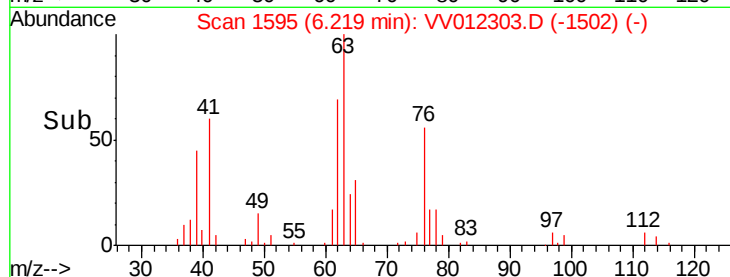
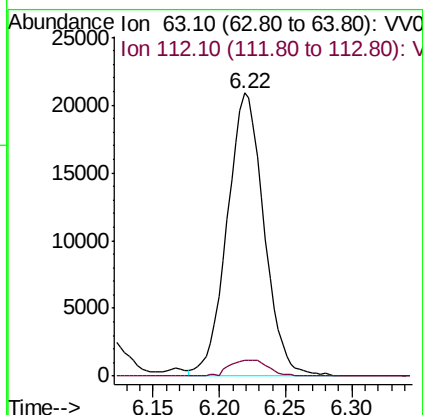
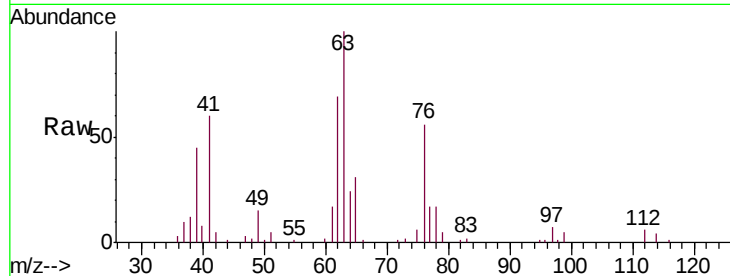




#37  
 1,2-Dichloropropane  
 Concen: 4.900 ug/L  
 RT: 6.22 min Scan# 1595  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

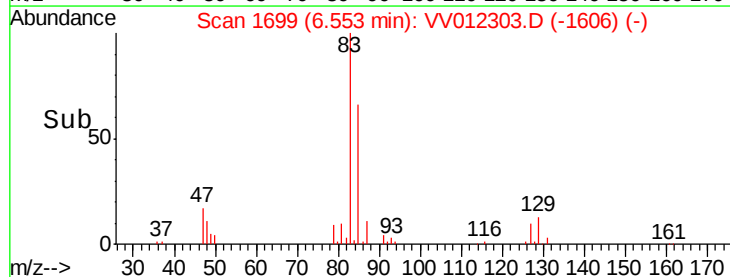
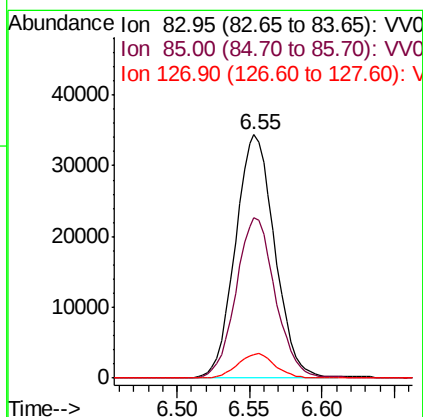
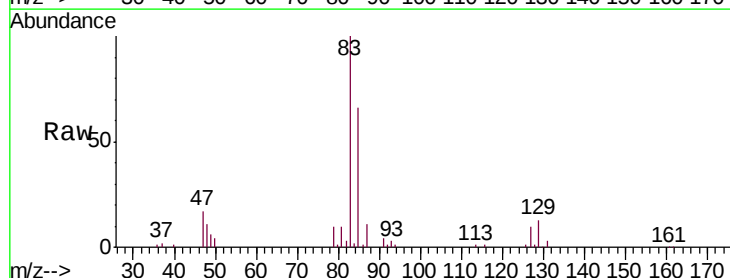
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00546

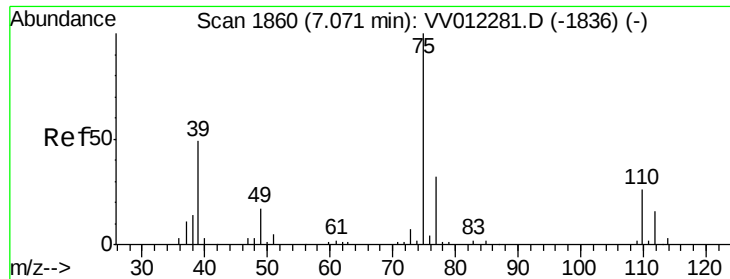
Tgt Ion: 63 Resp: 40475  
 Ion Ratio Lower Upper  
 63 100  
 112 6.0 5.1 7.7



#38  
 Bromodichloromethane  
 Concen: 5.194 ug/L  
 RT: 6.55 min Scan# 1699  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

Tgt Ion: 83 Resp: 64817  
 Ion Ratio Lower Upper  
 83 100  
 85 65.6 44.5 82.7  
 127 9.8 8.9 13.3

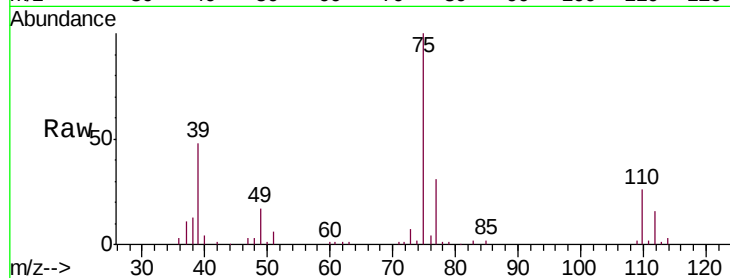




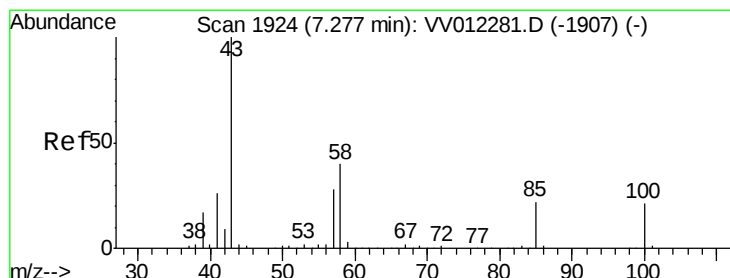
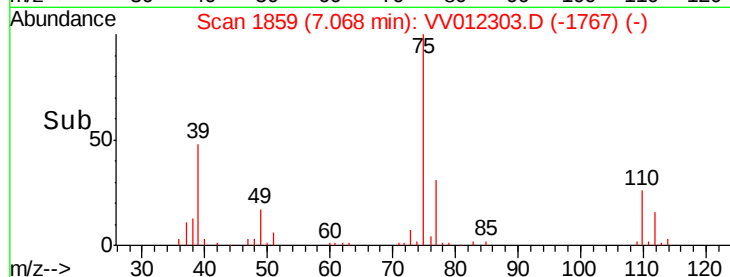
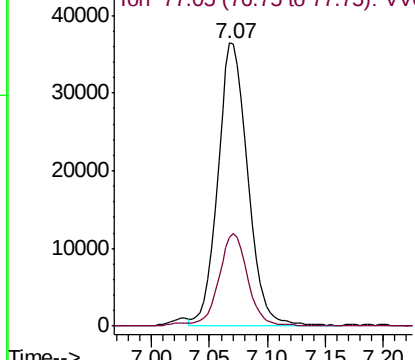
#39  
 cis-1,3-Dichloropropene  
 Concen: 5.015 ug/L  
 RT: 7.07 min Scan# 1859  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00546

Tgt Ion: 75 Resp: 65757  
 Ion Ratio Lower Upper  
 75 100  
 77 31.3 21.5 39.9

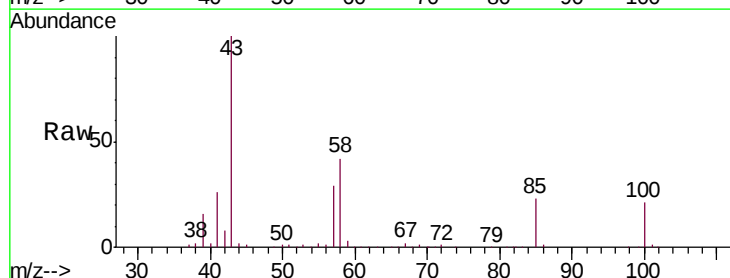


Abundance Ion 75.05 (74.75 to 75.75): VV0  
 Ion 77.05 (76.75 to 77.75): VV0

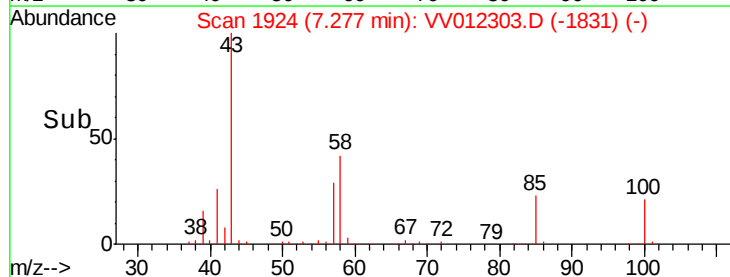
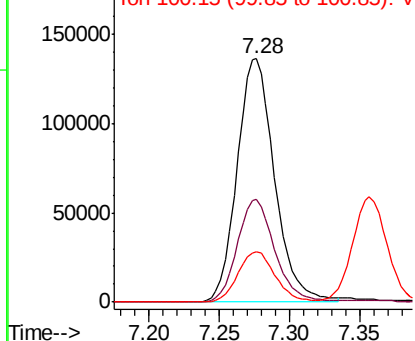


