

Data Path : Z:\VOASRV\HPCHEM1\MSVOA V\DATA\VV091719\  
 Data File : VV012870.D  
 Acq On : 17 Sep 2019 18:01  
 Operator : SY/MD  
 Sample : VSTDCCC005  
 Misc : 25.0mL/MSVOA V/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00560

Quant Time: Sep 17 18:32:30 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR091719WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Tue Sep 17 17:41:31 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.66  | 114  | 416107   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.89  | 117  | 402664   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.29 | 152  | 201524   | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 183525   | 4.46     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 89.20%  |
| 7) Chloroethane-d5             | 1.58   | 69    | 147866   | 4.55     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 91.00%  |
| 11) 1,1-Dichloroethene-d2      | 2.13   | 63    | 270240   | 4.45     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 89.00%  |
| 20) 2-Butanone-d5              | 3.98   | 46    | 431092   | 49.99    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 99.98%  |
| 24) Chloroform-d               | 4.40   | 84    | 311283   | 4.63     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 92.60%  |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 155922   | 4.75     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 95.00%  |
| 32) Benzene-d6                 | 5.09   | 84    | 646355   | 4.84     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 96.80%  |
| 36) 1,2-Dichloropropane-d6     | 6.12   | 67    | 190679   | 4.69     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 93.80%  |
| 41) Toluene-d8                 | 7.36   | 98    | 589902   | 4.98     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 99.60%  |
| 43) trans-1,3-Dichloropropene- | 7.66   | 79    | 72694    | 4.98     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 99.60%  |
| 46) 2-Hexanone-d5              | 8.14   | 63    | 327616   | 53.36    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 106.72% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 150880   | 4.80     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 96.00%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 205334   | 4.72     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 94.40%  |

## Target Compounds

| Target Compounds               | R.T. | QIon | Response | Conc   | Units | Ovalue |
|--------------------------------|------|------|----------|--------|-------|--------|
| 2) Dichlorodifluoromethane     | 1.14 | 85   | 115223   | 4.392  | ug/L  | 97     |
| 3) Chloromethane               | 1.25 | 50   | 138090   | 4.772  | ug/L  | 97     |
| 5) Vinyl chloride              | 1.32 | 62   | 155557   | 4.632  | ug/L  | 97     |
| 6) Bromomethane                | 1.53 | 94   | 78300    | 4.851  | ug/L  | 100    |
| 8) Chloroethane                | 1.60 | 64   | 81410    | 4.615  | ug/L  | 98     |
| 9) Trichlorofluoromethane      | 1.77 | 101  | 192484   | 4.711  | ug/L  | 100    |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.14 | 101  | 114003   | 4.650  | ug/L  | 100    |
| 12) 1,1-Dichloroethene         | 2.14 | 96   | 102436   | 4.595  | ug/L  | 94     |
| 13) Acetone                    | 2.24 | 43   | 216048   | 47.374 | ug/L  | 96     |
| 14) Carbon disulfide           | 2.32 | 76   | 211620   | 4.633  | ug/L  | 100    |
| 15) Methyl Acetate             | 2.47 | 43   | 59707    | 5.004  | ug/L  | 95     |
| 16) Methylene chloride         | 2.53 | 84   | 119672   | 4.366  | ug/L  | 97     |
| 17) Methyl tert-butyl Ether    | 2.81 | 73   | 303787   | 4.818  | ug/L  | 100    |
| 18) trans-1,2-Dichloroethene   | 2.78 | 96   | 110742   | 4.469  | ug/L  | 97     |
| 19) 1,1-Dichloroethane         | 3.23 | 63   | 241681   | 4.727  | ug/L  | 99     |
| 21) 2-Butanone                 | 4.06 | 43   | 395527   | 52.791 | ug/L  | 95     |
| 22) cis-1,2-Dichloroethene     | 3.96 | 96   | 134137   | 4.818  | ug/L  | 100    |

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 Data File : VV012870.D  
 Acq On : 17 Sep 2019 18:01  
 Operator : SY/MD  
 Sample : VSTDCCC005  
 Misc : 25.0mL/MSVOA V/WATER  
 ALS Vial : 9 Sample Multiplier: 1

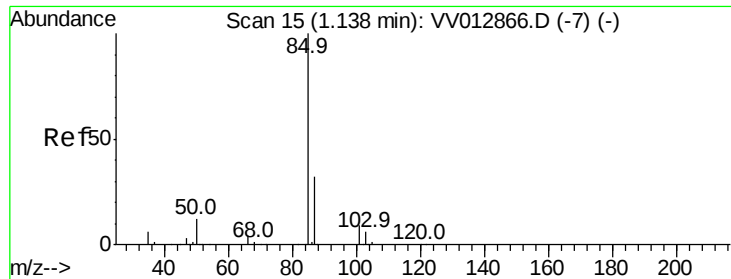
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00560

Quant Time: Sep 17 18:32:30 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVTR091719WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Tue Sep 17 17:41:31 2019  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|---------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane          | 4.30  | 128  | 57606    | 4.672  | uq/L  | 95       |
| 25) Chloroform                  | 4.42  | 83   | 260906   | 4.529  | uq/L  | 99       |
| 27) 1,2-Dichloroethane          | 5.18  | 62   | 147159   | 4.804  | uq/L  | 98       |
| 29) 1,1,1-Trichloroethane       | 4.65  | 97   | 199307   | 4.764  | uq/L  | 99       |
| 30) Cyclohexane                 | 4.72  | 56   | 175439   | 5.027  | uq/L  | 98       |
| 31) Carbon tetrachloride        | 4.87  | 117  | 166003   | 4.684  | uq/L  | 97       |
| 33) Benzene                     | 5.14  | 78   | 519234   | 4.970  | uq/L  | 100      |
| 34) Trichloroethene             | 5.96  | 95   | 129514   | 4.813  | uq/L  | 98       |
| 35) Methylcyclohexane           | 6.17  | 83   | 181267   | 5.019  | uq/L  | 99       |
| 37) 1,2-Dichloropropane         | 6.22  | 63   | 141314   | 4.963  | uq/L  | 100      |
| 38) Bromodichloromethane        | 6.55  | 83   | 172556   | 4.657  | uq/L  | 99       |
| 39) cis-1,3-Dichloropropene     | 7.07  | 75   | 178825   | 4.742  | uq/L  | 98       |
| 40) 4-Methyl-2-pentanone        | 7.28  | 43   | 970329   | 52.926 | uq/L  | 100      |
| 42) Toluene                     | 7.43  | 91   | 549322   | 5.050  | uq/L  | 99       |
| 44) trans-1,3-Dichloropropene   | 7.69  | 75   | 149903   | 4.977  | uq/L  | 97       |
| 45) 1,1,2-Trichloroethane       | 7.88  | 97   | 102678   | 4.812  | uq/L  | 99       |
| 47) Tetrachloroethene           | 8.02  | 164  | 104629   | 4.838  | uq/L  | 98       |
| 48) 2-Hexanone                  | 8.19  | 43   | 716539   | 54.091 | uq/L  | 99       |
| 49) Dibromochloromethane        | 8.29  | 129  | 116879   | 4.811  | uq/L  | 99       |
| 50) 1,2-Dibromoethane           | 8.40  | 107  | 86735    | 4.884  | uq/L  | 97       |
| 51) Chlorobenzene               | 8.92  | 112  | 365698   | 4.899  | uq/L  | 99       |
| 52) Ethylbenzene                | 9.05  | 91   | 592129   | 5.076  | uq/L  | 99       |
| 53) m,p-xylene                  | 9.18  | 106  | 221980   | 5.159  | uq/L  | 97       |
| 54) o-xylene                    | 9.59  | 106  | 219456   | 5.188  | uq/L  | 99       |
| 55) Styrene                     | 9.60  | 104  | 388741   | 5.357  | uq/L  | 99       |
| 56) Isopropylbenzene            | 9.97  | 105  | 594757   | 5.240  | uq/L  | 100      |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.28 | 83   | 129897   | 4.861  | uq/L  | 98       |
| 59) 1,2,3-Trichloropropane      | 10.32 | 75   | 90905    | 4.894  | uq/L  | 100      |
| 61) Bromoform                   | 9.77  | 173  | 65298    | 4.726  | uq/L  | 100      |
| 62) 1,3-Dichlorobenzene         | 11.22 | 146  | 291517   | 4.841  | uq/L  | 100      |
| 63) 1,4-Dichlorobenzene         | 11.31 | 146  | 294893   | 4.771  | uq/L  | 99       |
| 65) 1,2-Dichlorobenzene         | 11.69 | 146  | 285145   | 4.800  | uq/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan  | 12.47 | 75   | 18728    | 4.587  | uq/L  | 96       |
| 67) 1,3,5-Trichlorobenzene      | 12.69 | 180  | 222397   | 4.723  | uq/L  | 98       |
| 68) 1,2,4-trichlorobenzene      | 13.31 | 180  | 182947   | 4.839  | uq/L  | 100      |
| 69) Naphthalene                 | 13.55 | 128  | 283714   | 4.966  | uq/L  | 99       |
| 70) 1,2,3-Trichlorobenzene      | 13.79 | 180  | 183942   | 4.931  | uq/L  | 99       |

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





#2

Dichlorodifluoromethane

Concen: 4.392 ug/L

RT: 1.14 min Scan# 15

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

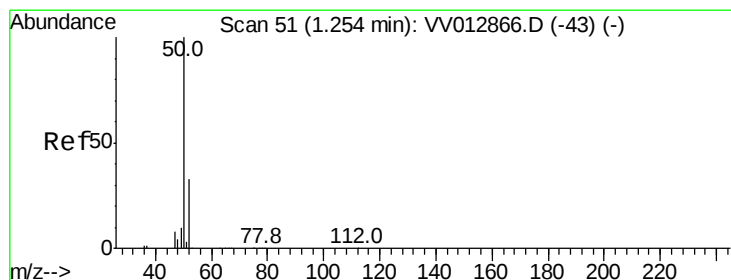
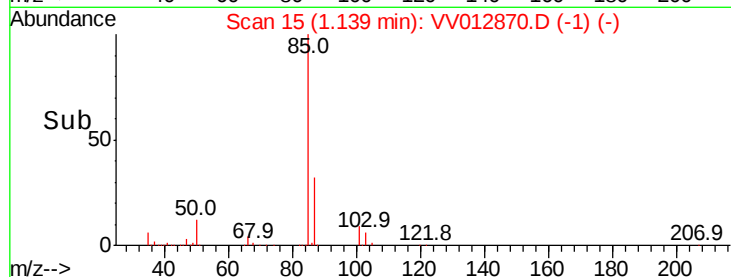
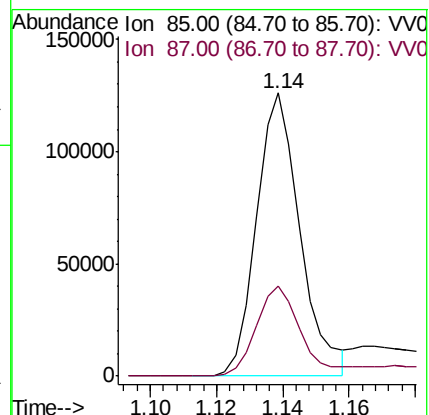
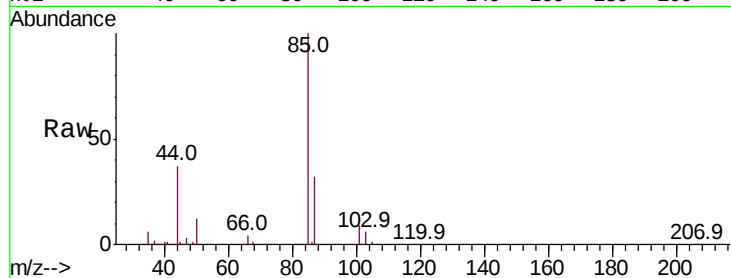
VSTD00560

Tot Ion: 85 Resp: 115223

Ion Ratio Lower Upper

85 100

87 33.5 25.4 38.2



#3

Chloromethane

Concen: 4.772 ug/L

RT: 1.25 min Scan# 51

Delta R.T. 0.00 min

Lab File: VV012870.D

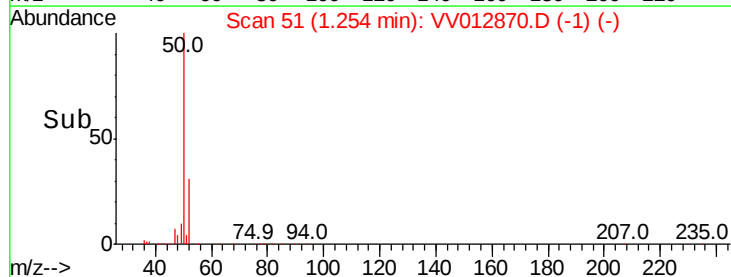
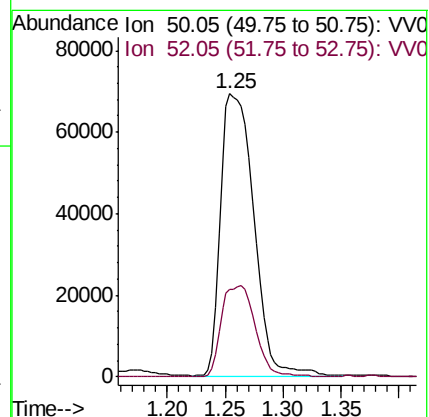
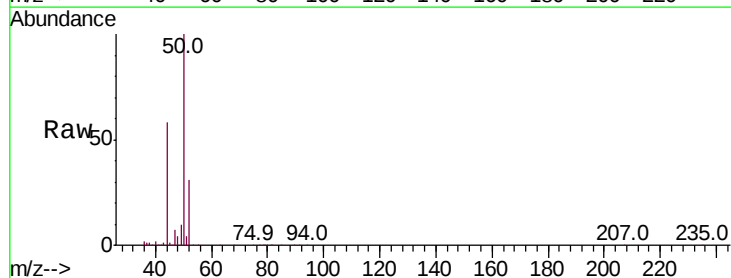
Acq: 17 Sep 2019 18:01

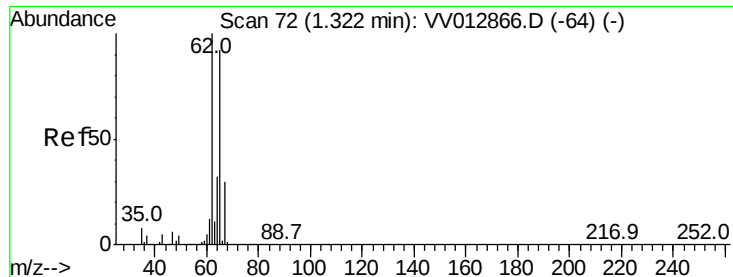
Tgt Ion: 50 Resp: 138090

Ion Ratio Lower Upper

50 100

52 31.0 22.8 42.4





#5

Vinyl chloride

Concen: 4.632 ug/L

RT: 1.32 min Scan# 72

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

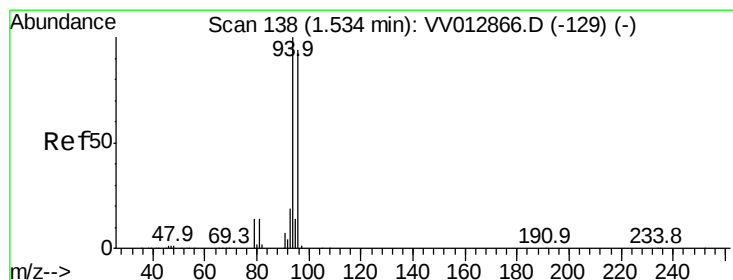
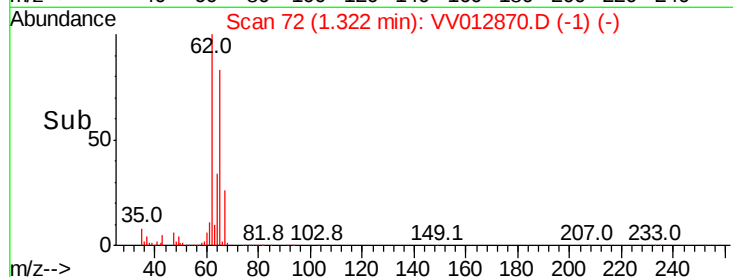
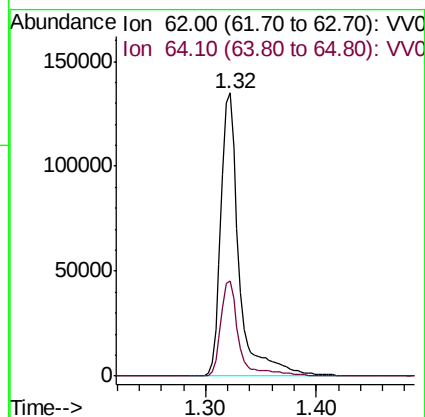
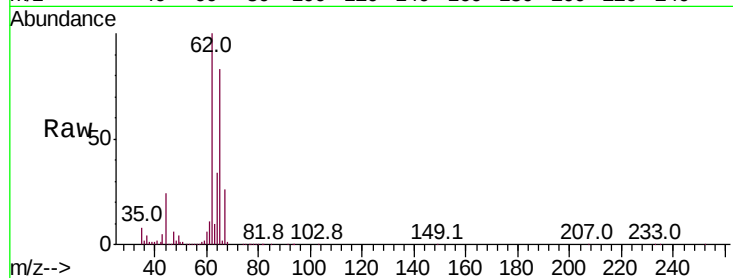
VSTD00560

Tot Ion: 62 Resp: 155557

Ion Ratio Lower Upper

62 100

64 33.9 22.5 41.7



#6

Bromomethane

Concen: 4.851 ug/L

RT: 1.53 min Scan# 138

Delta R.T. 0.00 min

Lab File: VV012870.D

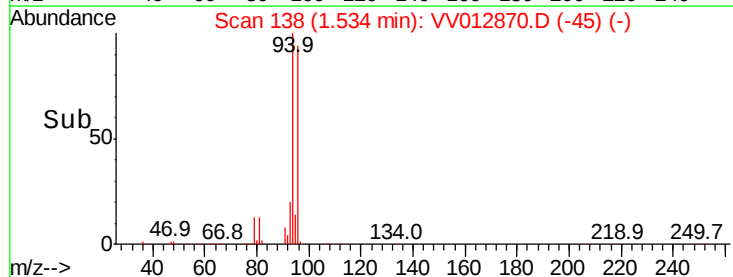
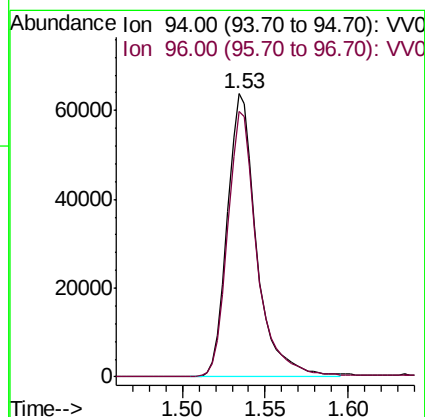
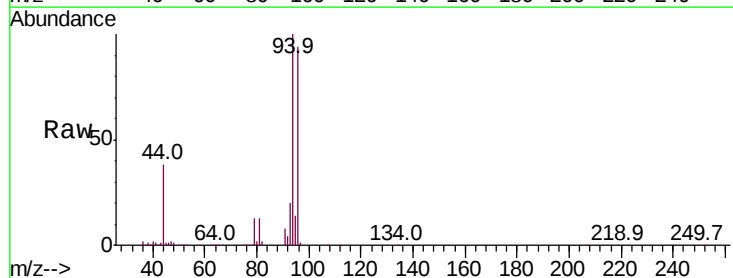
Acq: 17 Sep 2019 18:01