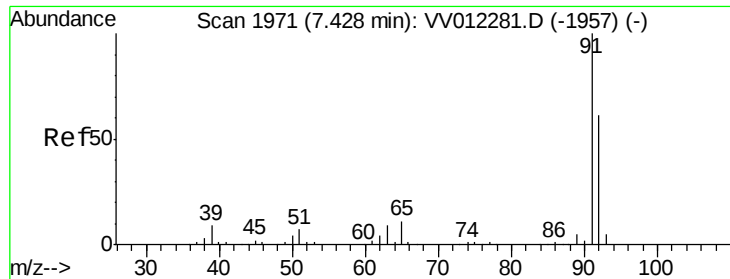
#40  
 4-Methyl-2-pentanone  
 Concen: 58.647 ug/L  
 RT: 7.28 min Scan# 1924  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

Tgt Ion: 43 Resp: 254362  
 Ion Ratio Lower Upper  
 43 100  
 58 42.2 32.1 48.1  
 100 20.5 15.2 22.8



Abundance Ion 43.05 (42.75 to 43.75): VV0  
 Ion 58.05 (57.75 to 58.75): VV0  
 Ion 100.15 (99.85 to 100.85): VV0





#42

Toluene

Concen: 5.211 ug/L

RT: 7.43 min Scan# 1971

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

Instrument :

MSVOA\_V

ClientSampleId :

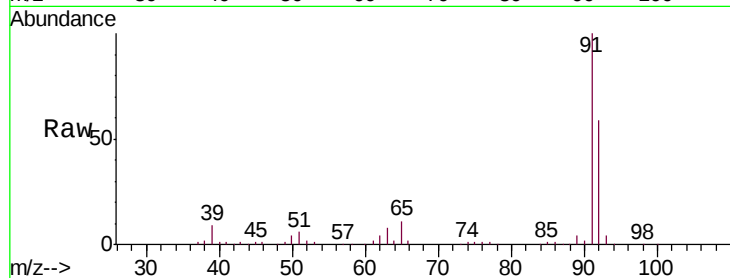
VSTD00546

Tgt Ion: 91 Resp: 203627

Ion Ratio Lower Upper

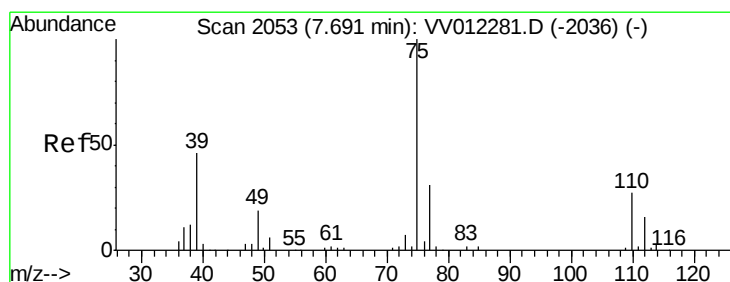
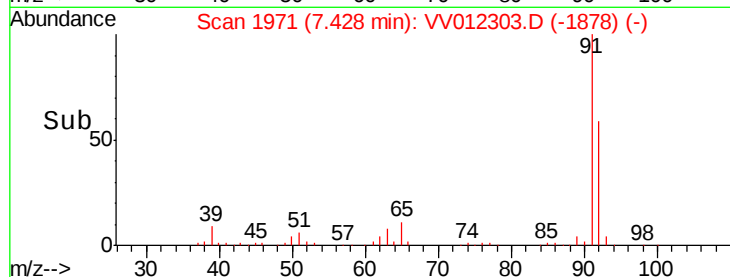
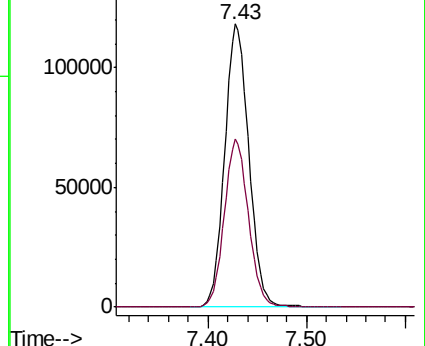
91 100

92 59.3 41.6 77.3



Abundance Ion 91.15 (90.85 to 91.85): VV0

Ion 92.15 (91.85 to 92.85): VV0



#44

trans-1,3-Dichloropropene

Concen: 5.110 ug/L

RT: 7.69 min Scan# 2053

Delta R.T. -0.00 min

Lab File: VV012303.D

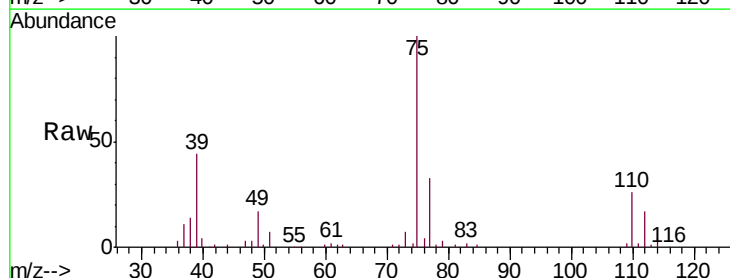
Acq: 20 Aug 2019 03:17

Tgt Ion: 75 Resp: 53511

Ion Ratio Lower Upper

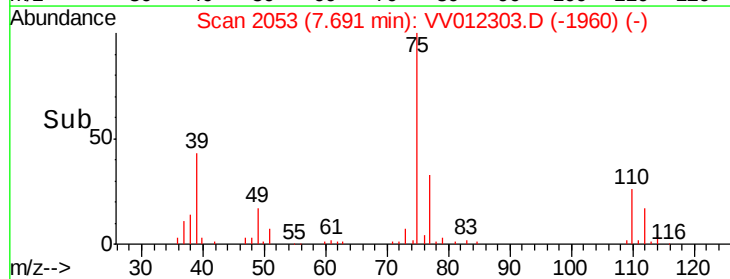
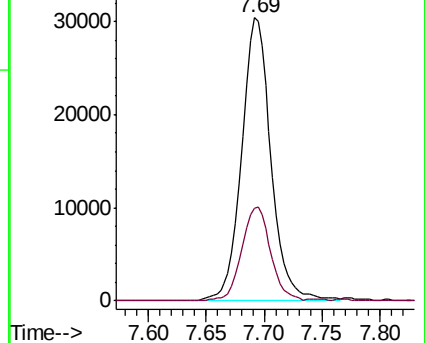
75 100

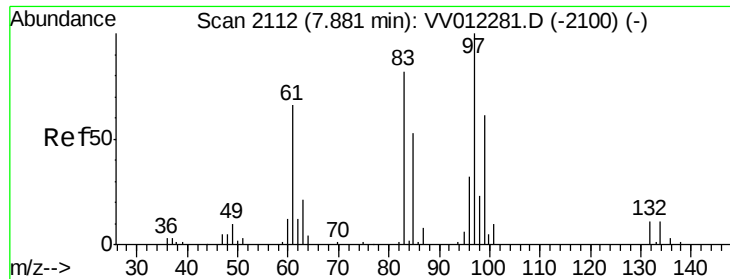
77 32.9 22.1 41.1



Abundance Ion 75.05 (74.75 to 75.75): VV0

Ion 77.05 (76.75 to 77.75): VV0

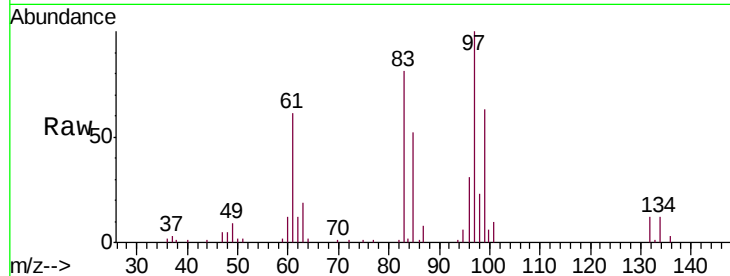




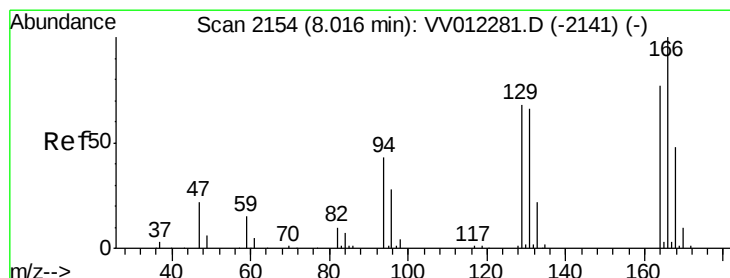
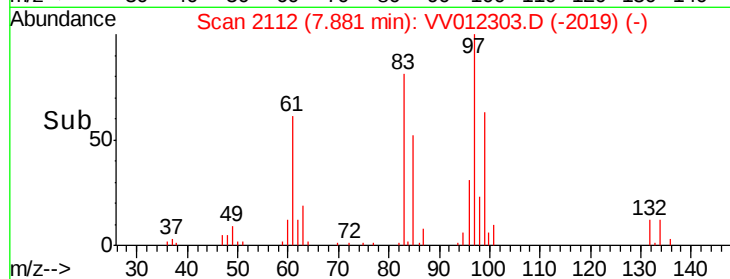
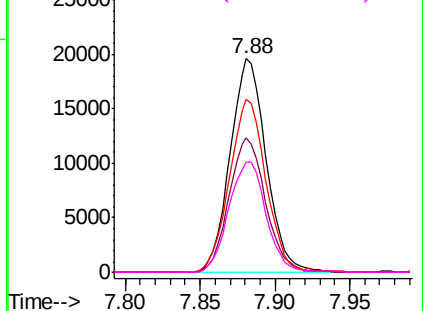
#45  
 1,1,2-Trichloroethane  
 Concen: 5.188 ug/L  
 RT: 7.88 min Scan# 2112  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00546

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 32879 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 99       | 63.0  | 44.7  | 83.1  |
| 83       | 81.0  | 56.8  | 105.6 |
| 85       | 51.5  | 34.5  | 64.1  |

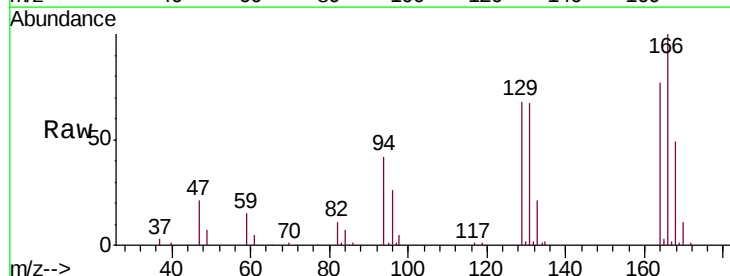


Abundance Ion 96.95 (96.65 to 97.65): VV0  
 Ion 99.05 (98.75 to 99.75): VV0  
 Ion 82.95 (82.65 to 83.65): VV0  
 Ion 85.00 (84.70 to 85.70): VV0

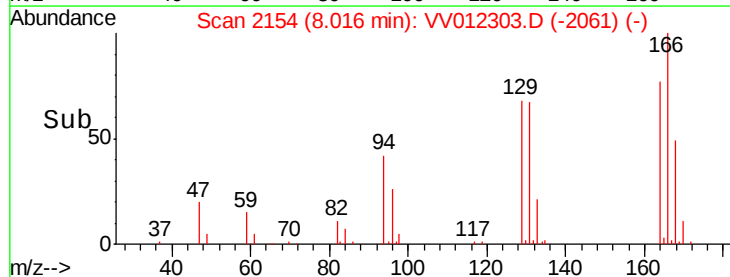
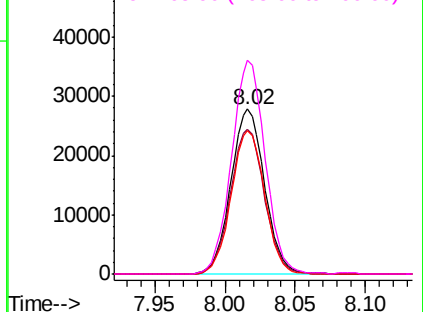


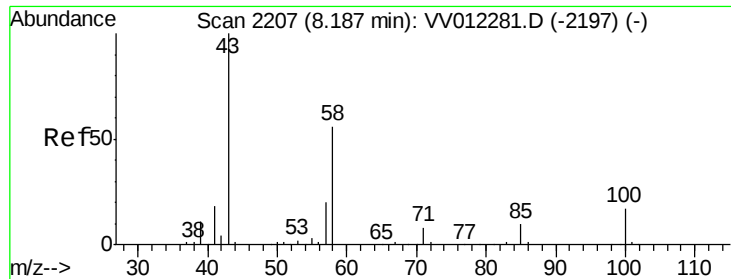
#47  
 Tetrachloroethene  
 Concen: 4.887 ug/L  
 RT: 8.02 min Scan# 2154  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 46691 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 88.0  | 60.8  | 112.8 |
| 131      | 87.3  | 59.4  | 110.2 |
| 166      | 129.6 | 90.4  | 167.8 |



Abundance Ion 163.90 (163.60 to 164.60): V  
 Ion 128.95 (128.65 to 129.65): V  
 Ion 130.95 (130.65 to 131.65): V  
 Ion 165.90 (165.60 to 166.60): V

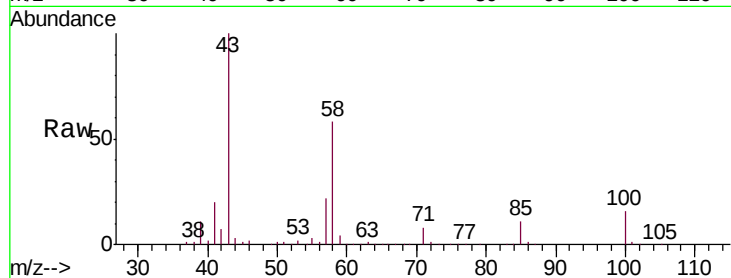




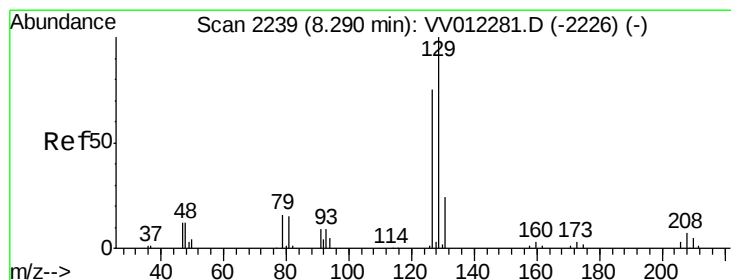
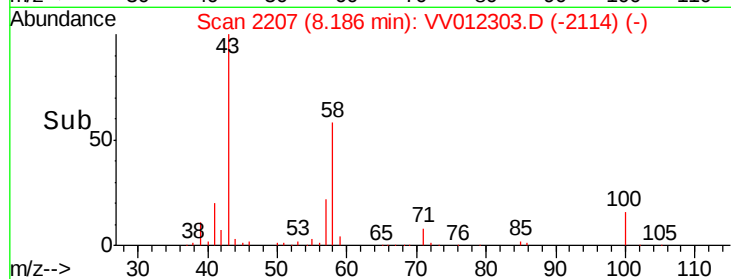
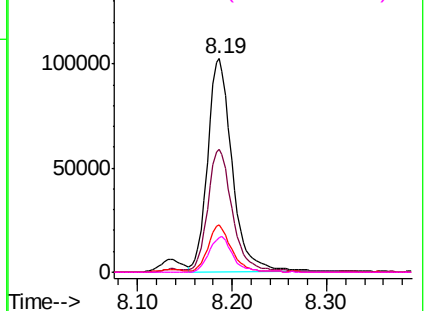
#48  
2-Hexanone  
Concen: 59.098 ug/L  
RT: 8.19 min Scan# 2207  
Delta R.T. -0.00 min  
Lab File: VV012303.D  
Acq: 20 Aug 2019 03:17

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00546

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 184494 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 57.6  | 45.4  | 68.2   |
| 57       | 21.1  | 16.8  | 25.2   |
| 100      | 16.3  | 12.2  | 18.2   |

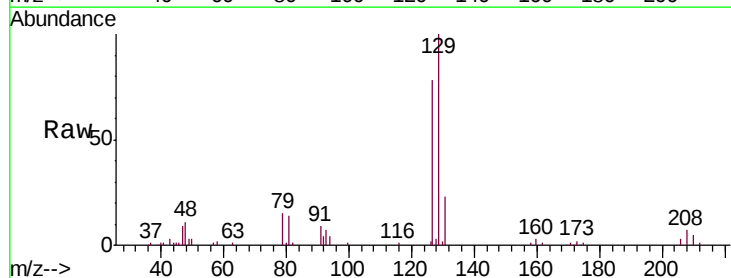


Abundance Ion 43.05 (42.75 to 43.75): VV012303.D (-2114) (-)  
Ion 58.05 (57.75 to 58.75): VV012303.D (-2114) (-)  
Ion 57.20 (56.90 to 57.90): VV012303.D (-2114) (-)  
Ion 100.15 (99.85 to 100.85): VV012303.D (-2114) (-)

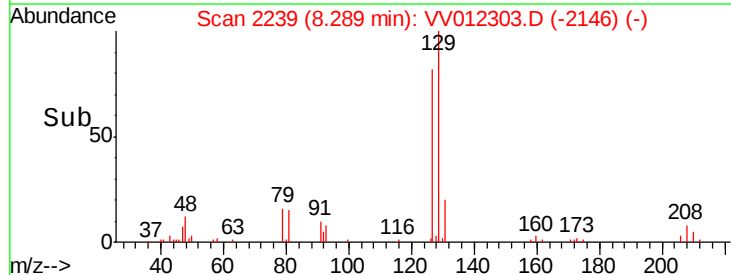
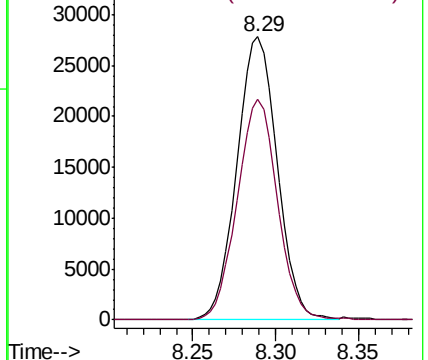


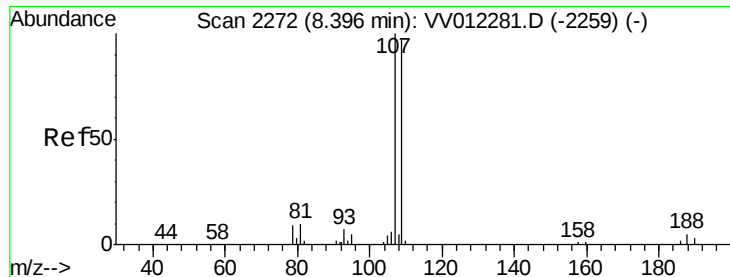
#49  
Dibromochloromethane  
Concen: 5.486 ug/L  
RT: 8.29 min Scan# 2239  
Delta R.T. -0.00 min  
Lab File: VV012303.D  
Acq: 20 Aug 2019 03:17

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 129   | Resp: | 47230 |
| Ion      | Ratio | Lower | Upper |
| 129      | 100   |       |       |
| 127      | 77.8  | 53.9  | 100.1 |



Abundance Ion 128.95 (128.65 to 129.65): VV012303.D (-2146) (-)  
Ion 126.90 (126.60 to 127.60): VV012303.D (-2146) (-)