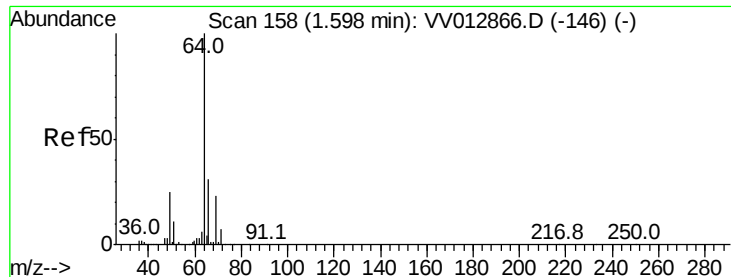
Tgt Ion: 94 Resp: 78300

Ion Ratio Lower Upper

94 100

96 94.0 65.6 121.8





#8

Chloroethane

Concen: 4.615 ug/L

RT: 1.60 min Scan# 158

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

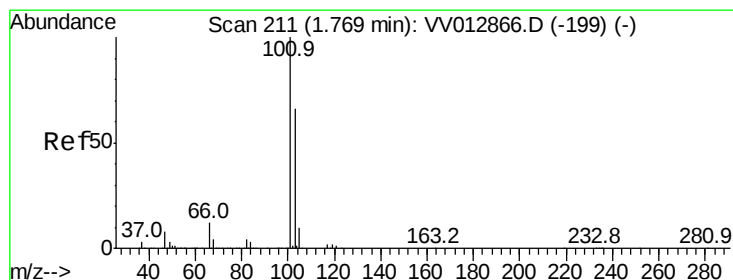
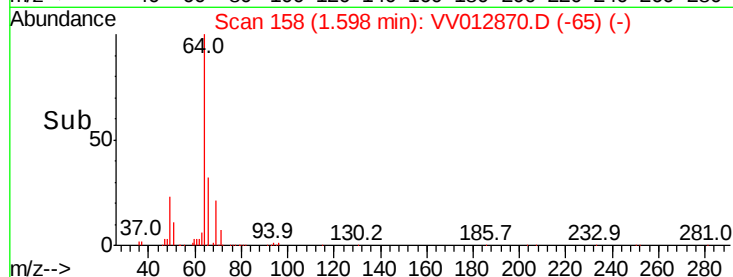
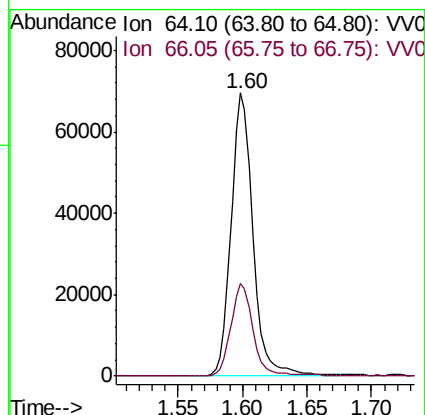
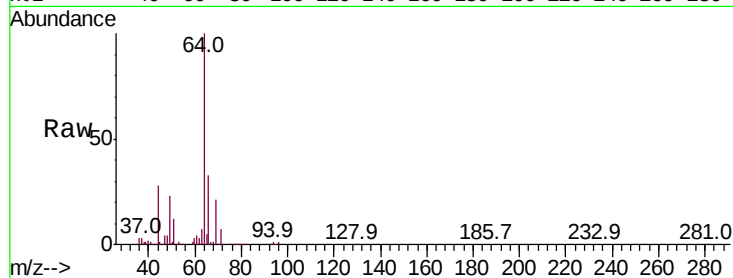
VSTD00560

Tot Ion: 64 Resp: 81410

Ion Ratio Lower Upper

64 100

66 32.7 22.0 40.8



#9

Trichlorofluoromethane

Concen: 4.711 ug/L

RT: 1.77 min Scan# 211

Delta R.T. 0.00 min

Lab File: VV012870.D

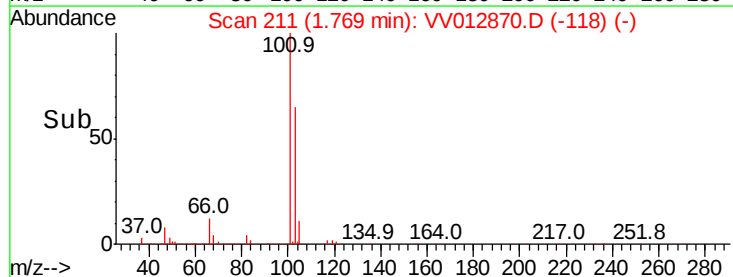
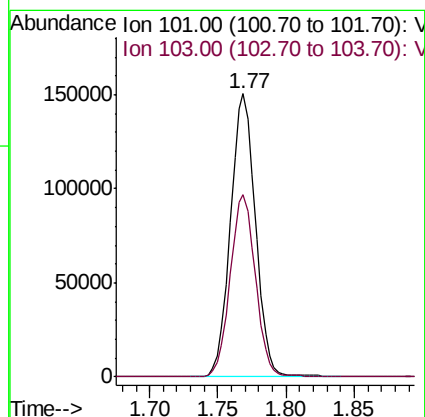
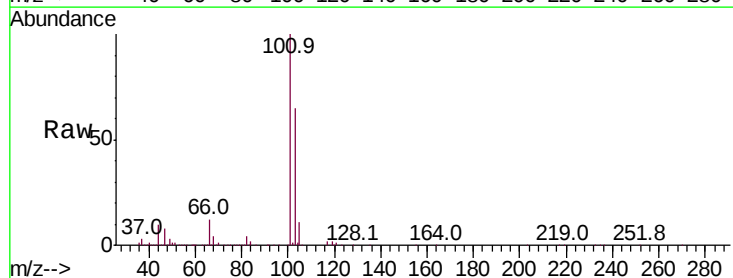
Acq: 17 Sep 2019 18:01

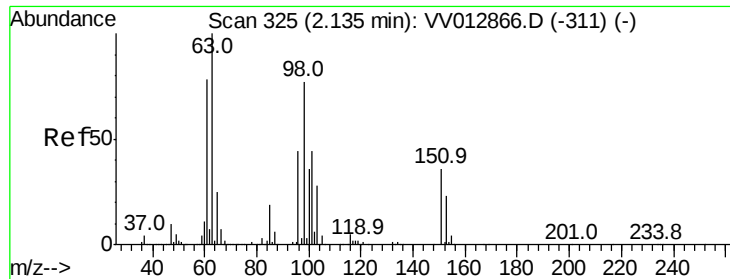
Tgt Ion: 101 Resp: 192484

Ion Ratio Lower Upper

101 100

103 65.1 52.3 78.5





#10

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

Concen: 4.650 ug/L

RT: 2.14 min Scan# 326

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00560

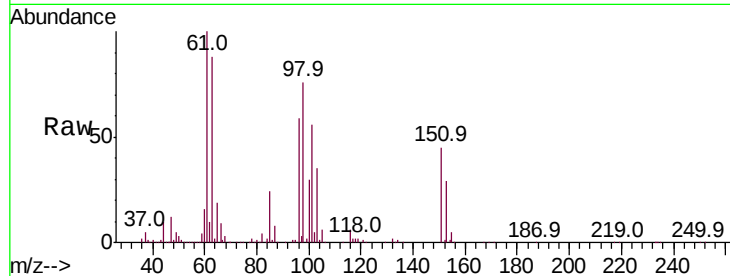
Tot Ion:101 Resp: 114003

Ion Ratio Lower Upper

101 100

85 42.1 33.5 50.3

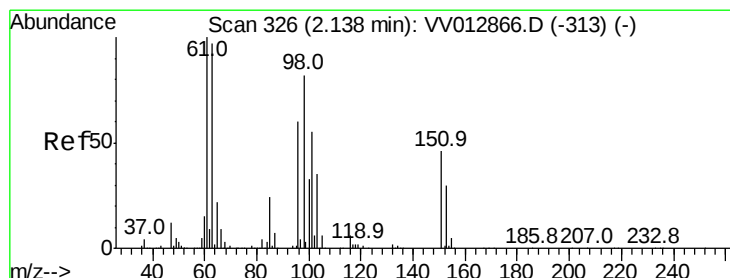
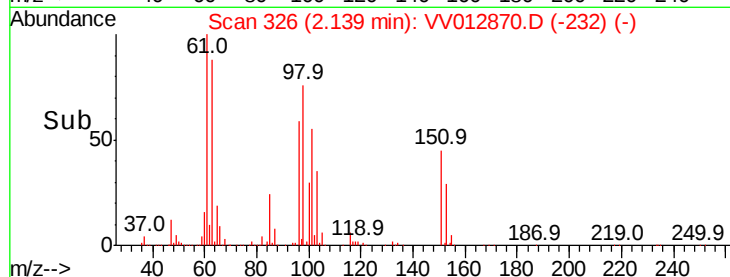
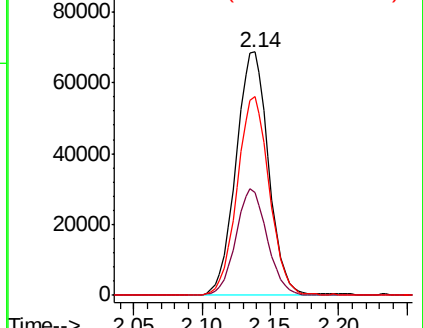
151 80.4 64.0 96.0



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: 4.595 ug/L

RT: 2.14 min Scan# 326

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

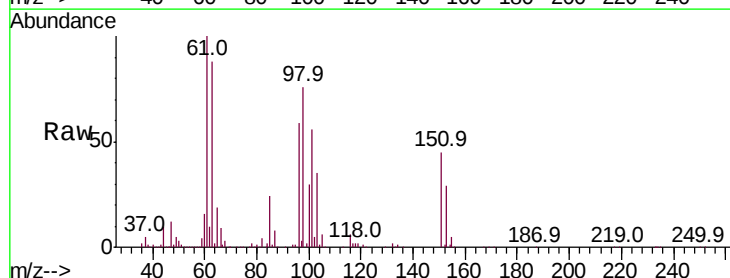
Tgt Ion: 96 Resp: 102436

Ion Ratio Lower Upper

96 100

61 169.9 116.1 215.5

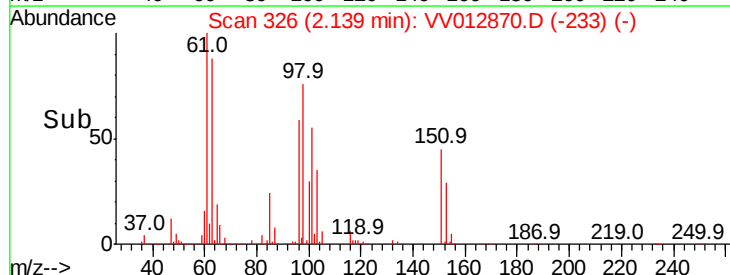
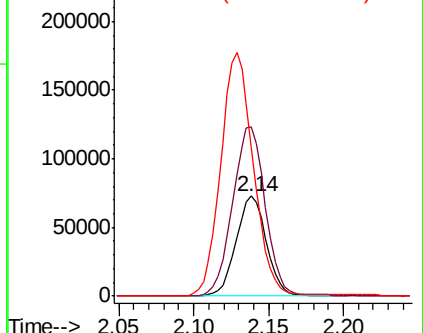
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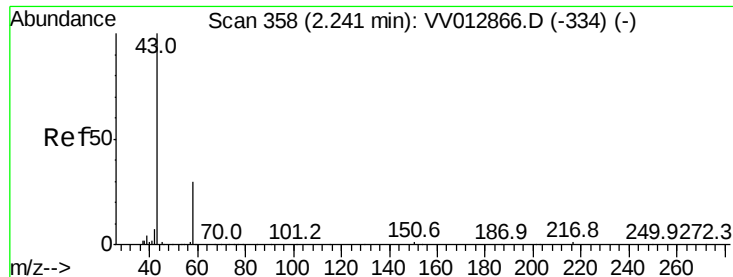


Abundance Ion 96.00 (95.70 to 96.70): VV0

Ion 61.05 (60.75 to 61.75): VV0

Ion 63.00 (62.70 to 63.70): VV0





#13

Acetone

Concen: 47.374 ug/L

RT: 2.24 min Scan# 359

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

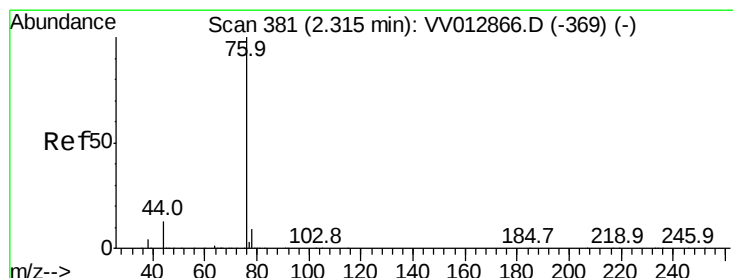
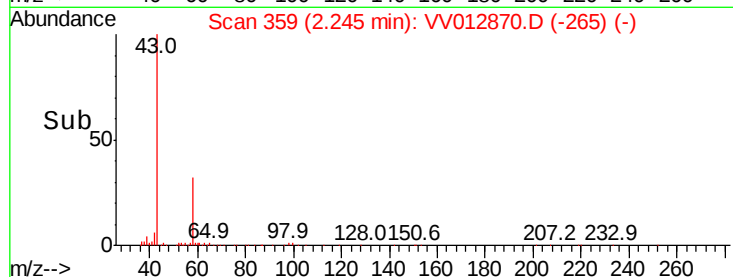
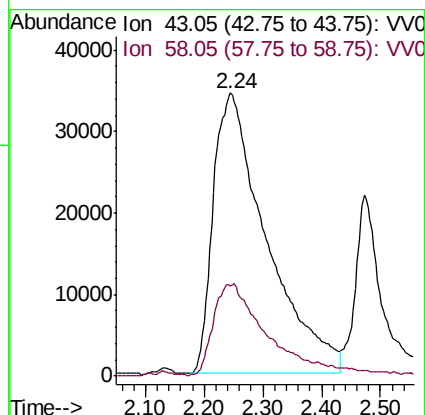
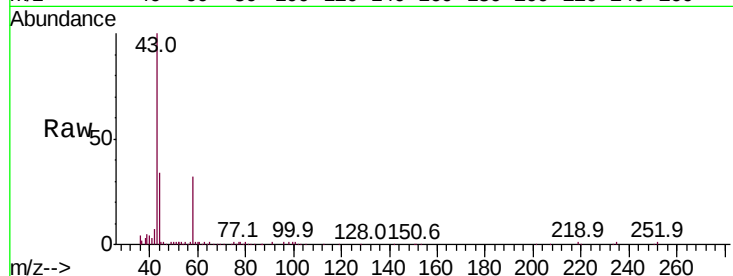
VSTD00560

Tot Ion: 43 Resp: 216048

Ion Ratio Lower Upper

43 100

58 10.7 0.0 24.4



#14

Carbon disulfide

Concen: 4.633 ug/L

RT: 2.32 min Scan# 381

Delta R.T. 0.00 min

Lab File: VV012870.D

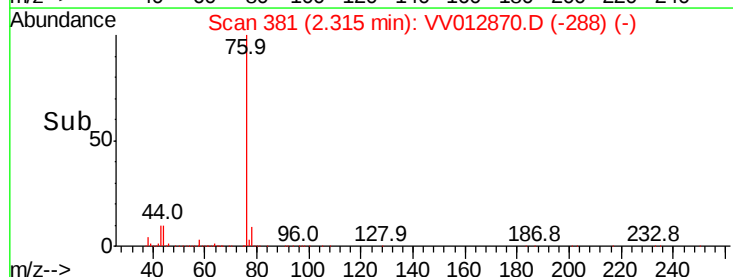
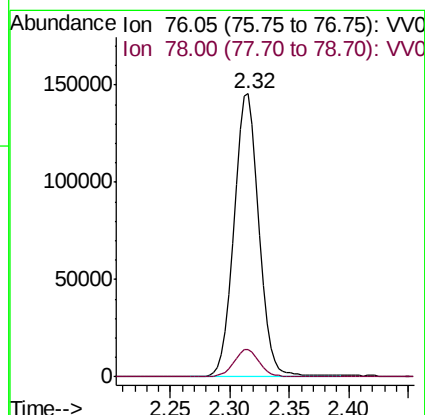
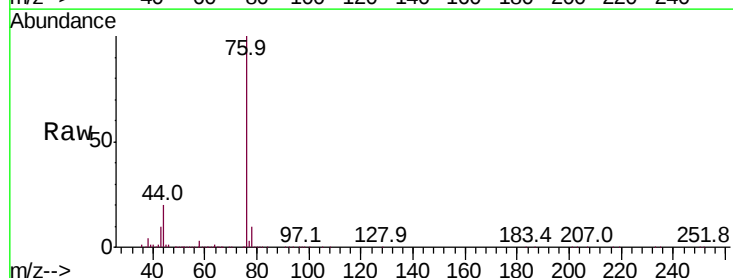
Acq: 17 Sep 2019 18:01

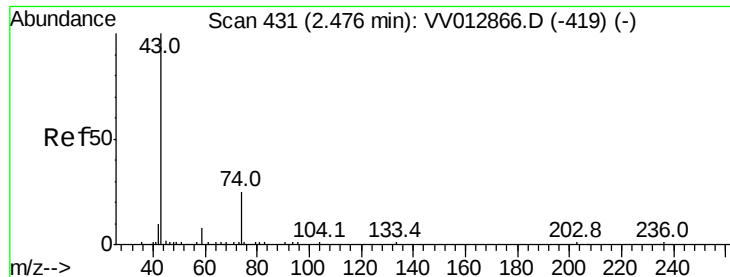
Tgt Ion: 76 Resp: 211620

Ion Ratio Lower Upper

76 100

78 9.5 7.6 11.4

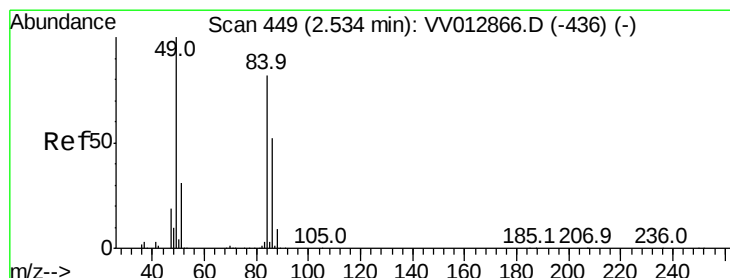
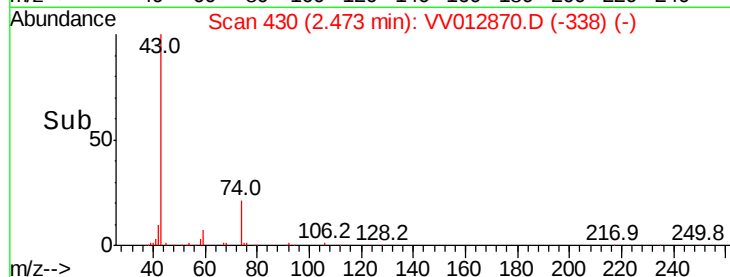
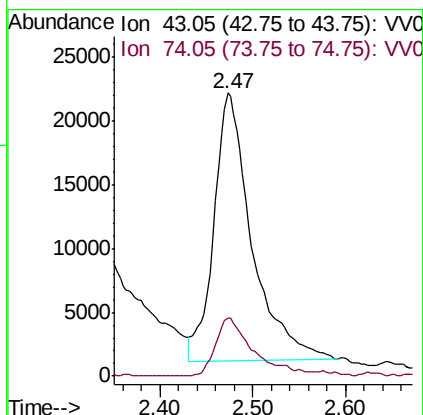
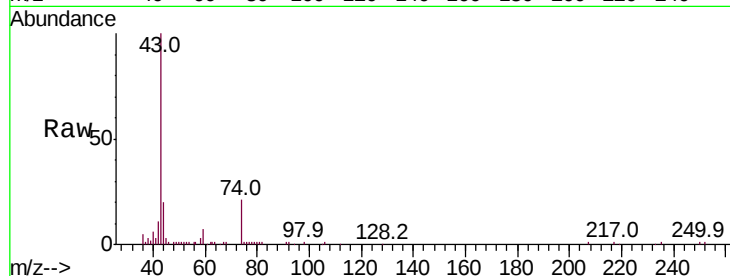




#15  
Methvl Acetate  
Concen: 5.004 ug/L  
RT: 2.47 min Scan# 430  
Delta R.T. -0.00 min  
Lab File: VV012870.D  
Acq: 17 Sep 2019 18:01