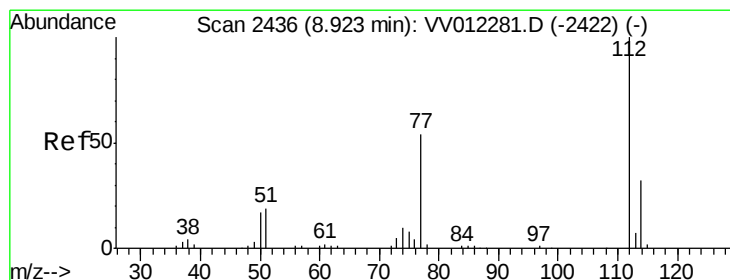
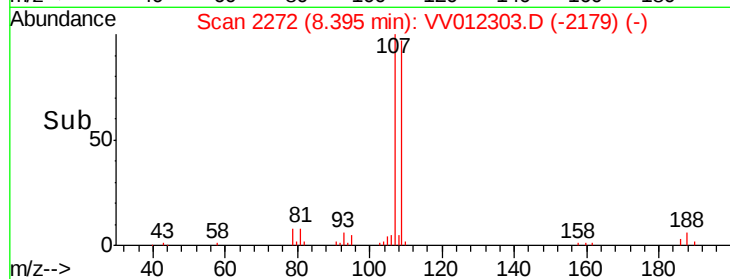
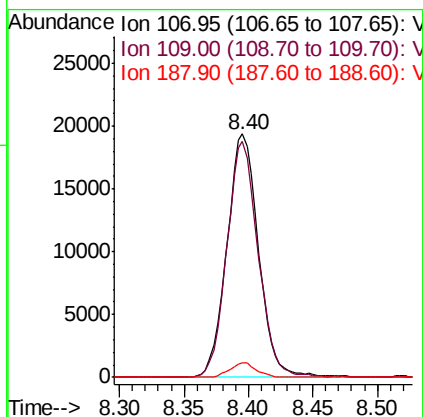
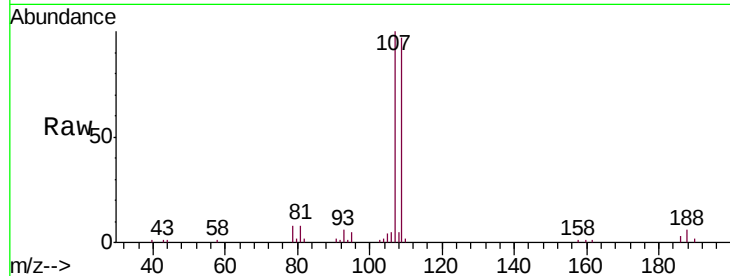




#50  
 1,2-Dibromoethane  
 Concen: 5.509 ug/L  
 RT: 8.40 min Scan# 2272  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

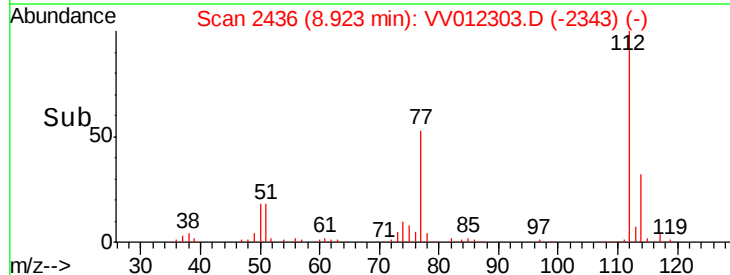
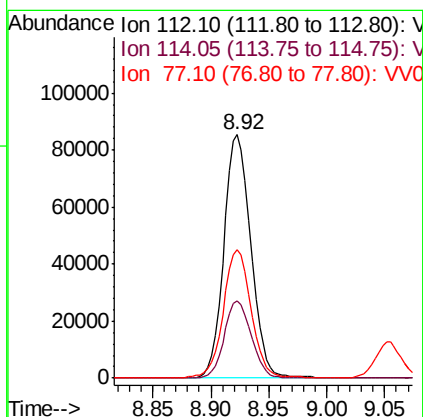
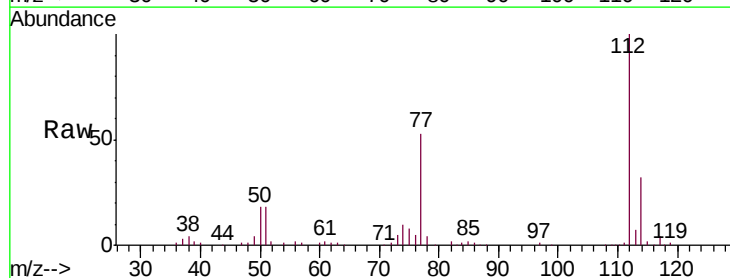
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00546

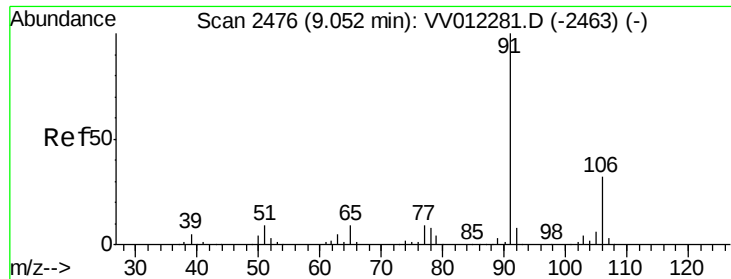
Tgt Ion:107 Resp: 32977  
 Ion Ratio Lower Upper  
 107 100  
 109 96.8 70.0 130.0  
 188 5.8 3.7 5.5#



#51  
 Chlorobenzene  
 Concen: 5.188 ug/L  
 RT: 8.92 min Scan# 2436  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

Tgt Ion:112 Resp: 138325  
 Ion Ratio Lower Upper  
 112 100  
 114 31.7 22.3 41.5  
 77 53.0 43.9 65.9





#52

Ethylbenzene

Concen: 5.320 ug/L

RT: 9.05 min Scan# 2476

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

Instrument :

MSVOA\_V

ClientSampleId :

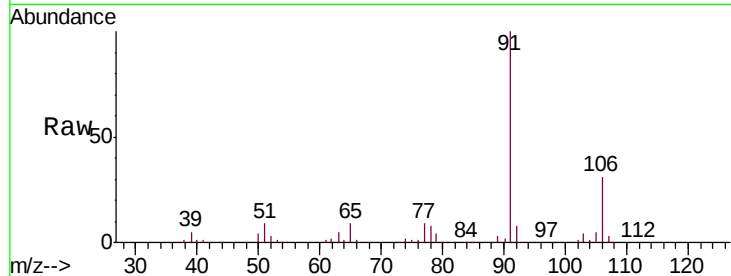
VSTD00546

Tgt Ion: 91 Resp: 232567

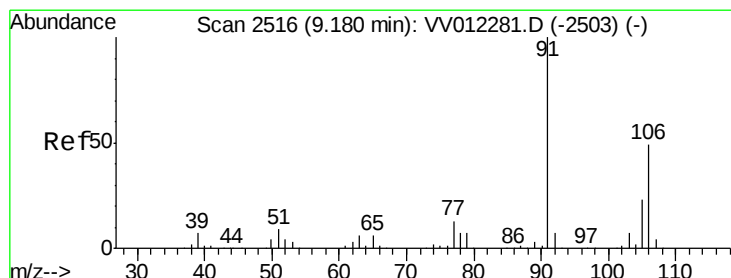
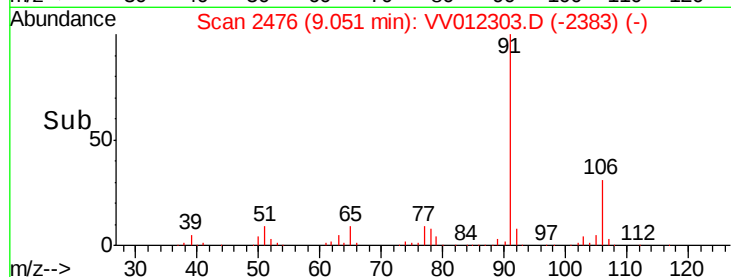
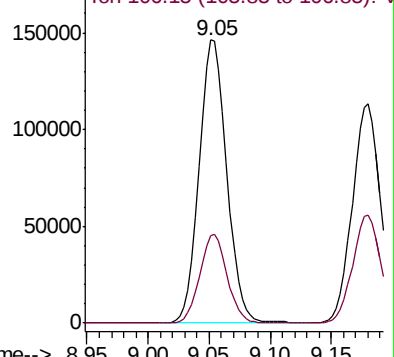
Ion Ratio Lower Upper

91 100

106 30.8 21.6 40.0



Abundance Ion 91.15 (90.85 to 91.85): VV012281.D (-2463) (-)



#53

m,p-xylene

Concen: 5.283 ug/L

RT: 9.18 min Scan# 2516

Delta R.T. -0.00 min

Lab File: VV012303.D

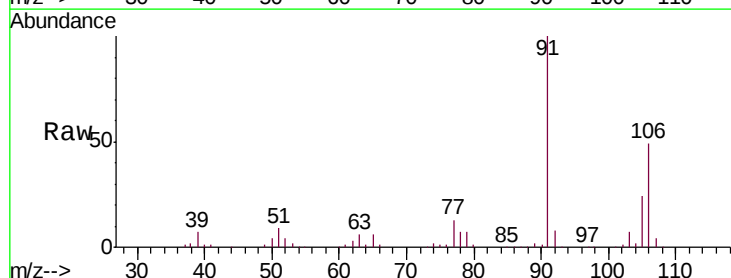
Acq: 20 Aug 2019 03:17

Tgt Ion: 106 Resp: 90159

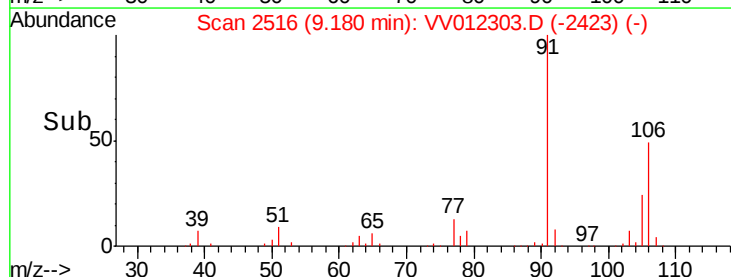
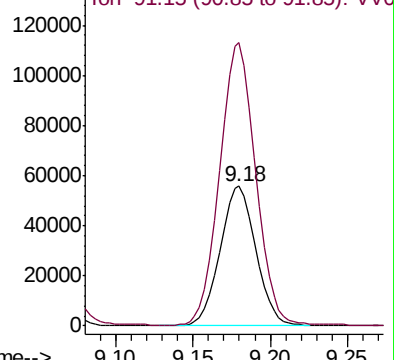
Ion Ratio Lower Upper