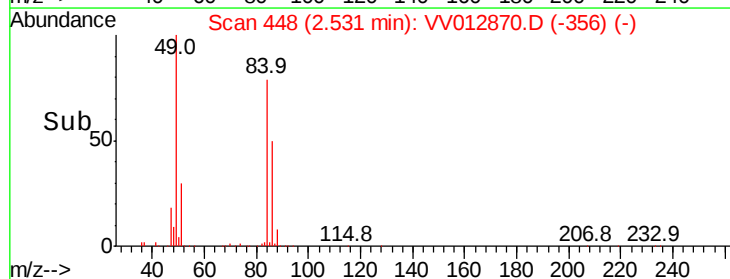
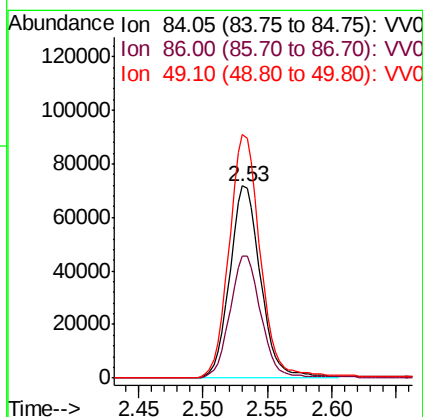
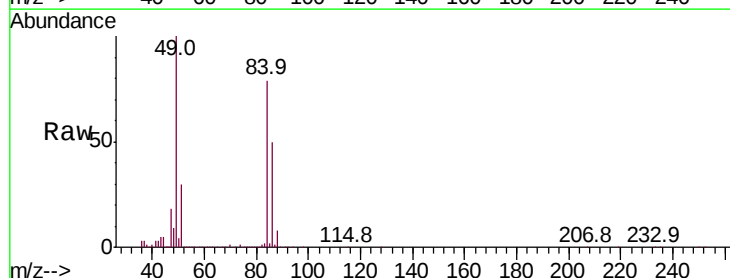
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00560

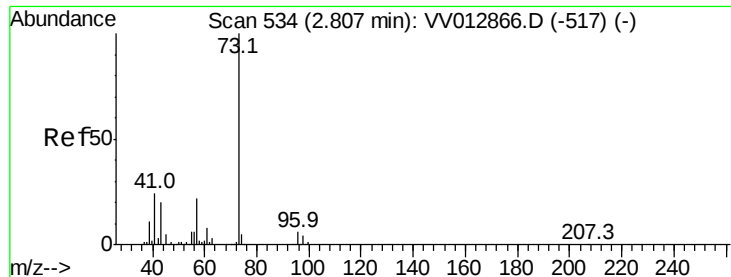
Tot Ion: 43 Resp: 59707  
Ion Ratio Lower Upper  
43 100  
74 19.8 14.1 21.1



#16  
Methylene chloride  
Concen: 4.366 ug/L  
RT: 2.53 min Scan# 448  
Delta R.T. -0.00 min  
Lab File: VV012870.D  
Acq: 17 Sep 2019 18:01

Tgt Ion: 84 Resp: 119672  
Ion Ratio Lower Upper  
84 100  
86 63.5 44.8 83.2  
49 126.7 85.9 159.5

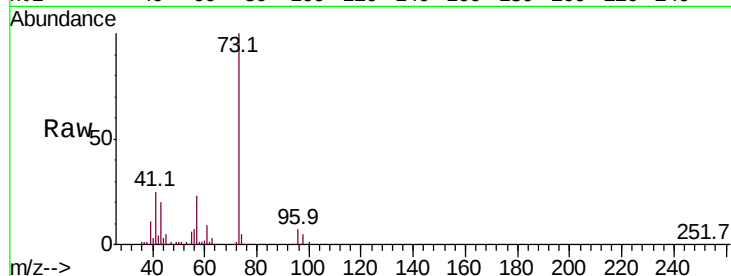




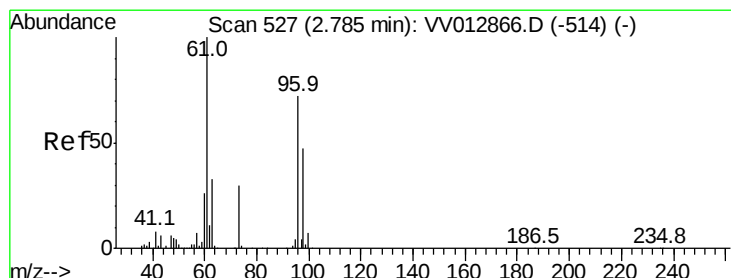
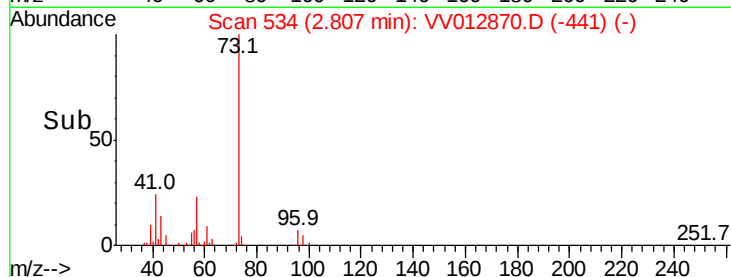
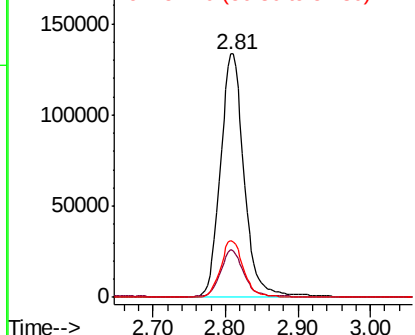
#17  
Methvl tert-butvl Ether  
Concen: 4.818 ug/L  
RT: 2.81 min Scan# 534  
Delta R.T. 0.00 min  
Lab File: VV012870.D  
Acq: 17 Sep 2019 18:01

Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00560

Tot Ion: 73 Resp: 303787  
Ion Ratio Lower Upper  
73 100  
43 18.8 15.0 22.4  
57 22.3 17.9 26.9

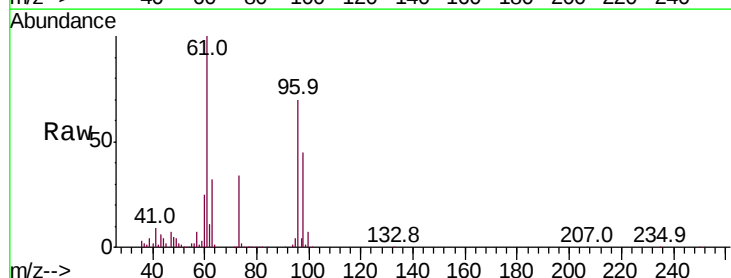


Abundance Ion 73.10 (72.80 to 73.80): VV0  
Ion 43.05 (42.75 to 43.75): VV0  
Ion 57.10 (56.80 to 57.80): VV0

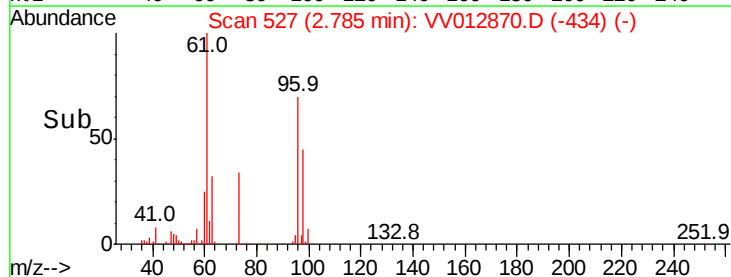
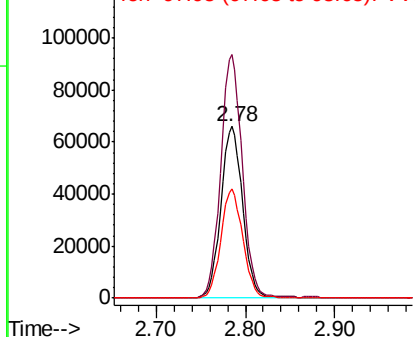


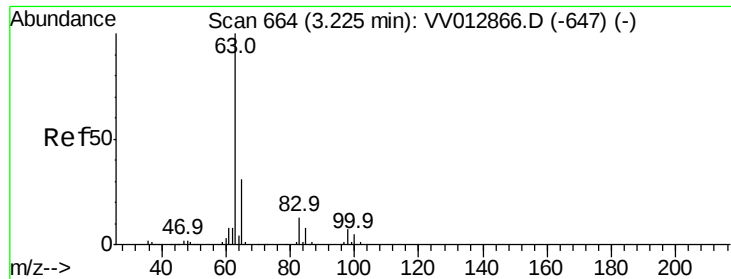
#18  
trans-1,2-Dichloroethene  
Concen: 4.469 ug/L  
RT: 2.78 min Scan# 527  
Delta R.T. 0.00 min  
Lab File: VV012870.D  
Acq: 17 Sep 2019 18:01

Tgt Ion: 96 Resp: 110742  
Ion Ratio Lower Upper  
96 100  
61 141.9 96.8 179.8  
98 63.4 45.2 84.0



Abundance Ion 96.00 (95.70 to 96.70): VV0  
Ion 61.05 (60.75 to 61.75): VV0  
Ion 97.95 (97.65 to 98.65): VV0





#19

1,1-Dichloroethane

Concen: 4.727 ug/L

RT: 3.23 min Scan# 664

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00560

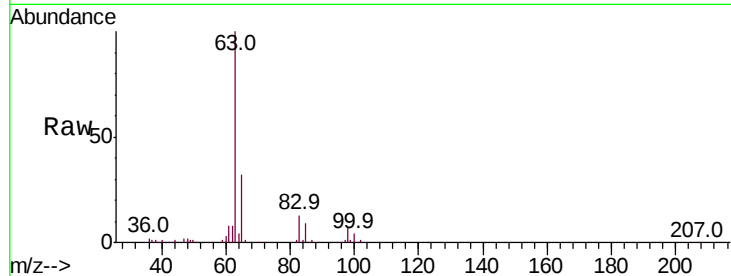
Tot Ion: 63 Resp: 241681

Ion Ratio Lower Upper

63 100

65 32.3 22.0 41.0

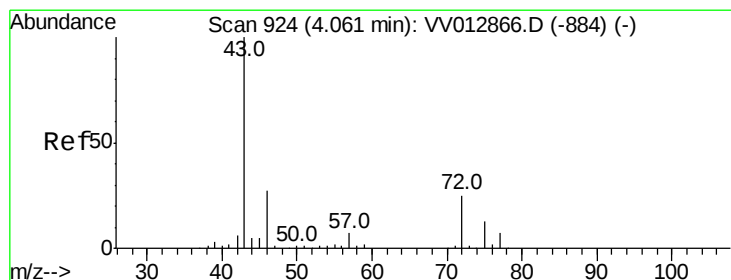
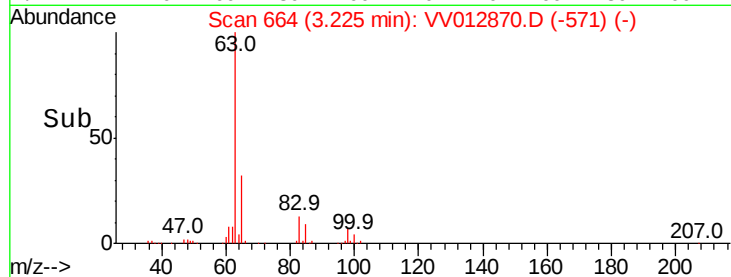
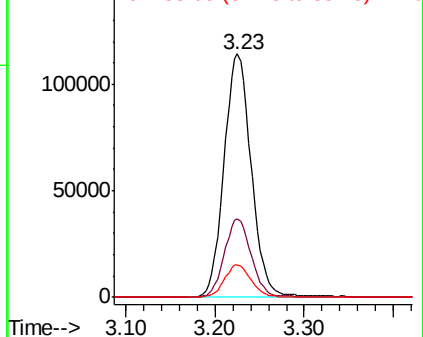
83 13.3 9.2 17.0



Abundance Ion 63.10 (62.80 to 63.80): VV012870.D (-647) (-)

Ion 65.10 (64.80 to 65.80): VV012870.D (-647) (-)

Ion 83.05 (82.75 to 83.75): VV012870.D (-647) (-)



#21

2-Butanone

Concen: 52.791 ug/L

RT: 4.06 min Scan# 924

Delta R.T. 0.00 min

Lab File: VV012870.D

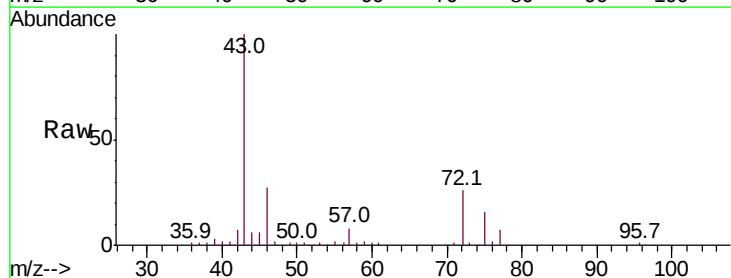
Acq: 17 Sep 2019 18:01

Tgt Ion: 43 Resp: 395527

Ion Ratio Lower Upper

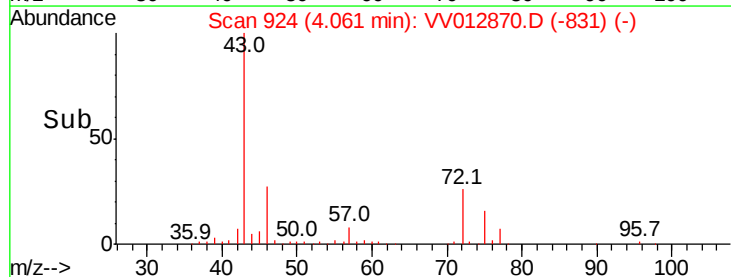
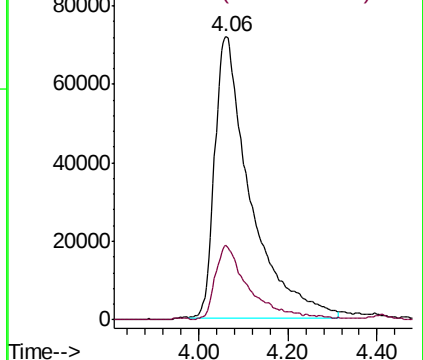
43 100

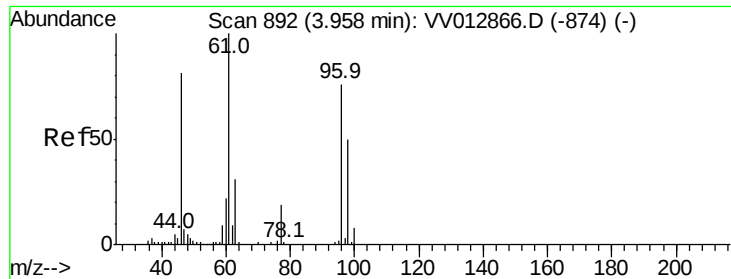
72 23.0 10.4 31.2



Abundance Ion 43.05 (42.75 to 43.75): VV012870.D (-831) (-)

Ion 72.10 (71.80 to 72.80): VV012870.D (-831) (-)



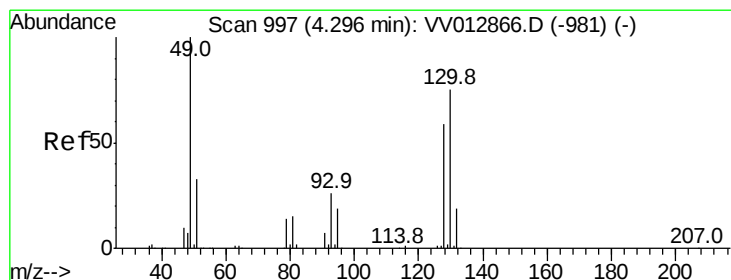
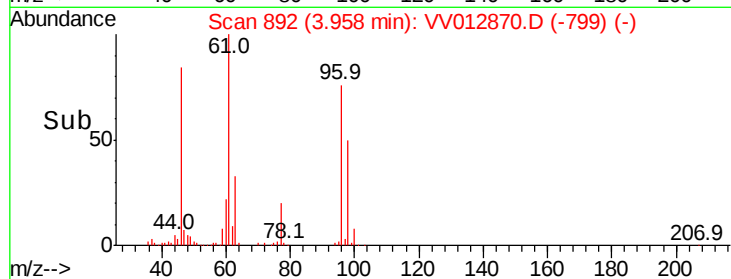
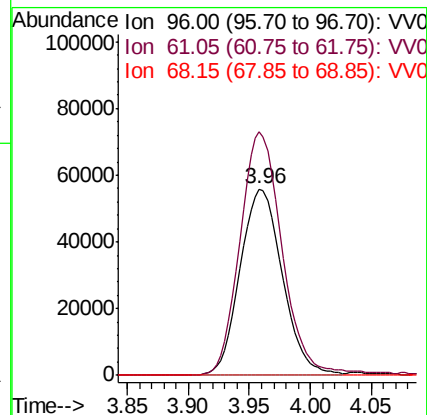
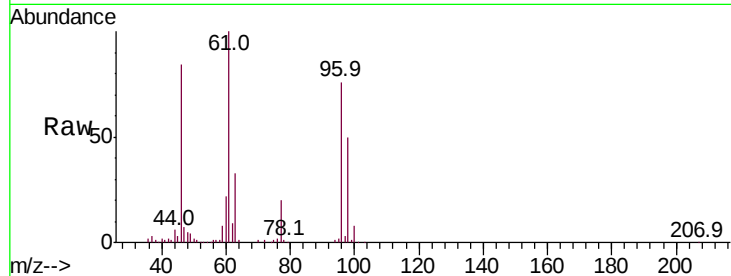


#22

cis-1,2-Dichloroethene  
 Concen: 4.818 ug/L  
 RT: 3.96 min Scan# 892  
 Delta R.T. 0.00 min  
 Lab File: VV012870.D  
 Acq: 17 Sep 2019 18:01

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00560

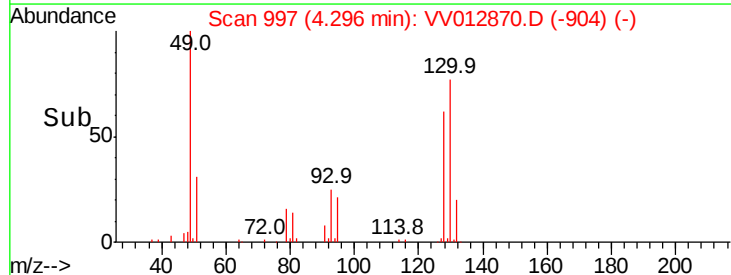
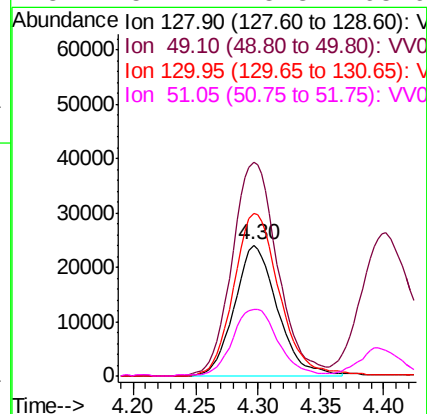
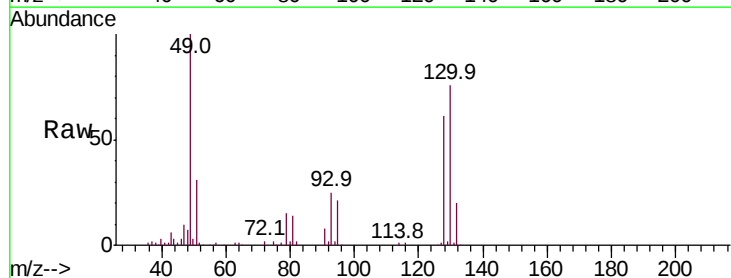
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 96      | 100   |       |       |
| 61      | 130.9 | 91.8  | 170.6 |
| 68      | 0.0   | 0.0   | 0.0   |

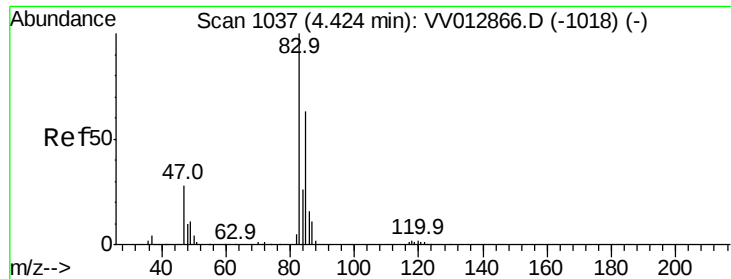


#23

Bromochloromethane  
 Concen: 4.672 ug/L  
 RT: 4.30 min Scan# 997  
 Delta R.T. 0.00 min  
 Lab File: VV012870.D  
 Acq: 17 Sep 2019 18:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 49      | 163.6 | 119.6 | 222.0 |
| 130     | 124.6 | 89.8  | 166.8 |
| 51      | 51.1  | 45.8  | 68.6  |