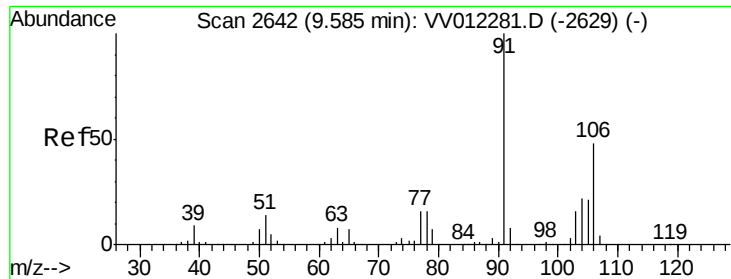
106 100

91 202.3 136.0 252.6



Abundance Ion 106.15 (105.85 to 106.85): VV012281.D (-2503) (-)





#54

o-xylene

Concen: 5.397 ug/L

RT: 9.59 min Scan# 2642

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

Instrument :

MSVOA\_V

ClientSampleId :

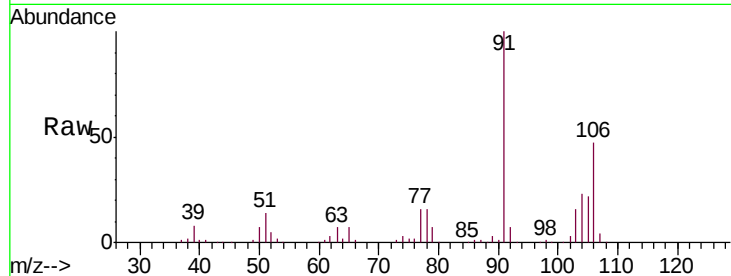
VSTD00546

Tgt Ion:106 Resp: 88589

Ion Ratio Lower Upper

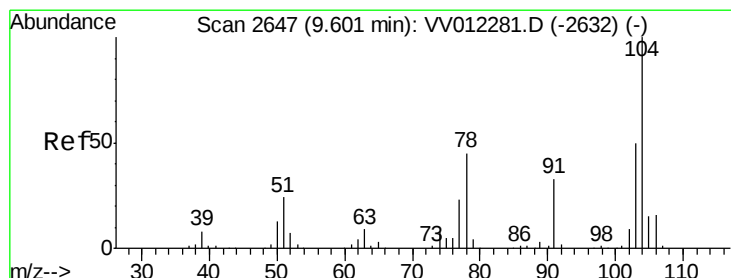
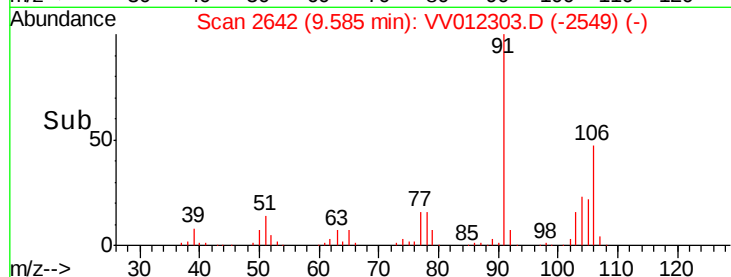
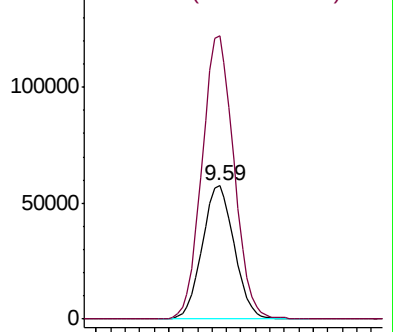
106 100

91 212.3 148.7 276.1



Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VV0



#55

Styrene

Concen: 5.291 ug/L

RT: 9.60 min Scan# 2647

Delta R.T. -0.00 min

Lab File: VV012303.D

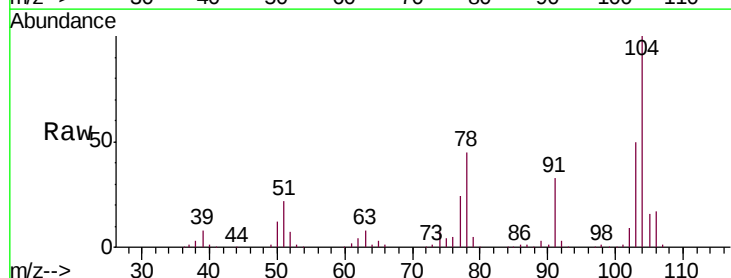
Acq: 20 Aug 2019 03:17

Tgt Ion:104 Resp: 146690

Ion Ratio Lower Upper

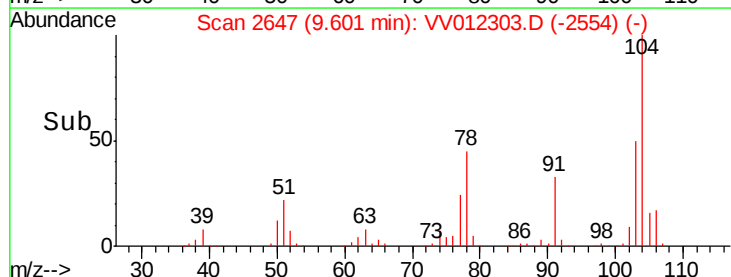
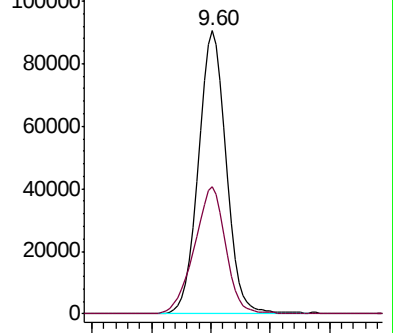
104 100

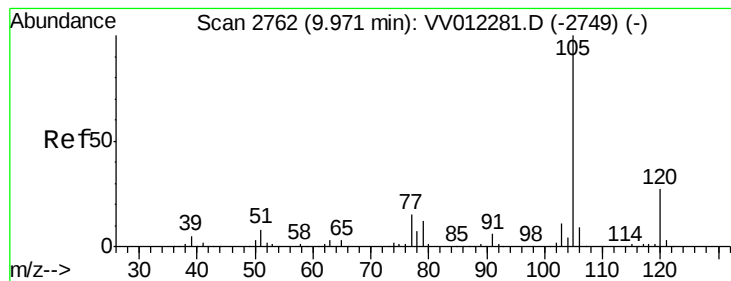
78 44.9 30.8 57.2



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VV0





#56

Isopropylbenzene

Concen: 5.339 ug/L

RT: 9.97 min Scan# 2762

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00546

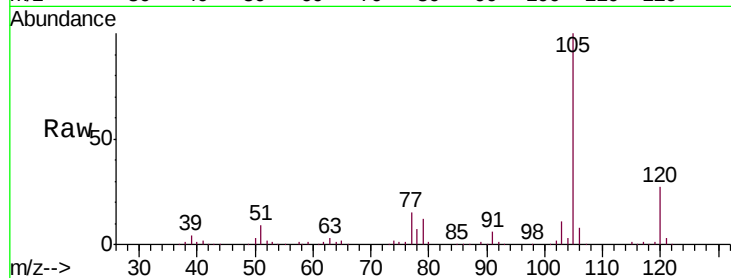
Tgt Ion: 105 Resp: 241911

Ion Ratio Lower Upper

105 100

120 26.9 21.4 32.0

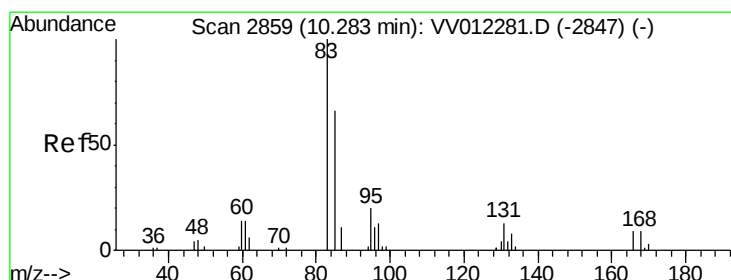
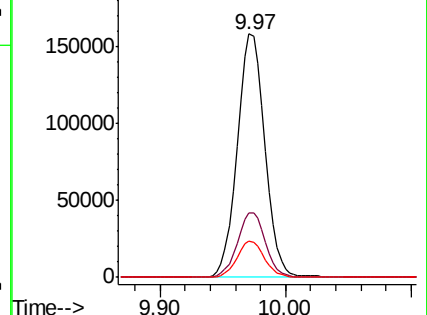
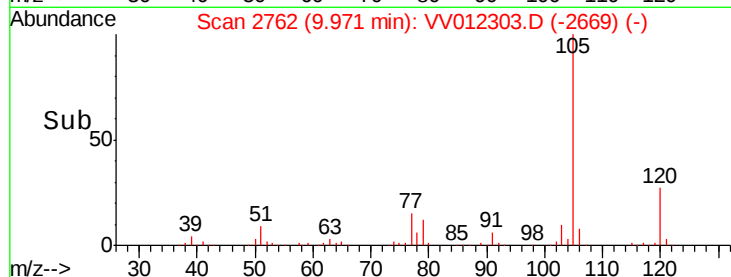
77 14.7 12.2 18.2