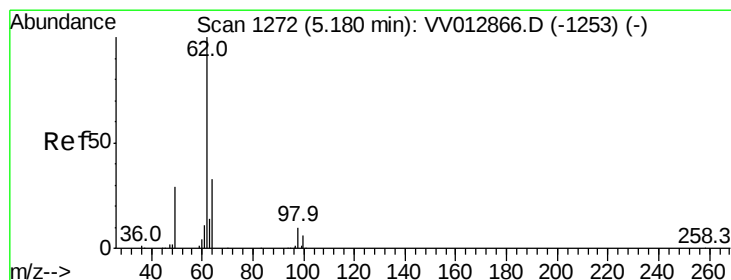
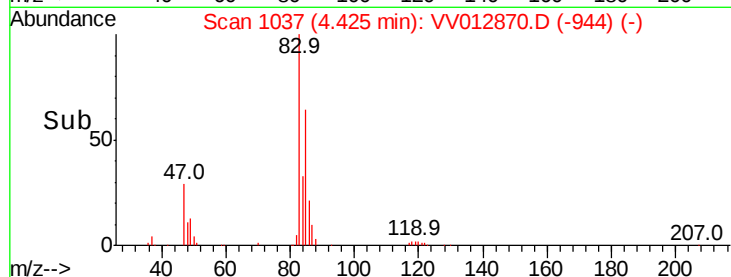
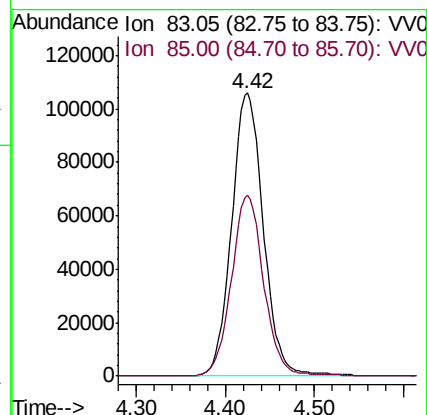
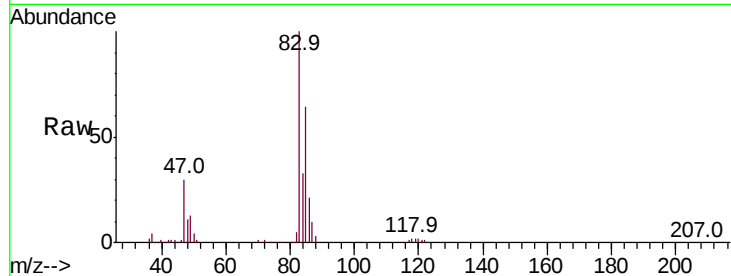




#25  
Chloroform  
Concen: 4.529 ug/L  
RT: 4.42 min Scan# 1037  
Delta R.T. 0.00 min  
Lab File: VV012870.D  
Acq: 17 Sep 2019 18:01

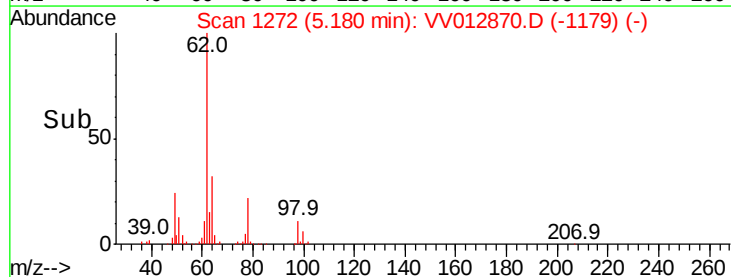
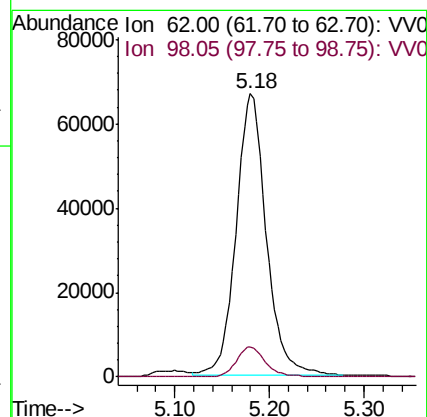
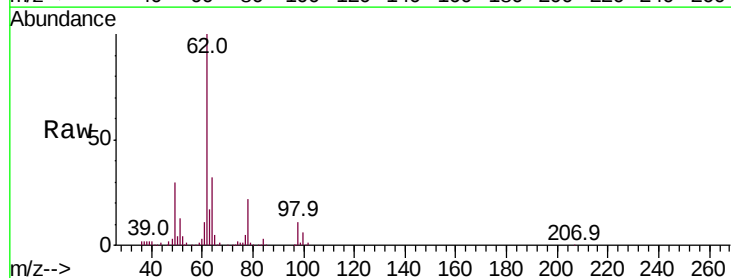
Instrument :  
MSVOA\_V  
ClientSampleId :  
VSTD00560

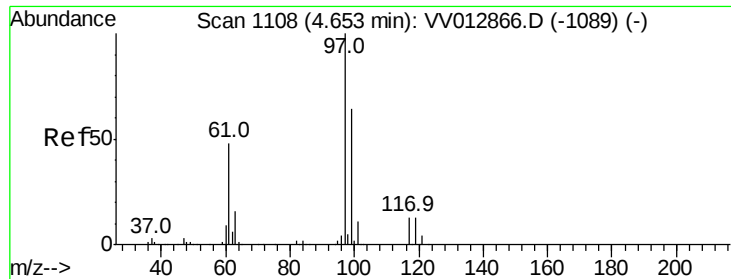
Tot Ion: 83 Resp: 260906  
Ion Ratio Lower Upper  
83 100  
85 64.0 44.4 82.5



#27  
1,2-Dichloroethane  
Concen: 4.804 ug/L  
RT: 5.18 min Scan# 1272  
Delta R.T. 0.00 min  
Lab File: VV012870.D  
Acq: 17 Sep 2019 18:01

Tgt Ion: 62 Resp: 147159  
Ion Ratio Lower Upper  
62 100  
98 10.6 7.8 11.8

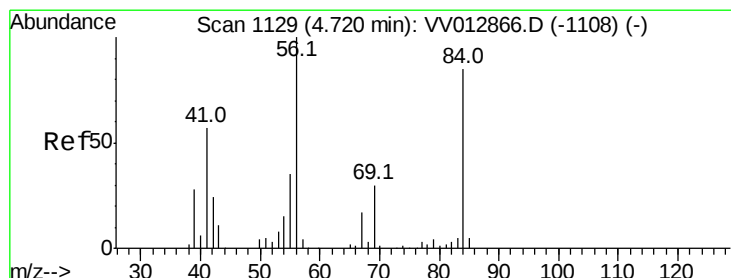
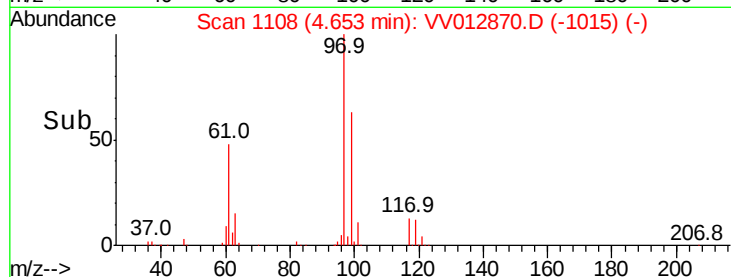
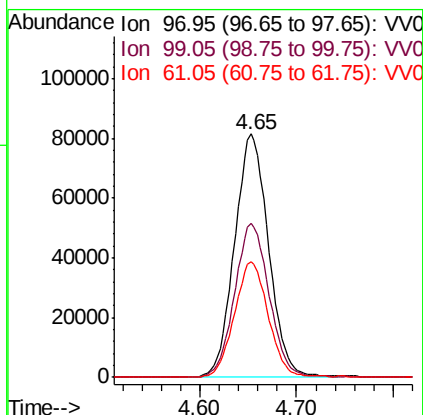
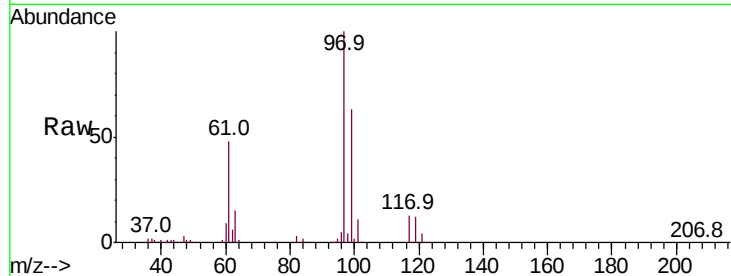




#29  
 1,1,1-Trichloroethane  
 Concen: 4.764 ug/L  
 RT: 4.65 min Scan# 1108  
 Delta R.T. 0.00 min  
 Lab File: VV012870.D  
 Acq: 17 Sep 2019 18:01

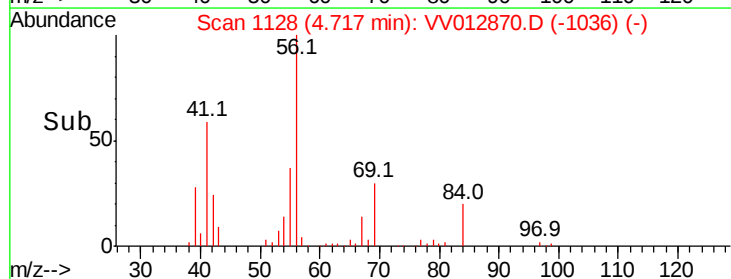
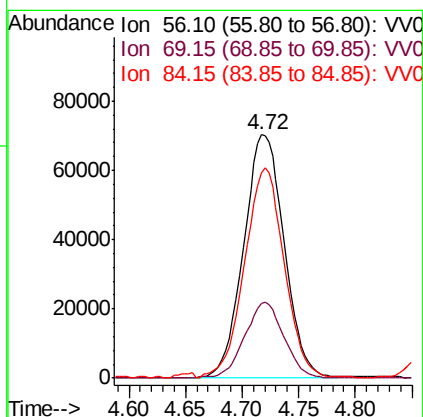
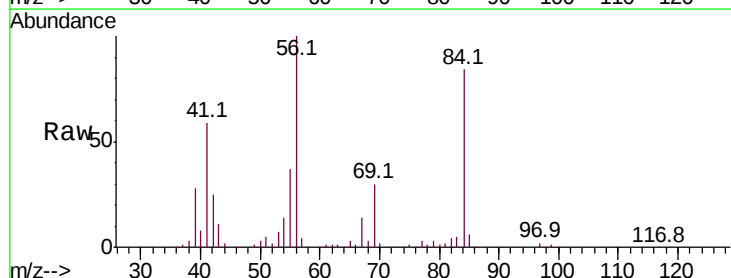
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00560

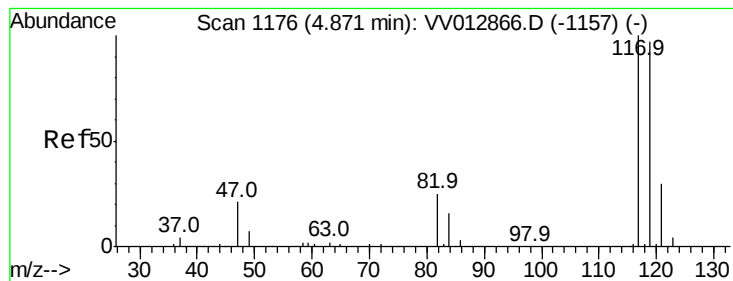
Tot Ion: 97 Resp: 199307  
 Ion Ratio Lower Upper  
 97 100  
 99 63.9 50.9 76.3  
 61 47.3 38.2 57.2



#30  
 Cyclohexane  
 Concen: 5.027 ug/L  
 RT: 4.72 min Scan# 1128  
 Delta R.T. -0.00 min  
 Lab File: VV012870.D  
 Acq: 17 Sep 2019 18:01

Tgt Ion: 56 Resp: 175439  
 Ion Ratio Lower Upper  
 56 100  
 69 30.1 24.4 36.6  
 84 84.0 69.3 103.9





#31

Carbon tetrachloride

Concen: 4.684 ug/L

RT: 4.87 min Scan# 1176

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

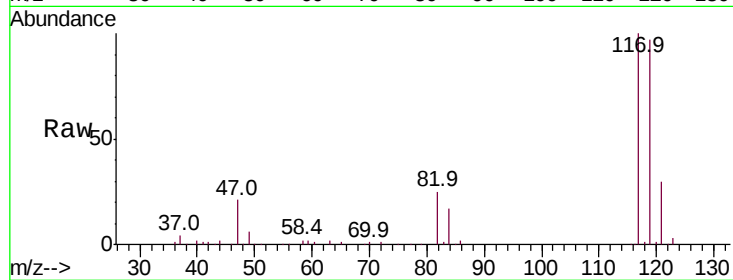
VSTD00560

Tot Ion:117 Resp: 166003

Ion Ratio Lower Upper

117 100

119 96.9 75.6 113.4



Abundance Ion 116.90 (116.60 to 117.60): V

Ion 118.90 (118.60 to 119.60): V

4.87

80000

60000

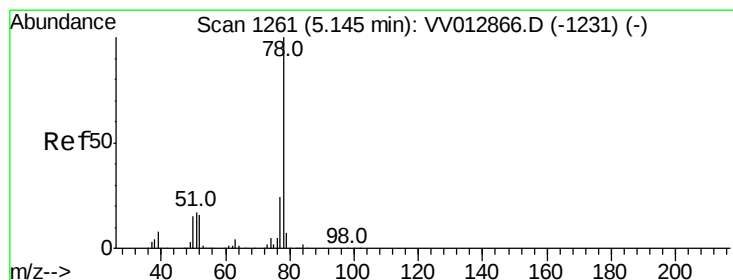
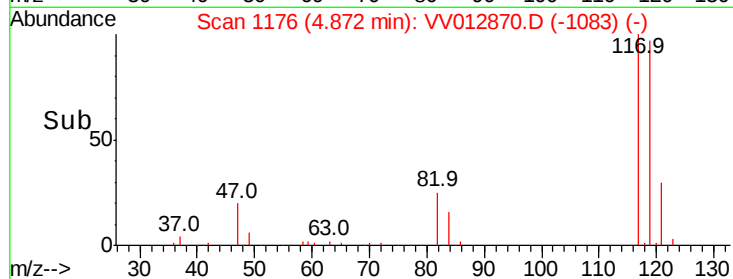
40000

20000

0

Time-->

4.80 4.90 5.00



#33

Benzene

Concen: 4.970 ug/L

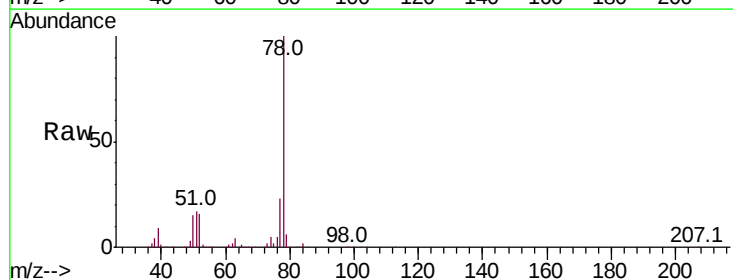
RT: 5.14 min Scan# 1261

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Tgt Ion: 78 Resp: 519234



Abundance Ion 78.10 (77.80 to 78.80): VV0

5.14

250000

200000

150000

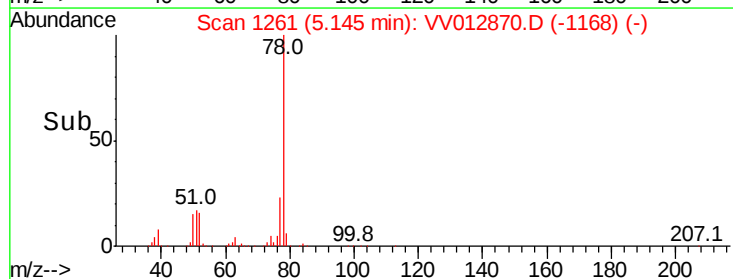
100000

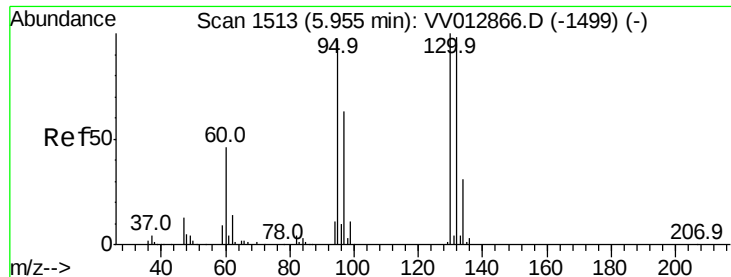
50000

0

Time-->

5.00 5.10 5.20 5.30





#34

Trichloroethene

Concen: 4.813 ug/L

RT: 5.96 min Scan# 1514

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00560

Tot Ion: 95 Resp: 129514

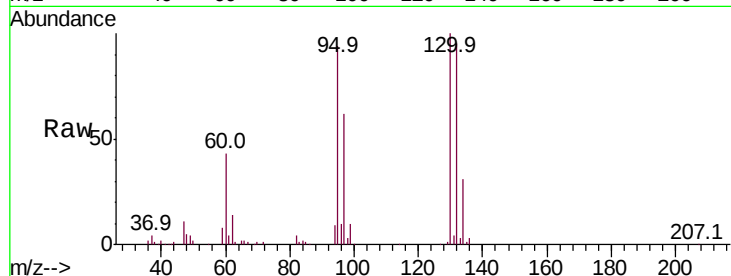
Ion Ratio Lower Upper

95 100

97 66.0 45.3 84.1

132 101.0 70.6 131.0

130 106.0 71.8 133.4

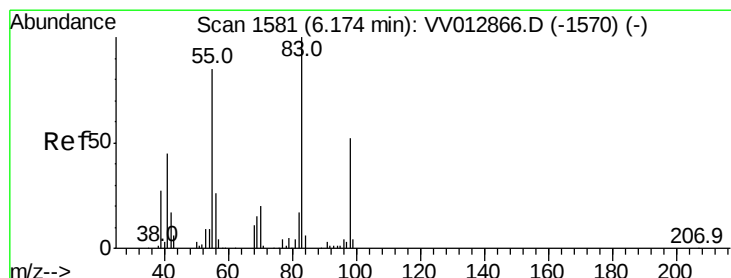
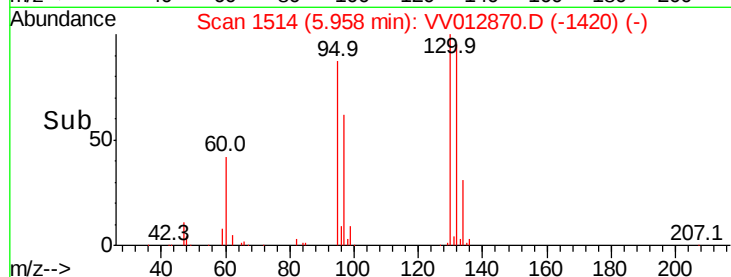
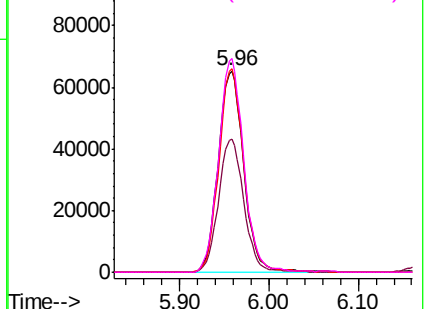