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): V



#58

1,1,2,2-Tetrachloroethane

Concen: 5.823 ug/L

RT: 10.28 min Scan# 2859

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

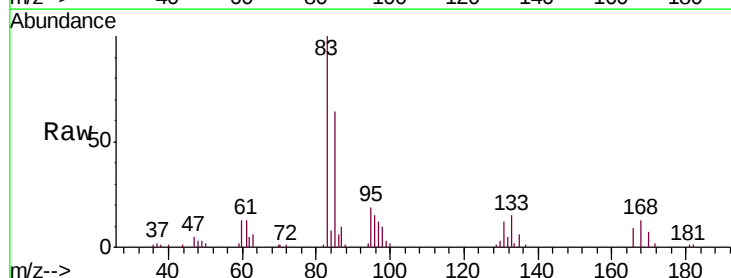
Tgt Ion: 83 Resp: 37698

Ion Ratio Lower Upper

83 100

85 63.9 47.0 87.2

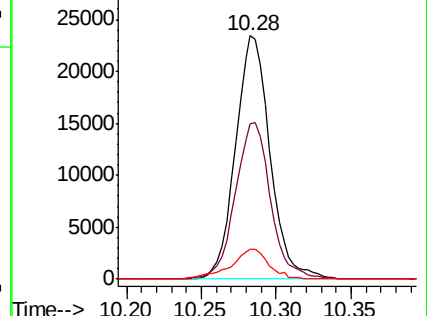
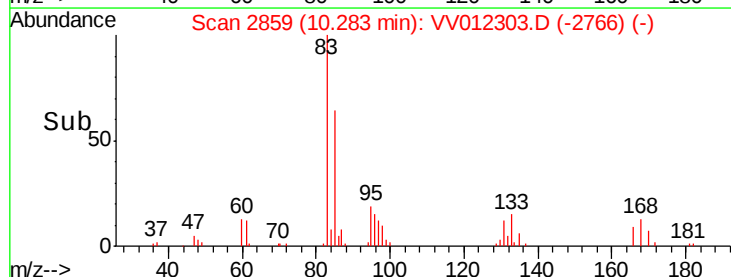
131 12.2 9.0 13.4

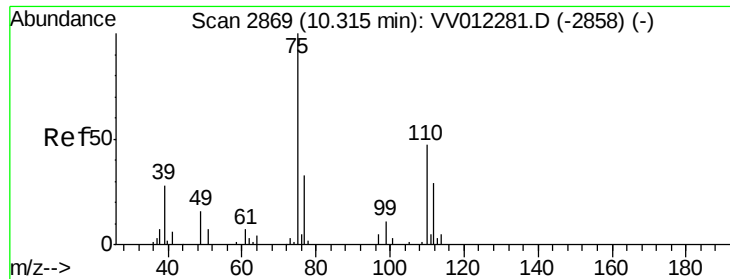


Abundance Ion 82.95 (82.65 to 83.65): VV0

Ion 85.00 (84.70 to 85.70): VV0

Ion 130.95 (130.65 to 131.65): V

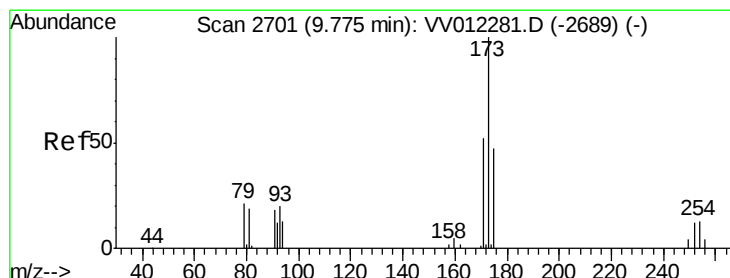
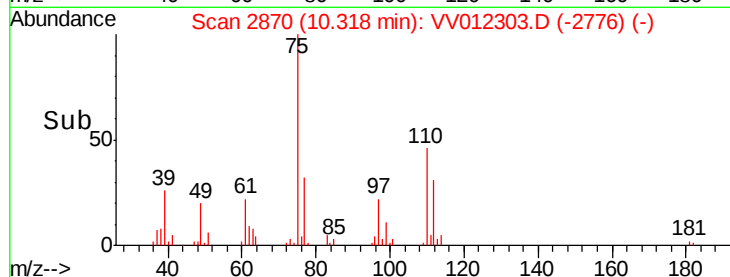
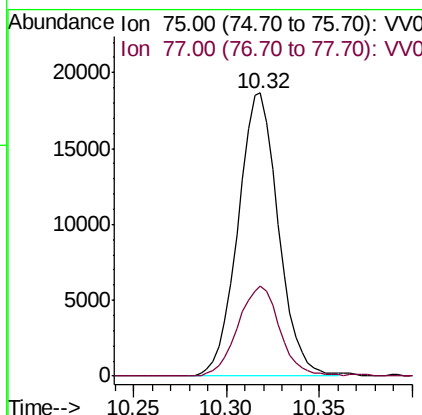
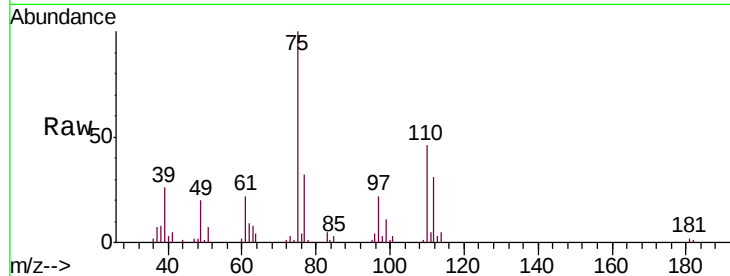




#59  
 1,2,3-Trichloropropane  
 Concen: 5.516 ug/L  
 RT: 10.32 min Scan# 2870  
 Delta R.T. 0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

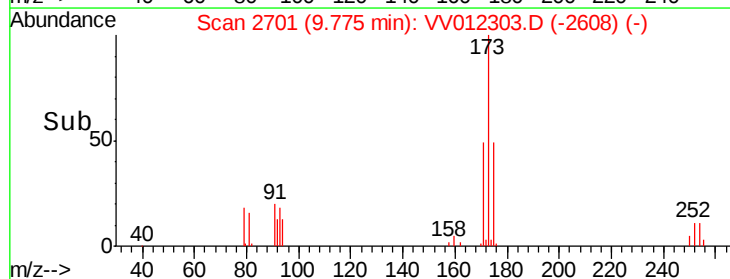
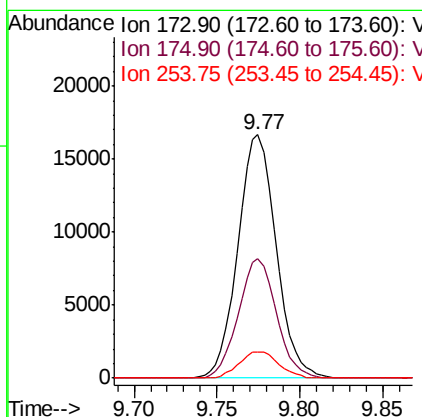
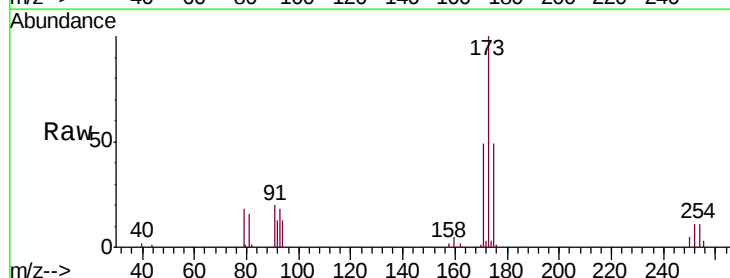
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00546

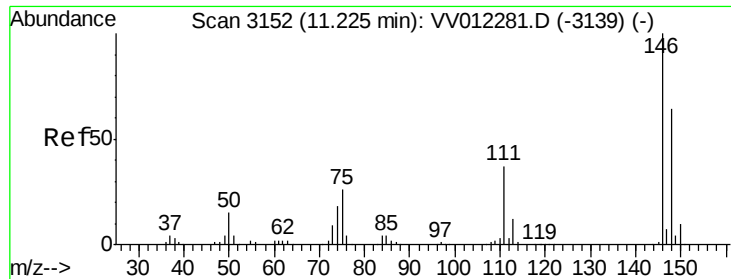
Tgt Ion: 75 Resp: 28245  
 Ion Ratio Lower Upper  
 75 100  
 77 32.9 25.8 38.8



#61  
 Bromoform  
 Concen: 5.563 ug/L  
 RT: 9.77 min Scan# 2701  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

Tgt Ion: 173 Resp: 26742  
 Ion Ratio Lower Upper  
 173 100  
 175 48.8 38.9 58.3  
 254 11.0 9.0 13.6

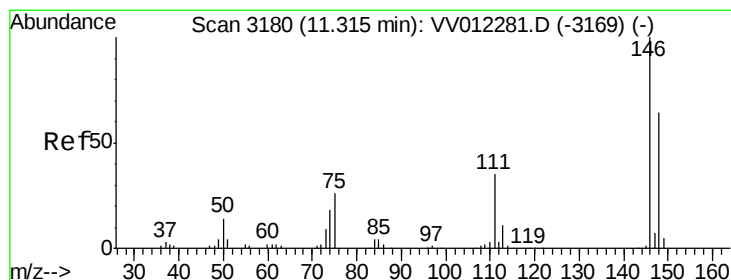
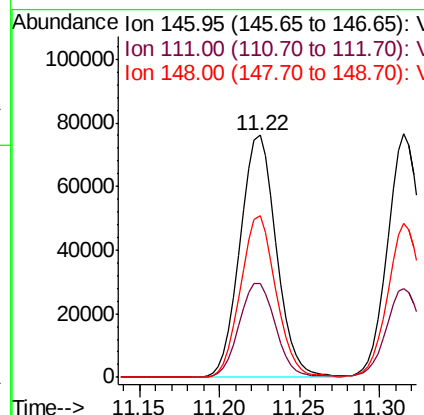
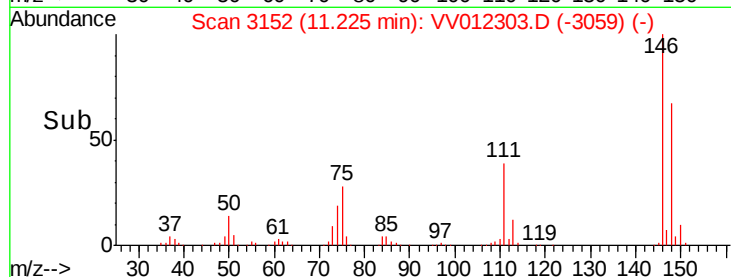
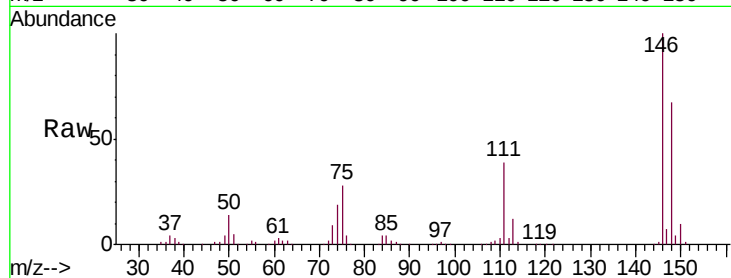