Abundance Ion 95.00 (94.70 to 95.70): VV0

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: 5.019 ug/L

RT: 6.17 min Scan# 1581

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

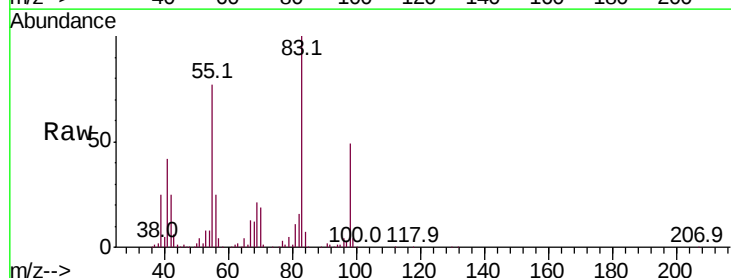
Tgt Ion: 83 Resp: 181267

Ion Ratio Lower Upper

83 100

55 79.0 63.8 95.6

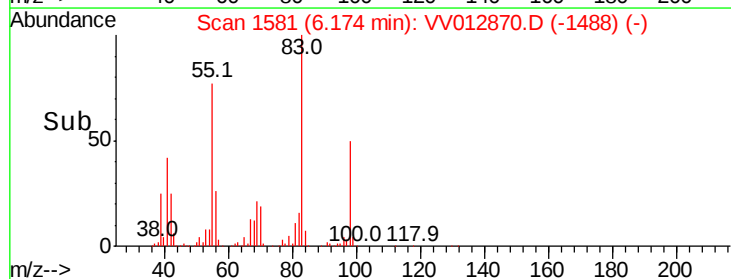
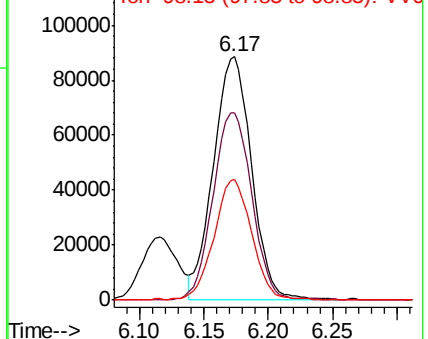
98 48.8 38.2 57.4

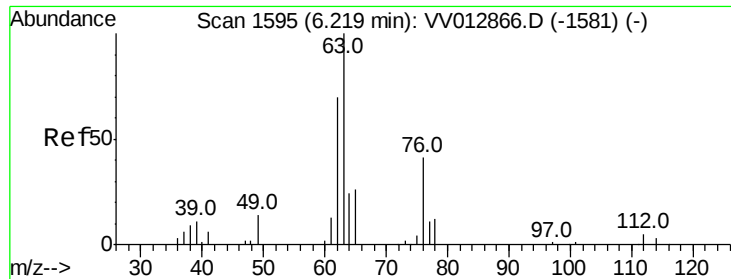


Abundance Ion 83.15 (82.85 to 83.85): VV0

Ion 55.10 (54.80 to 55.80): VV0

Ion 98.15 (97.85 to 98.85): VV0

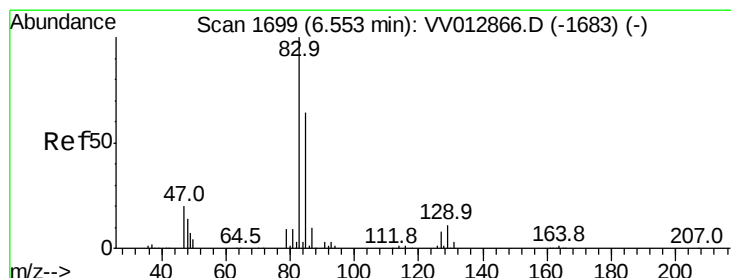
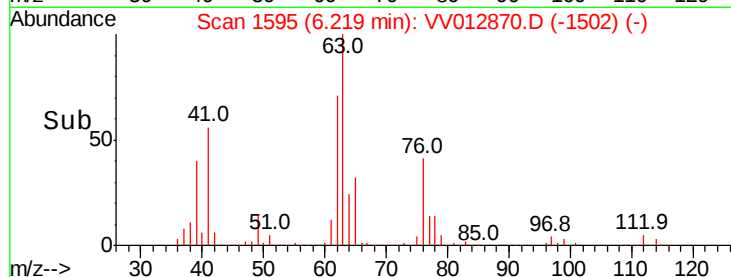
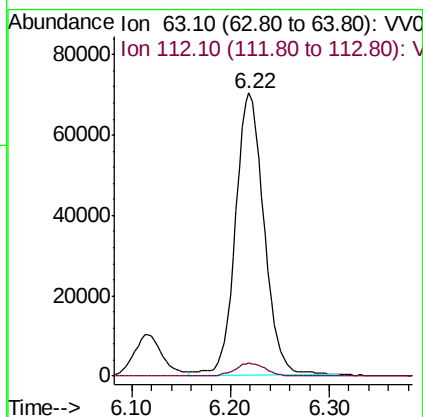
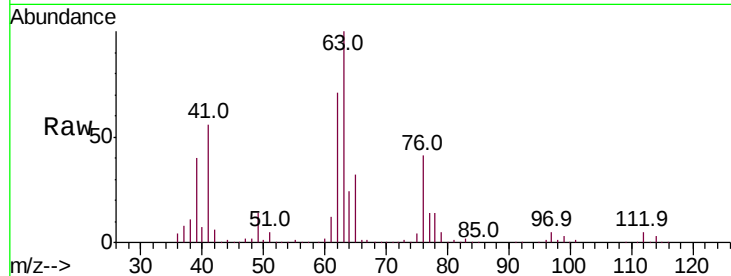




#37  
 1,2-Dichloropropane  
 Concen: 4.963 ug/L  
 RT: 6.22 min Scan# 1595  
 Delta R.T. 0.00 min  
 Lab File: VV012870.D  
 Acq: 17 Sep 2019 18:01

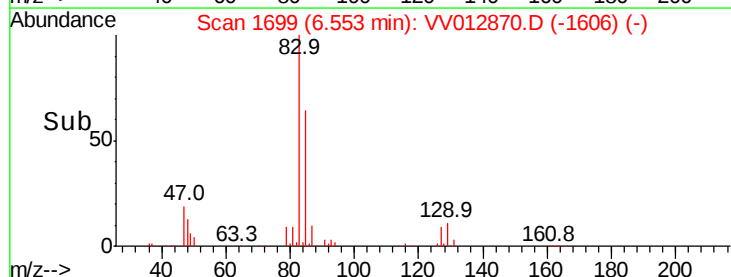
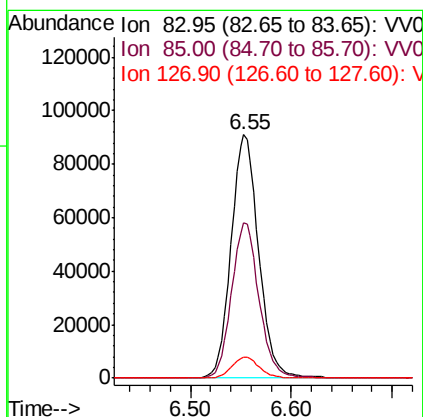
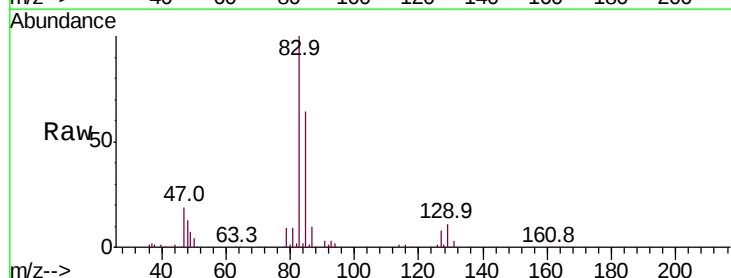
Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00560

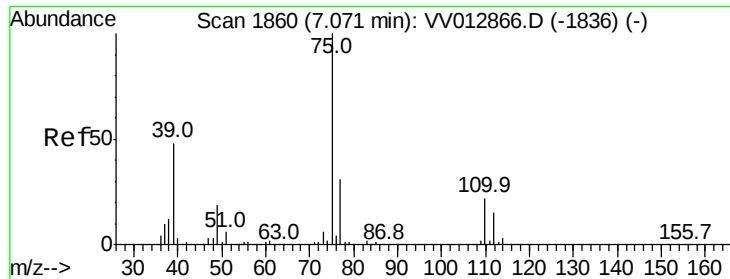
Tot Ion: 63 Resp: 141314  
 Ion Ratio Lower Upper  
 63 100  
 112 4.9 3.8 5.6



#38  
 Bromodichloromethane  
 Concen: 4.657 ug/L  
 RT: 6.55 min Scan# 1699  
 Delta R.T. 0.00 min  
 Lab File: VV012870.D  
 Acq: 17 Sep 2019 18:01

Tgt Ion: 83 Resp: 172556  
 Ion Ratio Lower Upper  
 83 100  
 85 63.5 44.9 83.5  
 127 8.5 6.8 10.2





#39

cis-1,3-Dichloropropene

Concen: 4.742 ug/L

RT: 7.07 min Scan# 1860

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampled :

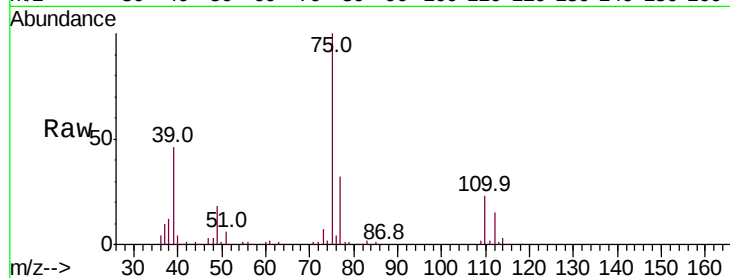
VSTD00560

Tot Ion: 75 Resp: 178825

Ion Ratio Lower Upper

75 100

77 31.7 21.6 40.0



Abundance Ion 75.05 (74.75 to 75.75): VV012866.D (-1836) (-)

Ion 77.05 (76.75 to 77.75): VV012866.D (-1836) (-)

7.07

100000

80000

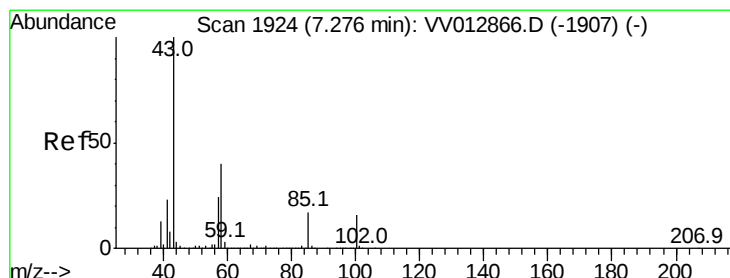
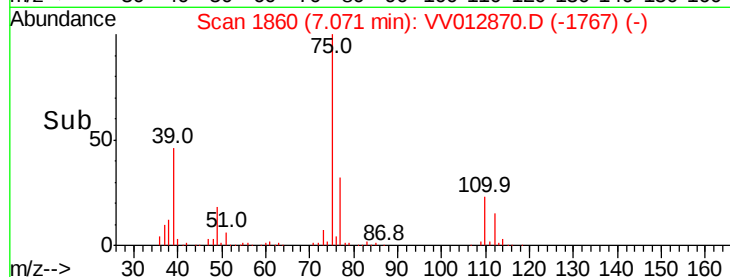
60000

40000

20000

0

Time-->



#40

4-Methyl-2-pentanone

Concen: 52.926 ug/L

RT: 7.28 min Scan# 1924

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

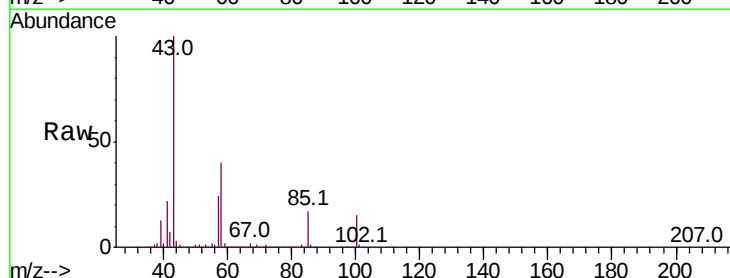
Tgt Ion: 43 Resp: 970329

Ion Ratio Lower Upper

43 100

58 38.5 30.8 46.2

100 14.7 11.8 17.6



Abundance Ion 43.05 (42.75 to 43.75): VV012866.D (-1907) (-)

Ion 58.05 (57.75 to 58.75): VV012866.D (-1907) (-)

Ion 100.15 (99.85 to 100.85): VV012866.D (-1907) (-)

7.28

600000

500000

400000

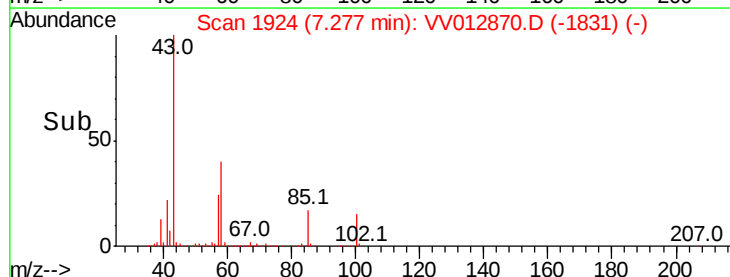
300000

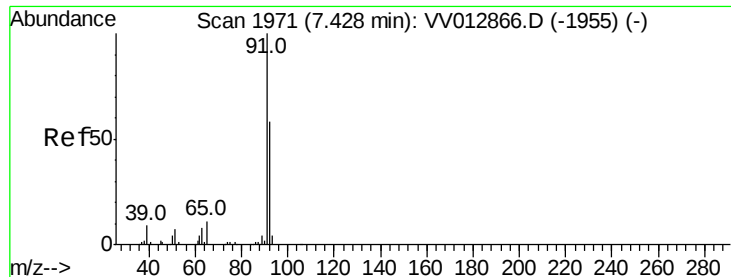
200000

100000

0

Time-->





#42

Toluene

Concen: 5.050 ug/L

RT: 7.43 min Scan# 1971

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

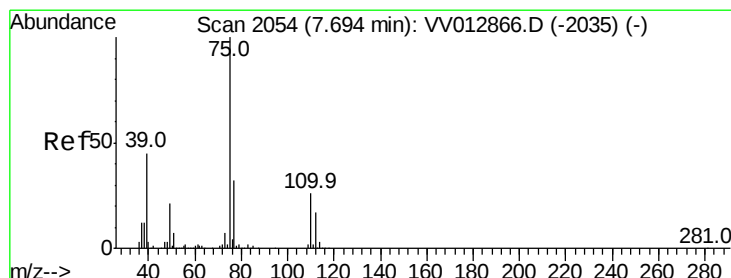
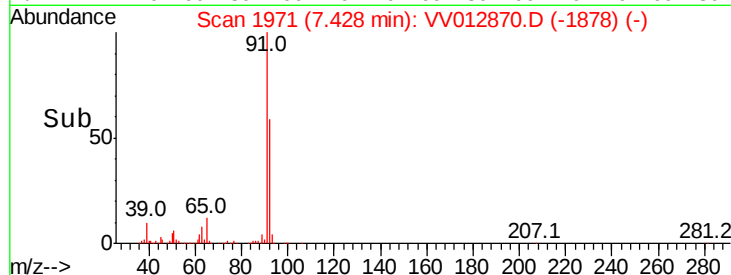
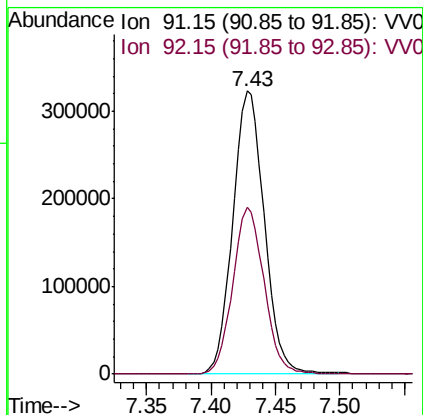
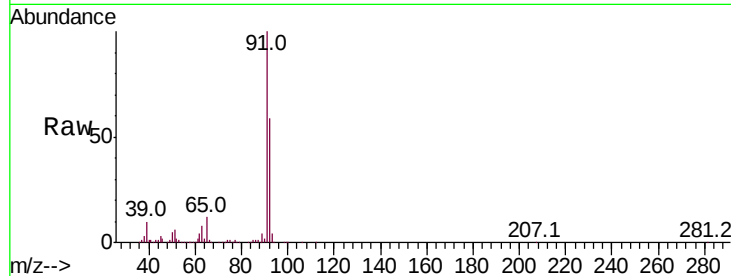
VSTD00560

Tot Ion: 91 Resp: 549322

Ion Ratio Lower Upper

91 100

92 58.8 40.8 75.8



#44

trans-1,3-Dichloropropene

Concen: 4.977 ug/L

RT: 7.69 min Scan# 2053

Delta R.T. -0.00 min

Lab File: VV012870.D

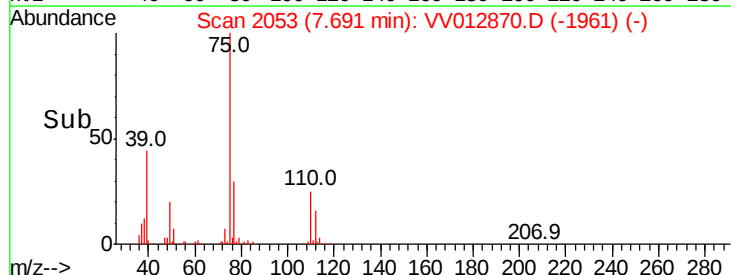
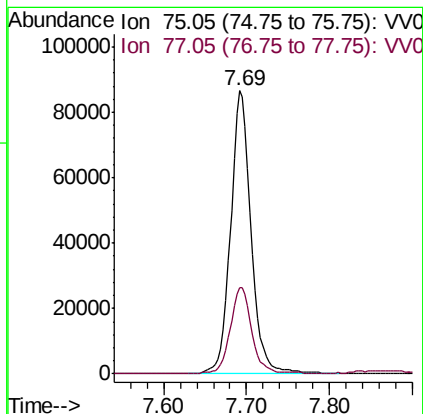
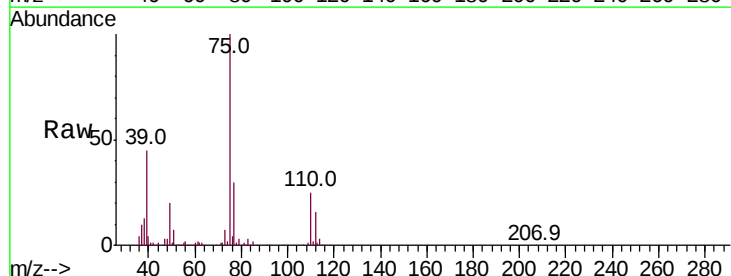
Acq: 17 Sep 2019 18:01

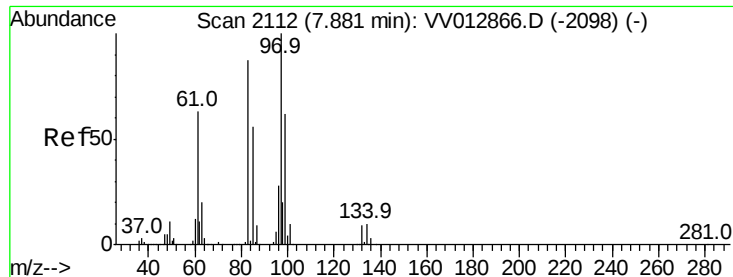
Tgt Ion: 75 Resp: 149903

Ion Ratio Lower Upper

75 100

77 30.5 22.5 41.7





#45

1,1,2-Trichloroethane

Concen: 4.812 ug/L

RT: 7.88 min Scan# 2112

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00560

Tot Ion: 97 Resp: 102678

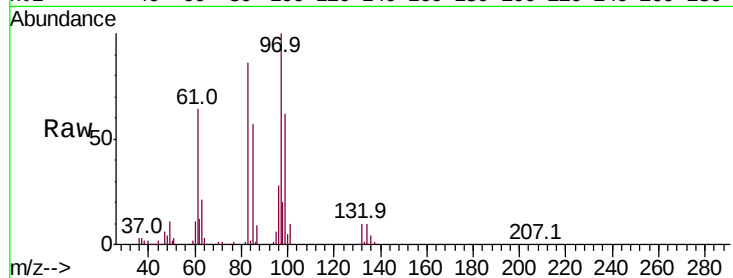
Ion Ratio Lower Upper

97 100

99 62.2 43.7 81.1

83 85.6 60.6 112.6

85 56.9 38.9 72.3

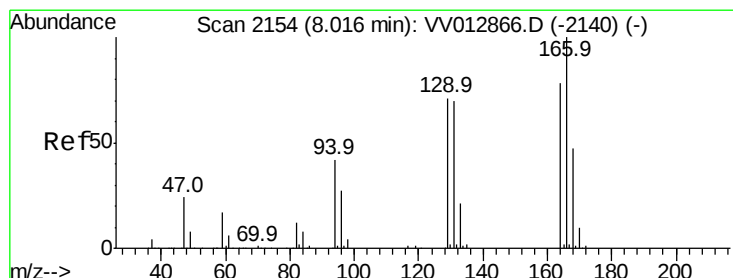
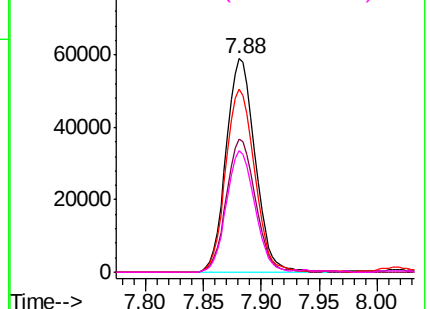
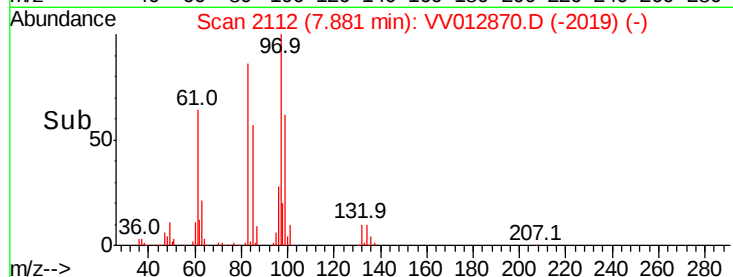


Abundance Ion 96.95 (96.65 to 97.65): VV012866.D (-2098) (-)

Ion 99.05 (98.75 to 99.75): VV012866.D (-2098) (-)

Ion 82.95 (82.65 to 83.65): VV012866.D (-2098) (-)

Ion 85.00 (84.70 to 85.70): VV012866.D (-2098) (-)



#47

Tetrachloroethene

Concen: 4.838 ug/L

RT: 8.02 min Scan# 2154

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Tgt Ion: 164 Resp: 104629

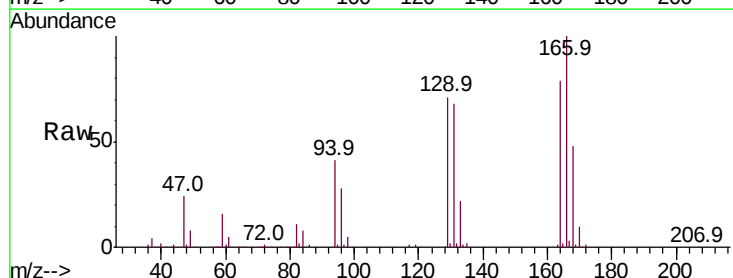
Ion Ratio Lower Upper

164 100

129 89.9 63.8 118.6

131 87.0 63.1 117.3

166 127.1 89.9 166.9

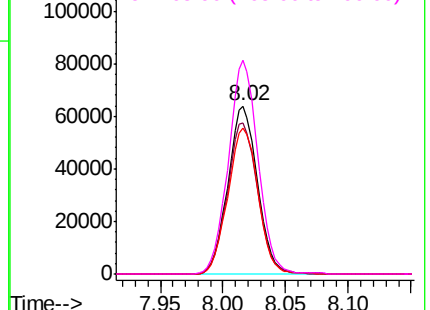
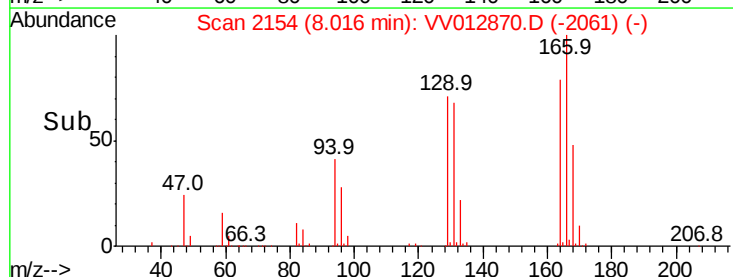


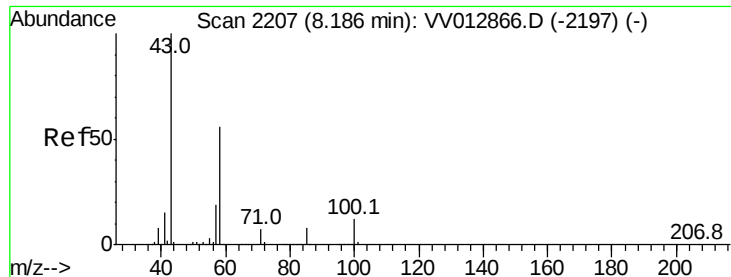
Abundance Ion 163.90 (163.60 to 164.60): VV012866.D (-2140) (-)

Ion 128.95 (128.65 to 129.65): VV012866.D (-2140) (-)

Ion 130.95 (130.65 to 131.65): VV012866.D (-2140) (-)

Ion 165.90 (165.60 to 166.60): VV012866.D (-2140) (-)

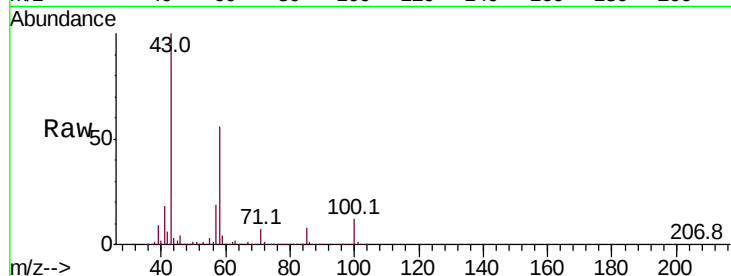




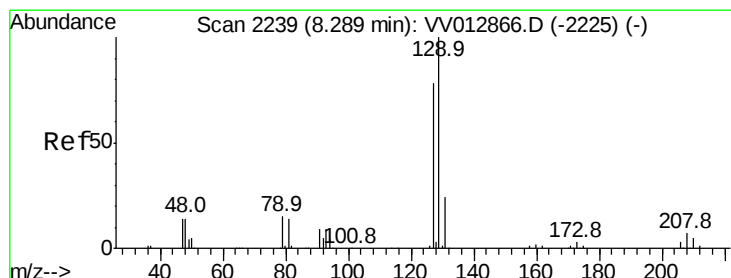
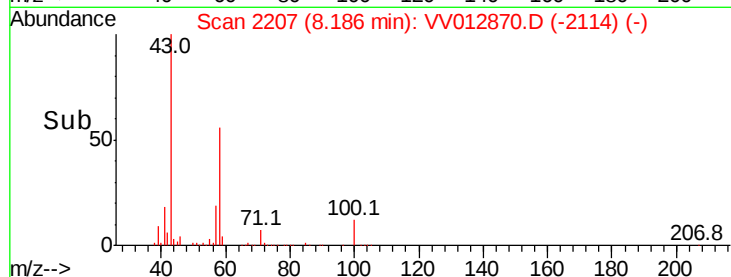
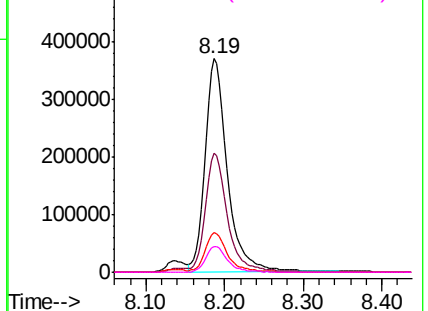
#48  
2-Hexanone  
Concen: 54.091 ug/L  
RT: 8.19 min Scan# 2207  
Delta R.T. 0.00 min  
Lab File: VV012870.D  
Acq: 17 Sep 2019 18:01

Instrument :  
MSVOA\_V  
ClientSampled :  
VSTD00560

Tot Ion: 43 Resp: 716539  
Ion Ratio Lower Upper  
43 100  
58 55.0 44.5 66.7  
57 18.9 15.0 22.6  
100 11.9 9.7 14.5

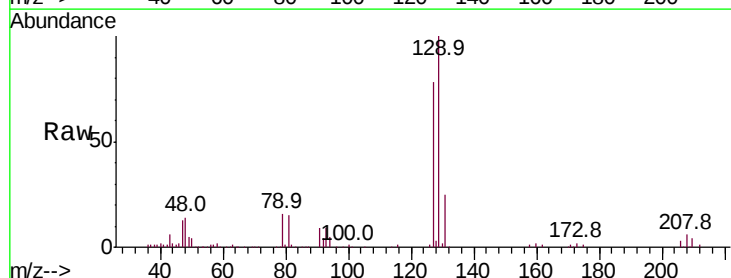


Abundance Ion 43.05 (42.75 to 43.75): VV0  
Ion 58.05 (57.75 to 58.75): VV0  
Ion 57.20 (56.90 to 57.90): VV0  
Ion 100.15 (99.85 to 100.85): VV0

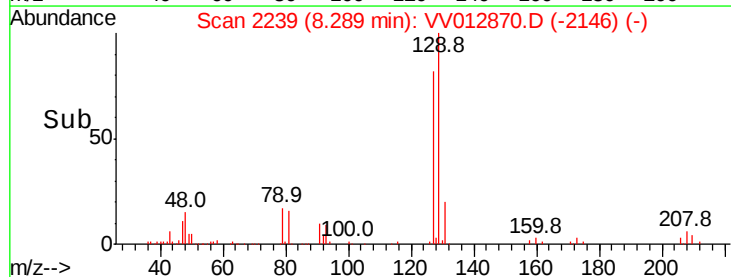
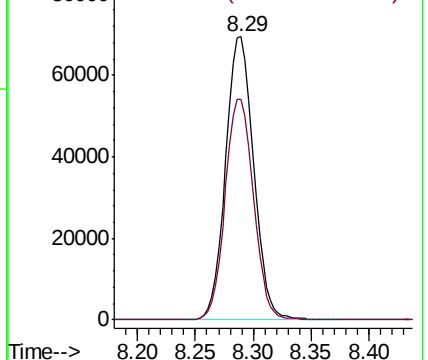


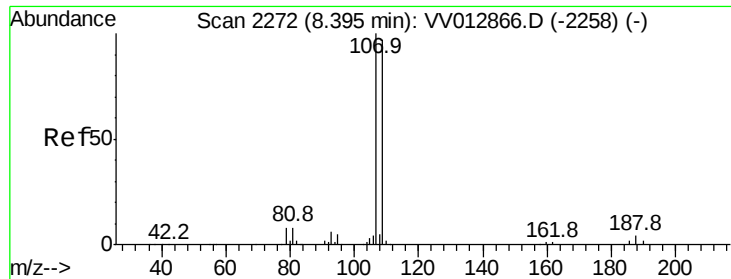
#49  
Dibromochloromethane  
Concen: 4.811 ug/L  
RT: 8.29 min Scan# 2239  
Delta R.T. 0.00 min  
Lab File: VV012870.D  
Acq: 17 Sep 2019 18:01

Tgt Ion: 129 Resp: 116879  
Ion Ratio Lower Upper  
129 100  
127 77.7 54.7 101.7



Abundance Ion 128.95 (128.65 to 129.65): V  
Ion 126.90 (126.60 to 127.60): V

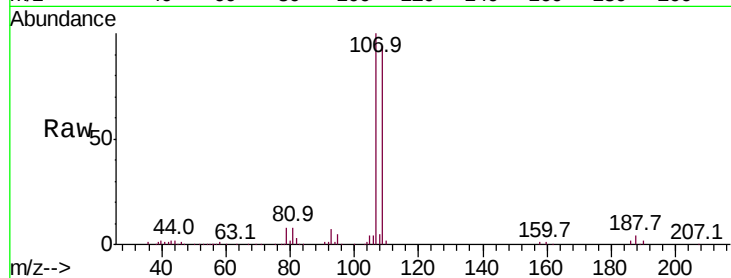




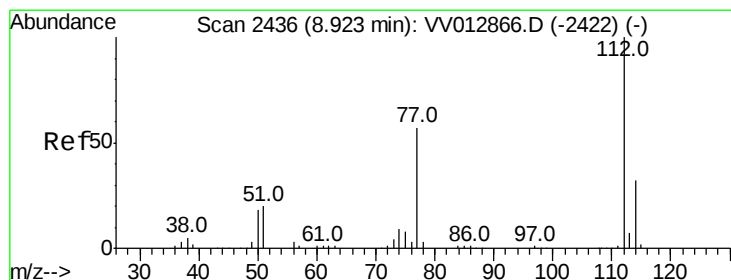
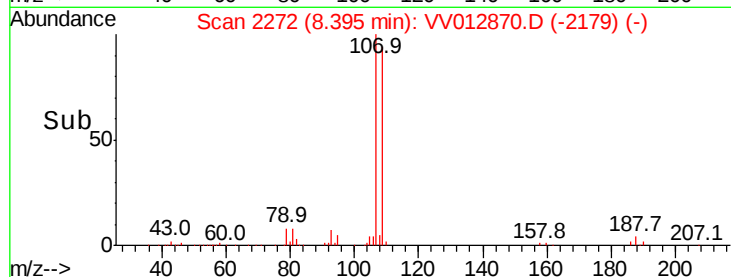
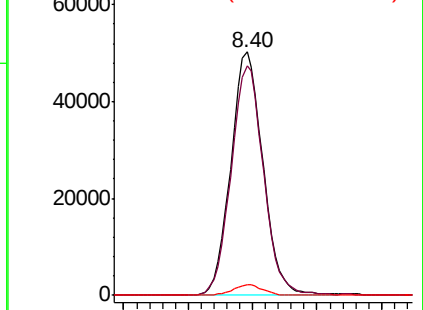
#50  
 1,2-Dibromoethane  
 Concen: 4.884 ug/L  
 RT: 8.40 min Scan# 2272  
 Delta R.T. 0.00 min  
 Lab File: VV012870.D  
 Acq: 17 Sep 2019 18:01

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00560

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 109     | 94.4  | 68.0  | 126.2 |
| 188     | 4.2   | 3.2   | 4.8   |

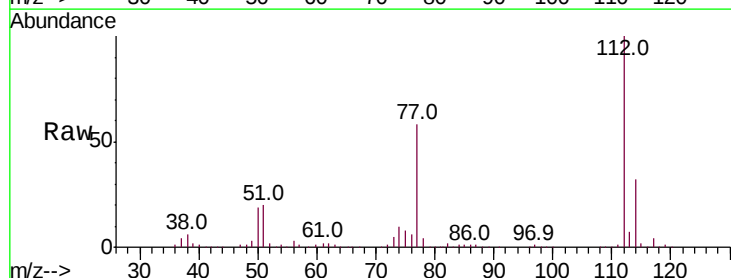


Abundance Ion 106.95 (106.65 to 107.65): V  
 Ion 109.00 (108.70 to 109.70): V  
 Ion 187.90 (187.60 to 188.60): V

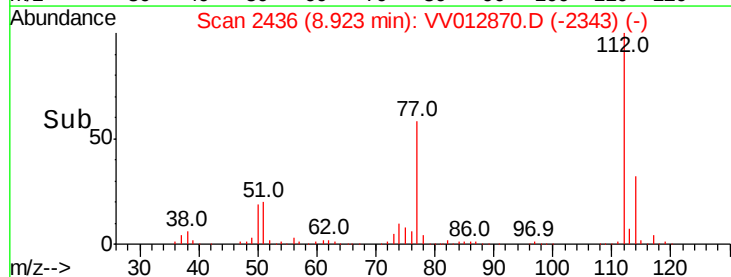
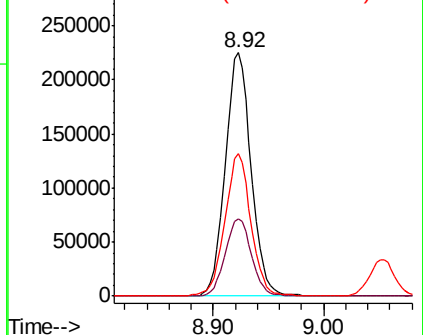


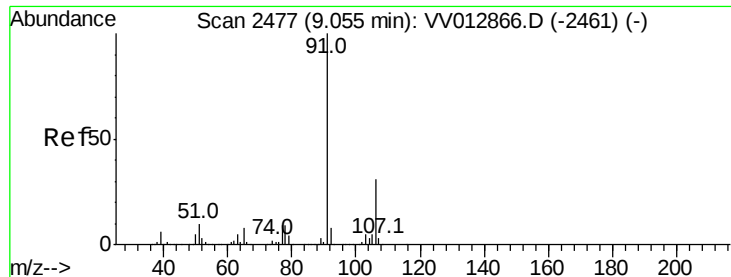
#51  
 Chlorobenzene  
 Concen: 4.899 ug/L  
 RT: 8.92 min Scan# 2436  
 Delta R.T. 0.00 min  
 Lab File: VV012870.D  
 Acq: 17 Sep 2019 18:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 31.9  | 22.3  | 41.5  |
| 77      | 58.5  | 45.8  | 68.8  |



Abundance Ion 112.10 (111.80 to 112.80): V  
 Ion 114.05 (113.75 to 114.75): V  
 Ion 77.10 (76.80 to 77.80): VV0





#52

Ethylbenzene

Concen: 5.076 ug/L

RT: 9.05 min Scan# 2477

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

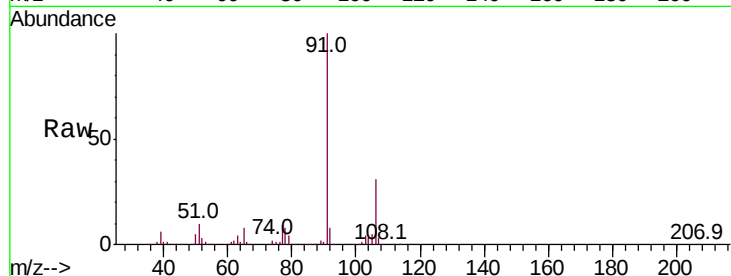
VSTD00560

Tot Ion: 91 Resp: 592129

Ion Ratio Lower Upper

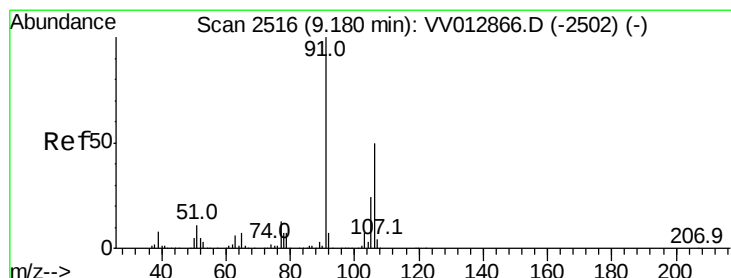
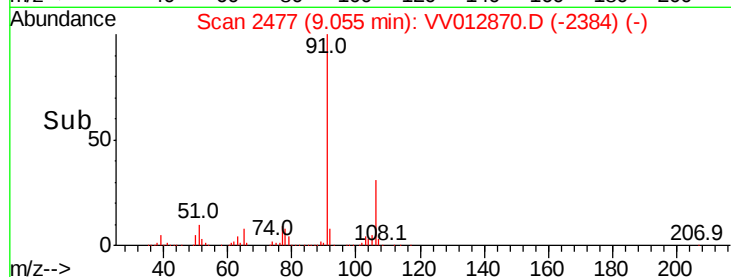
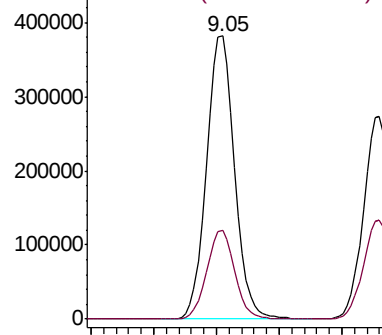
91 100