#62  
 1,3-Dichlorobenzene  
 Concen: 4.983 ug/L  
 RT: 11.22 min Scan# 3152  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

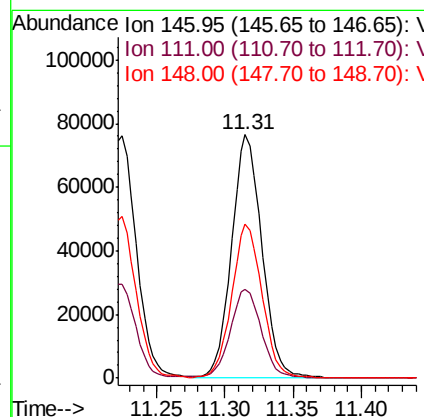
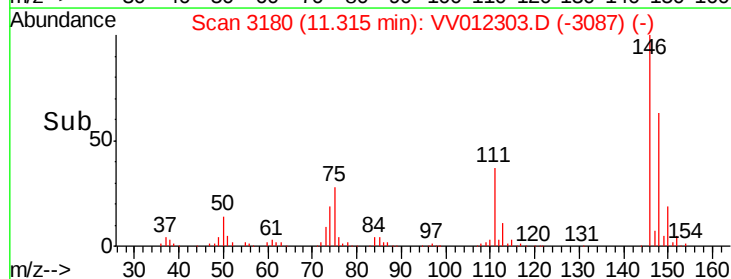
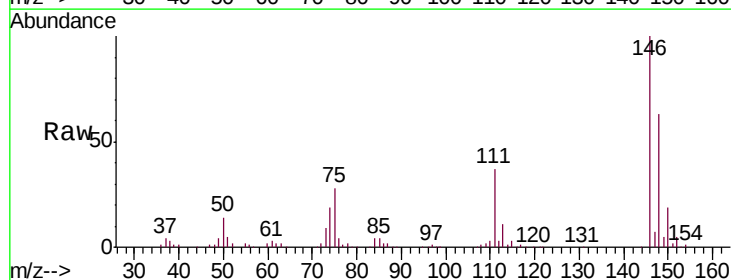
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00546

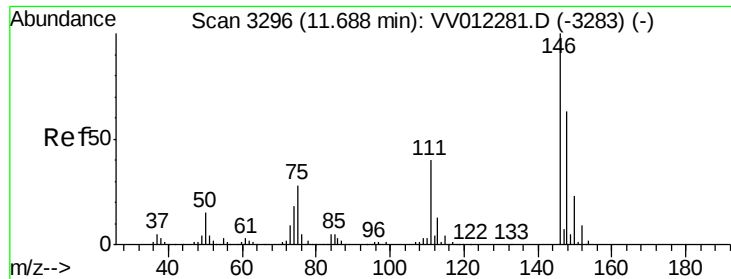
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 38.8  | 26.8  | 49.8  |
| 148     | 66.8  | 44.0  | 81.8  |



#63  
 1,4-Dichlorobenzene  
 Concen: 5.060 ug/L  
 RT: 11.31 min Scan# 3180  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 36.7  | 26.2  | 48.6  |
| 148     | 63.1  | 45.3  | 84.1  |

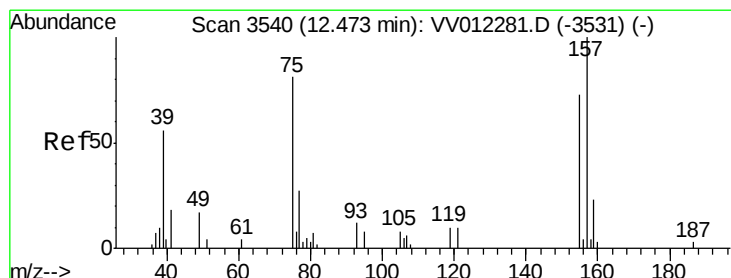
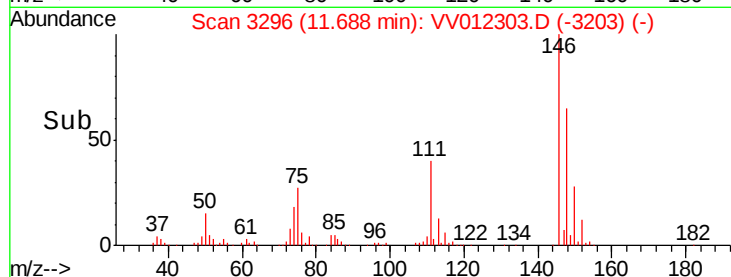
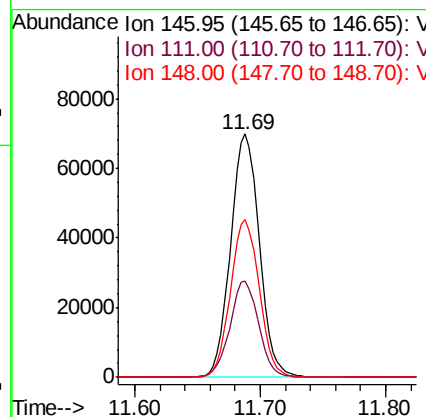
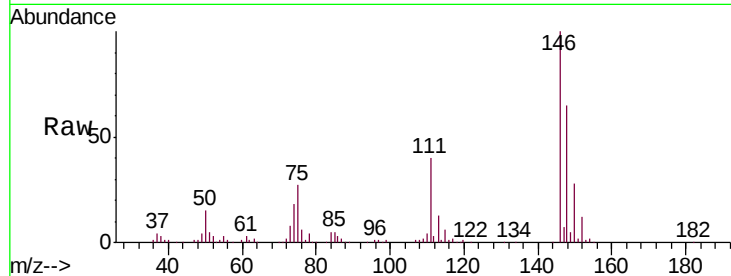




#65  
 1,2-Dichlorobenzene  
 Concen: 5.139 ug/L  
 RT: 11.69 min Scan# 3296  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

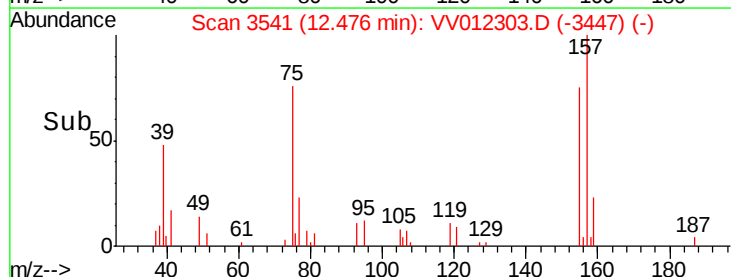
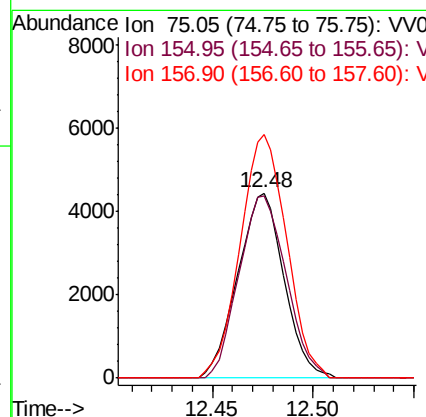
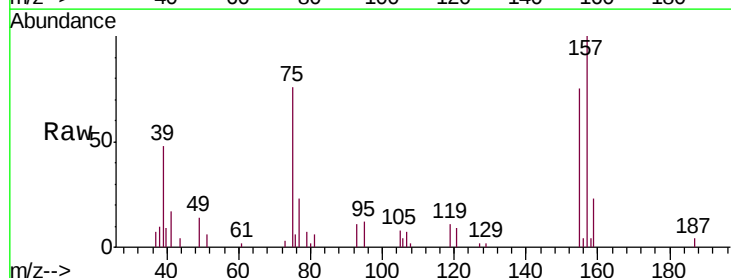
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00546

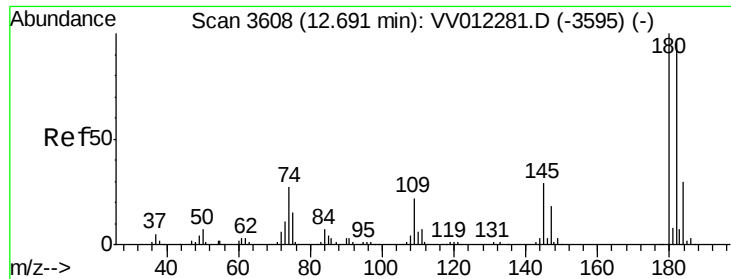
Tgt Ion:146 Resp: 111060  
 Ion Ratio Lower Upper  
 146 100  
 111 39.5 31.4 47.0  
 148 64.6 50.8 76.2



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 6.303 ug/L  
 RT: 12.48 min Scan# 3541  
 Delta R.T. 0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

Tgt Ion: 75 Resp: 7117  
 Ion Ratio Lower Upper  
 75 100  
 155 98.4 68.4 102.6  
 157 131.4 92.6 139.0

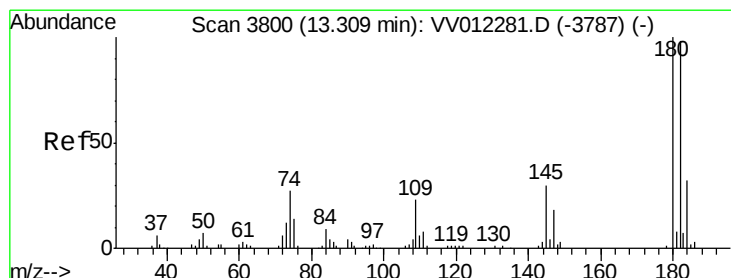
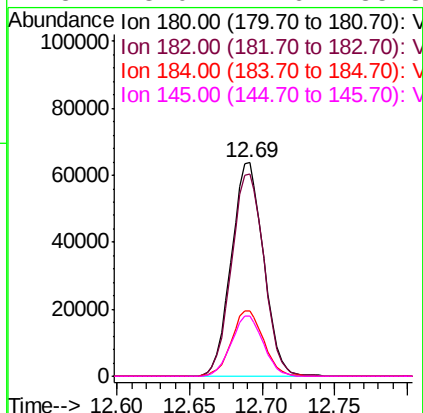
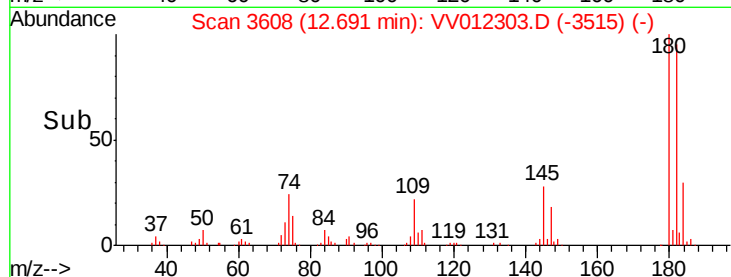
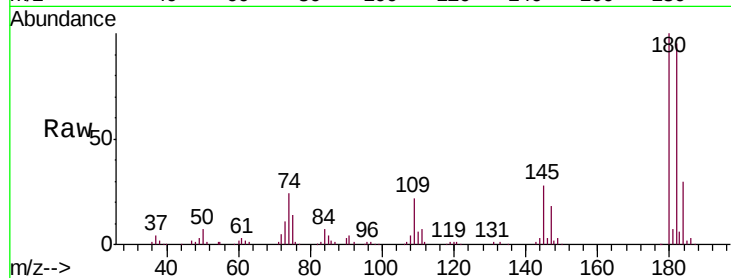




#67  
 1,3,5-Trichlorobenzene  
 Concen: 5.071 ug/L  
 RT: 12.69 min Scan# 3608  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

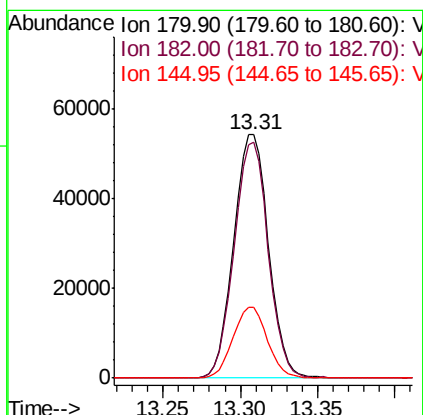
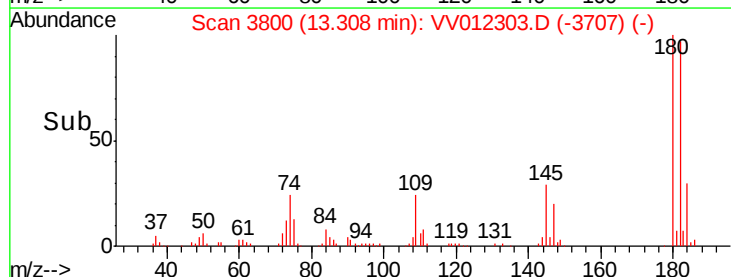
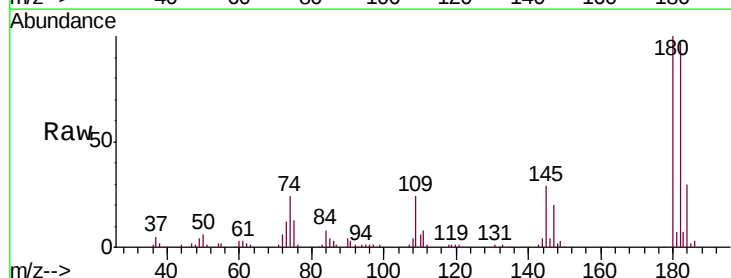
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00546

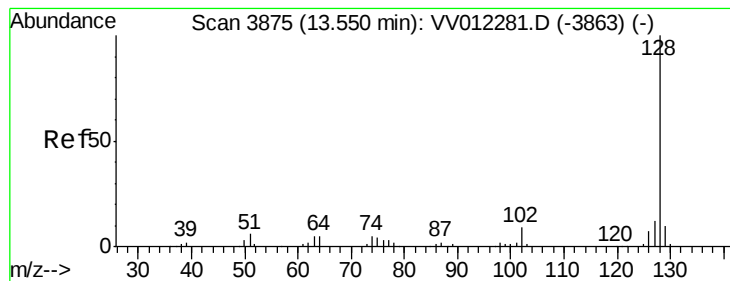
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.0  | 75.9  | 113.9 |
| 184     | 30.5  | 24.6  | 36.8  |
| 145     | 28.0  | 22.6  | 33.8  |



#68  
 1,2,4-trichlorobenzene  
 Concen: 5.942 ug/L  
 RT: 13.31 min Scan# 3800  
 Delta R.T. -0.00 min  
 Lab File: VV012303.D  
 Acq: 20 Aug 2019 03:17

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 94.7  | 77.2  | 115.8 |
| 145     | 28.6  | 22.6  | 33.8  |





#69

Naphthalene

Concen: 13.732 ug/L

RT: 13.55 min Scan# 3874

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00546

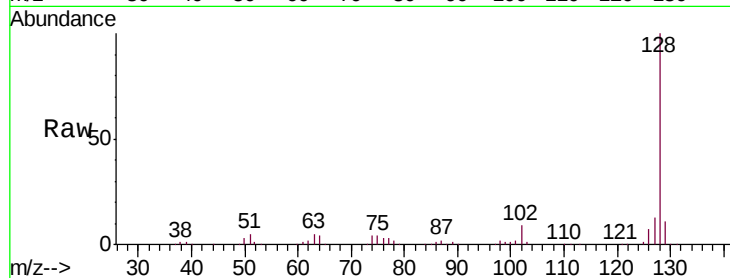
Tgt Ion:128 Resp: 266829

Ion Ratio Lower Upper

128 100

129 10.6 8.7 13.1

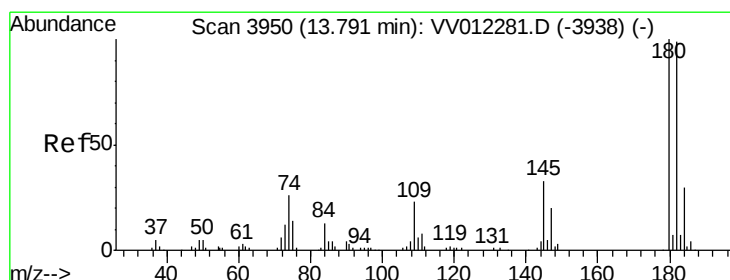
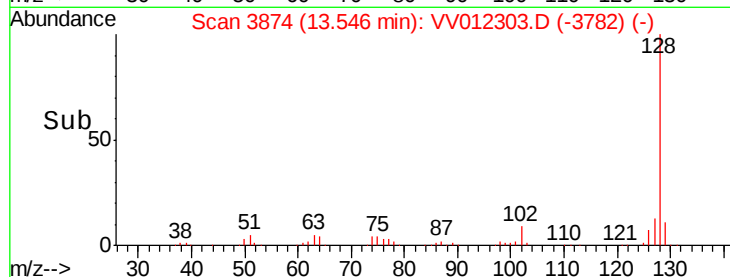
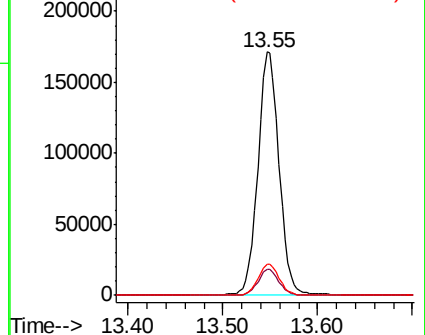
127 12.9 10.5 15.7



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: 6.040 ug/L

RT: 13.79 min Scan# 3950

Delta R.T. -0.00 min

Lab File: VV012303.D

Acq: 20 Aug 2019 03:17

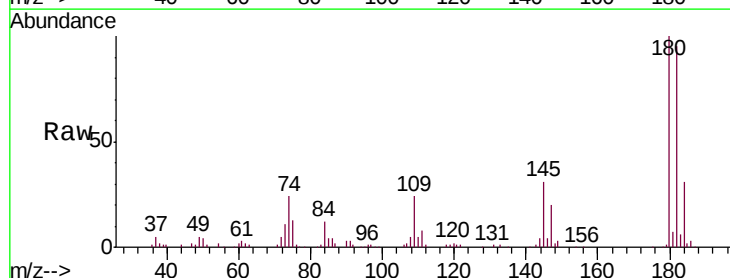
Tgt Ion:180 Resp: 79835

Ion Ratio Lower Upper

180 100

182 96.7 75.9 113.9

145 30.7 24.1 36.1



Abundance Ion 179.90 (179.60 to 180.60): V

Ion 181.90 (181.60 to 182.60): V

Ion 144.95 (144.65 to 145.65): V