106 31.3 21.7 40.3



Abundance Ion 91.15 (90.85 to 91.85): VV0

Ion 106.15 (105.85 to 106.85): V



#53

m,p-xylene

Concen: 5.159 ug/L

RT: 9.18 min Scan# 2516

Delta R.T. 0.00 min

Lab File: VV012870.D

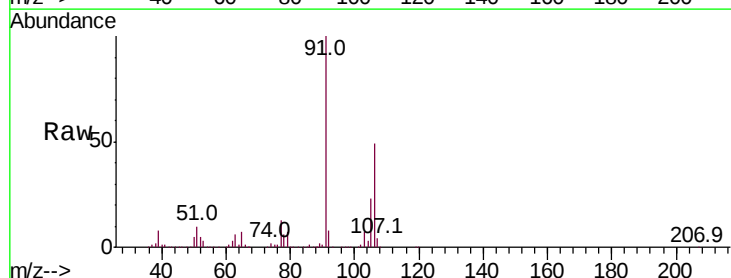
Acq: 17 Sep 2019 18:01

Tgt Ion:106 Resp: 221980

Ion Ratio Lower Upper

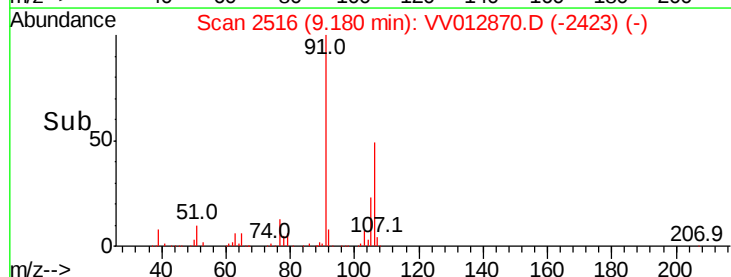
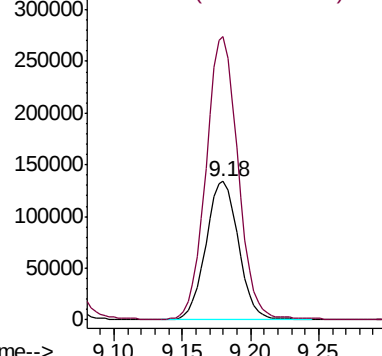
106 100

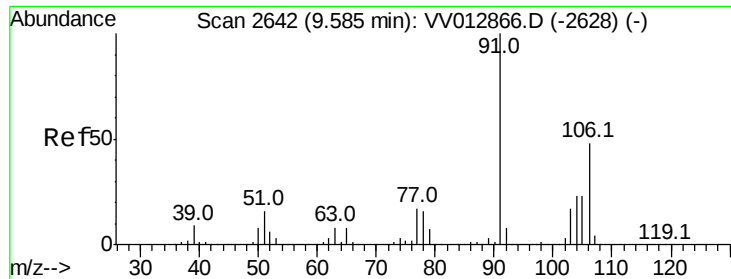
91 204.1 139.6 259.2



Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VV0





#54

o-xylene

Concen: 5.188 ug/L

RT: 9.59 min Scan# 2642

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

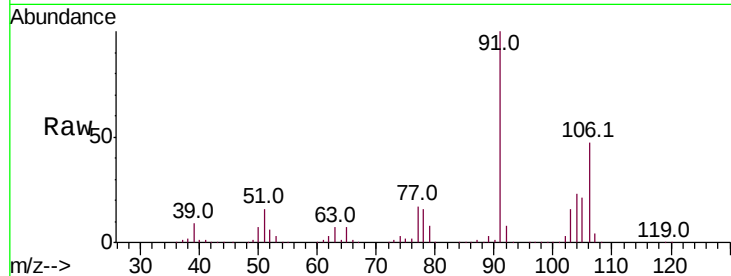
VSTD00560

Tot Ion:106 Resp: 219456

Ion Ratio Lower Upper

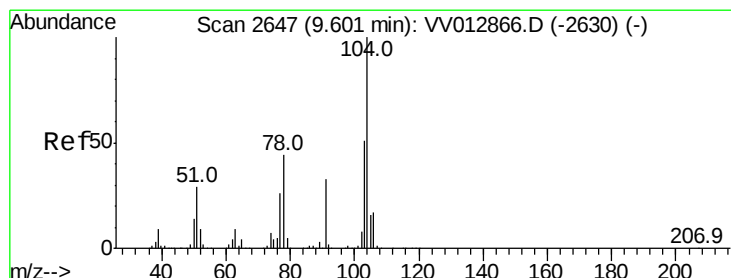
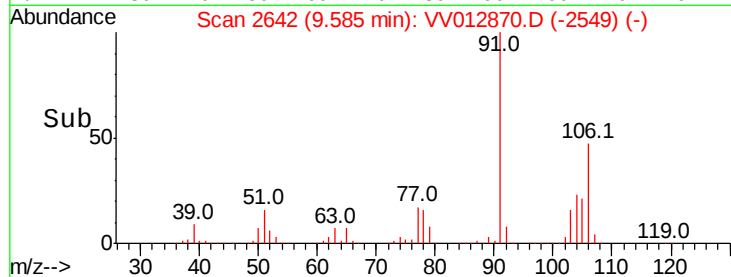
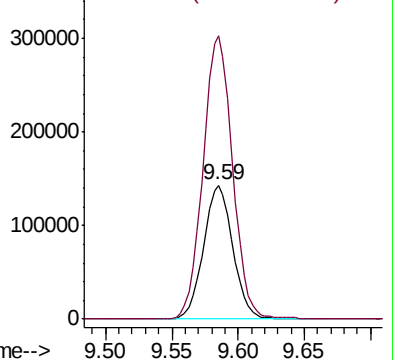
106 100

91 211.6 147.4 273.8



Abundance Ion 106.15 (105.85 to 106.85): V

Ion 91.15 (90.85 to 91.85): VV0



#55

Styrene

Concen: 5.357 ug/L

RT: 9.60 min Scan# 2647

Delta R.T. 0.00 min

Lab File: VV012870.D

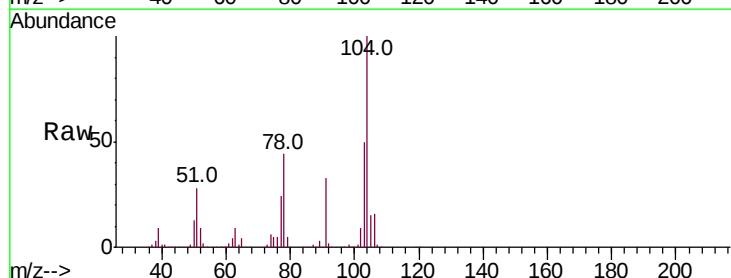
Acq: 17 Sep 2019 18:01

Tgt Ion:104 Resp: 388741

Ion Ratio Lower Upper

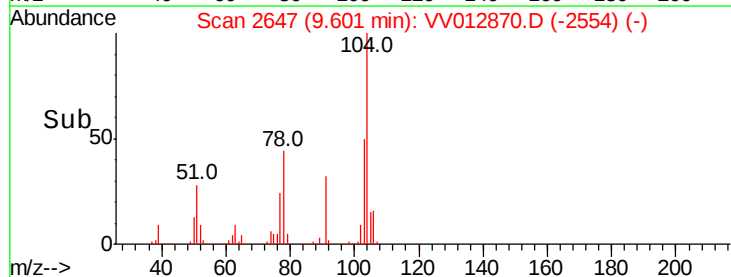
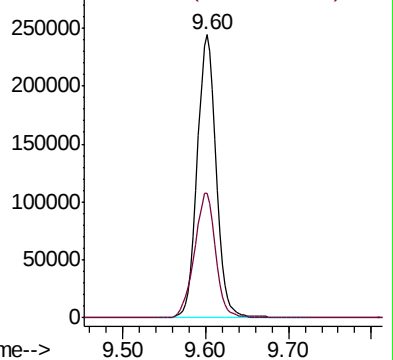
104 100

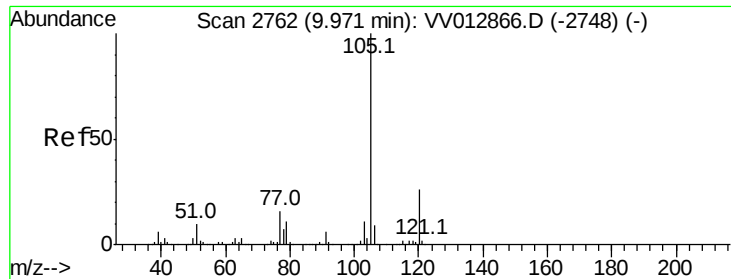
78 44.3 30.5 56.7



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VV0





#56

Isopropylbenzene

Concen: 5.240 ug/L

RT: 9.97 min Scan# 2762

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00560

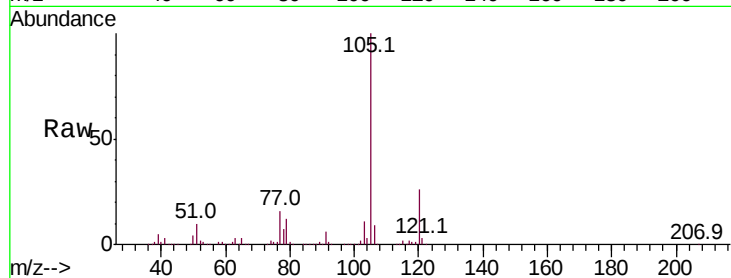
Tot Ion:105 Resp: 594757

Ion Ratio Lower Upper

105 100

120 26.2 20.8 31.2

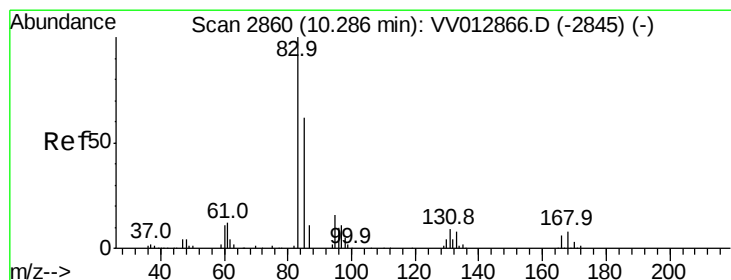
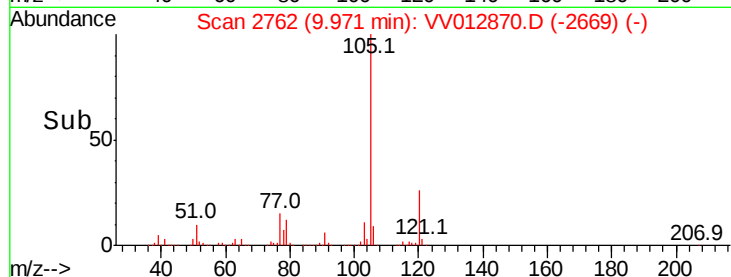
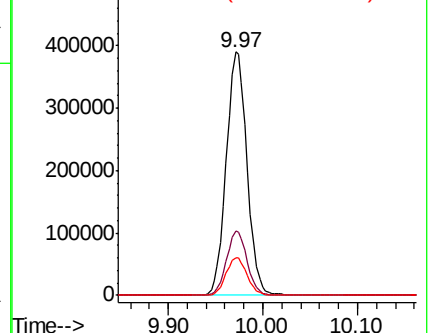
77 15.6 12.6 19.0



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: 4.861 ug/L

RT: 10.28 min Scan# 2859

Delta R.T. -0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

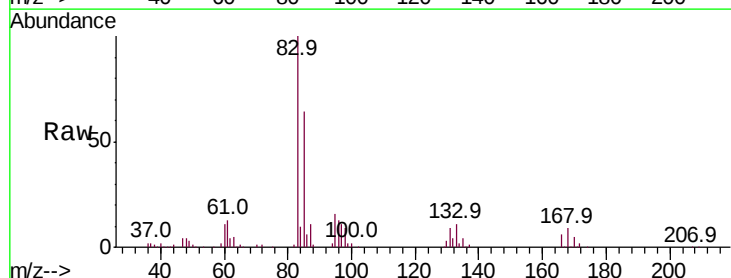
Tgt Ion: 83 Resp: 129897

Ion Ratio Lower Upper

83 100

85 64.2 43.9 81.5

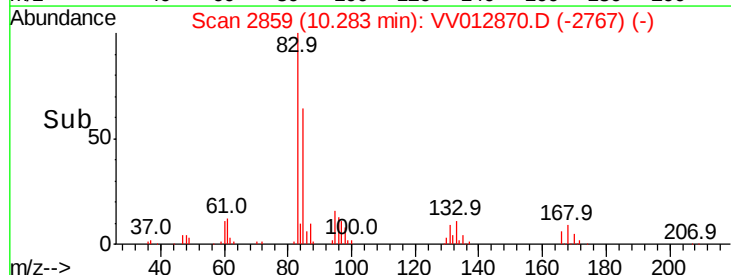
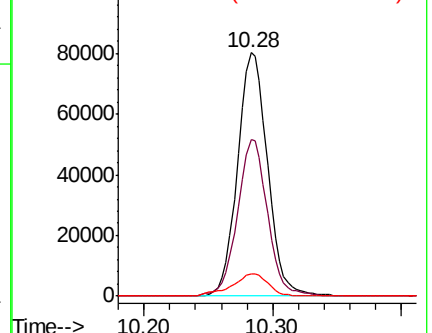
131 9.2 7.5 11.3

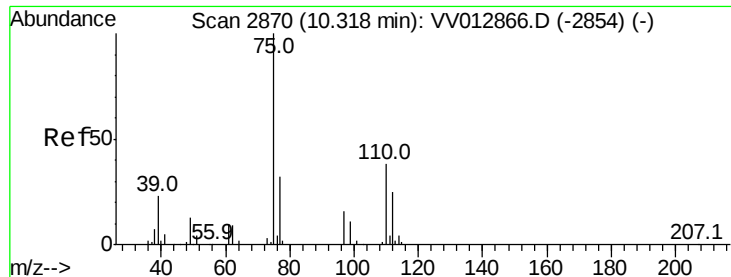


Abundance Ion 82.95 (82.65 to 83.65): VV0

Ion 85.00 (84.70 to 85.70): VV0

Ion 130.95 (130.65 to 131.65): V





#59

1,2,3-Trichloropropane

Concen: 4.894 ug/L

RT: 10.32 min Scan# 2870

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

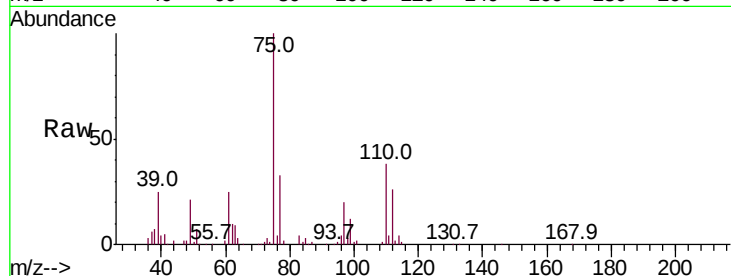
VSTD00560

Tot Ion: 75 Resp: 90905

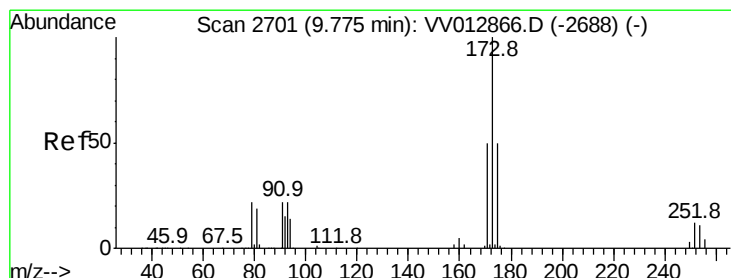
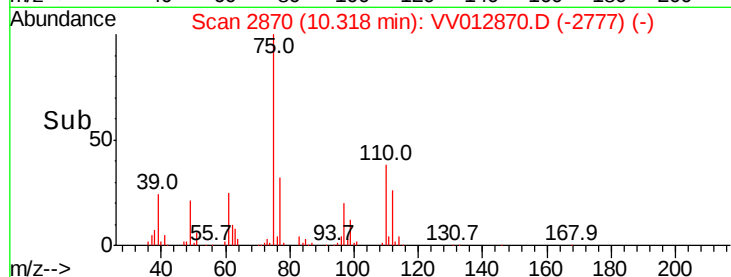
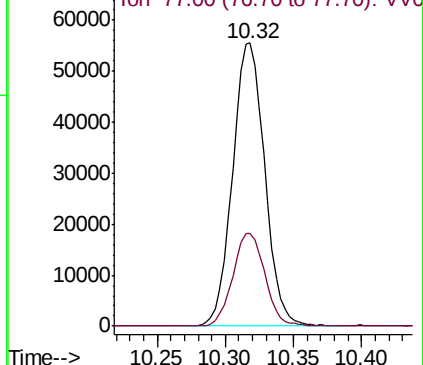
Ion Ratio Lower Upper

75 100

77 32.6 26.1 39.1



Abundance Ion 75.00 (74.70 to 75.70): VV012866.D (-2854) (-)



#61

Bromoform

Concen: 4.726 ug/L

RT: 9.77 min Scan# 2701

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

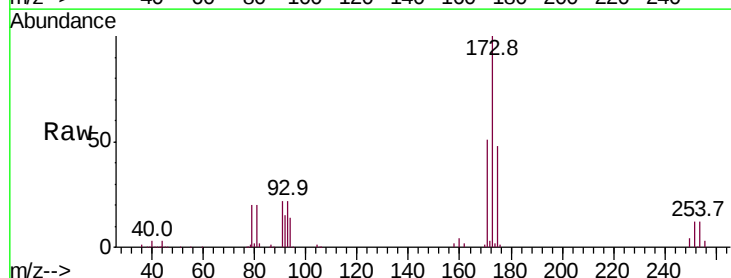
Tgt Ion: 173 Resp: 65298

Ion Ratio Lower Upper

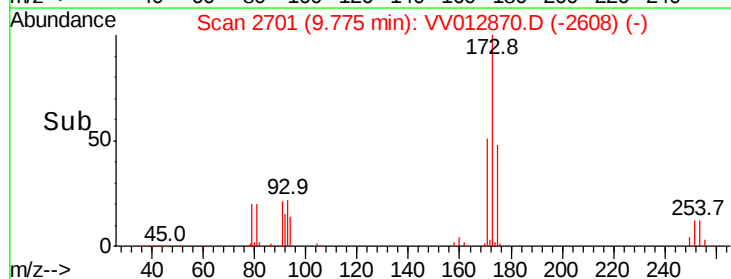
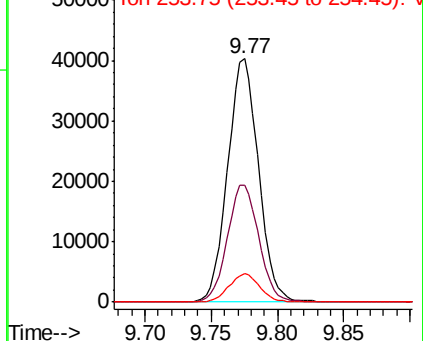
173 100

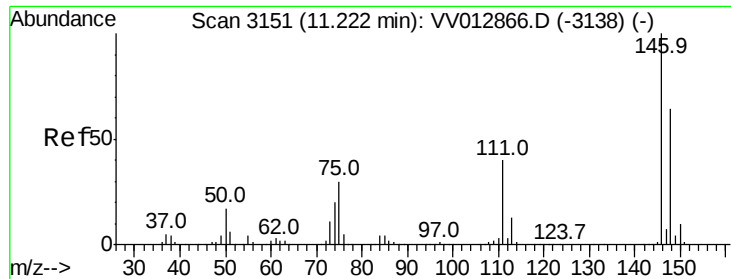
175 48.7 39.2 58.8

254 11.6 9.4 14.0



Abundance Ion 172.90 (172.60 to 173.60): VV012866.D (-2688) (-)





#62

1,3-Dichlorobenzene

Concen: 4.841 ug/L

RT: 11.22 min Scan# 3151

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00560

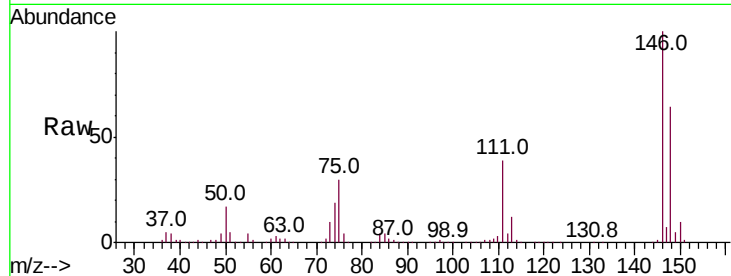
Tot Ion:146 Resp: 291517

Ion Ratio Lower Upper

146 100

111 39.4 27.8 51.6

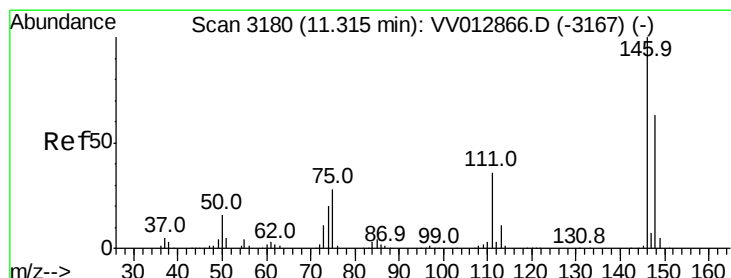
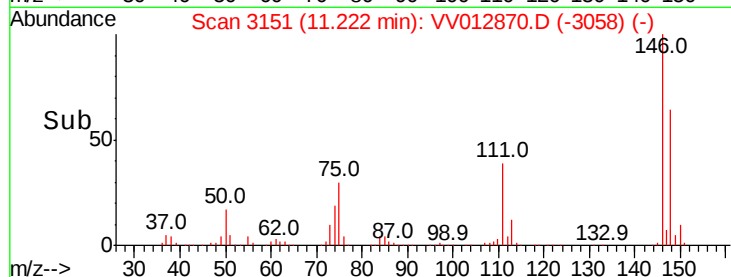
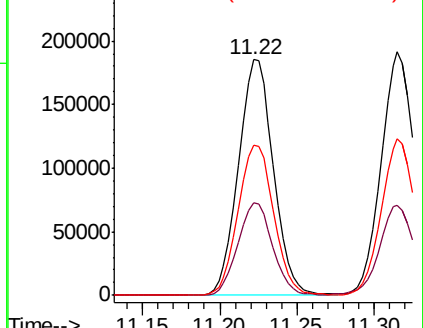
148 63.8 44.6 82.8



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#63

1,4-Dichlorobenzene

Concen: 4.771 ug/L

RT: 11.31 min Scan# 3180

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

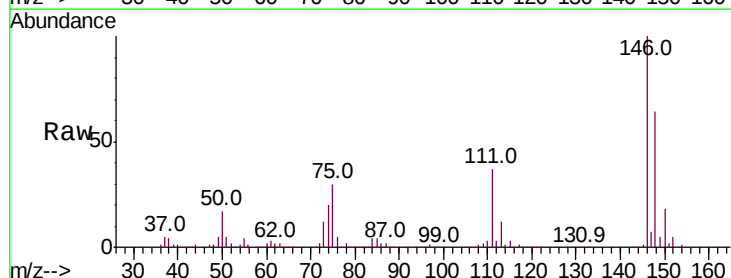
Tgt Ion:146 Resp: 294893

Ion Ratio Lower Upper

146 100

111 37.2 25.6 47.4

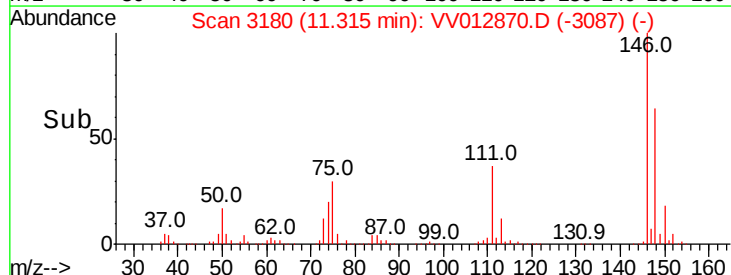
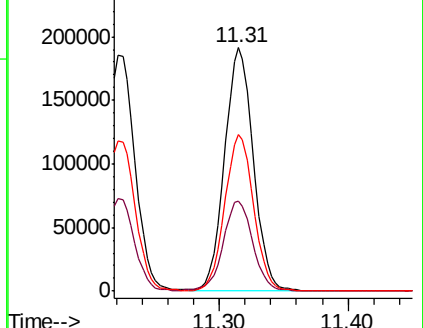
148 64.4 44.5 82.7

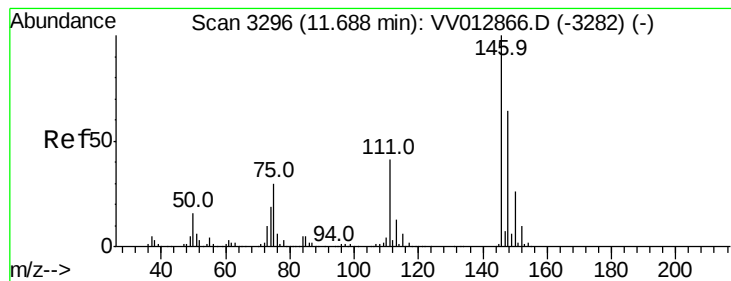


Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V





#65

1,2-Dichlorobenzene

Concen: 4.800 ug/L

RT: 11.69 min Scan# 3296

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00560

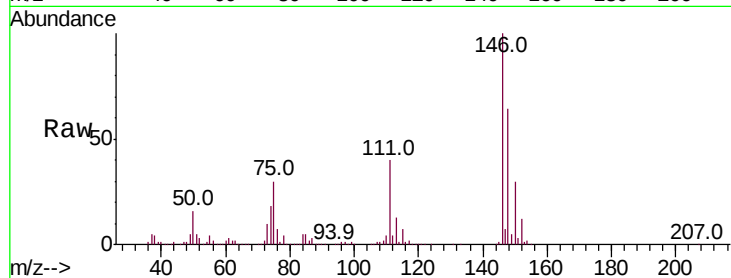
Tot Ion:146 Resp: 285145

Ion Ratio Lower Upper

146 100

111 39.5 32.8 49.2

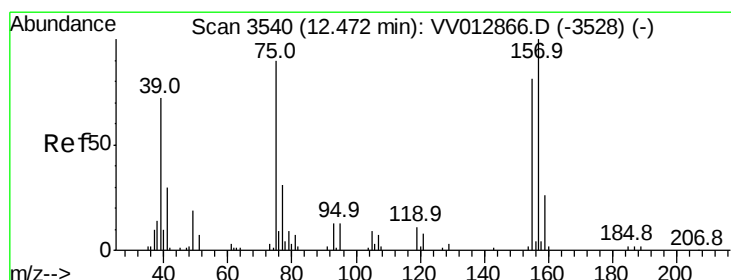
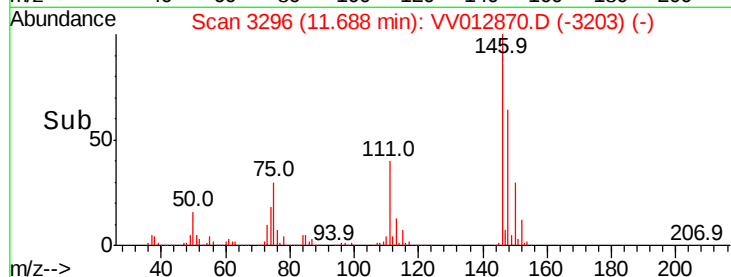
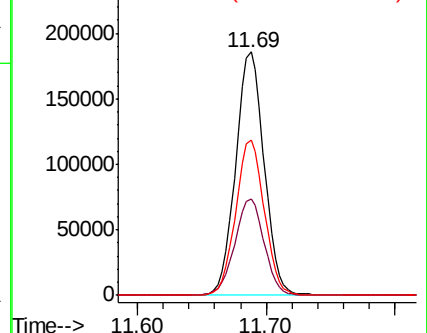
148 63.7 51.1 76.7



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#66

1,2-Dibromo-3-chloropropane

Concen: 4.587 ug/L

RT: 12.47 min Scan# 3540

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

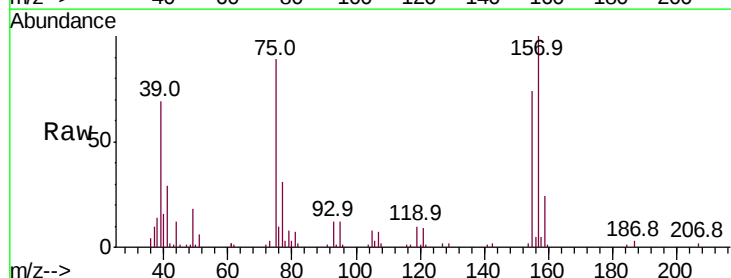
Tgt Ion: 75 Resp: 18728

Ion Ratio Lower Upper

75 100

155 82.9 72.4 108.6

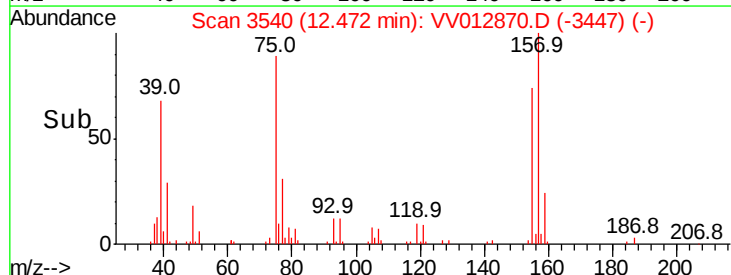
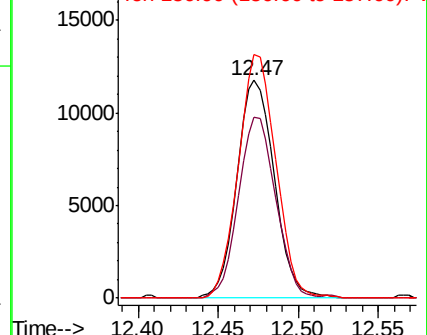
157 111.8 89.3 133.9

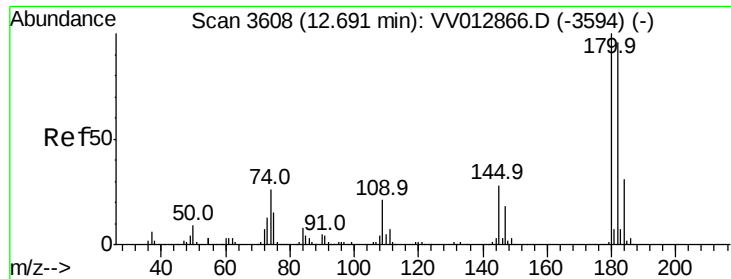


Abundance Ion 75.05 (74.75 to 75.75): VV0

Ion 154.95 (154.65 to 155.65): V

Ion 156.90 (156.60 to 157.60): V

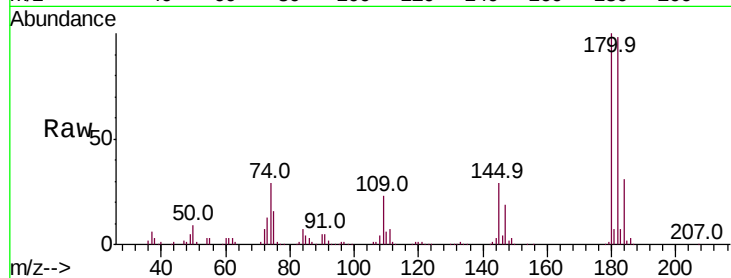




#67  
 1,3,5-Trichlorobenzene  
 Concen: 4.723 ug/L  
 RT: 12.69 min Scan# 3607  
 Delta R.T. -0.00 min  
 Lab File: VV012870.D  
 Acq: 17 Sep 2019 18:01

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD00560

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 180   | Resp: | 222397 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 97.6  | 76.2  | 114.4  |
| 184      | 30.8  | 24.6  | 36.8   |
| 145      | 28.9  | 22.1  | 33.1   |



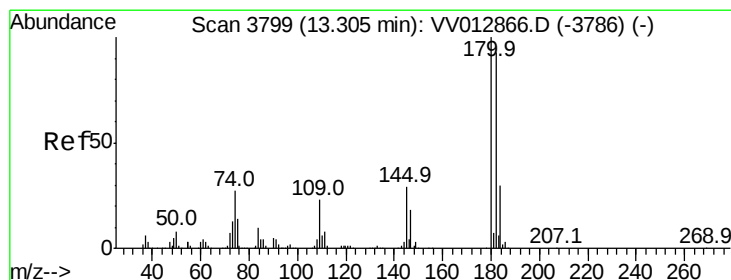
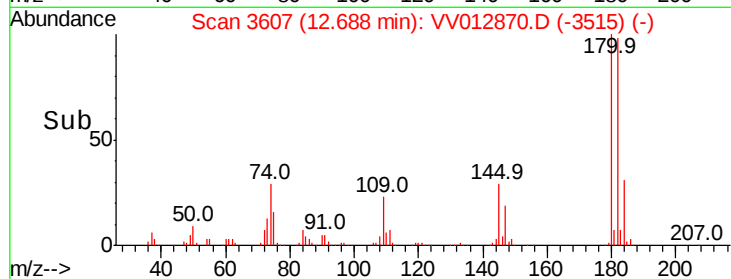
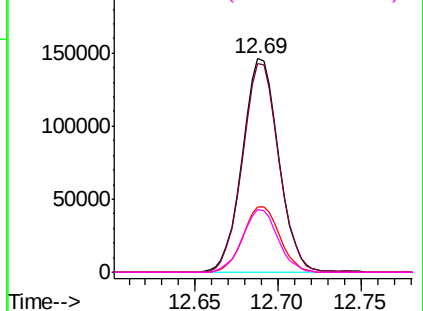
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

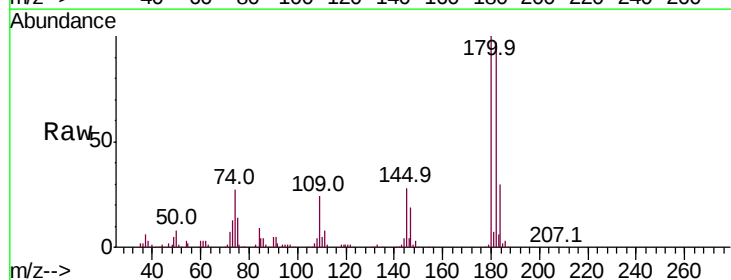
Ion 184.00 (183.70 to 184.70): V

Ion 145.00 (144.70 to 145.70): V



#68  
 1,2,4-trichlorobenzene  
 Concen: 4.839 ug/L  
 RT: 13.31 min Scan# 3799  
 Delta R.T. 0.00 min  
 Lab File: VV012870.D  
 Acq: 17 Sep 2019 18:01

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 180   | Resp: | 182947 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 95.0  | 75.8  | 113.6  |
| 145      | 28.6  | 22.9  | 34.3   |

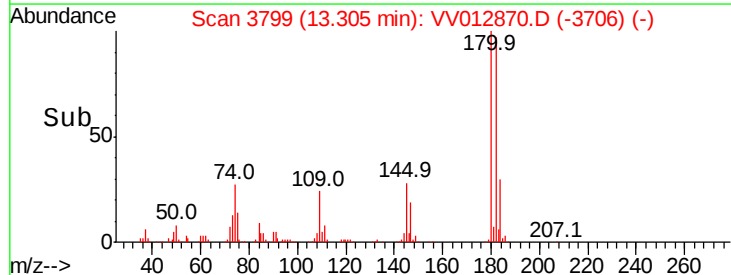
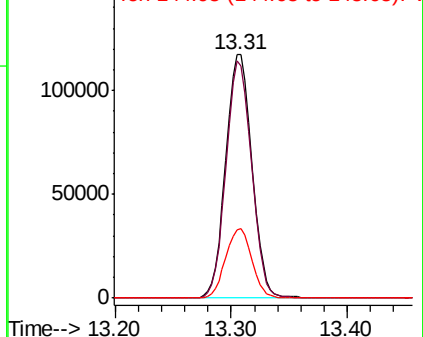


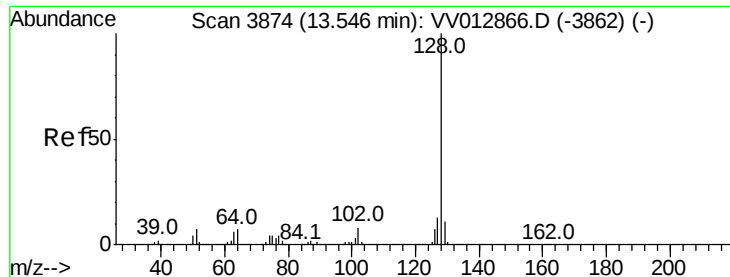
Abundance

Ion 179.90 (179.60 to 180.60): V

Ion 182.00 (181.70 to 182.70): V

Ion 144.95 (144.65 to 145.65): V





#69

Naphthalene

Concen: 4.966 ug/L

RT: 13.55 min Scan# 3875

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

Instrument :

MSVOA\_V

ClientSampleId :

VSTD00560

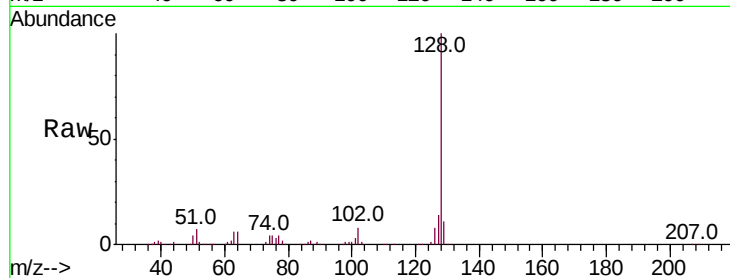
Tot Ion:128 Resp: 283714

Ion Ratio Lower Upper

128 100

129 10.7 8.9 13.3

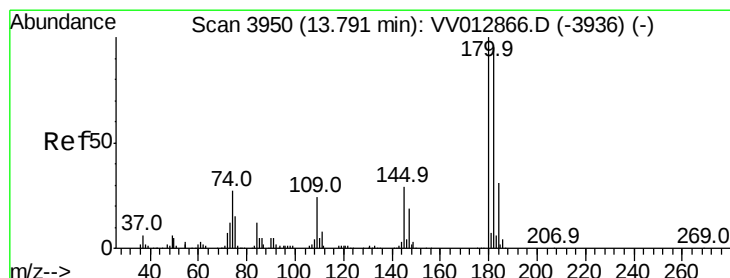
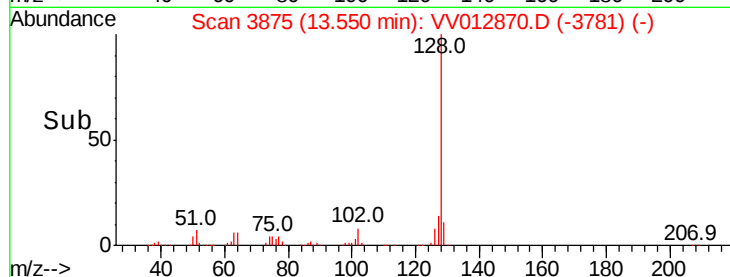
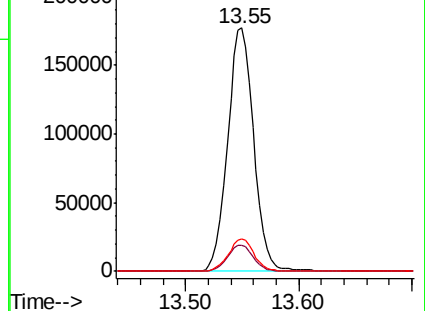
127 13.1 10.5 15.7



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: 4.931 ug/L

RT: 13.79 min Scan# 3950

Delta R.T. 0.00 min

Lab File: VV012870.D

Acq: 17 Sep 2019 18:01

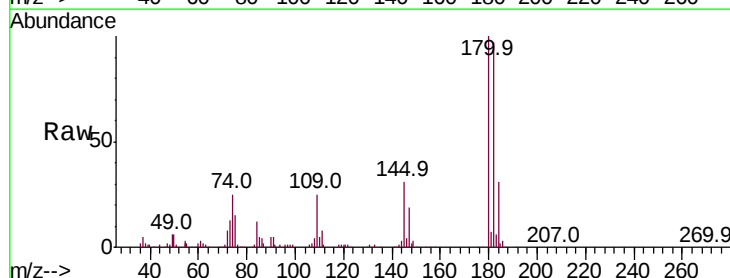
Tgt Ion:180 Resp: 183942

Ion Ratio Lower Upper

180 100

182 96.1 76.1 114.1

145 30.3 23.7 35.5



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

